

**CASE NO. 2019-00080**  
**CITY OF PIKEVILLE WHOLESALE WATER SERVICE RATES**  
**RESPONSES TO COMMISSION STAFF'S SECOND REQUEST FOR INFORMATION**

1. Refer to the Direct Testimony of Philip Elswick (Elswick Testimony), page 2 line
22. Mr. Elswick states that the city retained RateStudies, LLC (RateStudies), to prepare a cost-of-service study (COSS) because the wholesale rate for Mountain Water District (Mountain District) had not changed for several years.
  - a. Explain why the COSS was completed to set a rate for Mountain District and not Southern Water District.
  - b. Explain whether the COSS was used to set Pikeville's retail rates.

Response:

- a. Pikeville initially retained RateStudies to prepare cost-of-service studies for all of Pikeville's water and sewer operations. The initial COSS prepared by RateStudies followed the methodology identified in the American Water Works M54 manual, and it included proposed rates for both Southern Water and Sewer District and Mountain Water District. When Pikeville presented Mountain Water District with the initial COSS, Mountain Water District suggested that the AWWA's M54 methodology was somehow flawed. Rather than fighting over the reasonableness of rates determined by the M54 methodology, Pikeville requested that RateStudies complete another cost-of-service study specifically for Mountain Water District based on the Debt Service Coverage methodology commonly used by Commission Staff for its staff reports. Southern Water and Sewer District did not object to the initial COSS results. New wholesale water rates

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to Southern Water and Sewer District were already effective at the time RateStudies completed its second COSS, and therefore, it was unnecessary to include Southern Water and Sewer District in the second COSS.

b. Yes, Pikeville's retail rates are based on the initial COSS prepared by RateStudies.

WITNESS: Philip Elswick

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2. Refer to the Elswick Testimony, page 3 line 4.
  - a. Explain whether Pikeville is changing the rate design to Mountain District in this filing.
  - b. Explain whether a new contract between Mountain District and Pikeville must be signed if Pikeville is changing rate design.
  - c. If not, provide the rate schedule that will pertain to Mountain District.

Response:

WITNESS:

- a. In the existing rates established in 2009, there is a monthly minimum purchase requirement of 28,000,000 gallons. This minimum purchase requirement remains in Pikeville's proposed rates. There is a rate for all usage above 28,000,000 gallons per month. RateStudies recommended and Pikeville proposed rates for this second tier that are the equivalent of the first 28,000,000 gallons. The most accepted practice in the industry today is for utilities to abandon tier rates and go to a single rate structure as RateStudies recommends and Pikeville proposes.
- b. Pikeville does not need a new contract to modify the rates it will charge Mountain Water District, regardless of whether there is a change in rate design. The Public Service Commission has authority to determine fair, just, and reasonable rates when there is a

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contract between a municipality and a PSC-jurisdictional utility. *See Simpson County Water Dist. v. City of Franklin*, 872 S.W.2d 460, 467 (Ky. 1994).

- c. Pikeville's proposed rate schedule for service to Mountain Water District is identified in Pikeville's tariff filing dated February 21, 2019, and is as follows:

Mountain Water District:

First 28,000,000 gallons	\$64,400*
All over 28,000,000 gallons	\$2.30 per 1,000 gallons
Rate Case Expense Surcharge**	\$2,500 per month

\* Minimum Bill for Mountain Water District: 28 million gallons at \$2.30 per 1,000 gallons.

\*\* Pikeville proposes a surcharge to recover all expenses it may incur to participate in and defend its proposed rates in any Public Service Commission proceeding that is initiated to investigate the reasonableness of those rates. Pikeville proposes to recover the total amount of expenses associated with the increase in rates over a 36-month period. If no proceeding is established, Pikeville will not seek to recover any amount for Rate Case Expense Surcharge.

WITNESS: Samuel Petty; Legal

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3. Refer to the Elswick Testimony, page 3 line 7. Mr. Elswick states that Pikeville is seeking to recover reasonable rate case expenses.

a. Explain the estimated charge of \$2,500 per month for 36 months stated in this response.

b. Explain whether this amount is for both COSSs that have been completed.

Response:

a. Pikeville proposed a rate case expense surcharge because those expenses are properly recoverable from wholesale customers and because the COSSs that were prepared did not include any rate case expense in their calculations. Pikeville's proposed rate case expense surcharge is an estimate that would total \$90,000 in rate case expenses. This estimate is based actual rate case expenses identified in municipal wholesale rate cases over the last 10 years before this Commission, including City of Lebanon (\$162,695), City of Augusta (\$69,535), City of Danville (\$57,190), Hopkinsville Water and Environment Authority (\$153,416), and Frankfort Electric and Water Plant Board (\$78,405).

b. Recovery of rate case expense associated with both COSSs should be authorized. With respect to the initial COSS, Mountain Water should be allocated a portion of the expenses. The percentage of allocation for those expenses should be based total cost of service, which is what the Commission approved for the Frankfort Electric and Water

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Plant Board in Case No. 2008-00250. All costs associated with the second COSS should be recovered from Mountain Water District because it only relates to Mountain Water District and because Pikeville incurred those expenses only because of Mountain Water District.

WITNESS: Philip Elswick

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4. Refer to the Elswick Testimony, page 4, line 12. Mr. Elswick states that Pikeville provided the initial COSS to Mountain District.
  - a. Explain how the initial COSS was presented to Mountain District.
  - b. Provide all materials and information concerning the initial COSS that was provided to Mountain District.
  - c. Explain if the COSS consultant, RateStudies, met with Mountain District in the presentation of the initial COSS presentation.
  - d. If RateStudies met with Mountain District, provide a summary of the meeting and all materials provided to Mountain District.

Response:

- a. The initial cost of service was provided to Mountain Water District as an attachment to an October 16, 2018, letter from City Manager Philip Elswick to Mountain Water District's attorney. Pikeville representatives, including Samuel Petty from RateStudies, met with Mountain Water District representatives on December 10, 2018, to discuss Pikeville's proposal and answer questions related to the COSS.
- b. Pikeville provided to Mountain Water District the initial cost of service study related to its wholesale rates through the above-mentioned letter. It is contained in response to Item 27 of the Commission's initial request for information. Pikeville provided additional information through verbal responses to questions posed by Mountain Water District.

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- c. Yes, Samuel Petty from RateStudies, met with Mountain Water District representatives on December 10, 2018.
  
- c. As mentioned in (a) above, Samuel Petty from RateStudies, met with Mountain Water District representatives on December 10, 2018, to discuss Pikeville's proposal and answer questions related to the COSS. During this meeting, Mountain Water District indicated that they did not agree to the use of the AWWA-supported methodology found in AWWA M54 Manual. Accordingly, Pikeville requested that RateStudies prepare a second COSS for service to Mountain Water based on the Debt Service Coverage methodology commonly approved by the Commission.

WITNESS: Philip Elswick

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5. Refer to the Elswick Testimony, page 4, line 17. Mr. Elswick states that Pikeville requested that RateStudies produce a second COSS based upon the Debt Service Coverage similar to the methodology used by Commission Staff.

- a. Explain how the second COSS was presented to Mountain District.
- b. Provide all materials and information concerning the second COSS that was provided to Mountain District.
- c. Explain whether the COSS consultant, RateStudies, met with Mountain District in this presentation of the second COSS presentation.
- d. If RateStudies met with Mountain District, provide a summary of the meeting and all materials provided to Mountain District.

Response:

The second COSS was provided to Mountain Water District as an attachment to a February 5, 2019, letter from Pikeville's attorney to Mountain Water District's attorney. (That COSS was filed with the Commission at the same time Pikeville's proposed tariff was filed.) Pikeville requested Mountain Water District's response to that proposal no later than February 20, 2019.

Mountain Water District responded by letter dated February 13, 2019, in which it requested additional time to allow for its Board to approve the retention of a professional consultant and receive information back from that consultant. Mountain Water District indicated

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that it could have a substantive response to Pikeville by March 29, 2019, which was two days after its March Board meeting. Mountain Water District further explained that it wanted “sufficient time to do [its] due diligence, and allow our Board to make an informed decision on how to respond.” It concluded that, if the City believed that it needed “to move forward to the PSC, we understand.”

Recognizing Mountain Water District’s interest in performing due diligence and enabling its Board to make an informed decision, Pikeville agreed that it would propose rates to be effective on April 5, 2019. This proposal enabled Mountain Water District to perform the tasks it outlined in its February 13, 2019, letter.

On February 27, 2019, Mountain Water District notified Pikeville that it would protest the proposed rates. It is apparent that Mountain Water District made this decision without performing the due diligence that it previously requested additional time to conduct. Mountain Water District filed its protest letter with the Commission without requesting a meeting with Pikeville or its rate consultant.

The above-mentioned correspondence has been produced in response to Item 27 of the Commission’s initial request for information.

WITNESS: Philip Elswick

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6. Refer to the Elswick Testimony, page 4, line 21. Mr. Elswick states that Pikeville offered to settle on a rate less than what was identified in the second COSS and without the rate case expense surcharge. Provide the rate offered to Mountain District in this attempt to settle the matter.

Response: Pikeville offered to settle this matter if Mountain Water District agreed to a rate of \$2.25 per 1,000 gallons and Pikeville would not have sought a surcharge for rate case expense.

Pikeville notes its objection to the use of this settlement offer in the Commission's determination because public policy demonstrates that the use of offers to compromise as evidence would hinder productive settlement discussions. *See, e.g.,* KRE 408.

WITNESS: Philip Elswick; Legal

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7. Refer to the Elswick Testimony, page 5, line 10. Mr. Elswick states that Pikeville's rate for wholesale water is less than several other water providers in the area; however, you do not state how these rates were set.

a. Provide the information on each of these wholesale provider rates referred to in your testimony that details the methodology on the setting of these rates.

b. Provide any information on each of these wholesale provider rates that detail the amount of water sold.

(1) Provide any information on if these wholesale providers produce their water or purchase their water.

(2) Provide any information concerning the financing of these wholesale providers method of financing their system.

Response:

- a. Each of the wholesale water service rates identified in Mr. Elswick's testimony is approved by and on file with the Public Service Commission.
- b. The chart below identifies the annual gallons of water sold to wholesale customers, according to the Water Resource Information System.

<b>Entity</b>	<b>Wholesale water sales (gallons)</b>
City of Jackson	273,000,000
City of Ashland	2,052,000,000
City of Salyersville	277,000,000
City of Louisa	350,000,000
Knott Co WS	660,000,000
MWD	1,531,000,000
KAWC	11,888,000,000

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b. (1) According to the Water Resource Information System, the Cities of Jackson, Ashland, Salyersville, and Louisa produce 100 percent of their water. Knott County Water and Sewer and Kentucky-American Water Company produce more than 99 percent of their water. Mountain Water produces approximately 68 percent of its water.

b. (2) Pikeville does not know how each of these systems finances their system. With the exception of Kentucky-American Water Company, all other utilities that are listed are municipalities and water districts that are likely to be eligible for financing through Rural Development and Kentucky Infrastructure Authority, similar to the City of Pikeville.

WITNESS: Philip Elswick

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8. Refer to the Elswick Testimony, page 7 line 5. Mr. Elswick states that Pikeville continued to negotiate with Mountain District. Provide all emails, minutes of meetings, letters or other documents related to these negotiations with Mountain District.

Response: Correspondence related to negotiations is contained in response to Item 27 of the Commission's initial request for information.

WITNESS: Philip Elswick

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9. Refer to the Direct Testimony of Samuel R. Petty (Petty Testimony), page 2 line 14. Mr. Petty states that the COSS he prepared was the basis of the proposed wholesale rate to Mountain District was set. Explain if you also provided a COSS that set Pikeville's retail rates.

Response: Yes, Mr. Petty prepared a cost-of-service study on which Pikeville based its retail rates.

WITNESS: Samuel Petty; Philip Elswick

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10. Refer to the Petty Testimony, page 2, line 22. Mr. Petty states that when Pikeville presented his COSS to Mountain District, Mountain District suggested that the Commission would not accept the methodology used in the initial COSS.

a. Provide all emails, minutes of meetings, letters or other documents related to this suggestion by Mountain District.

b. Explain in detail how the methodology in the American Water Works Manual M54 (Manual M54). Developing Rates for Small Systems, sets rates.

c. Explain how the methodology of the Manual M54 of your initial COSS is different from the Debt Service Coverage methodology used in your second COSS.

Response:

a. This information came to light during in-person discussions. There are no documents responsive to this request.

b. Manual M54 was designed to provide small water systems with an alternative method to the M1 manual. Manual M54 states that “provides guidelines for the development of rates for utilities that lack the data and resources needed to apply the methods described in Manual M1.” This is particularly true when there is limited data for peak day and peak hour consumption. The M54 uses forecasting and projections to develop a revenue requirement.

c. The primary distinction is that the debt service coverage methodology is based on a historical test year, whereas the Manual M54 supports a forecasted methodology.

WITNESS: Samuel Petty

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11. Refer to the Petty Testimony, page 4. line 1. Mr. Petty states that Mountain District utilizes 95 percent of the water mains inside the city.

- a. Explain how Mountain District utilizes mains used within the city center.
- b. Explain how effective this utilization is to providing water to Mountain District.

Response:

- a. Mountain Water District's utilization of mains within the City center is based upon the "Grid" network in the area referenced, water provided to Mountain District can flow through any of the interconnected network to provide service to Mountain District's several master meters scattered throughout Pikeville's water system.
- b. The "Grid" interconnection is very effective by offering multiple avenues for water flow to avoid potential service interruption to Mountain District's master meters.

WITNESS: Grondall Potter

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12. Refer to the Petty Testimony, page 4, line 17. Mr. Petty states that the revenue requirement would change slightly if the inch miles method was used. Provide the wholesale rate if this method had been used to set Mountain District's rate.

Response: The proposed wholesale rate to Mountain Water District would be \$0.02 lower.

WITNESS: Samuel Petty

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13. Refer to the COSS, page 4, Figure 3.
  - a. Explain the entry "Public Water Works" in this figure.
  - b. Explain why a portion of this amount is allocated to the wholesale customers.
  - c. Explain the entry "Repairs and Maint."
  - d. Explain why none of these costs are allocated to the Administration category.
  - e. Explain why none of the Electric costs are allocated to Administration category.

Response:

- a. Public Works Water is for the contracted service payment to Utility Management Group.
- b. Utility Management Group maintains the entire system.
- c. Repairs and maintenance account is for non-capitalized repairs/purchases to inside water system. It includes items such as repairs to meters, maintenance to water tanks, etc.
- d. These cost are work done to the water system.
- e. These cost are for electric to the water system.

WITNESSES: Tonya Taylor; Samuel Petty; Grondall Potter

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14. Refer to the COSS. page 9, Figure 8.
- a. Explain the allocation percentage for Booster Stations of 50 percent.
  - b. Provide the total number of Booster Stations and the number of Booster Stations used to provide Mountain District service.
  - c. Explain the allocation of Line Maintenance.
  - d. Explain why this allocation percentage is 48 percent.
  - e. Explain Leak Detection and why these costs are allocated to the wholesale customer.
  - f. Explain how the allocation percentage was determined to be 48 percent.
  - g. Explain the allocation percentage of 48 percent for the Depreciation Lines.

Response:

WITNESSES: Samuel Petty; Grondall Potter

The ratio of water sold to MWD compared to the total amount of water sold to other inside city water customers determines most of the MWD Percent Variable. That ratio is 50%. MWD uses large meters that are equivalent to several residential meters. Service of meters amounts to 7% for MWD. Most of the City's inside water system infrastructure is used to serve MWD because of the location of MWD's 11 master meters that practically surrounds the City. The water infrastructure used by MWD uses an estimated 95% of the inside city water

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infrastructure. 95% of the 50% water usage is 48% and determines the cost distribution of the water line maintenance, leak detection, and depreciation of water lines. The combination of all these services results in MWD being responsible for 44% of the variable component of the total revenue requirement.

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15. Refer to the COSS, page 10, Figure 9.
- a. Explain the MWD Percent Variable.
  - b. Provide how the MWD Percent Variable was determined.

Response:

- a. Figure 9 in the report is a summary of Figure 8 and shows the total revenue requirement for the variable cost. The variable cost is used to determine the variable rate in terms of cost per 1,000 gallons. The MWD Percent Variable is a percentage of the total revenue requirement.
- b. The ratio of water sold to MWD compared to the total amount of water sold to other inside city water customers determines most of the MWD Percent Variable. That ratio is 50%. Service calls and testing is a cost related to the distribution system, but MWD does not use these services, so MWD pays 0% for these services. MWD uses large meters that are equivalent to several residential meters. Service of meters amounts to 7% for MWD. Most of the City's inside water system infrastructure is used to serve MWD because of the location of MWD's 11 master meters that practically surrounds the City. The water infrastructure used by MWD uses an estimated 95% of the inside city water infrastructure. 95% of the 50% water usage is 48% and determines the cost distribution of the water line maintenance, leak detection, and depreciation of water lines. The combination of all these services results in MWD being responsible for 44% of the variable component of the total revenue requirement.

WITNESSES: Samuel Petty

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16. Refer to Pikeville's responses to the Commission's June 10, 2019 Order, Item 10, Inside Water Adjusted Trial Balance for Fiscal Years Ending (FYE) June 30, 2017, and June 30, 2018, Item 22, Pikeville-Mountain Water District COSS Spreadsheets.

a. Confirm that the expenses in the schedule in Pikeville's COSS entitled "Inside Water Operating & Maintenance Expense - 2017" are actually the FYE June 30, 2018 Trial Balance unaudited operations and maintenance expenses.

b. Confirm that the total inside revenue — 2017 and the other income reported in Pikeville's COSS are the amounts reported in the Trial Balance for FYE June 30, 2017.

c. Provide a revised copy of the COSS using the FYE June 30, 2017, audited operation and maintenance expenses in an Excel spreadsheet format with all rows and columns unprotected and accessible.

d. Provide a schedule that lists the individual revenue subaccounts in the FYE June 30, 2017 Trial Balance that was combined to arrive at the total inside revenue for 2017 of \$2,256,339 as reported in the COSS.

e. Provide a schedule that lists the individual revenue subaccounts in the FYE June 30, 2017 Trial Balance that was combined to arrive at the total other income of \$252,335 as reported in the COSS.

Response:

a. Confirmed.

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- b. Confirmed, except for estimated Water Plant Revenue of \$50,000 and an adjustment of \$62.47 in account 210.10.475.01.
- c. Please see attached.
- d.

210.10.405.01	RESIDENTIAL WATER CITY	\$509,290.98
210.10.405.02	COMMERCIAL WATER CITY	\$253,583.12
210.10.405.04	PUBLIC AUTHORITY WT CITY	\$321,006.93
210.10.405.06	MULTIPLE FAMILY CITY RESIDENTIAL	\$95,724.79
210.10.405.12	MULTIPLE FAMILY COMMERCIAL	\$28,658.49
210.10.410.04	W/WHOLESALE DISTRICT/REV	\$998,074.44
	EST WATER PLANT REVENUE NOT ON TRIAL BALAN	\$50,000.00
		<b>\$2,256,338.75</b>

- e.

210.10.440.00	WATER TAP FEE	\$24,510.00
210.10.450.00	WATER PENALTY	\$10,911.47
210.10.451.00	WATER SPECIAL REVENUE	\$150,302.92
210.10.451.03	SPECIAL REVENUE	\$47,926.60
210.10.460.00	WATER S C	\$12,457.00
210.10.475.00	INTEREST	\$1,774.41
210.10.475.01	INTEREST	\$4,258.09
210.10.475.01	INTEREST, ADJ NOT INCLUDED IN COSS	(\$62.47)
210.10.490.00	MISCELLANEOUS	\$256.13
		<b>\$252,334.15</b>

WITNESSES: Tonya Taylor; Samuel Petty

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**COSS with FY17 O&M**



# Pikeville, Kentucky

February 5, 2019 - Revised July 11, 2019

## Cost of Service Analysis for Mountain Water District

*Prepared By:*



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## City of Pikeville, Kentucky

### 2017 – Mountain Water District – Cost of Service Analysis

#### Purpose

The purpose of this report is to present a Cost of Service Analysis for the City of Pikeville, Kentucky (City) to determine a fair water rate for the Mountain Water District (MWD).

#### Current Circumstances

The City provides water to the MWD from the City's water treatment plant and through its extensive water distribution system. In fiscal year (FY) 2017 MWD bought 50% of all water sold to inside customers and provided only 32% of the revenue. Although the City has outside water customers, financial accounting for WMD is included with the inside customers. The City has separate financial accounting for outside customers as well as separate financial accounting for inside sewer customers and outside sewer customers.

It has been eleven years since the water rates for MWD has been increased.

MWD has ten master meters, identified in **Figure 1** and surrounds the City as shown in **Figure 2**. There is one master meter North of the City, two East of the City, two West of the City and five South of the City. The highlighted water lines in green are used by the City to provide adequate service to the MWD master meters.

MWD Master Meters		
ID Number	Name	Meter Size
#1	Cowpen	6 Inch
#2	Town Mountain	8 Inch
#3	Hurricane Creek (Cedar Gap)	4 Inch
#4	Chloe Road	4 Inch
#5	Hoopwood Hollow	2 Inch
#6	Island Creek Mobile Home Park	2 Inch
#7	Coon Branch	2 Inch
#8	Island Creek	4 Inch
#9	South Mayo Trail (Indian Hills)	4 Inch
#10	Smiley Fork	4 inch

**Figure 1**

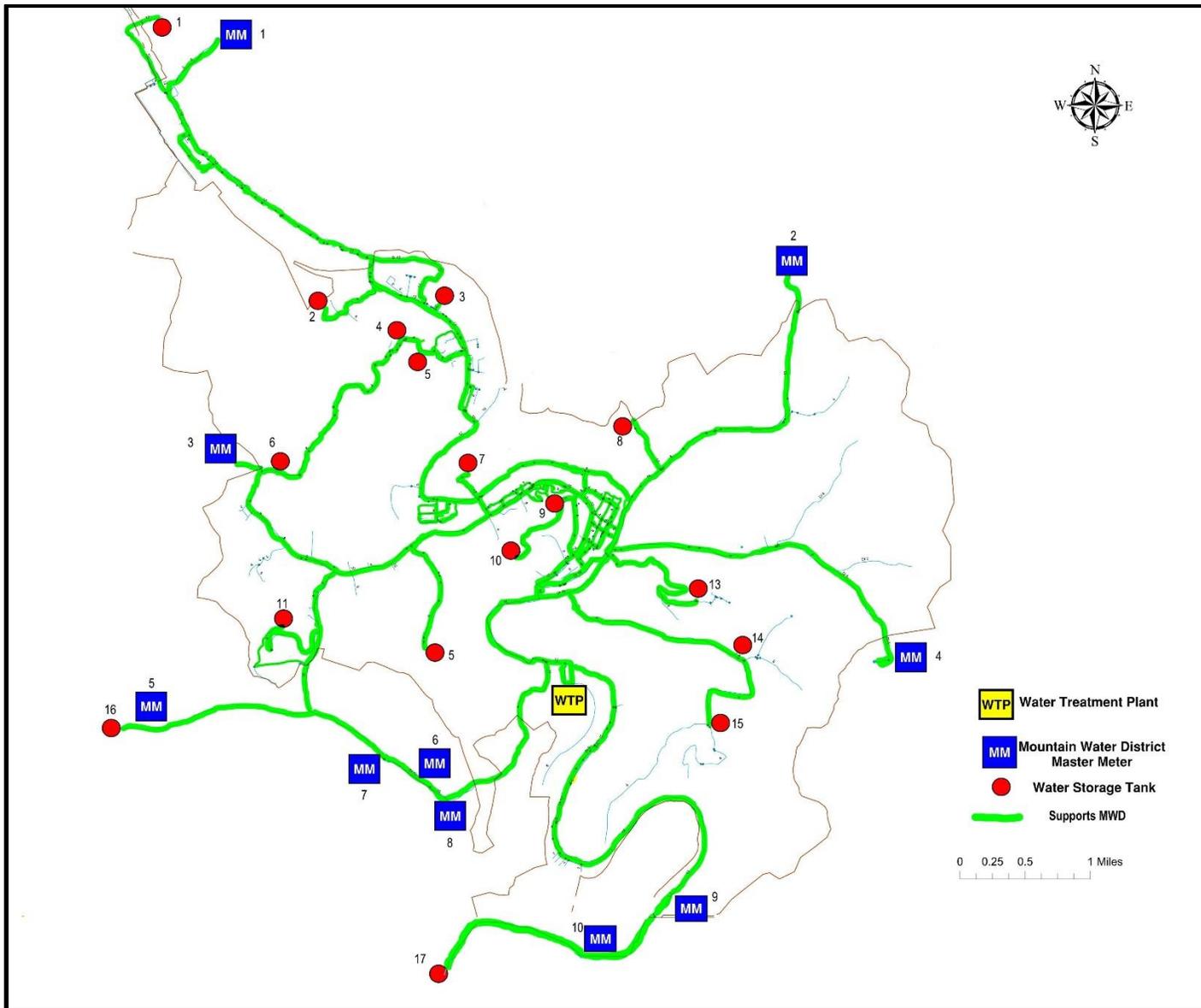


Figure 2

## **Cost of Service Analysis**

A Cost of Service Analysis is a method used to fairly distribute cost based on the level of service provided. The City does not distinguish between classes of customers such as residential, commercial or industrial. All these customers pay the same rate for water service. MWD, however, pays a different rate. This analysis will determine an updated water rate for MWD.

## **Methodology**

The methodology for the Cost of Service Analysis is as follows: (1) determination of revenue requirements; (2) allocation of cost to the functional components of the Cost of Service; (3) distribution of the functional Cost of Service; and (4) calculation of a rate to recover revenue requirements.

This analysis for the City does not include peak day or peak hour demands. The City does not have adequate data for such determination. A “return on equity” or a “risk premium” is also not included in this analysis.

### **(1) Revenue Requirement**

The revenue requirement is the total amount of cash needed for the inside water system to operate for a specific year. The year selected for this report is FY 2017 because of the available City financial reports. The “Debt Service Coverage” method is used in determining the revenue requirements. Components of the revenue requirement include:

- (a) Operation and Maintenance
- (b) Debt Service
- (c) Debt Service Coverage
- (d) Depreciation
- (e) Other Income

#### **(a) Operation and Maintenance**

The City maintains comprehensive annual financial records that include revenue, other income, and expenses. There is a total of twenty-six expense items, but none are allocated to the functional cost of service. For the purpose of this report, the expenses are allocated to three main categories: Administration, Water Treatment Plant, and Distribution. Staff from the City and Utility Management Group (UMG) assisted in the collection of data, and the allocation of cost to the categories of administration, water treatment plant and distribution. A percentage of cost for each line item was determined and allocated to each category, then for each category, a percentage of the cost was determined to be either fixed for a variable. **Figure 3** shows how the total cost of each category was determined.

Inside Water Operating & Maintenance Expense - 2017																				
2017	Total					Administration					Water Treatment Plant					Distribution				
	Cost	Admin	WTP	Dist.		Cost	Fixed	Variable	Fixed	Variable	Cost	Fixed	Variable	Fixed	Variable	Cost	Fixed	Variable	Fixed	Variable
Gasoline..	144,174	0%	10%	90%	100%	0	100%	0%	0	0	14,417	50%	50%	7,209	7,209	129,756	20%	80%	25,951	103,805
Bank Charges	3,890	100%	0%	0%	100%	3,890	100%	0%	3,890	0	0	0%	100%	0	0	0	0%	100%	0	0
Prov. For Bad Debt	868	100%	0%	0%	100%	868	100%	0%	868	0	0	0%	100%	0	0	0	0%	100%	0	0
Dues..	850	100%	0%	0%	100%	850	100%	0%	850	0	0	100%	0%	0	0	0	0%	100%	0	0
Freight/Postage..	1,349	100%	0%	0%	100%	1,349	100%	0%	1,349	0	0	0%	100%	0	0	0	0%	100%	0	0
Ins Vehicle..	2,443	0%	10%	90%	100%	0	100%	0%	0	0	244	100%	0%	244	0	2,199	100%	0%	2,199	0
Ins General Liability	26,436	10%	30%	60%	100%	2,644	100%	0%	2,644	0	7,931	100%	0%	7,931	0	15,862	100%	0%	15,862	0
Ins Other..	255	10%	30%	60%	100%	25	100%	0%	25	0	76	100%	0%	76	0	153	100%	0%	153	0
Office Supplies..	2,489	100%	0%	0%	100%	2,489	100%	0%	2,489	0	0	0%	100%	0	0	0	0%	100%	0	0
Public Works Water	1,162,040	5%	40%	55%	100%	58,102	100%	0%	58,102	0	464,816	5%	95%	23,241	441,575	639,122	5%	95%	31,956	607,166
Prof Service Other	777	100%	0%	0%	100%	777	100%	0%	777	0	0	50%	50%	0	0	0	50%	50%	0	0
UT Monthly Billing	3,803	100%	0%	0%	100%	3,803	100%	0%	3,803	0	0	0%	100%	0	0	0	0%	100%	0	0
UMG...Services	141,565	0%	40%	60%	100%	0	100%	0%	0	0	56,626	5%	95%	2,831	53,795	84,939	5%	95%	4,247	80,692
Rent-Easements..	376	100%	0%	0%	100%	376	100%	0%	376	0	0	0%	100%	0	0	0	0%	100%	0	0
Purchase Software..	1,845	100%	0%	0%	100%	1,845	100%	0%	1,845	0	0	0%	100%	0	0	0	0%	100%	0	0
Repairs & Maint	139,077	0%	0%	100%	100%	0	100%	0%	0	0	0	0%	100%	0	0	139,077	5%	95%	6,954	132,123
Repair & Maint Plant	30,632	0%	100%	0%	100%	0	100%	0%	0	0	30,632	0%	100%	0	30,632	0	0%	100%	0	0
Tele/Public Works	8,206	100%	0%	0%	100%	8,206	100%	0%	8,206	0	0	100%	0%	0	0	0	0%	100%	0	0
Electric..	299,596	0%	65%	35%	100%	0	100%	0%	0	0	194,738	0%	100%	0	194,738	104,859	0%	100%	0	104,859
City Utilities..	4,445	0%	100%	0%	100%	0	100%	0%	0	0	4,445	100%	0%	4,445	0	0	0%	100%	0	0
Workers Comp..	286	100%	0%	0%	100%	286	100%	0%	286	0	0	0%	100%	0	0	0	0%	100%	0	0
Salaries & Wages..	21,294	100%	0%	0%	100%	21,294	100%	0%	21,294	0	0	0%	100%	0	0	0	0%	100%	0	0
Payroll Tax..	1,629	100%	0%	0%	100%	1,629	100%	0%	1,629	0	0	0%	100%	0	0	0	0%	100%	0	0
Employee Benefit Ins	7,567	100%	0%	0%	100%	7,567	100%	0%	7,567	0	0	0%	100%	0	0	0	0%	100%	0	0
Pension Matching..	3,633	100%	0%	0%	100%	3,633	100%	0%	3,633	0	0	0%	100%	0	0	0	0%	100%	0	0
Unemployment Tax	127	100%	0%	0%	100%	127	100%	0%	127	0	0	0%	100%	0	0	0	0%	100%	0	0
<b>Total</b>	<b>2,009,651</b>					<b>119,758</b>			<b>119,758</b>	<b>0</b>	<b>773,926</b>			<b>45,978</b>	<b>727,948</b>	<b>1,115,966</b>			<b>87,321</b>	<b>1,028,645</b>

Figure 3

**(b) Debt Service**

Figure 4 is the inside water system debt service schedule.

Inside Water Debt Service												
Refinancing 2012C				2016 Loan				2018 Loan				
	Principal	Interest	Total		Principal	Interest	Total		Principal	Interest	Total	
2015	125,000	21,888	146,888	2015				2015				
2016	130,000	19,963	149,963	2016		11,085	11,085	2016				
2017	130,000	18,363	148,363	2017		56,988	56,988	2017				
<b>2018</b>	<b>135,000</b>	<b>14,713</b>	<b>149,713</b>	<b>2018</b>	<b>38,800</b>	<b>56,551</b>	<b>95,351</b>	<b>2018</b>		<b>7,444</b>	<b>7,444</b>	
2019	140,000	11,963	151,963	2019	39,600	55,670	95,270	2019	51,800	15,725	67,525	

Total			
	Principal	Interest	Total
2015	125,000	21,888	146,888
2016	130,000	31,048	161,048
2017	130,000	75,351	205,351
<b>2018</b>	<b>173,800</b>	<b>78,708</b>	<b>252,508</b>
2019	231,400	83,357	314,757

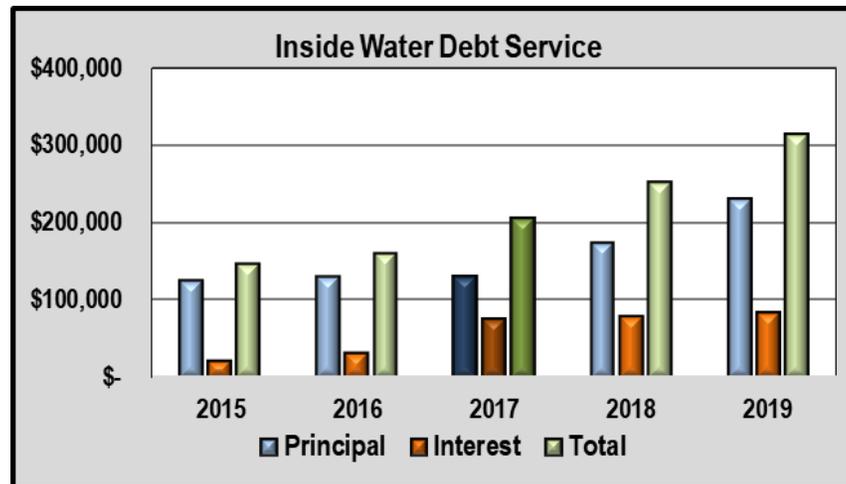


Figure 4

**(c) Debt Service Coverage**

The Debt Service Coverage, or DSC, is a measure of the cash flow available to pay current debt obligations. The coverage is the net operation income as a multiple of debt obligations due within one year, including interest and principal payments. A debt service coverage ratio is the ratio of the amount of cash available (income minus expenses) and the amount of combined interest and principal for the outstanding bonds. The DSC provides a useful indicator of financial strength. A low DSC could have a negative impact on the City's bond rating. The City's bond covenants state that the rates and charges shall be adequate to produce net revenues equal to at least 120% of the maximum annual debt service required for any fiscal year. The 120% is generally stated as a ratio of 1.20.

**(d) Depreciation**

Depreciation is defined as a reduction in the value of an asset with the passage of time, due to wear and tear. Although depreciation is listed as an expense, it is not paid out to anyone. Funding depreciation allows the City to accumulate cash for financing the replacement of depreciated assets. The City's inside water system depreciation is separated into four functionalities of operation; water treatment plant, water lines, booster stations, and water storage tanks.

**(e) Other Income**

Other income is a combination of fees, such as tap fees, penalties and other miscellaneous fees collected by the City. Generally, these fees are not directly related to the production and distribution of water.

**Fixed and Variable Costs**

There are two components of the City's water rate structure: a fixed cost and a variable cost. Fixed costs are those cost unrelated to the treatment and distribution of water. Variable costs are those associated directly or indirectly with the treatment and distribution of water. The fixed costs are generally used to determine a base amount to be used in the calculation of a minimum bill. The variable costs are used to determine a unit rate or a cost per 1,000 gallons. It is the variable rate for MWD that is to be determined by the Cost of Service Analysis.

Figure 5 shows the inside water revenue requirement.

<b>Inside Water Revenue Requirement - 2017</b>					
	<b><u>Cost</u></b>		<b><u>Fixed</u></b>		<b><u>Variable</u></b>
<b><u>Operation &amp; Maintenance</u></b>					
Administration	\$119,758	100%	\$119,758	0%	\$0
Water Treatment Plant	\$773,926	6%	\$45,978	94%	\$727,948
Distribution System	\$1,115,966	8%	\$87,321	92%	\$1,028,645
<b>Total Operation &amp; Maintenance</b>	<b>\$2,009,651</b>		<b>\$253,057</b>		<b>\$1,756,593</b>
Debt Service	\$205,351	0%	\$0	100%	\$205,351
Debt Service Coverage (20%)	\$41,070	0%	\$0	100%	\$41,070
<b><u>Depreciation</u></b>					
Water Treatment Plant	\$209,561	0%	\$0	100%	\$209,561
Water Lines	\$155,849	0%	\$0	100%	\$155,849
Booster Stations	\$11,839	0%	\$0	100%	\$11,839
Tanks	\$36,975	0%	\$0	100%	\$36,975
<b>Total Depreciation</b>	<b>\$414,224</b>				<b>\$414,224</b>
Other Income	(\$252,335)	100%	(\$252,335)	0%	\$0
<b>Revenue Requirement</b>	<b>\$2,417,960</b>		<b>\$722</b>		<b>\$2,417,238</b>

Figure 5

**(2) Cost Allocation**

The allocation of the variable operating cost is shown in **Figure 6**. The distribution system is broken down into seven areas of service. Allocation of these costs is calculated by applying percentages as determined by the City's staff and UMG staff. The percentages were then multiplied by the total cost to determine the amount allocated to each service.

Percentages of Cost Allocation - 2017 for Variable Operating Costs										
	Water Treatment	Booster Stations	Line Maint.	Tanks	Service Calls	Meters	Leak Detection	Testing	Total	
Water Treatment Plant	100%	0%	0%	0%	0%	0%	0%	0%	100%	
Distribution System	0%	20%	40%	5%	15%	5%	10%	5%	100%	
Cost Allocation - 2017 for Variable Operating Costs										
	Water Treatment	Booster Stations	Line Maint.	Tanks	Service Calls	Meters	Leak Detection	Testing	Total	Percent
Water Treatment Plant	\$ 727,948	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 727,948	41%
Distribution System	\$ -	\$ 205,729	\$ 411,458	\$ 51,432	\$ 154,297	\$ 51,432	\$ 102,864	\$ 51,432	\$ 1,028,645	59%
<b>Total</b>	<b>\$ 727,948</b>	<b>\$ 205,729</b>	<b>\$ 411,458</b>	<b>\$ 51,432</b>	<b>\$ 154,297</b>	<b>\$ 51,432</b>	<b>\$ 102,864</b>	<b>\$ 51,432</b>	<b>\$ 1,756,593</b>	<b>100%</b>

**Figure 6**

**(3) Cost Distribution**

MWD relies on the City's water treatment plant and City's complex distribution system for water service. The distribution of cost to MWD is generally based on the percentage of usage or demand by MWD. **Figure 7** shows the percentage of water sold to MWD and the percentage of revenue collected from MWD.

Inside Water Sold - 2017			Inside Water Revenue - 2017		
	Million Gallons	% of Total		Revenue	% of Total
MWD	463	50%	MWD	\$729,785	32%
Other Inside City	467	50%	Other Inside City	\$1,526,553	68%
<b>Total Inside Sold</b>	<b>930</b>	<b>100%</b>	<b>Total Inside Revenue</b>	<b>\$2,256,339</b>	<b>100%</b>

**Figure 7**

**Figure 8** shows all the variable components of revenue requirement including water treatment, various distribution services, depreciation, debt, and DSC. A percentage of use is applied to each one of these to determine a cost for each component along with a unit cost per 1,000 gallons.

The water treatment plant, booster stations, and tanks are assigned a 50% usage by MWD because all the treatment plant, booster stations, and tanks are used to provide adequate service to MWD. All the City's water lines are not needed to serve MWD, however, most of it is as shown in **Figure 2**. The City's largest water demand is in the central part of the city which is relatively close to the water treatment plant. MWD's highest demands are much farther away from the water treatment plant and use a higher percentage of large diameter water lines such as 10-inch, 12-inch, and 16-inch. Based on **Figure 2**, it is estimated that 95% of City's water lines are used MWD. With MWD using 50% of the water sold to all inside customer, their percentage of cost for all services involving water lines would be 95% times 50%, or 48%. MWD should not pay for service calls or water quality testing, therefore the percentage of these services is 0%. The percentage of the cost of servicing meters is 7% based on the size of MWD's meters compared to all inside water meters.

Cost Distribution 2017 for Variable Costs															
	Water Treatment	Booster Stations	Line Main.	Tanks	Service Calls	Meters	Leak Detection	Testing	Deprec. WTP	Deprec. Lines	Deprec. Pump Sta	Deprec. Tanks	Debt	DSC	Total
<b>Annual Cost</b>	\$727,948	\$205,729	\$411,458	\$51,432	\$154,297	\$51,432	\$102,864	\$51,432	\$209,561	\$155,849	\$11,839	\$36,975	\$205,351	\$41,070	\$2,417,238
Percent Distribution for Variable Costs															
Account	Water Treatment	Booster Stations	Line Main.	Tanks	Service Calls	Meters	Leak Detection	Testing	WTP	Deprec. Lines	Deprec. Pump Sta	Deprec. Tanks	Debt	DSC	
<b>MWD</b>	50%	50%	48%	50%	0%	7%	48%	0%	50%	48%	50%	50%	50%	50%	
Cost Distribution for Variable Costs															
Account	Water Treatment	Booster Stations	Line Main.	Tanks	Service Calls	Meters	Leak Detection	Testing	WTP	Deprec. Lines	Deprec. Pump Sta	Deprec. Tanks	Debt	DSC	Total
<b>MWD</b>	\$362,722	\$102,511	\$195,443	\$25,628	\$0	\$3,844	\$48,861	\$0	\$104,420	\$74,808	\$5,919	\$18,487	\$102,322	\$20,464	\$1,065,428
Unit Cost Per 1,000 Gallons															
<b>MWD</b>	\$0.78	\$0.22	\$0.42	\$0.06	\$0.00	\$0.01	\$0.11	\$0.00	\$0.23	\$0.16	\$0.01	\$0.04	\$0.22	\$0.04	\$2.30

**Figure 8**

**(4) Recommended Rate**

Figure 9 is a summary of the MWD fair share of each component of the revenue requirement and Figure 10 shows an increase of \$0.72 per 1,000 gallons is needed. It is recommended to raise the current rate of \$1.58 per 1,000 gallons to \$2.30 per 1,000 gallons.

<b>MWD Cost Summary</b>				
	<b>Total Variable</b>	<b>MWD Variable</b>	<b>MWD Percent Variable</b>	<b>MWD Cost per 1,000 Gallons</b>
Administration	\$0	\$0	0%	\$0.00
Water Treatment Plant	\$727,948	\$362,722	50%	\$0.78
Distribution System	\$1,028,645	\$376,285	37%	\$0.81
Depreciation	\$414,224	\$203,634	49%	\$0.44
Debt	\$205,351	\$102,322	50%	\$0.22
Debt Service Coverage (20%)	\$41,070	\$20,464	50%	\$0.04
Other Income	\$0	\$0	0%	\$0.00
<b>Total Revenue Requirement</b>	<b>\$2,417,238</b>	<b>\$1,065,428</b>	<b>44%</b>	<b>\$2.30</b>

Figure 9

<b>Rate Determination for Variable Costs</b>						
<b>Account</b>	<b>Revenue Paid</b>	<b>Current Rate Per 1,000 Gal.</b>	<b>Revenue Required</b>	<b>Required Rate Per 1,000 Gal.</b>	<b>Revenue Deficient</b>	<b>Increase Needed Per 1,000 Gal.</b>
MWD	\$729,785	1.58	\$1,065,428	\$2.30	\$335,643	\$0.72

Figure 10

**CASE NO. 2019-00080**  
**CITY OF PIKEVILLE WHOLESALE WATER SERVICE RATES**  
**RESPONSES TO COMMISSION STAFF'S SECOND REQUEST FOR INFORMATION**

17. In its Trial Balance for FYE June 30, 2017, Pikeville reports tap-on fee collections of \$24,510.

- a. Provide the number of meters Pikeville installed in FYE June 30, 2017.
- b. Identify the meter and labor costs that Pikeville removed from test- year expenses and capitalized. Also, identify in the depreciation schedule the amount of depreciation included to recover the capital costs of the meter installations.

Response:

- a. 12 meter taps
- b. No labor cost was removed and no depreciation was included to recover meter installations in the test year.

WITNESS: Tonya Taylor

**CASE NO. 2019-00080**  
**CITY OF PIKEVILLE WHOLESALE WATER SERVICE RATES**  
**RESPONSES TO COMMISSION STAFF'S SECOND REQUEST FOR INFORMATION**

18. In its Trial Balance for FYE June 30, 2017, Pikeville reports water special revenue of \$150,303. Provide an itemized list of what is reported in this total amount.

Response: See below.

1	bills to UMG for fuel and phone for City use	150,165
2	bills for water withdrawal from fire hydrant	190
3	miscellaneous adj.	<u>(53)</u>
		<b>150,303</b>

WITNESS: Tonya Taylor

**CASE NO. 2019-00080**  
**CITY OF PIKEVILLE WHOLESALE WATER SERVICE RATES**  
**RESPONSES TO COMMISSION STAFF'S SECOND REQUEST FOR INFORMATION**

19. Refer to Pikeville's responses to the Commission's June 10, 2019 Order, Item 9, Depreciation Schedule and to the National Association of Regulatory Commissioners (NARUC) Depreciation Practices for Small Water Utilities, August 15, 1979, Figure 1, Typical Service Lives, Salvage Rates, and Depreciation Rates, Small Water Utilities attached hereto as Schedule 19.

a. Provide a schedule in Excel format that compares the depreciation lives in Pikeville's schedule to the average service life ranges in the NARUC survey.

b. Using the mid-point depreciation life of the average service life ranges in the NARUC survey recalculate Pikeville's pro forma depreciation expense. Provide the recalculation of pro forma depreciation expense in an Excel spreadsheet Format with all formulas unprotected and with all rows and columns accessible.

Response: Please see attached Excel file.

WITNESS: Tonya Taylor; Grondall Potter

**CASE NO. 2019-00080**  
**CITY OF PIKEVILLE WHOLESALE WATER SERVICE RATES**  
**RESPONSES TO COMMISSION STAFF'S SECOND REQUEST FOR INFORMATION**

20. Confirm that Utility Management Group LLC (UMG) is providing operational, maintenance, and management services to Pikeville for its water and wastewater divisions. Provide the date(s) UMG began providing these services to Pikeville.

a. Provide a copy of the original agreement between Pikeville and UMG and each subsequent agreement.

b. Provide a schedule comparing the UMG contract costs broken down by major functions for the FYE June 30, 2017 and 2018.

Response:

a. Utility Management Group LLC (UMG) provides operational, maintenance, and management services to Pikeville for its water and wastewater systems. The contract between Pikeville and UMG and amendments thereto are attached.

b. See below.

	2017	2018
Streets	\$709,887.72	\$729,054.84
Parks	\$370,595.16	\$380,601.24
Landscape	\$67,374.00	\$69,193.08
Gas	\$421,480.91	\$432,860.76
Inside Water	\$1,162,039.92	\$1,221,201.36
Garbage	\$551,015.88	\$605,893.36
Inside Sewer	\$369,812.52	\$381,293.16
Outside Water	\$509,145.12	\$495,105.72
Outside Sewer	\$180,442.56	\$183,818.76

WITNESSES: Tonya Taylor; Philip Elswick

**CASE No. 2019-00080**  
**CITY OF PIKEVILLE WHOLESALE WATER SERVICE RATES**  
**RESPONSES TO COMMISSION STAFF'S SECOND REQUEST FOR INFORMATION**

# Contract with UMG

**Agreement For  
Operations, Maintenance and Management Services**

THIS AGREEMENT made and effective, the 1<sup>st</sup> day of July, 2007, by and between

The **City of Pikeville**, a political subdivision of the State of Kentucky, with its principal address at City Hall, 118 College Street, Pikeville, Kentucky 41501 (hereinafter "CITY")

And

**Utility Management Group, LLC**, with its principal address at 158 Town Mt. Road, Suite 101, Pikeville, Kentucky 41501 (hereinafter "UMG").

**WHEREAS**, the CITY owns and provides for the operation of the public works systems which includes: the CITY's wastewater treatment plant, water treatment plant, sewer collection system, lift stations and siphons, potable water storage and distribution system, natural gas distribution system, streets (including signs), sidewalks, storm drains, public works office, shop and baseyard, sanitation service, transfer station and water and gas meter reading, city parks all as more particularly described in Appendix B (hereinafter collectively the "Project"); and,

**WHEREAS**, CITY and UMG desire to enter into an agreement, the contractual relationship between the parties, in accordance with terms and conditions set forth herein;

**NOW, THEREFORE**, in consideration of the mutual covenants and agreements hereinafter set forth, CITY and UMG agree as follows:

1 General

- 1.1 Definitions of words and phrases used in this Agreement and the attachments are contained in Appendix A.
- 1.2 All land, buildings, facilities, easements, licenses, rights-of-way, equipment and vehicles presently or hereinafter acquired or owned by CITY shall remain the exclusive property of CITY unless specifically provided for otherwise in this Agreement.
- 1.3 This Agreement shall be governed by and interpreted in accordance with the laws of the State of Kentucky.
- 1.4 This Agreement shall be binding upon the successors and assigns of each of the parties. UMG shall not assign, sublet or transfer all

or any portion of this agreement without the prior written consent of the CITY. UMG shall not transfer ownership of more than 10% of it's ownership without the prior written consent of the CITY.

- 1.5 All notices shall be in writing and transmitted to the party's address stated above. All notices shall be deemed effectively given
- when delivered, if delivered personally or by courier mail services, i.e., Federal Express or DHL;
  - when delivered when such notice has been deposited in the United States mail postage prepaid, if mailed certified or registered U.S. mail, return receipt requested; or
  - when received by the party for which notice is intended if given in any other manner.
- 1.6 This Agreement, including Appendices, is the entire Agreement between the parties. This Agreement may be modified only by written agreement signed by both parties. Wherever used, the terms "UMG" and "CITY" shall include the respective officers, agents, directors, elected or appointed officials and employees and, where appropriate, subcontractors. Only the Commission of the CITY has the authority to modify this agreement upon a vote at a public meeting.
- 1.7 If any term, provision, covenant or condition of this Agreement is held by a court of competent jurisdiction to be invalid, void or unenforceable, the remainder of the provisions shall remain in full force and effect and shall in no way be affected, impaired or invalidated.
- 1.8 It is understood that the relationship of UMG to CITY is that of independent contractor. The services provided under this Agreement are of a professional nature and shall be performed in accordance with good and accepted industry practices for contract operators similarly situated. However, such services should not be confused with engineering services and nothing herein is intended to imply that UMG is to supply professional engineering services to CITY unless specifically stated in this Agreement to the contrary.
- 1.9 Nothing herein is intended by the parties to amend, modify or otherwise change any legal obligation owed by one party to the other which has heretofore matured or vested under the Existing Contract Documents, including, but not limited to, fees owed for

services rendered, rebates owed by UMG to CITY, indemnification obligations, and/or insurance coverage requirements.

- 1.10 Nothing in this Agreement shall be construed to create in any third party or in favor of any third party any right(s), license(s), or privilege(s).
- 1.11 Each party shall designate in writing an employee or other representative of the designating party who shall have full authority to render decisions promptly and furnish information expeditiously to the other party when necessary.
- 1.12 CITY shall have the right to waive the requirement of a two million dollar performance bond or letter of credit and if the CITY elects not to waive this requirement, the annual fee provided for in paragraph 8.1 shall be increased by twenty thousand (\$20,000.00) dollars.
- 1.13 The CITY shall have the right to request UMG provide the additional position of Governmental Liaison at a per year expense of \$74,289.00, pro rated monthly. In the event of this election, the CITY shall have the right to approve the person hired for this position and shall in it's sole discretion have the right to terminate this position on sixty (60) days notice to UMG.
- 1.14 UMG guarantees as part of this agreement that it shall produce an additional \$100,000 revenue in wholesale water sales to the CITY thru master meter management during the first year of the agreement. The baseline for the wholesale sales would be the sales between July 2004 to July, 2005 or \$386,000.00. In the event of UMG's failure to achieve the \$100,000 in additional revenue, UMG shall pay to the CITY within 30 day from the end of the first year of this agreement the difference between the actual increase in wholesale water revenue of \$386,000.00 and the \$100,000 guarantee. If in any subsequent year end during the term or renewal term of this agreement wholesale water sales fall below the "guarantee sales revenue" (July 2004 – July 2005 revenue plus \$100,000), UMG shall pay to the CITY with in 30 days of year end the difference in the actual water revenue received from wholesale water sales and the "guarantee sales revenue" not to exceed \$100,000. The Parties agree to negotiate this guarantee if UMG loses the ability to manage the sales from the master meters.
- 1.15 The CITY may elect hereunder to request that UMG make a capital improvement on behalf of the CITY by purchasing and installing variable frequency drives on certain electric motors at a total cost of \$174,460.00. In the event of this election, the annual fee

provided for in paragraph 8.1 shall be increased by the sum of \$34,892 for a period of five (5) years.

2

## UMG's Services-General

- 2.1 UMG will offer employment to all personnel of Veolia Water assigned full-time to the Project as of the effective date of this Agreement up to 60 full time employees, if they take and successfully pass a drug screen test to be administered by UMG. UMG will provide said employees with a wage and benefits package comparable to the wage and benefits package provided by UMG. UMG will continue to provide employment to all personnel who accept employment with UMG so long as their positions are necessary to UMG's performance under this Agreement and they continue to perform their duties in a satisfactory manner. UMG shall comply with all Federal and State employment laws.
- 2.2 UMG will staff the Project with employees who have met appropriate licensing and certification requirement of the State of Kentucky.
- 2.3 UMG will provide ongoing training and education for appropriate personnel in all necessary areas of modern public works, water and /or wastewater process control, maintenance, safety, and supervisory skills.
- 2.4 UMG shall develop and/or supply and utilize computerized programs for maintenance, process control, cost accounting, and laboratory Quality Assurance/Quality Control.
- 2.5 Within thirty (30) days after UMG begins service under this Agreement, UMG will provide a physical inventory of CITY'S vehicles and equipment in use at the Project and a general statement as to the condition of each vehicle or piece of equipment.
- 2.6 UMG will provide CITY with a physical inventory of chemicals and other consumables on hand when UMG begins services under this Agreement. UMG will provide CITY with the same quantity of chemicals and other consumables, or equivalent, upon termination of this Agreement.
- 2.7 UMG shall be responsible for maintaining all manufacturers' warranties on new equipment purchased by CITY and assist CITY in enforcing existing equipment warranties and guarantees.

- 2.8 UMG shall provide the CITY with full documentation that preventative maintenance is being performed on equipment owned by CITY in accordance with manufacturer's recommendations at intervals and in sufficient detail as suggested by UMG and approved by the CITY. Such a maintenance program must include documentation of corrective and preventive maintenance.
- 2.9 UMG shall operate, maintain and/or monitor the Project on a 24-hour per day, seven days per week schedule.
- 2.10 Visits may be made at any reasonable time by CITY's officers and employees. CITY shall at all times have keys to the Project. All visitors to the Project shall comply with UMG's operating and safety procedures.
- 2.11 UMG will implement and maintain an employee safety program in compliance with applicable laws, rules and regulations and make recommendations to CITY regarding the need, if any, for CITY to rehabilitate, expand or modify the Project to comply with governmental safety regulations applicable to UMG's operations hereunder and federal regulations promulgated pursuant to the Americans With Disability Act ("ADA"). Nothing herein shall be construed to place upon UMG a duty to find and report violations of either the safety laws or the ADA at the Facility to any federal or state agency.
- 2.12 UMG may modify the process and/or facilities to achieve the objectives of this Agreement and charge the Costs to the Maintenance and Repair Limit; provided, however, no modification shall be without CITY's prior written approval if the complete modification Cost shall be in excess of Two Thousand Dollars (\$2,000.00) or if the cost of such modification would cause the total aggregate amount of expenditures for that Agreement Year to exceed the Maintenance and Repair Limit for such year.
- 2.13 In an emergency affecting the safety of persons or property, UMG may act without written authorization of a Change of Scope, at UMG's discretion, to prevent threatened damage, injury or loss. CITY shall compensate UMG for any such emergency work notwithstanding the lack of a written authorization. Such compensation shall include UMG's non-labor direct Cost for the emergency work. Nothing contained in this Section shall impose upon UMG a duty to perform any emergency work absent a modification of the Scope of Work approved by the CITY and failure to perform any such emergency work shall not impose upon UMG any liability for errors and omissions.

- 2.14 As required by law, permit or court order, UMG will prepare all necessary reports related to performance of the Public Works System and submit them to CITY for signature and transmittal to appropriate authorities. UMG will assist the CITY with the timely application for all necessary environmental permits and extensions of environmental permits for the operation of the Public Works system including the Water and Sewer System.
- 2.15 UMG will provide laboratory testing and sampling presently required by plant performance portions of the NPDES permit, the Clean Water Act, the Safe Drinking Water Act, and/or any federal, state or local rules and regulations, statutes or ordinances, permit or license requirements or judicial and regulatory orders and decrees, including, but not limited to, required testing and sampling for the gas system, sanitation collection and storm water management. Any change in testing requirements by regulatory agencies in the above systems will result in a scope change.
- 2.16 UMG will provide for the collection and hauling of screenings, grit, sludge and scum to the Pike County landfill and/or the Chaparral Coal landfill. It shall be the sole right and responsibility of CITY to designate, approve or select landfill facilities to be used by UMG for CITY's waste materials. All waste and/or byproduct collected, treated and/or generated during UMG's performance of services is and shall remain the sole and exclusive property of CITY. All manifests or other documentation required for disposal of sludge shall be signed by or in the name of the CITY.
- 2.17 Upon request of CITY or as it shall deem necessary, UMG will provide a listing of recommended capital improvements required for the Project. UMG will not be relieved of its responsibility to perform if the recommendations are not implemented; provided, however, the failure to meet effluent requirements (or other damage or injury) resulting from the failure to make recommended capital improvements necessary to meet federal, state or local laws, rules or regulations for the safety of persons in or about the facilities and to meet ADA requirements shall not be optional for the CITY. If approved, the CITY will make arrangements for the design and construction of said improvements.
- 2.18 Services that are the subject of this Agreement are budgeted as 4,800 actual straight time man-hours per payroll period (consisting of a two (2) successive week period) and 236 overtime man-hours per payroll period. Overtime hours in excess of those budgeted caused by abnormal excessive natural events, including but not

limited to an act of God, excessive snowfall, tornado or flood, shall be billed to the CITY on a monthly basis with mark-up including additional taxes, fees or insurance resulting from the extra money paid, i.e., FICA, unemployment insurance, workers compensation. An "actual straight time man-hour" shall mean an actual hour of labor by one person unburdened by vacation, holiday or other leave allowances.

2.19 Subject to the availability of funds in the Maintenance and Repair Limit, UMG shall maintain and repair only the motor vehicles and equipment solely used in support of the Project (whether owned by CITY or UMG).

2.20 UMG shall maintain all records and documents required specifically herein and such other documents concerning the operation of the CITY's Public Works Department such that they may be inspected by the CITY upon reasonable notice.

### 3 UMG's Scope of Services-Wastewater

3.1 This Article shall apply to UMG's Operations, Maintenance, & Management services for the CITY's wastewater treatment system.

3.2 Within the design capacity and capabilities of the Waste Treatment Plant described in Appendix B, UMG will manage, operate and maintain the Plant so that effluent discharged from the Plant meets the requirements specified in Appendix C-1.

3.3 UMG shall manage, operate and maintain the wastewater plants, lift stations and sludge removal program.

3.4 UMG shall operate the wastewater treatment plant and collection system such as to minimize the hydrogen sulfide odor in the atmosphere. Hydrogen sulfide leaving the wastewater plant shall not be increased above the level entering the wastewater plant from the collection system.

3.5 Subject to the availability of funds within the Maintenance and Repair Limit, UMG will perform all Maintenance and Repairs for the Wastewater Treatment Plant and lift stations, and submit a monthly accounting to CITY.

3.6 Subject to Section 8.9, UMG will pay all Costs incurred in normal operations and maintenance of the Wastewater Treatment Plant (including sludge disposal) and lift stations.

4 UMG Scope of Services-Water

4.1 This Article shall apply to UMG's Operations, Maintenance, & Management services for the CITY's drinking water treatment system.

4.2 Within the design capacity and capabilities of the Water Treatment Plant described in Appendix B, UMG will manage, operate and maintain the Plant so that water produced from the Plant meets the requirements specified in Appendix C-2.

4.3 Subject to Section 7.9, UMG will pay all Costs incurred in normal operations and maintenance of the potable Water Treatment Plant, water tanks and pumps.

4.4 Subject to the availability of funds within the Maintenance and Repair Limit, UMG will perform all Maintenance and Repairs for the Water portion of the Project, and submit a monthly accounting to CITY.

5 UMG's Scope of Services-Wastewater Collection System, Water Distribution System, Natural Gas Distribution System, Storm water Drains and System, Roadways, Sidewalks, Signs, City Parks and Public Works Building & Baseyard.

5.1 This Article shall apply to UMG's maintenance and repair services for the CITY's wastewater collection system, drinking water distribution system, natural gas distribution system, storm water drains and system, streets, roadway, sidewalks, signs, city parks, athletic fields, landscaping program, designated street lighting, parking structure and Public Works office and baseyard.

5.2 The scope of UMG's services for the management, maintenance and repair of the collection system, the water distribution system and the natural gas distribution system are set forth in Appendices C-3, C-4 and C-5, respectively. Said Appendices additionally describe the battery limits of the respective systems.

- 5.3 The scope of UMG's services for the management, maintenance and repair of the storm water drains and system is attached as Appendix C-6.
- 5.4 The scope of UMG's services for the management, maintenance and repair of the roadways, sidewalks and signs are attached as C-7.
- 5.5 The scope of UMG's services for the management, maintenance and repair of the Public Works building (office) and baseyard are attached as Appendix C-8.
- 5.6 The scope of UMG's services for the management, maintenance and repair of City Parks, athletic fields and Landscaping are attached as Appendix C-12.
- 5.7 The scope of UMG's services for Mowing/Clearing of designated area on an attached aerial map in Appendix C-13, using tractor mounted mowers, small lawn tractors and hand-held string mowing equipment, as appropriate.
- 5.8 Special trash collection and cleanup will be provided by UMG for Hillbilly Days and Hatfield McCoy Festival as directed by the CITY.
- 5.9 The scope of UMG's service for the field service division shall be as designated in Appendix-14.
- 5.10 Costs (other than labor) associated with the services described in this Article shall be charged to the Maintenance and Repair Limit.

## 6 UMG Scope-Meter Reading (Water & Gas); Refuse Collection

- 6.1 This Article shall apply to UMG's meter reading operations services for the water and gas meters described in Appendix B and the garbage pick-up and collection service.
- 6.2 At least once each calendar month (12 times per calendar year), UMG shall collect from each residential and commercial consumer of water and/or gas the usage of water or gas (as reported by the meter) during the period since the last reading of the meter. This information shall be reported in a timely manner to the CITY for billing purposes in a form as shall from time to time be approved by the CITY.

6.3 UMG shall operate existing residential and commercial garbage collection according to the existing schedule and customer base. The parties acknowledge that current garbage collection consists of two pick-ups per week per household or commercial outlet. Any increase or decrease of 10% in customer base and/or frequency of pick-up shall result in a Change in Scope pursuant to Section 10.1.2. The parties further acknowledge that garbage and refuse currently collected at the CITY's transfer station. All costs, methods and expenses resulting from alternative disposal sites, other than the CITY transfer station and the Chaparral Coal pit, shall be the responsibility of CITY

6.3.1 Annual fee is based on residential accounts of 1,863, commercial accounts of 367, public authority account for 149 and multi-family accounts of 168.

6.4 In the event that the CITY transfer station is not used and/or operational a Change in Scope will be necessary.

7

#### City's Duties

7.1 The CITY shall fund all necessary Capital Expenditures. Priority shall be given to safety and the ADA related expenses described in Section 211. Any loss, damage, or injury resulting from CITY's failure to provide capital improvements and/or funds in excess of the Maintenance and Repair Limit when reasonably requested by UMG shall be the sole responsibility of CITY.

7.2 The CITY shall keep in force all Project warranties, guarantees, easements and licenses that have been granted to CITY and are not transferred to UMG under this Agreement.

7.3 The CITY shall pay all sales, excise, *ad valorem*, property, franchise, occupational and disposal taxes, or other taxes associated with the Project other than taxes imposed upon UMG's net income and/or payroll taxes for UMG employees, as set forth in Section 2.8, taxes imposed on UMG owned equipment and/or sales taxes on items purchased by UMG for the project.

7.4 The CITY shall provide UMG, within a reasonable time after request and on an "as available" basis, with the temporary use of any piece of CITY's heavy equipment that is available so that UMG may discharge its obligations under this Agreement in the most cost-effective manner.

- 7.5 CITY shall pay all tipping fees and similar charges for the use of both the County landfill and the Chaparral Coal pit for the deposit of garbage, refuse, sludge and other waste.
- 7.6 CITY shall provide all registrations and licenses for CITY's vehicles used in connection with the Project.
- 7.7 CITY shall provide for UMG's exclusive use of all vehicles and equipment presently in full time use at the Project and any replacement if necessary.
- 7.8 CITY shall provide the Project with appropriate security personnel and/or devices to protect against any losses resulting from the theft, damage, or unauthorized use of property owned by CITY and shall accept liability for such losses.
- 7.9 The CITY shall pay all Costs for water, sewer user fees, road salt, natural gas deodorizers and natural gas for the Project.
- 7.10 The CITY shall provide for UMG access to all easements, right-of-ways, and access to discharge UMG's obligation under this Agreement.

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#### Compensation

- 8.1 UMG's compensation under this Agreement shall consist of an Annual Fee. For the first year of this Agreement, UMG's Annual Fee is \$4,026,174.00. The Maintenance and Repair Limit included in the Annual Fee is \$494,904.00, .
- 8.2 If actual Maintenance and Repair expenditures are less than the Maintenance and Repair Limit for any Agreement year, UMG will rebate the entire difference to CITY in accordance with Section 9.3. If actual Maintenance and Repair expenditures exceed the Maintenance and Repair Limit, CIY will pay the excess to UMG in accordance with Section 9.3. UMG will notify CITY when actual Maintenance and Repair expenditures equal eighty percent (80%) of Maintenance and Repair Limit.
- 8.3 The Annual Fee shall be negotiated each year at least four (4) months prior to the anniversary of this Agreement's effective date. Should CITY and UMG fail to agree, the Annual Fee will be determined by the application of the procedures in Appendix D. The Maintenance and Repair Limit shall increase or decrease by a percentage equal to the change in the Annual Fee.

## Payment of Compensation

- 9.1 One-twelfth (1/12) of the Annual Fee for the current year shall be due and payable on the first of the month for each month that services are provided.
- 9.2 All other compensation to UMG is due upon receipt of UMG's invoice and payable within thirty (30) days.
- 9.3 Any monies payable pursuant to Section 8.2 will be paid within sixty (60) calendar days after the end of each Agreement year and/or if the costs are over ten percent (10) of the monthly budget targets they will be billed to the CITY for reimbursement on a monthly basis, with the information provided to account for the additional maintenance/repair cost.
- 9.4 Any additional overtime hours in excess of those budgeted that are payable pursuant to Section 3.8 will be paid to UMG within thirty (30) days.
- 9.5 CITY shall pay interest at an annual rate equal to the Community Trust Bank's prime rate up to sixty (60) days from the due date and prime rate plus one and one half percent (1.5%), said rate of interest not to exceed any limitation provided by law, on payments due UMG thereafter, such interest being calculated from sixty (60) days from the due date of the payment. In the event the charges hereunder might exceed any limitation provided by law, such charges shall be reduced to the highest rate or amount within such limitation.

## Scope Changes

- 10.1 A Change in Scope of services shall occur when and as UMG's costs of providing services under this Agreement change as a result of
  - 10.1.1 any change in Project operations, personnel qualifications or staffing or other cost which is mandated or otherwise required, by a change in law, rule or regulation or an action or forbearance of any governmental body having jurisdiction to order, dictate or require such change;
  - 10.1.2 increases or decreases of ten percent (10%) in the user base;

- 10.1.3 increases or decreases of not less than ten percent (10%) in the influent flow or loadings as demonstrated by a twelve month floating average compared to the twelve month period ending on the effective date of this Agreement (baseline flow and loading information is located in Appendix C); and/or,
- 10.1.4 increases or decreases in rates or other related charges (including taxes) imposed upon UMG by a utility provider (see Section ~~10.4~~ below) or taxing authority-excluding taxes based on UMG's net income;
- 10.1.5 CITY's request of UMG and UMG's consent to provide additional services.
- 10.2 For Changes in Scope described in Sections 10.1.1 through, and including, 10.1.3, the Annual Fee shall be increased (or decreased) by an amount equal to UMG's additional (reduced) Cost associated with the Change in Scope plus ten percent (10%) Modifications of the Annual Fee as a result of conditions described in Section 10.1.3 shall be retroactive to the beginning of the twelve-month comparison period.
- 10.3 For Change in Scope described in Section 10.1.4, the Annual Fee shall be increased (or decreased) by an amount equal to UMG's additional (reduced) Cost associated with the Change in Scope.
- 10.4 CITY and UMG shall negotiate any increase or decrease in UMG's Annual Fee for Changes in Scope based on Section 10.1.5.
- 10.5 Utility Rates
- CITY will pay as additional compensation to UMG any increases in Electrical Cost Plant that are a result of Average Electrical Rate Plant increases that occur during any Agreement year. The additional compensation will be calculated based upon 5,313,513 KWH of energy per year.
  - UMG will rebate one hundred percent (100%) of any decrease in Electrical Cost Plant caused by Average Electrical Rate Plant decreases, based upon 5,313,513 KWH of energy per year.

## 11 Indemnity, Liability and Insurance

- 11.1 UMG agrees to indemnify, defend and hold CITY harmless from any liability, claims, demands, losses, damages and expenses, including reasonable attorneys fees, court cost, and expert witness fees, for damages to property of the CITY, UMG, or third parties, or bodily injury (including death) of any person, including third parties, which may arise from UMG's sole negligence or willful misconduct under this Agreement.
- 11.2 CITY agrees to indemnify, defend and hold UMG harmless from any liability, claims, demands, losses, damages and expenses, including reasonable attorneys fees, court cost, and expert witness fees, for damages to property of the CITY, UMG, or third parties, or bodily injury (including death) of any person, including third parties, which may arise from CITY's sole negligence or willful misconduct under this Agreement.
- 11.3 UMG shall be liable for those fines or civil penalties imposed by a regulatory or enforcement agency for violations of the effluent quality requirements provided for in Appendices C-1 and C-2 that are a result of UMG's negligence. CITY will assist UMG to contest any such fines in administrative proceedings and/or in court prior to any payment by UMG. UMG shall pay the cost of any such contest.
- 11.4 CITY shall be liable for those fines or civil penalties imposed by any regulatory or enforcement agencies on CITY and/or UMG that are not a result of UMG's negligence or are otherwise directly related to the ownership of the Project and shall indemnify and hold UMG harmless from the payment of any such fines and/or penalties.
- 11.5 Nothing in this Article or any other section, paragraph or article of this Agreement shall be construed to subject either party to liability or indirect, punitive or consequential damages and none shall be awarded by any tribunal against a party hereto in favor of a party hereto.
- 11.6 Indemnity agreements provided for in this Agreement shall survive the termination of this Agreement.

11.7 Each party shall obtain and maintain insurance coverage of a type and in the amounts described in Appendix E. Each party shall provide the other party with satisfactory proof of insurance.

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#### Term, Termination and Default

12.1 The initial term of this Agreement shall commence on July 1, 2007 and shall continue thereafter for an initial term of sixty (60) months until June 30, 2012. Thereafter, the CITY shall have the sole option to elect to renew this agreement for successive terms of two (3) years each by giving written notice no less than one hundred and twenty (120) days prior to expiration of the original term or the first renewal term.

12.2 During the initial five (5) years of this Agreement either party may terminate this Agreement only for a material breach of the Agreement by the other party; only after giving written notice of breach; and, ~~except~~ <sup>except</sup> in case of a breach by CITY for non-payment of UMG's invoices, in which case termination may be immediate by UMG, only after allowing the other party thirty (30) days to cure or commence taking reasonable steps to cure the breach and ~~proved~~ adequate proof of such steps.

12.3 Upon notice of termination by CITY, UMG shall assist CITY in assuming operation of the Project. If additional Cost is incurred by UMG at request of CITY, CITY shall pay UMG such Cost within thirty (30) days of invoice receipt.

12.4 Upon termination of this Agreement, UMG will provide CITY with the same quantity of chemicals on hand when UMG began services under the Existing Contract Documents.

12.5 Upon termination of this Agreement and all renewals and extensions of it, UMG will return the Project to CITY in the same condition as it was upon the effective date of this Agreement, ordinary wear and tear excepted. Equipment and other personal property purchased by UMG for use in the operation or maintenance of the Project shall remain the property of UMG upon termination of this Agreement unless the property was directly paid for by CITY or CITY specifically reimbursed UMG for the cost incurred to purchase the property or this Agreement provides to the contrary.

12.6 In the event that this Agreement is terminated for any reason prior to the expiration of the initial term, the CITY shall pay to UMG a mutually agreed termination fee based upon the remaining

unamortized balance of capitol improvement cost incurred pursuant to section 1.15.

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### Disputes and Force Majeure

- 13.1 In the event activities by employee groups or unions cause a disruption in UMG's ability to perform at the Project, CITY, with UMG's assistance or UMG at its own options, may seek appropriate injunctive court orders. During any such disruption, UMG shall operate the facilities on a best-efforts basis until any such disruptions cease.
- 13.2 Neither party shall be liable for its failure to perform its obligations under this Agreement if such failure is due to any Unforeseen Circumstances beyond its reasonable control or force majeure. However, this Section may not be used by either party to avoid, delay or otherwise affect any payments due to the other party.
- 13.3 If a claim or a dispute arises between the parties under this Agreement or the performances of any obligations set forth herein, the parties agree to endeavor in good faith to resolve such claim or dispute equitably through negotiation. If such negotiation fails, either party may request non-binding mediation to resolve such claim or dispute, under the rules of the American Arbitration Association, before having recourse to the courts. The non-requesting party may decline such request in its sole discretion. Notwithstanding the foregoing, prior to or during negotiation or non-binding mediation, either party may initiate a legal proceeding to resolve any claim or dispute arising under this Agreement or the performance of any obligations set forth herein.

Both parties indicate their approval of this Agreement by their signatures below, and each party warrants that all corporate or governmental action necessary to bind the parties to the terms of this Agreement has been and will be taken.

CITY OF PIKEVILLE

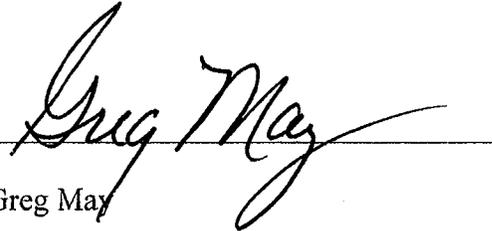
UTILITY MANAGEMENT GROUP,LLC

By: 

Name: Frank Justice

Title: Mayor

Date: 6/27/06

By: 

Name: Greg May

Title: Chief Operating Officer

Date: 6/27/06

## APPENDIX A

### DEFINITIONS

- A.1 “Adequate Nutrients” means plant influent nitrogen, phosphorus and iron contents proportional to BOD<sub>5</sub>, in the ration of five (5) parts nitrogen, one (1) part phosphorus, and one-half (0.5) part iron for each one hundred (100) parts BOD<sub>5</sub>.
- A.2 “Annual Fee” means a predetermined, fixed sum for UMG’s services. The Annual Fee includes Cost and profit.
- A.3 “Average Electrical Rate Plant” means the average cost per kilowatt hour as calculated by dividing the total kilowatt hours of energy consumed by the plant into the total dollars of plant electric cost for the twelve (12) month period ending three (3) months prior to the end of the current agreement year. The Average Electrical Rate Plant for the period month, year to month, year is 5.00cents per KWH.
- A.4 “Biological Toxic Substances” means any substance or combination of substances contained in the plant influent in sufficiently high concentration so as to interfere with the biological processes necessary for the removal of the organic and chemical constituents of the wastewater required to meet the discharge requirements of CITY’s NPDES permit. Biological toxic substances include, but are not limited to, heavy metals, phenols, cyanides, pesticides and herbicides.
- A.5 “Capital Expenditures” means any expenditures for (1) the purchase of new equipment or facility items that cost more than Two Thousand Dollars (\$2000); or (2) major repairs which significantly extend equipment or facility service life and cost more than Two Thousand Dollars (\$2000) or (3) expenditures that are planned, non-routine and budgeted by CITY.
- A.6 “Cost” means all Direct Cost and Indirect Cost Determined on an accrual basis in accordance with generally accepted accounting principles.
- A.7 “Direct Cost” means the actual cost incurred for the direct benefit of the Project including, but not limited to, expenditures for project management and labor, employee benefits, chemicals, lab supplies, repairs, repair parts, maintenance parts, safety supplies, gasoline, oil, equipment rental, legal and professional services, quality assurance, travel, office supplies, other supplies, uniforms, telephone, postage, utilities, tools, memberships and training supplies.
- A.8 “Maintenance” means those routine and/or repetitive activities required or recommended by the equipment or facility manufacturer or by UMG to maximize the service life of the equipment, sewer, vehicles and facilities.

- A.9 “Maintenance and Repair Limit” means the total Maintenance and Repair expenditures that UMG has included in the Annual Fee. With the exception of Article 6, expenditures exclude any labor costs for UMG’s staff assigned to the Project. UMG’s specialized maintenance personnel not assigned at the Project, who provide such specialized services such as, but not limited to, vibration, thermo graphic and electrical analyses, instrumentation maintenance and repair will be charged to the Maintenance and Repair Limit.
- A.10 The “Project” means all equipment, vehicles, grounds, right of way, sewer and facilities described in Appendix B and, where appropriate, the management, operations and maintenance of such.
- A.11 “Repairs” means those non-routine/non-repetitive activities required for operational continuity, safety and performance generally due to failure or to avert a failure of the equipment, sewer, vehicles or facilities or some component thereof.
- A.12 “Unforeseen Circumstances” shall mean any event or condition which has an effect on the rights or obligations of the parties under this Agreement, or upon the Project, which is beyond the reasonable control of the party relying thereon and constitutes a justification for a delay in or non-performance of action required by the Agreement, including but not limited to (i) an act of God, landslide, lightning, earthquake, tornado, fire, explosion, flood, failure to possess sufficient property rights, acts of the public enemy, war, blockade, sabotage, insurrection, riot or civil disturbance, (ii) preliminary or final order of any local state or federal court, administrative agency or governmental body of competent jurisdiction, (iii) any change in law, regulation, rule, requirement, interpretation or statute adopted, promulgated, issued or otherwise specifically modified or changed by any local, Federal and State governmental body, (iv) labor disputes, strikes, work slowdowns or work stoppages by employees of UMG; and (v) loss of or inability to obtain service from a utility necessary to furnish power for the operation and maintenance of the Project.

APPENDIX B

DESCRIPTION OF PROJECT

UMG agrees to provide the services necessary for the management, operation and maintenance of the following:

- a. All equipment, vehicles, grounds and facilities now existing within the present property boundaries of or being used to operate CITY's Utility and Public Works Departments located at:

- Wastewater Plant at Thompson Road
  - Water Plant at Marions Branch Road
  - Public Works at 306 Island Creek

- b. All equipment, grounds and facilities now existing within the present property boundaries of the water tanks and water pumping stations are described as follows:

Pump Stations

Toler  
Cedar Gap  
Bob Amos  
Northmonte  
Quail Ridge  
Ratliffs Creek  
Town Mountain  
Peach Orchard  
Harold Branch  
Chloe Gap  
Foxcroft  
Chloe Ridge

Tanks

Toler  
Cedar Gap  
Bob Amos  
Northmonte  
Quail Ridge  
Ratliffs Creek  
Road Fork 1  
Road Fork 2  
Smith Hill 1  
Smith Hill 2  
Peach Orchard  
Harolds Branch  
Foxcroft  
Lovers Leap

- c. Thirty-one (33) miles of gravity sewers and five (5) miles of force mains, along with all manholes in service on the effective date of this Agreement.
- d. Sixty-five (65) miles of water line valves, hydrants and 2,600 customer connections in service on the effective date of this Agreement.

- e. All equipment, grounds and facilities now existing with in the present property of the sewer lift stations.

Lift Stations

Huffman  
Fletcher & Hall  
Poor Farm  
Keel Add.  
Pauley Add.  
Lake Joann  
Layne Hollow  
South Mayo 1  
South Mayo 2

- f. Thirty-eight (38) miles of steel and plastic gas line and 1,500 meters in service on the effective date of this Agreement.

Gas Wells & Purchase Points

Columbia Fuel North & South  
Clark Ferrel  
Dye  
Edmonds  
Cox  
Huffman & Blackburn  
Dairy Hollow  
City Park  
Peach Orchard  
R.T. Greer  
Collins at DOT Office

APPENDIX C-1

WASTEWATER TREATMENT PLANT  
NPDES PERMIT AND  
PROJECT CHARACTERISTICS

- C.1 UMG will operate so that effluent will meet the requirement of NPDES permit No. KY0025291 (issued on July 1995) a full and complete copy of which is adopted by reference herein as of the date hereof. UMG shall be responsible for meeting the effluent quality requirements of CITY's NPDES permit unless one or more of the following occurs: (1) the Project influent does not contain Adequate Nutrients to support operation of Project biological processes and/or contains Biological Toxic Substances which cannot be removed by the existing process and facilities; (2) dischargers into CITY's sewer system violate any or all regulations as stated in CITY's Industrial Water and Sewer Ordinance(s) or as required by law; (3) the flow or influent BODs and/or suspended solids exceeds the Project design parameters which are two (2) million gallons of flow per day, 3,403 pounds of BODs per day, 4003 pounds of suspended solids and a daily peaking factor of 2.5 times flow; (4) if the Project is inoperable or can operate only at a reduced capacity on account of construction activities, fire, flood, adverse weather conditions, labor disputes or other causes beyond UMG's control.
- C.2 In the event any one of the Project influent characteristics, suspended solids, BODs or flow, exceeds the design parameters stated above, UMG shall return the plant effluent to the characteristics required by the NPDES permit in accordance with the following schedule after Project influent characteristics return to within design parameters.

<u>Characteristics Exceeding Design Parameters By</u>	<u>Recovery Period Maximum</u>
10% or Less	5 days
Above 10% Less than 20%	10 days
20% and Above	30 days

Notwithstanding the above schedule, if the failure to meet effluent quality limitations is caused by the presence of Biologically Toxic Substances or the lack of Adequate Nutrients in the influent, then UMG will have thirty (30) day recovery period after the influent is free from said substances or contains Adequate Nutrients.

C.3 UMG shall not be responsible for fines or legal action as a result of discharge violations within the period that influent exceeds design parameters, does not contain Adequate Nutrients, contains Biologically Toxic substances or is inoperable, and the subsequent recovery period.

C.4 The Annual Fee for services under this Agreement is based upon the following:

(a) Project influent characteristics:

Flow 0.876 million gallons per day

BOD<sub>5</sub> 2,080 pounds per day

TSS 3,286pounds per day

The above characteristics are the actual twelve (12) months' average for the period ended December, 2005. Any change of 10 percent (10%) or more in any of these characteristics, based upon a twelve (12) month moving average, will constitute a change in scope. [See Section 10.1]

(b) Solids disposal characteristics:

a. UMG's expenses for hauling wastewater sludge to approved disposal site at the Combs property near the Pikeville – Pike County Airport . Any change in location of disposal will constitute a Change in Scope.

APPENDIX C-2

WATER TREATMENT PLANT  
PROJECT CHARACTERISTICS

C.1 The Project has the following design characteristics:

A capacity of 6-MGD of finished water production with an ability for chemical additions, flocculation, sedimentation and filtration based on 2.9 gallons per minute per square foot of filter area. The Project has the capability for post treatment by chlorination and fluoridation.

C.2 UMG will operate the Project so that water treated will meet the current Federal and State Drinking Water Standards. UMG's Annual Fee includes all costs for treating an average daily flow of 3.24 MGD (2005 yearly average) of raw water per day to the standards specified below.

Turbidity	<0.3 NTU
Iron	<0.3 mg/l
Manganese	<0.05 mg/l
Fluoride	01.1 average mg/l
pH	≥7.0
Color	<15 color units
Corrosivity	Non-corrosive
Odor	<3.0 TON
E. Coli	Negative
Chlorine	≥0.2 mg/l

C.3 If any of the following contaminants in the raw water causes the finished water to exceed the Maximum Contaminant Levels (MCL) established for finished water quality, UMG will treat the raw water to reduce said contaminant to an acceptable MCL. The cost of any specific treatment will be in addition to the Annual Fee for the treatment required by this Article C.3.

C.4 If any contaminates is found in finished (treated) water, not related to raw water quality, Contractor shall be responsible through operational procedure to correct source. If modifications in treatment procedure cannot effect the elimination of the contaminates and capitol cost is incurred as may be required to eliminate the contaminate, such cost shall be born by the city.

- C.5 UMG's expenses for hauling by truck and disposing of water plant sludge is based on the Chapperal Coal Facility that is approximately four (4) road miles from the Project. Any change in costs shall give rise to a Change in Scope and the additional costs shall be added to the Annual Fee. If contractor cannot dispose of sludge at pond alternate means of disposal will have to be installed and new disposal site secured. All cost will be added to contract.
- C.6 UMG is responsible to perform or have performed all water quality tests require by Federal and/or State agencies.

## APPENDIX C-3

### WASTEWATER COLLECTION SYSTEM Scope of Services

The system is composed of thirty-one (33) miles of gravity sewer lines, 982 manholes, twenty seven (27) miles of force mains (including the Indian Hills Extension). There are also fourteen (14) lift stations and two (2) siphons.

And two (2) siphons are described in Appendix B and are governed by Article 3.

1. Within the capabilities of the existing system, manage, operate and maintain the CITY owned facilities so that wastewater collection services are provided throughout the City's service area..
2. UMG will continue a service call-out program to repair immediate problems; and conduct inspection and effect planned preventive and corrective maintenance of the facilities.
3. UMG will provide as-built information, digital photos and GPS location data as alterations and/or renovations are performed by Contractor, for the CITY's use in updating the utilities master plan files and to incorporate same in the city's comprehensive GIS mapping system ,
4. UMG will install/construct connections to the CITY's utility system, or be on-site and inspect connections made by qualified firms as authorized by the city to ensure long-lived quality workmanship is accepted into the CITY's system.
5. Contactor will continue to identify and remove any/all storm water from sewage collection system in keeping with the city's ongoing elimination of combined sewer overflow program. Any cost of remove storm water from the wastewater system will be charged to repair and maintenance.
6. Contractor will use smoke testing and other methods to systematically determine sources of inflow and infiltration into the CITY's sewage collection system, recording and reporting same to the customer/occupant and to the City Manager.

## APPENDIX C-4

### DRINKING WATER DISTRIBUTION SYSTEM Scope of Services

The system is composed of approximately 82 miles of water mains, valves, hydrants and 2,827 meters, sixteen (16) water tanks and fourteen (14) pumps are described in Appendix B and is governed by Article 4.

1. Within the capabilities of the existing system, operate and maintain the CITY owned facilities so that water is provided to the CITY, its residents, and the wholesale users who have contracted with the CITY for water.
2. Continue a serviceman call-out program to correct immediate problems; continue to inspect and effect planned preventive and corrective maintenance, in accordance with standard maintenance programs now in use.
3. UMG will continue the preventive and corrective maintenance program in effect on the system, its mains and the pump stations, to protect the CITY's capital resources.
4. UMG will provide "as built" information including digital photos and GPS/GIS mapping as modifications and/or renovations are performed by UMG forces, for the CITY's use in updating utility master plan files. UMG may rely on information contained in the CITY's utility master plan files.
5. UMG will install taps on the CITY utility system, or closely survey the connections made by qualified firms, to ensure the continued safe drinking water quality and long-lived facility improvements.
6. Monitor and maintain telemetry on a daily basis, and provide in summary format on a monthly basis, the levels of Water in each of the CITY water tanks.
7. Continue to assist the Fire Department with the hydrant flushing and testing program on an annual basis.
8. Consult with the Fire Department as regards conditions and location of existing and new hydrants.

9. Monitor all fire – call outs and communicate with Fire Chief or designee to assure adequate water supply during an emergency event.
10. Continue water meter change out program to improve overall accuracy; upgrade meters to touch-read and radio read capability.
11. Will provide and maintain water taps for vendors during special events such as Hillbilly days, Hatfield & McCoy Festival and Relay for Life. (but not limited to those events mentioned).

## APPENDIX C-5

### NATURAL GAS DISTRIBUTION SYSTEM Scope of Service

The system is composed of approximately 68 miles of steel and plastic line and 1,742 meters obtaining gas from sixteen (13) purchase points.

1. Within the capabilities of the existing system, operate and maintain the CITY owned facilities so that gas is provided to the CITY's residents, as well as CITY customers outside the CITY limits.
2. Continue to perform recurring daily operations & preventive and corrective maintenance on a programmed basis, utilizing the locally developed O&M plans developed during the initial phase of the contract and approved by the Kentucky Public Service Commission.
3. Continue the serviceman call-out program to correct immediate problems.
4. Continue toward completion of the meter change out program for the gas division.
5. Continue to host the Commonwealth of Kentucky's Public Service Commission visits and inspections of the system from a safety compliance standpoint and effect any remedial actions needed to ensure a safe utility operation.
6. UMG will provide "as built" information GPS/GIS and Photos as modifications and/or renovations are performed by UMG forces, for the CITY's use in updating utility master plan files.
7. UMG will install taps on the CITY utility system, or closely survey the connections made by qualified firms, to ensure the continued safety of the populace and long-lived facility improvements.
8. UMG will read the gas vendor and customer meters at approximately the same day each month to ensure proper vendor invoicing and customer billing and the information will be provided to the CITY for billing.
9. Contractor will continue with active participation in all KGA gas programs to assure that personnel has up to date information on all programs and remain fully qualified to perform service.

## APPENDIX C-6

### STORMWATER SYSTEM Scope of Services

Perform periodic inspection of all culverts pond, catch basins and steams within CITY limits and Pikeville Pond at least twice a year. Assist Fire Department in annual practice drill and emergency operation of manual north and south flood gate. Contractor will continue to separate stormwater from sewer.

## APPENDIX C-7

### ROADWAYS, SIDEWALKS AND SIGNAGE Scope of Services

Nothing in this Agreement shall be construed to place upon UMG any responsibility or liability for traffic engineering or safety engineering related to roads, sidewalks or signs.

#### C.1 Roads:

- Conduct monthly inspection of roads and streets for potholes, missing signs, and general condition.
- Repair potholes upon complaint by City Manager, police or citizens and tracked by specific work order.
- Minor painting, including, but not limited to curbs and handicapped parking in public owned parking facilities.
- Sweeping (street sweeper): All streets accessible by sweeper (approximately 85% of roadways) 12 times per year each. Sweep downtown streets and Hambley Blvd. daily.  
Including East Kentucky Expo Center and Technical College on river fill.
- Annual leaf pick-up weekly during the season at the curb.
- remove non-hazardous waste (dead animals, etc.)
- Salting and snow removal.
- Mow, as needed, shoulder of CITY owned right of ways (maximum 15 feet from paved roadway) and medial strips as illustrated on attached aerial map.
- Minor street, pavement repairs as directed on work order.

#### C.2 Sidewalks:

- Upon request of CITY, UMG will provide labor for replacement (material to be charged to the R&M Limit).
- Use blower or street tenant daily in downtown area or as directed by work order to clean sidewalks.

#### C.3 Signs:

- As directed by City work order, purchase, install or replace traffic control signs
- Purchase, install or replace directional and street (name) signs.  
Electric traffic control signs are the responsibility of the State.

#### C.4 Street Lights

- Street light inspection periodically and relay information to field service division to AEP
- Will be responsible for changing bulbs in parking garage.
- Responsible for nightly inspections of new black, street lights in downtown area, expo center and city park. Responsible for maintenance and bulb replacements on black street lights.

## APPENDIX C-8

### PUBLIC WORKS BUILDING (OFFICE) AND BASEYARD Scope of Services

C.1 Janitorial service

C.2 Minor maintenance & repairs:

- Repair broken windows & screens.
- Patch leaking roof.
- Minor plumbing repairs.
- Touch-up painting.

APPENDIX C-9

CUSTOMER SERVICES AND ADMINISTRATION/MANAGEMENT SCOPE  
Scope of Services

Customer Services

1. UMG will continue to provide the CITY with accurate meter reading functions, enabling the CITY to bill its customers on a monthly basis. At the time of contract renewal, the

<u>Water</u>	<u>Gas</u>
2,735	1,394

2. UMG employees will continue to deliver the cut-off notices to the premises of delinquent accounts, to effect the cut-off/lock-out of water or gas service during the normal work day.
3. Meter read-in and turn-on of gas and/or water for new service/restored service will likewise be affected during normal working hours, no later than the next working day after authorization notice from the CITY.
4. UMG will provide a central point of contact for the CITY's residents to phone in for any types of trouble or service requests related to the Project's services. This central point will be open during the normal work day, and though after-hours requests are called into the Police Dispatcher, the documented results of requests will be retained by the Customer Services desk.
5. This division will be the focal point of utilities financial operations between the CITY and UMG and will maintain/update all utility and service account numbers with the CITY Finance Office on a continuous basis.
6. UMG will continue to provide the CITY with monthly Maintenance and Repair budget reports in the format currently provided to the CITY.
7. IT – systems administrator: Contractors will staff a qualified system administrator to assess, plan, direct, coordinate and perform computer support services for all city departments. This individual shall manage the City's GPS/GIS system and coordinate other contractor employees as well as designated City employees associated with the GPS/GIS system.

Administration/Management Services

1. UMG will continue to pay all costs incurred in normal project Operations, as they are defined in the contract glossary. Payment of electric bills will be for the Public Works facilities and buildings, whose meter numbers and account numbers are attached as and annex to this appendix.
2. UMG will pay all cost incurred from vendors' invoices for parts/materials used during normal project maintenance and non-capital repairs.

These costs over ten percent (10%) of the monthly budget targets will be billed to the CITY for reimbursement on a monthly basis, with the information provided to account for the additional maintenance/repair cost.

## APPENDIX C-10

### SOLID WASTE COLLECTION SCOPE Scope of Services

1. Within the vehicles capabilities provided by the CITY, UMG will operate, maintain and manage the equipment so that solid waste service is continued to all customers on a regular, periodic basis, and in conformance with the Commonwealth of Kentucky rules and regulations.
2. At the time of contract renewal, collection of 1863 residential accounts will be twice a week, downtown business pickup nightly (including city placed trash cans) and 367 commercial accounts, with dumpsters of various sizes up to six (6) yards, will be collected at various intervals, 149 public authority accounts and 168 multi-family accounts.
3. UMG will continue to operate and manage the periodic residential bulk trash collection and removal functions to ensure the customers continue to have adequate collection on a regular basis. At the time of renewal, this bulk trash functions is collected on a weekly, call-in basis.
4. UMG will make available to CITY the copies of the receipts for disposal at the landfill, for use by the CITY in validating the tipping fee charges invoiced by the County on a monthly basis. The financial functions currently in force for the paid pickups of bulk trash will be continued in effect.
5. The CITY will be responsible for the payment of tipping fees at the landfill for all the solid waste materials collected in the CITY and delivered there by UMG.
6. Special events that are covered in the UMG quoted cost of operations include the Hillbilly Days festival and Expo Center special events only outside in streets and parking areas.
7. Contractor will provide a daily (including weekends if directed) policing program, picking up trash on the sides of the road, parks; public parking and city easement areas within the city boundaries.
8. It will be the Contractor's responsibility to operate and maintain the CITY's transfer station.

## APPENDIX C-11

### VEHICLES MAINTENANCE Scope of Services

1. UMG will continue the operation of the existing vehicle maintenance facility behind the Public Works Administrative building. Included in this function will be the management of the vehicles and spare parts inventories and the maintenance of the equipment site assigned to Public Works, within the capacity of the facility and capability of its support equipment.
2. UMG will continue to be allowed to utilize the garage facility to maintain the UMG leased vehicle and equipment fleet, with maintenance chargeable to the repair and maintenance account.
3. UMG will report significant maintenance management indicators as to man-hours and cost of materials in the Monthly Operations Report.
4. Contractor will be required to follow required Preventive Maintenance Program on all vehicles. Will also ensure all primary and emergency equipment on each vehicle is in working order for vehicle to be in service.
5. Contractor will be required to ensure all workers keeps vehicles signed, clean and free of clutter, trash and debris. Each vehicle must be set on a cleaning and maintenance schedule.
6. Contractor will ensure all employees operating equipment has adequate driving record with no DUI's on their Motor Vehicle Record (MVR). All drivers will be required to sign a release to enable the CITY to request a check of employee's MVR. Contractor will ensure a safe driving training and practice is observed at all times. Contractor will ensure that all equipment that requires a commercial license is only operated by a licensee with the appropriate commercial license, medical card and training and shall at all times comply with DOT regulations in regard to operation of UMG or the City's vehicles.

EXHIBIT A-12  
PARK MAINTENANCE  
Scope of Services

1. Contractor shall assume operation and maintenance responsibilities of the Park and Landscaping Division of the city's Public Works Department. The activities of the departments include but may not be limited to:
  - a. Bob Amos Park including the track, athletic fields, overlook and picnic areas.
  - b. The downtown City park
    - i. clean bathroom & supplied
    - ii. Ensure all playground equipment is cleaned
    - iii. Ensure playground mulch area is weeded and full of mulch
    - iv. Ensure Gazebo is lit, clean and safe
    - v. Ensure maintenance and cleanliness of fountains and in working order.
    - vi. Ensure all lights are working, trash emptied throughout the day as needed.
    - vii. Ensure walkway is weeded and cleaned daily
    - viii. Ensure maintain flower, shrub and watering program in entire park area
    - ix. Ensure sidewalks are clean & picnic table and park benches and free of clutter
    - x. Ensure all signage is maintained.
    - xi. Downtown park in a crisp, clean safe appearance.
  - c. The two City cemeteries
    - i. Dills cemeteries
    - ii. Pikeville cemetery by Pikeville College
  - The City softball fields
  - e. The City football fields
  - f. The City baseball field and affiliated grounds
  - g. The City pool operation, limited to the following tasks
    - i. Maintenance and repair of locker rooms facilities, including restroom and concessions
    - ii. Seasonal opening and closing duties relating to pool mechanical system.
    - iii. Operation of filtration system, including scheduled backwashing and valve activation.
    - iv. Maintenance and repairs of liner, diving board or ladders.

- h. All bathroom facilities and special buildings and facilities associated with the parks department.
  - i. The flower boxes and planting boxes located downtown and act entrances to the City.
  - j. Animal control in the city limits
  - k. County soccer field, grounds keeping and marking.
  - l. Cutting YMCA hillside at Bob Amos Park.
  - m. Landscaping and grounds keeping at exposition center.
  - n. Assist PPW's street division with snow removal.
  - o. Landscaping and grounds keeping of City Hall weekly.
  - p. Holiday decorations of city hall, parks and other designated locations. Will install, remove and store seasonal at designated location.
  - q. Work special events such as Hillbilly Days, Hatfield & McCoy Festival, etc.
2. Contractor shall coordinate the use of the parks and sports fields, courts and tracks with the general public, non-profit sports leagues, the City Schools and Pikeville College. This activity will include maintaining schedules of events for the facilities.
  3. Contractor shall cut grass on a weekly schedule for all parks and facilities depending upon weather conditions. This activity will include the appropriate weeding, seeding, watering, fertilizer application and plugging. The athletic fields will include appropriate maintenance of the dirt surfaces and lining.
  4. Contractor shall (once in the spring and once in the summer) plant flowers in the downtown containers and mounted hanging baskets downtown, contractor shall also mulch and weed planters. Contractor will provide Christmas hanging baskets in the downtown area after the fall baskets. The containers and landscaping areas will be watered as needed during the summer to assure growth and survival. Same will go for the tree program in the planters in the downtown area.
  5. Subject to the availability of funds within the Maintenance and Repair Limit, Contractor will perform all Maintenance and Repairs for the Parks, Landscaping and Pool departments, and submit a monthly accounting to CITY, along with a detailed invoice, if Maintenance and Repair expenditures exceed the Maintenance and Repair Limit defined in the fee. The cost of flowers and bedding material is included in the Maintenance and Repair Limit.
  6. Parks will maintain a well organized and clean storage buildings, office and greenhouse. Will ensure all equipment and vehicles are clean, decaled and under a Preventative Maintenance program.
  7. Construction, installation and maintenance of playground equipment, fountains picnic tables, shelters, benches and other similar equipment.

EXHIBIT A-13  
MOWING AND CLEARING  
Scope of Services

Mowing/Clearing

1. Contractor shall mow all designated area on attached aerial map, using tractor mounted mowers, small lawn tractors and hand-held string mowing equipment, as appropriate.

EXHIBIT A-14  
MAINTENACE  
Scope of Services

The Field Service division of the City's Public Works Department shall:

1. Perform routine maintenance, trouble shoot, perform repair and install electrical and mechanized equipment in all city owned facilities as required.
2. Maintain, repair and or replace as appropriate and maintenance inventory of bulbs and parts for all city owned streetlights.
3. Perform maintenance and repairs to City Hall, Police Department and Fire Department as requested by City Work Order.

## APPENDIX D

### ANNUAL FEE ADJUSTMENT FORMULA

$$AAF = AF (1 + C)$$

where

AAF = Adjusted Annual Fee

AF = Annual Fee specified in Section 8.3

C = Consumer Price Index for All Urban Consumers (U.S. Average) as published by the U.S. Department of Labor, Bureau of Labor Statistics in the CPI Detailed Report for the month three (3) months prior to UMG beginning service under this Restated Agreement.

Example of the annual fee adjustment formula:

Where,

AF = \$1,000,000.

C = 2.9%

AFF = \$1,000,000. (1 + 2.0%)

= \$1,000,000 (1 + 0.029)

= \$1,029,000.

APPENDIX E

INSURANCE COVERAGE

UMG SHALL MAINTAIN:

1. Statutory workers compensation for all of UMG's employees at the Project as required by the State of Kentucky.
2. Comprehensive general liability insurance, insuring UMG's negligence, in an amount not less than \$3,000,000 combined single limits for bodily injury and/or property damage.

CITY SHALL MAINTAIN:

1. Statutory workers compensation for all of CITY's employees associated with the Project as required by the State of Kentucky.
2. Property damage insurance for all property including vehicles owned by CITY and operated by UMG under this Agreement. Any property, including vehicles, not properly or fully insured shall be the financial responsibility of the CITY.

UMG will provide at least thirty (30) days notice of the cancellation of any policy it is required to maintain under this Agreement. UMG may self-insure reasonable deductible amounts under the policies it is required to maintain to the extent permitted by law but only if such action does not invalidate the property insurance of CITY. UMG and the CITY, on behalf of themselves and their insurers, waive their rights of subrogation with respect to losses occurring to property of the parties. The CITY shall be included as an Additional Insured, but solely with respect to claims arising out of the negligence, in whole or in part, of UMG arising under this agreement.

**Amendment One  
to the  
Agreement for Operations, Maintenance and Management Services**

THIS AMENDMENT to the Agreement for Operation, Maintenance and Management Services dated July 1<sup>st</sup>., 2007 ("Agreement") is entered into on this 23<sup>rd</sup> day of July 2007, by and between:

**The City of Pikeville**, with its principal address at 118 College Street, Pikeville, KY 41501 (hereinafter "CITY");

and

**Utility Management Group, LLC.**, with its principal address at 158 Town Mountain Road, Suite 101, Pikeville, KY 41501 (hereinafter "UMG").

WHEREAS, CITY and UMG entered into the Agreement on July 1, 2007; and,

WHEREAS, the parties now desire to modify selective portions of the Agreement, all as set forth herein,

NOW, THEREFORE, for mutual considerations herein described and other good and valuable consideration, receipt of which is hereby acknowledged, the parties agree as follows:

1. Article 3 UMG's Scope of Services – Wastewater: The following subsection shall be added:

**3.7 UMG shall pump and remove, as necessary, any sewage from lift stations, tanks, or other sewage facilities located within the CITY's boundaries and transfer such sewage into the CITY'S wastewater treatment plant. This scope of work includes all those sewage pumping services previously provided to the CITY by an independent third party contractor. It is understood and agreed that the pumping truck required for this service shall be supplied and maintained by UMG.**

2. Article 5.1 shall be amended to read as follows:

**"This article shall apply to UMG's maintenance and repair services for the CITY's wastewater collection system (including all facilities associated with the Mossy Bottom sewer system formerly owned and managed by Mountain Water District), drinking water distribution system (including all facilities associated with the former Sandy Valley Water District that are located in Pike County), natural gas distribution system, storm water drains and system, streets, roadways, sidewalks, signs, city parks, athletic fields, landscaping program, designated street lighting, parking structure and public works office and baseyard."**

3. Article 8.1 shall be amended to read as follows:  
"UMG's compensation under this Agreement shall consist of an Annual Fee. For the first year of this Agreement, UMG's Annual Fee is \$4,399,474.00. The Maintenance and Repair limit included in the Annual Fee is \$546,904.00. This Annual Fee will be effective July 1, 2007. In addition to the Annual Fee, the CITY agrees to pay UMG the following amounts:

- A one time fee of \$20,150.00 for services provided to the CITY by UMG during the month of June, 2007 (ie: services associated with the CITY's acquisition of Sandy Valley Water District).
- A monthly fee for sewage pumping services identified in Article 3.7. This fee shall be equal to the total number of gallons of sewage pumped during the month times \$.04 (four cents) per gallon."

4. Appendix B shall be deleted in its entirety and replaced with the amended Appendix B attached to this Amendment One.

5. The first paragraph of Appendix C-3 WASTEWATER COLLECTION SYSTEM Scope of Services shall be amended to read as follows:

"The system is composed of forty-four (44) miles of gravity sewer lines, 1,103 manholes, thirty-two (32) miles of force mains (including the Indian Hills Extension and the Mossy Bottom collection system), twenty-four (24) lift stations and two (2) siphons, as described in Appendix B and governed by Article 3."

6. The first paragraph of Appendix C-4 DRINKING WATER DISTRIBUTION SYSTEM Scope of Services shall be amended to read as follows:

"The system is composed of approximately seventy-seven (77) miles of water mains, valves, hydrants, 3,801 meters, eighteen (18) water tanks, and fifteen (15) pump stations as described in Appendix B and governed by Article 4."

7. This amendment shall take effect on July 1, 2007.

8. All terms of the Agreement not specifically amended or modified by this instrument shall remain unmodified and in full force and effect.

WHEREFORE, both parties indicate their approval of this Amendment by their signature below and each party warrants that all action necessary to bind the parties to the terms of this Agreement has been taken.

The City of Pikeville

By:   
Print Name: Frank Justice  
Title: Mayor  
Date: \_\_\_\_\_

Utility Management Group, LLC

By: \_\_\_\_\_  
Print Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_

APPENDIX B

DESCRIPTION OF PROJECT

UMG agrees to provide the services necessary for the management, operation and maintenance of the following:

- a. All equipment, vehicles, grounds and facilities now existing within the present property boundaries of or being used to operate CITY's Utility and Public Works Departments located at:

Wastewater Plant at Thompson Road  
Water Plant at Marions Branch Road  
Public Works at 306 Island Creek

- b. All equipment, grounds and facilities now existing within the present property boundaries of the water tanks and water pumping stations are described as follows:

<u>Pump Stations</u>	<u>Tanks</u>
Toler	Toler
Cedar Gap	Cedar Gap
Bob Amos	Bob Amos
Northmonte	Northmonte
Quail Ridge	Quail Ridge
Ratliffs	Ratliffs
Town Mountain	Road Fork 1
Peach Orchard	Road Fork 2
Harold Branch	Smith Hill 1
Chloe Gap	Smith Hill 2
Foxcroft	Peach Orchard
Chloe Ridge	Harolds Branch
US 23	Foxcroft
Habitat	Lovers Leap
Zeigler Drive	Billips
	Mullins
	Habitat
	Zeigler Drive

- c. Forty-four (44) miles of gravity sewers and thirty-two (32) miles of force mains, along with all manholes and individual grinder stations in service on the effective date of this Agreement.
- d. Seventy-seven (77) miles of water line, valves, hydrants and 3,801 customer connections in service on the effective date of this Agreement.

- e. All equipment, grounds and facilities now existing within the present property boundaries of the sewer lift stations.

Lift Stations

Huffman	Rogers Petroleum
Fletcher & Hall	Save-A-Lot
Poor Farm	Old Food City
Keel Add.	Spinal Building
Pauley Add.	Mayhorns
Lake Joann	Mossy Bottom by old plant
Layne Hollow	Mossy Bottom (across from old plant)
South Mayo 1	K-Mart
South Mayo 2	Coal Run Fire Dept
	AEP Facility
	Windward Lane
	Scott Addition
	Ratliff Branch
	US 23
	Habitat

- f. Thirty-eight (38) miles of steel and plastic gas line and 1,500 meters in service on the effective date of this Agreement.

Gas Wells & Purchase Points

Columbia Fuel North & South  
Clark Ferrel  
Dye  
Edmonds  
Cox  
Huffman & Blackburn  
Dairy Hollow  
City Park  
Peach Orchard  
R.T. Greer  
Collins at DOT Office

**Amendment Two  
to the  
Agreement for Operations, Maintenance and Management Services**

THIS AMENDMENT to the Agreement for Operation, Maintenance and Management Services dated July 1<sup>st</sup>, 2007 ("Agreement") is entered into on this 12<sup>th</sup> day of April 2010, by and between:

**The City of Pikeville**, with its principal address at 118 College Street, Pikeville, KY 41501 (hereinafter "CITY");

and

**Utility Management Group, LLC.**, with its principal address at 158 Town Mountain Road, Suite 101, Pikeville, KY 41501 (hereinafter "UMG").

WHEREAS, CITY and UMG entered into the Agreement on July 1, 2007; and,

WHEREAS, the parties now desire to modify selective portions of the Agreement, all as set forth herein,

NOW, THEREFORE, for mutual considerations herein described and other good and valuable consideration, receipt of which is hereby acknowledged, the parties agree as follows:

1. The CITY and UMG recognize and acknowledge that UMG's scope of services, pursuant to this Agreement, is being increased due to the CITY's current and projected expansion of its water distribution and sewer collection systems;
2. Both the CITY and UMG recognize and acknowledge that the expansion of these systems will necessitate UMG hiring additional personnel to meet its contractual responsibilities pursuant to its Agreement with the CITY;
3. The projected cost for two additional employees to be hired by UMG, pursuant to this Amendment Two is detailed in Exhibit 1, which is attached to and made a part of this Amendment.
4. UMG's compensation under this Agreement, as amended, will consist of an Annual Fee, as specified in the original Agreement and any previous amendments thereto, plus the amount stipulated in Section 3 above.
5. This amendment shall take effect on July 1, 2010.
6. All terms of the Agreement or subsequent amendments not specifically amended or modified by this instrument shall remain unmodified and in full force and effect.

WHEREFORE, both parties indicate their approval of this Amendment Two by their signature below and each party warrants that all actions necessary to bind the parties to the terms of this Amendment have been taken.

**The City of Pikeville**

By: [Signature]  
Print Name: Frank Justice  
Title: Mayor  
Date: 04-12-10

**Utility Management Group, LLC**

By: [Signature]  
Print Name: Craig May  
Title: CEO  
Date: 04-12-10

**EXHIBIT 1  
To  
Amendment Two  
to the  
Agreement for Operations, Maintenance and Management Services**

PROJECTED COST OF ADDITIONAL UMG EMPLOYEES

1. Number of additional employees:	2 (Full Time)
2. Projected hourly rate for new employees:	\$12.00
3. Annual gross pay for each employee:	\$24,960.00
4. Annual gross pay for both employees:	\$49,920.00
5. Estimated benefits cost for new employees (%):	35%
6. Projected benefits cost for 2 new employees:	\$17,472.00
7. Subtotal wages and benefits expense:	\$67,392.00
8. Overhead and margin allowance:	10%
9. Overhead and margin expense:	<u>\$6,739.00</u>
10. Total cost for 2 additional employees:	<u>\$74,131.00</u>

**Amendment Three  
to the  
Agreement for Operations, Maintenance and Management Services**

THIS AMENDMENT to the Agreement for Operation, Maintenance and Management Services dated July 1<sup>st</sup>., 2007 ("Agreement") is entered into on this 8<sup>th</sup> day of November 2010, by and between:

**The City of Pikeville**, with its principal address at 118 College Street, Pikeville, KY 41501 (hereinafter "CITY");

and

**Utility Management Group, LLC.**, with its principal address at 158 Town Mountain Road, Suite 101, Pikeville, KY 41501 (hereinafter "UMG").

WHEREAS, CITY and UMG entered into the Agreement on July 1, 2007; and,

WHEREAS, the parties now desire to modify selective portions of the Agreement, all as set forth herein,

NOW, THEREFORE, for mutual considerations herein described and other good and valuable consideration, receipt of which is hereby acknowledged, the parties agree as follows:

1. "Article 10.5 Utility Rates" shall be amended to read as follows:

**10.5 Utility Rates**

- **CITY will pay as additional compensation to UMG any increases in the total amount of electrical expenses associated with CITY owned facilities and paid by UMG, pursuant to this agreement, that are a result of the following:**
  - a. **An increase in the annual aggregate amount of Kilowatt Hours (KWH) utilized for operation of City owned facilities and invoiced by third party electric utilities (for which UMG pays the monthly electric invoice) that exceeds 6,454,304 KWH per fiscal year (fiscal year is defined as any twelve month period beginning on July 1 of any given year, and ending on June 30 of the subsequent year), and/or:**
  - b. **An increase in the average cost per KWH invoiced to UMG by third party electric utility providers for City owned facilities that exceeds \$.066 per KWH. The average cost per KWH is calculated by dividing the total cost of electric invoices paid by UMG for City owned facilities in any given fiscal year (or subdivision thereof) by the aggregate amount of KWH utilized on those same invoices.**

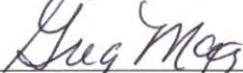
- c. The increase(s) in compensation to be paid to UMG by the CITY pursuant to subsections (a) and (b) above shall apply only to years (or partial years) beginning July 1, 2009.
  - d. Subsections (a) and (b) of this Article 10.5 will remain in effect until November 30, 2010. Subsequent to November 30, 2010, the CITY will pay directly for all electrical invoices associated with its facilities that were previously paid by UMG. Effective on that same date, UMG's annual contract fee will be reduced by the amount of \$425,984.00 (four hundred, twenty-five thousand, nine hundred, and eighty-four dollars) which represents the base amount of electrical expenses identified in Section 10.5 parts (a) and (b) above.
2. Article A.3 "Average Electrical Rate Plant" in Appendix A shall be eliminated in its entirety.
  3. This amendment shall take effect on November 8, 2010.
  4. All terms of the Agreement not specifically amended or modified by this instrument shall remain unmodified and in full force and effect.

WHEREFORE, both parties indicate their approval of this Amendment by their signature below and each party warrants that all action necessary to bind the parties to the terms of this Agreement has been taken.

**The City of Pikeville**

By:   
 Print Name: Frank Justice  
 Title: Mayor  
 Date: 11-08-10

**Utility Management Group, LLC**

By:   
 Print Name: Greg May  
 Title: COO  
 Date: 11-8-11

**Amendment Four  
to the  
Agreement for Operations, Maintenance and Management Services**

THIS AMENDMENT to the Agreement for Operation, Maintenance and Management Services dated July 1<sup>st</sup>., 2007 ("Agreement") is entered into on this \_\_\_\_ day of June 2012, by and between:

**The City of Pikeville**, with its principal address at 118 College Street, Pikeville, KY 41501 (hereinafter "CITY");

and

**Utility Management Group, LLC.**, with its principal address at 158 Town Mountain Road, Suite 101, Pikeville, KY 41501 (hereinafter "UMG").

WHEREAS, CITY and UMG entered into the Agreement on July 1, 2007 and subsequently approved several Amendments to the Agreement; and,

WHEREAS, the parties now desire to make additional modifications to selective portions of the Agreement, all as set forth herein,

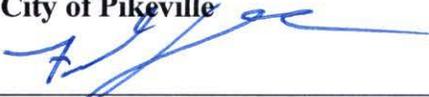
NOW, THEREFORE, for mutual considerations herein described and other good and valuable consideration, receipt of which is hereby acknowledged, the parties agree as follows:

1. Pursuant to Article 8.31, the parties agree that the Annual Fee for the fiscal year beginning July 1, 2012 and ending June 30, 2013 shall be \$4,010,399.77. This represents an increase of 2% over the current Annual Fee. The Annual Fee shall be further increased pursuant to Paragraphs 3 and 4 below.
2. Pursuant to Article 10.2 of the original Agreement, the CITY and UMG agree that there have been significant increases in the city's user base and increases in loadings at its water and sewer plants as a result of expansions of the CITY's utility systems. CITY and UMG further agree that these increases have expanded UMG's present Scope of Work and justify a corresponding increase in the Annual Fee.
3. This increase in UMG's Scope of Work will necessitate UMG hiring two additional full time employees. The projected cost of these two additional employees is detailed in Exhibit 1 below, which is attached hereto and made a part of this Amendment.
4. UMG's compensation under this Agreement, as amended, will consist of the Annual Fee specified in Paragraph 1 above, plus \$97,469.00, which represents the cost of the two additional UMG employees identified in Paragraph 3 above. This Amendment, in its entirety, shall take effect July 1, 2012.

5. All terms of the Agreement and all previous Amendments thereto that are not specifically amended or modified by this instrument shall remain unmodified and in full force and effect.

WHEREFORE, both parties indicate their approval of this Amendment by their signature below and each party warrants that all action necessary to bind the parties to the terms of this Agreement has been taken.

**The City of Pikeville**

By: 

Print Name: Frank Justice

Title: Mayor

Date: 07-09-12

**Utility Management Group, LLC**

By: \_\_\_\_\_

Print Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**EXHIBIT 1**

To Amendment Four

Agreement for Operations, Maintenance and Management Services

PROJECTED COST OF 2 (Two) ADDITIONAL UMG EMPLOYEES

1. Hourly Rate for each new employee:	\$15.00
2. Annual Gross Pay for two new employees:	\$62,400.00
3. Benefits Cost for each employee (%):	42%
4. Projected Benefits Cost:	\$26,208.00
5. Total Wages and Benefits Expense:	\$88,608.00
6. Overhead / Margin Allowance (%):	10%
7. Budgeted Margin Amount:	\$8,861.00
8. TOTAL COST FOR TWO NEW EMPLOYEES:	\$97,469.00

**Amendment Five  
to the  
Agreement for Operations, Maintenance and Management Services**

THIS AMENDMENT to the Agreement for Operation, Maintenance and Management Services dated July 1<sup>st</sup>, 2007 ("Agreement") is entered into on this \_\_\_\_ day of February 2014, by and between:

**The City of Pikeville**, with its principal address at 243 Main Street,  
Pikeville, KY 41501 (hereinafter "CITY");

and

**Utility Management Group, LLC**, with its principal address at  
287 Island Creek Road, Pikeville, KY 41501 (hereinafter  
"UMG").

WHEREAS, CITY and UMG entered into the Agreement on July 1, 2007; and,

WHEREAS, CITY and UMG approved and entered into subsequent amendments to the Agreement, and those amendments were dated July 1, 2007, April 12, 2010, November 8, 2010, and June 2012; and

WHEREAS, the parties now desire to modify selective portions of the Agreement, all as set forth herein,

NOW, THEREFORE, for mutual considerations herein described and other good and valuable consideration, receipt of which is hereby acknowledged, the parties agree as follows:

1. Article 7.11 shall be added to the Agreement:  
"7.11. Effective July 1, 2010, the CITY shall pay directly for all costs associated with Maintenance and Repairs of all city owned plant, vehicles, equipment and other assets utilized and maintained by UMG in the exercise of its responsibilities under this Agreement. UMG will obtain authorization in the form of a City purchase order from the City Manager or his designee when purchasing any and all Maintenance and Repair parts and materials. UMG will continue to take all reasonable steps appropriate to keep the cost of all Maintenance and Repairs as low as possible. UMG will continue to report to City Council on a routine basis regarding costs incurred for Maintenance and Repair of the CITY's plant and equipment. It is recognized by both parties that this change reflects the CITY's and UMG's intent to keep system maintenance and repair costs as low as possible by eliminating the necessity of paying a 6% state sales tax on materials and supplies for such maintenance and repairs.

2. Article 8.2 will be eliminated in its entirety.
3. The last sentence in Article 8.3 ("The Maintenance and Repair Limit shall increase or decrease by a percentage equal to the change in the Annual Fee.") shall be eliminated.
4. Article 12.1 shall be amended to read:  
Article 12.1 The current term of this Agreement shall commence on July 1, 2013 and shall continue thereafter for a term of sixty (60) months until June 30, 2018. Thereafter, the CITY shall have the sole option to elect to renew this Agreement for successive terms of two (2) years each by giving written notice no less than one hundred and twenty (120) days prior to expiration of the current term or any renewals thereof.
5. All terms of the Agreement and Amendments previously authorized and executed by both parties not specifically amended or modified by this instrument shall remain unmodified and in full force and effect.

WHEREFORE, both parties indicate their approval of this Amendment by their signature below and each party warrants that all action necessary to bind the parties to the terms of this Agreement has been taken.

**The City of Pikeville**

By:   
Print Name: Franklin Justice  
Title: Mayor  
Date: 2-10-14

**Utility Management Group, LLC**

By:   
Print Name: Greg May  
Title: COO  
Date: 2-10-14

**Amendment Six  
to the  
Agreement for Operations, Maintenance and Management Services**

THIS AMENDMENT to the Agreement for Operation, Maintenance and Management Services dated July 1<sup>st</sup>, 2007 ("Agreement") is entered into on this 23<sup>rd</sup> day of February 2015, by and between:

**The City of Pikeville**, with its principal address at 243 Main Street,  
Pikeville, KY 41501 (hereinafter "CITY");

and

**Utility Management Group, LLC**, with its principal address at  
287 Island Creek Road, Pikeville, KY 41501 (hereinafter  
"UMG").

WHEREAS, CITY and UMG entered into the Agreement on July 1, 2007; and,

WHEREAS, CITY and UMG approved and entered into subsequent amendments to the Agreement, and those amendments were dated July 1, 2007, April 12, 2010, November 8, 2010, June 2012, and February 10, 2014; and

WHEREAS, the parties now desire to modify selective portions of the Agreement, all as set forth herein,

NOW, THEREFORE, for mutual considerations herein described and other good and valuable consideration, receipt of which is hereby acknowledged, the parties agree as follows:

1. Article 7.11 shall be amended to read as follows:

"7.11. Effective July 1, 2010, the CITY shall pay directly for all costs associated with Maintenance and Repairs of all city owned plant, vehicles, equipment and other assets utilized and maintained by UMG in the exercise of its responsibilities under this Agreement. *Effective on the date that this Amendment Six is executed, the CITY shall pay a portion of those costs associated with maintenance and repairs of equipment owned by UMG that is utilized in the exercise of its responsibilities under this Agreement. The amount of costs to be paid by the City for repair and maintenance of UMG owned equipment shall be limited to a percentage of the total costs of repair and maintenance that is equal to the percentage of time that the equipment is utilized for work associated with this Agreement.* UMG will obtain authorization in the form of a City purchase order from the City Manager or his designee when purchasing any and all Maintenance and Repair parts and materials. UMG will continue to take all reasonable steps appropriate to keep the cost of all Maintenance and Repairs as low as possible. UMG will continue to report to City Council on a routine basis regarding costs incurred for Maintenance and Repair of the

CITY's plant and equipment. It is recognized by both parties that this change reflects the CITY's and UMG's intent to keep system maintenance and repair costs as low as possible by eliminating the necessity of paying a 6% state sales tax on materials and supplies for such maintenance and repairs.

- 2. All terms of the Agreement and Amendments previously authorized and executed by both parties not specifically amended or modified by this instrument shall remain unmodified and in full force and effect.

WHEREFORE, both parties indicate their approval of this Amendment by their signature below and each party warrants that all action necessary to bind the parties to the terms of this Agreement has been taken.

**The City of Pikeville**

By: *[Signature]*  
 Print Name: James A. Carter  
 Title: Mayor  
 Date: 02/24/15

**Utility Management Group, LLC**

By: *[Signature]*  
 Print Name: Greg May  
 Title: COO  
 Date: 3-25-15

**AMENDMENT SEVEN  
AGREEMENT FOR OPERATION,  
MAINTENANCE AND  
MANAGEMENT SERVICE**

THIS AMENDMENT NUMBER SEVEN to the Agreement for Operation, Maintenance and Management Services ("Agreement") is entered and made effective on this 1<sup>st</sup> day of July, 2018, by and between:

**The City of Pikeville**, with its principal address at 118 College Street, Pikeville, KY 41501 (hereinafter "CITY");

and

**Utility Management Group, LLC.**, with its principal address at 158 Town Mountain Road, Suite 101, Pikeville, KY 41501 (hereinafter "UMG").

WHEREAS, CITY and UMG entered into the original Agreement on July 1, 2007 and subsequently approved several Amendments to the Agreement; and,

WHEREAS, the parties now desire to make additional modifications to selective portions of the Agreement, all as set forth herein,

NOW, THEREFORE, for mutual considerations herein described and other good and valuable consideration, receipt of which is hereby acknowledged, the parties agree as follows:

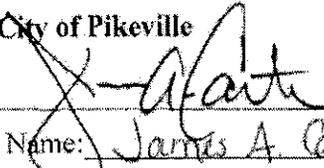
1. **Article 1.14** having been accomplished is deleted in its entirety.
2. Pursuant to **Article 8.1**, the parties agree that the Annual Fee for the fiscal year beginning July 1, 2018 and ending June 30, 2019 shall be \$4,598,000.73. This represents an increase of 2.2% over the current Annual Fee. The Annual Fee shall be further increased pursuant to Paragraphs 3 and 4 below.
3. Pursuant to **Article 10.1.5** of the original Agreement, the CITY and UMG agree that there have been increases in litter and refuse along roads and streets and within the parks. CITY and UMG further agree that these increases have expanded UMG's present Scope of Work and justify a corresponding increase in the Annual Fee pursuant to Article 10.4.
4. This increase in UMG's Scope of Work will necessitate UMG hiring two additional full-time employees (included in the total full time workers required in paragraph 6 below). The projected cost of these two additional employees is detailed in Exhibit 1 below, which is attached hereto and made a part of this Amendment.

5. UMG's compensation under this Agreement, as amended, will consist of the Annual Fee specified in Paragraph 1 above, plus \$63,112.00, which represents the cost of the two additional UMG employees identified in Paragraph 3 above.
  
6. **Article 2.18** of the original agreement is deleted in its entirety and replaced with:
 

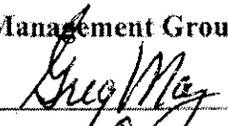
Services that are the subject to this Agreement consists generally of UMG providing sixty seven (67) full-time workers and five (5) part-time workers dedicated to providing the manpower services provided hereunder. Additionally, UMG will provide additional seasonal manpower to sufficiently maintain grass/weeds and flowers throughout the City as is necessary to maintain the City's aesthetic expectations which has become established over the life of the agreement between the parties.
  
7. This Amendment, in its entirety, shall take effect July 1, 2018.
  
8. All terms of the Agreement and all previous Amendments thereto that are not specifically amended or modified by this instrument shall remain unmodified and in full force and effect.

WHEREFORE, both parties indicate their approval of this Amendment by their signature below and each party warrants that all action necessary to bind the parties to the terms of this Agreement has been taken.

**The City of Pikeville**

By:   
 Print Name: James A. Carter  
 Title: Mayor  
 Date: 07/09/18

**Utility Management Group, LLC**

By:   
 Print Name: Greg May  
 Title: COO  
 Date: 7/09/18

**EXHIBIT 1**  
To Amendment Seven  
Agreement for Operations, Maintenance and Management Services

PROJECTED COST OF TWO (2) ADDITIONAL UMG EMPLOYEES

1. Hourly Rate for each new employee:	\$10.00
2. Annual Gross Pay for two new employees:	\$41,600.00
3. Benefits Cost for each employee (%):	38%
4. Projected Benefits Cost:	\$15,808.00
5. Total Wages and Benefits Expense:	\$57,408.00
6. Overhead / Margin Allowance (%):	10%
7. Budgeted Margin Amount:	\$5,704.00
8. TOTAL COST FOR TWO NEW EMPLOYEES:	\$63,112.00

**CASE NO. 2019-00080**  
**CITY OF PIKEVILLE WHOLESALE WATER SERVICE RATES**  
**RESPONSES TO COMMISSION STAFF'S SECOND REQUEST FOR INFORMATION**

21. Provide all internal memoranda, correspondence, electronic mail messages and other documents in which Pikeville officials analyzed, reviewed, or discussed the contract negotiations with UMG.

Response: Pikeville does not have any documents responsive to this request

WITNESSES: Philip Elswick

**CASE NO. 2019-00080**  
**CITY OF PIKEVILLE WHOLESALE WATER SERVICE RATES**  
**RESPONSES TO COMMISSION STAFF'S SECOND REQUEST FOR INFORMATION**

22. Explain if the Management Agreement with UMG has a provision that allows Pikeville to inspect or request copies of documents concerning the operation of its utility operations. If no, explain why not.

Response: Please refer to the contract provided in response to Item 20 above. Section 2.20 states: "UMG shall maintain all records and documents required specifically herein and such other documents concerning the operation of the CITY's Public Works Department such that they maybe inspected by the CITY upon reasonable notice."

WITNESS: Philip Elswick

**CASE NO. 2019-00080**  
**CITY OF PIKEVILLE WHOLESALE WATER SERVICE RATES**  
**RESPONSES TO COMMISSION STAFF'S SECOND REQUEST FOR INFORMATION**

23. Provide all records, invoices, and documents concerning the operation of Pikeville's water treatment and distribution operations during the test period that are maintained by UMG.

Response: UMG has provided the following records concerning the operation of Pikeville's water treatment and distribution operations during the test period that are maintained by UMG and relate to the test year. Pikeville notes the broad nature of the request.

WITNESS: Grondall Potter; Philip Elswick

**CASE No. 2019-00080**  
**CITY OF PIKEVILLE WHOLESALE WATER SERVICE RATES**  
**RESPONSES TO COMMISSION STAFF'S SECOND REQUEST FOR INFORMATION**

**UMG Records**  
**related to operation of**  
**Pikeville's water system**

KENTUCKY DIVISION OF WATER

Revised 7/1/06

DRINKING WATER BRANCH

MONTHLY OPERATION REPORT (MOR)--ALL WATER SYSTEMS

MONTH & YEAR OF: ██████████

DEP Form 4012--Revised 07/2006

PWS ID : 0980350 PLANT ID: A PLANT NAME: PIKEVILLE WATER PLANT  
 PWS NAME: CITY OF PIKEVILLE PLANT CLASS: IVA DIST. CLASS: II  
 AGENCY INTEREST (AI): 3691 DATE MAILED:  
 SOURCE NAME: LEVISA FORK OF THE BIG SANDY RIVER COUNTY: PIKE

OPERATOR(S) RESPONSIBLE / IN-CHARGE	CLASS	CERTIFICATION NUMBER
WTP SHIFT 1: <u>RALPH VARNEY</u>	<u>IVA</u>	<u>645</u>
WTP SHIFT 2: <u>GREG PENNINGTON</u>	<u>IVA</u>	<u>777</u>
WTP SHIFT 3: <u>DEMPSEY MILES</u>	<u>IVA</u>	<u>1549</u>
DISTRIBUTION: <u>DONNIE SLONE</u>	<u>IID</u>	<u>2236</u>

THIS REPORT MUST BE RECEIVED BY THE DIVISION OF WATER AND APPLICABLE FIELD OFFICE  
NO LATER THAN 10 DAYS AFTER THE END OF THE MONTH.

**TREATMENT PLANTS COMPLETE:**

1. DESIGN CAPACITY (gpm):	<u>4400</u>
2. TYPE OF FILTRATION USED:	<u>DUAL MEDIA RAPID SAND</u>
3. DESIGN FILTRATION RATE (gpm/sq. ft.):	<u>3</u>
4. PERCENT BACKWASH WATER USED:	<u>2.3</u>
5. DATE FLOCCULATION BASIN(S) LAST CLEANED	<u>NOVEMBER 2015</u>
6. DATE SETTLING BASIN(S) LAST CLEANED:	<u>NOVEMBER 2015</u>

I certify under penalty of law that I have personally examined and am familiar with the information submitted herein. Based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. See KRS 224.99-010 and 401 KAR 8:020. (Penalties under this statute and regulation may include fines up to \$25,000 per violation or by imprisonment for not more that one year, or both)

\_\_\_\_\_  
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

\_\_\_\_\_  
DATE





KENTUCKY DIVISION OF WATER - DRINKING WATER BRANCH  
 WATER TREATMENT PLANT MONTHLY OPERATION REPORT

PWS ID : 0980350  
 PLANT ID: A

REPORT MONTH/YEAR: Jul, 2016

PAGE 3 OF 11

DAY	pH			TOTAL ALKALINITY		TOTAL HARDNESS		CHLORINE RESIDUAL				TURBIDITY (NTU)		
	RAW	TOP OF	TAP	RAW	TAP	RAW	TAP	TOP OF FILTER		PLANT TAP		RAW	SETTLED WATER	PLANT TAP
		FILTER						TOTAL	FREE	TOTAL	FREE			
	8.21	8.04	7.91	112	120	232	240		0.54		1.62	5.6	1.04	0.06
	8.02	8.03	7.96	112	110	264	260		0.56		1.70	4.5	0.98	0.06
	8.08	8.05	7.95	116	122	288	274		0.56		1.65	4.2	0.96	0.07
	8.06	8.04	7.91	112	108	260	310		0.51		1.65	7.3	1.56	0.07
	7.87	7.98	7.93	110	114	252	272		0.46		1.61	37.6	1.91	0.06
	7.78	7.81	7.79	116	120	260	276		0.09		1.51	311.5	1.42	0.06
	7.92	7.90	7.79	116	114	270	250		0.20		1.41	154.8	1.47	0.06
	7.88	7.87	7.77	112	122	222	234		0.17		1.49	34.4	1.24	0.07
	8.00	7.88	7.80	112	108	248	242		0.16		1.09	136.0	1.61	0.07
	7.83	7.92	7.77	114	110	236	242		0.05		1.15	48.1	1.14	0.06
	7.88	7.88	7.79	108	106	232	230		0.20		1.52	32.4	1.18	0.05
	7.99	7.94	7.80	104	112	264	236		0.28		1.66	15.1	1.10	0.06
	7.95	7.84	7.75	106	100	212	224		0.28		1.65	37.7	1.55	0.06
	7.71	7.84	7.79	98	92	204	200		0.30		1.34	26.1	1.64	0.06
	7.89	7.86	7.78	100	98	204	210		0.36		1.64	28.2	1.48	0.06
	7.98	7.93	7.83	108	112	210	210		0.26		1.47	14.5	1.52	0.06
	8.00	7.96	7.85	88	108	220	216		0.22		1.40	12.6	1.34	0.06
	8.04	7.99	7.81	110	100	242	234		0.29		1.44	9.5	1.51	0.06
	8.20	8.05	7.86	112	134	266	284		0.34		1.53	8.9	1.34	0.07
	8.26	8.12	7.88	118	120	258	274		0.54		1.52	6.6	0.80	0.05
	8.24	8.07	7.92	112	116	276	266		0.31		1.62	8.1	0.81	0.05
	8.29	8.08	7.92	116	120	260	262		0.18		1.61	4.6	0.85	0.05
	8.02	8.12	7.90	112	118	260	264		0.30		1.58	5.4	0.87	0.05
	8.15	8.05	8.00	120	122	274	272		0.24		1.25	4.1	0.77	0.06
	8.08	7.98	7.92	120	120	280	290		0.22		1.35	3.9	0.71	0.05
	8.03	8.02	7.91	124	124	288	264		0.12		1.35	7.6	0.80	0.07
	7.95	7.99	7.90	120	132	270	294		0.15		1.27	7.0	0.68	0.07
	7.87	7.77	7.84	88	98	206	230		0.12		1.22	558.0	1.77	0.14
	7.92	7.87	7.75	100	100	222	224		0.16		1.77	114.0	1.09	0.07
	7.87	7.84	7.81	94	98	220	210		0.28		1.64	76.0	0.83	0.06
	7.89	7.88	7.81	102	100	220	210		0.42		1.58	47.0	0.93	0.06
<b>AVE</b>	8.00	7.95	7.85	109	112	246	249		0.29		1.49	57.1	1.19	0.06

KENTUCKY DIVISION OF WATER  
 DRINKING WATER BRANCH  
 WATER TREATMENT PLANT MONTHLY OPERATION REPORT

PWS ID : 0980350  
 PLANT ID: A  
 AGENCY INTEREST: 3691  
 REPORT MONTH/YEAR: Jul, 2016

AREA-WIDE OPTIMIZATION PROGRAM TURBIDITY DATA  
 COPY PAGE AS NEEDED

DAY	RAW DAILY MAX	SEDIMENTATION BASIN EFFLUENT DAILY MAXIMUM						INDIVIDUAL FILTER EFFLUENT DAILY MAXIMUM							CFE DAILY MAX
		#1	#2	#3	#4	#5	#6	#1	#2	#3	#4	#5	#6	#7	
	6.6	1.26	1.02					0.12	0.10	0.24	0.08	0.05			0.05
	4.5	1.06	0.88					0.14	0.12	0.22	0.10	0.06			0.06
	4.5	0.98	0.90					0.11	0.08	0.18	0.09	0.05			0.05
	9.3	1.60	1.52					0.11	0.08	0.18	0.09	0.07			0.06
	38.6	1.89	1.75					0.12	0.10	0.22	0.36	0.07			0.08
	480.0	1.41	1.27					0.11	0.10	0.18	0.10	0.08			0.06
	263.0	1.96	1.51					0.29	0.08	0.16	0.12	0.07			0.05
	36.0	1.39	1.04					0.09	0.08	0.16	0.08	0.05			0.05
	151.0	1.99	1.90					0.12	0.11	0.46	0.10	0.07			0.08
	62.7	1.16	1.09					0.11	0.08	0.20	0.10	0.06			0.06
	36.5	1.36	1.14					0.11	0.07	0.14	0.13	0.08			0.05
	17.6	1.72	1.24					0.10	0.07	0.14	0.12	0.09			0.05
	47.2	1.15	0.96					0.17	0.08	0.16	0.11	0.05			0.05
	29.0	1.75	1.51					0.08	0.18	0.18	0.11	0.05			0.06
	28.6	1.58	1.41					0.09	0.07	0.20	0.11	0.05			0.05
	16.9	1.48	1.30					0.10	0.08	0.10	0.11	0.05			0.06
	13.5	1.38	1.22					0.12	0.07	0.10	0.36	0.06			0.05
	10.6	2.36	1.89					0.22	0.06	0.10	0.11	0.11			0.10
	9.2	0.91	0.71					0.33	0.07	0.10	0.11	0.08			0.06
	7.6	0.89	0.77					0.04	0.06	0.10	0.04	0.03			0.03
	8.8	0.85	0.83					0.05	0.07	0.10	0.10	0.04			0.04
	5.9	0.74	0.69					0.06	0.06	0.10	0.05	0.04			0.04
	6.0	0.87	0.71					0.16	0.13	0.10	0.12	0.06			0.05
	4.2	0.81	0.69					0.09	0.10	0.11	0.10	0.10			0.05
	4.3	0.66	0.56					0.06	0.08	0.10	0.09	0.05			0.04
	8.8	0.88	0.74					0.20	0.17	0.10	0.15	0.05			0.05
	8.0	0.76	0.64					0.12	0.11	0.14	0.12	0.06			0.05
	710.0	1.04	0.91					1.34	1.84	0.70	0.56	0.56			0.74
	160.0	1.39	1.14					0.10	0.08	0.14	0.17	0.09			0.06
	83.0	0.94	0.76					0.12	0.10	0.10	0.13	0.12			0.07
	56.0	1.10	0.86					0.14	0.06	0.12	0.20	0.09			0.05
<b>AVE</b>	75.1	1.27	1.08					0.17	0.15	0.17	0.14	0.08			0.08

KENTUCKY DIVISION OF WATER - DRINKING WATER BRANCH  
 WATER TREATMENT PLANT MONTHLY OPERATION REPORT

PWSID: 0980350  
 PLANT ID: A

REPORT MONTH/YEAR: Jul, 2016

\*Please answer Y/N question below this chart.

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DAY	FLUORIDE		IRON		MANGANESE				Lowest Daily Cl Res Plant Tap On-Line Cl Analyzer	RAINFALL	WATER TEMP.
	RAW	TAP	RAW	TAP	RAW	TAP	RAW	TAP	FREE	INCHES	DEGREES F°/C°
	0.13	0.72							1.62		25.5
	0.12	0.70							1.70		26.0
	0.12	0.68							1.65		27.0
	0.12	0.68							1.65		25.5
	0.12	0.71							1.61		25.5
	0.12	0.67							1.51		25.0
	0.11	0.62							1.41	2.90	25.0
	0.13	0.75							1.49	0.03	25.0
	0.12	0.70							1.09		24.0
	0.11	0.69							1.15		25.0
	0.10	0.66							1.52		25.0
	0.11	0.71							1.66	1.30	24.0
	0.11	0.72							1.65		24.5
	0.11	0.72							1.34		25.0
	0.10	0.70							1.64		25.0
	0.09	0.66							1.47		25.0
	0.09	0.56							1.40		26.0
	0.11	0.80							1.44		25.5
	0.12	0.82							1.53		26.0
	0.12	0.82							1.52		27.0
	0.13	0.84							1.62		26.0
	0.13	0.80							1.61		27.0
	0.12	0.80							1.58		27.0
	0.12	0.75							1.25		27.0
	0.11	0.74							1.35		27.0
	0.11	0.69							1.35		28.0
	0.11	0.70							1.27		28.0
	0.10	0.92							1.22	0.36	27.0
	0.13	0.79							1.77	0.53	25.0
	0.11	0.78							1.64		23.0
	0.11	0.74							1.58		22.0
<b>AVE</b>	0.11	0.73									25.6
									1.09		
									Number of readings	31	5.12
									For Free Cl, # < 0.2 mg/L	0	
Disinfectant Chloramines? (Y/N)									For Chloramines, # < 0.5 mg/L		

KENTUCKY DIVISION OF WATER - DRINKING WATER BRANCH  
 WATER TREATMENT PLANT MONTHLY OPERATION REPORT

PWS ID : 0980350  
 PLANT ID: A

REPORT MONTH/YEAR: Jul, 2016

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DAY	TOTAL WASH WATER GALLONS	No: 1		No: 2		No: 3		No: 4		No: 5	
		AREA (ft2)	363								
		WASH GALLONS	FILT RUN HRS								
	103,181	103,181	83.50								
	98,640			98,640	82.75						
	81,200					81,200	95.75				
	81,050							81,050	87.00		
	82,060									82,060	72.00
	81,100	81,100	71.50								
	82,400			82,400	73.25						
	82,600					82,600	59.25				
	81,820							81,820	58.25		
	65,600									65,600	70.00
	105,976	105,976	70.00								
	70,434			70,434	66.75						
	107,120					107,120	83.25				
	77,700							77,700	85.50		
	81,000									81,000	76.00
	81,850	81,850	75.75								
	82,000			82,000	80.00						
	88,693					88,693	77.25				
	89,485							89,485	79.50		
	90,451									90,451	78.00
	81,200	81,200	91.75								
	79,700			79,700	88.00						
	87,967					87,967	78.75				
	104,494							104,494	81.00		
	81,500									81,500	81.00
	97,320	97,320	65.50								
<b>TOT</b>	<b>2,246,541</b>	<b>550,627</b>	<b>458.0</b>	<b>413,174</b>	<b>390.8</b>	<b>447,580</b>	<b>394.3</b>	<b>434,549</b>	<b>391.3</b>	<b>400,611</b>	<b>377.0</b>
<b>AVE</b>	<b>86,405</b>	<b>91,771</b>	<b>76.3</b>	<b>82,635</b>	<b>78.2</b>	<b>89,516</b>	<b>78.9</b>	<b>86,910</b>	<b>78.3</b>	<b>80,122</b>	<b>75.4</b>

COPY AS NEEDED

KENTUCKY DIVISION OF WATER - DRINKING WATER BRANCH  
 WATER TREATMENT PLANT MONTHLY OPERATION REPORT

PWS ID : 0980350  
 PLANT ID : A

REPORT MONTH/YEAR: Jul, 2016

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DAY	CHEMICALS ADDED		TEST RESULTS									
	CHLORINE BOOSTER	CHLORINE BOOSTER	TOTAL (T) AND FREE (F) CHLORINE RESIDUAL (ppm)									
	LBS	LBS	NORTH		SOUTH		EAST		WEST			
			T	F	T	F	T	F	T	F		
				1.42								
						1.38						
								0.93				
											0.74	
				1.08								
						1.05						
								1.02				
											0.98	
				0.68								
						1.12						
								1.02				
											1.15	
				1.24								
						1.09						
								1.00				
											0.82	
				0.80								
						1.17						
								1.09				
											0.98	
				0.78								
						0.87						
								1.01				
											0.81	
				0.91								
						1.12						
								0.85				
				1.07								
						0.87						
AVE			AVERAGE	1.00		1.08		0.99			0.91	
TOT			TOT MIN									
			FREE MIN	0.68		0.87		0.85			0.74	
Total # Chlorine Samples				8		8		7			6	
# Less than 0.2 mg/L/0.5 mg/L				0		0		0			0	
Number of Free Residuals				29	Minimum Monthly Total Residual				NA			
Number of Total Residuals				0	Minimum Monthly Free Residual				0.68			
Total # Less than 0.2 mg/L				0	Disinfectant Chloramines? (Y/N)				N			
					Number of days of operation?				31			

KENTUCKY DIVISION OF WATER - DRINKING WATER BRANCH  
 WATER TREATMENT PLANT MONTHLY OPERATION REPORT

PWS ID: 0980350  
 PLANT ID: A

TURBIDITY REPORT

Report Period (MM/YYYY): Jul, 2016

PWS Name: CITY OF PIKEVILLE

PAGE: 8 OF 11

DAY										
12.0	3		0.06	0.05		0.06		0.06		
12.5	4		0.06	0.06	0.06	0.06		0.06		
10.5	3		0.07	0.07	0.07	0.08		0.08		
11.3	3		0.06	0.08	0.07	0.08		0.08		
13.3	4		0.05	0.06	0.07	0.07		0.07		
11.3	3		0.07	0.05	0.06	0.06		0.07		
11.8	3		0.05	0.05	0.06	0.06		0.06		
11.5	3		0.07	0.08	0.06	0.07		0.08		
11.8	3		0.04	0.07	0.08	0.08		0.08		
12.5	4		0.07	0.05	0.06	0.05		0.07		
11.5	3		0.05	0.04	0.05	0.05		0.05		
11.3	3		0.06	0.05	0.06	0.06		0.06		
12.3	4		0.05	0.06	0.06	0.05		0.06		
12.0	3		0.06	0.06	0.07	0.06		0.07		
13.0	4		0.06	0.06	0.07	0.06		0.07		
11.5	3		0.07	0.06	0.05	0.06		0.07		
11.5	3		0.07	0.06	0.06	0.06		0.07		
13.3	4		0.05	0.05	0.06	0.08		0.08		
13.0	4		0.06	0.06	0.08	0.07		0.08		
14.0	4		0.05	0.05	0.05	0.05		0.05		
13.0	4		0.05	0.04	0.05	0.05		0.05		
13.0	4		0.04	0.05	0.05	0.05		0.05		
14.0	4		0.05	0.04	0.05	0.06		0.06		
13.5	4		0.06	0.06	0.05	0.05		0.06		
13.3	4		0.04	0.06	0.06	0.05		0.06		
13.0	4		0.07	0.05	0.07	0.08		0.08		
12.3	4		0.08	0.08	0.08	0.06	0.06	0.08		
17.8	5		0.08	0.26	0.13	0.10	0.11	0.26		
12.0	3	0.10	0.06	0.06	0.07	0.07		0.10		
11.8	3		0.07	0.06	0.06	0.06		0.07		
12.0	3		0.08	0.06	0.06	0.06	0.06	0.08		
Total	387.0	110	TOTAL # OF TURBIDITY SAMPLES TAKEN --				127	0.26		

ARE YOU USING EITHER CONVENTIONAL or DIRECT FILTRATION? (Y/N)  Y

(Any type of filtration besides slow sand)  
 Number of samples exceeding ----> 0.1 NTU 3 0.3 NTU 0 1 NTU 0

For slow sand filtration, the number of samples exceeding ----> 1 NTU 5 NTU

\*NOTE: The "Number of Turbidity Samples Required" is the number of hours the plant operated divided by 4 rounded up to the next whole number.

I certify that the above turbidity readings were taken every 4 hours during plant operation and in the time frames noted above.

Signature of Principal Executive Officer or Authorized Agent \_\_\_\_\_ Date \_\_\_\_\_

KENTUCKY DIVISION OF WATER / DRINKING WATER BRANCH  
Monthly Operating Report (MOR) Plant Summary Form

PWS ID : 0980350

Monitoring Period (MM/YYYY): Jul, 2016

**NOTE: COMPLETE ALL APPLICABLE FIELDS!!! NOT ALL OF THE FIELDS ARE PRE-POPULATED FOR YOU!!!**

APPLICABLE TO ALL PLANTS			
PLANT ID: <u>A</u>		TOTAL WATER TREATED (gallons)	<u>97,230,000</u>
PLANT NAME: <u>PIKEVILLE WATER PLANT</u>		AVE. DAILY PRODUCTION (gallons)	<u>3,136,452</u>
AGENCY INTEREST: <u>3691</u>		MAXIMUM PUMPAGE (gallons per day)	<u>4,470,000</u>

APPLICABLE TO ALL PLANTS WITH FILTRATION	
ANALYTE CODE <u>0100</u>	
Was each filter monitored continuously? (Y/N).....	<b>Y</b>
Were measurements recorded every 15 minutes? (Y/N).....	<b>Y</b>
Was there a failure of the continuous monitoring equipment? (Y/N).....	<b>N</b>
If Yes, (1) were individual filter effluent turbidity grab samples collected every four hours of operation? (Y/N).....	
(2) was the continuously monitoring equipment repaired within 5 working days? (Y/N).....	
Was individual filter level greater than 1.0 NTU in two consecutive measurements? (Y/N).....	<b>N</b>
Was individual filter level < 0.5 NTU in two consecutive measurements after online more than 4 hours? (Y/N).....	<b>N</b>
Was individual filter level < 1.0 NTU in two consecutive measurements in three consecutive months? (Y/N).....	<b>N</b>
Was individual filter level greater than 2.0 NTU in two consecutive measurements in two consecutive months? (Y/N).....	<b>N</b>
<b>If any of the last 4 boxes are YES, fill out the Individual Filter Turbidity Sheet and submit with MOR</b>	

APPLICABLE TO ALL PLANTS WITH FILTRATION	APPLICABLE TO ALL PLANTS
ANALYTE CODE <u>0100</u>	ANALYTE CODE <u>0999</u>
Number of hours of plant operation..... <b>387.0</b>	Number of days of plant operation..... <b>31</b>
Were samples taken every 4 hrs of plant operation? (Y/N) <b>Y</b>	Were samples taken each day of operation? (Y/N) <b>Y</b>
Number of samples taken..... <b>127</b>	Number of lowest chlorine samples recorded ..... <b>31</b>
Highest single turbidity reading ..... <b>0.26</b>	Lowest single chlorine reading ..... <b>1.09</b>
For all filtration except slow sand filtration:	If less than required:
Number of samples exceeded 0.1 NTU ..... <b>3</b>	Was residual restored within 4 hrs of plant operation <input type="checkbox"/>
Number of samples exceeded 0.3 NTU ..... <b>0</b>	Free chlorine (for all disinfectants except chloramine):
Number of samples exceeded 1.0 NTU ..... <b>0</b>	Number of samples under 0.2 mg/L ..... <b>0</b>
When filtration is slow sand filtration:	Total Chlorine (when disinfectant is chloramine):
Number of samples exceeded 1 NTU .....	Number of samples under 0.5 mg/L .....
Number of samples exceeded 5 NTU .....	

APPLICABLE TO PLANTS UTILIZING CHLORINE DIOXIDE	APPLICABLE TO PLANTS USING CHLORINE DIOXIDE
ANALYTE CODE <u>1008</u>	ANALYTE CODE <u>1009</u>
Number of days of plant operation..... <b>31</b>	Number of days of plant operation..... <b>31</b>
Were samples taken each day of operation? (Y/N)..... <input type="checkbox"/>	Were samples taken each day of operation? (Y/N) <input type="checkbox"/>
Number of samples taken ..... <b>###</b>	Number of samples taken ..... <b>###</b>
Highest single chlorine dioxide reading ..... <b>###</b>	Highest single chlorite reading ..... <b>###</b>
Number of chlorine dioxide samples exceeded 0.8 mg/L .. <b>###</b>	Number of chlorite samples exceeded 1 mg/L ..... <b>###</b>

I certify under penalty of law that I have personally examined and am familiar with the information submitted herein. Based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. See KRS 224.99-010 and 401 KAR 8:020. (Penalties under this statute and regulation may include fines up to \$25,000 per violation or by imprisonment for not more than one year, or both).

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

DATE



# Water Withdrawal Report Form

Preprint ID:

Agency Interest

Subject Item:

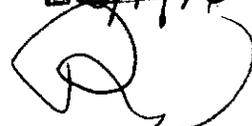
Monitoring Period:

3691 - Pikeville Water Department

GACT000000001-0638 Levisa Fork

07/01/16 to 07/31/16

Day	Result	Parameter	Unit
1	3.014	Withdrawal	MGD (MA)
2	3.226	Withdrawal	MGD (MA)
3	2.755	Withdrawal	MGD (MA)
4	2.819	Withdrawal	MGD (MA)
5	3.272	Withdrawal	MGD (MA)
6	2.758	Withdrawal	MGD (MA)
7	2.912	Withdrawal	MGD (MA)
8	2.814	Withdrawal	MGD (MA)
9	2.868	Withdrawal	MGD (MA)
10	2.955	Withdrawal	MGD (MA)
11	2.913	Withdrawal	MGD (MA)
12	2.836	Withdrawal	MGD (MA)
13	2.978	Withdrawal	MGD (MA)
14	3.070	Withdrawal	MGD (MA)
15	3.195	Withdrawal	MGD (MA)
16	3.004	Withdrawal	MGD (MA)
17	3.025	Withdrawal	MGD (MA)
18	3.298	Withdrawal	MGD (MA)
19	3.236	Withdrawal	MGD (MA)
20	3.485	Withdrawal	MGD (MA)
21	3.303	Withdrawal	MGD (MA)
22	3.174	Withdrawal	MGD (MA)
23	3.445	Withdrawal	MGD (MA)
24	3.272	Withdrawal	MGD (MA)
25	3.252	Withdrawal	MGD (MA)
26	3.416	Withdrawal	MGD (MA)
27	3.174	Withdrawal	MGD (MA)
28	4.470	Withdrawal	MGD (MA)
29	2.865	Withdrawal	MGD (MA)
30	3.163	Withdrawal	MGD (MA)
31	3.241	Withdrawal	MGD (MA)

ENTERED  
8/1/16  


**PIKEVILLE WATER TREATMENT PLANT  
 WATER PUMPED TO DISTRIBUTION SYSTEM  
 FOR THE MONTH OF: July, 2016**

07/01/16	2.9506
07/02/16	3.2322
07/03/16	2.7411
07/04/16	2.7527
07/05/16	2.8823
07/06/16	2.9852
07/07/16	2.8181
07/08/16	2.7087
07/09/16	2.8854
07/10/16	2.8415
07/11/16	2.9607
07/12/16	2.8478
07/13/16	3.0892
07/14/16	3.0440
07/15/16	3.2197
07/16/16	2.9113
07/17/16	2.9200
07/18/16	3.3404
07/19/16	3.3016
07/20/16	3.4761
07/21/16	3.3358
07/22/16	3.1493
07/23/16	3.2114
07/24/16	3.4559
07/25/16	3.2626
07/26/16	3.3450
07/27/16	3.0602
07/28/16	4.4936
07/29/16	3.0540
07/30/16	3.2538
07/31/16	3.0284
<b>Total</b>	<b>96.5586</b>
<b>Average</b>	<b>3.1148</b>
<b>Minimum</b>	<b>2.7087</b>
<b>Maximum</b>	<b>4.4936</b>

<b>Water plant usage</b>	<b>106,725</b>
<b>Raw water intake usage</b>	<b>139,810</b>
<b>Total non metered usage</b>	<b>246,535</b>

	FLOW TO DIST	START C. WELL	Settling Basin Turbidity						Sludge Hauled	Spent B/W Return	DUP pH TAP
			MID - 4	4A - 8AM	8AM - 12N	12N - 4PM	4PM - 8PM	8PM - 12M			
07/01/16	2.9506	5.2		0.88	1.01		1.14			175,000	7.91
07/02/16	3.2322	6.4		1.00	0.92	0.97	1.02			176,000	7.96
07/03/16	2.7411	6.2		0.85	0.94	0.94	1.12			79,000	7.95
07/04/16	2.7527	6.2		1.23	1.36	2.11	1.56			161,000	7.92
07/05/16	2.8823	7.2		1.48	2.43	1.99	1.82			158,000	7.93
07/06/16	2.9852	9.4		1.60	1.01	1.34	1.82			130,000	7.80
07/07/16	2.8181	4.6		1.44	1.28	1.16	1.74			199,000	7.80
07/08/16	2.7087	7.0		1.48	1.16	1.11	1.22			54,000	7.79
07/09/16	2.8854	6.8		1.26	1.45	1.94	1.43			189,000	7.81
07/10/16	2.8415	7.6		1.44	1.01	1.12	1.02			142,000	7.78
07/11/16	2.9607	8.0		1.06	1.04	1.28	1.25			81,000	7.80
07/12/16	2.8478	7.2		0.92	0.86	0.78	1.48			139,000	7.80
07/13/16	3.0892	6.4		2.62	1.49	1.06	1.54			154,000	7.76
07/14/16	3.0440	4.8		1.39	1.69	1.88	1.63			110,000	7.80
07/15/16	3.2197	5.0		1.26	1.28	1.87	1.50			40,000	7.79
07/16/16	2.9113	4.8		1.72	1.36	1.36	1.73			161,000	7.87
07/17/16	2.9200	5.6		1.22	1.28	1.30	1.62			133,000	7.82
07/18/16	3.3404	5.8		0.77	1.02	2.12	1.53			143,000	7.82
07/19/16	3.3016	5.2		1.97	1.98	1.15	0.81			156,000	7.87
07/20/16	3.4761	4.6		0.71	0.79	0.83	0.83			92,000	7.88
07/21/16	3.3358	4.6		0.84	0.65	0.84	0.90		61,800	76,000	7.92
07/22/16	3.1493	5.0		0.78	1.00	0.71	1.02			113,000	7.95
07/23/16	3.2114	6.4		1.01	0.96	0.79	0.78			119,000	7.90
07/24/16	3.4559	8.0		0.92	0.66	0.75	0.76			174,000	7.99
07/25/16	3.2626	4.4		0.88	0.74	0.61	0.70			67,000	7.91
07/26/16	3.3450	4.8		0.70	0.86	0.81	0.80			151,000	7.91
07/27/16	3.0602	5.0		0.74	0.72	0.70	0.61	0.64		139,000	7.90
07/28/16	4.4936	7.4		2.80	3.00	1.33	0.98	1.53		303,000	7.85
07/29/16	3.0540	10.0	1.47	0.87	0.90	1.26	0.79			189,000	7.76
07/30/16	3.2538	6.0		0.81	0.84	0.85	0.80			176,000	7.83
07/31/16	3.0284	4.5		0.79	1.17	0.94	0.83	0.85		195,000	7.81
Ave	3.1148	6.1	1.47	1.21	1.19	1.20	1.19	1.01		141,097	
Tot	96.5586								61,800	4,374,000	
Min	2.7087	4.4	1.47	0.70	0.65	0.61	0.61	0.64		40,000	
Max	4.4936	10.0	1.47	2.80	3.00	2.12	1.82	1.53		303,000	

7-1-16	306 Island CRK 1.42	7 <sup>th</sup> 29 <sup>th</sup> missing
7-2-16	248 Scott AVE Hyt 1.38	
7-3-16	207 Dark Hollow 0.93	7-30-16 128 West
7-4-16	168 <del>3000</del> Meyer Heights 0.74	Kayser Height.
7-5-16	60 Joe Stanley 1.08	Hyt 1.07
7-6-16	2041 Ratliff's CRK 1.05	7-31-16 3670 Island
7-8-16	550 Weddington Br Hyt 1.02	Island creek 0.87
7-9-16	511 Ziegler Drive 0.98	
7-10-16	610 Billips dr 0.68	
7-11-16	113 Jefferson ST Hyt 1.12	
7-12-16	135 Smith Hill 1.02	
7-13-16	147 Bank ST 1.15	
7-14-16	141 Map Drive 1.24	
7-15-16	244 Coal Run Hill Hyt 1.09	
7-16-16	19 Oubley Dr 1.00	
7-17-16	289 Peach orchard 0.82	
7-18-16	163 Smith 0.80	
7-19-16	489 Hambley Blvd 1.17	
7-20-16	198 Bob Amos Pr 1.09	
7-21-16	319 poplar 0.98	
7-22-16	142 perry 0.78	
7-23-16	212 Mildred 0.87	
7-24-16	107 Ecol Hollow 1.01	
7-25-16	222 Mount Martha 0.81	
7-26-16	350 Williams Hollow 0.91	
7-27-16	244 Apphebee 1.12	
7-28-16	116 Mt Chase Drive H. H. H. H.	

WATER DEPARTMENT  
MASTER WATER READINGS

DATE: 7-29-2016

ACCOUNT NUMBER	LOCATION	PRESENT	PREVIOUS	USAGE	AMOUNT
	SANDY VALLEY-Pikeville	323837	312592	11245	991 DON'T BILL
54-9966200-0	TOWN MOUNTAIN	585533	567147	18386	
54-9909400-0	CHLOE ROAD	56065	53829	2236	
54-9911500-0	ISLAND CREEK	45500	43215	2285	
54-9928000-0	MUD CREEK-Southern Wt.	059603	049664	9939	
54-9914600-0	COON BRANCH	10502	10399	103	
54-9913000-0	SOUTH MAYO TRAIL	186666	179066	7600	
54-9925500-0	HOOPWOOD HOLLOW	14711	14611	100	
54-9911800-0	ISLAND CK. TRAILER PK.	28504	28327	177	
54-9911900-0	HURRICANE CREEK	296788	294908	1880	
54-9912000-0	PIKE FLOYD-Southern	32855	31560	1295	
54-9900100-0	COWPEN-Mt. Water	252084	249791	2293	

Copy Read First 5 Numbers

**TOTAL**  
 8281410      73950699  
 8141600      7288344  
 139810      106725  
*Plant*

METER READER INITIALS: MM / DS

NON METERED WATER

FLUSHING - EST \_\_\_\_\_  
 LEAKS - EST \_\_\_\_\_  
 TOTAL GALLONS \_\_\_\_\_

MOUNTAIN WATER  
 P.O. BOX 3157  
 PIKEVILLE, KY 41502

WATER PLANT MONTHLY OPERATIONS REPORT

MONTH/YEAR: 7/2016

ANALYTICAL RESULTS (Mg/L or PPM unless otherwise specified.)

DAY	pH (S. U.'S)				ALKALINITY		HARDNESS		CHLORINE		TURBIDITY (NTU)		FLUORIDE	
	RAW	TOF	FIN	DUP	RAW	FIN	RAW	FIN	TOF	FIN	RAW	TOF	RAW	FIN
01	8.21	8.04	7.91	7.91	112	120	232	240	.54	1.62	5.6	1.04	.13	.72
02	8.02	8.03	7.96	7.96	112	110	264	260	.56	1.70	4.5	.98	.12	.70
03	8.08	8.05	7.95	7.95	116	122	288	274	.56	1.65	4.2	.96	.12	.68
04	8.06	8.04	7.91	7.92	112	108	260	310	.51	1.65	7.3	1.56	.12	.68
05	7.87	7.98	7.93	7.93	110	114	252	272	.46	1.61	37.6	1.91	.12	.71
06	7.78	7.81	7.79	7.80	116	120	260	276	.09	1.51	31.5	1.42	.12	.67
07	7.92	7.90	7.79	7.80	116	114	270	250	.20	1.41	154.8	1.47	.11	.62
08	7.88	7.87	7.77	7.79	112	122	222	234	.17	1.49	34.35	1.24	.13	.75
09	8.00	7.88	7.80	7.81	112	108	248	242	.16	1.09	136.0	1.68	.12	.70
10	7.83	7.92	7.77	7.78	114	110	236	242	.05	1.15	48.1	1.14	.11	.68
11	7.88	7.98	7.79	7.80	108	106	232	230	.20	1.52	32.95	1.18	.10	.66
12	7.99	7.94	7.80	7.80	104	112	264	236	.28	1.66	15.05	1.10	.11	.71
13	7.95	7.84	7.75	7.76	106	100	212	224	.28	1.65	37.7	1.55	.11	.72
14	7.71	7.84	7.79	7.80	98	92	204	200	.30	1.34	26.05	1.64	.11	.72
15	7.89	7.86	7.78	7.79	100	98	204	210	.36	1.64	28.15	1.48	.10	.70
16	7.98	7.93	7.83	7.87	108	112	210	210	.26	1.47	14.5	1.52	.09	.66
17	8.00	<del>7.95</del> 7.85	7.85	7.82	88	108	220	216	.22	1.4	12.6	1.34	.09	.56
18	8.04	7.99	7.81	7.82	110	100	242	234	.29	1.44	4.5	1.51	.11	.80
19	8.20	8.05	7.86	7.87	112	134	266	284	.34	1.53	8.9	1.34	.12	.82
20	8.26	8.12	7.88	7.88	118	120	258	274	.54	1.52	6.6	.80	.12	.82
21	8.24	8.07	7.92	7.92	112	116	276	266	.31	1.62	8.1	.81	.13	.84
22	8.29	8.08	7.92	7.95	116	120	260	262	.18	1.61	4.6	.85	.13	.8
23	<del>8.20</del> 8.15	8.12	7.90	7.90	112	118	260	264	.30	1.58	5.4	.87	.12	.80
24	8.15	8.05	8.00	7.99	120	122	274	272	.24	1.25	4.1	.77	.12	.75
25	8.08	7.98	7.92	7.91	120	120	280	290	.22	1.35	3.9	.71	.11	.74
26	8.03	8.02	7.91	7.91	124	124	288	264	.12	1.35	7.6	.80	.11	.69
27	7.95	7.99	7.90	7.90	120	132	270	244	.15	1.27	7.0	.68	.11	.70
28	7.87	7.77	7.84	7.85	88	98	206	230	.12	1.22	55.8	1.77	.10	.92
29	7.92	7.87	7.75	7.76	100	100	222	224	.16	1.77	114	1.09	.13	.78
30	7.87	7.84	7.81	7.83	94	98	220	210	.28	1.64	76	.83	.11	.78
31	7.89	7.88	7.81	7.81	102	100	220	210	.42	1.58	47	.93	.11	.74

WATER PLANT MONTHLY OPERATIONS REPORT

MONTH/YEAR:

7/2016

CHEMICALS ADDED

DAY	RAW WATER TREATED (M.G.D.)	COAGULANT PAC LBS	FLUORIDE LBS	PRE LBS	POST LBS
01	3.014	639	18	52.8	63.8
02	3.226	618	18	55	60.5
03	2.755	566	18	47.3	44
04	2.819	566	10.8	34.1	61.6
05	3.272	1030	23.4	49.5	62.7
06	2.758	1071	12.6	40.7	53.9
07	2.912	1030	17.3	52.8	60.5
08	2.814	824	11.5	46.2	55.0
09	2.848	845	14.4	40.7	51.7
10	2.955	845	16.2	49.5	57.2
11	2.913	842	18.2	51.7	61.6
12	2.836	717.6	13.9	41.8	55
13	2.978	915.2	18.1	55	66
14	3.070	894.4	14.8	46.2	61.6
15	3.195	855	18	55	67.1
16	3.004	669	14.4	49.5	55
17	3.025	780	15.8	47.3	61.6
18	3.298	718	16.6	58.3	70.4
19	3.236	590	22.1	55	74.8
20	3.485	832	17.5	57	74.8
21	3.303	645	21.1	48.4	75.9
22	3.174	670	23.6	40.7	68.0
23	3.445	649	23.4	58.3	91.3
24	3.272	597	21.6	44.0	68.2
25	3.252	659	18	78.1	77
26	3.416	649	19.8	51.7	71.5
27	3.174	587	19.8	49.5	71.5
28	4.470	2257	28.4	132	110
29	2.865	1277	25.6	88	82.5
30	3.163	1133	31.5	60.5	66
31	3.241	876	21.6	66	60.5

WATER PLANT MONTHLY OPERATIONS REPORT

MONTH/YEAR:

7/2016

DAILY READINGS

DAY	WATER TO DIST MGD	SLUDGE HAULED Gals <sup>x100</sup>	x1000 S/BW RETURN	RAIN FALL (inches)	WATER TEMP DEG C	CLEAR WELL LEVEL FT.
1	2.9506		175000		25.5°	5.2
2	3.2322		176000		26	6.4
3	2.7411		79000		27	6.2
4	2.7527		161000		25.5	6.2
5	2.8823		158000		25.5	7.2
6	2.9852		130000		25°	9.4
7	2.8181		199000	2.9*	25.°	4.6
8	2.7087		54000	.03	25	7
9	2.8854		189000		24°	6.8
10	2.8415		142000		25°	7.6
11	2.9607		81000		25°	8.0
12	2.8478		132000	1.3*	24	7.2
13	3.0892		154000		24.5	6.4
14	3.0440		110000		25	4.8
15	3.2197		40000		25	5
16	2.9113		161000		25	4.8
17	2.92		133000		26	5.6
18	3.3404		143000		25.5	5.8
19	3.3016		156000		26	5.2
20	3.4761		92000		27	4.6
21	3.3358	61,800	76000		26	4.6
22	3.1493		113000		27	5
23	3.2114		119000		27°	6.4
24	3.4559		174000		27°	8.0
25	3.2626		67000		27°	4.4
26	3.3450		151000		28	4.8
27	3.0602		139000		28	5.0
28	4.4936		303000	.36	27	7.4
29	3.0540		189000	.53	25	10
30	3.2538		176000		23	6
31	3.0284		195000		22	4.5

\* MULTIPLE DAYS

FILTER OPERATION INFORMATION  
WATER TREATMENT PLANT MONTHLY OPERATION REPORT

CARRY OVER  
PWS ID: 0980350

76.75

63

53.25

277.5

6

REPORT MONTH: 7/2016

DAY	(gallons)	#1 HRS	GAL	#2 HRS	GAL	#3 HRS	GAL	#4 HRS	GAL	#5 HRS	GAL
1	13 7937	<del>6.5</del> 8.5	10318	12		12		12		12	
2	12 8220	12.5		<del>12.75</del> 12.5	98640	12.5		12.5		12.5	
3	<del>12 8120</del>	10.5		10.5		10.5		10.5		10.5	
4	10 8120	11.25		11.25		<del>11.5</del> 11.25	81200	11.25		11.25	
5	10 8105	13.25		13.25		13.25		<del>8.5</del> 8.5	81050	13.25	
6	10 8206	11.25		11.25		11.25		11.25		<del>6.75</del> 6.75	82060
7	10 8110	<del>8</del> 7.5	81100	11.75		11.75		11.75		11.75	
8	10 8240	11.5		<del>10.75</del> 11.5	82400	11.5		11.5		11.5	
9	10 8260	11.75		11.75		<del>11.5</del> 11.75	82600	11.75		11.75	
10	<del>10 8282</del>	12.5		12.5		12.5		<del>8.5</del> 8.5	81820	12.5	
11		11.5		11.5		11.5		11.5		11.5	
12	8. 8200	11.25		11.25		11.25		11.25		<del>6.5</del> 6.5	65600
13	13 8152	<del>8</del> 10.4	105976	12.25		12.25		12.25		12.25	
14	9.7 826	12		<del>7</del> 6.75	70434	12		12		12	
15		13		13		13		13		13	
16	13 8240	11.5		11.5		<del>7.5</del> 8.5	107120	11.5		11.5	
17	10 7770	11.5		11.5		11.5		<del>8.5</del> 8.5	77700	11.5	
18	10 8100	13.25		13.25		13.25		13.25		<del>11.25</del> 11.25	81000
19	10 8185	<del>10.5</del> 11.75	81850	13		13		13		13	
20	10 8200	14		<del>13</del> 13.5	82000	14		14		14	
21	11 8063	13		13	77.25	<del>8.5</del> 8.5	88673	13		13	
22	DONT COUNT	13		13		13		13		13	
23	8135.11 MIN	14.0		14.0		14.0		<del>10.5</del> 10.5	89485	14.0	
24	11 8231	13.5		13.5		13.5		13.5		<del>8.75</del> 8.75	90541
25		13.25		13.25		13.25		13.25		13.25	
26	10 8120	<del>8.5</del> 9.1	81200	13		13		13		13	
27	10 7970	12.25		<del>12.5</del> 12.25	79700	12.25		12.25		12.25	
28	11 7997	17.75		17.75		<del>8.5</del> 8.5	87967	17.75		17.75	
29	13 8038	12		12		12		<del>8.5</del> 8.5	104484	12	
30	10 8150	11.75		11.75		11.75		11.75		<del>8.75</del> 8.75	81500
31	12 8110	<del>9</del> 6.5	97320	12		12		12		12	

PIKEVILLE WATER TREATMENT PLANT  
AWOP INFORMATION

MONTH/YR: 7/2016

ANALYTICAL RESULTS (NTU)											
DAY	RAW DAILY MAX	SED BASIN EFF		INDIVIDUAL FILTER EFFLUENT					CFE DAILY MAX		
		DAILY MAX		DAILY MAXIMUM							
		#1	#2	#1	#2	#3	#4	#5			
1	6.6	1.26	1.02	.12	.1	.24	.08	.05	.05	3120	4426
2	4.5	1.06	.88	.14	.12	.22	.10	.06	.06	3190	4417
3	4.5	.98	.90	.11	.08	.14	.09	.05	.05	3129	4414
4	9.3	1.6	1.52	.11	.08	.18	.09	.07	.06	3092	4420
5	38.6	1.89	1.75	.12	.10	.22	.36	.07	.08	3188	4216
6	480.0	1.41	1.27	.11	.10	.18	.10	.08	.06	3211	4237
7	263	1.96	1.51	.29	.08	.16	.12	.07	.05		
8	36	1.39	1.04	.09	.08	.16	.08	.05	.05		
9	151.0	1.99	1.90	.12	.11	.46	.10	.07	.08	3138	4280
10	62.7	1.16	1.09	.11	.08	.20	.10	.06	.06	3168	4267
11	36.5	1.36	1.14	.11	.07	.14	.13	.08	.05	313	4234
12	17.6	1.72	1.24	.1	.07	.14	.12	.09	.05	3135	4435
13	47.2	1.15	.96	.17	.08	.16	.11	.05	.05	3379	4447
14	29	1.75	1.51	.08	.18	.18	.11	.05	.06	3104	4447
15	28.6	1.58	1.41	.09	.07	.20	.11	.05	.05	3135	4420
16	16.9	1.48	1.30	.10	.08	.10	.11	.05	.06	3135	4429
17	13.5	1.38	1.22	.12	.07	.10	.36	.06	.05	3107	4423
18	10.6	2.36	1.89	.22	.06	.10	.11	.11	.10	3181	4185
19	9.2	.91	.71	.33	.07	.1	.11	.08	.06	3211	4185
20	7.6	.89	.77	.04	.06	.1	.04	.03	.03	3226	4173
21	8.8	.85	.83	.05	.07	.1	.1	.04	.04	3187	4399
22	5.9	.74	.69	.06	.06	.1	.05	.04	.04	3236	4411
23	6.0	.87	.71	.16	.13	.10	.12	.06	.05	3187	4176
24	4.2	.81	.69	.09	.10	.11	.10	.10	.05	3196	4176
25	4.3	.66	.56	.06	.08	.1	.09	.05	.04	3124	4386
26	8.8	.88	.74	.20	.17	.10	.15	.05	.05	3168	4417
27	8.0	.76	.64	.12	.11	.14	.12	.06	.05	3135	4405
28	710	1.04	.91	1.34	1.84	.7	.56	.56	.74	3318	4463
29	160	1.39	1.14	.1	.08	.14	.17	.09	.06	3162	4425
30	83	.94	.76	.12	.10	.10	.13	.12	.07	3175	4579
31	56	1.10	.86	.14	.06	.12	.20	.09	.05	3123	4487

### FINISHED WATER TURBIDITY

PWSID: 0980350

PWS NAME: PIKEVILLE WATER MONTH 7/2016

DAY	MID - 4AM	4AM - 8AM	8AM - NOON	NOON - 4PM	4PM - 8PM	8PM - MID
1		.06	.05	—	.06	
2		.06	.06	.06	.06	
3		.07	.07	.07	.08	
4		.06	.08	.07	.08	
5		.05	.06	.07	.07	
6		.07	.05	.06	.06	
7		.05	.05	.06	.06	
8		.07	.08	.06	.07	
9		.04	.07	.08	.08	
10		.07	.05	.06	.05	
11		.05	.04	.05	.05	
12		.06	.05	.06	.06	
13		.05	.06	.06	.05	
14		.06	.06	.07	.06	
15		.06	.06	.07	.06	
16		.07	.06	.05	.06	
17		.07	.06	.06	.06	
18		.05	.05	.06	.08	
19		.06	.06	.08	.07	
20		.05	.05	.05	.05	
21		.05	.04	.05	.05	
22		.04	.05	.05	.05	
23		.05	.04	.05	.06	
24		.06	.06	.05	.05	
25		.04	.06	.06	.05	
26		.07	.05	.07	.08	
27		.08	.08	.08	.06	.06
28		.08	.26	.13	.10	.11
29	.10	.06	.06	.07	.07	
30		.07	.06	.06	.06	
31		.08	.06	.06	.06	.06

### SETTLED WATER TURBIDITY

PWSID: 0980350

PWS NAME: PIKEVILLE WATER MONTH 7/2016

DAY	MID - 4AM	4AM - 8AM	8AM - NOON	NOON - 4PM	4PM - 8PM	8PM - MID
1		.88	1.01	—	1.26/1.02/1.14	
2		1.0	.92	1.06/.88/.97	1.02	
3		.85	.94	.98/.90/.94	1.12	
4		1.23	1.36	2.11	1.6/1.52/1.56	
5		1.48	2.43	1.99	1.89/1.75/1.82	
6		1.60	1.01	1.41/1.27/1.34	1.82	
7		1.44	1.28	1.16	1.96/1.51/1.74	
8		1.48	1.16	1.11	1.39/1.04/1.22	
9		1.24	1.45	1.99/1.90/1.94	1.43	
10		1.44	1.01	1.16/1.09/1.12	1.02	
11		1.06	1.04	1.28	1.96/1.14/1.05	
12		.92	.86	.78	1.72/1.24/1.48	
13		2.62	1.49	1.15/.96/1.06	1.54	
14		1.39	1.69	1.88	1.75/1.51/1.63	
15		1.26	1.28	1.87	1.58/1.41/1.50	
16		1.72	1.36	1.48/1.3/1.39	1.73	
17		1.22	1.28	1.38/1.22/1.63	1.62	
18		.77	1.02	2.36/1.89/2.12	1.53	
19		1.97	1.98	1.15	.91/.71/.81	
20		.71	.79	.89/.77/.88	.83	
21		.84	.65	.85/.83/.84	.9	
22		.78	1.0	.74/.69/.71	1.02	
23		1.01	.96	.87/.71/.79	.78	
24		.92	.46	.81/.69/.75	.76	
25		.88	.74	.66/.56/.61	.70	
26		.70	.86	.88/.74/.81	.80	
27		.74	.72	.76/.64/.70	.61	.64
28		2.8	3.0	1.33	1.04/.91/1.99	1.53
29	1.47	.87	.9	1.39/1.14/1.26	.79	
30		.81	.84	.94/.76/.85	.80	
31		.79	1.17	1.10/.86/.98	.83	.85

## PIKEVILLE WATER TREATMENT PLANT LOG

DATE 7/1/16 RAW TEMP 25.5 RAINFALL \_\_\_\_\_

OPERATOR RU for Tom (vac) OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	230	↓ 200 <sup>845</sup>			
POSTCL2	275	↓ 260 <sup>845</sup>			

CLEAR WELL 5.2 Town Mtn. 24.8 On Off  
 RFT/SHT 29.4 125.6

METERS/WEIGHTS/LEVELS			
FINISHED	437	02752	PAX 182
RAW	338	57163	FLUORIDE <del>140</del> 240
SLUDGE	269	739	PRE CL2 148
S B/W RET	204	280	POST CL2 145

FILTERS	ON OFF		ON OFF		ON OFF		ON OFF		ON OFF		HOURS RUN
	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	
#1	555	1245	115	300	500						115
#2											12
#3											
#4											
#5	↓			↓	↓						↓

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
# 1	1249	13	7937	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 7/2/16 RAW TEMP 26 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	200				
POSTCL2	250				

CLEAR WELL 6.4 Town Mtn. 25.8 On \_\_\_ Off \_\_\_  
 RFT/SHT 26.4 | 22.8

METERS/WEIGHTS/LEVELS			
FINISHED	43732258		PAX 130   225
RAW	33860177		FLUORIDE 140   500
SLUDGE	269739		PRE CL2 100   170
S B/W RET	204455		POST CL2 87   175

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	5/0	1/10	4/05	1/700	8/00	1/930							12.5
#2													
#3													
#4													
#5													

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
2	105		8220	—	—

COMMENTS:

## PIKEVILLE WATER TREATMENT PLANT LOG

DATE 7/3/16 RAW TEMP 27 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	7 3/40				
PRECL2	2190				
POSTCL2	250				

CLEAR WELL 6.2 Town Mtn. 26.6 On \_\_\_ Off \_\_\_  
 RFT/SHT 28 | 26

METERS/WEIGHTS/LEVELS			
FINISHED	43764580		PAX 165
RAW	33863403		FLUORIDE 400
SLUDGE	269739		PRE CL2 120
S B/W RET	204631		POST CL2 120

FILTERS	ON	OFF	HOURS RUN									
#1	6	10	14	5	8	00	8	30				10.5
#2												
#3												
#4												
#5	↓		↓		↓		↓					

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 7/4/16 RAW TEMP 25.5 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR [Signature]

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	190	↓ 185			
POSTCL2	250	↑ 255			

CLEAR WELL 6.2 Town Mtn. 24 On Off  
 RFT/SHT 27.8 | 26

METERS/WEIGHTS/LEVELS			
FINISHED	4379/991		PAX 110/79/202
RAW	3386/58		FLUORIDE 300
SLUDGE	269739		PRE CL2 77/61/153
S B/W RET	204710		POST CL2 80/48/165

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	555		1255		600		813						11.25
#2	↓												
#3	↓		1730		195								
#4	↓												
#5	↓			↓	↓		↓						

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
3	133	10	8/20	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 7/5/16 RAW TEMP 25.5 RAINFALL \_\_\_\_\_

OPERATOR DM OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	207 <sup>30</sup>	↑40			
FLUORIDE	73/40				
PRECL2	185				
POSTCL2	255				

CLEAR WELL 7.2 Town Mtn. 26.4 On Off

RFT/SHT 28.0 | 26.2

METERS/WEIGHTS/LEVELS						
FINISHED	4381	9518		PAX	178	220
RAW	3386	8977		FLUORIDE	240	800
SLUDGE	2697	39		PRE CL2	140	175
S B/W RET	2048	71		POST CL2	141	175

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	5:05	1:15	2:00	3:50	6:05	9:20							13.25
#2	↓	↓	↓	↓	↓	↓							
#3	↓	↓	↓	↓	↓	↓							
#4	↓	1:00	↓	↓	↓	↓							
#5	↓	1:15	↓	↓	↓	↓							

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
4	103	10	8105		

COMMENTS:



# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 7/7/16 RAW TEMP 25° RAINFALL 2.9

OPERATOR DM OPERATOR [Signature]

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	60 ↓ 40	↓ 30 (229)			
FLUORIDE	73/40				
PRECL2	185				
POSTCL2	255				

CLEAR WELL 4.6 Town Mtn. 25.8 On  Off   
 RFT/SHT 28.4 | 26.8

METERS/WEIGHTS/LEVELS			
FINISHED	4387	8193	PAX 116 / 170
RAW	3387	5007	FLUORIDE 600
SLUDGE	265	739	PRE CL2 138
S B/W RET	205	159	POST CL2 126

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	6:00	11:59	2:15	3:05	4:15	6:25	7:10	8:15					11.75
#2	↓		↓		↓		↓						↓
#3	↓		↓		↓		↓						↓
#4	↓		↓		↓		↓						↓
#5	↓		↓		↓		↓						↓

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
1	202	10	8/10		

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 7-8-16 RAW TEMP 25 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	36				
FLUORIDE	73/40				
PRECL2	185				
POSTCL2	255				

CLEAR WELL 7 Town Mtn. 24.8 On  Off   
 RFT/SHT 28.2 | 258 C 9/1/19 for

METERS/WEIGHTS/LEVELS			
FINISHED	43906374		PAX 71/200
RAW	33877919		FLUORIDE 504
SLUDGE	269739		PRE CL2 90/140
S B/W RET	205358		POST CL2 71/150

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	558	230	500			800							11.5
#2				170	735								
#3													
#4													
#5													

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
2	713	10	3240		

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 7/9/16 RAW TEMP 29° RAINFALL \_\_\_\_\_

OPERATOR DM OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	30				
FLUORIDE	73/40				
PRECL2	185 ↑ 190	↑ 200			
POSTCL2	255 ↑	260			

CLEAR WELL 6.8 Town Mtn. 24.0 On  Off   
 RFT/SHT 25.8 | 24.4

METERS/WEIGHTS/LEVELS						
FINISHED	49933461			PAX	120	220
RAW	3388 0733			FLUORIDE	440	800
SLUDGE	269739			PRE CL2	98	175
S B/W RET	205412			POST CL2	100	175

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	5:05	1:25	3:25	5:20	7:30	8:40							11.75
#2	↓	↓	↓	↓	↓	↓							
#3	↓	1:05	↓	↓	↓	↓							
#4	↓	1:25	↓	↓	↓	↓							
#5	↓	↓	↓	↓	↓	↓							

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#3	1:09	10	8260	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 7/10/16 RAW TEMP 25° RAINFALL \_\_\_\_\_

OPERATOR Dm OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	30				
FLUORIDE	73/40				
PRECL2	200				
POSTCL2	260				

CLEAR WELL \_\_\_\_\_ Town Mtn. 25.4 On \_\_\_ Off

RFT/SHT 28.6 | 26.2

METERS/WEIGHTS/LEVELS			
FINISHED	43962315		PAX 138 / 200
RAW	33883601		FLUORIDE 720
SLUDGE	269739		PRE CL2 138 / 170
S B/W RET	205601		POST CL2 128 / 170

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	5:05	12:10	2:00	3:55	5:55	7:35	8:30	9:35					12.5
#2													
#3													
#4		11:55											
#5	↓	12:10	↓	↓	↓	↓	↓	↓					

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#4	1:58	10	8182	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 7/11/16 RAW TEMP 25° RAINFALL \_\_\_\_\_

OPERATOR DA OPERATOR DM

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	<u>20</u>				
FLUORIDE	<u>73/40</u>				
PRECL2	<u>200</u>				
POSTCL2	<u>260</u>				

CLEAR WELL 8.0 Town Mtn. 25.2 On  Off   
 RFT/SHT 28.0 | 25.2

METERS/WEIGHTS/LEVELS			
FINISHED	<u>43990730</u>		PAX <u>118</u>
RAW	<u>33886556</u>		FLUORIDE <u>630</u>
SLUDGE	<u>269739</u>		PRE CL2 <u>125</u>
S B/W RET	<u>205743</u>		POST CL2 <u>118</u>

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	<u>5:55</u>	<u>1250</u>	<u>250</u>	<u>1540</u>	<u>710</u>	<u>1900</u>							<u>11.5</u>
#2													
#3													
#4													
#5													

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 7/12/16 RAW TEMP 24 RAINFALL \_\_\_\_\_

OPERATOR RV for GP vac OPERATOR [Signature]

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	30	↓20 (240)			
FLUORIDE	73/40				
PRECL2	200				
POSTCL2	260				

CLEAR WELL 7.2 Town Mtn. 25.8 On  Off   
 RFT/SHT 27.8 | 25.4

METERS/WEIGHTS/LEVELS			
FINISHED	44020337		PAX 37 32/220
RAW	33889469		FLUORIDE 530
SLUDGE	269739		PRE CL2 78 75/170
S B/W RET	205824		POST CL2 62 57/170

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600			115	230	400	530	1739	800	1815			11.25
#2													
#3													
#4													
#5	0	11235	1246		↓	↓	↓	↓	↓	↓			↓

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
9/1237 (5)	1237	B	8200	—————	—————

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 7/13/16 RAW TEMP 24.5" RAINFALL 1.3"

OPERATOR RU for GRAY OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20	7.5 ↑ 30			
FLUORIDE	73/40				
PRECL2	200				
POSTCL2	260				

CLEAR WELL 6.4 Town Mtn. 25.4 On  Off

RFT/SHT 27 124.6

METERS/WEIGHTS/LEVELS			
FINISHED	440488	LS	PAX 156
RAW	338923	OS	FLUORIDE 453
SLUDGE	269239		PRE CL2 135
S B/W RET	205963		POST CL2 125
		975 25	

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600	1200	245	1345	530	1800							12
#2													12 <sup>25</sup>
#3													
#4													
#5													

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
1	200	13	8152	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 7/14/16 RAW TEMP 25 RAINFALL \_\_\_\_\_

OPERATOR PO for GP (M.C.) OPERATOR JP

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	30				
FLUORIDE	73/40				
PRECL2	200				
POSTCL2	260				

CLEAR WELL 4.8 Town Mtn. 24.4 On  Off   
 RFT/SHT 26.2 124.2

METERS/WEIGHTS/LEVELS			
FINISHED	44079207		PAX <u>68</u> <u>25/116</u>
RAW	33895283		FLUORIDE <u>53</u>
SLUDGE	269739		PRE CL2 <u>85</u> <u>63/170</u>
S B/W RET	206117		POST CL2 <u>65</u> <u>38/170</u>

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600		1420		620		800						12
#2	↑	102	117										
#3													
#4													
#5	↓		↓		↓		↓						

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
2	104	9	7826	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 7.15.16 RAW TEMP 25 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	30	↓ 25 (930)			
FLUORIDE	73/40				
PRECL2	200				
POSTCL2	260				

CLEAR WELL 5 Town Mtn. 25.6 On  Off   
 RFT/SHT 26.2 124

METERS/WEIGHTS/LEVELS			
FINISHED	44110147		PAX 73/120
RAW	33898353		FLUORIDE 271
SLUDGE	269739		PRE CL2 150
S B/W RET	206227		POST CL2 141

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600	1458	630	1830									13
#2													
#3													
#4													
#5	↓	↓	↓	↓									↓

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM

COMMENTS:

## PIKEVILLE WATER TREATMENT PLANT LOG

DATE 7/16/16 RAW TEMP 25 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	25				
FLUORIDE	73/40				
PRECL2	200				
POSTCL2	260				

CLEAR WELL 4.8 Town Mtn. 25.2 On \_\_\_ Off \_\_\_  
 RFT/SHT 27.4 | 24.8

METERS/WEIGHTS/LEVELS			
FINISHED	4412	2344	PAX 37 / 95 / 75 / 225
RAW	3390	1548	FLUORIDE 170
SLUDGE	2697	39	PRE CL2 100 / 160
S B/W RET	206	267	POST CL2 80 / 160

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	605	205	430	805									11.5
#2													
#3		1140											
#4		1205											
#5	↓		↓										

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
3	145	13	8240	—	—

COMMENTS:

## PIKEVILLE WATER TREATMENT PLANT LOG

DATE 7/17/16 RAW TEMP 26 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	25				
FLUORIDE	13/40				
PRECL2	200				
POSTCL2	260				

CLEAR WELL \_\_\_\_\_ Town Mtn. 24.2 On \_\_\_ Off \_\_\_  
 RFT/SHT 27 | 26.2

METERS/WEIGHTS/LEVELS			
FINISHED	44171457		PAX 180
RAW	33904552		FLUORIDE 90/35/300
SLUDGE	269739		PRE CL2 115
S B/W RET	206428		POST CL2 110

FILTERS	ON	OFF	HOURS RUN										
#1	↓	↓	↓	↓									11 <sup>0</sup>
#2	↓	↓	↓	↓									
#3	↓	↓	↓	↓									
#4	↓	↓	↓	↓									
#5	↓	↓	↓	↓									

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
4	448	10	7770	—	—

COMMENTS:

## PIKEVILLE WATER TREATMENT PLANT LOG

DATE 7/16/16 RAW TEMP 25.5° RAINFALL \_\_\_\_\_

OPERATOR RU for GP UAC OPERATOR Jar

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	25	↓20 (1200)			
FLUORIDE	73/40				
PRECL2	200				
POSTCL2	260				

CLEAR WELL 5.8 Town Mtn. 25.2 On Off  
 RFT/SHT 24.2 | 22

METERS/WEIGHTS/LEVELS			
FINISHED	44200657		PAX 105 75/87
RAW	33907577		FLUORIDE 267
SLUDGE	249759		PRE CL2 72 56/170
S B/W RET	206561		POST CL2 54 30/170

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600		1605		705	1005							13.25
#2	↓		↓		↓								↓
#3	↓		↓		↓								↓
#4	↓		↓		↓								↓
#5	↓	1519	532	↓	↓								↓

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
5	521	10	8100	—	—

COMMENTS:



# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 7-20-16 RAW TEMP 27 RAINFALL \_\_\_\_\_

OPERATOR Jm OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	200				
POSTCL2	270				

CLEAR WELL 4.6 Town Mtn. 25 On  Off   
 RFT/SHT 25.8 | 21.6

METERS/WEIGHTS/LEVELS			
FINISHED	44267077		PAX 270
RAW	33914111		FLUORIDE 695
SLUDGE	269739		PRE CL2 88/130
S B/W RET	206860		POST CL2 62/130

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	550			1755									14
#2		1659	715										↓
#3													
#4		1											
#5	1			↓									

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
2	656	10	8200		

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 7-21-16 RAW TEMP 26 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR RD for ton (vac)  
 FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	↓180				
POSTCL2	7288				

CLEAR WELL 4.6 Town Mtn. 25.4 On  Off   
 RFT/SHT 25.4 122.2

METERS/WEIGHTS/LEVELS			
FINISHED	4430	1838	PAX 190
RAW	3391	7596	FLUORIDE <del>595</del> 598
SLUDGE	269	739	PRE CL2 78/90
S B/W RET	206	952	POST CL2 62/90
	175, 25		

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600	1540	645	1200									13
#2													
#3													
#4													
#5													

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 7/22/16 RAW TEMP 27 RAINFALL \_\_\_\_\_

OPERATOR RV from Dna (VA C) OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	188				
POSTCL2	288				

CLEAR WELL 5 Town Mtn. 26.2 On Off  
 RFT/SHT 26.8 124.2

METERS/WEIGHTS/LEVELS			
FINISHED	443	35196	PAX 128
RAW	339	20899	FLUORIDE 481
SLUDGE	270	357	PRE CL2 <del>2</del> 46/175
S B/W RET	207	028	POST CL2 21/170

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600		1515		815		1750						13
#2													↓
#3		1230	2251										12 <sup>25</sup>
#4	↓												13
#5	↓				↓		↓						↓

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
<del>3</del>	230	11	8063	—	—

125  
 125  
 425

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 7/23/16 RAW TEMP 27° RAINFALL \_\_\_\_\_

OPERATOR DM OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	188				
POSTCL2	288				

CLEAR WELL RFT/SHT 26.6 | 24.8 Town Mtn. 24.4 On  Off

METERS/WEIGHTS/LEVELS					
FINISHED	44366689			PAX	63/48/146
RAW	33924073			FLUORIDE	350/800
SLUDGE	220357			PRE CL2	138/120/125
S B/W RET	207141			POST CL2	108/85/120

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	5:00	4:25	6:30	9:00									14.0
#2		3:10											
#3		4:25											
#4													
#5													

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#4	3:15	11	8135	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 7/24/16 RAW TEMP 22° RAINFALL \_\_\_\_\_

OPERATOR DM OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	180				
POSTCL2	280				

CLEAR WELL 8.0 Town Mtn. 26.4 On Off  
 RFT/SHT 26.2 | 23.8

METERS/WEIGHTS/LEVELS					
FINISHED	44398803			PAX	98 / 88 / 100
RAW	33927518			FLUORIDE	670
SLUDGE	220357			PRE CL2	90 / 84 / 100
S B/W RET	207260			POST CL2	60 / 50 / 120

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	5:05	3:00	5:30	9:00									135
#2													
#3													
#4													
#5	↓	11:50	↓	↓									

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#5	1:53	11	8231	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 7/25/16 RAW TEMP 27° RAINFALL \_\_\_\_\_

OPERATOR dm OPERATOR Rv for JM (VAC)

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	23/40				
PRECL2	180				
POSTCL2	280				

CLEAR WELL 4.4 Town Mtn. 24.0 On  Off   
 RFT/SHT 27.2 | 24.2

METERS/WEIGHTS/LEVELS			
FINISHED	44433362		PAX 52 / 60 / 38 / 200
RAW	33930790		FLUORIDE 550
SLUDGE	220357		PRE CL2 66 / 60 / 105 / 68 / 170
S B/W RET	207434		POST CL2 68 / 60 / 100 43 / 170
	125	2	

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	5:50	1:50	6:00	1:80									13 <sup>25</sup>
#2	↓	↓	↓	↓									↓
#3	↓	↓	↓	↓									↓
#4	↓	↓	↓	↓									↓
#5	↓	↓	↓	↓									↓

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM

COMMENTS:

## PIKEVILLE WATER TREATMENT PLANT LOG

DATE 7/26/16 RAW TEMP 28 RAINFALL \_\_\_\_\_

OPERATOR JP OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	180				
POSTCL2	280				

CLEAR WELL 4.8 Town Mtn. 27.2 On \_\_\_ Off \_\_\_  
 RFT/SHT 27.2 | 23.4

METERS/WEIGHTS/LEVELS						
FINISHED	444/65988			PAX	158/225	
RAW	33934042			FLUORIDE	450	
SLUDGE	270357			PRE CL2	167	
S B/W RET	207501			POST CL2	165	

FILTERS	ON	OFF	HOURS RUN								
#1	6	10	3	5	8	9	15				
#2											13
#3											
#4											
#5											

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
1	400	10	8120	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 7/27/16 RAW TEMP 28 RAINFALL \_\_\_\_\_

OPERATOR JP OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	↑200 <sup>72°</sup> ↑210				
POSTCL2	↑290 <sup>72°</sup> ↑305				

CLEAR WELL RFT/SHT 26 5 Town Mtn. 28.2 On \_\_\_ Off \_\_\_

METERS/WEIGHTS/LEVELS			
FINISHED	44499438		PAX 162
RAW	33937458		FLUORIDE 340
SLUDGE	270357		PRE CL2 120
S B/W RET	207652		POST CL2 100

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	720		1515		715	1930					12 <sup>25</sup>
#2		1255	320								
#3											
#4											
#5	↓			+	+	+					

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
2	258	10	7970	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 7/28/16 RAW TEMP 27 RAINFALL 0.36"

OPERATOR [Signature] OPERATOR RU for JM (VAC)

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	↓ 15 <sup>640</sup> <sub>225</sub>	↑ 50 <sup>845</sup> <sub>75</sub>	630 ↓ 60		
FLUORIDE	73/40				
PRECL2	↑ 220	↑ 330 <sup>1150</sup> <sub>400</sub>	630 ↓ 365		
POSTCL2	↑ 320	↑ 500 <sup>1000</sup> <sub>150</sub> <sub>330</sub>	215 ↑ 350	630 ↓ 340	

CLEAR WELL RFT/SHT 22.21 7.4 / 8.2 Town Mtn. 25.6 On \_\_\_ Off \_\_\_

METERS/WEIGHTS/LEVELS						
FINISHED	44530040		PAX	105	225	15/225
RAW	33940632		FLUORIDE	230	600	-
SLUDGE	270357		PRE CL2	75	170	55/175
S B/W RET	207791		POST CL2	35	175	80/175

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600		1730		900	1225	100	2000					135 1775
#2													↓ ↓ 6
#3		1230	300										13 1725
#4													135 1775
#5	↓		↓		↓		↓		↓				↓ ↓

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#3	232	11	7997	-	-

COMMENTS: 300 gal Cl<sub>2</sub> storage tank day tanks full

## PIKEVILLE WATER TREATMENT PLANT LOG

DATE 7/29/16 RAW TEMP 25 RAINFALL .53

OPERATOR RU for JM (VAG) OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	60	400 ↓ 40			
FLUORIDE	23   40				
PRECL2	365	900 ↓ 325			
POSTCL2	340				

CLEAR WELL 10 Town Mtn. 26.4 On Off  
 RFT/SHT 28.6 | 31.4 \*High level 1.74

METERS/WEIGHTS/LEVELS			
FINISHED	4574976		PAX 212
RAW	33945102		FLUORIDE 442
SLUDGE	270357		PRE CL2 170
S B/W RET	208094		POST CL2 170

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	605	1200	2301		1830								12
#2													
#3													
#4				1515	5301								
#5													

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#4	515	13	8038	—	—

COMMENTS:

## PIKEVILLE WATER TREATMENT PLANT LOG

DATE 7/28/16 RAW TEMP 23 RAINFALL \_\_\_\_\_

OPERATOR JD OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	40				
FLUORIDE	73/40				
PRECL2	↓260 <sup>gpd</sup>				
POSTCL2	↓290				

CLEAR WELL 6 Town Mtn. 26 On \_\_\_ Off \_\_\_  
 RFT/SHT 27 | 24.8

METERS/WEIGHTS/LEVELS			
FINISHED	44/60	55/6	PAX 88/225
RAW	33	94	79/67
SLUDGE	270	357	FLUORIDE 300
S B/W RET	208	283	PRE CL2 90 / 175
			POST CL2 95 / 175

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	60	13/5	525	1800									
#2	↓	↓	↓	↓									
#3	↓	↓	↓	↓									
#4	↓	↓	↓	↓									
#5	↓	1255	↓	↓									

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
5	300	10	8150	—	—

COMMENTS:

## PIKEVILLE WATER TREATMENT PLANT LOG

DATE 7/31/16 RAW TEMP 22 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	↓ 30				
FLUORIDE	73/40				
PRECL2	↓ 250	↑ 240			
POSTCL2	↓ 280	↓ 270			

CLEAR WELL RFT/SHT 24.81 4.5 / 15.4 Town Mtn. \_\_\_\_\_ On \_\_\_ Off \_\_\_

METERS/WEIGHTS/LEVELS			
FINISHED	44638054		PAX 115 / 225
RAW	33951130		FLUORIDE 125 / 500
SLUDGE	270357		PRE CL2 120 / 170
S B/W RET	208459		POST CL2 115 / 160

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	725	425	755	1035							12
#2		1455									
#3											
#4											
#5	↓	↑	↓	↑							

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
1	430	12	8110		

COMMENTS:

FIELD CHAIN OF CUSTODY RECORD

FIELD MONITORING PROGRAM

SAMPLERS (SIGNATURES)  
*Ralph Jones*

FACILITY	SAMPLE SOURCE	COMPOSITING PERIOD				SAMPLE COLLECTION			FLOW	CONTAINER		Volatile Organics	Pesticides/PCB's	Trace Metals	Cyanide	Phenols	Oil and Grease	Solids	BOD	Ammonia Nitrogen	Phosphorous	Coliform	pH	Preservation	COMMENTS
		SAMPLING BEGINS		SAMPLING ENDS		DATE	TIME	G/C	MGD	VOLUME	G/P														
		DATE	TIME	DATE	TIME																				
AKENUK WTP	111			7/12/16	1338	G				P															
"	030			"	1350	"				"															
	009			"	1358	"				"															
	029			"	1407	"				"															
	110			"	1415	"				"															
	P01			"	1232	"				"															Flooride .68

FIELD CHAIN OF CUSTODY RECORD

FIELD MONITORING PROGRAM

SAMPLERS (SIGNATURES)

*Ralph Jones*

FACILITY	SAMPLE SOURCE	COMPOSITING PERIOD				SAMPLE COLLECTION			FLOW	CONTAINER		Volatile Organics	Pesticides/PCB's	Trace Metals	Cyanide	Phenols	Oil and Grease	Solids	BOD	Ammonia Nitrogen	Phosphorous	Coliform	pH	Preservation	COMMENTS
		SAMPLING BEGINS		SAMPLING ENDS		DATE	TIME	G/C	MGD	VOLUME	G/P														
		DATE	TIME	DATE	TIME																				
ARKVILLE WTP	111			7/12/16	1338	G				P															
"	030			"	1350	"				"															
	009			"	1358	"				"															
	028			"	1407	"				"															
	110			"	1415	"				"															
	P01			"	1232	"				"															Floorpipe -68

0.05  
 0.13  
 0.28  
 0.50

RELINQUISHED BY <i>Ralph Jones</i>	DATE 7/12/16	TIME 1424	RECEIVED BY <i>Barbara Sawyer</i>	RELINQUISHED BY	DATE	TIME	RECEIVED BY
RELINQUISHED BY	DATE	TIME	RECEIVED BY	RELINQUISHED BY	DATE	TIME	RECEIVED BY
RELINQUISHED BY	DATE	TIME	RECEIVED BY	RELINQUISHED BY	DATE	TIME	RECEIVED BY

REMARKS: 20' w/ Ice

002155

KENTUCKY DIVISION OF WATER / DRINKING WATER RESULTS  
BACTERIOLOGICAL ANALYSIS REPORT FORM

General Information – This Section To Be Completed By Collector

PWS ID	K Y 0 9 8 0 3 5 0	Compliance Period (MMYYYY)	0 7 2 0 1 6
PWS Name	CITY OF PIKEVILLE	PWS Contact	RALPH VARNEY
PWS Address	306 ISLAND CREEK ROAD	PWS Phone	606-437-5123
		Collection Date (MMDDYYYY)	0 7 1 2 2 0 1 6 <small>(All Samples Reported on this Form were Collected on this Date.)</small>
		Collector Name	<i>Ralph Varney</i> 7/12/16 <small>Signature/Date</small>

General Information – This Section To Be Completed By Lab

Lab ID	00050	Lab Receipt Date (MMDDYYYY)	0 7 1 2 2 0 1 6	Total Coliform Analysis Method Code	309
Lab Analyst	<i>Oliver</i> 7-13-16 <small>Signature/Date</small>	Analysis Date (MMDDYYYY)	0 7 1 2 2 0 1 6	E Coli Analysis Method Code	309
		Lab Supervisor	<i>Oliver</i> 7-13-16 <small>Signature/Date</small>		

Sample Information – This Section To Be Completed By Collector

Sample Type (RT, RP, TG, CO, or SP) (See Key)	Special Sample Reason (A, B, C, D, or E) (See Key) Replacement Sample? (Y or Blank)	Location Code (See Instructions)	Repeat Location Code (DN, UP, or OR) (See Key)	Sample Time (24 hr)	Free Chlorine (Required for all disinfectants except Chloramine)	Total Chlorine (Required when disinfectant is Chloramine)
RT		111		1338	0.99	.
RT		030		1350	1.23	.
RT		009		1358	1.48	.
RT		028		1907	1.24	.
RT		110		1415	1.56	.

Analysis Information – This Section To Be Completed By Lab

Lab Sample Number	Analysis Time (24 hr)	Result (Total Coliform Count - or - TNTC - or - CNFG - or - TCNG) (See Key)	Total Coliform (P/A)	E Coli (P/A)	Lab Sample Number of Original Sample (Required for RP, TG, CO, and/or Replacement Samples) (See Instructions)
607241					
01	1642		A	A	
02	1642		A	A	
03	1642		A	A	
04	1642		A	A	
05	1642		A	A	

The signatories of this form certify by their signatures that collection and analysis of the water sample analyzed and the resulting data hereby submitted, were completed in accordance with the provisions of 401 KAR Chapter 8, specifically including but not limited to 401 KAR 8:200, Section 1 and 401 KAR 8:040; and that the data submitted on this form is a true and accurate report of the results of collection and analysis performed pursuant to the above-referenced regulations. Violations of 401 KAR Chapter 8 are subject to severe penalties prescribed in KRS 224.99-010, up to \$25,000 fine per day per violation and in some cases a violation may subject the violator to prison.

BACTERIOLOGICAL ANALYSIS REPORT FORM KEY

<b>Sample Type:</b>	RT = Routine (For Compliance)	RP = Repeat (For Compliance)	SP = Special (Not for Compliance)
	TG = Triggered (For Compliance)	CO = Confirmation (For Compliance)	
<b>Special Sample Reason: (Only if Sample Type = SP)</b>	A = Suspected Contamination	B = New Plant, Modification, or Line Extension	C = Treatment Modification
	D = Study/Investigation	E = Line Break, Emergency Repair	
<b>Repeat Location Code: (Only if Sample Type = RP)</b>	DN = Downstream	UP = Upstream	OR = Original Site
<b>Result:</b>	TNTC = Too Numerous to Count	CNFG = Confluent Growth	TCNG = Turbid Culture-No Gas



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Louisville, KY 502.961.0001	Paducah, KY 270.444.6547	

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**SAMPLE SUMMARY**

Lab ID	Client Sample ID/Alias	Matrix	Date Collected	Date Received	Sampled By
6072411-01	BACT/	Drinking Water	07/12/2016 13:38	07/12/2016 14:24	Ralph Varney
6072411-02	BACT/	Drinking Water	07/12/2016 13:50	07/12/2016 14:24	Ralph Varney
6072411-03	BACT/	Drinking Water	07/12/2016 13:58	07/12/2016 14:24	Ralph Varney
6072411-04	BACT/	Drinking Water	07/12/2016 14:07	07/12/2016 14:24	Ralph Varney
6072411-05	BACT/	Drinking Water	07/12/2016 14:15	07/12/2016 14:24	Ralph Varney

<u>LabNumber</u>	<u>Measurement</u>	<u>Value</u>
6072411-01	Field Residual Chlorine	0.99
6072411-02	Field Residual Chlorine	1.23
6072411-03	Field Residual Chlorine	1.48
6072411-04	Field Residual Chlorine	1.24
6072411-05	Field Residual Chlorine	1.56



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**ANALYTICAL RESULTS**

Lab Sample ID: **6072411-01**  
Description: **BACT**

Sample Collection Date Time: 07/12/2016 13:38  
Sample Received Date Time: 07/12/2016 14:24

Matrix: Drinking Water

Discharge/Site No: 111

Regulatory ID: KY0980350

**Microbiological Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Colilert 24	07/12/2016 16:42	07/13/2016 16:45	ADH

**ANALYTICAL RESULTS**

Lab Sample ID: **6072411-02**  
Description: **BACT**

Sample Collection Date Time: 07/12/2016 13:50  
Sample Received Date Time: 07/12/2016 14:24

Matrix: Drinking Water

Discharge/Site No: 030

Regulatory ID: KY0980350

**Microbiological Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Colilert 24	07/12/2016 16:42	07/13/2016 16:45	ADH

**ANALYTICAL RESULTS**

Lab Sample ID: **6072411-03**  
Description: **BACT**

Sample Collection Date Time: 07/12/2016 13:58  
Sample Received Date Time: 07/12/2016 14:24

Matrix: Drinking Water

Discharge/Site No: 009

Regulatory ID: KY0980350

**Microbiological Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Colilert 24	07/12/2016 16:42	07/13/2016 16:45	ADH



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**ANALYTICAL RESULTS**

Lab Sample ID: **6072411-04**  
Description: **BACT**

Sample Collection Date Time: 07/12/2016 14:07  
Sample Received Date Time: 07/12/2016 14:24

Matrix: Drinking Water      Discharge/Site No: 028      Regulatory ID: KY0980350

**Microbiological Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Collert 24	07/12/2016 16:42	07/13/2016 16:45	ADH

**ANALYTICAL RESULTS**

Lab Sample ID: **6072411-05**  
Description: **BACT**

Sample Collection Date Time: 07/12/2016 14:15  
Sample Received Date Time: 07/12/2016 14:24

Matrix: Drinking Water      Discharge/Site No: 110      Regulatory ID: KY0980350

**Microbiological Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Collert 24	07/12/2016 16:42	07/13/2016 16:45	ADH

**Notes for work order 6072411**

- Samples collected by MMLI personnel are done so in accordance with procedures set forth in MMLI field services SOPs.
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identification based on the presumptive evidence of the mass spectra.

**Standard Qualifiers/Acronyms**

- MDL      Method Detection Limit
- MRL      Minimum Reporting Limit
- ND      Not Detected
- LCS      Laboratory Control Sample
- MS      Matrix Spike
- MSD      Matrix Spike Duplicate
- DUP      Sample Duplicate
- % Rec      Percent Recovery
- RPD      Relative Percent Difference
- >      Greater than
- <      Less than



**SAMPLE SUMMARY**

Lab ID	Client Sample ID/Alias	Matrix	Date Collected	Date Received	Sampled By
6072412-01	Fluoride/	Drinking Water	07/12/2016 12:32	07/12/2016 14:24	Ralph Varney
<u>LabNumber</u>	<u>Measurement</u>	<u>Value</u>			
6072412-01	Field Fluoride	0.68			

**ANALYTICAL RESULTS**

Lab Sample ID: **6072412-01**  
Description: **Fluoride**

Sample Collection Date Time: 07/12/2016 12:32  
Sample Received Date Time: 07/12/2016 14:24

Matrix: Drinking Water

Discharge/Site No: P01

Regulatory ID: KY0980350

**Conventional Chemistry Analyses Madisonville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Fluoride	0.66		mg/L	0.20		4500-F C-1997	07/15/2016 11:31	07/15/2016 11:31	JTL

**Notes for work order 6072412**

- Samples collected by MMLI personnel are done so in accordance with procedures set forth in MMLI field services SOPs.
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identification based on the presumptive evidence of the mass spectra.

**Standard Qualifiers/Acronyms**

MDL	Method Detection Limit
MRL	Minimum Reporting Limit
ND	Not Detected
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
% Rec	Percent Recovery
RPD	Relative Percent Difference
>	Greater than
<	Less than

**Certified Analyses included in this Report**

Analyte	Certifications
<b>4500-F C-1997 in Water</b>	
Fluoride	KY Drinking Water Mdv (00030) VA NELAC Mdv (460210) IN Drinking Water Mdv (C-KY-02) IL Drinking Water Mdv (200079)







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Louisville, KY 502.961.0001	Paducah, KY 270.444.6547	

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**SAMPLE SUMMARY**

Lab ID	Client Sample ID/Alias	Matrix	Date Collected	Date Received	Sampled By
6073593-01	BACT/	Drinking Water	07/25/2016 10:01	07/25/2016 12:02	Ralph Varney
6073593-02	BACT/	Drinking Water	07/25/2016 10:08	07/25/2016 12:02	Ralph Varney
6073593-03	BACT/	Drinking Water	07/25/2016 10:35	07/25/2016 12:02	Ralph Varney
6073593-04	BACT/	Drinking Water	07/25/2016 10:40	07/25/2016 12:02	Ralph Varney
6073593-05	BACT/	Drinking Water	07/25/2016 11:22	07/25/2016 12:02	Ralph Varney

Lab Number	Measurement	Value
6073593-01	Field Residual Chlorine	1.03
6073593-02	Field Residual Chlorine	0.96
6073593-03	Field Residual Chlorine	1.08
6073593-04	Field Residual Chlorine	0.81
6073593-05	Field Residual Chlorine	1.49



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**SAMPLE SUMMARY**

Lab ID	Client Sample ID/Alias	Matrix	Date Collected	Date Received	Sampled By
6073594-01	Fluoride/	Drinking Water	07/25/2016 09:45	07/25/2016 12:02	Ralph Varney
<u>LabNumber</u>	<u>Measurement</u>	<u>Value</u>			
6073594-01	Field Fluoride	0.69			

**ANALYTICAL RESULTS**

Lab Sample ID: **6073594-01**  
Description: **Fluoride**

Sample Collection Date Time: 07/25/2016 09:45  
Sample Received Date Time: 07/25/2016 12:02

Matrix: Drinking Water

Discharge/Site No: 115

Regulatory ID: KY0980350

**Conventional Chemistry Analyses Madisonville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Fluoride	0.75		mg/L	0.20		4500-F C-1997	07/28/2016 09:13	07/28/2016 09:13	JTL

**Notes for work order 6073594**

- Samples collected by MMLI personnel are done so in accordance with procedures set forth in MMLI field services SOPs.
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identification based on the presumptive evidence of the mass spectra.

**Standard Qualifiers/Acronyms**

MDL	Method Detection Limit
MRL	Minimum Reporting Limit
ND	Not Detected
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
% Rec	Percent Recovery
RPD	Relative Percent Difference
>	Greater than
<	Less than

**Certified Analyses included in this Report**

Analyte	Certifications
<b>4500-F C-1997 in Water</b>	
Fluoride	KY Drinking Water Mdv (00030) VA NELAC Mdv (480210) IN Drinking Water Mdv (C-KY-02) IL Drinking Water Mdv (200079)



**SAMPLE SUMMARY**

Lab ID	Client Sample ID/Alias	Matrix	Date Collected	Date Received	Sampled By
6070588-01	Backwash/Grit Cyclone	Wastewater	07/25/2016 11:52	07/25/2016 12:02	Ralph Varney
6070588-02	Backwash/Grit Pump	Wastewater	07/25/2016 11:55	07/25/2016 12:02	Ralph Varney

**ANALYTICAL RESULTS**

Lab Sample ID: **6070588-01**  
Description: **Backwash Grit Cyclone**

Sample Collection Date Time: 07/25/2016 11:52  
Sample Received Date Time: 07/25/2016 12:02

**Conventional Chemistry Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Suspended Solids	7		mg/L	3	3	2540 D-1997	07/28/2016 14:46	07/28/2016 15:05	SNB

**Field Analysis Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
pH (Field)	7.67		Std. Units	0.10	0.10	4500-H+ B-2000	07/25/2016 11:52	07/25/2016 12:01	JTO

**ANALYTICAL RESULTS**

Lab Sample ID: **6070588-02**  
Description: **Backwash Grit Pump**

Sample Collection Date Time: 07/25/2016 11:55  
Sample Received Date Time: 07/25/2016 12:02

**Conventional Chemistry Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Suspended Solids	10		mg/L	3	3	2540 D-1997	07/28/2016 14:46	07/28/2016 15:05	SNB

**Field Analysis Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
pH (Field)	7.78		Std. Units	0.10	0.10	4500-H+ B-2000	07/25/2016 11:55	07/25/2016 11:58	JTO

*[Handwritten signature]*

**PREPARED**  
8/23/16  
*[Handwritten initials]*

**KENTUCKY DIVISION OF WATER / DRINKING WATER BRANCH  
DISINFECTION BYPRODUCT PRECURSOR ANALYSIS REPORT FORM**

SAMPLE CATEGORY = TOC

**This Section To Be Completed By Collector**

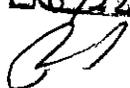
PWS ID	<u>KY0980350</u>	Plant ID	<u>A</u>	Plant Name	<u>INTAKE - LEVISA FORK/BIG SANDY RIVI</u>	Location Code	<u>R01</u>
PWS Name	<u>Pikeville Water Department</u>			PWS Contact	<u>Ralph Varney</u>		
PWS Address	<u>306 Island Creek Road, Pikeville, KY 41501</u>			PWS Phone	<u>(606) 437-5123</u>		
Sample Date (MMDYYYY)	<u>07/25/2016</u>	Time	<u>11:36</u>	Sample Type	<u>RT</u>	Collector Name	<u>Ralph Varney</u>
				RT ** Routine (For Compliance)			
				SP ** Special (Not for Compliance)			

**This Section to Be Completed By Lab**

Lab ID	<u>00030</u>	Lab Sample Number	<u>6073595-01</u>	Lab Phone	<u>(270) 821-7375</u>
Lab Analyst	<u>Tracy Benton</u>	Signature/Date	<u>08/02/2016 12:16</u>	Lab Supervisor	<u>Mark A. Thomas</u> <u>08/03/2016</u>

Analyte Code	Analyte Name	Analysis Method Code	<	Result (mg/L)	Analysis Date
				-or- Lab Minimum Reporting Limit (mg/L)	
1927	Alkalinity, Total (as CaCO3)	849		130	08/02/2016
2920	Total Organic Carbon	839		2.0	07/28/2016

The signatories of this form certify by their signature that collection and analysis of the water sample analyzed and the resulting data hereby submitted, were completed in accordance with the provisions of 401 KAR Chapter 8; and that the data submitted on this form is a true and accurate report of the results of collection and analysis performed pursuant to the above-referenced regulations. Violations of 401 KAR Chapter 8 are subject to severe penalties prescribed in KRS 224.99-010, up to \$15,000 fine per day per violation and in some cases a violation may subject a violator to prison.


  
**ENTERED**  
8/22/16  




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**SAMPLE SUMMARY**

Lab ID	Client Sample ID/Alias	Matrix	Date Collected	Date Received	Sampled By
6070555-01	Raw Source Water/	Drinking Water	07/05/2016 13:57	07/05/2016 14:25	Johnny Osborne

**ANALYTICAL RESULTS**

Lab Sample ID: **6070555-01**  
Description: **Raw Source Water**

Sample Collection Date Time: 07/05/2016 13:57  
Sample Received Date Time: 07/05/2016 14:25

Matrix: Drinking Water

Discharge/Site No:

Regulatory ID: KY0980350

**Microbiological Analyses Madisonville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Cryptosporidium	ND		Cysts/10L	1		EPA 1623	07/07/2016 10:13	07/13/2016 15:28	GAT
Giardia	ND		Cysts/10L	1		EPA 1623	07/07/2016 10:13	07/13/2016 15:28	GAT
Volume Filtered	10.50		Liter			EPA 1623	07/07/2016 10:13	07/13/2016 15:28	GAT

**Microbiological Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
E. Coli	488		MPN/100m L	1		SM9223 COLertQT 24	07/05/2016 16:15	07/06/2016 17:00	IEB

**Notes for work order 6070555**

- Samples collected by MMLI personnel are done so in accordance with procedures set forth in MMLI field services SOPs.
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identification based on the presumptive evidence of the mass spectra.

**Standard Qualifiers/Acronyms**

MDL      Method Detection Limit  
MRL      Minimum Reporting Limit  
ND      Not Detected  
LCS      Laboratory Control Sample  
MS      Matrix Spike  
MSD      Matrix Spike Duplicate  
DUP      Sample Duplicate  
% Rec      Percent Recovery  
RPD      Relative Percent Difference  
>      Greater than  
<      Less than

ENTERED  
6/27/16  
90



**SAMPLE SUMMARY**

Lab ID	Client Sample ID/Alias	Matrix	Date Collected	Date Received	Sampled By
6072138-01	Raw Source Water/	Drinking Water	07/19/2016 14:23	07/19/2016 14:35	Iralee Bolden

**ANALYTICAL RESULTS**

Lab Sample ID: **6072138-01**  
Description: **Raw Source Water**

Sample Collection Date Time: 07/19/2016 14:23  
Sample Received Date Time: 07/19/2016 14:35

Matrix: Drinking Water

Discharge/Site No:

Regulatory ID: KY0980350

**Microbiological Analyses Madisonville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Cryptosporidium	ND		Cysts/10L	1		EPA 1623	07/21/2016 09:21	07/27/2016 14:57	GAT
Giardia	ND		Cysts/10L	1		EPA 1623	07/21/2016 09:21	07/27/2016 14:57	GAT
Volume Filtered	10.50		Liter			EPA 1623	07/21/2016 09:21	07/27/2016 14:57	GAT

**Microbiological Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
E. Coli	9		MPN/100m L	1		SM9223 COLertQT 24	07/19/2016 15:19	07/20/2016 16:52	IEB

**Notes for work order 6072138**

- Samples collected by MMLI personnel are done so in accordance with procedures set forth in MMLI field services SOPs.
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identification based on the presumptive evidence of the mass spectra.

T14 Received sample above recommended temperature on same day as sample collection on ice.

**Standard Qualifiers/Acronyms**

MDL	Method Detection Limit
MRL	Minimum Reporting Limit
ND	Not Detected
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
% Rec	Percent Recovery
RPD	Relative Percent Difference
>	Greater than
<	Less than



KENTUCKY DIVISION OF WATER

Revised 7/1/06

DRINKING WATER BRANCH

MONTHLY OPERATION REPORT (MOR)--ALL WATER SYSTEMS

MONTH & YEAR OF: XXXXXXXXXX

DEP Form 4012--Revised 07/2006

PWS ID :	<u>0980350</u>	PLANT ID:	<u>A</u>	PLANT NAME:	<u>PIKEVILLE WATER PLANT</u>
PWS NAME:	<u>CITY OF PIKEVILLE</u>			PLANT CLASS:	<u>IVA</u> DIST. CLASS: <u>II</u>
AGENCY INTEREST (AI):	<u>3691</u>			DATE MAILED:	
SOURCE NAME:	<u>LEVISA FORK OF THE BIG SANDY RIVER</u>			COUNTY:	<u>PIKE</u>
OPERATOR(S) RESPONSIBLE / IN-CHARGE			CLASS	CERTIFICATION NUMBER	
WTP SHIFT 1:	<u>RALPH VARNEY</u>		<u>IVA</u>	<u>645</u>	
WTP SHIFT 2:	<u>GREG PENNINGTON</u>		<u>IVA</u>	<u>777</u>	
WTP SHIFT 3:	<u>DEMPSEY MILES</u>		<u>IVA</u>	<u>1549</u>	
DISTRIBUTION:	<u>DONNIE SLONE</u>		<u>IID</u>	<u>2236</u>	
<p>THIS REPORT MUST BE RECEIVED BY THE DIVISION OF WATER AND APPLICABLE FIELD OFFICE  <b><u>NO LATER THAN 10 DAYS AFTER THE END OF THE MONTH.</u></b></p>					

**TREATMENT PLANTS COMPLETE:**

1. DESIGN CAPACITY (gpm):	<u>4400</u>
2. TYPE OF FILTRATION USED:	<u>DUAL MEDIA RAPID SAND</u>
3. DESIGN FILTRATION RATE (gpm/sq. ft.):	<u>3</u>
4. PERCENT BACKWASH WATER USED:	<u>3.7</u>
5. DATE FLOCCULATION BASIN(S) LAST CLEANED:	<u>NOVEMBER 2015</u>
6. DATE SETTLING BASIN(S) LAST CLEANED:	<u>NOVEMBER 2015</u>

I certify under penalty of law that I have personally examined and am familiar with the information submitted herein. Based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. See KRS 224.99-010 and 401 KAR 8:020. (Penalties under this statute and regulation may include fines up to \$25,000 per violation or by imprisonment for not more than one year, or both)

\_\_\_\_\_  
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

\_\_\_\_\_  
DATE



KENTUCKY DIVISION OF WATER - DRINKING WATER BRANCH  
 WATER TREATMENT PLANT MONTHLY OPERATION REPORT

PWS ID : 0980350  
 PLANT ID : A

REPORT MONTH/YEAR: Aug, 2016

PAGE 2 OF 11

DAY	DISINFECTANT		FLUORIDE		CARBON		pH ADJUSTMENT		KMnO4		CORROSION INHIBITOR			
	LBS	PPM	LBS	PPM	LBS	PPM	LBS	PPM	LBS	PPM	LBS	PPM	LBS	PPM
			20.9	0.76										
			15.1	0.62										
			23.4	0.79										
			16.2	0.65										
			18.0	0.70										
			22.5	0.79										
			18.9	0.66										
			16.4	0.65										
			17.6	0.67										
			23.1	0.75										
			16.4	0.61										
			20.2	0.70										
			19.3	0.70										
			22.1	0.77										
			21.4	0.73										
			23.4	0.75										
			19.8	0.70										
			16.9	0.65										
			18.0	0.62										
			20.0	0.76										
			18.0	0.71										
			18.9	0.65										
			18.0	0.59										
			24.3	0.90										
			16.7	0.60										
			20.2	0.73										
			23.4	0.74										
			18.0	0.66										
			21.2	0.79										
			18.4	0.67										
			23.4	0.75										
<b>TOTAL</b>			610.1											
<b>AVERAGE</b>			19.7	0.90										

KENTUCKY DIVISION OF WATER - DRINKING WATER BRANCH  
 WATER TREATMENT PLANT MONTHLY OPERATION REPORT

PWS ID : 0980350  
 PLANT ID: A

REPORT MONTH/YEAR: Aug, 2016

PAGE 3 OF 11

DAY	pH			TOTAL ALKALINITY		TOTAL HARDNESS		CHLORINE RESIDUAL				TURBIDITY (NTU)		
	RAW	TOP OF	TAP	RAW	TAP	RAW	TAP	TOP OF FILTER		PLANT TAP		RAW	SETTLED WATER	PLANT TAP
		FILTER						TOTAL	FREE	TOTAL	FREE			
	7.97	7.92	7.77	98	108	220	244		0.60		1.69	24.4	0.88	0.05
	7.93	7.88	7.83	100	104	246	236		0.44		1.70	33.0	1.28	0.08
	7.89	7.92	7.82	100	102	248	240		0.12		1.83	24.8	0.93	0.04
	7.99	7.97	7.83	114	112	226	266		0.92		1.47	18.0	0.97	0.07
	8.00	8.04	7.87	104	120	232	222		0.59		1.66	18.4	0.96	0.07
	8.04	8.04	7.88	104	118	230	226		1.98		1.59	31.6	0.97	0.06
	8.07	8.10	7.90	112	120	238	228		2.08		1.51	34.2	1.62	0.09
	8.06	8.10	7.92	110	124	266	264		1.60		1.62	15.6	1.51	0.09
	7.95	7.94	7.89	110	110	252	296		1.26		1.51	59.2	1.77	0.10
	7.98	7.98	7.87	122	118	252	248		1.32		1.43	16.0	0.91	0.07
	8.10	8.05	7.91	112	118	276	260		1.10		1.44	14.5	1.30	0.08
	8.12	8.06	7.93	122	128	258	240		0.42		1.57	12.2	1.07	0.06
	8.12	8.06	7.92	124	136	284	290		0.12		1.72	10.7	1.24	0.07
	8.16	8.09	7.94	124	122	292	288		0.52		1.68	8.8	0.98	0.07
	8.20	8.16	7.96	130	128	286	268		0.57		1.50	8.4	1.04	0.08
	8.25	8.14	7.86	128	128	290	286		1.16		1.45	36.6	1.12	0.07
	8.10	8.14	7.97	132	130	292	288		1.66		1.48	12.6	1.19	0.07
	8.06	8.04	7.95	90	130	290	280		0.44		1.49	12.4	1.28	0.09
	7.94	7.90	7.90	112	124	250	282		0.52		1.32	36.1	1.23	0.09
	7.88	7.88	7.87	108	116	240	248		0.70		1.41	28.3	0.88	0.07
	7.93	7.90	7.83	118	120	286	272		0.22		1.22	20.0	0.64	0.07
	8.02	7.97	7.88	134	120	280	284		0.22		1.22	20.1	0.98	0.07
	8.09	8.01	7.92	120	130	270	270		0.06		1.20	15.4	0.83	0.08
	8.07	8.09	7.91	126	124	272	284		0.22		1.59	12.0	0.85	0.09
	8.07	8.04	7.95	120	126	292	288		0.08		1.51	9.9	1.20	0.10
	8.21	8.14	7.90	124	120	286	284		0.73		1.39	8.1	1.34	0.09
	8.27	8.16	7.94	106	130	270	290		1.38		1.39	6.4	1.05	0.09
	8.13	8.05	7.91	128	134	284	282		1.42		1.60	6.7	1.02	0.08
	8.15	8.12	7.93	126	126	302	274		0.82		1.32	6.8	1.00	0.08
	8.12	8.11	7.98	136	138	284	302		0.42		1.32	4.7	1.03	0.07
	8.09	8.08	7.96	136	134	282	300		0.57		1.28	8.4	1.02	0.08
<b>AVE</b>	8.06	8.03	7.90	117	123	267	269		0.78		1.49	18.5	1.10	0.07

KENTUCKY DIVISION OF WATER  
 DRINKING WATER BRANCH  
 WATER TREATMENT PLANT MONTHLY OPERATION REPORT

PWS ID : 0980350  
 PLANT ID: A  
 AGENCY INTEREST: 3691  
 REPORT MONTH/YEAR: Aug, 2016

AREA-WIDE OPTIMIZATION PROGRAM TURBIDITY DATA  
 COPY PAGE AS NEEDED

DAY	RAW DAILY MAX	SEDIMENTATION BASIN EFFLUENT DAILY MAXIMUM						INDIVIDUAL FILTER EFFLUENT DAILY MAXIMUM							CFE DAILY MAX
		#1	#2	#3	#4	#5	#6	#1	#2	#3	#4	#5	#6	#7	
	27.0	0.93	0.78					0.04	0.18	0.06	0.04	0.03			0.04
	40.8	1.02	0.96					0.05	0.05	0.30	0.04	0.04			0.03
	29.5	0.96	0.88					0.08	0.07	0.10	0.17	0.05			0.04
	18.1	1.04	0.90					0.16	0.12	0.10	0.08	0.09			0.07
	21.1	1.27	0.91					0.14	0.10	0.16	0.08	0.06			0.06
	47.8	0.95	0.87					0.16	0.11	0.20	0.12	0.09			0.07
	77.9	2.14	2.03					0.15	0.22	0.46	0.27	0.19			0.13
	17.2	1.77	1.18					0.11	0.10	0.28	0.28	0.19			0.10
	96.2	2.05	1.89					0.13	0.11	0.24	0.26	0.20			0.12
	20.2	1.07	0.95					0.09	0.08	0.18	0.18	0.15			0.09
	14.8	1.32	1.21					0.08	0.07	0.14	0.07	0.09			0.07
	14.1	1.13	0.97					0.17	0.17	0.14	0.07	0.06			0.05
	11.1	1.26	1.11					0.07	0.12	0.14	0.08	0.08			0.08
	9.7	1.29	0.95					0.06	0.07	0.28	0.25	0.16			0.08
	9.0	1.18	0.99					0.05	0.06	0.16	0.23	0.08			0.05
	64.6	1.19	1.11					0.07	0.08	0.26	0.15	0.15			0.08
	15.7	1.21	1.16					0.15	0.08	0.20	0.17	0.12			0.08
	19.3	1.51	0.98					0.12	0.16	0.22	0.14	0.14			0.08
	44.6	1.45	1.05					0.12	0.11	0.22	0.14	0.12			0.07
	36.3	0.91	0.79					0.08	0.08	0.36	0.17	0.15			0.10
	20.7	0.69	0.61					0.21	0.23	0.20	0.24	0.07			0.13
	23.7	1.10	1.02					0.20	0.18	0.14	0.12	0.09			0.07
	17.0	0.92	0.70					0.24	0.24	0.22	0.11	0.09			0.07
	13.8	0.82	0.66					0.09	0.13	0.18	0.14	0.11			0.07
	10.8	1.21	1.03					0.14	0.10	0.28	0.15	0.11			0.06
	9.0	1.60	1.41					0.09	0.10	0.22	0.22	0.21			0.13
	7.6	1.18	1.02					0.09	0.12	0.26	0.28	0.26			0.12
	7.0	1.10	0.96					0.09	0.08	0.20	0.16	0.25			0.11
	7.1	1.10	1.02					0.14	0.10	0.12	0.14	0.11			0.09
	4.8	1.32	1.14					0.13	0.22	0.16	0.12	0.10			0.07
	8.9	1.21	1.07					0.21	0.17	0.28	0.15	0.08			0.10
<b>AVE</b>	24.7	1.22	1.04					0.12	0.12	0.21	0.16	0.12			0.08

KENTUCKY DIVISION OF WATER - DRINKING WATER BRANCH  
 WATER TREATMENT PLANT MONTHLY OPERATION REPORT

PWSID: 0980350  
 PLANT ID: A

REPORT MONTH/YEAR: Aug, 2016

\*Please answer Y/N question below this chart.

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DAY	FLUORIDE		IRON		MANGANESE				Lowest Daily Cl Res	RAINFALL	WATER
	RAW	TAP	RAW	TAP	RAW	TAP	RAW	TAP	Plant Tap On-Line Cl Analyzer		INCHES
									FREE		F°/C°
	0.11	0.78							1.69		23.0
	0.12	0.79							1.70	0.14	23.0
	0.12	0.76							1.83		23.0
	0.11	0.70							1.47		24.0
	0.13	0.82							1.66	0.08	26.0
	0.12	0.70							1.59		26.0
	0.12	0.74							1.51		26.0
	0.11	0.62							1.62	1.64	26.0
	0.12	0.80							1.51		25.0
	0.13	0.78							1.43		26.0
	0.13	0.78							1.44		27.0
	0.14	0.81							1.57		28.0
	0.14	0.82							1.72		27.0
	0.13	0.78							1.68		27.0
	0.13	0.80							1.50		27.5
	0.13	0.75							1.45		27.0
	0.13	0.68							1.48		27.0
	0.10	0.58							1.49	0.71	27.0
	0.15	0.82							1.32	0.07	26.0
	0.13	0.80							1.41		26.0
	0.14	0.78							1.22	0.23	26.0
	0.13	0.76							1.22		25.0
	0.13	0.78							1.20		25.0
	0.13	0.76							1.59		25.0
	0.12	0.75							1.51		26.0
	0.13	0.75							1.39		26.0
	0.13	0.77							1.39		28.0
	0.12	0.72							1.60		28.0
	0.12	0.72							1.32		28.0
	0.14	0.80							1.32	1.41	28.0
	0.15	0.76							1.28		28.0
<b>AVE</b>	0.13	0.76									26.1

	1.20	
Number of readings	31	4.28
For Free Cl, # < 0.2 mg/L	0	
For Chloramines, # < 0.5 mg/L		

Disinfectant Chloramines? (Y/N)

KENTUCKY DIVISION OF WATER - DRINKING WATER BRANCH  
 WATER TREATMENT PLANT MONTHLY OPERATION REPORT

PWS ID : 0980350

PLANT ID: A

REPORT MONTH/YEAR: Aug, 2016

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DAY	TOTAL	No: 1		No: 2		No: 3		No: 4		No: 5	
	WASH	AREA (ft2)	363	AREA (ft2)	363	AREA (ft2)	363	AREA (ft2)	363	AREA (ft2)	363
	WATER	WASH	FILT RUN	WASH	FILT RUN	WASH	FILT RUN	WASH	FILT RUN	WASH	FILT RUN
GALLONS	GALLONS	HRS	GALLONS	HRS	GALLONS	HRS	GALLONS	HRS	GALLONS	HRS	
	90,640			90,640	67.25						
	79,200					79,200	65.25				
	81,100							81,100	58.25		
	81,800									81,800	58.50
	82,100	82,100	72.00								
	96,588			96,588	72.75						
	82,400					82,400	72.25				
	72,990							72,990	74.25		
	81,200									81,200	76.75
	88,561	88,561	75.00								
	82,000			82,000	74.75						
	81,000					81,000	78.25				
	787,000							787,000	78.00		
	98,172									98,172	82.75
	106,275	106,275	66.00								
	110,866			110,866	65.50						
	82,100					82,100	82.50				
	81,250							81,250	80.00		
	81,400									81,400	75.25
	80,700	80,700	78.25								
	82,550			82,550	78.75						
	89,375					89,375	63.25				
	81,000							81,000	79.50		
	96,240									96,240	80.00
	82,350	82,350	80.25								
	80,200			80,200	79.25						
	173,313					173,313	79.25				
<b>TOT</b>	<b>3,112,370</b>	<b>439,986</b>	<b>371.5</b>	<b>542,844</b>	<b>438.3</b>	<b>587,388</b>	<b>440.8</b>	<b>1,103,340</b>	<b>370.0</b>	<b>438,812</b>	<b>373.3</b>
<b>AVE</b>	<b>115,273</b>	<b>87,997</b>	<b>74.3</b>	<b>90,474</b>	<b>73.0</b>	<b>97,898</b>	<b>73.5</b>	<b>220,668</b>	<b>74.0</b>	<b>87,762</b>	<b>74.7</b>

COPY AS NEEDED

KENTUCKY DIVISION OF WATER - DRINKING WATER BRANCH  
 WATER TREATMENT PLANT MONTHLY OPERATION REPORT

PWS ID : 0980350  
 PLANT ID : A

REPORT MONTH/YEAR: Aug, 2016

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DAY	CHEMICALS ADDED		TEST RESULTS									
	CHLORINE BOOSTER LBS	CHLORINE BOOSTER LBS	TOTAL (T) AND FREE (F) CHLORINE RESIDUAL (ppm)									
			NORTH		SOUTH		EAST		WEST			
			T	F	T	F	T	F	T	F		
				0.99								
							1.05					
									0.98			
											1.02	
				0.95								
							1.08					
									1.08			
											1.01	
				1.02								
							0.85					
									0.89			
											0.98	
				1.13								
							0.98					
									0.79			
											1.09	
				1.38								
							1.18					
									1.32			
											1.26	
				0.81								
							1.12					
									1.42			
											1.05	
				1.24								
							1.23					
									1.19			
											1.01	
				0.99								
							0.79					
									0.71			
AVE			AVERAGE	1.06		1.04		1.05		1.06		
TOT			TOT MIN									
			FREE MIN	0.81		0.79		0.71		0.98		
Total # Chlorine Samples				8		8		8		7		
# Less than 0.2 mg/L/0.5 mg/L				0		0		0		0		
Number of Free Residuals			31	Minimum Monthly Total Residual			NA					
Number of Total Residuals			0	Minimum Monthly Free Residual			0.71					
Total # Less than 0.2 mg/L			0	Disinfectant Chloramines? (Y/N)			N					
				Number of days of operation?			31					

KENTUCKY DIVISION OF WATER - DRINKING WATER BRANCH  
 WATER TREATMENT PLANT MONTHLY OPERATION REPORT

PWS ID : 0980350  
 PLANT ID: A

TURBIDITY REPORT

Report Period (MM/YYYY): Aug, 2016

PWS Name: CITY OF PIKEVILLE

PAGE:  
 8 OF 11

DAY									
12.8	4		0.05	0.05	0.05	0.06		0.06	
11.8	3		0.11	0.10	0.05	0.05		0.11	
13.5	4		0.04	0.04	0.04	0.05		0.05	
10.3	3		0.07	0.06	0.08	0.07		0.08	
12.0	3		0.07	0.07	0.07	0.07		0.07	
13.0	4		0.06	0.05	0.06	0.06		0.06	
13.3	4		0.07	0.10	0.09	0.08		0.10	
12.0	3		0.08	0.08	0.09	0.09		0.09	
12.0	3		0.11	0.09	0.09	0.10		0.11	
14.0	4		0.08	0.07	0.07	0.07		0.08	
12.3	4		0.08	0.07	0.08	0.08		0.08	
13.3	4		0.06	0.05	0.06	0.06		0.06	
13.0	4		0.06	0.07	0.07	0.07		0.07	
13.5	4		0.07	0.06	0.07	0.07		0.07	
13.5	4		0.08	0.07	0.08	0.07		0.08	
14.8	4		0.05	0.07	0.06	0.08		0.08	
13.8	4		0.05	0.08	0.06	0.07		0.08	
12.3	4		0.08	0.10	0.10	0.09		0.10	
13.0	4		0.09	0.10	0.08	0.08		0.10	
12.3	4		0.06	0.07	0.07	0.09		0.09	
11.8	3		0.06	0.06	0.07	0.08		0.08	
13.3	4		0.06	0.08	0.08	0.06		0.08	
14.0	4		0.07	0.07	0.09	0.07		0.09	
12.8	4		0.09	0.08	0.08	0.09	0.09	0.09	
13.0	4		0.10	0.09	0.12	0.07		0.12	
13.0	4		0.08	0.09	0.09	0.09		0.09	
14.8	4		0.09	0.09	0.08	0.09		0.09	
12.8	4		0.08	0.08	0.08	0.07		0.08	
12.8	4		0.08	0.08	0.08	0.08		0.08	
12.8	4		0.06	0.07	0.07	0.08		0.08	
14.8	4		0.07	0.08	0.07	0.08		0.08	
Total	401.5	118	TOTAL # OF TURBIDITY SAMPLES TAKEN --				125	0.12	

ARE YOU USING EITHER CONVENTIONAL or DIRECT FILTRATION? (Y/N)

(Any type of filtration besides slow sand)

Number of samples exceeding ----> 0.1 NTU 3 0.3 NTU 0 1 NTU 0

For slow sand filtration, the number of samples exceeding ----> 1 NTU 5 NTU

\*NOTE: The "Number of Turbidity Samples Required" is the number of hours the plant operated divided by 4 rounded up to the next whole number.

I certify that the above turbidity readings were taken every 4 hours during plant operation and in the time frames noted above.

Signature of Principal Executive Officer or Authorized Agent

Date

KENTUCKY DIVISION OF WATER / DRINKING WATER BRANCH  
Monthly Operating Report (MOR) Plant Summary Form

PWS ID : 0980350

Monitoring Period (MM/YYYY): Aug, 2016

**NOTE: COMPLETE ALL APPLICABLE FIELDS!!! NOT ALL OF THE FIELDS ARE  
PRE-POPULATED FOR YOU!!!**

APPLICABLE TO ALL PLANTS			
PLANT ID:	<u>A</u>	TOTAL WATER TREATED (gallons)	<u>103,864,000</u>
PLANT NAME:	<u>PIKEVILLE WATER PLANT</u>	AVE. DAILY PRODUCTION (gallons)	<u>3,350,452</u>
AGENCY INTEREST:	<u>3691</u>	MAXIMUM PUMPAGE (gallons per day)	<u>3,776,000</u>

APPLICABLE TO ALL PLANTS WITH FILTRATION	
ANALYTE CODE	<u>0100</u>
Was each filter monitored continuously? (Y/N).....	<u>Y</u>
Were measurements recorded every 15 minutes? (Y/N).....	<u>Y</u>
Was there a failure of the continous monitoring equipment? (Y/N).....	<u>N</u>
If Yes, (1) were individual filter effluent turbidity grab samples collected every fours hours of operation? (Y/N).....	
(2) was the continously monitoring equipment repaired within 5 working days? (Y/N).....	
Was individual filter level greater than 1.0 NTU in two consecutive measurements? (Y/N).....	<u>N</u>
Was individual filter level < 0.5 NTU in two consecutive measurements after online more than 4 hours? (Y/N).....	<u>N</u>
Was individual filter level < 1.0 NTU in two consecutive measurements in three consecutive months? (Y/N).....	<u>N</u>
Was individual filter level greater than 2.0 NTU in two consecutive measurements in two consecutive months? (Y/N)	<u>N</u>
<b>If any of the last 4 boxes are YES, fill out the Individual Filter Turbidity Sheet and submit with MOR</b>	

APPLICABLE TO ALL PLANTS WITH FILTRATION	APPLICABLE TO ALL PLANTS
ANALYTE CODE	<u>0100</u>
Number of hours of plant operation.....	<u>401.5</u>
Were samples taken every 4 hrs of plant operation? (Y/N)	<u>Y</u>
Number of samples taken.....	<u>125</u>
Highest single turbidity reading .....	<u>0.12</u>
For all filtration except slow sand filtration:	
Number of samples exceeded 0.1 NTU .....	<u>3</u>
Number of samples exceeded 0.3 NTU .....	<u>0</u>
Number of samples exceeded 1.0 NTU .....	<u>0</u>
When filtration is slow sand filtration:	
Number of samples exceeded 1 NTU .....	
Number of samples exceeded 5 NTU .....	
ANALYTE CODE	<u>0999</u>
Number of days of plant operation.....	<u>31</u>
Were samples taken each day of operation? (Y/N)	<u>Y</u>
Number of lowest chlorine samples recorded .....	<u>31</u>
Lowest single chlorine reading .....	<u>1.20</u>
If less than required:	
Was residual restored within 4 hrs of plant operation?	<input type="checkbox"/>
Free chlorine (for all disinfectants except chloromine):	
Number of samples under 0.2 mg/L .....	<u>0</u>
Total Chlorine (when disinfectant is chloromine):	
Number of samples under 0.5 mg/L .....	

APPLICABLE TO PLANTS UTILIZING CHLORINE DIOXIDE	APPLICABLE TO PLANTS USING CHLORINE DIOXIDE
ANALYTE CODE	<u>1008</u>
Number of days of plant operation.....	<u>31</u>
Were samples taken each day of operation? (Y/N).....	<input type="checkbox"/>
Number of samples taken .....	<u>###</u>
Highest single chlorine dioxide reading .....	<u>###</u>
Number of chlorine dioxide samples exceeded 0.8 mg/L ..	<u>###</u>
ANALYTE CODE	<u>1009</u>
Number of days of plant operation.....	<u>31</u>
Were samples taken each day of operation? (Y/N)	<input type="checkbox"/>
Number of samples taken .....	<u>###</u>
Highest single chlorite reading .....	<u>###</u>
Number of chlorite samples exceeded 1 mg/L .....	<u>###</u>

I certify under penalty of law that I have personally examined and am familiar with the information submitted herein. Based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. See KRS 224.99-010 and 401 KAR 8:020. (Penalties under this statute and regulation may include fines up to \$25,000 per violation or by imprisonment for not more that one year, or both).

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

DATE



**PIKEVILLE WATER TREATMENT PLANT  
 WATER PUMPED TO DISTRIBUTION SYSTEM  
 FOR THE MONTH OF: August, 2016**

08/01/16	3.4474
08/02/16	3.0202
08/03/16	3.4413
08/04/16	3.3838
08/05/16	3.0755
08/06/16	3.3684
08/07/16	3.3937
08/08/16	3.2654
08/09/16	3.1738
08/10/16	3.6885
08/11/16	3.4432
08/12/16	3.4094
08/13/16	3.3648
08/14/16	3.6105
08/15/16	3.5058
08/16/16	3.6309
08/17/16	3.6263
08/18/16	3.2822
08/19/16	3.5162
08/20/16	3.1993
08/21/16	3.0957
08/22/16	3.5492
08/23/16	3.6974
08/24/16	3.3538
08/25/16	3.3495
08/26/16	3.4122
08/27/16	3.6812
08/28/16	3.3655
08/29/16	3.3851
08/30/16	3.3076
08/31/16	3.6595
<b>Total</b>	<b>105.7033</b>
<b>Average</b>	<b>3.4098</b>
<b>Minimum</b>	<b>3.0202</b>
<b>Maximum</b>	<b>3.6974</b>

<b>Water plant usage</b>	<b>210,583</b>
<b>Raw water intake usage</b>	<b>179,270</b>
<b>Total non metered usage</b>	<b>389,853</b>

# Water Withdrawal Report Form

Preprint ID:

Agency Interest

Subject Item:

Monitoring Period:

3691 - Pikeville Water Department

GACT000000001-0638 Levisa Fork

08/01/16 to 08/31/16

Day	Result	Parameter	Unit
1	3.307	Withdrawal	MGD (MA)
2	2.913	Withdrawal	MGD (MA)
3	3.570	Withdrawal	MGD (MA)
4	3.001	Withdrawal	MGD (MA)
5	3.101	Withdrawal	MGD (MA)
6	3.412	Withdrawal	MGD (MA)
7	3.458	Withdrawal	MGD (MA)
8	3.041	Withdrawal	MGD (MA)
9	3.157	Withdrawal	MGD (MA)
10	3.684	Withdrawal	MGD (MA)
11	3.221	Withdrawal	MGD (MA)
12	3.468	Withdrawal	MGD (MA)
13	3.291	Withdrawal	MGD (MA)
14	3.447	Withdrawal	MGD (MA)
15	3.521	Withdrawal	MGD (MA)
16	3.760	Withdrawal	MGD (MA)
17	3.397	Withdrawal	MGD (MA)
18	3.124	Withdrawal	MGD (MA)
19	3.472	Withdrawal	MGD (MA)
20	3.174	Withdrawal	MGD (MA)
21	3.060	Withdrawal	MGD (MA)
22	3.497	Withdrawal	MGD (MA)
23	3.670	Withdrawal	MGD (MA)
24	3.228	Withdrawal	MGD (MA)
25	3.335	Withdrawal	MGD (MA)
26	3.310	Withdrawal	MGD (MA)
27	3.776	Withdrawal	MGD (MA)
28	3.250	Withdrawal	MGD (MA)
29	3.219	Withdrawal	MGD (MA)
30	3.271	Withdrawal	MGD (MA)
31	3.729	Withdrawal	MGD (MA)

ENTERED  
8/21/16  
RV

	FLOW TO DIST	START C. WELL	Settling Basin Turbidity						Sludge Hauled	Spent B/W Return	DUP pH TAP
			MID - 4	4A - 8AM	8AM - 12N	12N - 4PM	4PM - 8PM	8PM - 12M			
08/01/16	3.4474	9.6		0.91	0.70	1.07	0.86		183,000	7.77	
08/02/16	3.0202	8.4		3.13	0.59	0.72	0.99		320,000	7.83	
08/03/16	3.4413	7.8		1.04	0.98	0.92	0.78		157,000	7.82	
08/04/16	3.3838	11.0		0.96	0.81	1.15	0.97	21,000	172,000	7.84	
08/05/16	3.0755	4.9		0.90	0.88	0.84	1.09		39,000	7.88	
08/06/16	3.3684	5.2		1.01	0.90	0.91	1.12		202,000	7.88	
08/07/16	3.3937	7.6		1.14	1.17	2.08	1.60		67,000	7.90	
08/08/16	3.2654	8.0		1.48	1.67	1.47	1.48		250,000	7.94	
08/09/16	3.1738	7.0		1.24	1.47	2.18	1.97		160,000	7.90	
08/10/16	3.6885	7.0		0.90	0.81	0.80	1.01		178,000	7.87	
08/11/16	3.4432	8.0		1.14	1.31	1.54	1.26		81,000	7.94	
08/12/16	3.4094	5.4		1.07	1.02	1.16	1.05		170,000	7.93	
08/13/16	3.3648	7.2		1.20	1.34	1.18	1.28		176,000	7.92	
08/14/16	3.6105	7.2		0.85	0.65	1.14	1.12		158,000	7.94	
08/15/16	3.5058	5.2		0.85	1.01	1.15	1.08		171,000	7.97	
08/16/16	3.6309	6.6		1.06	1.14	1.15	1.10		158,000	7.86	
08/17/16	3.6263	9.0		1.16	1.11	1.18	1.32		183,000	7.98	
08/18/16	3.2822	6.2		1.26	1.47	1.20	1.24		212,000	7.95	
08/19/16	3.5162	5.4		1.55	1.06	1.25	1.05		57,000	7.91	
08/20/16	3.1993	5.2		0.94	1.01	0.85	0.76		105,000	7.87	
08/21/16	3.0957	4.6		0.72	0.56	0.63	0.65		165,000	7.82	
08/22/16	3.5492	5.0		0.92	0.85	1.05	1.06		184,000	7.89	
08/23/16	3.6974	5.0		0.80	0.77	0.81	0.96		183,000	7.92	
08/24/16	3.3538	6.0		0.74	0.77	0.74	0.96	1.17	145,000	7.92	
08/25/16	3.3495	5.0		1.24	1.23	1.27	1.12		93,000	7.96	
08/26/16	3.4122	4.6		1.35	1.16	1.50	1.20		87,000	7.90	
08/27/16	3.6812	4.8		1.11	1.11	1.10	0.85		140,000	7.94	
08/28/16	3.3655	8.0		1.10	1.08	1.03	0.84		169,000	7.91	
08/29/16	3.3851	7.0		1.00	0.90	1.00	1.06		131,000	7.95	
08/30/16	3.3076	4.8		0.82	0.81	1.06	1.23		180,000	7.97	
08/31/16	3.6595	6.0		1.12	0.75	1.10	0.94		197,000	7.96	
Ave	3.4098	6.5		1.12	1.00	1.14	1.10	1.17	157,194		
Tot	105.7033								21,000	4,873,000	
Min	3.0202	4.6		0.72	0.56	0.63	0.65	1.17	39,000		
Max	3.6974	11.0		3.13	1.67	2.18	1.97	1.17	320,000		

WATER PLANT MONTHLY OPERATIONS REPORT

MONTH/YEAR: 8/2016

ANALYTICAL RESULTS (Mg/L or PPM unless otherwise specified.)

DAY	pH (S. U.'S)				ALKALINITY		HARDNESS		CHLORINE		TURBIDITY (NTU)		FLUORIDE	
	RAW	TOF	FIN	DUP	RAW	FIN	RAW	FIN	TOF	FIN	RAW	TOF	RAW	FIN
01	7.47	7.92	7.77	7.77	98	108	220	244	.60	1.69	24.4	.88	.11	.78
02	7.93	7.88	7.83	7.83	100	104	246	235	.44	1.70	33	1.28	.12	.79
03	7.89	7.92	7.82	7.82	100	102	248	240	.12	1.83	24.8	.93	.12	.76
04	7.99	7.97	7.83	7.84	114	112	226	266	.92	1.47	18	.97	.11	.70
05	8.00	8.04	7.87	7.88	104	120	232	222	.59	1.66	18.4	.96	.13	.82
06	8.04	8.04	7.88	7.88	104	118	230	226	1.98	1.59	31.6	.97	.12	.70
07	8.07	8.10	7.90	7.90	112	120	238	228	2.08	1.51	34.2	1.62	.12	.74
08	8.06	8.16	7.92	7.94	110	124	266	264	1.6	1.62	15.6	1.51	.11	.62
09	7.95	7.94	7.89	7.90	110	116	252	246	1.26	1.51	59.2	1.77	.12	.80
10	7.98	7.98	7.87	7.87	122	118	252	248	1.32	1.43	15.95	.91	.13	.78
11	8.10	8.05	7.91	7.94	112	118	276	260	1.1	1.44	14.45	1.30	.13	.78
12	8.12	8.06	7.93	7.93	122	128	258	240	.42	1.57	12.2	1.07	.14	.81
13	8.12	8.06	7.92	7.92	124	136	284	290	.12	1.72	10.7	1.24	.14	.82
14	8.16	8.04	7.94	7.94	124	122	292	288	.52	1.68	8.8	.98	.13	.78
15	8.20	8.16	7.96	7.97	130	128	286	268	.57	1.50	8.4	1.04	.13	.8
16	8.25	8.14	7.86	7.86	128	128	290	286	1.16	1.45	36.6	1.12	.13	.75
17	8.10	8.14	7.97	7.98	132	130	292	288	1.66	1.48	12.6	1.19	.13	.68
18	8.06	8.04	7.95	7.95	90	150	290	280	.44	1.49	12.4	1.28	.10	.58
19	7.94	7.9	7.9	7.91	112	124	250	282	.52	1.32	36.1	1.23	.15	.82
20	7.89	7.88	7.87	7.87	108	116	240	248	.7	1.41	28.3	.88	.13	.8
21	7.93	7.90	7.83	7.82	118	120	286	272	.22	1.22	20.	.64	.14	.78
22	8.02	7.97	7.88	7.89	134	120	280	284	.22	1.22	20.1	.98	.13	.76
23	8.09	8.01	7.92	7.92	120	130	270	270	.06	1.20	15.4	.83	.13	.78
24	8.07	8.09	7.91	7.92	126	124	272	284	.22	1.59	12	.85	.13	.76
25	8.07	8.04	7.95	7.96	120	126	292	288	.08	1.51	9.9	1.20	.12	.75
26	8.21	8.14	7.90	7.90	124	120	286	284	.73	1.39	8.1	1.34	.13	.75
27	8.27	8.16	7.94	7.94	106	150	270	290	1.38	1.39	6.4	1.05	.13	.77
28	8.13	8.05	7.91	7.91	128	134	284	282	1.42	1.60	6.7	1.02	.12	.72
29	8.15	8.12	7.93	7.95	126	126	302	274	.82	1.32	6.75	1.0	.12	.72
30	8.12	8.11	7.98	7.97	136	138	284	302	.42	1.32	4.7	1.03	.14	.8
31	8.09	8.08	7.96	7.96	136	134	282	300	.57	1.28	8.4	1.02	.15	.76

WATER PLANT MONTHLY OPERATIONS REPORT

MONTH/YEAR: 8/16

CHEMICALS ADDED

4.291  
meter

DAY	RAW WATER TREATED (M.G.D.)	COAGULANT PAC LBS	FLUORIDE LBS	PRE LBS	POST LBS
01	*3.3073	926	20.9	59.3	90.2
02	2.913	865	15.1	51.7	62.7
03	3.570	1030	23.4	49.5	64.9
04	3.001	634	16.2	27.5	61.6
05	3.101	639	18.0	41.8	63.8
06	3.412	762	22.5	40.7	69.3
07	3.458	680	18.9	30.8	72.6
08	3.041	541	16.4	27.5	66
09	3.157	832	17.6	24.2	64.9
10	3.684	988	23.1	34.1	78.1
11	3.221	645	16.4	31.9	72.6
12	3.468	676	20.2	34.1	78.1
13	3.291	676	19.3	33	78.1
14	3.447	686	22.1	33	82.5
15	3.521	670	21.4	49.5	85.8
16	3.760	742	23.4	38.5	78.1
17	3.397	639	19.8	33.0	78.1
18	3.124	593	16.9	29.7	68.2
19	3.472	867	18	34.1	81.4
20	3.174	915	20	44	77
21	3.06	815	18	62.7	49.5
22	3.497	896	18.9	19.8	104.5
23	<del>3.228</del> 3.670	<del>885</del> 927	<del>24.3</del> 18	<del>44</del> 71.5	<del>77</del> 82.5
24	<del>3.328</del>	<del>603</del> 803	<del>16.7</del> 24.3	<del>46.2</del> 44	<del>58.3</del> 77
25	<del>3.335</del>	<del>659</del> 603	<del>20.2</del> 16.7	<del>55</del> 46.2	<del>53.9</del> 58.3
26	3.310	659	20.2	35	53.9
27	3.776	609.5	23.4	44	60.5
28	3.250	618	18	40.7	49.8
29	3.219	634	21.2	38.5	48.4
30	3.271	597	18.4	39.6	52.8
31	3.729	731	23.4	46.2	66.0

\* 1ST TRWTR ESTIMATE - FROM 1000PM - 5:50AM AVE 2093 gpm  
TOTAL OF .98371 mg

8/16

FILTER OPERATION INFORMATION  
 WATER TREATMENT PLANT MONTHLY OPERATION REPORT

CARRY OVER 2.5 57.75 44.5 26.75 19.5  
 PWS ID: 0980350 REPORT MONTH:

DAY	(gallons)	#1 HRS	GAL	#2 HRS	GAL	#3 HRS	GAL	#4 HRS	GAL	#5 HRS	GAL
1	11 8240	12.75		9.5 6.25 4	90640	12.75		12.75		12.75	
2	10 7920	11.75		11.75		8 65.25 4.25	79200	11.75		11.75	
3	10 8110	13.5		13.5				7.0 83.25 5.75	81100	13.5	
4	10 8180	10.25		10.25				10.25		6.0 58.5 4	81800
5		12		12				12		12	
6	10 8210	9.25 12.0 3.5	82100	13.0				13.0		13.0	
7	10 8049	13.25		9.25 12.75 2.0	96588	13.25		13.25		13.25	
8	10 8240	12		12		7 72.25 4.5	82400	12		12	
9	9 8110	12		12				8 74.25 3.75	72990	12	
10	10 8120	14		14				14		9.5 115 10.25	81200
11		12.25		12.25				12.25		12.25	
12	11 8051	9.5 15.75 3.5	88561	13.25		13.25		13.25		13.25	
13	10 8200	13		9.25 14.75 1.75	82000	13		13		13	
14	10 8100	13.5		13.5		9.25 18.25 4	81000	13.5		13.5	
15	10 7870	13.5		13.5				8.25 18 5	78700	13.5	
16	12 8181	14.75		14.75				14.75		13.0 81.75 5.5	98172
17	13 8175	7.5 16.0 8.5	106275	13.75		13.75		13.75		13.75	
18	14 7919	12.25		6.5 16.5 5	110866	12.25		12.25		12.25	
19		13		13		13		13		13	
20	10 8210	12.25		12.25		11.25 82.5 1	82100	12.25		12.25	
21	10 8125	11.75		11.75				9 80 2.5	81250	11.75	
22	10 8140	13.25		13.25				13.25		10.75 15.25 2.25	81400
23	10 8070	9.5 18.75 4	80700	14		14		14		14	
24	10 8255	12.75		9.5 18.75 2.25	82550	12.75		12.75		12.75	
25	11 8125	13		13		10.5 62.25 2.5	89315	13		13	
26	<del>10 8100</del>	13		13				13		13	
27	10 8000	14.75		14.75				14.75		11.5 79.5 3.5	81000
28	12 8020	12.75		12.75				12.75		10.25 80 2.25	96240
29	10 8235	10 80.25 2	82350	12.75		12.75		12.75		12.75	
30	10 8020	12.75		10.25 79.25 2.25	80200	12.75		12.75		12.75	
31	21 8253	14.75		14.75		11.0 79.25 3.25	173313	14.75		14.75	

PIKEVILLE WATER TREATMENT PLANT  
AWOP INFORMATION

MONTH/YR: 8/16

ANALYTICAL RESULTS (NTU)										
DAY	RAW	SED BASIN EFF		INDIVIDUAL FILTER EFFLUENT					CFE	
	DAILY MAX	DAILY MAX		DAILY MAXIMUM					DAILY MAX	
		#1	#2	#1	#2	#3	#4	#5		
1	27	.93	.78	.04	.18	.06	.04	.03	.04	3275 4454
2	40.8	1.02	.96	.05	.05	.30	.04	.04	.03	3196 4472
3	29.5	.96	.88	.08	.07	.10	.17	.05	.04	3199 4451
4	18.1	1.04	.9	.16	.12	.10	.08	.09	.07	3244 4447
5	21.9	1.27	.91	.14	.10	.16	.08	.06	.06	3172 4423
6	42.8	.95	.87	.16	.11	.20	.12	.09	.07	3214 4423
7	22.9	2.14	2.03	.15	.22	.46	.27	.19	.13	3181 4417
8	17.2	1.77	1.18	.11	.10	.28	.28	.19	.10	3242 4399
9	96.2	2.05	1.89	.13	.11	.24	.26	.20	.12	3159 4423
10	20.2	1.07	.95	.09	.08	.18	.18	.15	.09	3199 4411
11	14.8	1.32	1.21	.08	.07	.14	.07	.09	.07	3275 4405
12	14.1	1.13	.97	.17	.17	.14	.07	.06	.05	3165 4368
13	11.1	1.26	1.11	.07	.12	.14	.08	.08	.08	3178 4316
14	9.7	1.29	.95	.06	.07	.28	.25	.16	.08	3168 4353
15	9.0	1.18	.99	.05	.06	.16	.23	.08	.05	3196 4365
16	64.6	1.19	1.11	.07	.08	.26	.15	.15	.08	3193 4377
17	15.7	1.21	1.16	.15	.08	.20	.17	.12	.08	3245 4389
18	19.3	1.51	.98	.12	.16	.22	.14	.14	.08	3214 4386
19	44.6	1.45	1.05	.12	.11	.22	.14	.12	.07	3248 4386
20	36.3	.91	.79	.08	.08	.36	.17	.15	.1	3175 4389
21	20.7	.69	.61	.21	.23	.2	.21	.07	.13	3211 4385
22	23.7	1.10	1.02	.20	.18	.14	.12	.09	.07	3244 4396
23	17	.92	.70	.24	.24	.22	.11	.09	.07	3217 4393
24	13.8	.82	.66	.09	.13	.18	.14	.11	.07	3244 4371
25	10.8	<del>1.21</del> <del>1.49</del>	<del>1.21</del> <del>1.49</del>	.14	.10	.28	.15	.11	.06	3214 4353
26	9.0	1.6	1.41	.09	.10	.22	.22	.21	.13	3214 4347
27	7.6	1.18	1.02	.09	.12	.26	.28	.26	.12	3244 4341
28	7	1.10	.96	.09	.08	.20	.16	.25	.11	3208 4335
29	7.1	1.10	1.02	.14	.10	.12	.14	.11	.09	3217 4338
30	4.8	1.32	1.14	.13	.22	.16	.12	.1	.07	4353
31	8.9	1.21	1.07	.21	.17	.28	.15	.08	.10	3220 4338

WATER PLANT MONTHLY OPERATIONS REPORT

MONTH/YEAR:

8/16

DAILY READINGS

DAY	WATER TO DIST MGD	SLUDGE HAULED Gals	S B/W RETURN	RAIN FALL (inches)	WATER TEMP DEG C	CLEAR WELL LEVEL FT.
1	3.4474		183000		23°	9.6
2	3.0202		320000	.14	23°	8.4
3	3.4413		157000		23°	7.8
4	3.3838	21000	172000		24°	11.0
5	3.0755		39000	.08	26	4.9
6	3.3684		202000		26°	5.2
7	3.3937		67000		26°	7.4
8	3.2654		250000	1.64	26°	8.0
9	3.1738		160000		25	7
10	3.6885		178000		26	7
11	3.4432		81000		27	8
12	3.4094		170000		28	5.4
13	3.3640		176000		27	7.2
14	3.6105		158000		27	7.2
15	3.5058		171000		27.5°	5.2
16	3.6309		158000		27°	6.6
17	3.4263		183000		27°	9.0
18	3.2822		212000	.71	27°	6.2
19	3.5162		57000	.07	26	5.4
20	3.1993		105000		26	5.2
21	3.0957		165000	.23	26	4.6
22	3.5492		184000		25	5
23	<del>3.3538</del> 3.6974		145000	183000	25	5
24	3.3495		93000		25	6
25	3.4122		87000		26	5
26					26	4.5
27	3.6812		140000		28	4.8
28	3.3655		169000		28	8
29	3.3851		131000		28	7
30	3.3076		180000	1.41	28	4.8
31	3.6595		197000		28°	6.0

### FINISHED WATER TURBIDITY

PWSID: 0980350

PWS NAME: PIKEVILLE WATER MONTH Aug/2016

DAY	MID - 4AM	4AM - 8AM	8AM - NOON	NOON - 4PM	4PM - 8PM	8PM - MID
1		.05	.05	.05	.06	
2		.11	.10	.05	.05	
3		.04	.04	.04	.05	
4		.07	.08	.08	.07	
5		.07	.07	.07	.07	
6		.06	.05	.06	.06	
7		.07	.10	.09	.08	
8		.08	.08	.09	.09	
9		.11	.09	.09	.10	
10		.08	.07	.07	.07	
11		.08	.07	.08	.08	
12		.06	.05	.06	.06	
13		.06	.07	.07	.07	
14		.07	.06	.07	.07	
15		.08	.07	.08	.07	
16		.05	.07	.06	.08	
17		.05	.08	.06	.07	
18		.08	.10	.1	.09	
19		.09	.1	.08	.08	
20		.06	.07	.07	.09	
21		.06	.06	.07	.08	
22		.06	.08	.08	.06	
23		.07	.07	.09	.07	
24		.09	.08	.08	.09	.09
25		.10	.09	.12	.07	
26		.08	.09	.09	.09	
27		.09	.09	.08	.09	
28		.08	.08	.08	.07	
29		.08	.08	.08	.08	
30		.06	.07	.07	.08	
31		.07	.08	.07	.08	

### SETTLED WATER TURBIDITY

PWSID: 0980350

PWS NAME: PIKEVILLE WATER MONTH Aug/2010

DAY	MID - 4AM	4AM - 8AM	8AM - NOON	NOON - 4PM	4PM - 8PM	8PM - MID
1		.91	.70	1.07	.93/.78/.86	
2		3.13	.59	.72	1.02/.96/.99	
3		1.04	.98	.96/.88/.92	.78	
4		.96	.81	1.15	1.04/.90/.97	
5		.90	.88	.84	1.27/.91/.09	
6		1.01	.90	.95/.87/.91	1.12	
7		1.14	1.17	2.14/2.02/2.03	1.60	
8		1.48	1.67	1.47	1.77/1.18/1.48	
9		1.24	1.47	2.18	2.05/1.89/1.97	
10		.90	.81	.80	1.07/.95/1.01	
11		1.14	1.31	1.54	1.32/1.21/1.26	
12		1.07	1.02	1.16	1.13/.97/1.05	
13		1.20	1.34	1.26/1.11/1.18	1.28	
14		.85	.65	1.14	1.29/.95/1.12	
15		.85	1.01	1.15	1.18/.99/1.08	
16		1.06	1.14	1.19/1.11/1.15	1.10	
17		1.16	1.11	1.21/1.16/1.18	1.32	
18		1.26	1.47	1.20	1.24	
19		1.55	1.06	1.45/1.05/1.25	1.05	
20		.94	1.01	.91/.79/.85	.76	
21		.72	.56	.63	.69/.61/.65	
22		.92	.85	1.05	1.10/1.02/1.06	
23		.80	.77	.92/.70/.81	.96	
24		.74	.77	.82/.66/.74	.96	1.17
25		1.24	1.23	1.27	1.21/1.03/1.12	
26		1.35	1.16	1.60/1.41/1.5	1.20	
27		1.11	1.11	1.12/1.02/1.1	.85	
28		1.10	1.08	1.10/.96/1.03	.84	
29		1.00	.9	1.00	1.16/1.02/1.06	
30		.82	.81	1.06	1.22/1.14/1.23	
31		1.12	.75	1.12/1.07/1.10	.94	

WATER DEPARTMENT  
MASTER WATER READINGS

DATE: 9-1-16

ACCOUNT NUMBER	LOCATION	PRESENT	PREVIOUS	USAGE	AMOUNT
	SANDY VALLEY-Pikeville	337813	323837	14056	9044 DON'T BILL
54-9966200-0	TOWN MOUNTAIN	608185	585533	22652	
54-9909400-0	CHLOE ROAD	59255	56065	3190	
54-9911500-0	ISLAND CREEK	49428	45500	3928	
54-9928000-0	MUD CREEK-Southern Wt.	071421	059603	11878	
54-9914600-0	COON BRANCH	10621	10502	119	
54-9913000-0	SOUTH MAYO TRAIL	198600	186666	11934	
54-9925500-0	HOOPWOOD HOLLOW	4816	14711	105	
54-9911800-0	ISLAND CK. TRAILER PK.	00200	00000	200	
54-9911900-0	HURRICANE CREEK	298730	296788	1942	
54-9912000-0	PIKE FLOYD-Southern	35055	32855	2200	
54-9900100-0	COWPEN-Mt. Water	254896	252084	2812	
			TOTAL	60960	

Only Read First 5 Numbers

RW 5460680 749892  
 8281410 7288344  
 179270 210583

WTP

METER READER INITIALS: \_\_\_\_\_

NON METERED WATER

FLUSHING - EST \_\_\_\_\_  
 LEAKS - EST \_\_\_\_\_  
 TOTAL GALLONS \_\_\_\_\_

## Monthly Chlorine Report- Aug. 2016

### Water Dist. – Utility Management Group – JM,PL,JR

8-1-16 = 3630 Island Creek = 0.99  
8-2-16 = 14 Mossey Bottom 1<sup>st</sup> Street = 1.05  
8-3-16 = 146 Forth Street = 0.98  
8-4-16 = 160 Keyser Heights = 1.02  
8-5-16 = 135 Hibberd Street = 0.95  
8-6-16 = 215 Pen Friend Lane = 1.08  
8-7-16 = 466 South Mayo Trail = 1.08  
8-8-16 = 3543 North Mayo Trail = 1.01

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8-9-16 = 154 Gilliam Street = 1.02  
8-10-16 = 237 Mullins Add. = 0.85  
8-11-16 = 358 Harolds Br. = 0.89  
8-12-16 = 127 Porter Ln. = 0.98  
8-13-16 = 129 Shawnee Trail = 1.13  
8-14-16 = 667 Hambley Blvd. = 0.98  
8-15-16 = 130 Justice Way = 0.79  
8-16-16 = 178 Mildred Street = 1.09  
8-17-16 = 151 Nightingale = 1.38  
8-18-16 = 395 Bob Amos = 1.18  
8-19-16 = 258 Cassidy Blvd. = 1.32  
8-20-16 = 488 Cedar Creek = 1.26  
8-21-16 = 28 Mossey Bottom = 0.81  
8-22-16 = 667 Bypass = 1.12  
8-23-16 = 185 Deskins Hollow = 1.42  
8-24-16 = 340 Ziegler Drive = 1.05  
8-25-16 = 620 Venters Lane = 1.24  
8-26-16 = 103 Mossey Bottom = 1.23  
8-27-16 = 5215 North Mayo Trail = 1.19  
8-28-16 = 2136 South Mayo Trail = 1.01  
8-29-16 = 306 Island Creek = 0.99  
8-30-16 = 32 Mullins 1<sup>st</sup> Street = 0.79  
8-31-16 = 424 Bob Amos = 0.71

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 8/1/16 RAW TEMP 23 RAINFALL \_\_\_\_\_

OPERATOR EP OPERATOR JU

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	30				
FLUORIDE	77/40				
PRECL2	240 <sup>700</sup> 220				
POSTCL2	270 <sup>1200</sup>				

CLEAR WELL 9.6 Town Mtn. 25.2 On    Off     
 RFT/SHT 28.21 26.0

METERS/WEIGHTS/LEVELS			
FINISHED	44668338		PAX 140/61/220
RAW	33954371		FLUORIDE 780
SLUDGE	270357		PRE CL2 110/62/150
S B/W RET	208654		POST CL2 105/28/150

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	539	1140	140	1	PT5	655	1000						12.75
#2				1455 →									
#3													
#4													
#5													

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
2	459	11	8240		

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 8/2/16 RAW TEMP 22° RAINFALL .14

OPERATOR RU for Dm Personal OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	30				
FLUORIDE	73/40				
PRECL2	220	↓ 200			
POSTCL2	265	↓ 255			

CLEAR WELL 8.4 <sup>(249)</sup> Town Mtn. 25.6 On  Off   
 RFT/SHT 28.4 126

METERS/WEIGHTS/LEVELS			
FINISHED	4470281	2	PAX 210
RAW	3395866	2	FLUORIDE 264
SLUDGE	270357		PRE CL2 175
S B/W RET	208837		POST CL2 145

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	552	130	300		1600	705	809						11.75
#2	↓												↓
#3	↓		1325	340									↓
#4	↓												↓
#5	↓		↓			↓		↓					↓

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
3	327	10	7920	—	—

COMMENTS: PROBLEMS WITH #1 PUMP NOT SHUTTING DOWN ALL THE WAY LAST NIGHT. 2000 GPM COMING TO PLANT

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 8/3/16 RAW TEMP 23° RAINFALL \_\_\_\_\_

OPERATOR an OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	30				
FLUORIDE	7 <sup>3</sup> / <sub>40</sub>				
PRECL2	200 ↓	80			
POSTCL2	255	245	250		

CLEAR WELL 7.8 Town Mtn. 24.8 On Off ✓  
 RFT/SHT 27.4 | 25.6

METERS/WEIGHTS/LEVELS					
FINISHED	44733014			PAX	126   220
RAW	33961575			FLUORIDE	180   800
SLUDGE	220357			PRE CL2	98   175
S B/W RET	209157			POST CL2	88   175
		7.25	2.25		
			10.0		3.5

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	4:30	11:50	2:15	5:00	7:00	10:30					13.5
#2	↓	↓	↓	↓	↓	↓					
#3	↓	↓	↓	↓	↓	↓					
#4	↓	11:30	↓	↓	↓	↓					
#5	↓	11:50	↓	↓	↓	↓					

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#4	11:37	10	8/10	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 8/4/16 RAW TEMP 24° RAINFALL \_\_\_\_\_

OPERATOR DM OPERATOR JM

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	80	↑160 (227)			
POSTCL2	250↑270				

CLEAR WELL 11.0 Town Mtn. 25.2 On  Off   
 RFT/SHT 27.6 | 25.0

METERS/WEIGHTS/LEVELS			
FINISHED	4476	7427	PAX 120 / 77 / 210
RAW	3386	5145	FLUORIDE 670
SLUDGE	2703	57	PRE CL2 130 / 115 / 150
S B/W RET	2093	14	POST CL2 116 / 72 / 150

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	5:10	10:25	136	1415	600	1800					10.25
#2	↓	↓	↓	↓	↓	↓					↓
#3	↓	↓	↓	↓	↓	↓					↓
#4	↓	↓	↓	↓	↓	↓					↓
#5	↓	11:05	↓	↓	↓	↓					↓

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#5	11:09	10	8180	—	—

5.25  
 3.09  
 8.25  
 2

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 8-5-16 RAW TEMP 26 RAINFALL .08

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	160				
POSTCL2	270				

CLEAR WELL 4.9 Town Mtn. 26.8 On  Off   
 RFT/SHT 26.8 | 23.6

METERS/WEIGHTS/LEVELS			
FINISHED	4480	1265	PAX 192
RAW	3396	8146	FLUORIDE 580
SLUDGE	270	567	PRE CL2 <del>138</del> 140
S B/W RET	209	486	POST CL2 138

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	607	1327	535	1807									12
#2													
#3													
#4													
#5	↓	↓	↓	↓									↓

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 8/6/16 RAW TEMP 26° RAINFALL \_\_\_\_\_

OPERATOR DM OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20 ↑ 30				
FLUORIDE	23/40				
PRECL2	160 ↓ 150				
POSTCL2	270				

CLEAR WELL 5.2 Town Mtn. 26.4 On Off  
 RFT/SHT 27.2 | 24.4

METERS/WEIGHTS/LEVELS			
FINISHED	4483	2020	PAX 130   220
RAW	3397	1247	FLUORIDE 480   800
SLUDGE	2705	67	PRE CL2 102   175
S B/W RET	2095	25	POST CL2 80   175

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	5:00	12:20	4:30	8:00							
#2		12:35									13.0
#3											
#4											
#5	↓	↓	↓	↓							

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#1	2:23	10	8210	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 8/7/16 RAW TEMP 26° RAINFALL \_\_\_\_\_

OPERATOR DM OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	30 ↓ 20				
FLUORIDE	75/40				
PRECL2	150 ↓ 100				
POSTCL2	270 ↑	275			

CLEAR WELL 7.6 Town Mtn. 27.0 On  Off   
 RFT/SHT 27.4 | 24.2

METERS/WEIGHTS/LEVELS			
FINISHED	44865704		PAX <u>146</u> / <u>120</u> / <u>160</u>
RAW	33974659		FLUORIDE <u>675</u>
SLUDGE	270567		PRE CL2 <u>138</u>
S B/W RET	209727		POST CL2 <u>112</u> / <u>94</u> / <u>140</u>

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	5:05	1:00	3:00	6:15	7:25	9:35							13.25
#2	↓	↓	11:25	4:15	↓	↓							
#3	↓	↓	↓	6:15	↓	↓							
#4	↓	↓	↓	↓	↓	↓							
#5	↓	↓	↓	↓	↓	↓							

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#2	4:18	12	8049		

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 8/8/16 RAW TEMP 26° RAINFALL 1.64

OPERATOR DM OPERATOR [Signature]

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	25/40				
PRECL2	100				
POSTCL2	275				

CLEAR WELL 8.0 Town Mtn. 25.4 On  Off   
 RFT/SHT 28.4 | 24.8

METERS/WEIGHTS/LEVELS			
FINISHED	44 89 96 41		PAX 120
RAW	33 97 81 17		FLUORIDE 570
SLUDGE	270 567		PRE CL2 110
S B/W RET	209 784		POST CL2 92

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	6:00			1:30	4:45		9:15						12
#2													
#3		1:05	→										
#4													
#5													

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
3	109	10	8240		

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 8/9/16 RAW TEMP 25 RAINFALL \_\_\_\_\_

OPERATOR RU for GP (Vn) OPERATOR [Signature]

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20	30 1000			
FLUORIDE	73/40				
PRECL2	100				
POSTCL2	275				

CLEAR WELL 7 Town Mtn. 25.6 On Off  
 RFT/SHT 27.4 124.2

METERS/WEIGHTS/LEVELS	
FINISHED	44932295
RAW	33981158
SLUDGE	270567
S B/W RET	210044
PAX	68 53/220
FLUORIDE	479
PRE CL2	85 78/170
POST CL2	32 18/170

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600		120		420	1745	845	1915					1/2
#2													
#3													
#4		158											
#5													

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
4	200	9	8/10	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 8/10/16 RAW TEMP 26 RAINFALL \_\_\_\_\_

OPERATOR RV working for upc OPERATOR [Signature]

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	30		↓20		
FLUORIDE	73/40				
PRECL2	100	↓120			
POSTCL2	275		↑288		

CLEAR WELL 7 <sup>(630)</sup> 749 Town Mtn. 25.8 On Off  
 RFT/SHT 24.2 120.8

METERS/WEIGHTS/LEVELS			
FINISHED	449	64033	PAX 155
RAW	239	84315	FLUORIDE 381.5
SLUDGE	270	567	PRE CL2 155
S B/W RET	210	204	POST CL2 125

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	555		1345		543	11000							14
#2													↓
#3													
#4													
#5	✓	1330	→	↓	↓	↓							

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
5	332	60	8120	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 8/11/16 RAW TEMP 27 RAINFALL \_\_\_\_\_

OPERATOR RU BOY GPVAC OPERATOR *JM*

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	120				
POSTCL2	288				

CLEAR WELL 8 Town Mtn. 25.2 On  Off

RFT/SHT 28.8 | 26.4

METERS/WEIGHTS/LEVELS			
FINISHED	45000918		PAX 60 40/220
RAW	33 987999		FLUORIDE 25.3
SLUDGE	270567		PRE CL2 124
S B/W RET	210382		POST CL2 54 31/170

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600	1308	503	1815							12.25
#2	↓		↓								↓
#3	↓		↓								↓
#4	↓		↓								↓
#5	↓		↓								↓

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 8/12/16 RAW TEMP 28 RAINFALL \_\_\_\_\_

OPERATOR RU for Jim (SCH60) OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	120				
POSTCL2	290				

CLEAR WELL 5.4 Town Mtn. 25.2 On  Off   
 RFT/SHT 25.2 | 22.2

METERS/WEIGHTS/LEVELS			
FINISHED	45035350		PAX 178
RAW	33991220		FLUORIDE 162 132/771
SLUDGE	270.567		PRE CL2 95
S B/W RET	210463		POST CL2 127

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600	300	330	830	715	815			
#2									
#3									
#4									
#5									

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#1	302	11	8051	—	—

COMMENTS: 6-5:30 115  
 830-815 175 1325

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 8-13-16 RAW TEMP 27 RAINFALL \_\_\_\_\_

OPERATOR JM OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	120				
POSTCL2	7300				

CLEAR WELL 7.2 Town Mtn. 24.2 On  Off   
 RFT/SHT 26.8 | 25.2

METERS/WEIGHTS/LEVELS			
FINISHED	4506	9444	PAX 113/220
RAW	3399	4688	FLUORIDE 689
SLUDGE	270	567	PRE CL2 64/150
S B/W RET	210	633	POST CL2 56/153

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	500		1235		435		800						13
#2		1220	—										↓
#3													↓
#4													↓
#5	↓			↓	↓		↓						↓

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
2	223	10	8200	—	

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 8-14-16 RAW TEMP 27 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	120				
POSTCL2	300	↓295			

CLEAR WELL 7.2<sup>(817)</sup> Town Mtn. 26.6 On  Off

RFT/SHT 24.8 | 22.2

METERS/WEIGHTS/LEVELS			
FINISHED	45103092		PAX 155/201
RAW	33997979		FLUORIDE 582
SLUDGE	270567		PRE CL2 120/140
S B/W RET	26809		POST CL2 82/158

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	425			1200	460	1800							13.5
#2													
#3		1145	→										
#4													
#5	↓			↓	↓	↓							↓

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
3	148				

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 8/15/16 RAW TEMP 27.5 RAINFALL \_\_\_\_\_

OPERATOR RV for GP (VAJ) OPERATOR JM

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	23/40				
PRECL2	120				
POSTCL2	295				

CLEAR WELL 5.2 Town Mtn. 26.6 On  Off

RFT/SHT 25.4 | 22.0

METERS/WEIGHTS/LEVELS			
FINISHED	451	391	97
RAW	390	014	26
SLUDGE	270	56	7
S B/W RET	210	96	2
PAX	135	1100	200
FLUORIDE	459		
PRE CL2	116	188	160
POST CL2	83	40	150

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	555		1450		550	1830					13.5
#2											
#3											
#4		1217	230								
#5											

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
4	219	10	7870		

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 8/16/16 RAW TEMP 27.0 RAINFALL \_\_\_\_\_

OPERATOR Om OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	120				
POSTCL2	295 ↓	290			

CLEAR WELL 6.6 Town Mtn. 26.4 On Off  
 RFT/SHT 25.6 | 22.6

METERS/WEIGHTS/LEVELS						
FINISHED	45174255			PAX	170	220
RAW	34004947			FLUORIDE	340	800
SLUDGE	270567			PRE CL2	143	175
S B/W RET	211133			POST CL2	123	175

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	5:10	10:10	11:00	7:10	8:00	9:25					14.75
#2	↓	↓	↓	↓	↓	↓					
#3	↓	↓	↓	↓	↓	↓					
#4	↓	↓	↓	↓	↓	↓					
#5	↓	↓	↓	16:55	↓	↓					

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#5	6:56	12	8181	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 8/17/16 RAW TEMP 27° RAINFALL \_\_\_\_\_

OPERATOR Dm OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	7 <sup>3</sup> / <sub>40</sub>				
PRECL2	120				
POSTCL2	290				

CLEAR WELL 9.0 Town Mtn. 26.4 On  Off   
 RFT/SHT 22.0 | 24.4

METERS/WEIGHTS/LEVELS			
FINISHED	<u>45210564</u>		PAX <u>148</u>
RAW	<u>34008707</u>		FLUORIDE <u>670</u>
SLUDGE	<u>270567</u>		PRE CL2 <u>140</u>
S B/W RET	<u>211291</u>		POST CL2 <u>104 / 155</u>

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	<u>5:05</u>	<u>12:40</u>	<u>3:00</u>	<u>6:15</u>	<u>9:15</u>						<u>15</u>
#2		<u>11:00</u>									<u>13.75</u>
#3											
#4											
#5	↓	↓	↓	↓	↓						

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
<u>#1</u>	<u>12:42</u>	<u>13</u>	<u>8175</u>	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 8/18/16 RAW TEMP 27° RAINFALL 1.71

OPERATOR DM OPERATOR KU for Jm

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	120				
POSTCL2	290				

CLEAR WELL 6.2 Town Mtn. 25.6 On  Off   
 RFT/SHT 27.6 | 25.8

METERS/WEIGHTS/LEVELS			
FINISHED	45246827		PAX 86 / 140
RAW	34012104		FLUORIDE 560
SLUDGE	220567		PRE CL2 110
S B/W RET	211474		POST CL2 84 / 120

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	6:00		13:15		5:00		8:00						12 <sup>35</sup>
#2			12:30		1:15		2:30						11.5
#3													12 <sup>25</sup>
#4													
#5													

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#2	1233	14	7919	—	—

COMMENTS: S B/W RETURN 375 spm  
 Raw Flow 4338 gpm 11.57 fo 1

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 8/19/16 RAW TEMP 26 RAINFALL .07

OPERATOR RV for Jm (schedule) OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE	FEED RATE	FEED RATE	FEED RATE	PPM
	AT START	TIME CHANGE	TIME CHANGE	TIME CHANGE	
PAC	20	8/5 30			
FLUORIDE	73/40				
PRECL2	120	200 ↑ 140			
POSTCL2	290	200 ↑ 300			

CLEAR WELL RFT/SHT 24.6 5.4 Town Mtn. 25.8 On  Off

121.6

METERS/WEIGHTS/LEVELS			
FINISHED	45279649		PAX 83 72/220
RAW	340 15228		FLUORIDE 466
SLUDGE	270 567		PRE CL2 83 77/170
S B/W RET	211 686		POST CL2 58 44/170

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	550	1500	600	1									
#2	↓	↓	↓	↓									
#3	↓	↓	↓	↓									
#4	↓	↓	↓	↓									
#5	↓	↓	↓	↓									

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 8/20/16 RAW TEMP 26 RAINFALL \_\_\_\_\_

OPERATOR Rufon Tom (UAC) OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	30				
FLUORIDE	73/40				
PRECL2	160	615 ↓ 140			
POSTCL2	300	" ↓ 285			

CLEAR WELL 5.2 Town Mtn. 26.2 On Off  
 RFT/SHT 25.8 | 23.8

METERS/WEIGHTS/LEVELS			
FINISHED	45314811		PAX 138 60/220
RAW	34018700		FLUORIDE 366
SLUDGE	270567		PRE CL2 145 110/150
S/BW RET	211742		POST CL2 110 48/163

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	550	11250	2101		1740								125
#2	↓												↓
#3	↓		1630	6451									1225
#4	↓												125
#5	↓	10	↓		↓								↓

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#3	630	10	8210	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 8.21.16 RAW TEMP 29 RAINFALL .23

OPERATOR \_\_\_\_\_ OPERATOR *[Signature]*

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	30		↓ 25		
FLUORIDE	73/40				
PRECL2	140	↑ 150	↑ 160		
POSTCL2	285	↑ 295	↑ 300		

CLEAR WELL 4.6 <sup>820</sup> <sup>1500</sup> Town Mtn. 26.6 On Off  
 RFT/SHT 25.8 | 23.4

METERS/WEIGHTS/LEVELS			
FINISHED	4534	6804	PAX 210
RAW	3402	1874	FLUORIDE 255
SLUDGE	270	567	PRE CL2 143
S B/W RET	211	848	POST CL2 155

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	605			140	610	900					1175
#2											↓
#3											↓
#4	↓	1303	330		↓						1125
#5	↓			↓	↓	↓					1175

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
4	305	10	812		

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 8/22/16 RAW TEMP 25° RAINFALL \_\_\_\_\_

OPERATOR RUBEN JIM (P) OPERATOR [Signature]

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	25				
FLUORIDE	73/40				
PRECL2	160				
POSTCL2	300				

CLEAR WELL RFT/SHT 25.8 5 Town Mtn. 26.2 On Off

METERS/WEIGHTS/LEVELS	
FINISHED	453 77761
RAW	34024934
SLUDGE	270567
S B/W RET	212013
PAX	122
FLUORIDE	155
PRE CL2	88
POST CL2	110

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	555		1557		655	1815					13.25
#2											
#3											
#4											
#5	↓	1443	500	↓	↓	↓					↓

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
5	445	10	8140	←	→

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 8/23/16 RAW TEMP 25 RAINFALL \_\_\_\_\_

OPERATOR JD OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	25				
FLUORIDE	73/40				
PRECL2	160				
POSTCL2	300				

CLEAR WELL RFT/SHT 5 Town Mtn. 24.4 On Off

24.4 | 23

METERS/WEIGHTS/LEVELS			
FINISHED	454/3253		PAX 35/225
RAW	34028431		FLUORIDE 50/500
SLUDGE	270567		PRE CL2 70/175
S B/W RET	212197		POST CL2 15/175

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	609	335	405	530	700	935							
#2													14
#3													
#4													
#5	↓			↓	↓	↓							

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
1	340	10	8070		

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 8/24/16 RAW TEMP 25 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	25 <sup>620</sup> / 20				
FLUORIDE	75/40				
PRECL2	160				
POSTCL2	300				

CLEAR WELL 6 Town Mtn. 25.2 On \_\_\_ Off \_\_\_  
 RFT/SHT 27.6 | 23.6

METERS/WEIGHTS/LEVELS			
FINISHED	4545	0227	PAX 135
RAW	3403	2101	FLUORIDE 400
SLUDGE	2705	67	PRE CL2 135
S B/W RET	2123	80	POST CL2 100

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	645	440	615	555							12??
#2		1410									
#3		1440									
#4											
#5	↓		↓								

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
2	415	10	8255	—	

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 8/25/14 RAW TEMP 26 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR [Signature]

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	160		↓ 150		
POSTCL2	300 ↓ 380	400 ↓ 265	↓ 240	↓ 150	

CLEAR WELL RFT/SHT 23.8 | 20.4 Town Mtn. <sup>605</sup> 25.8 On \_\_\_ Off \_\_\_

METERS/WEIGHTS/LEVELS			
FINISHED	454837.65		PAX 57/80/58/205
RAW	340353.29		FLUORIDE 265
SLUDGE	270.567		PRE CL2 95/178/120
S B/W RET	212.525		POST CL2 30/60/38/160

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	6:45		17:05		7:20	8:00					13
#2											↓
#3	15:16		5:31		↓	↓					↓
#4					↓	↓					↓
#5											↓

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
3	5:18	11	8125	←	→

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 8-26-16 RAW TEMP 26 RAINFALL \_\_\_\_\_

OPERATOR *Jr* OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	150				
POSTCL2	↑ 245	↓ 225	↓ 200 150	↑ 225	

CLEAR WELL 4.6 <sup>(100)</sup> Town Mtn. <sup>700</sup> 25.2 On  Off

RFT/SHT 24 | 21.4

METERS/WEIGHTS/LEVELS			
FINISHED	45517260		PAX 169
RAW	34038664		FLUORIDE 172
SLUDGE	270567		PRE CL2 95
S B/W RET	212618		POST CL2 129

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600	550	655	803									
#2													
#3													
#4													
#5													

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 8/27/16 RAW TEMP 28 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE	FEED RATE	FEED RATE	FEED RATE	PPM
	AT START	TIME CHANGE	TIME CHANGE	TIME CHANGE	
PAC	20				
FLUORIDE	73/40				
PRECL2	150				
POSTCL2	225 <sup>125</sup> <sub>200</sub>				

CLEAR WELL 4.8 Town Mtn. 26.6 On    Off     
 RFT/SHT 15.4 / 22.4

METERS/WEIGHTS/LEVELS			
FINISHED	4555	1382	PAX 105/225
RAW	3404	1974	FLUORIDE 60/500
SLUDGE	2705	67	PRE CL2 60/150
S B/W RET	2127	05	POST CL2 80/155

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	645	605	730	1055									14.75
#2													
#3													
#4		1545											
#5		1605											

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
4	550	10	8100	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 8/28/16 RAW TEMP 28 RAINFALL \_\_\_\_\_

OPERATOR JP OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	150				
POSTCL2	200				

CLEAR WELL 8 Town Mtn. 25.8 On    Off     
 RFT/SHT 28 | 25.8

METERS/WEIGHTS/LEVELS			
FINISHED	45588194		PAX 160
RAW	34045750		FLUORIDE 370
SLUDGE	270567		PRE CL2 110
S B/W RET	212845		POST CL2 100

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	605	12/5	230	1	1900								1275
#2													
#3													
#4													
#5	↓	12	↓	1625	640	↓							

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
5	630	12	8020	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 8/29/16 RAW TEMP 28 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR [Signature]

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	70/40				
PRECL2	150				
POSTCL2	200				

CLEAR WELL 7 Town Mtn. 24.8 On Off  
 RFT/SHT 26.8 | 24.6

METERS/WEIGHTS/LEVELS			
FINISHED	45621849		PAX 100/71/180
RAW	34049000		FLUORIDE 270/210/740
SLUDGE	270567		PRE CL2 73/58/120
S B/W RET	213014		POST CL2 55/33/120

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600	400	415	440	600	800							12.75
#2													
#3													
#4													
#5													

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
1	40	10	8235		

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 8/30/16 RAW TEMP 28° RAINFALL \_\_\_\_\_

OPERATOR RU for dm(vac) OPERATOR [Signature]

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	150				
POSTCL2	200	↑ 220			

CLEAR WELL 4.8 <sup>523</sup> Town Mtn. 26.4 On  Off   
 RFT/SHT 25.6 123

METERS/WEIGHTS/LEVELS			
FINISHED	45655680		PAX 148/90/210
RAW	34052219		FLUORIDE 682
SLUDGE	270567		PRE CL2 100/64/120
S B/W RET	213145		POST CL2 98/50/150

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	555	155	340	1	1834	1					12.75
#2				559	65						↓
#3											↓
#4											↓
#5	↓	N	↓		↓						↓

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
2	601	10	8020		

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 8/31/16 RAW TEMP 28° RAINFALL 1.41

OPERATOR Dm OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	7 3/40				
PRECL2	150				
POSTCL2	220				

CLEAR WELL 6.0 Town Mtn. 24.8 On  Off \_\_\_\_\_  
 RFT/SHT 24.2 | 22.2

METERS/WEIGHTS/LEVELS				
FINISHED	45688756		PAX	210
RAW	34055490		FLUORIDE	580
SLUDGE	270567		PRE CL2	120
S B/W RET	213335		POST CL2	150

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	5:10	14:35	6:30	9:40							14.75
#2	↓	↓	↓	↓							
#3	↓	14:10	↓	↓							
#4	↓	14:35	↓	↓							
#5	↓	↓	↓	↓							

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#3	4:11	21	8253	—	—

COMMENTS:





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**SAMPLE SUMMARY**

Lab ID	Client Sample ID/Alias	Matrix	Date Collected	Date Received	Sampled By
6081761-01	BACT/	Drinking Water	08/03/2016 11:59	08/03/2016 13:18	Ralph Varney
6081761-02	BACT/	Drinking Water	08/03/2016 12:09	08/03/2016 13:18	Ralph Varney
6081761-03	BACT/	Drinking Water	08/03/2016 12:19	08/03/2016 13:18	Ralph Varney
6081761-04	BACT/	Drinking Water	08/03/2016 12:26	08/03/2016 13:18	Ralph Varney
6081761-05	BACT/	Drinking Water	08/03/2016 12:38	08/03/2016 13:18	Ralph Varney

<u>LabNumber</u>	<u>Measurement</u>	<u>Value</u>
6081761-01	Field Residual Chlorine	1.20
6081761-02	Field Residual Chlorine	1.27
6081761-03	Field Residual Chlorine	1.78
6081761-04	Field Residual Chlorine	1.74
6081761-05	Field Residual Chlorine	1.40



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**ANALYTICAL RESULTS**

Lab Sample ID: **6081761-01**  
Description: **BACT**

Sample Collection Date Time: 08/03/2016 11:59  
Sample Received Date Time: 08/03/2016 13:18

Matrix: Drinking Water

Discharge/Site No: 111

Regulatory ID: KY0980350

**Microbiological Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Collert 24	08/03/2016 16:14	08/04/2016 16:40	ADH

**ANALYTICAL RESULTS**

Lab Sample ID: **6081761-02**  
Description: **BACT**

Sample Collection Date Time: 08/03/2016 12:09  
Sample Received Date Time: 08/03/2016 13:18

Matrix: Drinking Water

Discharge/Site No: 030

Regulatory ID: KY0980350

**Microbiological Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Collert 24	08/03/2016 16:14	08/04/2016 16:40	ADH

**ANALYTICAL RESULTS**

Lab Sample ID: **6081761-03**  
Description: **BACT**

Sample Collection Date Time: 08/03/2016 12:19  
Sample Received Date Time: 08/03/2016 13:18

Matrix: Drinking Water

Discharge/Site No: 110

Regulatory ID: KY0980350

**Microbiological Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Collert 24	08/03/2016 16:14	08/04/2016 16:40	ADH



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**ANALYTICAL RESULTS**

Lab Sample ID: **6081761-04**  
Description: **BACT**

Sample Collection Date Time: 08/03/2016 12:26  
Sample Received Date Time: 08/03/2016 13:18

Matrix: Drinking Water

Discharge/Site No: 033

Regulatory ID: KY0980350

**Microbiological Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Coli/ert 24	08/03/2016 16:14	08/04/2016 16:40	ADH

**ANALYTICAL RESULTS**

Lab Sample ID: **6081761-05**  
Description: **BACT**

Sample Collection Date Time: 08/03/2016 12:38  
Sample Received Date Time: 08/03/2016 13:18

Matrix: Drinking Water

Discharge/Site No: 022

Regulatory ID: KY0980350

**Microbiological Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Coli/ert 24	08/03/2016 16:14	08/04/2016 16:40	ADH

**Notes for work order 6081761**

- Samples collected by MMLI personnel are done so in accordance with procedures set forth in MMLI field services SOPs.
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identification based on the presumptive evidence of the mass spectra.

**Standard Qualifiers/Acronyms**

- MDL Method Detection Limit
- MRL Minimum Reporting Limit
- ND Not Detected
- LCS Laboratory Control Sample
- MS Matrix Spike
- MSD Matrix Spike Duplicate
- DUP Sample Duplicate
- % Rec Percent Recovery
- RPD Relative Percent Difference
- > Greater than
- < Less than





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**SAMPLE SUMMARY**

Lab ID	Client Sample ID/Alias	Matrix	Date Collected	Date Received	Sampled By
6081762-01	Fluoride/	Drinking Water	08/03/2016 09:35	08/03/2016 13:18	Ralph Varney
<u>LabNumber</u>	<u>Measurement</u>	<u>Value</u>			
6081762-01	Field Fluoride	0.76			

**ANALYTICAL RESULTS**

Lab Sample ID: **6081762-01**  
Description: **Fluoride**

Sample Collection Date Time: 08/03/2016 09:35  
Sample Received Date Time: 08/03/2016 13:18

Matrix: Drinking Water

Discharge/Site No: P01

Regulatory ID: KY0980350

**Conventional Chemistry Analyses Madisonville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Fluoride	0.73		mg/L	0.20		4500-F C-1997	08/09/2016 10:43	08/09/2016 10:43	JTL

**Notes for work order 6081762**

- Samples collected by MMLI personnel are done so in accordance with procedures set forth in MMLI field services SOPs.
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identification based on the presumptive evidence of the mass spectra.

U Target analyte was analyzed for, but was below detection limit (the value associated with the qualifier is the laboratory method detection limit in our LIMS system).

**Standard Qualifiers/Acronyms**

- MDL Method Detection Limit
- MRL Minimum Reporting Limit
- ND Not Detected
- LCS Laboratory Control Sample
- MS Matrix Spike
- MSD Matrix Spike Duplicate
- DUP Sample Duplicate
- % Rec Percent Recovery
- RPD Relative Percent Difference
- > Greater than
- < Less than

**Certified Analyses Included in this Report**

Analyte	Certifications
<b>4500-F C-1997 in Water</b>	
Fluoride	KY Drinking Water Mdv (00030) VA NELAC Mdv (460210) IN Drinking Water Mdv (C-KY-02) IL Drinking Water Mdv (200079)

**KENTUCKY DIVISION OF WATER / DRINKING WATER BRANCH  
DISINFECTION BYPRODUCT PRECURSOR ANALYSIS REPORT FORM**

SAMPLE CATEGORY= TOC

**This Section To Be Completed By Collector**

PWS ID	<u>KY0980350</u>	Plant ID	<u>A</u>	Plant Name	<u>INTAKE - LEVISA FORK/BIG SANDY RIVE</u>	Location Code	<u>R01</u>
PWS Name	<u>Pikeville Water Department</u>			PWS Contact	<u>Ralph Varney</u>		
PWS Address	<u>306 Island Creek Road, Pikeville, KY 41501</u>			PWS Phone	<u>(606) 437-5123</u>		
Sample Date (MMDDYYYY)	<u>08/03/2016</u>	Time	<u>10:17</u>	Sample Type	<u>RT</u>	Collector Name	<u>Ralph Varney</u>
				RT = Routine (For Compliance) SP = Special (Not for Compliance)			

**This Section to Be Completed By Lab**

Lab ID	<u>00030</u>	Lab Sample Number	<u>6081763-01</u>	Lab Phone	<u>(270) 821-7375</u>
Lab Analyst	<u>Tracy Benton</u>	Signature/Date	<u>08/09/2016 12:15</u>	Lab Supervisor	<u><i>Mark Dittmer</i></u> <u>08/11/2016</u>

Analyte Code	Analyte Name	Analysis Method Code	Result (mg/L)	Analysis Date
			-or- Lab Minimum Reporting Limit (mg/L)	
1927	Alkalinity, Total (as CaCO3)	849	114	08092016
2920	Total Organic Carbon	839	1.9	08092016

The signatories of this form certify by their signature that collection and analysis of the water sample analyzed and the resulting data hereby submitted, were completed in accordance with the provisions of 401 KAR Chapter 8; and that the data submitted on this form is a true and accurate report of the results of collection and analysis performed pursuant to the above-referenced regulations. Violations of 401 KAR Chapter 8 are subject to severe penalties prescribed in KRS 224.99-010, up to \$25,000 fine per day per violation and in some cases a violation may subject a violator to prison.

**ENTERED**  
8/22/16

*(Handwritten signature)*

**KENTUCKY DIVISION OF WATER / DRINKING WATER BRANCH  
DISINFECTION BYPRODUCT PRECURSOR ANALYSIS REPORT FORM**

SAMPLE CATEGORY = TOC

**This Section To Be Completed By Collector**

PWS ID	<u>KY0980350</u>	Plant ID	<u>A</u>	Plant Name	<u>PIKEVILLE WTP</u>	Location Code	<u>CF1</u>
PWS Name	<u>Pikeville Water Department</u>			PWS Contact	<u>Ralph Varney</u>		
PWS Address	<u>306 Island Creek Road, Pikeville, KY 41501</u>			PWS Phone	<u>(606) 437-5123</u>		
Sample Date (MMDDYYYY)	<u>08/03/2016</u>	Time	<u>13:04</u>	Sample Type	<u>RT</u>	Collector Name	<u>Ralph Varney</u>
				RT = Routine (For Compliance)			
				SP = Special (Not for Compliance)			

**This Section to Be Completed By Lab**

Lab ID	<u>00030</u>	Lab Sample Number	<u>6081763-02</u>	Lab Phone	<u>(270) 821-7375</u>
Lab Analyst	<u>Tracy Benton</u>	Signature/Date	<u>08/09/2016 13:02</u>	Lab Supervisor	<u>Mark Dixon</u> <u>08/11/2016</u>

Analyte Code	Analyte Name	Analysis Method Code	<	Result (mg/L)	Analysis Date
				-OR- Lab Minimum Reporting Limit (mg/L)	
2920	Total Organic Carbon	839		1.6	08092016

The signatories of this form certify by their signature that collection and analysis of the water sample analyzed and the resulting data hereby submitted, were completed in accordance with the provisions of 401 KAR Chapter 8; and that the data submitted on this form is a true and accurate report of the results of collection and analysis performed pursuant to the above-referenced regulations. Violations of 401 KAR Chapter 8 are subject to severe penalties prescribed in KRS 224.99-010, up to \$25,000 fine per day per violation and in some cases a violation may subject a violator to prison.



**SAMPLE SUMMARY**

Lab ID	Client Sample ID/Alias	Matrix	Date Collected	Date Received	Sampled By
6080593-01	Backwash/Grit Pump	Wastewater	08/03/2016 13:11	08/03/2016 13:18	Ralph Varney
6080593-02	Backwash/Grit Cyclone	Wastewater	08/03/2016 13:12	08/03/2016 13:18	Ralph Varney

**ANALYTICAL RESULTS**

Lab Sample ID: **6080593-01**  
Description: **Backwash Grit Pump**

Sample Collection Date Time: 08/03/2016 13:11  
Sample Received Date Time: 08/03/2016 13:18

**Conventional Chemistry Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Suspended Solids	20	Y1	mg/L	6	6	2540 D-1997	08/08/2016 13:49	08/08/2016 15:51	SNB

**Field Analysis Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
pH (Field)	7.86		Std. Units	0.10	0.10	4500-H+ B-2000	08/03/2016 13:11	08/03/2016 13:19	ADH

**ANALYTICAL RESULTS**

Lab Sample ID: **6080593-02**  
Description: **Backwash Grit Cyclone**

Sample Collection Date Time: 08/03/2016 13:12  
Sample Received Date Time: 08/03/2016 13:18

**Conventional Chemistry Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Suspended Solids	24	Y1	mg/L	12	12	2540 D-1997	08/08/2016 13:49	08/08/2016 15:51	SNB

**Field Analysis Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
pH (Field)	7.97		Std. Units	0.10	0.10	4500-H+ B-2000	08/03/2016 13:12	08/03/2016 13:22	ADH

ENTERED  
08/02/16  
RS

FIELD CHAIN OF CUSTODY RECORD

FIELD MONITORING PROGRAM

SAMPLERS (SIGNATURES)

*[Signature]*

FACILITY	SAMPLE SOURCE	COMPOSITING PERIOD				SAMPLE COLLECTION			FLOW	CONTAINER		Volatile Organics	Pesticides/PCB's	Trace Metals	Cyanide	Phenols	Oil and Grease	Solids	BOD	Ammonia Nitrogen	Phosphorous	Coliform	pH	Preservation	COMMENTS	
		DATE	TIME	DATE	TIME	DATE	TIME	G/C	MGD	VOLUME	G/P															
PIKEVILLE WTP	040					8/16/16	929	G			P															
	009					"	941	"			"															
	115					"	1001	"			"														FLUORIDE ONLY	
	118					"	1014	"			"															
	120					"	1022	"			"															
	028					"	1205	"			"															

040 009 115 118 120 028  
 8/16/16 12:50

RELINQUISHED BY	DATE	TIME	RECEIVED BY	RELINQUISHED BY	DATE	TIME	RECEIVED BY
<i>[Signature]</i>	8/16/16	1250	<i>[Signature]</i>				
RELINQUISHED BY	DATE	TIME	RECEIVED BY	RELINQUISHED BY	DATE	TIME	RECEIVED BY
RELINQUISHED BY	DATE	TIME	RECEIVED BY	RELINQUISHED BY	DATE	TIME	RECEIVED BY

REMARKS: 21° transported w/ Ice

002161

SAMPLE CATEGORY = TC  
DISTRIBUTION SAMPLING

KENTUCKY DIVISION OF WATER / DRINKING WATER RESULTS  
BACTERIOLOGICAL ANALYSIS REPORT FORM

Rev. 03/01/2012

General Information -- This Section To Be Completed By Collector

PWS ID	KY0980350	Compliance Period (MMYYYY)	082015
PWS Name	PIKEVILLE	PWS Contact	RALPH VARNLEY
PWS Address	306 ISLAND UR RD	PWS Phone	437-0540
		Collection Date (MMDDYYYY) <small>(All Samples Reported on this Form were Collected on this Date.)</small>	08162016
		Collector Name	Ralph Varnley 8/16/16

General Information -- This Section To Be Completed By Lab

Lab ID	000 RD	Lab Receipt Date (MMDDYYYY)	08162016	Total Coliform Analysis Method Code	309
Lab Analyst	Al Weil 8.17.16	Analysis Date (MMDDYYYY)	08162016	E Coli Analysis Method Code	309
		Lab Supervisor	Al Weil 8.17.16		

Sample Information -- This Section To Be Completed By Collector

Sample Type (RT, RP, TG, CO, or SP) <small>(See Key)</small>	Special Sample Reason (A, B, C, D, or E) <small>(See Key)</small>	Replacement Sample? (Y or Blank)	Location Code <small>(See Instructions)</small>	Repeat Location Code (DN, UP, or OR) <small>(See Key)</small>	Sample Time (24 hr)	Free Chlorine (Required for all disinfectants except Chloramine)	Total Chlorine (Required when disinfectant is Chloramine)
RT			040		0929	1.49	.
RT			009		0941	1.64	.
RT			118		1014	0.98	.
RT			120		1022	0.80	.
RT			028		1205	1.22	.

Analysis Information -- This Section To Be Completed By Lab

Lab Sample Number	Analysis Time (24 hr)	Result (Total Coliform Count - or - TNTC - or - CNFG - or - TCNG) <small>(See Key)</small>	Total Coliform (P/A)	E Coli (P/A)	Lab Sample Number of Original Sample <small>(Required for RP, TG, CO, and/or Replacement Samples) <small>(See Instructions)</small></small>
608318					
01	1630		AA		
02	1630		AA		
03	1630		AA		
04	1630		AA		
05	1630		AA		

The signatories of this form certify by their signatures that collection and analysis of the water sample analyzed and the resulting data hereby submitted, were completed in accordance with the provisions of 401 KAR Chapter 8, specifically including but not limited to 401 KAR 8:200, Section 1 and 401 KAR 8:040; and that the data submitted on this form is a true and accurate report of the results of collection and analysis performed pursuant to the above-referenced regulations. Violations of 401 KAR Chapter 8 are subject to severe penalties prescribed in KRS 224.99-010, up to \$25,000 fine per day per violation and in some cases a violation may subject the violator to prison.

BACTERIOLOGICAL ANALYSIS REPORT FORM KEY

<b>Sample Type:</b>	RT = Routine (For Compliance)	RP = Repeat (For Compliance)	SP = Special (Not for Compliance)
	TG = Triggered (For Compliance)	CO = Confirmation (For Compliance)	
<b>Special Sample Reason: (Only if Sample Type = SP)</b>	A = Suspected Contamination	B = New Plant, Modification, or Line Extension	C = Treatment Modification
	D = Study/Investigation	E = Line Break, Emergency Repair	
<b>Repeat Location Code: (Only if Sample Type = RP)</b>	DN = Downstream	UP = Upstream	OR = Original Site
<b>Result:</b>	TNTC = Too Numerous to Count	CNFG = Confluent Growth	TCNG = Turbid Culture-No Gas



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Louisville, KY 502.961.0001	Paducah, KY 270.444.6547	

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**SAMPLE SUMMARY**

Lab ID	Client Sample ID/Alias	Matrix	Date Collected	Date Received	Sampled By
6083118-01	BACT/	Drinking Water	08/16/2016 09:29	08/16/2016 12:50	Ralph Varney
6083118-02	BACT/	Drinking Water	08/16/2016 09:41	08/16/2016 12:50	Ralph Varney
6083118-03	BACT/	Drinking Water	08/16/2016 10:14	08/16/2016 12:50	Ralph Varney
6083118-04	BACT/	Drinking Water	08/16/2016 10:22	08/16/2016 12:50	Ralph Varney
6083118-05	BACT/	Drinking Water	08/16/2016 12:05	08/16/2016 12:50	Ralph Varney

<u>LabNumber</u>	<u>Measurement</u>	<u>Value</u>
6083118-01	Field Residual Chlorine	1.49
6083118-02	Field Residual Chlorine	1.64
6083118-03	Field Residual Chlorine	0.98
6083118-04	Field Residual Chlorine	0.80
6083118-05	Field Residual Chlorine	1.22



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**ANALYTICAL RESULTS**

Lab Sample ID: **6083118-01**  
Description: **BACT**

Sample Collection Date Time: 08/16/2016 09:29  
Sample Received Date Time: 08/16/2016 12:50

Matrix: Drinking Water

Discharge/Site No: 040

Regulatory ID: KY0980350

**Microbiological Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Colliert 24	08/16/2016 16:30	08/17/2016 16:30	WJP

**ANALYTICAL RESULTS**

Lab Sample ID: **6083118-02**  
Description: **BACT**

Sample Collection Date Time: 08/16/2016 09:41  
Sample Received Date Time: 08/16/2016 12:50

Matrix: Drinking Water

Discharge/Site No: 009

Regulatory ID: KY0980350

**Microbiological Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Colliert 24	08/16/2016 16:30	08/17/2016 16:30	WJP

**ANALYTICAL RESULTS**

Lab Sample ID: **6083118-03**  
Description: **BACT**

Sample Collection Date Time: 08/16/2016 10:14  
Sample Received Date Time: 08/16/2016 12:50

Matrix: Drinking Water

Discharge/Site No: 118

Regulatory ID: KY0980350

**Microbiological Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Colliert 24	08/16/2016 16:30	08/17/2016 16:30	WJP



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**ANALYTICAL RESULTS**

Lab Sample ID: **6083118-04**  
Description: **BACT**

Sample Collection Date Time: 08/16/2016 10:22  
Sample Received Date Time: 08/16/2016 12:50

Matrix: Drinking Water

Discharge/Site No: 120

Regulatory ID: KY0980350

**Microbiological Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Colliert 24	08/16/2016 16:30	08/17/2016 16:30	WJP

**ANALYTICAL RESULTS**

Lab Sample ID: **6083118-05**  
Description: **BACT**

Sample Collection Date Time: 08/16/2016 12:05  
Sample Received Date Time: 08/16/2016 12:50

Matrix: Drinking Water

Discharge/Site No: 028

Regulatory ID: KY0980350

**Microbiological Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Colliert 24	08/16/2016 16:30	08/17/2016 16:30	WJP

**Notes for work order 6083118**

- Samples collected by MMLI personnel are done so in accordance with procedures set forth in MMLI field services SOPs.
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identification based on the presumptive evidence of the mass spectra.

**Standard Qualifiers/Acronyms**

MDL	Method Detection Limit
MRL	Minimum Reporting Limit
ND	Not Detected
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
% Rec	Percent Recovery
RPD	Relative Percent Difference
>	Greater than
<	Less than



**SAMPLE SUMMARY**

Lab ID	Client Sample ID/Alias	Matrix	Date Collected	Date Received	Sampled By
6083119-01	Fluoride/	Drinking Water	08/16/2016 10:01	08/16/2016 12:50	Ralph Vamey
<u>LabNumber</u>	<u>Measurement</u>	<u>Value</u>			
6083119-01	Field Fluoride	0.75			

**ANALYTICAL RESULTS**

Lab Sample ID: **6083119-01**  
Description: **Fluoride**

Sample Collection Date Time: 08/16/2016 10:01  
Sample Received Date Time: 08/16/2016 12:50

Matrix: Drinking Water

Discharge/Site No: 115

Regulatory ID: KY0980350

**Conventional Chemistry Analyses Madisonville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Fluoride	0.75		mg/L	0.20		4500-F C-1997	08/18/2016 11:59	08/18/2016 11:59	JTL

**Notes for work order 6083119**

- Samples collected by MMLI personnel are done so in accordance with procedures set forth in MMLI field services SOPs.
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identification based on the presumptive evidence of the mass spectra.

U Target analyte was analyzed for, but was below detection limit (the value associated with the qualifier is the laboratory method detection limit in our LIMS system).

**Standard Qualifiers/Acronyms**

MDL	Method Detection Limit
MRL	Minimum Reporting Limit
ND	Not Detected
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
% Rec	Percent Recovery
RPD	Relative Percent Difference
>	Greater than
<	Less than

**Certified Analyses included in this Report**

Analyte	Certifications
<b>4500-F C-1997 in Water</b>	
Fluoride	KY Drinking Water Mdv (00030) VA NELAC Mdv (460210) IN Drinking Water Mdv (C-KY-02) IL Drinking Water Mdv (200079)

August, 2016

DMR CALCULATIONS

date	tss cyclone	pH cyclone	tss intake	pH intake	hrs operated
08/01/16					12.75
08/02/16					11.75
08/03/16	24	7.97	20	7.86	13.50
08/04/16					10.25
08/05/16					12.00
08/06/16					13.00
08/07/16					13.25
08/08/16					12.00
08/09/16					12.00
08/10/16					14.00
08/11/16					12.25
08/12/16					13.25
08/13/16					13.00
08/14/16					13.50
08/15/16					13.50
08/16/16					14.75
08/17/16					13.75
08/18/16					12.25
08/19/16					13.00
08/20/16					12.25
08/21/16					11.75
08/22/16					13.25
08/23/16					14.00
08/24/16					12.75
08/25/16					13.00
08/26/16					13.00
08/27/16					14.75
08/28/16					12.75
08/29/16					12.75
08/30/16					12.75
08/31/16					14.75

CYCLONE ESTIMATE 100 gpm  
Tot Hours 401.50  
times flushed 100  
gallons flushed 20,075  
mg flushed 0.0201  
mgd flushed 0.00065

GRIT PUMP AT RWI 200 gpm  
Total pumping hours 31  
Total gallons pumped 372,000  
Million gallons pumped 0.3720  
Million gallons a day 0.0120

TSS-001 24  
TSS-002 20

pH  
Cyclone 7.97  
Pump 7.86

X 2 ml

4 times max



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**SAMPLE SUMMARY**

Lab ID	Client Sample ID/Alias	Matrix	Date Collected	Date Received	Sampled By
6081314-01	Raw Source Water/	Drinking Water	08/16/2016 08:00	08/16/2016 14:11	Johnny Osborne

**Work Order Comments:**

**LT2 (Cryptosporidium) Reporting:**

The KY DOW LT2 report form included with this certificate of analysis has been submitted to the KY DOW by e-mail to Kellee Husband, LT2 compliance and technical assistance officer. To ensure delivery of this analytical report we recommend that you contact the KY DOW.

**ANALYTICAL RESULTS**

Lab Sample ID: **6081314-01**  
Description: **Raw Source Water**

Sample Collection Date Time: 08/16/2016 08:00  
Sample Received Date Time: 08/16/2016 14:11

Matrix: Drinking Water

Discharge/Site No:

Regulatory ID: KY0980350

**Microbiological Analyses Madisonville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Cryptosporidium	ND		Cysts/10L	1		EPA 1623	08/18/2016 09:55	08/22/2016 10:05	ZHR
Giardia	3		Cysts/10L	1		EPA 1623	08/18/2016 09:55	08/22/2016 10:05	ZHR
Volume Filtered	10.50		Liter			EPA 1623	08/18/2016 09:55	08/22/2016 10:05	ZHR

**Microbiological Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
E. Coli	35		MPN/100m L	1		SM9223 COLerQT 24	08/16/2016 16:20	08/17/2016 17:05	WTO

**Kentucky Division of Water  
LT2 Cryptosporidium Report Form**

**PWSID:** KY0980350  
**PWS NAME:** Pikeville Water Department  
**PWS FACILITY ID:** Pikeville WTP

**SAMPLE SITE ID #:** R01  
**SAMPLE SITE NAME:** Raw Water TPA  
**LAB ID:** KY1

**SOURCE WATER TYPE:** (check one) **FREE FLOWING**  **LAKE/RESERVOIR**

	<b>Collection Date</b> (MMDDYYYY)	<b>Collection Time</b> (24 hr)	<b>Lab Sample ID</b>	<b>KY Crypto Method Code</b>	<b>Sample Type</b> F= field MS=matrix spike	<b>Sample Volume (L)</b> (nearest ¼ L)	<b>100% of Filtered Volume Examined?</b> (Y=Yes or N=No)	<b>If &lt; 100% Filtered, Volume Filtered (L)</b>	<b>Packed Pellet Volume</b> (If < 10 L or <100% is filtered)	<b># of Oocysts Spiked</b>	<b>Sample Volume Spiked (L)</b>	<b># of Oocysts Counted</b>
1	09/08/2015	1156	5090807-01	976	F	10.5	Y					0
2	09/08/2015	1156	5090808-01	976	MS	10.5	Y			99	10.5	40
3	09/21/2015	1355	5091799-01	976	F	10.5	Y					0
4	10/06/2015	1005	5100718-01	976	F	10.5	Y					0
5	10/20/2015	1548	5101475-01	976	F	10.5	Y					0
6	11/03/2015	1350	5110519-01	976	F	10.25	Y					0
7	11/17/2015	1100	5111009-01	976	F	10.5	Y					0
8	12/08/2015	1310	5120317-01	976	F	10.5	Y					0
9	12/22/2015	1432	5120496-01	976	F	10.5	Y					0
10	01/05/2016	1200	6010619-01	976	F	10.5	Y					0
11	01/19/2016	1310	6011441-01	976	F	10.5	Y					0
12	02/01/2016	1325	6020481-01	976	F	10.5	Y					0
13	02/16/2016	1550	6022054-01	976	F	10.5	Y					0
14	03/08/2016	1415	6030706-01	976	F	10.5	Y					0
15	03/22/2016	1508	6031738-01	976	F	10.5	Y					0
16	04/05/2016	1113	6040518-01	976	F	10.5	Y					0
17	04/19/2016	1312	6041597-01	976	F	10.5	Y					0
18	05/03/2016	0945	6050289-01	976	F	10.5	Y					0
19	05/17/2016	1335	6051035-01	976	F	10.5	Y					0
20	06/07/2016	1435	6060461-01	976	F	10.5	Y					0
21	06/07/2016	1435	6060462-01	976	MS	10.5	Y			198	10.5	71
22	06/21/2016	1516	6062322-01	976	F	10.5	Y					0
23	07/05/2016	1357	6070555-01	976	F	10.5	Y					0
24	07/19/2016	1423	6072138-01	976	F	10.5	Y					0
25	08/02/2016	1529	6080562-01	976	F	10.5	Y					0
26	08/16/2016	0800	6081314-01	976	F	10.5	Y					0

<b>Cryptosporidium Methods</b>	<b>KY Method Code</b>
EPA 1622	975
EPA 1623	976

<b>Bin Classification</b>
1

**Kentucky Division of Water  
LT2 E. coli Report Form**

**PWSID:** KY0980350      **SAMPLE SITE ID #:** R01  
**PWS NAME:** Pikeville Water Department      **SAMPLE SITE NAME:** Raw Water TPA  
**PWS FACILITY ID:** Pikeville WTP      **LAB ID:** KY00050

**SOURCE WATER TYPE: (check one)**    **FREE FLOWING**     **LAKE/RESERVOIR**

	Collection Date (MMDDYYYY)	Collection Time (24 hr)	Lab Sample ID	KY Turbidity Method Code	Turbidity (NTU)		KY E. coli Method Code	Results (E. coli/100 mL)	
					Analyte Code	0100		Analyte Code	3014
1	09/08/2015	1156	5090807-01	701	1.20	NTU	306	16	MPN / 100 mL
2	09/21/2015	1355	5091799-01	701	1.52	NTU	306	14	MPN / 100 mL
3	10/06/2015	1005	5100718-01	701	14.13	NTU	306	< 1	MPN / 100 mL
4	10/20/2015	1548	5101475-01	701	1.30	NTU	306	21	MPN / 100 mL
5	11/03/2015	1350	5110519-01	701	1.57	NTU	306	16	MPN / 100 mL
6	11/17/2015	1100	5111009-01	701	2.76	NTU	306	222	MPN / 100 mL
7	12/08/2015	1310	5120317-01	701	4.12	NTU	306	88	MPN / 100 mL
8	12/22/2015	1432	5120496-01	701	17.91	NTU	306	59	MPN / 100 mL
9	01/05/2016	1200	6010619-01	701	93.0	NTU	306	102	MPN / 100 mL
10	01/19/2016	1310	6011441-01	701	3.25	NTU	306	38	MPN / 100 mL
11	02/01/2016	1325	6020481-01	701	22.8	NTU	306	345	MPN / 100 mL
12	02/16/2016	1550	6022054-01	701	95.1	NTU	306	980	MPN / 100 mL
13	03/08/2016	1415	6030706-01	701	4.02	NTU	306	21	MPN / 100 mL
14	03/22/2016	1508	6031738-01	701	2.01	NTU	306	19	MPN / 100 mL
15	04/05/2016	1113	6040518-01	701	1.42	NTU	306	45	MPN / 100 mL
16	04/19/2016	1312	6041597-01	701	1.62	NTU	306	16	MPN / 100 mL
17	05/03/2016	0945	6050289-01	701	99.1	NTU	306	1733	MPN / 100 mL
18	05/17/2016	1335	6051035-01	701	5.36	NTU	306	99	MPN / 100 mL
19	06/07/2016	1435	6060461-01	701	4.06	NTU	306	41	MPN / 100 mL
20	06/21/2016	1516	6062322-01	701	2.32	NTU	306	12	MPN / 100 mL
21	07/05/2016	1357	6070555-01	701	30.7	NTU	306	488	MPN / 100 mL
22	07/19/2016	1423	6072138-01	701	5.07	NTU	306	9	MPN / 100 mL
23	08/02/2016	1529	6080562-01	701	14.72	NTU	306	137	MPN / 100 mL
24	08/16/2016	0800	6081314-01	701	2.79	NTU	306	35	MPN / 100 mL
25									
26									
<b>Mean Annual E. coli Result</b>								190 MPN / 100 mL	

E. coli Methods	KY Method Code	Turbidity Methods	KY Method Code
SM 9221B.1/9221F (LTB-EC-MUG) (5 Tube)	338	EPA 180.1	701
SM 9221B.1/9221F (LTB-EC-MUG) (10 Tube)	339	SM 2130B	831
SM 9223B (Colilert/Colilert 18)	306		
SM 9222B/9222G (mEndo/LES-Endo-NA-MUG)	340		
SM9222D/9222G (mFC-NA-MUG)	341		
SM9213D/EPA Method 1103.1 (mTEC)	333		
EPA Method 1603 Modified mTEC	334		
EPA Method 1604 MI medium	326		
m-ColiBlue24 Broth	318		

Mean Annual E. Coli Trigger Levels	
FREE FLOWING	LAKE/RESERVOIR
50 E. coli/100mL	10 E. coli/100mL



McCoy & McCoy  
LABORATORIES, Inc.

P.O. Box 907  
Madisonville, KY 42431  
270.821.7375  
www.mccoylabs.com

Lexington, KY 859.299.7775	Pikeville, KY 606.432.3104	Farmersburg, IN 812.696.5076
Louisville, KY 502.961.0001	Paducah, KY 270.444.6547	

"Providing Tomorrow's Analytical Capabilities Today"

**SAMPLE SUMMARY**

Lab ID	Client Sample ID/Alias	Matrix	Date Collected	Date Received	Sampled By
6080562-01	Raw Source Water/	Drinking Water	08/02/2016 15:29	08/02/2016 15:36	Iralee Bolden

**Work Order Comments:**

**LT2 (Cryptosporidium) Reporting:**

The KY DOW LT2 report form included with this certificate of analysis has been submitted to the KY DOW by e-mail to Kellee Husband, LT2 compliance and technical assistance officer. To ensure delivery of this analytical report we recommend that you contact the KY DOW.

**ANALYTICAL RESULTS**

Lab Sample ID: **6080562-01**  
Description: **Raw Source Water**

Sample Collection Date Time: 08/02/2016 15:29  
Sample Received Date Time: 08/02/2016 15:36

Matrix: Drinking Water

Discharge/Site No:

Regulatory ID: KY0980350

**Microbiological Analyses Madisonville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Cryptosporidium	ND		Cysts/10L	1		EPA 1623	08/04/2016 10:16	08/09/2016 10:41	ZHR
Giardia	1		Cysts/10L	1		EPA 1623	08/04/2016 10:16	08/09/2016 10:41	ZHR
Volume Filtered	10.50		Liter			EPA 1623	08/04/2016 10:16	08/09/2016 10:41	ZHR

**Microbiological Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
E. Coli	137		MPN/100m L	1		SM9223 COLertQT 24	08/02/2016 16:55	08/03/2016 16:59	WTO

KENTUCKY DIVISION OF WATER

Revised 7/1/06

DRINKING WATER BRANCH

MONTHLY OPERATION REPORT (MOR)--ALL WATER SYSTEMS

MONTH & YEAR OF: XXXXXXXXXX

DEP Form 4012--Revised 07/2006

PWS ID :	<u>0980350</u>	PLANT ID:	<u>A</u>	PLANT NAME:	<u>PIKEVILLE WATER PLANT</u>
PWS NAME:	<u>CITY OF PIKEVILLE</u>			PLANT CLASS:	<u>IVA</u> DIST. CLASS: <u>II</u>
AGENCY INTEREST (AI):	<u>3691</u>			DATE MAILED:	
SOURCE NAME:	<u>LEVISA FORK OF THE BIG SANDY RIVER</u>			COUNTY:	<u>PIKE</u>

	OPERATOR(S) RESPONSIBLE / IN-CHARGE	CLASS	CERTIFICATION NUMBER
WTP SHIFT 1:	<u>RALPH VARNEY</u>	<u>IVA</u>	<u>645</u>
WTP SHIFT 2:	<u>GREG PENNINGTON</u>	<u>IVA</u>	<u>777</u>
WTP SHIFT 3:	<u>DEMPSEY MILES</u>	<u>IVA</u>	<u>1549</u>
DISTRIBUTION:	<u>DONNIE SLONE</u>	<u>IID</u>	<u>2236</u>

THIS REPORT MUST BE RECEIVED BY THE DIVISION OF WATER AND APPLICABLE FIELD OFFICE  
**NO LATER THAN 10 DAYS AFTER THE END OF THE MONTH.**

**TREATMENT PLANTS COMPLETE:**

1. DESIGN CAPACITY (gpm):	<u>4400</u>
2. TYPE OF FILTRATION USED:	<u>DUAL MEDIA RAPID SAND</u>
3. DESIGN FILTRATION RATE (gpm/sq. ft.):	<u>3</u>
4. PERCENT BACKWASH WATER USED:	<u>2.3</u>
5. DATE FLOCCULATION BASIN(S) LAST CLEANED	<u>NOVEMBER 2015</u>
6. DATE SETTLING BASIN(S) LAST CLEANED:	<u>NOVEMBER 2015</u>

I certify under penalty of law that I have personally examined and am familiar with the information submitted herein. Based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. See KRS 224.99-010 and 401 KAR 8:020. (Penalties under this statute and regulation may include fines up to \$25,000 per violation or by imprisonment for not more that one year, or both)

\_\_\_\_\_  
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

\_\_\_\_\_  
DATE

KENTUCKY DIVISION OF WATER - DRINKING WATER BRANCH  
 WATER TREATMENT PLANT MONTHLY OPERATION REPORT

PWS ID : 0980350

PLANT ID: A

REPORT MONTH/YEAR: September, 2016

PAGE 1 OF 11

DAY	RAW WATER TREATED GALLONS	HOURS PLANT OPERATED	COAGULANT		COAGULANT		pH ADJUSTMENT		DISINFECTANT		DISINFECTANT	
			LBS	PPM	LBS	PPM	Pre		Pre		Post	
							LBS	PPM	LBS	PPM	LBS	PPM
	3274000	12.75	614	22.5					41	1.49	57	2.09
	3441000	13.50	700	24.4					35	1.23	62	2.15
	3738000	14.00	783	25.1					39	1.23	65	2.08
	2832000	11.00	577	24.4					34	1.44	57	2.42
	3242000	12.75	624	23.1					37	1.38	62	2.28
	3395000	13.50	721	25.5					36	1.28	67	2.37
	3818000	15.25	721	22.6					46	1.45	74	2.31
	3310000	13.00	634	23.0					39	1.39	65	2.35
	3294000	13.25	680	24.8					35	1.28	66	2.40
	3595000	14.00	649	21.6					39	1.28	66	2.20
	3013000	11.75	556	22.1					33	1.31	72	2.85
	3517000	13.50	700	23.9					37	1.28	90	3.08
	3356000	13.25	670	23.9					57	2.04	11	0.39
	3652000	14.25	690	22.7					39	1.26	87	2.85
	3103000	12.50	572	22.1					35	1.36	76	2.93
	3404000	13.50	618	21.8					42	1.47	88	3.10
	3553000	13.00	690	23.3					39	1.30	94	3.16
	2819000	11.00	546	23.2					31	1.31	50	2.11
	3040000	12.50	772	30.4					42	1.65	77	3.04
	3677000	14.25	948	30.9					50	1.61	94	3.05
	3575000	14.00	670	22.5					39	1.29	83	2.77
	3126000	13.00	780	29.9					41	1.56	94	3.59
	3433000	13.75	649	22.7					44	1.54	77	2.69
	3422000	13.50	618	21.7					39	1.35	77	2.70
	3411000	13.50	649	22.8					39	1.35	88	3.09
	3435000	13.75	659	23.0					46	1.61	85	2.96
	3554000	14.00	680	22.9					45	1.52	88	2.97
	3492000	13.75	680	23.3					41	1.40	80	2.76
	3293000	13.00	634	23.1					42	1.52	85	3.08
	3383000	13.50	640	22.7					37	1.33	77	2.73
<b>TOT</b>	101197000		20124						1196		2210	
<b>AVE</b>	3373233		671	26.45					40	2.69	74	1.85
<b>MAX</b>	3818000		948									
<b>NUMBER DAYS IN OPERATION</b>												

KENTUCKY DIVISION OF WATER - DRINKING WATER BRANCH  
 WATER TREATMENT PLANT MONTHLY OPERATION REPORT

PWS ID : 0980350  
 PLANT ID: A

REPORT MONTH/YEAR: Sep, 2016

PAGE 2 OF 11

DAY	DISINFECTANT		FLUORIDE		CARBON		pH ADJUSTMENT		KMnO4		CORROSION INHIBITOR			
	LBS	PPM	LBS	PPM	LBS	PPM	LBS	PPM	LBS	PPM	LBS	PPM	LBS	PPM
			19.4	0.71										
			34.6	1.21										
			10.8	0.35										
			18.0	0.76										
			18.0	0.67										
			17.1	0.60										
			23.4	0.73										
			20.0	0.72										
			17.8	0.65										
			22.5	0.75										
			18.0	0.72										
			17.1	0.58										
			23.4	0.84										
			21.6	0.71										
			18.0	0.70										
			18.9	0.67										
			22.5	0.76										
			16.2	0.69										
			18.0	0.71										
			22.5	0.73										
			19.8	0.66										
			17.6	0.68										
			15.3	0.53										
			18.0	0.63										
			20.7	0.73										
			16.2	0.57										
			27.0	0.91										
			23.4	0.80										
			13.5	0.49										
			18.9	0.67										
<b>TOTAL</b>			588.2											
<b>AVERAGE</b>			19.6	0.90										

KENTUCKY DIVISION OF WATER - DRINKING WATER BRANCH  
 WATER TREATMENT PLANT MONTHLY OPERATION REPORT

PWS ID : 0980350  
 PLANT ID : A

REPORT MONTH/YEAR: Sep, 2016

PAGE 3 OF 11

DAY	pH			TOTAL ALKALINITY		TOTAL HARDNESS		CHLORINE RESIDUAL				TURBIDITY (NTU)		
	RAW	TOP OF	TAP	RAW	TAP	RAW	TAP	TOP OF FILTER		PLANT TAP		RAW	SETTLED WATER	PLANT TAP
		FILTER						TOTAL	FREE	TOTAL	FREE			
	8.04	8.04	7.97	132	136	282	284		0.50		1.35	7.1	0.99	0.08
	8.12	8.08	7.97	128	134	284	286		0.12		0.95	9.4	0.93	0.08
	8.15	8.08	7.95	130	134	280	284		0.38		0.97	7.0	1.03	0.09
	8.10	8.09	7.98	136	142	300	308		0.54		1.50	7.0	1.13	0.08
	8.23	8.01	7.99	142	140	284	288		0.41		1.33	6.7	1.08	0.08
	8.13	8.09	7.97	142	142	294	294		0.23		1.35	6.5	1.05	0.07
	8.09	8.06	7.98	140	150	300	294		0.02		1.49	6.2	0.93	0.09
	8.08	8.08	7.97	142	140	296	294		0.10		1.33	6.1	1.14	0.10
	8.06	8.04	7.98	132	140	300	294		0.50		1.17	6.8	1.02	0.09
	8.00	8.08	8.05	140	146	304	312		0.70		1.12	6.1	0.90	0.07
	8.00	8.08	7.99	126	156	320	314		0.66		1.28	5.5	0.97	0.08
	8.10	8.13	8.00	138	136	284	292		0.46		1.55	10.7	1.04	0.08
	8.05	8.08	7.96	100	142	308	304		0.88		1.69	9.4	1.06	0.07
	8.07	8.13	7.96	112	138	300	296		0.34		1.57	8.0	1.17	0.06
	8.06	8.11	7.97	148	146	320	310		0.96		1.44	6.9	1.14	0.07
	8.12	8.10	8.02	144	154	306	314		1.14		1.41	7.8	1.33	0.08
	8.06	8.12	7.96	116	120	300	296		0.36		1.51	7.4	1.26	0.06
	8.00	8.06	7.98	126	134	310	306		0.32		1.55	14.2	1.20	0.07
	7.96	7.98	7.94	122	140	324	320		0.34		1.27	13.2	1.34	0.11
	7.99	7.99	7.99	156	152	320	340		0.14		1.16	10.6	1.01	0.11
	8.04	8.06	7.95	136	140	300	300		1.06		1.35	9.6	1.31	0.07
	8.03	8.04	7.96	130	140	290	298		0.28		1.34	9.2	1.65	0.09
	8.04	8.06	7.96	142	146	304	308		0.62		0.21	8.2	0.93	0.09
	8.00	8.07	7.97	150	152	312	320		1.50		1.39	7.7	0.80	0.09
	8.03	8.07	7.98	138	150	308	328		0.28		1.36	10.2	0.95	0.10
	8.03	8.06	7.99	126	152	328	324		0.19		1.44	8.4	0.89	0.10
	8.06	8.02	7.97	128	146	320	322		0.18		1.90	7.7	0.96	0.07
	8.09	8.08	7.96	132	148	320	324		0.64		1.91	9.3	0.97	0.07
	8.02	8.04	7.97	138	138	322	314		0.32		1.89	8.9	0.96	0.07
	8.04	8.03	7.96	128	132	334	336		0.06		1.65	7.9	1.02	0.07
<b>AVE</b>	8.06	8.07	7.98	133	142	305	307		0.47		1.38	8.3	1.07	0.08

KENTUCKY DIVISION OF WATER  
 DRINKING WATER BRANCH  
 WATER TREATMENT PLANT MONTHLY OPERATION REPORT

PWS ID : 0980350  
 PLANT ID: A  
 AGENCY INTEREST: 3691  
 REPORT MONTH/YEAR: Sep, 2016

AREA-WIDE OPTIMIZATION PROGRAM TURBIDITY DATA  
 COPY PAGE AS NEEDED

DAY	RAW DAILY MAX	SEDIMENTATION BASIN EFFLUENT DAILY MAXIMUM						INDIVIDUAL FILTER EFFLUENT DAILY MAXIMUM							CFE DAILY MAX
		#1	#2	#3	#4	#5	#6	#1	#2	#3	#4	#5	#6	#7	
		8.2	1.14	0.97					0.22	0.14	0.24	0.12	0.06		
9.5	0.84	0.64					0.23	0.17	0.28	0.16	0.17			0.10	
7.0	1.24	1.10					0.27	0.25	0.18	0.12	0.09			0.08	
7.3	1.29	1.18					0.17	0.28	0.46	0.09	0.09			0.13	
8.2	1.16	1.01					0.13	0.23	0.16	0.10	0.07			0.06	
7.3	0.95	0.72					0.14	0.10	0.24	0.09	0.07			0.06	
7.6	0.98	0.90					0.19	0.16	0.18	0.26	0.13			0.08	
7.2	1.14	0.99					0.15	0.11	0.20	0.10	0.11			0.09	
8.1	1.36	1.09					0.31	0.28	0.32	0.09	0.08			0.10	
6.1	0.99	0.86					0.32	0.11	0.18	0.14	0.10			0.07	
5.9	1.10	0.81					0.12	0.08	0.16	0.14	0.14			0.08	
13.0	0.88	0.82					0.10	0.12	0.14	0.14	0.12			0.06	
11.4	1.21	1.15					0.07	0.08	0.22	0.18	0.21			0.10	
9.2	1.21	1.16					0.15	0.10	0.14	0.21	0.22			0.09	
7.0	1.14	1.04					0.11	0.11	0.14	0.13	0.13			0.32	
8.4	1.32	1.11					0.16	0.10	0.14	0.14	0.14			0.09	
7.8	1.43	1.16					0.14	0.14	0.20	0.14	0.12			0.08	
20.5	1.14	1.06					0.09	0.10	0.10	0.17	0.15			0.08	
13.9	1.08	1.36					0.18	0.14	0.26	0.21	0.23			0.10	
12.3	1.12	0.94					0.21	0.18	0.30	0.20	0.14			0.11	
11.2	1.40	1.48					0.16	0.13	0.18	0.13	0.09			0.07	
9.4	1.51	1.35					0.09	0.17	0.20	0.15	0.10			0.07	
8.8	1.35	1.05					0.08	0.10	0.30	0.21	0.11			0.08	
8.3	0.84	0.70					0.08	0.10	0.18	0.23	0.16			0.09	
11.0	0.98	0.86					0.25	0.22	0.30	0.17	0.09			0.12	
8.5	0.86	0.62					0.24	0.26	0.40	0.31	0.07			0.11	
8.1	0.97	0.91					0.39	0.34	0.38	0.16	0.12			0.12	
9.4	1.11	1.03					0.36	0.41	0.30	0.13	0.09			0.10	
10.2	0.89	0.81					0.10	0.18	0.18	0.09	0.07			0.07	
7.9	1.14	0.90					0.13	0.11	0.26	0.09	0.06			0.06	
<b>AVE</b>	9.3	1.13	0.99				0.18	0.17	0.23	0.15	0.12			0.10	



KENTUCKY DIVISION OF WATER - DRINKING WATER BRANCH  
 WATER TREATMENT PLANT MONTHLY OPERATION REPORT

PWS ID : 0980350

PLANT ID: A

REPORT MONTH/YEAR: Sep, 2016

PAGE 6 OF 11

DAY	TOTAL WASH WATER GALLONS	No: 1		No: 2		No: 3		No: 4		No: 5	
		AREA (ft2)	363								
		WASH GALLONS	FILT RUN HRS								
	73,350							73,350	78.50		
	114,884									114,884	81.25
	83,240	83,240	78.25								
	81,400			81,400	78.25						
	72,900					72,900	76.75				
	63,840							63,840	64.25		
	81,350									81,350	62.50
	89,320	89,320	80.25								
	81,550			81,550	94.00						
	115,290					115,290	93.25				
	87,725							87,725	91.50		
	123,000									123,000	92.00
	87,065	87,065	78.75								
	98,280			98,280	64.00						
	90,772					90,772	60.00				
	102,804							102,804	64.25		
	113,960									113,960	63.75
	89,100	89,100	63.00								
	96,024			96,024	64.25						
	97,668					97,668	69.75				
	121,050							121,050	96.25		
	90,200									90,200	92.50
	115,360	115,360	94.25								
	90,552			90,552	96.00						
	65,600					65,600	95.25				
<b>TOT</b>	2,326,284	464,085	394.5	447,806	396.5	442,230	395.0	448,769	394.8	523,394	392.0
<b>AVE</b>	93,051	92,817	78.9	89,561	79.3	88,446	79.0	89,754	79.0	104,679	78.4

COPY AS NEEDED

KENTUCKY DIVISION OF WATER - DRINKING WATER BRANCH  
 WATER TREATMENT PLANT MONTHLY OPERATION REPORT

PWS ID : 0980350  
 PLANT ID: A

REPORT MONTH/YEAR: Sep, 2016

PAGE 7 OF 11

DAY	CHEMICALS ADDED		TEST RESULTS										
	CHLORINE BOOSTER LBS	CHLORINE BOOSTER LBS	TOTAL (T) AND FREE (F) CHLORINE RESIDUAL (ppm)										
			NORTH		SOUTH		EAST		WEST				
			T	F	T	F	T	F	T	F			
				1.24			1.38						
									1.19				
												0.90	
				0.98									
							0.89						
									1.08				
												1.12	
				1.01									
							1.24						
									0.99				
												1.15	
				1.48									
							1.24						
									1.20				
												1.21	
				1.08									
							1.13						
									1.01				
												1.05	
				1.30									
							1.25						
									1.12				
												1.28	
				1.12									
							0.72						
									1.17				
												1.21	
				1.28									
							0.99						
AVE			AVERAGE		1.19		1.11		1.11			1.13	
TOT			TOT MIN										
			FREE MIN		0.98		0.72		0.99			0.90	
Total # Chlorine Samples					8		8		7			7	
# Less than 0.2 mg/L/0.5 mg/L					0		0		0			0	
Number of Free Residuals				30	Minimum Monthly Total Residual				NA				
Number of Total Residuals				0	Minimum Monthly Free Residual				0.72				
Total # Less than 0.2 mg/L				0	Disinfectant Chloramines? (Y/N)				N				
					Number of days of operation?				30				

KENTUCKY DIVISION OF WATER - DRINKING WATER BRANCH  
 WATER TREATMENT PLANT MONTHLY OPERATION REPORT

PWS ID : 0980350  
 PLANT ID: A

TURBIDITY REPORT

Report Period (MM/YYYY): Sep, 2016

PWS Name: CITY OF PIKEVILLE

PAGE:  
 8 OF 11

DAY									
12.8	4		0.09	0.08	0.08	0.07		0.09	
13.5	4		0.09	0.08	0.07	0.08		0.09	
14.0	4		0.12	0.09	0.08	0.08		0.12	
11.0	3		0.07	0.08	0.07	0.08		0.08	
12.8	4		0.07	0.07	0.08	0.08		0.08	
13.5	4		0.07	0.07	0.07	0.07		0.07	
15.3	4		0.08	0.10	0.08	0.10		0.10	
13.0	4		0.08	0.09	0.10	0.11		0.11	
13.3	4		0.09	0.08	0.08	0.09		0.09	
14.0	4		0.07	0.06	0.06	0.07		0.07	
11.8	3		0.11	0.07	0.07	0.07		0.11	
13.5	4		0.08	0.09	0.07	0.06		0.09	
13.3	4		0.06	0.06	0.07	0.08		0.08	
14.3	4		0.06	0.07	0.06	0.06		0.07	
12.5	4		0.07	0.06	0.08	0.07		0.08	
13.5	4		0.08	0.07	0.08	0.07		0.08	
13.0	4		0.07	0.06	0.06	0.06		0.07	
11.0	3		0.05	0.08	0.07	0.09		0.09	
12.5	4		0.11	0.13	0.10	0.10		0.13	
14.3	4		0.11	0.10	0.09	0.12		0.12	
14.0	4		0.07	0.07	0.07	0.08		0.08	
13.0	4		0.08	0.10	0.08	0.08		0.10	
13.8	4		0.08	0.11	0.08	0.10		0.11	
13.5	4		0.09	0.08	0.08	0.12		0.12	
13.5	4		0.10	0.08	0.10	0.12		0.12	
13.8	4		0.10	0.13	0.07	0.08		0.13	
14.0	4		0.07	0.07	0.08	0.07		0.08	
13.8	4		0.07	0.07	0.08	0.07		0.08	
13.0	4		0.07	0.06	0.07	0.08		0.08	
13.5	4		0.06	0.07	0.08	0.07		0.08	
Total	398.3	117	TOTAL # OF TURBIDITY SAMPLES TAKEN --				120	0.13	

ARE YOU USING EITHER CONVENTIONAL or DIRECT FILTRATION? (Y/N)

Y

(Any type of filtration besides slow sand)

Number of samples exceeding ---> 0.1 NTU 11 0.3 NTU 0 1 NTU 0

For slow sand filtration, the number of samples exceeding ---> 1 NTU 5 NTU

\*NOTE: The "Number of Turbidity Samples Required" is the number of hours the plant operated divided by 4 rounded up to the next whole number.

I certify that the above turbidity readings were taken every 4 hours during plant operation and in the time frames noted above.

Signature of Principal Executive Officer or Authorized Agent

Date

KENTUCKY DIVISION OF WATER / DRINKING WATER BRANCH  
Monthly Operating Report (MOR) Plant Summary Form

PWS ID : 0980350

Monitoring Period (MM/YYYY): Sep, 2016

**NOTE: COMPLETE ALL APPLICABLE FIELDS!!! NOT ALL OF THE FIELDS ARE PRE-POPULATED FOR YOU!!!**

APPLICABLE TO ALL PLANTS			
PLANT ID:	<u>A</u>	TOTAL WATER TREATED (gallons)	<u>101,197,000</u>
PLANT NAME:	<u>PIKEVILLE WATER PLANT</u>	AVE. DAILY PRODUCTION (gallons)	<u>3,373,233</u>
AGENCY INTEREST:	<u>3691</u>	MAXIMUM PUMPAGE (gallons per day)	<u>3,818,000</u>

APPLICABLE TO ALL PLANTS WITH FILTRATION	
ANALYTE CODE	<u>0100</u>
Was each filter monitored continuously? (Y/N).....	<input checked="" type="checkbox"/> Y
Were measurements recorded every 15 minutes? (Y/N).....	<input checked="" type="checkbox"/> Y
Was there a failure of the continuous monitoring equipment? (Y/N).....	<input type="checkbox"/> N
If Yes, (1) were individual filter effluent turbidity grab samples collected every four hours of operation? (Y/N).....	
(2) was the continuously monitoring equipment repaired within 5 working days? (Y/N).....	
Was individual filter level greater than 1.0 NTU in two consecutive measurements? (Y/N).....	<input type="checkbox"/> N
Was individual filter level < 0.5 NTU in two consecutive measurements after online more than 4 hours? (Y/N).....	<input type="checkbox"/> N
Was individual filter level < 1.0 NTU in two consecutive measurements in three consecutive months? (Y/N).....	<input type="checkbox"/> N
Was individual filter level greater than 2.0 NTU in two consecutive measurements in two consecutive months? (Y/N).....	<input type="checkbox"/> N
<b>If any of the last 4 boxes are YES, fill out the Individual Filter Turbidity Sheet and submit with MOR</b>	

APPLICABLE TO ALL PLANTS WITH FILTRATION	APPLICABLE TO ALL PLANTS
ANALYTE CODE	<u>0100</u>
Number of hours of plant operation.....	<u>398.3</u>
Were samples taken every 4 hrs of plant operation? (Y/N)	<input checked="" type="checkbox"/> Y
Number of samples taken.....	<u>120</u>
Highest single turbidity reading .....	<u>0.13</u>
For all filtration except slow sand filtration:	If less than required:
Number of samples exceeded 0.1 NTU .....	<u>11</u>
Number of samples exceeded 0.3 NTU .....	<u>0</u>
Number of samples exceeded 1.0 NTU .....	<u>0</u>
When filtration is slow sand filtration:	Was residual restored within 4 hrs of plant operation <input type="checkbox"/>
Number of samples exceeded 1 NTU .....	Free chlorine (for all disinfectants except chloramine):
Number of samples exceeded 5 NTU .....	Number of samples under 0.2 mg/L .....
	<u>0</u>
	Total Chlorine (when disinfectant is chloramine):
	Number of samples under 0.5 mg/L .....

APPLICABLE TO PLANTS UTILIZING CHLORINE DIOXIDE	APPLICABLE TO PLANTS USING CHLORINE DIOXIDE
ANALYTE CODE	<u>1008</u>
Number of days of plant operation.....	<u>30</u>
Were samples taken each day of operation? (Y/N).....	<input type="checkbox"/>
Number of samples taken .....	<u>###</u>
Highest single chlorine dioxide reading .....	<u>###</u>
Number of chlorine dioxide samples exceeded 0.8 mg/L ..	<u>###</u>
	ANALYTE CODE
	<u>1009</u>
	Number of days of plant operation.....
	<u>30</u>
	Were samples taken each day of operation? (Y/N) <input type="checkbox"/>
	Number of samples taken .....
	<u>###</u>
	Highest single chlorite reading .....
	<u>###</u>
	Number of chlorite samples exceeded 1 mg/L .....
	<u>###</u>

I certify under penalty of law that I have personally examined and am familiar with the information submitted herein. Based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. See KRS 224.99-010 and 401 KAR 8:020. (Penalties under this statute and regulation may include fines up to \$25,000 per violation or by imprisonment for not more than one year, or both).

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

DATE



**PIKEVILLE WATER TREATMENT PLANT  
WATER PUMPED TO DISTRIBUTION SYSTEM  
FOR THE MONTH OF: September, 2016**

09/01/16	3.5009
09/02/16	3.4418
09/03/16	3.4494
09/04/16	2.9864
09/05/16	3.3212
09/06/16	3.5567
09/07/16	3.7297
09/08/16	3.4665
09/09/16	3.4200
09/10/16	3.5622
09/11/16	3.0905
09/12/16	3.4311
09/13/16	3.3634
09/14/16	3.7257
09/15/16	3.2211
09/16/16	3.3461
09/17/16	3.3521
09/18/16	3.1720
09/19/16	3.1748
09/20/16	3.7013
09/21/16	3.6502
09/22/16	3.2057
09/23/16	3.4430
09/24/16	3.4420
09/25/16	3.4080
09/26/16	3.4226
09/27/16	3.6050
09/28/16	3.5495
09/29/16	3.4596
09/30/16	3.3197

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Total	102.5182
Average	3.4173
Minimum	2.9864
Maximum	3.7297

Water plant usage	88,739
Raw water intake usage	184,380
Total non metered usage	273,119

# Water Withdrawal Report Form

Preprint ID:

Agency Interest

Subject Item:

Monitoring Period:

3691 - Pikeville Water Department

GACT000000001-0638 Levisa Fork

09/01/16 to 09/30/16

Day	Result	Parameter	Unit
1	3.274	Withdrawal	MGD (MA)
2	3.441	Withdrawal	MGD (MA)
3	3.738	Withdrawal	MGD (MA)
4	2.832	Withdrawal	MGD (MA)
5	3.242	Withdrawal	MGD (MA)
6	3.395	Withdrawal	MGD (MA)
7	3.818	Withdrawal	MGD (MA)
8	3.310	Withdrawal	MGD (MA)
9	3.294	Withdrawal	MGD (MA)
10	3.595	Withdrawal	MGD (MA)
11	3.013	Withdrawal	MGD (MA)
12	3.517	Withdrawal	MGD (MA)
13	3.356	Withdrawal	MGD (MA)
14	3.652	Withdrawal	MGD (MA)
15	3.103	Withdrawal	MGD (MA)
16	3.404	Withdrawal	MGD (MA)
17	3.553	Withdrawal	MGD (MA)
18	2.819	Withdrawal	MGD (MA)
19	3.040	Withdrawal	MGD (MA)
20	3.677	Withdrawal	MGD (MA)
21	3.575	Withdrawal	MGD (MA)
22	3.126	Withdrawal	MGD (MA)
23	3.433	Withdrawal	MGD (MA)
24	3.422	Withdrawal	MGD (MA)
25	3.411	Withdrawal	MGD (MA)
26	3.435	Withdrawal	MGD (MA)
27	3.554	Withdrawal	MGD (MA)
28	3.492	Withdrawal	MGD (MA)
29	3.293	Withdrawal	MGD (MA)
30	3.383	Withdrawal	MGD (MA)
		Withdrawal	MGD (MA)

ENTERED  
09/01/16  
*[Signature]*

	FLOW TO DIST	START C. WELL	Settling Basin Turbidity						Sludge Hauled	Spent B/W Return	DUP pH TAP
			MID - 4	4A - 8AM	8AM - 12N	12N - 4PM	4PM - 8PM	8PM - 12M			
09/01/16	3.5009	7.4		1.03	0.77	1.06	1.06			72,000	7.95
09/02/16	3.4418	4.6		1.02	1.13	1.01	0.74			153,000	7.96
09/03/16	3.4494	6.2		0.82	0.88	1.17	1.13			294,000	7.96
09/04/16	2.9864	9.8		1.11	0.76	1.24	1.31			233,000	7.99
09/05/16	3.3212	6.8		1.16	1.00	1.05	1.08			212,000	8.00
09/06/16	3.5567	6.0		1.10	1.52	0.95	0.84			148,000	7.97
09/07/16	3.7297	4.6		0.90	0.95	0.94	0.91	33,500		167,000	7.98
09/08/16	3.4665	8.0		1.35	1.02	1.20	1.06			205,000	7.98
09/09/16	3.4200	5.6		0.84	0.84	1.22	0.99			87,000	7.97
09/10/16	3.5622	4.6		0.93	0.90	0.92	0.84			176,000	8.04
09/11/16	3.0905	5.6		1.03	0.89	0.96	1.02			85,000	7.98
09/12/16	3.4311	5.0		1.04	1.26	1.18	0.85			171,000	7.97
09/13/16	3.3634	7.6		0.88	0.96	1.11	1.18			182,000	7.96
09/14/16	3.7257	8.0		1.01	1.18	1.18	1.28			40,000	7.96
09/15/16	3.2211	5.6		1.12	1.30	1.12	1.09			315,000	7.98
09/16/16	3.3461	5.2		1.41	1.37	1.42	1.22			195,000	8.02
09/17/16	3.3521	7.6		1.13	0.99	1.30	1.60			94,000	7.96
09/18/16	3.1720	10.6		1.11	1.18	1.10	1.49			183,000	7.98
09/19/16	3.1748	5.0		1.89	1.09	1.22	1.30			249,000	7.94
09/20/16	3.7013	4.8		0.96	0.95	1.03	1.10			196,000	7.99
09/21/16	3.6502	5.0		0.91	0.85	1.44	1.90			180,000	7.95
09/22/16	3.2057	5.2		2.05	1.38	1.43	1.96			155,000	7.96
09/23/16	3.4430	5.0		0.83	0.62	1.20	0.80			151,000	7.96
09/24/16	3.4420	4.8		0.76	0.78	0.77	0.93			50,000	7.98
09/25/16	3.4080	6.0		1.01	0.92	0.92	1.00			52,000	7.98
09/26/16	3.4226	6.4		0.96	0.79	1.23	0.72			198,000	7.97
09/27/16	3.6050	8.0		0.88	1.00	1.04	0.94			206,000	7.97
09/28/16	3.5495	8.0		0.94	0.77	1.07	1.01			98,000	7.97
09/29/16	3.4596	5.8		1.00	1.21	0.90	0.85			276,000	7.97
09/30/16	3.3197	4.6		0.89	0.94	1.02	1.23			153,000	7.96
Ave	3.4173	6.2		1.07	1.01	1.11	1.11			165,867	
Tot	102,5182							33,500		4,976,000	
Min	2.9864	4.6		0.76	0.62	0.77	0.72			40,000	
Max	3.7297	10.6		2.05	1.52	1.44	1.96			315,000	

WATER DEPARTMENT  
MASTER WATER READINGS

DATE: 10-3-16

ACCOUNT NUMBER	LOCATION	PRESENT	PREVIOUS	USAGE	AMOUNT
	SANDY VALLEY-PIkeville	351625	337893	13732	9294 DON'T BILL
54-9966200-0	TOWN MOUNTAIN	630872	608185	22687	
54-9909400-0	CHLOE ROAD	62186	59255	2931	
54-9911500-0	ISLAND CREEK	53367	49428	3939	
54-9928000-0	MUD CREEK-Southern Wt.	082012	071481	10531	
54-9914600-0	COON BRANCH	10745	10621	124	
54-9913000-0	SOUTH MAYO TRAIL	209692	198600	11092	
54-9925500-0	HOOPWOOD HOLLOW	14905	14816	89	
54-9911800-0	ISLAND CK. TRAILER PK.	00366	00200	166	
54-9911900-0	HURRICANE CREEK	300506	298730	1776	
54-9912000-0	PIKE FLOYD-Southern	36991	35055	1936	
54-9900100-0	COWPEN-Mt. Water	257398	254896	2502	
TOTAL				57773	

Only Read First 5 Numbers

METER READER INITIALS: MC WH

8645060	7587666
8460680	7498927
184380	88739

NON METERED WATER

FLUSHING - EST \_\_\_\_\_

LEAKS - EST \_\_\_\_\_

TOTAL GALLONS \_\_\_\_\_

MOUNTAIN WATER  
P.O. BOX 3157  
PIKEVILLE, KY 41502

## Monthly Chlorine Report- Sept. 2016

Water Dist. -- Utility Management Group -- JM,PL,JR

9-1-16 = 208 Cassidy Blvd. = 1.24  
9-2-16 = 146 Dark Hollow = 1.38  
9-3-16 = 502 Walters Rd. = 1.19  
9-4-16 = 560 Ziegler Drive = 0.90  
9-5-16 = 3630 Island Creek = 0.98  
9-6-16 = 384 Williams Hollow = 0.89  
9-7-16 = 115 May Ave. = 1.08  
9-8-16 = 4411 North Mayo Trail = 1.12  
9-9-16 = 185 Huffman Ave. = 1.01  
9-10-16 = 312 Bob Amos = 1.24  
9-11-16 = 352 Chloe Ridge = 0.99  
9-12-16 = 129 Mt. Chase = 1.15  
9-13-16 = 165 Cherry Ln. = 1.48  
9-14-16 = 138 East Keyser Heights = 1.24  
9-15-16 = 108 College Street = 1.20  
9-16-16 = 146 Harolds Branch = 1.21  
9-17-16 = 685 Chloe Road = 1.08  
9-18-16 = 170 Walnut Street = 1.13  
9-19-16 = 238 Quill Ridge = 1.01  
9-20-16 = 168 Deskins Hollow = 1.05  
9-21-16 = 267 Peach Orchard = 1.30  
9-22-16 = 152 Smith Hill = 1.25  
9-23-16 = 130 Bob Amos = 1.12  
9-24-16 = 1172 Right Fork of Island Creek = 1.28  
9-25-16 = 134 Mt. Chase = 1.12  
9-26-16 = 351 Fife Fork = 0.72  
9-27-16 = 111 Mildred Street = 1.17  
9-28-16 = 112 Bill King Hollow = 1.21  
9-29-16 = 306 Island Creek = 1.28  
9-30-16 = 149 Church Street = 0.99



WATER PLANT MONTHLY OPERATIONS REPORT

MONTH/YEAR: sept / 16

CHEMICALS ADDED

DAY	RAW WATER TREATED (M.G.D.)	COAGULANT PAC LBS	FLUORIDE LBS	PRE LBS	POST LBS
01	3.274	614	19.4	40.7	57.2
02	3.441	700	34.6	35.2	61.6
03	3.738	783	10.8	38.5	64.9
04	2.832	577	18.0	34.1	57.2
05	3.242	624	18	37.4	61.6
06	3.395	721	17.1	36.3	67.1
07	3.818	721	23.4	46.2	73.7
08	3.310	634	20	38.5	64.9
09	3.294	680	17.8	35.2	66
10	3.595	649	22.5	38.5	66
11	3.013	556	18	33	71.5
12	3.517	700	17.1	37.4	90.2
13	3.356	670	23.4	57.2	11.0
14	3.652	690	21.6	38.5	86.9
15	3.103	572	18	35.2	75.9
16	3.404	618	18.9	41.8	88.0
17	3.553	690	22.5	38.5	93.5
18	2.819	546	16.2	30.8	49.5
19	3.040	772	18	41.8	77
20	3.677	948	22.5	49.5	93.5
21	3.575	670	19.8	38.5	82.5
22	3.126	780	17.6	40.7	93.5
23	3.433	649	15.3	44	77
24	3.422	649.618	20.718	38.5	88.77
25	3.411	649	20.7	38.5	88
26	3.435	659	16.2	46.2	84.7
27	3.554	680	22.0	45.1	88.0
28	3.492	680	23.4	40.7	80.3
29	3.293	634	13.5	41.8	84.7
30	3.283	640	18.9	37.4	77.0
31					





### FINISHED WATER TURBIDITY

PWSID: 0980350

PWS NAME: PIKEVILLE WATER MONTH sept /16

DAY	MID - 4AM	4AM - 8AM	8AM - NOON	NOON - 4PM	4PM - 8PM	8PM - MID
1		.09	.08	.08	.07	
2		.09	.08	.07	.08	
3		.12	.09	.08	.08	
4		.07	.08	.07	.08	
5		.07	.07	.08	.08	
6		.07	.07	.07	.07	
7		.08	.10	.08	.10	
8		.08	.09	.10	.11	
9		.09	.08	.08	.09	
10		.07	.06	.06	.07	
11		.11	.07	.07	.07	
12		.08	.09	.07	.06	
13		.06	.06	.07	.08	
14		.06	.07	.06	.06	
15		.07	.06	.08	.07	
16		.08	.07	.08	.07	
17		.07	.06	.06	.06	
18		.05	.08	.07	.09	
19		.11	.13	.1	.1	
20		.11	.10	.09	.12	
21		.07	.07	.07	.08	
22		.08	.10	.08	.08	
23		.08	.11	.08	.1	
24		.09	.08	.08	.12	
25		.10	.08	.10	.12	
26		.10	.13 <del>.798</del>	.07	.08	
27		.07	.07	.08	.07	
28		.07	.07	.08	.07	
29		.07	.06	.07	.08	
30		.06	.07	.08	.07	
31						

WATER PLANT MONTHLY OPERATIONS REPORT

MONTH/YEAR:

sept/14

DAILY READINGS

DAY	WATER TO DIST MGD	SLUDGE HAULED Gals	S B/W RETURN	RAIN FALL (inches)	WATER TEMP DEG C	CLEAR WELL LEVEL FT.
1	3.5009		72000		27.5	7.4
2	3.4418		153000		26	4.6
3	3.4494		294000		26°	6.2
4	2.9264		233000		26°	9.8
5	3.3212		212000		26°	6.8
6	3.5567		148000		25	6
7	3.7297	33500	167000		26	4.6
8	3.4665		205000		26	8
9	3.4200		87000		26	5.6
10	3.5622		176000		26	4.6
11	3.0905		85000		27	5.6
12	3.4311		171000		25	5
13	3.3634		182000		25°	7.6
14	3.7257		40000		25°	8.0
15	3.2211		315000		26°	5.6
16	3.3461		195000		26	5.2
17	3.3521		94000		26°	7.6
18	3.1720		183000		26°	10.6
19	3.1748		249000	.78	24 19.24	5
20	3.7013		196000		25	4.8
21	3.6502		180000		25	5
22	3.2057		155000		25	5.2
23	3.4430		157000		24	5
24	3.4420		50000		26	4.8
25	3.4080		52000		26	6
26	3.4226		198000		26	6.4
27	3.6050		206000		25°	8.0
28	3.5495		78000		25°	8.0
29	3.4596		276000	.24	25°	5.8
30	3.3197		153000		21	4.6
31						

SETTLED WATER TURBIDITY

PWSID: 0980350

PWS NAME: PIKEVILLE WATER MONTH sept /14

DAY	MID - 4AM	4AM - 8AM	8AM - NOON	NOON - 4PM	4PM - 8PM	8PM - MID
1		1.03	.77	1.06	1.14/.97/1.06	
2		1.02	1.13	1.01	.84/.64/.74	
3		.82	.88	1.24/1.10/1.17	1.13	
4		1.11	.76	1.29/1.18/1.24	1.31	
5		1.16	1.00	1.05	1.16/1.01/1.08	
6		1.1	1.52	.95	.95/.72/.84	
7		.90	.95	.94	.91	
8		1.35	1.02	1.20	1.14/.99/1.06	
9		.84	.84	1.36/1.09/1.22	.98	
10		.93	.90	.99/.86/.92	.84	
11		1.03	.89	1.10/.81/.96	1.02	
12		1.04	1.26	1.18	.88/.82/.85	
13		.88	.96	1.11	1.21/1.15/1.18	
14		1.01	1.18	1.21/1.16/1.18	1.28	
15		1.12	1.30	1.12	1.14/1.04/1.09	
16		1.41	1.37	1.42	1.32/1.11/1.22	
17		1.13	.99	1.43/1.16/1.30	1.60	
18		1.11	1.18	1.14/1.06/1.10	1.49	
19		1.89	1.09	1.08/1.36/1.22	1.3	
20		.96	.94	1.12/.94/1.03	1.10	
21		.91	.85	1.4/1.48/1.44	1.90	
22		2.05	1.38	1.51/1.35/1.43	1.96	
23		.83	.62	1.35/1.05/1.2	.8	
24		.76	.78	.84/.70/.77	.93	
25		1.01	.92	.98/.86/1.92	1.00	
26		.96	.79	1.23	.86/.62/.72	
27		.88	1.00	1.04	.97/.91/.94	
28		.94	.77	1.11/1.03/1.07	1.01	
29		1.00	1.21	.90	.89/.81/.85	
30		.89	.94	1.14/.90/1.02	1.23	
31						

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 9/1/16 RAW TEMP 27.5 RAINFALL \_\_\_\_\_

OPERATOR DM OPERATOR [Signature]

FLOW RATE \_\_\_\_\_

CHEMICAL	SETTING	SETTING	SETTING	FEED	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	150				
POSTCL2	220				

CLEAR WELL 7.4

RFT/SHT 25.0 / 22.0

Town Mtn. On  Off  25.0

METERS/WEIGHTS/LEVELS					
FINISHED	45725351			PAX	139   180
RAW	34059219			FLUORIDE	450   700
SLUDGE	270567			PRE CL2	78   125
S B/W RET	213532			POST CL2	90   130

FILTERS	METERS/WEIGHTS/LEVELS												RUNTIME
	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS
#1	6:00	4:10	5:25	8:00									12.75
#2	↓	↓	↓	↓									↓
#3													
#4													
#5	↓	↓	↓	↓									↓

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 9-2-16 RAW TEMP 26 RAINFALL \_\_\_\_\_

OPERATOR Jm OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	SETTING	SETTING	SETTING	FEED	PPM
PAC	20				
FLUORIDE	23/40				
PRECL2	150				
POSTCL2	220	↑ 240			

CLEAR WELL 4.6 (523)  
 RFT/SHT 23.4 / 17.6  
 Town Mtn. On  Off  25.2

METERS/WEIGHTS/LEVELS			
FINISHED	45760360		PAX 121/210
RAW	34062493		FLUORIDE 592
SLUDGE	270 567		PRE CL2 88/120
S B/W RET	2/3604		POST CL2 78/160

FILTERS	METERS/WEIGHTS/LEVELS										RUNTIME
	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS
#1	6/1			1645	730	1834					13.5
#2											
#3											
#4		1325	355								
#5											

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
4	329-340				

COMMENTS: Bw pump keeps kicking off before full flow

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 9/3/16 RAW TEMP 26° RAINFALL \_\_\_\_\_

OPERATOR Dm OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	SETTING	SETTING	SETTING	FEED	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	150				
POSTCL2	240				

CLEAR WELL 6.2

RFT/SHT 25.8 / 23.6

Town Mtn. On  Off  25.6

## METERS/WEIGHTS/LEVELS

FINISHED	<u>45794778</u>		PAX	<u>142</u>	<u>80</u>	<u>220</u>
RAW	<u>34065934</u>		FLUORIDE	<u>400</u>	<u>380</u>	<u>800</u>
SLUDGE	<u>270567</u>		PRE CL2	<u>88</u>	<u>58</u>	<u>175</u>
S B/W RET	<u>213757</u>		POST CL2	<u>104</u>	<u>54</u>	<u>175</u>

FILTERS	<div style="display: flex; justify-content: space-around; font-size: small;"> <span>9:25</span> <span>3:25</span> <span>4:25</span> </div>												RUNTIME
	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS
#1	<u>5:10</u>	<u>2:55</u>	<u>4:55</u>	<u>19:45</u>									<u>14.0</u>
#2	↓	↓	↓	↓									
#3	↓	↓	↓	↓									
#4	↓	↓	↓	↓									
#5	↓	↓	↓	<u>18:15</u>									

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
<u>#5</u>	<u>8:18</u>		<u>8206</u>	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 9/4/16 RAW TEMP 26° RAINFALL \_\_\_\_\_

OPERATOR DM OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	SETTING	SETTING	SETTING	FEED	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	150				
POSTCL2	240				

CLEAR WELL 9.8

RFT/SHT 28.2 / 25.2

Town Mtn. On Off 26.2

METERS/WEIGHTS/LEVELS					
FINISHED	45829272			PAX	206
RAW	34069672			FLUORIDE	760
SLUDGE	270567			PRE CL2	170
S B/W RET	213869			POST CL2	166

FILTERS	5.75		3		8.75		11.5		10.25		7.5		RUNTIME HOURS
	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	
#1	5:05	10:50	1:15	4:00	5:55	7:30	8:45	9:30					
#2				4:20									11.0
#3													
#4													
#5	↓	↓	↓	↓	↓	↓	↓	↓					

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#1	4:04	10	8324	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 9/5/16 RAW TEMP \_\_\_\_\_ RAINFALL \_\_\_\_\_

OPERATOR Dm OPERATOR [Signature]

FLOW RATE \_\_\_\_\_

CHEMICAL	SETTING	SETTING	SETTING	FEED	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	150				
POSTCL2	240				

CLEAR WELL 6.8  
 RFT/SHT 25.2 / 21.8  
 Town Mtn. On  Off 26.4

METERS/WEIGHTS/LEVELS			
FINISHED	45859136		PAX 150
RAW	34072504		FLUORIDE 660
SLUDGE	270567		PRE CL2 139
S B/W RET	214102		POST CL2 114

FILTERS	METERS/WEIGHTS/LEVELS												RUNTIME
	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS
#1	6:00			446	640	847							12.75
#2	↓	405	420	↓	↓	↓							↓
#3	↓			↓	↓	↓							↓
#4	↓			↓	↓	↓							↓
#5	↓			↓	↓	↓							↓

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
2	407	10	8140		

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 9/6/16 RAW TEMP 25° RAINFALL \_\_\_\_\_

OPERATOR RU for GP (vac) OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	SETTING	SETTING	SETTING	FEED	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	150				
POSTCL2	240				

CLEAR WELL 6  
 RFT/SHT 25.2 / 22  
 Town Mtn. On Off 26.4

## METERS/WEIGHTS/LEVELS

FINISHED	45892348		PAX	90 70/220
RAW	34075746		FLUORIDE	560
SLUDGE	270567		PRE CL2	105 95/170
S B/W RET	214314		POST CL2	58 40/170

FILTERS	METERS/WEIGHTS/LEVELS												RUNTIME	
	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS	
#1	S	S	S	S	530	615	1815							13.5
#2														
#3		330	400											
#4														
#5	5													

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
3	332	9	8100	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 9/7/16 RAW TEMP 26 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	150				
POSTCL2	240				

CLEAR WELL RFT/SHT 22.4 | 4.6 | 17.2 Town Mtn. 25 On \_\_\_ Off \_\_\_

METERS/WEIGHTS/LEVELS			
FINISHED	45927915		PAX 170
RAW	34079141		FLUORIDE 465
SLUDGE	270567		PRE CL2 147
S B/W RET	214462		POST CL2 127

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	605		1605		900	1010							15.25
#2													
#3													
#4	1350	405											
#5													

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
4	355	8	7980	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 9/8/16 RAW TEMP 26 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR [Signature]

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	150				
POSTCL2	240				

CLEAR WELL 8 Town Mtn. 25 On \_\_\_ Off \_\_\_  
 RFT/SHT 24.6 | 21.4

METERS/WEIGHTS/LEVELS			
FINISHED	4596	5212	PAX 100/70/180
RAW	3408	2959	FLUORIDE 335
SLUDGE	270	902	PRE CL2 105/90/110
S B/W RET	214	629	POST CL2 60/31/140

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	540		150		545	1700	730	1800			13
#2											
#3											
#4											
#5	1347	405	15		15		15				

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
5	349	10	8/35		

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 9-9-16 RAW TEMP 20 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR [Signature]

FLOW RATE \_\_\_\_\_ J.M. OFF (PER)

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	150				
POSTCL2	240				

CLEAR WELL 5.6 Town Mtn. 24.6 On  Off   
 RFT/SHT 27.2 | 24.6

METERS/WEIGHTS/LEVELS				
FINISHED	45999877		PAX	149
RAW	34086269		FLUORIDE	224
SLUDGE	270902		PRE CL2	40
S B/W RET	219834		POST CL2	110

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	530	1245	140	1740									1325
#2													
#3													
#4													
#5													

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 9/10/16 RAW TEMP 26 RAINFALL \_\_\_\_\_

OPERATOR JP OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	150				
POSTCL2	240	<sup>945</sup> ↑ 255	<sup>300</sup> ↑ 280		

CLEAR WELL 4.6 Town Mtn. 26.2 On Off  
 RFT/SHT 25.6 | 22.2

METERS/WEIGHTS/LEVELS					
FINISHED	4603 4077			PAX	83 / 225
RAW	34089563			FLUORIDE	125 / 500
SLUDGE	270902			PRE CL2	58 / 135
S B/W RET	214921			POST CL2	50 / 175

FILTERS	ON	OFF	HOURS RUN										
#1	1	0	1	0	1	0	1	0	1	0	1	0	
#2	1	0	1	0	1	0	1	0	1	0	1	0	14
#3	1	0	1	0	1	0	1	0	1	0	1	0	
#4	1	0	1	0	1	0	1	0	1	0	1	0	
#5	1	0	1	0	1	0	1	0	1	0	1	0	

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
1	505	11	8120	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 9/11/16 RAW TEMP 27 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	150				
POSTCL2	1300				

CLEAR WELL 5.6 Town Mtn. 24.2 On Off  
 RFT/SHT 27.8 | 25.6

METERS/WEIGHTS/LEVELS					
FINISHED	4606	96	99	PAX	162
RAW	3409	31	58	FLUORIDE	375
SLUDGE	270	90	2	PRE CL2	100
S B/W RET	215	09	7	POST CL2	115

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600	205	405	640	800	900					11 <sup>28</sup>
#2											
#3											
#4											
#5											

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 9/12/16 RAW TEMP 25 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR [Signature]

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	150				
POSTCL2	300	↑325	↓310		

CLEAR WELL RFT/SHT 24.8 | 21.2 (130) 825 Town Mtn. 26.6 On \_\_\_ Off \_\_\_

METERS/WEIGHTS/LEVELS			
FINISHED	46100604		PAX 108/74/210
RAW	34096171		FLUORIDE 275/230/700
SLUDGE	270902		PRE CL2 70/34/110
S B/W RET	215182		POST CL2 598/150

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600		1600		705		833				13.5
#2		1455	510								
#3											
#4											
#5	↓			↓	↓	↓					↓

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
2	458	10	8159		

COMMENTS: 250 gal of F big tank

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 9/13/16 RAW TEMP 25° RAINFALL \_\_\_\_\_

OPERATOR DM OPERATOR [Signature]

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	150				
POSTCL2	310				

CLEAR WELL 7.6 Town Mtn. 25.0 On \_\_\_ Off X  
 RFT/SHT 26.2 | 23.8

### METERS/WEIGHTS/LEVELS

FINISHED	46134915		PAX	176
RAW	34099688		FLUORIDE	650
SLUDGE	220902		PRE CL2	92   175
S B/W RET	215353		POST CL2	110   175

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	5:15	3:00	5:00	7:30	8:00	8:55					
#2	↓	↓	↓	↓	↓	↓					
#3		2:22	↓	↓	↓	↓					
#4	↓	13:00	↓	↓	↓	↓					
#5	↓	↓	↓	↓	↓	↓					

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#3	2:25	14	8235	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 9/14/16 RAW TEMP 25° RAINFALL \_\_\_\_\_

OPERATOR Dm OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	150				
POSTCL2	310				

CLEAR WELL 8.0 Town Mtn. 26.6 On  Off \_\_\_\_\_  
 RFT/SHT 25.2 | 22.2

METERS/WEIGHTS/LEVELS			
FINISHED	4616	8549	PAX 111 / 220
RAW	3410	3044	FLUORIDE 520
SLUDGE	270	902	PRE CL2 144 / 175
S B/W RET	215	535	POST CL2 100 / 175

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	5:10		13:20	5:00	9:00						14.25
#2											
#3			2:25								
#4		12:40	12:55								
#5	↓			↓	↓	↓					

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#4	12:42	11	7975	—	—

COMMENTS: Big Pac TANK EMPTY

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 9/15/16 RAW TEMP 26° RAINFALL \_\_\_\_\_

OPERATOR DM OPERATOR 

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	75/40				
PRECL2	150				
POSTCL2	310				

CLEAR WELL RFT/SHT 27.8 | 26.8 Town Mtn. 26.0 On  Off

METERS/WEIGHTS/LEVELS			
FINISHED	46205806		PAX 153
RAW	34106696		FLUORIDE 400
SLUDGE	270902		PRE CL2 140
S B/W RET	215575		POST CL2 96

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	6:00		1435	7:00	1855						12.5
#2											
#3											
#4											
#5	↓	1317	4:00	↓	↓	↓					↓

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
5	319	15	8200		

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 9-16-16 RAW TEMP 26 RAINFALL \_\_\_\_\_

OPERATOR *Jr* OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	150				
POSTCL2	1320				

CLEAR WELL 5.2 Town Mtn. 25.6 On Off  
 RFT/SHT 24.9 123.6

### METERS/WEIGHTS/LEVELS

FINISHED	9623 8017		PAX	98/210
RAW	3410 9799		FLUORIDE	300
SLUDGE	270 902		PRE CL2	108
S B/W RET	215890		POST CL2	27/150

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600	11040	1210	1630	646	1900					
#2											
#3											
#4											
#5	↓	↓	↓	↓	↓	↓					

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
1	632	11	7915	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 9/17/16 RAW TEMP \_\_\_\_\_ RAINFALL \_\_\_\_\_

OPERATOR DM OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	150				
POSTCL2	320				

CLEAR WELL 7.6 Town Mtn. 26.4 On  Off   
 RFT/SHT 26.0 | 24.4

METERS/WEIGHTS/LEVELS					
FINISHED	46271478			PAX	150   220
RAW	34113203			FLUORIDE	195   800
SLUDGE	270902			PRE CL2	70   175
S B/W RET	216085			POST CL2	70   175

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	5:00	7:03	4:00	6:35	7:35	9:55					13.0
#2		1:20									
#3		8:03									
#4											
#5											

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#2	8:23	12	8190		

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 9/18/16 RAW TEMP \_\_\_\_\_ RAINFALL \_\_\_\_\_

OPERATOR DA OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	150				
POSTCL2	320				

CLEAR WELL 10.6 Town Mtn. 24.6 On \_\_\_ Off   
 RFT/SHT 22.8 | 26.2

METERS/WEIGHTS/LEVELS			
FINISHED	4630	4989	PAX 153 / 130 / 170
RAW	3411	6756	FLUORIDE 675
SLUDGE	270	902	PRE CL2 140
S B/W RET	216	179	POST CL2 90 / 80 / 130

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	5:10	10:55	1:00	3:15	5:00	7:30	8:30	9:00			11.0
#2	↓	↓	↓	↓	↓	↓	↓	↓			
#3	↓	10:25	↓	↓	↓	↓	↓	↓			
#4	↓	10:55	↓	↓	↓	↓	↓	↓			
#5	↓	↓	↓	↓	↓	↓	↓	↓			

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#3	10:27	11	8252	—	—

COMMENTS: Spent Backwash pump #1 won't work

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 9/19/16 RAW TEMP 81.9 24 RAINFALL .78

OPERATOR [Signature] OPERATOR RV for JM VPC

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20	758 ↑30			
FLUORIDE	73/40				
PRECL2	150	758 ↑180			
POSTCL2	320				

CLEAR WELL 5 Town Mtn. 24.6 On Off  
 RFT/SHT 27/2 | 26

METERS/WEIGHTS/LEVELS			
FINISHED	46336719		PAX 140 / 225
RAW	34119575		FLUORIDE 585
SLUDGE	270902		PRE CL2 112 / 170
S B/W RET	216362		POST CL2 95 / 175

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	605		1515		6101720						125
#2											
#3											
#4	1200	2301									12
#5	4		14		205		11				125

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
4	201	13	7908	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 9/20/16 RAW TEMP 25 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	30				
FLUORIDE	73/40				
PRECL2	180				
POSTCL2	320				

CLEAR WELL 4.8 Town Mtn. 25.6 On Off  
 RFT/SHT 22.8 | 15.8

METERS/WEIGHTS/LEVELS			
FINISHED	46368467		PAX 150
RAW	34122615		FLUORIDE 485
SLUDGE	270902		PRE CL2 132
S B/W RET	216611		POST CL2 105

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600	650	745	915							14 25
#2											
#3											
#4											
#5	1515										

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
5	520	14	8140		

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 9/21/16 RAW TEMP 25 RAINFALL \_\_\_\_\_

OPERATOR HP OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	30 <sup>1030</sup> ↓ 20				
FLUORIDE	23/40				
PRECL2	180 <sup>1030</sup> ↓ 150				
POSTCL2	320				

CLEAR WELL RFT/SHT 22.2 | 21 Town Mtn. 26.4 On 5 Off \_\_\_\_\_

METERS/WEIGHTS/LEVELS			
FINISHED	4640	5480	PAX 58 / 225
RAW	3412	6292	FLUORIDE 360
SLUDGE	270	902	PRE CL2 87 / 175
S B/W RET	216	807	POST CL2 20 / 175

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	640	440	500	635	800	1005					
#2	↓		↓		↓						
#3	↓		↓		↓						
#4	↓		↓		↓						
#5	↓		↓		↓						

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
1	445	11	8100	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 9/22/16 RAW TEMP 25 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR RU for JM (vac)

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	725				
FLUORIDE	73/40				
PRECL2	1165	100 150			
POSTCL2	330				

CLEAR WELL 5.2 Town Mtn. 27.2 On Off  
 RFT/SHT 26 | 23.6

METERS/WEIGHTS/LEVELS			
FINISHED	4644	1982	PAX 160
RAW	3412	9867	FLUORIDE 250
SLUDGE	270	90.2	PRE CL2 140
S B/W RET	216	987	POST CL2 100

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	645		1800	745							13.5
#2		1345	415		20						12.75
#3											12.25
#4											
#5	↓	9	↓	375							6

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#2	345	12	8002	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 9/23/16 RAW TEMP 24° RAINFALL \_\_\_\_\_

OPERATOR Rv for Jim Mac OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	25	<sup>11:30</sup> 20			
FLUORIDE	73/40				
PRECL2	150	<sup>10:20</sup> 210			
POSTCL2	330	<sup>8:20</sup> 350	<sup>10:20</sup> 390		

CLEAR WELL 5 Town Mtn. 25 On  Off   
 RFT/SHT 25 | 23.2 1.93

METERS/WEIGHTS/LEVELS					
FINISHED	464	740	39	PAX	85 220
RAW	341	329	9.3	FLUORIDE	152 800
SLUDGE	270	902		PRE CL2	103 175
S B/W RET	212	142		POST CL2	15 180

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	5:50		16:30		7:00	16:00					13:25
#2											6
#3		14:30	4:50								13:25
#4											13:25
#5	↓	10:25	1:50	↓	1:17						↓

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
<del>#3</del>	4:33	12	8139	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 9/24/16 RAW TEMP 26 RAINFALL \_\_\_\_\_

OPERATOR HP OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	23/40				
PRECL2	210 <sup>805</sup> / 140				
POSTCL2	390 / 240	1010 / 280	↑ 165 / 310		

CLEAR WELL 4.8 Town Mtn. 25.4 On Off  
 RFT/SHT 25.4 | 23.6

METERS/WEIGHTS/LEVELS			
FINISHED	4650	8469	PAX 157 / 225
RAW	3413	6426	FLUORIDE 715
SLUDGE	2709	02	PRE CL2 135 / 175
S B/W RET	217	293	POST CL2 110 / 175

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600	455	700	930							135
#2											
#3											
#4											
#5											

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 9/25/16 RAW TEMP 26 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	70/40				
PRECL2	165				
POSTCL2	310				

CLEAR WELL 6 Town Mtn. 24.8 On Off  
 RFT/SHT 25.6 | 25.4

METERS/WEIGHTS/LEVELS			
FINISHED	46542689		PAX 165
RAW	34139848		FLUORIDE 615
SLUDGE	270903		PRE CL2 140
S B/W RET	217343		POST CL2 105

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600	455	700	935							13.5
#2	↓	↓	↓	↓							
#3	↓	↓	↓	↓							
#4	↓	↓	↓	↓							
#5	↓	↓	↓	↓							

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 9/26/16 RAW TEMP 26 RAINFALL 1

OPERATOR JP OPERATOR Jm

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	165 <sup>715</sup> 1180				
POSTCL2	310				

CLEAR WELL 6.4 Town Mtn. 26.2 On Off  
 RFT/SHT 26 | 24.4

METERS/WEIGHTS/LEVELS			
FINISHED	46576769		PAX 102/72/200
RAW	34143259		FLUORIDE 500
SLUDGE	270903		PRE CL2 105/83/130
S B/W RET	217395		POST CL2 25/55/18/150

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	555		1500		635	1915					13.75
#2											
#3											
#4	338	415									
#5	↓		↓		↓		↓				

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
4	341	15	8070		

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 9/27/16 RAW TEMP 25° RAINFALL \_\_\_\_\_

OPERATOR Am OPERATOR *[Signature]*

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	25/40				
PRECL2	180 ↓ 172	↓ 168			
POSTCL2	310				

CLEAR WELL 8.0 Town Mtn. 25.4 On X Off \_\_\_\_\_  
 RFT/SHT 27.2 | 26.2

METERS/WEIGHTS/LEVELS			
FINISHED	46610995		PAX 166
RAW	34146694		FLUORIDE 410
SLUDGE	270902		PRE CL2 110
S B/W RET	217593		POST CL2 110

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	5:00		1300		500	19500					14.0
#2											
#3											
#4											
#5	✓	12:35	→	→	→	→					

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#5	2:40	11	8200	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 9/28/16 RAW TEMP \_\_\_\_\_ RAINFALL \_\_\_\_\_

OPERATOR Am OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	168 ↓ 165				
POSTCL2	310 ↓ 300				

CLEAR WELL 8.0 Town Mtn. 24.8 On \_\_\_ Off ✓  
 RFT/SHT 26.8 | 25.8

METERS/WEIGHTS/LEVELS					
FINISHED	46647045			PAX	100   220
RAW	34150248			FLUORIDE	250   800
SLUDGE	220902			PRE CL2	69   175
S B/W RET	217799			POST CL2	30   173

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	5:05	↓	2:20	↓	4:45	↓	8:45				
#2	↓		6:45	↓	↓	↓					
#3	↓		↓	↓	↓	↓					
#4	↓		↓	↓	↓	↓					
#5	↓		↓	↓	↓	↓					

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#1	2:22	14	8240	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 9/29/16 RAW TEMP 25.0 RAINFALL .24

OPERATOR DM OPERATOR *[Signature]*

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	165				
POSTCL2	295	↓ 285			

CLEAR WELL 5.8 Town Mtn. 26.8 On  Off   
 RFT/SHT 25.4 | 23.2

METERS/WEIGHTS/LEVELS			
FINISHED	46682540		PAX 154
RAW	34153740		FLUORIDE 670
SLUDGE	270902		PRE CL2 138
S B/W RET	217897		POST CL2 100

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	6:00		1:49	6:49	1:00						13
#2	↓	1:45	4:40	↓	↓	↓					↓
#3	↓										↓
#4	↓										↓
#5	↓										↓

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
2	4:20	11	8232		

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 9-30-16 RAW TEMP 21 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	165				
POSTCL2	285				

CLEAR WELL RFT/SHT 24.2 4.6 Town Mtn. 27 On  Off

122.6

METERS/WEIGHTS/LEVELS			
FINISHED	46717136		PAX 93/200
RAW	34157033		FLUORIDE 595
SLUDGE	270 902		PRE CL2 100
S B/W RET	218173		POST CL2 23/150

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600			535	620	800					13.5
#2											
#3		500	515								
#4											
#5											

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
3	503	8	8200		

COMMENTS:

FIELD CHAIN OF CUSTODY RECORD

FIELD MONITORING PROGRAM

SAMPLERS (SIGNATURES)

*[Signature]*

FACILITY	SAMPLE SOURCE	COMPOSITING PERIOD				SAMPLE COLLECTION			FLOW		CONTAINER		Volatile Organics	Pesticides/PCB's	Trace Metals	Cyanide	Phenols	Oil and Grease	Solids	BOD	Ammonia Nitrogen	Phosphorous	Coliform	pH	Preservation	COMMENTS	
		SAMPLING BEGINS		SAMPLING ENDS		DATE	TIME	G/C	MGD	VOLUME	G/P																
		DATE	TIME	DATE	TIME																						
PIKOWICZ WTP	111			9/8/16	1216	G																					
"	030			"	1227	"																					
"	009			"	1235	"																					
"	110			"	1244	"																					
"	033			"	1251	"																					
"	P01			"	1300	"																					FLUORIDE 0.76
"	RAW			"	1301	"																					ALKALINITY
"	RAW			"	1302	"					G																TOC
"	GRIT CYCLONE			"	1319	C					P																TSS
"	GRIT PUMP			"	1322	C					"																TSS
"	66			9/7/16	705	G					"																LXC
"	74			"	500	"					"																LXC
"	72			"	900	"					"																LXC
"	70			"	650	"					"																LXC

C:\Data\2016\09\08\16152

RELINQUISHED BY <i>[Signature]</i>	DATE 9/8/16	TIME 1333	RECEIVED BY <i>[Signature]</i>	RELINQUISHED BY	DATE	TIME	RECEIVED BY
RELINQUISHED BY	DATE	TIME	RECEIVED BY	RELINQUISHED BY	DATE	TIME	RECEIVED BY
RELINQUISHED BY	DATE	TIME	RECEIVED BY	RELINQUISHED BY	DATE	TIME	RECEIVED BY

REMARKS GRIT CYCLONE 13:25 7.98  
GRIT Pump 13:35 7.87  
23°C - transported w/ice VBS  
Pb, Cu collected by Homeowner *[Signature]*

002162

KENTUCKY DIVISION OF WATER / DRINKING WATER RESULTS  
BACTERIOLOGICAL ANALYSIS REPORT FORM

General Information -- This Section To Be Completed By Collector

PWS ID	K Y 0 9 8 0 3 5 0	Compliance Period (MMYYYY)	0 9 2 0 1 6
PWS Name	CITY OF PIKEVILLE	PWS Contact	RALPH VARNEY
PWS Address	306 ISLAND CREEK ROAD	PWS Phone	606-437-5123
		Collection Date (MMDDYYYY)	0 9 0 8 2 0 1 6 <small>(All Samples Reported on this Form were Collected on this Date.)</small>
		Collector Name	<i>Ralph Varney</i> <small>Signature/Date</small>

General Information -- This Section To Be Completed By Lab

Lab ID	0 0 0 5 0	Lab Receipt Date (MMDDYYYY)	0 9 0 8 2 0 1 0	Total Coliform Analysis Method Code	3 0 8
Lab Analyst	<i>Al Hill</i> <small>Signature/Date</small>	Analysis Date (MMDDYYYY)	0 9 0 8 2 0 1 4	E Coli Analysis Method Code	3 0 8
		Lab Supervisor	<i>Al Hill</i> <small>Signature/Date</small>		

Sample Information -- This Section To Be Completed By Collector

Sample Type (RT, RP, TG, CO, or SP) (See Key)	Special Sample Reason (A, B, C, D, or E) (See Key) Replacement Sample? (Y or Blank)	Location Code (See Instructions)	Repeat Location Code (DN, UP, or OR) (See Key)	Sample Time (24 hr)	Free Chlorine (Required for all disinfectants except Chloramine)	Total Chlorine (Required when disinfectant is Chloramine)
RT		111		1216	1.01	.
RT		030		1227	0.98	.
RT		009		1235	1.49	.
RT		110		1244	1.50	.
RT		033		1251	1.52	.
					.	.
					.	.
					.	.
					.	.

Analysis Information -- This Section To Be Completed By Lab

Lab Sample Number	Analysis Time (24 hr)	Result (Total Coliform Count - or - TNTC - or - CNFG - or - TCNG) (See Key)	Total Coliform (P/A)	E Coli (P/A)	Lab Sample Number of Original Sample (Required for RP, TG, CO, and/or Replacement Samples) (See Instructions)
6091782					
01	1810		AA		
02	1810		AA		
03	1810		AA		
04	1810		AA		
05	1810		AA		

BACTERIOLOGICAL ANALYSIS REPORT FORM KEY

The signatories of this form certify by their signatures that collection and analysis of the water sample analyzed and the resulting data hereby submitted, were completed in accordance with the provisions of 401 KAR Chapter 8, specifically including but not limited to 401 KAR 8:200, Section 1 and 401 KAR 8:040; and that the data submitted on this form is a true and accurate report of the results of collection and analysis performed pursuant to the above-referenced regulations. Violations of 401 KAR Chapter 8 are subject to severe penalties prescribed in KRS 224.99-010, up to \$25,000 fine per day per violation and in some cases a violation may subject the violator to prison.

<b>Sample Type:</b>	RT = Routine (For Compliance)	RP = Repeat (For Compliance)	SP = Special (Not for Compliance)
	TG = Triggered (For Compliance)	CO = Confirmation (For Compliance)	
<b>Special Sample Reason: (Only if Sample Type = SP)</b>	A = Suspected Contamination	B = New Plant, Modification, or Line Extension	C = Treatment Modification
	D = Study/Investigation	E = Line Break, Emergency Repair	
<b>Repeat Location Code: (Only if Sample Type = RP)</b>	DN = Downstream	UP = Upstream	OR = Original Site
<b>Result:</b>	TNTC = Too Numerous to Count	CNFG = Confluent Growth	TCNG = Turbid Culture-No Gas



McCoy & McCoy  
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270.821.7375  
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Lexington, KY 859.299.7775	Pikeville, KY 606.432.3104	Farmersburg, IN 812.696.5076
Louisville, KY 502.961.0001	Paducah, KY 270.444.6547	

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**SAMPLE SUMMARY**

Lab ID	Client Sample ID/Alias	Matrix	Date Collected	Date Received	Sampled By
6091782-01	BACT/	Drinking Water	09/08/2016 12:16	09/08/2016 13:33	Ralph Varney
6091782-02	BACT/	Drinking Water	09/08/2016 12:27	09/08/2016 13:33	Ralph Varney
6091782-03	BACT/	Drinking Water	09/08/2016 12:35	09/08/2016 13:33	Ralph Varney
6091782-04	BACT/	Drinking Water	09/08/2016 12:44	09/08/2016 13:33	Ralph Varney
6091782-05	BACT/	Drinking Water	09/08/2016 12:51	09/08/2016 13:33	Ralph Varney

<u>LabNumber</u>	<u>Measurement</u>	<u>Value</u>
6091782-01	Field Residual Chlorine	1.01
6091782-02	Field Residual Chlorine	0.98
6091782-03	Field Residual Chlorine	1.49
6091782-04	Field Residual Chlorine	1.50
6091782-05	Field Residual Chlorine	1.52



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Louisville, KY 502.961.0001	Paducah, KY 270.444.6547	

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**ANALYTICAL RESULTS**

Lab Sample ID: **6091782-01**  
Description: **BACT**

Sample Collection Date Time: 09/08/2016 12:16  
Sample Received Date Time: 09/08/2016 13:33

Matrix: Drinking Water

Discharge/Site No: 111

Regulatory ID: KY0980350

Microbiological Analyses Pikeville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Colilert 18	09/08/2016 18:10	09/09/2016 15:49	ADH

**ANALYTICAL RESULTS**

Lab Sample ID: **6091782-02**  
Description: **BACT**

Sample Collection Date Time: 09/08/2016 12:27  
Sample Received Date Time: 09/08/2016 13:33

Matrix: Drinking Water

Discharge/Site No: 030

Regulatory ID: KY0980350

Microbiological Analyses Pikeville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Colilert 18	09/08/2016 18:10	09/09/2016 15:49	ADH

**ANALYTICAL RESULTS**

Lab Sample ID: **6091782-03**  
Description: **BACT**

Sample Collection Date Time: 09/08/2016 12:35  
Sample Received Date Time: 09/08/2016 13:33

Matrix: Drinking Water

Discharge/Site No: 009

Regulatory ID: KY0980350

Microbiological Analyses Pikeville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Colilert 18	09/08/2016 18:10	09/09/2016 15:49	ADH



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Louisville, KY 502.961.0001	Paducah, KY 270.444.6547	

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### ANALYTICAL RESULTS

Lab Sample ID: **6091782-04**  
Description: **BACT**

Sample Collection Date Time: 09/08/2016 12:44  
Sample Received Date Time: 09/08/2016 13:33

Matrix: Drinking Water

Discharge/Site No: 110

Regulatory ID: KY0980350

#### Microbiological Analyses Pikeville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Coli/ert 18	09/08/2016 18:10	09/09/2016 15:49	ADH

### ANALYTICAL RESULTS

Lab Sample ID: **6091782-05**  
Description: **BACT**

Sample Collection Date Time: 09/08/2016 12:51  
Sample Received Date Time: 09/08/2016 13:33

Matrix: Drinking Water

Discharge/Site No: 033

Regulatory ID: KY0980350

#### Microbiological Analyses Pikeville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Coli/ert 18	09/08/2016 18:10	09/09/2016 15:49	ADH

#### Notes for work order 6091782

- Samples collected by MMLI personnel are done so in accordance with procedures set forth in MMLI field services SOPs.
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identification based on the presumptive evidence of the mass spectra.

#### Standard Qualifiers/Acronyms

MDL	Method Detection Limit
MRL	Minimum Reporting Limit
ND	Not Detected
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
% Rec	Percent Recovery
RPD	Relative Percent Difference
>	Greater than
<	Less than



**SAMPLE SUMMARY**

Lab ID	Client Sample ID/Alias	Matrix	Date Collected	Date Received	Sampled By
6091783-01	Fluoride/	Drinking Water	09/08/2016 13:00	09/08/2016 13:33	Ralph Varney
<u>LabNumber</u>	<u>Measurement</u>	<u>Value</u>			
6091783-01	Field Fluoride	0.76			

**ANALYTICAL RESULTS**

Lab Sample ID: **6091783-01**  
Description: **Fluoride**

Sample Collection Date Time: 09/08/2016 13:00  
Sample Received Date Time: 09/08/2016 13:33

Matrix: Drinking Water

Discharge/Site No: P01

Regulatory ID: KY0980350

**Conventional Chemistry Analyses Madisonville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Fluoride	0.79		mg/L	0.20		4500-F C-1997	09/15/2016 11:35	09/15/2016 11:35	JTL

**Notes for work order 6091783**

- Samples collected by MMLI personnel are done so in accordance with procedures set forth in MMLI field services SOPs.
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identification based on the presumptive evidence of the mass spectra.

T15 Sample receipt temperature outside 0 - 6°C; sample collected on same day as received; sample received on ice.

U Target analyte was analyzed for, but was below detection limit (the value associated with the qualifier is the laboratory method detection limit in our LIMS system).

**Standard Qualifiers/Acronyms**

- MDL Method Detection Limit
- MRL Minimum Reporting Limit
- ND Not Detected
- LCS Laboratory Control Sample
- MS Matrix Spike
- MSD Matrix Spike Duplicate
- DUP Sample Duplicate
- % Rec Percent Recovery
- RPD Relative Percent Difference
- > Greater than
- < Less than

**Certified Analyses Included in this Report**

Analyte	Certifications
<b>4500-F C-1997 in Water</b>	
Fluoride	KY Drinking Water Mdv (00030) VA NELAC Mdv (460210) IN Drinking Water Mdv (C-KY-02) IL Drinking Water Mdv (200079)



**SAMPLE SUMMARY**

Lab ID	Client Sample ID/Alias	Matrix	Date Collected	Date Received	Sampled By
6090223-01	Backwash/Grit Cyclone	Wastewater	09/08/2016 13:19	09/08/2016 13:33	Ralph Varney
6090223-02	Backwash/Grit Pump	Wastewater	09/08/2016 13:22	09/08/2016 13:33	Ralph Varney

**ANALYTICAL RESULTS**

Lab Sample ID: **6090223-01**  
Description: **Backwash Grit Cyclone**

Sample Collection Date Time: 09/08/2016 13:19  
Sample Received Date Time: 09/08/2016 13:33

**Conventional Chemistry Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Suspended Solids	7		mg/L	3	3	2540 D-1997	09/15/2016 09:23	09/15/2016 11:26	SNB

**Field Analysis Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
pH (Field)	7.98		Std. Units	0.10	0.10	4500-H+ B-2000	09/08/2016 13:19	09/08/2016 13:36	ADH

**ANALYTICAL RESULTS**

Lab Sample ID: **6090223-02**  
Description: **Backwash Grit Pump**

Sample Collection Date Time: 09/08/2016 13:22  
Sample Received Date Time: 09/08/2016 13:33

**Conventional Chemistry Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Suspended Solids	ND	u	mg/L	8	8	2540 D-1997	09/15/2016 09:23	09/15/2016 11:28	SNB

**Field Analysis Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
pH (Field)	7.87		Std. Units	0.10	0.10	4500-H+ B-2000	09/08/2016 13:22	09/08/2016 13:35	ADH

RECEIVED  
10/11/16  
RV

**KENTUCKY DIVISION OF WATER / DRINKING WATER BRANCH  
DISINFECTION BYPRODUCT PRECURSOR ANALYSIS REPORT FORM**

SAMPLE CATEGORY = TOC

**This Section To Be Completed By Collector**

PWS ID	<u>KY0980350</u>	Plant ID	<u>A</u>	Plant Name	<u>INTAKE - LEVISA FORK/BIG SANDY RIVE</u>	Location Code	<u>R01</u>
PWS Name	<u>Pikeville Water Department</u>			PWS Contact	<u>Ralph Varney</u>		
PWS Address	<u>306 Island Creek Road, Pikeville, KY 41501</u>			PWS Phone	<u>(606) 437-5123</u>		
Sample Date (MMDDYYYY)	<u>09/08/2016</u>	Time	<u>13:01</u>	Sample Type	<u>RT</u>	Collector Name	<u>Ralph Varney</u>
				RT = Routine (For Compliance)			
				SP = Special (Not for Compliance)			

**This Section to Be Completed By Lab**

Lab ID	<u>00030</u>	Lab Sample Number	<u>6091784-01</u>	Lab Phone	<u>(270) 821-7375</u>
Lab Analyst	<u>Tracy Benton</u>	Signature/Date	<u>09/13/2016 13:53</u>	Lab Supervisor	<u>Mark Athan</u>
					<u>09/22/2016</u>

Analyte Code	Analyte Name	Analysis Method Code	Result (mg/L)	Analysis Date
			-or- Lab Minimum Reporting Limit (mg/L)	
1927	Alkalinity, Total (as CaCO3)	849	160	09132016
2920	Total Organic Carbon	839	2.0	09192016

The signatories of this form certify by their signature that collection and analysis of the water sample analyzed and the resulting data hereby submitted, were completed in accordance with the provisions of 401 KAR Chapter 8; and that the data submitted on this form is a true and accurate report of the results of collection and analysis performed pursuant to the above-referenced regulations. Violations of 401 KAR Chapter 8 are subject to severe penalties prescribed in KRS 224.99-010, up to \$25,000 fine per day per violation and in some cases a violation may subject a violator to prison.


  
**ENTERED**  
10/1/16

**KENTUCKY DIVISION OF WATER / DRINKING WATER BRANCH  
DISINFECTION BYPRODUCT PRECURSOR ANALYSIS REPORT FORM**

SAMPLE CATEGORY = TOC

**This Section To Be Completed By Collector**

PWS ID	<u>KY0980350</u>	Plant ID	<u>A</u>	Plant Name	<u>PIKEVILLE WTP</u>	Location Code	<u>CF1</u>
PWS Name	<u>Pikeville Water Department</u>			PWS Contact	<u>Ralph Varney</u>		
PWS Address	<u>306 Island Creek Road, Pikeville, KY 41501</u>			PWS Phone	<u>(606) 437-5123</u>		
Sample Date (MMDDYYYY)	<u>09/08/2016</u>	Time	<u>13:05</u>	Sample Type	<u>RT</u>	Collector Name	<u>Ralph Varney</u>
				RT = Routine (For Compliance) SP = Special (Not for Compliance)			

**This Section to Be Completed By Lab**

Lab ID	<u>00030</u>	Lab Sample Number	<u>6091784-02RE1</u>	Lab Phone	<u>(270) 821-7375</u>
Lab Analyst	<u>Tracy Benton</u>	Signature/Date	<u>09/19/2016 18:15</u>	Lab Supervisor	<u><i>Mark A. Smith</i></u> <u>09/22/2016</u>

Analyte Code	Analyte Name	Analysis Method Code	Result (mg/L)	Analysis Date
			-or- Lab Minimum Reporting Limit (mg/L)	
2920	Total Organic Carbon	839	1.8	09192016

The signatories of this form certify by their signature that collection and analysis of the water sample analyzed and the resulting data hereby submitted, were completed in accordance with the provisions of 401 KAR Chapter 8; and that the data submitted on this form is a true and accurate report of the results of collection and analysis performed pursuant to the above-referenced regulations. Violations of 401 KAR Chapter 8 are subject to severe penalties prescribed in KRS 224.99-010, up to \$25,000 fine per day per violation and in some cases a violation may subject a violator to prison.





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Louisville, KY      Paducah, KY  
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**SAMPLE SUMMARY**

Lab ID	Client Sample ID/Alias	Matrix	Date Collected	Date Received	Sampled By
6092447-01	BACT/	Drinking Water	09/15/2016 12:47	09/15/2016 13:58	Ralph Varney
6092447-02	BACT/	Drinking Water	09/15/2016 13:06	09/15/2016 13:58	Ralph Varney
6092447-03	BACT/	Drinking Water	09/15/2016 13:21	09/15/2016 13:58	Ralph Varney
6092447-04	BACT/	Drinking Water	09/15/2016 13:29	09/15/2016 13:58	Ralph Varney
6092447-05	BACT/	Drinking Water	09/15/2016 13:52	09/15/2016 13:58	Ralph Varney

<u>LabNumber</u>	<u>Measurement</u>	<u>Value</u>
6092447-01	Field Residual Chlorine	1.03
6092447-02	Field Residual Chlorine	0.99
6092447-03	Field Residual Chlorine	1.16
6092447-04	Field Residual Chlorine	1.01
6092447-05	Field Residual Chlorine	1.20



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**ANALYTICAL RESULTS**

Lab Sample ID: **6092447-01**  
Description: **BACT**

Sample Collection Date Time: 09/15/2016 12:47  
Sample Received Date Time: 09/15/2016 13:58

Matrix: Drinking Water

Discharge/Site No: 118

Regulatory ID: KY0980350

Microbiological Analyses Pikeville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Colilert 24	09/15/2016 15:30	09/16/2016 17:05	ADH

**ANALYTICAL RESULTS**

Lab Sample ID: **6092447-02**  
Description: **BACT**

Sample Collection Date Time: 09/15/2016 13:06  
Sample Received Date Time: 09/15/2016 13:58

Matrix: Drinking Water

Discharge/Site No: 120

Regulatory ID: KY0980350

Microbiological Analyses Pikeville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Colilert 24	09/15/2016 15:30	09/16/2016 17:05	ADH

**ANALYTICAL RESULTS**

Lab Sample ID: **6092447-03**  
Description: **BACT**

Sample Collection Date Time: 09/15/2016 13:21  
Sample Received Date Time: 09/15/2016 13:58

Matrix: Drinking Water

Discharge/Site No: 031

Regulatory ID: KY0980350

Microbiological Analyses Pikeville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Colilert 24	09/15/2016 15:30	09/16/2016 17:05	ADH



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**ANALYTICAL RESULTS**

Lab Sample ID: **6092447-04**  
Description: **BACT**

Sample Collection Date Time: 09/15/2016 13:29  
Sample Received Date Time: 09/15/2016 13:58

Matrix: Drinking Water

Discharge/Site No: 028

Regulatory ID: KY0980350

**Microbiological Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Colilert 24	09/15/2016 15:30	09/16/2016 17:05	ADH

**ANALYTICAL RESULTS**

Lab Sample ID: **6092447-05**  
Description: **BACT**

Sample Collection Date Time: 09/15/2016 13:52  
Sample Received Date Time: 09/15/2016 13:58

Matrix: Drinking Water

Discharge/Site No: 040

Regulatory ID: KY0980350

**Microbiological Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Colilert 24	09/15/2016 15:30	09/16/2016 17:05	ADH

**Notes for work order 6092447**

- Samples collected by MMLI personnel are done so in accordance with procedures set forth in MMLI field services SOPs.
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identification based on the presumptive evidence of the mass spectra.

**Standard Qualifiers/Acronyms**

MDL	Method Detection Limit
MRL	Minimum Reporting Limit
ND	Not Detected
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
% Rec	Percent Recovery
RPD	Relative Percent Difference
>	Greater than
<	Less than





**SAMPLE SUMMARY**

Lab ID	Client Sample ID/Alias	Matrix	Date Collected	Date Received	Sampled By
6092448-01	Fluoride/	Drinking Water	09/15/2016 12:36	09/15/2016 13:58	Ralph Varney
<u>LabNumber</u>	<u>Measurement</u>	<u>Value</u>			
6092448-01	Field Fluoride	0.67			

**ANALYTICAL RESULTS**

Lab Sample ID: **6092448-01**  
Description: **Fluoride**

Sample Collection Date Time: 09/15/2016 12:36  
Sample Received Date Time: 09/15/2016 13:58

Matrix: Drinking Water

Discharge/Site No: 115

Regulatory ID: KY0980350

**Conventional Chemistry Analyses Madisonville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Fluoride	0.82		mg/L	0.20		4500-F C-1997	09/20/2016 09:36	09/20/2016 12:36	JTL

**Notes for work order 6092448**

- Samples collected by MMLI personnel are done so in accordance with procedures set forth in MMLI field services SOPs.
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identification based on the presumptive evidence of the mass spectra.

U Target analyte was analyzed for, but was below detection limit (the value associated with the qualifier is the laboratory method detection limit in our LIMS system).

**Standard Qualifiers/Acronyms**

MDL	Method Detection Limit
MRL	Minimum Reporting Limit
ND	Not Detected
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
% Rec	Percent Recovery
RPD	Relative Percent Difference
>	Greater than
<	Less than

**Certified Analyses included in this Report**

Analyte	Certifications
<b>4500-F C-1997 in Water</b>	
Fluoride	KY Drinking Water Mdv (00030) VA NELAC Mdv (460210) IN Drinking Water Mdv (C-KY-02) IL Drinking Water Mdv (200079)

September, 2016

DMR CALCULATIONS

date	tss cyclone	pH cyclone	tss intake	pH intake	hrs operated
09/01/16					12.75
09/02/16					13.50
09/03/16					14.00
09/04/16					11.00
09/05/16					12.75
09/06/16					13.50
09/07/16					15.25
09/08/16	7	7.98	0	7.87	13.00
09/09/16					13.25
09/10/16					14.00
09/11/16					11.75
09/12/16					13.50
09/13/16					13.25
09/14/16					14.25
09/15/16					12.50
09/16/16					13.50
09/17/16					13.00
09/18/16					11.00
09/19/16					12.50
09/20/16					14.25
09/21/16					14.00
09/22/16					13.00
09/23/16					13.75
09/24/16					13.50
09/25/16					13.50
09/26/16					13.75
09/27/16					14.00
09/28/16					13.75
09/29/16					13.00
09/30/16					13.50

CYCLONE ESTIMATE		100 gpm
Tot Hours	398.25	
times flushed 4 hr cycle	100	
gallons flushed	19,913	
mg flushed	0.0199	
mgd flushed	0.00064	
GRIT PUMP AT RWI		200 gpm
Total pumping hours	31	
Total gallons pumped	372,000	
Million gallons pumped	0.3720	
Million gallons a day	0.0120	

TSS-001	TSS-002
7	0
pH	
Cyclone	Pump
7.98	7.87

KENTUCKY DIVISION OF WATER

Revised 7/1/06

DRINKING WATER BRANCH

MONTHLY OPERATION REPORT (MOR)--ALL WATER SYSTEMS

MONTH & YEAR OF: [REDACTED]

DEP Form 4012--Revised 07/2006

PWS ID :	0980350	PLANT ID:	A	PLANT NAME:	PIKEVILLE WATER PLANT
PWS NAME:	CITY OF PIKEVILLE	PLANT CLASS:	IVA	DIST. CLASS:	II
AGENCY INTEREST (AI):	3691	DATE MAILED:			
SOURCE NAME:	LEVISA FORK OF THE BIG SANDY RIVER	COUNTY:		PIKE	
OPERATOR(S) RESPONSIBLE / IN-CHARGE		CLASS	CERTIFICATION NUMBER		
WTP SHIFT 1:	RALPH VARNEY	IVA	645		
WTP SHIFT 2:	GREG PENNINGTON	IVA	777		
WTP SHIFT 3:	DEMPSEY MILES	IVA	1549		
DISTRIBUTION:	DONNIE SLONE	IID	2236		

THIS REPORT MUST BE RECEIVED BY THE DIVISION OF WATER AND APPLICABLE FIELD OFFICE

**NO LATER THAN 10 DAYS AFTER THE END OF THE MONTH.**

**TREATMENT PLANTS COMPLETE:**

1. DESIGN CAPACITY (gpm):	4400
2. TYPE OF FILTRATION USED:	DUAL MEDIA RAPID SAND
3. DESIGN FILTRATION RATE (gpm/sq. ft.):	3
4. PERCENT BACKWASH WATER USED:	2.3
5. DATE FLOCCULATION BASIN(S) LAST CLEANED:	NOVEMBER 2015
6. DATE SETTLING BASIN(S) LAST CLEANED:	NOVEMBER 2015

I certify under penalty of law that I have personally examined and am familiar with the information submitted herein. Based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. See KRS 224.99-010 and 401 KAR 8:020. (Penalties under this statute and regulation may include fines up to \$25,000 per violation or by imprisonment for not more that one year, or both).

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

DATE

KENTUCKY DIVISION OF WATER - DRINKING WATER BRANCH  
 WATER TREATMENT PLANT MONTHLY OPERATION REPORT

PWS ID : 0980350  
 PLANT ID: A  
 REPORT MONTH/YEAR: October, 2016

DAY	RAW WATER TREATED GALLONS	HOURS PLANT OPERATED	COAGULANT		COAGULANT		pH ADJUSTMENT		DISINFECTANT		DISINFECTANT	
			LBS	PPM	LBS	PPM	Pre		Pre		Post	
							LBS	PPM	LBS	PPM	LBS	PPM
	3250000	13.00	639	23.6					39	1.42	69	2.56
	2930000	11.00	597	24.4					33	1.35	57	2.34
	3290000	13.25	618	22.5					42	1.52	69	2.53
	3090000	12.75	618	24.0					36	1.41	61	2.35
	3250000	13.00	670	24.7					41	1.50	63	2.31
	3020000	12.50	530	21.0					35	1.40	67	2.66
	2840000	11.75	484	20.4					36	1.53	59	2.51
	2780000	11.50	463	20.0					33	1.42	55	2.37
	2820000	11.25	463	19.7					33	1.40	55	2.34
	3210000	13.00	556	20.8					41	1.52	58	2.18
	3110000	12.50	525	20.2					35	1.36	65	2.50
	3280000	13.50	577	21.1					40	1.45	65	2.37
	3100000	12.50	530	20.5					37	1.45	58	2.25
	3090000	13.00	566	22.0					39	1.49	63	2.43
	2920000	11.75	484	19.9					34	1.40	55	2.26
	3160000	12.75	566	21.5					40	1.50	61	2.30
	2930000	12.00	546	22.3					37	1.53	61	2.48
	3440000	14.00	536	18.7					42	1.46	61	2.11
	3440000	14.00	597	20.8					46	1.61	66	2.30
	2940000	12.00	478	19.5					29	1.17	61	2.47
	3270000	13.50	803	29.4					45	1.65	74	2.70
	3100000	12.50	618	23.9					35	1.36	61	2.34
	2840000	11.50	515	21.7					36	1.53	55	2.32
	3110000	13.00	566	21.8					41	1.57	62	2.37
	3090000	12.50	577	22.4					42	1.62	57	2.22
	3500000	14.00	659	22.6					43	1.47	63	2.15
	2670000	11.00	499	22.4					31	1.38	50	2.22
	3050000	12.50	577	22.7					42	1.64	57	2.25
	3100000	12.75	597	23.1					37	1.45	59	2.30
	2880000	12.00	515	21.4					34	1.42	47	1.97
	2750000	11.50	484	21.1					33	1.44	53	2.30
<b>TOT</b>	95250000		17453						1166		1865	
<b>AVE</b>	3072581		563	26.45					38	2.69	60	1.85
<b>MAX</b>	3500000		803									
<b>NUMBER DAYS IN OPERATION</b>												

KENTUCKY DIVISION OF WATER - DRINKING WATER BRANCH  
WATER TREATMENT PLANT MONTHLY OPERATION REPORT

PWS ID : 0980350  
 PLANT ID: A

REPORT MONTH/YEAR: Oct, 2016

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DAY	DISINFECTANT		FLUORIDE		CARBON		pH ADJUSTMENT		KMnO4		CORROSION INHIBITOR			
	LBS	PPM	LBS	PPM	LBS	PPM	LBS	PPM	LBS	PPM	LBS	PPM	LBS	PPM
			21.6	0.80										
			18.0	0.74										
			17.1	0.62										
			18.9	0.73										
			19.8	0.73										
			19.8	0.79										
			17.1	0.72										
			18.0	0.78										
			14.4	0.61										
			16.2	0.61										
			21.6	0.83										
			25.2	0.92										
			14.4	0.56										
			21.6	0.84										
			18.0	0.74										
			21.6	0.82										
			18.0	0.74										
			18.0	0.63										
			20.7	0.72										
			19.8	0.81										
			18.0	0.66										
			18.0	0.70										
			18.0	0.76										
			17.3	0.67										
			18.0	0.70										
			23.4	0.80										
			15.5	0.70										
			18.7	0.74										
			21.6	0.84										
			18.0	0.75										
			14.4	0.63										
<b>TOTAL</b>			580.7											
<b>AVERAGE</b>			18.7	0.90										

KENTUCKY DIVISION OF WATER - DRINKING WATER BRANCH  
 WATER TREATMENT PLANT MONTHLY OPERATION REPORT

PWS ID : 0980350  
 PLANT ID : A

REPORT MONTH/YEAR: Oct, 2016

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DAY	pH			TOTAL ALKALINITY		TOTAL HARDNESS		CHLORINE RESIDUAL				TURBIDITY (NTU)		
	RAW	TOP OF FILTER	TAP	RAW	TAP	RAW	TAP	TOP OF FILTER		PLANT TAP		RAW	SETTLED WATER	PLANT TAP
								TOTAL	FREE	TOTAL	FREE			
	8.06	8.10	7.98	138	148	322	314		0.50		0.81	9.8	0.92	0.07
	8.35	8.16	7.98	142	140	284	288		0.81		1.40	11.6	0.86	0.06
	8.17	8.11	8.07	106	124	264	290		0.68		2.02	14.2	1.21	0.07
	8.11	8.04	7.94	120	110	294	286		0.92		1.53	5.8	0.80	0.08
	8.08	8.11	8.00	120	126	308	294		0.82		1.27	7.2	0.82	0.08
	8.14	8.08	7.94	104	116	312	322		0.12		1.37	6.6	0.98	0.07
	8.16	8.12	7.96	110	114	308	324		0.52		1.39	6.5	1.05	0.07
	8.10	8.08	8.00	130	136	320	304		0.66		1.53	6.0	0.93	0.06
	8.12	8.08	8.00	120	132	296	300		0.80		1.62	9.3	1.18	0.09
	8.17	8.14	7.96	98	100	282	276		0.70		1.77	9.2	1.12	0.10
	8.26	8.18	7.96	128	120	296	304		1.12		1.83	4.7	1.01	0.08
	8.29	8.14	7.97	132	126	300	306		0.66		1.81	5.4	1.05	0.06
	8.14	8.10	7.95	108	112	304	298		1.03		1.82	5.6	0.87	0.06
	8.23	8.14	7.97	124	130	312	302		0.55		1.56	5.2	0.95	0.07
	8.27	8.14	7.96	120	128	302	308		0.26		1.43	6.4	0.94	0.06
	8.24	8.22	8.00	120	132	298	302		0.37		1.48	9.1	0.90	0.07
	8.12	8.04	7.96	94	102	264	262		0.48		1.73	8.0	1.01	0.07
	8.09	8.05	7.95	114	120	296	288		0.21		1.49	11.6	1.38	0.07
	8.01	8.02	7.93	112	120	308	296		0.78		1.41	6.2	1.45	0.08
	8.09	8.04	7.90	114	108	290	294		0.28		1.53	4.9	1.18	0.08
	7.98	8.01	7.92	120	118	284	280		0.14		1.54	15.3	0.99	0.08
	8.03	8.00	7.97	130	136	340	324		0.42		1.46	5.4	0.67	0.09
	8.18	8.12	8.02	134	140	314	340		0.34		1.79	8.2	1.26	0.09
	8.14	8.06	7.97	110	104	294	288		0.34		1.71	8.8	1.21	0.09
	8.14	8.09	7.96	118	134	286	294		0.39		1.65	4.8	0.96	0.08
	8.16	8.07	7.92	120	118	284	280		0.49		1.64	3.9	0.99	0.07
	8.14	8.08	7.96	114	138	280	282		0.66		1.64	4.1	0.92	0.09
	8.17	8.12	7.98	128	128	294	294		0.48		1.64	4.8	0.92	0.09
	8.17	8.19	7.97	132	128	300	296		0.60		1.73	4.2	0.89	0.08
	8.18	8.07	7.97	128	124	288	282		0.82		1.86	4.8	0.90	0.07
	8.14	8.11	7.95	124	138	304	284		0.24		1.86	4.0	0.99	0.08
<b>AVE</b>	8.15	8.10	7.97	120	124	298	297		0.55		1.59	7.1	1.01	0.07

KENTUCKY DIVISION OF WATER  
 DRINKING WATER BRANCH  
 WATER TREATMENT PLANT MONTHLY OPERATION REPORT

PWS ID : 0980350  
 PLANT ID: A  
 AGENCY INTEREST: 3691  
 REPORT MONTH/YEAR: Oct, 2016

AREA-WIDE OPTIMIZATION PROGRAM TURBIDITY DATA  
 COPY PAGE AS NEEDED

DAY	RAW DAILY MAX	SEDIMENTATION BASIN EFFLUENT DAILY MAXIMUM						INDIVIDUAL FILTER EFFLUENT DAILY MAXIMUM							CFE DAILY MAX
		#1	#2	#3	#4	#5	#6	#1	#2	#3	#4	#5	#6	#7	
		11.3	0.99	0.82					0.10	0.10	0.16	0.19	0.07		
12.7	0.98	0.86					0.14	0.14	0.14	0.11	0.11			0.06	
15.6	1.81	1.51					0.11	0.10	0.12	0.09	0.06			0.05	
6.4	0.76	0.64					0.14	0.10	0.12	0.10	0.06			0.05	
7.4	0.98	0.72					0.12	0.14	0.18	0.10	0.08			0.07	
6.8	1.14	1.17					0.10	0.08	0.22	0.11	0.08			0.06	
7.4	1.06	0.88					0.12	0.08	0.12	0.10	0.10			0.07	
6.0	1.00	0.82					0.09	0.07	0.10	0.09	0.08			0.06	
11.1	1.26	1.12					0.16	0.12	0.12	0.21	0.11			0.07	
10.7	1.28	1.20					0.19	0.11	0.14	0.12	0.14			0.09	
4.9	0.96	0.90					0.15	0.13	0.14	0.08	0.07			0.07	
5.5	1.10	1.08					0.11	0.13	0.18	0.11	0.06			0.05	
6.3	0.82	0.69					0.08	0.08	0.22	0.14	0.07			0.11	
6.6	1.04	0.84					0.09	0.07	0.14	0.20	0.08			0.06	
6.5	0.98	0.90					0.14	0.11	0.14	0.12	0.12			0.07	
9.6	1.00	0.88					0.17	0.18	0.20	0.12	0.08			0.08	
9.6	1.26	1.04					0.12	0.10	0.26	0.13	0.08			0.07	
14.0	1.71	1.41					0.10	0.19	0.24	0.14	0.09			0.07	
6.4	1.80	1.44					0.10	0.11	0.26	0.14	0.10			0.07	
5.3	1.41	1.26					0.23	0.12	0.20	0.22	0.12			0.09	
24.9	0.90	0.84					0.11	0.10	0.18	0.24	0.06			0.07	
6.5	0.70	0.54					0.27	0.24	0.20	0.16	0.19			0.09	
10.7	1.48	1.23					0.36	0.42	0.18	0.13	0.09			0.09	
11.7	1.59	1.33					0.15	0.36	0.20	0.16	0.10			0.09	
5.3	1.01	0.84					0.09	0.08	0.20	0.10	0.09			0.07	
4.0	1.01	0.90					0.15	0.07	0.10	0.13	0.09			0.07	
4.4	0.99	0.78					0.14	0.11	0.10	0.11	0.15			0.08	
5.2	0.84	0.78					0.17	0.10	0.18	0.13	0.10			0.07	
4.8	1.01	0.80					0.11	0.17	0.20	0.17	0.14			0.09	
5.4	0.98	0.91					0.11	0.10	0.24	0.17	0.14			0.09	
4.0	1.22	1.04					0.14	0.13	0.20	0.27	0.21			0.11	
<b>AVE</b>	8.3	1.13	0.97				0.14	0.13	0.17	0.14	0.10			0.07	

KENTUCKY DIVISION OF WATER - DRINKING WATER BRANCH  
 WATER TREATMENT PLANT MONTHLY OPERATION REPORT

PWSID: 0980350  
 PLANT ID: A

REPORT MONTH/YEAR: Oct, 2016

\*Please answer Y/N question below this chart.

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DAY	FLUORIDE		IRON		MANGANESE				Lowest Daily Cl Res Plant Tap On-Line Cl Analyzer	RAINFALL	WATER TEMP. DEGREES
	RAW	TAP	RAW	TAP	RAW	TAP	RAW	TAP	FREE	INCHES	F°/C°
	0.14	0.76							0.81		21.0
	0.13	0.74							1.40		21.0
	0.11	0.73							2.02	0.31	20.0
	0.11	0.72							1.53		20.0
	0.11	0.72							1.27		21.0
	0.12	0.73							1.37		21.0
	0.08	0.66							1.39		21.0
	0.08	0.64							1.53		21.0
	0.08	0.66							1.62		19.0
	0.06	0.64							1.77		18.0
	0.12	0.79							1.83		17.5
	0.11	0.70							1.81		18.0
	0.11	0.70							1.82		19.0
	0.15	0.79							1.56		18.0
	0.14	0.80							1.43		18.0
	0.14	0.79							1.48		19.0
	0.12	0.73							1.73		19.0
	0.12	0.76							1.49		19.0
	0.12	0.76							1.41		20.0
	0.12	0.74							1.53		20.0
	0.14	0.77							1.54		20.0
	0.12	0.78							1.46		18.5
	0.14	0.78							1.79		16.0
	0.10	0.83							1.71		16.0
	0.15	0.84							0.00		16.5
	0.13	0.80							1.64		16.0
	0.12	0.70							1.64	0.17	16.0
	0.14	0.80							1.64		16.0
	0.15	0.86							1.73		16.0
	0.13	0.74							1.86		16.0
	0.12	0.70							1.86		16.0
<b>AVE</b>	0.12	0.75									18.5
									0.00		
									Number of readings	31	0.48
									For Free Cl, # < 0.2 mg/L	1	
Disinfectant Chloramines? (Y/N)									For Chloramines, # < 0.5 mg/L		

KENTUCKY DIVISION OF WATER - DRINKING WATER BRANCH  
 WATER TREATMENT PLANT MONTHLY OPERATION REPORT

PWS ID: 0980350  
 PLANT ID: A

REPORT MONTH/YEAR: Oct, 2016

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DAY	TOTAL	No: 1		No: 2		No: 3		No: 4		No: 5		
	WASH	AREA (ft2)	363									
	WATER	WASH	FILT RUN									
GALLONS	GALLONS	HRS	GALLONS	HRS	GALLONS	HRS	GALLONS	HRS	GALLONS	HRS	GALLONS	HRS
	89,705							89,705	64.25			
	90,002									90,002	64.00	
	82,000	82,000	78.75									
	96,300			96,300	74.50							
	82,650					82,650	74.75					
	81,000							81,000	99.50			
	80,000									80,000	98.75	
	123,810	123,810	83.50									
	122,670			122,670	84.25							
	80,200					80,200	85.00					
	88,825							88,825	65.00			
	89,298									89,298	62.50	
	82,540	82,540	61.00									
	81,300			81,300	78.00							
	72,765					72,765	88.75					
	77,450							77,450	88.00			
	95,100									95,100	90.00	
	82,000	82,000	90.50									
	97,200			97,200	77.75							
	97,644					97,644	61.50					
	81,130							81,130	62.75			
	65,480									65,480	63.75	
	80,200	80,200	63.50									
	98,304			98,304	62.25							
	89,166					89,166	62.75					
<b>TOT</b>	2,206,739	450,550	377.3	495,774	376.8	422,425	372.8	418,110	379.5	419,880	379.0	
<b>AVE</b>	88,270	90,110	75.5	99,155	75.4	84,485	74.6	83,622	75.9	83,976	75.8	

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KENTUCKY DIVISION OF WATER - DRINKING WATER BRANCH  
 WATER TREATMENT PLANT MONTHLY OPERATION REPORT

PWS ID : 0980350  
 PLANT ID: A

REPORT MONTH/YEAR: Oct, 2016

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DAY	CHEMICALS ADDED		TEST RESULTS									
	CHLORINE BOOSTER LBS	CHLORINE BOOSTER LBS	TOTAL (T) AND FREE (F) CHLORINE RESIDUAL (ppm)									
			NORTH		SOUTH		EAST		WEST			
			T	F	T	F	T	F	T	F		
				1.02								
							0.98					
									0.91			
												1.15
				1.24								
							1.05					
									1.35			
												1.28
				1.46								
							1.31					
									1.20			
												1.16
				1.01								
							0.70					
									1.11			
												1.17
				1.07								
							1.48					
									1.30			
												1.08
				1.21								
							1.19					
									0.89			
												1.00
				1.28								
							1.34					
									1.39			
												1.24
				1.15								
							0.99					
									1.07			
AVE			AVERAGE	1.18			1.13		1.15			1.15
TOT			TOT MIN									
			FREE MIN	1.01			0.70		0.89			1.00
Total # Chlorine Samples				8			8		8			7
# Less than 0.2 mg/L/0.5 mg/L				0			0		0			0
Number of Free Residuals				31	Minimum Monthly Total Residual				NA			
Number of Total Residuals				0	Minimum Monthly Free Residual				0.70			
Total # Less than 0.2 mg/L				0	Disinfectant Chloramines? (Y/N)				N			
					Number of days of operation?				31			

KENTUCKY DIVISION OF WATER - DRINKING WATER BRANCH  
 WATER TREATMENT PLANT MONTHLY OPERATION REPORT

PWS ID : 0980350  
 PLANT ID: A

TURBIDITY REPORT

Report Period (MM/YYYY): Oct, 2016

PWS Name: CITY OF PIKEVILLE

PAGE:  
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DAY									
	13.0	4		0.08	0.06	0.06	0.06		0.08
	11.0	3		0.06	0.07	0.06	0.06		0.07
	13.3	4		0.07	0.06	0.07	0.07		0.07
	12.8	4		0.07	0.10	0.07	0.08		0.10
	13.0	4		0.07	0.08	0.09	0.08		0.09
	12.5	4		0.08	0.07	0.05	0.06		0.08
	11.8	3		0.06	0.07	0.07	0.07		0.07
	11.5	3		0.06	0.06	0.06	0.05		0.06
	11.3	3		0.08	0.08	0.08	0.10		0.10
	13.0	4		0.10	0.10	0.11	0.08		0.11
	12.5	4		0.07	0.07	0.09	0.07		0.09
	13.5	4		0.07	0.06	0.06	0.06	0.06	0.07
	12.5	4		0.05	0.05	0.06	0.07		0.07
	13.0	4		0.06	0.08	0.07	0.07		0.08
	11.8	3		0.06	0.05	0.05	0.07	0.07	0.07
	12.8	4		0.06	0.07	0.06	0.07	0.07	0.07
	12.0	3		0.07	0.07	0.07	0.08		0.08
	14.0	4		0.07	0.07	0.07	0.06	0.08	0.08
	14.0	4		0.07	0.07	0.09	0.08		0.09
	12.0	3		0.09	0.08	0.08	0.06		0.09
	13.5	4		0.07	0.08	0.08	0.07		0.08
	12.5	4		0.09	0.10	0.09	0.09		0.10
	11.5	3		0.09	0.09	0.09	0.09		0.09
	13.0	4		0.09	0.09	0.10	0.06		0.10
	12.5	4		0.06	0.06	0.08	0.12		0.12
	14.0	4		0.06	0.08	0.06	0.07		0.08
	11.0	3		0.08	0.09	0.09	0.08		0.09
	12.5	4		0.09	0.08	0.08	0.11		0.11
	12.8	4		0.08	0.07	0.06	0.08	0.11	0.11
	12.0	3		0.07	0.07	0.06	0.09		0.09
	11.5	3		0.06	0.10	0.08	0.09		0.10
Total	387.8	113		TOTAL # OF TURBIDITY SAMPLES TAKEN --				129	0.12

ARE YOU USING EITHER CONVENTIONAL or DIRECT FILTRATION? (Y/N)  Y

(Any type of filtration besides slow sand)

Number of samples exceeding ---> 0.1 NTU 4 0.3 NTU 0 1 NTU 0

For slow sand filtration, the number of samples exceeding ---> 1 NTU 1 5 NTU 0

\*NOTE: The "Number of Turbidity Samples Required" is the number of hours the plant operated divided by 4 rounded up to the next whole number.

I certify that the above turbidity readings were taken every 4 hours during plant operation and in the time frames noted above.

Signature of Principal Executive Officer or Authorized Agent

Date

KENTUCKY DIVISION OF WATER / DRINKING WATER BRANCH  
Monthly Operating Report (MOR) Plant Summary Form

PWS ID : 0980350

Monitoring Period (MM/YYYY): Oct, 2016

**NOTE: COMPLETE ALL APPLICABLE FIELDS!!! NOT ALL OF THE FIELDS ARE PRE-POPULATED FOR YOU!!!**

APPLICABLE TO ALL PLANTS			
PLANT ID:	<u>A</u>	TOTAL WATER TREATED (gallons)	<u>95,250,000</u>
PLANT NAME:	<u>PIKEVILLE WATER PLANT</u>	AVE. DAILY PRODUCTION (gallons)	<u>3,072,581</u>
AGENCY INTEREST:	<u>3691</u>	MAXIMUM PUMPAGE (gallons per day)	<u>3,500,000</u>

APPLICABLE TO ALL PLANTS WITH FILTRATION	
ANALYTE CODE	<u>0100</u>
Was each filter monitored continuously? (Y/N).....	<u>Y</u>
Were measurements recorded every 15 minutes? (Y/N).....	<u>Y</u>
Was there a failure of the continuous monitoring equipment? (Y/N).....	<u>N</u>
If Yes, (1) were individual filter effluent turbidity grab samples collected every four hours of operation? (Y/N).....	<u>  </u>
(2) was the continuously monitoring equipment repaired within 5 working days? (Y/N).....	<u>  </u>
Was individual filter level greater than 1.0 NTU in two consecutive measurements? (Y/N).....	<u>N</u>
Was individual filter level < 0.5 NTU in two consecutive measurements after online more than 4 hours? (Y/N).....	<u>N</u>
Was individual filter level < 1.0 NTU in two consecutive measurements in three consecutive months? (Y/N).....	<u>N</u>
Was individual filter level greater than 2.0 NTU in two consecutive measurements in two consecutive months? (Y/N)	<u>N</u>
<b>If any of the last 4 boxes are YES, fill out the Individual Filter Turbidity Sheet and submit with MOR</b>	

APPLICABLE TO ALL PLANTS WITH FILTRATION		APPLICABLE TO ALL PLANTS	
ANALYTE CODE	<u>0100</u>	ANALYTE CODE	<u>0999</u>
Number of hours of plant operation.....	<u>387.8</u>	Number of days of plant operation.....	<u>31</u>
Were samples taken every 4 hrs of plant operation? (Y/N)	<u>Y</u>	Were samples taken each day of operation? (Y/N)	<u>Y</u>
Number of samples taken.....	<u>129</u>	Number of lowest chlorine samples recorded .....	<u>31</u>
Highest single turbidity reading .....	<u>0.12</u>	Lowest single chlorine reading .....	<u>0.81</u>
For all filtration except slow sand filtration:		If less than required:	
Number of samples exceeded 0.1 NTU .....	<u>4</u>	Was residual restored within 4 hrs of plant operation?	<u>  </u>
Number of samples exceeded 0.3 NTU .....	<u>0</u>	Free chlorine (for all disinfectants except chloramine):	<u>  </u>
Number of samples exceeded 1.0 NTU .....	<u>0</u>	Number of samples under 0.2 mg/L .....	<u>0</u>
When filtration is slow sand filtration:		Total Chlorine (when disinfectant is chloramine):	
Number of samples exceeded 1 NTU .....	<u>  </u>	Number of samples under 0.5 mg/L .....	<u>  </u>
Number of samples exceeded 5 NTU .....	<u>  </u>		

APPLICABLE TO PLANTS UTILIZING CHLORINE DIOXIDE		APPLICABLE TO PLANTS USING CHLORINE DIOXIDE	
ANALYTE CODE	<u>1008</u>	ANALYTE CODE	<u>1009</u>
Number of days of plant operation.....	<u>31</u>	Number of days of plant operation.....	<u>31</u>
Were samples taken each day of operation? (Y/N).....	<u>  </u>	Were samples taken each day of operation? (Y/N)	<u>  </u>
Number of samples taken .....	<u>###</u>	Number of samples taken .....	<u>###</u>
Highest single chlorine dioxide reading .....	<u>###</u>	Highest single chlorite reading .....	<u>###</u>
Number of chlorine dioxide samples exceeded 0.8 mg/L ...	<u>###</u>	Number of chlorite samples exceeded 1 mg/L .....	<u>###</u>

I certify under penalty of law that I have personally examined and am familiar with the information submitted herein. Based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. See KRS 224.99-010 and 401 KAR 8:020. (Penalties under this statute and regulation may include fines up to \$25,000 per violation or by imprisonment for not more than one year, or both).

\_\_\_\_\_  
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

\_\_\_\_\_  
DATE



# Water Withdrawal Report Form

Preprint ID:

Agency Interest

Subject Item:

Monitoring Period:

3691 - Pikeville Water Department

GACT0000000001-0638 Levisa Fork

10/01/16 to 10/31/16

Day	Result	Parameter	Unit
1	3.250	Withdrawal	MGD (MA)
2	2.930	Withdrawal	MGD (MA)
3	3.290	Withdrawal	MGD (MA)
4	3.090	Withdrawal	MGD (MA)
5	3.250	Withdrawal	MGD (MA)
6	3.020	Withdrawal	MGD (MA)
7	2.840	Withdrawal	MGD (MA)
8	2.780	Withdrawal	MGD (MA)
9	2.820	Withdrawal	MGD (MA)
10	3.210	Withdrawal	MGD (MA)
11	3.110	Withdrawal	MGD (MA)
12	3.280	Withdrawal	MGD (MA)
13	3.100	Withdrawal	MGD (MA)
14	3.090	Withdrawal	MGD (MA)
15	2.920	Withdrawal	MGD (MA)
16	3.160	Withdrawal	MGD (MA)
17	2.930	Withdrawal	MGD (MA)
18	3.440	Withdrawal	MGD (MA)
19	3.440	Withdrawal	MGD (MA)
20	2.940	Withdrawal	MGD (MA)
21	3.270	Withdrawal	MGD (MA)
22	3.100	Withdrawal	MGD (MA)
23	2.840	Withdrawal	MGD (MA)
24	3.110	Withdrawal	MGD (MA)
25	3.090	Withdrawal	MGD (MA)
26	3.500	Withdrawal	MGD (MA)
27	2.670	Withdrawal	MGD (MA)
28	3.050	Withdrawal	MGD (MA)
29	3.100	Withdrawal	MGD (MA)
30	2.880	Withdrawal	MGD (MA)
31	2.750	Withdrawal	MGD (MA)

ENTERED  
10/10/16  
*[Signature]*

**PIKEVILLE WATER TREATMENT PLANT  
 WATER PUMPED TO DISTRIBUTION SYSTEM  
 FOR THE MONTH OF:           October, 2016**

10/01/16	3.2300
10/02/16	3.1500
10/03/16	3.3300
10/04/16	3.0200
10/05/16	3.3500
10/06/16	3.0400
10/07/16	2.8300
10/08/16	2.7600
10/09/16	2.8000
10/10/16	3.1500
10/11/16	2.9100
10/12/16	3.4000
10/13/16	3.4000
10/14/16	2.8900
10/15/16	2.9400
10/16/16	3.0800
10/17/16	3.1700
10/18/16	3.3000
10/19/16	3.4100
10/20/16	3.1500
10/21/16	3.3200
10/22/16	3.0100
10/23/16	2.8900
10/24/16	2.8900
10/25/16	3.1600
10/26/16	3.5200
10/27/16	2.8700
10/28/16	3.0400
10/29/16	2.9200
10/30/16	2.9500
10/31/16	2.8100
<b>Total</b>	<b>95.6900</b>
<b>Average</b>	<b>3.0868</b>
<b>Minimum</b>	<b>2.7600</b>
<b>Maximum</b>	<b>3.5200</b>

<b>Water plant usage</b>	<b>65,571</b>
<b>Raw water intake usage</b>	<b>125,580</b>
<b>Total non metered usage</b>	<b>191,151</b>

## Monthly Chlorine Report- Oct. 2016

### Water Dist. – Utility Management Group – JM,PL,JR

10-1-16 = 224 North Gate = 1.02  
10-2-16 = 289 Peach Orchard = 0.98  
10-3-16 = 141 Map Drive = 0.91  
10-4-16 = 180 Deskins Hollow = 1.15  
10-5-16 = 205 Scott Ave. = 1.24  
10-6-16 = 356 Mays Br. = 1.05  
10-7-16 = 212 Mildred Street = 1.35  
10-8-16 = 146 Mt. Martha = 1.28  
10-9-16 = 259 Peach Orchard = 1.46  
10-10-16 = 199 Julius Ave. = 1.31  
10-11-16 = 345 Chloe = 1.20  
10-12-16 = 139 Shawnee Trail = 1.16  
10-13-16 = 3630 Island Creek = 1.01  
10-14-16 = 351 Fife Fork = 0.70  
10-15-16 = 258 Fox Croft = 1.11  
10-16-16 = 279 York Wood = 1.17  
10-17-16 = 212 Mildred Street = 1.07  
10-18-16 = 248 Cassidy Blvd. = 1.48  
10-19-16 = 155 Bruce Elliot = 1.30  
10-20-16 = 350 Williams Hollow = 1.08  
10-21-16 = 726 Harolds Br. = 1.21  
10-22-16 = 128 Pauley Add. = 1.19  
10-23-16 = 560 Zeigler Dr. = 0.89  
10-24-16 = 168 Keyser Heights = 1.00  
10-25-16 = 134 Ky. Ave. = 1.28  
10-26-16 = 212 Mildred Street = 1.34  
10-27-16 = 179 Huffman Ave. = 1.39  
10-28-16 = 29 Kelsey Friend Dr. = 1.24  
10-29-16 = 125 North Bridge Street = 1.15  
10-30-16 = 241 Redale = 0.99  
10-31-16 = 129 Chestnut Dr. = 1.07

WATER DEPARTMENT  
MASTER WATER READINGS

DATE: 11-1-16

ACCOUNT NUMBER	LOCATION	PRESENT	PREVIOUS	USAGE	AMOUNT
	SANDY VALLEY-Pikeville	363600	351625	11975	7789 DON'T BILL
54-9966200-0	TOWN MOUNTAIN	649812	630872	18940	
54-9909400-0	CHLOE ROAD	64504	62186	2318	
54-9911500-0	ISLAND CREEK	54756	53367	1389	
54-9928000-0	MUD CREEK-Southern Wt.	092385	082012	10373	
54-9914500-0	COON BRANCH	10867	10745	122	
54-9913000-0	SOUTH MAYO TRAIL	217143	209692	7451	
54-9925500-0	HOOPWOOD HOLLOW	14984	14905	79	
54-9911800-0	ISLAND CK, TRAILER PK.	00515	00366	149	
54-9911900-0	HURRICANE CREEK	301960	300506	1454	
54-9912000-0	PIKE FLOYD-Southern	38683	36991	1692	
54-9900100-0	COWPEN-Mt. Water	259892	257398	2494	
				TOTAL	46461

Copy Read First 5 numbers

METER READER INITIALS: WH

8770640	2653237
8645060	7587666
125580	65571

NON METERED WATER

FLUSHING - EST \_\_\_\_\_

LEAKS - EST \_\_\_\_\_

TOTAL GALLONS \_\_\_\_\_

MOUNTAIN WATER  
P.O. BOX 3157  
PIKEVILLE, KY 41502

	FLOW TO DIST	START C. WELL	Settling Basin Turbidity						Sludge Hauled	Spent B/W Return	DUP pH TAP
			MID - 4	4A - 8AM	8AM - 12N	12N - 4PM	4PM - 8PM	8PM - 12M			
10/01/16	3.2300	6.8		1.20	0.77	0.90	0.82			180,000	7.98
10/02/16	3.1500	8.2		0.90	0.80	0.92	0.77			186,000	8.00
10/03/16	3.3300	4.6		0.82	0.75	1.15	1.66			79,000	8.06
10/04/16	3.0200	5.0		1.27	0.56	0.77	0.70			123,000	7.93
10/05/16	3.3500	5.8		0.81	0.74	0.85	0.87			206,000	8.00
10/06/16	3.0400	6.0		0.81	0.93	0.87	1.16			152,000	7.94
10/07/16	2.8300	5.6		1.12	1.03	0.97	1.18			41,000	7.96
10/08/16	2.7600	5.0		0.98	0.94	0.91	0.92			47,000	8.00
10/09/16	2.8000	5.6		1.34	1.18	1.19	1.02			149,000	8.00
10/10/16	3.1500	5.8		0.81	0.94	1.36	1.24		27,400	177,000	7.97
10/11/16	2.9100	7.2		1.26	0.82	1.10	0.93		46,800	71,000	7.96
10/12/16	3.4000	8.4		1.00	1.02	1.09	1.03	1.01		274,000	7.97
10/13/16	3.4000	8.2		0.99	0.98	0.87	0.76			131,000	7.95
10/14/16	2.8900	5.6		0.80	1.05	1.01	0.94			115,000	7.98
10/15/16	2.9400	7.2		0.96	0.98	0.94	0.90	0.91		203,000	7.96
10/16/16	3.0800	7.2		0.88	0.86	0.94	0.88	0.90		186,000	8.01
10/17/16	3.1700	8.8		0.86	0.87	1.01	1.15			88,000	7.95
10/18/16	3.3000	4.8		0.80	0.84	0.89	1.56	2.60		147,000	7.95
10/19/16	3.4100	8.0		1.43	0.95	1.62	1.64			53,000	7.93
10/20/16	3.1500	8.8		1.12	1.02	1.07	1.34			132,000	7.91
10/21/16	3.3200	6.0		1.10	1.02	0.87	1.09			149,000	7.92
10/22/16	3.0100	5.6		0.56	0.92	0.62	0.62			199,000	7.97
10/23/16	2.8900	6.8		0.98	1.45	1.36	1.16			201,000	8.02
10/24/16	2.8900	5.2		0.86	1.06	1.21	1.46			264,000	7.95
10/25/16	3.1600	8.6		1.16	0.68	1.10	0.92			226,000	7.97
10/26/16	3.5200	8.6		1.03	0.86	0.96	1.17			179,000	7.93
10/27/16	2.8700	8.6		1.00	0.80	1.05	0.88			151,000	7.95
10/28/16	3.0400	6.0		0.94	0.94	1.10	0.81			141,000	7.97
10/29/16	2.9200	7.2		0.80	0.83	0.90	0.98	0.90		116,000	7.98
10/30/16	2.9500	10.2		0.96	0.87	0.94	0.76			66,000	7.97
10/31/16	2.8100	8.4		0.98	0.89	0.84	1.13			108,000	7.95
Ave	3.0868	6.9		0.98	0.91	1.01	1.05	1.26		146,452	
Tot	95.6900								74,200	4,540,000	
Min	2.7600	4.6		0.56	0.56	0.62	0.62	0.90		41,000	
Max	3.5200	10.2		1.43	1.45	1.62	1.66	2.60		274,000	

WATER PLANT MONTHLY OPERATIONS REPORT

MONTH/YEAR: 10/16

ANALYTICAL RESULTS (Mg/L or PPM unless otherwise specified.)

DAY	pH (S. U.'S)				ALKALINITY		HARDNESS		CHLORINE		TURBIDITY (NTU)		FLUORIDE	
	RAW	TOF	FIN	DUP	RAW	FIN	RAW	FIN	TOF	FIN	RAW	TOF	RAW	FIN
01	8.06	8.10	7.98	7.98	138	148	322	314	.50	.81	9.8	.92	.14	.76
02	8.35	8.16	7.98	8.00	142	140	284	288	.81	1.40	11.6	.86	.13	.74
03	8.17	8.11	8.0	8.06	106	124	264	290	.68	2.02	14.2	1.21	.11	.73
04	8.11	8.04	7.94	7.93	120	110	294	286	.92	1.53	5.8	.80	.11	.72
05	8.08	8.11	8.00	8.00	120	126	308	294	.82	1.27	7.2	.82	.11	.72
06	8.14	8.08	7.94	7.94	104	116	32	322	.12	1.37	6.6	.98	.12	.73
07	8.16	8.12	7.96	7.96	110	114	308	324	.52	1.39	6.5	1.05	.08	.66
08	8.10	8.08	8.00	8.00	130	136	320	304	.66	1.53	6.0	.93	.08	.64
09	8.12	8.08	8.00	8.00	120	132	296	300	.80	1.62	9.3	1.18	.08	.66
10	<del>8.14</del> 8.14	8.14	7.96	7.97	98	100	292	276	.70	1.77	9.2	1.12	.06	.64
11	8.26	8.18	7.96	7.96	128	120	296	304	1.12	1.83	4.7	1.01	.12	.79
12	8.29	8.14	7.97	7.97	132	126	300	306	.66	1.81	5.4	1.05	.11	.70
13	8.14	8.10	7.95	7.95	108	112	304	298	1.03	1.82	5.6	.87	.11	.70
14	8.23	8.14	7.97	7.98	124	130	312	302	.55	1.56	5.2	.95	.15	.79
15	8.27	8.14	7.96	7.96	120	128	302	308	.26	1.43	6.4	.94	.14	.80
16	8.24	8.22	8.00	8.01	120	132	298	302	.37	1.48	9.1	.90	.14	.79
17	8.12	8.04	7.96	7.95	94	102	264	262	.48	1.73	7.95	1.01	.12	.73
18	8.09	8.05	7.95	7.95	114	120	296	288	1.49	1.49	11.6	1.38	.12	.76
19	8.01	8.02	7.93	7.93	112	120	308	296	.78	1.41	6.2	1.45	.12	.76
20	8.09	8.04	7.90	7.91	114	108	290	294	.28	1.53	4.9	1.18	.12	.74
21	7.98	8.01	7.92	7.92	120	118	284	280	.14	1.54	15.7	.99	.14	.77
22	8.03	8.00	7.97	7.97	130	136	340	324	.42	1.46	5.4	.67	.12	.78
23	8.18	8.12	8.02	8.02	134	140	314	340	.34	1.79	8.2	1.26	.14	.78
24	8.14	8.06	7.97	7.95	110	104	294	288	.34	1.71	8.75	1.21	.10	.83
25	8.14	8.09	7.96	7.97	118	134	286	294	.39	1.65	4.75	.96	.15	.84
26	8.16	8.07	7.92	7.93	120	118	284	280	.49	1.64	3.85	.99	.13	.80
27	8.14	8.08	7.96	7.95	114	138	280	282	.66	1.64	4.05	.92	.12	.70
28	8.17	8.12	7.98	7.97	128	128	294	294	.48	1.64	4.8	.92	.14	.80
29	8.17	8.19	7.97	7.98	132	128	300	296	.60	1.73	4.2	.89	.15	.86
30	8.18	8.07	7.97	7.97	128	124	288	282	.82	1.86	4.8	.90	.13	.74
31	8.14	8.11	7.95	7.95	124	138	304	284	.24	1.86	4.0	.99	.12	.70

WATER PLANT MONTHLY OPERATIONS REPORT

MONTH/YEAR: 10/16

CHEMICALS ADDED

DAY	RAW WATER TREATED (M.G.D.)	COAGULANT PAC LBS	FLUORIDE LBS	PRE LBS	POST LBS
01	3.254	639	21.6	38.5	69.3
02	2.931	597	18.0	33.0	57.2
03	3.294	618	17.1	41.8	69.3
04	3.090	618	18.9	36.3	60.5
05	3.253	670	19.8	40.7	62.7
06	3.021	530	19.8	35.2	67.1
07	2.841	484	17.1	36.3	59.4
08	2.783	463	18	33	55
09	2.823	463	14.4	33	55
10	3.208	556	16.2	40.7	58.3
11	3.105	525	21.6	35.2	64.9
12	3.283	577	25.2	39.6	64.9
13	3.103	530	14.4	37.4	58.3
14	3.094	566	21.6	38.5	62.7
15	2.924	484	18.0	34.1	55.0
16	3.155	566	21.6	39.6	60.5
17	2.932	546	18	37.4	60.5
18	3.441	536	18	41.8	60.5
19	3.438	597	20.7	46.2	66
20	2.936	478	19.8	28.6	60.5
21	3.270	803	18	45.1	73.7
22	3.101	618	18	38.2 <del>38.2</del> 38.2	38.5 60.5
23	2.840	515	18	36.3	55
24	3.112	566	17.3	40.7	61.6
25	3.090	577	18.0	41.8	57.2
26	3.495	659	23.4	42.9	62.7
27	2.672	499	15.5	30.8	49.5
28	3.052	577	18.7	41.8	57.2
29	3.098	597	21.6	37.4	59.4
30	2.879	515	18.0	34.1	47.3
31	2.749	484	14.4	33	52.8

**FILTER OPERATION INFORMATION  
WATER TREATMENT PLANT MONTHLY OPERATION REPORT**

CARRY OVER  
PWS ID: 0980350

30.5    
 15.75    
 2.25    
 52.75    
 44.25  
 REPORT MONTH: 10/16

DAY	(gallons)	#1 HRS	GAL	#2 HRS	GAL	#3 HRS	GAL	#4 HRS	GAL	#5 HRS	GAL
1	11 8155	13.0		13.0		13.0		<del>6.5</del> 64.25 6.0	89705	13.0	
2	11 8182	11.0		11.0		11.0		11.0		<del>6.25</del> 64.0 6.25	90002
3		13.25		13.25		13.25		13.25		13.25	
4	10 8200	<del>11</del> 78.75 12.5	82000	12.75		12.75		12.75		12.75	
5	12 8050	13		<del>8.75</del> 74.5 4	96300	13		13		13	
6	10 8265	12.5		12.5		<del>9.5</del> 74.75 12.5	82650	12.5		12.5	
7		11.75		11.75		11.75		11.75		11.75	
8	<del>10 8100</del>	11.5		11.5		11.5		11.5		11.5	
9	10 8100	11.25		11.25		11.25		<del>7.75</del> 99.5 3.25	81000	11.25	
10	10 8000	13		13		13		13		<del>9</del> 98.75 3.75	80000
11	15 8254	<del>12.5</del> 83.5 2.5	123810	12.5		12.5		12.5		12.5	
12	15 8178	13.5		<del>7.25</del> 84.75 8.25	122670	13.5		13.5		13.5	
13	10 8020	12.5		12.5		<del>8.75</del> 85 12.5	80200	12.5		12.5	
14	11 8075	13		13		13		<del>10.25</del> 65 12.5	88825	13	
15	11 8118	11.75		11.75		11.75		11.75		<del>7.25</del> 62.5 4.75	89298
16	10 8254	<del>12.5</del> 61.0 4.75	82540	12.75		12.75		12.75		12.75	
17		12		12		12		12		12	
18	10 8130	14		<del>10.75</del> 78 3.25	81300	14		14		14	
19		14		14		14		14		14	
20	9 8085	12		12		<del>7.5</del> 88.75 4.5	72765	12		12	
21	10 7745	13.5		13.5		13.5		<del>9</del> 88 3.25	77450	13.5	
22	12 7925	12.5		12.5		12.5		12.5		<del>7.5</del> 98 4.75	95100
23	10 8200	<del>7.75</del> 90.5 3.5	82000	11.5		11.5		11.5		11.5	
24	12 8169	13		<del>11</del> 77.75 3.75	97200	13		13		13	
25	12 8137	12.5		12.5		<del>6.25</del> 61.5 5.25	97644	12.5		12.5	
26	10 8113	14.0		14.0		14.0		<del>9.0</del> 62.75 4.75	81130	14.0	
27	8 8185	11		11		11		11		<del>8</del> 63.5 4.75	65486
28	10 8020	<del>9.5</del> 63.5 2.75	80200	12.5		12.5		12.5		12.5	
29	12 8192	12.75		<del>10.5</del> 62.75 4.75	98304	12.75		12.75		12.75	
30	11 8104	12.0		12.0		<del>7.25</del> 62.75 4.75	89166	12.0		12.0	
31		11.5		11.5		11.5		11.5		11.5	

PIKEVILLE WATER TREATMENT PLANT

AWOP INFORMATION

MONTH/YR: 10/16

ANALYTICAL RESULTS (NTU)											
DAY	RAW	SED BASIN EFF		INDIVIDUAL FILTER EFFLUENT					CFE		
	DAILY MAX	DAILY MAX		DAILY MAXIMUM					DAILY MAX		
		#1	#2	#1	#2	#3	#4	#5			
1	11.3	.99	.82	.10	.10	.16	.19	.07	.05	3208	426
2	12.7	.98	.86	.14	.14	.14	.11	.11	.06	3193	4332
3	15.6	1.81	1.51	.11	.10	.12	.09	.06	.05	3135	4335
4	6.4	.76	.64	.14	.10	.12	.10	.06	.05	3144	4151
5	7.4	.98	.72	.12	.14	.18	.10	.08	.07	3199	4145
6	6.8	1.14	1.17	.10	.08	.22	.11	.08	.06	3214	4151
7	7.4	1.06	.88	.12	.08	.12	.10	.10	.07	3202	4158
8	6.0	1.0	.82	.09	.07	.19	.09	.08	.06	3184	4154
9	11.1	1.26	1.12	.16	.12	.12	.21	.11	.07	3190	4185
10	10.7	1.28	1.20	.19	.11	.14	.12	.14	.09	3147	4179
11	4.9	.96	.90	.15	.13	.14	.08	.07	.07	3181	4173
12	5.5	1.10	1.08	.11	.13	.18	.11	.06	.05	3230	4164
13	6.3	.82	.69	.08	.08	.22	.14	.07	.11	3251	4158
14	6.6	1.04	.84	.09	.07	.14	.20	.08	.06	3251	4164
15	6.5	.98	.90	.14	.11	.14	.12	.12	.07	3150	4154
16	9.6	1.00	.88	.17	.18	.20	.12	.08	.08	3205	4170
17	9.6	1.26	1.04	.12	.10	.26	.13	.08	.07	3208	4170
18	14	1.71	1.41	.10	.19	.24	.14	.09	.07	3205	4154
19	6.4	1.80	1.44	.10	.11	.26	.14	.10	.07	3236	4151
20	5.3	1.41	1.26	.23	.12	.2	.22	.12	.09	3236	4148
21	24.9	.90	.84	.11	.10	.18	.24	.06	.07	3175	4151
22	6.5	.70	.54	.27	.24	.20	.16	.19	.09	3175	4158
23	10.7	1.48	1.23	.36	.42	.18	.13	.09	.09	3202	4183
24	11.7	1.59	1.33	.15	.36	.20	.15	.10	.09	3193	4170
25	5.3	1.01	.84	.09	.08	.20	.10	.09	.07	3230	4173
26	4.0	1.01	.90	.15	.07	.10	.13	.09	.07	3159	4167
27	4.4	.99	.78	.14	.11	.10	.11	.15	.08	3162	4158
28	24.52	.84	.78	.17	.10	.18	.13	.10	.07	3181	4164
29	4.8	1.01	.80	.11	.17	.20	.17	.14	.09	3159	4164
30	5.4	.98	.91	.11	.10	.24	.17	.14	.09	3138	4154
31	4.0	1.22	1.04	.14	.13	.2	.27	.21	.11	3172	4148

WATER PLANT MONTHLY OPERATIONS REPORT

MONTH/YEAR:

10/16

DAILY READINGS

DAY	WATER TO DIST MGD	SLUDGE HAULED Gals	S BW RETURN	RAIN FALL (inches)	WATER TEMP DEG C	CLEAR WELL LEVEL FT.
1	3.2340		180000		21°	6.8
2	3.1518		186000		21°	8.2
3	3.3260		79000	.31	20°	4.6
4	3.0196		123000		20	5
5	3.3464		206000		20	5.8
6	3.0428		152000		21	6
7	2.8347		41000		21	5.6
8	2.7565		47000		21	5
9	2.8037		149000		19	5.6
10	3.1512	27400	177000		18	5.8
11	2.9123	46800	71000		17.5	7.2
12	3.3986		274000		18°	8.4
13	3.4003		131000		19°	8.2
14	2.8889		115000		18	5.6
15	2.9393		203000		18°	7.2
16	3.0838		186000		19°	7.2
17	3.1679		88000		19°	8.8
18	2.2999		147000		19	4.8
19	3.4082		53000		20	8
20	3.1459		132000		20	8.8
21	3.3159		149000		20	6
22	3.0052		199000		18.5	5.6
23	2.8891		201000		16	6.8
24	2.8946		264000		16	5.2
25	3.1559		226000		16.5	8.6
26	3.5227		179000		16°	8.6
27	2.8670		151000	.17	16°	8.6
28	3.0395		141000		16	6.0
29	2.9185		116000		16°	7.2
30	2.9451		66000		16°	10.2
31	2.8124		108000		16°	8.4

### SETTLING BASIN TURBIDITY

PWSID: 0980350

PWS NAME: PIKEVILLE WATER

MONTH Oct 2016

DAY	MID - 4AM	4AM - 8AM	8AM - NOON	NOON - 4PM	4PM - 8PM	8PM - MID
1		1.20	.77	.99/.82/.90	.82	
2		.90	.80	.96/.86/.92	.77	
3		.82	.75	1.15	1.81/1.51/1.66	
4		1.27	.56	.77	.76/.64/.70	
5		.81	.74	.98/.72/.85	.87	
6		.81	.93	.87	1.14/1.47/1.16	
7		1.12	1.03	1.06/.88/.97	1.18	
8		.98	.94	1.0/.82/.91	.92	
9		1.34	1.18	1.26/1.12/1.19	1.02	
10		.81	.94	1.36	1.28/1.20/1.34	
11		1.26	.82	1.10	.96/.91/.93	
12		1.00	1.02	1.10/1.08/1.09	1.03	1.01
13		.99	.98	.87	.82/.69/.76	
14		.80	1.05	1.01	1.04/.84/.94	
15		.96	.98	.98/.90/.94	.90	.91
16		.88	.86	1.00/.88/.94	.88	.90
17		.86	.87	1.01	1.26/1.09/1.15	
18		.80	.84	.89	1.71/1.41/1.56	2.6
19		1.43	.95	1.80/1.44/1.62	1.64	
20		1.12	1.02	1.07	1.41/1.26/1.34	
21		1.10	1.02	.90/.84/.87	1.09	
22		.56	.92	.70/.54/.62	.62	
23		.98	1.45	1.42/1.23/1.36	1.16	
24		.86	1.06	1.21	1.59/1.33/1.46	
25		1.16	.68	1.10	1.01/.84/.92	
26		1.03	.86	1.01/.90/.96	1.17	
27		1.00	.80	1.05	.99/.78/.88	
28		.94	.94	1.10	.84/.78/.81	
29		.80	.83	1.01/.80/.90	.98	.90
30		.96	.87	.98/.91/.94	.76	
31		.98	.89	.84	1.22/1.04/1.13	

FINISHED WATER TURBIDITY

PWSID: 0980350

PWS NAME: PIKEVILLE WATER MONTH Oct 2016

DAY	MID - 4AM	4AM - 8AM	8AM - NOON	NOON - 4PM	4PM - 8PM	8PM - MID
1		.08	.06	.06	.06	
2		.06	.07	.06	.06	
3		.07	.06	.07	.07	
4		.07	.10	.07	.08	
5		.07	.08	.09	.08	
6		.08	.07	.05	.06	
7		.06	.07	.07	.07	
8		.06	.06	.06	.05	
9		.08	.08	.08	.10	
10		.10	.10	.11	.08	
11		.07	.07	.09	.07	
12		.07	.06	.06	.06	.06
13		.05	.05	.06	.07	
14		.06	.08	.07	.07	
15		.06	.05	.05	.07	.07
16		.06	.07	.06	.07	.07
17		.07	.07	.07	.08	
18		.07	.07	.07	.06	.08
19		.07	.07	.09	.08	
20		.09	.08	.08	.06	
21		.07	.08	.08	.07	
22		.09	.10	.09	.09	
23		.09	.09	.09	.09	
24		.09	.09	.10	.06	
25		.06	.06	.08	.12	
26		.06	.08	.06	.07	
27		.08	.09	.09	.08	
28		.09	.08	.08	.11	
29		.08	.07	.06	.08	.11
30		.07	.07	.06	.09	
31		.06	.10	.08	.09	

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 10/1/16 RAW TEMP 21° RAINFALL \_\_\_\_\_

OPERATOR DM OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	13/40				
PRECL2	165				
POSTCL2	285				

CLEAR WELL 6.8 Town Mtn. 23.4 On  Off \_\_\_\_\_  
 RFT/SHT 27.8 | 27.0

METERS/WEIGHTS/LEVELS					
FINISHED	4675	0333		PAX	138   220
RAW	3416	0416		FLUORIDE	490   800
SLUDGE	2709	02		PRE CL2	66   175
S B/W RET	2183	26		POST CL2	80   175

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	5:10	12:10	2:00	6:10	7:30	19:10					13.0
#2	↓	↓	↓	↓	↓	↓					
#3	↓	↓	↓	↓	↓	↓					
#4	↓	11:55	↓	↓	↓	↓					
#5	↓	12:10	↓	↓	↓	↓					

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#4	11:57	11	8155	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 10/2/16 RAW TEMP 21° RAINFALL \_\_\_\_\_

OPERATOR Dm OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	165				
POSTCL2	285	265			

CLEAR WELL 8.2 Town Mtn. 25.0 On Off

RFT/SHT 25.8 | 24.2

METERS/WEIGHTS/LEVELS			
FINISHED	46782673		PAX 158
RAW	34163670		FLUORIDE 680
SLUDGE	270902		PRE CL2 140
S B/W RET	218506		POST CL2 112/80/120
	2.25 2.75 10.0 0.00		

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	5:10	1/2:25	2:30	5:15	7:00	8:00					
#2	↓	↓	↓	↓	↓	↓					
#3	↓	↓	↓	↓	↓	↓					
#4	↓	↓	↓	↓	↓	↓					
#5	↓	1/2:00	↓	↓	↓	↓					

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#5	12:02	11	8182	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 10/3/16 RAW TEMP 20° RAINFALL .31

OPERATOR am OPERATOR [Signature]

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	165				
POSTCL2	265 ↓	255	↓ 240 (240)		

CLEAR WELL 4.6 Town Mtn. 24.2 On Off  
 RFT/SHT 24.2 | 24.2

### METERS/WEIGHTS/LEVELS

FINISHED	4681 4191		PAX	100
RAW	3416 6601		FLUORIDE	580
SLUDGE	270 902		PRE CL2	110
S B/W RET	218692		POST CL2	100

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	6:00	14:45	6:45	19:15							13.25
#2	↓	↓	↓	↓							
#3	↓	↓	↓	↓							
#4	↓	↓	↓	↓							
#5	↓	↓	↓	↓							

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 10/4/16 RAW TEMP 21 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	165				
POSTCL2	240				

CLEAR WELL 5 Town Mtn. 25.6 On Off  
 RFT/SHT 26.4 | 23.6

METERS/WEIGHTS/LEVELS			
FINISHED	46847451		PAX 40 / 220
RAW	34169895		FLUORIDE 485
SLUDGE	270902		PRE CL2 72 / 120
S B/W RET	218771		POST CL2 37 / 175

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	635	540	600	1620	710	1800					12.75
#2											
#3											
#4											
#5	↓		↓		↓		↓				↓

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
1	543	8200	10		

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 10/5/16 RAW TEMP 21 RAINFALL \_\_\_\_\_

OPERATOR JP OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	165				
POSTCL2	<sup>540</sup> ↑ 250				

CLEAR WELL RFT/SHT 25.8 | 24      Town Mtn. 26.4 On \_\_\_ Off \_\_\_

METERS/WEIGHTS/LEVELS			
FINISHED	46877647		PAX 160
RAW	34172985		FLUORIDE 380
SLUDGE	270902		PRE CL2 87
S B/W RET	218894		POST CL2 120

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	530		1405		610	845					13
#2		210	230								
#3											
#4											
#5	←			↓	↓	↓					

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
2	215	1	8055	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 10/6/16 RAW TEMP 21 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR [Signature]

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20 <sup>9:10</sup> ↓ 15				
FLUORIDE	73/40				
PRECL2	165				
POSTCL2	1260 <sup>8:00</sup>				

CLEAR WELL RFT/SHT 26.8 | 6 | 25 Town Mtn. 26.2 On Off

METERS/WEIGHTS/LEVELS			
FINISHED	4691111		PAX 95/70/150
RAW	34176238		FLUORIDE 270
SLUDGE	270902		PRE CL2 50/33/80
S B/W RET	219100		POST CL2 63/32/122

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600		1345		520		800						12.9
#2	↓		↓		↓		↓						↓
#3	↓	1336	→	↓	↓	↓	↓	↓					↓
#4	↓		↓		↓		↓						↓
#5	↓		↓		↓		↓						↓

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
3	333	16	8265		

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 10-7-16 RAW TEMP 21 RAINFALL \_\_\_\_\_

OPERATOR *[Signature]* OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	15				
FLUORIDE	73/46				
PRECL2	165				
POSTCL2	260				

CLEAR WELL 5.6 Town Mtn. 26 On  Off

RFT/SHT 28 127.4

METERS/WEIGHTS/LEVELS			
FINISHED	46941539		PAX 132
RAW	34179259		FLUORIDE 160
SLUDGE	270902		PRE CL2 65
S B/W RET	219252		POST CL2 92

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	605	1205	435	1605	650	1745							11.75
#2													↓
#3													↓
#4													↓
#5													↓

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 10/8/16 RAW TEMP 21 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	15				
FLUORIDE	73/40				
PRECL2	165				
POSTCL2	260				

CLEAR WELL RFT/SHT 29 5 | 28.2 Town Mtn. 24/4 On    Off   

METERS/WEIGHTS/LEVELS			
FINISHED	46969886		PAX 85 / 200
RAW	34182100		FLUORIDE 65 / 300
SLUDGE	270902		PRE CL2 32 / 120
S B/W RET	219293		POST CL2 38 / 120

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	60	1230	530	825									115
#2													
#3													
#4													
#5	↓	↓	↓	↓									

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 10/9/16 RAW TEMP 19 RAINFALL \_\_\_\_\_

OPERATOR JD OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	15				
FLUORIDE	73/40				
PRECL2	165				
POSTCL2	260				

CLEAR WELL RFT/SHT 28 5.6 Town Mtn. 26 On Off

METERS/WEIGHTS/LEVELS			
FINISHED	46997451		PAX 155
RAW	3484883		FLUORIDE 200
SLUDGE	270902		PRE CL2 90
S B/W RET	219340		POST CL2 70

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600		235		530		815						1125
#2													
#3													
#4		145	200										
#5													

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
4	148	10	8/100		

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 10/10/16 RAW TEMP 18 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR [Signature]

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	15				
FLUORIDE	73/40				
PRECL2	165				
POSTCL2	260	↓ 245 (200)			

CLEAR WELL 5.8 Town Mtn. 25.8 On \_\_\_ Off \_\_\_  
 RFT/SHT 26.6 | 25.6

METERS/WEIGHTS/LEVELS			
FINISHED	47025488		PAX 110/85/200
RAW	3487706		FLUORIDE 120/75/75
SLUDGE	270902		PRE CL2 60/42/130
S B/W RET	219489		POST CL2 20/50/28/170

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	555		1430		600	1830							13
#2													
#3													
#4													
#5	↓	255	315	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
5	259	10	8000		

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 10/11/16 RAW TEMP 17.5 RAINFALL \_\_\_\_\_

OPERATOR AM OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	15				
FLUORIDE	79/40				
PRECL2	165				
POSTCL2	245				

CLEAR WELL 7.2 Town Mtn. 26.4 On  Off

RFT/SHT 29.4 | 27.6

METERS/WEIGHTS/LEVELS			
FINISHED	47057000		PAX 171
RAW	34190914		FLUORIDE 670
SLUDGE	271176		PRE CL2 111
S B/W RET	219666		POST CL2 139

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	5:05	2:15	4:30	6:00	8:15	19:10					
#2	↓	3:00	↓	↓	↓	↓					
#3	↓	↓	↓	↓	↓	↓					
#4	↓	↓	↓	↓	↓	↓					
#5	↓	↓	↓	↓	↓	↓					

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#1	2:18	15	8254	_____	_____

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 10/12/16 RAW TEMP 18° RAINFALL \_\_\_\_\_

OPERATOR DM OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	15				
FLUORIDE	73/40				
PRECL2	165				
POSTCL2	245 ↓	240			

CLEAR WELL 8.4 Town Mtn. 26.2 On  Off   
 RFT/SHT 27.4 | 26.0

METERS/WEIGHTS/LEVELS						
FINISHED	47086123			PAX	120	220
RAW	34194019			FLUORIDE	550	800
SLUDGE	271644			PRE CL2	79	175
S B/W RET	219737			POST CL2	80	175

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	5:10	1:20	3:00	5:50	7:00	8:30	9:00	10:00					12.5
#2	↓	1:00	↓	↓	↓	↓	↓	↓					
#3	↓	1:20	↓	↓	↓	↓	↓	↓					
#4	↓	↓	↓	↓	↓	↓	↓	↓					
#5	↓	↓	↓	↓	↓	↓	↓	↓					

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#2	1:02	15	8178	—	—

COMMENTS: Fixed CL post Leak

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 10/13/16 RAW TEMP 19° RAINFALL \_\_\_\_\_

OPERATOR DJ OPERATOR [Signature]

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	15				
FLUORIDE	73/40				
PRECL2	160				
POSTCL2	240				

CLEAR WELL RFT/SHT 29.0 8.2 | 28.0 Town Mtn. 24.8 On  Off \_\_\_\_\_

METERS/WEIGHTS/LEVELS			
FINISHED	4712	0109	PAX 164
RAW	3419	7302	FLUORIDE 660
SLUDGE	2716	44	PRE CL2 139
S B/W RET	2200	11	POST CL2 116

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	6:05	11:55	12:25		1:55	7:00	18:15				12.5
#2											
#3			13:37	4:05							
#4											
#5											

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
3	3:39	10	8020		

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 10-14-16 RAW TEMP 18 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	15				
FLUORIDE	73/40				
PRECL2	160				
POSTCL2	235				

CLEAR WELL 5.6 Town Mtn. 26.2 On Off<sup>x</sup>  
 RFT/SHT 28.4 126.8

### METERS/WEIGHTS/LEVELS

FINISHED	47154	112	PAX	113/210
RAW	34200	405	FLUORIDE	580
SLUDGE	2720	14	PRE CL2	165/125
S B/W RET	220	42	POST CL2	63/160

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600		1450	555	800						13
#2											
#3											
#4		1415	435								
#5											

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
4	417	11	8075	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 10/15/16 RAW TEMP 18° RAINFALL \_\_\_\_\_

OPERATOR Dm OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	15				
FLUORIDE	73/40				
PRECL2	160				
POSTCL2	235				

CLEAR WELL 7.2 Town Mtn. 27.0 On  Off   
 RFT/SHT 28.4 | 126.8

### METERS/WEIGHTS/LEVELS

FINISHED	47183001	PAX	155
RAW	34203499	FLUORIDE	460
SLUDGE	272014	PRE CL2	90
S B/W RET	220257	POST CL2	103

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	5:00	12:30	2:30	5:20	6:45	8:15					11:75
#2	↓	↓	↓	↓	↓	↓					
#3	↓	↓	↓	↓	↓	↓					
#4	↓	↓	↓	↓	↓	↓					
#5	↓	12:10	↓	↓	↓	↓					

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#5	12:13	11	8/18	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 10/16/16 RAW TEMP 19° RAINFALL \_\_\_\_\_

OPERATOR DA OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	15				
FLUORIDE	73/40				
PRECL2	160				
POSTCL2	235				

CLEAR WELL 7.2 Town Mtn. 26.2 On  Off   
 RFT/SHT 28.6 | 27.4

METERS/WEIGHTS/LEVELS						
FINISHED	47212384			PAX	108	220
RAW	34206423			FLUORIDE	360	800
SLUDGE	272014			PRE CL2	59	170
S B/W RET	220460			POST CL2	53	170

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	5:05	10:45	9:00	5:20	6:20	7:20	8:25	10:00					1
#2	↓	1:00	↓	↓	↓	↓	↓	↓					12.75
#3	↓	↓	↓	↓	↓	↓	↓	↓					
#4	↓	↓	↓	↓	↓	↓	↓	↓					
#5	↓	↓	↓	↓	↓	↓	↓	↓					

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#1	12:48	10	8254	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 10/17/16 RAW TEMP 19° RAINFALL \_\_\_\_\_

OPERATOR DA OPERATOR 

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	15				
FLUORIDE	73/40				
PRECL2	160				
POSTCL2	235				

CLEAR WELL 8.8 Town Mtn. 24.8 On  Off   
 RFT/SHT 29.6 | 28.0

### METERS/WEIGHTS/LEVELS

FINISHED	47243232	PAX	165
RAW	34208578	FLUORIDE	680
SLUDGE	272014	PRE CL2	134
S B/W RET	220646	POST CL2	115

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	6.00	2.45	4.15	1.800									12
#2													
#3													
#4													
#5													

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 10/18/16 RAW TEMP 19 RAINFALL \_\_\_\_\_

OPERATOR LD OPERATOR JF

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	15				
FLUORIDE	73/40				
PRECL2	160				
POSTCL2	235				

CLEAR WELL 4.8 Town Mtn. 24.6 On \_\_\_ Off \_\_\_  
 RFT/SHT 27.2 | 24.4

### METERS/WEIGHTS/LEVELS

FINISHED	47274911	PAX	112 / 225
RAW	34212510	FLUORIDE	580
SLUDGE	272014	PRE CL2	100 / 170
S B/W RET	220734	POST CL2	60 / 170

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	6051		1642		805	1935							14
#2	1445		500										
#3													
#4													
#5													

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
2	447	10	8130		

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 10/19/16 RAW TEMP 20 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	15				
FLUORIDE	73/40				
PRECL2	160				
POSTCL2	235				

CLEAR WELL 8 Town Mtn. 24.6 On Off  
 RFT/SHT 28.4 | 266

METERS/WEIGHTS/LEVELS			
FINISHED	47307910		PAX 173
RAW	34215951		FLUORIDE 480
SLUDGE	272014		PRE CL2 132
S B/W RET	220881		POST CL2 115

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	605	530	700	936									
#2													
#3													
#4													
#5													

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 10/20/16 RAW TEMP 20 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR [Signature]

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	15				
FLUORIDE	73/40				
PRECL2	160				
POSTCL2	235	↑ 250			

CLEAR WELL 8.8 Town Mtn. 25.4 On \_\_\_ Off \_\_\_  
 RFT/SHT 29.6 | 27.8

METERS/WEIGHTS/LEVELS			
FINISHED	4734	1992	PAX 115/91/150
RAW	342	9389	FLUORIDE 365
SLUDGE	272	014	PRE CL2 90
S B/W RET	220	934	POST CL2 55/20/40

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600		1230		405		1710		737		800		12
#2													
#3		1134		148									
#4													
#5													

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
3	137	9	8085	_____	_____

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 10-21-16 RAW TEMP 20 RAINFALL .71

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE	FEED RATE	FEED RATE	FEED RATE	PPM
	AT START	TIME CHANGE	TIME CHANGE	TIME CHANGE	
PAC	↑ 25	↓ 20(050)			
FLUORIDE	73/40				
PRECL2	2160				
POSTCL2	↑ 260				

CLEAR WELL 6 Ft Town Mtn. 26.2 On  Off   
 RFT/SHT 26.2 | 24

METERS/WEIGHTS/LEVELS			
FINISHED	47373451		PAX 128
RAW	34222325		FLUORIDE 255
SLUDGE	272014		PRE CL2 64
S B/W RET	221066		POST CL2 112

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600			1640	715	1800							13.5
#2													
#3													
#4		1258	315										
#5													

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
4	300	10	7745		

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 10/22/16 RAW TEMP 18.5 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	220				
FLUORIDE	73/40				
PRECL2	168				
POSTCL2	260	↓ 250			

CLEAR WELL 5.6? Town Mtn. 24.8 On \_\_\_ Off \_\_\_  
 RFT/SHT 27.8 | 24.8

METERS/WEIGHTS/LEVELS			
FINISHED	4740	6610	PAX 50   220
RAW	3422	5595	FLUORIDE 155   400
SLUDGE	2720	14	PRE CL2 23   150
S B/W RET	22	215	POST CL2 45   180

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	12.5
#2	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
#3	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
#4	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
#5	↓	145	204	↓	↓	↓	↓	↓	↓	↓	↓	↓	

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
5	150	12	7925	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 10/23/16 RAW TEMP 16 RAINFALL \_\_\_\_\_

OPERATOR JD OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	↓ 935				
FLUORIDE	73/40				
PRECL2	108				
POSTCL2	↓ 250				

CLEAR WELL 6.8 Town Mtn. 27.4 On    Off     
 RFT/SHT 28.2 | 27

METERS/WEIGHTS/LEVELS			
FINISHED	4743	6662	PAX 160
RAW	3422	8696	FLUORIDE 300
SLUDGE	2720	14	PRE CL2 118
S B/W RET	2214	14	POST CL2 115

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	630	210	235	325	600	835							
#2	↓	↓		↓	↓	↓							115
#3	↓	↓		↓	↓	↓							
#4	↓	↓		↓	↓	↓							
#5	↓	↓		↓	↓	↓							

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
1	220	10	8200	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 10/24/16 RAW TEMP 16 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR [Signature]

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	15				
FLUORIDE	73/40				
PRECL2	168				
POSTCL2	250 <sup>174</sup> <sub>240</sub>	↓ 225 <sup>129</sup>			

CLEAR WELL 5.2 Town Mtn. 25.4 On \_\_\_ Off \_\_\_  
 RFT/SHT 27.6 | 25.8

METERS/WEIGHTS/LEVELS					
FINISHED	4746553			PAX	110/89/220
RAW	34231536			FLUORIDE	200/164/725
SLUDGE	272014			PRE CL2	85/70/150
S B/W RET	221415			POST CL2	65/39/150

FILTERS	ON	OFF	HOURS RUN										
#1	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	13
#2	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
#3	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
#4	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
#5	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#2	734	12	8100		

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 10/25/16 RAW TEMP 16.5 RAINFALL \_\_\_\_\_

OPERATOR DM OPERATOR [Signature]

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	15				
FLUORIDE	23/40				
PRECL2	168 ↓ 165				
POSTCL2	225				

CLEAR WELL 8.6 Town Mtn. 26.4 On  Off   
 RFT/SHT 27.8 | 26.4

METERS/WEIGHTS/LEVELS			
FINISHED	4749	4499	PAX 186
RAW	3923	4648	FLUORIDE 650
SLUDGE	2220	14	PRE CL2 128
S B/W RET	221	280	POST CL2 120

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	5:05	12:15	2:15	14:30	6:30	19:35					12.5
#2	↓		↓		↓						
#3	↓	11:55	↓		↓						
#4	↓	12:15	↓		↓						
#5	↓	↓	↓	↓	↓	↓					

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#3	11:57	12	8137	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 10/26/16 RAW TEMP 16° RAINFALL \_\_\_\_\_

OPERATOR Om OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	15				
FLUORIDE	23/40				
PRECL2	165				
POSTCL2	225				

CLEAR WELL 8.6 Town Mtn. 24.4 On  Off   
 RFT/SHT 28.8 | 22.8

### METERS/WEIGHTS/LEVELS

FINISHED	47526058	PAX	130 / 220
RAW	34237738	FLUORIDE	550
SLUDGE	222014	PRE CL2	90 / 175
S B/W RET	222006	POST CL2	68 / 175

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	5:05	2:30	5:05	9:55							14.0
#2			5:05								
#3											
#4		2:10									
#5		2:30									

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#4	2:12	10	8/13	—	—

COMMENTS: 500 GAL CL

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 10/27/16 RAW TEMP 16° RAINFALL .17

OPERATOR Am OPERATOR [Signature]

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	15				
FLUORIDE	23/40				
PRECL2	165				
POSTCL2	225				

CLEAR WELL RFT/SHT 29.2 28.2 Town Mtn. 25.6 On/Off \_\_\_\_\_

### METERS/WEIGHTS/LEVELS

FINISHED	4756/1285	PAX	156/121/1535
RAW	3424/1233	FLUORIDE	420
SLUDGE	2220/14	PRE CL2	136
S B/W RET	222185	POST CL2	118/85/190

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	6:00		12:17	4:47	16:35	7:05	18:00						19
#2													
#3													
#4													
#5	✓	1:55	2:10	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
5	1:58	8	8185		

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 10.28.16 RAW TEMP 16 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	15				
FLUORIDE	73/40				
PRECL2	165				
POSTCL2	225				

CLEAR WELL RFT/SHT 27.0 6.0 Town Mtn. 24.4 On  Off

METERS/WEIGHTS/LEVELS			
FINISHED	4758	9955	PAX 177
RAW	3424	3905	FLUORIDE 334
SLUDGE	272	0.14	PRE CL2 108
S B/W RET	222	336	POST CL2 141

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600	1330	345	1436	600	1800					12.3
#2											
#3											
#4											
#5											

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
1	333	10	802		

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 10/29/16 RAW TEMP 16° RAINFALL \_\_\_\_\_

OPERATOR Dm OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	15				
FLUORIDE	73/40				
PRECL2	165				
POSTCL2	225 ↓	220			

CLEAR WELL 7.2 Town Mtn. 25.4 On  Off   
 RFT/SHT 28.2 | 27.8

### METERS/WEIGHTS/LEVELS

FINISHED	47620350	PAX	121	220
RAW	34246957	FLUORIDE	230	800
SLUDGE	222014	PRE CL2	70	175
S B/W RET	222477	POST CL2	89	175

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	5:15	12:30	2:15	16:10	7:30	9:00							12.75
#2	↓	↓	↓	15:35	↓	↓							
#3	↓	↓	↓	16:10	↓	↓							
#4	↓	↓	↓	↓	↓	↓							
#5	↓	↓	↓	↓	↓	↓							

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#2	5:38	12	8192	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 10/30/16 RAW TEMP 16° RAINFALL \_\_\_\_\_

OPERATOR Am OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	15				
FLUORIDE	75/40				
PRECL2	165				
POSTCL2	220				

CLEAR WELL 10.2 Town Mtn. 25.6 On Off

RFT/SHT 29.0 | 28.8

METERS/WEIGHTS/LEVELS			
FINISHED	47649535		PAX 162
RAW	34250055		FLUORIDE 680
SLUDGE	272014		PRE CL2 141
S B/W RET	222583		POST CL2 121

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	5:05	10:05	12:05	2:45	4:00	6:10	7:30	9:30					12.0
#2	↓	↓	↓	↓	↓	↓	↓	↓					
#3	↓	↓	↓	2:25	↓	↓	↓	↓					
#4	↓	↓	↓	2:45	↓	↓	↓	↓					
#5	↓	↓	↓	↓	↓	↓	↓	↓					

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#3	2:26	11	8106	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 10/31/16 RAW TEMP 16° RAINFALL \_\_\_\_\_

OPERATOR am OPERATOR *[Signature]*

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	15				
FLUORIDE	73/40				
PRECL2	160				
POSTCL2	220				

CLEAR WELL RFT/SHT 29.4 | 28.6 Town Mtn. 26.0 On  Off

### METERS/WEIGHTS/LEVELS

FINISHED	47678986	PAX	112
RAW	34252934	FLUORIDE	580
SLUDGE	272014	PRE CL2	110
S B/W RET	222659	POST CL2	78

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	6:00	1:02	4:08	1:20	8:05	1:00							11.5
#2	↓	↓	↓	↓	↓	↓							↓
#3	↓	↓	↓	↓	↓	↓							↓
#4	↓	↓	↓	↓	↓	↓							↓
#5	↓	↓	↓	↓	↓	↓							↓

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM

COMMENTS:

FIELD CHAIN OF CUSTODY RECORD

FIELD MONITORING PROGRAM

SAMPLERS (SIGNATURES)

*[Signature]*

FACILITY	SAMPLE SOURCE	COMPOSITING PERIOD				SAMPLE COLLECTION			FLOW		CONTAINER		Volatile Organics	Pesticides/PCB's	Trace Metals	Cyanide	Phenols	Oil and Grease	Solids	BOD	Ammonia Nitrogen	Phosphorous	Coliform	pH	Preservation	COMMENTS
		SAMPLING BEGINS		SAMPLING ENDS		DATE	TIME	G/C	MGD	VOLUME	G/P															
		DATE	TIME	DATE	TIME																					
Pittsburg WTP	RAW					10/13/16	1041	G																		ALK
	"					"	1042	"																		TOC
	PO1					"	1044	"																		FLUORIDE .69
	CPE					"	1052	"																		TOC
	111					"	1420	"																		
	030					"	1430	"																		
	009					"	1437	"																		
	110					"	1443	"																		
	010					"	1453	"																		

RELINQUISHED BY	DATE	TIME	RECEIVED BY	RELINQUISHED BY	DATE	TIME	RECEIVED BY
<i>[Signature]</i>	10/13/16	1528	<i>[Signature]</i>				
RELINQUISHED BY	DATE	TIME	RECEIVED BY	RELINQUISHED BY	DATE	TIME	RECEIVED BY
RELINQUISHED BY	DATE	TIME	RECEIVED BY	RELINQUISHED BY	DATE	TIME	RECEIVED BY

REMARKS: 12° w/ Ice

002165



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**SAMPLE SUMMARY**

Lab ID	Client Sample ID/Alias	Matrix	Date Collected	Date Received	Sampled By
6102473-01	BACT/	Drinking Water	10/13/2016 14:20	10/13/2016 15:28	Ralph Varney
6102473-02	BACT/	Drinking Water	10/13/2016 14:30	10/13/2016 15:28	Ralph Varney
6102473-03	BACT/	Drinking Water	10/13/2016 14:37	10/13/2016 15:28	Ralph Varney
6102473-04	BACT/	Drinking Water	10/13/2016 14:43	10/13/2016 15:28	Ralph Varney
6102473-05	BACT/	Drinking Water	10/13/2016 14:53	10/13/2016 15:28	Ralph Varney

LabNumber	Measurement	Value
6102473-01	Field Residual Chlorine	1.32
6102473-02	Field Residual Chlorine	1.65
6102473-03	Field Residual Chlorine	1.65
6102473-04	Field Residual Chlorine	1.77
6102473-05	Field Residual Chlorine	1.64

*Handwritten signature and date: 11/1/16*



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### ANALYTICAL RESULTS

Lab Sample ID: **6102473-01**  
Description: **BACT**

Sample Collection Date Time: 10/13/2016 14:20  
Sample Received Date Time: 10/13/2016 15:28

Matrix: Drinking Water

Discharge/Site No: 111

Regulatory ID: KY0980350

#### Microbiological Analyses Pikeville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Colilert 24	10/13/2016 16:52	10/14/2016 17:01	ADH

### ANALYTICAL RESULTS

Lab Sample ID: **6102473-02**  
Description: **BACT**

Sample Collection Date Time: 10/13/2016 14:30  
Sample Received Date Time: 10/13/2016 15:28

Matrix: Drinking Water

Discharge/Site No: 030

Regulatory ID: KY0980350

#### Microbiological Analyses Pikeville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Colilert 24	10/13/2016 16:52	10/14/2016 17:01	ADH

### ANALYTICAL RESULTS

Lab Sample ID: **6102473-03**  
Description: **BACT**

Sample Collection Date Time: 10/13/2016 14:37  
Sample Received Date Time: 10/13/2016 15:28

Matrix: Drinking Water

Discharge/Site No: 009

Regulatory ID: KY0980350

#### Microbiological Analyses Pikeville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Colilert 24	10/13/2016 16:52	10/14/2016 17:01	ADH



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**ANALYTICAL RESULTS**

Lab Sample ID: **6102473-04**  
Description: **BACT**

Sample Collection Date Time: 10/13/2016 14:43  
Sample Received Date Time: 10/13/2016 15:28

Matrix: Drinking Water

Discharge/Site No: 110

Regulatory ID: KY0980350

**Microbiological Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Colliert 24	10/13/2016 16:52	10/14/2016 17:01	ADH

**ANALYTICAL RESULTS**

Lab Sample ID: **6102473-05**  
Description: **BACT**

Sample Collection Date Time: 10/13/2016 14:53  
Sample Received Date Time: 10/13/2016 15:28

Matrix: Drinking Water

Discharge/Site No: 040

Regulatory ID: KY0980350

**Microbiological Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Colliert 24	10/13/2016 16:52	10/14/2016 17:01	ADH

**Notes for work order 6102473**

- Samples collected by MMLI personnel are done so in accordance with procedures set forth in MMLI field services SOPs.
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identification based on the presumptive evidence of the mass spectra.

**Standard Qualifiers/Acronyms**

- MDL      Method Detection Limit
- MRL      Minimum Reporting Limit
- ND        Not Detected
- LCS      Laboratory Control Sample
- MS        Matrix Spike
- MSD      Matrix Spike Duplicate
- DUP      Sample Duplicate
- % Rec    Percent Recovery
- RPD      Relative Percent Difference
- >        Greater than
- <        Less than

KENTUCKY DIVISION OF WATER / DRINKING WATER RESULTS  
BACTERIOLOGICAL ANALYSIS REPORT FORM

Rev. 03/01/2012

General Information -- This Section To Be Completed By Collector

PWS ID	K Y 0 9 8 8 3 5 0	Compliance Period (MM/YYYY)	1 0 2 0 1 6
PWS Name	CITY OF PIKEVILLE	PWS Contact	RALPH VARNEY
PWS Address	306 ISLAND CREEK ROAD	PWS Phone	606-437-5123
		Collection Date (MMDDYYYY) <small>(All Samples Reported on this Form were Collected on this Date.)</small>	1 0 1 3 2 0 1 6
		Collector Name	<i>R Varney</i> 10/13/16 <small>Signature/Date</small>

General Information -- This Section To Be Completed By Lab

Lab ID	0 0 0 5 0	Lab Receipt Date (MMDDYYYY)	1 0 1 3 2 0 1 6	Total Coliform Analysis Method Code	3 0 9
		Analysis Date (MMDDYYYY)	1 0 1 3 2 0 1 6	E Coli Analysis Method Code	3 0 9
Lab Analyst	<i>Bob</i> 10/13/16 <small>Signature/Date</small>			Lab Supervisor	<i>Al</i> 10/13/16 <small>Signature/Date</small>

Sample Information -- This Section To Be Completed By Collector

Sample Type (RT, RP, TG, CO, or SP) <small>(See Key)</small>	Special Sample Reason (A, B, C, D, or E) <small>(See Key)</small> Replacement Sample? (Y or Blank)	Location Code <small>(See Instructions)</small>	Repeat Location Code (DN, UP, or OR) <small>(See Key)</small>	Sample Time (24 hr)	Free Chlorine (Required for all disinfectants except Chloramine)	Total Chlorine (Required when disinfectant is Chloramine)
RT		111		1420	1.32	.
RT		030		1430	1.65	.
RT		009		1437	1.65	.
RT		110		1443	1.77	.
RT		040		1453	1.64	.

Analysis Information -- This Section To Be Completed By Lab

Lab Sample Number	Analysis Time (24 hr)	Result (Total Coliform Count - or - TNTC - or - CNFG - or - TCNG) <small>(See Key)</small>	Total Coliform (P/A)	E Coli (P/A)	Lab Sample Number of Original Sample <small>(Required for RP, TG, CO, and/or Replacement Samples) (See Instructions)</small>
0102473					
01	16r2		A	A	
02	16r2		A	A	
03	16r2		A	A	
04	16r2		A	A	
05	16r2		A	A	

BACTERIOLOGICAL ANALYSIS REPORT FORM KEY

The signatories of this form certify by their signatures that collection and analysis of the water sample analyzed and the resulting data hereby submitted, were completed in accordance with the provisions of 401 KAR Chapter 8, specifically including but not limited to 401 KAR 8:200, Section 1 and 401 KAR 8:040; and that the data submitted on this form is a true and accurate report of the results of collection and analysis performed pursuant to the above-referenced regulations. Violations of 401 KAR Chapter 8 are subject to severe penalties prescribed in KRS 224.99-010, up to \$25,000 fine per day per violation and in some cases a violation may subject the violator to prison.

<b>Sample Type:</b>	RT = Routine (For Compliance)	RP = Repeat (For Compliance)	SP = Special (Not for Compliance)
	TG = Triggered (For Compliance)	CO = Confirmation (For Compliance)	
<b>Special Sample Reason: (Only if Sample Type = SP)</b>	A = Suspected Contamination	B = New Plant, Modification, or Line Extension	C = Treatment Modification
	D = Study/Investigation	E = Line Break, Emergency Repair	
<b>Repeat Location Code: (Only if Sample Type = RP)</b>	DN = Downstream	UP = Upstream	OR = Original Site
<b>Result:</b>	TNTC = Too Numerous to Count	CNFG = Confluent Growth	TCNG = Turbid Culture-No Gas



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**SAMPLE SUMMARY**

Lab ID	Client Sample ID/Alias	Matrix	Date Collected	Date Received	Sampled By
6102474-01	Fluoride/	Drinking Water	10/13/2016 10:44	10/13/2016 15:28	Ralph Varney
<u>LabNumber</u>	<u>Measurement</u>	<u>Value</u>			
6102474-01	Field Fluoride	0.69			

**ANALYTICAL RESULTS**

Lab Sample ID: **6102474-01**  
Description: **Fluoride**

Sample Collection Date Time: 10/13/2016 10:44  
Sample Received Date Time: 10/13/2016 15:28

Matrix: Drinking Water

Discharge/Site No: P01

Regulatory ID: KY0980350

**Conventional Chemistry Analyses Madisonville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Fluoride	0.80		mg/L	0.20		4500-F C-1997	10/17/2016 11:23	10/17/2016 11:23	JTL

**Notes for work order 6102474**

- Samples collected by MMLI personnel are done so in accordance with procedures set forth in MMLI field services SOPs.
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identification based on the presumptive evidence of the mass spectra.

T15 Sample receipt temperature outside 0 - 6°C; sample collected on same day as received; sample received on ice.

U Target analyte was analyzed for, but was below detection limit (the value associated with the qualifier is the laboratory method detection limit in our LIMS system).

**Standard Qualifiers/Acronyms**

- MDL Method Detection Limit
- MRL Minimum Reporting Limit
- ND Not Detected
- LCS Laboratory Control Sample
- MS Matrix Spike
- MSD Matrix Spike Duplicate
- DUP Sample Duplicate
- % Rec Percent Recovery
- RPD Relative Percent Difference
- > Greater than
- < Less than

**Certified Analyses Included in this Report**

Analyte	Certifications
4500-F C-1997 in Water	
Fluoride	KY Drinking Water Mdv (00030) VA NELAC Mdv (460210) IN Drinking Water Mdv (C-KY-02) IL Drinking Water Mdv (200079)

*Handwritten signature and date: 11/11 RV*

**KENTUCKY DIVISION OF WATER / DRINKING WATER BRANCH  
DISINFECTION BYPRODUCT PRECURSOR ANALYSIS REPORT FORM**

SAMPLE CATEGORY = TOC

**This Section To Be Completed By Collector**

PWS ID	<u>KY0980350</u>	Plant ID	<u>A</u>	Plant Name	<u>INTAKE - LEVISA FORK/BIG SANDY RIVE</u>	Location Code	<u>R01</u>
PWS Name	<u>Pikeville Water Department</u>			PWS Contact	<u>Ralph Varney</u>		
PWS Address	<u>306 Island Creek Road, Pikeville, KY 41501</u>			PWS Phone	<u>(606) 437-5123</u>		
Sample Date (MMDDYYYY)	<u>10/13/2016</u>	Time	<u>10:41</u>	Sample Type	<u>RT</u>	Collector Name	<u>Ralph Varney</u>
				RT = Routine (For Compliance) SP = Special (Not for Compliance)			

**This Section to Be Completed By Lab**

Lab ID	<u>00030</u>	Lab Sample Number	<u>6102475-01</u>	Lab Phone	<u>(270) 821-7375</u>
Lab Analyst	<u>Tracy Benton</u>	Signature/Date	<u>10/20/2016 16:29</u>	Lab Supervisor	<u>Mark Patton</u> <u>10/24/2016</u>

Analyte Code	Analyte Name	Analysis Method Code	<	Result (mg/L)	Analysis Date
				-or- Lab Minimum Reporting Limit (mg/L)	
1927	Alkalinity, Total (as CaCO3)	849		126	10202016
2920	Total Organic Carbon	839		1.8	10202016

The signatories of this form certify by their signature that collection and analysis of the water sample analyzed and the resulting data hereby submitted, were completed in accordance with the provisions of 401 KAR Chapter 8; and that the data submitted on this form is a true and accurate report of the results of collection and analysis performed pursuant to the above-referenced regulations. Violations of 401 KAR Chapter 8 are subject to severe penalties prescribed in KRS 224.99-010, up to \$25,000 fine per day per violation and in some cases a violation may subject a violator to prison.


  
**CONFIDENTIAL**  
 RV

**KENTUCKY DIVISION OF WATER / DRINKING WATER BRANCH  
DISINFECTION BYPRODUCT PRECURSOR ANALYSIS REPORT FORM**

SAMPLE CATEGORY = TOC

**This Section To Be Completed By Collector**

PWS ID	<u>KY0980350</u>	Plant ID	<u>A</u>	Plant Name	<u>PIKEVILLE WTP</u>	Location Code	<u>CF1</u>
PWS Name	<u>Pikeville Water Department</u>			PWS Contact	<u>Ralph Varney</u>		
PWS Address	<u>306 Island Creek Road, Pikeville, KY 41501</u>			PWS Phone	<u>(606) 437-5123</u>		
Sample Date (MMDDYYYY)	<u>10/13/2016</u>	Time	<u>10:52</u>	Sample Type	<u>RT</u>	Collector Name	<u>Ralph Varney</u>
				RT = Routine (For Compliance)			
				SP = Special (Not for Compliance)			

**This Section to Be Completed By Lab**

Lab ID	<u>00030</u>	Lab Sample Number	<u>6102475-02</u>	Lab Phone	<u>(270) 821-7375</u>
Lab Analyst	<u>Tracy Benton</u>	Signature/Date	<u>10/20/2016 2:27</u>	Lab Supervisor	<u>Mark Atton</u> <u>10/24/2016</u>

Analyte Code	Analyte Name	Analysis Method Code	Result (mg/L)	Analysis Date
			-OR- Lab Minimum Reporting Limit (mg/L)	
2920	Total Organic Carbon	839	1.7	10/20/2016

The signatories of this form certify by their signature that collection and analysis of the water sample analyzed and the resulting data hereby submitted, were completed in accordance with the provisions of 401 KAR Chapter 8; and that the data submitted on this form is a true and accurate report of the results of collection and analysis performed pursuant to the above-referenced regulations. Violations of 401 KAR Chapter 8 are subject to severe penalties prescribed in KRS 224.99-010, up to \$25,000 fine per day per violation and in some cases a violation may subject a violator to prison.

FIELD CHAIN OF CUSTODY RECORD

FIELD MONITORING PROGRAM

SAMPLERS (SIGNATURES)

*[Handwritten Signature]*

FACILITY	SAMPLE SOURCE	COMPOSITING PERIOD				SAMPLE COLLECTION			FLOW		CONTAINER		Volatile Organics	Pesticides/PCB's	Trace Metals	Cyanide	Phenols	Oil and Grease	Solids	BOD	Ammonia Nitrogen	Phosphorous	Coliform	pH	Preservation	COMMENTS	
		SAMPLING BEGINS		SAMPLING ENDS		DATE	TIME	G/C	MGD	VOLUME	G/P																
		DATE	TIME	DATE	TIME																						
PIREVILLE WTP	115			10/20/10	9:17	G				P																	
"	118			"	9:28	"				"																	
"	120			"	9:37	"				"																	
"	029			"	9:51	"				"																	
"	022			"	10:48	"				"																	
"	CYCLONE			"	10:40	G				P																	TSS
"	PUMP			"	10:43	"				"																	TSS

RELINQUISHED BY <i>[Signature]</i>	DATE 10/22/10	TIME 1058	RECEIVED BY <i>[Signature]</i>	RELINQUISHED BY	DATE	TIME	RECEIVED BY
RELINQUISHED BY	DATE	TIME	RECEIVED BY	RELINQUISHED BY	DATE	TIME	RECEIVED BY
RELINQUISHED BY D.H. BUN	DATE	TIME	RECEIVED BY	RELINQUISHED BY	DATE	TIME	RECEIVED BY

REMARKS: 1051-CYCLONE 7.48  
 1055-PUMP 7.50  
 18°C w/ice transported

002166



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**SAMPLE SUMMARY**

Lab ID	Client Sample ID/Alias	Matrix	Date Collected	Date Received	Sampled By
6103036-01	BACT/	Drinking Water	10/20/2016 09:17	10/20/2016 10:59	Ralph Varney
6103036-02	BACT/	Drinking Water	10/20/2016 09:28	10/20/2016 10:59	Ralph Varney
6103036-03	BACT/	Drinking Water	10/20/2016 09:37	10/20/2016 10:59	Ralph Varney
6103036-04	BACT/	Drinking Water	10/20/2016 09:51	10/20/2016 10:59	Ralph Varney
6103036-05	BACT/	Drinking Water	10/20/2016 10:18	10/20/2016 10:59	Ralph Varney

<u>LabNumber</u>	<u>Measurement</u>	<u>Value</u>
6103036-01	Field Residual Chlorine	0.32
6103036-02	Field Residual Chlorine	0.99
6103036-03	Field Residual Chlorine	0.95
6103036-04	Field Residual Chlorine	0.98
6103036-05	Field Residual Chlorine	1.09

*l*  
*11/12/16*



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**ANALYTICAL RESULTS**

Lab Sample ID: **6103036-01**  
Description: **BACT**

Sample Collection Date Time: 10/20/2016 09:17  
Sample Received Date Time: 10/20/2016 10:59

Matrix: Drinking Water

Discharge/Site No: 115

Regulatory ID: KY0980350

Microbiological Analyses Pikeville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Colilert 24	10/20/2016 16:45	10/21/2016 16:55	ADH

**ANALYTICAL RESULTS**

Lab Sample ID: **6103036-02**  
Description: **BACT**

Sample Collection Date Time: 10/20/2016 09:28  
Sample Received Date Time: 10/20/2016 10:59

Matrix: Drinking Water

Discharge/Site No: 118

Regulatory ID: KY0980350

Microbiological Analyses Pikeville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Colilert 24	10/20/2016 16:45	10/21/2016 16:55	ADH

**ANALYTICAL RESULTS**

Lab Sample ID: **6103036-03**  
Description: **BACT**

Sample Collection Date Time: 10/20/2016 09:37  
Sample Received Date Time: 10/20/2016 10:59

Matrix: Drinking Water

Discharge/Site No: 120

Regulatory ID: KY0980350

Microbiological Analyses Pikeville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Colilert 24	10/20/2016 16:45	10/21/2016 16:55	ADH



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**ANALYTICAL RESULTS**

Lab Sample ID: **6103036-04**  
Description: **BACT**

Sample Collection Date Time: 10/20/2016 09:51  
Sample Received Date Time: 10/20/2016 10:59

Matrix: Drinking Water

Discharge/Site No: 028

Regulatory ID: KY0980350

**Microbiological Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Coli/ert 24	10/20/2016 16:45	10/21/2016 16:55	ADH

**ANALYTICAL RESULTS**

Lab Sample ID: **6103036-05**  
Description: **BACT**

Sample Collection Date Time: 10/20/2016 10:18  
Sample Received Date Time: 10/20/2016 10:59

Matrix: Drinking Water

Discharge/Site No: 022

Regulatory ID: KY0980350

**Microbiological Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Coli/ert 24	10/20/2016 16:45	10/21/2016 16:55	ADH

**Notes for work order 6103036**

- Samples collected by MMLI personnel are done so in accordance with procedures set forth in MMLI field services SOPs.
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identification based on the presumptive evidence of the mass spectra.

**Standard Qualifiers/Acronyms**

MDL	Method Detection Limit
MRL	Minimum Reporting Limit
ND	Not Detected
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
% Rec	Percent Recovery
RPD	Relative Percent Difference
>	Greater than
<	Less than

KENTUCKY DIVISION OF WATER / DRINKING WATER RESULTS  
BACTERIOLOGICAL ANALYSIS REPORT FORM

General Information - This Section To Be Completed By Collector

PWS ID	K Y 0 9 8 0 3 5 0	Compliance Period (MMYYYY)	1 0 2 0 1 6
PWS Name	CITY OF PIKEVILLE	PWS Contact	RALPH VARNEY
PWS Address	306 ISLAND CREEK ROAD	PWS Phone	606-437-5123
		Collection Date (MMDDYYYY)	1 0 2 0 2 0 1 6 <small>(All Samples Reported on this Form were Collected on this Date.)</small>
		Collector Name	<i>Ralph Varney</i> 10/20/16 <small>Signature/Date</small>

General Information - This Section To Be Completed By Lab

Lab ID	00050	Lab Receipt Date (MMDDYYYY)	1 0 2 0 2 0 1 6	Total Coliform Analysis Method Code	3 0 9
Lab Analyst	<i>Al Hurlow</i> <small>Signature/Date</small>	Analysis Date (MMDDYYYY)	1 0 2 0 2 0 1 6	E Coli Analysis Method Code	3 0 9
		Lab Supervisor	<i>Al Hurlow</i> <small>Signature/Date</small>		

Sample Information - This Section To Be Completed By Collector

Sample Type (RT, RP, TG, CO, or SP) (See Key)	Special Sample Reason (A, B, C, D, or E) (See Key) Replacement Sampler? (Y or Blank)	Location Code (See Instructions)	Repeat Location Code (DN, UP, or OR) (See Key)	Sample Time (24 hr)	Free Chlorine (Required for all disinfectants except Chloramine)	Total Chlorine (Required when disinfectant is Chloramine)
RT		115		0917	0.32	.
RT		118		0928	0.97	.
RT		120		0937	0.95	.
RT		028		0951	0.98	.
RT		022		1018	1.09	.

Analysis Information - This Section To Be Completed By Lab

Lab Sample Number	Analysis Time (24 hr)	Result (Total Coliform Count - or - TNTC - or - CNFG - or - TCNG) (See Key)	Total Coliform (P/A)	E Coli (P/A)	Lab Sample Number of Original Sample (Required for RP, TG, CO, and/or Replacement Samples) (See Instructions)
6103036					
01	1645		A	A	
02	1445		A	A	
03	1645		A	A	
04	1645		A	A	
05	1645		A	A	

BACTERIOLOGICAL ANALYSIS REPORT FORM KEY

The signatories of this form certify by their signatures that collection and analysis of the water sample analyzed and the resulting data hereby submitted, were completed in accordance with the provisions of 401 KAR Chapter 8, specifically including but not limited to 401 KAR 8:200, Section 1 and 401 KAR 8:040; and that the data submitted on this form is a true and accurate report of the results of collection and analysis performed pursuant to the above-referenced regulations. Violations of 401 KAR Chapter 8 are subject to severe penalties prescribed in KRS 224.99-010, up to \$25,000 fine per day per violation and in some cases a violation may subject the violator to prison.

<b>Sample Type:</b>	RT = Routine (For Compliance)	RP = Repeat (For Compliance)	SP = Special (Not for Compliance)
	TG = Triggered (For Compliance)	CO = Confirmation (For Compliance)	
<b>Special Sample Reason: (Only if Sample Type = SP)</b>	A = Suspected Contamination	B = New Plant, Modification, or Line Extension	C = Treatment Modification
	D = Study/Investigation	E = Line Break, Emergency Repair	
<b>Repeat Location Code: (Only if Sample Type = RP)</b>	DN = Downstream	UP = Upstream	OR = Original Site
<b>Result:</b>	TNTC = Too Numerous to Count	CNFG = Confluent Growth	TCNG = Turbid Culture-No Gas



**SAMPLE SUMMARY**

Lab ID	Client Sample ID/Alias	Matrix	Date Collected	Date Received	Sampled By
6103037-01	Fluoride/	Drinking Water	10/20/2016 09:17	10/20/2016 10:59	Ralph Varney
<u>LabNumber</u>	<u>Measurement</u>	<u>Value</u>			
6103037-01	Field Fluoride	0.72			

**ANALYTICAL RESULTS**

Lab Sample ID: **6103037-01**  
Description: **Fluoride**

Sample Collection Date Time: 10/20/2016 09:17  
Sample Received Date Time: 10/20/2016 10:59

Matrix: Drinking Water

Discharge/Site No: 115

Regulatory ID: KY0980350

**Conventional Chemistry Analyses Madisonville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Fluoride	0.82		mg/L	0.20		4500-F C-1997	10/25/2016 15:12	10/25/2016 15:12	JTL

**Notes for work order 6103037**

- Samples collected by MMLI personnel are done so in accordance with procedures set forth in MMLI field services SOPs.
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identification based on the presumptive evidence of the mass spectra.

U Target analyte was analyzed for, but was below detection limit (the value associated with the qualifier is the laboratory method detection limit in our LIMS system).

**Standard Qualifiers/Acronyms**

- MDL Method Detection Limit
- MRL Minimum Reporting Limit
- ND Not Detected
- LCS Laboratory Control Sample
- MS Matrix Spike
- MSD Matrix Spike Duplicate
- DUP Sample Duplicate
- % Rec Percent Recovery
- RPD Relative Percent Difference
- > Greater than
- < Less than

**Certified Analyses Included in this Report**

Analyte	Certifications
4500-F C-1997 in Water	
Fluoride	KY Drinking Water Mdv (00030) VA NELAC Mdv (460210) IN Drinking Water Mdv (C-KY-02) IL Drinking Water Mdv (200079)

*e*  
*11/1/16*



**SAMPLE SUMMARY**

Lab ID	Client Sample ID/Alias	Matrix	Date Collected	Date Received	Sampled By
6100398-01	Backwash/Cyclone	Wastewater	10/20/2016 10:40	10/20/2016 10:59	Ralph Varney
6100398-02	Backwash/Pump	Wastewater	10/20/2016 10:43	10/20/2016 10:59	Ralph Varney

**ANALYTICAL RESULTS**

Lab Sample ID: **6100398-01**  
Description: **Backwash Cyclone**

Sample Collection Date Time: 10/20/2016 10:40  
Sample Received Date Time: 10/20/2016 10:59

Conventional Chemistry Analyses Pikeville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Suspended Solids	119		mg/L	4	4	2540 D-1997	10/25/2016 13:55	10/25/2016 15:05	ADH

Field Analysis Pikeville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
pH (Field)	7.48		Std. Units	0.10	0.10	4500-H+ B-2000	10/20/2016 10:40	10/20/2016 10:51	ADH

**ANALYTICAL RESULTS**

Lab Sample ID: **6100398-02**  
Description: **Backwash Pump**

Sample Collection Date Time: 10/20/2016 10:43  
Sample Received Date Time: 10/20/2016 10:59

Conventional Chemistry Analyses Pikeville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Suspended Solids	14		mg/L	3	3	2540 D-1997	10/25/2016 13:55	10/25/2016 15:07	ADH

Field Analysis Pikeville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
pH (Field)	7.50		Std. Units	0.10	0.10	4500-H+ B-2000	10/20/2016 10:43	10/20/2016 10:55	ADH

~~CONFIDENTIAL~~  
ADH

October, 2016

DMR CALCULATIONS

*Aug 16 P Word*

date	tss cyclone	pH cyclone	tss intake	pH intake	hrs operated
10/01/16					13.00
10/02/16					11.00
10/03/16					13.25
10/04/16					12.75
10/05/16					13.00
10/06/16					12.50
10/07/16					11.75
10/08/16					11.50
10/09/16					11.25
10/10/16					13.00
10/11/16					12.50
10/12/16					13.50
10/13/16					12.50
10/14/16					13.00
10/15/16					11.75
10/16/16					12.75
10/17/16					12.00
10/18/16					14.00
10/19/16					14.00
10/20/16	119	7.48	14	7.50	12.00
10/21/16					13.50
10/22/16					12.50
10/23/16					11.50
10/24/16					13.00
10/25/16					12.50
10/26/16					14.00
10/27/16					11.00
10/28/16					12.50
10/29/16					12.75
10/30/16					12.00
10/31/16					11.50

**CYCLONE ESTIMATE** 100 gpm  
 Tot Hours 387.75  
 times flushed 4 hr cycle 97  
 gallons flushed 19,388  
 mg flushed 0.0194  
 mgd flushed **0.00063**

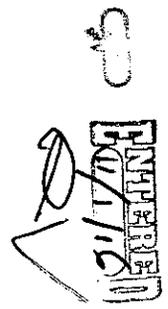
**GRIT PUMP AT RWI** 200 gpm  
 Total pumping hours 31  
 Total gallons pumped 372,000  
 Million gallons pumped 0.3720  
 Million gallons a day **0.0120**

*4 x max  
 4 x (100 x 2)  
 = 000 800 mg*

TSS-001	TSS-002
119	14

pH	
Cyclone	Pump
7.48	7.50



KENTUCKY DIVISION OF WATER

Revised 7/1/06

DRINKING WATER BRANCH

MONTHLY OPERATION REPORT (MOR)--ALL WATER SYSTEMS

MONTH & YEAR OF: ██████████  
 DEP Form 4012--Revised 07/2006

PWS ID :	<u>0980350</u>	PLANT ID:	<u>A</u>	PLANT NAME:	<u>PIKEVILLE WATER PLANT</u>
PWS NAME:	<u>CITY OF PIKEVILLE</u>	PLANT CLASS:	<u>IVA</u>	DIST. CLASS:	<u>II</u>
AGENCY INTEREST (AI):	<u>3691</u>	DATE MAILED:			
SOURCE NAME:	<u>LEVISA FORK OF THE BIG SANDY RIVER</u>	COUNTY:	<u>PIKE</u>		
OPERATOR(S) RESPONSIBLE / IN-CHARGE			CLASS	CERTIFICATION NUMBER	
WTP SHIFT 1:	<u>RALPH VARNEY</u>		<u>IVA</u>	<u>645</u>	
WTP SHIFT 2:	<u>GREG PENNINGTON</u>		<u>IVA</u>	<u>777</u>	
WTP SHIFT 3:	<u>DEMPSEY MILES</u>		<u>IVA</u>	<u>1549</u>	
DISTRIBUTION:	<u>DONNIE SLONE</u>		<u>IID</u>	<u>2236</u>	
THIS REPORT MUST BE RECEIVED BY THE DIVISION OF WATER AND APPLICABLE FIELD OFFICE <b><u>NO LATER THAN 10 DAYS AFTER THE END OF THE MONTH.</u></b>					
<b>TREATMENT PLANTS COMPLETE:</b>					
1. DESIGN CAPACITY (gpm):	<u>4400</u>				
2. TYPE OF FILTRATION USED:	<u>DUAL MEDIA RAPID SAND</u>				
3. DESIGN FILTRATION RATE (gpm/sq. ft.):	<u>3</u>				
4. PERCENT BACKWASH WATER USED:	<u>2.7</u>				
5. DATE FLOCCULATION BASIN(S) LAST CLEANED:	<u>NOVEMBER 2015</u>				
6. DATE SETTLING BASIN(S) LAST CLEANED:	<u>NOVEMBER 2015</u>				

I certify under penalty of law that I have personally examined and am familiar with the information submitted herein. Based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. See KRS 224.99-010 and 401 KAR 8:020. (Penalties under this statute and regulation may include fines up to \$25,000 per violation or by imprisonment for not more that one year, or both).

\_\_\_\_\_  
 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

\_\_\_\_\_  
 DATE

KENTUCKY DIVISION OF WATER - DRINKING WATER BRANCH  
 WATER TREATMENT PLANT MONTHLY OPERATION REPORT

PWS ID : 0980350  
 PLANT ID: A  
 REPORT MONTH/YEAR: November, 2016

PAGE 1 OF 11

DAY	RAW WATER TREATED GALLONS	HOURS PLANT OPERATED	COAGULANT		COAGULANT		pH ADJUSTMENT		DISINFECTANT		DISINFECTANT	
			LBS	PPM	LBS	PPM	LBS	PPM	Pre		Post	
									LBS	PPM	LBS	PPM
	3019000	12.50	536	21.3					33	1.31	50	1.97
	2781000	11.25	494	21.3					33	1.42	50	2.13
	3332000	13.50	551	19.8					39	1.39	55	1.98
	3059000	12.50	505	19.8					39	1.51	55	2.16
	2972000	12.00	412	16.6					35	1.42	48	1.95
	2972000	12.00	618	24.9					36	1.46	51	2.04
	3197000	13.00	566	21.2					37	1.40	51	1.90
	3129000	12.50	597	22.9					36	1.39	47	1.81
	2842000	11.50	489	20.6					30	1.25	41	1.72
	2661000	11.00	468	21.1					32	1.44	41	1.83
	2944000	12.25	515	21.0					33	1.34	44	1.79
	2933000	12.00	536	21.9					29	1.17	39	1.57
	3010000	12.00	515	20.5					34	1.36	43	1.71
	2747000	11.25	494	21.6					33	1.44	37	1.63
	3331000	13.25	412	14.8					41	1.47	39	1.39
	2983000	12.00	350	14.1					28	1.11	42	1.68
	3398000	14.00	499	17.6					39	1.36	45	1.59
	2932000	11.50	484	19.8					33	1.35	42	1.71
	2970000	13.00	566	22.9					39	1.55	50	2.00
	2795000	11.50	412	17.7					33	1.42	41	1.75
	3288000	13.75	453	16.5					46	1.68	56	2.05
	3387000	12.50	556	19.7					43	1.52	50	1.75
	2886000	12.00	515	21.4					35	1.46	44	1.83
	2839000	11.50	749	31.6					40	1.67	43	1.81
	2775000	11.50	618	26.7					39	1.66	45	1.95
	3413000	13.75	597	21.0					44	1.55	53	1.85
	2985000	12.25	541	21.7					42	1.68	44	1.77
	2799000	11.75	515	22.1					35	1.51	43	1.84
	3211000	13.00	824	30.8					39	1.44	46	1.73
	2907000	11.75	927	38.2					28	1.13	42	1.72
<b>TOT</b>	90497000		16314						1079		1373	
<b>AVE</b>	3016567		544	26.45					36	2.69	46	1.85
<b>MAX</b>	3413000		927									
<b>NUMBER DAYS IN OPERATION</b>												



KENTUCKY DIVISION OF WATER - DRINKING WATER BRANCH  
 WATER TREATMENT PLANT MONTHLY OPERATION REPORT

PWS ID : 0980350  
 PLANT ID: A

REPORT MONTH/YEAR: Nov, 2016

PAGE 3 OF 11

DAY	pH			TOTAL ALKALINITY		TOTAL HARDNESS		CHLORINE RESIDUAL				TURBIDITY (NTU)		
	RAW	TOP OF FILTER	TAP	RAW	TAP	RAW	TAP	TOP OF FILTER		PLANT TAP		RAW	SETTLED WATER	PLANT TAP
								TOTAL	FREE	TOTAL	FREE			
	8.08	8.02	7.93	122	128	296	314		0.26		1.71	3.9	0.88	0.10
	7.90	7.94	7.95	128	128	290	314		0.15		1.46	5.6	0.93	0.09
	7.91	8.01	7.88	126	136	280	278		0.95		1.46	9.2	1.06	0.10
	7.94	7.97	7.88	116	134	290	288		0.13		1.70	6.4	0.95	0.09
	7.91	8.00	7.94	124	144	296	292		0.50		1.38	4.6	0.79	0.08
	7.93	7.98	7.91	116	140	292	296		0.24		1.65	5.0	0.90	0.09
	8.00	7.99	7.91	114	110	292	288		0.43		1.69	3.9	0.88	0.08
	8.00	8.04	7.87	116	122	286	274		0.44		1.57	4.0	0.87	0.08
	8.01	8.10	7.91	118	120	280	272		0.62		1.59	5.8	0.77	0.07
	8.10	8.08	7.92	120	116	300	298		0.56		1.95	5.4	0.93	0.08
	8.11	8.03	7.92	112	128	296	284		0.05		1.77	4.0	0.86	0.08
	8.09	8.03	7.96	116	122	300	286		0.19		1.60	3.3	0.96	0.05
	8.12	8.04	7.95	114	116	286	284		0.32		1.60	3.3	0.80	0.06
	8.16	8.08	7.96	70	120	306	302		1.80		1.73	4.1	0.89	0.08
	8.12	8.08	7.98	108	128	306	316		0.14		1.87	2.8	1.08	0.07
	8.10	8.18	7.97	124	132	322	320		0.42		1.75	2.8	1.34	0.08
	8.12	8.12	7.99	132	118	320	322		0.46		1.67	3.0	1.31	0.09
	8.08	8.08	7.94	124	124	314	322		0.90		1.42	5.3	1.24	0.09
	8.01	8.02	7.96	118	130	328	320		0.28		1.29	5.2	1.24	0.08
	8.05	8.08	7.96	122	130	320	330		1.34		1.41	2.4	1.07	0.07
	8.11	8.09	7.96	132	122	342	324		0.82		1.47	2.3	1.21	0.07
	8.13	8.09	7.96	132	126	368	342		0.56		1.93	2.6	1.35	0.09
	8.13	8.06	7.95	134	128	362	330		0.26		1.71	10.3	1.07	0.07
	8.14	8.09	7.97	120	128	328	320		0.58		1.66	24.4	1.38	0.07
	8.18	8.15	8.00	146	154	348	350		0.62		1.76	3.2	1.08	0.08
	8.14	8.05	8.00	148	154	352	360		0.38		1.87	3.4	1.10	0.06
	8.11	8.13	7.98	142	148	348	352		0.38		1.69	3.4	1.06	0.07
	8.15	8.17	8.03	148	142	342	352		0.58		1.51	6.2	1.78	0.07
	8.10	8.08	8.05	132	156	334	340		0.50		1.59	12.7	1.68	0.07
	8.07	8.00	7.97	132	150	336	350		0.29		1.64	25.0	1.80	0.08
<b>AVE</b>	8.07	8.06	7.95	124	131	315	314		0.51		1.64	6.1	1.11	0.08

KENTUCKY DIVISION OF WATER  
 DRINKING WATER BRANCH  
 WATER TREATMENT PLANT MONTHLY OPERATION REPORT

PWS ID : 0980350  
 PLANT ID: A  
 AGENCY INTEREST: 3691  
 REPORT MONTH/YEAR: Nov, 2016

AREA-WIDE OPTIMIZATION PROGRAM TURBIDITY DATA  
 COPY PAGE AS NEEDED

DAY	RAW DAILY MAX	SEDIMENTATION BASIN EFFLUENT DAILY MAXIMUM						INDIVIDUAL FILTER EFFLUENT DAILY MAXIMUM							CFE DAILY MAX
		#1	#2	#3	#4	#5	#6	#1	#2	#3	#4	#5	#6	#7	
		4.1	0.90	0.80					0.12	0.12	0.26	0.28	0.21		
6.5	0.96	0.80					0.33	0.30	0.34	0.12	0.10			0.10	
10.4	1.22	1.02					0.15	0.08	0.26	0.16	0.11			0.07	
6.8	0.84	0.74					0.19	0.20	0.18	0.12	0.09			0.08	
5.0	0.84	0.76					0.17	0.13	0.14	0.20	0.15			0.09	
5.4	0.96	0.82					0.14	0.12	0.20	0.25	0.21			0.10	
4.4	0.85	0.82					0.09	0.10	0.24	0.23	0.10			0.10	
4.4	0.90	0.83					0.09	0.25	0.32	0.10	0.12			0.09	
6.1	0.68	0.61					0.16	0.11	0.26	0.11	0.10			0.06	
5.8	1.10	0.88					0.06	0.01	0.03	0.05	0.06			0.04	
4.2	0.82	0.76					0.06	0.01	0.09	0.18	0.14			0.08	
3.6	1.01	0.92					0.08	0.01	0.06	0.13	0.09			0.06	
3.3	0.88	0.79					0.08	0.01	0.06	0.11	0.11			0.06	
4.9	0.99	0.81					0.08	0.01	0.05	0.08	0.08			0.05	
3.0	1.33	1.00					0.17	0.01	0.08	0.10	0.07			0.06	
2.9	1.50	1.44					0.09	0.08	0.19	0.21	0.16			0.09	
3.2	1.21	1.05					0.07	0.08	0.13	0.19	0.08			0.11	
7.0	1.24	1.10					0.07	0.06	0.09	0.31	0.21			0.12	
6.4	1.42	1.30					0.07	0.06	0.08	0.23	0.07			0.07	
2.7	1.22	1.15					0.07	0.06	0.06	0.11	0.14			0.07	
2.6	1.28	1.14					0.23	0.07	0.07	0.09	0.08			0.08	
2.7	1.44	1.16					0.10	0.20	0.19	0.17	0.12			0.09	
18.0	1.08	1.01					0.08	0.08	0.19	0.15	0.13			0.07	
32.0	1.33	1.17					0.07	0.07	0.09	0.18	0.07			0.06	
3.4	1.22	1.01					0.08	0.06	0.06	0.13	0.16			0.07	
3.6	1.26	1.13					0.22	0.07	0.07	0.09	0.08			0.07	
4.2	1.17	1.02					0.10	0.13	0.09	0.08	0.07			0.06	
10.2	2.95	2.68					0.08	0.08	0.12	0.09	0.07			0.05	
20.8	2.42	1.81					0.08	0.07	0.10	0.18	0.07			0.06	
27.5	2.06	1.82					0.10	0.07	0.07	0.11	0.17			0.08	
<b>AVE</b>	7.5	1.24	1.08				0.12	0.09	0.14	0.15	0.11			0.08	



KENTUCKY DIVISION OF WATER - DRINKING WATER BRANCH  
 WATER TREATMENT PLANT MONTHLY OPERATION REPORT

PWS ID : 0980350  
 PLANT ID: A

REPORT MONTH/YEAR: Nov, 2016

PAGE 6 OF 11

DAY	TOTAL WASH WATER GALLONS	No: 1		No: 2		No: 3		No: 4		No: 5	
		AREA (ft2)	363								
		WASH GALLONS	FILT RUN HRS								
	163,085							72,720	73.00	90,365	63.00
	72,540	72,540	73.00								
	82,200			82,200	76.00						
	82,220					82,220	73.50				
	81,300							81,300	75.00		
	81,750									81,750	85.75
	98,700	98,700	70.75								
	74,250			74,250	70.50						
	82,000					82,000	72.50				
	89,265							89,265	64.25		
	90,167									90,167	59.25
	98,520	98,520	73.75								
	95,760			95,760	70.00						
	171,150					171,150	74.50				
	79,950							79,950	86.25		
	103,610									103,610	84.50
	103,350	103,350	72.50								
	71,100			71,100	72.00						
	81,700					81,700	71.25				
	82,070							82,070	60.75		
	81,000									81,000	62.00
	165,180	165,180	61.75								
	98,148			98,148	64.25						
	64,000					64,000	59.75				
	88,330							88,330	59.75		
	98,040									98,040	60.25
<b>TOT</b>	<b>2,479,385</b>	<b>538,290</b>	<b>351.8</b>	<b>421,458</b>	<b>352.8</b>	<b>481,070</b>	<b>351.5</b>	<b>493,635</b>	<b>419.0</b>	<b>544,932</b>	<b>414.8</b>
<b>AVE</b>	<b>95,361</b>	<b>107,658</b>	<b>70.4</b>	<b>84,292</b>	<b>70.6</b>	<b>96,214</b>	<b>70.3</b>	<b>82,273</b>	<b>69.8</b>	<b>90,822</b>	<b>69.1</b>

COPY AS NEEDED

KENTUCKY DIVISION OF WATER - DRINKING WATER BRANCH  
 WATER TREATMENT PLANT MONTHLY OPERATION REPORT

PWS ID : 0980350  
 PLANT ID: A

REPORT MONTH/YEAR: Nov, 2016

PAGE 7 OF 11

DAY	CHEMICALS ADDED		TEST RESULTS										
	CHLORINE BOOSTER LBS	CHLORINE BOOSTER LBS	TOTAL (T) AND FREE (F) CHLORINE RESIDUAL (ppm)										
			NORTH		SOUTH		EAST		WEST				
			T	F	T	F	T	F	T	F			
				1.08			1.18						
									1.24				
												1.35	
				1.12			0.95			0.87			
												1.20	
				1.16			1.32						
									1.29				
												1.08	
				1.00			0.89			0.91			
												0.98	
				1.09			1.01						
									1.17				
												1.02	
				0.88			1.42						
									1.30				
												1.24	
				1.38									
							1.21						
									1.00				
												1.02	
				0.80									
							1.32						
AVE			AVERAGE		1.06		1.16			1.11			1.13
TOT			TOT MIN										
			FREE MIN		0.80		0.89			0.87			0.98
Total # Chlorine Samples				8		8			7			7	
# Less than 0.2 mg/L/0.5 mg/L				0		0			0			0	
Number of Free Residuals			30	Minimum Monthly Total Residual			NA						
Number of Total Residuals			0	Minimum Monthly Free Residual			0.80						
Total # Less than 0.2 mg/L			0	Disinfectant Chloramines? (Y/N)			N						
				Number of days of operation?			30						

KENTUCKY DIVISION OF WATER - DRINKING WATER BRANCH  
 WATER TREATMENT PLANT MONTHLY OPERATION REPORT

PWS ID : 0980350  
 PLANT ID: A

TURBIDITY REPORT

Report Period (MM/YYYY): Nov, 2016

PWS Name: CITY OF PIKEVILLE

PAGE:  
8 OF 11

DAY									
	12.5	4		0.10	0.09	0.11	0.08		0.11
	11.3	3		0.10	0.08	0.08	0.10		0.10
	13.5	4		0.10	0.10	0.09	0.11		0.11
	12.5	4		0.08	0.08	0.11	0.10		0.11
	12.0	3		0.08	0.08	0.08	0.09		0.09
	12.0	3		0.08	0.09	0.10	0.08		0.10
	13.0	4		0.07	0.08	0.09	0.09		0.09
	12.5	4		0.07	0.07	0.08	0.09	0.08	0.09
	11.5	3		0.07	0.06	0.06	0.07	0.07	0.07
	11.0	3		0.07	0.07	0.08	0.11		0.11
	12.3	4		0.07	0.07	0.06	0.10		0.10
	12.0	3		0.06	0.05	0.05	0.05	0.05	0.06
	12.0	3		0.07	0.06	0.05	0.06	0.06	0.07
	11.3	3		0.06	0.08	0.10	0.09		0.10
	13.3	4		0.07	0.06	0.06	0.07	0.07	0.07
	12.0	3		0.07	0.08	0.08	0.10		0.10
	14.0	4		0.10	0.09	0.09	0.08		0.10
	11.5	3		0.09	0.08	0.09	0.09		0.09
	13.0	4		0.08	0.08	0.08	0.07		0.08
	11.5	3		0.06	0.06	0.08	0.09		0.09
	13.8	4		0.07	0.07	0.07	0.07		0.07
	12.5	4		0.07	0.07	0.12	0.10	0.10	0.12
	12.0	3		0.07	0.08	0.07	0.06		0.08
	11.5	3		0.08	0.06	0.06	0.06		0.08
	11.5	3		0.07	0.09	0.08	0.06		0.09
	13.8	4		0.05	0.06	0.06	0.08		0.08
	12.3	4		0.07	0.08	0.06	0.06		0.08
	11.8	3		0.06	0.09	0.07	0.06		0.09
	13.0	4		0.07	0.06	0.08	0.08		0.08
	11.8	3		0.06	0.06	0.06	0.13		0.13
Total	368.3	104		TOTAL # OF TURBIDITY SAMPLES TAKEN --				126	0.13

ARE YOU USING EITHER CONVENTIONAL or DIRECT FILTRATION? (Y/N)

(Any type of filtration besides slow sand)

Number of samples exceeding ----> 0.1 NTU 6 0.3 NTU 0 1 NTU 0

For slow sand filtration, the number of samples exceeding ----> 1 NTU 5 NTU

\*NOTE: The "Number of Turbidity Samples Required" is the number of hours the plant operated divided by 4 rounded up to the next whole number.

I certify that the above turbidity readings were taken every 4 hours during plant operation and in the time frames noted above.

Signature of Principal Executive Officer or Authorized Agent

Date

KENTUCKY DIVISION OF WATER / DRINKING WATER BRANCH  
Monthly Operating Report (MOR) Plant Summary Form

PWS ID : 0980350

Monitoring Period (MM/YYYY): Nov, 2016

**NOTE: COMPLETE ALL APPLICABLE FIELDS!!! NOT ALL OF THE FIELDS ARE  
PRE-POPULATED FOR YOU!!!**

**APPLICABLE TO ALL PLANTS**

PLANT ID: <u>A</u>	TOTAL WATER TREATED (gallons) <u>90,497,000</u>
PLANT NAME: <u>PIKEVILLE WATER PLANT</u>	AVE. DAILY PRODUCTION (gallons) <u>3,016,567</u>
AGENCY INTEREST: <u>3691</u>	MAXIMUM PUMPAGE (gallons per day) <u>3,413,000</u>

**APPLICABLE TO ALL PLANTS WITH FILTRATION**

ANALYTE CODE <u>0100</u>	
Was each filter monitored continuously? (Y/N).....	<b>Y</b>
Were measurements recorded every 15 minutes? (Y/N).....	<b>Y</b>
Was there a failure of the continuous monitoring equipment? (Y/N).....	<b>N</b>
If Yes, (1) were individual filter effluent turbidity grab samples collected every four hours of operation? (Y/N).....	
(2) was the continuously monitoring equipment repaired within 5 working days? (Y/N).....	
Was individual filter level greater than 1.0 NTU in two consecutive measurements? (Y/N).....	<b>N</b>
Was individual filter level < 0.5 NTU in two consecutive measurements after online more than 4 hours? (Y/N).....	<b>N</b>
Was individual filter level < 1.0 NTU in two consecutive measurements in three consecutive months? (Y/N).....	<b>N</b>
Was individual filter level greater than 2.0 NTU in two consecutive measurements in two consecutive months? (Y/N).....	<b>N</b>
<b>If any of the last 4 boxes are YES, fill out the Individual Filter Turbidity Sheet and submit with MOR</b>	

**APPLICABLE TO ALL PLANTS WITH FILTRATION**

ANALYTE CODE <u>0100</u>	
Number of hours of plant operation.....	<b>368.3</b>
Were samples taken every 4 hrs of plant operation? (Y/N)	<b>Y</b>
Number of samples taken.....	<b>126</b>
Highest single turbidity reading .....	<b>0.13</b>
For all filtration except slow sand filtration:	
Number of samples exceeded 0.1 NTU .....	<b>6</b>
Number of samples exceeded 0.3 NTU .....	<b>0</b>
Number of samples exceeded 1.0 NTU .....	<b>0</b>
When filtration is slow sand filtration:	
Number of samples exceeded 1 NTU .....	
Number of samples exceeded 5 NTU .....	

**APPLICABLE TO ALL PLANTS**

ANALYTE CODE <u>0999</u>	
Number of days of plant operation.....	<b>30</b>
Were samples taken each day of operation? (Y/N)	<b>Y</b>
Number of lowest chlorine samples recorded .....	<b>30</b>
Lowest single chlorine reading .....	<b>1.29</b>
If less than required:	
Was residual restored within 4 hrs of plant operation?	
Free chlorine (for all disinfectants except chloramine):	
Number of samples under 0.2 mg/L .....	<b>0</b>
Total Chlorine (when disinfectant is chloramine):	
Number of samples under 0.5 mg/L .....	

**APPLICABLE TO PLANTS UTILIZING CHLORINE DIOXIDE**

ANALYTE CODE <u>1008</u>	
Number of days of plant operation.....	<b>30</b>
Were samples taken each day of operation? (Y/N).....	
Number of samples taken .....	<b>###</b>
Highest single chlorine dioxide reading .....	<b>###</b>
Number of chlorine dioxide samples exceeded 0.8 mg/L ...	<b>###</b>

**APPLICABLE TO PLANTS USING CHLORINE DIOXIDE**

ANALYTE CODE <u>1009</u>	
Number of days of plant operation.....	<b>30</b>
Were samples taken each day of operation? (Y/N)	
Number of samples taken .....	<b>###</b>
Highest single chlorite reading .....	<b>###</b>
Number of chlorite samples exceeded 1 mg/L .....	<b>###</b>

I certify under penalty of law that I have personally examined and am familiar with the information submitted herein. Based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. See KRS 224.99-010 and 401 KAR 8:020. (Penalties under this statute and regulation may include fines up to \$25,000 per violation or by imprisonment for not more than one year, or both).

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT \_\_\_\_\_

DATE \_\_\_\_\_



**PIKEVILLE WATER TREATMENT PLANT  
 WATER PUMPED TO DISTRIBUTION SYSTEM  
 FOR THE MONTH OF: November, 2016**

11/01/16	2.9254
11/02/16	2.9179
11/03/16	3.3190
11/04/16	3.0791
11/05/16	3.0570
11/06/16	2.9363
11/07/16	3.0548
11/08/16	3.0379
11/09/16	3.0174
11/10/16	2.7818
11/11/16	2.8104
11/12/16	2.8570
11/13/16	2.9162
11/14/16	2.8910
11/15/16	3.1589
11/16/16	3.1332
11/17/16	3.2047
11/18/16	3.0810
11/19/16	2.9365
11/20/16	2.7501
11/21/16	3.1086
11/22/16	3.3451
11/23/16	2.9751
11/24/16	2.8485
11/25/16	2.7575
11/26/16	3.1149
11/27/16	3.1094
11/28/16	2.9161
11/29/16	3.0809
11/30/16	2.9785

Total	90.1002
Average	3.0033
Minimum	2.7501
Maximum	3.3451

Water plant usage	64,648
Raw water intake usage	134,980
Total non metered usage	199,628

November, 2016 DMR CALCULATIONS

date	tss cyclone	pH cyclone	tss intake	pH intake	hrs operated
11/01/16					12.50
11/02/16					11.25
11/03/16					13.50
11/04/16					12.50
11/05/16					12.00
11/06/16					12.00
11/07/16					13.00
11/08/16					12.50
11/09/16					11.50
11/10/16					11.00
11/11/16					12.25
11/12/16					12.00
11/13/16					12.00
11/14/16					11.25
11/15/16					13.25
11/16/16					12.00
11/17/16	6	8.04	5	8.00	14.00
11/18/16					11.50
11/19/16					13.00
11/20/16					11.50
11/21/16					13.75
11/22/16					12.50
11/23/16					12.00
11/24/16					11.50
11/25/16					11.50
11/26/16					13.75
11/27/16					12.25
11/28/16					11.75
11/29/16					13.00
11/30/16					11.75

**CYCLONE ESTIMATE** 100 gpm  
 368.25 Tot Hours  
 92 times flushed 4 hr cycle  
 18,413 gallons flushed  
 0.0184 mg flushed  
 0.00059 mgd flushed

**GRIT PUMP AT RWI** 200 gpm  
 31 Total pumping hours  
 372,000 Total gallons pumped  
 0.3720 Million gallons pumped  
 0.0120 Million gallons a day

**TSS-001** 6  
**TSS-002** 5

**pH**  
**Cyclone** 8.04  
**Pump** 8.00

*Per Jones data*

**ENTERED**  
 12/1/16  


# Water Withdrawal Report Form

Preprint ID:

Agency Interest

Subject Item:

Monitoring Period:

3691 - Pikeville Water Department

GACT0000000001-0638 Levisa Fork

11/01/16 to 11/30/16

Day	Result	Parameter	Unit
1	3.019	Withdrawal	MGD (MA)
2	2.781	Withdrawal	MGD (MA)
3	3.332	Withdrawal	MGD (MA)
4	3.059	Withdrawal	MGD (MA)
5	2.972	Withdrawal	MGD (MA)
6	2.972	Withdrawal	MGD (MA)
7	3.197	Withdrawal	MGD (MA)
8	3.129	Withdrawal	MGD (MA)
9	2.842	Withdrawal	MGD (MA)
10	2.661	Withdrawal	MGD (MA)
11	2.944	Withdrawal	MGD (MA)
12	2.933	Withdrawal	MGD (MA)
13	3.010	Withdrawal	MGD (MA)
14	2.747	Withdrawal	MGD (MA)
15	3.331	Withdrawal	MGD (MA)
16	2.983	Withdrawal	MGD (MA)
17	3.398	Withdrawal	MGD (MA)
18	2.932	Withdrawal	MGD (MA)
19	2.970	Withdrawal	MGD (MA)
20	2.795	Withdrawal	MGD (MA)
21	3.288	Withdrawal	MGD (MA)
22	3.387	Withdrawal	MGD (MA)
23	2.886	Withdrawal	MGD (MA)
24	2.839	Withdrawal	MGD (MA)
25	2.775	Withdrawal	MGD (MA)
26	3.413	Withdrawal	MGD (MA)
27	2.985	Withdrawal	MGD (MA)
28	2.799	Withdrawal	MGD (MA)
29	3.211	Withdrawal	MGD (MA)
30	2.907	Withdrawal	MGD (MA)
		Withdrawal	MGD (MA)

**ENTERED**  
11/1/16  


	FLOW TO DIST	START C. WELL	Settling Basin Turbidity						Sludge Hauled	Spent B/W Return	DUP pH TAP
			MID - 4	4A - 8AM	8AM - 12N	12N - 4PM	4PM - 8PM	8PM - 12M			
11/01/16	2.9254	8.4		0.90	0.84	0.98	0.85			178,000	7.94
11/02/16	2.9179	9.0		0.84	0.90	0.88	1.16			149,000	7.95
11/03/16	3.3190	5.0		1.00	0.96	1.08	1.12			180,000	7.90
11/04/16	3.0791	6.0		1.11	1.02	1.04	0.79			131,000	7.88
11/05/16	3.0570	5.8		0.77	0.75	0.80	0.84			165,000	7.94
11/06/16	2.9363	5.0		0.86	0.90	0.89	0.94			48,000	7.91
11/07/16	3.0548	5.4		0.90	0.80	1.01	0.84			150,000	7.91
11/08/16	3.0379	8.4		0.92	0.86	0.80	0.86	0.91		131,000	7.89
11/09/16	3.0174	9.2		0.96	0.86	0.64	0.76	0.74		194,000	7.92
11/10/16	2.7818	6.0		0.92	0.86	0.89	0.90			228,000	7.92
11/11/16	2.8104	5.0		0.88	0.70	0.79	1.13			144,000	7.92
11/12/16	2.8570	7.2		1.10	0.96	0.96	0.87	0.88		127,000	7.96
11/13/16	2.9162	7.8		0.89	0.76	0.84	0.74	0.77		189,000	7.96
11/14/16	2.8910	7.6		0.79	0.84	1.02	0.90			92,000	7.95
11/15/16	3.1589	5.2		0.65	1.12	1.16	1.11	1.26		161,000	7.98
11/16/16	3.1332	8.6		1.05	1.56	1.47	1.15			187,000	7.98
11/17/16	3.2047	6.4		1.19	1.33	1.79	1.13			59,000	7.97
11/18/16	3.0810	7.2		1.51	1.41	0.93	1.17			169,000	7.94
11/19/16	2.9365	5.0		1.42	1.33	1.36	0.75			167,000	7.97
11/20/16	2.7501	6.0		0.70	1.17	1.18	1.10			197,000	7.95
11/21/16	3.1086	6.6		1.04	1.20	1.38	1.21		28,100	142,000	7.96
11/22/16	3.3451	10.0		1.16	1.22	1.87	1.30	1.26	15,500	115,000	7.96
11/23/16	2.9751	10.8		1.20	1.06	1.04	1.02		19,200	79,000	7.96
11/24/16	2.8485	9.0		2.44	1.06	1.25	0.88			62,000	7.98
11/25/16	2.7575	8.0		1.14	1.05	1.12	0.98			271,000	8.00
11/26/16	3.1149	10.6		0.92	1.21	1.20	1.00			83,000	8.01
11/27/16	3.1094	13.2		1.06	1.07	1.10	0.96			134,000	7.98
11/28/16	2.9161	11.0		0.89	1.17	1.22	2.81			249,000	8.03
11/29/16	3.0809	10.5		1.80	1.25	2.12	1.10			171,000	8.05
11/30/16	2.9785	8.4		1.39	1.65	1.84	2.06		20,500	190,000	7.97
Ave	3.0033	7.7		1.08	1.06	1.16	1.08	0.97		151,400	
Tot	90.1002								83,300	4,542,000	
Min	2.7501	5.0		0.65	0.70	0.64	0.74	0.74		48,000	
Max	3.3451	13.2		2.44	1.65	2.12	2.81	1.26		271,000	

WATER DEPARTMENT  
MASTER WATER READINGS

DATE: 12-1-16

Only Read First 5 Numbers

ACCOUNT NUMBER	LOCATION	PRESENT	PREVIOUS	USAGE	AMOUNT
	SANDY VALLEY-Pikeville	376131	363600	12531	8360 DON'T BILL
54-9966200-0	TOWN MOUNTAIN	667801	649812	17989	
54-9909400-0	CHLOE ROAD	66677	64504	2173	
54-9911500-0	ISLAND CREEK	56991	54756	2235	
54-9928000-0	MUD CREEK-Southern Wt.	103504	092385	11179	
54-9914600-0	COON BRANCH	11020	10867	153	
54-9913000-0	SOUTH MAYO TRAIL	226517	217143	9374	
54-9925500-0	HOOPWOOD HOLLOW	15066	14984	82	
54-9911800-0	ISLAND CK, TRAILER PK.	00670	00515	155	
54-9911900-0	HURRICANE CREEK	303564	301960	1604	
54-9912000-0	PIKE FLOYD-Southern	40369	38683	1686	
54-9900100-0	COWPEN-Mt. Water	262377	259892	2485	
TOTAL				49115	

METER READER INITIALS: W H

RWF  
8905620  
8770640  
134980

PLANT  
7717885  
7653237  
64648

NON METERED WATER

FLUSHING - EST \_\_\_\_\_

LEAKS - EST \_\_\_\_\_

TOTAL GALLONS \_\_\_\_\_

MOUNTAIN WATER  
P.O. BOX 1157  
PIKEVILLE, KY 41502

## Monthly Chlorine Report- Nov. 2016

### Water Dist. – Utility Management Group – JM,PL,JR

11-1-16 = 110 Blair Town = 1.08  
11-2-16 = 160 College Street = 1.18  
11-3-16 = 45 Scott Add. = 1.24  
11-4-16 = 549 Hambley Blvd = 1.35  
11-5-16 = 198 Carter Dr. = 1.12  
11-6-16 = 130 Justice Way = 0.95  
11-7-16 = 238 Quill Ridge = 0.87  
11-8-16 = 120 Melvina Drive = 1.20  
11-9-16 = 128 Keyser Heights = 1.16  
11-10-16 = 208 Williams Hollow = 1.32  
11-11-16 = 200 Fields Way = 1.29  
11-12-16 = 2205 Ratliff Creek = 1.08  
11-13-16 = 317 Popular Street = 1.00  
11-14-16 = 88 Boyd Street = 0.89  
11-15-16 = 289 Peach Orchard = 0.91  
11-16-16 = 306 Island Creek = 0.98  
11-17-16 = 139 Ridge Line = 1.09  
11-18-16 = 123 Second Street = 1.01  
11-19-16 = 119 Mae Ave. = 1.17  
11-20-16 = 3630 Island Creek = 1.02  
11-21-16 = 351 Cedar Creek = 0.88  
11-22-16 = 116 Garred Street = 1.42  
11-23-16 = 457 Town Mt. = Rd. = 1.30  
11-24-16 = 620 Venters Ln. = 1.24  
11-25-16 = 306 Island Creek = 1.38  
11-26-16 = 179 Popular Street = 1.21  
11-27-16 = 112 Mae Ave. = 1.00  
11-28-16 = 244 Scott Ave. = 1.20  
11-29-16 = 560 Ziegler Dr. = 0.80  
11-30-16 = 90 mossey Bottom Ln. = 1.32



✓

SETTLED WATER TURBIDITY

PWSID: 0980350

PWS NAME: PIKEVILLE WATER MONTH Nov 2016

DAY	MID - 4AM	4AM - 8AM	8AM - NOON	NOON - 4PM	4PM - 8PM	8PM - MID
1		.90	.84	.98	.90/.80/.85	
2		.84	.90	.96/.80/.88	1.16	
3		1.0	.96	1.08	1.22/1.02/1.12	
4		1.11	1.02	1.04	.84/.74/.79	
5		.77	.75	.84/.76/.80	.84	
6		.86	.90	.96/.82/.89	.94	
7		.90	.80	1.01	.85/.82/.84	
8		.92	.86	.80	.90/.83/.86	.91
9		.96	.86	.68/.61/.64	.76	.74
10		.92	.86	.89	1.11/.88/.99	
11		.88	.70	.82/.76/.79	1.13	
12		1.10	.96	1.01/.92/.96	.87	.88
13		.89	.76	.82/.79/.84	.74	.77
14		.79	.84	1.02	.99/.81/.90	
15		.65	1.12	1.33/1.0/1.16	1.11	1.26
16		1.05	1.56	1.5/1.44/1.47	1.15	
17		1.19	1.33	1.79	1.21/1.05/1.19	
18		1.51	1.41	.93	1.24/1.10/1.17	
19		1.42	1.33	1.42/1.3/1.36	.75	
20		.70	1.17	1.22/1.18/1.18	1.10	
21		1.04	1.20	1.38	1.29/1.14/1.21	
22		1.16	1.22	1.87	1.44/1.16/1.30	1.26
23		1.20	1.06	1.08/1.01/1.04	1.02	
24		2.44	1.06	1.33/1.17/1.25	.88	
25		1.14	1.05	1.22/1.01/1.12	.98	
26		.92	1.21	1.26/1.13/1.20	1.00	
27		1.06	1.07	1.17/1.02/1.10	.96	
28		.89	1.17	1.22	2.95/.68/2.81	
29		1.80	1.25	2.42/1.81/2.12	1.10	
30		1.39	1.65	2.04/1.82/1.94	2.06	
31						

WATER PLANT MONTHLY OPERATIONS REPORT

MONTH/YEAR: Nov 2016

CHEMICALS ADDED

DAY	RAW WATER TREATED (M.G.D.)	COAGULANT PAC LBS	FLUORIDE LBS	PRE LBS	POST LBS
01	3.019	536	18	33	49.5
02	2.781	494	18	33	49.5
03	3.332	551	18.5	38.5	55
04	3.059	505	17.5	38.5	55
05	2.972	412	18	35.2	48.4
06	2.972	618	18	36.3	50.6
07	3.197	566	19.8	37.4	50.6
08	3.129	597	21.6	36.3	47.3
09	2.842	489	15.8	29.7	40.7
10	2.661	468	16.6	31.9	40.7
11	2.944	515	18.0	33.0	44.0
12	2.933	536	18.0	28.6	38.5
13	3.010	515	18.0	34.1	42.9
14	2.747	494	18	33	37.4
15	3.331	412	18	40.7	38.5
16	2.983	350	18	27.5	41.8
17	3.398	499	20.9	38.5	45.1
18	2.932	484	17.8	33	41.8
19	2.970	566	18	38.5	49.5
20	2.795	412	18	33	40.7
21	3.288	453	22.5	46.2	56.1
22	3.387	556	19.8	42.9	49.5
23	2.886	515	18.0	35.2	44.0
24	2.859	749	18.9	39.6	42.9
25	2.775	618	14.4	38.5	45.1
26	3.413	597	21.6	44.0	52.8
27	2.985	541	18.041.8 <sub>20</sub>	41.8	44
28	2.799	515	18	35.2	42.9
29	3.211	824	18	38.5	46.2
30	2.907	927	18	27.5	41.8
31					



WATER PLANT MONTHLY OPERATIONS REPORT

MONTH/YEAR:

Nov 2016

DAILY READINGS

DAY	WATER TO DIST MGD	SLUDGE HAULED Gals	S B/W RETURN	RAIN FALL (inches)	WATER TEMP DEG C	CLEAR WELL LEVEL FT.
1	2.9254		178000		18.5	8.4
2	2.9179		149000		19	9
3	3.3190		180000		20	5
4	3.0791		131000	.29	19	6
5	3.0570		165000		18	5.8
6	2.9363		48000		17	5
7	3.0548		150000		17	5.4
8	3.0379		131000		17°	8.4
9	3.0174		194000		17°	9.2
10	2.7818		228000		15°	6
11	2.8104		144000		15	5
12	2.8570		127000		14°	7.2
13	2.9162		189000		14°	7.8
14	2.8910		92000		14°	7.6
15	3.1589		161000		12.5	5.2
16	3.1332		187000		13.5	8.6
17	3.2047		59000		13.5	6.4
18	3.0810		169000		14	7.2
19	2.9365		167000		13	5
20	2.7501		197000	.23	12	6
21	3.1086	28100	142000		11	6.6
22	3.3451	15500	115000		11°	10.0
23	2.9751	19200	79000		10°	10.8
24	2.8485		62000		10°	9.0
25	2.7575		271000		12	8
26	3.1149		83000		10°	10.6
27	3.1094		134000		10°	13.2
28	2.9161		249000		10	11
29	3.0809		171000	.39	11	10.5
30	2.9785	20500	190000	1.63	13	8.4
31				65.24 24+3 24		7.6

### FINISHED WATER TURBIDITY

PWSID: 0980350

PWS NAME: PIKEVILLE WATER MONTH Nov 2016

DAY	MID - 4AM	4AM - 8AM	8AM - NOON	NOON - 4PM	4PM - 8PM	8PM - MID
1		.10	.09	.11	.08	
2		.10	.08	.08	.10	
3		.10	.10	.09	.11	
4		.08	.08	.11	.10	
5		.08	.08	.08	.09	
6		.08	.09	.10	.08	
7		.07	.08	.09	.09	
8		.07	.07	.08	.09	.08
9		.07	.06	.06	.07	.07
10		.07	.07	.08	.11	
11		.07	.07	.06	.10	
12		.06	.05	.05	.05	.05
13		.07	.06	.05	.06	.06
14		.06	.08	.10	.09	
15		.07	.06	.06	.07	.07
16		.07	.08	.08	.10	
17		.10	.09	.09	.08	
18		.09	.08	.09	.09	
19		.08	.08	.08	.07	
20		.06	.06	.08	.09	
21		.07	.07	.07	.07	
22		.07	.07	.12	.10	.10
23		.07	.08	.07	.06	
24		.08	.06	.06	.06	
25		.07	.09	.08	.06	
26		.05	.06	.06	.08	
27		.07	.08	.06	.06	
28		.06	.09	.07	.06	
29		.07	.06	.08	.08	
30		.06	.06	.06	.13	
31						

PIKEVILLE WATER TREATMENT PLANT  
AWOP INFORMATION

MONTH/YR: Nov 2016

ANALYTICAL RESULTS (NTU)									
DAY	RAW DAILY MAX	SED BASIN EFF		INDIVIDUAL FILTER EFFLUENT					CFE DAILY MAX
		DAILY MAX		DAILY MAXIMUM					
		#1	#2	#1	#2	#3	#4	#5	
1	4.1	.9	.8	.12	.12	.26	.28	.21	.10
2	6.5	.96	.80	.33	.30	.34	.12	.10	.10
3	10.4	1.22	1.02	.15	.08	.26	.16	.11	.07
4	6.75	.84	.74	.19	.20	.18	.12	.19	.08
5	5.0	.84	.76	.17	.13	.14	.20	.115	.09
6	5.4	.96	.82	.14	.12	.20	.25	.21	.10
7	4.4	.85	.82	.09	.10	.24	.23	.10	.10
8	4.4	.90	.83	.09	.25	.32	.10	.12	.09
9	6.1	.68	.61	.16	.11	.26	.11	.1	.06
10	5.8	1.1	.88	.06	.01	.03	.05	.06	.04
11	4.2	.82	.76	.06	.01	.09	.18	.14	.08
12	3.6	1.01	.92	.08	.01	.06	.13	.09	.06
13	3.3	.88	.79	.08	.01	.06	.11	.11	.06
14	4.9	.99	.81	.08	.01	.05	.08	.08	.05
15	3.0	1.33	1.0	.17	.01	.08	.10	.07	.06
16	2.9	1.5	1.44	.09	.08	.19	.21	.16	.09
17	3.2	1.21	1.05	.07	.08	.13	.19	.08	.11
18	7.0	1.24	1.10	.07	.06	.09	.31	.21	.12
19	6.4	1.42	1.3	.07	.06	.08	.23	.07	.07
20	2.7	1.22	1.15	.07	.06	.06	.11	.14	.07
21	2.6	1.28	1.14	.23	.07	.07	.09	.08	.08
22	2.68	1.44	1.16	.10	.02	.14	.17	.12	.09
23	18.0	1.08	1.01	.08	.08	.19	.15	.13	.07
24	32.0	1.33	1.17	.07	.07	.08	.18	.07	.06
25	3.4	1.22	1.01	.08	.06	.06	.13	.16	.07
26	3.6	1.26	1.13	.22	.07	.07	.09	.08	.07
27	4.2	1.17	1.02	.10	.13	.09	.08	.07	.06
28	10.2	2.95	2.68	.08	.08	.12	.09	.07	.05
29	20.8	2.42	1.81	.08	.07	.10	.18	.07	.06
30	27.5	2.06	1.82	.10	.07	.07	.11	.17	.08
31									

fin Raw  
 3159 4188  
 3150 4161  
 3245 4170  
 3175 4173  
 3162 4191  
 3184 4185  
 3175 4185  
 3199 4176  
 3150 4185  
 3175 4185  
 3223 4182  
 3184 4191  
 3184 4191  
 3172 4185  
 3211 4185  
 3275 4182  
 3196 4182  
 3248 4185  
 3205 4234  
 3165 4209  
 3181 4200  
 3199 4197  
 3242 4194  
 3205 4185  
 3175 4179  
 3230 4197  
 3162 4203  
 3217 4188  
 3226 4179  
 3239 4231

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 11/1/16 RAW TEMP 18.5 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	15				
FLUORIDE	73/40				
PRECL2	160				
POSTCL2	220	↓ 245 ↓ 200			

CLEAR WELL 8.4? Town Mtn. 25.8 On    Off     
 RFT/SHT 28 | 26.8

METERS/WEIGHTS/LEVELS	
FINISHED	47707110
RAW	34255683
SLUDGE	272014
S B/W RET	222767
PAX	65 / 180
FLUORIDE	500
PRE CL2	80 / 120
POST CL2	30 / 150

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	605T		22	1245	445	1830							12.5
#2													
#3													
#4		1232											
#5	↓			↓	↓	1735							

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
4	234	9	8080	←	
5	737	11	8215	←	

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 11/2/16 RAW TEMP 19 RAINFALL \_\_\_\_\_

OPERATOR ED OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	15				
FLUORIDE	73/40				
PRECL2	140				
POSTCL2	200				

CLEAR WELL 9 Town Mtn. 24.8 On    Off     
 RFT/SHT 27.6 | 26.6

METERS/WEIGHTS/LEVELS			
FINISHED	47736364		PAX 128
RAW	34258702		FLUORIDE 400
SLUDGE	272014		PRE CL2 90
S B/W RET	222945		POST CL2 105

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	400	230	500	745									11.25
#2													
#3													
#4													
#5	9	10	↓	↓									

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 11/3/14 RAW TEMP 20 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR [Signature]

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	15				
FLUORIDE	73/410				
PRECL2	160	↑ 180	↓ 145		
POSTCL2	200	↓ 220			

CLEAR WELL 5 Town Mtn. 25.4 On \_\_\_ Off \_\_\_  
 RFT/SHT 26.4 | 23.2

METERS/WEIGHTS/LEVELS			
FINISHED	47765543		PAX 80/58/120
RAW	34261483		FLUORIDE 300
SLUDGE	272014		PRE CL2 60/45/85
S B/W RET	223094		POST CL2 60/40/100

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	625	444	500	170	740	1830					13.5
#2	↓				↓						↓
#3	↓				↓						↓
#4	↓				↓						↓
#5	↓				↓						↓

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
1	447	9	8060		

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 11-4-16 RAW TEMP 19 RAINFALL .29

OPERATOR Jr OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	15				
FLUORIDE	72/40				
PRECL2	165				
POSTCL2	220	↓ 205			

CLEAR WELL 6 Town Mtn. 24.6 On Off  
 RFT/SHT 24.4 | 23.2

METERS/WEIGHTS/LEVELS	
FINISHED	47798733
RAW	34264845
SLUDGE	272014
S B/W RET	223274
PAX	89
FLUORIDE	197
PRE CL2	65
POST CL2	70

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600		1530		700	800							12.5
#2		1430	450										
#3													
#4													
#5	↓				↓	↓							↓

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
2	433	10	8200	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 11/5/16 RAW TEMP 18 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	15				
FLUORIDE	73/40				
PRECL2	165				
POSTCL2	205				

CLEAR WELL 5.8 Town Mtn. 26 On    Off     
 RFT/SHT 27.8 | 27.4

METERS/WEIGHTS/LEVELS			
FINISHED	47829524		PAX 40   160
RAW	34267904		FLUORIDE 100   400
SLUDGE	272014		PRE CL2 30   130
S B/W RET	223405		POST CL2 20   130

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	500	130	435	800									12
#2													
#3		1255											
#4		130											
#5													

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
3	100	10	8222	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 11/6/16 RAW TEMP 17 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	15				
FLUORIDE	73/40				
PRECL2	165				
POSTCL2	205				

CLEAR WELL 5 Town Mtn. 26.8 On      Off       
 RFT/SHT 28 | 27.2

6 METERS/WEIGHTS/LEVELS			
FINISHED	478	0094	PAX 120
RAW	3427	0876	FLUORIDE 300
SLUDGE	2720	14	PRE CL2 98
S B/W RET	2235	70	POST CL2 86

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	500	115	415	180									12
#2													
#3													
#4													
#5													

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 11/7/16 RAW TEMP 17 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR [Signature]

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	15				
FLUORIDE	73/40				
PRECL2	165	↓ 155			
POSTCL2	205	↓ 190			

CLEAR WELL 5.4 <sup>(230)</sup> Town Mtn. 27 On    Off     
 RFT/SHT 27.6 | 25

METERS/WEIGHTS/LEVELS			
FINISHED	47889457		PAX 60/35/180
RAW	34273848		FLUORIDE 200
SLUDGE	272014		PRE CL2 65/50/100
S B/W RET	223618		POST CL2 40/21/150

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	1600		1400		620	1900							13
#2													
#3													
#4	1400		↓		↓	↓							↓
#5	↓		↓		↓	↓							↓

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
4	403	10	8150	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 11/8/16 RAW TEMP 17° RAINFALL \_\_\_\_\_

OPERATOR DM OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	15				
FLUORIDE	73/40				
PRECL2	155				
POSTCL2	190				

CLEAR WELL 8.4 Town Mtn. 26.4 On  Off   
 RFT/SHT 28.6 | 27.4

### METERS/WEIGHTS/LEVELS

FINISHED	47920005	PAX	150	220
RAW	34277045	FLUORIDE	90	800
SLUDGE	272014	PRE CL2	81	175
S B/W RET	223768	POST CL2	123	175

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	5:05		11:00		25:14	35	6:55	9:55			12.5
#2											
#3											
#4											
#5	↓	12:40	→	→	↓	↓	↓	↓			

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#5	12:45	10	8175	→	→

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 11/9/14 RAW TEMP 17° RAINFALL \_\_\_\_\_

OPERATOR Dm OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	15				
FLUORIDE	73/40				
PRECL2	155				
POSTCL2	190				

CLEAR WELL 9.2 Town Mtn. 25.6 On  Off   
 RFT/SHT 29.0 | 27.8

### METERS/WEIGHTS/LEVELS

FINISHED	47950384		PAX	162
RAW	34280174		FLUORIDE	680
SLUDGE	272014		PRE CL2	142
S B/W RET	223899		POST CL2	132

FILTERS	ON <sub>5:05</sub>	OFF <sub>10:50</sub>	ON <sub>1:00</sub>	OFF <sub>3:40</sub>	ON <sub>5:05</sub>	OFF <sub>6:05</sub>	ON <sub>7:00</sub>	OFF <sub>8:35</sub>	ON	OFF	ON	OFF	HOURS RUN
#1	5:05	10:50	1:00	3:40	5:05	6:05	7:00	8:35					11.5
#2	↓	11:15	↓	↓	↓	↓	↓	↓					
#3	↓	↓	↓	↓	↓	↓	↓	↓					
#4	↓	↓	↓	↓	↓	↓	↓	↓					
#5	↓	↓	↓	↓	↓	↓	↓	↓					

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#1	10:56	12	8225	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 11/10/16 RAW TEMP 15° RAINFALL \_\_\_\_\_

OPERATOR Rv for Dm OPERATOR Jpr

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	15				
FLUORIDE	13/40				
PRECL2	155				
POSTCL2	180				

CLEAR WELL 6' Town Mtn. 25.4 On  Off   
 RFT/SHT 29.4 | 28.0

METERS/WEIGHTS/LEVELS			
FINISHED	479 805 58		PAX 115
RAW	342 83 01 6		FLUORIDE 592
SLUDGE	272 614		PRE CL2 115
S B/W RET	224 09.3		POST CL2 95

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	640		235		405	600	645	1755					11
#2		1220	→										
#3													
#4													
#5	↓		↓		↓	↓	↓	↓					↓

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
2	223'	8250	9	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 11-11-16 RAW TEMP 15 RAINFALL \_\_\_\_\_

OPERATOR *[Signature]* OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	15				
FLUORIDE	73/40				
PRECL2	155	↓150			
POSTCL2	↓180	↓170			

CLEAR WELL RFT/SHT 29.8 <sup>1020</sup> 5.0 Town Mtn. 27.2 On  Off

METERS/WEIGHTS/LEVELS			
FINISHED	4800	8376	PAX 70/150
RAW	3428	5677	FLUORIDE 500
SLUDGE	272	014	PRE CL2 86
S B/W RET	2243	21	POST CL2 58/150

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600		1315	↓	430	1625	↓	700	1755	↓	12.25
#2											
#3		1300	→								
#4											
#5											

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
3	304	10	8200		

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 11/2/16 RAW TEMP 14° RAINFALL \_\_\_\_\_

OPERATOR Am OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	15				
FLUORIDE	73/40				
PRECL2	150				
POSTCL2	170				

CLEAR WELL 7.2 Town Mtn. 25.2 On \_\_\_ Off   
 RFT/SHT 29.2 | 28.8

METERS/WEIGHTS/LEVELS					
FINISHED	48036480			PAX	100   220
RAW	34288621			FLUORIDE	400   800
SLUDGE	232014			PRE CL2	56   175
S B/W RET	224465			POST CL2	110   175

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	5:00	12:00	2:00	5:00	6:45	8:45					12.0
#2											
#3			2:35	↓							
#4	↓		↓	14:20	↓						
#5	↓	↓	↓	5:00	↓	↓					

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#4	4:23	11	8115	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 11/13/16 RAW TEMP 14° RAINFALL \_\_\_\_\_

OPERATOR Dn OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	15				
FLUORIDE	73/40				
PRECL2	150				
POSTCL2	170				

CLEAR WELL 7.8 Town Mtn. 24.8 On  Off   
 RFT/SHT 29.6 | 29.0

METERS/WEIGHTS/LEVELS			
FINISHED	48065050		PAX 168
RAW	34281554		FLUORIDE 700
SLUDGE	272014		PRE CL2 149
S B/W RET	224592		POST CL2 140

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	5:05	11:10	1:00	8:15	6:00	8:05	8:45	9:30			12.00
#2	↓	↓	↓	↓	↓	↓	↓	↓			
#3	↓	↓	↓	↓	↓	↓	↓	↓			
#4	↓	↓	↓	↓	↓	↓	↓	↓			
#5	↓	↓	↓	12:55	↓	↓	↓	↓			

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#5	2:59	11	8197	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 11/14/16 RAW TEMP 14° RAINFALL \_\_\_\_\_

OPERATOR Dm OPERATOR [Signature]

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	15				
FLUORIDE	73/40				
PRECL2	150				
POSTCL2	170				

CLEAR WELL 7.6 Town Mtn. 26.0 On  Off   
 RFT/SHT 29.0 | 27.2

### METERS/WEIGHTS/LEVELS

FINISHED	4809 4212	PAX	118
RAW	3429 4564	FLUORIDE	600
SLUDGE	272014	PRE CL2	118
S B/W RET	224781	POST CL2	101

FILTERS	ON	OFF	HOURS RUN										
#1	5	5	1	0	2								11.25
#2	↓	↓	↓	↓									
#3	↓	↓	↓	↓									
#4	↓	↓	↓	↓									
#5	↓	↓	↓	↓									

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 11/15/16 RAW TEMP 12.5 RAINFALL \_\_\_\_\_

OPERATOR JP OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	15 <sup>210</sup> ↓ 10				
FLUORIDE	73/40				
PRECL2	150				
POSTCL2	170				

CLEAR WELL 5.2 Town Mtn. 24 On Off  
 RFT/SHT 28 | 27.2

METERS/WEIGHTS/LEVELS			
FINISHED	48123122		PAX 70   160
RAW	34297311		FLUORIDE 500   —
SLUDGE	272014		PRE CL2 88   130
S B/W RET	224873		POST CL2 87   130

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600	402	700	1015							13 <sup>25</sup>
#2	↓	1425	↓	↓							
#3	↓	↓	↓	↓							
#4	↓	↓	↓	↓							
#5	↓	↓	↓	↓							

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
1	405	12	8210	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 11/16/16 RAW TEMP 13.5 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	10				
FLUORIDE	73/40				
PRECL2	150				
POSTCL2	120				

CLEAR WELL RFT/SHT 28 | 26 Town Mtn. 26.2 On Off

METERS/WEIGHTS/LEVELS			
FINISHED	4815	4711	PAX 120
RAW	3430	0642	FLUORIDE 400
SLUDGE	272	014	PRE CL2 93
S B/W RET	225	034	POST CL2 95

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600T		1230		530	905					12
#2	↓	11215	↓	1245	↓						
#3	↓		↓		↓						
#4	↓		↓		↓						
#5	↓		↓		↓						

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
2	1226	12	9980	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 11/17/16 RAW TEMP 13.5 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR [Signature]

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	10 9/12				
FLUORIDE	73/40				
PRECL2	150				
POSTCL2	170				

CLEAR WELL <sup>1230</sup> 6.4 Town Mtn. 27 On \_\_\_ Off \_\_\_  
 RFT/SHT 25.2 | 23.4

METERS/WEIGHTS/LEVELS			
FINISHED	48186043		PAX 86/89/120
RAW	34303625		FLUORIDE 300
SLUDGE	272014		PRE CL2 68/53/80
S B/W RET	225221		POST CL2 57/38/80

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600		1755								14
#2											↓
#3	1455	530									
#4											
#5											

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
3	457	21	8150		

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 11-18-16 RAW TEMP 14 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	12				
FLUORIDE	73/40				
PRECL2	150				
POSTCL2	170				

CLEAR WELL 7.2 Town Mtn. 27 On  Off   
 RFT/SHT 27.2 | 25

METERS/WEIGHTS/LEVELS			
FINISHED	48218090		PAX 89
RAW	34307023		FLUORIDE 184
SLUDGE	272014		PRE CL2 60
S B/W RET	225280		POST CL2 58

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	530	135	306	1420	535	1813					11.5
#2											
#3											
#4											
#5											

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 11/19/16 RAW TEMP 13 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	12 <sup>1100</sup> ↑ 18				
FLUORIDE	73/40				
PRECL2	150 <sup>1100</sup> 180				
POSTCL2	170 <sup>970</sup> ↑ 190				

CLEAR WELL RFT/SHT 27.4 | 23.8 Town Mtn. 27 On Off

METERS/WEIGHTS/LEVELS						
FINISHED	48 24 8900			PAX	42	180
RAW	34309955			FLUORIDE	85	500
SLUDGE	272014			PRE CL2	30	130
S B/W RET	225449			POST CL2	20	155

FILTERS	ON	OFF	HOURS RUN										
#1	6	10	5	15	7	15	9	20					13
#2													
#3													
#4		1	4	25									
#5	↓	1	5	15	↑								

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 11/20/16 RAW TEMP 12 RAINFALL .23

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	18 <sup>235</sup> ↓ 12				
FLUORIDE	73/40				
PRECL2	180 <sup>730</sup> ↓ 125				
POSTCL2	190				

CLEAR WELL 6 Town Mtn. 25.8 On Off  
 RFT/SHT 28.4 | 27.2

METERS/WEIGHTS/LEVELS			
FINISHED	48278265		PAX 125
RAW	34312925		FLUORIDE 400
SLUDGE	272054		PRE CL2 95
S B/W RET	225616		POST CL2 110

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600		1300		605		830						
#2													
#3													
#4													
#5	↓		1240		100		↓		↓		↓		

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
5	1243	13	7,970R		

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 11/21/16 RAW TEMP 11 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR [Signature]

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	12				
FLUORIDE	73/40				
PRECL2	175				
POSTCL2	190				

CLEAR WELL 6.6 Town Mtn. 26.8 On \_\_\_ Off \_\_\_  
 RFT/SHT 28.2 | 26.4

METERS/WEIGHTS/LEVELS			
FINISHED	48305766		PAX 85/67/210
RAW	34315720		FLUORIDE 300/245/700
SLUDGE	222014		PRE CL2 65/44/130
S B/W RET	2258/3		POST CL2 73/50/170

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	540	1255	125	1400	630	1100							13.75
#2													
#3													
#4													
#5													

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
1	1258	13	7950		

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 11/22/16 RAW TEMP 11° RAINFALL \_\_\_\_\_

OPERATOR DM OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	12				
FLUORIDE	73/40				
PRECL2	175				
POSTCL2	190				

CLEAR WELL 10.0 Town Mtn. 25.4 On Off  
 RFT/SHT 28.2 | 27.2

METERS/WEIGHTS/LEVELS			
FINISHED	48336852		PAX 184
RAW	34319008		FLUORIDE 630
SLUDGE	272295		PRE CL2 109
S B/W RET	225955		POST CL2 142

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	6:00		9:13	45	6:00	18:50	9:40	11:00			12.5
#2		12:34		12:50							
#3											
#4											
#5											

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
2	1237	9	7990		

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 11/23/16 RAW TEMP 10° RAINFALL \_\_\_\_\_

OPERATOR DM OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	12				
FLUORIDE	73/40				
PRECL2	175				
POSTCL2	190				

CLEAR WELL 10.8 Town Mtn. 27.0 On  Off

RFT/SHT 29.8 | 29.0

METERS/WEIGHTS/LEVELS			
FINISHED	48370303		PAX 130   200
RAW	34322385		FLUORIDE 520
SLUDGE	272450		PRE CL2 70   150
S B/W RET	226070		POST CL2 97   150

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	6:00	1:30	2:30	3:20	4:00	5:00	6:10	8:40			12.0
#2	↓	↓	↓	↓	↓	↓	↓	↓			
#3	↓	12:25	↓	↓	↓	↓	↓	↓			
#4	↓	1:30	↓	↓	↓	↓	↓	↓			
#5	↓	↓	↓	↓	↓	↓	↓	↓			

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#3	12:28	10	8170	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 11/24/16 RAW TEMP 10° RAINFALL \_\_\_\_\_

OPERATOR DM OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	175				
POSTCL2	190				

CLEAR WELL 9.0 Town Mtn. 25.6 On  Off   
 RFT/SHT 28.0 | 25.6

METERS/WEIGHTS/LEVELS			
FINISHED	48400054		PAX 150
RAW	34325281		FLUORIDE 420
SLUDGE	272642		PRE CL2 118
S B/W RET	226199		POST CL2 110

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	6:00	13:30	5:00	16:00	7:00	8:00					11.5
#2	↓	↓	↓	↓	↓	↓					
#3	↓	↓	↓	↓	↓	↓					
#4	↓	12:57	↓	↓	↓	↓					
#5	↓	13:30	↓	↓	↓	↓					

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#4	3:00	10	8207	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 11-25-16 RAW TEMP 12 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	125				
POSTCL2	140				

CLEAR WELL 8 Town Mtn. 25.4 On  Off

RFT/SHT 28 125.8

METERS/WEIGHTS/LEVELS			
FINISHED	48428539		PAX 78/150
RAW	34328120		FLUORIDE 315/500
SLUDGE	272642		PRE CL2 82/125
S B/W RET	226211		POST CL2 71/150

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	555		1300		430	1530	630	1800					16.5
#2													
#3													
#4													
#5	1145	215											

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
5	148	10	8100	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 11/26/16 RAW TEMP 10° RAINFALL \_\_\_\_\_

OPERATOR DM OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	15				
FLUORIDE	73/40				
PRECL2	175				
POSTCL2	190				

CLEAR WELL RFT/SHT 28.0 | 28.0 Town Mtn. 24.4 On  Off

METERS/WEIGHTS/LEVELS			
FINISHED	48456114		PAX 90   190
RAW	34330895		FLUORIDE 420   750
SLUDGE	222642		PRE CL2 90   170
S B/W RET	226482		POST CL2 109   170

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	5:00	1:13	4:00	7:00	8:00	10:00					
#2	↓	1:40	↓	↓	↓	↓					13.75
#3	↓	↓	↓	↓	↓	↓					
#4	↓	↓	↓	↓	↓	↓					
#5	↓	↓	↓	↓	↓	↓					

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#1	1:16	20	8259	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 11/27/16 RAW TEMP 10° RAINFALL \_\_\_\_\_

OPERATOR DM OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	15				
FLUORIDE	73/40				
PRECL2	175				
POSTCL2	190				

CLEAR WELL 13.2 Town Mtn. 26.2 On  Off   
 RFT/SHT 28.9 | 28.0

METERS/WEIGHTS/LEVELS			
FINISHED	48487263		PAX 132
RAW	34334308		FLUORIDE 630
SLUDGE	272642		PRE CL2 130
S B/W RET	226565		POST CL2 122

FILTERS	5.5		2.5		9.0		3.25		ON	OFF	ON	OFF	ON	OFF	HOURS RUN
	ON	OFF	ON	OFF	ON	OFF	ON	OFF							
#1	5:05	10:30	12:45	4:15	5:45	8:55									12.25
#2	↓	↓	↓	↓	↓	↓									
#3	↓	↓	↓	↓	↓	↓									
#4	↓	↓	↓	↓	↓	↓									
#5	↓	↓	↓	↓	↓	↓									

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#2	12:47	12	8179	—	—

COMMENTS:



# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 11/29/16 RAW TEMP 11 RAINFALL .39

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20 <sup>715</sup> <sub>925</sub>	<sup>195</sup> <sub>730</sub>			
FLUORIDE	23/40				
PRECL2	175				
POSTCL2	190				

CLEAR WELL 10.5? Town Mtn. 26.6 On    Off     
 RFT/SHT 27 | 242

METERS/WEIGHTS/LEVELS			
FINISHED	48547518		PAX 30/180
RAW	34340092		FLUORIDE 430
SLUDGE	272642		PRE CL2 60/120
S B/W RET	226948		POST CL2 43/140

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600			1345	600		910				13
#2											
#3											
#4		225	245								
#5	↓			↓	↓	↓					

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
4	230	11	8030	—	—

COMMENTS: 1300 gals of bleach  
 400 gals Del Pac 20/20  
 small tank

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 11/30/16 RAW TEMP 13 RAINFALL 1.63

OPERATOR JP OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	30 <sup>250</sup> 740				
FLUORIDE	73/40				
PRECL2	180 <sup>250</sup> <sup>250</sup> 790				
POSTCL2	190				

CLEAR WELL 8.4 Town Mtn. 25.6 On    Off     
 RFT/SHT 28.8 | 28

METERS/WEIGHTS/LEVELS			
FINISHED	48578327		PAX 100/160
RAW	34343303		FLUORIDE 330
SLUDGE	272642		PRE CL2 85
S B/W RET	227119		POST CL2 98

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	505	1130	230	1605	710	1900							1125
#2	↓	↓	↓	↓	↓	↓							
#3	↓	↓	↓	↓	↓	↓							
#4	↓	↓	↓	↓	↓	↓							
#5	↓	1115	↓	↓	↓	↓							

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
5	1118	12	8170		

COMMENTS:



FIELD CHAIN OF CUSTODY RECORD

FIELD MONITORING PROGRAM

SAMPLERS (SIGNATURES)

*Ralph [Signature]*

FACILITY	SAMPLE SOURCE	COMPOSITING PERIOD				SAMPLE COLLECTION			FLOW	CONTAINER			Volatile Organics	Pesticides/PCB's	Trace Metals	Cyanide	Phenols	Oil and Grease	Solids	BOD	Ammonia Nitrogen	Phosphorous	Coliform	pH	Preservation	COMMENTS
		DATE	TIME	DATE	TIME	DATE	TIME	G/C	MGD	VOLUME	G/P															
PIKEVILLE WTP	P01					11/9/16	9:30	G			P															Fluoride .72
"	1040					"	9:50	"			"															
	111					"	10:42	"			"															
	030					"	10:51	"			"															
	009					"	10:59	"			"															
	110					"	11:06	"			"															

RELINQUISHED BY	DATE	TIME	RECEIVED BY	RELINQUISHED BY	DATE	TIME	RECEIVED BY
<i>[Signature]</i>	11/9/16		<i>[Signature]</i>				
RELINQUISHED BY	DATE	TIME	RECEIVED BY	RELINQUISHED BY	DATE	TIME	RECEIVED BY
	11/9/16	11:24	<i>[Signature]</i>				
RELINQUISHED BY	DATE	TIME	RECEIVED BY	RELINQUISHED BY	DATE	TIME	RECEIVED BY

REMARKS: 13' - transported w/ Ice

002167



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Louisville, KY      Paducah, KY  
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**SAMPLE SUMMARY**

Lab ID	Client Sample ID/Alias	Matrix	Date Collected	Date Received	Sampled By
6112072-01	BACT/	Drinking Water	11/09/2016 09:50	11/09/2016 11:24	Ralph Varney
6112072-02	BACT/	Drinking Water	11/09/2016 10:42	11/09/2016 11:24	Ralph Varney
6112072-03	BACT/	Drinking Water	11/09/2016 10:51	11/09/2016 11:24	Ralph Varney
6112072-04	BACT/	Drinking Water	11/09/2016 10:58	11/09/2016 11:24	Ralph Varney
6112072-05	BACT/	Drinking Water	11/09/2016 11:06	11/09/2016 11:24	Ralph Varney

LabNumber	Measurement	Value
6112072-01	Field Residual Chlorine	1.39
6112072-02	Field Residual Chlorine	0.78
6112072-03	Field Residual Chlorine	1.19
6112072-04	Field Residual Chlorine	1.41
6112072-05	Field Residual Chlorine	1.28



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**ANALYTICAL RESULTS**

Lab Sample ID: **6112072-01**  
Description: **BACT**

Sample Collection Date Time: 11/09/2016 09:50  
Sample Received Date Time: 11/09/2016 11:24

Matrix: Drinking Water

Discharge/Site No: 040

Regulatory ID: KY0980350

Microbiological Analyses Pikeville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Colilert 24	11/09/2016 16:00	11/10/2016 17:05	ADH

**ANALYTICAL RESULTS**

Lab Sample ID: **6112072-02**  
Description: **BACT**

Sample Collection Date Time: 11/09/2016 10:42  
Sample Received Date Time: 11/09/2016 11:24

Matrix: Drinking Water

Discharge/Site No: 111

Regulatory ID: KY0980350

Microbiological Analyses Pikeville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Colilert 24	11/09/2016 16:00	11/10/2016 17:05	ADH

**ANALYTICAL RESULTS**

Lab Sample ID: **6112072-03**  
Description: **BACT**

Sample Collection Date Time: 11/09/2016 10:51  
Sample Received Date Time: 11/09/2016 11:24

Matrix: Drinking Water

Discharge/Site No: 030

Regulatory ID: KY0980350

Microbiological Analyses Pikeville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Colilert 24	11/09/2016 16:00	11/10/2016 17:05	ADH



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**ANALYTICAL RESULTS**

Lab Sample ID: **6112072-04**  
Description: **BACT**

Sample Collection Date Time: 11/09/2016 10:58  
Sample Received Date Time: 11/09/2016 11:24

Matrix: Drinking Water

Discharge/Site No: 009

Regulatory ID: KY0980350

**Microbiological Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Collert 24	11/09/2016 16:00	11/10/2016 17:05	ADH

**ANALYTICAL RESULTS**

Lab Sample ID: **6112072-05**  
Description: **BACT**

Sample Collection Date Time: 11/09/2016 11:06  
Sample Received Date Time: 11/09/2016 11:24

Matrix: Drinking Water

Discharge/Site No: 110

Regulatory ID: KY0980350

**Microbiological Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Collert 24	11/09/2016 16:00	11/10/2016 17:05	ADH

**Notes for work order 6112072**

- Samples collected by MMLI personnel are done so in accordance with procedures set forth in MMLI field services SOPs.
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identification based on the presumptive evidence of the mass spectra.

**Standard Qualifiers/Acronyms**

- MDL Method Detection Limit
- MRL Minimum Reporting Limit
- ND Not Detected
- LCS Laboratory Control Sample
- MS Matrix Spike
- MSD Matrix Spike Duplicate
- DUP Sample Duplicate
- % Rec Percent Recovery
- RPD Relative Percent Difference
- > Greater than
- < Less than

**SAMPLE CATEGORY = TC  
DISTRIBUTION SAMPLING**

**KENTUCKY DIVISION OF WATER / DRINKING WATER RESULTS  
BACTERIOLOGICAL ANALYSIS REPORT FORM**

General Information - This Section To Be Completed By Collector Rev. 03/01/2012

PMS ID:  K  Y  0  9  8  0  3  5  0 Compliance Period (MM/YYYY)  1  1  2  0  0  6  
 PMS Name: PIKEVILLE Collection Date (MM/DD/YYYY)  1  1  0  9  2  0  1  5  
 PMS Address: 30615 POND CREEK RD Collector Name: Ray L. B...  
 PMS Contact: ROBERT VANN DY PMS Phone: 606-437-0540  
 PMS Address: 30615 POND CREEK RD Collector Name: Ray L. B...

General Information - This Section To Be Completed By Lab  
 Lab ID:  C  C  0  5  0 Lab Receipt Date (MM/DD/YYYY)  1  1  0  9  2  0  1  5  
 Lab Analyst: OE West 11/10/10 Analysis Date (MM/DD/YYYY)  1  1  0  9  2  0  1  5  
 Lab Supervisor: OE West 11/10/10

Sample Type (RT, RP, TG, CO, or SP) (See Key)	Special Sample Reason (A, B, C, D, or E) (See Key) Replacement Sample? (Y or Blank)	Location Code (See Instructions)	Repeat Location Code (DN, UP, or OR) (See Key)	Sample Time (24 hr)	Free Chlorine (Required for all disinfectants except Chloramine)	Total Chlorine (Required when disinfectant is Chloramine)	Lab Sample Number	Analysis Time (24 hr)	Result (Total Coliform Count - or - TNTC - or - CNFG - or - TONG) (See Key)	Total Coliform (P/A)	E Coli (P/A)	Lab Sample Number of Original Sample (Required for RP, TG, CO, and/or Replacement Samples) (See Instructions)
RT		040		0950	1.59		1012072					
RT		111		1042	0.78		01		1006	A	A	
RT		030		1051	1.19		02		1000	A	A	
RT		009		1058	1.81		03		1600	A	A	
RT		110		1106	1.29		04		1606	A	A	
RT							05		1606	A	A	

The operator of this form certifies that collection and analysis of the water sample analyzed and the resulting data hereby submitted, were completed in accordance with the provisions of 401 KAR Chapter 6, specifically including but not limited to 401 KAR 6:200, Section 1 and 401 KAR 6:040, and that the data submitted on this form is a true and accurate report of the results of collection and analysis performed pursuant to the above-referenced regulations. Violators of 401 KAR Chapter 6 are subject to severe penalties prescribed in KRS 22A.09-010, up to \$25,000 fine per day per violation and in some cases a violation may subject the violator to prison.

**BACTERIOLOGICAL ANALYSIS REPORT FORM KEY**

RT = Routine (For Compliance)	RP = Repeat (For Compliance)	SP = Special (NCE for Compliance)
TG = Triggered (For Compliance)	CO = Confirmation (For Compliance)	
A = Suspected Contaminant	B = New Plant, Modification, or Line Extension	C = Treatment Modification
D = Study/Investigation	E = Line Break, Emergency Repair	
Request Location Code: (Only if Sample Type = RP)	DN = Downstream	UP = Upstream
Result:	TNTC = Too Numerous to Count	CNFG = Confirmed Growth
		TONG = Turbid Culture-No Gas



**SAMPLE SUMMARY**

Lab ID	Client Sample ID/Alias	Matrix	Date Collected	Date Received	Sampled By
6112073-01	Fluoride/	Drinking Water	11/09/2016 09:30	11/09/2016 11:24	Ralph Varney
<u>LabNumber</u>	<u>Measurement</u>	<u>Value</u>			
6112073-01	Field Fluoride	0.72			

**ANALYTICAL RESULTS**

Lab Sample ID: **6112073-01**  
Description: **Fluoride**

Sample Collection Date Time: 11/09/2016 09:30  
Sample Received Date Time: 11/09/2016 11:24

Matrix: Drinking Water

Discharge/Site No: P01

Regulatory ID: KY0980350

**Conventional Chemistry Analyses Madisonville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Fluoride	0.73		mg/L	0.20		4500-F C-1997	11/16/2016 10:09	11/16/2016 10:09	JTL

**Notes for work order 6112073**

- Samples collected by MMLI personnel are done so in accordance with procedures set forth in MMLI field services SOPs.
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identification based on the presumptive evidence of the mass spectra.

U Target analyte was analyzed for, but was below detection limit (the value associated with the qualifier is the laboratory method detection limit in our LIMS system).

**Standard Qualifiers/Acronyms**

- MDL Method Detection Limit
- MRL Minimum Reporting Limit
- ND Not Detected
- LCS Laboratory Control Sample
- MS Matrix Spike
- MSD Matrix Spike Duplicate
- DUP Sample Duplicate
- % Rec Percent Recovery
- RPD Relative Percent Difference
- > Greater than
- < Less than

**Certified Analyses included in this Report**

Analyte	Certifications
<b>4500-F C-1997 in Water</b>	
Fluoride	KY Drinking Water Mdv (00030) VA NELAC Mdv (460210) IN Drinking Water Mdv (C-KY-02) IL Drinking Water Mdv (200079)

FIELD CHAIN OF CUSTODY RECORD

FIELD MONITORING PROGRAM

SAMPLERS (SIGNATURES)

*[Signature]*

FACILITY	SAMPLE SOURCE	COMPOSITING PERIOD				SAMPLE COLLECTION			FLOW			CONTAINER			Volatile Organics	Pesticides/PCB's	Trace Metals	Cyanide	Phenols	Oil and Grease	Solids	BOD	Ammonia Nitrogen	Phosphorous	Coliform	pH	Preservation	COMMENTS
		DATE	TIME	DATE	TIME	DATE	TIME	G/C	MGD	VOLUME	G/P																	
PINEBURG WTP	RAW			11/01/06	907	G					P																	ALK
	"			"	938	"					G																	TOC
	CFC			"	942	"					"																	TOC
	115			"	1013	"					P																	FI .66
	118			"	1025	"					"																	
	120			"	1032	"					"																	
	028			"	1149	"					"																	
	033			"	1159	"					"																	
	GRW CYCLONE			"	1212	G					"																	TSS
	GRW PUMP			"	1214	"					"																	TSS

RELINQUISHED BY	DATE	TIME	RECEIVED BY	RELINQUISHED BY	DATE	TIME	RECEIVED BY
<i>[Signature]</i>	11/01/06	12:21	<i>[Signature]</i>				
RELINQUISHED BY	DATE	TIME	RECEIVED BY	RELINQUISHED BY	DATE	TIME	RECEIVED BY
RELINQUISHED BY	DATE	TIME	RECEIVED BY	RELINQUISHED BY	DATE	TIME	RECEIVED BY

REMARKS G.C 1226 12° 8.04 G.P. 1210 12° 8.00  
 Time Temp pH Time Temp pH 19° PH ICE

002168



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**SAMPLE SUMMARY**

Lab ID	Client Sample ID/Alias	Matrix	Date Collected	Date Received	Sampled By
6112792-01	BACT/	Drinking Water	11/17/2016 10:13	11/17/2016 12:21	Ralph Varney
6112792-02	BACT/	Drinking Water	11/17/2016 10:25	11/17/2016 12:21	Ralph Varney
6112792-03	BACT/	Drinking Water	11/17/2016 10:32	11/17/2016 12:21	Ralph Varney
6112792-04	BACT/	Drinking Water	11/17/2016 11:49	11/17/2016 12:21	Ralph Varney
6112792-05	BACT/	Drinking Water	11/17/2016 11:59	11/17/2016 12:21	Ralph Varney

<u>LabNumber</u>	<u>Measurement</u>	<u>Value</u>
6112792-01	Field Residual Chlorine	0.53
6112792-02	Field Residual Chlorine	1.19
6112792-03	Field Residual Chlorine	0.94
6112792-04	Field Residual Chlorine	1.10
6112792-05	Field Residual Chlorine	0.85



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**ANALYTICAL RESULTS**

Lab Sample ID: **6112792-01**  
Description: **BACT**

Sample Collection Date Time: 11/17/2016 10:13  
Sample Received Date Time: 11/17/2016 12:21

Matrix: Drinking Water

Discharge/Site No: 115

Regulatory ID: KY0980350

Microbiological Analyses Pikeville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Colilert 24	11/17/2016 16:39	11/18/2016 17:05	ADH

**ANALYTICAL RESULTS**

Lab Sample ID: **6112792-02**  
Description: **BACT**

Sample Collection Date Time: 11/17/2016 10:25  
Sample Received Date Time: 11/17/2016 12:21

Matrix: Drinking Water

Discharge/Site No: 118

Regulatory ID: KY0980350

Microbiological Analyses Pikeville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Colilert 24	11/17/2016 16:39	11/18/2016 17:05	ADH

**ANALYTICAL RESULTS**

Lab Sample ID: **6112792-03**  
Description: **BACT**

Sample Collection Date Time: 11/17/2016 10:32  
Sample Received Date Time: 11/17/2016 12:21

Matrix: Drinking Water

Discharge/Site No: 120

Regulatory ID: KY0980350

Microbiological Analyses Pikeville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Colilert 24	11/17/2016 16:39	11/18/2016 17:05	ADH



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### ANALYTICAL RESULTS

Lab Sample ID: **6112792-04**  
Description: **BACT**

Sample Collection Date Time: 11/17/2016 11:49  
Sample Received Date Time: 11/17/2016 12:21

Matrix: Drinking Water

Discharge/Site No: 028

Regulatory ID: KY0980350

**Microbiological Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Coliert 24	11/17/2016 16:39	11/18/2016 17:05	ADH

### ANALYTICAL RESULTS

Lab Sample ID: **6112792-05**  
Description: **BACT**

Sample Collection Date Time: 11/17/2016 11:59  
Sample Received Date Time: 11/17/2016 12:21

Matrix: Drinking Water

Discharge/Site No: 033

Regulatory ID: KY0980350

**Microbiological Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Coliert 24	11/17/2016 16:39	11/18/2016 17:05	ADH

**Notes for work order 6112792**

- Samples collected by MMLI personnel are done so in accordance with procedures set forth in MMLI field services SOPs.
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identification based on the presumptive evidence of the mass spectra.

**Standard Qualifiers/Acronyms**

MDL	Method Detection Limit
MRL	Minimum Reporting Limit
ND	Not Detected
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
% Rec	Percent Recovery
RPD	Relative Percent Difference
>	Greater than
<	Less than

SAMPLE CATEGORY = TC  
DISTRIBUTION SAMPLING

KENTUCKY DIVISION OF WATER / DRINKING WATER RESULTS  
BACTERIOLOGICAL ANALYSIS REPORT FORM

General Information - This Section To Be Completed By Collector

Rev. 03/01/2012

PWS ID: **KY0980350** Compliance Period (MM/YYYY): **112016**  
 PWS Name: **PIKEVILLE** PWS Contact: **ROBY VANNY** Collection Date (MM/YYYY): **11172016**  
(All Samples Reported on this Form were Collected on this Date)  
 PWS Address: **30615 SAND CREEK RD** PWS Phone: **606-437-0542** Collector Name: **Debra J. ...** **11/17/16**

General Information - This Section To Be Completed By Lab

Lab ID: **00070** Lab Receipt Date (MM/YYYY): **11172016** Total Coliform Analyze Method Code: **309**  
 Lab Analyte: **Debra J. ...** Analyze Date (MM/YYYY): **11172016** E Coli Analyze Method Code: **309**  
 Lab Supervisor: **Debra J. ...**

Sample Information - This Section To Be Completed By Collector

Analysis Information - This Section To Be Completed By Lab

Sample Type (RT, RP, TG, CO, or SP) (See Key)	Special Sample Reason (A, B, C, D, or E) (See Key)	Replacement Sample? (Y or Blank)	Location Code (See Instructions)	Repeat Location Code (DN, UP, or OR) (See Key)	Sample Time (24 hr)	Free Chlorine (Required for all disinfectants except Chloramine)	Total Chlorine (Required when disinfectant is Chloramine)	Lab Sample Number	Analyze Time (24 hr)	Result (Total Coliform Count - or - TNTC - or - CNFG - or - TCNG) (See Key)	Total Coliform (PIA)	E Coli (PIA)	Lab Sample Number of Original Sample (Required for RT, TG, CO, and/or Replacement Samples) (See Instructions)
RT			115		10:13	0.53		612792	16:39		N	N	
RT			118		10:25	1.19			16:39		N	N	
RT			120		10:32	0.99			16:39		N	N	
RT			028		11:49	1.10			16:39		N	N	
RT			033		11:59	0.65			16:39		N	N	

The signatures of this form certify that the signatures that collection and analysis of the water sample analyzed and the resulting data hereby submitted, were completed in accordance with the provisions of 401 KAR Chapter 6, specifically including but not limited to 401 KAR 6:200, Section 1 and 401 KAR 6:200, and that the data submitted on this form is a true and accurate report of the results of collection and analysis performed pursuant to the above-referenced regulations. Violations of 401 KAR Chapter 6 are subject to severe penalties prescribed in KRS 22A.89-010, up to \$25,000 fine per day per violation and in some cases a violation may subject the violator to prison.

BACTERIOLOGICAL ANALYSIS REPORT FORM KEY

Sample Type:	RT = Routine (For Compliance)	RP = Repeat (For Compliance)	SP = Special (NOT for Compliance)
Special Sample Reason:	TG = Toggled (For Compliance)	CO = Confirmation (For Compliance)	
(Only if Sample Type = SP)	A = Suspected Contamination	B = New Plant, Modification, or Line Extension	C = Treatment Modification
Repeat Location Code:	D = Study/Investigation	E = Line Break, Emergency Repair	
(Only if Sample Type = RP)	DN = Downstream	UP = Upstream	OR = Original Site
Result:	TNTC = Too Numerous to Count	CNFG = Confluent Growth	TCNG = Turbid Culture No Gas



**SAMPLE SUMMARY**

Lab ID	Client Sample ID/Alias	Matrix	Date Collected	Date Received	Sampled By
6112793-01	Fluoride/	Drinking Water	11/17/2016 10:13	11/17/2016 12:21	Ralph Varney
<u>LabNumber</u>	<u>Measurement</u>	<u>Value</u>			
6112793-01	Field Fluoride	0.66			

**ANALYTICAL RESULTS**

Lab Sample ID: **6112793-01**  
Description: **Fluoride**

Sample Collection Date Time: 11/17/2016 10:13  
Sample Received Date Time: 11/17/2016 12:21

Matrix: Drinking Water

Discharge/Site No: 115

Regulatory ID: KY0980350

**Conventional Chemistry Analyses Madisonville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Fluoride	0.80		mg/L	0.20		4500-F C-1997	11/23/2016 09:33	11/23/2016 09:33	JTL

**Notes for work order 6112793**

- Samples collected by MMLI personnel are done so in accordance with procedures set forth in MMLI field services SOPs.
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identification based on the presumptive evidence of the mass spectra.

U Target analyte was analyzed for, but was below detection limit (the value associated with the qualifier is the laboratory method detection limit in our LIMS system).

**Standard Qualifiers/Acronyms**

- MDL Method Detection Limit
- MRL Minimum Reporting Limit
- ND Not Detected
- LCS Laboratory Control Sample
- MS Matrix Spike
- MSD Matrix Spike Duplicate
- DUP Sample Duplicate
- % Rec Percent Recovery
- RPD Relative Percent Difference
- > Greater than
- < Less than

**Certified Analyses included in this Report**

Analyte	Certifications
<b>4500-F C-1997 in Water</b>	
Fluoride	KY Drinking Water Mdv (00030) VA NELAC Mdv (460210) IN Drinking Water Mdv (C-KY-02) IL Drinking Water Mdv (200079)



**SAMPLE SUMMARY**

Lab ID	Client Sample ID/Alias	Matrix	Date Collected	Date Received	Sampled By
6110577-01	Backwash/Grit Cyclone	Wastewater	11/17/2016 12:12	11/17/2016 12:21	Ralph Varney
6110577-02	Backwash/Grit Pump	Wastewater	11/17/2016 12:14	11/17/2016 12:21	Ralph Varney

**ANALYTICAL RESULTS**

Lab Sample ID: **6110577-01**  
Description: **Backwash Grit Cyclone**

Sample Collection Date Time: 11/17/2016 12:12  
Sample Received Date Time: 11/17/2016 12:21

Conventional Chemistry Analyses Pikeville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Suspended Solids	6		mg/L	4	4	2540 D-1997	11/23/2016 16:01	11/23/2016 16:57	WJP

Field Analysis Pikeville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
pH (Field)	8.04		Std. Units	0.10	0.10	4500-H+ B-2000	11/17/2016 12:12	11/17/2016 12:26	ADH

**ANALYTICAL RESULTS**

Lab Sample ID: **6110577-02**  
Description: **Backwash Grit Pump**

Sample Collection Date Time: 11/17/2016 12:14  
Sample Received Date Time: 11/17/2016 12:21

Conventional Chemistry Analyses Pikeville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Suspended Solids	5		mg/L	4	4	2540 D-1997	11/23/2016 16:01	11/23/2016 16:57	WJP

Field Analysis Pikeville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
pH (Field)	8.00		Std. Units	0.10	0.10	4500-H+ B-2000	11/17/2016 12:14	11/17/2016 12:23	ADH

**KENTUCKY DIVISION OF WATER / DRINKING WATER BRANCH  
DISINFECTION BYPRODUCT PRECURSOR ANALYSIS REPORT FORM**

SAMPLE CATEGORY = TOC

**This Section To Be Completed By Collector**

PWS ID	<u>KY0980350</u>	Plant ID	<u>A</u>	Plant Name	<u>INTAKE - LEVISA FORK/BIG SANDY RIVE</u>	Location Code	<u>R01</u>
PWS Name	<u>Pikeville Water Department</u>			PWS Contact	<u>Ralph Varney</u>		
PWS Address	<u>306 Island Creek Road, Pikeville, KY 41501</u>			PWS Phone	<u>(606) 437-5123</u>		
Sample Date (MMDDYYYY)	<u>11/17/2016</u>	Time	<u>09:37</u>	Sample Type	<u>RT</u>	Collector Name	<u>Ralph Varney</u>
				RT = Routine (For Compliance)			
				SP = Special (Not for Compliance)			

**This Section to Be Completed By Lab**

Lab ID	<u>00030</u>	Lab Sample Number	<u>6112074-01</u>	Lab Phone	<u>(270) 821-7375</u>
Lab Analyst	<u>Tracy Benton</u>	Signature/Date	<u>11/22/2016 10:32</u>	Lab Supervisor	<u><i>Angela Jones</i></u> <u>11/30/2016</u>

Analyte Code	Analyte Name	Analysis Method Code	<	Result (mg/L)	Analysis Date
				-or- Lab Minimum Reporting Limit (mg/L)	
1927	Alkalinity, Total (as CaCO3)	849		135	11222016
2920	Total Organic Carbon	839		2.1	11232016

The signatories of this form certify by their signature that collection and analysis of the water sample analyzed and the resulting data hereby submitted, were completed in accordance with the provisions of 401 KAR Chapter 8; and that the data submitted on this form is a true and accurate report of the results of collection and analysis performed pursuant to the above-referenced regulations. Violations of 401 KAR Chapter 8 are subject to severe penalties prescribed in KRS 224.99-010, up to \$25,000 fine per day per violation and in some cases a violation may subject a violator to prison.

**KENTUCKY DIVISION OF WATER / DRINKING WATER BRANCH  
DISINFECTION BYPRODUCT PRECURSOR ANALYSIS REPORT FORM**

SAMPLE CATEGORY = TOC

**This Section To Be Completed By Collector**

PWS ID	<u>KY0980350</u>	Plant ID	<u>A</u>	Plant Name	<u>PIKEVILLE WTP</u>	Location Code	<u>CF1</u>
PWS Name	<u>Pikeville Water Department</u>			PWS Contact	<u>Ralph Varney</u>		
PWS Address	<u>306 Island Creek Road, Pikeville, KY 41501</u>			PWS Phone	<u>(606) 437-5123</u>		
Sample Date (MMDDYYYY)	<u>11/17/2016</u>	Time	<u>09:42</u>	Sample Type	<u>RT</u>	Collector Name	<u>Ralph Varney</u>
				RT = Routine (For Compliance)			
				SP = Special (Not for Compliance)			

**This Section to Be Completed By Lab**

Lab ID	<u>00030</u>	Lab Sample Number	<u>6112074-02</u>	Lab Phone	<u>(270) 821-7375</u>
Lab Analyst	<u>Tracy Benton</u>	Signature/Date	<u>11/23/2016 5:05</u>	Lab Supervisor	<u><i>Quayle Jones</i></u> <u>11/30/2016</u>

Analyte Code	Analyte Name	Analysis Method Code	Result (mg/L)	Analysis Date
2920	Total Organic Carbon	839	2.0	11232016
			-or- Lab Minimum Reporting Limit (mg/L)	

The signatories of this form certify by their signature that collection and analysis of the water sample analyzed and the resulting data hereby submitted, were completed in accordance with the provisions of 401 KAR Chapter 8; and that the data submitted on this form is a true and accurate report of the results of collection and analysis performed pursuant to the above-referenced regulations. Violations of 401 KAR Chapter 8 are subject to severe penalties prescribed in KRS 224.99-010, up to \$25,000 fine per day per violation and in some cases a violation may subject a violator to prison.

KENTUCKY DIVISION OF WATER

Revised 7/1/06

DRINKING WATER BRANCH

MONTHLY OPERATION REPORT (MOR)--ALL WATER SYSTEMS

MONTH & YEAR OF: XXXXXXXXXX

DEP Form 4012--Revised 07/2006

PWS ID :	0980350	PLANT ID:	A	PLANT NAME:	PIKEVILLE WATER PLANT
PWS NAME:	CITY OF PIKEVILLE	PLANT CLASS:	IVA	DIST. CLASS:	II
AGENCY INTEREST (AI):	3691	DATE MAILED:			
SOURCE NAME:	LEVISA FORK OF THE BIG SANDY RIVER	COUNTY:		PIKE	
OPERATOR(S) RESPONSIBLE / IN-CHARGE				CLASS	CERTIFICATION NUMBER
WTP SHIFT 1:	RALPH VARNEY		IVA		645
WTP SHIFT 2:	GREG PENNINGTON		IVA		777
WTP SHIFT 3:	DEMPSEY MILES		IVA		1549
DISTRIBUTION:	DONNIE SLONE		IID		2236
<p>THIS REPORT MUST BE RECEIVED BY THE DIVISION OF WATER AND APPLICABLE FIELD OFFICE  <u>NO LATER THAN 10 DAYS AFTER THE END OF THE MONTH.</u></p>					
<b>TREATMENT PLANTS COMPLETE:</b>					
1. DESIGN CAPACITY (gpm):			4400		
2. TYPE OF FILTRATION USED:			DUAL MEDIA RAPID SAND		
3. DESIGN FILTRATION RATE (gpm/sq. ft.):			3		
4. PERCENT BACKWASH WATER USED:			2.1		
5. DATE FLOCCULATION BASIN(S) LAST CLEANED			NOVEMBER 2015		
6. DATE SETTLING BASIN(S) LAST CLEANED:			NOVEMBER 2015		

I certify under penalty of law that I have personally examined and am familiar with the information submitted herein. Based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. See KRS 224.99-010 and 401 KAR 8:020. (Penalties under this statute and regulation may include fines up to \$25,000 per violation or by imprisonment for not more that one year, or both)

\_\_\_\_\_  
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

\_\_\_\_\_  
DATE

KENTUCKY DIVISION OF WATER - DRINKING WATER BRANCH  
 WATER TREATMENT PLANT MONTHLY OPERATION REPORT

PWS ID : 0980350

PLANT ID: A

REPORT MONTH/YEAR: December, 2016

PAGE 1 OF 11

DAY	RAW WATER TREATED GALLONS	HOURS PLANT OPERATED	COAGULANT		COAGULANT		pH ADJUSTMENT		DISINFECTANT		DISINFECTANT	
			LBS	PPM	LBS	PPM	LBS	PPM	Pre		Post	
	2918000	12.00	1009	41.5					43	1.76	44	1.81
	3185000	12.75	917	34.5					40	1.49	52	1.95
	2876000	12.00	824	34.4					33	1.38	46	1.93
	2878000	11.50	587	24.5					28	1.15	40	1.65
	2931000	11.75	608	24.9					29	1.17	45	1.84
	3183000	13.00	690	26.0					33	1.24	33	1.24
	3167000	12.75	680	25.7					33	1.25	50	1.87
	2819000	11.50	666	28.3					30	1.26	44	1.87
	3011000	12.25	711	28.3					28	1.10	51	2.01
	3044000	12.00	721	28.4					29	1.13	47	1.86
	2841000	11.50	721	30.4					32	1.35	46	1.95
	2820000	11.50	649	27.6					33	1.40	44	1.87
	3239000	13.00	721	26.7					39	1.43	50	1.83
	3109000	12.75	721	27.8					24	0.93	44	1.70
	2983000	12.25	686	27.6					29	1.15	46	1.86
	3107000	12.50	752	29.0					29	1.10	51	1.95
	3228000	13.00	752	27.9					28	1.02	55	2.04
	2880000	11.50	948	39.5					22	0.92	42	1.74
	3140000	12.50	1019	38.9					31	1.18	48	1.85
	3788000	15.50	845	26.7					24	0.77	46	1.46
	2819000	11.50	824	35.0					29	1.22	41	1.73
	2957000	11.75	842	34.1					24	0.98	44	1.78
	3110000	12.75	863	33.3					33	1.27	50	1.91
	3135000	12.75	927	35.5					33	1.26	52	1.98
	3369000	14.50	968	34.5					33	1.17	55	1.96
	2900000	11.75	906	37.5					28	1.14	44	1.82
	3238000	13.00	876	32.4					28	1.02	50	1.83
	3192000	12.50	927	34.8					33	1.24	47	1.78
	3200000	12.50	853	32.0					36	1.36	52	1.94
	3060000	12.25	855	33.5					30	1.16	44	1.72
	3347000	13.25	824	29.5					36	1.30	46	1.66
<b>TOT</b>	95474000		24892						955		1447	
<b>AVE</b>	3079806		803	26.45					31	2.69	47	1.85
<b>MAX</b>	3788000		1019									
<b>NUMBER DAYS IN OPERATION</b>												



KENTUCKY DIVISION OF WATER - DRINKING WATER BRANCH  
 WATER TREATMENT PLANT MONTHLY OPERATION REPORT

PWS ID : 0980350  
 PLANT ID: A

REPORT MONTH/YEAR: Dec, 2016

PAGE 3 OF 11

DAY	pH			TOTAL ALKALINITY		TOTAL HARDNESS		CHLORINE RESIDUAL				TURBIDITY (NTU)		
	RAW	TOP OF	TAP	RAW	TAP	RAW	TAP	TOP OF FILTER		PLANT TAP		RAW	SETTLED WATER	PLANT TAP
		FILTER						TOTAL	FREE	TOTAL	FREE			
8.03	8.03	8.09	7.90	124	116	276	272		1.17		1.59	56.3	1.65	0.09
8.02	8.02	7.95	7.83	110	106	288	272		1.14		1.55	22.2	1.19	0.08
8.07	8.07	8.06	7.88	116	114	300	290		1.60		1.55	9.8	0.80	0.10
8.09	8.09	8.04	7.89	118	120	328	348		0.61		1.49	5.0	1.01	0.12
8.08	8.08	8.07	7.90	106	116	354	332		0.87		1.38	4.7	1.12	0.12
8.09	8.09	8.05	7.89	122	126	330	342		0.38		0.65	4.5	0.99	0.13
8.15	8.15	8.04	7.94	124	116	300	310		0.82		0.51	23.8	1.31	0.08
8.00	8.00	8.09	7.91	114	32	254	222		0.86		1.45	22.2	1.67	0.09
8.03	8.03	7.98	7.87	32	36	284	262		0.55		1.39	8.1	1.02	0.08
8.27	8.27	8.11	7.89	38	42	264	260		0.60		1.36	4.8	1.13	0.06
8.06	8.06	8.12	7.94	36	42	280	266		0.59		1.56	3.7	1.05	0.08
8.04	8.04	8.02	7.87	170	140	292	288		1.02		1.48	6.4	1.37	0.10
8.08	8.08	8.06	7.88	160	140	284	296		1.29		1.48	11.0	1.45	0.10
8.06	8.06	8.02	7.90	100	150	250	280		1.47		1.63	8.2	1.08	0.09
8.05	8.05	7.96	7.90	110	130	244	268		1.32		1.24	6.8	1.07	0.12
8.06	8.06	8.00	7.87	130	140	262	248		0.24		1.30	5.2	1.17	0.14
8.11	8.11	7.97	7.86	100	148	290	296		0.17		1.42	3.7	0.97	0.12
8.06	8.06	8.03	7.88	140	130	274	276		1.14		1.56	40.2	1.72	0.11
7.95	7.95	7.99	7.78	110	110	196	214		1.97		1.45	74.8	1.82	0.11
7.97	7.97	7.96	7.74	118	120	200	220		0.58		1.50	20.5	1.02	0.07
7.96	7.96	8.03	7.75	100	108	210	230		0.68		1.49	21.0	1.14	0.07
7.98	7.98	7.92	7.75	120	130	260	264		0.80		1.66	15.8	1.21	0.07
8.02	8.02	7.92	7.81	110	120	254	258		0.60		1.69	10.8	1.31	0.08
7.94	7.94	7.82	7.72	120	100	252	244		0.09		1.59	21.3	1.55	0.09
7.84	7.84	7.95	7.80	112	120	258	252		0.17		1.68	30.7	1.38	0.06
7.99	7.99	7.82	7.72	120	110	244	244		0.08		1.73	23.8	1.40	0.06
7.92	7.92	7.78	7.66	120	150	200	186		0.08		1.79	21.6	0.89	0.05
7.90	7.90	7.76	7.67	100	100	196	180		0.02		1.71	67.6	1.05	0.06
7.96	7.96	7.79	7.69	80	60	220	208		0.06		1.69	31.2	1.36	0.07
7.99	7.99	7.79	7.72	90	100	224	220		0.10		1.62	28.1	1.33	0.06
7.91	7.91	7.73	7.70	100	100	180	192		0.07		1.48	22.6	1.19	0.06
<b>AVE</b>	8.02	7.97	7.82	108	109	260	259		0.68		1.47	20.5	1.24	0.09

KENTUCKY DIVISION OF WATER  
 DRINKING WATER BRANCH  
 WATER TREATMENT PLANT MONTHLY OPERATION REPORT

PWS ID : 0980350  
 PLANT ID: A  
 AGENCY INTEREST: 3691  
 REPORT MONTH/YEAR: Dec, 2016

AREA-WIDE OPTIMIZATION PROGRAM TURBIDITY DATA  
 COPY PAGE AS NEEDED

DAY	RAW DAILY MAX	SEDIMENTATION BASIN EFFLUENT DAILY MAXIMUM						INDIVIDUAL FILTER EFFLUENT DAILY MAXIMUM							CFE DAILY MAX
		#1	#2	#3	#4	#5	#6	#1	#2	#3	#4	#5	#6	#7	
	73.6	2.04	1.49					0.32	0.09	0.11	0.15	0.12			0.10
	30.2	1.44	0.97					0.09	0.10	0.17	0.14	0.14			0.09
	11.5	0.88	0.80					0.09	0.14	0.19	0.23	0.14			0.10
	5.7	1.13	0.96					0.10	0.07	0.21	0.27	0.10			0.10
	4.8	1.03	0.98					0.12	0.06	0.24	0.39	0.31			0.16
	4.5	1.15	0.79					0.10	0.06	0.08	0.46	0.25			0.14
	24.5	1.34	1.26					0.14	0.07	0.08	0.12	0.27			0.09
	26.0	1.85	1.77					0.43	0.07	0.09	0.10	0.09			0.07
	9.0	0.99	0.86					0.07	0.19	0.13	0.17	0.11			0.07
	4.8	1.16	1.12					0.08	0.07	0.18	0.36	0.19			0.10
	4.6	1.13	0.87					0.22	0.05	0.07	0.27	0.30			0.14
	7.2	1.67	1.41					0.13	0.05	0.07	0.09	0.20			0.07
	11.8	1.86	1.20					0.23	0.07	0.18	0.14	0.07			0.09
	9.1	0.89	0.95					0.25	0.08	0.24	0.25	0.08			0.10
	7.3	0.99	0.84					0.06	0.14	0.41	0.41	0.15			0.16
	5.8	1.21	1.14					0.16	0.08	0.52	0.51	0.34			0.20
	3.7	1.10	0.98					0.24	0.10	0.06	0.51	0.30			0.16
	60.4	1.53	1.51					0.54	0.12	0.07	0.13	0.54			0.14
	103.0	2.10	1.90					0.35	0.10	0.10	0.16	0.12			0.09
	23.2	1.11	0.82					0.10	0.15	0.13	0.10	0.08			0.07
	23.1	1.26	1.12					0.07	0.06	0.11	0.24	0.10			0.08
	20.4	1.21	1.18					0.06	0.05	0.07	0.24	0.15			0.08
	11.4	1.38	1.14					0.08	0.05	0.06	0.36	0.17			0.10
	22.4	1.49	1.28					0.22	0.11	0.06	0.08	0.15			0.06
	33.6	1.52	1.30					0.19	0.23	0.15	0.10	0.06			0.10
	29.7	1.58	1.27					0.07	0.23	0.09	0.10	0.05			0.05
	27.6	1.02	0.88					0.12	0.11	0.08	0.10	0.05			0.04
	80.0	1.06	0.90					0.09	0.06	0.04	0.11	0.06			0.05
	33.3	1.80	1.48					0.11	0.06	0.04	0.10	0.06			0.10
	28.2	1.37	1.22					0.22	0.07	0.03	0.12	0.12			0.07
	23.6	1.06	0.97					0.26	0.10	0.03	0.11	0.06			0.07
<b>AVE</b>	24.6	1.33	1.14					0.17	0.10	0.13	0.21	0.16			0.10

KENTUCKY DIVISION OF WATER - DRINKING WATER BRANCH  
 WATER TREATMENT PLANT MONTHLY OPERATION REPORT

PWSID: 0980350  
 PLANT ID: A

REPORT MONTH/YEAR: Dec, 2016

\*Please answer Y/N question below this chart.

PAGE 5 OF 11

DAY	FLUORIDE		IRON		MANGANESE				Lowest Daily Cl Res Plant Tap On-Line Cl Analyzer	RAINFALL	WATER TEMP. DEGREES
	RAW	TAP	RAW	TAP	RAW	TAP	RAW	TAP	FREE	INCHES	F°/C°
	0.14	0.72							1.59	0.65	13.0
	0.14	0.80							1.55		11.0
	0.14	0.80							1.55		11.0
	0.13	0.77							1.49		11.0
	0.12	0.77							1.38	0.09	11.0
	0.12	0.78							0.65	0.42	11.0
	0.13	0.77							0.51		11.0
	0.12	0.76							1.45		10.0
	0.13	0.78							1.39		10.0
	0.14	0.78							1.36		8.0
	0.13	0.82							1.56		9.0
	0.13	0.77							1.48	0.76	9.0
	0.10	0.70							1.48		9.0
	0.11	0.68							1.63		9.0
	0.10	0.65							1.24		8.0
	0.11	0.70							1.30		6.0
	0.10	0.78							1.42		6.5
	0.09	0.72							1.56	1.19	9.0
	0.09	0.81							1.45		8.0
	0.10	0.84							1.50		7.0
	0.14	0.88							1.49		8.0
	0.12	0.88							1.66		10.0
	0.10	0.74							1.69		8.0
	0.12	0.84							1.59		8.0
	0.12	0.86							1.68		9.0
	0.11	0.84							1.73		10.0
	0.09	0.78							1.79	0.59	11.0
	0.08	0.80							1.71		10.0
	0.09	0.81							1.69	0.41	10.0
	0.11	0.84							1.62		8.0
	0.10	0.83							1.48		9.0
<b>AVE</b>	0.11	0.78									9.3
									0.51		
									Number of readings	31	4.11
									For Free Cl, # < 0.2 mg/L	0	
Disinfectant Chloramines? (Y/N)									For Chloramines, # < 0.5 mg/L		

KENTUCKY DIVISION OF WATER - DRINKING WATER BRANCH  
WATER TREATMENT PLANT MONTHLY OPERATION REPORT

PWS ID : 0980350  
 PLANT ID: A

REPORT MONTH/YEAR: Dec, 2016

PAGE 6 OF 11

DAY	TOTAL WASH WATER GALLONS	No: 1		No: 2		No: 3		No: 4		No: 5	
		AREA (ft2)	363								
		WASH GALLONS	FILT RUN HRS								
	74,250	74,250	62.00								
	97,200			97,200	72.00						
	63,600					63,600	84.75				
	73,350							73,350	85.25		
	81,550									81,550	83.00
	85,410	85,410	84.25								
	65,186			65,186	75.50						
	82,712					82,712	63.00				
	87,240							87,240	59.75		
	59,000									59,000	60.25
	82,950	82,950	69.25								
	59,250			59,250	71.75						
	64,240					64,240	73.00				
	79,900							79,900	74.00		
	96,000									96,000	74.00
	79,050	79,050	64.75								
	106,904			106,904	59.25						
	81,660					81,660	61.25				
	81,400							81,400	76.50		
	71,280									71,280	76.50
	81,970	81,970	77.75								
	9,020			9,020	81.75						
	66,000					66,000	79.50				
	73,575							73,575	76.25		
	65,600									65,600	78.75
	117,750	117,750	71.00								
<b>TOT</b>	<b>1,986,047</b>	<b>521,380</b>	<b>429.0</b>	<b>337,560</b>	<b>360.3</b>	<b>358,212</b>	<b>361.5</b>	<b>395,465</b>	<b>371.8</b>	<b>373,430</b>	<b>372.5</b>
<b>AVE</b>	<b>76,386</b>	<b>86,897</b>	<b>71.5</b>	<b>67,512</b>	<b>72.1</b>	<b>71,642</b>	<b>72.3</b>	<b>79,093</b>	<b>74.4</b>	<b>74,686</b>	<b>74.5</b>

COPY AS NEEDED

KENTUCKY DIVISION OF WATER - DRINKING WATER BRANCH  
 WATER TREATMENT PLANT MONTHLY OPERATION REPORT

PWS ID : 0980350  
 PLANT ID: A

REPORT MONTH/YEAR: Dec, 2016

PAGE 7 OF 11

DAY	CHEMICALS ADDED		TEST RESULTS										
	CHLORINE BOOSTER	CHLORINE BOOSTER	TOTAL (T) AND FREE (F) CHLORINE RESIDUAL (ppm)										
	LBS	LBS	NORTH		SOUTH		EAST		WEST				
			T	F	T	F	T	F	T	F			
				1.24									
							1.05						
									1.29				
												1.00	
				0.78									
							1.15						
									1.20				
												1.25	
				1.07									
							1.31						
									1.28				
												1.19	
				1.34									
							1.07						
									1.04				
												0.96	
				0.98									
							1.16						
									1.17				
												1.10	
				1.28									
							1.02						
									1.12				
												1.25	
				1.18									
							0.90						
									1.04				
												1.01	
				1.27									
									1.20				
												1.15	
AVE			AVERAGE	1.14			1.11		1.16			1.11	
TOT			TOT MIN										
			FREE MIN	0.78			0.90		1.04			0.96	
Total # Chlorine Samples				8			8		8			7	
# Less than 0.2 mg/L/0.5 mg/L				0			0		0			0	
Number of Free Residuals				31	Minimum Monthly Total Residual				NA				
Number of Total Residuals				0	Minimum Monthly Free Residual				0.78				
Total # Less than 0.2 mg/L				0	Disinfectant Chloramines? (Y/N)				N				
					Number of days of operation?				31				

KENTUCKY DIVISION OF WATER - DRINKING WATER BRANCH  
 WATER TREATMENT PLANT MONTHLY OPERATION REPORT

PWS ID : 0980350  
 PLANT ID: A

TURBIDITY REPORT

Report Period (MM/YYYY): Dec, 2016



PWS Name: CITY OF PIKEVILLE

PAGE:  
8 OF 11

DAY										
12.0	3		0.07	0.08	0.10	0.10			0.10	
12.8	4		0.07	0.06	0.08	0.09			0.09	
12.0	3		0.12	0.09	0.09	0.10			0.12	
11.5	3		0.13	0.10	0.13	0.11			0.13	
11.8	3		0.12	0.13	0.11	0.12			0.13	
13.0	4		0.13	0.11	0.18	0.11			0.18	
12.8	4		0.11	0.07	0.07	0.07			0.11	
11.5	3		0.07	0.07	0.10	0.12			0.12	
12.3	4		0.06	0.07	0.09	0.11			0.11	
12.0	3		0.07	0.06	0.06	0.05			0.07	
11.5	3		0.07	0.06	0.08	0.10			0.10	
11.5	3		0.12	0.09	0.08	0.09			0.12	
13.0	4		0.09	0.06	0.14	0.10			0.14	
12.8	4		0.08	0.09	0.10	0.09			0.10	
12.3	4		0.09	0.11	0.13	0.14			0.14	
12.5	4		0.11	0.13	0.16	0.14			0.16	
13.0	4		0.11	0.11	0.11	0.13			0.13	
11.5	3		0.12	0.08	0.10	0.12			0.12	
12.5	4		0.14	0.08	0.09	0.11			0.14	
15.5	4		0.06	0.06	0.06	0.08			0.08	
11.5	3		0.07	0.06	0.06	0.07			0.07	
11.8	3		0.06	0.08	0.06	0.08			0.08	
12.8	4		0.08	0.08	0.08	0.09			0.09	
12.8	4		0.09	0.08	0.07	0.10			0.10	
14.5	4		0.06	0.06	0.06	0.05	0.05		0.06	
11.8	3		0.06	0.05	0.07	0.06			0.07	
13.0	4		0.06	0.05	0.05	0.05			0.06	
12.5	4		0.06	0.06	0.06	0.06			0.06	
12.5	4		0.06	0.07	0.07	0.08			0.08	
12.3	4		0.06	0.07	0.06	0.06			0.07	
13.3	4		0.06	0.06	0.05	0.05			0.06	
Total	386.0	112	TOTAL # OF TURBIDITY SAMPLES TAKEN --				125			0.18

ARE YOU USING EITHER CONVENTIONAL or DIRECT FILTRATION? (Y/N)

(Any type of filtration besides slow sand)

Number of samples exceeding --> 0.1 NTU 32 0.3 NTU 0 1 NTU 0

For slow sand filtration, the number of samples exceeding --> 1 NTU 5 5 NTU     

\*NOTE: The "Number of Turbidity Samples Required" is the number of hours the plant operated divided by 4 rounded up to the next whole number.

I certify that the above turbidity readings were taken every 4 hours during plant operation and in the time frames noted above.

Signature of Principal Executive Officer or Authorized Agent

Date

KENTUCKY DIVISION OF WATER / DRINKING WATER BRANCH  
Monthly Operating Report (MOR) Plant Summary Form

PWS ID : 0980350

Monitoring Period (MM/YYYY): Dec, 2016

**NOTE: COMPLETE ALL APPLICABLE FIELDS!!! NOT ALL OF THE FIELDS ARE PRE-POPULATED FOR YOU!!!**

APPLICABLE TO ALL PLANTS			
PLANT ID:	<u>A</u>	TOTAL WATER TREATED (gallons)	<b>95,474,000</b>
PLANT NAME:	<b>PIKEVILLE WATER PLANT</b>	AVE. DAILY PRODUCTION (gallons)	<b>3,079,806</b>
AGENCY INTEREST:	<u>3691</u>	MAXIMUM PUMPAGE (gallons per day)	<b>3,788,000</b>

APPLICABLE TO ALL PLANTS WITH FILTRATION	
ANALYTE CODE	<u>0100</u>
Was each filter monitored continuously? (Y/N).....	<b>Y</b>
Were measurements recorded every 15 minutes? (Y/N).....	<b>Y</b>
Was there a failure of the continuous monitoring equipment? (Y/N).....	<b>N</b>
If Yes, (1) were individual filter effluent turbidity grab samples collected every four hours of operation? (Y/N).....	
(2) was the continuously monitoring equipment repaired within 5 working days? (Y/N).....	
Was individual filter level greater than 1.0 NTU in two consecutive measurements? (Y/N).....	<b>N</b>
Was individual filter level < 0.5 NTU in two consecutive measurements after online more than 4 hours? (Y/N).....	<b>N</b>
Was individual filter level < 1.0 NTU in two consecutive measurements in three consecutive months? (Y/N).....	<b>N</b>
Was individual filter level greater than 2.0 NTU in two consecutive measurements in two consecutive months? (Y/N)	<b>N</b>
<b>If any of the last 4 boxes are YES, fill out the Individual Filter Turbidity Sheet and submit with MOR</b>	

APPLICABLE TO ALL PLANTS WITH FILTRATION	APPLICABLE TO ALL PLANTS
ANALYTE CODE	<u>0100</u>
Number of hours of plant operation.....	<b>386.0</b>
Were samples taken every 4 hrs of plant operation? (Y/N)	<b>Y</b>
Number of samples taken.....	<b>125</b>
Highest single turbidity reading .....	<b>0.18</b>
For all filtration except slow sand filtration:	
Number of samples exceeded 0.1 NTU .....	<b>32</b>
Number of samples exceeded 0.3 NTU .....	<b>0</b>
Number of samples exceeded 1.0 NTU .....	<b>0</b>
When filtration is slow sand filtration:	
Number of samples exceeded 1 NTU .....	
Number of samples exceeded 5 NTU .....	
ANALYTE CODE	<u>0999</u>
Number of days of plant operation.....	<b>31</b>
Were samples taken each day of operation? (Y/N)	<b>Y</b>
Number of lowest chlorine samples recorded .....	<b>31</b>
Lowest single chlorine reading .....	<b>0.51</b>
If less than required:	
Was residual restored within 4 hrs of plant operation	<input type="checkbox"/>
Free chlorine (for all disinfectants except chloramine):	
Number of samples under 0.2 mg/L .....	<b>0</b>
Total Chlorine (when disinfectant is chloramine):	
Number of samples under 0.5 mg/L .....	

APPLICABLE TO PLANTS UTILIZING CHLORINE DIOXIDE	APPLICABLE TO PLANTS USING CHLORINE DIOXIDE
ANALYTE CODE	<u>1008</u>
Number of days of plant operation.....	<b>31</b>
Were samples taken each day of operation? (Y/N).....	<input type="checkbox"/>
Number of samples taken .....	<b>####</b>
Highest single chlorine dioxide reading .....	<b>####</b>
Number of chlorine dioxide samples exceeded 0.8 mg/L ..	<b>####</b>
ANALYTE CODE	<u>1009</u>
Number of days of plant operation.....	<b>31</b>
Were samples taken each day of operation? (Y/N)	<input type="checkbox"/>
Number of samples taken .....	<b>####</b>
Highest single chlorite reading .....	<b>####</b>
Number of chlorite samples exceeded 1 mg/L .....	<b>####</b>

I certify under penalty of law that I have personally examined and am familiar with the information submitted herein. Based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. See KRS 224.99-010 and 401 KAR 8:020. (Penalties under this statute and regulation may include fines up to \$25,000 per violation or by imprisonment for not more than one year, or both).

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT \_\_\_\_\_

DATE \_\_\_\_\_



PWS ID : 0980350  
 PLANT ID: A  
 AGENCY INTEREST: 3691

## ANNUAL WATER SYSTEM DATA

### APPLICABLE TO ALL WATER SYSTEMS

Dec, 2016

TO BE SUBMITTED WITH DECEMBER MOR

NUMBER OF METERS: \_\_\_\_\_ SYSTEM POPULATION: 15078

RESIDENTIAL: 4273  
 COMMERCIAL: 753  
 INDUSTRIAL: \_\_\_\_\_

TOTAL POPULATION SERVED IN CONSECUTIVE SYSTEMS: (REFER TO TABLE BELOW) 25092

#### CONSECUTIVE SYSTEM POPULATIONS:

(INFORMATION ON THE SYSTEMS/AREA TO WHOM YOU SELL WATER)

PWSID #	# OF METERS	PWSID #	# OF METERS
0983725	6015		
0360026	2349		

#### CONTACT INFORMATION:

	<u>WATER SYSTEM MANAGER/SUPERINT.</u>	<u>PLANT A</u>	<u>PLANT B</u>
NAME	DONNIE SLONE	RALPH VARNEY	_____
TITLE	UTILITY MANAGER	PLANT OPS MANAGER	_____
OFFICE PHONE	606-437-5114	606-437-0540	_____
CELL PHONE	606-794-5762	606-477-4351	_____
AFTER-HOURS PHONE	606-437-0941	606-432-8790	_____
MAILING ADDRESS	306 ISLAND CR. RD.	306 ISLAND CR. RD.	_____
EMAIL ADDRESS	dslone@umgllc.net	rvarney@umgllc.net	_____
	<u>PLANT C</u>	<u>DISTRIBUTION</u>	<u>MOR CONTACT</u>
NAME	_____	LESTER STAPLETON	RALPH VARNEY
TITLE	_____	DIST FOREMAN	PLANT OPS MANAGER
OFFICE PHONE	_____	606-437-5114	606-437-0540
CELL PHONE	_____	606-477-5161	606-477-4351
AFTER-HOURS PHONE	_____	306 ISLAND CR. RD.	606-432-8790
MAILING ADDRESS	_____	_____	306 ISLAND CR. RD.
EMAIL ADDRESS	_____	_____	rvarney@umgllc.net

**PIKEVILLE WATER TREATMENT PLANT  
 WATER PUMPED TO DISTRIBUTION SYSTEM  
 FOR THE MONTH OF: December, 2016**

12/01/16	3.0711
12/02/16	3.1388
12/03/16	2.8563
12/04/16	2.8697
12/05/16	2.9416
12/06/16	3.0869
12/07/16	3.2525
12/08/16	2.9359
12/09/16	2.8834
12/10/16	2.9147
12/11/16	2.8957
12/12/16	2.9881
12/13/16	3.2703
12/14/16	3.1167
12/15/16	2.9534
12/16/16	3.2853
12/17/16	3.1609
12/18/16	2.9587
12/19/16	3.1810
12/20/16	3.5318
12/21/16	3.0144
12/22/16	3.0583
12/23/16	3.0521
12/24/16	3.1660
12/25/16	3.1829
12/26/16	3.0769
12/27/16	3.2937
12/28/16	3.2974
12/29/16	3.2439
12/30/16	3.0530
12/31/16	3.2431
<b>Total</b>	<b>95.9745</b>
<b>Average</b>	<b>3.0960</b>
<b>Minimum</b>	<b>2.8563</b>
<b>Maximum</b>	<b>3.5318</b>

<b>Water plant usage</b>	<b>65,179</b>
<b>Raw water intake usage</b>	<b>144,730</b>
<b>Total non metered usage</b>	<b>209,909</b>

December, 2016 DMR CALCULATIONS

date	tss cyclone	pH cyclone	tss intake	pH intake	hrs operated
12/01/16					12.00
12/02/16					12.75
12/03/16					12.00
12/04/16					11.50
12/05/16					11.75
12/06/16					13.00
12/07/16					12.75
12/08/16					11.50
12/09/16					12.25
12/10/16					12.00
12/11/16					11.50
12/12/16					11.50
12/13/16					13.00
12/14/16					12.75
12/15/16					12.25
12/16/16					12.50
12/17/16					13.00
12/18/16					11.50
12/19/16					12.50
12/20/16					15.50
12/21/16	53	8.15	40	8.25	11.50
12/22/16					11.75
12/23/16					12.75
12/24/16					12.75
12/25/16					14.50
12/26/16					11.75
12/27/16					13.00
12/28/16					12.50
12/29/16					12.50
12/30/16					12.25
12/31/16					13.25

**CYCLONE ESTIMATE** 100 gpm  
 Tot Hours 386.00  
 times flushed 4 hr cycle 97  
 gallons flushed 19,300  
 mg flushed 0.0193  
 mgd flushed **0.00062**

**GRIT PUMP AT RWI** 200 gpm  
 Total pumping hours 31  
 Total gallons pumped 372,000  
 Million gallons pumped 0.3720  
 Million gallons a day **0.0120**

*200 gpm per flush  
 800 gal man*

TSS-001	TSS-002
53	40

pH	
Cyclone	Pump
8.15	8.25

**ENTERED**  
 12/31/16

2dce481-1612-4782-8714-6e00986  
 aedb5

# Water Withdrawal Report Form

Preprint ID:

Agency Interest

Subject Item:

Monitoring Period:

3691 - Pikeville Water Department

GACT0000000001-0638 Levisa Fork

12/01/16 to 12/31/16

Day	Result	Parameter	Unit
1	2.918	Withdrawal	MGD (MA)
2	3.185	Withdrawal	MGD (MA)
3	2.876	Withdrawal	MGD (MA)
4	2.878	Withdrawal	MGD (MA)
5	2.931	Withdrawal	MGD (MA)
6	3.183	Withdrawal	MGD (MA)
7	3.167	Withdrawal	MGD (MA)
8	2.819	Withdrawal	MGD (MA)
9	3.011	Withdrawal	MGD (MA)
10	3.044	Withdrawal	MGD (MA)
11	2.841	Withdrawal	MGD (MA)
12	2.820	Withdrawal	MGD (MA)
13	3.239	Withdrawal	MGD (MA)
14	3.109	Withdrawal	MGD (MA)
15	2.983	Withdrawal	MGD (MA)
16	3.107	Withdrawal	MGD (MA)
17	3.228	Withdrawal	MGD (MA)
18	2.880	Withdrawal	MGD (MA)
19	3.140	Withdrawal	MGD (MA)
20	3.788	Withdrawal	MGD (MA)
21	2.819	Withdrawal	MGD (MA)
22	2.957	Withdrawal	MGD (MA)
23	3.110	Withdrawal	MGD (MA)
24	3.135	Withdrawal	MGD (MA)
25	3.369	Withdrawal	MGD (MA)
26	2.900	Withdrawal	MGD (MA)
27	3.238	Withdrawal	MGD (MA)
28	3.192	Withdrawal	MGD (MA)
29	3.200	Withdrawal	MGD (MA)
30	3.060	Withdrawal	MGD (MA)
31	3.347	Withdrawal	MGD (MA)

ENTERED  
12/3/17  
[Handwritten signature]

## Monthly Chlorine Report- Dec. 2016

Water Dist. – Utility Management Group – JM,PL,JR

12-1-16 = 240 Fife Fork = 1.24  
12-2-16 = 390 Childers Road = 1.05  
12-3-16 = 156 Carter Drive = 1.29  
12-4-16 = 118 Ferguson Ln. = 1.00  
12-5-16 = 172 Meade Heights = 0.78  
12-6-16 = 168 Bill King = 1.15  
12-7-16 = 150 Bruce Elliot = 1.20  
12-8-16 = 370 Williams Hollow = 1.25  
12-9-16 = 895 Ratliff Creek = 1.07  
12-10-16 = 1074 Chloe Rd. = 1.31  
12-11-16 = 658 Harolds Br. = 1.28  
12-12-16 = 184 Scott Ave. = 1.19  
12-13-16 = 176 Ky. Ave. = 1.34  
12-14-16 = 3630 Island Creek = 1.07  
12-15-16 = 168 Keyser Heights = 1.04  
12-16-16 = 265 Mullins Add. = 0.96  
12-17-16 = 424 Kinnkinick 0.98  
12-18-16 = 285 Fox Croft = 1.16  
12-19-16 = 276 York Wood = 1.17  
12-20-16 = 195 Apple Court = 1.10  
12-21-16 = 179 College Street = 1.28  
12-22-16 = 264 Pound Puppy = 1.02  
12-23-16 = 520 Bob Amos = 1.12  
12-24-16 = 480 Town Mt. = 1.25  
12-25-16 = 178 College Street = 1.18  
12-26-16 = 130 Justice Way = 0.90  
12-27-16 = 63 Mossey Bottom = 1.04  
12-28-16 = 164 Lee Ave. = 1.01  
12-29-16 = 60 Gilliam Street = 1.27  
12-30-16 = 312 Mays Br. = 1.20  
12-31-16 = 156 Pauley Add. = 1.15

WATER DEPARTMENT  
MASTER WATER READINGS

DATE: 1-3-17

Copy Read First 5 Numbers

ACCOUNT NUMBER	LOCATION	PRESENT	PREVIOUS	USAGE	AMOUNT
	SANDY VALLEY-Pikeville	390447376131	14316	14316	9894 DON'T BILL
54-9966200-0	TOWN MOUNTAIN	68817466780	20373	20373	
54-9909400-0	CHLOE ROAD	6918566677	2508	2508	
54-9911500-0	ISLAND CREEK	6082756991	3836	3836	
54-9928000-0	MUD CREEK-Southern Wt.	115387103564	11823	11823	
54-9914600-0	COON BRANCH	11200	186	186	
54-9913000-0	SOUTH MAYO TRAIL	01701	00000	1701	
54-9925500-0	HOOPWOOD HOLLOW	15158	15066	92	
54-9911800-0	ISLAND CK. TRAILER PK.	00862	00670	192	
54-9911900-0	HURRICANE CREEK	305483303564	1919	1919	
54-9912000-0	PIKE FLOYD-Southern	4214840369	1779	1779	
54-9900100-0	COWPEN-Mt. Water	265020262377	2643	2643	
TOTAL				47052	

METER READER INITIALS: WH MC

9050350	7782064
8905620	2717885
144730	65179

NON METERED WATER

FLUSHING - EST \_\_\_\_\_

LEAKS - EST \_\_\_\_\_

TOTAL GALLONS \_\_\_\_\_

WATER DEPARTMENT  
MASTER WATER READINGS

DATE: 1-3-17

ACCOUNT NUMBER	LOCATION	PRESENT	PREVIOUS	USAGE	AMOUNT
	SANDY VALLEY-Pikeville		7		DON'T BILL
54-9966200-0	TOWN MOUNTAIN				
54-9909400-0	CHLOE ROAD				
54-9911500-0	ISLAND CREEK				
54-9928000-0	MUD CREEK-Southern Wt.				
54-9914600-0	COON BRANCH				
54-9913000-0	SOUTH MAYO TRAIL	226517	233083	6566	
54-9925500-0	HOOPWOOD HOLLOW				
54-9911800-0	ISLAND CK. TRAILER PK.				
54-9911900-0	HURRICANE CREEK				
54-9912000-0	PIKE FLOYD-Southern				
54-9900100-0	COWPEN-Mt. Water				
		TOTAL			

Only Read First 5 Numbers

Chor  
metē  
12-29

METER READER INITIALS: WH MC

NON METERED WATER

FLUSHING - EST \_\_\_\_\_

LEAKS - EST \_\_\_\_\_

TOTAL GALLONS \_\_\_\_\_

# Pikeville

12-29-16 Time: 11:00 am

Work Order No.:

Address: Lester Station

Location: Indian Hills  
Master Meter

Phone Number:

33:

Solid Waste	Street	Utilities	Maintenance	Sewer
		Need to change master meter		
			Changed master meter.	

Meter In Number:		Gas Meter Reading In:	
Meter Out Number:		Gas Meter Reading Out:	
Water Meter In Number:	45918738	Water Meter Reading In:	00000
Water Meter Out Number:	63246184	Water Meter Reading Out:	233083

Work Date: 12-29-16 Total Crew Hours: 1

Start Time: 11:00 am

City Street Name: [blank] Date: 12-29-16

	FLOW TO DIST	START C. WELL	Settling Basin Turbidity						Sludge Hauled	Spent B/W Return	DUP pH TAP
			MID - 4	4A - 8AM	8AM - 12N	12N - 4PM	4PM - 8PM	8PM - 12M			
12/01/16	3.0711	7.6		1.67	1.30	1.77	1.76			150,000	7.90
12/02/16	3.1388	5.8		1.40	1.21	0.91	1.20			57,000	7.84
12/03/16	2.8563	6.2		0.86	0.83	0.84	0.64			162,000	7.88
12/04/16	2.8697	7.0		0.76	0.90	1.04	1.31			52,000	7.89
12/05/16	2.9416	6.0		1.27	1.20	1.10	1.00			143,000	7.90
12/06/16	3.0869	6.6		1.06	1.05	0.89	0.97			183,000	7.89
12/07/16	3.2525	8.4		1.01	1.29	1.30	1.63			216,000	7.94
12/08/16	2.9359	7.4		1.22	1.69	1.84	1.81			186,000	7.90
12/09/16	2.8834	5.8		1.28	1.08	0.90	0.92			111,000	7.88
12/10/16	2.9147	6.8		1.02	1.33	1.14	1.03			241,000	7.89
12/11/16	2.8957	10.6		1.01	1.00	1.00	1.24			197,000	7.95
12/12/16	2.9881	9.0		0.98	1.07	1.72	1.54			218,000	7.88
12/13/16	3.2703	7.0		1.35	1.39	1.47	1.53			94,000	7.88
12/14/16	3.1167	6.8		1.31	1.18	0.92	1.06			182,000	7.90
12/15/16	2.9534	7.2		1.11	1.12	1.31	0.92			156,000	7.88
12/16/16	3.2853	6.6		1.32	1.09	1.18	1.11			208,000	7.85
12/17/16	3.1609	5.2		1.00	0.96	1.04	0.83			137,000	7.86
12/18/16	2.9587	6.8		1.57	2.00	1.52	2.00			192,000	7.88
12/19/16	3.1810	6.0		2.11	1.07	1.91	2.00			111,000	7.76
12/20/16	3.5318	6.0		1.27	0.86	0.96	1.03			118,000	7.74
12/21/16	3.0144	11.0		1.01	1.13	1.19	1.17			87,000	7.76
12/22/16	3.0583	7.4		1.18	1.09	1.37	1.20		24,000	11,000	7.76
12/23/16	3.0521	5.8		1.29	1.34	1.26	1.39			71,000	7.81
12/24/16	3.1660	6.2		1.71	1.45	1.38	1.32			214,000	7.73
12/25/16	3.1829	7.0		1.26	1.48	1.41	1.35	1.39		89,000	7.79
12/26/16	3.0769	9.0		1.34	1.37	1.43	1.42			192,000	7.73
12/27/16	3.2937	6.4		0.88	0.84	0.95	0.84			264,000	7.67
12/28/16	3.2974	7.6		1.29	1.01	0.98	0.98			78,000	7.70
12/29/16	3.2439	6.4		1.28	1.05	1.64	1.20			142,000	7.69
12/30/16	3.0530	6.0		1.41	1.29	1.30	1.36			149,000	7.72
12/31/16	3.2431	6.0		1.39	1.31	1.02	1.24			195,000	7.71
Ave	3.0960	7.0		1.25	1.19	1.25	1.26	1.39		148,581	
Tot	95.9745								24,000	4,606,000	
Min	2.8563	5.2		0.76	0.83	0.84	0.64	1.39		11,000	
Max	3.5318	11.0		2.11	2.00	1.91	2.00	1.39		264,000	

WATER PLANT MONTHLY OPERATIONS REPORT

MONTH/YEAR: Dec 2016

ANALYTICAL RESULTS (Mg/L or PPM unless otherwise specified.)

DAY	pH (S. U.'S)				ALKALINITY		HARDNESS		CHLORINE		TURBIDITY (NTU)		FLUORIDE	
	RAW	TOF	FIN	DUP	RAW	FIN	RAW	FIN	TOF	FIN	RAW	TOF	RAW	FIN
01	8.03	8.09	7.90	7.90	124	116	276	272	1.17	1.59	56.25	1.65	.14	.72
02	8.02	7.95	7.83	7.84	110	106	288	272	1.14	1.55	22.15	1.19	.14	.80
03	8.07	8.06	7.88	7.88	116	114	300	290	1.6	1.55	9.8	.80	.14	.80
04	8.09	8.04	7.89	7.89	118	120	328	348	.61	1.49	5.0	1.01	.13	.77
05	8.08	8.07	7.90	7.90	106	116	354	332	.87	1.38	4.65	1.12	.12	.77
06	8.09	8.05	7.89	7.89	122	126	330	342	.38	.65	4.5	.99	.12	.78
07	8.15	8.04	7.84	7.84	124	116	300	310	.82	.51	23.8	1.31	.13	.77
08	8.00	8.09	7.91	7.90	114	32	254	222	.86	1.45	22.2	1.67	.12	.76
09	8.03	7.98	7.87	7.88	32	36	284	262	.55	1.39	8.1	1.02	.13	.78
10	8.27	8.11	7.89	7.89	38	42	264	260	.60	1.36	4.8	1.13	.14	.78
11	8.06	8.12	7.94	7.95	36	42	280	266	.59	1.56	3.7	1.05	.13	.82
12	8.04	8.02	7.87	7.88	170	140	292	288	1.02	1.48	6.35	1.37	.13	.77
13	8.08	8.06	7.88	7.88	160	140	284	296	1.29	1.48	11	1.45	.10	.70
14	8.06	8.02	7.90	7.90	100	150	250	280	1.47	1.63	8.2	1.08	.11	.68
15	8.05	7.96	7.80	7.88	110	130	244	268	1.32	1.24	6.8	1.07	.10	.65
16	8.06	8.00	7.87	7.85	130	140	262	248	.24	1.30	4.52	1.17	.11	.76
17	8.11	7.97	7.86	7.86	180	148	290	296	.17	1.42	3.7	.97	.10	.78
18	8.06	8.03	7.88	7.88	140	130	274	276	1.14	1.56	40.2	1.72	.09	.72
19	7.95	7.99	7.78	7.76	110	110	196	214	1.97	1.45	74.75	1.82	.09	.81
20	7.97	7.96	7.74	7.74	118	120	200	220	.58	1.50	20.5	1.02	.10	.84
21	2.96	8.03	7.75	7.76	100	108	210	230	.68	1.49	21.0	1.14	.14	.88
22	7.98	7.92	7.75	7.76	120	130	260	264	.80	1.66	19.75	1.21	.12	.88
23	8.02	7.92	7.81	7.81	110	120	254	258	.60	1.69	10.8	1.31	.10	.74
24	7.94	7.82	7.72	7.73	120	160	252	244	.09	1.59	21.3	1.55	.12	.84
25	7.84	2.95	7.80	7.79	112	120	258	252	.17	1.68	30.7	1.38	.12	.86
26	7.99	7.82	7.72	7.73	120	110	244	244	.08	1.73	23.8	1.40	.11	.84
27	7.92	7.78	7.66	7.67	120	150	200	186	.08	1.79	21.6	.89	.09	.78
28	7.80	7.76	7.67	7.70	180	180	196	180	.02	1.71	62.6	1.05	.08	.80
29	7.96	7.79	7.64	7.69	80	60	220	208	.06	1.69	31.2	1.36	.09	.81
30	7.99	7.79	7.72	7.72	40	100	224	220	.10	1.62	28.1	1.33	.11	.84
31	7.91	7.73	7.70	7.71	100	100	180	192	.07	1.48	22.6	1.19	.10	.83

part

## WATER PLANT MONTHLY OPERATIONS REPORT

MONTH/YEAR:

Dec 2016

## CHEMICALS ADDED

DAY	RAW WATER TREATED (M.G.D.)	COAGULANT PAC LBS	FLUORIDE LBS	PRE LBS	POST LBS
01	2.918	1009	16	42.9	44
02	3.185	917	19.8	39.6	51.7
03	2.876	824	18	33	46.2
04	2.878	587	18	27.5	39.6
05	2.931	608	17.3	28.6	45.1
06	3.183	690	19.8	33.0	33.0
07	3.167	680	19.8	33.0	49.5
08	2.819	665.6	16.7	29.7	44
09	3.011	710.7	18.4	27.5	50.6
10	3.044	721.	21.6	28.6	47.3
11	2.841	721	18.9	31.9	46.2
12	2.820	649	13.5	33	44
13	3.239	721	18	38.5	49.5
14	3.109	721	18	24.2	44
15	2.983	686	18.7	28.6	46.2
16	3.107	752	18.2	28.6	50.6
17	3.228	752	20.7	27.5	55
18	2.880	948	18.9	22	41.8
19	3.140	1019	14.4	30.8	48.4
20	3.788	845	14.4	24.2	46.2
21	2.819	824	16.2	28.6	40.7
22	2.957	842	18.4	24.2	44
23	3.110	863	21.2	33	49.5
24	3.135	927	20.3	33.0	51.7
25	3.369	968	25.2	33.0	55.0
26	2.900	906	18	27.5	44
27	3.238	876	18	27.5	49.5
28	3.192	927	18	33	47.3
29	3.200	853	20.3	36.3	51.7
30	3.060	855	17.5	29.7	44
31	3.347	824	18	36.3	46.2

Dec 2016

FILTER OPERATION INFORMATION  
WATER TREATMENT PLANT MONTHLY OPERATION REPORT

CARRY OVER  
PWS ID: 0980350

REPORT MONTH: 53.75 39.75 30 16 3.25

DAY	(gallons)	#1 HRS	GAL	#2 HRS	GAL	#3 HRS	GAL	#4 HRS	GAL	#5 HRS	GAL
1	9. 8250	<del>8.25</del> 6.25	74250	12		12		12		12	
2		12.75		12.75		12.75		12.75		12.75	
3	12 8100	12		<del>2.5</del> 72/43	97200	12		12		12	
4		11.5		11.5		11.5		11.5		11.5	
5	8. 7950	11.75		11.75		<del>6.5</del> 84.75	63600	11.75		11.75	
6	9. 8150	13.0		13.0		13.0		<del>9.25</del> 85.25	73350	13.0	
7	10 8155	12.75		12.75		12.75		12.75		<del>6.75</del> 93.0	81550
8	13. 6570	<del>13.0</del> 10.75	85410	11.5		11.5		11.5		11.5	
9	11. 5424	12.25		<del>10.75</del> 75.5	65186	12.25		12.25		12.25	
10	14 5900	12.0		12.0		<del>8.5</del> 63.0	82712	12.0		12.0	
11	15 5816	11.5		11.5		11.5		<del>9.75</del> 59.75	87240	11.5	
12	10 5900	11.5		11.5		11.5		11.5		<del>7.5</del> 60.25	59000
13		13		13		13		13		13	
14	15 5530	<del>5.5</del> 69.25	82950	12.75		12.75		12.75		12.75	
15	10 5925	12.25		<del>10</del> 71.75	59250	12.25		12.25		12.25	
16	8. 8030	12.5		12.5		<del>9</del> 73	64240	12.5		12.5	
17	10 7990	13		13		13		<del>9.75</del> 74.3	79900	13	
18	12 8000	11.5		11.5		11.5		11.5		<del>6.75</del> 74.5	86000
19	10 7905	<del>8.75</del> 64.75	79050	12.5		12.5		12.5		12.5	
20	14 7436	15.5		<del>8.5</del> 54.75	106904	15.5		15.5		15.5	
21	10 8166	11.5		11.5		<del>5.25</del> 61.75	81660	11.5		11.5	
22		11.75		11.75		11.75		11.75		11.75	
23	10 8140	12.75		12.75		12.75		<del>10.75</del> 76.5	81400	12.75	
24	9. 7920	12.75		12.75		12.75		12.75		<del>8</del> 76.5	71280
25	10 8197	<del>11.0</del> 71.75	81970	14.5		14.5		14.5		14.5	
26	11. 8200	11.75		<del>11.25</del> 91.75	90200	11.75		11.75		11.75	
27	8 8250	13		13		<del>10.5</del> 79.5	66000	13		13	
28		12.5		12.5		12.5		12.5		12.5	
29	9. 8175	12.5		12.5		12.5		<del>10</del> 78.25	72575	12.5	
30	8. 8200	12.25		12.25		12.25		12.25		<del>10</del> 78.75	65600
31	15 7800	<del>6</del> 71	117250	<del>13.25</del> 4.75		13.25		13.25		13.25	

PIKEVILLE WATER TREATMENT PLANT  
AWOP INFORMATION

MONTH/YR: Dec 2016

ANALYTICAL RESULTS (NTU)									
DAY	RAW DAILY MAX	SED BASIN EFF		INDIVIDUAL FILTER EFFLUENT					CFE DAILY MAX
		DAILY MAX		DAILY MAXIMUM					
		#1	#2	#1	#2	#3	#4	#5	
1	73.6	2.04	1.49	.32	.09	.11	.15	.12	.10
2	30.2	1.44	.97	.09	.10	.17	.14	.14	.09
3	11.5	.88	.80	.09	.14	.19	.23	.14	.10
4	5.7	1.13	.96	.10	.07	.21	.27	.20	.10
5	4.8	1.03	.98	.12	.06	.24	.39	.31	.16
6	4.5	1.15	.79	.10	.06	.08	.46	.25	.14
7	24.5	1.34	1.26	.14	.07	.02	.12	.27	.09
8	26	1.85	1.77	.43	.07	.09	.10	.09	.07
9	9	.99	.86	.07	.19	.13	.17	.11	.07
10	4.8	1.16	1.12	.08	.07	.18	.36	.19	.10
11	4.6	1.13	.87	.22	.05	.07	.27	.30	.14
12	7.2	1.67	1.41	.13	.05	.07	.09	.20	.07
13	11.8	1.86	1.20	.23	.07	.18	.14	.07	.09
14	9.1	.89	.95	.25	.08	.24	.25	.08	.10
15	7.3	.99	.84	.06	.14	.41	.41	.15	.16
16	5.8	1.21	1.14	.16	.08	.52	.51	.34	.20
17	3.7	1.10	.98	.24	.10	.06	.51	.30	.16
18	60.4	1.53	1.51	.54	.12	.07	.13	.54	.14
19	103	2.1	1.9	.35	.1	.1	.16	.12	.09
20	23.2	1.11	1.82	.10	.15	.13	.10	.08	.07
21	23.1	1.26	1.12	.07	.06	.11	.24	.10	.08
22	20.4	1.21	1.18	.06	.05	.07	.24	.15	.08
23	11.4	1.38	1.14	.08	.05	.06	.36	.17	.10
24	22.4	1.49	1.28	.22	.11	.06	.08	.15	.06
25	33.6	1.52	1.30	.19	.23	.15	.10	.06	.10
26	29.7	1.58	1.27	.07	.23	.09	.10	.05	.05
27	27.6	1.02	.88	.12	.11	.08	.10	.05	.04
28	80	1.06	.90	.09	.06	.04	.11	.06	.05
29	33.3	1.80	1.48	.11	.06	.04	.10	.06	.10
30	28.2	1.37	1.22	.22	.07	.03	.12	.12	.07
31	23.6	1.06	.97	.26	.10	.03	.11	.06	.07

R F  
4255 3208  
4258 3175  
4222 3196  
4222 3199  
4203 3202  
4197 3231  
4246 3230  
4237 3220  
4249 3217  
4234 3214  
4231 3193  
4222 3162  
4231 3251  
4231 3236  
4246 3138  
4243 3233  
4209 3257  
4252 3190  
4298 3184  
4285 3187  
4292 3245  
4237 3208  
4225 3251  
4225 3226  
4274 3208  
4240 3220  
4292 3199  
4225 3199  
4344 3196  
4335 3156  
4289 3187

WATER PLANT MONTHLY OPERATIONS REPORT

MONTH/YEAR:

Dec 2016

DAILY READINGS

DAY	WATER TO DIST MGD	SLUDGE HAULED Gals $\times 100$	$\times 1000$ S/BW RETURN	RAIN FALL (inches)	WATER TEMP DEG C	CLEAR WELL LEVEL FT.
1	3.0711		15500gal	.65	13	7.6
2	3.1388		57000		11	5.8
3	2.8563		162000		11	6.2
4	2.8697		52000		11	7
5	2.9416		143000	.09	11	6
6	3.0869		183000	.42	11°	6.6
7	3.2525		216000		11°	8.4
8	2.9359		186000		10°	7.4
9	2.8834		111000		10	5.8
10	2.9147		241000		8°	6.8
11	2.8957		197000		9°	10.6
12	2.9881		218000	.76	9°	9.0
13	3.2703		94000		9	7
14	3.1167		182000		9	6.8
15	2.9534		156000		8	7.2
16	3.2853		208000		6	6.6
17	3.1609		137000		6.5	5.2
18	2.9587		192000	1.19	9	6.8
19	3.1810		111000		8	6
20	3.5318		118000		7	6
21	3.0144		87000		8°	11.0
22	3.0583	24000	11000		10°	7.4
23	3.0521	<del>24000</del>	71000		8	5.8
24	3.1660		214000		8	6.2
25	3.1829		89000		9.0	7.0
26	3.0769		192000		10°	9.0
27	3.2937		264000	.59	11	6.4
28	3.2974		78000		10	7.6
29	3.2439		142000	.41	10	6.4
30	3.0530		149000		8	6
31	3.2431		195000		9	6

### FINISHED WATER TURBIDITY

PWSID: 0980350

PWS NAME: PIKEVILLE WATER MONTH Dec/2016

DAY	MID - 4AM	4AM - 8AM	8AM - NOON	NOON - 4PM	4PM - 8PM	8PM - MID
1		.07	.08	.10	.10	
2		.07	.06	.08	.09	
3		.12	.09	.09	.10	
4		.13	.10	.13	.11	
5		.12	.13	.11	.12	
6		.13	.11	.18	.11	
7		.11	.07	.07	.07	
8		.07	.07	.10	.12	
9		.06	.07	.09	.11	
10		.07	.06	.06	.05	
11		.07	.06	.08	.10	
12		.12	.09	.08	.09	
13		.09	.06	.11	.10	
14		.08	.09	.10	.09	
15		.09	.11	.13	.14	
16		.11	.13	.16	.14	
17		.11	.11	.11	.13	
18		.12	.08	.10	.12	
19		.14	.08	.09	.11	
20		.06	.06	.06	.08	
21		.07	.06	.06	.07	
22		.06	.08	.06	.08	
23		.08	.08	.08	.09	
24		.09	.08	.07	.10	
25		.06	.06	.06	.05	.05
26		.06	.05	.07	.06	
27		.06	.05	.05	.05	
28		.06	.06	.06	.06	
29		.06	.07	.07	.08	
30		.06	.07	.06	.06	
31		.06	.06	.05	.05	

### SETTLED WATER TURBIDITY

PWSID: 0980350

PWS NAME: PIKEVILLE WATER MONTH Dec/2016

DAY	MID - 4AM	4AM - 8AM	8AM - NOON	NOON - 4PM	4PM - 8PM	8PM - MID
1		1.67	1.30	1.77	2.04/1.49/1.76	
2		1.40	1.21	.91	1.44/1.97/1.28	
3		.86	.83	.88/1.80/1.84	1.64	
4		.76	.90	1.13/1.96/1.04	1.31	
5		1.27	1.2	1.10	1.03/1.98/1	
6		1.06	1.05	.89	1.15/1.79/1.97	
7		1.01	1.29	1.34/1.26/1.30	1.63	
8		1.22	1.69	1.84	1.85/1.77/1.81	
9		1.28	1.08	.90	.99/1.86/1.92	
10		1.02	1.33	1.16/1.12/1.14	1.03	
11		1.01	1.00	1.13/1.82/1.00	1.24	
12		.98	1.07	1.72	1.67/1.41/1.54	
13		1.35	1.39	1.47	1.86/1.20/1.53	
14		1.31	1.18	.89/1.95/1.92	1.06	
15		1.11	1.12	1.31	.99/1.84/1.92	
16		1.32	1.09	1.21/1.14/1.18	1.11	
17		1.0	.96	1.11/1.98/1.04	.83	
18		1.57	2.0	1.53/1.51/1.52	2.0	
19		2.11	1.07	1.91	2.10/1.90/2	
20		1.27	.86	1.11/1.82/1.96	1.03	
21		1.01	1.13	1.26/1.02/1.19	1.17	
22		1.18	1.09	1.37	1.21/1.18/1.20	
23		1.29	1.34	1.38/1.14/1.28	1.39	
24		1.71	1.45	1.49/1.28/1.38	1.32	
25		1.26	1.48	1.52/1.30/1.41	1.35	1.39
26		1.34	1.37	1.43	1.58/1.27/1.42	
27		.88	.84	1.02/1.88/1.95	.84	
28		1.29	1.01	1.06/1.90/1.98	.98	
29		1.28	1.05	1.90/1.48/1.64	1.20	
30		1.41	1.37/1.22/1.29	1.30	1.36	
31		1.39	1.31	1.06/1.97/1.02	1.24	

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 12/1/16 RAW TEMP 13 RAINFALL .65

OPERATOR [Signature] OPERATOR [Signature]

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	40				
FLUORIDE	73/40				
PRECL2	190				
POSTCL2	190				

CLEAR WELL RFT/SHT 26.9 7.6 | 24.6 Town Mtn. 25.8 On \_\_\_ Off \_\_\_

METERS/WEIGHTS/LEVELS			
FINISHED	4860	8112	PAX 70/100/50/50
RAW	3434	6210	FLUORIDE 230
SLUDGE	272	847	PRE CL2 50/30/100
S B/W RET	227	309	POST CL2 60/38/100

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600	1216	231	1300	500	1755							12
#2	↓				↓								↓
#3	↓				↓								↓
#4	↓				↓								↓
#5	↓				↓								↓

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
1	220	4	8250		

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 12-2-16 RAW TEMP 11 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	40	↓ 35 (7:30)	↓ 25		
FLUORIDE	73/40		↑		
PRECL2	190	↓ 165	← 11/10Am		
POSTCL2	190	↑ 215			

CLEAR WELL 5.8 Town Mtn. 26.8 On  Off   
 RFT/SHT 25.8 122.6

METERS/WEIGHTS/LEVELS			
FINISHED	4863	8824	PAX 103/79/225
RAW	3434	9128	FLUORIDE 141
SLUDGE	272	847	PRE CL2 81
S B/W RET	227	464	POST CL2 82

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	550	1350	500	1800							12.75
#2											
#3											
#4											
#5											

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 12/3/16 RAW TEMP 11 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	25				
FLUORIDE	73/40				
PRECL2	165   150				
POSTCL2	215   200				

CLEAR WELL 6.2 Town Mtn. 26 On \_\_\_ Off \_\_\_  
 RFT/SHT 27.2 | 25

METERS/WEIGHTS/LEVELS			
FINISHED	48670212		PAX 160   225
RAW	34352313		FLUORIDE 30   300
SLUDGE	272847		PRE CL2 45   150
S B/W RET	227521		POST CL2 35   170

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600		1300	530	830								
#2	↓	125	145	↓	↓								
#3	↓			↓	↓								
#4	↓			↓	↓								
#5	↓			↓	↓								

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
2	130	12	8100	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 12/4/16 RAW TEMP 11 RAINFALL \_\_\_\_\_

OPERATOR HP OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	↓ 20				
FLUORIDE	73/40				
PRECL2	150 ↓ 140				
POSTCL2	200 ↓ 185	305 ↑ 195			

CLEAR WELL RFT/SHT 27.6 | 26.2 Town Mtn. 26.6 On \_\_\_ Off \_\_\_

METERS/WEIGHTS/LEVELS			
FINISHED	48698775		PAX 145
RAW	34355189		FLUORIDE 200
SLUDGE	272847		PRE CL2 120
S B/W RET	227683		POST CL2 128

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600	↓	215	↓	505	↓	1820	↓			11.5
#2	↓		↓		↓		↓				
#3	↓		↓		↓		↓				
#4	↓		↓		↓		↓				
#5	↓		↓		↓		↓				

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 12/5/16 RAW TEMP 11 RAINFALL .09

OPERATOR [Signature] OPERATOR [Signature]

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	23/40				
PRECL2	140				
POSTCL2	195				

CLEAR WELL 6 Town Mtn. 26 On    Off     
 RFT/SHT 27.6 | 25.8

METERS/WEIGHTS/LEVELS			
FINISHED	48727472		PAX 88/58/200
RAW	34358067		FLUORIDE 100/44/600
SLUDGE	272847		PRE CL2 95/80/111
S B/W RET	227735		POST CL2 92/71/152

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600		1315		530		1755						
#2													
#3		/230	/245										
#4													
#5													

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
3	1233	8	7950		

COMMENTS: 300 gal P left big tank  
 big cl<sup>2</sup> tanks empty

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 12/6/16 RAW TEMP 11° RAINFALL 42

OPERATOR DM OPERATOR Jr

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	140				
POSTCL2	195	180			

CLEAR WELL 6.6 Town Mtn. 25.0 On  Off   
 RFT/SHT 27.6 | 26.4

METERS/WEIGHTS/LEVELS							
FINISHED	48756888			PAX	171	144	220
RAW	34360998			FLUORIDE	560		
SLUDGE	272847			PRE CL2	100	90	170
S B/W RET	227878			POST CL2	132	117	170

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	5:05		1:30		5:20	7:05	8:00	9:00					
#2	↓				↓		↓						
#3	↓		↓		↓		↓						
#4	↓	12:15	2:40		↓		↓						
#5	↓		↓		↓		↓						

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
4	2:18	9	8150		

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 12/7/16 RAW TEMP 11° RAINFALL \_\_\_\_\_

OPERATOR DM OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	140				
POSTCL2	230 ↓	195 ↑	200		

CLEAR WELL 8.4 Town Mtn. 25.6 On  Off   
 RFT/SHT 28.4 | 27.6

METERS/WEIGHTS/LEVELS			
FINISHED	48787757		PAX 180
RAW	34364181		FLUORIDE 450
SLUDGE	272847		PRE CL2 150
S B/W RET	228061		POST CL2 155

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	5:05	12:15	2:00	4:35	4:00	19:10							12.75
#2	↓	↓	↓	↓	↓	↓							
#3	↓	↓	↓	↓	↓	↓							
#4	↓	↓	↓	↓	↓	↓							
#5	↓	11:55	↓	↓	↓	↓							

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#5	12:02	10	8155	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 12/8/16 RAW TEMP 10° RAINFALL \_\_\_\_\_

OPERATOR Dm OPERATOR 

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	7 <sup>3</sup> / <sub>40</sub>				
PRECL2	140				
POSTCL2	205	↑225			

CLEAR WELL 1215 Town Mtn. 26.0 On  Off   
 RFI/SHT 28.8 | 27.4

METERS/WEIGHTS/LEVELS			
FINISHED	48820282		PAX 114/80/200
RAW	34367348		FLUORIDE 340
SLUDGE	222847		PRE CL2 120
S B/W RET	228277		POST CL2 110/91/170

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN				
#1	6:00		200		300		500		640		710		800		11.5
#2															
#3															
#4															
#5															

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
1	131	13	6570		

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 12-9-16 RAW TEMP 10 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	140				
POSTCL2	225				

CLEAR WELL 5.8 Town Mtn. 27 On  Off \_\_\_\_\_  
 RFT/SHT 28.4 | 27

METERS/WEIGHTS/LEVELS			
FINISHED	48849641		PAX 170
RAW	34370167		FLUORIDE 247
SLUDGE	272847		PRE CL2 93
S B/W RET	228463		POST CL2 149

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	557	1342	500	1	1625	700	1800				12.25
#2				1600	→						
#3											
#4											
#5	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
2	604	11	5926		

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 12/10/16 RAW TEMP 8° RAINFALL \_\_\_\_\_

OPERATOR Dy OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	140				
POSTCL2	225				

CLEAR WELL 6.8 Town Mtn. 26.0 On  Off   
 RFT/SHT 29.4 | 28.6

METERS/WEIGHTS/LEVELS						
FINISHED	48878475			PAX	101	220
RAW	34373178			FLUORIDE	145	800
SLUDGE	272847			PRE CL2	68	175
S B/W RET	228574			POST CL2	103	175

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	5:05	11:05	1:00	4:00	5:45	8:00	9:00	9:45					12.0
#2	↓	↓	↓	↓	↓	↓	↓	↓					
#3	↓	↓	↓	↓	↓	↓	↓	↓					
#4	↓	↓	↓	↓	↓	↓	↓	↓					
#5	↓	↓	↓	↓	↓	↓	↓	↓					

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#3	3:33	14	5908	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 12/11/16 RAW TEMP 9° RAINFALL \_\_\_\_\_

OPERATOR DM OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	140				
POSTCL2	225				

CLEAR WELL 10.6 Town Mtn. 24.2 On Off X  
 RFT/SHT 30.4 | 29.4

METERS/WEIGHTS/LEVELS			
FINISHED	48907622		PAX 150
RAW	34376222		FLUORIDE 680
SLUDGE	222847		PRE CL2 149
S B/W RET	228815		POST CL2 132

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	5:00	10:00	1:00	5:15	6:45	8:00	9:00	10:00					19.5
#2	↓	↓	↓	↓	↓	↓	↓	↓					
#3	↓	↓	↓	↓	↓	↓	↓	↓					
#4	↓	↓	↓	4:15	↓	↓	↓	↓					
#5	↓	↓	↓	5:15	↓	↓	↓	↓					

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#4	4:18	15	5816	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 12/12/16 RAW TEMP 9° RAINFALL .76

OPERATOR DM OPERATOR JL

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	28/40				
PRECL2	140				
POSTCL2	225				

CLEAR WELL 9.0 Town Mtn. 27.0 On  Off

RFT/SHT 29.0 | 26.4

METERS/WEIGHTS/LEVELS			
FINISHED	48936579		PAX 95
RAW	34379063		FLUORIDE 575
SLUDGE	272847		PRE CL2 120
S B/W RET	229012		POST CL2 90

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	6:00		1143		440	1800	830	1855			11.5
#2											
#3											
#4											
#5	↓	1129	↓	1145	↓	1145	↓	1145			↓

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
5	131	10	5900		

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 12/13/16 RAW TEMP 9 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR [Signature]

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	140				
POSTCL2	225	↓ 1243 205			

CLEAR WELL TOWN Mtn. 26.4 On    Off     
 RFT/SHT 27.4 | 24.4

METERS/WEIGHTS/LEVELS			
FINISHED	48966459		PAX 32 / 200
RAW	34381883		FLUORIDE 500
SLUDGE	272847		PRE CL2 90 / 125
S B/W RET	229230		POST CL2 50 / 150

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	605	1246	545	1005									13
#2													
#3													
#4													
#5	↓		↓										

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 12/14/16 RAW TEMP 9 RAINFALL \_\_\_\_\_

OPERATOR JD OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	140 <sup>1120</sup> ↓ 120				
POSTCL2	205				

CLEAR WELL 6.8 Town Mtn. 27.8 On \_\_\_ Off \_\_\_  
 RFT/SHT 28.4 | 25.6

METERS/WEIGHTS/LEVELS			
FINISHED	48999162		PAX 130
RAW	34385122		FLUORIDE 400
SLUDGE	272847		PRE CL2 90
S B/W RET	229324		POST CL2 105

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	610	1135	1205	230	545	1015							
#2													1225
#3													
#4													
#5	↓			↓	↓								

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
1	1140	15	5530	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 12/15/16 RAW TEMP 8 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR [Signature]

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	7 3/40				
PRECL2	120				
POSTCL2	205				

CLEAR WELL 7.2 Town Mtn. 24.8 On \_\_\_ Off \_\_\_  
 RFT/SHT 27.6 | 25.6

METERS/WEIGHTS/LEVELS			
FINISHED	490.30329		PAX 60/26/140
RAW	343.88231		FLUORIDE 300
SLUDGE	272.847		PRE CL2 68/56/115
S B/W RET	229.506		POST CL2 65/43/128

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600		1430		615	1755					12.25
#2		1359	→		815						}
#3					615						
#4											
#5											

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
2	403	10	5925	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 12-16-16 RAW TEMP 6 RAINFALL \_\_\_\_\_

OPERATOR JR OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	120				
POSTCL2	225↑				

CLEAR WELL 6.6 Town Mtn. 26.2 On  Off   
 RFT/SHT 25.4 | 23.8

METERS/WEIGHTS/LEVELS	
FINISHED	49059863
RAW	34391214
SLUDGE	272847
S B/W RET	229662
PAX	108
FLUORIDE	196
PRE CL2	101
POST CL2	108

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	530		1300		500	1800							12.5
#2													↓
#3		1215	230										↓
#4	↓												↓
#5	↓			↓	↓								↓

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
3	220	8	8030	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 12/17/16 RAW TEMP 6.5 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	77/40				
PRECL2	120				
POSTCL2	225				

CLEAR WELL 5.2 Town Mtn. 27 On    Off     
 RFT/SHT 27.6 | 22

### METERS/WEIGHTS/LEVELS

FINISHED	49092716		PAX	35	210
RAW	34394321		FLUORIDE	95	500
SLUDGE	272847		PRE CL2	75	130
S B/W RET	229870		POST CL2	62	170

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600		1535		700		830				13
#2											
#3											
#4		1345	400								
#5											

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
4	348	10	7990	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 12/18/16 RAW TEMP 9 RAINFALL 1.19

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20 <sup>910</sup> 730	740			
FLUORIDE	73/40				
PRECL2	1 <sup>615</sup> 30				
POSTCL2	225 <sup>121</sup> 210				

CLEAR WELL 6.8 Town Mtn. 25.6 On Off  
 RFT/SHT 28.8 | 27.6

METERS/WEIGHTS/LEVELS			
FINISHED	49124325		PAX 137
RAW	34397549		FLUORIDE 385
SLUDGE	272847		PRE CL2 105
S B/W RET	230007		POST CL2 120

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600		1230	500	805						
#2											
#3											
#4											
#5	✓	11245	105	✓	1	✓					

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
5	1250	12	8000		

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 12/19/16 RAW TEMP 8 RAINFALL .11

OPERATOR [Signature] OPERATOR [Signature]

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	40 <sup>8:30</sup> ↓ 30				
FLUORIDE	73/40				
PRECL2	13 <sup>0</sup>				
POSTCL2	215 <sup>8:30</sup> ↑ 220				

CLEAR WELL 6 Town Mtn. 26.6 On Off  
 RFT/SHT 25.6 | 22.8

### METERS/WEIGHTS/LEVELS

FINISHED	4915 3912	PAX	45/100/47/100
RAW	3440 0429	FLUORIDE	280
SLUDGE	272 847	PRE CL2	85
S B/W RET	230199	POST CL2	82

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600	240	300	530	700	1800					12 <sup>25</sup>
#2											12 <sup>5</sup>
#3											
#4											
#5											↓

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
1	243	10	7905		

COMMENTS:



# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 12/21/16 RAW TEMP 8° RAINFALL \_\_\_\_\_

OPERATOR DM OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	30				
FLUORIDE	73/40				
PRECL2	130				
POSTCL2	220				

CLEAR WELL RFT/SHT 28.8 | 27.8      Town Mtn. 25.4 On  Off \_\_\_\_\_

METERS/WEIGHTS/LEVELS					
FINISHED	49221040			PAX	138   92   160
RAW	3440 7357			FLUORIDE	520
SLUDGE	272847			PRE CL2	148   132   150
S B/W RET	230428			POST CL2	128   108   150

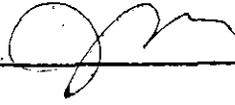
FILTERS	6.0      9.0      2.5      11.3												HOURS RUN
	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	
#1	6:05	12:00	2:00	4:55	6:30	9:00							
#2	↓	↓	↓	↓	↓	↓							
#3		11:25	↓	↓	↓	↓							
#4	↓	12:00	↓	↓	↓	↓							
#5	↓	↓	↓	↓	↓	↓							

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#3	11:30	10	8166	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 12/22/16 RAW TEMP 10° RAINFALL \_\_\_\_\_

OPERATOR DM OPERATOR 

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	30				
FLUORIDE	73/40				
PRECL2	130				
POSTCL2	220				

CLEAR WELL 28.8 | 26.8 Town Mtn. 24.8 On  Off

METERS/WEIGHTS/LEVELS			
FINISHED	4925/184		PAX 126/50/140
RAW	344/0176		FLUORIDE 430/332/550
SLUDGE	272847		PRE CL2 140
S B/W RET	230515		POST CL2 133/95/155

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	6:20	2:30	5:00	8:15							11.75
#2	↓	↓	↓	↓							↓
#3	↓	↓	↓	↓							↓
#4	↓	↓	↓	↓							↓
#5	↓	↓	↓	↓							↓

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 12-23-16 RAW TEMP 8 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	3025				
FLUORIDE	73/40				
PRECL2	130				
POSTCL2	220				

CLEAR WELL 5.8 Town Mtn. 24.8 On  Off

RFT/SHT 27.6 | 125.8

METERS/WEIGHTS/LEVELS			
FINISHED	4928	1767	PAX 135
RAW	3441	3133	FLUORIDE 546
SLUDGE	2730	87	PRE CL2 118
S B/W RET	2305	26	POST CL2 153

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600		1455	610	1755						
#2											
#3											
#4		440	→								
#5											

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
4	443	10	8140	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 12-24-16 RAW TEMP 8 RAINFALL 76

OPERATOR *Jm* OPERATOR \_\_\_\_\_  
 FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	130				
FLUORIDE	73/40				
PRECL2	130				
POSTCL2	220				

CLEAR WELL 6.2 Town Mtn. 25.6 On Off  
 RFT/SHT 25.4 | 23.4

METERS/WEIGHTS/LEVELS			
FINISHED	4931	2288	PAX 52/160
RAW	3441	6243	FLUORIDE 428
SLUDGE	2730	87	PRE CL2 88/150
S B/W RET	2305	97	POST CL2 108/150

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600		1500		615						
#2											
#3											
#4											
#5	205		220		2						

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
5	208	9	7920	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 12/25/16 RAW TEMP 9° RAINFALL \_\_\_\_\_

OPERATOR DM OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	30				
FLUORIDE	73/40				
PRECL2	130				
POSTCL2	220				

CLEAR WELL 7.0 Town Mtn. 25.6 On  Off   
 RFT/SHT 27.2 | 24.8

METERS/WEIGHTS/LEVELS					
FINISHED	49343948			PAX	70   220
RAW	34419378			FLUORIDE	315   800
SLUDGE	2730 87			PRE CL2	120   170
S B/W RET	230 811			POST CL2	103   170

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	5:00	2:00	4:20	6:05	6:30	7:01	7:55	9:30			
#2					.5		1.5				14.5
#3											
#4											
#5	↓	↓	↓			↓	↓	↓			↓

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#1	6:15	10	8197	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 12/26/16 RAW TEMP 10° RAINFALL \_\_\_\_\_

OPERATOR OM OPERATOR *[Signature]*

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	30				
FLUORIDE	73/40				
PRECL2	130				
POSTCL2	220				

CLEAR WELL 9.0 Town Mtn. 26.2 On  Off   
 RFT/SHT 28.6 | 25.8

METERS/WEIGHTS/LEVELS			
FINISHED	4937	5777	PAX <del>126</del> 126
RAW	3442	2747	FLUORIDE 660
SLUDGE	2730	87	PRE CL2 140
S B/W RET	230	900	POST CL2 120

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	6:00	1:239	339		1845						11.75
#2				1817	1845						
#3											
#4											
#5											

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
2	820	4	8200		

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 12/27/16 RAW TEMP 11 RAINFALL .59

OPERATOR LP OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	30				
FLUORIDE	73/40				
PRECL2	130				
POSTCL2	220				

CLEAR WELL 6.4 Town Mtn. 25.8 On Off  
 RFT/SHT 25 | 17.8

METERS/WEIGHTS/LEVELS			
FINISHED	4940	6546	PAX 38 / 225
RAW	3442	5647	FLUORIDE 560
SLUDGE	2730	87	PRE CL2 115 / 175
S B/W RET	33	092	POST CL2 80 / 175

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600	1500	730	1930							
#2		↓									
#3		1430									
#4		1500									
#5	↓	↓	↓	↓							

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
3	435	8	8250		

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 12/28/16 RAW TEMP 10 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	30				
FLUORIDE	73/40				
PRECL2	1140				
POSTCL2	220				

CLEAR WELL 7.6 Town Mtn. 26.6 On Off  
 RFT/SHT 25.8 | 23.8

METERS/WEIGHTS/LEVELS			
FINISHED	49439483		PAX 140/170
RAW	34428885		FLUORIDE 460
SLUDGE	273087		PRE CL2 150
S B/W RET	231356		POST CL2 130

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600	415	700	915							12.0
#2	↓	↓	↓	↓							
#3	↓	↓	↓	↓							
#4	↓	↓	↓	↓							
#5	↓	↓	↓	↓							

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 12/29/16 RAW TEMP 10 RAINFALL .41

OPERATOR [Signature] OPERATOR [Signature]

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	30	↓ 25			
FLUORIDE	73/40				
PRECL2	↑ 150				
POSTCL2	220				

CLEAR WELL RFT/SHT 25.8 | 6.4 | 24 Town Mtn. 25 On Off

METERS/WEIGHTS/LEVELS			
FINISHED	4947	2457	PAX 80/38/140
RAW	3443	2077	FLUORIDE 360
SLUDGE	273	087	PRE CL2 120
S B/W RET	231	434	POST CL2 87/65/170

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600		500		600	1707	732	1800					12.5
#2													
#3													
#4		140	425										
#5													

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
4	404	9	8175		

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 12-30-16 RAW TEMP \_\_\_\_\_ RAINFALL \_\_\_\_\_

OPERATOR JM OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	25				
FLUORIDE	73/40				
PRECL2	130				
POSTCL2	200				

CLEAR WELL RFT/SHT 26.8 | 6 | 24.8

Town Mtn. 24.2 On Off

### METERS/WEIGHTS/LEVELS

FINISHED	4950	4896	PAX	108
RAW	3443	5277	FLUORIDE	247
SLUDGE	273	087	PRE CL2	87
S B/W RET	231	576	POST CL2	145

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600		1425		625		810				1225
#2											
#3											
#4											
#5	1405										

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
5	408	8	8200		

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 12/31/16 RAW TEMP 9 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	25				
FLUORIDE	73/40				
PRECL2	150				
POSTCL2	200				

CLEAR WELL 6 Town Mtn. 27.2 On Off  
 RFT/SHT 24.4 | 17.6

METERS/WEIGHTS/LEVELS			
FINISHED	49535426		PAX 25   225
RAW	34438337		FLUORIDE 150   400
SLUDGE	273554		PRE CL2 60   150
S B/W RET	231725		POST CL2 105   150

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	635	235	300	538	730	941					13.25
#2											
#3											
#4											
#5											

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
1	240	15	7850		

COMMENTS:





**SAMPLE SUMMARY**

Lab ID	Client Sample ID/Alias	Matrix	Date Collected	Date Received	Sampled By
6122220-01	BACT/	Drinking Water	12/12/2016 09:53	12/12/2016 12:04	Ralph Varney
6122220-02	BACT/	Drinking Water	12/12/2016 10:28	12/12/2016 12:04	Ralph Varney
6122220-03	BACT/	Drinking Water	12/12/2016 10:39	12/12/2016 12:04	Ralph Varney
6122220-04	BACT/	Drinking Water	12/12/2016 10:47	12/12/2016 12:04	Ralph Varney
6122220-05	BACT/	Drinking Water	12/12/2016 10:57	12/12/2016 12:04	Ralph Varney

LabNumber	Measurement	Value
6122220-01	Field Residual Chlorine	1.09
6122220-02	Field Residual Chlorine	0.92
6122220-03	Field Residual Chlorine	1.18
6122220-04	Field Residual Chlorine	1.31
6122220-05	Field Residual Chlorine	1.39



**ANALYTICAL RESULTS**

Lab Sample ID: **6122220-01**  
Description: **BACT**

Sample Collection Date Time: 12/12/2016 09:53  
Sample Received Date Time: 12/12/2016 12:04

Matrix: Drinking Water

Discharge/Site No: 040

Regulatory ID: KY0980350

Microbiological Analyses Pikeville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Colilert 24	12/12/2016 15:30	12/13/2016 16:17	ADH

**ANALYTICAL RESULTS**

Lab Sample ID: **6122220-02**  
Description: **BACT**

Sample Collection Date Time: 12/12/2016 10:28  
Sample Received Date Time: 12/12/2016 12:04

Matrix: Drinking Water

Discharge/Site No: 111

Regulatory ID: KY0980350

Microbiological Analyses Pikeville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Colilert 24	12/12/2016 15:30	12/13/2016 16:17	ADH

**ANALYTICAL RESULTS**

Lab Sample ID: **6122220-03**  
Description: **BACT**

Sample Collection Date Time: 12/12/2016 10:39  
Sample Received Date Time: 12/12/2016 12:04

Matrix: Drinking Water

Discharge/Site No: 030

Regulatory ID: KY0980350

Microbiological Analyses Pikeville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Colilert 24	12/12/2016 15:30	12/13/2016 16:17	ADH



**ANALYTICAL RESULTS**

Lab Sample ID: **6122220-04**  
Description: **BACT**

Sample Collection Date Time: 12/12/2016 10:47  
Sample Received Date Time: 12/12/2016 12:04

Matrix: Drinking Water

Discharge/Site No: 009

Regulatory ID: KY0980350

**Microbiological Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Coliert 24	12/12/2016 15:30	12/13/2016 16:17	ADH

**ANALYTICAL RESULTS**

Lab Sample ID: **6122220-05**  
Description: **BACT**

Sample Collection Date Time: 12/12/2016 10:57  
Sample Received Date Time: 12/12/2016 12:04

Matrix: Drinking Water

Discharge/Site No: 110

Regulatory ID: KY0980350

**Microbiological Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Coliert 24	12/12/2016 15:30	12/13/2016 16:17	ADH

**Notes for work order 6122220**

- Samples collected by MMLI personnel are done so in accordance with procedures set forth in MMLI field services SOPs.
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identification based on the presumptive evidence of the mass spectra.

**Standard Qualifiers/Acronyms**

MDL	Method Detection Limit
MRL	Minimum Reporting Limit
ND	Not Detected
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
% Rec	Percent Recovery
RPD	Relative Percent Difference
>	Greater than
<	Less than

KENTUCKY DIVISION OF WATER / DRINKING WATER RESULTS  
BACTERIOLOGICAL ANALYSIS REPORT FORM

General Information -- This Section To Be Completed By Collector

PWS ID	KY0980350	Compliance Period (MMYYYY)	122016
PWS Name	PIKEVILLE	PWS Contact	RALPH VARNSEY
PWS Address	3061 STAND CR RD	PWS Phone	606-437-0540
		Collection Date (MMDDYYYY) <small>(All Samples Reported on this Form were Collected on this Date.)</small>	12/12/2016
		Collector Name	<i>Ralph Varnsey</i> 12/12/16

General Information -- This Section To Be Completed By Lab

Lab ID	00050	Lab Receipt Date (MMDDYYYY)	12/22/2016	Total Coliform Analysis Method Code	309
Lab Analyst	<i>Oliver</i> 12-13-16	Analysis Date (MMDDYYYY)	12/22/2016	E Coli Analysis Method Code	309
		Lab Supervisor	<i>Oliver</i> 12/23/16		

Sample Information -- This Section To Be Completed By Collector

Sample Type (RT, RP, TG, CO, or SP) (See Key)	Special Sample Reason (A, B, C, D, or E) (See Key) Replacement Sample? (Y or Blank)	Location Code (See Instructions)	Repeat Location Code (DN, UP, or OR) (See Key)	Sample Time (24 hr)	Free Chlorine (Required for all disinfectants except Chloramine)	Total Chlorine (Required when disinfectant is Chloramine)
RT		040		0553	0.09	.
RT		111		1028	0.92	.
RT		030		1039	1.18	.
RT		009		1047	1.31	.
RT		110		1057	1.39	.

Analysis Information -- This Section To Be Completed By Lab

Lab Sample Number	Analysis Time (24 hr)	Result (Total Coliform Count - or - TNTC - or - CNFG - or - TCNG) (See Key)	Total Coliform (P/A)	E Coli (P/A)	Lab Sample Number of Original Sample (Required for RP, TG, CO, and/or Replacement Samples) (See Instructions)
6122220					
01	1616		A	A	
02	1616		A	A	
03	1616		A	A	
04	1616		A	A	
05	1616		A	A	

The signatories of this form certify by their signatures that collection and analysis of the water sample analyzed and the resulting data hereby submitted, were completed in accordance with the provisions of 401 KAR Chapter 8, specifically including but not limited to 401 KAR 8:200, Section 1 and 401 KAR 8:040; and that the data submitted on this form is a true and accurate report of the results of collection and analysis performed pursuant to the above-referenced regulations. Violations of 401 KAR Chapter 8 are subject to severe penalties prescribed in KRS 224.99-010, up to \$25,000 fine per day per violation and in some cases a violation may subject the violator to prison.

BACTERIOLOGICAL ANALYSIS REPORT FORM KEY

<b>Sample Type:</b>	RT = Routine (For Compliance)	RP = Repeat (For Compliance)	SP = Special (Not for Compliance)
	TG = Triggered (For Compliance)	CO = Confirmation (For Compliance)	
<b>Special Sample Reason: (Only if Sample Type = SP)</b>	A = Suspected Contamination	B = New Plant, Modification, or Line Extension	C = Treatment Modification
	D = Study/Investigation	E = Line Break, Emergency Repair	
<b>Repeat Location Code: (Only if Sample Type = RP)</b>	DN = Downstream	UP = Upstream	OR = Original Site
<b>Result:</b>	TNTC = Too Numerous to Count	CNFG = Confluent Growth	TCNG = Turbid Culture-No Gas



**KENTUCKY DIVISION OF WATER / DRINKING WATER BRANCH  
DISINFECTION BY PRODUCT PRECURSOR ANALYSIS REPORT FORM**

SAMPLE CATEGORY = TOC

**This Section To Be Completed By Collector**

PWS ID	<u>KY0980350</u>	Plant ID	<u>A</u>	Plant Name	<u>INTAKE - LEVISA FORK/BIG SANDY RIVE</u>	Location Code	<u>R01</u>
PWS Name	<u>Pikeville Water Department</u>			PWS Contact	<u>Ralph Varney</u>		
PWS Address	<u>306 Island Creek Road, Pikeville, KY 41501</u>			PWS Phone	<u>(606) 437-5123</u>		
Sample Date (MMDDYYYY)	<u>12/12/2016</u>	Time	<u>11:51</u>	Sample Type	<u>RT</u>	Collector Name	<u>Ralph Varney</u>
				RT = Routine (For Compliance) SP = Special (Not for Compliance)			

**This Section to Be Completed By Lab**

Lab ID	<u>00030</u>	Lab Sample Number	<u>6122222-01</u>	Lab Phone	<u>(270) 821-7375</u>
Lab Analyst	<u>Tracy Benton</u>	Signature/Date	<u>12/19/2016 10:41</u>	Lab Supervisor	<u><i>Tracy Benton</i></u> <u>12/21/2016</u>

Analyte Code	Analyte Name	Analysis Method Code	<	Result (mg/L)	Analysis Date
				-of- Lab Minimum Reporting Limit (mg/L)	
1927	Alkalinity, Total (as CaCO3)	849		128	12192016
2920	Total Organic Carbon	839		2.0	12152016

The signatories of this form certify by their signature that collection and analysis of the water sample analyzed and the resulting data hereby submitted, were completed in accordance with the provisions of 401 KAR Chapter 8; and that the data submitted on this form is a true and accurate report of the results of collection and analysis performed pursuant to the above-referenced regulations. Violations of 401 KAR Chapter 8 are subject to severe penalties prescribed in KRS 224.99-010, up to \$25,000 fine per day per violation and in some cases a violation may subject a violator to prison.

**KENTUCKY DIVISION OF WATER / DRINKING WATER BRANCH  
DISINFECTION BYPRODUCT PRECURSOR ANALYSIS REPORT FORM**

SAMPLE CATEGORY = TOC

**This Section To Be Completed By Collector**

PWS ID	<u>KY0980350</u>	Plant ID	<u>A</u>	Plant Name	<u>PIKEVILLE WTP</u>	Location Code	<u>CF1</u>
PWS Name	<u>Pikeville Water Department</u>			PWS Contact	<u>Ralph Varney</u>		
PWS Address	<u>306 Island Creek Road, Pikeville, KY 41501</u>			PWS Phone	<u>(606) 437-5123</u>		
Sample Date (MMDDYYYY)	<u>12/12/2016</u>	Time	<u>11:58</u>	Sample Type	<u>RT</u>	Collector Name	<u>Ralph Varney</u>
				RT = Routine (For Compliance)			
				SP = Special (Not for Compliance)			

**This Section to Be Completed By Lab**

Lab ID	<u>00030</u>	Lab Sample Number	<u>6122222-02</u>	Lab Phone	<u>(270) 821-7375</u>
Lab Analyst	<u>Tracy Benton</u>	<u>12/15/2016 11:41</u>	Lab Supervisor	<u><i>Mark A. Thomas</i></u>	<u>12/21/2016</u>
		Signature/Date			

Analyte Code	Analyte Name	Analysis Method Code	<	Result (mg/L)	Analysis Date
				-or- Lab Minimum Reporting Limit (mg/L)	
2920	Total Organic Carbon	839		1.9	12/15/2016

The signatories of this form certify by their signature that collection and analysis of the water sample analyzed and the resulting data hereby submitted, were completed in accordance with the provisions of 401 KAR Chapter 8; and that the data submitted on this form is a true and accurate report of the results of collection and analysis performed pursuant to the above-referenced regulations. Violations of 401 KAR Chapter 8 are subject to severe penalties prescribed in KRS 224.99-010, up to \$25,000 fine per day per violation and in some cases a violation may subject a violator to prison.

FIELD CHAIN OF CUSTODY RECORD

FIELD MONITORING PROGRAM

SAMPLERS (SIGNATURES)

*[Signature]*

FACILITY	SAMPLE SOURCE	COMPOSITING PERIOD				SAMPLE COLLECTION			FLOW		CONTAINER			Volatile Organics	Pesticides/PCB's	Trace Metals	Cyanide	Phenols	Oil and Grease	Solids	BOD	Ammonia Nitrogen	Phosphorous	Coliform	pH	Preservation	COMMENTS		
		SAMPLING BEGINS		SAMPLING ENDS		DATE	TIME	G/C	MGD	VOLUME	G/P																		
		DATE	TIME	DATE	TIME																								
PIRELLA WWT	115					12/21/06	1259	G				P															Falcon-76		
	118					"	1312	"				"																	
	120					"	1320	"				"																	
	028					"	1342	"				"																	
	033						"	1351	"				"																
	GRT CYCLONE GRT PUMP						"	1415	C				P																TSS
						"	1417	"				"															TSS		
PX GRT CYCLONE																													
GRT PUMP																													
RELINQUISHED BY	DATE	TIME	RECEIVED BY	RELINQUISHED BY	DATE	TIME	RECEIVED BY	RELINQUISHED BY	DATE	TIME	RECEIVED BY	RELINQUISHED BY	DATE	TIME	RECEIVED BY	RELINQUISHED BY	DATE	TIME	RECEIVED BY	RELINQUISHED BY	DATE	TIME	RECEIVED BY	RELINQUISHED BY	DATE	TIME	RECEIVED BY		
<i>[Signature]</i>	12/21/06	1426	<i>[Signature]</i>																										

pH 6.10-6.5

Temp Time Analysis  
 9°C 1425 8.15

9°C 1426 8.25

*[Signature]*

15°C with ICE (RW)

002170



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859.299.7775      606.432.3104      812.696.5076

Louisville, KY      Paducah, KY  
502.961.0001      270.444.6547

"Providing Tomorrow's Analytical Capabilities Today"

**SAMPLE SUMMARY**

Lab ID	Client Sample ID/Alias	Matrix	Date Collected	Date Received	Sampled By
6123198-01	BACT/	Drinking Water	12/21/2016 12:59	12/21/2016 14:26	Ralph Varney
6123198-02	BACT/	Drinking Water	12/21/2016 13:12	12/21/2016 14:26	Ralph Varney
6123198-03	BACT/	Drinking Water	12/21/2016 13:20	12/21/2016 14:26	Ralph Varney
6123198-04	BACT/	Drinking Water	12/21/2016 13:42	12/21/2016 14:26	Ralph Varney
6123198-05	BACT/	Drinking Water	12/21/2016 13:51	12/21/2016 14:26	Ralph Varney

<u>LabNumber</u>	<u>Measurement</u>	<u>Value</u>
6123198-01	Field Residual Chlorine	0.83
6123198-02	Field Residual Chlorine	1.17
6123198-03	Field Residual Chlorine	1.28
6123198-04	Field Residual Chlorine	1.56
6123198-05	Field Residual Chlorine	1.70



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Louisville, KY 502.961.0001	Paducah, KY 270.444.6547	

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**ANALYTICAL RESULTS**

Lab Sample ID: **6123198-01**  
Description: **BACT**

Sample Collection Date Time: 12/21/2016 12:59  
Sample Received Date Time: 12/21/2016 14:26

Matrix: Drinking Water

Discharge/Site No: 115

Regulatory ID: KY0980350

Microbiological Analyses Pikeville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Colilert 24	12/21/2016 15:31	12/22/2016 17:14	BRL

**ANALYTICAL RESULTS**

Lab Sample ID: **6123198-02**  
Description: **BACT**

Sample Collection Date Time: 12/21/2016 13:12  
Sample Received Date Time: 12/21/2016 14:26

Matrix: Drinking Water

Discharge/Site No: 118

Regulatory ID: KY0980350

Microbiological Analyses Pikeville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Colilert 24	12/21/2016 15:31	12/22/2016 17:14	BRL

**ANALYTICAL RESULTS**

Lab Sample ID: **6123198-03**  
Description: **BACT**

Sample Collection Date Time: 12/21/2016 13:20  
Sample Received Date Time: 12/21/2016 14:26

Matrix: Drinking Water

Discharge/Site No: 120

Regulatory ID: KY0980350

Microbiological Analyses Pikeville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Colilert 24	12/21/2016 15:31	12/22/2016 17:14	BRL



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### ANALYTICAL RESULTS

Lab Sample ID: **6123198-04**  
Description: **BACT**

Sample Collection Date Time: 12/21/2016 13:42  
Sample Received Date Time: 12/21/2016 14:26

Matrix: Drinking Water

Discharge/Site No: 028

Regulatory ID: KY0980350

**Microbiological Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Colilert 24	12/21/2016 15:31	12/22/2016 17:14	BRL

### ANALYTICAL RESULTS

Lab Sample ID: **6123198-05**  
Description: **BACT**

Sample Collection Date Time: 12/21/2016 13:51  
Sample Received Date Time: 12/21/2016 14:26

Matrix: Drinking Water

Discharge/Site No: 033

Regulatory ID: KY0980350

**Microbiological Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Colilert 24	12/21/2016 15:31	12/22/2016 17:14	BRL

**Notes for work order 6123198**

- Samples collected by MMLI personnel are done so in accordance with procedures set forth in MMLI field services SOPs.
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identification based on the presumptive evidence of the mass spectra.

**Standard Qualifiers/Acronyms**

MDL	Method Detection Limit
MRL	Minimum Reporting Limit
ND	Not Detected
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
% Rec	Percent Recovery
RPD	Relative Percent Difference
>	Greater than
<	Less than





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**SAMPLE SUMMARY**

Lab ID	Client Sample ID/Alias	Matrix	Date Collected	Date Received	Sampled By
6123037-01	Fluoride/	Drinking Water	12/21/2016 12:59	12/21/2016 14:26	Ralph Varney
<u>LabNumber</u>	<u>Measurement</u>	<u>Value</u>			
6123037-01	Field Fluoride	0.76			

**ANALYTICAL RESULTS**

Lab Sample ID: **6123037-01**  
Description: **Fluoride**

Sample Collection Date Time: 12/21/2016 12:59  
Sample Received Date Time: 12/21/2016 14:26

Matrix: Drinking Water

Discharge/Site No: 115

Regulatory ID: KY0980350

**Conventional Chemistry Analyses Madisonville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Fluoride	0.59		mg/L	0.20		4500-F C-1997	12/27/2016 10:48	12/27/2016 10:48	JTL

**Notes for work order 6123037**

- Samples collected by MML personnel are done so in accordance with procedures set forth in MML field services SOPs.
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identification based on the presumptive evidence of the mass spectra.

U Target analyte was analyzed for, but was below detection limit (the value associated with the qualifier is the laboratory method detection limit in our LIMS system).

**Standard Qualifiers/Acronyms**

- MDL Method Detection Limit
- MRL Minimum Reporting Limit
- ND Not Detected
- LCS Laboratory Control Sample
- MS Matrix Spike
- MSD Matrix Spike Duplicate
- DUP Sample Duplicate
- % Rec Percent Recovery
- RPD Relative Percent Difference
- > Greater than
- < Less than

**Certified Analyses included in this Report**

Analyte	Certifications
4500-F C-1997 in Water	
Fluoride	KY Drinking Water Mdv (00030) VA NELAC Mdv (460210) IN Drinking Water Mdv (C-KY-02) IL Drinking Water Mdv (200079)



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**SAMPLE SUMMARY**

Lab ID	Client Sample ID/Alias	Matrix	Date Collected	Date Received	Sampled By
6120143-01	Backwash/Grit Cyclone	Wastewater	12/21/2016 14:15	12/21/2016 14:26	Ralph Varney
6120143-02	Backwash/Grit Pump	Wastewater	12/21/2016 14:17	12/01/2016 14:26	Ralph Varney

**ANALYTICAL RESULTS**

Lab Sample ID: **6120143-01**  
Description: **Backwash Grit Cyclone**

Sample Collection Date Time: 12/21/2016 14:15  
Sample Received Date Time: 12/21/2016 14:26

Conventional Chemistry Analyses Pikeville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Suspended Solids	53		mg/L	8	8	2540 D-1997	12/28/2016 16:49	12/28/2016 16:49	WJP

Field Analysis Pikeville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
pH (Field)	8.15		Std. Units	0.10	0.10	4500-H+ B-2000	12/21/2016 14:25	12/21/2016 14:25	IEB

**ANALYTICAL RESULTS**

Lab Sample ID: **6120143-02**  
Description: **Backwash Grit Pump**

Sample Collection Date Time: 12/21/2016 14:17  
Sample Received Date Time: 12/01/2016 14:26

Conventional Chemistry Analyses Pikeville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Suspended Solids	40		mg/L	8	8	2540 D-1997	12/28/2016 16:49	12/28/2016 16:49	WJP

Field Analysis Pikeville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
pH (Field)	8.25		Std. Units	0.10	0.10	4500-H+ B-2000	12/21/2016 14:17	12/21/2016 14:25	IEB

**KENTUCKY DIVISION OF WATER / DRINKING WATER BRANCH  
VOLATILE ORGANIC CHEMICAL (VOC) ANALYSIS REPORT FORM**

SAMPLE CATEGORY \*\* GE

This Section To Be Completed By Collector

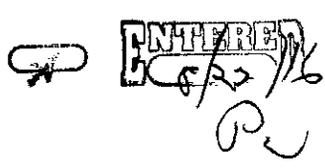
PWS ID	<u>KY0980350</u>	Plant ID	<u>A</u>	Plant Name	<u>PIKEVILLE WTP</u>	Location Code	<u>TPA</u>
PWS Name	<u>Pikeville Water Department</u>			PWS Contact	<u>Ralph Varney</u>		
PWS Address	<u>306 Island Creek Road, Pikeville, KY 41501</u>			PWS Phone	<u>(606) 437-5123</u>		
Sample Date (MMDDYYYY)	<u>05052016</u>	Time	<u>1433</u>	Sample Type	<u>RT</u>	Collector Name	<u>Iralee Bolden</u>
				RT = Routine (For Compliance) SP = Special (Not for Compliance)			

This Section to Be Completed By Lab

Lab ID	<u>00030</u>	Lab Sample Number	<u>6050196-01</u>	Lab Phone	<u>(270) 821-7375</u>
Lab Analyst	<u>James Ball</u>	<u>05/10/2016 18:37</u>	Lab Supervisor	<u>Mark Dixon</u>	<u>5/12/2016</u>
		Signature/Date			

Analyte Code	Analyte Name	Analysis Method Code	<	Result (mg/L)	Analysis Date
				-or- Lab Minimum Reporting Limit (mg/L)	
2990	Benzene	721	<	0.0005	05102016
2982	Carbon tetrachloride	721	<	0.0005	05102016
2989	Chlorobenzene (Mono)	721	<	0.0005	05102016
2380	cis-1,2-Dichloroethylene	721	<	0.0005	05102016
2964	Dichloromethane (Methylene Chloride)	721	<	0.0005	05102016
2992	Ethylbenzene	721	<	0.0005	05102016
2968	o-Dichlorobenzene (1,2-)	721	<	0.0005	05102016
2969	p-Dichlorobenzene (1,4-)	721	<	0.0005	05102016
2996	Styrene	721	<	0.0005	05102016
2987	Tetrachloroethylene (PCB)	721	<	0.0005	05102016
2991	Toluene	721	<	0.0005	05102016
2979	trans-1,2-Dichloroethylene	721	<	0.0005	05102016
2984	Trichloroethylene (TCE)	721	<	0.0005	05102016
2976	Vinyl Chloride	721	<	0.0005	05102016
2955	Xylenes, Total	721	<	0.0005	05102016
2977	1,1-Dichloroethylene	721	<	0.0005	05102016
2981	1,1,1-Trichloroethane	721	<	0.0005	05102016
2985	1,1,2-Trichloroethane	721	<	0.0005	05102016
2980	1,2-Dichloroethane	721	<	0.0005	05102016
2983	1,2-Dichloropropane	721	<	0.0005	05102016
2378	1,2,4-Trichlorobenzene	721	<	0.0005	05102016

The signatories of this form certify by their signature that collection and analysis of the water sample analyzed and the resulting data hereby submitted, were completed in accordance with the provisions of 401 KAR Chapter 8; and that the data submitted on this form is a true and accurate report of the results of collection and analysis performed pursuant to the above-referenced regulations. Violations of 401 KAR Chapter 8 are subject to severe penalties prescribed in KRS 224.99-010, up to \$25,000 fine per day per violation and in some cases a violation may subject a violator to prison.


  
**ENTERED**  
 5/12/16  
 PJ

**KENTUCKY DIVISION OF WATER / DRINKING WATER BRANCH  
TOTAL NITRATE AND NITRITE, NITRATE, AND NITRITE ANALYSIS REPORT FORM**

SAMPLE CATEGORY - GE

**This Section To Be Completed By Collector**

PWS ID	<u>KY0980350</u>	Plant ID	<u>A</u>	Plant Name	<u>PIKEVILLE WTP</u>	Location Code	<u>TPA</u>
PWS Name	<u>Pikeville Water Department</u>			PWS Contact	<u>Ralph Varney</u>		
PWS Address	<u>306 Island Creek Road, Pikeville, KY 41501</u>			PWS Phone	<u>(606) 437-5123</u>		
Sample Date (MMDDYYYY)	<u>02022016</u>	Time	<u>1655</u>	Sample Type	<u>RT</u>	Collector Name	<u>Johnny Osborne</u>
				RT = Routine (For Compliance)			
				SP = Special (Not for Compliance)			

**This Section to Be Completed By Lab**

Lab ID	<u>00030</u>	Lab Sample Number	<u>6020314-01</u>	Lab Phone	<u>(270) 821-7375</u>		
Lab Analyst	<u>Heather McCaslin 02/04/2016 01:51</u>		Lab Supervisor	<u>Mark Athan</u>		<u>2/8/2016</u>	
		Signature/Date					

Analyte Code	Analyte Name	Analysis Method Code	<	Result (mg/L)	Analysis Date
				-or- Lab Minimum Reporting Limit (mg/L)	
1040	Nitrate	720		0.5	02042016

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**ENTERED**  
02/08/16  
*[Signature]*

**KENTUCKY DIVISION OF WATER / DRINKING WATER BRANCH**  
**INORGANIC CHEMICAL (IOC) ANALYSIS REPORT FORM**  
 (Excluding Nitrate, Nitrite, Total Nitrate and Nitrite, Sodium and Asbestos)

SAMPLE CATEGORY = GE

This Section To Be Completed By Collector

PWS ID	<u>KY0980350</u>	Plant ID	<u>A</u>	Plant Name	<u>PIKEVILLE WTP</u>	Location Code	<u>TPA</u>
PWS Name	<u>Pikeville Water Department</u>			PWS Contact	<u>Ralph Varney</u>		
PWS Address	<u>306 Island Creek Road, Pikeville, KY 41501</u>			PWS Phone	<u>(606) 437-5123</u>		
Sample Date (MMDDYYYY)	<u>08022016</u>	Time	<u>1528</u>	Sample Type	<u>RT</u>	Collector Name	<u>Iralee Bolden</u>
				RT = Routine (For Compliance)			
				SP = Special (Not for Compliance)			

This Section to Be Completed By Lab

Lab ID	<u>00030</u>	Lab Sample Number	<u>6080425-01</u>	Lab Phone	<u>(270) 821-7375</u>
Lab Analyst	<u>Dusty Heady</u>	Signature/Date	<u>08/12/2016 12:00</u>	Lab Supervisor	<u><i>[Signature]</i></u> <u>08/12/2016</u>

Analyte Code	Analyte Name	Analysis Method Code	Result (mg/L)		Analysis Date
			<	Lab Minimum Reporting Limit (mg/L)	
1074	Antimony	797	<	0.004	08122016
1005	Arsenic	797	<	0.0005	08122016
1010	Barium	797		0.065	08122016
1075	Beryllium, Total	797	<	0.0020	08122016
1015	Cadmium	797	<	0.0005	08122016
1020	Chromium, Total	797	<	0.0020	08122016
1024	Cyanide	818	<	0.01	08052016
1025	Fluoride	720		0.5	08042016
1035	Mercury	797	<	0.0002	08122016
1036	Nickel	797	<	0.0020	08122016
1045	Selenium	797	<	0.0010	08122016
1085	Thallium, Total	797	<	0.0005	08122016

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*[Handwritten Signature]*  
**ENTERED**  
8/23/16  
*[Handwritten Initials]*

**KENTUCKY DIVISION OF WATER / DRINKING WATER BRANCH  
SODIUM ANALYSIS REPORT FORM**

SAMPLE CATEGORY = GR

**This Section To Be Completed By Collector**

PWS ID	<u>KY0980350</u>	Plant ID	<u>A</u>	Plant Name	<u>PIKEVILLE WTP</u>	Location Code	<u>TPA</u>
PWS Name	<u>Pikeville Water Department</u>			PWS Contact	<u>Ralph Varney</u>		
PWS Address	<u>306 Island Creek Road, Pikeville, KY 41501</u>			PWS Phone	<u>(606) 437-5123</u>		
Sample Date (MMDDYYYY)	<u>08022016</u>	Time	<u>1528</u>	Sample Type	<u>RT</u>	Collector Name	<u>Iralee Bolden</u>
				RT = Routine (For Compliance)			
				SP = Special (Not for Compliance)			

**This Section to Be Completed By Lab**

Lab ID	<u>00030</u>	Lab Sample Number	<u>6080427-01</u>	Lab Phone	<u>(270) 821-7375</u>
Lab Analyst	<u>Tia Reeves</u>	Signature/Date	<u>8/4/2016 2:10:12PM</u>	Lab Supervisor	<u>Tina Dixon</u> <u>8/5/2016</u>

Analyte Code	Analyte Name	Analysis Method Code	<	Result (mg/L) -or- Lab Minimum Reporting Limit (mg/L)	Analysis Date
1052	Sodium	799		37.4	08042016

**ENTERED**  
*[Handwritten signature]*

**KENTUCKY DIVISION OF WATER / DRINKING WATER BRANCH  
SECONDARY CONTAMINANT ANALYSIS REPORT FORM**

SAMPLE CATEGORY = GF  
ENTRY POINT SAMPLING

**This Section To Be Completed By Collector**

PWS ID	<u>KY0980350</u>	Plant ID	<u>A</u>	Plant Name	<u>PIKEVILLE WTP</u>	Location Code	<u>TPA</u>
PWS Name	<u>Pikeville Water Department</u>			PWS Contact	<u>Ralph Varney</u>		
PWS Address	<u>306 Island Creek Road, Pikeville, KY 41501</u>			PWS Phone	<u>(606) 437-5123</u>		
Sample Date (MMDDYYYY)	<u>08022016</u>	Time	<u>1528</u>	Sample Type	<u>RT</u>	Collector Name	<u>Iralee Bolden</u>
				RT = Routine (For Compliance) SP = Special (Not for Compliance)			

**This Section to Be Completed By Lab**

Lab ID	<u>00030</u>	Lab Sample Number	<u>6080426-01</u>	Lab Phone	<u>(270) 821-7375</u>
Lab Analyst	<u>Dusty Heady 8/12/2016 12:00:14PM</u>		Lab Supervisor	<u><i>Mark Dittman</i></u>	<u>8/23/2016</u>
		Signature/Date			

Analyte Code	Analyte Name	Analysis Method Code	<	Result (mg/L)	Analysis Date
				-or- Lab Minimum Reporting Limit (mg/L)	
1002	Aluminum	797		0.16	08122016
1017	Chloride	720		25.5	08042016
1022	Copper	797	<	0.0010	08122016
1025	Fluoride	720		0.6	08042016
1028	Iron	799		0.026	08052016
1032	Manganese	797	<	0.002	08122016
1050	Silver	797	<	0.0020	08122016
1055	Sulfate	720		157	08042016
1095	Zinc	797	<	0.01	08122016
1910	Corrosivity (Lang)	838		0.135	08202016

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**ENTERED**  
8/23/16  
*JRV*

**KENTUCKY DIVISION OF WATER / DRINKING WATER BRANCH**  
**SECONDARY CONTAMINANT ANALYSIS REPORT FORM**

SAMPLE CATEGORY => GE  
 ENTRY POINT SAMPLING

This Section To Be Completed By Collector

PWS ID	<u>KY0980350</u>	Plant ID	<u>A</u>	Plant Name	<u>PIKEVILLE WTP</u>	Location Code	<u>TPA</u>
PWS Name	<u>Pikeville Water Department</u>			PWS Contact	<u>Ralph Varney</u>		
PWS Address	<u>306 Island Creek Road, Pikeville, KY 41501</u>			PWS Phone	<u>(606) 437-5123</u>		
Sample Date (MMDDYYYY)	<u>08022016</u>	Time	<u>1528</u>	Sample Type	<u>RT</u>	Collector Name	<u>Iralee Bolden</u>
				RT = Routine (For Compliance) SP = Special (Not for Compliance)			

This Section to Be Completed By Lab

Lab ID	<u>00050</u>	Lab Sample Number	<u>6080426-01</u>	Lab Phone	<u>(270) 821-7375</u>
Lab Analyst	<u>Amanda Hail</u>	Signature/Date	<u>8/4/2016 9:15:00AM</u>	Lab Supervisor	<u><i>Mark Dittus</i></u>
					<u>8/23/2016</u>

Analyte Code	Analyte Name	Analysis Method Code	<	Result (mg/L)	Analysis Date
				-of- Lab Minimum Reporting Limit (mg/L)	
1905	Color	829	<	1	08042016
1920	Odor	833	<	1	08032016
1925	pH	835		7.84	08022016
2905	Foaming Agents	855	<	0.1	08042016

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SAMPLE CATEGORY = GE  
DISTRIBUTION SAMPLING

**KENTUCKY DIVISION OF WATER / DRINKING WATER RESULTS  
STAGE II  
HALOACETIC ACIDES FIVE (HAA5) AND TOTAL TRIHALOMETHANE (TTHM)  
ANALYSIS REPORT FORM**

~~SP~~ RT

PWS ID <u>KY0980350</u>		PWS Contact <u>Ralph Varney</u>	
PWS Name <u>Pikeville Water Department</u>		PWS Phone <u>(606) 437-5123</u>	
PWS Address <u>306 Island Creek Road, Pikeville, KY 41501</u>		Collector Name <u>Johnny Osborne</u>	
Signature/Date _____			

Lab ID <u>00030</u>	Lab Phone <u>(270) 821-7375</u>
Lab Analyst <u>Cassandra Oliver 1/27/2016</u> Signature/Date	Lab Supervisor <u><i>Mark Dittmer</i> 1/27/2016</u> Signature/Date

PWS ID <u>KY0980350</u>	Location Code <u>TPA</u>	Location Name <u>PIKEVILLE WTP</u>
Sample Date <u>01142016</u>	Time <u>1815</u>	Sample Type <u>SP</u> <small>RT = Routine SP = Special</small>
Lab Sample Number <u>6010875-01</u>		

Analyte Code	Analyte Name	Analysis Method Code	<	Result (mg/L) -or- Lab Minimum Reporting Limit (mg/L)	Analysis Date
2456	Haloacetic Acids Five (HAA5)	737		0.022	01262016
2950	Total Trihalomethane (TTHM)	721	<	0.001	01212016

PWS ID <u>KY0980350</u>	Location Code <u>113</u>	Location Name <u>254 CASSIDY BLVD</u>
Sample Date <u>01142016</u>	Time <u>1658</u>	Sample Type <u>RT</u> <small>RT = Routine SP = Special</small>
Lab Sample Number <u>6010875-02</u>		

Analyte Code	Analyte Name	Analysis Method Code	<	Result (mg/L) -or- Lab Minimum Reporting Limit (mg/L)	Analysis Date
2456	Haloacetic Acids Five (HAA5)	737		0.015	01262016
2950	Total Trihalomethane (TTHM)	721		0.004	01212016

PWS ID <u>KY0980350</u>	Location Code <u>115</u>	Location Name <u>50 NATIONAL COLLEGE BLVD</u>
Sample Date <u>01142016</u>	Time <u>1535</u>	Sample Type <u>RT</u> <small>RT = Routine SP = Special</small>
Lab Sample Number <u>6010875-03</u>		

Analyte Code	Analyte Name	Analysis Method Code	<	Result (mg/L) -or- Lab Minimum Reporting Limit (mg/L)	Analysis Date
2456	Haloacetic Acids Five (HAA5)	737		0.039	01262016
2950	Total Trihalomethane (TTHM)	721		0.077	01212016

SAMPLE CATEGORY = GE  
 DISTRIBUTION SAMPLING

**KENTUCKY DIVISION OF WATER / DRINKING WATER RESULTS**  
**STAGE II**  
**HALOACETIC ACIDES FIVE (HAA5) AND TOTAL TRIHALOMETHANE (TTHM)**  
**ANALYSIS REPORT FORM**

PWS ID	<u>KY0980350</u>		
PWS Name	<u>Pikeville Water Department</u>	PWS Contact	<u>Ralph Varney</u>
PWS Address	<u>306 Island Creek Road, Pikeville, KY 41501</u>	PWS Phone	<u>(606) 437-5123</u>
		Collector Name	<u>Johnny Osborne</u>
			Signature/Date

Lab ID	<u>00030</u>	Lab Phone	<u>(270) 821-7375</u>
Lab Analyst	<u>Cassandra Oliver 1/27/2016</u>	Lab Supervisor	<u><i>Mark Dixon</i> 1/27/2016</u>
	Signature/Date		Signature/Date

PWS ID	<u>KY0980350</u>	Location Code	<u>136</u>	Location Name	<u>424 BOB AMOS DR</u>		
Sample Date	<u>01142016</u>	Time	<u>1735</u>	Sample Type	RT	Lab Sample Number	<u>6010875-04</u>
					<small>RT = Routine SP = Special</small>		
Analyte Code	Analyte Name	Analysis Method Code	<	Result (mg/L) -or- Lab Minimum Reporting Limit (mg/L)	Analysis Date		
2456	Haloacetic Acids Five (HAA5)	737		0.039	01262016		
2950	Total Trihalomethane (TTHM)	721	<	0.001	01212016		

PWS ID	<u>KY0980350</u>	Location Code	<u>138</u>	Location Name	<u>130 JUSTICE WAY</u>		
Sample Date	<u>01142016</u>	Time	<u>1625</u>	Sample Type	RT	Lab Sample Number	<u>6010875-05</u>
					<small>RT = Routine SP = Special</small>		
Analyte Code	Analyte Name	Analysis Method Code	<	Result (mg/L) -or- Lab Minimum Reporting Limit (mg/L)	Analysis Date		
2456	Haloacetic Acids Five (HAA5)	737		0.015	01262016		
2950	Total Trihalomethane (TTHM)	721		0.030	01212016		

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SAMPLE CATEGORY = GE  
DISTRIBUTION SAMPLING

**KENTUCKY DIVISION OF WATER / DRINKING WATER RESULTS**  
**STAGE II**  
**HALOACETIC ACIDES FIVE (HAA5) AND TOTAL TRIHALOMETHANE (TTHM)**  
**ANALYSIS REPORT FORM**

PWS ID KY0980350

PWS Name Pikeville Water Department PWS Contact Ralph Varney

PWS Address 306 Island Creek Road, Pikeville, KY 41501 PWS Phone (606) 437-5123

Collector Name Iralee Bolden  
Signature/Date

Lab ID 00030 Lab Phone (270) 821-7375

Lab Analyst Cassandra Oliver 4/22/2016 Lab Supervisor *Mark Dixon* 4/22/2016  
Signature/Date Signature/Date

PWS ID KY0980350 Location Code TPA Location Name PIKEVILLE WTP

Sample Date 04112016 Time 1548 Sample Type SP RT = Routine SP = Special Lab Sample Number 6041101-01

Analyte Code	Analyte Name	Analysis Method Code	<	Result (mg/L) -or- Lab Minimum Reporting Limit (mg/L)	Analysis Date
2456	Haloacetic Acids Five (HAA5)	737		0.009	04152016
2950	Total Trihalomethane (TTHM)	721		0.039	04142016

PWS ID KY0980350 Location Code 113 Location Name 254 CASSIDY BLVD

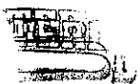
Sample Date 04112016 Time 1520 Sample Type RT RT = Routine SP = Special Lab Sample Number 6041101-02

Analyte Code	Analyte Name	Analysis Method Code	<	Result (mg/L) -or- Lab Minimum Reporting Limit (mg/L)	Analysis Date
2456	Haloacetic Acids Five (HAA5)	737		0.018	04152016
2950	Total Trihalomethane (TTHM)	721		0.081	04142016

PWS ID KY0980350 Location Code 115 Location Name 50 NATIONAL COLLEGE BLVD

Sample Date 04112016 Time 1446 Sample Type RT RT = Routine SP = Special Lab Sample Number 6041101-03

Analyte Code	Analyte Name	Analysis Method Code	<	Result (mg/L) -or- Lab Minimum Reporting Limit (mg/L)	Analysis Date
2456	Haloacetic Acids Five (HAA5)	737		0.016	04202016
2950	Total Trihalomethane (TTHM)	721		0.083	04142016



**ENTERED**  
*6/14/16*

SAMPLE CATEGORY = GE  
 DISTRIBUTION SAMPLING

**KENTUCKY DIVISION OF WATER / DRINKING WATER RESULTS**  
**STAGE II**  
**HALOACETIC ACIDS FIVE (HAA5) AND TOTAL TRIHALOMETHANE (TTHM)**  
**ANALYSIS REPORT FORM**

PWS ID <u>KY0980350</u>			
PWS Name	<u>Pikeville Water Department</u>	PWS Contact	<u>Ralph Varney</u>
PWS Address	<u>306 Island Creek Road, Pikeville, KY 41501</u>	PWS Phone	<u>(606) 437-5123</u>
		Collector Name	<u>Iralee Boiden</u>
Signature/Date			

Lab ID	<u>00030</u>	Lab Phone	<u>(270) 821-7375</u>
Lab Analyst	<u>Cassandra Oliver 4/22/2016</u>	Lab Supervisor	<u><i>Mark Dittm</i> 4/22/2016</u>
Signature/Date		Signature/Date	

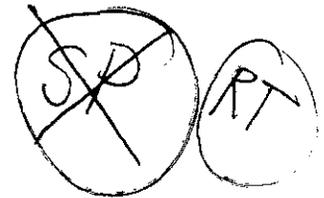
PWS ID	<u>KY0980350</u>	Location Code	<u>136</u>	Location Name	<u>424 BOB AMOS DR</u>	
Sample Date	<u>04112016</u>	Time	<u>1534</u>	Sample Type	<u>RT</u>	Lab Sample Number
					<small>RT = Routine SP = Special</small>	<u>6041101-04</u>
Analyte Code	Analyte Name	Analysis Method Code	<	Result (mg/L) -or- Lab Minimum Reporting Limit (mg/L)	Analysis Date	
2456	Haloacetic Acids Five (HAA5)	737		0.017	04162016	
2950	Total Trihalomethane (TTHM)	721		0.083	04142016	

PWS ID	<u>KY0980350</u>	Location Code	<u>138</u>	Location Name	<u>130 JUSTICE WAY</u>	
Sample Date	<u>04112016</u>	Time	<u>1505</u>	Sample Type	<u>RT</u>	Lab Sample Number
					<small>RT = Routine SP = Special</small>	<u>6041101-05</u>
Analyte Code	Analyte Name	Analysis Method Code	<	Result (mg/L) -or- Lab Minimum Reporting Limit (mg/L)	Analysis Date	
2456	Haloacetic Acids Five (HAA5)	737		0.016	04162016	
2950	Total Trihalomethane (TTHM)	721		0.061	04142016	

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DISTRIBUTION SAMPLING

**KENTUCKY DIVISION OF WATER / DRINKING WATER RESULTS**  
**STAGE II**  
**HALOACETIC ACIDES FIVE (HAA5) AND TOTAL TRIHALOMETHANE (TTHM)**  
**ANALYSIS REPORT FORM**



PWS ID KY0980350

PWS Name Pikeville Water Department PWS Contact Ralph Varney

PWS Address 306 Island Creek Road, Pikeville, KY 41501 PWS Phone (606) 437-5123

Collector Name Iralee Bolden

Signature/Date

Lab ID 00030 Lab Phone (270) 821-7375

Lab Analyst Cassandra Oliver 7/25/2016 Lab Supervisor *Mark Adam* 7/25/2016

Signature/Date

PWS ID KY0980350 Location Code TPA Location Name PIKEVILLE WTP

Sample Date 07122016 Time 1435 Sample Type SP RT = Routine  
SP = Special Lab Sample Number 6070620-01RE2

Analyte Code	Analyte Name	Analysis Method Code	<	Result (mg/L) -or- Lab Minimum Reporting Limit (mg/L)	Analysis Date
2456	Haloacetic Acids Five (HAA5)	737		0.012	07212016
2950	Total Trihalomethane (TTHM)	721		0.071	07192016

PWS ID KY0980350 Location Code 113 Location Name 254 CASSIDY BLVD

Sample Date 07122016 Time 1400 Sample Type RT RT = Routine  
SP = Special Lab Sample Number 6070620-02RE2

Analyte Code	Analyte Name	Analysis Method Code	<	Result (mg/L) -or- Lab Minimum Reporting Limit (mg/L)	Analysis Date
2456	Haloacetic Acids Five (HAA5)	737		0.017	07212016
2950	Total Trihalomethane (TTHM)	721		0.119	07192016

PWS ID KY0980350 Location Code 115 Location Name 50 NATIONAL COLLEGE BLVD

Sample Date 07122016 Time 1325 Sample Type RT RT = Routine  
SP = Special Lab Sample Number 6070620-03RE2

Analyte Code	Analyte Name	Analysis Method Code	<	Result (mg/L) -or- Lab Minimum Reporting Limit (mg/L)	Analysis Date
2456	Haloacetic Acids Five (HAA5)	737		0.018	07212016
2950	Total Trihalomethane (TTHM)	721		0.157	07182016

**LABORATORY**  
**8/19/16**  
*GW*

SAMPLE CATEGORY = GE  
 DISTRIBUTION SAMPLING

**KENTUCKY DIVISION OF WATER / DRINKING WATER RESULTS  
 STAGE II  
 HALOACETIC ACIDS FIVE (HAA5) AND TOTAL TRIHALOMETHANE (TTHM)  
 ANALYSIS REPORT FORM**

PWS ID	KY0980350	
PWS Name	Pikeville Water Department	PWS Contact: Ralph Varney
PWS Address	306 Island Creek Road, Pikeville, KY 41501	PWS Phone: (606) 437-5123
		Collector Name: Iralee Bolden
		Signature/Date

Lab ID	00030	Lab Phone	(270) 821-7375
Lab Analyst	Cassandra Oliver 7/25/2016	Lab Supervisor	<i>Mark Dixon</i> 7/25/2016
	Signature/Date		Signature/Date

PWS ID	KY0980350	Location Code	136	Location Name	424 BOB AMOS DR	
Sample Date	07122016	Time	1425	Sample Type	RT	Lab Sample Number: 6070620-04RE2
					RT = Routine SP = Special	

Analyte Code	Analyte Name	Analysis Method Code	<	Result (mg/L) -or- Lab Minimum Reporting Limit (mg/L)	Analysis Date
2456	Haloacetic Acids Five (HAA5)	737		0.016	07212016
2950	Total Trihalomethane (TTHM)	721		0.151	07182016

PWS ID	KY0980350	Location Code	138	Location Name	130 JUSTICE WAY	
Sample Date	07122016	Time	1343	Sample Type	RT	Lab Sample Number: 6070620-05
					RT = Routine SP = Special	

Analyte Code	Analyte Name	Analysis Method Code	<	Result (mg/L) -or- Lab Minimum Reporting Limit (mg/L)	Analysis Date
2456	Haloacetic Acids Five (HAA5)	737		0.014	07172016
2950	Total Trihalomethane (TTHM)	721		0.131	07182016

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SAMPLE CATEGORY = GE  
DISTRIBUTION SAMPLING

KENTUCKY DIVISION OF WATER / DRINKING WATER RESULTS  
STAGE II  
HALOACETIC ACIDES FIVE (HAA5) AND TOTAL TRIHALOMETHANE (TTHM)  
ANALYSIS REPORT FORM

PWS ID KY0980350

PWS Name Pikeville Water Department PWS Contact Ralph Varney

PWS Address 306 Island Creek Road, Pikeville, KY 41501 PWS Phone (606) 437-5123

Collector Name Iralee Bolden  
Signature/Date

Lab ID 00030 Lab Phone (270) 821-7375

Lab Analyst Cassandra Oliver 10/19/2016 Lab Supervisor *Mark Smith* 10/19/2016  
Signature/Date Signature/Date

PWS ID KY0980350 Location Code TPA Location Name PIKEVILLE WTP

Sample Date 10102016 Time 1600 Sample Type SP RT = Routine  
SP = Special Lab Sample Number 6100792-01

Analyte Code	Analyte Name	Analysis Method Code	<	Result (mg/L) -or- Lab Minimum Reporting Limit (mg/L)	Analysis Date
2456	Haloacetic Acids Five (HAA5)	737		0.015	10152016
2950	Total Trihalomethane (TTHM)	721		0.038	10132016

PWS ID KY0980350 Location Code 113 Location Name 254 CASSIDY BLVD

Sample Date 10102016 Time 1515 Sample Type RT RT = Routine  
SP = Special Lab Sample Number 6100792-02

Analyte Code	Analyte Name	Analysis Method Code	<	Result (mg/L) -or- Lab Minimum Reporting Limit (mg/L)	Analysis Date
2456	Haloacetic Acids Five (HAA5)	737		0.022	10152016
2950	Total Trihalomethane (TTHM)	721		0.089	10132016

PWS ID KY0980350 Location Code 115 Location Name 50 NATIONAL COLLEGE BLVD

Sample Date 10102016 Time 1445 Sample Type RT RT = Routine  
SP = Special Lab Sample Number 6100792-03

Analyte Code	Analyte Name	Analysis Method Code	<	Result (mg/L) -or- Lab Minimum Reporting Limit (mg/L)	Analysis Date
2456	Haloacetic Acids Five (HAA5)	737		0.007	10152016
2950	Total Trihalomethane (TTHM)	721		0.131	10132016

*l 10/11/16*

SAMPLE CATEGORY = GE  
 DISTRIBUTION SAMPLING

**KENTUCKY DIVISION OF WATER / DRINKING WATER RESULTS**  
**STAGE II**  
**HALOACETIC ACIDES FIVE (HAA5) AND TOTAL TRIHALOMETHANE (TTHM)**  
**ANALYSIS REPORT FORM**

PWS ID <u>KY0980350</u>			
PWS Name	<u>Pikeville Water Department</u>	PWS Contact	<u>Ralph Varney</u>
PWS Address	<u>306 Island Creek Road, Pikeville, KY 41501</u>	PWS Phone	<u>(606) 437-5123</u>
		Collector Name	<u>Iralee Bolden</u>
		Signature/Date	

Lab ID	<u>00030</u>	Lab Phone	<u>(270) 821-7375</u>
Lab Analyst	<u>Cassandra Oliver 10/19/2016</u>	Lab Supervisor	<u><i>[Signature]</i> 10/19/2016</u>
	Signature/Date		Signature/Date

PWS ID	<u>KY0980350</u>	Location Code	<u>136</u>	Location Name	<u>424 BOB AMOS DR</u>
Sample Date	<u>10102016</u>	Time	<u>1540</u>	Sample Type	<u>RT</u> <small>RT = Routine SP = Special</small>
				Lab Sample Number	<u>6100792-04</u>

Analyte Code	Analyte Name	Analysis Method Code	<	Result (mg/L) -or- Lab Minimum Reporting Limit (mg/L)	Analysis Date
2456	Haloacetic Acids Five (HAA5)	737		0.034	10172016
2950	Total Trihalomethane (TTHM)	721		0.178	10132016

PWS ID	<u>KY0980350</u>	Location Code	<u>138</u>	Location Name	<u>130 JUSTICE WAY</u>
Sample Date	<u>10102016</u>	Time	<u>1500</u>	Sample Type	<u>RT</u> <small>RT = Routine SP = Special</small>
				Lab Sample Number	<u>6100792-05</u>

Analyte Code	Analyte Name	Analysis Method Code	<	Result (mg/L) -or- Lab Minimum Reporting Limit (mg/L)	Analysis Date
2456	Haloacetic Acids Five (HAA5)	737		0.017	10152016
2950	Total Trihalomethane (TTHM)	721		0.088	10132016

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CRYPTO

<b>Source Water Monitoring Form</b>		
<b>I. PWS Information</b>		
PWS ID:	KY0980350	
PWS Name:	CITY OF PIKEVILLE C/O UTILITY MANAGEMENT GROUP	
Address:	306 ISLAND CREEK ROAD	
City:	PIKEVILLE	State: KY Zip: 41501
Population Served:	12,700	
Schedule:	Schedule 3	
<b>II. Source Information</b>		
<b>System Type</b> (CWS/NTNCWS):		CWS
<b>Source Water Type</b> (Surface/Ground):		Surface
<b>Source Name:</b>	LEVISA FORK OF THE BIG SANDY RIVER	
<b>Source Type</b> (Flowing Stream, Lake/Reservoir, or GWUDI):		Flowing Stream
<b>Source Water Sampling Location</b> (Provide State assigned sampling number):	CFE	
<b>Usage</b> All year, part-year, or Emergency (Describe conditions, constraints, months in operation):	Description: ALL YEAR	Description:
<b>Proportion</b> of Typical average daily flow:	%	%
<b>Pretreatment Practices</b> Presedimentation, Bank filtration, or Off-stream storage:	None	None
<b>Recycling Practices</b> (if applicable) Description and return flow location:	FILTER BACKWASH Description: Filter backwash waste returns into raw water line.	Description:
<b>Chemical Pretreatment</b> (Indicate location on plant schematic):		
<b>Sample Compositing</b>	N/A	N/A

Procedure (if applicable) Blended sample tap, Composite sample, or Weighted:		
Additional Information:		
Refer to Attachment	for schematic	
<b>III. Contact Information</b>		
Contact:	Ralph Varney	
Title:	Plant Operations Manager	
Phone:	606-437-5123	
Fax:	606-437-5135	
E-mail:	rvarney@umgllc.net	
<b>IV. Sampling Schedule: (Reminder-Schedule must be entered through DCTS)</b>		
Sample Number:	Date:	Type:
1	September 9, 2015	Routine
2	September 9, 2015	Matrix Spike
3	September 23, 2015	Routine
4	October 7, 2015	Routine
5	October 21, 2015	Routine
6	November 4, 2015	Routine
7	November 18, 2015	Routine
8	December 9, 2015	Routine
9	December 23, 2015	Routine
10	January 6, 2016	Routine
11	January 20, 2016	Routine
12	February 3, 2016	Routine
13	February 17, 2016	Routine
14	March 9, 2016	Routine
15	March 23, 2016	Routine
16	April 6, 2016	Routine
17	April 20, 2016	Routine
18	May 4, 2016	Routine

19	May 18, 2016	Routine
20	June 8, 2016	Routine
21	June 8, 2016	Matrix Spike
22	June 22, 2016	Routine
23	July 6, 2016	Routine
24	July 20, 2016	Routine
25	August 3, 2016	Routine
26	August 17, 2016	Routine

#### **V. Lab Information**

##### **Crypto Lab Information**

EPA Crypto Lab ID Number:	KY1
Method:	Method 1623
Laboratory Name:	McCoy & McCoy Laboratories, Inc.
Address:	P.O. Box 907, 825 Industrial Road
City, State, Zip:	Madisonville, KY 42431
Contact:	Gustavo Turmero
Phone Number:	(270) 821-7375 ext 120
Fax Number:	(270) 825-9200
E-Mail:	g.turmero@mccoyslabs.com

##### **E. coli Lab Information**

Lab ID Number:	KY00050
Method:	Standard Methods 9223B
Laboratory Name:	McCoy & McCoy Laboratories, Inc.
Address:	173 Island Creek Road
City, State, Zip:	Pikeville, KY 41501
Contact:	Amanda Hall
Phone Number:	(606) 432-3104
Fax Number:	(606) 432-3171
E-Mail:	a.hall@mccoyslabs.com

##### **Turbidity Information**

Analysis Conducted By:	Gustavo Turmero
Method:	Revised Method 180.1



McCoy & McCoy  
LABORATORIES, Inc.

P.O. Box 907  
Madisonville, KY 42431  
270.821.7375  
www.mccoylabs.com

Lexington, KY  
859.299.7775

Pikeville, KY  
606.432.3104

Farmersburg, IN  
812.696.5076

Louisville, KY  
502.961.0001

Paducah, KY  
270.444.6547

"Providing Tomorrow's Analytical Capabilities Today"

**SAMPLE SUMMARY**

Lab ID	Client Sample ID/Alias	Matrix	Date Collected	Date Received	Sampled By
6112238-01	Non Compliance Monitoring/National Business College	Drinking Water	11/10/2016 09:20	11/10/2016 11:50	Johnny Osborne
6112238-02	Non Compliance Monitoring/Mullins Tank	Drinking Water	11/10/2016 09:35	11/10/2016 11:50	Johnny Osborne
6112238-03	Non Compliance Monitoring/Cowpen Master Meter	Drinking Water	11/10/2016 09:52	11/10/2016 11:50	Johnny Osborne
6112238-04	Non Compliance Monitoring/Bob Billips Tank	Drinking Water	11/10/2016 10:10	11/10/2016 11:50	Johnny Osborne
6112238-05	Non Compliance Monitoring/Sandy Valley Tank	Drinking Water	11/10/2016 10:25	11/10/2016 11:50	Johnny Osborne
6112238-06	Non Compliance Monitoring/Town Mtn Master Meter	Drinking Water	11/10/2016 10:40	11/10/2016 11:50	Johnny Osborne
6112238-07	Non Compliance Monitoring/YMCA	Drinking Water	11/10/2016 11:00	11/10/2016 11:50	Johnny Osborne
6112238-08	Non Compliance Monitoring/Island Creek Master Meter	Drinking Water	11/10/2016 11:18	11/10/2016 11:50	Johnny Osborne
6112238-09	Non Compliance Monitoring/Indian Hills Master Meter	Drinking Water	11/10/2016 11:32	11/10/2016 11:50	Johnny Osborne
6112238-10	Non Compliance Monitoring/Blank	Drinking Water	11/10/2016 11:32	11/10/2016 11:50	Johnny Osborne

**Work Order Comments:**

**Additional Comment:**

The field reagent blank analysis result has been confirmed with duplicate analysis on the second vial (container) provided. This result indicates possible contamination of the blank sample.

These results however will not identify if the reagent water was contaminated during sample collection or possibly during preparation at the laboratory facility.



**McCoy & McCoy**  
LABORATORIES, Inc.

P.O. Box 907  
Madisonville, KY 42431  
270.821.7375  
www.mccoylabs.com

Lexington, KY      Pikeville, KY      Farmersburg, IN  
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Louisville, KY      Paducah, KY  
502.961.0001      270.444.6547

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**ANALYTICAL RESULTS**

Lab Sample ID: **6112238-01**  
Description: **Non Compliance Monitoring National Business College**

Sample Collection Date Time: 11/10/2016 09:20  
Sample Received Date Time: 11/10/2016 11:50

Matrix: Drinking Water      Discharge/Site No:      Regulatory ID: KY0980350

**Volatile Organic Compounds**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Trihalomethanes	0.138		mg/L	0.001		EPA 524.2 REV 4.1	11/14/2016 13:00	11/15/2016 07:20	HEM

**ANALYTICAL RESULTS**

Lab Sample ID: **6112238-02**  
Description: **Non Compliance Monitoring Mullins Tank**

Sample Collection Date Time: 11/10/2016 09:35  
Sample Received Date Time: 11/10/2016 11:50

Matrix: Drinking Water      Discharge/Site No:      Regulatory ID: KY0980350

**Volatile Organic Compounds**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Trihalomethanes	0.146		mg/L	0.001		EPA 524.2 REV 4.1	11/14/2016 13:00	11/15/2016 07:50	HEM

**ANALYTICAL RESULTS**

Lab Sample ID: **6112238-03**  
Description: **Non Compliance Monitoring Cowpen Master Meter**

Sample Collection Date Time: 11/10/2016 09:52  
Sample Received Date Time: 11/10/2016 11:50

Matrix: Drinking Water      Discharge/Site No:      Regulatory ID: KY0980350

**Volatile Organic Compounds**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Trihalomethanes	0.092		mg/L	0.001		EPA 524.2 REV 4.1	11/14/2016 13:00	11/15/2016 08:18	HEM

**ANALYTICAL RESULTS**

Lab Sample ID: **6112238-04**  
Description: **Non Compliance Monitoring Bob Billips Tank**

Sample Collection Date Time: 11/10/2016 10:10  
Sample Received Date Time: 11/10/2016 11:50

Matrix: Drinking Water      Discharge/Site No:      Regulatory ID: KY0980350

**Volatile Organic Compounds**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Trihalomethanes	0.140		mg/L	0.001		EPA 524.2 REV 4.1	11/14/2016 13:00	11/15/2016 08:45	HEM



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Louisville, KY      Paducah, KY  
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**ANALYTICAL RESULTS**

Lab Sample ID: **6112238-05**  
Description: **Non Compliance Monitoring Sandy Valley Tank**

Sample Collection Date Time: 11/10/2016 10:25  
Sample Received Date Time: 11/10/2016 11:50

Matrix: Drinking Water      Discharge/Site No:      Regulatory ID: KY0980350

Volatile Organic Compounds

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Trihalomethanes	0.116		mg/L	0.001		EPA 524.2 REV 4.1	11/14/2016 13:00	11/15/2016 09:14	HEM

**ANALYTICAL RESULTS**

Lab Sample ID: **6112238-06**  
Description: **Non Compliance Monitoring Town Mtn Master Meter**

Sample Collection Date Time: 11/10/2016 10:40  
Sample Received Date Time: 11/10/2016 11:50

Matrix: Drinking Water      Discharge/Site No:      Regulatory ID: KY0980350

Volatile Organic Compounds

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Trihalomethanes	0.074		mg/L	0.001		EPA 524.2 REV 4.1	11/14/2016 13:00	11/15/2016 09:43	HEM

**ANALYTICAL RESULTS**

Lab Sample ID: **6112238-07**  
Description: **Non Compliance Monitoring YMCA**

Sample Collection Date Time: 11/10/2016 11:00  
Sample Received Date Time: 11/10/2016 11:50

Matrix: Drinking Water      Discharge/Site No:      Regulatory ID: KY0980350

Volatile Organic Compounds

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Trihalomethanes	0.108		mg/L	0.001		EPA 524.2 REV 4.1	11/14/2016 13:00	11/15/2016 10:11	HEM

**ANALYTICAL RESULTS**

Lab Sample ID: **6112238-08**  
Description: **Non Compliance Monitoring Island Creek Master Meter**

Sample Collection Date Time: 11/10/2016 11:18  
Sample Received Date Time: 11/10/2016 11:50

Matrix: Drinking Water      Discharge/Site No:      Regulatory ID: KY0980350

Volatile Organic Compounds

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Trihalomethanes	0.045		mg/L	0.001		EPA 524.2 REV 4.1	11/14/2016 13:00	11/15/2016 10:43	HEM



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Louisville, KY 502.961.0001	Paducah, KY 270.444.6547	

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**ANALYTICAL RESULTS**

Lab Sample ID: **6112238-09**  
Description: **Non Compliance Monitoring Indian Hills Master Meter**

Sample Collection Date Time: 11/10/2016 11:32  
Sample Received Date Time: 11/10/2016 11:50

Matrix: Drinking Water

Discharge/Site No:

Regulatory ID: KY0980350

Volatile Organic Compounds

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Trihalomethanes	0.073		mg/L	0.001		EPA 524.2 REV 4.1	11/14/2016 13:00	11/15/2016 11:12	HEM

**ANALYTICAL RESULTS**

Lab Sample ID: **6112238-10**  
Description: **Non Compliance Monitoring Blank**

Sample Collection Date Time: 11/10/2016 11:32  
Sample Received Date Time: 11/10/2016 11:50

Matrix: Drinking Water

Discharge/Site No:

Regulatory ID: KY0980350

Volatile Organic Compounds

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Trihalomethanes	0.047		mg/L	0.001		EPA 524.2 REV 4.1	11/14/2016 13:00	11/15/2016 11:40	HEM

SP



APPALACHIAN STATES ANALYTICAL, L.L.C.

PO Box 520  
Shelbiana, KY 41562

Utility Management Group  
Pikeville  
306 Island Creek Road  
Pikeville, KY 41501  
ATTN: Ralph Varney

Date Received 1/14/16  
Date Reported 1/19/16  
Order Number 2016-00679

TEST DESCRIPTION	RESULT	UNITS	METHOD	MRL	DATE/TIME	TECH
Fraction	2016-00679001					
Sample I.D	National College					
Date/Time Sampled	1/14/2016	15:35				
TTHM			721			
Chloroform	0.0081	mg/l	721	0.0005	1/18/2016 21:06	NAF
Bromodichloromethane	0.0145	mg/l	721	0.0005	1/18/2016 21:06	NAF
Chlorodibromomethane	0.0222	mg/l	721	0.0005	1/18/2016 21:06	NAF
Bromoform	0.0089	mg/l	721	0.0005	1/18/2016 21:06	NAF
Total Trihalomethanes	0.0537	mg/l	721	0.0005	1/18/2016 21:06	NAF
HAA			737			
Monochloroacetic Acid(MCAA)	<0.0005	mg/l	737	0.0005	1/17/2016 0:08	NAF
Monobromoacetic Acid (MBAA)	<0.0005	mg/l	737	0.0005	1/17/2016 0:08	NAF
Dichloroacetic Acid (DCAA)	0.0012	mg/l	737	0.0005	1/17/2016 0:08	NAF
Trichloroacetic Acid (TCAA)	0.0027	mg/l	737	0.0005	1/17/2016 0:08	NAF
Dibromoacetic Acid (DBAA)	0.0046	mg/l	737	0.0005	1/17/2016 0:08	NAF
Total Haloacetic Acids	0.0085	mg/l	737	0.0005	1/17/2016 0:08	NAF
Fraction	2016-00679002					
Sample I.D	Texas Roadhouse					
Date/Time Sampled	1/14/2016	16:25				
TTHM			721			
Chloroform	0.0015	mg/l	721	0.0005	1/18/2016 21:58	NAF
Bromodichloromethane	0.0050	mg/l	721	0.0005	1/18/2016 21:58	NAF
Chlorodibromomethane	0.0128	mg/l	721	0.0005	1/18/2016 21:58	NAF
Bromoform	0.0094	mg/l	721	0.0005	1/18/2016 21:58	NAF
Total Trihalomethanes	0.0287	mg/l	721	0.0005	1/18/2016 21:58	NAF
HAA			737			
Monochloroacetic Acid(MCAA)	<0.0005	mg/l	737	0.0005	1/17/2016 1:30	NAF
Monobromoacetic Acid (MBAA)	<0.0005	mg/l	737	0.0005	1/17/2016 1:30	NAF
Dichloroacetic Acid (DCAA)	<0.0005	mg/l	737	0.0005	1/17/2016 1:30	NAF
Trichloroacetic Acid (TCAA)	<0.0005	mg/l	737	0.0005	1/17/2016 1:30	NAF
Dibromoacetic Acid (DBAA)	0.0039	mg/l	737	0.0005	1/17/2016 1:30	NAF
Total Haloacetic Acids	0.0039	mg/l	737	0.0005	1/17/2016 1:30	NAF



APPALACHIAN STATES ANALYTICAL, L.L.C.

PO Box 520  
Shelbiana, KY 41562

Utility Management Group  
Pikeville  
306 Island Creek Road  
Pikeville, KY 41501  
ATTN: Ralph Varney

Date Received 1/14/16  
Date Reported 1/19/16  
Order Number 2016-00679

TEST DESCRIPTION	RESULT	UNITS	METHOD	MRL	DATE/TIME	TECH
Fraction	2016-00679003					
Sample I.D	Wal-Mart					
Date/Time Sampled	1/14/2016	16:58				
TTHM			721			
Chloroform	0.0014	mg/l	721	0.0005	1/18/2016 22:50	NAF
Bromodichloromethane	0.0050	mg/l	721	0.0005	1/18/2016 22:50	NAF
Chlorodibromomethane	0.0127	mg/l	721	0.0005	1/18/2016 22:50	NAF
Bromoform	0.0101	mg/l	721	0.0005	1/18/2016 22:50	NAF
Total Trihalomethanes	0.0292	mg/l	721	0.0005	1/18/2016 22:50	NAF
HAA			737			
Monochloroacetic Acid(MCAA)	<0.0005	mg/l	737	0.0005	1/17/2016 2:53	NAF
Monobromoacetic Acid (MBAA)	<0.0005	mg/l	737	0.0005	1/17/2016 2:53	NAF
Dichloroacetic Acid (DCAA)	<0.0005	mg/l	737	0.0005	1/17/2016 2:53	NAF
Trichloroacetic Acid (TCAA)	<0.0005	mg/l	737	0.0005	1/17/2016 2:53	NAF
Dibromoacetic Acid (DBAA)	0.0047	mg/l	737	0.0005	1/17/2016 2:53	NAF
Total Haloacetic Acids	0.0047	mg/l	737	0.0005	1/17/2016 2:53	NAF
Fraction	2016-00679004					
Sample I.D	YMCA					
Date/Time Sampled	1/14/2016	17:35				
TTHM			721			
Chloroform	0.0049	mg/l	721	0.0005	1/18/2016 23:43	NAF
Bromodichloromethane	0.0114	mg/l	721	0.0005	1/18/2016 23:43	NAF
Chlorodibromomethane	0.0218	mg/l	721	0.0005	1/18/2016 23:43	NAF
Bromoform	0.0122	mg/l	721	0.0005	1/18/2016 23:43	NAF
Total Trihalomethanes	0.0503	mg/l	721	0.0005	1/18/2016 23:43	NAF
HAA			737			
Monochloroacetic Acid(MCAA)	<0.0005	mg/l	737	0.0005	1/17/2016 4:15	NAF
Monobromoacetic Acid (MBAA)	<0.0005	mg/l	737	0.0005	1/17/2016 4:15	NAF
Dichloroacetic Acid (DCAA)	<0.0005	mg/l	737	0.0005	1/17/2016 4:15	NAF
Trichloroacetic Acid (TCAA)	0.0009	mg/l	737	0.0005	1/17/2016 4:15	NAF
Dibromoacetic Acid (DBAA)	0.0058	mg/l	737	0.0005	1/17/2016 4:15	NAF
Total Haloacetic Acids	0.0067	mg/l	737	0.0005	1/17/2016 4:15	NAF



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PO Box 520  
Shelbiana, KY 41562

Utility Management Group  
Pikeville  
306 Island Creek Road  
Pikeville, KY 41501  
ATTN: Ralph Varney

Date Received 1/14/16  
Date Reported 1/19/16  
Order Number 2016-00679

TEST DESCRIPTION	RESULT	UNITS	METHOD	MRL	DATE/TIME	TECH
Fraction	2016-00679005					
Sample I.D	Finished Plant Tap					
Date/Time Sampled	1/14/2016	18:15				
TTHM			721			
Chloroform	0.0008	mg/l	721	0.0005	1/19/2016 0:36	NAF
Bromodichloromethane	0.0036	mg/l	721	0.0005	1/19/2016 0:36	NAF
Chlorodibromomethane	0.0097	mg/l	721	0.0005	1/19/2016 0:36	NAF
Bromoform	0.0081	mg/l	721	0.0005	1/19/2016 0:36	NAF
Total Trihalomethanes	0.0222	mg/l	721	0.0005	1/19/2016 0:36	NAF
HAA			737			
Monochloroacetic Acid(MCAA)	<0.0005	mg/l	737	0.0005	1/17/2016 5:36	NAF
Monobromoacetic Acid (MBAA)	<0.0005	mg/l	737	0.0005	1/17/2016 5:36	NAF
Dichloroacetic Acid (DCAA)	<0.0005	mg/l	737	0.0005	1/17/2016 5:36	NAF
Trichloroacetic Acid (TCAA)	<0.0005	mg/l	737	0.0005	1/17/2016 5:36	NAF
Dibromoacetic Acid (DBAA)	0.0036	mg/l	737	0.0005	1/17/2016 5:36	NAF
Total Haloacetic Acids	0.0036	mg/l	737	0.0005	1/17/2016 5:36	NAF

All samples were analyzed within the EPA specified holding times.

Submitted By:



APPALACHIAN STATES ANALYTICAL, L.L.C.

PO Box 520  
Shelbiana, KY 41562

Utility Management Group  
Pikeville  
306 Island Creek Road  
Pikeville, KY 41501  
ATTN: Ralph Varney

Date Received 1/14/16  
Date Reported 1/19/16  
Order Number 2016-00680

TEST DESCRIPTION	RESULT	UNITS	METHOD	MRL	DATE/TIME	TECH
Fraction Sample I.D	2016-00680001 Mullins Hill					
Date/Time Sampled	1/14/2016	15:17				
TTHM			721			
Chloroform	0.0142	mg/l	721	0.0005	1/18/2016 15:54	NAF
Bromodichloromethane	0.0178	mg/l	721	0.0005	1/18/2016 15:54	NAF
Chlorodibromomethane	0.0222	mg/l	721	0.0005	1/18/2016 15:54	NAF
Bromoform	0.0074	mg/l	721	0.0005	1/18/2016 15:54	NAF
Total Trihalomethanes	0.0616	mg/l	721	0.0005	1/18/2016 15:54	NAF
Fraction Sample I.D	2016-00680002 Southern MM					
Date/Time Sampled	1/14/2016	15:52				
TTHM			721			
Chloroform	0.0044	mg/l	721	0.0005	1/18/2016 16:47	NAF
Bromodichloromethane	0.0110	mg/l	721	0.0005	1/18/2016 16:47	NAF
Chlorodibromomethane	0.0220	mg/l	721	0.0005	1/18/2016 16:47	NAF
Bromoform	0.0130	mg/l	721	0.0005	1/18/2016 16:47	NAF
Total Trihalomethanes	0.0504	mg/l	721	0.0005	1/18/2016 16:47	NAF
Fraction Sample I.D	2016-00680003 Bob Billups Tank					
Date/Time Sampled	1/14/2016	16:10				
TTHM			721			
Chloroform	0.0087	mg/l	721	0.0005	1/18/2016 17:38	NAF
Bromodichloromethane	0.0094	mg/l	721	0.0005	1/18/2016 17:38	NAF
Chlorodibromomethane	0.0122	mg/l	721	0.0005	1/18/2016 17:38	NAF
Bromoform	0.0077	mg/l	721	0.0005	1/18/2016 17:38	NAF
Total Trihalomethanes	0.0380	mg/l	721	0.0005	1/18/2016 17:38	NAF



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306 Island Creek Road  
Pikeville, KY 41501  
ATTN: Ralph Varney

Date Received 1/14/16  
Date Reported 1/19/16  
Order Number 2016-00680

TEST DESCRIPTION	RESULT	UNITS	METHOD	MRL	DATE/TIME	TECH
Fraction	2016-00680004					
Sample I.D	SV Tank					
Date/Time Sampled	1/14/2016	16:43				
TTHM			721			
Chloroform	0.0206	mg/l	721	0.0005	1/18/2016 18:30	NAF
Bromodichloromethane	0.0279	mg/l	721	0.0005	1/18/2016 18:30	NAF
Chlorodibromomethane	0.0381	mg/l	721	0.0005	1/18/2016 18:30	NAF
Bromoform	0.0174	mg/l	721	0.0005	1/18/2016 18:30	NAF
Total Trihalomethanes	0.1040	mg/l	721	0.0005	1/18/2016 18:30	NAF
Fraction	2016-00680005					
Sample I.D	Town Mountain					
Date/Time Sampled	1/14/2016	17:15				
TTHM			721			
Chloroform	0.0040	mg/l	721	0.0005	1/18/2016 19:21	NAF
Bromodichloromethane	0.0088	mg/l	721	0.0005	1/18/2016 19:21	NAF
Chlorodibromomethane	0.0179	mg/l	721	0.0005	1/18/2016 19:21	NAF
Bromoform	0.0104	mg/l	721	0.0005	1/18/2016 19:21	NAF
Total Trihalomethanes	0.0411	mg/l	721	0.0005	1/18/2016 19:21	NAF
Fraction	2016-00680006					
Sample I.D	Indian Hills					
Date/Time Sampled	1/14/2016	17:55				
TTHM			721			
Chloroform	0.0016	mg/l	721	0.0005	1/18/2016 20:15	NAF
Bromodichloromethane	0.0054	mg/l	721	0.0005	1/18/2016 20:15	NAF
Chlorodibromomethane	0.0139	mg/l	721	0.0005	1/18/2016 20:15	NAF
Bromoform	0.0111	mg/l	721	0.0005	1/18/2016 20:15	NAF
Total Trihalomethanes	0.0320	mg/l	721	0.0005	1/18/2016 20:15	NAF



APPALACHIAN STATES ANALYTICAL, L.L.C.

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Utility Management Group  
Pikeville  
306 Island Creek Road  
Pikeville, KY 41501  
ATTN: Ralph Varney

Date Received 1/14/16  
Date Reported 1/19/16  
Order Number 2016-00680

TEST DESCRIPTION	RESULT	UNITS	METHOD	MRL	DATE/TIME	TECH
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All samples were analyzed within the EPA specified holding times.

Submitted By:

*Jacki Shell*



**KENTUCKY DIVISION OF WATER / DRINKING WATER BRANCH**  
**SECONDARY CONTAMINANT ANALYSIS REPORT FORM**

SAMPLE CATEGORY GE  
 ENTRY POINT SAMPLING

**This Section To Be Completed By Collector**

PWS ID	<u>KY0980350</u>	Plant ID	<u>A</u>	Plant Name	<u>PIKEVILLE WTP</u>	Location Code	<u>TPA</u>
PWS Name	<u>Pikeville Water Department</u>			PWS Contact	<u>Ralph Varney</u>		
PWS Address	<u>306 Island Creek Road, Pikeville, KY 41501</u>			PWS Phone	<u>(606) 437-5123</u>		
Sample Date (MMDDYYYY)	<u>09012016</u>	Time	<u>1430</u>	Sample Type	<u>RT</u>	Collector Name	<u>Iralee Bolden</u>
				RT = Routine (For Compliance) SP = Special (Not for Compliance)			

**This Section to Be Completed By Lab**

Lab ID	<u>00030</u>	Lab Sample Number	<u>6091200-01</u>	Lab Phone	<u>(270) 821-7375</u>
Lab Analyst	<u>Jordan Langdon</u>	Signature/Date	<u>9/7/2016 3:50:00PM</u>	Lab Supervisor	<u>Mark Dixon</u> 9/9/2016

Analyte Code	Analyte Name	Analysis Method Code	Result (mg/L)	Analysis Date
			-or- Lab Minimum Reporting Limit (mg/L)	
1930	Total Dissolved Solids	806	493	09072016

The signatories of this form certify by their signature that collection and analysis of the water sample analyzed and the resulting data hereby submitted, were completed in accordance with the provisions of 401 KAR Chapter 8; and that the data submitted on this form is a true and accurate report of the results of collection and analysis performed pursuant to the above-referenced regulations. Violations of 401 KAR Chapter 8 are subject to severe penalties proscribed in KRS 224.99-010, up to \$25,000 fine per day per violation and in some cases a violation may subject a violator to prison.

Lead + Copper

FIELD CHAIN OF CUSTODY RECORD

FIELD MONITORING PROGRAM

SAMPLERS (SIGNATURES)

*Palmer*

FACILITY	SAMPLE SOURCE	COMPOSITING PERIOD				SAMPLE COLLECTION			FLOW	CONTAINER		Volatile Organics	Pesticides/PCB's	Trace Metals	Cyanide	Phenols	Oil and Grease	Solids	BOD	Ammonia Nitrogen	Phosphorous	Coliform	pH	Preservation	COMMENTS
		SAMPLING BEGINS		SAMPLING ENDS		DATE	TIME	G/C	MGD	VOLUME	G/P														
		DATE	TIME	DATE	TIME																				
AKVILLE	44					9/2/16	4:30	G			P														
	45					"	11:30	"			"														
	46					"	7:45	"			"														
	57					"	6:30	"			"														
	61					"	7:25	"			"														
	63					"	7:00	"			"														
	81					"	6:45	"			"														
	82					"	7:50	"			"														
	85					"	8:41	"			"														
	87					"	7:15	"			"														
	94					"	7:00	"			"														
	95					"	7:57	"			"														
	100					"	8:15	"			"														
	124					"	5:45	"			"														
	127					"	6:50	"			"														
	131					"	8:00	"			"														

RELINQUISHED BY <i>Palmer</i>	DATE 9-2-16	TIME 1335	RECEIVED BY <i>Johnny Delmore</i>	RELINQUISHED BY	DATE	TIME	RECEIVED BY
RELINQUISHED BY	DATE	TIME	RECEIVED BY	RELINQUISHED BY	DATE	TIME	RECEIVED BY
RELINQUISHED BY	DATE	TIME	RECEIVED BY	RELINQUISHED BY	DATE	TIME	RECEIVED BY

REMARKS  
 TEMP 20C RV RUN ANALYSIS

002158













KENTUCKY DIVISION OF WATER / DRINKING WATER RESULTS  
BACTERIOLOGICAL ANALYSIS REPORT FORM

General Information - This Section To Be Completed By Collector

Rev. 06/01/2011

PWS ID = KY0920350 Compliance Period (MMYYYY) 062016

PWS Name UMG - P. Keenille PWS Contact \_\_\_\_\_ Collection Date (MMDDYY) 06062016  
(All Samples Reported on this Form were Collected on this Date.)

PWS Address \_\_\_\_\_ PWS Phone \_\_\_\_\_ Collector Name Michael McKinley  
Signature Date 6-6-16

General Information - This Section To Be Completed By Lab

Lab ID 00050 Lab Receipt Date (MMDDYYYY) 06062016 Total Coliform Analysis Method Code 309

Analysis Date (MMDDYYYY) 06062016 E Coli Analysis Method Code 309

Lab Analyst Al Heel 6-7-16 Lab Supervisor Al Heel 6-7-16  
Signature Date Signature Date

Sample Information - This Section To Be Completed By Collector

Analysis Information - This Section To Be Completed By Lab

Sample Type (RT, RP, TG, CO, or SP) (See Key)	Special Sample Reason (A, B, C, D, or E) (See Key)	Replacement Sample? (Y or Blank)	Location Code (See Instructions)	Repeat Location Code (DN, UP, or OR) (See Key)	Sample Time (24 hr)	Free Chlorine (Required for all disinfectants except Chloramine)	Total Chlorine (Required when disinfectant is Chloramine)
SP	F		S01		0918	0.88	
SP	F		S02		1038	0.71	
SP	F		S03		1058	1.01	

Lab Sample Number	Analysis Time (24 hr)	Result (Total Coliform Count - or - TNTC - or - CNFG) (See Key)	Total Coliform (P/A)	E Coli (P/A)	Lab Sample Number of Original Sample (Required for RP, TG, CO, and/or Replacement Samples) (See Instructions)
6061584	1126		A	A	
01	1126		A	A	
02	1126		A	A	
03	1126		A	A	

The signatories of this form certify by their signatures that collection and analysis of the water sample analyzed and the resulting data hereby submitted, were completed in accordance with the provisions of 401 KAR Chapter 8, specifically including but not limited to 401 KAR 8:200, Section 1 and 401 KAR 8:040; and that the data submitted on this form is a true and accurate report of the results of collection and analysis performed pursuant to the above-referenced regulations. Violations of 401 KAR Chapter 8 are subject to severe penalties prescribed in KRS 224.99-010, up to \$25,000 fine per day per violation and in some cases a violation may subject the violator to prison.

**BACTERIOLOGICAL ANALYSIS REPORT FORM KEY**

<b>Sample Type:</b>	RT = Routine (For Compliance)	RP = Repeat (For Compliance)	SP = Special (Not for Compliance)
	TG = Triggered (For Compliance)	CO = Confirmation (For Compliance)	
<b>Special Sample Reason: (Only if Sample Type = SP)</b>	A = Suspected Contamination	B = New Plant, Modification, or Line Extension	C = Treatment Modification
	D = Study/Investigation	E = Line Break, Emergency Repair	
<b>Repeat Location Code: (Only if Sample Type = RP)</b>	DN = Downstream	UP = Upstream	OR = Original Site
<b>Result:</b>	TNTC = Too Numerous to Count	CNFG = Confluent Growth	





KENTUCKY DIVISION OF WATER

Revised 7/1/06

DRINKING WATER BRANCH

MONTHLY OPERATION REPORT (MOR)--ALL WATER SYSTEMS

MONTH & YEAR OF: XXXXXXXXXX

DEP Form 4012--Revised 07/2006

PWS ID :	<u>0980350</u>	PLANT ID:	<u>A</u>	PLANT NAME:	<u>PIKEVILLE WATER PLANT</u>
PWS NAME:	<u>CITY OF PIKEVILLE</u>			PLANT CLASS:	<u>IVA DIST. CLASS: II</u>
AGENCY INTEREST (AI):	<u>3691</u>			DATE MAILED:	
SOURCE NAME:	<u>LEVISA FORK OF THE BIG SANDY RIVER</u>			COUNTY:	<u>PIKE</u>

	OPERATOR(S) RESPONSIBLE / IN-CHARGE	CLASS	CERTIFICATION NUMBER
WTP SHIFT 1:	<u>RALPH VARNEY</u>	<u>IVA</u>	<u>645</u>
WTP SHIFT 2:	<u>GREG PENNINGTON</u>	<u>IVA</u>	<u>777</u>
WTP SHIFT 3:	<u>DEMPSEY MILES</u>	<u>IVA</u>	<u>1549</u>
DISTRIBUTION:	<u>DONNIE SLONE</u>	<u>IID</u>	<u>2236</u>

THIS REPORT MUST BE RECEIVED BY THE DIVISION OF WATER AND APPLICABLE FIELD OFFICE  
**NO LATER THAN 10 DAYS AFTER THE END OF THE MONTH.**

**TREATMENT PLANTS COMPLETE:**

1. DESIGN CAPACITY (gpm):	<u>4400</u>
2. TYPE OF FILTRATION USED:	<u>DUAL MEDIA RAPID SAND</u>
3. DESIGN FILTRATION RATE (gpm/sq. ft.):	<u>3</u>
4. PERCENT BACKWASH WATER USED:	<u>2.3</u>
5. DATE FLOCCULATION BASIN(S) LAST CLEANED	<u>NOVEMBER 2015</u>
6. DATE SETTLING BASIN(S) LAST CLEANED:	<u>NOVEMBER 2015</u>

I certify under penalty of law that I have personally examined and am familiar with the information submitted herein. Based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. See KRS 224.99-010 and 401 KAR 8:020. (Penalties under this statute and regulation may include fines up to \$25,000 per violation or by imprisonment for not more that one year, or both)

\_\_\_\_\_  
 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

\_\_\_\_\_  
 DATE

KENTUCKY DIVISION OF WATER - DRINKING WATER BRANCH  
 WATER TREATMENT PLANT MONTHLY OPERATION REPORT

PWS ID : 0980350

PLANT ID: A

REPORT MONTH/YEAR: January, 2017

PAGE 1 OF 11

DAY	RAW WATER TREATED GALLONS	HOURS PLANT OPERATED	COAGULANT		COAGULANT		pH ADJUSTMENT		DISINFECTANT		DISINFECTANT	
			LBS	PPM	LBS	PPM	Pre		Pre		Post	
							LBS	PPM	LBS	PPM	LBS	PPM
	3058000	12.00	855	33.5					35	1.38	42	1.64
	2765000	11.25	515	22.3					34	1.48	42	1.81
	2987000	12.00	618	24.8					35	1.41	40	1.59
	3031000	12.00	572	22.6					36	1.44	37	1.48
	3005000	12.25	541	21.6					39	1.54	43	1.71
	2906000	11.75	588	24.3					33	1.36	36	1.50
	3011000	11.75	618	24.6					30	1.18	34	1.36
	3212000	12.75	597	22.3					40	1.48	28	1.03
	3242000	13.00	639	23.6					35	1.30	54	1.99
	3608000	14.75	669	22.2					33	1.10	55	1.83
	3252000	13.00	587	21.6					46	1.70	24	0.89
	3252000	13.00	728	26.8					39	1.42	37	1.38
	3065000	12.25	628	24.6					36	1.42	35	1.38
	3042000	12.00	618	24.4					28	1.08	31	1.21
	3411000	13.50	707	24.9					39	1.35	31	1.08
	3454000	13.75	700	24.3					29	0.99	37	1.30
	3216000	12.75	731	27.3					33	1.23	37	1.39
	3274000	13.00	886	32.4					33	1.21	42	1.53
	2823000	11.50	749	31.8					36	1.54	40	1.68
	3226000	13.00	906	33.7					62	2.29	59	2.21
	3230000	15.00	1030	38.2					55	2.04	81	3.02
	3166000	12.50	968	36.7					57	2.17	84	3.17
	2902000	11.50	906	37.4					61	2.50	92	3.82
	4527000	18.25	2544	67.4					165	4.37	182	4.81
	3484000	14.50	2060	70.9					127	4.35	127	4.35
	3042000	12.25	1092	43.0					66	2.60	41	1.60
	3154000	12.50	906	34.4					58	2.22	61	2.30
	3236000	12.75	927	34.3					50	1.83	50	1.83
	2826000	11.25	865	36.7					47	2.01	42	1.77
	3212000	12.75	842	31.4					47	1.77	46	1.72
	3556000	14.00	790	26.6					50	1.67	47	1.59
<b>TOT</b>	99175000		26382						1511		1636	
<b>AVE</b>	3199194		851	26.45					49	2.69	53	1.85
<b>MAX</b>	4527000		2544									
<b>NUMBER DAYS IN OPERATION</b>												

KENTUCKY DIVISION OF WATER - DRINKING WATER BRANCH  
 WATER TREATMENT PLANT MONTHLY OPERATION REPORT

PWS ID : 0980350  
 PLANT ID: A

REPORT MONTH/YEAR: Jan, 2017

PAGE 2 OF 11

DAY	DISINFECTANT		FLUORIDE		CARBON		pH ADJUSTMENT		KMnO4		CORROSION INHIBITOR			
	LBS	PPM	LBS	PPM	LBS	PPM	LBS	PPM	LBS	PPM	LBS	PPM	LBS	PPM
			18.0	0.71										
			14.4	0.62										
			21.6	0.87										
			16.7	0.66										
			17.8	0.71										
			19.4	0.80										
			26.1	1.04										
			21.6	0.81										
			18.0	0.67										
			23.4	0.78										
			21.6	0.80										
			16.6	0.61										
			19.4	0.76										
			19.8	0.78										
			18.7	0.66										
			20.9	0.73										
			21.6	0.81										
			19.8	0.73										
			19.3	0.82										
			16.7	0.62										
			23.4	0.87										
			18.9	0.72										
			14.4	0.59										
			22.5	0.60										
			19.8	0.68										
			16.7	0.59										
			16.6	0.63										
			18.0	0.67										
			18.0	0.76										
			12.2	0.46										
			19.4	0.65										
<b>TOTAL</b>			591.3											
<b>AVERAGE</b>			19.1	0.90										

KENTUCKY DIVISION OF WATER - DRINKING WATER BRANCH  
 WATER TREATMENT PLANT MONTHLY OPERATION REPORT

PWS ID : 0980350  
 PLANT ID : A

REPORT MONTH/YEAR: Jan, 2017

PAGE 3 OF 11

DAY	pH			TOTAL ALKALINITY		TOTAL HARDNESS		CHLORINE RESIDUAL				TURBIDITY (NTU)		
	RAW	TOP OF FILTER	TAP	RAW	TAP	RAW	TAP	TOP OF FILTER		PLANT TAP		RAW	SETTLED WATER	PLANT TAP
								TOTAL	FREE	TOTAL	FREE			
	7.90	7.80	7.65	100	100	186	182		0.04		1.81	14.1	0.91	0.06
	7.95	7.83	7.70	100	70	208	200		0.44		1.95	13.6	1.53	0.07
	7.99	7.88	7.71	110	130	220	212		0.28		1.80	22.5	1.33	0.06
	7.99	8.06	7.74	112	122	212	200		0.40		1.64	19.6	1.49	0.06
	8.00	7.88	7.77	60	80	224	204		0.25		1.50	13.2	1.57	0.08
	7.99	7.90	7.76	72	70	212	214		1.37		1.67	12.1	1.67	0.07
	7.99	7.92	7.78	80	76	210	212		0.58		1.59	10.8	1.80	0.05
	8.09	7.88	7.76	78	72	210	214		0.22		1.46	10.4	1.77	0.06
	8.00	7.88	7.77	64	84	244	248		0.74		1.64	6.7	1.75	0.11
	8.02	7.98	7.78	80	90	236	240		0.62		1.77	6.8	1.40	0.08
	8.01	7.88	7.79	74	82	222	210		0.22		1.73	10.6	1.64	0.10
	8.07	8.02	7.80	84	96	234	226		1.04		1.64	8.0	1.31	0.12
	8.02	8.06	7.79	70	84	232	222		2.06		1.88	9.4	1.37	0.08
	7.96	8.02	7.77	80	80	210	226		1.01		1.58	9.6	1.33	0.11
	7.94	7.90	7.76	68	80	244	202		0.89		1.44	13.0	1.22	0.09
	7.96	7.90	7.71	72	78	192	186		1.18		1.44	17.7	1.44	0.07
	7.86	7.75	7.65	68	76	194	188		0.18		1.50	27.7	1.56	0.07
	7.87	7.77	7.70	82	76	198	192		0.52		1.35	32.0	1.29	0.05
	7.78	7.71	7.58	74	60	202	196		0.72		1.03	38.5	1.40	0.06
	7.82	7.69	7.56	62	60	194	194		0.21		1.09	53.9	1.82	0.06
	7.80	7.73	7.41	68	62	200	204		0.58		0.13	41.6	1.46	0.05
	7.69	7.68	7.56	74	62	198	194		0.24		0.21	45.3	1.42	0.05
	7.81	7.83	7.55	72	68	202	210		0.11		0.95	95.8	1.65	0.07
	7.61	7.56	7.50	56	52	166	154		0.06		0.12	1912.0	1.30	0.07
	7.72	7.56	7.51	76	76	180	160		0.40		1.44	1018.0	1.61	0.06
	7.86	7.69	7.56	44	48	212	204		0.46		1.64	117.5	1.37	0.07
	7.82	7.72	7.62	68	54	192	206		0.38		1.53	58.0	1.68	0.05
	7.81	7.73	7.70	62	66	214	204		0.48		1.89	31.2	1.26	0.08
	7.87	7.79	7.67	72	80	228	228		0.68		1.89	20.3	1.00	0.07
	8.01	7.88	7.74	86	86	246	236		0.68		1.82	12.3	1.11	0.07
	8.01	7.87	7.75	94	84	256	242		0.56		1.82	11.5	1.44	0.07
<b>AVE</b>	7.91	7.83	7.68	76	78	212	207		0.57		1.45	119.8	1.45	0.07

KENTUCKY DIVISION OF WATER  
 DRINKING WATER BRANCH  
 WATER TREATMENT PLANT MONTHLY OPERATION REPORT

PWS ID: 0980350  
 PLANT ID: A  
 AGENCY INTEREST: 3691  
 REPORT MONTH/YEAR: Jan, 2017

AREA-WIDE OPTIMIZATION PROGRAM TURBIDITY DATA  
 COPY PAGE AS NEEDED

DAY	RAW DAILY MAX	SEDIMENTATION BASIN EFFLUENT DAILY MAXIMUM						INDIVIDUAL FILTER EFFLUENT DAILY MAXIMUM							CFE DAILY MAX
		#1	#2	#3	#4	#5	#6	#1	#2	#3	#4	#5	#6	#7	
		15.0	0.90	0.70					0.07	0.07	0.02	0.09	0.05		
13.6	1.91	1.41					0.12	0.14	0.03	0.09	0.05			0.08	
33.1	1.22	1.16					0.38	0.06	0.13	0.10	0.05			0.09	
24.9	1.63	1.44					0.54	0.06	0.12	0.38	0.12			0.16	
13.3	1.33	1.40					0.59	0.06	0.03	0.10	0.12			0.11	
14.0	1.81	1.84					0.05	0.08	0.02	0.06	0.05			0.03	
11.0	1.98	1.77					0.23	0.12	0.02	0.09	0.05			0.07	
10.9	1.86	1.70					0.35	0.05	0.08	0.13	0.05			0.20	
7.2	1.82	1.89					0.54	0.07	0.08	0.16	0.08			0.08	
6.8	1.62	1.47					0.25	0.29	0.03	0.31	0.16			0.13	
11.2	1.68	1.54					0.55	0.34	0.10	0.08	0.25			0.16	
8.4	1.30	1.37					0.49	0.33	0.13	0.10	0.38			0.23	
10.2	1.33	0.99					0.05	0.25	0.23	0.21	0.06			0.17	
10.3	1.41	1.34					0.09	0.28	0.30	0.26	0.07			0.21	
13.4	1.26	1.12					0.10	0.06	0.40	0.48	0.09			0.11	
17.7	1.58	1.36					0.11	0.05	0.04	0.32	0.10			0.07	
30.0	1.89	1.48					0.22	0.06	0.03	0.11	0.10			0.05	
33.0	1.24	1.20					0.17	0.10	0.03	0.10	0.05			0.04	
44.1	1.50	1.44					0.06	0.11	0.03	0.10	0.05			0.04	
54.2	1.92	1.71					0.05	0.05	0.09	0.17	0.04			0.03	
42.3	1.70	1.58					0.09	0.05	0.04	0.17	0.05			0.05	
45.3	1.26	1.21					0.19	0.06	0.02	0.12	0.10			0.05	
160.0	1.89	1.67					0.18	0.07	0.03	0.08	0.06			0.04	
2828.0	0.56	0.33					0.10	0.06	0.06	0.10	0.06			0.04	
1255.0	1.22	0.95					0.05	0.05	0.02	0.07	0.04			0.03	
162.0	1.48	1.36					0.06	0.09	0.10	0.08	0.09			0.03	
63.4	1.82	1.73					0.21	0.05	0.02	0.06	0.04			0.03	
33.5	1.38	1.24					0.23	0.05	0.02	0.18	0.04			0.05	
21.0	0.91	0.80					0.38	0.05	0.02	0.08	0.06			0.06	
13.2	1.34	1.38					0.47	0.11	0.04	0.09	0.09			0.08	
12.2	1.51	1.38					0.17	0.20	0.14	0.25	0.15			0.10	
<b>AVE</b>	161.9	1.49	1.35				0.23	0.11	0.08	0.15	0.09			0.09	

KENTUCKY DIVISION OF WATER - DRINKING WATER BRANCH  
 WATER TREATMENT PLANT MONTHLY OPERATION REPORT

PWSID: 0980350  
 PLANT ID: A

REPORT MONTH/YEAR: Jan, 2017

\*Please answer Y/N question below this chart.

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DAY	FLUORIDE		IRON		MANGANESE				Lowest Daily Cl Res	RAINFALL	WATER
	RAW	TAP	RAW	TAP	RAW	TAP	RAW	TAP	Plant Tap On-Line Cl Analyzer		INCHES
									FREE		F°/C°
	0.10	0.81							1.81	0.15	9.0
	0.09	0.84							1.95	0.45	9.5
	0.11	0.86							1.80	0.17	10.0
	0.12	0.88							1.64		10.5
	0.09	0.76							1.50		8.0
	0.12	0.82							1.67		8.0
	0.12	0.82							1.59		7.0
	0.11	0.80							1.46		5.0
	0.09	0.76							1.64		6.0
	0.08	0.70							1.77		5.0
	0.07	0.71							1.73	0.10	6.5
	0.08	0.70							1.64	0.06	8.0
	0.11	0.82							1.88		7.0
	0.11	0.90							1.58	0.06	9.0
	0.10	0.82							1.44	0.24	10.0
	0.10	0.84							1.44		10.0
	0.11	0.95							1.50	0.39	11.0
	0.11	0.84							1.35	0.12	11.0
	0.09	0.76							1.03		11.0
	0.12	0.85							1.09	0.18	10.0
	0.11	1.02							0.13		11.0
	0.12	0.98							0.21	0.28	11.0
	0.10	0.66							0.12	0.66	12.0
	0.11	0.72							0.12	0.25	12.0
	0.09	0.75							1.44		12.0
	0.09	0.78							1.64		12.0
	0.18	0.96							1.53		10.0
	0.11	0.87							1.89		9.0
	0.10	0.84							1.89	0.20	8.5
	0.11	0.86							1.82		8.0
	0.10	0.76							1.82		7.0
<b>AVE</b>	0.10	0.82									9.2
									0.12		
									Number of readings	31	3.31
									For Free Cl, # < 0.2 mg/L	3	
Disinfectant Chloramines? (Y/N)									For Chloramines, # < 0.5 mg/L		

KENTUCKY DIVISION OF WATER - DRINKING WATER BRANCH  
 WATER TREATMENT PLANT MONTHLY OPERATION REPORT

PWS ID : 0980350  
 PLANT ID: A

REPORT MONTH/YEAR: Jan, 2017

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DAY	TOTAL WASH WATER GALLONS	No: 1		No: 2		No: 3		No: 4		No: 5	
		AREA (ft2)	363								
		WASH GALLONS	FILT RUN HRS								
	82,220			82,220	85.50						
	44,800					44,800	83.25				
	81,920							81,920	71.00		
	179,850	90,200	63.50							89,650	70.00
	90,530			90,530	59.50						
	82,270					82,270	63.50				
	97,896	97,896	44.00								
	80,800							80,800	75.75		
	184,540	114,520	45.00							70,020	87.75
	81,900			81,900	88.50						
	98,640					98,640	87.50				
	81,000							81,000	72.75		
	129,104									129,104	66.25
	98,244	98,244	73.25								
	74,025			74,025	63.50						
	80,800					80,800	63.75				
	89,463							89,463	66.50		
	98,136									98,136	64.50
	82,350	82,350	62.50								
	152,900			79,100	95.00	73,800	86.75				
	92,160							92,160	95.00		
	78,300	78,300	93.00								
	80,400									80,400	119.50
<b>TOT</b>	2,242,248	561,510	381.3	407,775	392.0	380,310	384.8	425,343	381.0	467,310	408.0
<b>AVE</b>	97,489	93,585	63.5	81,555	78.4	76,062	77.0	85,069	76.2	93,462	81.6

COPY AS NEEDED

KENTUCKY DIVISION OF WATER - DRINKING WATER BRANCH  
 WATER TREATMENT PLANT MONTHLY OPERATION REPORT

PWS ID : 0980350  
 PLANT ID: A

REPORT MONTH/YEAR: Jan, 2017

PAGE 7 OF 11

DAY	CHEMICALS ADDED		TEST RESULTS							
	CHLORINE BOOSTER	CHLORINE BOOSTER	TOTAL (T) AND FREE (F) CHLORINE RESIDUAL (ppm)							
	LBS	LBS	NORTH		SOUTH		EAST		WEST	
			T	F	T	F	T	F	T	F
				0.90		0.81		0.94		1.18
				1.10		1.42		0.98		0.78
				0.90		1.29		1.32		0.92
				0.81		1.08		1.15		0.94
				1.01		1.05		1.27		1.30
				1.24		1.11		0.91		1.40
				2.20		1.43		2.15		1.64
				1.27		1.07		1.18		1.17
AVE			AVERAGE	1.18		1.16		1.24		1.17
TOT			TOT MIN							
			FREE MIN	0.81		0.81		0.91		0.78
Total # Chlorine Samples				8		8		8		7
# Less than 0.2 mg/L/0.5 mg/L				0		0		0		0
Number of Free Residuals			31	Minimum Monthly Total Residual			NA			
Number of Total Residuals			0	Minimum Monthly Free Residual			0.78			
Total # Less than 0.2 mg/L			0	Disinfectant Chloramines? (Y/N)			N			
				Number of days of operation?			31			

KENTUCKY DIVISION OF WATER - DRINKING WATER BRANCH  
 WATER TREATMENT PLANT MONTHLY OPERATION REPORT

PWS ID : 0980350  
 PLANT ID: A

TURBIDITY REPORT

Report Period (MM/YYYY): Jan, 2017

PWS Name: CITY OF PIKEVILLE

PAGE:  
 8 OF 11

DAY									
	12.0	3		0.09	0.04	0.04	0.05		0.09
	11.3	3		0.06	0.06	0.08	0.07		0.08
	12.0	3		0.05	0.06	0.07	0.07		0.07
	12.0	3		0.06	0.05	0.05	0.07		0.07
	12.3	4		0.07	0.07	0.08	0.08		0.08
	11.8	3		0.09	0.08	0.06	0.06		0.09
	11.8	3		0.04	0.04	0.04	0.06		0.06
	12.8	4		0.05	0.06	0.05	0.06		0.06
	13.0	4		0.10	0.10	0.12	0.11		0.12
	14.8	4		0.07	0.06	0.08	0.10		0.10
	13.0	4		0.07	0.13	0.09	0.11		0.13
	13.0	4		0.12	0.12	0.14	0.11		0.14
	12.3	4		0.10	0.08	0.07	0.07		0.10
	12.0	3		0.13	0.10	0.10	0.10		0.13
	13.5	4		0.08	0.07	0.09	0.10	0.10	0.10
	13.8	4		0.06	0.08	0.08	0.07		0.08
	12.8	4		0.06	0.06	0.09	0.06		0.09
	13.0	4		0.06	0.04	0.04	0.05		0.06
	11.5	3		0.05	0.05	0.08	0.05		0.08
	13.0	4		0.05	0.06	0.06	0.08		0.08
	15.0	4		0.07	0.04	0.04	0.06		0.07
	12.5	4		0.04	0.04	0.06	0.07		0.07
	11.5	3		0.05	0.05	0.11	0.05		0.11
	18.3	5		0.07	0.08	0.06	0.09	0.06	0.09
	14.5	4		0.05	0.06	0.07	0.05	0.05	0.07
	12.3	4		0.06	0.07	0.07	0.06		0.07
	12.5	4		0.04	0.04	0.05	0.05		0.05
	12.8	4		0.06	0.06	0.08	0.10		0.10
	11.3	3		0.08	0.08	0.06	0.06		0.08
	12.8	4		0.08	0.07	0.07	0.05		0.08
	14.0	4		0.07	0.06	0.05	0.08		0.08
Total	398.5	115		TOTAL # OF TURBIDITY SAMPLES TAKEN --				127	0.14

ARE YOU USING EITHER CONVENTIONAL or DIRECT FILTRATION? (Y/N)  Y

(Any type of filtration besides slow sand)

Number of samples exceeding ----> 0.1 NTU 10 0.3 NTU 0 1 NTU 0

For slow sand filtration, the number of samples exceeding --> 1 NTU 5 NTU

\*NOTE: The "Number of Turbidity Samples Required" is the number of hours the plant operated divided by 4 rounded up to the next whole number.

I certify that the above turbidity readings were taken every 4 hours during plant operation and in the time frames noted above.

Signature of Principal Executive Officer or Authorized Agent

Date

KENTUCKY DIVISION OF WATER / DRINKING WATER BRANCH  
Monthly Operating Report (MOR) Plant Summary Form

PWS ID : 0980350

Monitoring Period (MM/YYYY): Jan, 2017

**NOTE: COMPLETE ALL APPLICABLE FIELDS!!! NOT ALL OF THE FIELDS ARE PRE-POPULATED FOR YOU!!!**

APPLICABLE TO ALL PLANTS			
PLANT ID:	<u>A</u>	TOTAL WATER TREATED (gallons)	<u>99,175,000</u>
PLANT NAME:	<u>PIKEVILLE WATER PLANT</u>	AVE. DAILY PRODUCTION (gallons)	<u>3,199,194</u>
AGENCY INTEREST:	<u>3691</u>	MAXIMUM PUMPAGE (gallons per day)	<u>4,527,000</u>

APPLICABLE TO ALL PLANTS WITH FILTRATION	
ANALYTE CODE	<u>0100</u>
Was each filter monitored continuously? (Y/N).....	<u>Y</u>
Were measurements recorded every 15 minutes? (Y/N).....	<u>Y</u>
Was there a failure of the continuous monitoring equipment? (Y/N).....	<u>N</u>
If Yes, (1) were individual filter effluent turbidity grab samples collected every four hours of operation? (Y/N).....	<u>  </u>
(2) was the continuously monitoring equipment repaired within 5 working days? (Y/N).....	<u>  </u>
Was individual filter level greater than 1.0 NTU in two consecutive measurements? (Y/N).....	<u>N</u>
Was individual filter level < 0.5 NTU in two consecutive measurements after online more than 4 hours? (Y/N).....	<u>N</u>
Was individual filter level < 1.0 NTU in two consecutive measurements in three consecutive months? (Y/N).....	<u>N</u>
Was individual filter level greater than 2.0 NTU in two consecutive measurements in two consecutive months? (Y/N)	<u>N</u>
<b>If any of the last 4 boxes are YES, fill out the Individual Filter Turbidity Sheet and submit with MOR</b>	

APPLICABLE TO ALL PLANTS WITH FILTRATION	APPLICABLE TO ALL PLANTS
ANALYTE CODE	<u>0100</u>
Number of hours of plant operation.....	<u>398.5</u>
Were samples taken every 4 hrs of plant operation? (Y/N)	<u>Y</u>
Number of samples taken.....	<u>127</u>
Highest single turbidity reading .....	<u>0.14</u>
For all filtration except slow sand filtration:	
Number of samples exceeded 0.1 NTU .....	<u>10</u>
Number of samples exceeded 0.3 NTU .....	<u>0</u>
Number of samples exceeded 1.0 NTU .....	<u>0</u>
When filtration is slow sand filtration:	
Number of samples exceeded 1 NTU .....	
Number of samples exceeded 5 NTU .....	
ANALYTE CODE	<u>0999</u>
Number of days of plant operation.....	<u>31</u>
Were samples taken each day of operation? (Y/N)	<u>Y</u>
Number of lowest chlorine samples recorded .....	<u>31</u>
Lowest single chlorine reading .....	<u>0.12</u>
If less than required:	
Was residual restored within 4 hrs of plant operation	<u>  </u>
Free chlorine (for all disinfectants except chloramine):	
Number of samples under 0.2 mg/L .....	<u>2</u>
Total Chlorine (when disinfectant is chloramine):	
Number of samples under 0.5 mg/L .....	

APPLICABLE TO PLANTS UTILIZING CHLORINE DIOXIDE	APPLICABLE TO PLANTS USING CHLORINE DIOXIDE
ANALYTE CODE	<u>1008</u>
Number of days of plant operation.....	<u>31</u>
Were samples taken each day of operation? (Y/N).....	<u>  </u>
Number of samples taken .....	<u>####</u>
Highest single chlorine dioxide reading .....	<u>####</u>
Number of chlorine dioxide samples exceeded 0.8 mg/L ..	<u>####</u>
ANALYTE CODE	<u>1009</u>
Number of days of plant operation.....	<u>31</u>
Were samples taken each day of operation? (Y/N)	<u>  </u>
Number of samples taken .....	<u>####</u>
Highest single chlorite reading .....	<u>####</u>
Number of chlorite samples exceeded 1 mg/L .....	<u>####</u>

I certify under penalty of law that I have personally examined and am familiar with the information submitted herein. Based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. See KRS 224.99-010 and 401 KAR 8:020. (Penalties under this statute and regulation may include fines up to \$25,000 per violation or by imprisonment for not more than one year, or both).

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT \_\_\_\_\_

DATE \_\_\_\_\_



**PIKEVILLE WATER TREATMENT PLANT  
 WATER PUMPED TO DISTRIBUTION SYSTEM  
 FOR THE MONTH OF: January, 2017**

01/01/17	2.9963
01/02/17	2.8517
01/03/17	3.0539
01/04/17	3.0894
01/05/17	2.9541
01/06/17	2.8859
01/07/17	2.9047
01/08/17	3.2066
01/09/17	3.3445
01/10/17	3.4548
01/11/17	3.4783
01/12/17	3.2556
01/13/17	3.1753
01/14/17	3.0108
01/15/17	3.3484
01/16/17	3.3902
01/17/17	3.2253
01/18/17	3.3643
01/19/17	2.9597
01/20/17	3.1226
01/21/17	3.1086
01/22/17	3.0986
01/23/17	3.1039
01/24/17	4.4531
01/25/17	3.5778
01/26/17	3.2117
01/27/17	3.1644
01/28/17	3.2035
01/29/17	2.8496
01/30/17	3.2416
01/31/17	3.6147
<b>Total</b>	<b>99.6999</b>
<b>Average</b>	<b>3.2161</b>
<b>Minimum</b>	<b>2.8496</b>
<b>Maximum</b>	<b>4.4531</b>

<b>Water plant usage</b>	<b>62,919</b>
<b>Raw water intake usage</b>	<b>136,840</b>
<b>Total non metered usage</b>	<b>199,759</b>

	FLOW TO DIST	START C. WELL	Settling Basin Turbidity						Sludge Hauled	Spent B/W Return	DUP pH TAP
			MID - 4	4A - 8AM	8AM - 12N	12N - 4PM	4PM - 8PM	8PM - 12M			
01/01/17	2.9963	9.0		1.12	1.03	0.80	0.80			62,000	7.66
01/02/17	2.8517	10.0		1.03	1.47	1.83	1.66			85,000	7.70
01/03/17	3.0539	8.2		1.54	1.06	1.71	1.22			213,000	7.71
01/04/17	3.0894	2.6		1.12	1.81	1.53	1.46			30,000	7.74
01/05/17	2.9541	0.5		2.05	1.66	1.36	1.41			0	7.78
01/06/17	2.8859	0.0		1.57	1.88	1.26	1.82			0	7.76
01/07/17	2.9047	1.4		1.76	1.87	1.88	1.61			55,000	7.78
01/08/17	3.2066	1.6		1.75	1.71	1.78	1.84			140,000	7.77
01/09/17	3.3445	1.0		1.68	1.47	1.86	1.91			214,000	7.78
01/10/17	3.4548	6.0		1.58	1.42	1.54	0.90			166,000	7.79
01/11/17	3.4783	9.0		1.55	1.78	1.61	1.65			80,000	7.79
01/12/17	3.2556	6.0		1.34	1.22	1.32	1.34			171,000	7.81
01/13/17	3.1753	4.4		1.46	1.44	1.16	1.63		23,900	132,000	7.79
01/14/17	3.0108	4.6		1.37	1.30	1.38	1.22			127,000	7.77
01/15/17	3.3484	5.4		1.02	1.19	1.19	1.40	1.32		133,000	7.76
01/16/17	3.3902	7.4		1.16	1.64	1.47	1.46		37,800	154,000	7.69
01/17/17	3.2253	8.1		1.39	1.23	1.81	1.68			169,000	7.65
01/18/17	3.3643	7.4		1.66	1.05	1.22	1.30		28,200	231,000	7.71
01/19/17	2.9597	6.8		1.26	1.50	1.29	1.47		28,200	143,000	7.56
01/20/17	3.1226	4.6		1.59	2.13	1.75	1.82		11,100	135,000	7.56
01/21/17	3.1086	6.6		1.61	1.27	1.64	1.16			101,000	7.41
01/22/17	3.0986	7.6		1.43	1.63	1.24	1.60			111,000	7.57
01/23/17	3.1039	7.6		1.42	1.62	1.64	1.78			291,000	7.56
01/24/17	4.4531	6.0		3.20	1.63	0.44	1.06	1.03		100,000	7.51
01/25/17	3.5778	10.0		1.26	2.29	1.08	1.92	2.00	46,600	74,000	7.51
01/26/17	3.2117	8.4		1.63	0.95	1.45	1.42		14,900	149,000	7.56
01/27/17	3.1644	4.4		1.61	1.39	1.86	1.78			99,000	7.61
01/28/17	3.2035	6.0		1.24	1.24	1.31	1.18			162,000	7.71
01/29/17	2.8496	6.6		1.26	1.02	0.86	1.04			130,000	7.67
01/30/17	3.2416	6.2		0.98	0.94	0.91	1.36			147,000	7.73
01/31/17	3.6147	6.2		1.38	1.27	1.65	1.44			146,000	7.75
Ave	3.2161	5.8		1.48	1.46	1.41	1.46	1.45		127,419	
Tot	99.6999								190,700	3,950,000	
Min	2.8496	0.0		0.98	0.94	0.44	0.80	1.03		0	
Max	4.4531	10.0		3.20	2.29	1.88	1.92	2.00		291,000	

WATER PLANT MONTHLY OPERATIONS REPORT

MONTH/YEAR: Jan/2017

ANALYTICAL RESULTS (Mg/L or PPM unless otherwise specified.)

DAY	pH (S. U.'S)				ALKALINITY		HARDNESS		CHLORINE		TURBIDITY (NTU)		FLUORIDE	
	RAW	TOF	FIN	DUP	RAW	FIN	RAW	FIN	TOF	FIN	RAW	TOF	RAW	FIN
01	7.90	7.80	7.65	7.66	100	100	186	182	.04	1.81	14.1	.91	.10	.81
02	7.95	7.83	7.70	7.70	100	70	208	200	.44	1.95	13.6	1.53	.09	.84
03	7.99	7.88	7.71	7.71	110	130	220	212	.28	1.80	22.5	1.33	.11	.86
04	7.99	8.06	7.74	7.74	112	122	212	200	.40	1.64	19.6	1.49	.12	.88
05	8.00	7.88	7.77	7.78	60	80	224	204	.25	1.50	13.2	1.57	.09	.76
06	7.99	7.90	7.76	7.76	72	70	212	214	1.37	1.67	12.1	1.67	.12	.82
07	7.99	7.92	7.78	7.78	80	76	210	212	.58	1.59	10.8	1.80	.12	.82
08	8.09	7.88	7.76	7.77	78	72	210	214	.22	1.46	10.4	1.77	.11	.80
09	8.00	7.88	7.77	7.78	64	84	244	248	.74	1.64	6.65	1.75	.09	.76
10	8.02	7.98	7.78	7.79	80	90	236	240	.62	1.77	6.8	1.40	.08	.70
11	8.01	7.88	7.79	7.79	74	82	222	210	.22	1.73	10.6	1.64	.07	.71
12	8.07	8.02	7.88	7.81	84	96	234	226	1.04	1.64	8	1.31	.08	.70
13	8.02	8.06	7.79	7.79	70	84	232	222	2.06	1.88	9.4	1.37	.11	.82
14	7.96	8.02	7.77	7.77	80	80	210	226	1.01	1.58	9.6	1.33	.11	.90
15	7.94	7.90	7.76	7.76	68	80	244	202	.89	1.44	13	1.22	.10	.82
16	7.96	7.90	7.71	7.69	72	78	192	186	1.18	1.44	17.7	1.44	.1	.84
17	7.86	7.75	7.65	7.65	68	76	194	188	.18	1.50	27.7	1.56	.11	.95
18	7.87	7.77	7.70	7.71	82	76	198	192	1.52	1.35	32.0	1.29	.11	.84
19	7.78	7.71	7.58	7.56	74	60	202	196	.72	1.03	38.5	1.40	.09	.76
20	7.82	7.69	7.56	7.56	62	60	194	194	.21	1.09	53.9	1.82	.12	.85
21	7.80	7.73	7.41	7.41	68	62	200	204	.58	.13	41.6	1.46	.11	1.02
22	7.69	7.68	7.56	7.57	74	62	198	194	.24	.21	45.3	1.42	.12	.78
23	7.81	7.83	7.55	7.56	72	68	202	210	.11	.95	95.8	1.65	.10	.66
24	7.61	7.56	7.50	7.51	56	52	186	154	.06	.12	19.2	1.30	.11	.72
25	7.72	7.56	7.51	7.51	76	76	180	160	.40	1.44	10.8	1.61	.09	.75
26	7.86	7.69	7.56	7.56	44	48	212	204	.46	1.64	117.5	1.37	.09	.78
27	7.82	7.72	7.62	7.61	68	54	192	206	.38	1.53	57.95	1.68	.18	.96
28	7.81	7.73	7.70	7.71	62	66	214	204	.48	1.89	31.2	1.26	.11	.87
29	7.87	7.79	7.67	7.67	72	80	228	228	.68	1.89	20.3	1.0	.10	.84
30	8.01	7.88	7.74	7.73	86	86	246	236	.68	1.82	12.3	1.11	.11	.86
31	8.01	7.87	7.75	7.75	94	84	256	242	.56	1.82	11.5	1.44	.10	.76

WATER PLANT MONTHLY OPERATIONS REPORT

MONTH/YEAR:

Jan/2017

CHEMICALS ADDED

DAY	RAW WATER TREATED (M.G.D.)	COAGULANT PAC LBS	FLUORIDE LBS	PRE LBS	POST LBS
01	3.058	855	18	35.2	41.8
02	2.765	515	17.4	34.1	41.8
03	2.987	618	21.6	35.2	39.6
04	3.031	572	16.7	36.3	37.4
05	3.005	541	17.8	38.5	42.9
06	2.906	588	19.4	33.0	36.3
07	3.011	618	26.1	29.7	34.1
08	3.212	597	21.6	39.6	27.5
09	3.242	639	18	35.2	53.9
10	3.608	669	23.4	33	55
11	<del>3.202</del>	587	21.6	46.2	24.2
12	3.252	728	16.6	38.5	37.4
13	3.065	628	19.4	36.3	35.2
14	3.042	618	19.8	27.5	30.8
15	3.411	707	16.7	38.5	30.8
16	3.454	700	20.9	28.6	37.4
17	3.216	731	21.6	33.0	37.4
18	3.274	886	19.8	33.0	41.8
19	2.823	749	19.3	36.3	39.6
20	3.226	906	16.7	61.6	59.4
21	3.230	1030	23.4	55.0	81.4
22	3.166	968	18.9	57.2	83.6
23	2.902	906	14.4	60.5	92.4
24	4.527	2544	22.5	16.5	181.5
25	3.484	2060	19.8	126.5	126.5
26	3.042	1092	16.7	66	40.7
27	3.154	906	16.6	58.3	60.5
28	3.236	927	18	49.5	49.5
29	2.826	865	18	47.3	41.8
30	3.212	842	12.2	47.3	46.2
31	3.556	780	19.4	48.5	47.3

EST. \*

Jan/2010

FILTER OPERATION INFORMATION  
WATER TREATMENT PLANT MONTHLY OPERATION REPORT

CARRY OVER

4.75

63.5

52.50

27.50

15

PWS ID: 0980350

REPORT MONTH:

DAY	(gallons)	#1 HRS	GAL	#2 HRS	GAL	#3 HRS	GAL	#4 HRS	GAL	#5 HRS	GAL
1		12		12		12		12		12	
2	10. 8222	11.25		<del>10. 85.5</del> 82220		11.25		11.25		11.25	
3	14. 8200	12.0		12.0		<del>7.5 63.25</del> 4.0 14800		12.0		12.0	
4	10 8192	12		12		12		<del>8.25 71.0</del> 3.25 81920		12	
5	<del>11. 8150</del> 11. 8220	<del>11.5 63.5</del> 9200		12.25		12.25		12.25		<del>12.5 70.425</del> 9650	
6		11.75		11.75		11.75		11.75		11.75	
7	11 8230	11.75		<del>10.5 89.5</del> 1.5 90530		11.75		11.75		11.75	
8	10 8227	12.75		12.75		<del>11.75 69.5</del> 0 82270		12.75		12.75	
9	12 8158	<del>7.25 44.65</del> 97846		13		13		13		13	
10	10 8080	14.75		14.75		14.75		<del>11 75.75</del> 2 80800		14.75	
11	<del>9 7700</del>	13		13		13		13		13	
12	<del>9 7780</del> 14 8180	<del>11.5 49.75</del> 114520		13		13		13		<del>6.5 81.75</del> 70620	
13		12.25		12.25		12.25		12.25		12.25	
14	10 8190	12		<del>8.5 88.5</del> 81900		12		12		12	
15	12 8220	13.5		13.5		<del>9.5 87.5</del> 3.5 98640		13.5		13.5	
16	10 8100	13.75		13.75		13.75		<del>7 72.75</del> 0.5 81000		13.75	
17	16 8069	12.75		12.75		12.75		12.75		<del>8.5 66.75</del> 129104	
18	12 8187	<del>8.25 73.25</del> 4.25 98244		13.0		13.0		13.0		13.0	
19	9 8225	11.5		<del>7.5 69.5</del> 4.75 74625		11.5		11.5		11.5	
20	10 8080	13		13		<del>9.25 63.75</del> 80800		13		13	
21	11 8133	15.0		15.0		15.0		<del>7.5 66.5</del> 4.5 89463		15.0	
22	12 8178	12.5		12.5		12.5		12.5		<del>8.25 64.5</del> 3.5 98136	
23	10 8235	<del>6.5 62.5</del> 82350		11.5		11.5		11.5		11.5	
24		18.25		18.25		18.25		18.25		18.25	
25		14.5		14.5		14.5		14.5		14.5	
26	<del>10 7910</del> 9. 8200	12.25		<del>6.5 95</del> 4.5 79100		<del>11.5 86.75</del> 73800		12.25		12.25	
27		12.5		12.5		12.5		12.5		12.5	
28	12 7680	12.75		12.75		12.75		<del>9 95</del> 3 92160		12.75	
29		11.25		11.25		11.25		11.25		11.25	
30	16. 7836	<del>6.5 97</del> 6 78300		12.75		12.75		12.75		12.75	
31	10. 8040	14		14		14		14		<del>10.25 119.5</del> 3.5 80400	

PIKEVILLE WATER TREATMENT PLANT  
AWOP INFORMATION

MONTH/YR: Jan/2017

ANALYTICAL RESULTS (NTU)									
DAY	RAW DAILY MAX	SED BASIN EFF		INDIVIDUAL FILTER EFFLUENT					CFE DAILY MAX
		DAILY MAX		DAILY MAXIMUM					
		#1	#2	#1	#2	#3	#4	#5	
1	15	.90	.70	.07	.07	.02	.09	.05	.03
2	13.6	1.91	1.41	.12	.14	.03	.09	.05	.08
3	33.1	1.22	1.16	.38	.06	.13	.10	.05	.09
4	24.9	1.63	1.44	.54	.06	.12	.38	.12	.16
5	13.3	1.33	1.40	.54	.06	.13	.10	.12	.11
6	14	1.81	1.84	.05	.08	.02	.06	.05	.03
7	11.0	1.98	1.77	.23	.12	.02	.09	.05	.07
8	10.9	1.86	1.70	.35	.05	.08	.13	.05	.20
9	7.2	1.82	1.89	.54	.07	.08	.16	.08	.08
10	6.8	1.62	1.47	.25	.29	.03	.31	.16	.13
11	11.2	1.68	1.54	.55	.34	.10	.08	.25	.16
12	8.4	1.30	1.37	.49	.33	.13	.10	.38	.23
13	10.2	1.33	.99	.05	.25	.23	.21	.06	.17
14	10.3	1.41	1.34	.09	.28	.30	.26	.07	.21
15	13.4	1.26	1.12	.10	.06	.40	.48	.09	.11
16	17.7	1.58	1.36	.11	.05	.04	.32	.10	.07
17	30.	1.89	1.48	.22	.06	.03	.11	.10	.05
18	33.0	1.24	1.20	.17	.10	.03	.10	.05	.04
19	44.1	1.5	1.44	.06	.11	.03	.10	.05	.04
20	54.2	1.92	1.71	.05	.05	.09	.17	.04	.03
21	42.3	1.70	1.58	.09	.05	.04	.17	.05	.05
22	45.3	1.24	1.21	.09	.06	.02	.12	.10	.05
23	160	1.89	1.67	.18	.07	.03	.08	.06	.04
24	2828	.56	.33	.10	.06	.06	.10	.06	.04
25	1255	1.22	.95	.05	.05	.02	.07	.04	.03
26	162	1.48	1.36	.06	.09	.10	.08	.09	.03
27	63.4	1.82	1.73	.21	.65	.02	.66	.04	.03
28	33.5	1.38	1.24	.23	.05	.02	.18	.04	.05
29	21	.91	.80	.38	.05	.02	.08	.06	.06
30	13.2	1.34	1.38	.47	.11	.04	.09	.09	.08
31	12.2	1.51	1.38	.17	.20	.14	.25	.15	.10

Raw fin  
4255 3193  
4258 3208  
4261 3178  
4307 3214  
4295 3202  
4271 3193  
4284 3156  
4280 3217  
4258 3214  
4246 3275  
4261 3230  
4267 3223  
4292 3236  
4289 3202  
4298 3202  
4298 3196  
4283 3205  
4332 3230  
4341 3214  
432 3178  
4283 3223  
4274 3248  
4359 3269  
4454 3269  
4405 3239  
4338 3236  
4310 3208  
4319 3220  
4298 3187  
4301 3236  
4298 3281

FINISHED WATER TURBIDITY

PWSID: 0980350

PWS NAME: PIKEVILLE WATER MONTH Jan/2017

DAY	MID - 4AM	4AM - 8AM	8AM - NOON	NOON - 4PM	4PM - 8PM	8PM - MID
1		.09	.04	.04	.05	
2		.06	.06	.08	.07	
3		.05	.06	.07	.07	
4		.06	.05	.05	.07	
5		.07	.07	.08	.08	
6		.09	.08	.06	.06	
7		.04	.04	.04	.06	
8		.05	.06	.05	.06	
9		.10	.10	.12	.11	
10		.07	.06	.08	.10	
11		.07	.13	.09	.11	
12		.12	.12	.14	.11	
13		.10	.08	.07	.07	
14		.13	.10	.10	.10	
15		.08	.07	.09	.10	.10
16		.06	.08	.08	.07	
17		.06	.06	.09	.06	
18		.06	.04	.04	.05	
19		.05	.05	.08	.05	
20		.05	.06	.06	.08	
21		.07	.04	.04	.06	
22		.04	.04	.06	.07	
23		.05	.05	.11	.05	
24		.07	.08	.06	.09	.06
25		.05	.06	.07	.05	.05
26		.06	.07	.07	.06	
27		.04	.04	.05	.05	
28		.06	.06	.08	.10	
29		.08	.08	.06	.06	
30		.08	.07	.07	.05	
31		.07	.06	.05	.08	

WATER PLANT MONTHLY OPERATIONS REPORT

MONTH/YEAR:

Jan/2017

DAILY READINGS

DAY	WATER TO DIST MGD	SLUDGE HAULED Gals <sup>1000</sup>	X 2000 S BW RETURN	RAIN FALL (inches)	WATER TEMP DEG C	CLEAR WELL LEVEL FT.
1	2.9963		62000	.15	9	9
2	2.8517		85000	.45	9.5	10
3	3.0539		213000	.17	10°	8.2
4	3.0894		30000		10.5	2.6
5	2.9541		0		8	.5
6	2.8859		0		8	0
7	2.9047		55000		7°	1.4
8	3.2066		140000		5°	1.6
9	3.3445		214000		6°	1.0
10	3.4548		166000		5	6
11	3.4783		80000	.10	6.5	9
12	3.2556		171000	.06	8	6
13	3.1753	23900	132000		7	4.4
14	3.0108		127000	.06	9	4.6
15	3.3484		133000	.24	10	5.4
16	3.3902	37800	154000	.	10	7.4
17	3.2253		169000	.39	11°	8.1
18	3.3643	28200	231000	.12	11°	7.4
19	2.9597	28200	143000		11°	6.8
20	3.1226	11100	135000	.18	10	4.6
21	3.1086		101000		11°	6.6
22	3.0986		111000	.28	11°	7.6
23	3.1039		291000	.66	12°	7.6
24	4.4531		100000	.25	12	6
25	3.5778	46600	74000	.	12	10
26	3.2117	14900	149000		12	8.4
27	3.1644		99000		10	4.4
28	3.2035		162000		9	6
29	2.8496		130000	.2	8.5	6.6
30	3.2416		147000		8	6.2
31	3.6147		146000		7	6.2

### SETTLED WATER TURBIDITY

PWSID: 0980350

PWS NAME: PIKEVILLE WATER MONTH Jan/2017

DAY	MID - 4AM	4AM - 8AM	8AM - NOON	NOON - 4PM	4PM - 8PM	8PM - MID
1		1.12	1.03	.90/.70/.80	.80	
2		1.03	1.47	1.83	1.91/1.41/1.66	
3		1.54	1.06	1.71	1.22/1.11/1.14	
4		1.12	1.81	1.63/1.49/1.53	1.46	
5		2.05	1.66	1.33/1.40/1.36	1.41	
6		1.57	1.88	1.26	1.81/1.84/1.82	
7		1.76	1.87	1.98/1.77/1.88	1.61	
8		1.75	1.71	1.86/1.70/1.78	1.84	
9		1.68	1.47	1.82/1.94/1.86	1.91	
10		1.58	1.42	1.62/1.47/1.54	.90	
11		1.55	1.78	1.68/1.54/1.61	1.65	
12		1.34	1.22	1.32	1.3/1.37/1.34	
13		1.46	1.44	1.33/1.49/1.46	1.63	
14		1.37	1.30	1.41/1.34/1.38	1.22	
15		1.02	1.19	1.26/1.12/1.19	1.4	1.32
16		1.16	1.64	1.58/1.36/1.47	1.46	
17		1.39	1.23	1.81	1.89/1.48/1.68	
18		1.66	1.05	1.24/1.20/1.22	1.30	
19		1.24	1.50	1.29	1.5/1.44/1.47	
20		1.59	2.13	1.75	1.92/1.71/1.82	
21		1.61	1.27	1.70/1.58/1.64	1.16	
22		1.43	1.63	1.26/1.21/1.24	1.60	
23		1.42	1.62	1.64	1.89/1.67/1.78	
24		3.2	1.63	1.56/1.33/1.44	1.06	1.03
25		1.26	2.29	1.22/1.95/1.08	1.92	2.00
26		1.63	.95	1.45	1.48/1.36/1.42	
27		1.61	1.39	1.86	1.82/1.73/1.78	
28		1.24	1.24	1.38/1.24/1.31	1.18	
29		1.26	1.02	.91/.80/.86	1.04	
30		.98	.94	.91	1.34/1.38/1.36	
31		1.38	1.27	1.65	1.51/1.38/1.44	

### WATER DEPARTMENT MASTER WATER READINGS

DATE: 2-1-17

ACCOUNT NUMBER	LOCATION	PRESENT	PREVIOUS	USAGE	AMOUNT
	SANDY VALLEY-PIkeville	408201	390447	17754	13449 DON'T BILL
54-9966200-0	TOWN MOUNTAIN	708017	698174	19843	
54-9909400-0	CHLOE ROAD	71288	69185	2103	
54-9911500-0	ISLAND CREEK	64520	60827	3693	
54-9928000-0	MUD CREEK-Southern Wt.	125744	115387	10357	
54-9914600-0	COON BRANCH	11406	11206	200	
54-9913000-0	SOUTH MAYO TRAIL	10045	01701	8344	
54-9925500-0	HOOPWOOD HOLLOW	15235	15158	77	
54-9911800-0	ISLAND CK. TRAILER PK.	01042	00862	180	
54-9911900-0	HURRICANE CREEK	307081	305483	1598	
54-9912000-0	PIKE FLOYD-Southern	43591	42148	1443	
54-9900100-0	COWPEN-Mt. Water	267892	265020	2862	
<b>TOTAL</b>				<b>50700</b>	

Only Read First 5 numbers

METER READER INITIALS: WH

9187196	7844983
9050350	7782064
136840	62919

NON-METERED WATER

FLUSHING - EST \_\_\_\_\_

LEAKS - EST \_\_\_\_\_

TOTAL GALLONS \_\_\_\_\_

## Monthly Chlorine Report- Jan. 2017

Water Dist. – Utility Management Group – JM,WH,JR

1-1-17 = 289 Peach Orchard = 0.90  
1-2-17 = 71 Rachel Fork = 0.81  
1-3-17 = 140 Map Dr. = 0.94  
1-4-17 = 110 Lance Lot = 1.18  
1-5-17 = 124 South Elm = 1.10  
1-6-17 = 224 Combs Dr. = 1.42  
1-7-17 = 224 North Gate = 0.98  
1-8-17 = 560 Zeigler Drive = 0.78  
1-9-17 = 276 York Wood = 0.90  
1-10-17 = 188 Pound Puppy Dr. = 1.29  
1-11-17 = 212 Deskins Hollow = 1.32  
1-12-17 = 258 Fox Croft = 0.92  
1-13-17 = 350 East Chloe Ridge = 0.81  
1-14-17 = 168 Keyser Heights = 1.08  
1-15-17 = 176 Mayo Circle = 1.15  
1-16-17 = 246 Peach Orchard = 0.94  
1-17-17 = 306 Island Creek = 1.01  
1-18-17 = 895 Ratliff Creek = 1.05  
1-19-17 = 127 Weddington Branch = 1.27  
1-20-17 = 324 Chloe Rd. = 1.30  
1-21-17 = 178 Third street = 1.24  
1-22-17 = 3630 Island Creek = 1.11  
1-23-17 = 1199 Broad Bottom = 0.91  
1-24-17 = 465 Marions Branch = 1.40  
1-25-17 = 306 Island Creek = 2.20  
1-26-17 = 2170 North Mayo Trail = 1.43  
1-27-17 = 5157 South Mayo Trail = 2.15  
1-28-17 = 152 East Keyser Heights = 1.64  
1-29-17 = 155 Night n Gale = 1.27  
1-30-17 = 629 Ratliffs Creek = 1.07  
1-31-17 = 248 Scott Ave. = 1.18

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 1/1/17 RAW TEMP 9 RAINFALL .15

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	25				
FLUORIDE	73/40				
PRECL2	9/60				
POSTCL2	200 <sup>110</sup> / <sub>140</sub>				

CLEAR WELL RFT/SHT 27.2 | 26.2 Town Mtn. 25.2 On Off

### METERS/WEIGHTS/LEVELS

FINISHED	49567857	PAX	145
RAW	34441684	FLUORIDE	300
SLUDGE	273554	PRE CL2	117
S B/W RET	231920	POST CL2	108

FILTERS	ON	OFF	HOURS RUN								
#1	↓	↓	↓	↓							12
#2	↓	↓	↓	↓							↓
#3	↓	↓	↓	↓							↓
#4	↓	↓	↓	↓							↓
#5	↓	↓	↓	↓							↓

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 1/2/17 RAW TEMP 9.5 RAINFALL .45

OPERATOR [Signature] OPERATOR [Signature]

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	420				
FLUORIDE	73/40				
PRECL2	40				
POSTCL2	190				

CLEAR WELL RFT/SHT 30.4 | 28.8 Town Mtn. 244 On Off

METERS/WEIGHTS/LEVELS			
FINISHED	49597820		PAX 62/90/65/100
RAW	34444742		FLUORIDE 200
SLUDGE	273554		PRE CL2 85/70/120
S B/W RET	231982		POST CL2 70/50/120

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600	1200	2301		645	730	1325				11.25
#2	↓	↓	↓	1630	↓	↓	↓	↓	↓	↓	↓
#3	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
#4	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
#5	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
2	633	10	8222	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 1/3/17 RAW TEMP 10° RAINFALL .17

OPERATOR DM OPERATOR [Signature]

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	30 ↓ 20				
FLUORIDE	7 3/40				
PRECL2	160				
POSTCL2	190 ↓ 190	180			

CLEAR WELL 8.2 Town Mtn. 26.4 On  Off   
 RFT/SHT 27.6 | 25.6

METERS/WEIGHTS/LEVELS					
FINISHED	49626337			PAX	75    220
RAW	34447507			FLUORIDE	120    800
SLUDGE	223554			PRE CL2	104    170
S B/W RET	232067			POST CL2	102    170

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	5:05		1:00		3:00	15:25	6:25	18:00			12.0
#2											
#3											
#4											
#5											

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
3	12:39	14	8200		

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 1/4/17 RAW TEMP 10.5 RAINFALL \_\_\_\_\_

OPERATOR gm OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/46				
PRECL2	160				
POSTCL2	180				

CLEAR WELL 2.6 Town Mtn. 26.0 On  Off

RFT/SHT 28.0 | 26.2

METERS/WEIGHTS/LEVELS					
FINISHED	49656876			PAX	160
RAW	34450494			FLUORIDE	680
SLUDGE	273554			PRE CL2	138
S B/W RET	232280			POST CL2	134

FILTERS	8.25		2.25		11.0		11.5		ON	OFF	ON	OFF	ON	OFF	HOURS RUN
	ON	OFF	ON	OFF	ON	OFF	ON	OFF							
#1	5:05	1:45	3:45	6:00	6:30	7:00	7:30	8:00							12.0
#2	↓	↓	↓	↓	↓	↓	↓	↓							
#3	↓	↓	↓	↓	↓	↓	↓	↓							
#4	↓	11:15	↓	↓	↓	↓	↓	↓							
#5	↓	1:45	↓	↓	↓	↓	↓	↓							

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#4	1:26	10	8192	—	—

2.25  
3.25

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 1/5/17 RAW TEMP 8° RAINFALL \_\_\_\_\_

OPERATOR RU for Tom Val OPERATOR [Signature]

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	160				
POSTCL2	180				

CLEAR WELL 5? Pump off Town Mtn. 26 On  Off

RFT/SHT 27.2 | 25.2

### METERS/WEIGHTS/LEVELS

FINISHED	49687720		PAX	105/65/190
RAW	34453525		FLUORIDE	587
SLUDGE	273554		PRE CL2	105/80/150
S B/W RET	232310		POST CL2	100/72/150

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600		1325	510	1713	731	1755				12.25
#2											
#3											
#4											
#5	1143	200									

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
5	145	11	8150		
1	716	11	8200		

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 1-6-17 RAW TEMP 8 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE [Signature]

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	160				
POSTCL2	180				

CLEAR WELL 0 Town Mtn. 25 On  Off   
 RFT/SHT 27 126.4

METERS/WEIGHTS/LEVELS			
FINISHED	49717311		PAX 178
RAW	34456530		FLUORIDE 488
SLUDGE	273554		PRE CL2 140
S B/W RET	232310		POST CL2 139

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	603	1245	500	1795							11.75
#2											
#3											
#4											
#5											

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM

COMMENTS: SBw meter not working

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 1/2/17 RAW TEMP 7° RAINFALL \_\_\_\_\_

OPERATOR DM OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	160				
POSTCL2	180				

CLEAR WELL RFT/SHT 28.4 | 1.4 | 26.2 Town Mtn. 25.6 On  Off \_\_\_\_\_

METERS/WEIGHTS/LEVELS					
FINISHED	49746170			PAX	150 220
RAW	34459436			FLUORIDE	380 875
SLUDGE	273554			PRE CL2	110 175
S B/W RET	232326			POST CL2	106 175

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	4:55	12:45	2:45	5:45	7:00	8:00					11.75
#2			2:45	5:30							
#3				5:45							
#4											
#5	↓	↓	↓	↓	↓	↓					

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#2	5:34	11	8230	—	—

COMMENTS: Fixed Cl2 Leak on pre need parts

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 1/8/17 RAW TEMP 5° RAINFALL \_\_\_\_\_

OPERATOR DM OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	160				
POSTCL2	180				

CLEAR WELL RFT/SHT 27.6 1.6 Town Mtn. 25.8 On  Off

METERS/WEIGHTS/LEVELS			
FINISHED	49775217		PAX 160
RAW	34462447		FLUORIDE 730
SLUDGE	223554		PRE CL2 148
S B/W RET	232381		POST CL2 144

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	5:05	12:25	2:30	5:45	6:45	8:45					12.75
#2											
#3					17:55						RED
#4					18:45						
#5	↓	↓	↓	↓	↓	↓					

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#3	7:57				

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 1/9/17 RAW TEMP 6° RAINFALL \_\_\_\_\_

OPERATOR Dn OPERATOR [Signature]

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	160				
POSTCL2	180				

CLEAR WELL RFT/SHT 26.8 | 110 | 23.4 Town Mtn. 26.4 On  Off

METERS/WEIGHTS/LEVELS			
FINISHED	49807283		PAX <u>102</u>
RAW	34465659		FLUORIDE <u>610</u>
SLUDGE	273554		PRE CL2 <u>112</u>
S B/W RET	232521		POST CL2 <u>119</u>

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	6:00	110	130	1348	545	900					13
#2											
#3											
#4											
#5	↓				↓						

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
1	113	12	8158		

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 1/10/17 RAW TEMP 5 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	160				
POSTCL2	180 <sup>1030</sup> ↓ 160				

CLEAR WELL 6.178 Town Mtn. 25.8 On Off  
 RFT/SHT 26.4 | 23.6

METERS/WEIGHTS/LEVELS			
FINISHED	49840728		PAX 50/225
RAW	34468901		FLUORIDE 510
SLUDGE	273554		PRE CL2 80/160
S B/W RET	232735		POST CL2 70/170

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	605		1740		910	1030					1475
#2											
#3											
#4	↓	1500	700	↓	↓	↓	↓	↓	↓	↓	
#5	↓			↓	↓	↓	↓	↓	↓	↓	

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
4	505	10	8080	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 1/11/12 RAW TEMP 6.5 RAINFALL .10

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	160				
POSTCL2	160				

CLEAR WELL 9 Town Mtn. 27 On Off  
 RFT/SHT 26.8 | 23

METERS/WEIGHTS/LEVELS			
FINISHED	49875276		PAX 160
RAW	34472509		FLUORIDE 380
SLUDGE	273554		PRE CL2 130
S B/W RET	232901		POST CL2 120

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600	325	525	900							13
#2											
#3											
#4											
#5											

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 1/12/17 RAW TEMP 8 RAINFALL .06

OPERATOR [Signature] OPERATOR [Signature]

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	↑ 25	↓ 20 (215)			
FLUORIDE	73/40				
PRECL2	160/170	0/170			
POSTCL2	160				

CLEAR WELL RFT/SHT 27.6 | 6 | 24 Town Mtn. 26.6 On Off

METERS/WEIGHTS/LEVELS			
FINISHED	049910059		PAX 103/67/130
* RAW	<del>344078066</del>	34476711	FLUORIDE 260
SLUDGE	273554		PRE CL2 88/70/100
S B/W RET	232981		POST CL2 98/82/100

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	6001		1415		515	1648	720	800					13
#2													
#3													
#4													
#5	1231	1246											

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
5	1234	9	7780		
1	651	14	8180		

COMMENTS:



# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 1/14/17 RAW TEMP 9 RAINFALL .06

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	160/135				
POSTCL2	160/140				

CLEAR WELL 4.6 Town Mtn. 27 On Off  
 RFT/SHT 27.6 | 25

### METERS/WEIGHTS/LEVELS

FINISHED	49974368	PAX	35	200
RAW	34482078	FLUORIDE	60	400
SLUDGE	273993	PRE CL2	50	150
S B/W RET	233284	POST CL2	50	150

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	602300		5051805								12
#2	↓ 1230		↓   ↓								
#3	↓ 1300		↓   ↓								
#4	↓   ↓		↓   ↓								
#5	↓   ↓		↓   ↓								

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
2	238	10	8190	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 1/15/17 RAW TEMP 10 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	135				
POSTCL2	140				

CLEAR WELL RFT/SHT 26.2 | 5.4 | 24.2 Town Mtn. 26.8 On \_\_\_ Off \_\_\_

METERS/WEIGHTS/LEVELS			
FINISHED	5000	4476	PAX 140
RAW	3448	5120	FLUORIDE 290
SLUDGE	273	793	PRE CL2 125
S B/W RET	233	411	POST CL2 122

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600	400	630	1000							135
#2	↓	↓	↓	↓							
#3	1370										
#4	1400										
#5	↓	↓	↓	↓							

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
3	335	12	8220		

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 1/16/17 RAW TEMP 10° RAINFALL .24

OPERATOR RJ for GP (pac) OPERATOR JM

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	23/40				
PRECL2	135				
POSTCL2	140	7/60 (3pm)			

CLEAR WELL 2.4 Town Mtn. 26.8 On  Off

RFT/SHT 25 | 27.4

METERS/WEIGHTS/LEVELS			
FINISHED	50037960		PAX 72/40/130
RAW	34488531		FLUORIDE 186
SLUDGE	273793		PRE CL2 80/80/140
S B/W RET	233544		POST CL2 94/80/140

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600			900	600	945							13.75
#2													f
#3													
#4		100	120										
#5	∇				∇		∇						

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
4	102	10	8100	—	

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 1/12/12 RAW TEMP 11° RAINFALL 1.39

OPERATOR DM OPERATOR Jr

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20↑30				
FLUORIDE	73/40				
PRECL2	135				
POSTCL2	160↑180				

CLEAR WELL 8.1 Town Mtn. 24.8 On  Off   
 RFT/SHT 22.8 | 25.6

### METERS/WEIGHTS/LEVELS

FINISHED	5007/862		PAX	94	220
RAW	3449/985		FLUORIDE	70	800
SLUDGE	274/71		PRE CL2	124	170
S B/W RET	233698		POST CL2	120	170

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	5:00	2:30	4:30	1:00	8:00	8:45					12.75
#2	↓	↓	↓	↓	↓	↓					
#3	↓	↓	↓	↓	↓	↓					
#4	↓	↓	↓	↓	↓	↓					
#5	↓	1:30	↓	↓	↓	↓					

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#5	1:32	16	8669	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 1/18/17 RAW TEMP 11° RAINFALL .12

OPERATOR DM OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	30				
FLUORIDE	73/40				
PRECL2	135				
POSTCL2	180				

CLEAR WELL 7.4 Town Mtn. 26.4 On Off  
 RFT/SHT 27.6 | 25.0

METERS/WEIGHTS/LEVELS			
FINISHED	50104115		PAX 149
RAW	34495201		FLUORIDE 680
SLUDGE	274171		PRE CL2 140
S B/W RET	233867		POST CL2 136

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	5:05	1:15	3:45	6:00	7:30	9:30					13.0
#2		1:50									
#3											
#4											
#5											

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#1	1:19	12	8187	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 1/19/17 RAW TEMP 11° RAINFALL \_\_\_\_\_

OPERATOR On OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	30		25		
FLUORIDE	73/40				
PRECL2	135 ↑	145	↑185	↑215	
POSTCL2	180 ↑	190	↑200	↑215	

CLEAR WELL 6.8 (1200) Town Mtn. <sup>430</sup> 26.2 On \_\_\_ Off \_\_\_  
 RFT/SHT 28.4 | 27.0

METERS/WEIGHTS/LEVELS			
FINISHED	50137758		PAX 63 / 100 / 66 / 210
RAW	34498475		FLUORIDE 570 / 520 / 600
SLUDGE	224453		PRE CL2 110 / 95 / 160
S B/W RET	234098		POST CL2 98 / 80 / 150

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN	
#1	6:00		1:55		3:25		5:45		6:45		7:55	
#2		1:28	1:43									
#3												
#4												
#5												

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
2	131	8	8225		

COMMENTS: Big pac empty

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 1-20-77 RAW TEMP 10 RAINFALL .18

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	23025				
FLUORIDE	73/40				
PRECL2	215	↑230	↑250	300 ↑	↑350 (400) 190
POSTCL2	215	↑230	↑250	300 ↑	↑350 (400) 190

CLEAR WELL 4.6<sup>140</sup> Town Mtn. 26.2<sup>125</sup> On Off ✓  
 RET/SHT 27 | 126.2

METERS/WEIGHTS/LEVELS			
FINISHED	5016	7355	PAX 178
RAW	3450	1298	FLUORIDE 543
SLUDGE	274	735	PRE CL2 142
S B/W RET	234	241	POST CL2 132

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	558		550		630		800				13
#2											↓
#3		136	325								↓
#4											↓
#5	↓			↓	↓	↓					↓

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
3	313	10	8080	←	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 1/21/17 RAW TEMP 11° RAINFALL \_\_\_\_\_

OPERATOR Dm OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	25				
FLUORIDE	73/40				
PRECL2	<del>290</del> 190	↑ 290	↓ 280	↑ 250	
POSTCL2	140	↑ 190	↓ 140	↑ 250	↑ 350

CLEAR WELL 6.6 Town Mtn. 25.2 On  Off   
 RFI/SHT 27.4 | 25.6

### METERS/WEIGHTS/LEVELS

FINISHED	50198581	PAX	90   220
RAW	34504524	FLUORIDE	450
SLUDGE	274846	PRE CL2	86   170
S B/W RET	234376	POST CL2	78   170

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	5:00	3:30	4:00	8:30							15.0
#2	↓	↓	↓	↓							
#3	↓	↓	↓	↓							
#4	↓	12:46	↓	↓							
#5	↓	13:30	↓	↓							

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#4	2:49	//	8133	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 1/22/17 RAW TEMP 40 RAINFALL \_\_\_\_\_

OPERATOR DM OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	25				
FLUORIDE	73/40				
PRECL2	250				
POSTCL2	380 / 370	↑ 400			

CLEAR WELL 7.6 Town Mtn. 26.2 On  Off   
 RFT/SHT 28.6 | 27.0

METERS/WEIGHTS/LEVELS			
FINISHED	50229667		PAX 120 / 220
RAW	34507754		FLUORIDE 320
SLUDGE	274846		PRE CL2 120 / 170
S B/W RET	234477		POST CL2 96 / 170

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	5:05	1:55	2:00	14:15	5:30	7:30	8:30	9:55			12.5
#2	↓	↓	↓	↓	↓	↓	↓	↓			
#3	↓	↓	↓	↓	↓	↓	↓	↓			
#4	↓	↓	↓	↓	↓	↓	↓	↓			
#5	↓	↓	↓	14:00	↓	↓	↓	↓			

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
45	4:03	12	8178	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 1/23/17 RAW TEMP 12° RAINFALL .66

OPERATOR DM OPERATOR JM

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	25	↑ 40		↑ 50	
FLUORIDE	73/40				
PRECL2	250	↑ 300	350		
POSTCL2	405 ↑	425	450 ↑		

CLEAR WELL RFT/SHT 29.4 | 27.8 <sup>440</sup> <sub>600</sub> Town Mtn. 26.0 On X Off \_\_\_\_\_

METERS/WEIGHTS/LEVELS	
FINISHED	5026 0654
RAW	3451 0920
SLUDGE	2748 46
S B/W RET	234 588
PAX	126
FLUORIDE	215
PRE CL2	118
POST CL2	94

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	6:00	12:17	12:35	1:00	3:00	5:00	6:00	8:00	9:30	1:00	11.5
#2	↓										
#3	↓										
#4	↓										
#5	↓				↓		↓		↓		

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
1	12:20	10	825		

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 1/24/17 RAW TEMP 12 RAINFALL .25

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	50 <sup>24</sup> 170	↓ <sup>478</sup> 60			
FLUORIDE	73/40				
PRECL2	350 <sup>58</sup> 1500	+ 220			
POSTCL2	450 ↓ 400	<sup>925</sup> 425 <sup>1000</sup> 475	↓ <sup>415</sup> 420	↓ <sup>1050</sup> 400	

CLEAR WELL RFT/SHT 22 1 16.8 Town Mtn. 25.6 On Off

METERS/WEIGHTS/LEVELS			
FINISHED	5029/693		PAX 38
RAW	345/3822		FLUORIDE 135/500
SLUDGE	274846		PRE CL2 63/175
S B/W RET	234879		POST CL2 10/175

*\*all we have*

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	520	735	925	1130							18.25
#2											
#3											
#4											
#5	↓	1+	+	1↓							

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM

COMMENTS: *\* both storage tanks empty (Pac)*

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 1/25/17 RAW TEMP 12 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	60 <sup>75</sup> / <sup>101</sup> 65 75				
FLUORIDE	73/40	75 103			
PRECL2	58 <sup>200</sup> / <sup>500</sup> P.C.	58 <sup>320</sup> ↓ 300	120 <sup>35</sup> ↓ 250	58 <sup>200</sup> ↓ 200	
POSTCL2	↓ 300	82 <sup>0</sup> ↑ 375	103 <sup>8</sup> ↓ 350 / 110 ↓ 290	120 <sup>0</sup> ↓ 270	

CLEAR WELL RFT/SHT 29.6 | 28.2 Town Mtn. 25.4 On    Off   

### METERS/WEIGHTS/LEVELS

FINISHED	50336224	PAX	65/225
RAW	34518349	FLUORIDE	375
SLUDGE	274846	PRE CL2	25/175
S B/W RET	234979	POST CL2	10/175

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	635	305	530	1030							14.5
#2											
#3											
#4											
#5	↓		↓								

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 1/26/17 RAW TEMP 12 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR [Signature]

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	75 <sup>800</sup> / 40	↓ 35 <sup>40</sup>			
FLUORIDE	73 / 40				
PRECL2	58 <sup>200</sup> / 500 <sup>940</sup>	↓ 300	↓ 280		
POSTCL2	270 <sup>940</sup> / 190			↑ 210 (613)	

CLEAR WELL 8.4 Town Mtn. 26.2 On \_\_\_ Off \_\_\_  
 RFT/SHT 29 | 26.8

METERS/WEIGHTS/LEVELS	
FINISHED	50372002
RAW	34521833
SLUDGE	275312
S B/W RET	235053
PAX	25 / 175
FLUORIDE	265
PRE CL2	60 / 140
POST CL2	60 / 140

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600		135		455		1800				12.25
#2	1232		1248								↓
#3					712		725				↓
#4											↓
#5											↓

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
2	1235	10	7910	←	←
3	715	9	8200	←	←

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 1-27-17 RAW TEMP 10 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	35	↓ 25			
FLUORIDE	73/40				
PRECL2	↓ 290	↓ 240			
POSTCL2	↑ 230	↑ 240			

CLEAR WELL 4.4 Town Mtn. 26.8 On  Off   
 RFT/SHT 26.4 | 23.2

### METERS/WEIGHTS/LEVELS

FINISHED	5040	4119		PAX	70/150
RAW	3452	4875		FLUORIDE	172
SLUDGE	275	312		PRE CL2	80/120
S B/W RET	235	202		POST CL2	103/120

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	555	1420	535	1731	745	1800							12.5
#2													
#3													
#4													
#5													

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 1/28/17 RAW TEMP 9 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	130				
FLUORIDE	73/40				
PRECL2	230				
POSTCL2	230				

CLEAR WELL RFT/SHT 28.2 | 26.2 Town Mtn. 25 On Off

METERS/WEIGHTS/LEVELS			
FINISHED	5043	5763	PAX 62   225
RAW	3452	8029	FLUORIDE 80   300
SLUDGE	275	312	PRE CL2 107   175
S B/W RET	235	301	POST CL2 65   175

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	500	200	430	200	800	915							12 <sup>30</sup>
#2													
#3													
#4			809										
#5	4	1	430	1	4	1							

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
4	433	12	2680		

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 1/29/17 RAW TEMP 8.5 RAINFALL 2

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	30				
FLUORIDE	73/40	125			
PRECL2	225	215			
POSTCL2	220	215			

CLEAR WELL TOWN Mtn. 25 On Off  
 RFT/SHT 28.6 | 27

### METERS/WEIGHTS/LEVELS

FINISHED	50467798	PAX	135 / 210
RAW	34531265	FLUORIDE	200
SLUDGE	275312	PRE CL2	130
S B/W RET	235463	POST CL2	130

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600	130	800	1845							17.25
#2											
#3											
#4											
#5											

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 1/30/17 RAW TEMP 8 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR [Signature]

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	30	↓ 20			
FLUORIDE	75/40				
PRECL2	215	↓ 200			
POSTCL2	215	↓ 200			

CLEAR WELL 6.2 Town Mtn. 25 On Off  
 RFT/SHT 28 | 26

METERS/WEIGHTS/LEVELS			
FINISHED	50496294		PAX 126/80/100
RAW	34534091		FLUORIDE 100
SLUDGE	275312		PRE CL2 87
S B/W RET	235593		POST CL2 92

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	555	1225	1245	1415	630	1855					12.75
#2											
#3											
#4											
#5											

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
1	1228	10	7830	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 1/31/17 RAW TEMP 7 RAINFALL \_\_\_\_\_

OPERATOR RW for TMA vac OPERATOR [Signature]

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	200	↓190			
POSTCL2	200	(1230)			

CLEAR WELL 6-2 Town Mtn. 26.4 On Off  
 RFT/SHT 22.0 | 24.6 1.95

### METERS/WEIGHTS/LEVELS

FINISHED	505 28710	PAX	65 220
RAW	345 37303	FLUORIDE	32 e 741
SLUDGE	275312	PRE CL2	44 170
S B/W RET	235740	POST CL2	50 173

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600		1625		725		1900				14
#2											
#3											
#4	↓	1420	435		↓		↓				
#5	↓			↓	↓		↓				↓

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
<u>5</u>	423	10	8040		

COMMENTS:



**Project Schedule Information**

**Pikeville WTP**

287 Island Creek Road  
 Pikeville, KY 41501

**PI8388**

Laboratory PM: **Mark DeMoss**

Beginning Date: **1/1/2017**

Ending Date: **12/31/2017**

**Project Name:** BACT  
**Comments:** TCR Compliance: 10 per month

01/03/2017	01/17/2017	02/07/2017	02/21/2017	03/07/2017	03/21/2017	04/04/2017	04/18/2017
05/02/2017	05/16/2017	06/06/2017	06/20/2017	07/04/2017	07/18/2017	08/01/2017	08/15/2017
09/05/2017	09/19/2017	10/03/2017	10/17/2017	11/07/2017	11/21/2017	12/05/2017	12/19/2017

**Project Name:** Fluoride  
**Comments:** Dental Health Compliance: 2 per month

01/03/2017	01/17/2017	02/07/2017	02/21/2017	03/07/2017	03/21/2017	04/04/2017	04/18/2017
05/02/2017	05/16/2017	06/06/2017	06/20/2017	07/04/2017	07/18/2017	08/01/2017	08/15/2017
09/05/2017	09/19/2017	10/03/2017	10/17/2017	11/07/2017	11/21/2017	12/05/2017	12/19/2017

**Project Name:** HAA THM Stage 2  
**Comments:**

01/09/2017	04/10/2017	07/10/2017	10/09/2017
------------	------------	------------	------------

**Project Name:** Inorganic  
**Comments:** Inorganic Compliance: 1 per year

08/07/2017

**Project Name:** Nitrate  
**Comments:** Nitrate Compliance: 1 per year / Collect in 1st quarter

02/07/2017

**Project Name:** Secondary  
**Comments:** Secondary Compliance: 1 per year

08/07/2017

**Project Name:** SOC  
**Comments:** SOC Compliance (> 3300): 2 per 3 years / Collect in a calendar year / Schedule in 2011, 2014, 2017, etc.

02/07/2017	05/02/2017
------------	------------

**Project Name:** Sodium  
**Comments:** Sodium Compliance: 1 per year

08/07/2017



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**Project Schedule Information**

**Pikeville WTP**

287 Island Creek Road  
 Pikeville, KY 41501

**PI8388**

Laboratory PM: **Mark DeMoss**

Beginning Date: **1/1/2017**

Ending Date: **12/31/2017**

Project Name: **TOC**

Comments: **TOC Compliance: 2 per month / Raw & Combined Filter + Raw Alkalinity**

01/03/2017	02/07/2017	03/07/2017	04/04/2017	05/02/2017	06/06/2017	07/04/2017	08/01/2017
09/05/2017	10/03/2017	11/07/2017	12/05/2017				

Project Name: **VOC**

Comments: **VOC Compliance: 1 per year**

05/01/2017

# Water Withdrawal Report Form

Preprint ID:

Agency Interest

Subject Item:

Monitoring Period:

3691 - Pikeville Water Department

GACT000000001-0638 Levisa Fork

01/01/17 to 01/31/17

Day	Result	Parameter	Unit
1	3.058	Withdrawal	MGD (MA)
2	2.765	Withdrawal	MGD (MA)
3	2.987	Withdrawal	MGD (MA)
4	3.031	Withdrawal	MGD (MA)
5	3.005	Withdrawal	MGD (MA)
6	2.906	Withdrawal	MGD (MA)
7	3.011	Withdrawal	MGD (MA)
8	3.212	Withdrawal	MGD (MA)
9	3.242	Withdrawal	MGD (MA)
10	3.608	Withdrawal	MGD (MA)
11	3.252	Withdrawal	MGD (MA)
12	3.252	Withdrawal	MGD (MA)
13	3.065	Withdrawal	MGD (MA)
14	3.042	Withdrawal	MGD (MA)
15	3.411	Withdrawal	MGD (MA)
16	3.454	Withdrawal	MGD (MA)
17	3.216	Withdrawal	MGD (MA)
18	3.274	Withdrawal	MGD (MA)
19	2.823	Withdrawal	MGD (MA)
20	3.226	Withdrawal	MGD (MA)
21	3.230	Withdrawal	MGD (MA)
22	3.166	Withdrawal	MGD (MA)
23	2.902	Withdrawal	MGD (MA)
24	4.527	Withdrawal	MGD (MA)
25	3.484	Withdrawal	MGD (MA)
26	3.042	Withdrawal	MGD (MA)
27	3.154	Withdrawal	MGD (MA)
28	3.236	Withdrawal	MGD (MA)
29	2.826	Withdrawal	MGD (MA)
30	3.212	Withdrawal	MGD (MA)
31	3.556	Withdrawal	MGD (MA)

ENTERED  
1/9/17  
*[Handwritten Signature]*



SAMPLE CATEGORY = TC  
DISTRIBUTION SAMPLING

KENTUCKY DIVISION OF WATER / DRINKING WATER RESULTS  
BACTERIOLOGICAL ANALYSIS REPORT FORM

Rev. 03/01/2012

General Information – This Section To Be Completed By Collector

PWS ID: K Y 0 9 8 0 3 5 0 Compliance Period (MMYYYY): 0 1 2 0 1 7

PWS Name: CITY OF PIKEVILLE PWS Contact: RALPH VARNEY Collection Date (MMDDYYYY): 0 1 0 4 2 0 1 7  
(All Samples Reported on this Form were Collected on this Date.)

PWS Address: 306 ISLAND CREEK ROAD PWS Phone: 606-437-5123 Collector Name: Ralph Varney 1/4/17

General Information – This Section To Be Completed By Lab

Lab ID: 00050 Lab Receipt Date (MMDDYYYY): 0 1 0 4 2 0 1 7 Total Coliform Analysis Method Code: 309

Analysis Date (MMDDYYYY): 0 1 0 4 2 0 1 7 E Coll Analysis Method Code: 309

Lab Analyst: Al Hill Lab Supervisor: Al Hill

Sample Information – This Section To Be Completed By Collector

Sample Type (RT, RP, TG, CO, or SP) (See Key)	Special Sample Reason (A, B, C, D, or E) (See Key)	Replacement Sampler? (Y or Blank)	Location Code (See Instructions)	Repeat Location Code (DN, UP, or OR) (See Key)	Sample Time (24 hr)	Free Chlorine (Required for all disinfectants except Chloramine)	Total Chlorine (Required when disinfectant is Chloramine)
RT			111		1301	1.85	.
RT			030		1514	1.24	.
RT			009		1321	1.80	.
RT			028		1331	1.29	.
RT			<del>028</del> 028		1342	1.69	.

Analysis Information – This Section To Be Completed By Lab

Lab Sample Number	Analysis Time (24 hr)	Result (Total Coliform Count - or - TNTC - or - CNFG - or - TCNG) (See Key)	Total Coliform (P/A)	E Coll (P/A)	Lab Sample Number of Original Sample (Required for RP, TG, CO, and/or Replacement Samples) (See Instructions)
701495					
01	1553		44	44	
02	1553		44	44	
03	1553		44	44	
04	1553		44	44	
05	1553		44	44	

The signatories of this form certify by their signatures that collection and analysis of the water sample analyzed and the resulting data hereby submitted, were completed in accordance with the provisions of 401 KAR Chapter 8, specifically including but not limited to 401 KAR 8:200, Section 1 and 401 KAR 8:040; and that the data submitted on this form is a true and accurate report of the results of collection and analysis performed pursuant to the above-referenced regulations. Violations of 401 KAR Chapter 8 are subject to severe penalties prescribed in KRS 224.99-010, up to \$25,000 fine per day per violation and in some cases a violation may subject the violator to prison.

**BACTERIOLOGICAL ANALYSIS REPORT FORM KEY**

Sample Type:	RT = Routine (For Compliance) TG = Triggered (For Compliance)	RP = Repeat (For Compliance) CO = Confirmation (For Compliance)	SP = Special (Not for Compliance)
Special Sample Reason: (Only if Sample Type = SP)	A = Suspected Contamination D = Study/Investigation	B = New Plant, Modification, or Line Extension E = Line Break, Emergency Repair	C = Treatment Modification
Repeat Location Code: (Only if Sample Type = RP)	DN = Downstream	UP = Upstream	OR = Original Site
Result:	TNTC = Too Numerous to Count	CNFG = Confluent Growth	TCNG = Turbid Culture-No Gas

2 3/3 RW



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Louisville, KY 502.961.0001	Paducah, KY 270.444.6547	

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**SAMPLE SUMMARY**

Lab ID	Client Sample ID/Alias	Matrix	Date Collected	Date Received	Sampled By
7011495-01	BACT/	Drinking Water	01/04/2017 13:01	01/04/2017 13:45	Ralph Varney
7011495-02	BACT/	Drinking Water	01/04/2017 13:14	01/04/2017 13:45	Ralph Varney
7011495-03	BACT/	Drinking Water	01/04/2017 13:21	01/04/2017 13:45	Ralph Varney
7011495-04	BACT/	Drinking Water	01/04/2017 13:31	01/04/2017 13:45	Ralph Varney
7011495-05	BACT/	Drinking Water	01/04/2017 13:42	01/04/2017 13:45	Ralph Varney

LabNumber	Measurement	Value
7011495-01	Field Residual Chlorine	1.45
7011495-02	Field Residual Chlorine	1.24
7011495-03	Field Residual Chlorine	1.80
7011495-04	Field Residual Chlorine	1.29
7011495-05	Field Residual Chlorine	1.69



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**ANALYTICAL RESULTS**

Lab Sample ID: **7011495-04**  
Description: **BACT**

Sample Collection Date Time: 01/04/2017 13:31  
Sample Received Date Time: 01/04/2017 13:45

Matrix: Drinking Water

Discharge/Site No: 028

Regulatory ID: KY0980350

**Microbiological Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Collert 24	01/04/2017 15:53	01/05/2017 16:50	ADH

**ANALYTICAL RESULTS**

Lab Sample ID: **7011495-05**  
Description: **BACT**

Sample Collection Date Time: 01/04/2017 13:42  
Sample Received Date Time: 01/04/2017 13:45

Matrix: Drinking Water

Discharge/Site No: 022

Regulatory ID: KY0980350

**Microbiological Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Collert 24	01/04/2017 15:53	01/05/2017 16:50	ADH

**Notes for work order 7011495**

- Samples collected by MMLI personnel are done so in accordance with procedures set forth in MMLI field services SOPs.
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identification based on the presumptive evidence of the mass spectra.

**Standard Qualifiers/Acronyms**

MDL	Method Detection Limit
MRL	Minimum Reporting Limit
ND	Not Detected
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
% Rec	Percent Recovery
RPD	Relative Percent Difference
>	Greater than
<	Less than



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**SAMPLE SUMMARY**

Lab ID	Client Sample ID/Alias	Matrix	Date Collected	Date Received	Sampled By
7011496-01	Fluoride/	Drinking Water	01/04/2017 09:45	01/04/2017 13:45	Ralph Varney
<u>LabNumber</u>	<u>Measurement</u>	<u>Value</u>			
7011496-01	Field Fluoride	0.88			

**ANALYTICAL RESULTS**

Lab Sample ID: **7011496-01**  
Description: **Fluoride**

Sample Collection Date Time: 01/04/2017 09:45  
Sample Received Date Time: 01/04/2017 13:45

Matrix: Drinking Water

Discharge/Site No: P01

Regulatory ID: KY0980350

Conventional Chemistry Analyses Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Fluoride	0.64		mg/L	0.20		4500-F C-1997	01/13/2017 08:59	01/13/2017 11:19	JTL

**Notes for work order 7011496**

- Samples collected by MMLI personnel are done so in accordance with procedures set forth in MMLI field services SOPs.
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identification based on the presumptive evidence of the mass spectra.

U Target analyte was analyzed for, but was below detection limit (the value associated with the qualifier is the laboratory method detection limit in our LIMS system).

Standard Qualifiers/Acronyms

- MDL Method Detection Limit
- MRL Minimum Reporting Limit
- ND Not Detected
- LCS Laboratory Control Sample
- MS Matrix Spike
- MSD Matrix Spike Duplicate
- DUP Sample Duplicate
- % Rec Percent Recovery
- RPD Relative Percent Difference
- > Greater than
- < Less than

**Certified Analyses included in this Report**

Analyte	Certifications
4500-F C-1997 in Water	
Fluoride	KY Drinking Water Mdv (00030) VA NELAC Mdv (460210) IN Drinking Water Mdv (C-KY-02) IL Drinking Water Mdv (200079)

Handwritten notes: 3/13/17, RV



SAMPLE CATEGORY = TC  
DISTRIBUTION SAMPLING

KENTUCKY DIVISION OF WATER / DRINKING WATER RESULTS  
BACTERIOLOGICAL ANALYSIS REPORT FORM

Rev. 03/01/2012

General Information - This Section To Be Completed By Collector

PWS ID	K Y 0 9 8 0 3 5 0	Compliance Period (MM/YYYY)	0 1 2 0 1 7
PWS Name	CITY OF PIKEVILLE	PWS Contact	RALPH VARNEY
PWS Address	306 ISLAND CREEK ROAD	PWS Phone	606-437-5123
		Collection Date (MMDDYYYY)	0 1 2 5 2 0 1 7 <small>(All Samples Reported on this Form were Collected on this Date.)</small>
		Collector Name	<i>Ralph Varney</i> 1/25/17 <small>Signature/Date</small>

General Information - This Section To Be Completed By Lab

Lab ID	0 0 0 5 0	Lab Receipt Date (MMDDYYYY)	0 1 2 5 2 0 1 7	Total Coliform Analysis Method Code	3 0 9
Lab Analyst	<i>Al Hill</i> 1-26-17 <small>Signature/Date</small>	Analysis Date (MMDDYYYY)	0 1 2 5 2 0 1 7	E Coli Analysis Method Code	3 0 9
		Lab Supervisor	<i>Al Hill</i> 1-26-17 <small>Signature/Date</small>		

Sample Information - This Section To Be Completed By Collector

Sample Type (RT, RP, TG, CO, or SP) (See Key)	Special Sample Reason (A, B, C, D, or E) (See Key) Replacement Sample? (Y or Blank)	Location Code (See Instructions)	Repeat Location Code (DN, UP, or OR) (See Key)	Sample Time (24 hr)	Free Chlorine (Required for all disinfectants except Chloramine)	Total Chlorine (Required when disinfectant is Chloramine)
RT		115		1320	0.77	.
RT		118		1339	2.16	.
RT		120		1346	2.26	.
RT		110		1401	1.73	.
RT		033		1408	1.12	.
					.	.
					.	.
					.	.
					.	.

Analysis Information - This Section To Be Completed By Lab

Lab Sample Number	Analysis Time (24 hr)	Result (Total Coliform Count - or - TNTC - or - CNFG - or - TCNG) (See Key)	Total Coliform (P/A)	E Coli (P/A)	Lab Sample Number of Original Sample (Required for RP, TG, CO, and/or Replacement Samples) (See Instructions)
7013355					
01	1511		A	A	
02	1511		A	A	
03	1511		A	A	
04	1511		A	A	
05	1511		A	A	

The signatories of this form certify by their signatures that collection and analysis of the water sample analyzed and the resulting data hereby submitted, were completed in accordance with the provisions of 401 KAR Chapter 8, specifically including but not limited to 401 KAR 8:200, Section 1 and 401 KAR 8:040; and that the data submitted on this form is a true and accurate report of the results of collection and analysis performed pursuant to the above-referenced regulations. Violations of 401 KAR Chapter 8 are subject to severe penalties prescribed in KRS 224.99-010, up to \$25,000 fine per day per violation and in some cases a violation may subject the violator to prison.

2 3/3  
-12

BACTERIOLOGICAL ANALYSIS REPORT FORM KEY

Sample Type:	RT = Routine (For Compliance) TG = Triggered (For Compliance)	RP = Repeat (For Compliance) CO = Confirmation (For Compliance)	SP = Special (Not for Compliance)
Special Sample Reason: (Only if Sample Type = SP)	A = Suspected Contamination D = Study/Investigation	B = New Plant, Modification, or Line Extension E = Line Break, Emergency Repair	C = Treatment Modification
Repeat Location Code: (Only if Sample Type = RP)	DN = Downstream	UP = Upstream	OR = Original Site
Result:	TNTC = Too Numerous to Count	CNFG = Confluent Growth	TCNG = Turbid Culture-No Gas



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**SAMPLE SUMMARY**

Lab ID	Client Sample ID/Alias	Matrix	Date Collected	Date Received	Sampled By
7013355-01	BACT/	Drinking Water	01/25/2017 13:20	01/25/2017 14:25	Ralph Varney
7013355-02	BACT/	Drinking Water	01/25/2017 13:39	01/25/2017 14:25	Ralph Varney
7013355-03	BACT/	Drinking Water	01/25/2017 13:46	01/25/2017 14:25	Ralph Varney
7013355-04	BACT/	Drinking Water	01/25/2017 14:01	01/25/2017 14:25	Ralph Varney
7013355-05	BACT/	Drinking Water	01/25/2017 14:08	01/25/2017 14:25	Ralph Varney

<u>LabNumber</u>	<u>Measurement</u>	<u>Value</u>
7013355-01	Field Residual Chlorine	0.77
7013355-02	Field Residual Chlorine	2.16
7013355-03	Field Residual Chlorine	2.20
7013355-04	Field Residual Chlorine	1.73
7013355-05	Field Residual Chlorine	1.12



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**ANALYTICAL RESULTS**

Lab Sample ID: **7013355-01**  
Description: **BACT**

Sample Collection Date Time: 01/25/2017 13:20  
Sample Received Date Time: 01/25/2017 14:25

Matrix: Drinking Water

Discharge/Site No: 115

Regulatory ID: KY0980350

Microbiological Analyses Pikeville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Colilert 24	01/25/2017 15:11	01/26/2017 16:04	ADH

**ANALYTICAL RESULTS**

Lab Sample ID: **7013355-02**  
Description: **BACT**

Sample Collection Date Time: 01/25/2017 13:39  
Sample Received Date Time: 01/25/2017 14:25

Matrix: Drinking Water

Discharge/Site No: 118

Regulatory ID: KY0980350

Microbiological Analyses Pikeville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Colilert 24	01/25/2017 15:11	01/26/2017 16:04	ADH

**ANALYTICAL RESULTS**

Lab Sample ID: **7013355-03**  
Description: **BACT**

Sample Collection Date Time: 01/25/2017 13:46  
Sample Received Date Time: 01/25/2017 14:25

Matrix: Drinking Water

Discharge/Site No: 120

Regulatory ID: KY0980350

Microbiological Analyses Pikeville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Colilert 24	01/25/2017 15:11	01/26/2017 16:04	ADH



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270.821.7375  
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Louisville, KY 502.961.0001	Paducah, KY 270.444.6547	

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**ANALYTICAL RESULTS**

Lab Sample ID: **7013355-04**  
Description: **BACT**

Sample Collection Date Time: 01/25/2017 14:01  
Sample Received Date Time: 01/25/2017 14:25

Matrix: Drinking Water

Discharge/Site No: 110

Regulatory ID: KY0980350

Microbiological Analyses Pikeville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Colilert 24	01/25/2017 15:11	01/26/2017 16:04	ADH

**ANALYTICAL RESULTS**

Lab Sample ID: **7013355-05**  
Description: **BACT**

Sample Collection Date Time: 01/25/2017 14:08  
Sample Received Date Time: 01/25/2017 14:25

Matrix: Drinking Water

Discharge/Site No: 033

Regulatory ID: KY0980350

Microbiological Analyses Pikeville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Colilert 24	01/25/2017 15:11	01/26/2017 16:04	ADH

**Notes for work order 7013355**

- Samples collected by MMLI personnel are done so in accordance with procedures set forth in MMLI field services SOPs.
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identification based on the presumptive evidence of the mass spectra.

**Standard Qualifiers/Acronyms**

- MDL Method Detection Limit
- MRL Minimum Reporting Limit
- ND Not Detected
- LCS Laboratory Control Sample
- MS Matrix Spike
- MSD Matrix Spike Duplicate
- DUP Sample Duplicate
- % Rec Percent Recovery
- RPD Relative Percent Difference
- > Greater than
- < Less than



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**SAMPLE SUMMARY**

Lab ID	Client Sample ID/Alias	Matrix	Date Collected	Date Received	Sampled By
7013356-01	Fluoride/	Drinking Water	01/25/2017 13:20	01/25/2017 14:25	Ralph Varney
<u>LabNumber</u>	<u>Measurement</u>	<u>Value</u>			
7013356-01	Field Fluoride	0.84			

**ANALYTICAL RESULTS**

Lab Sample ID: **7013356-01**  
Description: **Fluoride**

Sample Collection Date Time: 01/25/2017 13:20  
Sample Received Date Time: 01/25/2017 14:25

Matrix: Drinking Water

Discharge/Site No: 115

Regulatory ID: KY0980350

**Conventional Chemistry Analyses Madisonville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Fluoride	0.84		mg/L	0.20		4500-F C-1997	01/30/2017 09:20	01/30/2017 09:20	JTL

**Notes for work order 7013356**

- Samples collected by MMLI personnel are done so in accordance with procedures set forth in MMLI field services SOPs.
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identification based on the presumptive evidence of the mass spectra.

U Target analyte was analyzed for, but was below detection limit (the value associated with the qualifier is the laboratory method detection limit in our LIMS system).

**Standard Qualifiers/Acronyms**

- MDL Method Detection Limit
- MRL Minimum Reporting Limit
- ND Not Detected
- LCS Laboratory Control Sample
- MS Matrix Spike
- MSD Matrix Spike Duplicate
- DUP Sample Duplicate
- % Rec Percent Recovery
- RPD Relative Percent Difference
- > Greater than
- < Less than

**Certified Analyses Included in this Report**

Analyte	Certifications
4500-F C-1997 in Water	
Fluoride	KY Drinking Water Mdv (00030) VA NELAC Mdv (460210) IN Drinking Water Mdv (C-KY-02) IL Drinking Water Mdv (200079)

CV  
CV



**KENTUCKY DIVISION OF WATER / DRINKING WATER BRANCH  
DISINFECTION BYPRODUCT PRECURSOR ANALYSIS REPORT FORM**

SAMPLE CATEGORY = TOC

**This Section To Be Completed By Collector**

PWS ID	<u>KY0980350</u>	Plant ID	<u>A</u>	Plant Name	<u>INTAKE - LEVISA FORK/BIG SANDY RIVE</u>	Location Code	<u>R01</u>
PWS Name	<u>Pikeville Water Department</u>			PWS Contact	<u>Ralph Varney</u>		
PWS Address	<u>306 Island Creek Road, Pikeville, KY 41501</u>			PWS Phone	<u>(606) 437-5123</u>		
Sample Date (MMDDYYYY)	<u>01/26/2017</u>	Time	<u>10:11</u>	Sample Type	<u>RT</u>	Collector Name	<u>Ralph Varney</u>
				RT = Routine (For Compliance)			
				SP = Special (Not for Compliance)			

**This Section to Be Completed By Lab**

Lab ID	<u>00030</u>	Lab Sample Number	<u>7013357-01</u>	Lab Phone	<u>(270) 821-7375</u>
Lab Analyst	<u>Tracy Benton</u>	Signature/Date	<u>02/03/2017 11:44</u>	Lab Supervisor	<u><i>Mark Athan</i></u> <u>02/07/2017</u>

Analyte Code	Analyte Name	Analysis Method Code	<	Result (mg/L)	Analysis Date
				-or- Lab Minimum Reporting Limit (mg/L)	
1927	Alkalinity, Total (as CaCO3)	849		74	02032017
2920	Total Organic Carbon	839		1.8	01312017

The signatories of this form certify by their signature that collection and analysis of the water sample analyzed and the resulting data hereby submitted, were completed in accordance with the provisions of 401 KAR Chapter 8; and that the data submitted on this form is a true and accurate report of the results of collection and analysis performed pursuant to the above-referenced regulations. Violations of 401 KAR Chapter 8 are subject to severe penalties prescribed in KRS 224.99-010, up to \$25,000 fine per day per violation and in some cases a violation may subject a violator to prison.

e 3/3

**KENTUCKY DIVISION OF WATER / DRINKING WATER BRANCH  
DISINFECTION BYPRODUCT PRECURSOR ANALYSIS REPORT FORM**

SAMPLE CATEGORY = TOC

**This Section To Be Completed By Collector**

PWS ID	<u>KY0980350</u>	Plant ID	<u>A</u>	Plant Name	<u>PIKEVILLE WTP</u>	Location Code	<u>CF1</u>
PWS Name	<u>Pikeville Water Department</u>			PWS Contact	<u>Ralph Varney</u>		
PWS Address	<u>306 Island Creek Road, Pikeville, KY 41501</u>			PWS Phone	<u>(606) 437-5123</u>		
Sample Date (MMDDYYYY)	<u>01/26/2017</u>	Time	<u>10:26</u>	Sample Type	<u>RT</u>	Collector Name	<u>Ralph Varney</u>
				RT = Routine (For Compliance)			
				SP = Special (Not for Compliance)			

**This Section to Be Completed By Lab**

Lab ID	<u>00030</u>	Lab Sample Number	<u>7013357-02</u>	Lab Phone	<u>(270) 821-7375</u>
Lab Analyst	<u>Tracy Benton</u>	01/31/2017 22:48	Lab Supervisor	<u><i>Mark Dixon</i></u>	02/07/2017
		Signature/Date			

Analyte Code	Analyte Name	Analysis Method Code	<	Result (mg/L)	Analysis Date
				-or- Lab Minimum Reporting Limit (mg/L)	
2920	Total Organic Carbon	839		1.4	01312017

The signatories of this form certify by their signature that collection and analysis of the water sample analyzed and the resulting data hereby submitted, were completed in accordance with the provisions of 401 KAR Chapter 8; and that the data submitted on this form is a true and accurate report of the results of collection and analysis performed pursuant to the above-referenced regulations. Violations of 401 KAR Chapter 8 are subject to severe penalties prescribed in KRS 224.99-010, up to \$25,000 fine per day per violation and in some cases a violation may subject a violator to prison.



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**SAMPLE SUMMARY**

Lab ID	Client Sample ID/Alias	Matrix	Date Collected	Date Received	Sampled By
7010743-01	Backwash/Grit Cyclone	Wastewater	01/26/2017 10:26	01/26/2017 10:47	Ralph Varney
7010743-02	Backwash/Grit Pump	Wastewater	01/26/2017 10:29	01/26/2017 10:47	Ralph Varney

**ANALYTICAL RESULTS**

Lab Sample ID: **7010743-01**  
Description: **Backwash Grit Cyclone**

Sample Collection Date Time: 01/26/2017 10:26  
Sample Received Date Time: 01/26/2017 10:47

**Conventional Chemistry Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Suspended Solids	209		mg/L	17	17	2540 D-1997	02/02/2017 16:05	02/02/2017 16:50	SNB

**Field Analysis Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
pH (Field)	7.74		Std. Units	0.10	0.10	4500-H+ B-2000	01/26/2017 10:26	01/26/2017 10:26	WJP

**ANALYTICAL RESULTS**

Lab Sample ID: **7010743-02**  
Description: **Backwash Grit Pump**

Sample Collection Date Time: 01/26/2017 10:29  
Sample Received Date Time: 01/26/2017 10:47

**Conventional Chemistry Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Suspended Solids	164		mg/L	12	12	2540 D-1997	02/02/2017 16:05	02/02/2017 16:50	SNB

**Field Analysis Pikeville**

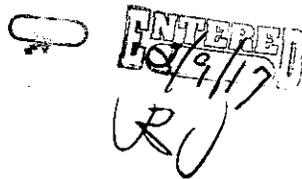
Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
pH (Field)	7.75		Std. Units	0.10	0.10	4500-H+ B-2000	01/26/2017 10:29	01/26/2017 10:43	WJP

3/3 e

January, 2017

DMR CALCULATIONS

date	tss cyclone	pH cyclone	tss intake	pH intake	hrs operated			
01/01/17					12.00	398.50	<b>CYCLONE ESTIMATE</b>	100 gpm
01/02/17					11.25	100	Tot Hours	
01/03/17					12.00	19,925	times flushed 4 hr cycle	
01/04/17					12.00	0.0199	gallons flushed	
01/05/17					12.25	<b>0.00064</b>	mg flushed	
01/06/17					11.75		mgd flushed	
01/07/17					11.75		<b>GRIT PUMP AT RWI</b>	200 gpm
01/08/17					12.75	31	Total pumping hours	
01/09/17					13.00	372,000	Total gallons pumped	
01/10/17					14.75	0.3720	Million gallons pumped	
01/11/17					13.00	<b>0.0120</b>	Million gallons a day	
01/12/17					13.00			
01/13/17					12.25			
01/14/17					12.00		<b>TSS-001</b>	<b>TSS-002</b>
01/15/17					13.50		209	164
01/16/17					13.75			
01/17/17					12.75			
01/18/17					13.00			
01/19/17					11.50			
01/20/17					13.00		<b>pH</b>	
01/21/17					15.00		<b>Cyclone</b>	<b>Pump</b>
01/22/17					12.50		7.74	7.75
01/23/17					11.50			
01/24/17					18.25			
01/25/17					14.50			
01/26/17	209	7.74	164	7.75	12.25			
01/27/17					12.50			
01/28/17					12.75			
01/29/17					11.25			
01/30/17					12.75			
01/31/17					14.00			


 A handwritten signature, possibly 'WU', is written over a rectangular stamp. The stamp contains the word 'ENTERED' at the top, the date '12/9/17' in the middle, and some illegible markings at the bottom.

KENTUCKY DIVISION OF WATER

Revised 7/1/06

DRINKING WATER BRANCH

MONTHLY OPERATION REPORT (MOR)--ALL WATER SYSTEMS

MONTH & YEAR OF: ██████████

DEP Form 4012--Revised 07/2006

PWS ID :	<u>0980350</u>	PLANT ID:	<u>A</u>	PLANT NAME:	<u>PIKEVILLE WATER PLANT</u>
PWS NAME:	<u>CITY OF PIKEVILLE</u>	PLANT CLASS:	<u>IVA</u>	DIST. CLASS:	<u>II</u>
AGENCY INTEREST (AI):	<u>3691</u>	DATE MAILED:			
SOURCE NAME:	<u>LEVISA FORK OF THE BIG SANDY RIVER</u>	COUNTY:	<u>PIKE</u>		

	OPERATOR(S) RESPONSIBLE / IN-CHARGE	CLASS	CERTIFICATION NUMBER
WTP SHIFT 1:	<u>RALPH VARNEY</u>	<u>IVA</u>	<u>645</u>
WTP SHIFT 2:	<u>GREG PENNINGTON</u>	<u>IVA</u>	<u>777</u>
WTP SHIFT 3:	<u>DEMPSEY MILES</u>	<u>IVA</u>	<u>1549</u>
DISTRIBUTION:	<u>DONNIE SLONE</u>	<u>IID</u>	<u>2236</u>

THIS REPORT MUST BE RECEIVED BY THE DIVISION OF WATER AND APPLICABLE FIELD OFFICE  
NO LATER THAN 10 DAYS AFTER THE END OF THE MONTH.

**TREATMENT PLANTS COMPLETE:**

1. DESIGN CAPACITY (gpm):	<u>4400</u>
2. TYPE OF FILTRATION USED:	<u>DUAL MEDIA RAPID SAND</u>
3. DESIGN FILTRATION RATE (gpm/sq. ft.):	<u>3</u>
4. PERCENT BACKWASH WATER USED:	<u>2.4</u>
5. DATE FLOCCULATION BASIN(S) LAST CLEANED	<u>NOVEMBER 2015</u>
6. DATE SETTLING BASIN(S) LAST CLEANED:	<u>NOVEMBER 2015</u>

I certify under penalty of law that I have personally examined and am familiar with the information submitted herein. Based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. See KRS 224.99-010 and 401 KAR 8:020. (Penalties under this statute and regulation may include fines up to \$25,000 per violation or by imprisonment for not more that one year, or both)

\_\_\_\_\_  
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

\_\_\_\_\_  
DATE





KENTUCKY DIVISION OF WATER - DRINKING WATER BRANCH  
 WATER TREATMENT PLANT MONTHLY OPERATION REPORT

PWS ID : 0980350  
 PLANT ID: A

REPORT MONTH/YEAR: Feb, 2017

PAGE 3 OF 11

DAY	pH			TOTAL ALKALINITY		TOTAL HARDNESS		CHLORINE RESIDUAL				TURBIDITY (NTU)		
	RAW	TOP OF FILTER		RAW	TAP	RAW	TAP	TOP OF FILTER		PLANT TAP		RAW	SETTLED WATER	PLANT TAP
		7.98	7.92					7.79	TOTAL	FREE	TOTAL			
	7.98	7.92	7.79	86	92	268	274		0.67		1.69	9.4	1.22	0.10
	7.90	7.87	7.79	100	94	260	280		0.84		1.83	6.9	1.30	0.13
	7.98	7.95	7.82	102	98	268	284		0.74		1.80	8.1	1.44	0.07
	7.99	7.92	7.84	108	100	264	284		0.54		1.74	5.8	1.73	0.06
	8.00	7.92	7.84	106	98	268	280		0.43		1.77	5.6	1.48	0.11
	7.99	7.91	7.76	92	90	274	272		0.58		1.58	6.8	1.51	0.11
	8.04	7.96	7.82	100	96	284	276		0.64		1.72	6.6	1.11	0.09
	8.04	7.95	7.80	88	102	288	280		0.49		1.59	7.6	1.10	0.08
	8.09	8.00	7.86	110	110	292	292		0.40		1.40	6.1	1.31	0.08
	8.14	8.01	7.89	100	108	284	284		0.52		1.38	4.5	1.41	0.06
	8.11	8.00	8.00	90	110	296	288		0.56		1.52	4.4	0.95	0.06
	8.08	7.96	7.84	82	102	272	272		0.63		1.59	4.7	1.00	0.06
	8.11	8.00	7.85	92	110	280	278		0.50		1.51	5.4	1.13	0.12
	8.18	8.00	7.91	98	98	260	270		0.58		1.69	4.3	0.99	0.13
	8.15	7.98	7.88	100	110	282	284		0.40		1.77	3.9	0.91	0.09
	8.19	8.04	7.88	92	98	304	268		0.70		1.78	4.3	0.97	0.09
	8.20	8.06	7.90	96	98	268	264		0.59		1.82	4.1	0.88	0.07
	8.20	8.07	7.84	98	102	280	268		0.60		1.73	4.0	0.90	0.06
	8.14	7.98	7.85	100	108	282	284		0.58		1.67	4.9	1.14	0.04
	8.18	8.05	7.87	94	100	274	278		0.60		1.67	4.6	1.04	0.06
	8.15	8.01	7.85	94	104	254	242		0.54		1.61	4.8	0.97	0.06
	8.06	8.00	7.91	92	100	252	258		0.62		1.66	5.0	0.99	0.09
	8.09	8.01	7.83	104	98	264	278		0.64		1.73	4.8	1.06	0.07
	8.15	8.02	7.84	102	104	260	248		0.46		1.59	6.1	1.07	0.06
	8.08	8.02	7.88	100	110	244	244		0.41		1.66	5.8	0.98	0.05
	8.08	8.00	7.89	80	98	244	264		0.45		1.64	8.3	1.12	0.05
	8.08	7.97	7.84	102	92	236	208		0.42		1.55	6.0	0.96	0.06
	8.07	7.93	7.84	86	94	254	222		0.64		1.77	7.0	0.95	0.06
<b>AVE</b>	8.09	7.98	7.85	96	101	270	269		0.56		1.66	5.7	1.13	0.08

KENTUCKY DIVISION OF WATER  
 DRINKING WATER BRANCH  
 WATER TREATMENT PLANT MONTHLY OPERATION REPORT

PWS ID : 0980350  
 PLANT ID: A  
 AGENCY INTEREST: 3691  
 REPORT MONTH/YEAR: Feb, 2017

AREA-WIDE OPTIMIZATION PROGRAM TURBIDITY DATA  
 COPY PAGE AS NEEDED

DAY	RAW DAILY MAX	SEDIMENTATION BASIN EFFLUENT DAILY MAXIMUM						INDIVIDUAL FILTER EFFLUENT DAILY MAXIMUM							CFE DAILY MAX
		#1	#2	#3	#4	#5	#6	#1	#2	#3	#4	#5	#6	#7	
		10.2	1.49	0.98					0.32	0.27	0.25	0.39	0.06		
7.8	1.16	1.10					0.41	0.04	0.33	0.50	0.06			0.12	
10.1	1.89	1.61					0.06	0.05	0.02	0.45	0.09			0.07	
6.8	1.88	1.64					0.41	0.13	0.04	0.11	0.27			0.15	
6.4	1.52	1.38					0.47	0.63	0.33	0.40	0.25			0.40	
8.4	1.84	1.36					0.06	0.35	0.30	0.41	0.05			0.14	
7.2	1.22	1.11					0.21	0.08	0.37	0.50	0.05			0.13	
7.7	1.28	1.14					0.49	0.06	0.03	0.84	0.09			0.18	
6.6	1.48	1.29					0.39	0.10	0.02	0.10	0.21			0.12	
5.4	1.39	1.24					0.07	0.16	0.03	0.09	0.25			0.09	
4.5	1.19	0.86					0.14	0.24	0.07	0.17	0.05			0.08	
4.8	1.20	0.85					0.33	0.07	0.17	0.21	0.05			0.11	
5.5	1.37	1.11					0.43	0.07	0.18	0.32	0.06			0.12	
4.5	1.03	0.95					0.54	0.07	0.03	0.34	0.15			0.11	
3.9	0.82	0.88					0.07	0.09	0.02	0.49	0.18			0.14	
4.8	1.02	0.96					0.15	0.05	0.09	0.50	0.27			0.12	
4.3	0.76	0.72					0.29	0.05	0.02	0.10	0.31			0.10	
4.0	0.96	0.78					0.39	0.08	0.02	0.09	0.05			0.06	
5.6	1.17	1.04					0.18	0.08	0.03	0.17	0.05			0.04	
4.6	1.08	0.94					0.07	0.05	0.09	0.22	0.05			0.05	
5.0	1.08	0.98					0.14	0.05	0.03	0.29	0.06			0.07	
5.5	1.10	0.88					0.16	0.05	0.04	0.23	0.18			0.16	
5.0	1.21	1.12					0.34	0.06	0.04	0.10	0.10			0.07	
6.2	1.05	0.97					0.06	0.07	0.04	0.10	0.11			0.05	
6.2	1.10	0.86					0.07	0.10	0.04	0.09	0.12			0.05	
8.4	1.35	0.99					0.09	0.09	0.06	0.19	0.05			0.05	
7.0	1.01	0.88					0.11	0.05	0.12	0.10	0.05			0.04	
7.2	1.03	0.86					0.46	0.05	0.02	0.43	0.05			0.06	
<b>AVE</b>	6.2	1.24	1.05					0.25	0.12	0.10	0.28	0.12		0.11	







KENTUCKY DIVISION OF WATER / DRINKING WATER BRANCH  
Monthly Operating Report (MOR) Plant Summary Form

PWS ID : 0980350

Monitoring Period (MM/YYYY): Feb, 2017

**NOTE: COMPLETE ALL APPLICABLE FIELDS!!! NOT ALL OF THE FIELDS ARE PRE-POPULATED FOR YOU!!!**

APPLICABLE TO ALL PLANTS			
PLANT ID: <u>A</u>		TOTAL WATER TREATED (gallons)	<b>85,991,000</b>
PLANT NAME: <u>PIKEVILLE WATER PLANT</u>		AVE. DAILY PRODUCTION (gallons)	<b>3,071,107</b>
AGENCY INTEREST: <u>3691</u>		MAXIMUM PUMPAGE (gallons per day)	<b>3,652,000</b>

APPLICABLE TO ALL PLANTS WITH FILTRATION	
ANALYTE CODE <u>0100</u>	
Was each filter monitored continuously? (Y/N).....	<b>Y</b>
Were measurements recorded every 15 minutes? (Y/N).....	<b>Y</b>
Was there a failure of the continuous monitoring equipment? (Y/N).....	<b>N</b>
If Yes, (1) were individual filter effluent turbidity grab samples collected every four hours of operation? (Y/N).....	
(2) was the continuously monitoring equipment repaired within 5 working days? (Y/N).....	
Was individual filter level greater than 1.0 NTU in two consecutive measurements? (Y/N).....	<b>N</b>
Was individual filter level < 0.5 NTU in two consecutive measurements after online more than 4 hours? (Y/N).....	<b>N</b>
Was individual filter level < 1.0 NTU in two consecutive measurements in three consecutive months? (Y/N).....	<b>N</b>
Was individual filter level greater than 2.0 NTU in two consecutive measurements in two consecutive months? (Y/N)	<b>N</b>
<b>If any of the last 4 boxes are YES, fill out the Individual Filter Turbidity Sheet and submit with MOR</b>	

APPLICABLE TO ALL PLANTS WITH FILTRATION	APPLICABLE TO ALL PLANTS
ANALYTE CODE <u>0100</u>	ANALYTE CODE <u>0999</u>
Number of hours of plant operation..... <b>341.8</b>	Number of days of plant operation..... <b>28</b>
Were samples taken every 4 hrs of plant operation? (Y/N) <b>Y</b>	Were samples taken each day of operation? (Y/N) <b>Y</b>
Number of samples taken..... <b>113</b>	Number of lowest chlorine samples recorded ..... <b>28</b>
Highest single turbidity reading ..... <b>0.20</b>	Lowest single chlorine reading ..... <b>1.38</b>
For all filtration except slow sand filtration:	If less than required:
Number of samples exceeded 0.1 NTU ..... <b>16</b>	Was residual restored within 4 hrs of plant operation? <input type="checkbox"/>
Number of samples exceeded 0.3 NTU ..... <b>0</b>	Free chlorine (for all disinfectants except chloramine):
Number of samples exceeded 1.0 NTU ..... <b>0</b>	Number of samples under 0.2 mg/L ..... <b>0</b>
When filtration is slow sand filtration:	Total Chlorine (when disinfectant is chloramine):
Number of samples exceeded 1 NTU .....	Number of samples under 0.5 mg/L .....
Number of samples exceeded 5 NTU .....	

APPLICABLE TO PLANTS UTILIZING CHLORINE DIOXIDE	APPLICABLE TO PLANTS USING CHLORINE DIOXIDE
ANALYTE CODE <u>1008</u>	ANALYTE CODE <u>1009</u>
Number of days of plant operation..... <b>28</b>	Number of days of plant operation..... <b>28</b>
Were samples taken each day of operation? (Y/N)..... <input type="checkbox"/>	Were samples taken each day of operation? (Y/N) <input type="checkbox"/>
Number of samples taken ..... <b>####</b>	Number of samples taken ..... <b>####</b>
Highest single chlorine dioxide reading ..... <b>####</b>	Highest single chlorite reading ..... <b>####</b>
Number of chlorine dioxide samples exceeded 0.8 mg/L .. <b>####</b>	Number of chlorite samples exceeded 1 mg/L ..... <b>####</b>

I certify under penalty of law that I have personally examined and am familiar with the information submitted herein. Based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. See KRS 224.99-010 and 401 KAR 8:020. (Penalties under this statute and regulation may include fines up to \$25,000 per violation or by imprisonment for not more than one year, or both).

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT \_\_\_\_\_

DATE \_\_\_\_\_



KENTUCKY DIVISION OF WATER / DRINKING WATER BRANCH  
Monthly Operating Report (MOR) Plant Summary Form

PWS ID : 0980350

Monitoring Period (MM/YYYY): Feb, 2017

**NOTE: COMPLETE ALL APPLICABLE FIELDS!!! NOT ALL OF THE FIELDS ARE PRE-POPULATED FOR YOU!!!**

APPLICABLE TO ALL PLANTS			
PLANT ID:	<u>A</u>	TOTAL WATER TREATED (gallons)	<b>85,991,000</b>
PLANT NAME:	<u>PIKEVILLE WATER PLANT</u>	AVE. DAILY PRODUCTION (gallons)	<b>3,071,107</b>
AGENCY INTEREST:	<u>3691</u>	MAXIMUM PUMPAGE (gallons per day)	<b>3,652,000</b>

APPLICABLE TO ALL PLANTS WITH FILTRATION	
ANALYTE CODE	<u>0100</u>
Was each filter monitored continuously? (Y/N).....	<b>Y</b>
Were measurements recorded every 15 minutes? (Y/N).....	<b>Y</b>
Was there a failure of the continuous monitoring equipment? (Y/N).....	<b>N</b>
If Yes, (1) were individual filter effluent turbidity grab samples collected every four hours of operation? (Y/N).....	
(2) was the continuously monitoring equipment repaired within 5 working days? (Y/N).....	
Was individual filter level greater than 1.0 NTU in two consecutive measurements? (Y/N).....	<b>N</b>
Was individual filter level < 0.5 NTU in two consecutive measurements after online more than 4 hours? (Y/N).....	<b>N</b>
Was individual filter level < 1.0 NTU in two consecutive measurements in three consecutive months? (Y/N).....	<b>N</b>
Was individual filter level greater than 2.0 NTU in two consecutive measurements in two consecutive months? (Y/N)	<b>N</b>
<b>If any of the last 4 boxes are YES, fill out the Individual Filter Turbidity Sheet and submit with MOR</b>	

APPLICABLE TO ALL PLANTS WITH FILTRATION	APPLICABLE TO ALL PLANTS
ANALYTE CODE	<u>0100</u>
Number of hours of plant operation.....	<b>341.8</b>
Were samples taken every 4 hrs of plant operation? (Y/N)	<b>Y</b>
Number of samples taken.....	<b>113</b>
Highest single turbidity reading .....	<b>0.20</b>
For all filtration except slow sand filtration:	
Number of samples exceeded 0.1 NTU .....	<b>16</b>
Number of samples exceeded 0.3 NTU .....	<b>0</b>
Number of samples exceeded 1.0 NTU .....	<b>0</b>
When filtration is slow sand filtration:	
Number of samples exceeded 1 NTU .....	
Number of samples exceeded 5 NTU .....	
ANALYTE CODE	<u>0999</u>
Number of days of plant operation.....	<b>28</b>
Were samples taken each day of operation? (Y/N)	<b>Y</b>
Number of lowest chlorine samples recorded .....	<b>28</b>
Lowest single chlorine reading .....	<b>1.38</b>
If less than required:	
Was residual restored within 4 hrs of plant operation	
Free chlorine (for all disinfectants except chloramine):	
Number of samples under 0.2 mg/L .....	<b>0</b>
Total Chlorine (when disinfectant is chloramine):	
Number of samples under 0.5 mg/L .....	

APPLICABLE TO PLANTS UTILIZING CHLORINE DIOXIDE	APPLICABLE TO PLANTS USING CHLORINE DIOXIDE
ANALYTE CODE	<u>1008</u>
Number of days of plant operation.....	<b>28</b>
Were samples taken each day of operation? (Y/N).....	
Number of samples taken .....	<b>####</b>
Highest single chlorine dioxide reading .....	<b>####</b>
Number of chlorine dioxide samples exceeded 0.8 mg/L ..	<b>####</b>
ANALYTE CODE	<u>1009</u>
Number of days of plant operation.....	<b>28</b>
Were samples taken each day of operation? (Y/N)	
Number of samples taken .....	<b>####</b>
Highest single chlorite reading .....	<b>####</b>
Number of chlorite samples exceeded 1 mg/L .....	<b>####</b>

I certify under penalty of law that I have personally examined and am familiar with the information submitted herein. Based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. See KRS 224.99-010 and 401 KAR 8:020. (Penalties under this statute and regulation may include fines up to \$25,000 per violation or by imprisonment for not more than one year, or both).

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

DATE

**PIKEVILLE WATER TREATMENT PLANT  
WATER PUMPED TO DISTRIBUTION SYSTEM  
FOR THE MONTH OF: February, 2017**

02/01/17	3.5237
02/02/17	3.3731
02/03/17	3.2342
02/04/17	3.0800
02/05/17	3.1783
02/06/17	3.0568
02/07/17	3.2732
02/08/17	2.9383
02/09/17	3.1321
02/10/17	2.9657
02/11/17	2.9000
02/12/17	2.8172
02/13/17	2.9391
02/14/17	2.8227
02/15/17	2.9854
02/16/17	2.9017
02/17/17	3.0632
02/18/17	2.9634
02/19/17	3.0181
02/20/17	3.0143
02/21/17	2.9950
02/22/17	3.2301
02/23/17	3.0002
02/24/17	2.9978
02/25/17	3.0504
02/26/17	2.7146
02/27/17	2.9964
02/28/17	3.0793

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<b>Total</b>	<b>85.2443</b>
<b>Average</b>	<b>3.0444</b>
<b>Minimum</b>	<b>2.7146</b>
<b>Maximum</b>	<b>3.5237</b>

<b>Water plant usage</b>	<b>49,117</b>
<b>Raw water intake usage</b>	<b>125,040</b>
<b>Total non metered usage</b>	<b>174,157</b>

# Water Withdrawal Report Form

Preprint ID:

Agency Interest

Subject Item:

Monitoring Period:

3691 - Pikeville Water Department

GACT0000000001-0638 Levisa Fork

02/01/17 to 02/28/17

Day	Result	Parameter	Unit
1	3.445	Withdrawal	MGD (MA)
2	3.336	Withdrawal	MGD (MA)
3	3.401	Withdrawal	MGD (MA)
4	3.652	Withdrawal	MGD (MA)
5	3.292	Withdrawal	MGD (MA)
6	2.956	Withdrawal	MGD (MA)
7	3.262	Withdrawal	MGD (MA)
8	2.950	Withdrawal	MGD (MA)
9	3.133	Withdrawal	MGD (MA)
10	2.961	Withdrawal	MGD (MA)
11	2.995	Withdrawal	MGD (MA)
12	2.925	Withdrawal	MGD (MA)
13	2.997	Withdrawal	MGD (MA)
14	2.700	Withdrawal	MGD (MA)
15	3.228	Withdrawal	MGD (MA)
16	2.542	Withdrawal	MGD (MA)
17	3.109	Withdrawal	MGD (MA)
18	2.968	Withdrawal	MGD (MA)
19	3.030	Withdrawal	MGD (MA)
20	2.982	Withdrawal	MGD (MA)
21	2.917	Withdrawal	MGD (MA)
22	3.315	Withdrawal	MGD (MA)
23	2.912	Withdrawal	MGD (MA)
24	3.100	Withdrawal	MGD (MA)
25	3.096	Withdrawal	MGD (MA)
26	2.597	Withdrawal	MGD (MA)
27	3.064	Withdrawal	MGD (MA)
28	3.126	Withdrawal	MGD (MA)
		Withdrawal	MGD (MA)
		Withdrawal	MGD (MA)
		Withdrawal	MGD (MA)

ENTERED  
2/2/17  


	FLOW TO DIST	START C. WELL	Settling Basin Turbidity						Sludge Hauled	Spent B/W Return	DUP pH TAP
			MID - 4	4A - 8AM	8AM - 12N	12N - 4PM	4PM - 8PM	8PM - 12M			
02/01/17	3.5237	5.9		1.17	1.21	1.24	1.23		45,200	107,000	7.79
02/02/17	3.3731	4.8		1.28	1.50	1.44	1.13			197,000	7.79
02/03/17	3.2342	4.8		0.94	1.21	1.56	1.75		52,700	157,000	7.82
02/04/17	3.0800	6.0		1.58	1.88	1.76	1.69			107,000	7.84
02/05/17	3.1783	10.0		1.66	1.43	1.45	1.40			194,000	7.86
02/06/17	3.0568	6.0		1.38	1.59	1.38	1.60			185,000	7.76
02/07/17	3.2732	6.0		0.98	1.04	1.19	1.16			30,000	7.82
02/08/17	2.9383	4.4		1.00	1.16	1.21	0.92			220,000	7.80
02/09/17	3.1321	5.4		1.11	1.18	1.49	1.38			183,000	7.87
02/10/17	2.9657	4.2		1.47	1.78	1.17	1.32		41,300	142,000	7.88
02/11/17	2.9000	4.8		0.83	0.94	1.02	0.93			119,000	8.00
02/12/17	2.8172	6.4		0.92	0.98	1.02	1.04			28,000	7.84
02/13/17	2.9391	8.3		1.00	0.82	1.33	1.24		29,100	107,000	7.86
02/14/17	2.8227	9.2		1.01	1.08	0.88	0.99			102,000	7.90
02/15/17	2.9854	7.0		1.00	0.88	1.01	0.85	0.86		78,000	7.89
02/16/17	2.9017	10.8		0.96	0.94	0.95	0.99			259,000	7.89
02/17/17	3.0632	5.0		0.84	1.10	1.00	0.74			135,000	7.90
02/18/17	2.9634	5.8		0.86	0.93	0.87	0.97			126,000	7.84
02/19/17	3.0181	5.6		0.90	1.08	1.10	1.51			168,000	7.85
02/20/17	3.0143	6.2		1.00	1.08	1.11	1.01			87,000	7.87
02/21/17	2.9950	5.0		1.05	0.88	0.94	0.98			86,000	7.87
02/22/17	3.2301	4.6		1.12	0.94	0.99	0.89		39,300	143,000	7.91
02/23/17	3.0002	6.0		1.04	1.02	0.91	1.16		29,300	177,000	7.85
02/24/17	2.9978	4.5		1.06	1.04	1.01	1.25		14,500	79,000	7.84
02/25/17	3.0504	6.6		1.05	0.94	0.98	0.94			162,000	7.88
02/26/17	2.7146	6.4		1.00	1.22	1.17	1.04			172,000	7.89
02/27/17	2.9964	5.2		0.77	1.05	1.10	0.94			125,000	7.85
02/28/17	3.0793	7.4		0.90	0.96	1.01	0.94			205,000	7.85
Ave	3.0444	6.2		1.07	1.14	1.15	1.14	0.86		138,571	
Tot	85.2443								251,400	3,880,000	
Min	2.7146	4.2		0.77	0.82	0.87	0.74	0.86		28,000	
Max	3.5237	10.8		1.66	1.88	1.76	1.75	0.86		259,000	

WATER DEPARTMENT  
MASTER WATER READINGS

DATE: 3-1-17

ACCOUNT NUMBER	LOCATION	PRESENT	PREVIOUS	USAGE	AMOUNT
	SANDY VALLEY-PIKEville	419023	408201	10822	5671 DON'T BILL
54-9966200-0	TOWN MOUNTAIN	72374	708017	15697	
54-9909400-0	CHLOE ROAD	73255	71288	1967	
54-9911500-0	ISLAND CREEK	67429	64520	2909	
54-9928000-0	MUD CREEK-Southern Wt.	135818	125744	10074	
54-9914600-0	COON BRANCH	11602	11406	196	
54-9913000-0	SOUTH MAYO TRAIL	16983	10045	6918	
54-9925500-0	HOOPWOOD HOLLOW	15306	15235	71	
54-9911800-0	ISLAND CK. TRAILER PK.	01205	01042	163	
54-9911900-0	HURRICANE CREEK	308594	307081	1513	
54-9912000-0	PIKE FLOYD-Southern	46284	43591	2693	
54-9900100-0	COWPEN-Mt. Water	270340	267882	2458	
TOTAL				44659	

Only Read First 5 Numbers

METER READER INITIALS: mm

RWT 9312230	WTP 7894100
9187190	7844983
125040	49117

NON METERED WATER

FLUSHING - EST \_\_\_\_\_

LEAKS - EST \_\_\_\_\_

TOTAL GALLONS \_\_\_\_\_

## Monthly Chlorine Report- Feb. 2017

Water Dist. – Utility Management Group – JM,WH,JR

2-1-17 = 745 Chloe Road = 1.26  
2-2-17 = 224 Cassidy Blvd. = 1.38  
2-3-17 = 385 Bob Amos = 1.41  
2-4-17 = 1422 Right Fork of Island Creek = 1.35  
2-5-17 = 351 Fife Fork = 0.71  
2-6-17 = 149 Mt. Chase = 1.21  
2-7-17 = 129 Mt. Chase = 1.18  
2-8-17 = 1058 Harolds Branch = 1.30  
2-9-17 = 161 Mildred Street = 1.08  
2-10-17 = 353 Coal Run Hill = 1.15  
2-11-17 = 127 Weddington Branch = 1.02  
2-12-17 = 560 Ziegler Drive = 0.79  
2-13-17 = 550 Weddington Branch = 1.00  
2-14-17 = 378 Ziegler Drive = 1.06  
2-15-17 = 350 Williams Hollow = 1.10  
2-16-17 = 141 Habitat Street = 1.24  
2-17-17 = 143 Mt. Chase = 1.18  
2-18-17 = 21 Scott Add. = 1.06  
2-19-17 = 306 Island Creek = 0.98  
2-20-17 = 601 Hambley Blvd. = 1.29  
2-21-17 = 53 Caldwell Drive = 1.05  
2-22-17 = 39 Elkins Road = 1.13  
2-23-17 = 25 Sunset Ln. = 1.19  
2-24-17 = 30 Village Street = 1.02  
2-25-17 = 165 Porter Ln. = 1.16  
2-26-17 = 71 Rachel Fork = 0.81  
2-27-17 = 122 Sand Stone Drive = 0.89  
2-28-17 = 217 Mullins Add. = 1.07



WATER PLANT MONTHLY OPERATIONS REPORT

MONTH/YEAR:

2/2017

CHEMICALS ADDED

DAY	RAW WATER TREATED (M.G.D.)	COAGULANT PAC LBS	FLUORIDE LBS	PRE LBS	POST LBS
01	3.445	770	19.3	49.5	49.5
02	3.336	738	19.3	47.3	45.1
03	3.401	731	18.7	40.7	48.4
04	3.652	814	21.6	42.9	49.5
05	3.292	577	18.0	34.1	45.1
06	2.956	618	14.4	33	42.9
07	3.262	721	18	35.2	44
08	2.950	618	18	30.8	40.7
09	3.133	645	19.1	33	40.7
10	2.961	618	13.5	29.7	40.7
11	2.995	618	18	29.7	35.2
12	2.925	645	15.5	33.3	38.5
13	2.997	639	20.0	34.1	40.7
14	2.700	618	18.0	26.4	33.0
15	3.228	700	14.4	36.3	48.4
16	2.542	551	16.2	25.3	35.2
17	3.109	564	18.0	33.0	41.8
18	2.968	628	18.0	28.6	39.6
19	3.030	608	18.0	28.6	37.4
20	2.982	639	18	30.8	44
21	2.917	618	13.5	27.5	38.5
22	3.315	670	15.3	33	42.9
23	2.912	614	20.7	40.7	22
24	3.100	639	15.3	30.8	41.8
25	3.096	670	18	30.8	44
26	2.597	566	18	19.8	33
27	3.064	628	15.3	29.7	42.9
28	3.126	721	20.7	27.5	39.6
29					
30					
31					





WATER PLANT MONTHLY OPERATIONS REPORT

MONTH/YEAR:

2/2017

DAILY READINGS

DAY	WATER TO DIST MGD	SLUDGE HAULED <sup>x</sup> Gals / <sup>100</sup>	x1000 S B/W RETURN	RAIN FALL (inches)	WATER TEMP DEG C	CLEAR WELL LEVEL FT.
1	3.5237	45200	107000		8	5.9
2	3.3731		197000		8	4.8
3	3.2342	52700	157000		8	4.8
4	3.0800		187000		6°	6.0
5	3.1783		194000		6°	10.0
6	3.0568		185000		6°	6.0
7	3.2732		30000		8.5	6
8	2.9383		220000	.06	9.5	4.4
9	3.1321		183000	.32	10	5.4
10	2.9657	41300	142000		7	4.2
11	2.9000		119000		7.5	4.8
12	2.8172		28000		9	6.4
13	2.9391	29100	107000		9	8.3
14	2.8227		102000	.08	9°	9.2
15	2.9853		78000		9°	7.0
16	2.9017		259000		8°	10.8
17	3.0632		135000		8	5
18	2.9634		126000		9°	5.8
19	3.0181		168000		9°	5.6
20	3.0143		87000		10°	6.2
21	2.9950		86000		10.5	5
22	3.2301	39300	143000	.25	12	4.6
23	3.0002	29300	177000		12	6
24	2.9978	14500	79000		11	4.5
25	3.0504		162000	.43	13	6.6
26	2.7146		172000		11	6.4
27	2.9964		125000		11	5.2
28	3.0793		205000		10°	7.4
29						
30						
31						

### SETTLED WATER TURBIDITY

PWSID: 0980350

PWS NAME: PIKEVILLE WATER MONTH 2/2017

DAY	MID - 4AM	4AM - 8AM	8AM - NOON	NOON - 4PM	4PM - 8PM	8PM - MID
1		1.17	1.21	1.49/1.98/1.24	1.23	
2		1.28	1.5	1.44	1.16/1.1/1.13	
3		.94	1.21	1.56	1.89/1.61/1.75	
4		1.58	1.88	1.88/1.64/1.76	1.69	
5		1.66	1.43	1.52/1.38/1.45	1.40	
6		1.38	1.59	1.38	1.84/1.36/1.6	
7		.98	1.04	1.19	1.22/1.1/1.16	
8		1.0	1.16	1.28/1.14/1.21	.92	
9		1.11	1.18	1.49	1.48/1.29/1.38	
10		1.47	1.78	1.17	1.39/1.24/1.32	
11		.83	.94	1.19/1.86/1.02	.93	
12		.92	.98	1.2/1.85/1.02	1.04	
13		1.0	.82	1.33	1.37/1.11/1.24	
14		1.01	1.08	.88	1.03/1.95/1.99	
15		1.00	.88	1.01	.82/1.01/1.05	.86
16		.96	.94	.95	1.02/1.96/1.99	
17		.84	1.10	1.00	.76/1.72/1.74	
18		.86	.93	.96/1.78/1.87	.97	
19		.90	1.08	1.17/1.04/1.10	1.51	
20		1.00	1.08	1.11	1.08/1.94/1.01	
21		1.05	.88	.94	1.08/1.89/1.98	
22		1.12	.94	1.10/1.88/1.99	.89	
23		1.04	1.02	.91	1.21/1.12/1.16	
24		1.06	1.04	1.05/1.47/1.01	1.25	
25		1.05	.94	1.10/1.86/1.98	.94	
26		1.0	1.22	1.35/1.99/1.17	1.04	
27		.77	1.05	1.1	1.01/1.88/1.94	
28		.90	.94	1.01	1.03/1.86/1.99	
29						
30						
31						

FINISHED WATER TURBIDITY

PWSID: 0980350

PWS NAME: PIKEVILLE WATER MONTH 2/2017

DAY	MID - 4AM	4AM - 8AM	8AM - NOON	NOON - 4PM	4PM - 8PM	8PM - MID
1		.08	.09	.11	.11	
2		.15	.1	.14	.12	
3		.06	.06	.08	.06	
4		.04	.05	.04	.09	
5		.06	.09	.16	.14	
6		.14	.10	.09	.11	
7		.07	.08	.11	.09	
8		.07	.08	.08	.10	
9		.07	.07	.09	.08	
10		.06	.04	.06	.06	
11		.05	.05	.06	.07	
12		.06	.06	.06	.07	
13		.09	.14	.13	.10	
14		.20	.09	.11	.12	
15		.09	.10	.09	.08	.08
16		.08	.08	.10	.09	
17		.07	.07	.07	.08	
18		.08	.06	.05	.06	
19		.04	.04	.04	.05	
20		.06	.04	.06	.08	
21		.07	.06	.05	.07	
22		.11	.08	.08	.07	
23		.08	.07	.08	.06	
24		.04	.05	.06	.07	
25		.04	.06	.05	.04	
26		.05	.05	.05	.05	
27		.05	.05	.07	.07	
28		.07	.04	.06	.08	
29						
30						
31						



# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 2/2/17 RAW TEMP 8° RAINFALL \_\_\_\_\_

OPERATOR RUFIN Dm <sup>Happy Birthday!</sup> OPERATOR *[Signature]*

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	190	↓ 175			
POSTCL2	200				

CLEAR WELL 4.8<sup>(115)</sup> Town Mtn. 26.8 On  Off   
 RFT/SHT 26.4 | 23

METERS/WEIGHTS/LEVELS			
FINISHED	50600094		PAX 70/38/210
RAW	34544304		FLUORIDE 526
SLUDGE	275764		PRE CL2 80/60/150
S B/W RET	235993		POST CL2 85/66/150

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600	1241	1255	1625	705	1755					13.5
#2	↓										
#3	↓	1325	400								
#4	↓										
#5	↓										

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
1	1244	8	7700		
3	330	9	7910		

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 2-3-17 RAW TEMP 8 RAINFALL \_\_\_\_\_

OPERATOR J OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	175	↓ 165 (445)	↓ 155 210		
POSTCL2	200				

CLEAR WELL 4.8 Town Mtn. 25 On Off ✓  
 RFT/SHT 25.8 | 23.6

### METERS/WEIGHTS/LEVELS

FINISHED	50633825	PAX	171
RAW	34547640	FLUORIDE	419
SLUDGE	275764	PRE CL2	127
S B/W RET	236190	POST CL2	128

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600		1715		740		800				13.5
#2											
#3											
#4		1125	1145								
#5	↓			↓	↓	↓					↓

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
4	1128	8	7450		

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 2/4/17 RAW TEMP 6° RAINFALL \_\_\_\_\_

OPERATOR Om OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	155				
POSTCL2	200				

CLEAR WELL RFT/SHT 28.0 | 26.0 Town Mtn. 25.4 On  Off \_\_\_\_\_

METERS/WEIGHTS/LEVELS						
FINISHED	50666167			PAX	100	220
RAW	34551041			FLUORIDE	315	700
SLUDGE	276291			PRE CL2	90	170
S B/W RET	236347			POST CL2	84	170

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	5:15	3:00	5:15	10:00							14.5
#2	↓	↓	↓	↓							↓
#3	↓	↓	↓	↓							↓
#4	↓	↓	↓	↓							↓
#5	↓	↓	↓	↓							↓

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 2/5/17 RAW TEMP 6° RAINFALL \_\_\_\_\_

OPERATOR Dm OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	155				
POSTCL2	200				

CLEAR WELL RFT/SHT 28.4 | 26.0 | 10.0 Town Mtn. 25.8 On  Off

METERS/WEIGHTS/LEVELS					
FINISHED	50696967			PAX	141
RAW	34554693			FLUORIDE	580
SLUDGE	276291			PRE CL2	131
S B/W RET	236454			POST CL2	125

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	5:05	12:30	2:00	3:55	4:30	6:00	7:00	8:30			
#2	↓	↓	↓	↓	1:51	↓	↓	↓			13.0
#3	↓	↓	↓	↓	↓	↓	↓	↓			↓
#4	↓	↓	↓	↓	↓	↓	↓	↓			
#5	↓	12:15	↓	↓	↓	↓	↓	↓			

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#5	12:19	10	8212	—	—
#1	3:58	10	8270	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 2/6/17 RAW TEMP 6° RAINFALL \_\_\_\_\_

OPERATOR Am OPERATOR 

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	7 3/40				
PRECL2	155				
POSTCL2	200				

CLEAR WELL 6.0 Town Mtn. 25.4 On Off <sup>x</sup>  
 RFT/SHT 28.0 | 26.0

METERS/WEIGHTS/LEVELS			
FINISHED	50728750		PAX 85
RAW	34557985		FLUORIDE 480
SLUDGE	276291		PRE CL2 100
S B/W RET	236648		POST CL2 84

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	6:00		1330	535	800						12
#2		1200	215								
#3											
#4											
#5	↓		↓	↓	4						↓

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
2	204	8	8.50	←	→

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 2/7/17 RAW TEMP 8.5 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR [Signature]

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	155	↓ 145 (130)			
POSTCL2	200				

CLEAR WELL 6 Town Mtn. 26 On \_\_\_ Off \_\_\_  
 RFT/SHT 27 | 25.8

### METERS/WEIGHTS/LEVELS

FINISHED	50759318	PAX	25/200
RAW	34560941	FLUORIDE	400
SLUDGE	276291	PRE CL2	70/110
S B/W RET	236833	POST CL2	45/155

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	530	315	445	1	1800						13
#2											
#3				1600	615						
#4	↓		↓								
#5	↓		↓								↓

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
3	603	8	8025		

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 2/8/17 RAW TEMP 9.5 RAINFALL .06

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	145				
POSTCL2	190				

CLEAR WELL TOWN Mtn. 4.4 26.4 On Off  
 RFT/SHT 28.6 | 24.8

### METERS/WEIGHTS/LEVELS

FINISHED	50792050	PAX	130
RAW	34564203	FLUORIDE	300
SLUDGE	276291	PRE CL2	78
S B/W RET	236863	POST CL2	115

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600	325	535	805							12
#2											
#3											
#4		1240									
#5	1325										

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
4	245	9	8140		

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 2/9/17 RAW TEMP 10 RAINFALL .32

OPERATOR [Signature] OPERATOR [Signature]

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	145				
POSTCL2	190				

CLEAR WELL 5.4 Town Mtn. 26.2 On \_\_\_ Off \_\_\_  
 RFT/SHT 26.4 | 24

METERS/WEIGHTS/LEVELS			
FINISHED	50821433		PAX 70/38/120
RAW	34567153		FLUORIDE 200
SLUDGE	276291		PRE CL2 50/33/100
S B/W RET	237083		POST CL2 78/60/100

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600	246	300	420	550	700	730	800			12
#2											
#3											
#4											
#5											

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
1	247	9	8040	_____	_____

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 2-10-17 RAW TEMP 7 RAINFALL \_\_\_\_\_

OPERATOR *Jr* OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	145				
POSTCL2	1200				

CLEAR WELL 4.2 Town Mtn. 24.8 On  Off

RFT/SHT 29.2 | 28.2

### METERS/WEIGHTS/LEVELS

FINISHED	50852754		PAX	90
RAW	34570286		FLUORIDE	105
SLUDGE	276 291		PRE CL2	87
S B/W RET	237 266		POST CL2	81

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600		230	425	1725	710	1800				11.75
#2											
#3											
#4											
#5		214									

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
5	216	9	8200		

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 2/11/17 RAW TEMP 7.5 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	145				
POSTCL2	190 <sup>start up</sup>				

CLEAR WELL 4.8 Town Mtn. 26.6 On Off  
 RFT/SHT 28.8 | 26.6

METERS/WEIGHTS/LEVELS			
FINISHED	50882411		PAX 30   180
RAW	34573247		FLUORIDE 30   400
SLUDGE	276704		PRE CL2 60   130
S B/W RET	237408		POST CL2 44   130

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600	300	600	900							12
#2		1235									
#3		1300									
#4											
#5	9			10							

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
2	340	10	8260	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 2/12/17 RAW TEMP 9° RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	145				
POSTCL2	190				

CLEAR WELL 6.4 Town Mtn. 26.4 On \_\_\_ Off \_\_\_  
 RFT/SHT 29.6 | 27.2

METERS/WEIGHTS/LEVELS			
FINISHED	50911411		PAX 120
RAW	34576242		FLUORIDE 300
SLUDGE	276704		PRE CL2 103
S B/W RET	237527		POST CL2 98

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600	105	400	750	900	1000					11.5
#2											
#3											
#4											
#5											

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 2/13/17 RAW TEMP 9° RAINFALL \_\_\_\_\_

OPERATOR RV for GP (vac) OPERATOR 

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	145				
POSTCL2	190	7200			

CLEAR WELL 8.3 (lpm) Town Mtn. 26.4 On  Off

RFT/SHT 28.8 | 26.6

METERS/WEIGHTS/LEVELS					
FINISHED	509 39583			PAX	58 52/220
RAW	34579167			FLUORIDE	214 203/750
SLUDGE	276704			PRE CL2	73 70/170
S B/W RET	237555			POST CL2	63 60/170

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600			1115	315	1530	705	1430					12
#2													
#3		1230	→										
#4	↓			↓	↓	↓	↓	↓					↓
#5	↓			↓	↓	↓	↓	↓					↓

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
3	1253	8	8160		

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 2/14/17 RAW TEMP 9° RAINFALL 0.8

OPERATOR Dm OPERATOR [Signature]

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	93/40				
PRECL2	145				
POSTCL2	200				

CLEAR WELL RFT/SHT 30.2 | 9.2 | 28.8 Town Mtn. 24.2 On  Off

METERS/WEIGHTS/LEVELS							
FINISHED	50968974			PAX	160	130	220
RAW	34582164			FLUORIDE	650		
SLUDGE	276995			PRE CL2	142	130	170
S B/W RET	237662			POST CL2	136	118	170

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	5:40	10:45	10:50	13:10	*→	13:35	5:00	16:15	7:15	18:30			10.25
#2													
#3													
#4													
#5	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
1	313	9	8260	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 2/15/17 RAW TEMP 9° RAINFALL \_\_\_\_\_

OPERATOR DM OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	145				
POSTCL2	200				

CLEAR WELL 7.0 Town Mtn. 25.2 On Off  
 RFT/SHT 29.8 | 29.6

METERS/WEIGHTS/LEVELS			
FINISHED	50992201		PAX 190
RAW	34584864		FLUORIDE 550
SLUDGE	276995		PRE CL2 158
S B/W RET	237764		POST CL2 158

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	5:05	11:45	1:45	4:30	5:45	8:00	9:30	10:45			12.0
#2	↓	↓	↓	↓	↓	↓	↓	↓			
#3	↓	↓	↓	↓	↓	↓	↓	↓			
#4	↓	↓	↓	↓	↓	↓	↓	↓			
#5	↓	↓	↓	↓	↓	↓	↓	↓			

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#2	4:07	10	8190	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 2/16/17 RAW TEMP 8° RAINFALL \_\_\_\_\_

OPERATOR DM OPERATOR Or

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	145	↓ 135			
POSTCL2	200				

CLEAR WELL 10.8 Town Mtn. 25.0 On  Off   
 RFT/SHT 30.2 | 29.2

### METERS/WEIGHTS/LEVELS

FINISHED	51027054	PAX	122/79/180
RAW	34588092	FLUORIDE	470
SLUDGE	276995	PRE CL2	125/107/145
S B/W RET	237842	POST CL2	114/88/150

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	5:05	10:00	105		145	600	1755				10.5
#2											
#3		9:50									
#4		10:05		1205	230						
#5											

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#3	9:55	10	8216	—	—
#4	2:08	11	7835	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 2-17-17 RAW TEMP 8 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	135	↓130			
POSTCL2	200	↓195			

CLEAR WELL 5.0 <sup>(1000)</sup> Town Mtn. 26.2 On    Off     
 RFT/SHT 27.6 126.2

METERS/WEIGHTS/LEVELS			
FINISHED	5105	6071	PAX 170
RAW	345	90634	FLUORIDE 380
SLUDGE	276	995	PRE CL2 140
S B/W RET	238	101	POST CL2 144

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600			1425	543	715	730	1800					12:55
#2													
#3													
#4	↓			↓									
#5	↓	1255	313	↓	↓	↓	↓	↓					

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
5	259	8	8075	←	←

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 2/18/17 RAW TEMP 9° RAINFALL \_\_\_\_\_

OPERATOR DM OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	130				
POSTCL2	195				

CLEAR WELL 5.8 Town Mtn. 25.4 On Off

RFT/SHT 28.6 | 27.6

METERS/WEIGHTS/LEVELS					
FINISHED	51086703			PAX	115   220
RAW	34593743			FLUORIDE	280   800
SLUDGE	276995			PRE CL2	110   170
S B/W RET	238236			POST CL2	106   170

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	5:15	↓	2:30	↓	7:30	↓	8:30				
#2	↓	↓	↓	↓	5:45	↓	↓				11.5
#3	↓	↓	↓	↓	↓	↓					
#4	↓	↓	↓	↓	↓	↓					
#5	↓	↓	↓	↓	↓	↓					

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#1	5:05	10	8248	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 2/19/17 RAW TEMP 9° RAINFALL \_\_\_\_\_

OPERATOR DM OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	7 <sup>3</sup> / <sub>40</sub>				
PRECL2	130				
POSTCL2	195 ↓	190			

CLEAR WELL 5.6 Town Mtn. 26.8 On  Off   
 RFI/SHT 28.6 | 25.8

METERS/WEIGHTS/LEVELS			
FINISHED	5116337		PAX 159
RAW	34596711		FLUORIDE 700
SLUDGE	276995		PRE CL2 144
S B/W RET	238362		POST CL2 134

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	5:05	↓	2:00	↓	6:00	↓	9:00	↓		↓	12.0
#2	↓	↓	↓	↓	↓	↓	↓	↓		↓	
#3	↓	↓	↓	↓	↓	↓	↓	↓		↓	
#4	↓	↓	↓	↓	↓	↓	↓	↓		↓	
#5	↓	↓	↓	↓	↓	↓	↓	↓		↓	

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#2	3:39	10	8175	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 2/20/17 RAW TEMP 10° RAINFALL \_\_\_\_\_

OPERATOR Dm OPERATOR J  
 FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	130				
POSTCL2	190				

CLEAR WELL 6.2 Town Mtn. 26.6 On  Off   
 RFT/SHT 28.6 | 26.6

METERS/WEIGHTS/LEVELS			
FINISHED	51146518		PAX 100
RAW	34599741		FLUORIDE 600
SLUDGE	*26995		PRE CL2 118
S B/W RET	238530		POST CL2 100

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	6:05	12:05	4:45		18:35						11.75
#2											
#3				17:28	7:41						
#4											
#5	↓		↓			↓					↓

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
3	7:31	8	8155	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 2/21/17 RAW TEMP 10.5 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR [Signature]

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	7 <sup>3</sup> / <sub>40</sub>				
PRECL2	130				
POSTCL2	190				

CLEAR WELL 5 Town Mtn. 262 On Off  
 RFT/SHT 28.2 | 24.4

### METERS/WEIGHTS/LEVELS

FINISHED	<u>51176661</u>	PAX	<u>38   210</u>
RAW	<u>34602723</u>	FLUORIDE	<u>500</u>
SLUDGE	<u>276995</u>	PRE CL2	<u>90   150</u>
S B/W RET	<u>238617</u>	POST CL2	<u>60   150</u>

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	<u>610</u>	<u>305</u>	<u>530</u>	<u>805</u>							
#2											
#3											
#4											
#5											

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 2/22/17 RAW TEMP 12 RAINFALL 25

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	130				
POSTCL2	190				

CLEAR WELL 4.6 Town Mtn. 24.4 On Off  
 RFT/SHT 28 | 26.8

### METERS/WEIGHTS/LEVELS

FINISHED	51206611	PAX	150
RAW	34605640	FLUORIDE	425
SLUDGE	276995	PRE CL2	125
S B/W RET	238703	POST CL2	115

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	605		500		630		845						
#2													
#3													
#4		140	155										
#5	+			+			+						

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
4	145	10	7820	—	

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 2/23/17 RAW TEMP 12 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR [Signature]

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	130	↓120			
POSTCL2	190				

CLEAR WELL 6 <sup>(240)</sup> Town Mtn. 26.2 On \_\_\_ Off \_\_\_  
 RFT/SHT 29.2 | 25.4

METERS/WEIGHTS/LEVELS			
FINISHED	51238912		PAX 85/51/135
RAW	34608955		FLUORIDE 340
SLUDGE	277388		PRE CL2 95/80/120
S B/W RET	238846		POST CL2 76/58/110

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	605	107	130	135	530	1800					11.75
#2											
#3											
#4											
#5											

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
1	110	9	800		

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 2-24-17 RAW TEMP 11 RAINFALL \_\_\_\_\_

OPERATOR *[Signature]* OPERATOR \_\_\_\_\_  
 FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	120				
POSTCL2	190				

CLEAR WELL 4.5 Town Mtn. 26.2 On  Off \_\_\_\_\_  
 RFT/SHT 28.4 | 125.6

METERS/WEIGHTS/LEVELS			
FINISHED	5126	8914	PAX 110
RAW	3461	867	FLUORIDE 225
SLUDGE	2776	81	PRE CL2 98
S B/W RET	2390	23	POST CL2 108

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600	1430	605	1800							12.5
#2											
#3											
#4											
#5	↓	↓	↓	↓							↓

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 2/25/17 RAW TEMP 13 RAINFALL .43

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	120				
POSTCL2	190				

CLEAR WELL 6.6 Town Mtn. 24.8 On    Off     
 RFT/SHT 29.6 | 27.8

METERS/WEIGHTS/LEVELS			
FINISHED	51298892		PAX 48   200
RAW	34614967		FLUORIDE 140   400
SLUDGE	277826		PRE CL2 70   120
S B/W RET	239107		POST CL2 70   160

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	500	1145	130	145	730	1000					12.5
#2											
#3											
#4											
#5	1130										

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
5	1135	8	8200	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 2/26/17 RAW TEMP 11 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	7340				
PRECL2	120				
POSTCL2	190				

CLEAR WELL 6.4 Town Mtn. 24.8 On    Off     
 RFT/SHT 29.6 | 29

5137 METERS/WEIGHTS/LEVELS			
FINISHED	51329396		PAX 735
RAW	34618063		FLUORIDE 300
SLUDGE	277826		PRE CL2 92
S B/W RET	239264		POST CL2 120

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	605	105	330	530	700	825					10.8
#2		1225									
#3		105									
#4											
#5											

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
2	1230	12	8200		

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 2/27/17 RAW TEMP 11 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR [Signature]

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	120				
POSTCL2	190				

CLEAR WELL 5.2 Town Mtn. 26.2 On    Off     
 RFT/SHT 27 | 25.2

METERS/WEIGHTS/LEVELS			
FINISHED	51356542		PAX 80/49/160
RAW	34620660		FLUORIDE 200
SLUDGE	277826		PRE CL2 74/60/138
S B/W RET	239436		POST CL2 90/70/150

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600		1330		600	1830							12
#2													
#3		1244	1259										
#4													
#5													

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
3	1246	8	7950	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 2/28/17 RAW TEMP 10° RAINFALL \_\_\_\_\_

OPERATOR DM OPERATOR Jr

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	7 <sup>3</sup> / <sub>40</sub>				
PRECL2	120				
POSTCL2	190				

CLEAR WELL 7.4 Town Mtn. 25.0 On  Off   
 RFT/SHT 29.0 | 28.2

METERS/WEIGHTS/LEVELS					
FINISHED	51386506			PAX	130   220
RAW	34623724			FLUORIDE	115   800
SLUDGE	277826			PRE CL2	125   175
S B/W RET	239561			POST CL2	131   175

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	5:00	12:50	3:20	6:00	7:00	1:00	9:00	9:55			12.25
#2											
#3											
#4	↓	12:30	↓	12:50	↓	↓	↓	↓	↓	↓	
#5	↓	12:50	↓	↓	↓	↓	↓	↓	↓	↓	

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#4	12:33	11	8160	—	—

COMMENTS:

FIELD CHAIN OF CUSTODY RECORD

FIELD MONITORING PROGRAM

SAMPLERS (SIGNATURES)

*Kepler*

FACILITY	SAMPLE SOURCE	COMPOSITING PERIOD				SAMPLE COLLECTION			FLOW	CONTAINER		Volatile Organics	Pesticides/PCB's	Trace Metals	Cyanide	Phenols	Oil and Grease	Solids	BOD	Ammonia Nitrogen	Phosphorous	Coliform	pH	Preservation	COMMENTS		
		SAMPLING BEGINS		SAMPLING ENDS		DATE	TIME	G/C	MGD	VOLUME	G/P																
		DATE	TIME	DATE	TIME																						
PIKEVILLE WTP	111			2/14/17	1152	G				P																	
	030			"	1204	"				"																	
	028			"	1218	"				"																	
	110			"	1225	"				"																	
	022			"	1313	"				"																	
	PO1			"	915	"				"															F 86		
	RAW			"	1258	"				"															ALKALINITY		
	"			"	1259	"				G															TOC		
	CPE			"	1300	"				"																TOC	
	GRIT CYCLONE			"	1306	C				P																TSS	
	GRIT PUMP			"	1308	"				"																TSS	
	pH	time	temp																								
GRIT CYCLONE	8.04	1321	10.0																								
PUMP	8.03	1319	10.1																								
RELINQUISHED BY	DATE	TIME	RECEIVED BY	RELINQUISHED BY	DATE	TIME	RECEIVED BY	RELINQUISHED BY	DATE	TIME	RECEIVED BY	RELINQUISHED BY	DATE	TIME	RECEIVED BY	RELINQUISHED BY	DATE	TIME	RECEIVED BY	RELINQUISHED BY	DATE	TIME	RECEIVED BY	RELINQUISHED BY	DATE	TIME	RECEIVED BY
<i>Kepler</i>	2/14/17	1316	<i>Barbara Jantz</i>																								

REMARKS: G's - transported in ice  
Pgs 2/14/17

002174



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Louisville, KY 502.961.0001	Paducah, KY 270.444.6547	

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**SAMPLE SUMMARY**

Lab ID	Client Sample ID/Alias	Matrix	Date Collected	Date Received	Sampled By
7022756-01	BACT/	Drinking Water	02/14/2017 11:52	02/14/2017 13:16	Ralph Varney
7022756-02	BACT/	Drinking Water	02/14/2017 12:04	02/14/2017 13:16	Ralph Varney
7022756-03	BACT/	Drinking Water	02/14/2017 12:18	02/14/2017 13:16	Ralph Varney
7022756-04	BACT/	Drinking Water	02/14/2017 12:25	02/14/2017 13:16	Ralph Varney
7022756-05	BACT/	Drinking Water	02/14/2017 13:13	02/14/2017 13:16	Ralph Varney

<u>LabNumber</u>	<u>Measurement</u>	<u>Value</u>
7022756-01	Field Residual Chlorine	1.35
7022756-02	Field Residual Chlorine	1.43
7022756-03	Field Residual Chlorine	1.55
7022756-04	Field Residual Chlorine	1.51
7022756-05	Field Residual Chlorine	1.26

*Handwritten signature*



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**ANALYTICAL RESULTS**

Lab Sample ID: **7022756-01**  
Description: **BACT**

Sample Collection Date Time: 02/14/2017 11:52  
Sample Received Date Time: 02/14/2017 13:16

Matrix: Drinking Water

Discharge/Site No: 111

Regulatory ID: KY0980350

**Microbiological Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Colilert 24	02/14/2017 17:14	02/15/2017 17:21	ADH

**ANALYTICAL RESULTS**

Lab Sample ID: **7022756-02**  
Description: **BACT**

Sample Collection Date Time: 02/14/2017 12:04  
Sample Received Date Time: 02/14/2017 13:16

Matrix: Drinking Water

Discharge/Site No: 030

Regulatory ID: KY0980350

**Microbiological Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Colilert 24	02/14/2017 17:14	02/15/2017 17:21	ADH

**ANALYTICAL RESULTS**

Lab Sample ID: **7022756-03**  
Description: **BACT**

Sample Collection Date Time: 02/14/2017 12:18  
Sample Received Date Time: 02/14/2017 13:16

Matrix: Drinking Water

Discharge/Site No: 028

Regulatory ID: KY0980350

**Microbiological Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Colilert 24	02/14/2017 17:14	02/15/2017 17:21	ADH



SAMPLE CATEGORY = TC  
DISTRIBUTION SAMPLING

KENTUCKY DIVISION OF WATER / DRINKING WATER RESULTS  
BACTERIOLOGICAL ANALYSIS REPORT FORM

Rev. 03/01/2012

General Information -- This Section To Be Completed By Collector

PWS ID	K Y 0 9 8 0 3 5 0	Compliance Period (MM/YYYY)	0 2 2 0 1 7
PWS Name	CITY OF PIKEVILLE	PWS Contact	RALPH VARNEY
		Collection Date (MMDD/YYYY)	0 2 1 4 2 0 1 7 <small>(All Samples Reported on this Form were Collected on this Date.)</small>
PWS Address	306 ISLAND CREEK ROAD	PWS Phone	606-437-5123
		Collector Name	<i>Ralph Varney</i> 2/14/17 <small>Signature/Date</small>

General Information -- This Section To Be Completed By Lab

Lab ID	00050	Lab Receipt Date (MMDD/YYYY)	0 2 1 4 2 0 1 7	Total Coliform Analysis Method Code	3 0 9
		Analysis Date (MMDD/YYYY)	0 2 1 4 2 0 1 7	E Coli Analysis Method Code	3 0 9
Lab Analyst	<i>Al Weil</i> 2/14/17 <small>Signature/Date</small>			Lab Supervisor	<i>Al Weil</i> 2/14/17 <small>Signature/Date</small>

Sample Information -- This Section To Be Completed By Collector

Sample Type (RT, RP, TG, CO, or SP) (See Key)	Special Sample Reason (A, B, C, D, or E) (See Key) Replacement Sample? (Y or Blank)	Location Code (See Instructions)	Repeat Location Code (DN, UP, or OR) (See Key)	Sample Time (24 hr)	Free Chlorine (Required for all disinfectants except Chloramine)	Total Chlorine (Required when disinfectant is Chloramine)
RT		111		1152	1.35	.
RT		030		1004	1.43	.
RT		028		1218	1.55	.
RT		110		1225	1.51	.
RT		022		1315	1.26	.
						.
						.
						.
						.

Analysis Information -- This Section To Be Completed By Lab

Lab Sample Number	Analysis Time (24 hr)	Result (Total Coliform Count - or - TNTC - or - CNFG - or - TCNG) (See Key)	Total Coliform (P/A)	E Coli (P/A)	Lab Sample Number of Original Sample (Required for RP, TG, CO, and/or Replacement Samples) (See Instructions)
7022756					
01	1714		A	A	
02	1714		A	A	
03	1714		A	A	
04	1714		A	A	
05	1714		A	A	

BACTERIOLOGICAL ANALYSIS REPORT FORM KEY

The signatories of this form certify by their signatures that collection and analysis of the water sample analyzed and the resulting data hereby submitted, were completed in accordance with the provisions of 401 KAR Chapter 6, specifically including but not limited to 401 KAR 6:200, Section 1 and 401 KAR 6:040; and that the data submitted on this form is a true and accurate report of the results of collection and analysis performed pursuant to the above-referenced regulations. Violations of 401 KAR Chapter 6 are subject to severe penalties prescribed in KRS 224.99-010, up to \$25,000 fine per day per violation and in some cases a violation may subject the violator to prison.

Sample Type:	RT = Routine (For Compliance)	RP = Repeat (For Compliance)	SP = Special (Not for Compliance)
	TG = Triggered (For Compliance)	CO = Confirmation (For Compliance)	
Special Sample Reason: (Only if Sample Type = SP)	A = Suspected Contamination	B = New Plant, Modification, or Line Extension	C = Treatment Modification
	D = Study/Investigation	E = Line Break, Emergency Repair	
Repeat Location Code: (Only if Sample Type = RP)	DN = Downstream	UP = Upstream	OR = Original Site
Result:	TNTC = Too Numerous to Count	CNFG = Confluent Growth	TCNG = Turbid Culture-No Gas



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**SAMPLE SUMMARY**

Lab ID	Client Sample ID/Alias	Matrix	Date Collected	Date Received	Sampled By
7022762-01	Fluoride/	Drinking Water	02/14/2017 09:15	02/14/2017 13:16	Ralph Varney
<u>LabNumber</u>	<u>Measurement</u>	<u>Value</u>			
7022762-01	Field Fluoride	0.86			

**ANALYTICAL RESULTS**

Lab Sample ID: **7022762-01**  
Description: **Fluoride**

Sample Collection Date Time: 02/14/2017 09:15  
Sample Received Date Time: 02/14/2017 13:16

Matrix: Drinking Water

Discharge/Site No: P01

Regulatory ID: KY0980350

**Conventional Chemistry Analyses Madisonville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Fluoride	0.75		mg/L	0.20		4500-F C-1997	02/17/2017 10:41	02/17/2017 10:41	JTL

**Notes for work order 7022762**

- Samples collected by MMLI personnel are done so in accordance with procedures set forth in MMLI field services SOPs.
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identification based on the presumptive evidence of the mass spectra.

U Target analyte was analyzed for, but was below detection limit (the value associated with the qualifier is the laboratory method detection limit in our LIMS system).

**Standard Qualifiers/Acronyms**

- MDL Method Detection Limit
- MRL Minimum Reporting Limit
- ND Not Detected
- LCS Laboratory Control Sample
- MS Matrix Spike
- MSD Matrix Spike Duplicate
- DUP Sample Duplicate
- % Rec Percent Recovery
- RPD Relative Percent Difference
- > Greater than
- < Less than

**Certified Analyses included in this Report**

Analyte	Certifications
<b>4500-F C-1997 in Water</b>	
Fluoride	KY Drinking Water Mdv (00030) VA NELAC Mdv (460210) IN Drinking Water Mdv (C-KY-02) IL Drinking Water Mdv (200079)

3/3

**KENTUCKY DIVISION OF WATER / DRINKING WATER BRANCH  
DISINFECTION BYPRODUCT PRECURSOR ANALYSIS REPORT FORM**

SAMPLE CATEGORY = TOC

**This Section To Be Completed By Collector**

PWS ID	<u>KY0980350</u>	Plant ID	<u>A</u>	Plant Name	<u>INTAKE - LEVISA FORK/BIG SANDY RIVE</u>	Location Code	<u>R01</u>
PWS Name	<u>Pikeville Water Department</u>			PWS Contact	<u>Ralph Varney</u>		
PWS Address	<u>306 Island Creek Road, Pikeville, KY 41501</u>			PWS Phone	<u>(606) 437-5123</u>		
Sample Date (MMDDYYYY)	<u>02/14/2017</u>	Time	<u>12:58</u>	Sample Type	<u>RT</u>	Collector Name	<u>Ralph Varney</u>
				RT = Routine (For Compliance)			
				SP = Special (Not for Compliance)			

**This Section to Be Completed By Lab**

Lab ID	<u>00030</u>	Lab Sample Number	<u>7022763-01</u>	Lab Phone	<u>(270) 821-7375</u>
Lab Analyst	<u>Tracy Benton</u>	Signature/Date	<u>02/21/2017 13:58</u>	Lab Supervisor	<u><i>Mark Simon</i></u>
					<u>02/23/2017</u>

Analyte Code	Analyte Name	Analysis Method Code	<	Result (mg/L)	Analysis Date
				-or- Lab Minimum Reporting Limit (mg/L)	
1927	Alkalinity, Total (as CaCO3)	849		113	02212017
2920	Total Organic Carbon	839		1.5	02212017

The signatories of this form certify by their signature that collection and analysis of the water sample analyzed and the resulting data hereby submitted, were completed in accordance with the provisions of 401 KAR Chapter 8; and that the data submitted on this form is a true and accurate report of the results of collection and analysis performed pursuant to the above-referenced regulations. Violations of 401 KAR Chapter 8 are subject to severe penalties prescribed in KRS 224.99-010, up to \$25,000 fine per day per violation and in some cases a violation may subject a violator to prison.

*R*  
*3/3*

**KENTUCKY DIVISION OF WATER / DRINKING WATER BRANCH  
DISINFECTION BYPRODUCT PRECURSOR ANALYSIS REPORT FORM**

SAMPLE CATEGORY = TOC

**This Section To Be Completed By Collector**

PWS ID	<u>KY0980350</u>	Plant ID	<u>A</u>	Plant Name	<u>PIKEVILLE WTP</u>	Location Code	<u>CF1</u>
PWS Name	<u>Pikeville Water Department</u>			PWS Contact	<u>Ralph Varney</u>		
PWS Address	<u>306 Island Creek Road, Pikeville, KY 41501</u>			PWS Phone	<u>(606) 437-5123</u>		
Sample Date (MMDDYYYY)	<u>02/14/2017</u>	Time	<u>13:00</u>	Sample Type	<u>RT</u>	Collector Name	<u>Ralph Varney</u>
				RT = Routine (For Compliance)			
				SP = Special (Not for Compliance)			

**This Section to Be Completed By Lab**

Lab ID	<u>00030</u>	Lab Sample Number	<u>7022763-02RE1</u>	Lab Phone	<u>(270) 821-7375</u>
Lab Analyst	<u>Tracy Benton 02/21/2017 20:52</u>		Lab Supervisor	<u><i>Mark D. Thomas</i> 02/23/2017</u>	
		Signature/Date			

Analyte Code	Analyte Name	Analysis Method Code	<	Result (mg/L)	Analysis Date
				-or- Lab Minimum Reporting Limit (mg/L)	
2920	Total Organic Carbon	839		1.3	02212017

The signatories of this form certify by their signature that collection and analysis of the water sample analyzed and the resulting data hereby submitted, were completed in accordance with the provisions of 401 KAR Chapter 8; and that the data submitted on this form is a true and accurate report of the results of collection and analysis performed pursuant to the above-referenced regulations. Violations of 401 KAR Chapter 8 are subject to severe penalties proscribed in KRS 224.99-010, up to \$25,000 fine per day per violation and in some cases a violation may subject a violator to prison.



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859.299.7775      606.432.3104      812.696.5076  
  
Louisville, KY      Paducah, KY  
502.961.0001      270.444.6547

"Providing Tomorrow's Analytical Capabilities Today"

**SAMPLE SUMMARY**

Lab ID	Client Sample ID/Alias	Matrix	Date Collected	Date Received	Sampled By
7022764-01	Backwash/Grit Cyclone	Wastewater	02/14/2017 13:06	02/14/2017 13:16	Ralph Varney
7022764-02	Backwash/Grit Pump	Wastewater	02/14/2017 13:08	02/14/2017 13:16	Ralph Varney

**ANALYTICAL RESULTS**

Lab Sample ID: **7022764-01**  
Description: **Backwash Grit Cyclone**

Sample Collection Date Time: 02/14/2017 13:06  
Sample Received Date Time: 02/14/2017 13:16

Conventional Chemistry Analyses Pikeville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Suspended Solids	66		mg/L	4	4	2540 D-1997	02/18/2017 13:53	02/18/2017 15:28	WJP

Field Analysis Pikeville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
pH (Field)	8.04		Std. Units	0.10	0.10	4500-H+ B-2000	02/14/2017 13:06	02/14/2017 13:21	WJP

**ANALYTICAL RESULTS**

Lab Sample ID: **7022764-02**  
Description: **Backwash Grit Pump**

Sample Collection Date Time: 02/14/2017 13:08  
Sample Received Date Time: 02/14/2017 13:16

Conventional Chemistry Analyses Pikeville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Suspended Solids	12		mg/L	6	6	2540 D-1997	02/18/2017 13:53	02/18/2017 15:30	WJP

Field Analysis Pikeville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
pH (Field)	8.03		Std. Units	0.10	0.10	4500-H+ B-2000	02/14/2017 13:08	02/14/2017 13:19	WJP

WJP

FIELD CHAIN OF CUSTODY RECORD

FIELD MONITORING PROGRAM

SAMPLERS (SIGNATURES)

*[Handwritten Signature]*

FACILITY	SAMPLE SOURCE	COMPOSITING PERIOD				SAMPLE COLLECTION			FLOW	CONTAINER		Volatile Organics	Pesticides/PCB's	Trace Metals	Cyanide	Phenols	Oil and Grease	Solids	BOD	Ammonia Nitrogen	Phosphorous	Coliform	pH	Preservation	COMMENTS
		SAMPLING BEGINS		SAMPLING ENDS		DATE	TIME	G/C	MGD	VOLUME	G/P														
		DATE	TIME	DATE	TIME																				
PIKEVILLE WTP	009			2/27/17	1056	G				P															
	115			"	112	u				A															Falcoz. 78
	118			"	1123	u				A															
	120			"	1129	u				S															
	33			"	1144	u				S															

RELINQUISHED BY <i>[Signature]</i>	DATE 2/27/17	TIME 1314	RECEIVED BY <i>[Signature]</i>	RELINQUISHED BY	DATE	TIME	RECEIVED BY
RELINQUISHED BY	DATE	TIME	RECEIVED BY	RELINQUISHED BY	DATE	TIME	RECEIVED BY
RELINQUISHED BY	DATE	TIME	RECEIVED BY	RELINQUISHED BY	DATE	TIME	RECEIVED BY

REMARKS: 11°C W/ICE

002175  
 2/27/17



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Louisville, KY 502.961.0001	Paducah, KY 270.444.6547	

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**SAMPLE SUMMARY**

Lab ID	Client Sample ID/Alias	Matrix	Date Collected	Date Received	Sampled By
7023557-01	BACT/	Drinking Water	02/27/2017 10:56	02/27/2017 13:14	Ralph Varney
7023557-02	BACT/	Drinking Water	02/27/2017 11:12	02/27/2017 13:14	Ralph Varney
7023557-03	BACT/	Drinking Water	02/27/2017 11:23	02/27/2017 13:14	Ralph Varney
7023557-04	BACT/	Drinking Water	02/27/2017 11:29	02/27/2017 13:14	Ralph Varney
7023557-05	BACT/	Drinking Water	02/27/2017 11:44	02/27/2017 13:14	Ralph Varney

<u>LabNumber</u>	<u>Measurement</u>	<u>Value</u>
7023557-01	Field Residual Chlorine	1.09
7023557-02	Field Residual Chlorine	0.76
7023557-03	Field Residual Chlorine	1.43
7023557-04	Field Residual Chlorine	1.36
7023557-05	Field Residual Chlorine	0.92



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Louisville, KY 502.961.0001	Paducah, KY 270.444.6547	

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**ANALYTICAL RESULTS**

Lab Sample ID: **7023557-01**  
Description: **BACT**

Sample Collection Date Time: 02/27/2017 10:56  
Sample Received Date Time: 02/27/2017 13:14

Matrix: Drinking Water

Discharge/Site No: 009

Regulatory ID: KY0980350

**Microbiological Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Colilert 24	02/27/2017 16:55	02/28/2017 16:59	ADH

**ANALYTICAL RESULTS**

Lab Sample ID: **7023557-02**  
Description: **BACT**

Sample Collection Date Time: 02/27/2017 11:12  
Sample Received Date Time: 02/27/2017 13:14

Matrix: Drinking Water

Discharge/Site No: 115

Regulatory ID: KY0980350

**Microbiological Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Colilert 24	02/27/2017 16:55	02/28/2017 16:59	ADH

**ANALYTICAL RESULTS**

Lab Sample ID: **7023557-03**  
Description: **BACT**

Sample Collection Date Time: 02/27/2017 11:23  
Sample Received Date Time: 02/27/2017 13:14

Matrix: Drinking Water

Discharge/Site No: 118

Regulatory ID: KY0980350

**Microbiological Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Colilert 24	02/27/2017 16:55	02/28/2017 16:59	ADH



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**ANALYTICAL RESULTS**

Lab Sample ID: **7023557-04**  
Description: **BACT**

Sample Collection Date Time: 02/27/2017 11:29  
Sample Received Date Time: 02/27/2017 13:14

Matrix: Drinking Water

Discharge/Site No: 120

Regulatory ID: KY0980350

**Microbiological Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Colliert 24	02/27/2017 16:55	02/28/2017 16:59	ADH

**ANALYTICAL RESULTS**

Lab Sample ID: **7023557-05**  
Description: **BACT**

Sample Collection Date Time: 02/27/2017 11:44  
Sample Received Date Time: 02/27/2017 13:14

Matrix: Drinking Water

Discharge/Site No: 033

Regulatory ID: KY0980350

**Microbiological Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Colliert 24	02/27/2017 16:55	02/28/2017 16:59	ADH

**Notes for work order 7023557**

- Samples collected by MMLI personnel are done so in accordance with procedures set forth in MMLI field services SOPs.
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identification based on the presumptive evidence of the mass spectra.

**Standard Qualifiers/Acronyms**

MDL	Method Detection Limit
MRL	Minimum Reporting Limit
ND	Not Detected
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
% Rec	Percent Recovery
RPD	Relative Percent Difference
>	Greater than
<	Less than

SAMPLE CATEGORY = TC  
DISTRIBUTION SAMPLING

KENTUCKY DIVISION OF WATER / DRINKING WATER RESULTS  
BACTERIOLOGICAL ANALYSIS REPORT FORM

Rev. 03/01/2012

General Information – This Section To Be Completed By Collector

PWS ID	K Y 0 9 8 0 3 5 0	Compliance Period (MMYYYY)	0 2 2 0 1 7
PWS Name	CITY OF PIKEVILLE	PWS Contact	RALPH VARNEY
PWS Address	306 ISLAND CREEK ROAD	PWS Phone	606-437-5123
		Collection Date (MDDYYYY)	0 2 2 7 2 0 1 7 <small>(All Samples Reported on this Form were Collected on this Date)</small>
		Collector Name	<i>Ralph Varney</i> <small>Signature/Date</small>

General Information – This Section To Be Completed By Lab

Lab ID	00050	Lab Receipt Date (MDDYYYY)	0 2 2 7 2 0 1 7	Total Coliform Analysis Method Code	3 0 9
Lab Analyst	<i>Al Bell</i> <small>Signature/Date</small>	Analysis Date (MDDYYYY)	0 2 2 7 2 0 1 7	E Coli Analysis Method Code	3 0 9
		Lab Supervisor	<i>Al Bell</i> <small>Signature/Date</small>		

Sample Information – This Section To Be Completed By Collector

Sample Type (RT, RP, TG, CO, or SP) (See Key)	Special Sample Reason (A, B, C, D, or E) (See Key)	Replacement Sampler? (Y or Blank)	Location Code (See Instructions)	Repeat Location Code (DN, UP, or OR) (See Key)	Sample Time (24 hr)	Free Chlorine (Required for all disinfectants except Chloramine)	Total Chlorine (Required when disinfectant is Chloramine)
RT			009		1056	1.09	.
RT			115		1112	0.76	.
RT			118		1123	1.43	.
RT			120		1129	1.36	.
RT			033		1144	0.92	.

Analysis Information – This Section To Be Completed By Lab

Lab Sample Number	Analysis Time (24 hr)	Result (Total Coliform Count - or - TNTC - or - CNFG - or - TCNG) (See Key)	Total Coliform (P/A)	E Coli (P/A)	Lab Sample Number of Original Sample (Required for RP, TG, CO, and/or Replacement Samples) (See Instructions)
7023557					
01	1655		A	A	
02	1655		A	A	
03	1655		A	A	
04	1655		A	A	
05	1655		A	A	

BACTERIOLOGICAL ANALYSIS REPORT FORM KEY

The signatories of this form certify by their signatures that collection and analysis of the water sample analyzed and the resulting data hereby submitted, were completed in accordance with the provisions of 401 KAR Chapter 8, specifically including but not limited to 401 KAR 8:200, Section 1 and 401 KAR 8:040; and that the data submitted on this form is a true and accurate report of the results of collection and analysis performed pursuant to the above-referenced regulations. Violations of 401 KAR Chapter 8 are subject to severe penalties prescribed in KRS 224.99-010, up to \$25,000 fine per day per violation and in some cases a violation may subject the violator to prison.

Sample Type:	RT = Routine (For Compliance)	RP = Repeat (For Compliance)	SP = Special (Not for Compliance)
Special Sample Reason: (Only if Sample Type = SP)	TG = Triggered (For Compliance)	CO = Confirmation (For Compliance)	
Repeat Location Code: (Only if Sample Type = RP)	A = Suspected Contamination	B = New Plant, Modification, or Line Extension	C = Treatment Modification
Result:	D = Study/Investigation	E = Line Break, Emergency Repair	
	DN = Downstream	UP = Upstream	OR = Original Site
	TNTC = Too Numerous to Count	CNFG = Confluent Growth	TCNG = Turbid Culture-No Gas



**SAMPLE SUMMARY**

Lab ID	Client Sample ID/Alias	Matrix	Date Collected	Date Received	Sampled By
7023558-01	Fluoride/	Drinking Water	02/27/2017 11:12	02/27/2017 13:14	Ralph Varney
<u>LabNumber</u>	<u>Measurement</u>	<u>Value</u>			
7023558-01	Field Fluoride	0.78			

**ANALYTICAL RESULTS**

Lab Sample ID: **7023558-01**  
Description: **Fluoride**

Sample Collection Date Time: 02/27/2017 11:12  
Sample Received Date Time: 02/27/2017 13:14

Matrix: Drinking Water

Discharge/Site No: 115

Regulatory ID: KY0980350

**Conventional Chemistry Analyses Madisonville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Fluoride	0.79		mg/L	0.20		4500-F C-1997	03/03/2017 09:08	03/03/2017 09:08	JTL

**Notes for work order 7023558**

- Samples collected by MMLI personnel are done so in accordance with procedures set forth in MMLI field services SOPs.
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identification based on the presumptive evidence of the mass spectra.

U Target analyte was analyzed for, but was below detection limit (the value associated with the qualifier is the laboratory method detection limit in our LIMS system).

**Standard Qualifiers/Acronyms**

MDL	Method Detection Limit
MRL	Minimum Reporting Limit
ND	Not Detected
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
% Rec	Percent Recovery
RPD	Relative Percent Difference
>	Greater than
<	Less than

**Certified Analyses included in this Report**

Analyte	Certifications
<b>4500-F C-1997 in Water</b>	
Fluoride	KY Drinking Water Mdv (00030) VA NELAC Mdv (460210) IN Drinking Water Mdv (C-KY-02) IL Drinking Water Mdv (200079)

February, 2017

DMR CALCULATIONS

date	tss cyclone	pH cyclone	tss intake	pH intake	hrs operated
02/01/17					14.00
02/02/17					13.50
02/03/17					13.50
02/04/17					14.50
02/05/17					13.00
02/06/17					12.00
02/07/17					13.00
02/08/17					12.00
02/09/17					12.00
02/10/17					11.75
02/11/17					12.00
02/12/17					11.50
02/13/17					12.00
02/14/17	66	8.04	12	8.03	10.50
02/15/17					12.00
02/16/17					10.50
02/17/17					12.50
02/18/17					11.50
02/19/17					12.00
02/20/17					11.75
02/21/17					11.25
02/22/17					13.25
02/23/17					11.75
02/24/17					12.50
02/25/17					12.50
02/26/17					10.50
02/27/17					12.00
02/28/17					12.50

CYCLONE ESTIMATE	
341.75	Tot Hours
85	times flushed 4 hr cycle
17,088	gallons flushed
0.0171	mg flushed
<b>0.00055</b>	mgd flushed
GRIT PUMP AT RWI	
31	Total pumping hours
372,000	Total gallons pumped
0.3720	Million gallons pumped
<b>0.0120</b>	Million gallons a day

TSS-001	TSS-002
66	12
pH	
Cyclone	Pump
8.04	8.03

100 gpm  
*x 2 minutes*  
*4 times max*  
*806 gal*  
*max*

200 gpm

DMR Copy of Record

Permit

Permit #: KYG640088 Permittee: Pikeville, City of Facility: PIKEVILLE, CITY OF  
 Major: No Permittee Address: 306 Island Creek Rd Facility Location: 118 COLLEGE ST  
 Discharge: 001-1 PIKEVILLE, KY 41501  
 FILTER BACKWASH WATER  
 Permitted Feature: 001 External Outfall  
 Report Dates & Status: Monitoring Period: From 02/01/17 to 02/28/17 DMR Due Date: 03/28/17 Status: NetDMR Validated

Considerations for Form Completion

0011: Monitoring for Total Rec. Aluminum only required if aluminum-based coagulants are used. Monitoring for Total Rec. Iron required if iron-based coagulants are used. Monitoring for Phosphorus required if phosphates used in the distribution system, & if distribution system water is present in the discharge.

Principal Executive Officer

First Name: Jimmy Title: Mayor Telephone: 606-436-0540  
 Last Name: Carter

No Data Indicator (NODI)

Form NODI:

Code	Parameter Name	Monitoring Location	Season #	Param. NODI	Quantity or Loading		Quality or Concentration			# of Ex.	Frequency of Analysis	Sample Type					
					Qualifier 1	Value 1	Qualifier 2	Value 2	Units				Qualifier 3	Value 3			
00400	pH	1 - Effluent Gross	0	--	Sample	=	8	Qualifier 1	Value 1	Qualifier 2	Value 2	Qualifier 3	Value 3	12 - SU	01/30 - Monthly	GR - GRAB	
					Permit Req.	>=	6 MINIMUM					=	9 MAXIMUM	12 - SU	01/30 - Monthly	GR - GRAB	
					Value NODI							=	66	18 - mg/L	01/30 - Monthly	GR - GRAB	
X 00530	Solids, total suspended	1 - Effluent Gross	0	--	Sample	<=	30 30DA AVG					<=	50 DAILY MX	18 - mg/L	01/30 - Monthly	GR - GRAB	
					Permit Req.			Req Mon 30DA AVG					Req Mon DAILY MX	19 - mg/L	01/30 - Monthly	GR - GRAB	
					Value NODI			X - Parameter/Value Not Reported					X - Parameter/Value Not Reported				
00665	Phosphorus, total [as P]	1 - Effluent Gross	0	--	Sample												
					Permit Req.			Req Mon 30DA AVG					Req Mon DAILY MX	19 - mg/L	01/30 - Monthly	GR - GRAB	
					Value NODI			X - Parameter/Value Not Reported					X - Parameter/Value Not Reported				
00980	Iron, total recoverable	1 - Effluent Gross	0	--	Sample												
					Permit Req.			Req Mon 30DA AVG					Req Mon DAILY MX	19 - mg/L	01/30 - Monthly	GR - GRAB	
					Value NODI			X - Parameter/Value Not Reported					X - Parameter/Value Not Reported				
01104	Aluminum, total recoverable	1 - Effluent Gross	0	--	Sample												
					Permit Req.			Req Mon 30DA AVG					Req Mon DAILY MX	19 - mg/L	01/30 - Monthly	GR - GRAB	
					Value NODI			X - Parameter/Value Not Reported					X - Parameter/Value Not Reported				
50050	Flow, in conduit or thru treatment plant	1 - Effluent Gross	0	--	Sample	0.0006	=	0.0008	03 - MGD								
					Permit Req.	Req Mon 30DA AVG		Req Mon DAILY MX	03 - MGD					0	01/30 - Monthly	IN - INSTAN	
					Value NODI											IN - INSTAN	
50060	Chlorine, total residual	1 - Effluent Gross	0	--	Sample												
					Permit Req.	<=	.011 30DA AVG						<=	.018 DAILY MX	18 - mg/L	01/30 - Monthly	GR - GRAB
					Value NODI			X - Parameter/Value Not Reported					X - Parameter/Value Not Reported				

Submission Note

If a parameter row does not contain any values for the Sample nor Effluent Trading, then none of the following fields will be submitted for that row: Units, Number of Excursions, Frequency of Analysis, and Sample Type.

Edit Check Errors

Code	Parameter Name	Monitoring Location	Field	Type	Description	Acknowledge
00530	Solids, total suspended	1 - Effluent Gross	Quality or Concentration Sample Value 2	Soft	The provided sample value is outside the permit limit. (Error Code: 1)	Yes
00530	Solids, total suspended	1 - Effluent Gross	Quality or Concentration Sample Value 3	Soft	The provided sample value is outside the permit limit. (Error Code: 1)	Yes

Comments

VIOLATION CAUSED BY HIGH TURBIDITY IN OUR SOURCE WATER AS THIS IS AN UNTREATED GRIT REMOVAL STREAM TAKEN OUT OF THE RAW SOURCE WATER. I WOULD LIKE TO REQUEST TO STOP THIS MONITORING AS THE STREAM HAS NOT BEEN TREATED IN ANY WAY AND IS RETURNED TO ITS SOURCE.

Attachments

No attachments.

Report Last Saved By

Pikeville, City of

User: vameyralph Date/Time: 2017-04-18 10:57 (Time Zone: -04:00)  
 Name: Ralph Vamey  
 E-Mail: rvamey@umglc.net

**DMR Copy of Record**

**Permit**  
 Permit #: **KYG640068** Permittee: **Pikeville, City of** Facility: **PIKEVILLE, CITY OF**  
 Major: **No** Permittee Address: **306 Island Creek Rd** Facility Location: **118 COLLEGE ST**  
**002** Discharge: **002-1** **PIKEVILLE, KY 41501**  
 Permitted Feature: **Exermal Outfall** Discharge: **FILTER BACKWASH WATER**  
**Report Dates & Status**  
 Monitoring Period: **From 02/01/17 to 02/28/17** DMR Due Date: **03/28/17** Status: **NetDMR Validated**

**Considerations for Form Completion**

0021: Monitoring for Total Rec. Aluminum only required if aluminum-based coagulants are used. Monitoring for Total Rec. Iron required if iron-based coagulants are used. Monitoring for Phosphorus required if phosphates used in the distribution system, & if distribution system water is present in the discharge.

**Principal Executive Officer**

First Name: **JIMMY** Title: **MAYOR** Telephone: **606-437-0540**  
 Last Name: **CARTER**

**No Data Indicator (NOD)**

Form NOD: **-**

Code	Parameter Name	Monitoring Location	Season	Param. NOD	Quantity or Loading				Quality or Concentration			# of Ex.	Frequency of Analysis	Sample Type		
					Qualifier 1	Value 1	Qualifier 2	Value 2	Qualifier 1	Value 1	Qualifier 2				Value 2	Qualifier 3
00400	pH	1 - Effluent Gross	0	-	Sample					=	8	=	8	12 - SU	01/30 - Monthly	GR - GRAB
					Permit Req.					>=	8 MINIMUM			12 - SU	01/30 - Monthly	GR - GRAB
					Value NOD											
00530	Solids, total suspended	1 - Effluent Gross	0	-	Sample					=	12	=	12	19 - mg/L	01/30 - Monthly	GR - GRAB
					Permit Req.					<=	30 30DA AVG	<=	50 DAILY MX	19 - mg/L	01/30 - Monthly	GR - GRAB
					Value NOD											
00685	Phosphorus, total [as P]	1 - Effluent Gross	0	-	Sample									19 - mg/L	01/30 - Monthly	GR - GRAB
					Permit Req.						Req Mon 30DA AVG		Req Mon DAILY MX			
					Value NOD						X - Parameter/Value Not Reported		X - Parameter/Value Not Reported			
00980	Iron, total recoverable	1 - Effluent Gross	0	-	Sample									19 - mg/L	01/30 - Monthly	GR - GRAB
					Permit Req.						Req Mon 30DA AVG		Req Mon DAILY MX			
					Value NOD						X - Parameter/Value Not Reported		X - Parameter/Value Not Reported			
01104	Aluminum, total recoverable	1 - Effluent Gross	0	-	Sample									19 - mg/L	01/30 - Monthly	GR - GRAB
					Permit Req.						Req Mon 30DA AVG		Req Mon DAILY MX			
					Value NOD						X - Parameter/Value Not Reported		X - Parameter/Value Not Reported			
50050	Flow, in conduit or thru treatment plant	1 - Effluent Gross	0	-	Sample									0	01/30 - Monthly	IN - INSTAN
					Permit Req.						Req Mon 30DA AVG		Req Mon DAILY MX			
					Value NOD						X - Parameter/Value Not Reported		X - Parameter/Value Not Reported			
50080	Chlorine, total residual	1 - Effluent Gross	0	-	Sample									19 - mg/L	01/30 - Monthly	GR - GRAB
					Permit Req.						<=	.011 30DA AVG	<=	.019 DAILY MX		
					Value NOD						X - Parameter/Value Not Reported		X - Parameter/Value Not Reported			

**Submission Note**

If a parameter row does not contain any values for the Sample nor Effluent Trading, then none of the following fields will be submitted for that row: Units, Number of Excursions, Frequency of Analysis, and Sample Type.

**Edit Check Errors**

No errors.

**Comments**

THIS STREAM IS AN UNTREATED GRIT REMOVAL STREAM TAKEN FROM THE RAW SOURCE WATER. AS THIS IS UNTREATED AND THIS OUTFALL DOES NOT EVEN COME ABOVE GROUND UNTIL DISCHARGE I WOULD LIKE TO REQUEST THAT WE STOP THIS MONITORING AND REPORTING.

**Attachments**

No attachments.

**Report Last Saved By**

Pikeville, City of

User: **varneyralph** Date/Time: **2017-04-18 10:57 (Time Zone: -04:00)**  
 Name: **Ralph Varney**  
 E-Mail: **rvarney@umgllc.net**

KENTUCKY DIVISION OF WATER

Revised 7/1/06

DRINKING WATER BRANCH

MONTHLY OPERATION REPORT (MOR)--ALL WATER SYSTEMS

MONTH & YEAR OF: XXXXXXXXXX

DEP Form 4012--Revised 07/2006

PWS ID :	<u>0980350</u>	PLANT ID:	<u>A</u>	PLANT NAME:	<u>PIKEVILLE WATER PLANT</u>
PWS NAME:	<u>CITY OF PIKEVILLE</u>			PLANT CLASS:	<u>IVA</u> DIST. CLASS: <u>II</u>
AGENCY INTEREST (AI):	<u>3691</u>			DATE MAILED:	
SOURCE NAME:	<u>LEVISA FORK OF THE BIG SANDY RIVER</u>			COUNTY:	<u>PIKE</u>

	OPERATOR(S) RESPONSIBLE / IN-CHARGE	CLASS	CERTIFICATION NUMBER
WTP SHIFT 1:	<u>RALPH VARNEY</u>	<u>IVA</u>	<u>645</u>
WTP SHIFT 2:	<u>GREG PENNINGTON</u>	<u>IVA</u>	<u>777</u>
WTP SHIFT 3:	<u>DEMPSEY MILES</u>	<u>IVA</u>	<u>1549</u>
DISTRIBUTION:	<u>DONNIE SLONE</u>	<u>IID</u>	<u>2236</u>

THIS REPORT MUST BE RECEIVED BY THE DIVISION OF WATER AND APPLICABLE FIELD OFFICE  
NO LATER THAN 10 DAYS AFTER THE END OF THE MONTH.

**TREATMENT PLANTS COMPLETE:**

1. DESIGN CAPACITY (gpm):	<u>4400</u>
2. TYPE OF FILTRATION USED:	<u>DUAL MEDIA RAPID SAND</u>
3. DESIGN FILTRATION RATE (gpm/sq. ft.):	<u>3</u>
4. PERCENT BACKWASH WATER USED:	<u>2.1</u>
5. DATE FLOCCULATION BASIN(S) LAST CLEANED:	<u>NOVEMBER 2015</u>
6. DATE SETTLING BASIN(S) LAST CLEANED:	<u>NOVEMBER 2015</u>

I certify under penalty of law that I have personally examined and am familiar with the information submitted herein. Based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. See KRS 224.99-010 and 401 KAR 8:020. (Penalties under this statute and regulation may include fines up to \$25,000 per violation or by imprisonment for not more than one year, or both).

\_\_\_\_\_  
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

\_\_\_\_\_  
DATE

KENTUCKY DIVISION OF WATER - DRINKING WATER BRANCH  
 WATER TREATMENT PLANT MONTHLY OPERATION REPORT

PWS ID : 0980350

PLANT ID: A

REPORT MONTH/YEAR: March, 2017

PAGE 1 OF 11

DAY	RAW WATER TREATED GALLONS	HOURS PLANT OPERATED	COAGULANT		COAGULANT		pH ADJUSTMENT		DISINFECTANT		DISINFECTANT	
			LBS	PPM	LBS	PPM	Pre		Pre		Post	
							LBS	PPM	LBS	PPM	LBS	PPM
	2873000	11.25	618	25.8					28	1.15	39	1.61
	3038000	12.00	801	31.6					29	1.13	43	1.69
	2894000	11.50	731	30.3					39	1.60	40	1.64
	3151000	12.25	824	31.4					34	1.30	40	1.51
	3015000	11.75	721	28.7					33	1.31	43	1.71
	3117000	12.25	639	24.6					37	1.44	41	1.57
	3049000	12.00	618	24.3					28	1.08	39	1.51
	3157000	12.50	618	23.5					33	1.25	43	1.63
	3104000	12.25	624	24.1					31	1.19	40	1.53
	2979000	12.00	618	24.9					29	1.15	40	1.59
	3086000	12.00	618	24.0					28	1.07	39	1.50
	2774000	11.00	566	24.5					28	1.19	35	1.52
	2755000	11.00	587	25.5					26	1.15	35	1.53
	3308000	13.00	680	24.6					31	1.12	43	1.55
	2941000	11.25	618	25.2					29	1.17	37	1.52
	2920000	11.50	634	26.0					28	1.13	39	1.58
	3050000	12.25	618	24.3					34	1.34	32	1.25
	3342000	13.00	721	25.9					33	1.18	43	1.54
	2871000	11.50	618	25.8					26	1.10	35	1.47
	3108000	12.50	669	25.8					31	1.19	42	1.61
	2844000	11.00	597	25.2					28	1.16	39	1.62
	3591000	14.00	742	24.8					22	0.73	44	1.47
	2850000	11.50	593	24.9					45	1.90	41	1.71
	3158000	12.75	700	26.6					29	1.09	43	1.63
	3375000	13.50	721	25.6					33	1.17	44	1.56
	2949000	12.00	618	25.1					28	1.12	41	1.65
	2991000	12.00	639	25.6					26	1.06	43	1.72
	3171000	12.75	659	24.9					30	1.12	41	1.54
	3491000	13.75	742	25.5					37	1.28	53	1.81
	2949000	11.75	624	25.4					37	1.52	43	1.74
	3159000	12.75	659	25.0					29	1.09	44	1.67
TOT	95060000		20435						955		1258	
AVE	3066452		659	26.45					31	2.69	41	1.85
MAX	3591000		824									
NUMBER DAYS IN OPERATION												

KENTUCKY DIVISION OF WATER - DRINKING WATER BRANCH  
 WATER TREATMENT PLANT MONTHLY OPERATION REPORT

PWS ID : 0980350  
 PLANT ID: A

REPORT MONTH/YEAR: Mar, 2017

PAGE 2 OF 11

DAY	DISINFECTANT		FLUORIDE		CARBON		pH ADJUSTMENT		KMnO4		CORROSION INHIBITOR			
	LBS	PPM	LBS	PPM	LBS	PPM	LBS	PPM	LBS	PPM	LBS	PPM	LBS	PPM
			17.1	0.71										
			14.9	0.59										
			12.1	0.50										
			18.0	0.68										
			18.0	0.72										
			18.0	0.69										
			18.0	0.71										
			18.0	0.68										
			13.0	0.50										
			15.8	0.64										
			18.0	0.70										
			18.0	0.78										
			12.6	0.55										
			18.0	0.65										
			15.3	0.62										
			15.3	0.63										
			18.0	0.71										
			18.0	0.65										
			18.0	0.75										
			18.0	0.69										
			12.6	0.53										
			19.8	0.66										
			17.8	0.75										
			16.7	0.63										
			18.0	0.64										
			18.0	0.73										
			17.8	0.71										
			15.3	0.58										
			20.7	0.71										
			14.4	0.59										
			18.0	0.68										
<b>TOTAL</b>			521.2											
<b>AVERAGE</b>			16.8	0.90										

KENTUCKY DIVISION OF WATER - DRINKING WATER BRANCH  
 WATER TREATMENT PLANT MONTHLY OPERATION REPORT

PWS ID : 0980350  
 PLANT ID : A

REPORT MONTH/YEAR: Mar, 2017

PAGE 3 OF 11

DAY	pH			TOTAL ALKALINITY		TOTAL HARDNESS		CHLORINE RESIDUAL				TURBIDITY (NTU)		
	RAW	TOP OF FILTER	TAP	RAW	TAP	RAW	TAP	TOP OF FILTER		PLANT TAP		RAW	SETTLED WATER	PLANT TAP
								TOTAL	FREE	TOTAL	FREE			
	7.95	7.89	7.81	98	102	282	286		0.43		1.58	16.8	1.25	0.04
	8.01	7.84	7.80	56	70	148	162		0.16		1.32	92.0	1.78	0.05
	7.92	7.81	7.73	68	72	206	214		0.51		1.32	27.6	1.53	0.05
	8.11	7.75	7.72	74	80	210	220		0.58		1.56	33.0	1.60	0.04
	7.92	7.81	7.77	60	76	168	172		0.66		1.44	15.0	1.65	0.04
	7.98	7.82	7.67	68	66	180	172		0.80		1.50	10.9	1.59	0.05
	7.99	7.86	7.68	66	76	220	188		0.62		1.63	8.1	1.34	0.09
	7.97	7.88	7.77	64	76	208	210		0.56		1.48	8.6	1.17	0.09
	8.01	7.89	7.74	86	74	188	186		0.57		1.58	7.8	1.35	0.08
	8.06	7.93	7.75	74	70	246	242		0.64		1.52	7.4	1.33	0.08
	8.04	7.94	7.80	76	82	200	208		0.57		1.62	5.6	0.94	0.09
	8.03	7.94	7.83	78	80	220	220		0.62		1.70	5.0	1.00	0.09
	8.08	7.97	7.82	88	76	218	222		0.66		1.65	5.3	1.13	0.07
	8.07	7.98	7.82	84	86	230	218		0.63		1.64	4.9	1.03	0.06
	8.02	7.97	7.84	88	80	220	208		0.62		1.46	3.9	1.06	0.07
	8.12	7.96	7.83	86	82	228	240		0.66		1.62	3.7	1.11	0.09
	8.08	7.95	7.80	80	88	220	244		0.63		1.57	3.3	1.19	0.10
	8.26	7.96	7.78	82	86	220	236		0.44		1.48	4.1	1.03	0.08
	8.17	7.96	7.89	82	84	228	242		0.54		1.56	4.4	1.01	0.08
	8.19	8.04	7.87	80	88	232	224		0.62		1.39	3.1	0.85	0.08
	8.14	7.98	7.82	78	86	232	246		0.52		1.55	3.8	0.87	0.10
	8.07	7.98	7.87	128	84	228	246		0.49		1.36	4.4	0.82	0.09
	8.18	8.03	7.83	84	80	224	240		0.47		1.41	3.6	1.01	0.11
	8.15	7.93	7.80	84	86	214	222		0.51		1.54	3.4	0.83	0.09
	8.06	8.00	7.88	80	98	236	240		0.45		1.34	4.6	0.85	0.07
	8.06	7.98	7.82	82	92	228	232		0.42		1.41	4.0	0.69	0.07
	7.94	8.00	7.83	102	92	226	218		0.36		1.35	4.8	0.79	0.05
	8.04	7.87	7.80	106	98	232	228		0.50		1.43	22.9	0.86	0.05
	8.07	7.95	7.97	80	96	234	240		0.33		1.62	6.2	0.81	0.05
	8.13	8.00	7.84	84	88	234	222		0.48		1.33	4.6	0.81	0.05
	8.03	7.95	7.83	92	90	226	222		0.34		1.55	5.8	0.90	0.06
<b>AVE</b>	8.06	7.93	7.81	82	83	219	222		0.53		1.50	10.9	1.10	0.07

KENTUCKY DIVISION OF WATER  
 DRINKING WATER BRANCH  
 WATER TREATMENT PLANT MONTHLY OPERATION REPORT

PWS ID : 0980350  
 PLANT ID: A  
 AGENCY INTEREST: 3691  
 REPORT MONTH/YEAR: Mar, 2017

AREA-WIDE OPTIMIZATION PROGRAM TURBIDITY DATA  
 COPY PAGE AS NEEDED

DAY	RAW DAILY MAX	SEDIMENTATION BASIN EFFLUENT DAILY MAXIMUM						INDIVIDUAL FILTER EFFLUENT DAILY MAXIMUM							CFE DAILY MAX
		#1	#2	#3	#4	#5	#6	#1	#2	#3	#4	#5	#6	#7	
	26.3	1.15	1.06					0.17	0.06	0.03	0.09	0.06			0.05
	116.0	1.92	1.61					0.06	0.06	0.04	0.09	0.12			0.05
	29.1	1.79	1.60					0.05	0.09	0.04	0.08	0.05			0.04
	36.1	1.71	1.56					0.09	0.05	0.09	0.12	0.04			0.04
	16.2	1.73	1.58					0.08	0.05	0.03	0.21	0.04			0.06
	12.5	1.68	1.56					0.22	0.05	0.02	0.07	0.05			0.06
	8.6	1.61	1.45					0.33	0.06	0.02	0.11	0.12			0.05
	9.1	1.41	1.10					0.46	0.13	0.03	0.15	0.06			0.07
	7.8	1.54	1.39					0.07	0.10	0.06	0.24	0.04			0.06
	7.8	1.21	1.11					0.13	0.14	0.11	0.34	0.05			0.10
	6.4	1.10	0.94					0.78	0.17	0.57	0.09	0.16			0.23
	5.4	1.10	0.86					0.55	0.05	0.42	0.12	0.20			0.12
	6.6	1.19	0.96					0.07	0.05	0.28	0.18	0.18			0.09
	5.0	1.06	0.90					0.14	0.08	0.03	0.51	0.33			0.10
	4.4	1.20	1.13					0.36	0.23	0.12	1.05	0.05			0.21
	4.3	1.18	1.04					0.14	0.16	0.08	0.45	0.06			0.10
	3.6	1.22	1.08					0.35	0.27	0.20	0.09	0.17			0.13
	4.3	1.11	1.00					0.43	0.06	0.24	0.17	0.25			0.19
	4.8	1.13	1.00					0.84	0.05	0.03	0.33	0.39			0.18
	3.5	0.98	0.83					0.31	0.07	0.02	0.30	0.05			0.11
	3.9	0.97	0.81					0.07	0.10	0.02	0.33	0.05			0.06
	4.9	0.92	0.76					0.12	0.14	0.04	0.43	0.07			0.11
	3.8	0.97	0.79					0.26	0.21	0.10	0.56	0.08			0.16
	4.0	0.88	0.76					0.31	0.19	0.13	0.14	0.10			0.10
	5.5	0.90	0.82					0.47	0.06	0.14	0.14	0.11			0.08
	4.5	0.76	0.50					0.07	0.05	0.11	0.09	0.10			0.05
	4.9	0.82	0.70					0.05	0.06	0.03	0.09	0.10			0.04
	39.2	0.94	0.89					0.10	0.10	0.09	0.21	0.07			0.06
	6.3	0.89	0.77					0.07	0.09	0.04	0.09	0.06			0.08
	4.8	0.88	0.83					0.07	0.05	0.04	0.10	0.06			0.03
	6.7	0.80	0.77					0.14	0.05	0.04	0.11	0.06			0.04
<b>AVE</b>	13.1	1.19	1.04					0.24	0.10	0.10	0.23	0.11			0.09

KENTUCKY DIVISION OF WATER - DRINKING WATER BRANCH  
 WATER TREATMENT PLANT MONTHLY OPERATION REPORT

PWSID: 0980350  
 PLANT ID: A

REPORT MONTH/YEAR: Mar, 2017

\*Please answer Y/N question below this chart.

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DAY	FLUORIDE		IRON		MANGANESE				Lowest Daily Cl Res	RAINFALL	WATER
	RAW	TAP	RAW	TAP	RAW	TAP	RAW	TAP	Plant Tap On-Line Cl Analyzer		INCHES
									FREE		F°/C°
	0.12	0.83							1.58	0.79	11.0
	0.11	0.77							1.32		11.0
	0.12	0.70							1.32		10.0
	0.12	0.84							1.56		10.0
	0.12	0.76							1.44		9.0
	0.12	0.74							1.50		10.0
	0.07	0.62							1.63		10.5
	0.08	0.63							1.48	0.50	11.0
	0.08	0.61							1.58		11.0
	0.14	0.76							1.52		11.0
	0.10	0.74							1.62		10.0
	0.11	0.75							1.70		9.5
	0.11	0.61							1.65		10.0
	0.12	0.84							1.64		10.0
	0.13	0.80							1.46		9.0
	0.12	0.74							1.62		7.0
	0.13	0.77							1.57	0.25	8.0
	0.10	0.70							1.48		8.0
	0.13	0.80							1.56		9.0
	0.11	0.74							1.39	0.28	10.0
	0.09	0.66							1.55		10.0
	0.09	0.63							1.36		10.5
	0.09	0.60							1.41		10.0
	0.12	0.72							1.54		11.0
	0.09	0.70							1.34		12.5
	0.09	0.72							1.41		14.0
	0.09	0.70							1.35	0.23	14.0
	0.12	0.80							1.43	0.50	15.0
	0.12	0.80							1.62		15.0
	0.11	0.72							1.33		15.0
	0.12	0.76							1.55	0.44	16.0
<b>AVE</b>	0.11	0.73									10.9

	1.32	
Number of readings	31	2.99
For Free Cl, # < 0.2 mg/L	0	
For Chloramines, # < 0.5 mg/L		

Disinfectant Chloramines? (Y/N)

KENTUCKY DIVISION OF WATER - DRINKING WATER BRANCH  
 WATER TREATMENT PLANT MONTHLY OPERATION REPORT

PWS ID: 0980350  
 PLANT ID: A

REPORT MONTH/YEAR: Mar, 2017

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DAY	TOTAL WASH WATER GALLONS	No: 1		No: 2		No: 3		No: 4		No: 5	
		AREA (ft2)	363								
		WASH GALLONS	FILT RUN HRS								
	88,825	88,825	73.00								
	65,360									65,360	60.50
	65,920			65,920	59.00						
	73,530					73,530	62.25				
	80,590							80,590	60.25		
	81,000									81,000	38.75
	89,650	89,650	82.00								
	79,900							79,900	60.25		
	81,200			81,200	96.50						
	65,560	65,560	51.25								
	57,400					57,400	104.25				
	97,800									97,800	82.00
	74,385	74,385	30.75								
	80,800							80,800	69.25		
	72,720			72,720	70.25						
	74,196					74,196	63.50				
	81,820									81,820	61.75
	66,000	66,000	61.75								
	86,680							86,680	84.00		
	70,749			70,749	84.50						
	82,200	82,200	62.50								
	65,640					65,640	95.25				
	73,440									73,440	97.25
	80,700							80,700	61.75		
	79,980			79,980	66.25						
	72,765	72,765	74.75								
TOT	1,988,810	539,385	436.0	370,569	376.5	270,766	325.3	408,670	335.5	399,420	340.3
AVE	76,493	77,055	62.3	74,114	75.3	67,692	81.3	81,734	67.1	79,884	68.1

COPY AS NEEDED

KENTUCKY DIVISION OF WATER - DRINKING WATER BRANCH  
 WATER TREATMENT PLANT MONTHLY OPERATION REPORT

PWS ID : 0980350  
 PLANT ID: A

REPORT MONTH/YEAR: Mar, 2017

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DAY	CHEMICALS ADDED		TEST RESULTS									
	CHLORINE BOOSTER LBS	CHLORINE BOOSTER LBS	TOTAL (T) AND FREE (F) CHLORINE RESIDUAL (ppm)									
			NORTH		SOUTH		EAST		WEST			
			T	F	T	F	T	F	T	F		
				1.12								
							1.18					
									1.34			
											1.25	
				0.81								
							0.98					
									1.25			
											0.88	
				1.06								
							1.00					
									1.10			
											0.79	
				0.87								
							1.16					
									1.24			
											1.03	
				1.00								
							1.21					
									0.81			
											0.98	
				1.16								
							1.34					
									1.20			
											1.02	
				1.09								
							0.81					
									0.77			
				0.99							0.86	
							0.91					
									1.05			
AVE			AVERAGE	1.01		1.07			1.10		0.97	
TOT			TOT MIN									
			FREE MIN	0.81		0.81			0.77		0.79	
Total # Chlorine Samples				8		8			8		7	
# Less than 0.2 mg/L/0.5 mg/L				0		0			0		0	
Number of Free Residuals				31	Minimum Monthly Total Residual				NA			
Number of Total Residuals				0	Minimum Monthly Free Residual				0.77			
Total # Less than 0.2 mg/L				0	Disinfectant Chloramines? (Y/N)				N			
					Number of days of operation?				31			

KENTUCKY DIVISION OF WATER - DRINKING WATER BRANCH  
 WATER TREATMENT PLANT MONTHLY OPERATION REPORT

PWS ID : 0980350  
 PLANT ID: A

TURBIDITY REPORT

Report Period (MM/YYYY): Mar, 2017

PWS Name: CITY OF PIKEVILLE

PAGE:  
8 OF 11

DAY									
	11.3	3		0.04	0.04	0.04	0.04		0.04
	12.0	3		0.06	0.04	0.05	0.05		0.06
	11.5	3		0.05	0.04	0.05	0.05		0.05
	12.3	4		0.04	0.05	0.04	0.04	0.04	0.05
	11.8	3		0.05	0.04	0.04	0.04	0.04	0.05
	12.3	4		0.05	0.05	0.05	0.06		0.06
	12.0	3		0.07	0.08	0.09	0.10		0.10
	12.5	4		0.08	0.08	0.09	0.10		0.10
	12.3	4		0.08	0.07	0.08	0.08		0.08
	12.0	3		0.06	0.08	0.09	0.08		0.09
	12.0	3		0.10	0.08	0.09	0.10		0.10
	11.0	3		0.09	0.08	0.09	0.11		0.11
	11.0	3		0.07	0.07	0.08	0.07		0.08
	13.0	4		0.06	0.05	0.07	0.06		0.07
	11.3	3		0.05	0.07	0.06	0.08		0.08
	11.5	3		0.09	0.10	0.09	0.08		0.10
	12.3	4		0.08	0.09	0.11	0.10		0.11
	13.0	4		0.09	0.08	0.07	0.07		0.09
	11.5	3		0.09	0.07	0.06	0.10		0.10
	12.5	4		0.07	0.08	0.09	0.09		0.09
	11.0	3		0.10	0.08	0.11	0.09		0.11
	14.0	4		0.09	0.10	0.09	0.09		0.10
	11.5	3		0.11	0.12	0.11	0.09		0.12
	12.8	4		0.09	0.10	0.10	0.08		0.10
	13.5	4		0.07	0.07	0.07	0.07		0.07
	12.0	3		0.08	0.06	0.06	0.06		0.08
	12.0	3		0.05	0.05	0.05	0.04		0.05
	12.8	4		0.04	0.04	0.05	0.05		0.05
	13.8	4		0.04	0.04	0.04	0.06		0.06
	11.8	3		0.06	0.04	0.05	0.06		0.06
	12.8	4		0.06	0.05	0.06	0.06		0.06
Total	376.5	107		TOTAL # OF TURBIDITY SAMPLES TAKEN --				126	0.12

ARE YOU USING EITHER CONVENTIONAL or DIRECT FILTRATION? (Y/N)

(Any type of filtration besides slow sand)

Number of samples exceeding ----> 0.1 NTU 6 0.3 NTU 0 1 NTU 0

For slow sand filtration, the number of samples exceeding ----> 1 NTU 5 NTU

\*NOTE: The "Number of Turbidity Samples Required" is the number of hours the plant operated divided by 4 rounded up to the next whole number.

I certify that the above turbidity readings were taken every 4 hours during plant operation and in the time frames noted above.

Signature of Principal Executive Officer or Authorized Agent

Date

KENTUCKY DIVISION OF WATER / DRINKING WATER BRANCH  
Monthly Operating Report (MOR) Plant Summary Form

PWS ID : 0980350

Monitoring Period (MM/YYYY): Mar, 2017

**NOTE: COMPLETE ALL APPLICABLE FIELDS!!! NOT ALL OF THE FIELDS ARE  
PRE-POPULATED FOR YOU!!!**

APPLICABLE TO ALL PLANTS			
PLANT ID:	<u>A</u>	TOTAL WATER TREATED (gallons)	<u>95,060,000</u>
PLANT NAME:	<u>PIKEVILLE WATER PLANT</u>	AVE. DAILY PRODUCTION (gallons)	<u>3,066,452</u>
AGENCY INTEREST:	<u>3691</u>	MAXIMUM PUMPAGE (gallons per day)	<u>3,591,000</u>

APPLICABLE TO ALL PLANTS WITH FILTRATION			
ANALYTE CODE	<u>0100</u>		
Was each filter monitored continuously? (Y/N).....			<u>Y</u>
Were measurements recorded every 15 minutes? (Y/N).....			<u>Y</u>
Was there a failure of the continuous monitoring equipment? (Y/N).....			<u>N</u>
If Yes, (1) were individual filter effluent turbidity grab samples collected every four hours of operation? (Y/N).....			
(2) was the continuous monitoring equipment repaired within 5 working days? (Y/N).....			
Was individual filter level greater than 1.0 NTU in two consecutive measurements? (Y/N).....			<u>N</u>
Was individual filter level < 0.5 NTU in two consecutive measurements after online more than 4 hours? (Y/N).....			<u>N</u>
Was individual filter level < 1.0 NTU in two consecutive measurements in three consecutive months? (Y/N).....			<u>N</u>
Was individual filter level greater than 2.0 NTU in two consecutive measurements in two consecutive months? (Y/N)			<u>N</u>
<b>If any of the last 4 boxes are YES, fill out the Individual Filter Turbidity Sheet and submit with MOR</b>			

APPLICABLE TO ALL PLANTS WITH FILTRATION		APPLICABLE TO ALL PLANTS	
ANALYTE CODE	<u>0100</u>	ANALYTE CODE	<u>0999</u>
Number of hours of plant operation.....	<u>376.5</u>	Number of days of plant operation.....	<u>31</u>
Were samples taken every 4 hrs of plant operation? (Y/N)	<u>Y</u>	Were samples taken each day of operation? (Y/N)	<u>Y</u>
Number of samples taken.....	<u>126</u>	Number of lowest chlorine samples recorded .....	<u>31</u>
Highest single turbidity reading .....	<u>0.12</u>	Lowest single chlorine reading .....	<u>1.32</u>
For all filtration except slow sand filtration:		If less than required:	
Number of samples exceeded 0.1 NTU .....	<u>6</u>	Was residual restored within 4 hrs of plant operation?	
Number of samples exceeded 0.3 NTU .....	<u>0</u>	Free chlorine (for all disinfectants except chloramine):	
Number of samples exceeded 1.0 NTU .....	<u>0</u>	Number of samples under 0.2 mg/L .....	<u>0</u>
When filtration is slow sand filtration:		Total Chlorine (when disinfectant is chloramine):	
Number of samples exceeded 1 NTU .....		Number of samples under 0.5 mg/L .....	
Number of samples exceeded 5 NTU .....			

APPLICABLE TO PLANTS UTILIZING CHLORINE DIOXIDE		APPLICABLE TO PLANTS USING CHLORINE DIOXIDE	
ANALYTE CODE	<u>1008</u>	ANALYTE CODE	<u>1009</u>
Number of days of plant operation.....	<u>31</u>	Number of days of plant operation.....	<u>31</u>
Were samples taken each day of operation? (Y/N).....		Were samples taken each day of operation? (Y/N)	
Number of samples taken .....	<u>###</u>	Number of samples taken .....	<u>###</u>
Highest single chlorine dioxide reading .....	<u>###</u>	Highest single chlorite reading .....	<u>###</u>
Number of chlorine dioxide samples exceeded 0.8 mg/L ...	<u>###</u>	Number of chlorite samples exceeded 1 mg/L .....	<u>###</u>

I certify under penalty of law that I have personally examined and am familiar with the information submitted herein. Based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. See KRS 224.99-010 and 401 KAR 8:020. (Penalties under this statute and regulation may include fines up to \$25,000 per violation or by imprisonment for not more than one year, or both).

\_\_\_\_\_  
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

\_\_\_\_\_  
DATE

KENTUCKY DIVISION OF WATER / DRINKING WATER BRANCH  
Monthly Operating Report (MOR) Plant Summary Form

PWS ID : 0980350

Monitoring Period (MM/YYYY): Mar, 2017

**NOTE: COMPLETE ALL APPLICABLE FIELDS!!! NOT ALL OF THE FIELDS ARE  
PRE-POPULATED FOR YOU!!!**

APPLICABLE TO ALL PLANTS			
PLANT ID:	<u>A</u>	TOTAL WATER TREATED (gallons)	<u>95,060,000</u>
PLANT NAME:	<u>PIKEVILLE WATER PLANT</u>	AVE. DAILY PRODUCTION (gallons)	<u>3,066,452</u>
AGENCY INTEREST:	<u>3691</u>	MAXIMUM PUMPAGE (gallons per day)	<u>3,591,000</u>

APPLICABLE TO ALL PLANTS WITH FILTRATION	
ANALYTE CODE	<u>0100</u>
Was each filter monitored continuously? (Y/N).....	<input type="checkbox"/> Y
Were measurements recorded every 15 minutes? (Y/N).....	<input type="checkbox"/> Y
Was there a failure of the continuous monitoring equipment? (Y/N).....	<input type="checkbox"/> N
If Yes, (1) were individual filter effluent turbidity grab samples collected every four hours of operation? (Y/N).....	<input type="checkbox"/>
(2) was the continuously monitoring equipment repaired within 5 working days? (Y/N).....	<input type="checkbox"/>
Was individual filter level greater than 1.0 NTU in two consecutive measurements? (Y/N).....	<input type="checkbox"/> N
Was individual filter level < 0.5 NTU in two consecutive measurements after online more than 4 hours? (Y/N).....	<input type="checkbox"/> N
Was individual filter level < 1.0 NTU in two consecutive measurements in three consecutive months? (Y/N).....	<input type="checkbox"/> N
Was individual filter level greater than 2.0 NTU in two consecutive measurements in two consecutive months? (Y/N)	<input type="checkbox"/> N
<b>If any of the last 4 boxes are YES, fill out the Individual Filter Turbidity Sheet and submit with MOR</b>	

APPLICABLE TO ALL PLANTS WITH FILTRATION		APPLICABLE TO ALL PLANTS	
ANALYTE CODE	<u>0100</u>	ANALYTE CODE	<u>0999</u>
Number of hours of plant operation.....	<u>376.5</u>	Number of days of plant operation.....	<u>31</u>
Were samples taken every 4 hrs of plant operation? (Y/N)	<input type="checkbox"/> Y	Were samples taken each day of operation? (Y/N)	<input type="checkbox"/> Y
Number of samples taken.....	<u>126</u>	Number of lowest chlorine samples recorded .....	<u>31</u>
Highest single turbidity reading .....	<u>0.12</u>	Lowest single chlorine reading .....	<u>1.32</u>
For all filtration except slow sand filtration:		If less than required:	
Number of samples exceeded 0.1 NTU .....	<u>6</u>	Was residual restored within 4 hrs of plant operation?	<input type="checkbox"/>
Number of samples exceeded 0.3 NTU .....	<u>0</u>	Free chlorine (for all disinfectants except chloramine):	
Number of samples exceeded 1.0 NTU .....	<u>0</u>	Number of samples under 0.2 mg/L .....	<u>0</u>
When filtration is slow sand filtration:		Total Chlorine (when disinfectant is chloramine):	
Number of samples exceeded 1 NTU .....	<input type="checkbox"/>	Number of samples under 0.5 mg/L .....	<input type="checkbox"/>
Number of samples exceeded 5 NTU .....	<input type="checkbox"/>		

APPLICABLE TO PLANTS UTILIZING CHLORINE DIOXIDE		APPLICABLE TO PLANTS USING CHLORINE DIOXIDE	
ANALYTE CODE	<u>1008</u>	ANALYTE CODE	<u>1009</u>
Number of days of plant operation.....	<u>31</u>	Number of days of plant operation.....	<u>31</u>
Were samples taken each day of operation? (Y/N).....	<input type="checkbox"/>	Were samples taken each day of operation? (Y/N)	<input type="checkbox"/>
Number of samples taken .....	<u>####</u>	Number of samples taken .....	<u>####</u>
Highest single chlorine dioxide reading .....	<u>####</u>	Highest single chlorite reading .....	<u>####</u>
Number of chlorine dioxide samples exceeded 0.8 mg/L ...	<u>####</u>	Number of chlorite samples exceeded 1 mg/L .....	<u>####</u>

I certify under penalty of law that I have personally examined and am familiar with the information submitted herein. Based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. See KRS 224.99-010 and 401 KAR 8:020. (Penalties under this statute and regulation may include fines up to \$25,000 per violation or by imprisonment for not more than one year, or both).

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT \_\_\_\_\_

DATE \_\_\_\_\_



	FLOW TO DIST	START C. WELL	Settling Basin Turbidity						Sludge Hauled	Spent B/W Return	DUP pH TAP
			MID - 4	4A - 8AM	8AM - 12N	12N - 4PM	4PM - 8PM	8PM - 12M			
03/01/17	3.0347	8.0		0.98	1.04	1.10	2.00			133,000	7.82
03/02/17	3.0560	4.8		1.88	1.86	1.76	1.62			141,000	7.79
03/03/17	2.8193	5.4		1.66	1.22	1.40	1.70			14,000	7.72
03/04/17	3.0317	5.8		1.76	1.42	1.64	1.53	1.40		149,000	7.73
03/05/17	3.0369	9.0		1.38	1.41	1.66	1.93	1.86		112,000	7.78
03/06/17	3.2181	7.8		1.69	1.37	1.67	1.62			84,000	7.68
03/07/17	3.1180	6.0		1.21	1.11	1.31	1.53			169,000	7.68
03/08/17	3.1121	5.4		1.13	1.25	1.26	0.98			150,000	7.75
03/09/17	3.2387	6.6		1.05	1.15	1.63	1.46			55,000	7.73
03/10/17	2.9958	4.4		1.43	1.48	1.41	1.16			154,000	7.75
03/11/17	2.8562	4.4		0.82	0.96	1.02	0.88			174,000	7.81
03/12/17	2.8746	8.8		0.88	1.06	0.98	1.10			89,000	7.83
03/13/17	2.7908	6.0		1.17	1.08	1.24	1.08			182,000	7.82
03/14/17	3.1580	6.6		1.10	1.27	0.93	0.83			149,000	7.82
03/15/17	3.0542	9.4		0.88	1.05	1.16	1.03			124,000	7.84
03/16/17	3.0967	7.2		1.12	1.16	1.03	1.11			148,000	7.83
03/17/17	3.0146	4.4		1.10	1.17	1.39	1.15			150,000	7.80
03/18/17	3.2000	5.6		1.13	0.98	1.06	0.92			151,000	7.78
03/19/17	2.9803	8.0		1.06	0.96	1.06	0.92			162,000	7.89
03/20/17	3.1149	6.4		0.92	0.68	0.86	0.90			141,000	7.86
03/21/17	2.9892	6.6		0.80	0.89	0.89	0.88			58,000	7.81
03/22/17	3.5224	4.4		0.69	0.85	0.84	0.88			58,000	7.88
03/23/17	2.9472	6.0		1.00	1.10	1.21	0.88			222,000	7.83
03/24/17	3.1638	4.4		0.85	0.88	0.76	0.82			164,000	7.81
03/25/17	3.2280	4.8		1.18	0.72	0.86	0.64			164,000	7.88
03/26/17	2.9320	7.6		0.74	0.71	0.63	0.73			155,000	7.82
03/27/17	3.0594	8.0		0.78	0.80	0.83	0.76			147,000	7.83
03/28/17	3.1870	7.2		0.80	0.72	0.96	0.92			261,000	7.80
03/29/17	3.5203	7.6		0.91	0.68	0.83	0.78			158,000	7.98
03/30/17	3.1122	7.0		0.82	0.76	0.78	0.86			71,000	7.84
03/31/17	3.0420	4.4		1.22	0.91	0.78	0.78			154,000	7.83
Ave	3.0808	6.4		1.10	1.05	1.13	1.11	1.63		136,871	
Tot	95.5051									4,243,000	
Min	2.7908	4.4		0.69	0.68	0.63	0.64	1.40		14,000	
Max	3.5224	9.4		1.88	1.86	1.76	2.00	1.86		261,000	

**PIKEVILLE WATER TREATMENT PLANT  
WATER PUMPED TO DISTRIBUTION SYSTEM  
FOR THE MONTH OF:        March, 2017**

03/01/17	3.0347
03/02/17	3.0560
03/03/17	2.8193
03/04/17	3.0317
03/05/17	3.0369
03/06/17	3.2181
03/07/17	3.1180
03/08/17	3.1121
03/09/17	3.2387
03/10/17	2.9958
03/11/17	2.8562
03/12/17	2.8746
03/13/17	2.7908
03/14/17	3.1580
03/15/17	3.0542
03/16/17	3.0967
03/17/17	3.0146
03/18/17	3.2000
03/19/17	2.9803
03/20/17	3.1149
03/21/17	2.9892
03/22/17	3.5224
03/23/17	2.9472
03/24/17	3.1638
03/25/17	3.2280
03/26/17	2.9320
03/27/17	3.0594
03/28/17	3.1870
03/29/17	3.5203
03/30/17	3.1122
03/31/17	3.0420
<b>Total</b>	<b>95.5051</b>
<b>Average</b>	<b>3.0808</b>
<b>Minimum</b>	<b>2.7908</b>
<b>Maximum</b>	<b>3.5224</b>

<b>Water plant usage</b>	<b>64,957</b>
<b>Raw water intake usage</b>	<b>148,760</b>
<b>Total non metered usage</b>	<b>213,717</b>

### WATER DEPARTMENT MASTER WATER READINGS

DATE: 4-3-17

ACCOUNT NUMBER	LOCATION	PRESENT	PREVIOUS	USAGE	AMOUNT
	SANDY VALLEY-Pikeville	434962	419023	15959	9079 DON'T BILL
54-9966200-0	TOWN MOUNTAIN	742995	723714	19271	
54-9909400-0	CHLOE ROAD	75458	73255	2203	
54-9911500-0	ISLAND CREEK	71110	67429	3681	
54-9928000-0	MUD CREEK-Southern Wt.	142229	135818	11411	
54-9914600-0	COON BRANCH	11844	11602	242	
54-9913000-0	SOUTH MAYO-TRAIL	25484	16963	9521	
54-9925500-0	HOOPWOOD HOLLOW	15384	15306	78	
54-9911800-0	ISLAND CK. TRAILER PK.	13820	1205	177	
54-9911900-0	HURRICANE CREEK	310223	8594	1731	
54-9912000-0	PIKE FLOYD-Southern	50398	46284	4114	
54-9900100-0	COWPEN-Mt. Water	27311	27034	2771	
TOTAL				55200	

Only Read First 5 Numbers

METER READER INITIALS: MM

<p style="text-align: center;">RWT</p> <p>9460990</p> <p>9312230</p> <p>148760</p>	<p style="text-align: center;">WTP</p> <p>7959057</p> <p>7894100</p> <p>64957</p>
--	---

NON-METERED WATER

FLUSHING - EST \_\_\_\_\_

LEAKS - EST \_\_\_\_\_

TOTAL GALLONS \_\_\_\_\_

MOUNTAIN WATER  
P.O. BOX 1157  
PIKEVILLE, KY 41502

## Monthly Chlorine Report- March. 2017

Water Dist. – Utility Management Group – JM,WH,JR

3-1-17 = 141 Map Drive = 1.12  
3-2-17 = 60 Mossy Bottom = 1.18  
3-3-17 = 132 Myra Barnes = 1.34  
3-4-17 = 147 Mildred Street = 1.25  
3-5-17 = 267 Peach Orchard = 0.81  
3-6-17 = 3630 Island Creek = 0.98  
3-7-17 = 401 Chloe Road = 1.25  
3-8-17 = 130 Justice Way = 0.88  
3-9-17 = 533 North Mayo Trail = 1.06  
3-10-17 = 2205 Ratliff Creek = 1.00  
3-11-17 = 175 Green Meadow = 1.10  
3-12-17 = 352 Chloe Ridge = 0.79  
3-13-17 = 895 Ratliff Creek = 0.87  
3-14-17 = 186 Cassidy Blvd. = 1.16  
3-15-17 = 517 Hambly Blvd. = 1.24  
3-16-17 = 120 Suzanne Drive = 1.03  
3-17-17 = 350 Williams Hollow = 1.00  
3-18-17 = 186 Deskins Hollow = 1.21  
3-19-17 = 126 Maple Hill = 0.81  
3-20-17 = 241 Fox Croft = 0.98  
3-21-17 = 112 Sixth Street = 1.16  
3-22-17 = 175 Popular Street = 1.34  
3-23-17 = 158 Deskins Drive = 1.20  
3-24-17 = 305 Zeigler Drive = 1.02  
3-25-17 = 265 Mullins Add. = 1.09  
3-26-17 = 351 Fife Fork = 0.81  
3-27-17 = 610 Billips Drive = 0.77  
3-28-17 = 95 Porter Lane = 0.858  
3-29-17 = 760 Chloe Road = 0.99  
3-30-17 = 135 Island Creek = 0.91  
3-31-17 = 183 Popular Street = 1.05

# Water Withdrawal Report Form

Preprint ID:

Agency Interest

Subject Item:

Monitoring Period:

3691 - Pikeville Water Department

GACT000000001-0638 Levisa Fork

03/01/17 to 03/31/17

Day	Result	Parameter	Unit
1	2.873	Withdrawal	MGD (MA)
2	3.038	Withdrawal	MGD (MA)
3	2.894	Withdrawal	MGD (MA)
4	3.151	Withdrawal	MGD (MA)
5	3.015	Withdrawal	MGD (MA)
6	3.117	Withdrawal	MGD (MA)
7	3.049	Withdrawal	MGD (MA)
8	3.157	Withdrawal	MGD (MA)
9	3.104	Withdrawal	MGD (MA)
10	2.979	Withdrawal	MGD (MA)
11	3.086	Withdrawal	MGD (MA)
12	2.774	Withdrawal	MGD (MA)
13	2.755	Withdrawal	MGD (MA)
14	3.308	Withdrawal	MGD (MA)
15	2.941	Withdrawal	MGD (MA)
16	2.920	Withdrawal	MGD (MA)
17	3.050	Withdrawal	MGD (MA)
18	3.342	Withdrawal	MGD (MA)
19	2.871	Withdrawal	MGD (MA)
20	3.108	Withdrawal	MGD (MA)
21	2.844	Withdrawal	MGD (MA)
22	3.591	Withdrawal	MGD (MA)
23	2.850	Withdrawal	MGD (MA)
24	3.158	Withdrawal	MGD (MA)
25	3.375	Withdrawal	MGD (MA)
26	2.949	Withdrawal	MGD (MA)
27	2.991	Withdrawal	MGD (MA)
28	3.171	Withdrawal	MGD (MA)
29	3.491	Withdrawal	MGD (MA)
30	2.949	Withdrawal	MGD (MA)
31	3.159	Withdrawal	MGD (MA)

APPROVED  
03/31/17  


WATER PLANT MONTHLY OPERATIONS REPORT

MONTH/YEAR: 3/17

ANALYTICAL RESULTS (Mg/L or PPM unless otherwise specified.)

DAY	pH (S. U.'S)				ALKALINITY		HARDNESS		CHLORINE		TURBIDITY (NTU)		FLUORIDE	
	RAW	TOF	FIN	DUP	RAW	FIN	RAW	FIN	TOF	FIN	RAW	TOF	RAW	FIN
01	7.95	7.89	7.81	7.82	98	102	282	286	.43	1.58	16.75	1.25	.12	.83
02	8.01	7.84	7.80	7.79	56	70	148	162	.16	1.32	92	1.78	.11	.77
03	7.92	7.81	7.73	7.72	68	72	206	214	.51	1.32	27.6	1.53	.12	.70
04	8.11	7.75	7.72	7.73	74	80	210	220	.58	1.56	33.0	1.60	.12	.84
05	7.92	7.81	7.77	7.78	60	76	168	172	.66	1.44	15.0	1.65	.12	.76
06	7.98	7.82	7.67	7.68	68	66	180	172	.80	1.50	10.9	1.59	.12	.74
07	7.99	7.86	7.68	7.68	66	76	220	188	.62	1.63	8.1	1.34	.07	.62
08	7.97	7.88	7.77	7.75	64	76	208	210	.56	1.48	8.6	1.17	.08	.63
09	8.01	7.89	7.74	7.73	86	74	188	186	.57	1.58	7.75	1.35	.08	.61
10	8.06	7.93	7.75	7.75	74	70	246	242	.64	1.52	7.40	1.33	.14	.76
11	8.04	7.94	7.80	7.81	76	82	200	208	.57	1.62	5.6	.94	.10	.74
12	8.03	7.94	7.83	7.83	78	80	220	220	.62	1.70	5.0	1.0	.11	.75
13	8.08	7.97	7.82	7.82	88	76	218	222	.66	1.65	5.3	1.15	.11	.61
14	8.07	7.98	7.82	7.82	84	86	230	218	.63	1.64	4.9	1.03	.12	.84
15	<del>8.03</del>	7.97	7.84	7.84	88	80	220	208	.62	1.46	3.9	1.06	.13	.80
16	8.12	7.96	7.83	7.83	86	82	228	240	.66	1.62	3.65	1.11	.12	.74
17	8.08	7.95	7.80	7.80	80	88	220	244	.63	1.57	3.3	1.19	.13	.77
18	8.26	7.96	7.78	7.78	82	86	220	236	.44	1.48	4.1	1.03	.10	.70
19	8.17	7.96	7.89	7.89	82	84	228	242	.54	1.56	4.4	1.01	.13	.80
20	8.19	8.04	7.87	7.86	80	88	232	224	.62	1.39	3.1	.85	.11	.74
21	8.14	7.98	7.82	7.81	78	86	232	246	.52	1.55	3.8	.87	.09	.66
22	8.07	7.98	7.87	7.88	128	84	228	246	.49	1.36	4.4	.82	.09	.63
23	8.18	8.03	7.83	7.83	84	80	224	240	.47	1.41	3.6	1.01	.09	.60
24	8.15	7.93	7.80	7.81	84	86	214	222	.51	1.54	3.35	.83	.12	.72
25	8.06	8.00	7.88	7.88	80	98	236	240	.45	1.34	4.6	.85	.09	.70
26	8.06	7.98	7.82	7.82	82	92	228	232	.42	1.41	4.0	.69	.09	.72
27	<del>8.05</del>	8.00	7.83	7.83	102	92	226	218	.36	1.35	4.8	.79	.09	.70
28	8.04	7.87	7.80	7.80	106	98	232	228	.50	1.43	22.85	.86	.12	.80
29	8.07	7.95	7.77	7.98	80	96	234	240	.33	1.62	6.2	.81	.12	.80
30	8.13	8.00	7.84	7.84	84	88	234	222	.48	1.33	4.6	.81	.11	.72
31	8.03	7.95	7.83	7.83	92	90	226	222	.34	1.55	5.8	.90	.12	.76

PIKEVILLE WATER TREATMENT PLANT  
AWOP INFORMATION

MONTH/YR: 3/17

ANALYTICAL RESULTS (NTU)											
DAY	RAW DAILY MAX	SED BASIN EFF		INDIVIDUAL FILTER EFFLUENT					CFE DAILY MAX		
		DAILY MAX		DAILY MAXIMUM							
		#1	#2	#1	#2	#3	#4	#5			
1	26.3	1.16	1.06	.17	.06	.03	.09	.06	.05	3181	4341
2	11.6	1.92	1.61	.06	.06	.04	.09	.12	.05	3217	4402
3	29.1	1.79	1.60	.05	.09	.04	.08	.05	.04	3181	4405
4	36.1	1.71	1.54	.09	.05	.09	.12	.04	.04	3193	4341
5	16.2	1.73	1.58	.08	.05	.03	.21	.04	.06	3208	4319
6	12.5	1.58	1.56	.22	.05	.02	.07	.05	.06	3208	4313
7	8.6	1.61	1.45	.33	.06	.02	.11	.12	.05	3223	4319
8	9.1	1.41	1.10	.46	.13	.03	.15	.06	.07	3208	4316
9	7.8	1.54	1.39	.07	.10	.06	.24	.04	.06	3215	4310
10	7.8	1.21	1.11	.13	.14	.11	.34	.05	.10	3226	4307
11	6.4	1.10	.94	.78	.17	.57	.09	.16	.23	3165	4307
12	5.4	1.10	.86	.55	.05	.42	.12	.20	.12	3229	4313
13	6.6	1.19	.96	.07	.05	.28	.18	.18	.09	3226	4304
14	5	1.06	.90	.14	.08	.03	.51	.33	.10	3217	4314
15	4.4	1.20	1.13	.36	.23	.12	1.05	.25	.21	3226	4313
16	4.3	1.18	1.04	.14	.16	.08	.45	.06	.10	3230	4298
17	3.6	1.22	1.08	.35	.27	.2	.09	.17	.13	3214	4313
18	4.3	1.11	1.00	.43	.06	.24	.17	.25	.19	3184	4295
19	4.8	1.13	1.00	.84	.05	.03	.33	.39	.18	3199	4301
20	3.5	.98	.83	.31	.07	.02	.30	.05	.11	3198	4307
21	3.9	.97	.81	.07	.10	.02	.33	.05	.06	3214	4301
22	4.9	.92	.76	.12	.14	.04	.43	.07	.11	3223	4301
23	3.8	.97	.79	.26	.21	.10	.56	.08	.16	3239	4307
24	4	.88	.76	.31	.19	.13	.14	.10	.10	3155	4286
25	5.5	.90	.82	.48	.06	.14	.14	.11	.08	3208	4292
26	4.5	.76	.50	.07	.05	.11	.09	.10	.05	3193	4274
27	4.9	.82	.70	.05	.06	.03	.09	.10	.04	3223	4277
28	39.2	.94	.89	.10	.10	.09	.21	.07	.06	3327	4270
29	6.3	.89	.77	.07	.09	.04	.09	.06	.08	3330	4280
30	4.8	.88	.83	.07	.05	.04	.10	.06	.03	3211	4280
31	6.7	.80	.77	.14	.05	.04	.11	.06	.04	3187	4274

**FILTER OPERATION INFORMATION  
WATER TREATMENT PLANT MONTHLY OPERATION REPORT**

CARRY OVER  
PWS ID: 0980350

64.25

27.75

17.25

4.5

40.5

REPORT MONTH: 3 / 17

DAY	(gallons)	#1 HRS	GAL	#2 HRS	GAL	#3 HRS	GAL	#4 HRS	GAL	#5 HRS	GAL
1	11 8075	<del>8.75</del> 12.0	88825	11.25		11.25		11.25		11.25	
2	8. 8170	12		12		12		12		<del>8.75</del> 6.0	65260
3	8. 8240	11.5		<del>8.5</del> 12.25	6765920	11.5		11.5		11.5	
4	9 8170	12.25		12.25		<del>10.25</del> 12.25	73530	12.25		12.25	
5	10. 8059	11.75		11.75		11.75		<del>8.75</del> 6.0	80590	11.75	
6		12.25		12.25		12.25		12.25		12.25	
7	10. 8100	12		12		12		12		<del>8.5</del> 8.75	81000
8	11 8150	<del>8.25</del> 8.45	89650	12.5		12.5		12.5		12.5	
9		12.25		12.25		12.25		12.25		12.25	
10	10. 7990	12		12		12		<del>8.5</del> 6.0	79900	12	
11	10 8120	12		<del>8.25</del> 9.5	81200	12		12		12	
12	8 8195	<del>10.5</del> 5.0	65560	11		11		11		11	
13	7 8200	11		11		<del>6.75</del> 10.425	57400	11		11	
14	12. 8150	13.0		13.0		13.0		13.0		<del>7.5</del> 8.5	97800
15	9 8265	<del>8.75</del> 12.0	74335	11.25		11.25		11.25		11.25	
16	10 8080	11.5		11.5		11.5		<del>8.5</del> 6.0	80800	11.5	
17	9 8080	12.25		<del>9.0</del> 12.25	72720	12.25		12.25		12.25	
18	9 8244	13.0		13.0		<del>10.75</del> 6.5	74196	13.0		13.0	
19	10 8182	11.5		11.5		11.5		11.5		<del>8.25</del> 4.75	81820
20	8. 8250	<del>8.25</del> 6.175	66000	12.5		12.5		12.5		12.5	
21		11		11		11		11		11	
22		14		14		14		14		14	
23	11 7880	11.5		11.5		11.5		<del>6.5</del> 8.4	86680	11.5	
24	9. 7861	12.75		<del>8.0</del> 8.5	70749	12.75		12.75		12.75	
25	10. 8220	<del>9.75</del> 6.25	82200	13.5		13.5		13.5		13.5	
26	8. 8205	12		12		<del>6.5</del> 9.5	65640	12		12	
27	9. 8160	12		12		12		12		<del>7.75</del> 4.75	73440
28	10. 8070	12.75		12.75		12.75		<del>7.0</del> 6.175	80700	12.75	
29	10 7998	13.75		<del>11.5</del> 6.0	79980	13.75		13.75		13.75	
30		11.75		11.75		11.75		11.75		11.75	
31	9. 8085	<del>9.0</del> 14.75	72765	12.75		12.75		12.75		12.75	

### FINISHED WATER TURBIDITY

PWSID: 0980350

PWS NAME: PIKEVILLE WATER MONTH 3/17

DAY	MID - 4AM	4AM - 8AM	8AM - NOON	NOON - 4PM	4PM - 8PM	8PM - MID
1		.04	.04	.04	.04	
2		.06	.04	.05	.05	
3		.05	.04	.05	.05	
4		.04	.05	.04	.04	.04
5		.05	.04	.04	.04	.04
6		.05	.05	.05	.06	
7		.07	.08	.09	.10	
8		.08	.08	.09	.10	
9		.08	.07	.08	.08	
10		.06	.08	.09	.08	
11		.10	.08	.09	.10	
12		.09	.08	.09	.11	
13		.07	.07	.08	.07	
14		.06	.05	.07	.06	
15		.05	.07	.06	.08	
16		.09	.10	.09	.08	
17		.08	.09	.11	.10	
18		.09	.08	.07	.07	
19		.09	.07	.06	.10	
20		.07	.08	.09	.09	
21		.10	.08	.11	.09	
22		.09	.10	.09	.09	
23		.11	.12	.11	.09	
24		.09	.10	.10	.08	
25		.07	.07	.07	.07	
26		.08	.06	.06	.06	
27		.05	.05	.05	.04	
28		.04	.04	.05	.05	
29		.04	.04	.04	.06	
30		.06	.04	.05	.06	
31		.06	.05	.06	.06	

WATER PLANT MONTHLY OPERATIONS REPORT

MONTH/YEAR:

3/17

DAILY READINGS

DAY	WATER TO DIST MGD	SLUDGE HAULED Gals	S/BW RETURN	RAIN FALL (Inches)	WATER TEMP DEG C	CLEAR WELL LEVEL FT.
1	3.0347		133000	.79	11°	8.0
2	3.0560		141000		11°	4.8
3	2.8193		14000		10	5.4
4	3.0317		149000		10°	5.8
5	3.0369		112000		9°	9.0
6	3.2181		84000		10°	7.8
7	3.1180		169000		10.5	6
8	3.1121		150000	.50	11	5.4
9	3.2387		55000		11	6.6
10	2.9958		154000		11	4.4
11	2.8562		174000		10	4.4
12	2.8746		89000		9.5	8.8
13	2.7908		182000		10	6
14	3.1580		149000		10°	6.6
15	3.0542		124000		9°	9.4
16	3.0967		148000		7°	7.2
17	3.0146		150000	.25	8	4.4
18	3.2000		151000		8°	5.6
19	2.9803		162000		9°	8.0
20	3.1149		141000	.28	10°	6.4
21	2.9892		58000		10	6.6
22	3.5224		58000		10.5	4.4
23	2.9472		222000		10	6
24	3.1638		164000		11	4.4
25	3.2280		164000		12.5	4.8
26	2.9320		155000		14	7.6
27	3.0594		147000	.23	14	8
28	3.1870		261000	.50	15°	7.2
29	3.5203		168000		15°	7.6
30	3.1122		71000		15°	7.0
31	3.0420		154000	.44	16	4.4

### SETTLING BASIN TURBIDITY

PWSID: 0980350

PWS NAME: PIKEVILLE WATER MONTH 3/17

DAY	MID - 4AM	4AM - 8AM	8AM - NOON	NOON - 4PM	4PM - 8PM	8PM - MID
1		.98	1.04	1.15/1.06/1.1	2	
2		1.88	1.86	1.92/1.6/1.78	1.62	
3		1.66	1.22	1.4	1.79/1.6/1.7	
4		1.76	<del>1.56</del> /1.42	1.71/1.56/1.64	1.53	1.40
5		1.38	1.41	1.73/1.58/1.66	1.93	1.86
6		1.69	1.37	1.67	1.68/1.56/1.62	
7		1.21	1.11	1.31	1.61/1.45/1.53	
8		1.13	1.25	1.41/1.1/1.26	.98	
9		1.05	1.15	1.63	1.54/1.39/1.48	
10		1.43	1.48	1.41	1.21/1.11/1.16	
11		.82	.96	1.02	.88	
12		.88	1.06	1.10/86/98	1.10	
13		1.17	1.08	1.24	1.19/96/1.08	
14		1.10	1.27	1.06/90/93	.83	
15		.88	1.05	1.20/1.13/1.14	1.03	
16		1.12	1.16	1.03	1.18/1.04/1.11	
17		1.10	1.17	1.39	1.22/1.08/1.15	
18		1.13	.98	1.11/1.00/1.06	.92	
19		1.06	.96	1.12/1.00/1.06	.92	
20		.92	.68	.86	.98/83/9	
21		.80	.89	.97/81/89	.88	
22		.69	.85	.92/76/84	.88	
23		1.0	1.10	1.21	.97/79/88	
24		.85	.88	.76	.88/76/82	
25		1.18	.72	.90/82/86	.64	
26		.74	.71	.76/59/63	.73	
27		.78	.80	.83	.82/70/76	
28		.80	.72	.96	.94/89/92	
29		.91	.68	.89/77/83	.78	
30		.82	.76	.78	.88/83/86	
31		1.22	.91	.78	.80/77/78	

WATER PLANT MONTHLY OPERATIONS REPORT

MONTH/YEAR: 3/17

CHEMICALS ADDED

DAY	RAW WATER TREATED (M.G.D.)	COAGULANT PAC LBS	FLUORIDE LBS	PRE LBS	POST LBS
01	2.873	618	17.1	27.5	38.5
02	3.038	801	14.9	28.6	42.9
03	2.894	731	12.1	38.5	39.6
04	3.151	824	18.0	34.1	39.6
05	3.015	721	18.0	33.0	42.9
06	3.117	639	18	37.4	40.7
07	3.049	618	18	27.5	38.5
08	3.157	618	18	33	42.9
09	3.104	624	13	30.8	39.6
10	2.979	618	15.8	28.6	39.6
11	3.086	618	18	27.5	38.5
12	2.724	566	18	27.5	35.2
13	2.755	587	12.6	26.4	35.2
14	3.308	680	18.0	30.8	42.9
15	2.941	618	15.3	28.6	37.4
16	2.920	634	15.3	27.5	38.5
17	3.050	618	18.0	34.1	31.9
18	3.342	721	18.0	33.0	42.9
19	2.871	618	18.0	26.4	35.2
20	3.108	669	18	30.8	41.8
21	2.844	597	12.6	27.5	38.5
22	3.591	742	19.8	22	44
23	2.850	593	17.8	45.1	40.7
24	3.158	700	16.7	28.6	42.9
25	3.375	721	18	33	44
26	2.949	618	18	27.5	40.7
27	2.991	639	17.8	26.4	42.9
28	3.171	659	15.3	29.7	40.7
29	3.491	742	20.7	37.4	52.8
30	2.949	624	14.4	37.4	42.9
31	3.159	659	18.0	28.6	44.0

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 3/1/17 RAW TEMP 11° RAINFALL \_\_\_\_\_

OPERATOR DM OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	120				
POSTCL2	180				

CLEAR WELL 8.0 Town Mtn. 25.0 On Off

RFT/SHT 29.8 | 28.6

METERS/WEIGHTS/LEVELS			
FINISHED	51417299		PAX 150
RAW	34626850		FLUORIDE 685
SLUDGE	257826		PRE CL2 150
S B/W RET	239766		POST CL2 139

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	5:10	11:55	3:00	5:00	5:20	6:45	7:30	8:15			11:
#2	↓	↓	↓	↓	10:45	↓	↓	↓			11:25
#3	↓	↓	↓	↓	↓	↓	↓	↓			
#4	↓	↓	↓	↓	↓	↓	↓	↓			
#5	↓	↓	↓	↓	↓	↓	↓	↓			

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#1	5:04	11	8075	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 3/2/17 RAW TEMP 11° RAINFALL .79"

OPERATOR DM OPERATOR JMC

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	30				
FLUORIDE	73/40				
PRECL2	120	↑ 140	↑ 160		
POSTCL2	200				

CLEAR WELL 4.8 (1200) 735 Town Mtn. 26.8 On Off \*  
 RFT/SHT 27.2 | 24.6

### METERS/WEIGHTS/LEVELS

FINISHED	51447646	PAX	90 / 120 / 82 / 170
RAW	34629723	FLUORIDE	590
SLUDGE	277826	PRE CL2	125 / 113 / 139
S B/W RET	239899	POST CL2	104 / 84 / 150

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	6:00		1255		500		800				12
#2											
#3											
#4											
#5	✓	1244	X	1255	✓	1255	✓	1255	✓	1255	

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
5	245	8	8170		

COMMENTS:



# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 3/4/17 RAW TEMP 10° RAINFALL \_\_\_\_\_

OPERATOR DM OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	50				
FLUORIDE	73/40				
PRECL2	160				
POSTCL2	200				

CLEAR WELL RFT/SHT 28.6 | 5.8 | 27.0 Town Mtn. 26.2 On X Off \_\_\_\_\_

### METERS/WEIGHTS/LEVELS

FINISHED	51506399		PAX	60	220
RAW	34635655		FLUORIDE	440	700
SLUDGE	277826		PRE CL2	90	175
S B/W RET	240054		POST CL2	95	175

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	5:15	11:45	2:30	16:35	8:00	9:45					12.25
#2											
#3				16:20							
#4				16:35							
#5	↓	↓	↓	↓	↓	↓					

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#3	6:23	9	8170		

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 3/5/17 RAW TEMP 9° RAINFALL \_\_\_\_\_

OPERATOR AM OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	30 ↓ 20				
FLUORIDE	73/40				
PRECL2	166 ↓ 150				
POSTCL2	200 ↓ 190				

CLEAR WELL 9.0 Town Mtn. 24.2 On  Off   
 RFT/SHT 30.2 | 29.4

METERS/WEIGHTS/LEVELS			
FINISHED	51536716		PAX 190
RAW	34638806		FLUORIDE 600
SLUDGE	222826		PRE CL2 144
S B/W RET	240203		POST CL2 139

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	5:05	10:00	1:10	4:15	5:15		7:35	8:30	10:00				11.75
#2	↓	↓	↓	↓	↓		↓	↓	↓				
#3	↓	↓	↓	↓	↓		↓	↓	↓				
#4	↓	↓	↓	↓	↓	16:00	16:25	↓	↓				
#5	↓	↓	↓	↓	↓		↓	↓	↓				

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#4	6:10		8059		

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 3/6/17 RAW TEMP 10° RAINFALL \_\_\_\_\_

OPERATOR DM OPERATOR *[Signature]*

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	150	4.130			
POSTCL2	190				

CLEAR WELL 7.8 <sup>(150)</sup> Town Mtn. 25.4 On Off<sup>X</sup>  
 RFT/SHT 28.6 | 26.4

METERS/WEIGHTS/LEVELS			
FINISHED	51567085		PAX 100
RAW	34641821		FLUORIDE 500
SLUDGE	277826		PRE CL2 114
S B/W RET	240315		POST CL2 100

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	6:00	2:20	4:45	9:00							12.25
#2											
#3											
#4											
#5	↓	↓	↓	↓							↓

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 3/7/17 RAW TEMP 10.5 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR [Signature]

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	130				
POSTCL2	190				

CLEAR WELL 6 Town Mtn. 26.6 On    Off     
 RFT/SHT 27.6 | 25.2

### METERS/WEIGHTS/LEVELS

FINISHED	51599266	PAX	38 / 200
RAW	34644938	FLUORIDE	400
SLUDGE	277826	PRE CL2	80 / 150
S B/W RET	240399	POST CL2	63 / 150

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600		1300		600	905					12
#2											
#3											
#4											
#5	1155	211	✓	✓	✓	✓					

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
5	158	10	310	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 3/8/17 RAW TEMP 11 RAINFALL 50

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	130				
POSTCL2	190				

CLEAR WELL 5.4 Town Mtn. 27 On Off  
 RFT/SHT 29.2 | 27.2

METERS/WEIGHTS/LEVELS			
FINISHED	5163	0446	PAX 140/
RAW	3464	7987	FLUORIDE 300
SLUDGE	2778	26	PRE CL2 125/
S B/W RET	240	568	POST CL2 115/39/20

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	605	215	235	330	630	930					
#2											
#3											
#4											
#5	+			+	+	+					

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
1	220	11	8150	_____	_____

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 3/9/17 RAW TEMP 11 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR [Signature]

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	130				
POSTCL2	190				

CLEAR WELL 6.6 Town Mtn. 24.8 On Off  
 RFT/SHT 27.2 | 26.6

METERS/WEIGHTS/LEVELS			
FINISHED	5166	1567	PAX 80 / 50 / 120
RAW	3465	1144	FLUORIDE 200
SLUDGE	2778	26	PRE CL2 95 / 816 / 10040
S B/W RET	2407	18	POST CL2 76 / 59 / 90 / 100

FILTERS	ON	OFF	HOURS RUN								
#1	↓	↑	↓	↑							12.25
#2											
#3											
#4											
#5	↓	↑	↓	↑							

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 3-10-17 RAW TEMP 11 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	130				
POSTCL2	190				

CLEAR WELL 4.4 Town Mtn. 25.4 On Off  
 RFT/SHT 28.6 | 25.4

METERS/WEIGHTS/LEVELS			
FINISHED	5169	3954	PAX 90
RAW	3465	4248	FLUORIDE 128
SLUDGE	2778	26	PRE CL2 76
S B/W RET	2407	73	POST CL2 81

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN	
#1	600		1345		515		1715		745		1805	72
#2												
#3												
#4		230	255									
#5												

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
4	234	10	7990		

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 3/11/17 RAW TEMP 10 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	70/40				
PRECL2	130				
POSTCL2	190				

CLEAR WELL 4.4 Town Mtn. 26.6 On \_\_\_ Off \_\_\_  
 RFT/SHT 27.6 | 23.8

METERS/WEIGHTS/LEVELS					
FINISHED	51723912			PAX	30   200
RAW	34657227			FLUORIDE	40   300
SLUDGE	277826			PRE CL2	50   120
S B/W RET	240927			POST CL2	45   190

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	1000	235	600	935							12
#2		213									
#3		235									
#4											
#5											

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
2	215	10	8120	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 3/12/17 RAW TEMP 9.5 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	130				
POSTCL2	190				

CLEAR WELL 8.8 Town Mtn. 25.4 On    Off     
 RFT/SHT 29 | 28.6

METERS/WEIGHTS/LEVELS			
FINISHED	51752474		PAX 140
RAW	34660313		FLUORIDE 200
SLUDGE	277826		PRE CL2 95
S B/W RET	241101		POST CL2 105

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	605	1105	300	830	—						
#2				1900							11
#3											
#4											
#5											

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
1	835 pm	8	8195	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 3/13/17 RAW TEMP 10 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR [Signature]

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	130				
POSTCL2	190				

CLEAR WELL RFT/SHT 29.2 | 27.2 Town Mtn. 25.4 On Off

### METERS/WEIGHTS/LEVELS

FINISHED	51781220	PAX	85/52/180
RAW	34663087	FLUORIDE	100/70/700
SLUDGE	277826	PRE CL2	70/58/150
S B/W RET	24/190	POST CL2	73/52/150

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600		115		430	815					11
#2											
#3		11248	→								
#4											
#5											

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
3	1282	7	8200		

**COMMENTS:**

big pac tank empty

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 3/14/17 RAW TEMP 10° RAINFALL \_\_\_\_\_

OPERATOR DM OPERATOR *[Signature]*

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	130				
POSTCL2	190				

CLEAR WELL 6.6 Town Mtn. 25.0 On  Off   
 RFT/SHT 27.6 | 26.8

METERS/WEIGHTS/LEVELS			
FINISHED	5180	9/28	PAX 156
RAW	3466	5842	FLUORIDE 660
SLUDGE	2778	26	PRE CL2 138
S B/W RET	2413	72	POST CL2 139

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	5:05		11:25		2:45	5:00	7:00	10:00			13.0
#2	↓		↓		↓		↓				
#3	↓		↓		↓		↓				
#4	↓		↓		↓		↓				
#5	↓	11:50	↓		↓		↓				

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
5	12:35	12	8150	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 3/15/17 RAW TEMP 9° RAINFALL \_\_\_\_\_

OPERATOR DM OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	130				
POSTCL2	190				

CLEAR WELL 9.4 Town Mtn. 24.2 On Off  
 RFT/SHT 29.0 | 28.2

### METERS/WEIGHTS/LEVELS

FINISHED	51840708	PAX	90	220
RAW	34669150	FLUORIDE	560	
SLUDGE	277826	PRE CL2	110	170
S B/W RET	241521	POST CL2	100	170

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	5:05	10:50	1:00	2:50	4:15	6:15	7:30	9:00			11.25
#2		10:03									
#3											
#4											
#5											

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#1	10.53	9	8265	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 3/16/17 RAW TEMP 7° RAINFALL \_\_\_\_\_

OPERATOR DM OPERATOR *[Signature]*

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	130				
POSTCL2	190				

CLEAR WELL 7.2 Town Mtn. 25.4 On X Off \_\_\_\_\_  
 RFT/SHT 28.8 | 28.0

METERS/WEIGHTS/LEVELS			
FINISHED	5187	250	PAX 160 440/220
RAW	3467	2091	FLUORIDE 475
SLUDGE	227	826	PRE CL2 144
S B/W RET	241	645	POST CL2 136

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	5:55		12:10		4:15	7:15	7:45	9:00					11.5
#2													
#3													
#4		11:54	X										
#5													

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
4	156	10	8080	←	→

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 3-17-17 RAW TEMP 8 RAINFALL 25

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	130				
POSTCL2	190				

CLEAR WELL RFT/SHT 26.4 4.4 Town Mtn. 26 On  Off

METERS/WEIGHTS/LEVELS			
FINISHED	51902217		PAX 179/119/188
RAW	34675011		FLUORIDE 390
SLUDGE	277826		PRE CL2 119/88/140
S B/W RET	241793		POST CL2 101/73/135

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	558		1430		555	1720	740	1800			12.25
#2		1302	315								
#3											
#4											
#5											

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
2	304				

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 3/18/17 RAW TEMP 8° RAINFALL \_\_\_\_\_

OPERATOR DM OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	130				
POSTCL2	190				

CLEAR WELL RFT/SHT 27.8 | 27.2 Town Mtn. 24.6 On Off X

### METERS/WEIGHTS/LEVELS

FINISHED	51932363		PAX	188
RAW	34678061		FLUORIDE	290 / 600
SLUDGE	277826		PRE CL2	140
S B/W RET	241943		POST CL2	134

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	5:05	1:10	3:00	6:00	8:20	10:25					13.0
#2	↓	↓	↓	2:29 ↓	↓	↓					
#3	↓	↓	↓	5:40	↓	↓					
#4	↓	↓	↓	6:00	↓	↓					
#5	↓	↓	↓	↓	↓	↓					

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#3	5:45	9	8244		

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 3/19/17 RAW TEMP 9° RAINFALL \_\_\_\_\_

OPERATOR On OPERATOR \_\_\_\_\_

**FLOW RATE**

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	7/40				
PRECL2	130				
POSTCL2	190				

CLEAR WELL 8.0 Town Mtn. 24.8 On Off  
 RFT/SHT 29.2 | 28.4

**METERS/WEIGHTS/LEVELS**

FINISHED	51864363	PAX	118   220
RAW	34681403	FLUORIDE	500
SLUDGE	277826	PRE CL2	110   170
S B/W RET	242095	POST CL2	95   170

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURLY RUN
#1	5:30	11:45	1:45	4:00	6:00	9:00					11.5
#2	↓	↓	↓	↓	↓	↓					
#3	↓	↓	↓	↓	↓	↓					
#4	↓	↓	↓	↓	↓	↓					
#5	↓	↓	↓	13:42	↓	↓					

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#5	3:45	10	8/82	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 3/20/17 RAW TEMP 10° RAINFALL 28

OPERATOR DM OPERATOR [Signature]

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	130				
POSTCL2	190				

CLEAR WELL 6.4 Town Mtn. 24.0 On  Off   
 BFW/SHT 30.2 | 28.8

METERS/WEIGHTS/LEVELS			
FINISHED	51994166		PAX 160
RAW	34684274		FLUORIDE 400
SLUDGE	277826		PRE CL2 146
SSW RET	242257		POST CL2 138

REVIEWS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF
#1	10:00	210	X	230	535	190						125
#2	↓											↓
#3												
#4	↓											
#5	↓			↓	↓	↓						↓

REVIEWS	TIME	BW RUN	BW GPM	SSW RUN	SSW GPM
1	213	8	8250		

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 3/21/17 RAW TEMP 10 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR [Signature]

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	130				
POSTCL2	190				

CLEAR WELL 6.6 Town Mtn. 26.4 On Off  
 RFT/SHT 29 | 26.4

METERS/WEIGHTS/LEVELS			
FINISHED	52025315		PAX 95   200
RAW	34687382		FLUORIDE 300
SLUDGE	277826		PRE CL2 118   160
S B/W RET	242398		POST CL2 100   160

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	6:01	1:45	3:45	1:30	7:15	1:00					11
#2											
#3											
#4											
#5	↓		↓		↓						2

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 3/22/15 RAW TEMP 10.5 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	130				
POSTCL2	190				

CLEAR WELL RFT/SHT 26.6 | 44 | 22 Town Mtn. 27 On \_\_\_ Off \_\_\_

METERS/WEIGHTS/LEVELS			
FINISHED	5205	5207	PAX 142
RAW	3469	0226	FLUORIDE 230
SLUDGE	2778	26	PRE CL2 135
S B/W RET	2424	56	POST CL2 125

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	607	648	800	830							14
#2											
#3											
#4											
#5											

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 3/23/17 RAW TEMP 10 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR [Signature]

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	130				
POSTCL2	190				

CLEAR WELL 6 Town Mtn. 25.8 On    Off     
 RET/SHT 29.6 | 28.4

METERS/WEIGHTS/LEVELS						
FINISHED	52090431			PAX	70/40/125	
RAW	34693817			FLUORIDE	120/68/200	
SLUDGE	277826			PRE CL2	115/88/100	
S B/W RET	242514			POST CL2	85/66/100	

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN	
#1	600		135		570		702		732		800	11.5
#2												
#3												
#4		1229	100									
#5												

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
4	1231	11	7880		

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 3-24-17 RAW TEMP 11 RAINFALL \_\_\_\_\_

OPERATOR *[Signature]* OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	130				
POSTCL2	190				

CLEAR WELL 4.4 Town Mtn. 26.2 On  Off

RFT/SHT 27.2 | 24.2

METERS/WEIGHTS/LEVELS			
FINISHED	52119903		PAX 98
RAW	34696667		FLUORIDE 153
SLUDGE	277826		PRE CL2 86
S B/W RET	242736		POST CL2 82

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600			1510	630		810						12.75
#2			1158		213								
#3													
#4													
#5													

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
2	200	9	7861	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 3/25/17 RAW TEMP 12.5 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	130				
POSTCL2	190				

CLEAR WELL RFT/SHT 27.8 | 25.2 Town Mtn. 4.8 26.2 On Off

METERS/WEIGHTS/LEVELS			
FINISHED	52151541		PAX 30   210
RAW	34699825		FLUORIDE 60   300
SLUDGE	277826		PRE CL2 60   110
S B/W RET	342900		POST CL2 4.3   150

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600	315	630	1000									
#2		400											135
#3													
#4													
#5													

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
1	320	10	8220		

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 3/26/17 RAW TEMP 14 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	130				
POSTCL2	190 <sup>850</sup> <sub>1200</sub>				

CLEAR WELL 7.6 Town Mtn. 25.8 On \_\_\_ Off \_\_\_  
 RFT/SHT 30.2 | 28

METERS/WEIGHTS/LEVELS			
FINISHED	52183821		PAX 140
RAW	34703200		FLUORIDE 200
SLUDGE	277826		PRE CL2 80
S B/W RET	243064		POST CL2 110

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	605	100	435	830	930	1102					
#2	↓	↓	↓	↓	↓	↓					
#3	↓	1240	↓	↓	↓	↓					
#4	↓	1100	↓	↓	↓	↓					
#5	↓	↓	↓	↓	↓	↓					

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
3	1245	8	8205	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 3/27/17 RAW TEMP 14 RAINFALL .23

OPERATOR [Signature] OPERATOR [Signature]

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	130				
POSTCL2	200				

CLEAR WELL 8 Town Mtn. 26.2 On Off  
 RFT/SHT 29.6 | 28.4

METERS/WEIGHTS/LEVELS			
FINISHED	52213141		PAX 80/48/200
RAW	34706149		FLUORIDE 100/50/657
SLUDGE	277826		PRE CL2 55/41/130
S B/W RET	243219		POST CL2 73/52/150

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	6001		1117		312	1630	738	1902					12
#2													
#3													
#4													
#5	1/01		X										9

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
5	164	9	8160		

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 3/28/17 RAW TEMP 15° RAINFALL 5

OPERATOR dm OPERATOR [Signature]

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	7 <sup>3</sup> / <sub>40</sub>				
PRECL2	130				
POSTCL2	200				

CLEAR WELL RFT/SHT 30.0 7.2 | 27.4 Town Mtn. 26.8 On  Off

METERS/WEIGHTS/LEVELS					
FINISHED	52243735			PAX	170 / 150 / 220
RAW	34709140			FLUORIDE	600
SLUDGE	277826			PRE CL2	120   110   175
S B/W RET	243366			POST CL2	132   120   175

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	5:15		12:00		6:00		10:00						12.75
#2													
#3			1:25										
#4		11:20	12:46										
#5	↓			↓	↓	↓							

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
4	1229	10	8070		

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 3/29/17 RAW TEMP 15° RAINFALL \_\_\_\_\_

OPERATOR DM OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	130				
POSTCL2	200				

CLEAR WELL 7.6 Town Mtn. 26.4 On  Off   
 RFT/SHT 26.2 | 22.4

METERS/WEIGHTS/LEVELS			
FINISHED	52275605		PAX 176
RAW	34712311		FLUORIDE 515
SLUDGE	277826		PRE CL2 158
S B/W RET	243627		POST CL2 150

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	5:25	3:00	5:00		7:15						13.75
#2	↓	↓	↓	7:05	7:20						
#3	↓	↓	↓								
#4	↓	↓	↓								
#5	↓	↓	↓								

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#2	7:08	10	7998	—	—

COMMENTS: GENERATOR RUN Test made CL ANALYSES Act up Bad

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 3/30/17 RAW TEMP 15 RAINFALL \_\_\_\_\_

OPERATOR Dm OPERATOR [Signature]

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	130				
POSTCL2	200 ↑	210			

CLEAR WELL 7.0 Town Mtn. 24.4 On    Off X  
 RFT/SHT 27.4 | 27.0

METERS/WEIGHTS/LEVELS			
FINISHED	52310808		PAX 104 / 210
RAW	34715802		FLUORIDE 400
SLUDGE	227826		PRE CL2 124
S B/W RET	243785		POST CL2 102

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	6:00	3:00	5:00	1:15	7:34	1:00							11.75
#2	↓	↓	↓	↓	↓	↓							↓
#3	↓	↓	↓	↓	↓	↓							↓
#4	↓	↓	↓	↓	↓	↓							↓
#5	↓	↓	↓	↓	↓	↓							↓

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 3-31-17 RAW TEMP 16 RAINFALL 44

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	130				
POSTCL2	210				

CLEAR WELL 4.4 Town Mtn. 26 On  Off

RF/SH T 27.2 | 23

METERS/WEIGHTS/LEVELS				
FINISHED	5234/930		PAX	150/108/210
RAW	3471/8751		FLUORIDE	320
SLUDGE	277/826		PRE CL2	90/71/125
S B/W RET	243/856		POST CL2	63/37/150

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600	300	545	435	545	800							12.95
#2													↓
#3													
#4													
#5													

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
1	302				

COMMENTS:



FIELD CHAIN OF CUSTODY RECORD

FIELD MONITORING PROGRAM

SAMPLERS (SIGNATURES)

*Ralph W. [Signature]*

FACILITY	SAMPLE SOURCE	COMPOSITING PERIOD				SAMPLE COLLECTION			FLOW	CONTAINER		Volatile Organics	Pesticides/PCB's	Trace Metals	Cyanide	Phenols	Oil and Grease	Solids	BOD	Ammonia Nitrogen	Phosphorous	Coliform	pH	Preservation	COMMENTS
		SAMPLING BEGINS		SAMPLING ENDS		DATE	TIME	G/C	MGD	VOLUME	G/P														
		DATE	TIME	DATE	TIME																				
Pineville WTP	040			3/21/17	1031	G				P															
	115			"	1051	"				"															Falso - 64
	118			"	1103	"				"															
	120			"	1609	"				"															
	077				1342	"				"															

3/21/17 10:31 AM  
 3/21/17 10:51 AM  
 3/21/17 11:03 AM  
 3/21/17 16:09  
 3/21/17 13:42

RELINQUISHED BY	DATE	TIME	RECEIVED BY	RELINQUISHED BY	DATE	TIME	RECEIVED BY
<i>Ralph W. [Signature]</i>	3/21/17	1359	<i>Barbara [Signature]</i>				
RELINQUISHED BY	DATE	TIME	RECEIVED BY	RELINQUISHED BY	DATE	TIME	RECEIVED BY
RELINQUISHED BY	DATE	TIME	RECEIVED BY	RELINQUISHED BY	DATE	TIME	RECEIVED BY

REMARKS: 12°C Transported w/ Ice

002177





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**SAMPLE SUMMARY**

Lab ID	Client Sample ID/Alias	Matrix	Date Collected	Date Received	Sampled By
7033033-01	BACT/	Drinking Water	03/21/2017 10:31	03/21/2017 13:59	Ralph Varney
7033033-02	BACT/	Drinking Water	03/21/2017 10:51	03/21/2017 13:59	Ralph Varney
7033033-03	BACT/	Drinking Water	03/21/2017 11:03	03/21/2017 13:59	Ralph Varney
7033033-04	BACT/	Drinking Water	03/21/2017 11:09	03/21/2017 13:59	Ralph Varney
7033033-05	BACT/	Drinking Water	03/21/2017 13:42	03/21/2017 13:59	Ralph Varney

<u>LabNumber</u>	<u>Measurement</u>	<u>Value</u>
7033033-01	Field Residual Chlorine	1.45
7033033-02	Field Residual Chlorine	0.89
7033033-03	Field Residual Chlorine	1.33
7033033-04	Field Residual Chlorine	1.37
7033033-05	Field Residual Chlorine	1.33



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**ANALYTICAL RESULTS**

Lab Sample ID: **7033033-01**  
Description: **BACT**

Sample Collection Date Time: 03/21/2017 10:31  
Sample Received Date Time: 03/21/2017 13:59

Matrix: Drinking Water

Discharge/Site No: 040

Regulatory ID: KY0980350

**Microbiological Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Colilert 24	03/21/2017 16:29	03/22/2017 17:02	SNB

**ANALYTICAL RESULTS**

Lab Sample ID: **7033033-02**  
Description: **BACT**

Sample Collection Date Time: 03/21/2017 10:51  
Sample Received Date Time: 03/21/2017 13:59

Matrix: Drinking Water

Discharge/Site No: 115

Regulatory ID: KY0980350

**Microbiological Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Colilert 24	03/21/2017 16:29	03/22/2017 17:02	SNB

**ANALYTICAL RESULTS**

Lab Sample ID: **7033033-03**  
Description: **BACT**

Sample Collection Date Time: 03/21/2017 11:03  
Sample Received Date Time: 03/21/2017 13:59

Matrix: Drinking Water

Discharge/Site No: 118

Regulatory ID: KY0980350

**Microbiological Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Colilert 24	03/21/2017 16:29	03/22/2017 17:02	SNB



**ANALYTICAL RESULTS**

Lab Sample ID: **7033033-04**  
Description: **BACT**

Sample Collection Date Time: 03/21/2017 11:09  
Sample Received Date Time: 03/21/2017 13:59

Matrix: Drinking Water

Discharge/Site No: 120

Regulatory ID: KY0980350

**Microbiological Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Coli/ert 24	03/21/2017 16:29	03/22/2017 17:02	SNB

**ANALYTICAL RESULTS**

Lab Sample ID: **7033033-05**  
Description: **BACT**

Sample Collection Date Time: 03/21/2017 13:42  
Sample Received Date Time: 03/21/2017 13:59

Matrix: Drinking Water

Discharge/Site No: 033

Regulatory ID: KY0980350

**Microbiological Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Coli/ert 24	03/21/2017 16:29	03/22/2017 17:02	SNB

**Notes for work order 7033033**

- Samples collected by MMLI personnel are done so in accordance with procedures set forth in MMLI field services SOPs.
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identification based on the presumptive evidence of the mass spectra.

**Standard Qualifiers/Acronyms**

MDL	Method Detection Limit
MRL	Minimum Reporting Limit
ND	Not Detected
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
% Rec	Percent Recovery
RPD	Relative Percent Difference
>	Greater than
<	Less than



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**SAMPLE SUMMARY**

Lab ID	Client Sample ID/Alias	Matrix	Date Collected	Date Received	Sampled By
7033034-01	Fluoride/	Drinking Water	03/21/2017 10:51	03/21/2017 13:59	Ralph Varney
<u>LabNumber</u>	<u>Measurement</u>	<u>Value</u>			
7033034-01	Field Fluoride	0.64			

**ANALYTICAL RESULTS**

Lab Sample ID: **7033034-01**  
Description: **Fluoride**

Sample Collection Date Time: 03/21/2017 10:51  
Sample Received Date Time: 03/21/2017 13:59

Matrix: Drinking Water

Discharge/Site No: 115

Regulatory ID: KY0980350

**Conventional Chemistry Analyses Madisonville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Fluoride	0.78		mg/L	0.20		4500-F C-1997	03/23/2017 09:53	03/23/2017 09:53	JTL

**Notes for work order 7033034**

- Samples collected by MMLI personnel are done so in accordance with procedures set forth in MMLI field services SOPs.
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identification based on the presumptive evidence of the mass spectra.

U Target analyte was analyzed for, but was below detection limit (the value associated with the qualifier is the laboratory method detection limit in our LIMS system).

**Standard Qualifiers/Acronyms**

- MDL Method Detection Limit
- MRL Minimum Reporting Limit
- ND Not Detected
- LCS Laboratory Control Sample
- MS Matrix Spike
- MSD Matrix Spike Duplicate
- DUP Sample Duplicate
- % Rec Percent Recovery
- RPD Relative Percent Difference
- > Greater than
- < Less than

**APPROVED**  
03/21/17  
[Signature]

**Certified Analyses Included in this Report**

Analyte	Certifications
<b>4500-F C-1997 in Water</b>	
Fluoride	KY Drinking Water Mdv (00030) VA NELAC Mdv (460210) IN Drinking Water Mdv (C-KY-02) IL Drinking Water Mdv (200079)







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**SAMPLE SUMMARY**

Lab ID	Client Sample ID/Alias	Matrix	Date Collected	Date Received	Sampled By
7032035-01	BACT/	Drinking Water	03/08/2017 09:29	03/08/2017 13:27	Ralph Varney
7032035-02	BACT/	Drinking Water	03/08/2017 11:09	03/08/2017 13:27	Ralph Varney
7032035-03	BACT/	Drinking Water	03/08/2017 11:18	03/08/2017 13:27	Ralph Varney
7032035-04	BACT/	Drinking Water	03/08/2017 11:29	03/08/2017 13:27	Ralph Varney
7032035-05	BACT/	Drinking Water	03/08/2017 11:39	03/08/2017 13:27	Ralph Varney

<u>LabNumber</u>	<u>Measurement</u>	<u>Value</u>
7032035-01	Field Residual Chlorine	1.68
7032035-02	Field Residual Chlorine	1.46
7032035-03	Field Residual Chlorine	1.46
7032035-04	Field Residual Chlorine	1.64
7032035-05	Field Residual Chlorine	1.42



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**ANALYTICAL RESULTS**

Lab Sample ID: **7032035-01**  
Description: **BACT**

Sample Collection Date Time: 03/08/2017 09:29  
Sample Received Date Time: 03/08/2017 13:27

Matrix: Drinking Water

Discharge/Site No: 040

Regulatory ID: KY0980350

**Microbiological Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Colliert 24	03/08/2017 16:10	03/09/2017 16:49	ADH

**ANALYTICAL RESULTS**

Lab Sample ID: **7032035-02**  
Description: **BACT**

Sample Collection Date Time: 03/08/2017 11:09  
Sample Received Date Time: 03/08/2017 13:27

Matrix: Drinking Water

Discharge/Site No: 111

Regulatory ID: KY0980350

**Microbiological Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Colliert 24	03/08/2017 16:10	03/09/2017 16:49	ADH

**ANALYTICAL RESULTS**

Lab Sample ID: **7032035-03**  
Description: **BACT**

Sample Collection Date Time: 03/08/2017 11:18  
Sample Received Date Time: 03/08/2017 13:27

Matrix: Drinking Water

Discharge/Site No: 030

Regulatory ID: KY0980350

**Microbiological Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Colliert 24	03/08/2017 16:10	03/09/2017 16:49	ADH



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**ANALYTICAL RESULTS**

Lab Sample ID: **7032035-04**  
Description: **BACT**

Sample Collection Date Time: 03/08/2017 11:29  
Sample Received Date Time: 03/08/2017 13:27

Matrix: Drinking Water

Discharge/Site No: 110

Regulatory ID: KY0980350

**Microbiological Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Collert 24	03/08/2017 16:10	03/09/2017 16:49	ADH

**ANALYTICAL RESULTS**

Lab Sample ID: **7032035-05**  
Description: **BACT**

Sample Collection Date Time: 03/08/2017 11:39  
Sample Received Date Time: 03/08/2017 13:27

Matrix: Drinking Water

Discharge/Site No: 028

Regulatory ID: KY0980350

**Microbiological Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Collert 24	03/08/2017 16:10	03/09/2017 16:49	ADH

**Notes for work order 7032035**

- Samples collected by MMLI personnel are done so in accordance with procedures set forth in MMLI field services SOPs.
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identification based on the presumptive evidence of the mass spectra.

**Standard Qualifiers/Acronyms**

- MDL Method Detection Limit
- MRL Minimum Reporting Limit
- ND Not Detected
- LCS Laboratory Control Sample
- MS Matrix Spike
- MSD Matrix Spike Duplicate
- DUP Sample Duplicate
- % Rec Percent Recovery
- RPD Relative Percent Difference
- > Greater than
- < Less than



**SAMPLE SUMMARY**

Lab ID	Client Sample ID/Alias	Matrix	Date Collected	Date Received	Sampled By
7032036-01	Fluoride/	Drinking Water	03/08/2017 09:30	03/08/2017 13:27	Ralph Varney
<u>LabNumber</u>	<u>Measurement</u>	<u>Value</u>			
7032036-01	Field Fluoride	0.63			

**ANALYTICAL RESULTS**

Lab Sample ID: **7032036-01**  
Description: **Fluoride**

Sample Collection Date Time: 03/08/2017 09:30  
Sample Received Date Time: 03/08/2017 13:27

Matrix: Drinking Water

Discharge/Site No: P01

Regulatory ID: KY0980350

**Conventional Chemistry Analyses Madisonville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Fluoride	0.75		mg/L	0.20		4500-F C-1997	03/14/2017 09:19	03/14/2017 09:19	JTL

**Notes for work order 7032036**

- Samples collected by MMLI personnel are done so in accordance with procedures set forth in MMLI field services SOPs.
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identification based on the presumptive evidence of the mass spectra.

U Target analyte was analyzed for, but was below detection limit (the value associated with the qualifier is the laboratory method detection limit in our LIMS system).

**Standard Qualifiers/Acronyms**

- MDL Method Detection Limit
- MRL Minimum Reporting Limit
- ND Not Detected
- LCS Laboratory Control Sample
- MS Matrix Spike
- MSD Matrix Spike Duplicate
- DUP Sample Duplicate
- % Rec Percent Recovery
- RPD Relative Percent Difference
- > Greater than
- < Less than

**ENTERED**  
03/12/17  
RU

**Certified Analyses included in this Report**

Analyte	Certifications
<b>4500-F C-1997 in Water</b>	
Fluoride	KY Drinking Water Mdv (00030) VA NELAC Mdv (460210) IN Drinking Water Mdv (C-KY-02) IL Drinking Water Mdv (200079)

**KENTUCKY DIVISION OF WATER / DRINKING WATER BRANCH  
DISINFECTION BYPRODUCT PRECURSOR ANALYSIS REPORT FORM**

SAMPLE CATEGORY = TOC

This Section To Be Completed By Collector

PWS ID	<u>KY0980350</u>	Plant ID	<u>A</u>	Plant Name	<u>INTAKE - LEVISA FORK/BIG SANDY RIVE</u>	Location Code	<u>R01</u>
PWS Name	<u>Pikeville Water Department</u>			PWS Contact	<u>Ralph Varney</u>		
PWS Address	<u>306 Island Creek Road, Pikeville, KY 41501</u>			PWS Phone	<u>(606) 437-5123</u>		
Sample Date (MMDDYYYY)	<u>03/08/2017</u>	Time	<u>13:03</u>	Sample Type	<u>RT</u>	Collector Name	<u>Ralph Varney</u>
				RT = Routine (For Compliance) SP = Special (Not for Compliance)			

This Section to Be Completed By Lab

Lab ID	<u>00030</u>	Lab Sample Number	<u>7032037-01</u>	Lab Phone	<u>(270) 821-7375</u>
Lab Analyst	<u>Tracy Benton</u>	Signature/Date	<u>03/15/2017 15:44</u>	Lab Supervisor	<u>Mark Sutton</u> <u>03/17/2017</u>

Analyte Code	Analyte Name	Analysis Method Code	<	Result (mg/L)	Analysis Date
				-or- Lab Minimum Reporting Limit (mg/L)	
1927	Alkalinity, Total (as CaCO3)	849		86	03152017
2920	Total Organic Carbon	839		1.5	03142017

The signatories of this form certify by their signature that collection and analysis of the water sample analyzed and the resulting data hereby submitted, were completed in accordance with the provisions of 401 KAR Chapter 8; and that the data submitted on this form is a true and accurate report of the results of collection and analysis performed pursuant to the above-referenced regulations. Violations of 401 KAR Chapter 8 are subject to severe penalties prescribed in KRS 224.99-010, up to \$25,000 fine per day per violation and in some cases a violation may subject a violator to prison.

**ENTERED**  
**4/18/17**  
RV

**KENTUCKY DIVISION OF WATER / DRINKING WATER BRANCH  
DISINFECTION BYPRODUCT PRECURSOR ANALYSIS REPORT FORM**

SAMPLE CATEGORY = TOC

**This Section To Be Completed By Collector**

PWS ID	<u>KY0980350</u>	Plant ID	<u>A</u>	Plant Name	<u>PIKEVILLE WTP</u>	Location Code	<u>CF1</u>
PWS Name	<u>Pikeville Water Department</u>			PWS Contact	<u>Ralph Varney</u>		
PWS Address	<u>306 Island Creek Road, Pikeville, KY 41501</u>			PWS Phone	<u>(606) 437-5123</u>		
Sample Date (MMDDYYYY)	<u>03/08/2017</u>	Time	<u>13:17</u>	Sample Type	<u>RT</u>	Collector Name	<u>Ralph Varney</u>
				RT = Routine (For Compliance) SP = Special (Not for Compliance)			

**This Section to Be Completed By Lab**

Lab ID	<u>00030</u>	Lab Sample Number	<u>7032037-02</u>	Lab Phone	<u>(270) 821-7375</u>		
Lab Analyst	<u>Tracy Benton</u>		Lab Supervisor	<u><i>Tracy Benton</i></u>		<u>03/17/2017</u>	
	Signature/Date						

Analyte Code	Analyte Name	Analysis Method Code	Result (mg/L) -or- Lab Minimum Reporting Limit (mg/L)	Analysis Date
2920	Total Organic Carbon	839	1.2	03142017

The signatories of this form certify by their signature that collection and analysis of the water sample analyzed and the resulting data hereby submitted, were completed in accordance with the provisions of 401 KAR Chapter 8; and that the data submitted on this form is a true and accurate report of the results of collection and analysis performed pursuant to the above-referenced regulations. Violations of 401 KAR Chapter 8 are subject to severe penalties prescribed in KRS 224.99-010, up to \$25,000 fine per day per violation and in some cases a violation may subject a violator to prison.



McCoy & McCoy  
LABORATORIES, Inc.

P.O. Box 907  
Madisonville, KY 42431  
270.821.7375  
www.mccoylabs.com

Lexington, KY      Pikeville, KY      Farmersburg, IN  
859.299.7775      606.432.3104      812.696.5076  
  
Louisville, KY      Paducah, KY  
502.961.0001      270.444.6547

"Providing Tomorrow's Analytical Capabilities Today"

**SAMPLE SUMMARY**

Lab ID	Client Sample ID/Alias	Matrix	Date Collected	Date Received	Sampled By
7030498-01	Backwash/Grit Cyclone	Wastewater	03/08/2017 13:18	03/08/2017 13:27	Ralph Varney
7030498-02	Backwash/Grit Pump	Wastewater	03/08/2017 13:20	03/08/2017 13:27	Ralph Varney

**ANALYTICAL RESULTS**

Lab Sample ID: **7030498-01**  
Description: **Backwash Grit Cyclone**

Sample Collection Date Time: 03/08/2017 13:18  
Sample Received Date Time: 03/08/2017 13:27

**Conventional Chemistry Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Suspended Solids	100		mg/L	8	8	2540 D-1997	03/15/2017 16:32	03/15/2017 17:53	ADH

**Field Analysis Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
pH (Field)	7.87		Std. Units	0.10	0.10	4500-H+ B-2000	03/08/2017 13:18	03/08/2017 13:30	BRL

**ANALYTICAL RESULTS**

Lab Sample ID: **7030498-02**  
Description: **Backwash Grit Pump**

Sample Collection Date Time: 03/08/2017 13:20  
Sample Received Date Time: 03/08/2017 13:27

**Conventional Chemistry Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Suspended Solids	70		mg/L	3	3	2540 D-1997	03/15/2017 16:32	03/15/2017 17:55	ADH

**Field Analysis Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
pH (Field)	7.89		Std. Units	0.10	0.10	4500-H+ B-2000	03/08/2017 13:20	03/08/2017 13:31	BRL

ENTERED  
4/18/17  
R

March, 2017

DMR CALCULATIONS

date	tss cyclone	pH cyclone	tss intake	pH intake	hrs operated
03/01/17					11.25
03/02/17					12.00
03/03/17					11.50
03/04/17					12.25
03/05/17					11.75
03/06/17					12.25
03/07/17					12.00
03/08/17	100	7.87	70	7.89	12.50
03/09/17					12.25
03/10/17					12.00
03/11/17					12.00
03/12/17					11.00
03/13/17					11.00
03/14/17					13.00
03/15/17					11.25
03/16/17					11.50
03/17/17					12.25
03/18/17					13.00
03/19/17					11.50
03/20/17					12.50
03/21/17					11.00
03/22/17					14.00
03/23/17					11.50
03/24/17					12.75
03/25/17					13.50
03/26/17					12.00
03/27/17					12.00
03/28/17					12.75
03/29/17					13.75
03/30/17					11.75
03/31/17					12.75

CYCLONE ESTIMATE	
100 gpm	Tot Hours
376.50	94
18,825	times flushed 4 hr cycle
0.0188	gallons flushed
0.00061	mg flushed
	mgd flushed

GRIT PUMP AT RWI	
200 gpm	Total pumping hours
31	372,000
	Total gallons pumped
0.3720	Million gallons pumped
0.0120	Million gallons a day

TSS-001	TSS-002
100	70

pH	
Cyclone	Pump
7.87	7.89

100 gpm 2 min  
 4 hr cycle  
 800 gal  
 200 gpm  
 4 hr cycle  
 800 gal  
 200 gpm  
 4 hr cycle  
 800 gal

DMR Copy of Record

Permit #: KYG640068 Permittee: Pikeville, City of Facility: PIKEVILLE, CITY OF  
 Major: No Permittee Address: 306 Island Creek Rd Facility Location: 118 COLLEGE ST  
 Discharge: 001-1 PIKEVILLE, KY 41501  
 Filter Backwash Water  
 Monitoring Period: From 03/01/17 to 03/31/17 DMR Due Date: 04/28/17 Status: NetDMR Validated

Considerations for Form Completion  
 0011: Monitoring for Total Rec. Aluminum only required if aluminum-based coagulants are used. Monitoring for Total Rec. Iron required if iron-based coagulants are used. Monitoring for Phosphorus required if phosphates used in the distribution system, & if distribution system water is present in the discharge.

Principal Executive Officer  
 First Name: JIMMY Title: MAYOR Telephone: 606-437-0540  
 Last Name: CARTER

No Data Indicator (NODI)  
 Form NODI: --

Code	Parameter Name	Monitoring Location	Season #	Param. NODI	Qualifier 1	Value 1	Qualifier 2	Value 2	Units	Qualifier 1	Value 1	Qualifier 2	Value 2	Qualifier 3	Value 3	Units	# of Ex.	Frequency of Analysis	Sample Type
00400	pH	1 - Effluent Gross	0	--						=	7.9			=	7.9	12 - SU	0	01/30 - Monthly	GR - GRAB
										>=	6 MINIMUM			<=	9 MAXIMUM			01/30 - Monthly	GR - GRAB
X 00530	Solids, total suspended	1 - Effluent Gross	0	--						=	100			=	100	19 - mg/L	0	01/30 - Monthly	GR - GRAB
										<=	30 30DA AVG			<=	50 DAILY MX	19 - mg/L	2	01/30 - Monthly	GR - GRAB
00665	Phosphorus, total [as P]	1 - Effluent Gross	0	--												19 - mg/L	0	01/30 - Monthly	GR - GRAB
00680	Iron, total recoverable	1 - Effluent Gross	0	--												19 - mg/L	0	01/30 - Monthly	GR - GRAB
01104	Aluminum, total recoverable	1 - Effluent Gross	0	--												19 - mg/L	0	01/30 - Monthly	GR - GRAB
50050	Flow, in conduit or thru treatment plant	1 - Effluent Gross	0	--		0.0008		0.0008	03 - MGD								0	01/30 - Monthly	IN - INSTAN
																		01/30 - Monthly	IN - INSTAN
50060	Chlorine, total residual	1 - Effluent Gross	0	--												19 - mg/L	0	01/30 - Monthly	GR - GRAB

Submission Note  
 If a parameter row does not contain any values for the Sample nor Effluent Trading, then none of the following fields will be submitted for that row: Units, Number of Excursions, Frequency of Analysis, and Sample Type.

Edit Check Errors

Code	Parameter Name	Monitoring Location	Field	Type	Description	Acknowledge
00530	Solids, total suspended	1 - Effluent Gross	Quality or Concentration Sample Value 2	Soft	The provided sample value is outside the permit limit. (Error Code: 1)	Yes
00530	Solids, total suspended	1 - Effluent Gross	Quality or Concentration Sample Value 3	Soft	The provided sample value is outside the permit limit. (Error Code: 1)	Yes

Comments  
 VIOLATION IS BECAUSE THE SOURCE TURBIDITY WAS HIGH. THIS IS AN UNTREATED GRIT REMOVAL STREAM TAKEN OUT OF THE RAW SOURCE WATER. SOURCE TURBIDITY IS SOMETHING THAT CANNOT BE CONTROLLED AND VIOLATIONS MAKE IT SEEM AS WE ARE DOING SOMETHING WRONG. I WOULD REQUEST THAT THE MONITORING AND REPORTING ON THIS DISCHARGE BE DISCONTINUED.

Attachments  
 No attachments.

Report Last Saved By  
 Pikeville, City of  
 User: varneyralph Date/Time: 2017-04-18 10:57 (Time Zone: -04:00)  
 Name: Ralph Varney  
 E-Mail: rvarney@umgllc.net

DMR Copy of Record

Permit

Permit #: **KYG640068** Permittee: **Pikeville, City of** Facility: **PIKEVILLE, CITY OF**  
 Major: **No** Permittee Address: **306 Island Creek Rd** Facility Location: **118 COLLEGE ST**  
**Pikeville, KY 41501**

Permitted Feature: **002 External Outfall** Discharge: **002-1 FILTER BACKWASH WATER**

Report Dates & Status  
 Monitoring Period: **From 03/01/17 to 03/31/17** DMR Due Date: **04/28/17** Status: **NetDMR Validated**

Considerations for Form Completion

0021: Monitoring for Total Rec. Aluminum only required if aluminum-based coagulants are used. Monitoring for Total Rec. Iron required if iron-based coagulants are used. Monitoring for Phosphorus required if phosphates used in the distribution system, & if distribution system water is present in the discharge.

Principal Executive Officer

First Name: **JIMMY** Title: **MAYOR** Telephone: **606-437-0540**  
 Last Name: **CARTER**

No Data Indicator (NODI)

Form NODI: **--**

Code	Parameter Name	Monitoring Location	Season	# Param.	NODI	Quantity or Loading				Units	Quality or Concentration			# of Ex.	Frequency of Analysis	Sample Type
						Qualifier 1	Value 1	Qualifier 2	Value 2		Value 2	Qualifier 3	Value 3			
00400	pH	1 - Effluent Gross	0	--												
						Sample										
						Permit Req.										
						Value NODI										
X 00530	Solids, total suspended	1 - Effluent Gross	0	--		Sample										
						Permit Req.										
						Value NODI										
						Sample										
						Permit Req.										
						Value NODI										
						Sample										
00685	Phosphorus, total [as P]	1 - Effluent Gross	0	--		Permit Req.										
						Value NODI										
						Sample										
						Permit Req.										
						Value NODI										
						Sample										
00980	Iron, total recoverable	1 - Effluent Gross	0	--		Permit Req.										
						Value NODI										
						Sample										
						Permit Req.										
						Value NODI										
						Sample										
01104	Aluminum, total recoverable	1 - Effluent Gross	0	--		Permit Req.										
						Value NODI										
						Sample										
						Permit Req.										
						Value NODI										
						Sample										
50050	Flow, in conduit or thru treatment plant	1 - Effluent Gross	0	--		Permit Req.										
						Value NODI										
						Sample										
						Permit Req.										
						Value NODI										
						Sample										
						Permit Req.										
						Value NODI										
						Sample										
50060	Chlorine, total residual	1 - Effluent Gross	0	--		Permit Req.										
						Value NODI										
						Sample										
						Permit Req.										
						Value NODI										
						Sample										

Submission Note

If a parameter row does not contain any values for the Sample nor Effluent Trading, then none of the following fields will be submitted for that row: Units, Number of Excursions, Frequency of Analysis, and Sample Type.

Edit Check Errors

Code	Parameter Name	Monitoring Location	Field	Type	Description	Acknowledge
00530	Solids, total suspended	1 - Effluent Gross	Quality or Concentration Sample Value 2	Soft	The provided sample value is outside the permit limit. (Error Code: 1)	Yes
00530	Solids, total suspended	1 - Effluent Gross	Quality or Concentration Sample Value 3	Soft	The provided sample value is outside the permit limit. (Error Code: 1)	Yes

Comments

VIOLATIONS ARE CAUSED BY HIGH TURBIDITY IN SOURCE WATER. THIS STREAM IS AN UNTREATED GRIT REMOVAL STREAM. SOURCE WATER TURBIDITY CANNOT BE CONTROLLED AND VIOLATIONS FOR THIS MONITORING MAKES IT SEEM AS WE ARE DOING SOMETHING WRONG. THIS STREAM NEVER COMES ABOVE GROUND UNTIL IT DISCHARGES AT THE RIVER'S EDGE. I FORMALLY REQUEST THAT THIS MONITORING AND REPORTING BE DISCONTINUED.

Attachments

No attachments.

Report Last Saved By

Pikeville, City of

User: **vameyralph** Date/Time: **2017-04-18 11:01 (Time Zone: -04:00)**  
 Name: **Ralph Vamey**  
 E-Mail: **vamey@umglc.net**

KENTUCKY DIVISION OF WATER

Revised 7/1/06

DRINKING WATER BRANCH

MONTHLY OPERATION REPORT (MOR)--ALL WATER SYSTEMS

MONTH & YEAR OF: XXXXXXXXXX

DEP Form 4012--Revised 07/2006

PWS ID :	<u>0980350</u>	PLANT ID:	<u>A</u>	PLANT NAME:	<u>PIKEVILLE WATER PLANT</u>
PWS NAME:	<u>CITY OF PIKEVILLE</u>			PLANT CLASS:	<u>IVA DIST. CLASS: II</u>
AGENCY INTEREST (AI):	<u>3691</u>			DATE MAILED:	
SOURCE NAME:	<u>LEVISA FORK OF THE BIG SANDY RIVER</u>			COUNTY:	<u>PIKE</u>

	OPERATOR(S) RESPONSIBLE / IN-CHARGE	CLASS	CERTIFICATION NUMBER
WTP SHIFT 1:	<u>RALPH VARNEY</u>	<u>IVA</u>	<u>645</u>
WTP SHIFT 2:	<u>GREG PENNINGTON</u>	<u>IVA</u>	<u>777</u>
WTP SHIFT 3:	<u>DEMPSEY MILES</u>	<u>IVA</u>	<u>1549</u>
DISTRIBUTION:	<u>DONNIE SLONE</u>	<u>IID</u>	<u>2236</u>

THIS REPORT MUST BE RECEIVED BY THE DIVISION OF WATER AND APPLICABLE FIELD OFFICE  
NO LATER THAN 10 DAYS AFTER THE END OF THE MONTH.

**TREATMENT PLANTS COMPLETE:**

1. DESIGN CAPACITY (gpm):	<u>4400</u>
2. TYPE OF FILTRATION USED:	<u>DUAL MEDIA RAPID SAND</u>
3. DESIGN FILTRATION RATE (gpm/sq. ft.):	<u>3</u>
4. PERCENT BACKWASH WATER USED:	<u>1.8</u>
5. DATE FLOCCULATION BASIN(S) LAST CLEANED	<u>NOVEMBER 2015</u>
6. DATE SETTLING BASIN(S) LAST CLEANED:	<u>NOVEMBER 2015</u>

I certify under penalty of law that I have personally examined and am familiar with the information submitted herein. Based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. See KRS 224.99-010 and 401 KAR 8:020. (Penalties under this statute and regulation may include fines up to \$25,000 per violation or by imprisonment for not more that one year, or both)

\_\_\_\_\_  
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

\_\_\_\_\_  
DATE



KENTUCKY DIVISION OF WATER - DRINKING WATER BRANCH  
 WATER TREATMENT PLANT MONTHLY OPERATION REPORT

PWS ID: 0980350  
 PLANT ID: A

REPORT MONTH/YEAR: Apr, 2017

PAGE 2 OF 11

DAY	DISINFECTANT		FLUORIDE		CARBON		pH ADJUSTMENT		KMnO4		CORROSION INHIBITOR			
	LBS	PPM	LBS	PPM	LBS	PPM	LBS	PPM	LBS	PPM	LBS	PPM	LBS	PPM
			18.0	0.75										
			15.5	0.60										
			16.0	0.74										
			18.0	0.67										
			18.0	0.63										
			15.7	0.66										
			17.6	0.70										
			18.0	0.71										
			18.0	0.77										
			17.1	0.68										
			12.8	0.52										
			19.3	0.78										
			15.8	0.62										
			16.6	0.67										
			16.2	0.62										
			16.2	0.66										
			16.2	0.65										
			18.0	0.69										
			19.1	0.70										
			15.1	0.66										
			18.0	0.73										
			18.0	0.66										
			23.4	0.74										
			23.6	0.66										
			13.0	0.45										
			18.0	0.79										
			17.1	0.62										
			15.3	0.59										
			18.0	0.66										
			18.0	0.68										
<b>TOTAL</b>			519.6											
<b>AVERAGE</b>			17.3	0.90										

KENTUCKY DIVISION OF WATER - DRINKING WATER BRANCH  
 WATER TREATMENT PLANT MONTHLY OPERATION REPORT

PWS ID : 0980350  
 PLANT ID: A

REPORT MONTH/YEAR: Apr, 2017

PAGE 3 OF 11

DAY	pH			TOTAL ALKALINITY		TOTAL HARDNESS		CHLORINE RESIDUAL				TURBIDITY (NTU)		
	RAW	TOP OF	TAP	RAW	TAP	RAW	TAP	TOP OF FILTER		PLANT TAP		RAW	SETTLED WATER	PLANT TAP
		FILTER						TOTAL	FREE	TOTAL	FREE			
	8.06	7.95	7.84	84	88	234	220		0.46		1.69	6.3	0.81	0.05
	8.02	8.01	7.87	80	88	222	240		0.46		1.71	6.4	0.73	0.06
	8.06	7.95	7.83	100	92	216	212		0.54		1.73	3.2	0.74	0.04
	8.01	7.94	7.84	96	98	196	200		0.46		1.63	7.2	1.14	0.04
	8.02	7.98	7.86	90	90	200	186		0.32		1.55	9.9	0.78	0.05
	8.01	7.91	7.79	72	72	170	168		0.44		1.62	7.9	0.94	0.06
	7.98	7.86	7.77	60	62	148	142		0.42		1.50	19.7	1.32	0.04
	7.93	7.84	7.82	60	68	134	144		0.32		1.49	10.9	0.90	0.04
	7.94	7.86	7.74	60	60	170	156		0.50		1.63	5.3	0.66	0.04
	8.13	7.92	7.74	76	72	166	180		0.42		1.64	5.2	0.68	0.05
	8.13	7.94	7.74	76	76	176	182		0.44		1.49	3.6	0.72	0.05
	8.18	8.00	7.78	70	74	176	184		0.24		1.50	8.6	1.26	0.07
	8.12	7.99	7.74	68	72	180	184		0.24		1.34	5.3	1.10	0.05
	8.22	8.03	7.80	82	96	182	184		0.48		1.47	5.0	1.00	0.05
	8.20	8.01	7.81	80	94	180	182		0.36		1.66	3.2	0.99	0.04
	8.02	7.98	7.85	80	92	178	180		0.52		1.59	6.7	0.89	0.05
	7.98	7.95	7.81	90	92	186	184		0.54		1.51	4.6	0.99	0.04
	8.10	7.97	7.81	92	92	188	184		0.43		1.62	3.5	0.76	0.05
	8.00	7.90	7.89	94	96	218	220		0.42		1.63	4.5	0.79	0.07
	8.11	7.97	7.81	88	90	216	208		0.32		1.54	6.4	1.12	0.05
	8.03	7.96	7.81	84	92	200	206		0.57		1.52	4.5	0.91	0.04
	7.95	7.97	7.90	78	80	196	198		0.34		1.47	19.9	1.24	0.05
	7.75	7.78	7.80	40	50	128	110		0.02		1.27	230.0	1.26	0.08
	7.83	7.56	7.55	44	40	114	90		0.06		1.54	334.0	1.13	0.06
	7.89	7.71	7.57	60	62	164	156		0.75		1.69	58.0	1.10	0.05
	7.88	7.74	7.63	64	62	162	170		0.53		1.75	38.5	1.51	0.05
	7.93	7.72	7.62	70	68	174	178		0.64		1.72	43.2	1.72	0.06
	8.02	7.72	7.62	60	78	164	158		0.14		1.62	46.7	1.83	0.06
	7.80	7.75	7.64	66	82	176	172		0.64		1.53	63.4	1.59	0.05
	7.78	7.74	7.75	68	82	168	162		0.76		1.80	74.6	1.77	0.05
<b>AVE</b>	8.00	7.89	7.77	74	79	179	178		0.43		1.58	34.9	1.08	0.05

KENTUCKY DIVISION OF WATER  
 DRINKING WATER BRANCH  
 WATER TREATMENT PLANT MONTHLY OPERATION REPORT

PWS ID: 0980350  
 PLANT ID: A  
 AGENCY INTEREST: 3691  
 REPORT MONTH/YEAR: Apr, 2017

AREA-WIDE OPTIMIZATION PROGRAM TURBIDITY DATA  
 COPY PAGE AS NEEDED

DAY	RAW DAILY MAX	SEDIMENTATION BASIN EFFLUENT DAILY MAXIMUM						INDIVIDUAL FILTER EFFLUENT DAILY MAXIMUM							CFE DAILY MAX
		#1	#2	#3	#4	#5	#6	#1	#2	#3	#4	#5	#6	#7	
	6.4	0.87	0.78					0.08	0.07	0.09	0.10	0.08			0.05
	7.9	0.82	0.76					0.06	0.07	0.04	0.13	0.09			0.12
	3.2	0.76	0.72					0.08	0.08	0.04	0.10	0.06			0.04
	7.4	1.29	0.90					0.08	0.08	0.06	0.16	0.07			0.06
	12.0	0.88	0.65					0.10	0.09	0.06	0.12	0.07			0.04
	8.5	1.18	1.08					0.12	0.06	0.08	0.10	0.08			0.05
	21.1	1.43	1.33					0.05	0.06	0.08	0.10	0.09			0.04
	12.1	1.04	0.88					0.06	0.06	0.07	0.09	0.08			0.04
	5.6	0.72	0.62					0.06	0.05	0.02	0.06	0.04			0.03
	5.3	0.69	0.58					0.07	0.05	0.02	0.08	0.06			0.04
	3.8	0.94	0.90					0.08	0.05	0.02	0.09	0.13			0.05
	11.5	1.53	0.97					0.14	0.06	0.03	0.08	0.06			0.04
	5.5	1.32	1.24					0.17	0.06	0.06	0.10	0.06			0.04
	6.0	1.16	1.02					0.09	0.09	0.07	0.13	0.07			0.05
	3.3	1.15	1.00					0.08	0.07	0.07	0.11	0.08			0.05
	9.3	1.13	0.96					0.08	0.06	0.09	0.16	0.11			0.07
	5.1	1.29	1.08					0.11	0.09	0.04	0.11	0.09			0.05
	4.0	0.79	0.65					0.07	0.07	0.06	0.13	0.09			0.04
	5.1	0.80	0.85					0.10	0.08	0.06	0.11	0.10			0.06
	7.2	1.55	1.39					0.13	0.08	0.07	0.11	0.06			0.05
	5.2	0.92	0.90					0.06	0.12	0.06	0.10	0.07			0.05
	25.4	1.38	1.24					0.08	0.07	0.09	0.11	0.07			0.05
	283.0	0.76	0.57					0.12	0.15	0.31	0.11	0.11			0.12
	480.0	1.30	1.11					0.07	0.06	0.04	0.25	0.08			0.06
	61.9	1.18	0.91					0.07	0.05	0.03	0.08	0.06			0.04
	43.8	1.84	1.49					0.15	0.07	0.04	0.09	0.09			0.05
	43.7	1.89	1.80					0.17	0.10	0.10	0.12	0.09			0.08
	52.3	1.88	1.76					0.10	0.13	0.14	0.17	0.12			0.08
	69.9	1.47	1.60					0.12	0.13	0.14	0.22	0.12			0.09
	86.3	1.83	1.71					0.08	0.06	0.28	0.21	0.08			0.05
<b>AVE</b>	43.4	1.19	1.05					0.09	0.08	0.08	0.12	0.08			0.06

KENTUCKY DIVISION OF WATER - DRINKING WATER BRANCH  
 WATER TREATMENT PLANT MONTHLY OPERATION REPORT

PWSID: 0980350  
 PLANT ID: A

REPORT MONTH/YEAR: Apr, 2017

\*Please answer Y/N question below this chart.

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DAY	FLUORIDE		IRON		MANGANESE				Lowest Daily Cl Res	RAINFALL INCHES	WATER TEMP. DEGREES F°/C°
	RAW	TAP	RAW	TAP	RAW	TAP	RAW	TAP	Plant Tap On-Line Cl Analyzer FREE		
	0.12	0.79							1.69		15.0
	0.13	0.77							1.71		15.0
	0.11	0.76							1.73	0.09	15.0
	0.11	0.80							1.63	0.38	15.0
	0.11	0.80							1.55		17.0
	0.11	0.79							1.62	0.11	17.0
	0.10	0.74							1.50	0.14	13.0
	0.08	0.66							1.49		12.0
	0.10	0.69							1.63		13.0
	0.09	0.67							1.64		15.0
	0.09	0.74							1.49	0.63	16.0
	0.10	0.80							1.50		16.5
	0.10	0.78							1.34		16.0
	0.13	0.79							1.47		15.0
	0.13	0.82							1.66		18.0
	0.12	0.80							1.59	0.11	19.0
	0.10	0.77							1.51	0.16	17.0
	0.09	0.72							1.62		17.0
	0.09	0.76							1.63	0.11	16.5
	0.10	0.74							1.54	0.44	16.5
	0.11	0.77							1.52	0.64	17.0
	0.10	0.76							1.47	0.18	17.0
	0.08	0.92							1.27	0.72	15.0
	0.07	0.74							1.54	0.98	14.0
	0.08	0.70							1.69		13.0
	0.08	0.73							1.75		14.0
	0.08	0.76							1.72		14.0
	0.13	0.74							1.62		15.0
	0.09	0.78							1.53	0.26	16.0
	0.11	0.82							1.80		17.0
<b>AVE</b>	0.10	0.76									15.6

	1.27	
Number of readings	30	4.95
For Free Cl, # < 0.2 mg/L	0	
For Chloramines, # < 0.5 mg/L		

Disinfectant Chloramines? (Y/N)

KENTUCKY DIVISION OF WATER - DRINKING WATER BRANCH  
 WATER TREATMENT PLANT MONTHLY OPERATION REPORT

PWS ID : 0980350

PLANT ID: A

REPORT MONTH/YEAR: Apr, 2017

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DAY	TOTAL	No: 1		No: 2		No: 3		No: 4		No: 5		
	WASH	AREA (ft2)	363									
	WATER	WASH	FILT RUN									
GALLONS	GALLONS	HRS	GALLONS	HRS	GALLONS	HRS	GALLONS	HRS	GALLONS	HRS	GALLONS	HRS
	65,624					65,624	76.50					
	81,620									81,620	75.25	
	81,350							81,350	87.50			
	81,600			81,600	81.00							
	82,000	82,000	73.00									
	81,300					81,300	82.00					
	62,080							62,080	69.50			
	73,575									73,575	107.00	
	64,600	64,600	80.25									
	65,600			65,600	107.25							
	163,550					82,200	94.50	81,350	74.00			
	78,700									78,700	96.00	
	79,400	79,400	84.75									
	82,000			82,000	84.75							
	82,400					82,400	73.25					
	80,300							80,300	100.25			
	97,248									97,248	90.50	
	74,160	74,160	93.00									
	89,496			89,496	102.50							
	81,800					81,800	104.25					
<b>TOT</b>	1,648,403	300,160	331.0	318,696	375.5	393,324	430.5	305,080	331.3	331,143	368.8	
<b>AVE</b>	82,420	75,040	82.8	79,674	93.9	78,665	86.1	76,270	82.8	82,786	92.2	

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KENTUCKY DIVISION OF WATER - DRINKING WATER BRANCH  
 WATER TREATMENT PLANT MONTHLY OPERATION REPORT

PWS ID : 0980350  
 PLANT ID: A

REPORT MONTH/YEAR: Apr, 2017

PAGE 7 OF 11

DAY	CHEMICALS ADDED		TEST RESULTS										
	CHLORINE BOOSTER	CHLORINE BOOSTER	TOTAL (T) AND FREE (F) CHLORINE RESIDUAL (ppm)										
	LBS	LBS	NORTH		SOUTH		EAST		WEST				
			T	F	T	F	T	F	T	F			
				1.15									
							0.97						
									1.18				
												1.08	
				1.18									
							1.00						
									1.10				
												1.30	
				1.24									
							1.19						
									1.02				
												1.12	
				0.85									
							0.97						
									1.01				
												1.25	
				0.10									
							0.98						
									1.25				
												1.09	
				1.12									
							0.85						
									0.81				
												0.99	
				0.98									
							0.93						
									1.19				
												0.87	
				0.97									
							1.20						
AVE			AVERAGE	0.95			1.01		1.08			1.10	
TOT			TOT MIN										
			FREE MIN	0.10			0.85		0.81			0.87	
Total # Chlorine Samples				8			8		7			7	
# Less than 0.2 mg/L/0.5 mg/L				1			0		0			0	
Number of Free Residuals				30	Minimum Monthly Total Residual				NA				
Number of Total Residuals				0	Minimum Monthly Free Residual				0.10				
Total # Less than 0.2 mg/L				1	Disinfectant Chloramines? (Y/N)				N				
					Number of days of operation?				30				

KENTUCKY DIVISION OF WATER - DRINKING WATER BRANCH  
 WATER TREATMENT PLANT MONTHLY OPERATION REPORT

PWS ID: 0980350  
 PLANT ID: A

TURBIDITY REPORT

Report Period (MM/YYYY): Apr, 2017

PWS Name: CITY OF PIKEVILLE

PAGE:  
 8 OF 11

DAY									
	11.5	3		0.05	0.04	0.04	0.06		0.06
	12.3	4		0.04	0.08	0.06	0.06	0.06	0.08
	10.3	3			0.05	0.04	0.04		0.05
	12.8	4		0.04	0.04	0.04	0.05	0.05	0.05
	13.5	4		0.05	0.05	0.05	0.05		0.05
	11.5	3		0.05	0.06	0.07	0.04		0.07
	12.0	3		0.05	0.04	0.04	0.04		0.05
	12.0	3		0.05	0.04	0.04	0.04	0.04	0.05
	11.0	3		0.04	0.04	0.04	0.04		0.04
	12.0	3		0.05	0.06	0.04	0.04		0.06
	12.0	3		0.06	0.06	0.04	0.04		0.06
	11.5	3		0.08	0.06		0.06		0.08
	12.3	4		0.05	0.05	0.05	0.05		0.05
	12.3	4		0.05	0.04	0.05	0.05		0.05
	12.3	4		0.04	0.04	0.04	0.04		0.04
	11.8	3		0.05	0.05	0.04	0.05		0.05
	12.0	3		0.05	0.04	0.04	0.04		0.05
	12.5	4		0.06	0.05	0.04	0.04		0.06
	13.0	4		0.05	0.04	0.09	0.08		0.09
	10.8	3			0.05	0.04	0.05		0.05
	12.0	3		0.04	0.04	0.05	0.04		0.05
	12.8	4		0.05	0.05	0.05	0.05		0.05
	15.5	4		0.08	0.11	0.07	0.06	0.07	0.11
	15.8	4		0.07	0.06	0.05	0.05	0.06	0.07
	13.3	4		0.06	0.05	0.04	0.05	0.05	0.06
	10.5	3		0.05	0.05		0.06		0.06
	12.5	4		0.06	0.07	0.07	0.05		0.07
	12.0	3		0.06	0.07	0.06	0.06		0.07
	12.5	4		0.05	0.04	0.05	0.04		0.05
	12.3	4		0.05	0.04	0.04	0.06		0.06
Total	368.0	105		TOTAL # OF TURBIDITY SAMPLES TAKEN --				122	0.11

ARE YOU USING EITHER CONVENTIONAL or DIRECT FILTRATION? (Y/N)

(Any type of filtration besides slow sand)

Number of samples exceeding ----> 0.1 NTU 1 0.3 NTU 0 1 NTU 0

For slow sand filtration, the number of samples exceeding ----> 1 NTU 5 5 NTU     

\*NOTE: The "Number of Turbidity Samples Required" is the number of hours the plant operated divided by 4 rounded up to the next whole number.

I certify that the above turbidity readings were taken every 4 hours during plant operation and in the time frames noted above.

Signature of Principal Executive Officer or Authorized Agent

Date

KENTUCKY DIVISION OF WATER / DRINKING WATER BRANCH  
Monthly Operating Report (MOR) Plant Summary Form

PWS ID : 0980350

Monitoring Period (MM/YYYY): Apr, 2017

**NOTE: COMPLETE ALL APPLICABLE FIELDS!!! NOT ALL OF THE FIELDS ARE  
PRE-POPULATED FOR YOU!!!**

APPLICABLE TO ALL PLANTS			
PLANT ID:	<u>A</u>	TOTAL WATER TREATED (gallons)	<b>93,394,000</b>
PLANT NAME:	<u>PIKEVILLE WATER PLANT</u>	AVE. DAILY PRODUCTION (gallons)	<b>3,113,133</b>
AGENCY INTEREST:	<u>3691</u>	MAXIMUM PUMPAGE (gallons per day)	<b>4,279,000</b>

APPLICABLE TO ALL PLANTS WITH FILTRATION	
ANALYTE CODE	<u>0100</u>
Was each filter monitored continuously? (Y/N).....	<b>Y</b>
Were measurements recorded every 15 minutes? (Y/N).....	<b>Y</b>
Was there a failure of the continuous monitoring equipment? (Y/N).....	<b>N</b>
If Yes, (1) were individual filter effluent turbidity grab samples collected every four hours of operation? (Y/N).....	
(2) was the continuously monitoring equipment repaired within 5 working days? (Y/N).....	
Was individual filter level greater than 1.0 NTU in two consecutive measurements? (Y/N).....	<b>N</b>
Was individual filter level < 0.5 NTU in two consecutive measurements after online more than 4 hours? (Y/N).....	<b>N</b>
Was individual filter level < 1.0 NTU in two consecutive measurements in three consecutive months? (Y/N).....	<b>N</b>
Was individual filter level greater than 2.0 NTU in two consecutive measurements in two consecutive months? (Y/N)	<b>N</b>
<b>If any of the last 4 boxes are YES, fill out the Individual Filter Turbidity Sheet and submit with MOR</b>	

APPLICABLE TO ALL PLANTS WITH FILTRATION	APPLICABLE TO ALL PLANTS
ANALYTE CODE	<u>0100</u>
Number of hours of plant operation.....	<b>368.0</b>
Were samples taken every 4 hrs of plant operation? (Y/N)	<b>Y</b>
Number of samples taken.....	<b>121</b>
Highest single turbidity reading .....	<b>0.11</b>
For all filtration except slow sand filtration:	
Number of samples exceeded 0.1 NTU .....	<b>1</b>
Number of samples exceeded 0.3 NTU .....	<b>0</b>
Number of samples exceeded 1.0 NTU .....	<b>0</b>
When filtration is slow sand filtration:	
Number of samples exceeded 1 NTU .....	
Number of samples exceeded 5 NTU .....	
ANALYTE CODE	<u>0999</u>
Number of days of plant operation.....	<b>30</b>
Were samples taken each day of operation? (Y/N)	<b>Y</b>
Number of lowest chlorine samples recorded .....	<b>30</b>
Lowest single chlorine reading .....	<b>1.27</b>
If less than required:	
Was residual restored within 4 hrs of plant operation	
Free chlorine (for all disinfectants except chloramine):	
Number of samples under 0.2 mg/L .....	<b>0</b>
Total Chlorine (when disinfectant is chloramine):	
Number of samples under 0.5 mg/L .....	

APPLICABLE TO PLANTS UTILIZING CHLORINE DIOXIDE	APPLICABLE TO PLANTS USING CHLORINE DIOXIDE
ANALYTE CODE	<u>1008</u>
Number of days of plant operation.....	<b>30</b>
Were samples taken each day of operation? (Y/N).....	
Number of samples taken .....	<b>####</b>
Highest single chlorine dioxide reading .....	<b>####</b>
Number of chlorine dioxide samples exceeded 0.8 mg/L ..	<b>####</b>
ANALYTE CODE	<u>1009</u>
Number of days of plant operation.....	<b>30</b>
Were samples taken each day of operation? (Y/N)	
Number of samples taken .....	<b>####</b>
Highest single chlorite reading .....	<b>####</b>
Number of chlorite samples exceeded 1 mg/L .....	<b>####</b>

I certify under penalty of law that I have personally examined and am familiar with the information submitted herein. Based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. See KRS 224.99-010 and 401 KAR 8:020. (Penalties under this statute and regulation may include fines up to \$25,000 per violation or by imprisonment for not more than one year, or both).

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

DATE



# Water Withdrawal Report Form

Preprint ID:

Agency Interest

Subject Item:

Monitoring Period:

3691 - Pikeville Water Department

GACT000000001-0638 Levisa Fork

04/01/17 to 04/30/17

Day	Result	Parameter	Unit
1	2.866	Withdrawal	MGD (MA)
2	3.123	Withdrawal	MGD (MA)
3	2.596	Withdrawal	MGD (MA)
4	3.241	Withdrawal	MGD (MA)
5	3.412	Withdrawal	MGD (MA)
6	2.852	Withdrawal	MGD (MA)
7	3.027	Withdrawal	MGD (MA)
8	3.039	Withdrawal	MGD (MA)
9	2.809	Withdrawal	MGD (MA)
10	3.013	Withdrawal	MGD (MA)
11	2.970	Withdrawal	MGD (MA)
12	2.970	Withdrawal	MGD (MA)
13	3.041	Withdrawal	MGD (MA)
14	2.973	Withdrawal	MGD (MA)
15	3.111	Withdrawal	MGD (MA)
16	2.930	Withdrawal	MGD (MA)
17	3.011	Withdrawal	MGD (MA)
18	3.133	Withdrawal	MGD (MA)
19	3.250	Withdrawal	MGD (MA)
20	2.759	Withdrawal	MGD (MA)
21	2.944	Withdrawal	MGD (MA)
22	3.285	Withdrawal	MGD (MA)
23	3.770	Withdrawal	MGD (MA)
24	4.279	Withdrawal	MGD (MA)
25	3.464	Withdrawal	MGD (MA)
26	2.728	Withdrawal	MGD (MA)
27	3.282	Withdrawal	MGD (MA)
28	3.085	Withdrawal	MGD (MA)
29	3.278	Withdrawal	MGD (MA)
30	3.153	Withdrawal	MGD (MA)
		Withdrawal	MGD (MA)

 A handwritten signature in black ink is written over a rectangular stamp. The stamp contains the word "ENTERED" in a bold, sans-serif font. The signature appears to be "R. J. [unclear]".

**PIKEVILLE WATER TREATMENT PLANT  
WATER PUMPED TO DISTRIBUTION SYSTEM  
FOR THE MONTH OF: April, 2017**

04/01/17	2.8385
04/02/17	3.0579
04/03/17	2.6913
04/04/17	3.2203
04/05/17	3.4113
04/06/17	2.8914
04/07/17	3.0883
04/08/17	2.8966
04/09/17	2.8827
04/10/17	3.0204
04/11/17	2.8612
04/12/17	3.0663
04/13/17	3.1074
04/14/17	2.9011
04/15/17	2.9768
04/16/17	3.0385
04/17/17	3.0605
04/18/17	3.1805
04/19/17	3.2445
04/20/17	2.7764
04/21/17	2.9392
04/22/17	3.0266
04/23/17	3.8413
04/24/17	4.3889
04/25/17	3.5396
04/26/17	3.0003
04/27/17	3.2377
04/28/17	3.1199
04/29/17	3.1131
04/30/17	3.2071

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<b>Total</b>	<b>93.6256</b>
<b>Average</b>	<b>3.1209</b>
<b>Minimum</b>	<b>2.6913</b>
<b>Maximum</b>	<b>4.3889</b>

<b>Water plant usage</b>	<b>54,930</b>
<b>Raw water intake usage</b>	<b>151,480</b>
<b>Total non metered usage</b>	<b>206,410</b>

	FLOW TO DIST	START C. WELL	Settling Basin Turbidity						Sludge Hauled	Spent B/W Return	DUP pH TAP
			MID - 4	4A - 8AM	8AM - 12N	12N - 4PM	4PM - 8PM	8PM - 12M			
04/01/17	2.8385	7.2		0.72	0.94	0.82	0.76			129,000	7.84
04/02/17	3.0579	7.0		0.68	0.74	0.79	0.66	0.70		127,000	7.88
04/03/17	2.6913	7.4			0.71	0.78	0.74			46,000	7.85
04/04/17	3.2203	5.4		0.74	0.77	0.94	1.10	1.04		147,000	7.85
04/05/17	3.4113	6.0		0.94	0.74	0.76	0.67			188,000	7.86
04/06/17	2.8914	7.0		0.76	0.75	0.94	1.13			71,000	7.80
04/07/17	3.0883	4.6		1.26	1.31	1.26	1.38			159,000	7.78
04/08/17	2.8966	5.4		1.02	0.93	0.96	0.87	0.63		147,000	7.84
04/09/17	2.8827	8.0		0.61	0.66	0.67	0.68			48,000	7.74
04/10/17	3.0204	6.4		0.76	0.65	0.71	0.64		37,200	143,000	7.74
04/11/17	2.8612	6.2		0.63	0.49	0.66	0.92		62,900	182,000	7.74
04/12/17	3.0663	7.6		1.15	1.80		1.25		20,120	54,000	7.79
04/13/17	3.1074	5.6		1.01	0.90	1.05	1.28			124,000	7.74
04/14/17	2.9011	4.8		0.79	0.96	1.08	1.09			100,000	7.80
04/15/17	2.9768	6.4		1.11	0.81	1.08	0.86			25,000	7.80
04/16/17	3.0385	8.2		0.86	0.76	1.04	0.72			187,000	7.84
04/17/17	3.0605	6.4		0.87	0.83	0.90	1.18			90,000	7.81
04/18/17	3.1805	5.6		0.87	0.71	0.80	0.72			66,000	7.80
04/19/17	3.2445	4.6		0.85	0.72	0.82	0.75			148,000	7.89
04/20/17	2.7764	4.8			1.03	1.62	1.47			153,000	7.80
04/21/17	2.9392	4.3		0.94	0.99	0.82	0.91			132,000	7.82
04/22/17	3.0266	4.4		1.10	1.11	1.31	1.38			119,000	7.90
04/23/17	3.8413	9.2		2.30	0.90	0.66	1.48	1.55		47,000	7.80
04/24/17	4.3889	9.4		1.39	0.90	0.90	1.20	1.17		182,000	7.55
04/25/17	3.5396	10.0		0.92	0.76	1.23	1.04	1.60		88,000	7.57
04/26/17	3.0003	9.4		1.42	1.29		1.66			179,000	7.62
04/27/17	3.2377	4.8		1.49	1.56	1.87	1.84			125,000	7.61
04/28/17	3.1199	5.4		1.83	1.67	1.99	1.82			38,000	7.63
04/29/17	3.1131	5.6		1.92	1.48	1.54	1.49			120,000	7.64
04/30/17	3.2071	9.0		1.82	1.77	1.77	1.73			108,000	7.71
Ave	3.1209	6.5		1.10	0.99	1.06	1.11	1.12		115,733	
Tot	93.6256								120,220	3,472,000	
Min	2.6913	4.3		0.61	0.49	0.66	0.64	0.63		25,000	
Max	4.3889	10.0		2.30	1.80	1.99	1.84	1.60		188,000	

SV Tmtn Chlor IC Mud Cooen SMayo Hoop ICTP Hur SW CP

## Monthly Chlorine Report- April. 2017

Water Dist. – Utility Management Group – JM,WH,JR

4-1-17 = 520 Town Mt. Road = 1.15  
4-2-17 = 3630 Island Creek = 0.97  
4-3-17 = 182 Walnut Drive = 1.18  
4-4-17 = 306 Island Creek = 1.08  
4-5-17 = 217 Julius Ave. = 1.18  
4-6-17 = 297 Red Bird Lane = 1.00  
4-7-17 = 155 Cherry Lane = 1.10  
4-8-17 = 286 Williams Hollow = 1.30  
4-9-17 = 130 Amba Street = 1.24  
4-10-17 = 118 Ferguson Lane = 1.19  
4-11-17 = 36 Lowes Drive = 1.02  
4-12-17 = 178 Ky Ave. = 1.12  
4-13-17 = 130 Justice Way = 0.85  
4-14-17 = 127 Porter Lane = 0.97  
4-15-17 = 214 N River Fill Drive = 1.01  
4-16-17 = 130 Stone Drive = 1.25  
4-17-17 = 289 Peach Orchard = 0.91  
4-18-17 = 46 Blair Town = 0.98  
4-19-17 = 130 Stone Drive = 1.25  
4-20-17 = 109 Sixth Street = 1.09  
4-21-17 = 350 Scott Ave. = 1.12  
4-22-17 = 125 Redale = 0.85  
4-23-17 = 976 Lykens Creek = 0.81  
4-24-17 = 560 Zeigler = 0.99  
4-25-17 = 514 Chloe Rd. = 0.98  
4-26-17 = 351 Fife Fork = 0.93  
4-27-17 = 895 Ratliff Creek = 1.19  
4-28-17 = 1015 North Mayo Trail = 0.87  
4-29-17 = 125 Cumberland Court = 0.97  
4-30-17 = 147 Bruce Elliot Drive = 1.20

WATER DEPARTMENT  
MASTER WATER READINGS

DATE: 5-1-17

ACCOUNT NUMBER	LOCATION	PRESENT	PREVIOUS	USAGE	AMOUNT
	SANDY VALLEY-Pikeville	44726	434982	12278	7821 DON'T BILL
54-9966200-0	TOWN MOUNTAIN	759229	742985	16224	
54-9909400-0	CHLOE ROAD	77125	75458	1667	
54-9911500-0	ISLAND CREEK	75048	71110	3938	
54-9928000-0	MUD CREEK-Southern Wt.	152195	147229	9966	
54-9914600-0	COON BRANCH	12044	11844	200	
54-9913000-0	SOUTH MAYO TRAIL	34861	26484	8477	
54-9925500-0	HOOPWOOD HOLLOW	15462	15384	78	
54-9911800-0	ISLAND CK. TRAILER PK.	01529	01382	147	
54-9911900-0	HURRICANE CREEK	311761	310325	1436	
54-9912000-0	PIKE FLOYD-Southern	52595	50398	2197	
54-9900100-0	COWPEN-Mt. Water	27537	27311	2260	
TOTAL				46590	

Only Read First 5 Numbers

METER READER INITIALS: MM

9612470	8013987
9460990	7959057
151480	54930

NON METERED WATER

FLUSHING - EST \_\_\_\_\_

LEAKS - EST \_\_\_\_\_

TOTAL GALLONS \_\_\_\_\_

WATER PLANT MONTHLY OPERATIONS REPORT

MONTH/YEAR: 04/17

ANALYTICAL RESULTS (Mg/L or PPM unless otherwise specified.)

DAY	pH (S. U.'S)				ALKALINITY		HARDNESS		CHLORINE		TURBIDITY (NTU)		FLUORIDE	
	RAW	TOF	FIN	DUP	RAW	FIN	RAW	FIN	TOF	FIN	RAW	TOF	RAW	FIN
01	8.06	7.95	7.84	7.84	84	88	234	220	.46	1.69	6.3	.81	.12	.79
02	8.02	8.01	7.87	7.88	80	88	222	240	.46	1.71	6.4	.73	.13	.77
03	8.06	7.95	7.83	7.85	100	92	216	212	.54	1.73	3.2	.74	.11	.76
04	8.01	7.94	7.84	7.85	96	98	196	200	.46	1.63	7.2	1.14	.11	.80
05	8.02	7.98	7.86	7.86	90	90	200	186	.32	1.55	9.9	.78	.11	.80
06	8.01	7.91	7.79	7.80	72	72	170	168	.44	1.62	7.85	.94	.11	.79
07	7.98	7.86	7.77	7.78	60	62	148	142	.42	1.50	19.7	1.32	.10	.74
08	7.93	7.84	7.82	7.84	60	68	134	144	.32	1.49	10.9	.90	.08	.66
09	7.94	7.86	7.74	7.74	60	60	170	156	.50	1.63	5.3	.66	.10	.69
10	8.03	7.92	7.74	7.74	76	72	166	180	.42	1.64	5.2	.68	.09	.67
11	8.13	7.94	7.74	7.74	76	76	176	182	.44	1.49	3.6	.72	.09	.74
12	8.18	8.0	7.78	7.79	70	74	176	184	.24	1.5	8.6	1.26	.10	.80
13	8.12	7.99	7.74	7.74	68	72	180	184	.24	1.34	5.3	1.10	.10	.78
14	8.22	8.03	7.90	7.90	82	96	182	184	.48	1.47	5	1	.13	.79
15	8.20	8.01	7.88	7.80	80	74	180	182	.36	1.66	3.2	.99	.13	.82
16	8.02	7.98	7.85	7.84	80	92	178	180	.52	1.59	6.7	.89	.12	.80
17	7.98	7.95	7.81	7.81	90	92	186	184	.54	1.51	4.6	.99	.10	.77
18	8.10	7.97	7.81	7.80	92	92	188	184	.43	1.62	3.5	.76	.09	.72
19	8.00	7.90	7.89	7.89	94	96	218	220	.42	1.63	4.5	.79	.09	.76
20	8.11	7.97	7.81	7.80	88	90	216	208	.32	1.54	6.4	1.12	.10	.74
21	8.03	7.96	7.81	7.82	84	92	200	200	.57	1.52	4.5	.91	.11	.77
22	7.95	7.97	7.90	7.90	78	80	196	198	.34	1.47	19.9	1.24	.10	.76
23	7.75	7.78	7.80	7.80	40	50	128	110	.02	1.27	230	1.26	.08	.92
24	7.83	7.96	7.55	7.55	44	40	114	90	.06	1.54	334	1.13	.07	.74
25	7.89	7.71	7.57	7.57	60	62	164	156	.75	1.69	5.8	1.10	.08	.70
26	7.88	7.67	7.62	7.74	64	62	162	170	.53	1.75	38.5	1.51	.08	.73
27	7.93	7.72	7.62	7.61	70	68	174	178	.64	1.72	43.15	1.72	.08	.76
28	8.02	7.72	7.62	7.63	60	78	164	158	.14	1.62	46.65	1.83	.13	.74
29	7.80	7.75	7.64	7.64	66	82	174	172	.64	1.53	63.4	1.59	.09	.78
30	7.78	7.74	7.75	7.71	68	82	168	162	.76	1.80	74.6	1.77	.11	.82
31														

Swi. TC 102

WATER PLANT MONTHLY OPERATIONS REPORT

MONTH/YEAR:

04/17

CHEMICALS ADDED

DAY	RAW WATER TREATED (M.G.D.)	COAGULANT PAC LBS	FLUORIDE LBS	PRE LBS	POST LBS
01	2.866	618	18.0	27.5	39.6
02	3.123	645	15.5	29.7	47.3
03	2.596	515	16	25.3	39.6
04	3.241	566	18	30.8	46.2
05	3.412	700	18	29.7	48.4
06	2.852	614	15.7	26.4	42.9
07	3.027	618	17.6	25.3	40.7
08	3.039	618	18	27.5	44
09	2.809	618	18	27.5	25.3
10	3.013	603	17.1	27.5	56.1
11	2.970	645	12.8	28.6	39.6
12	2.970	499	19.3	25.3	41.8
13	3.041	530	15.8	29.7	40.7
14	2.973	546	16.6	30.8	45.1
15	3.111	515	16.2	31.9	49.5
16	2.930	515	16.2	22.5	40.7
17	3.011	433	16.2	33	47.3
18	3.133	649	18	33	49.5
19	2.250	562	19.1	30.8	48.4
20	2.759	468	15.1	28.6	41.8
21	2.944	515	18	33	45.1
22	3.285	597	18	33	44
23	3.770	1411	23.4	66	71.5
24	4.279	1820	23.6	101.2	71.5
25	3.464	1113	12.0	55	5.5
26	2.728	822	18	35.2	46.2
27	3.282	957	17.1	48.4	56.1
28	3.085	865	15.3	44.0	49.5
29	3.278	948	18.0	48.4	66.0
30	3.153	906	18.0	34.1	51.7
31					



WATER PLANT MONTHLY OPERATIONS REPORT

MONTH/YEAR:

04/17

DAILY READINGS

DAY	WATER TO DIST MGD	SLUDGE HAULED, Gals <sup>x</sup> 100	X 1000 S/BW RETURN	RAIN FALL (inches)	WATER TEMP DEG C	CLEAR WELL LEVEL FT.
1	2.8385		129000		15°	7.2
2	3.0579		127000		15°	7.0
3	2.6913		46000	.09	15°	7.4
4	3.2203		147000	.38	15	5.4
5	3.4113		188000		17	6
6	2.8914		71000	.11	17	7
7	3.0883		159000	.14	13	4.6
8	2.8966		147000		12	5.4
9	2.8827	37200	48000		13	8
10	3.0204	143000	143000		15	6.4
11	2.8612	62900	182000	.63	16	6.2
12	3.0663	54000	54000		16.5	7.6
13	3.1074	124000	124000		16	5.6
14	2.9011		100000		15	4.8
15	2.9768		25000		18°	6.4
16	3.0385		187000	.11	19°	8.2
17	3.0605		90000	.16	17°	6.4
18	3.1805		66000		17	5.6
19	3.2445		148000	.11	16.5	4.6
20	2.7764		153000	.44	16.5	4.8
21	2.9392		132000	.64	17	4.3
22	3.0266		119000	.18	17	4.4
23	3.8413		47000	.72	15	9.2
24	4.3889		182000	.98	14	9.4
25	3.5396		86000		13	10
26	3.0003		179000		14	9.4
27	3.2377		125000		14	4.8
28	3.1199		38000		15	5.4
29	3.1131		120000	.26	16°	5.6
30	3.2071		108000		17°	9.0
31						



### FINISHED WATER TURBIDITY

PWSID: 0980350

PWS NAME: PIKEVILLE WATER MONTH 4/17

DAY	MID - 4AM	4AM - 8AM	8AM - NOON	NOON - 4PM	4PM - 8PM	8PM - MID
1		.05	.04	.04	.06	
2		.04	.08	.06	.06	.06
3		—	.05	.04	.04	
4		.04	.04	.04	.05	.05
5		.05	.05	.05	.05	
6		.05	.06	.07	.04	
7		.05	.04	.04	.04	
8		.05	.04	.04	.04	.04
9		.04	.04	.04	.04	
10		.05	.06	.04	.04	
11		.06	.06	.04	.04	
12		.08	.06		.06	
13		.05	.05	.05	.05	
14		.05	<del>.05</del> .04	.05	.05	
15		.04	.04/.04	.04	.04	
16		.05	.05	.04	.05	
17		.05	.04	.04	.04	
18		.06	.05	.04	.04	
19		.05	.04	.09	.08	
20		.05 →		.04	.05	
21		.04	.04	.05	.04	
22		.05	.05	.05	.05	
23		.08	.11	.07	.06	.07
24		.07	.06	.05	.05	.06
25		.06	.05	.04	.05	.05
26		.05	.05	—	.06	
27		.06	.05	.07	.05	
28		.06	.07	.06	.06	
29		.05	.04	.05	.04	
30		.05	.04	.04	.06	
31						

### SETTLING BASIN TURBIDITY

PWSID: 0980350

PWS NAME: PIKEVILLE WATER MONTH 4/17

DAY	MID - 4AM	4AM - 8AM	8AM - NOON	NOON - 4PM	4PM - 8PM	8PM - MID
1		.72	.94	.87/.78/.82	.76	
2		.68	.74	.82/.76/.79	.66	.70
3		—	.71	.78	.76/.72/.74	
4		.74	.77	.94	1.29/.90/1.1	1.04
5		.94	.74	.88/.65/.76	.67	
6		.76	.75	.94	1.18/1.08/1.13	
7		1.26	1.31	1.26	1.43/1.33/1.38	
8		1.02	.93	1.04/.88/.96	.87	.63
9		.61	.66	.72/.62/.67	.68	
10		.76	.65	.71	.69/.59/.64	
11		.63	.49	.66	.94/.90/.92	
12		1.15	1.38		1.53/.97/1.25	
13		1.01	.9	1.05	1.32/1.24/1.28	
14		.79	.96	1.08	1.16/1.02/1.09	
15		1.11	.81	1.15/1.00/1.08	.86	
16		.86	.76	1.13/.96/1.04	.72	
17		.87	.83	.90	1.29/1.08/1.18	
18		.87	.71	.80	.79/.65/.72	
19		.85	.72	.80/.85/.82	.75	
20		1.03 →		1.62	1.55/1.39/1.47	
21		.94	.99	.82	.92/.90/.91	
22		1.10	1.11	1.38/1.24/1.31	1.38	
23		2.3	.90	.76/.57/.66	1.48	1.55
24		1.39	.90	.90	1.30/1.11/1.20	1.17
25		.92	.76	1.23	1.18/.91/1.04	1.60
26		1.42	1.29	—	1.84/1.49/1.66	
27		1.49	1.56	1.87	1.89/1.80/1.84	
28		1.83	1.67	1.99	1.88/1.76/1.82	
29		1.92	1.48	1.97/1.60/1.54	1.49	
30		1.82	1.77	1.83/1.71/1.77	1.73	
31						

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 4/1/17 RAW TEMP 15° RAINFALL \_\_\_\_\_

OPERATOR DM OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	130				
POSTCL2	210				

CLEAR WELL 2.2 Town Mtn. 25.2 On  Off   
 RFT/SHT 29.8 | 28.8

METERS/WEIGHTS/LEVELS			
FINISHED	5237	2350	PAX 188   220
RAW	3472	1910	FLUORIDE 220   800
SLUDGE	277	826	PRE CL2 118   175
S B/W RET	244	010	POST CL2 136   175

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	5:00	11:00	1:00	3:50	6:00	7:55	8:45	9:30					11.5
#2	↓	↓	↓	↓	↓	↓	↓	↓					
#3	↓	↓	↓	3:30	↓	↓	↓	↓					
#4	↓	↓	↓	3:50	↓	↓	↓	↓					
#5	↓	↓	↓	↓	↓	↓	↓	↓					

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#3	3:34	8	8203	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 4/2/17 RAW TEMP 15.0 RAINFALL \_\_\_\_\_

OPERATOR DM OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	130				
POSTCL2	210				

CLEAR WELL 2.0 Town Mtn. 26.0 On Off  
 RFT/SHT 29.8 | 28.4

METERS/WEIGHTS/LEVELS			
FINISHED	5240	0735	PAX 160
RAW	3472	4776	FLUORIDE 700
SLUDGE	2778	26	PRE CL2 150
S B/W RET	244	139	POST CL2 139

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	5:55	11:30	1:00	4:25	6:25	8:30	9:30	10:45					12.25
#2	↓	↓	↓	↓	↓	↓	↓	↓					
#3	↓	↓	↓	↓	↓	↓	↓	↓					
#4	↓	↓	↓	↓	↓	↓	↓	↓					
#5	↓	↓	↓	13:30	↓	↓	↓	↓					

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#5	3:36	10	8162	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 4/3/17 RAW TEMP 15° RAINFALL .09

OPERATOR RV for [signature] OPERATOR [signature]

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	170				
POSTCL2	210				

CLEAR WELL 7.4 Town Mtn. 27.6 On  Off   
 RFT/SHT 29.2 124.6

METERS/WEIGHTS/LEVELS			
FINISHED	52431314		PAX 98
RAW	34727899		FLUORIDE 614
SLUDGE	277826		PRE CL2 123
S B/W RET	244266		POST CL2 96

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	730	130	635	1900							10.25
#2											
#3											
#4											
#5											

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 4/4/17 RAW TEMP 15 RAINFALL .38

OPERATOR [Signature] OPERATOR [Signature]

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	130 / 120				
POSTCL2	210 / 200				

CLEAR WELL RFT/SHT 27.8 | 26.4 | 5.4 Town Mtn. 26 On Off

METERS/WEIGHTS/LEVELS			
FINISHED	52458227		PAX 48 / 240
RAW	34730495		FLUORIDE 525
SLUDGE	277826		PRE CL2 100 / 150
S B/W RET	244312		POST CL2 60 / 150

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600		1420		655		930				12 <sup>75</sup>
#2											
#3											
#4		400	→								
#5	↓			↓	↓	↓					

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
4	403	10	9135		

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 4/5/17 RAW TEMP 17 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	120				
POSTCL2	200				

CLEAR WELL 6 Town Mtn. 25.6 On    Off     
 RFT/SHT 29 | 27.6

METERS/WEIGHTS/LEVELS			
FINISHED	52490430		PAX 155
RAW	34733736		FLUORIDE 425
SLUDGE	277826		PRE CL2 122
S B/W RET	244459		POST CL2 108

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	605	305	500	930							13.5
#2		1235									
#3		1305									
#4											
#5											

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
2	240	10	8160	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 4/6/17 RAW TEMP 17 RAINFALL .11

OPERATOR [Signature] OPERATOR [Signature]

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	120				
POSTCL2	200				

CLEAR WELL RFT/SHT 31.2 | 7 | 29.8 Town Mtn. 16.4 On Off

METERS/WEIGHTS/LEVELS			
FINISHED	5252	4543	PAX 87/58/140
RAW	3473	7148	FLUORIDE 325
SLUDGE	2778	26	PRE CL2 95
S B/W RET	2446	47	POST CL2 64/44/100

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	6:10	12:00	4:15	1:00	6:15	1:00							11.5
#2													
#3													
#4													
#5													

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
1	6:03	10	8200		

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 4-7-17 RAW TEMP 13 RAINFALL .14

OPERATOR Jr OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	120				
POSTCL2	200				

CLEAR WELL 4.6 Town Mtn. 24.8 On  Off

RFT/SHT 26.6 | 25.4

METERS/WEIGHTS/LEVELS					
FINISHED	5255	3457		PAX	110
RAW	3474	0000		FLUORIDE	238
SLUDGE	277	826		PRE CL2	71
S B/W RET	244	718		POST CL2	81

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600	1325	530	1800									12
#2													
#3													
#4													
#5													

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 4/8/17 RAW TEMP 12 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	120				
POSTCL2	200				

CLEAR WELL 5.4 Town Mtn. 25.6 On \_\_\_ Off \_\_\_  
 RFT/SHT 28 | 27.2

METERS/WEIGHTS/LEVELS			
FINISHED	5258	4340	PAX 50   210
RAW	3474	3027	FLUORIDE 140   400
SLUDGE	277	826	PRE CL2 48   160
S B/W RET	244	877	POST CL2 44   150

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	530	100	400	705	835	1000					12
#2											
#3		1230									
#4		100									
#5	↓	↓	↓	↓	↓	↓					

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
3	1230	10	8/30	←	←

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 4/9/17 RAW TEMP 13 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	120				
POSTCL2	200				

CLEAR WELL 8 Town Mtn. 27 On    Off     
 RFT/SHT 28.4 | 27.6

METERS/WEIGHTS/LEVELS			
FINISHED	52613306		PAX 150
RAW	34746066		FLUORIDE 300
SLUDGE	277826		PRE CL2 135
S B/W RET	245024		POST CL2 110

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	605	1230	425	1900									11
#2	↓	↓	↓	↓									
#3	↓	↓	↓	↓									
#4	↓	↓	↓	↓									
#5	↓	↓	↓	↓									

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 4/10/17 RAW TEMP 15 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR [Signature]

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	120				
POSTCL2	200				

CLEAR WELL 6.4 Town Mtn. 258 On \_\_\_ Off \_\_\_  
 RFT/SHT 29.2 | 28

METERS/WEIGHTS/LEVELS			
FINISHED	52642133		PAX 90/68/120
RAW	34748875		FLUORIDE 200
SLUDGE	277826		PRE CL2 110
S B/W RET	245072		POST CL2 87/60/100

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	↓	100	↓	1100	↓	1210	↓	156	↓	640	↓	845	12
#2	↓		↓		↓		↓		↓		↓		
#3	↓		↓		↓		↓		↓		↓		
#4	↓		↓	1214	↓	230	↓		↓		↓		
#5	↓		↓		↓		↓		↓		↓		

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
4	216	8	7760	—	—

COMMENTS:



# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 4/12/17 RAW TEMP 14.5 RAINFALL 63

OPERATOR RU for DM (VAC) OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	15				
FLUORIDE	73/40				
PRECL2	120				
POSTCL2	200				

CLEAR WELL 7.6 Town Mtn. 26.8 On  Off   
 RFT/SHT 25-8 123.4

METERS/WEIGHTS/LEVELS			
FINISHED	52700949		PAX 171
RAW	34754859		FLUORIDE 92 20/775
SLUDGE	278827		PRE CL2 141
S B/W RET	245397		POST CL2 132
	875 875		

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	555	245	515	805									11.5
#2	↓	↓	↓	↓									↓
#3	↓	↓	↓	↓									↓
#4	↓	↓	↓	↓									↓
#5	↓	↓	↓	↓									↓

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 4/13/17 RAW TEMP 16° RAINFALL \_\_\_\_\_

OPERATOR Ru for Dm (vac) OPERATOR [Signature]

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	15				
FLUORIDE	73/40				
PRECL2	120	↑/30			
POSTCL2	200				

CLEAR WELL 5.6 Town Mtn. 26.8 On  Off   
 RFT/SHT 26.8 | 25.2

METERS/WEIGHTS/LEVELS			
FINISHED	527	31612	PAX 123/79/210
RAW	347	5782.9	FLUORIDE 740
SLUDGE	229	028	PRE CL2 118/93/110
S B/W RET	245	451	POST CL2 94/60/120

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	555	1155	210	1325	515	1800							12.25
#2													
#3													
#4													
#5													

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
1	159	8	8075		

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 4-14-17 RAW TEMP 15 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	15				
FLUORIDE	73/40				
PRECL2	130				
POSTCL2	200	215 (cont)			

CLEAR WELL 4.8 Town Mtn. 25.4 On  Off   
 RFT/SHT 28.8 | 27.2

METERS/WEIGHTS/LEVELS			
FINISHED	5276	2686	PAX 203
RAW	3476	0870	FLUORIDE 642
SLUDGE	279	028	PRE CL2 108
S B/W RET	2455	75	POST CL2 2108 117

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600		1245	430	800								2.25
#2		1230	—										
#3													
#4													
#5													

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
2	233	8	8200	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 4/15/17 RAW TEMP 18° RAINFALL \_\_\_\_\_

OPERATOR DM OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	15				
FLUORIDE	73/40				
PRECL2	130				
POSTCL2	215				

CLEAR WELL 6.4 Town Mtn. 26.2 On Off X  
 RFT/SHT 28.0 | 26.8

METERS/WEIGHTS/LEVELS			
FINISHED	<u>5279</u>	<u>1697</u>	PAX <u>150</u>
RAW	<u>3478</u>	<u>3843</u>	FLUORIDE <u>550</u>
SLUDGE	<u>27</u>	<u>9028</u>	PRE CL2 <u>80</u>
S B/W RET	<u>2456</u>	<u>75</u>	POST CL2 <u>76</u>

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	5:05	1:05	3:00	14:35	6:30	19:15							12.25
#2	↓	↓	↓	↓	↓	↓							
#3	↓	↓	↓	↓	↓	↓							
#4	↓	↓	↓	↓	↓	↓							
#5	↓	↓	↓	↓	↓	↓							

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 4/16/17 RAW TEMP 19° RAINFALL \_\_\_\_\_

OPERATOR Om OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	15				
FLUORIDE	73/40				
PRECL2	140				
POSTCL2	215				

CLEAR WELL 8.2 Town Mtn. 24.4 On Off  
 RFT/SHT 28.2 | 27.6

METERS/WEIGHTS/LEVELS			
FINISHED	5282	1465	PAX 100   220
RAW	3476	6954	FLUORIDE 460
SLUDGE	2290	28	PRE CL2 51   175
S B/W RET	245	700	POST CL2 31   175

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	5:05	12:00	2:00	4:16	6:00	7:30	8:00	9:05					11.75
#2	↓	↓	↓	↓	↓	↓	↓	↓					
#3	↓	11:48	↓	2.9	↓	1.5	3.5	↓					
#4	↓	12:00	↓	4:00	↓	↓	↓	↓					
#5	↓	↓	↓	14:16	↓	↓	↓	↓					

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#3	11:46	10	8220	—	—
#4	4:05	10	8135	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 4/17/17 RAW TEMP 17° RAINFALL .16

OPERATOR DM OPERATOR [Signature]

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	15				
FLUORIDE	73/40				
PRECL2	140				
POSTCL2	215				

CLEAR WELL 6.4 Town Mtn. 25.6 On Off  
 RFT/SHT 28.4 | 27.0

METERS/WEIGHTS/LEVELS			
FINISHED	52851850		PAX 120
RAW	34769884		FLUORIDE 370
SLUDGE	229028		PRE CL2 150
S B/W RET	245887		POST CL2 138

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	6:00	230	430	1125	850	1925							12
#2	↓		↓		↓								↓
#3	↓		↓		↓								↓
#4	↓		↓		↓								↓
#5	↓		↓		↓								↓

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM

8.5  
3  
5

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 4/18/17 RAW TEMP 17 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR [Signature]

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	15				
FLUORIDE	73/40				
PRECL2	140				
POSTCL2	215				

CLEAR WELL RFT/SHT 25.2 | 23 Town Mtn. 26 On    Off   

METERS/WEIGHTS/LEVELS			
FINISHED	5288	2455	PAX 128
RAW	3477	2895	FLUORIDE 280
SLUDGE	279	028	PRE CL2 120
S B/W RET	245	977	POST CL2 95

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600	500	628	1800									12.5
#2													
#3													
#4													
#5													

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 4/19/17 RAW TEMP 16.5 RAINFALL 11

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	15				
FLUORIDE	73/40				
PRECL2	190				
POSTCL2	215				

CLEAR WELL 4.6 Town Mtn. 26 On    Off     
 RFT/SHT 26.4 | 25.2

METERS/WEIGHTS/LEVELS			
FINISHED	5291	4260	PAX 65   200
RAW	3477	6028	FLUORIDE 180   500
SLUDGE	2790	28	PRE CL2 90   150
S B/W RET	2460	43	POST CL2 50   160

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	605		1430		630	905							0
#2													
#3													
#4													
#5	↓	215	230	↓	↓	↓	↓	↓	↓	↓	↓	↓	

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
5	218	10	7870	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 4/20/17 RAW TEMP 16.5 RAINFALL .44

OPERATOR RV for GP (unc) OPERATOR Jr

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	15				
FLUORIDE	73/40				
PRECL2	140				
POSTCL2	215	225	900		

CLEAR WELL 4.9 Town Mtn. 28 On Off  
 RFT/SHT 28.4 | 24.2

METERS/WEIGHTS/LEVELS	
FINISHED	529 467 05
RAW	347 79 278
SLUDGE	2790 28
S B/W RET	246 191
PAX	146
FLUORIDE	394
PRE CL2	122
POST CL2	116

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	725	225	240	500	610	800							10.75
#2													}
#3													
#4													
#5	V												

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
1	228	10	7940	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 4-21-17 RAW TEMP 17 RAINFALL .08 + .56 = .64

OPERATOR Qm OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	15				
FLUORIDE	73/40				
PRECL2	145				
POSTCL2	225				

CLEAR WELL 4.3  
RFT/SHT 27.6 | 23.4

Town Mtn. 27 On  Off

METERS/WEIGHTS/LEVELS			
FINISHED	52974469		PAX 101/155
RAW	34782037		FLUORIDE 310
SLUDGE	279028		PRE CL2 96/125
S B/W RET	246344		POST CL2 78/111

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	558		1312		1432		1632		715		800		12
#2		1257											
#3													
#4													
#5													

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
2	300	10	8200		

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 4/22/15 RAW TEMP 17 RAINFALL .18

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	15 <sup>525</sup> / 20				
FLUORIDE	73/40				
PRECL2	145 <sup>525</sup> / 150				
POSTCL2	225				

CLEAR WELL 4.4 Town Mtn. 27.6 On Off  
 RFT/SHT 26.6 | 23.6

METERS/WEIGHTS/LEVELS					
FINISHED	5300	3861		PAX	105   200
RAW	3478	4981		FLUORIDE	210   500
SLUDGE	2790	28		PRE CL2	95   140
S B/W RET	246	476		POST CL2	70   140

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	615	1250	520	830	105	1105							12.75
#2	↓	↓	↓	↓	↓	↓							
#3	↓	1235	↓	↓	↓	↓							
#4	↓	1250	↓	↓	↓	↓							
#5	↓	↓	↓	↓	↓	↓							

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
3	240	10	8240	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 4/23/12 RAW TEMP 15 RAINFALL 72

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE	FEED RATE	FEED RATE	FEED RATE	PPM
	AT START	TIME CHANGE	TIME CHANGE	TIME CHANGE	
PAC	<sup>600</sup> 730 ↑ 40 155	<sup>1240</sup> ↓ 40			
FLUORIDE	73/40				
PRECL2	<sup>600</sup> 75 ↑ 165 110	<sup>1105</sup> 12/0 ↑ 210 225	<sup>200</sup> ↓ 255		
POSTCL2	225	<sup>1105</sup> ↑ 235 245	270		

CLEAR WELL RFT/SHT 9.2  
25.4 | 23.6

Town Mtn. 2402 On Off

### METERS/WEIGHTS/LEVELS

FINISHED	53034127	PAX	142/25/150
RAW	34788266	FLUORIDE	400
SLUDGE	279028	PRE CL2	110
S B/W RET	2465.95	POST CL2	100

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600	530	700	1100							15.5
#2	↓	↓	↓	↓							
#3	↓	↓	↓	↓							
#4	↓	↓	↓	↓							
#5	↓	↓	↓	↓							

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 4/24/17 RAW TEMP 14 RAINFALL 98

OPERATOR [Signature] OPERATOR [Signature]

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	40.165		↓ 50	↓ 40	↓ 35 (9.5)
FLUORIDE	73/40				
PRECL2	255 (280)	↑ 305 (350)	↑ 375	↓ 300 (84)	↓ 280 (9.5) ↓ 250 (0.30)
POSTCL2	270				↓ 250 (1030)

\*

CLEAR WELL RFT/SHT 21.4 | 9.4 | 17.6 (1245) Town Mtn. 26.4 (715 p.m.) On Off

### METERS/WEIGHTS/LEVELS

FINISHED	53072540	PAX	130/180/110/210
RAW	34792036	FLUORIDE	270
SLUDGE	279028	PRE CL2	50/105/71/160
S B/W RET	246642	POST CL2	35/100/78/160

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600		1370		530	1045	1200	1200					15 <sup>25</sup>
#2													↓
#3													↓
#4		315											15 <sup>5</sup>
#5													15 <sup>75</sup>

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
4	318	10	8030		

COMMENTS: \* ↓ post & pre to 225 each (1245am)

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 4/25/17 RAW TEMP 13 RAINFALL \_\_\_\_\_

OPERATOR RV for Jim OPERATOR Jim

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	35	↓ 30			
FLUORIDE	73/40				
PRECL2	250 <sup>225</sup>	↓ 200			
POSTCL2	250 <sup>225</sup>	↑ 250			

CLEAR WELL 10 <sup>(4pm)</sup> Town Mtn. 26.4 On Off  
 RFT/SHT 27 1 29

### METERS/WEIGHTS/LEVELS

FINISHED	53116429	PAX	105	74/220
RAW	34796315	FLUORIDE	139	118/751
SLUDGE	279028	PRE CL2	102	88/170
S B/W RET	246824	POST CL2	117	103/170

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	55	51	240	250	170	850	1100	1055					13.25
#2													
#3													
#4													
#5													

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM

2.10  
1.4  
3.50

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 4/26/17 RAW TEMP 14° RAINFALL \_\_\_\_\_

OPERATOR BV for Dm OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	30				
FLUORIDE	73/40				
PRECL2	200				
POSTCL2	260				

CLEAR WELL 9.4 Town Mtn. 26 On  Off   
 RFT/SHT 27.2 | 125

### METERS/WEIGHTS/LEVELS

FINISHED	531 518 25		PAX	144
RAW	347 99 779		FLUORIDE	700
SLUDGE	279 028		PRE CL2	134
S B/W RET	246 912		POST CL2	134

FILTERS	ON	OFF	HOURS RUN										
#1	5	5	1	30	3	4	5	6					10.5
#2													↓
#3													↓
#4		↓											↓
#5	↓	1	2	00	0	1	↓						

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#5	1204	12	8104	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 4/27/17 RAW TEMP 14° RAINFALL \_\_\_\_\_

OPERATOR RU for Dm OPERATOR [Signature]

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	30				
FLUORIDE	73/40				
PRECL2	200	185	9:00		
POSTCL2	250				

CLEAR WELL 4.8 Town Mtn. 26.4 On Off  
 RFT/SHT 25.8 121.4

### METERS/WEIGHTS/LEVELS

FINISHED	531 81828	PAX	65 30/220
RAW	348 02507	FLUORIDE	500 600 ←
SLUDGE	279028	PRE CL2	102
S B/W RET	247091	POST CL2	92

RU changed

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	545	1334	→	1345	600	1830					12.9
#2											
#3											
#4											
#5	✓		↓		↓	↓					↓

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
(	337	9	8240	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 4-28-17 RAW TEMP 15 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR \_\_\_\_\_  
 FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	30				
FLUORIDE	73/40				
PRECL2	↓190	↑190	↑210		
POSTCL2	↓245				

CLEAR WELL 5.4 <sup>947</sup> (3pr) Town Mtn. 26.4 On  Off   
 RFT/SHT 25.8 | 23.8

### METERS/WEIGHTS/LEVELS

FINISHED	53214205		PAX	163
RAW	34805789		FLUORIDE	505
SLUDGE	279028		PRE CL2	58 / 150
S B/W RET	247216		POST CL2	41 / 130

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600	1300	505	1800							12
#2											
#3											
#4											
#5											

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 4/29/17 RAW TEMP 16° RAINFALL \_\_\_\_\_

OPERATOR Am OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	30				
FLUORIDE	77/90				
PRECL2	210				
POSTCL2	245				

CLEAR WELL 5.6 Town Mtn. 26.4 On    Off X  
 RFT/SHT 28.2 | 26.2

### METERS/WEIGHTS/LEVELS

FINISHED	53245404		PAX	79	220
RAW	34808874		FLUORIDE	420	800
SLUDGE	279028		PRE CL2	110	175
S B/W RET	247254		POST CL2	85	180

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	5:10	11:10	3:00	4:30	6:30	9:30					12.5
#2		12:50									
#3		11:10									
#4											
#5											

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#2	5:53	11	8136		

COMMENTS: Fixed LEAK on post CL

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 4/30/17 RAW TEMP 17° RAINFALL .26

OPERATOR Om OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	30				
FLUORIDE	73/40				
PRECL2	210				
POSTCL2	235 ↓	230			

CLEAR WELL 9.0  
 RFT/SHT 30.8 | 29.8

Town Mtn. 26.2 On Off

### METERS/WEIGHTS/LEVELS

FINISHED	53276535	PAX	128 / 80 / 160
RAW	34812152	FLUORIDE	700
SLUDGE	279029	PRE CL2	131
S B/W RET	247374	POST CL2	120 / 95 / 160

FILTERS	6.25		2.5		7.75		4.5		HOURS RUN
	ON	OFF	ON	OFF	ON	OFF	ON	OFF	
#1	5:28	10:15	12:19	2:45	5:30	9:55			12.25
#2	↓	↓	↓	↓	↓	↓			
#3	↓	↓	↓	12:30	↓	↓			
#4	↓	↓	↓	12:45	↓	↓			
#5	↓	↓	↓	↓	↓	↓			

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#3	2:31	10	2180	—	—

COMMENTS:

FIELD CHAIN OF CUSTODY RECORD

FIELD MONITORING PROGRAM

SAMPLERS (SIGNATURES)

*Kaplan*

FACILITY	SAMPLE SOURCE	COMPOSITING PERIOD				SAMPLE COLLECTION			FLOW		CONTAINER		Volatile Organics	Pesticides/PCB's	Trace Metals	Cyanide	Phenols	Oil and Grease	Solids	BOD	Ammonia Nitrogen	Phosphorous	Coliform	pH	DO/5/30/4/13	Preservation	COMMENTS	
		SAMPLING BEGINS		SAMPLING ENDS		DATE	TIME	G/C	MGD	VOLUME	G/P																	
		DATE	TIME	DATE	TIME																							
PIKEVILLE WTP	RAW					4/5/17	9:08	G			P																ALK	
	"					"	9:09	"			G																TOC	
	CPE					"	9:13	"			"																TOC	
	FIN					"	9:05	"			P																FLUORIDE .8	
	040					"	9:24	"			"																	
	111					"	9:38	"			"																	
	030					"	9:50	"			"																	
	009					"	9:58	"			"																	
	110					"	10:07	"			"																	
	CYCLONE					"	10:48	C			"																TSS	
	WATER PUMP					"	10:50	"			"																TSS	
	PUMP 13	Temp	Time	PH																								
		1102	7.8																									
	CYCLONE 15	1103	7.82																									

RELINQUISHED BY	DATE	TIME	RECEIVED BY	RELINQUISHED BY	DATE	TIME	RECEIVED BY
<i>Barbara Joyce</i>	4/5/17	1110	<i>Barbara Joyce</i>				
RELINQUISHED BY	DATE	TIME	RECEIVED BY	RELINQUISHED BY	DATE	TIME	RECEIVED BY
RELINQUISHED BY	DATE	TIME	RECEIVED BY	RELINQUISHED BY	DATE	TIME	RECEIVED BY

REMARKS: 12° w/ice

002178



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**SAMPLE SUMMARY**

Lab ID	Client Sample ID/Alias	Matrix	Date Collected	Date Received	Sampled By
7041693-01	BACT/	Drinking Water	04/05/2017 09:24	04/05/2017 11:10	Ralph Varney
7041693-02	BACT/	Drinking Water	04/05/2017 09:38	04/05/2017 11:10	Ralph Varney
7041693-03	BACT/	Drinking Water	04/05/2017 09:50	04/05/2017 11:10	Ralph Varney
7041693-04	BACT/	Drinking Water	04/05/2017 09:58	04/05/2017 11:10	Ralph Varney
7041693-05	BACT/	Drinking Water	04/05/2017 10:07	04/05/2017 11:10	Ralph Varney

<u>LabNumber</u>	<u>Measurement</u>	<u>Value</u>
7041693-01	Field Residual Chlorine	1.22
7041693-02	Field Residual Chlorine	1.48
7041693-03	Field Residual Chlorine	1.33
7041693-04	Field Residual Chlorine	1.49
7041693-05	Field Residual Chlorine	1.43



**ANALYTICAL RESULTS**

Lab Sample ID: **7041693-01**  
Description: **BACT**

Sample Collection Date Time: 04/05/2017 09:24  
Sample Received Date Time: 04/05/2017 11:10

Matrix: Drinking Water

Discharge/Site No: 040

Regulatory ID: KY0980350

**Microbiological Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Colilert 24	04/05/2017 16:48	04/06/2017 17:00	ADH

**ANALYTICAL RESULTS**

Lab Sample ID: **7041693-02**  
Description: **BACT**

Sample Collection Date Time: 04/05/2017 09:38  
Sample Received Date Time: 04/05/2017 11:10

Matrix: Drinking Water

Discharge/Site No: 111

Regulatory ID: KY0980350

**Microbiological Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Colilert 24	04/05/2017 16:48	04/06/2017 17:00	ADH

**ANALYTICAL RESULTS**

Lab Sample ID: **7041693-03**  
Description: **BACT**

Sample Collection Date Time: 04/05/2017 09:50  
Sample Received Date Time: 04/05/2017 11:10

Matrix: Drinking Water

Discharge/Site No: 030

Regulatory ID: KY0980350

**Microbiological Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Colilert 24	04/05/2017 16:48	04/06/2017 17:00	ADH



**ANALYTICAL RESULTS**

Lab Sample ID: **7041693-04**  
Description: **BACT**

Sample Collection Date Time: 04/05/2017 09:58  
Sample Received Date Time: 04/05/2017 11:10

Matrix: Drinking Water

Discharge/Site No: 009

Regulatory ID: KY0980350

**Microbiological Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Colilert 24	04/05/2017 16:48	04/06/2017 17:00	ADH

**ANALYTICAL RESULTS**

Lab Sample ID: **7041693-05**  
Description: **BACT**

Sample Collection Date Time: 04/05/2017 10:07  
Sample Received Date Time: 04/05/2017 11:10

Matrix: Drinking Water

Discharge/Site No: 110

Regulatory ID: KY0980350

**Microbiological Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Colilert 24	04/05/2017 16:48	04/06/2017 17:00	ADH

**Notes for work order 7041693**

- Samples collected by MMLI personnel are done so in accordance with procedures set forth in MMLI field services SOPs.
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identification based on the presumptive evidence of the mass spectra.

**Standard Qualifiers/Acronyms**

MDL	Method Detection Limit
MRL	Minimum Reporting Limit
ND	Not Detected
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
% Rec	Percent Recovery
RPD	Relative Percent Difference
>	Greater than
<	Less than





**SAMPLE SUMMARY**

Lab ID	Client Sample ID/Alias	Matrix	Date Collected	Date Received	Sampled By
7041694-01	Fluoride/	Drinking Water	04/05/2017 09:05	04/05/2017 11:10	Ralph Varney
<u>LabNumber</u>	<u>Measurement</u>	<u>Value</u>			
7041694-01	Field Fluoride	0.80			

**ANALYTICAL RESULTS**

Lab Sample ID: **7041694-01**  
Description: **Fluoride**

Sample Collection Date Time: 04/05/2017 09:05  
Sample Received Date Time: 04/05/2017 11:10

Matrix: Drinking Water

Discharge/Site No: P01

Regulatory ID: KY0980350

**Conventional Chemistry Analyses Madisonville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Fluoride	0.76		mg/L	0.20		4500-F C-1997	04/11/2017 10:32	04/11/2017 10:32	JTL

**Notes for work order 7041694**

- Samples collected by MMLI personnel are done so in accordance with procedures set forth in MMLI field services SOPs.
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identification based on the presumptive evidence of the mass spectra.

U Target analyte was analyzed for, but was below detection limit (the value associated with the qualifier is the laboratory method detection limit in our LIMS system).

**Standard Qualifiers/Acronyms**

- MDL Method Detection Limit
- MRL Minimum Reporting Limit
- ND Not Detected
- LCS Laboratory Control Sample
- MS Matrix Spike
- MSD Matrix Spike Duplicate
- DUP Sample Duplicate
- % Rec Percent Recovery
- RPD Relative Percent Difference
- > Greater than
- < Less than

**Certified Analyses included in this Report**

Analyte	Certifications
---------	----------------

**4500-F C-1997 in Water**

Fluoride KY Drinking Water Mdv (00030) VA NELAC Mdv (460210) IN Drinking Water Mdv (C-KY-02) IL Drlnking Water Mdv (200079)

ENTERED  
4/18/17  
R2

**KENTUCKY DIVISION OF WATER / DRINKING WATER BRANCH  
DISINFECTION BYPRODUCT PRECURSOR ANALYSIS REPORT FORM**

SAMPLE CATEGORY = TOC

**This Section To Be Completed By Collector**

PWS ID	<u>KY0980350</u>	Plant ID	<u>A</u>	Plant Name	<u>INTAKE - LEVISA FORK/BIG SANDY RIVE</u>	Location Code	<u>R01</u>
PWS Name	<u>Pikeville Water Department</u>			PWS Contact	<u>Ralph Varney</u>		
PWS Address	<u>306 Island Creek Road, Pikeville, KY 41501</u>			PWS Phone	<u>(606) 437-5123</u>		
Sample Date (MMDDYYYY)	<u>04/05/2017</u>	Time	<u>09:08</u>	Sample Type	<u>RT</u>	Collector Name	<u>Ralph Varney</u>
				RT = Routine (For Compliance)			
				SP = Special (Not for Compliance)			

**This Section to Be Completed By Lab**

Lab ID	<u>00030</u>	Lab Sample Number	<u>7041695-01</u>	Lab Phone	<u>(270) 821-7375</u>
Lab Analyst	<u>Tracy Benton</u>	Signature/Date	<u>04/11/2017 11:46</u>	Lab Supervisor	<u><i>Chad S. ...</i></u> <u>04/13/2017</u>

Analyte Code	Analyte Name	Analysis Method Code	<	Result (mg/L)	Analysis Date
				-or- Lab Minimum Reporting Limit (mg/L)	
1927	Alkalinity, Total (as CaCO3)	849		89	04112017
2920	Total Organic Carbon	839		1.7	04122017

The signatories of this form certify by their signature that collection and analysis of the water sample analyzed and the resulting data hereby submitted, were completed in accordance with the provisions of 401 KAR Chapter 8; and that the data submitted on this form is a true and accurate report of the results of collection and analysis performed pursuant to the above-referenced regulations. Violations of 401 KAR Chapter 8 are subject to severe penalties prescribed in KRS 224.99-010, up to \$25,000 fine per day per violation and in some cases a violation may subject a violator to prison.


  
**ENTERED**  
04/13/17  
RJ

**KENTUCKY DIVISION OF WATER / DRINKING WATER BRANCH  
DISINFECTION BYPRODUCT PRECURSOR ANALYSIS REPORT FORM**

SAMPLE CATEGORY = TOC

**This Section To Be Completed By Collector**

PWS ID	<u>KY0980350</u>	Plant ID	<u>A</u>	Plant Name	<u>PIKEVILLE WTP</u>	Location Code	<u>CF1</u>
PWS Name	<u>Pikeville Water Department</u>			PWS Contact	<u>Ralph Varney</u>		
PWS Address	<u>306 Island Creek Road, Pikeville, KY 41501</u>			PWS Phone	<u>(606) 437-5123</u>		
Sample Date (MMDDYYYY)	<u>04/05/2017</u>	Time	<u>09:13</u>	Sample Type	<u>RT</u>	Collector Name	<u>Ralph Varney</u>
				RT = Routine (For Compliance)			
				SP = Special (Not for Compliance)			

**This Section to Be Completed By Lab**

Lab ID	<u>00030</u>	Lab Sample Number	<u>7041695-02</u>	Lab Phone	<u>(270) 821-7375</u>
Lab Analyst	<u>Tracy Benton</u>	Signature/Date	<u>04/12/2017 16:49</u>	Lab Supervisor	<u><i>Cherie Fugate</i></u> <u>04/13/2017</u>

Analyte Code	Analyte Name	Analysis Method Code	<	Result (mg/L)	Analysis Date
				-or- Lab Minimum Reporting Limit (mg/L)	
2920	Total Organic Carbon	839		1.4	04122017

The signatories of this form certify by their signature that collection and analysis of the water sample analyzed and the resulting data hereby submitted, were completed in accordance with the provisions of 401 KAR Chapter 8; and that the data submitted on this form is a true and accurate report of the results of collection and analysis performed pursuant to the above-referenced regulations. Violations of 401 KAR Chapter 8 are subject to severe penalties prescribed in KRS 224.99-010, up to \$25,000 fine per day per violation and in some cases a violation may subject a violator to prison.



**SAMPLE SUMMARY**

Lab ID	Client Sample ID/Alias	Matrix	Date Collected	Date Received	Sampled By
7041696-01	Backwash/Cyclone	Wastewater	04/05/2017 10:48	04/05/2017 11:10	Ralph Varney
7041696-02	Backwash/Grit Pump	Wastewater	04/05/2017 10:50	04/05/2017 11:10	Ralph Varney

**ANALYTICAL RESULTS**

Lab Sample ID: **7041696-01**  
Description: **Backwash Cyclone**

Sample Collection Date Time: 04/05/2017 10:48  
Sample Received Date Time: 04/05/2017 11:10

Conventional Chemistry Analyses Pikeville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Suspended Solids	26		mg/L	5	5	2540 D-1997	04/11/2017 15:05	04/11/2017 16:09	WJP

Field Analysis Pikeville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
pH (Field)	7.82		Std. Units	0.10	0.10	4500-H+ B-2000	04/05/2017 10:48	04/05/2017 11:03	ADH

**ANALYTICAL RESULTS**

Lab Sample ID: **7041696-02**  
Description: **Backwash Grit Pump**

Sample Collection Date Time: 04/05/2017 10:50  
Sample Received Date Time: 04/05/2017 11:10

Conventional Chemistry Analyses Pikeville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Suspended Solids	18		mg/L	3	3	2540 D-1997	04/11/2017 15:05	04/11/2017 16:11	WJP

Field Analysis Pikeville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
pH (Field)	7.80		Std. Units	0.10	0.10	4500-H+ B-2000	04/05/2017 10:50	04/05/2017 11:02	ADH

4/18/17  
ADH

April, 2017

DMR CALCULATIONS

date	tss cyclone	pH cyclone	tss intake	pH intake	hrs operated
04/01/17					11.50
04/02/17					12.25
04/03/17					10.25
04/04/17					12.75
04/05/17	26	7.82	18	7.80	13.50
04/06/17					11.50
04/07/17					12.00
04/08/17					12.00
04/09/17					11.00
04/10/17					12.00
04/11/17					12.00
04/12/17					11.50
04/13/17					12.25
04/14/17					12.25
04/15/17					11.75
04/16/17					12.00
04/18/17					12.50
04/19/17					13.00
04/20/17					10.75
04/21/17					12.00
04/22/17					12.75
04/23/17					15.50
04/24/17					15.75
04/25/17					13.25
04/26/17					10.50
04/27/17					12.50
04/28/17					12.00
04/29/17					12.50
04/30/17					12.25

**CYCLONE ESTIMATE**  
 100 gpm  
 X 2  
 200 X 3  
 3m  
 600 gpm max

Tot Hours 368.00  
 times flushed 4 hr cycle 92  
 gallons flushed 18,400  
 mg flushed 0.0184  
 mgd flushed **0.00059**

**GRIT PUMP AT RWI** 200 gpm  
 Total pumping hours 31  
 Total gallons pumped 372,000  
 Million gallons pumped 0.3720  
 Million gallons a day **0.0120**

TSS-001 26  
 TSS-002 18

pH  
 Cyclone 7.82  
 Pump 7.80

RECEIVED  
 4/30/17  


FIELD CHAIN OF CUSTODY RECORD

FIELD MONITORING PROGRAM

SAMPLERS (SIGNATURES)

*Ralph V. [Signature]*

FACILITY	SAMPLE SOURCE	COMPOSITING PERIOD				SAMPLE COLLECTION			FLOW	CONTAINER		Volatile Organics	Pesticides/PCB's	Trace Metals	Cyanide	Phenols	Oil and Grease	Solids	BOD	Ammonia Nitrogen	Phosphorous	Coliform	pH	Preservation	COMMENTS
		SAMPLING BEGINS		SAMPLING ENDS		DATE	TIME	G/C	MGD	VOLUME	G/P														
		DATE	TIME	DATE	TIME																				
<i>Phenix</i>	<i>115</i>					<i>4/10/17</i>	<i>1:41</i>	<i>G</i>			<i>P</i>														<i>Falm - 76</i>
	<i>118</i>					<i>"</i>	<i>1357</i>	<i>"</i>			<i>"</i>														
	<i>120</i>					<i>"</i>	<i>1404</i>	<i>"</i>			<i>"</i>														
	<i>028</i>					<i>"</i>	<i>1419</i>	<i>"</i>			<i>"</i>														
	<i>033</i>					<i>"</i>	<i>1427</i>	<i>"</i>			<i>"</i>														

*PHENIX 02/10/15 157.5 PH*

RELINQUISHED BY <i>Ralph V. [Signature]</i>	DATE <i>4/18/17</i>	TIME <i>1446</i>	RECEIVED BY <i>Barbara [Signature]</i>	RELINQUISHED BY	DATE	TIME	RECEIVED BY
RELINQUISHED BY	DATE	TIME	RECEIVED BY	RELINQUISHED BY	DATE	TIME	RECEIVED BY
RELINQUISHED BY	DATE	TIME	RECEIVED BY	RELINQUISHED BY	DATE	TIME	RECEIVED BY

REMARKS *#115 Dropped lid - fell inside w/ 15° w/ Ice*

002179



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Louisville, KY 502.961.0001	Paducah, KY 270.444.6547	

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**SAMPLE SUMMARY**

Lab ID	Client Sample ID/Alias	Matrix	Date Collected	Date Received	Sampled By
7042928-01	BACT/	Drinking Water	04/18/2017 13:41	04/18/2017 14:46	Ralph Varney
7042928-02	BACT/	Drinking Water	04/18/2017 13:57	04/18/2017 14:46	Ralph Varney
7042928-03	BACT/	Drinking Water	04/18/2017 14:04	04/18/2017 14:46	Ralph Varney
7042928-04	BACT/	Drinking Water	04/18/2017 14:19	04/18/2017 14:46	Ralph Varney
7042928-05	BACT/	Drinking Water	04/18/2017 14:27	04/18/2017 14:46	Ralph Varney

LabNumber	Measurement	Value
7042928-01	Field Residual Chlorine	0.92
7042928-02	Field Residual Chlorine	1.07
7042928-03	Field Residual Chlorine	1.53
7042928-04	Field Residual Chlorine	1.40
7042928-05	Field Residual Chlorine	1.41



**ANALYTICAL RESULTS**

Lab Sample ID: **7042928-01**  
Description: **BACT**

Sample Collection Date Time: 04/18/2017 13:41  
Sample Received Date Time: 04/18/2017 14:46

Matrix: Drinking Water

Discharge/Site No: 115

Regulatory ID: KY0980350

**Microbiological Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Colilert 24	04/18/2017 16:36	04/19/2017 16:37	WJP

**ANALYTICAL RESULTS**

Lab Sample ID: **7042928-02**  
Description: **BACT**

Sample Collection Date Time: 04/18/2017 13:57  
Sample Received Date Time: 04/18/2017 14:46

Matrix: Drinking Water

Discharge/Site No: 118

Regulatory ID: KY0980350

**Microbiological Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Colilert 24	04/18/2017 16:36	04/19/2017 16:37	WJP

**ANALYTICAL RESULTS**

Lab Sample ID: **7042928-03**  
Description: **BACT**

Sample Collection Date Time: 04/18/2017 14:04  
Sample Received Date Time: 04/18/2017 14:46

Matrix: Drinking Water

Discharge/Site No: 120

Regulatory ID: KY0980350

**Microbiological Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Colilert 24	04/18/2017 16:36	04/19/2017 16:37	WJP



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LABORATORIES, Inc.

P.O. Box 907  
Madisonville, KY 42431  
270.821.7375  
www.mccoylabs.com

Lexington, KY 859.299.7775	Pikeville, KY 606.432.3104	Farmersburg, IN 812.696.5076
Louisville, KY 502.961.0001	Paducah, KY 270.444.6547	

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**ANALYTICAL RESULTS**

Lab Sample ID: **7042928-01**  
Description: **BACT**

Sample Collection Date Time: 04/18/2017 13:41  
Sample Received Date Time: 04/18/2017 14:46

Matrix: Drinking Water

Discharge/Site No: 115

Regulatory ID: KY0980350

**Microbiological Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Collert 24	04/18/2017 16:36	04/19/2017 16:37	WJP

**ANALYTICAL RESULTS**

Lab Sample ID: **7042928-02**  
Description: **BACT**

Sample Collection Date Time: 04/18/2017 13:57  
Sample Received Date Time: 04/18/2017 14:46

Matrix: Drinking Water

Discharge/Site No: 118

Regulatory ID: KY0980350

**Microbiological Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Collert 24	04/18/2017 16:36	04/19/2017 16:37	WJP

**ANALYTICAL RESULTS**

Lab Sample ID: **7042928-03**  
Description: **BACT**

Sample Collection Date Time: 04/18/2017 14:04  
Sample Received Date Time: 04/18/2017 14:46

Matrix: Drinking Water

Discharge/Site No: 120

Regulatory ID: KY0980350

**Microbiological Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Collert 24	04/18/2017 16:36	04/19/2017 16:37	WJP



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### ANALYTICAL RESULTS

Lab Sample ID: **7042928-04**  
Description: **BACT**

Sample Collection Date Time: 04/18/2017 14:19  
Sample Received Date Time: 04/18/2017 14:46

Matrix: Drinking Water

Discharge/Site No: 028

Regulatory ID: KY0980350

Microbiological Analyses Pikeville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Coli/ert 24	04/18/2017 16:36	04/19/2017 16:37	WJP

### ANALYTICAL RESULTS

Lab Sample ID: **7042928-05**  
Description: **BACT**

Sample Collection Date Time: 04/18/2017 14:27  
Sample Received Date Time: 04/18/2017 14:46

Matrix: Drinking Water

Discharge/Site No: 033

Regulatory ID: KY0980350

Microbiological Analyses Pikeville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Coli/ert 24	04/18/2017 16:36	04/19/2017 16:37	WJP

**Notes for work order 7042928**

- Samples collected by MMLI personnel are done so in accordance with procedures set forth in MMLI field services SOPs.
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identification based on the presumptive evidence of the mass spectra.

Standard Qualifiers/Acronyms

MDL	Method Detection Limit
MRL	Minimum Reporting Limit
ND	Not Detected
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
% Rec	Percent Recovery
RPD	Relative Percent Difference
>	Greater than
<	Less than



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Louisville, KY      Paducah, KY  
502.961.0001      270.444.6547

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**SAMPLE SUMMARY**

Lab ID	Client Sample ID/Alias	Matrix	Date Collected	Date Received	Sampled By
7042929-01	Fluoride/	Drinking Water	04/18/2017 13:41	04/18/2017 14:46	Ralph Varney
<u>LabNumber</u>	<u>Measurement</u>	<u>Value</u>			
7042929-01	Field Fluoride	0.76			

**ANALYTICAL RESULTS**

Lab Sample ID: **7042929-01**  
Description: **Fluoride**

Sample Collection Date Time: 04/18/2017 13:41  
Sample Received Date Time: 04/18/2017 14:46

Matrix: Drinking Water

Discharge/Site No: 115

Regulatory ID: KY0980350

**Conventional Chemistry Analyses Madisonville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Fluoride	0.81		mg/L	0.20		4500-F C-1997	04/21/2017 09:57	04/21/2017 09:57	JTL

**Notes for work order 7042929**

- Samples collected by MMLI personnel are done so in accordance with procedures set forth in MMLI field services SOPs.
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identification based on the presumptive evidence of the mass spectra.

U Target analyte was analyzed for, but was below detection limit (the value associated with the qualifier is the laboratory method detection limit in our LIMS system).

**Standard Qualifiers/Acronyms**

- MDL Method Detection Limit
- MRL Minimum Reporting Limit
- ND Not Detected
- LCS Laboratory Control Sample
- MS Matrix Spike
- MSD Matrix Spike Duplicate
- DUP Sample Duplicate
- % Rec Percent Recovery
- RPD Relative Percent Difference
- > Greater than
- < Less than

**Certified Analyses included in this Report**

Analyte	Certifications
<b>4500-F C-1997 in Water</b>	
Fluoride	KY Drinking Water Mdv (00030) VA NELAC Mdv (460210) IN Drinking Water Mdv (C-KY-02) IL Drinking Water Mdv (200079)

KENTUCKY DIVISION OF WATER

Revised 7/1/06

DRINKING WATER BRANCH

MONTHLY OPERATION REPORT (MOR)--ALL WATER SYSTEMS

MONTH & YEAR OF: XXXXXXXXXX

DEP Form 4012--Revised 07/2006

PWS ID :	<u>0980350</u>	PLANT ID:	<u>A</u>	PLANT NAME:	<u>PIKEVILLE WATER PLANT</u>
PWS NAME:	<u>CITY OF PIKEVILLE</u>			PLANT CLASS:	<u>IVA DIST. CLASS: II</u>
AGENCY INTEREST (AI):	<u>3691</u>			DATE MAILED:	
SOURCE NAME:	<u>LEVISA FORK OF THE BIG SANDY RIVER</u>			COUNTY:	<u>PIKE</u>

	OPERATOR(S) RESPONSIBLE / IN-CHARGE	CLASS	CERTIFICATION NUMBER
WTP SHIFT 1:	<u>RALPH VARNEY</u>	<u>IVA</u>	<u>645</u>
WTP SHIFT 2:	<u>GREG PENNINGTON</u>	<u>IVA</u>	<u>777</u>
WTP SHIFT 3:	<u>DEMPSEY MILES</u>	<u>IVA</u>	<u>1549</u>
DISTRIBUTION:	<u>DONNIE SLONE</u>	<u>IID</u>	<u>2236</u>

THIS REPORT MUST BE RECEIVED BY THE DIVISION OF WATER AND APPLICABLE FIELD OFFICE  
NO LATER THAN 10 DAYS AFTER THE END OF THE MONTH.

**TREATMENT PLANTS COMPLETE:**

1. DESIGN CAPACITY (gpm):	<u>4400</u>
2. TYPE OF FILTRATION USED:	<u>DUAL MEDIA RAPID SAND</u>
3. DESIGN FILTRATION RATE (gpm/sq. ft.):	<u>3</u>
4. PERCENT BACKWASH WATER USED:	<u>2.1</u>
5. DATE FLOCCULATION BASIN(S) LAST CLEANED:	<u>NOVEMBER 2015</u>
6. DATE SETTLING BASIN(S) LAST CLEANED:	<u>NOVEMBER 2015</u>

I certify under penalty of law that I have personally examined and am familiar with the information submitted herein. Based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. See KRS 224.99-010 and 401 KAR 8:020. (Penalties under this statute and regulation may include fines up to \$25,000 per violation or by imprisonment for not more that one year, or both)

\_\_\_\_\_  
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

\_\_\_\_\_  
DATE

KENTUCKY DIVISION OF WATER - DRINKING WATER BRANCH  
 WATER TREATMENT PLANT MONTHLY OPERATION REPORT

PWS ID : 0980350  
 PLANT ID: A  
 REPORT MONTH/YEAR: May, 2017

PAGE 1 OF 11

DAY	RAW WATER TREATED GALLONS	HOURS PLANT OPERATED	COAGULANT		COAGULANT		pH ADJUSTMENT		DISINFECTANT		DISINFECTANT	
			LBS	PPM	LBS	PPM	Pre		Pre		Post	
							LBS	PPM	LBS	PPM	LBS	PPM
	2759000	11.00	803	34.9					57	2.49	47	2.06
	3204000	12.50	618	23.1					42	1.56	50	1.85
	2968000	12.00	618	25.0					41	1.64	50	2.00
	2964000	11.50	645	26.1					39	1.56	43	1.74
	3017000	12.00	659	26.2					40	1.57	48	1.92
	3095000	12.00	638	24.7					33	1.28	44	1.70
	2939000	11.50	597	24.4					33	1.35	50	2.02
	2789000	12.00	556	23.9					34	1.47	50	2.13
	3222000	13.00	597	22.2					42	1.56	54	2.01
	3064000	12.00	721	28.2					37	1.46	54	2.11
	2970000	11.50	593	23.9					34	1.38	47	1.91
	2944000	11.75	618	25.2					36	1.48	54	2.20
	3267000	12.75	1030	37.8					39	1.41	55	2.02
	2910000	11.50	1009	41.6					34	1.41	44	1.81
	2915000	11.50	1123	46.2					29	1.18	48	1.99
	3535000	14.00	793	26.9					44	1.49	58	1.98
	3293000	13.00	906	33.0					42	1.52	61	2.20
	2957000	12.75	749	30.4					41	1.65	41	1.65
	3194000	13.50	876	32.9					36	1.36	34	1.28
	4349000	20.00	2287	63.1					129	3.55	64	1.76
	2694000	13.00	649	28.9					53	2.35	52	2.30
	3303000	16.25	752	27.3					56	2.04	51	1.84
	3486000	15.75	690	23.7					45	1.55	42	1.44
	3235000	13.00	989	36.7					43	1.59	48	1.79
	2796000	11.00	936	40.1					40	1.70	47	2.03
	3326000	11.75	927	33.4					43	1.55	55	1.98
	2741000	10.75	803	35.1					34	1.49	48	2.12
	3009000	11.75	845	33.7					43	1.71	54	2.15
	3029000	11.75	752	29.8					40	1.57	40	1.57
	3250000	13.00	927	34.2					44	1.62	50	1.83
	3145000	12.50	536	20.4					44	1.68	55	2.10
TOT	96369000		25242						1344		1536	
AVE	3108677		814	26.45					43	2.69	50	1.85
MAX	4349000		2287									
NUMBER DAYS IN OPERATION												

KENTUCKY DIVISION OF WATER - DRINKING WATER BRANCH  
 WATER TREATMENT PLANT MONTHLY OPERATION REPORT

PWS ID : 0980350  
 PLANT ID: A

REPORT MONTH/YEAR: May, 2017

PAGE 2 OF 11

DAY	DISINFECTANT		FLUORIDE		CARBON		pH ADJUSTMENT		KMnO4		CORROSION INHIBITOR			
	LBS	PPM	LBS	PPM	LBS	PPM	LBS	PPM	LBS	PPM	LBS	PPM	LBS	PPM
			16.2	0.70										
			18.0	0.67										
			18.0	0.73										
			16.2	0.66										
			18.0	0.72										
			18.0	0.70										
			14.4	0.59										
			15.5	0.67										
			18.0	0.67										
			18.0	0.70										
			15.8	0.64										
			17.5	0.71										
			21.6	0.79										
			15.3	0.63										
			17.1	0.70										
			18.0	0.61										
			18.0	0.66										
			17.1	0.69										
			21.6	0.81										
			28.8	0.79										
			18.0	0.80										
			24.3	0.88										
			23.4	0.80										
			19.8	0.73										
			16.2	0.69										
			15.3	0.55										
			13.5	0.59										
			18.0	0.72										
			12.6	0.50										
			18.0	0.66										
			18.0	0.69										
<b>TOTAL</b>			558.2											
<b>AVERAGE</b>			18.0	0.90										

KENTUCKY DIVISION OF WATER - DRINKING WATER BRANCH  
 WATER TREATMENT PLANT MONTHLY OPERATION REPORT

PWS ID : 0980350  
 PLANT ID: A

REPORT MONTH/YEAR: May, 2017

PAGE 3 OF 11

DAY	pH			TOTAL ALKALINITY		TOTAL HARDNESS		CHLORINE RESIDUAL				TURBIDITY (NTU)		
	RAW	TOP OF	TAP	RAW	TAP	RAW	TAP	TOP OF FILTER		PLANT TAP		RAW	SETTLED WATER	PLANT TAP
		FILTER						TOTAL	FREE	TOTAL	FREE			
	7.84	7.80	7.63	68	72	186	168		0.87		1.77	28.6	1.25	0.06
	7.96	7.93	7.78	80	76	200	196		0.66		1.56	18.2	1.55	0.07
	7.92	7.91	7.76	80	80	200	210		0.56		1.57	14.2	1.23	0.09
	7.91	7.87	7.75	88	84	212	194		0.56		1.68	11.6	1.52	0.05
	7.93	7.88	7.72	90	80	204	206		0.56		1.41	15.8	1.59	0.06
	7.97	7.95	7.84	84	90	216	210		0.48		1.56	13.2	1.32	0.07
	7.98	7.90	7.81	88	88	200	194		0.32		1.49	10.0	1.23	0.10
	7.95	7.92	7.77	76	70	178	182		0.34		1.53	9.4	1.08	0.08
	7.90	7.88	7.75	74	78	186	192		0.38		1.61	13.5	1.35	0.05
	7.88	7.84	7.79	88	86	206	210		0.28		1.48	70.4	1.69	0.06
	7.95	7.90	7.75	74	72	180	186		0.43		1.69	19.8	1.53	0.06
	7.95	7.92	7.77	74	70	178	180		0.38		1.71	18.0	1.68	0.07
	7.80	7.69	7.84	82	84	200	208		0.12		1.48	229.5	1.76	0.11
	7.90	7.88	7.84	84	88	200	210		0.38		1.44	36.4	1.00	0.05
	7.88	7.81	7.69	62	66	170	166		0.44		1.76	20.6	1.24	0.06
	7.86	7.88	7.71	74	68	190	176		0.52		1.75	20.5	1.14	0.08
	7.90	7.84	7.73	68	72	190	180		0.48		1.69	21.4	1.47	0.09
	7.85	7.79	7.65	72	72	182	172		0.53		0.80	17.8	1.32	0.06
	7.89	7.82	7.68	68	76	182	192		0.40		0.44	26.8	1.28	0.05
	7.86	7.77	7.70	80	74	160	160		0.66		0.17	1150.0	1.77	0.09
	7.89	7.83	7.67	84	78	180	174		1.02		0.41	36.6	1.47	0.06
	7.92	7.88	7.66	76	66	196	180		0.86		1.80	19.6	1.34	0.08
	7.92	7.86	7.68	82	74	182	188		0.78		1.59	16.9	1.34	0.06
	7.79	7.78	7.78	76	70	180	182		0.30		1.20	125.5	1.62	0.08
	7.88	7.73	7.67	56	58	132	132		0.34		1.25	71.2	1.13	0.08
	7.89	7.76	7.68	64	64	162	152		0.46		1.76	24.9	0.84	0.07
	7.83	7.76	7.74	68	72	168	162		0.38		1.53	46.2	1.28	0.06
	7.80	7.78	7.70	80	74	160	162		0.62		1.59	39.6	1.33	0.06
	7.90	7.81	7.69	64	72	168	178		0.62		1.57	28.8	1.45	0.07
	7.89	7.85	7.70	70	78	208	190		0.54		1.58	16.4	1.06	0.06
	7.95	7.87	7.71	74	84	210	200		0.54		1.53	16.2	0.98	0.09
<b>AVE</b>	7.89	7.84	7.73	76	75	186	184		0.51		1.43	71.2	1.35	0.07

KENTUCKY DIVISION OF WATER  
 DRINKING WATER BRANCH  
 WATER TREATMENT PLANT MONTHLY OPERATION REPORT

PWS ID : 0980350  
 PLANT ID: A  
 AGENCY INTEREST: 3691  
 REPORT MONTH/YEAR: May, 2017

AREA-WIDE OPTIMIZATION PROGRAM TURBIDITY DATA  
 COPY PAGE AS NEEDED

DAY	RAW DAILY MAX	SEDIMENTATION BASIN EFFLUENT DAILY MAXIMUM						INDIVIDUAL FILTER EFFLUENT DAILY MAXIMUM							CFE DAILY MAX
		#1	#2	#3	#4	#5	#6	#1	#2	#3	#4	#5	#6	#7	
	33.6	1.24	1.11					0.09	0.06	0.03	0.24	0.09			0.05
	18.3	1.72	1.52					0.23	0.08	0.06	0.16	0.10			0.06
	15.6	1.38	0.94					0.32	0.08	0.06	0.12	0.07			0.06
	12.8	1.77	1.70					0.06	0.09	0.07	0.10	0.07			0.05
	19.7	1.81	1.76					0.07	0.11	0.08	0.12	0.08			0.06
	14.9	1.38	1.20					0.20	0.11	0.08	0.31	0.08			0.08
	10.8	1.30	1.16					0.20	0.06	0.09	0.56	0.09			0.12
	10.2	1.22	1.11					0.07	0.06	0.08	0.28	0.08			0.06
	15.1	1.34	1.24					0.07	0.07	0.09	0.13	0.16			0.06
	108.0	1.66	1.42					0.16	0.09	0.06	0.21	0.12			0.07
	22.9	1.82	1.59					0.21	0.07	0.04	0.12	0.07			0.06
	21.1	1.36	1.18					0.28	0.10	0.04	0.13	0.06			0.06
	229.5	2.41	2.11					0.29	0.34	0.13	0.25	0.15			0.14
	43.2	1.03	0.89					0.06	0.06	0.10	0.27	0.07			0.05
	23.1	1.67	1.05					0.09	0.06	0.03	0.19	0.07			0.05
	20.9	1.30	1.01					0.48	0.06	0.06	1.21	0.10			0.10
	23.2	1.87	1.54					0.69	0.07	0.04	0.12	0.15			0.11
	19.3	1.49	1.40					0.15	0.11	0.06	0.11	0.06			0.04
	36.9	1.03	0.77					0.06	0.06	0.10	0.11	0.06			0.04
	2090.0	1.87	1.17					0.38	0.33	0.73	0.29	0.33			0.28
	46.0	1.73	1.25					0.10	0.08	0.06	0.17	0.11			0.06
	21.4	1.28	1.13					0.10	0.08	0.06	0.11	0.07			0.06
	17.0	1.46	1.32					0.11	0.09	0.07	0.13	0.10			0.09
	135.0	1.83	1.70					0.21	0.07	0.07	0.15	0.13			0.07
	102.0	1.13	0.96					0.14	0.13	0.07	0.11	0.07			0.06
	27.7	0.97	0.95					0.05	0.05	0.06	0.09	0.04			0.04
	53.1	1.40	1.28					0.06	0.06	0.09	0.18	0.05			0.05
	42.7	1.44	1.30					0.09	0.06	0.04	0.17	0.08			0.04
	30.9	1.45	1.41					0.08	0.07	0.04	0.11	0.04			0.04
	19.2	1.00	0.76					0.10	0.07	0.04	0.12	0.04			0.04
	18.1	0.94	0.76					0.24	0.07	0.04	0.15	0.05			0.14
<b>AVE</b>	106.5	1.46	1.25					0.18	0.09	0.09	0.21	0.09			0.07

KENTUCKY DIVISION OF WATER - DRINKING WATER BRANCH  
 WATER TREATMENT PLANT MONTHLY OPERATION REPORT

PWSID: 0980350  
 PLANT ID: A

REPORT MONTH/YEAR: May, 2017

\*Please answer Y/N question below this chart.

PAGE 5 OF 11

DAY	FLUORIDE		IRON		MANGANESE				Lowest Daily Cl Res Plant Tap On-Line Cl Analyzer	RAINFALL	WATER TEMP. DEGREES
	RAW	TAP	RAW	TAP	RAW	TAP	RAW	TAP	FREE	INCHES	F°/C°
	0.08	0.72							1.77	0.35	18.0
	0.08	0.71							1.56		18.0
	0.09	0.70							1.57		17.0
	0.09	0.76							1.68		17.5
	0.11	0.77							1.41	0.14	17.0
	0.10	0.76							1.56	1.10	16.0
	0.10	0.75							1.49		16.0
	0.09	0.86							1.53		17.0
	0.11	0.80							1.61	0.66	17.0
	0.11	0.78							1.48	0.62	17.0
	0.10	0.74							1.69		18.0
	0.11	0.71							1.71	0.42	18.0
	0.11	0.80							1.48	0.66	18.0
	0.10	0.72							1.44		18.0
	0.09	0.70							1.76		18.0
	0.08	0.76							1.75		18.0
	0.08	0.75							1.69		19.0
	0.08	0.68							0.80	0.40	19.0
	0.08	0.80							0.44		20.0
	0.10	0.88							0.17	1.70	19.0
	0.10	0.99							0.41		20.0
	0.11	0.95							1.80	0.23	18.5
	0.10	1.01							1.59		19.0
	0.10	0.76							1.20	0.71	18.0
	0.08	0.84							1.25	1.05	18.0
	0.09	0.70							1.76	0.43	17.0
	0.11	0.66							1.53		18.0
	0.10	0.70							1.59		18.0
	0.09	0.70							1.57	0.04	18.0
	0.10	0.60							1.58		18.0
	0.10	0.70							1.53		19.0
<b>AVE</b>	0.10	0.77									18.0

	0.17	
Number of readings	31	8.51
For Free Cl, # < 0.2 mg/L	1	
Disinfectant Chloramines? (Y/N)		
For Chloramines, # < 0.5 mg/L		

KENTUCKY DIVISION OF WATER - DRINKING WATER BRANCH  
 WATER TREATMENT PLANT MONTHLY OPERATION REPORT

PWS ID: 0980350

PLANT ID: A

REPORT MONTH/YEAR: May, 2017

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DAY	TOTAL WASH WATER GALLONS	No: 1		No: 2		No: 3		No: 4		No: 5	
		AREA (ft2)	363								
		WASH GALLONS	FILT RUN HRS								
	81,360							81,360	91.25		
	84,920									84,920	72.75
	98,520	98,520	70.50								
	90,420			90,420	84.50						
	98,760	98,760	45.50								
	72,585							72,585	78.25		
	82,130					82,130	107.75				
	81,950									81,950	94.75
	78,500	78,500	61.25								
	79,600			79,600	82.00						
	80,610					80,610	58.50				
	88,275							88,275	98.25		
	171,300	90,200	63.00							81,100	84.50
	97,392			97,392	62.25						
	89,958					89,958	66.00				
	78,500							78,500	86.00		
	81,100									81,100	94.25
	81,720	81,720	102.25								
	65,688			65,688	103.50						
	81,780					81,780	101.75				
	81,360							81,360	62.00		
	89,595									89,595	54.50
	81,500	81,500	80.50								
<b>TOT</b>	2,017,523	529,200	423.0	333,100	332.3	334,478	334.0	402,080	415.8	418,665	400.8
<b>AVE</b>	87,718	88,200	70.5	83,275	83.1	83,620	83.5	80,416	83.2	83,733	80.2

COPY AS NEEDED

KENTUCKY DIVISION OF WATER - DRINKING WATER BRANCH  
 WATER TREATMENT PLANT MONTHLY OPERATION REPORT

PWS ID : 0980350  
 PLANT ID: A

REPORT MONTH/YEAR: May, 2017

PAGE 7 OF 11

DAY	CHEMICALS ADDED		TEST RESULTS									
	CHLORINE BOOSTER	CHLORINE BOOSTER	TOTAL (T) AND FREE (F) CHLORINE RESIDUAL (ppm)									
	LBS	LBS	NORTH		SOUTH		EAST		WEST			
			T	F	T	F	T	F	T	F		
				0.81								
						0.98						
								0.87				
											0.89	
				0.92								
						0.95						
								1.10				
											0.91	
				1.01								
						0.98						
								0.78				
											1.08	
				0.85								
						0.91						
								0.89				
											1.05	
				0.92								
						1.19						
								1.01				
											0.98	
				0.84								
						0.98						
								0.89				
											0.98	
				1.02								
						1.15						
								1.08				
											1.07	
				1.15								
						1.14						
								1.00				
AVE			AVERAGE	0.94		1.04		0.95			0.99	
TOT			TOT MIN									
			FREE MIN	0.81		0.91		0.78			0.89	
Total # Chlorine Samples				8		8		8			7	
# Less than 0.2 mg/L/0.5 mg/L				0		0		0			0	
Number of Free Residuals				31	Minimum Monthly Total Residual				NA			
Number of Total Residuals				0	Minimum Monthly Free Residual				0.78			
Total # Less than 0.2 mg/L				0	Disinfectant Chloramines? (Y/N)				N			
					Number of days of operation?				31			

KENTUCKY DIVISION OF WATER - DRINKING WATER BRANCH  
 WATER TREATMENT PLANT MONTHLY OPERATION REPORT

PWS ID : 0980350  
 PLANT ID: A

TURBIDITY REPORT

Report Period (MM/YYYY): May, 2017

PWS Name: CITY OF PIKEVILLE

PAGE:  
 8 OF 11

DAY										
11.0	3		0.05	0.05	0.06	0.07		0.07		
12.5	4		0.06	0.07	0.08	0.07		0.08		
12.0	3		0.12	0.12	0.07	0.06		0.12		
11.5	3		0.05	0.05	0.05	0.04		0.05		
12.0	3			0.05	0.05	0.06	0.06	0.06		
12.0	3		0.07	0.06	0.06	0.08		0.08		
11.5	3		0.07	0.10	0.11	0.10		0.11		
12.0	3		0.09	0.08	0.09	0.05		0.09		
13.0	4		0.04	0.05	0.05	0.05		0.05		
12.0	3		0.06	0.06	0.06	0.05		0.06		
11.5	3		0.06	0.05	0.05	0.06		0.06		
11.8	3		0.06	0.07	0.08	0.07		0.08		
12.8	4		0.09	0.09	0.14	0.11		0.14		
11.5	3		0.06	0.05	0.05	0.05		0.06		
11.5	3		0.05	0.05	0.06	0.06		0.06		
14.0	4		0.08	0.07	0.07	0.08		0.08		
13.0	4		0.08	0.07	0.08	0.10	0.10	0.10		
12.8	4		0.07	0.07		0.05		0.07		
13.5	4		0.04	0.05	0.05	0.05		0.05		
20.0	5		0.06	0.17	0.11	0.06	0.07	0.17		
13.0	4	0.06	0.06	0.05	0.05	0.07	0.06	0.07		
16.3	5		0.07	0.06	0.09	0.08		0.09		
15.8	4		0.06	0.05	0.06	0.06	0.06	0.06		
13.0	4		0.06	0.07	0.09	0.08		0.09		
11.0	3		0.07	0.08	0.09	0.09		0.09		
11.8	3		0.06	0.07	0.06	0.07		0.07		
10.8	3		0.06	0.06	0.06	0.06		0.06		
11.8	3		0.06	0.06	0.06	0.05		0.06		
11.8	3		0.06	0.05	0.07	0.08		0.08		
13.0	4		0.06	0.06	0.07	0.05		0.07		
12.5	4		0.08	0.09	0.09	0.10	0.09	0.10		
Total	392.3	109	TOTAL # OF TURBIDITY SAMPLES TAKEN --				129	0.17		

ARE YOU USING EITHER CONVENTIONAL or DIRECT FILTRATION? (Y/N)  Y

(Any type of filtration besides slow sand)

Number of samples exceeding ----> 0.1 NTU 7 0.3 NTU 0 1 NTU 0

For slow sand filtration, the number of samples exceeding ---> 1 NTU 5 NTU

\*NOTE: The "Number of Turbidity Samples Required" is the number of hours the plant operated divided by 4 rounded up to the next whole number.

I certify that the above turbidity readings were taken every 4 hours during plant operation and in the time frames noted above.

Signature of Principal Executive Officer or Authorized Agent

Date



KENTUCKY DIVISION OF WATER / DRINKING WATER BRANCH  
Monthly Operating Report (MOR) Plant Summary Form

PWS ID : 0980350

Monitoring Period (MM/YYYY): May, 2017

**NOTE: COMPLETE ALL APPLICABLE FIELDS!!! NOT ALL OF THE FIELDS ARE  
PRE-POPULATED FOR YOU!!!**

APPLICABLE TO ALL PLANTS			
PLANT ID:	<u>A</u>	TOTAL WATER TREATED (gallons)	<b>96,369,000</b>
PLANT NAME:	<u>PIKEVILLE WATER PLANT</u>	AVE. DAILY PRODUCTION (gallons)	<b>3,108,677</b>
AGENCY INTEREST:	<u>3691</u>	MAXIMUM PUMPAGE (gallons per day)	<b>4,349,000</b>

APPLICABLE TO ALL PLANTS WITH FILTRATION	
ANALYTE CODE	<u>0100</u>
Was each filter monitored continuously? (Y/N).....	<b>Y</b>
Were measurements recorded every 15 minutes? (Y/N).....	<b>Y</b>
Was there a failure of the continuous monitoring equipment? (Y/N).....	<b>N</b>
If Yes, (1) were individual filter effluent turbidity grab samples collected every four hours of operation? (Y/N).....	
(2) was the continuously monitoring equipment repaired within 5 working days? (Y/N).....	
Was individual filter level greater than 1.0 NTU in two consecutive measurements? (Y/N).....	<b>N</b>
Was individual filter level < 0.5 NTU in two consecutive measurements after online more than 4 hours? (Y/N).....	<b>N</b>
Was individual filter level < 1.0 NTU in two consecutive measurements in three consecutive months? (Y/N).....	<b>N</b>
Was individual filter level greater than 2.0 NTU in two consecutive measurements in two consecutive months? (Y/N)	<b>N</b>
<b>If any of the last 4 boxes are YES, fill out the Individual Filter Turbidity Sheet and submit with MOR</b>	

APPLICABLE TO ALL PLANTS WITH FILTRATION	APPLICABLE TO ALL PLANTS
ANALYTE CODE	<u>0100</u>
Number of hours of plant operation.....	<b>392.3</b>
Were samples taken every 4 hrs of plant operation? (Y/N)	<b>Y</b>
Number of samples taken.....	<b>129</b>
Highest single turbidity reading .....	<b>0.17</b>
For all filtration except slow sand filtration:	
Number of samples exceeded 0.1 NTU .....	<b>7</b>
Number of samples exceeded 0.3 NTU .....	<b>0</b>
Number of samples exceeded 1.0 NTU .....	<b>0</b>
When filtration is slow sand filtration:	
Number of samples exceeded 1 NTU .....	
Number of samples exceeded 5 NTU .....	
ANALYTE CODE	<u>0999</u>
Number of days of plant operation.....	<b>31</b>
Were samples taken each day of operation? (Y/N)	<b>Y</b>
Number of lowest chlorine samples recorded .....	<b>31</b>
Lowest single chlorine reading .....	<b>0.17</b>
If less than required:	
Was residual restored within 4 hrs of plant operation	<input type="checkbox"/>
Free chlorine (for all disinfectants except chloramine):	
Number of samples under 0.2 mg/L .....	<b>1</b>
Total Chlorine (when disinfectant is chloramine):	
Number of samples under 0.5 mg/L .....	

APPLICABLE TO PLANTS UTILIZING CHLORINE DIOXIDE	APPLICABLE TO PLANTS USING CHLORINE DIOXIDE
ANALYTE CODE	<u>1008</u>
Number of days of plant operation.....	<b>31</b>
Were samples taken each day of operation? (Y/N).....	<input type="checkbox"/>
Number of samples taken .....	<b>####</b>
Highest single chlorine dioxide reading .....	<b>####</b>
Number of chlorine dioxide samples exceeded 0.8 mg/L ..	<b>####</b>
ANALYTE CODE	<u>1009</u>
Number of days of plant operation.....	<b>31</b>
Were samples taken each day of operation? (Y/N)	<input type="checkbox"/>
Number of samples taken .....	<b>####</b>
Highest single chlorite reading .....	<b>####</b>
Number of chlorite samples exceeded 1 mg/L .....	<b>####</b>

I certify under penalty of law that I have personally examined and am familiar with the information submitted herein. Based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. See KRS 224.99-010 and 401 KAR 8:020. (Penalties under this statute and regulation may include fines up to \$25,000 per violation or by imprisonment for not more than one year, or both).

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

DATE

**PIKEVILLE WATER TREATMENT PLANT  
 WATER PUMPED TO DISTRIBUTION SYSTEM  
 FOR THE MONTH OF: May, 2017**

05/01/17	2.8809
05/02/17	3.1803
05/03/17	2.9705
05/04/17	3.0054
05/05/17	3.0070
05/06/17	2.9870
05/07/17	2.8317
05/08/17	2.9214
05/09/17	3.2086
05/10/17	3.0709
05/11/17	2.9937
05/12/17	2.8846
05/13/17	3.1739
05/14/17	2.9858
05/15/17	3.0912
05/16/17	3.4216
05/17/17	3.3004
05/18/17	3.1151
05/19/17	3.1981
05/20/17	3.9239
05/21/17	2.9136
05/22/17	3.2948
05/23/17	3.2505
05/24/17	3.4050
05/25/17	2.8418
05/26/17	3.0878
05/27/17	3.0140
05/28/17	3.0824
05/29/17	3.1021
05/30/17	3.2682
05/31/17	3.3050
<b>Total</b>	<b>96.7172</b>
<b>Average</b>	<b>3.1199</b>
<b>Minimum</b>	<b>2.8317</b>
<b>Maximum</b>	<b>3.9239</b>

<b>Water plant usage</b>	<b>58,442</b>
<b>Raw water intake usage</b>	<b>172,710</b>
<b>Total non metered usage</b>	<b>231,152</b>

# Water Withdrawal Report Form

Preprint ID:

Agency Interest

Subject Item:

Monitoring Period:

3691 - Pikeville Water Department

GACT0000000001-0638 Levisa Fork

05/01/17 to 05/31/17

Day	Result	Parameter	Unit
1	2.759	Withdrawal	MGD (MA)
2	3.204	Withdrawal	MGD (MA)
3	2.968	Withdrawal	MGD (MA)
4	2.964	Withdrawal	MGD (MA)
5	3.017	Withdrawal	MGD (MA)
6	3.095	Withdrawal	MGD (MA)
7	2.939	Withdrawal	MGD (MA)
8	2.789	Withdrawal	MGD (MA)
9	3.222	Withdrawal	MGD (MA)
10	3.064	Withdrawal	MGD (MA)
11	2.970	Withdrawal	MGD (MA)
12	2.944	Withdrawal	MGD (MA)
13	3.267	Withdrawal	MGD (MA)
14	2.910	Withdrawal	MGD (MA)
15	2.915	Withdrawal	MGD (MA)
16	3.535	Withdrawal	MGD (MA)
17	3.293	Withdrawal	MGD (MA)
18	2.957	Withdrawal	MGD (MA)
19	3.194	Withdrawal	MGD (MA)
20	4.349	Withdrawal	MGD (MA)
21	2.694	Withdrawal	MGD (MA)
22	3.303	Withdrawal	MGD (MA)
23	3.486	Withdrawal	MGD (MA)
24	3.235	Withdrawal	MGD (MA)
25	2.796	Withdrawal	MGD (MA)
26	3.326	Withdrawal	MGD (MA)
27	2.741	Withdrawal	MGD (MA)
28	3.009	Withdrawal	MGD (MA)
29	3.029	Withdrawal	MGD (MA)
30	3.250	Withdrawal	MGD (MA)
31	3.145	Withdrawal	MGD (MA)

4:10  
ENTERED  
[Signature]

## Monthly Chlorine Report- May. 2017

### Water Dist. – Utility Management Group – JM,WH,JR

5-1-17 = 102 Billips Drive = 0.81  
5-2-17 = 3630 Island Creek = 0.98  
5-3-17 = 130 Justice Way = 0.87  
5-4-17 = 7104 North Mayo Trail = 0.89  
5-5-17 = 200 Julius Ave. = 0.92  
5-6-17 = 123 Cow Pen Road = 0.95  
5-7-17 = 348 Peach Orchard = 1.10  
5-8-17 = 127 Porter Lane = 0.91  
5-9-17 = 872 Ratliff Creek = 1.01  
5-10-17 = 176 Ky. Ave. = 0.98  
5-11-17 = 1260 Weddington Branch = 0.78  
5-12-17 = 186 College Street = 1.08  
5-13-17 = 117 Rainbow Lane = 0.85  
5-14-17 = 976 Lykens Creek = 0.91  
5-15-17 = 560 Zeigler Drive = 0.89  
5-16-17 = 215 Marions Branch = 1.05  
5-17-17 = 149 Mt. Chase = 0.92  
5-18-17 = 125 Williamson Street = 1.19  
5-19-17 = 109 Smith Street = 1.01  
5-20-17 = 586 Town Mt. Road = 0.98  
5-21-17 = 102 Billips Drive = 0.84  
5-22-17 = 344 South Mayo Trail = 0.98  
5-23-17 = 111 Iris Alley = 0.89  
5-24-17 = 1484 South Mayo Trail = 0.98  
5-25-17 = 688 Chloe Road = 1.02  
5-26-17 = 775 Harolds Branch = 1.15  
5-27-17 = 174 Third Street = 1.08  
5-28-17 = 267 Scott Ave = 1.07  
5-29-17 = 121 Main Street = 1.15  
5-30-17 = 122 Ky. Ave. = 1.14  
5-31-17 = 118 Pauley Addition = 1.00



	FLOW TO DIST	START C. WELL	Settling Basin Turbidity						Sludge Hauled	Spent B/W Return	DUP pH TAP
			MID - 4	4A - 8AM	8AM - 12N	12N - 4PM	4PM - 8PM	8PM - 12M			
05/01/17	2.8809	8.0		1.68	1.16	1.08	1.18			21,000	7.63
05/02/17	3.1803	4.2		1.56	1.36	1.58	1.62			232,000	7.79
05/03/17	2.9705	6.4		1.24	1.30	1.16	1.31			138,000	7.77
05/04/17	3.0054	6.6		1.41	1.15	1.59	1.74			45,000	7.75
05/05/17	3.0070	5.0			1.48	1.39	1.78	1.49		14,000	7.73
05/06/17	2.9870	5.4		1.31	1.26	1.29	1.45			100,000	7.84
05/07/17	2.8317	7.2		1.29	1.13	1.23	1.28			81,000	7.81
05/08/17	2.9214	9.0		1.10	1.00	0.98	1.20		37,200	130,000	7.77
05/09/17	3.2086	6.4		1.30	1.33	1.56	1.29		5,800	154,000	7.75
05/10/17	3.0709	6.8		1.48	1.51	1.54	2.40			120,000	7.80
05/11/17	2.9937	6.8		1.30	1.37	1.58	1.70			31,000	7.74
05/12/17	2.8846	5.8		1.68	2.29	1.91	1.27			127,000	7.76
05/13/17	3.1739	7.2		1.33	1.88	2.26	1.08			102,000	7.85
05/14/17	2.9858	9.0		1.44	0.96	0.96	0.68			104,000	7.84
05/15/17	3.0912	7.8		0.88	1.35	1.25	1.36			24,000	7.70
05/16/17	3.4216	4.8		1.06	1.02	1.16	1.30			157,000	7.70
05/17/17	3.3004	7.4		1.40	1.35	1.70	1.40	1.28		238,000	7.73
05/18/17	3.1151	7.8		1.22	1.19		1.44			139,000	7.66
05/19/17	3.1981	5.2		0.95	2.48	0.90	1.17		18,100	118,000	7.69
05/20/17	3.9239	4.8		1.50	3.80	1.52	0.80	1.47		47,000	7.71
05/21/17	2.9136	14.0	2.28	1.17	1.80	1.49	1.02	1.04		21,000	7.65
05/22/17	3.2948	9.0		1.35	1.15	1.81	1.20		43,300	137,000	7.67
05/23/17	3.2505	8.4		1.32	1.04	1.55	1.39	1.36	70,500	76,000	7.69
05/24/17	3.4050	9.0		1.40	1.72	1.76	1.44		47,400	234,000	7.78
05/25/17	2.8418	8.0		1.41	1.03	1.04	1.12			103,000	7.68
05/26/17	3.0878	5.4		0.75	0.82	0.71	0.96		17,100	40,000	7.68
05/27/17	3.0140	8.2		1.01	1.33	1.34	1.38			175,000	7.75
05/28/17	3.0824	6.2		1.26	1.40	1.37	1.26			152,000	7.70
05/29/17	3.1021	6.0		1.22	1.63	1.52	1.43			44,000	7.69
05/30/17	3.2682	6.2		1.38	1.12	0.88	1.06		33,100	46,000	7.70
05/31/17	3.3050	8.0		1.07	1.03	0.85	1.07	1.04		138,000	7.72
Ave	3.1199	7.1	2.28	1.28	1.43	1.37	1.32	1.28		106,065	
Tot	96.7172								272,500	3,288,000	
Min	2.8317	4.2	2.28	0.75	0.82	0.71	0.68	1.04		14,000	
Max	3.9239	14.0	2.28	1.68	3.80	2.26	2.40	1.49		238,000	

WATER PLANT MONTHLY OPERATIONS REPORT

MONTH/YEAR: 5/17

ANALYTICAL RESULTS (Mg/L or PPM unless otherwise specified.)

DAY	pH (S. U.'S)				ALKALINITY		HARDNESS		CHLORINE		TURBIDITY (NTU)		FLUORIDE	
	RAW	TOF	FIN	DUP	RAW	FIN	RAW	FIN	TOF	FIN	RAW	TOF	RAW	FIN
01	7.84	7.80	7.63	7.63	68	72	186	168	.87	1.77	28.55	1.25	.08	.72
02	7.96	7.93	7.78	7.79	80	76	200	196	.66	1.56	18.2	1.55	.08	.71
03	7.92	7.91	7.76	7.77	80	80	200	210	.56	1.57	14.2	1.23	.09	.70
04	7.91	7.87	7.75	7.75	88	84	212	194	.58	1.68	11.6	1.52	.09	.76
05	7.93	7.88	7.72	7.73	90	80	204	206	.56	1.41	15.8	1.59	.11	.77
06	7.97	7.95	7.84	7.84	84	90	216	210	.48	1.56	13.2	1.32	.10	.76
07	7.98	7.90	7.81	7.81	88	88	200	194	.32	1.49	10	1.23	.10	.75
08	7.95	7.92	7.77	7.77	76	70	178	182	.34	1.53	9.4	1.08	.09	.86
09	7.90	7.88	7.75	7.75	74	78	186	192	.38	1.61	13.45	1.35	.11	.80
10	7.88	7.84	7.79	7.80	88	86	206	210	.28	1.48	70.4	1.69	.11	.78
11	7.95	7.90	7.75	7.74	74	72	180	186	.43	1.69	19.75	1.53	.10	.74
12	7.95	7.92	7.77	7.76	74	70	178	180	.38	1.71	18	1.68	.11	.71
13	7.80	7.69	7.84	7.85	82	84	200	208	.12	1.48	229.5	1.76	.11	.80
14	7.90	7.88	7.84	7.84	84	88	200	210	.38	1.44	36.4	1.00	.10	.72
15	7.88	7.81	7.69	7.7	62	66	170	166	.44	1.76	20.6	1.24	.09	.70
16	7.86	7.88	7.71	7.70	74	68	190	176	.52	1.75	20.5	1.14	.08	.76
17	7.90	7.84	7.73	7.73	68	72	190	180	.48	1.69	21.4	1.47	.08	.75
18	7.85	7.79	7.65	7.66	72	72	182	172	.53	.8	12.8	1.32	.08	.68
19	7.89	7.82	7.68	7.69	68	76	182	192	.4	.44	26.8	1.28	.08	.8
20	7.86	7.77	7.70	7.71	80	74	160	160	.66	.17	1150	1.77	.10	.88
21	7.89	7.83	7.67	7.65	84	78	180	174	1.02	.41	36.6	1.47	.10	.99
22	7.92	7.88	7.66	7.67	76	66	196	180	.86	1.80	19.6	1.34	.11	.95
23	7.92	7.86	7.68	7.69	82	74	182	188	.78	1.59	16.85	1.34	.10	1.01
24	7.79	7.78	7.78	7.78	76	70	180	182	.30	1.20	125.5	1.62	.10	.76
25	7.88	7.73	7.67	7.68	56	58	132	132	.34	1.25	71.2	1.13	.08	.84
26	7.89	7.76	7.68	7.68	64	64	162	152	.46	1.76	24.9	.84	.09	.70
27	7.83	7.76	7.74	7.75	68	72	168	162	.38	1.53	46.2	1.28	.11	.66
28	7.80	7.78	7.70	7.70	80	74	160	162	.62	1.59	39.6	1.33	.10	.70
29	7.90	7.81	7.69	7.69	64	72	168	178	.62	1.57	28.75	1.45	.09	.70
30	7.89	7.85	7.70	7.70	70	78	208	190	.54	1.58	16.4	1.08	.10	.60
31	7.95	7.87	7.71	7.72	74	84	210	200	.54	1.53	16.2	.98	.10	.70

## WATER PLANT MONTHLY OPERATIONS REPORT

MONTH/YEAR:

5/17

## CHEMICALS ADDED

DAY	RAW WATER TREATED (M.G.D.)	COAGULANT PAC LBS	FLUORIDE LBS	PRE LBS	POST LBS
01	2.759	803	16.2	57.2	47.3
02	3.204	618	18	41.8	49.5
03	2.968	618	18	40.7	49.5
04	2.964	645	16.2	38.5	42.9
05	3.017	659	18	39.6	48.4
06	3.095	638	18	33	44
07	2.939	597	14.4	33	49.5
08	2.789	554	15.5	34.1	49.5
09	3.222	597	18.0	41.8	53.9
10	3.064	721	18.0	37.4	53.9
11	2.970	593	15.8	34.1	47.3
12	2.944	618	17.5	36.3	53.9
13	3.267	1090	21.6	38.5	55.0
14	2.910	1009	15.3	34.1	44.0
15	2.915	1123	17.1	28.6	48.4
16	3.535	793	18	44	58.3
17	3.293	906	18	41.8	60.5
18	2.957	749	17.1	40.7	40.7
19	3.194	876	21.6	36.3	34.1
20	4.349	2287	28.8	128.7	63.8
21	2.694	649	18	52.8	51.7
22	3.303	752	24.3	56.1	50.6
23	3.486	690	23.4	45.1	48.8
24	3.235	989	19.8	42.9	48.4
25	2.796	936	16.2	39.6	47.3
26	3.326	927	15.3	42.9	55.0
27	2.741	803	13.5	34.1	48.4
28	3.009	845	18.0	42.9	53.9
29	3.029	752	12.6	39.6	39.6
30	3.250	927	18	44	49.5
31	3.145	536	18	44	55

PIKEVILLE WATER TREATMENT PLANT  
AWOP INFORMATION

MONTH/YR: 5/17

ANALYTICAL RESULTS (NTU)											
DAY	RAW DAILY MAX	SED BASIN EFF		INDIVIDUAL FILTER EFFLUENT					CFE		
		DAILY MAX		DAILY MAXIMUM					DAILY MAX		
		#1	#2	#1	#2	#3	#4	#5			
1	33.6	1.24	1.11	.09	.06	.03	.24	.09	.05	3184	4385
2	18.3	1.72	1.52	.23	.08	.06	.16	.10	.06	3208	4307
3	15.6	1.38	.94	.32	.08	.06	.12	.07	.06	3190	4313
4	12.8	1.77	1.70	.06	.09	.07	.10	.07	.05	3233	4301
5	19.7	1.81	1.76	.07	.11	.08	.12	.08	.06	3178	4307
6	14.9	1.38	1.2	.20	.11	.08	.31	.08	.08	3214	4332
7	10.8	1.3	1.16	.20	.06	.09	.56	.09	.12	3187	4335
8	10.2	1.22	1.11	.07	.08	.08	.28	.08	.06	3162	4317
9	15.1	1.34	1.24	.07	.07	.09	.13	.16	.06	3168	4325
10	108.0	1.66	1.42	.16	.09	.06	.21	.12	.07	3214	4353
11	22.9	1.82	1.59	.21	.07	.04	.12	.07	.06	3220	4344
12	21.1	1.36	1.18	.28	.10	.04	.13	.06	.06	3193	4332
13	229.5	2.41	2.11	.29	.34	.13	.25	.15	.14	3199	4449
14	43.2	1.03	.89	.06	.06	.10	.27	.07	.05	3242	4472
15	231.1	1.67	1.05	.09	.06	.03	.19	.07	.05	3172	4408
16	20.9	1.3	1.01	.48	.06	.06	.21	.10	.10	3214	4325
17	23.2	1.87	1.54	.69	.07	.04	.12	.15	.11	3208	4328
18	19.3	1.49	1.4	.15	.11	.06	.11	.06	.04	3208	4301
19	36.9	1.03	.77	.06	.06	.1	.11	.06	.04	3181	4322
20	2090	1.87	1.17	.38	.33	.73	.29	.33	.28	3184	4377
21	46	1.73	1.25	.10	.08	.06	.17	.11	.06	3181	3510
22	21.4	1.28	1.13	.10	.08	.06	.11	.07	.06	3217	3455
23	17	1.46	1.32	.11	.09	.07	.13	.10	.09	3165	4087
24	135.0	1.83	1.70	.21	.07	.07	.15	.13	.07	3199	4423
25	102	1.13	.96	.14	.13	.07	.11	.07	.06	3199	4444
26	27.7	.97	.95	.05	.05	.06	.09	.04	.04	3175	4432
27	53.1	1.40	1.28	.06	.06	.09	.18	.05	.05	3159	4402
28	42.7	1.44	1.30	.09	.06	.04	.17	.08	.04	3202	4304
29	30.9	1.45	1.41	.08	.07	.04	.11	.04	.04	3159	4328
30	19.2	1.0	.76	.10	.07	.04	.12	.04	.04	3175	4270
31	18.1	.94	.76	.24	.07	.04	.15	.05	.14	3202	4286

**FILTER OPERATION INFORMATION  
WATER TREATMENT PLANT MONTHLY OPERATION REPORT**

CARRY OVER

**39.25**

**16.75**

**4.5**

**80.5**

**52.25**

PWS ID: 0980350

REPORT MONTH: **5/17**

DAY	(gallons)	#1 HRS	GAL	#2 HRS	GAL	#3 HRS	GAL	#4 HRS	GAL	#5 HRS	GAL
1	10 8136	11		11		11		<del>10.75</del> 9.25	81360	11	
2	11 7220	12.5		12.5		12.5		12.5		<del>9.5</del> 7.25	84920
3	12 8210	<del>7.5</del> 7.05	98520	12		12		12		12	
4		11.5		11.5		11.5		11.5		11.5	
5		12		12		12		12		12	
6	11 8220	12		<del>8.5</del> 4.5	90420	12		12		12	
7	12 8230	<del>6.5</del> 4.5	98760	11.5		11.5		11.5		11.5	
8	9 8065	12.0		12.0		12.0		<del>6.75</del> 7.25	72585	12.0	
9	10 8213	13.0		13.0		<del>8.25</del> 10.75	82130	13.0		13.0	
10	10 8195	12.0		12.0		12.0		12.0		<del>10.5</del> 9.5	81950
11		11.5		11.5		11.5		11.5		11.5	
12	10 7850	<del>8.25</del> 6.25	78500	11.75		11.75		11.75		11.75	
13	10 7960	12.75		<del>7.5</del> 8.0	79600	12.75		12.75		12.75	
14	10 8061	11.5		11.5		<del>4.25</del> 5.5	80610	11.5		11.5	
15	8025	11.5		11.5		11.5		11.5		11.5	
16	11 8025	14		14		14		<del>10.25</del> 9.25	88275	14	
17	10 8110	<del>10.25</del> 6.5	90200	13		13		13		<del>7.25</del> 8.5	81100
18	12 8116	12.75		<del>6.25</del> 4.25	97392	12.75		12.75		12.75	
19	11 8178	13.5		13.5		<del>10.5</del> 6.5	89958	13.5		13.5	
20		20		20		20		20		20	
21		13		13		13		13		13	
22	10 7850	16.25		16.25		16.25		<del>10.25</del> 8.0	78500	16.25	
23	10 8110	15.75		15.75		15.75		15.75		<del>13.25</del> 9.75	81100
24	10 8172	<del>9.0</del> 10.25	81720	13.0		13.0		13.0		13.0	
25	8 8211	11		<del>10.5</del> 10.5	65688	11		11		11	
26	10 8178	11.75		11.75		<del>11.25</del> 10.25	81780	11.75		11.75	
27	10 8136	10.75		10.75		10.75		<del>5.5</del> 6.25	81360	10.75	
28	11 8145	11.75		11.75		11.75		11.75		<del>6.25</del> 5.5	89595
29		11.75		11.75		11.75		11.75		11.75	
30		13		13		13		13		13	
31	10 8150	<del>6.75</del> 8.0	81500	12.5		12.5		12.5		12.5	

### FINISHED WATER TURBIDITY

PWSID: 0980350

PWS NAME: PIKEVILLE WATER MONTH 5-17

DAY	MID - 4AM	4AM - 8AM	8AM - NOON	NOON - 4PM	4PM - 8PM	8PM - MID
1		.05	.05	.06	.07	
2		.06	.07	.08	.07	
3		.12	.12	.07	.06	
4		.05	.05	.05	.04	
5			.05	.05	.06	.06
6		.07	.06	.06	.08	
7		.07	.10	.11	.10	
8		.09	.08	.09	.05	
9		.04	.05	.05	.05	
10		.06	.06	.06	.05	
11		.06	.05	.05	.06	
12		.06	.07	.08	.07	
13		.09	.09	.14	.11	
14		.06	.05	.05	.05	
15		.05	.05	.06	.05	
16		.08	.07	.07	.08	
17		.08	.07	.08	.10	.10
18		.07	.07	—	.05	
19		.04	.05	.05	.05	
20		.06	.17	.11	.06	.07
21	.06	.06	.05	.05	.07	.06
22		.07	.06	.09	.08	
23		.06	.05	.06	.06	.06
24		.06	.07	.09	.08	
25		.07	.08	.09	.09	
26		.06	.07	.06	.07	
27		.06	.06	.06	.06	
28		.06	.06	.06	.05	
29		.06	.05	.07	.08	
30		.06	.06	.07	.05	
31		.08	.09	.09	.10	.09

## WATER PLANT MONTHLY OPERATIONS REPORT

MONTH/YEAR:

5/17

## DAILY READINGS

DAY	WATER TO DIST MGD	SLUDGE HAULED Gals $\times 100$	$\times 100$ S BW RETURN	RAIN FALL (inches)	WATER TEMP DEG C	CLEAR WELL LEVEL FT.
1	2.8809		21000	.35	18°	8.0
2	3.1803		232000		18	4.2
3	2.9705		138000		17	6.4
4	3.0054		45000		17.5	6.6
5	3.0070		14000	.14	17	5.0
6	2.9870		100000	1.10	16	5.4
7	2.8317		81000		16	7.2
8	2.9214	37200	130000		17	9
9	3.2086	5800	159000	.66	17°	6.4
10	3.0709		120000	.62	17°	6.8
11	2.9937		31000		18°	6.8
12	2.8846		127000	.42	18	5.8
13	3.1739		102000	.66	18°	7.2
14	2.9858		104000		18°	9.0
15	3.0912		24000		18°	7.8
16	3.4216		157000		18	4.8
17	3.3004		238000		19	7.4
18	3.1151		139000	.4	19	7.8
19	3.1981	18100	118000		20	5.2
20	3.9239		47000	1.7	19	4.8
21	2.9136		21000		20	14
22	3.2948	43300	137000	.23	18.5	9
23	3.2305	70500	76000		19°	8.4
24	3.4050	47400	234000	.71	18°	9.0
25	2.8418		103000	1.05	18°	8.0
26	3.0878	17100	40000	.42	17	5.4
27	3.0140		175000		18°	8.2
28	3.0824		152000		18°	6.2
29	3.1021		44000	.04	18°	6.0
30	3.2682	33100	46000		18	6.2
31	3.3050		138000		19	8

# SETTLING BASIN TURBIDITY

PWSID: 0980350

PWS NAME: PIKEVILLE WATER MONTH

5-17

DAY	MID - 4AM	4AM - 8AM	8AM - NOON	NOON - 4PM	4PM - 8PM	8PM - MID
1		1.68	1.16	1.08	1.24/1.11/1.18	
2		1.56	1.36	1.58	1.72/1.52/1.62	
3		1.24	1.3	1.38/1.94/1.16	1.31	
4		1.41	1.15	1.59	1.77/1.70/1.74	
5			1.48	1.39	1.81/1.76/1.78	1.49
6		1.31	1.26	1.38/1.2/1.29	1.45	
7		1.29	1.13	1.3/1.16/1.23	1.28	
8		1.10	1.0	.98	1.22/1.11/1.2	
9		1.30	1.33	1.56	1.34/1.24/1.29	
10		1.48	1.51	1.64/1.92/1.59	2.40	
11		1.30	1.37	1.58	1.82/1.59/1.7	
12		1.68	2.29	1.91	1.36/1.18/1.27	
13		1.33	1.88	2.41/2.11/2.26	1.08	
14		1.44	.96	1.02/1.89/1.96	.68	
15		.88	1.35	1.25	1.67/1.05/1.36	
16		1.06	1.02	1.3/1.01/1.16	1.3	
17		1.4	1.35	1.87/1.54/1.7	1.4	1.28
18		1.22	1.19	—	1.49/1.4/1.44	
19		.95	2.48	1.05/1.77/1.9	1.17	
20		1.5	3.8	1.87/1.77/1.52	.80	1.47
21	2.28	1.17	1.8	1.73/1.25/1.49	1.02	1.04
22		1.35	1.15	1.81	1.28/1.12/1.2	
23		1.32	1.04	1.55	1.46/1.32/1.39	1.36
24		1.40	1.72	1.83/1.70/1.72	1.44	
25		1.81	1.03	1.13/1.96/1.04	1.12	
26		.75	.82	.71	.97/1.95/1.96	
27		1.01	1.33	1.40/1.22/1.34	1.38	
28		1.26	1.40	1.44/1.30/1.32	1.26	
29		1.22	1.63	1.52	1.45/1.4/1.43	
30		1.38	1.12	1.0/1.74/1.88	1.06	
31		1.07	1.03	.94/1.76/1.85	1.07	1.04

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 5/1/17 RAW TEMP 18° RAINFALL 35

OPERATOR DM OPERATOR [Signature]

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	30	↓ 20 (38)			
FLUORIDE	73/40				
PRECL2	210	↓ 190 (55)			
POSTCL2	230				

CLEAR WELL RFT/SHT 31.0 | 29.0 8.0

Town Mtn. 26.2 On Off X

### METERS/WEIGHTS/LEVELS

FINISHED	53308606	PAX	120
RAW	34815305	FLUORIDE	100
SLUDGE	279028	PRE CL2	100
S B/W RET	247482	POST CL2	138

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	6:00	1110	411			800							11
#2													
#3													
#4				1743									
#5													

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
4	745	10	8136		

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 5/2/17 RAW TEMP 18 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	190	↓ 180 (215)			
POSTCL2	230				

CLEAR WELL RFT/SHT 4.2  
26.8 | 25

Town Mtn. 25.4 On \_\_\_ Off \_\_\_

### METERS/WEIGHTS/LEVELS

FINISHED	<u>53337415</u>	PAX	<u>42/225</u>
RAW	<u>34818064</u>	FLUORIDE	<u>510</u>
SLUDGE	<u>279028</u>	PRE CL2	<u>48/150</u>
S B/W RET	<u>247503</u>	POST CL2	<u>95/150</u>

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	555	335	600	900							12.5
#2											
#3											
#4											
#5	↓		↓								

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
5	606	11	7720	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 5/3/17 RAW TEMP 17 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	180				
POSTCL2	230				

CLEAR WELL RFT/SHT 27.6 | 26.4

Town Mtn. 26 On \_\_\_ Off \_\_\_

### METERS/WEIGHTS/LEVELS

FINISHED	53369218		PAX	165
RAW	34821268		FLUORIDE	410
SLUDGE	279028		PRE CL2	112
S B/W RET	247735		POST CL2	105

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600	145	500	830							12
#2		1235									
#3											
#4											
#5											

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
1	150	12	8210	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 5/4/17 RAW TEMP 17.5 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR [Signature]

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	180	↓ 175			
POSTCL2	230				

CLEAR WELL RFT/SHT 28.2 | 6.6 | 26.2      Town Mtn. 25.4 On \_\_\_ Off \_\_\_

### METERS/WEIGHTS/LEVELS

FINISHED	53398923		PAX	105/10/51
RAW	34824236		FLUORIDE	3/0
SLUDGE	279028		PRE CL2	75/55/10/
S B/W RET	247873		POST CL2	60/38/111

FILTERS	ON	OFF	HOURS RUN										
#1	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	11.5
#2	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
#3	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
#4	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
#5	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 5-5-17 RAW TEMP 17 RAINFALL .14

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	175	↓ 165	↓ 155		
POSTCL2	230	↑ 235 (94)			

CLEAR WELL 5.0 (135) Town Mtn. 19 On Off ✓  
 RFT/SHT 28.2 | 27.4 Fail

### METERS/WEIGHTS/LEVELS

FINISHED	5342 8977	PAX	124
RAW	3482 7200	FLUORIDE	220
SLUDGE	279028	PRE CL2	86
S B/W RET	247918	POST CL2	94

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600	1320	525	803									12
#2	↓	↓	↓	↓									↓
#3	↓	↓	↓	↓									↓
#4	↓	↓	↓	↓									↓
#5	↓	↓	↓	↓									↓

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 5/6/17 RAW TEMP 16 RAINFALL 1.10"

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	165				
POSTCL2	235				

CLEAR WELL RFT/SHT 26.6 | 5.4 | 24.6 Town Mtn. 26.6 On Off

### METERS/WEIGHTS/LEVELS

FINISHED	53459047	PAX	60	200
RAW	34830217	FLUORIDE	120	0500
SLUDGE	279028	PRE CL2	50	120
S B/W RET	247932	POST CL2	50	140

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600	305	530	740	840	930					12
#2		250									
#3		305									
#4											
#5											

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
2	256	11	8220		

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 5/10 RAW TEMP 16 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	165				
POSTCL2	235 <sup>915</sup> 1245				

CLEAR WELL TOWN Mtn. 26.4 On    Off     
 RFT/SHT 28.8 | 28.6 | 7.2

### METERS/WEIGHTS/LEVELS

FINISHED	53488917	PAX	138
RAW	34873312	FLUORIDE	300
SLUDGE	279028	PRE CL2	90
S B/W RET	248032	POST CL2	100

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600	1225	400	700	900	1030							
#2		1:00											115
#3													
#4													
#5													

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
1	1230	12	8230		

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 5/8/12 RAW TEMP 17 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR [Signature]

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20	↓ 15 (Noon)			
FLUORIDE	73/40				
PRECL2	165	155 @ Noon			
POSTCL2	245				

CLEAR WELL RFT/SHT 27.8 | 9 | 26.4

Town Mtn. 25.6 On Off

### METERS/WEIGHTS/LEVELS

FINISHED	535/7234		PAX	80/48/200
RAW	34836251		FLUORIDE	220/172/608
SLUDGE	279028		PRE CL2	60/41/140
S B/W RET	248113		POST CL2	55/30/130

FILTERS	ON	OFF	HOURS RUN										
#1	↓		↓		↓		↓		↓		↓		2
#2	↓		↓		↓		↓		↓		↓		
#3	↓		↓		↓		↓		↓		↓		
#4	↓		↓		↓		↓		↓		↓		
#5	↓		↓		↓		↓		↓		↓		

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
4	1145	9	8005	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 5/9/17 RAW TEMP 17° RAINFALL .66

OPERATOR Dm OPERATOR [Signature]

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	15				
FLUORIDE	23/40				
PRECL2	155				
POSTCL2	245				

CLEAR WELL 6.4 Town Mtn. 26.2 On  Off   
 RFT/SHT 22.0 | 25.0

### METERS/WEIGHTS/LEVELS

FINISHED	53546449		PAX	178
RAW	34839040		FLUORIDE	570
SLUDGE	229400		PRE CL2	128
S B/W RET	248243		POST CL2	110

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	5:05	12:15	4:15	16:15	7:45	19:30							13.0
#2	↓		↓		↓								
#3	↓	1:43	↓		↓								
#4	↓	12:15	↓		↓								
#5	↓	↓	↓	↓	↓	↓							

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#3	1:45	10	8213	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 5/10/17 RAW TEMP 17° RAINFALL 0.62"

OPERATOR Am OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20730	↓20			
FLUORIDE	73/40				
PRECL2	155				
POSTCL2	245				

CLEAR WELL 6.8 Town Mtn. 26.4 On Off  
 RFT/SHT 28.2 | 26.4

METERS/WEIGHTS/LEVELS			
FINISHED	53578535		PAX 120 / 180
RAW	34842262		FLUORIDE 470
SLUDGE	279458		PRE CL2 90 / 170
S B/W RET	248397		POST CL2 61 / 170
		11.0	

FILTERS	ON	OFF	HOURS RUN										
#1	6:00	↓	2:10	↓	4:30	↓	7:10	↓	8:15	↓	9:20		12.0
#2	↓		↓		↓		↓		↓		↓		
#3	↓		↓		↓		↓		↓		↓		
#4	↓		↓		↓		↓		↓		↓		
#5	↓		1:55	↓	↓		↓		↓		↓		

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#5	1:57	10	8195	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 5/11/17 RAW TEMP 13° RAINFALL \_\_\_\_\_

OPERATOR DM OPERATOR [Signature]

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	155				
POSTCL2	245				

CLEAR WELL 6.8 Town Mtn. 26.4 On XOff \_\_\_\_\_  
 RFT/SHT 22.8 | 25.2

METERS/WEIGHTS/LEVELS			
FINISHED	5360	9244	PAX 110
RAW	3484	5326	FLUORIDE 370
SLUDGE	2794	58	PRE CL2 136
S B/W RET	248	517	POST CL2 121

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	6:04	207	430	1800									11.5
#2	↓	↓	↓	↓									
#3	↓	↓	↓	↓									
#4	↓	↓	↓	↓									
#5	↓	↓	↓	↓									

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 5-12-17 RAW TEMP 18 RAINFALL .42

OPERATOR *Jim* OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20	↑ 22			
FLUORIDE	23/40				
PRECL2	155				
POSTCL2	245		↓ 235		

CLEAR WELL 5.8 <sup>1045</sup> <sup>730</sup> Town Mtn. 26.4 On Off  
 RFT/SHT 27.2 124.6

METERS/WEIGHTS/LEVELS			
FINISHED	5363	9181	PAX 53/150
RAW	3484	8296	FLUORIDE 282
SLUDGE	279	458	PRE CL2 105
S B/W RET	248	548	POST CL2 78/160

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	555	1155	200	1415	445	1733	750	1800					11.75
#2													
#3													
#4													
#5													

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
1	418	10	7850		

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 5/13/17 RAW TEMP 18° RAINFALL .66

OPERATOR Om OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	22 ↑ 40	↑ 50			
FLUORIDE	73/40				
PRECL2	155 ↑	160 ↑ 165			
POSTCL2	235 ↑	240 ↑ 245			

CLEAR WELL 7.2 Town Mtn. 24.0 On  Off   
 RFT/SHT 29.4 | 28.6

METERS/WEIGHTS/LEVELS			
FINISHED	53668027		PAX 90 220
RAW	3485/240		FLUORIDE 185 800
SLUDGE	278458		PRE CL2 72 170
S B/W RET	248675		POST CL2 111 170

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	5:00	1:10	1:15		14:35	7:10	10:30						12.75
#2	↓	↓	↓	2:15	2:30	↓	↓	↓					
#3	↓	↓	↓			↓	↓	↓					
#4	↓	↓	↓			↓	↓	↓					
#5	↓	↓	↓			↓	↓	↓					

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#2	2:18	10	7960	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 5/14/17 RAW TEMP 18° RAINFALL \_\_\_\_\_

OPERATOR OM OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	40				
FLUORIDE	73/40				
PRECL2	16.5				
POSTCL2	2.45				

CLEAR WELL 9.0 Town Mtn. 25.2 On  Off   
 RFT/SHT 29.6 | 28.4

METERS/WEIGHTS/LEVELS			
FINISHED	53699766		PAX 120 / 160
RAW	34884507		FLUORIDE 680
SLUDGE	279458		PRE CL2 135
S B/W RET	248777		POST CL2 120

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	5:30	10:45	12:45		13:15	5:30	7:30	8:00	10:00		11.5
#2	↓	↓	↓		↓	↓	↓	↓	↓		
#3	↓	↓	↓	2:15	2:30	↓	↓	↓	↓		
#4	↓	↓	↓		↓	↓	↓	↓	↓		
#5	↓	↓	↓		↓	↓	↓	↓	↓		

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#3	2:19	10	8061	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 5/15/17 RAW TEMP 19° RAINFALL \_\_\_\_\_

OPERATOR OM OPERATOR RJ by JM vac

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	163				
POSTCL2	245				

CLEAR WELL 29.2 | 27.0 Town Mtn. 26.6 On  Off \_\_\_\_\_

METERS/WEIGHTS/LEVELS			
FINISHED	53728624		PAX <u>62</u> / <del>100</del> / <u>220</u>
RAW	34857417		FLUORIDE <u>595</u>
SLUDGE	279458		PRE CL2 <u>104</u> / <u>100</u> / <u>170</u>
S B/W RET	248881		POST CL2 <u>80</u> / <u>68</u> / <u>170</u>

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	6:00	1:40	4:10	8:00									11 <sup>5</sup>
#2													
#3													
#4													
#5													

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 5/16/17 RAW TEMP 18 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	165				
POSTCL2	245				

CLEAR WELL 4.8 Town Mtn. 25.6 On \_\_\_ Off \_\_\_  
 RFT/SHT 27.4 | 25.2

METERS/WEIGHTS/LEVELS	
FINISHED	53760536
RAW	34860332
SLUDGE	279458
S B/W RET	248905
PAX	169/225
FLUORIDE	500
PRE CL2	148
POST CL2	138

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	605	420	450	525	635	805	1000	1100			14
#2											
#3											
#4		1420	450								
#5											

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
4	425	11	8025	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 5/17/17 RAW TEMP 19 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	165				
POSTCL2	245				

CLEAR WELL 7.4 Town Mtn. 26 On    Off     
 RFT/SHT 27.8 | 26.6

METERS/WEIGHTS/LEVELS			
FINISHED	5379	4752	PAX 148
RAW	3486	3867	FLUORIDE 400
SLUDGE	2794	58	PRE CL2 108
S B/W RET	2490	62	POST CL2 85

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	609	200	400	620	900	1100					
#2	↓	↓	↓	700	↓	↓					13
#3	↓	↓	↓	↓	↓	↓					
#4	↓	↓	↓	↓	↓	↓					
#5	↓	145	↓	↓	↓	↓					

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
5	150	10	8110	—	—
1	635	11	8200	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 5/18/12 RAW TEMP 19 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR RV for Jim (VAC)

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	165	<del>150</del> 210			
POSTCL2	245	1400 250	7600 500	710 245	

CLEAR WELL 7.8 Town Mtn. 26.6 On Off  
 RFT/SHT 27.8 | 25.6

METERS/WEIGHTS/LEVELS			
FINISHED	53827756		PAX 60/225
RAW	34867160		FLUORIDE 300
SLUDGE	279458		PRE CL2 70/140
S B/W RET	249300		POST CL2 30/140

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600		1240		400		1800						
#2		1100		1300									
#3													
#4													
#5													

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
2	1100	12	8116	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 5/19/17 RAW TEMP 20 RAINFALL .4

OPERATOR R. V. for J. K. (S) OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20	12:00 ↑ 30			
FLUORIDE	73/40				
PRECL2	165				
POSTCL2	245				

CLEAR WELL 5.2 Town Mtn. 25.8 On  Off   
 RFT/SHT 25.2 124.4

METERS/WEIGHTS/LEVELS			
FINISHED	53858907		PAX 153 72/220
RAW	34870117		FLUORIDE 205 100/750
SLUDGE	279458		PRE CL2 103 70/170
S B/W RET	249439		POST CL2 103 72/170

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	550	550	630	800							135
#2	↓	↓	↓	↓							↓
#3 <sup>105</sup>	↓	↓	↓	↓							12
#4	↓	↓	↓	↓							135
#5	↓	↓	↓	↓							↓

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#3	4:29	11	8178	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 5/20/17 RAW TEMP 19 RAINFALL 1.7

OPERATOR [Signature] OPERATOR \_\_\_\_\_

**FLOW RATE**

CHEMICAL	FEED RATE	FEED RATE	FEED RATE	FEED RATE	PPM
	AT START	TIME CHANGE	TIME CHANGE	TIME CHANGE	
PAC	30 <sup>200</sup> <sub>140</sub>	300 <sup>1030</sup> <sub>140</sub>			
FLUORIDE	73/40				
PRECL2	165 <sup>1100</sup> <sub>1300</sub>	800 <sup>1100</sup> <sub>1500</sub>	300 <sub>250</sub>	658 <sub>285</sub>	
POSTCL2	245	1265 <sup>1100</sup> <sub>1340</sub>	240	220 <sup>1030</sup> <sub>1250</sub>	265 1:46AM

CLEAR WELL 4.8 Town Mtn. 0 On Off  
 RFT/SHT 22.4 | 21.2

METERS/WEIGHTS/LEVELS			
FINISHED	5389 0888		PAX 215/30/220
RAW	34873311		FLUORIDE 735
SLUDGE	279639		PRE CL2 170/65/160
S B/W RET	249 55.7		POST CL2 170/115/160

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	↓	1730	800	↓	235						20
#2	↓										
#3	↓										
#4	↓										
#5	↓		↓		↓						

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 5/21/17 RAW TEMP 20 RAINFALL 23

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	40 <sup>1.5</sup> ↓ 20				
FLUORIDE	73/40	73			
PRECL2	285	↓ 185			
POSTCL2	265	↓ 240 <sup>100</sup> ↓ 200	↑ 240 <sup>300</sup>		

CLEAR WELL 14 Town Mtn. 26.2 On    Off     
 RFI/SHT 26.6 | 26.4

METERS/WEIGHTS/LEVELS			
FINISHED	53930127		PAX 183
RAW	34877660		FLUORIDE 575
SLUDGE	279639		PRE CL2 148
S B/W RET	249604		POST CL2 157

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600	1230	320	830	930	1100					13
#2											
#3											
#4											
#5	✓	+	+	+	+	+					

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 5/22/17 RAW TEMP 18.5 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR [Signature]

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE	FEED RATE	FEED RATE	FEED RATE	PPM
	AT START	TIME CHANGE	TIME CHANGE	TIME CHANGE	
PAC	20				
FLUORIDE	73/40				
PRECL2	185	<sup>745</sup> 180	↓160		
POSTCL2	↓220	210	↓190	160 ↓	

CLEAR WELL 9 Town Mtn. <sup>1230</sup> <sup>100</sup> 26.4 On    Off     
 RFT/SHT 26.4 | 24.2

METERS/WEIGHTS/LEVELS				
FINISHED	53959263		PAX	120/91/200
RAW	34880354		FLUORIDE	475
SLUDGE	279639		PRE CL2	100/79/161
S B/W RET	249625		POST CL2	110/90/142

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	1000		10:15										16.25
#2													
#3													
#4	1446	510											
#5	↓		↓										

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
4	449	10	7850		

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 5/23/17 RAW TEMP 19° RAINFALL \_\_\_\_\_

OPERATOR DM OPERATOR [Signature]

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	160	↓143			
POSTCL2	160	↑190			

CLEAR WELL 8.4 Town Mtn. 25.0 On  Off   
 RFT/SHT 26.4 | 25.2

METERS/WEIGHTS/LEVELS			
FINISHED	53992211		PAX 156
RAW	34883657		FLUORIDE 340
SLUDGE	280072		PRE CL2 131
S B/W RET	249762		POST CL2 116

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	6:00			8:45	9:30	10:25							15.75
#2													
#3													
#4													
#5	↓	17:45	8:00	↓	↓	↓							

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#5	7:47	10	8110	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 5/24/17 RAW TEMP 18° RAINFALL .71

OPERATOR AM OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20 ↑ 30	↑ 40			
FLUORIDE	740				
PRECL2	145 ↑	155 ↑ 160	↑ 165 ↑	170	
POSTCL2	190 ↑	200 ↑ 210	↑ 230 ↑	240	

CLEAR WELL 9.0 Town Mtn. 26.0 On  Off   
 RFT/SHT 27.0 | 25.0

METERS/WEIGHTS/LEVELS			
FINISHED	54024716		PAX 89   220
RAW	34887143		FLUORIDE 210   800
SLUDGE	280777		PRE CL2 90   170
S B/W RET	249838		POST CL2 78   120

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	6:00	7:30	5:00	7:30	8:15	9:30							1
#2	↓	13:15	↓	↓	↓	↓							13.0
#3	↓	↓	↓	↓	↓	↓							
#4	↓	↓	↓	↓	↓	↓							
#5	↓	↓	↓	↓	↓	↓							

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#1	3:04	10	8172	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 5/25/17 RAW TEMP 18° RAINFALL 1.05

OPERATOR DM OPERATOR JR

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	40	↓ 30			
FLUORIDE	7 <sup>3</sup> / <sub>40</sub>				
PRECL2	170 ↑ 180				
POSTCL2	240 ↑ 250				

CLEAR WELL 8.0 Town Mtn. 25.8 On  Off   
 RFT/SHT 28.4 | 27.4

METERS/WEIGHTS/LEVELS				
FINISHED	5405.8766		PAX	124
RAW	3889.0378		FLUORIDE	690
SLUDGE	281251		PRE CL2	131
S B/W RET	250022		POST CL2	126

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	6:00		11:50		4:10	6:20	7:00	7:55					11
#2		1:40	→										10 <sup>75</sup>
#3													11
#4													6
#5													6

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
2	142	8	9211		

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 5/26/17 RAW TEMP 17 RAINFALL .43

OPERATOR RJ for EKH (vac) OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	30				
FLUORIDE	73/40				
PRECL2	180				
POSTCL2	250				

CLEAR WELL RFT/SHT 25.8 5.4 124 Town Mtn. 27 On  Off

METERS/WEIGHTS/LEVELS			
FINISHED	54087184		PAX <u>30/220</u>
RAW	34893174		FLUORIDE <u>600</u>
SLUDGE	281251		PRE CL2 <u>895/170</u>
S/BW RET	250175		POST CL2 <u>83 / 170</u>

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	↓	↓	↓	↓	8:30	10:00					11.75
#2	↓	↓	↓	↓		10:00					
#3	↓	↓	↓	↓		19:30					
#4	↓	↓	↓	↓		10:00					
#5	↓	↓	↓	↓							

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#3	9:32	10	8178	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 5/27/17 RAW TEMP 18° RAINFALL \_\_\_\_\_

OPERATOR DM OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	30				
FLUORIDE	73/40				
PRECL2	180				
POSTCL2	250				

CLEAR WELL 8.2 Town Mtn. 25.4 On  Off   
 RFT/SHT 28.2 | 27.2

METERS/WEIGHTS/LEVELS			
FINISHED	54118062		PAX /30
RAW	34896500		FLUORIDE 515
SLUDGE	281422		PRE CL2 /31
S B/W RET	250215		POST CL2 /20

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	5:00	11:00	1:15	3:00	5:00	8:00							10.75
#2	↓	↓	↓	↓	↓	↓							
#3	↓	↓	↓	↓	↓	↓							
#4	↓	10:25	↓	↓	↓	↓							
#5	↓	11:00	↓	↓	↓	↓							

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#4	10:27	10	8136	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 5/28/17 RAW TEMP 18° RAINFALL \_\_\_\_\_

OPERATOR DM OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	30				
FLUORIDE	73/40				
PRECL2	180				
POSTCL2	280				

CLEAR WELL 6.2 Town Mtn. 25.2 On Off  
 RFT/SHT 28.6 | 27.4

METERS/WEIGHTS/LEVELS			
FINISHED	54148202		PAX 52   210
RAW	34899241		FLUORIDE 440
SLUDGE	281422		PRE CL2 100   170
S B/W RET	250390		POST CL2 76   170

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	5:05	12:00	2:15	5:00	6:30	8:30							11.75
#2	↓	↓	↓	↓	↓	↓							
#3	↓	↓	↓	↓	↓	↓							
#4	↓	↓	↓	↓	↓	↓							
#5	↓	11:25	↓	↓	↓	↓							

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#5	11:26	11	8145	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 5/29/17 RAW TEMP 18° RAINFALL .04

OPERATOR JM OPERATOR JM

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	30 ↓ 25				
FLUORIDE	73/40				
PRECL2	180				
POSTCL2	250 ↓	240			

CLEAR WELL 6.0 Town Mtn. 28.0 On Off  
 RFT/SHT 26.8 | 26.4

METERS/WEIGHTS/LEVELS			
FINISHED	54179026		PAX 128
RAW	34902250		FLUORIDE 340
SLUDGE	281422		PRE CL2 131
S B/W RET	250542		POST CL2 121

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	5:55	1:31	4:30	1:40									11.75
#2	↓	↓	↓	↓									
#3	↓	↓	↓	↓									
#4	↓	↓	↓	↓									
#5	↓	↓	↓	↓									

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 5/30/17 RAW TEMP 18 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	25				
FLUORIDE	73/40				
PRECL2	180				
POSTCL2	240				

CLEAR WELL 6.2 Town Mtn. 27.8 On Off  
 RFT/SHT 26.2 | 26

METERS/WEIGHTS/LEVELS					
FINISHED	54210047			PAX	55   225
RAW	34905279			FLUORIDE	270   <del>500</del>
SLUDGE	281422			PRE CL2	95   150
S B/W RET	250586			POST CL2	85   170

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600	200	500	1000									13
#2													
#3													
#4													
#5													

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 5/31/17 RAW TEMP 19 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	25				
FLUORIDE	73/40				
PRECL2	180				
POSTCL2	240				

CLEAR WELL RFT/SHT 27.8 | 27.4 Town Mtn. 27.6 On \_\_\_ Off \_\_\_

METERS/WEIGHTS/LEVELS			
FINISHED	54242729		PAX 135
RAW	34908529		FLUORIDE 500
SLUDGE	281753		PRE CL2 110
S B/W RET	250632		POST CL2 125

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	605	1245	509	830	930	1030					
#2		200									
#3											
#4											
#5											

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
1	1250	10	8150		

COMMENTS:



FIELD CHAIN OF CUSTODY RECORD

FIELD MONITORING PROGRAM

SAMPLERS (SIGNATURES)

*[Handwritten Signature]*

FACILITY	SAMPLE SOURCE	COMPOSITING PERIOD				SAMPLE COLLECTION			FLOW	CONTAINER		Volatile Organics	Pesticides/PCB's	Trace Metals	Cyanide	Phenols	Oil and Grease	Solids	BOD	Ammonia Nitrogen	Phosphorous	Coliform	pH	Preservation	COMMENTS	
		SAMPLING BEGINS		SAMPLING ENDS		DATE	TIME	G/C	MGD	VOLUME	G/P															
		DATE	TIME	DATE	TIME																					
Pikeville WTP	P01			5/8/17	920	G				P																
	111			"	1302	"				"																
	090			"	1315	"				"																
	009			"	1323	"				"																
	028			"	1334	"				"																
	110			"	1345	"				"																

DDDG 5/8/17  
 111  
 090  
 009  
 028  
 110

RELINQUISHED BY	DATE	TIME	RECEIVED BY	RELINQUISHED BY	DATE	TIME	RECEIVED BY
<i>[Signature]</i>	5/8/17	1359	<i>[Signature]</i>				
RELINQUISHED BY	DATE	TIME	RECEIVED BY	RELINQUISHED BY	DATE	TIME	RECEIVED BY
RELINQUISHED BY	DATE	TIME	RECEIVED BY	RELINQUISHED BY	DATE	TIME	RECEIVED BY

REMARKS: 16'c w/ice

002180



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**SAMPLE SUMMARY**

Lab ID	Client Sample ID/Alias	Matrix	Date Collected	Date Received	Sampled By
7052244-01	BACT/	Drinking Water	05/08/2017 13:02	05/08/2017 13:59	Ralph Varney
7052244-02	BACT/	Drinking Water	05/08/2017 13:15	05/08/2017 13:59	Ralph Varney
7052244-03	BACT/	Drinking Water	05/08/2017 13:23	05/08/2017 13:59	Ralph Varney
7052244-04	BACT/	Drinking Water	05/08/2017 13:34	05/08/2017 13:59	Ralph Varney
7052244-05	BACT/	Drinking Water	05/08/2017 13:43	05/08/2017 13:59	Ralph Varney

<u>LabNumber</u>	<u>Measurement</u>	<u>Value</u>
7052244-01	Field Residual Chlorine	1.12
7052244-02	Field Residual Chlorine	1.14
7052244-03	Field Residual Chlorine	1.36
7052244-04	Field Residual Chlorine	1.33
7052244-05	Field Residual Chlorine	1.28



**ANALYTICAL RESULTS**

Lab Sample ID: **7052244-01**  
Description: **BACT**

Sample Collection Date Time: 05/08/2017 13:02  
Sample Received Date Time: 05/08/2017 13:59

Matrix: Drinking Water

Discharge/Site No: 111

Regulatory ID: KY0980350

**Microbiological Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Collert 24	05/08/2017 16:55	05/09/2017 17:01	SNB

**ANALYTICAL RESULTS**

Lab Sample ID: **7052244-02**  
Description: **BACT**

Sample Collection Date Time: 05/08/2017 13:15  
Sample Received Date Time: 05/08/2017 13:59

Matrix: Drinking Water

Discharge/Site No: 030

Regulatory ID: KY0980350

**Microbiological Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Collert 24	05/08/2017 16:55	05/09/2017 17:01	SNB

**ANALYTICAL RESULTS**

Lab Sample ID: **7052244-03**  
Description: **BACT**

Sample Collection Date Time: 05/08/2017 13:23  
Sample Received Date Time: 05/08/2017 13:59

Matrix: Drinking Water

Discharge/Site No: 009

Regulatory ID: KY0980350

**Microbiological Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Collert 24	05/08/2017 16:55	05/09/2017 17:01	SNB



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**ANALYTICAL RESULTS**

Lab Sample ID: **7052244-04**  
Description: **BACT**

Sample Collection Date Time: 05/08/2017 13:34  
Sample Received Date Time: 05/08/2017 13:59

Matrix: Drinking Water

Discharge/Site No: 028

Regulatory ID: KY0980350

**Microbiological Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Colliert 24	05/08/2017 16:55	05/09/2017 17:01	SNB

**ANALYTICAL RESULTS**

Lab Sample ID: **7052244-05**  
Description: **BACT**

Sample Collection Date Time: 05/08/2017 13:43  
Sample Received Date Time: 05/08/2017 13:59

Matrix: Drinking Water

Discharge/Site No: 110

Regulatory ID: KY0980350

**Microbiological Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Colliert 24	05/08/2017 16:55	05/09/2017 17:01	SNB

**Notes for work order 7052244**

- Samples collected by MMLI personnel are done so in accordance with procedures set forth in MMLI field services SOPs.
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identification based on the presumptive evidence of the mass spectra.

**Standard Qualifiers/Acronyms**

- MDL      Method Detection Limit
- MRL      Minimum Reporting Limit
- ND      Not Detected
- LCS      Laboratory Control Sample
- MS      Matrix Spike
- MSD      Matrix Spike Duplicate
- DUP      Sample Duplicate
- % Rec    Percent Recovery
- RPD      Relative Percent Difference
- >      Greater than
- <      Less than



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Louisville, KY 502.961.0001	Paducah, KY 270.444.6547	

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**SAMPLE SUMMARY**

Lab ID	Client Sample ID/Alias	Matrix	Date Collected	Date Received	Sampled By
7052245-01	Fluoride/	Drinking Water	05/08/2017 09:26	05/08/2017 13:59	Ralph Varney
<u>LabNumber</u>	<u>Measurement</u>	<u>Value</u>			
7052245-01	Field Fluoride	0.74			

**ANALYTICAL RESULTS**

Lab Sample ID: **7052245-01**  
Description: **Fluoride**

Sample Collection Date Time: 05/08/2017 09:26  
Sample Received Date Time: 05/08/2017 13:59

Matrix: Drinking Water

Discharge/Site No: P01

Regulatory ID: KY0980350

**Conventional Chemistry Analyses Madisonville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Fluoride	0.76		mg/L	0.20		4500-F C-1997	05/12/2017 09:40	05/12/2017 09:40	JTL

**Notes for work order 7052245**

- Samples collected by MMLI personnel are done so in accordance with procedures set forth in MMLI field services SOPs.
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identification based on the presumptive evidence of the mass spectra.

U Target analyte was analyzed for, but was below detection limit (the value associated with the qualifier is the laboratory method detection limit in our LIMS system).

**Standard Qualifiers/Acronyms**

- MDL Method Detection Limit
- MRL Minimum Reporting Limit
- ND Not Detected
- LCS Laboratory Control Sample
- MS Matrix Spike
- MSD Matrix Spike Duplicate
- DUP Sample Duplicate
- % Rec Percent Recovery
- RPD Relative Percent Difference
- > Greater than
- < Less than

**Certified Analyses Included In this Report**

Analyte	Certifications
<b>4500-F C-1997 in Water</b>	
Fluoride	KY Drinking Water Mdv (00030) VA NELAC Mdv (480210) IN Drinking Water Mdv (C-KY-02) IL Drinking Water Mdv (200079)

FIELD CHAIN OF CUSTODY RECORD

FIELD MONITORING PROGRAM

SAMPLERS (SIGNATURES)

*Ralph Jay*

FACILITY	SAMPLE SOURCE	COMPOSITING PERIOD				SAMPLE COLLECTION			FLOW MGD	CONTAINER			Volatile Organics	Pesticides/PCB's	Trace Metals	Cyanide	Phenols	Oil and Grease	Solids	BOD	Ammonia Nitrogen	Phosphorous	Coliform	pH	CIPD PAS	Preservation	COMMENTS		
		SAMPLING BEGINS		SAMPLING ENDS		DATE	TIME	G/C		VOLUME	G/P																		
		DATE	TIME	DATE	TIME																								
AREVILLE WTP	RAW			5/25/17	916	G			G																			TOC	
	"			"	916	"			P																			ALK	
	CPE			"	919	"			G																			TOC	
	022			"	926	"			P																				
	040			"	933	"			"																				
	115			"	1005	"			"																				
	118			"	1016	"			"																				R/also .74
	120			"	1024	"			"																				
	GRU CYCLONE			"	1322	G			"																				TSS
	GRU PUMP			"	1323	"			"																				TSS
	TMG PH																												
CYCLONE	1329	7:42																											
PUMP	1532	7:47																											

RELINQUISHED BY <i>Ralph Jay</i>	DATE 5/25/17	TIME 1346	RECEIVED BY <i>Barbara Jaynes</i>	RELINQUISHED BY	DATE	TIME	RECEIVED BY
RELINQUISHED BY	DATE	TIME	RECEIVED BY	RELINQUISHED BY	DATE	TIME	RECEIVED BY
RELINQUISHED BY	DATE	TIME	RECEIVED BY	RELINQUISHED BY	DATE	TIME	RECEIVED BY

REMARKS: 11°C w/ice

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Lexington, KY      Pikeville, KY      Farmersburg, IN  
859.299.7775      606.432.3104      812.696.5076

Louisville, KY      Paducah, KY  
502.961.0001      270.444.6547

"Providing Tomorrow's Analytical Capabilities Today"

**SAMPLE SUMMARY**

Lab ID	Client Sample ID/Alias	Matrix	Date Collected	Date Received	Sampled By
7053610-01	BACT/	Drinking Water	05/25/2017 09:26	05/25/2017 13:46	Ralph Varney
7053610-02	BACT/	Drinking Water	05/25/2017 09:33	05/25/2017 13:46	Ralph Varney
7053610-03	BACT/	Drinking Water	05/25/2017 10:05	05/25/2017 13:46	Ralph Varney
7053610-04	BACT/	Drinking Water	05/25/2017 10:16	05/25/2017 13:46	Ralph Varney
7053610-05	BACT/	Drinking Water	05/25/2017 10:24	05/25/2017 13:46	Ralph Varney

<u>LabNumber</u>	<u>Measurement</u>	<u>Value</u>
7053610-01	Field Residual Chlorine	1.06
7053610-02	Field Residual Chlorine	1.11
7053610-03	Field Residual Chlorine	1.22
7053610-04	Field Residual Chlorine	1.01
7053610-05	Field Residual Chlorine	0.95



McCoy & McCoy  
LABORATORIES, Inc.

P.O. Box 907  
Madisonville, KY 42431  
270.821.7375  
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Lexington, KY 859.299.7775	Pikeville, KY 606.432.3104	Farmersburg, IN 812.696.5076
Louisville, KY 502.961.0001	Paducah, KY 270.444.6547	

"Providing Tomorrow's Analytical Capabilities Today"

**ANALYTICAL RESULTS**

Lab Sample ID: **7053610-01**  
Description: **BACT**

Sample Collection Date Time: 05/25/2017 09:26  
Sample Received Date Time: 05/25/2017 13:46

Matrix: Drinking Water

Discharge/Site No: 022

Regulatory ID: KY0980350

**Microbiological Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Colliert 24	05/25/2017 16:10	05/26/2017 16:12	SNB

**ANALYTICAL RESULTS**

Lab Sample ID: **7053610-02**  
Description: **BACT**

Sample Collection Date Time: 05/25/2017 09:33  
Sample Received Date Time: 05/25/2017 13:46

Matrix: Drinking Water

Discharge/Site No: 040

Regulatory ID: KY0980350

**Microbiological Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Colliert 24	05/25/2017 16:10	05/26/2017 16:12	SNB

**ANALYTICAL RESULTS**

Lab Sample ID: **7053610-03**  
Description: **BACT**

Sample Collection Date Time: 05/25/2017 10:05  
Sample Received Date Time: 05/25/2017 13:46

Matrix: Drinking Water

Discharge/Site No: 115

Regulatory ID: KY0980350

**Microbiological Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Colliert 24	05/25/2017 16:10	05/26/2017 16:12	SNB



**ANALYTICAL RESULTS**

Lab Sample ID: **7053610-04**  
Description: **BACT**

Sample Collection Date Time: 05/25/2017 10:16  
Sample Received Date Time: 05/25/2017 13:46

Matrix: Drinking Water

Discharge/Site No: 118

Regulatory ID: KY0980350

**Microbiological Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Colliert 24	05/25/2017 16:10	05/26/2017 16:12	SNB

**ANALYTICAL RESULTS**

Lab Sample ID: **7053610-05**  
Description: **BACT**

Sample Collection Date Time: 05/25/2017 10:24  
Sample Received Date Time: 05/25/2017 13:46

Matrix: Drinking Water

Discharge/Site No: 120

Regulatory ID: KY0980350

**Microbiological Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Colliert 24	05/25/2017 16:10	05/26/2017 16:12	SNB

**Notes for work order 7053610**

- Samples collected by MMLI personnel are done so in accordance with procedures set forth in MMLI field services SOPs.
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identification based on the presumptive evidence of the mass spectra.

**Standard Qualifiers/Acronyms**

MDL	Method Detection Limit
MRL	Minimum Reporting Limit
ND	Not Detected
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
% Rec	Percent Recovery
RPD	Relative Percent Difference
>	Greater than
<	Less than

SAMPLE CATEGORY = TC  
DISTRIBUTION SAMPLING

KENTUCKY DIVISION OF WATER / DRINKING WATER RESULTS  
BACTERIOLOGICAL ANALYSIS REPORT FORM

Rev. 03/01/2012

General Information - This Section To Be Completed By Collector

PWS ID	K Y 0 9 8 0 3 5 0	Compliance Period (MMYYYY)	0 5 2 0 1 7
PWS Name	City of Pikeville	PWS Contact	Ralph Varney
PWS Address	308 Island Creek Road	PWS Phone	606-437-0540
		Collection Date (MMDDYYYY)	0 5 2 5 2 0 1 7 <small>(All Sampling Reported on this Form were Collected on this Date.)</small>
		Collector Name	Ralph Varney <i>[Signature]</i>

General Information - This Section To Be Completed By Lab

Lab ID	0 0 0 5 0	Lab Receipt Date (MMDDYYYY)	0 5 2 5 2 0 1 7	Total Coliform Analysis Method Code	3 0 9
Lab Analyst	<i>[Signature]</i>	Analysis Date (MMDDYYYY)	0 5 2 5 2 0 1 7	E Coli Analysis Method Code	3 0 9
		Lab Supervisor	<i>[Signature]</i> 5-30-17		

Sample Information - This Section To Be Completed By Collector

Sample Type (RT, RP, TG, CO, or SP) (See Key)	Special Sample Reason (A, B, C, D, or E) (See Key)	Repeat Location Code (DN, UP, or OR) (See Key)	Location Code (See Instructions)	Sample Time (24 hr)	Free Chlorine (Required for all disinfectants except Chloramine)	Total Chlorine (Required when disinfectant is Chloramine)
RT			022	0926	1.06	.
RT			040	0933	1.11	.
RT			115	1005	1.22	.
RT			118	1016	1.01	.
RT			120	1024	0.95	.

Analysis Information - This Section To Be Completed By Lab

Lab Sample Number	Analysis Time (24 hr)	Result (Total Coliform Count - or - TNTC - or - CNFG - or - TCNG) (See Key)	Total Coliform (P/A)	E Coli (P/A)	Lab Sample Number of Original Sample (Required for RP, TG, CO, and/or Replacement Samples) (See Instructions)
7053610					
01	1610		AA		
02	1610		AA		
03	1610		AA		
04	1610		AA		
05	1610		AA		

The signatures of this form certify by their signatures that collection and analysis of the water sample analyzed and the resulting data hereby submitted, were completed in accordance with the provisions of 401 KAR Chapter 8, specifically including but not limited to 401 KAR 8:200, Section 1 and 401 KAR 8:040; and that the data submitted on this form is a true and accurate report of the results of collection and analysis performed pursuant to the above-referenced regulations. Violations of 401 KAR Chapter 8 are subject to severe penalties prescribed in KRS 224.99-010, up to \$25,000 fine per day per violation and in some cases a violation may subject the violator to prison.

BACTERIOLOGICAL ANALYSIS REPORT FORM KEY

Sample Type:	RT = Routine (For Compliance)	RP = Repeat (For Compliance)	SP = Special (Not for Compliance)
Special Sample Reason: (Only if Sample Type = SP)	A = Suspected Contamination D = Study/Investigation	B = New Plant, Modification, or Line Extension E = Line Break, Emergency Repair	C = Treatment Modification
Repeat Location Code: (Only if Sample Type = RP)	DN = Downstream	UP = Upstream	OR = Original Site
Result:	TNTC = Too Numerous to Count	CNFG = Confluent Growth	TCNG = Turbid Culture-No Gas



**SAMPLE SUMMARY**

Lab ID	Client Sample ID/Alias	Matrix	Date Collected	Date Received	Sampled By
7053611-01	Fluoride/	Drinking Water	05/25/2017 10:16	05/25/2017 13:46	Ralph Varney
<u>LabNumber</u>	<u>Measurement</u>	<u>Value</u>			
7053611-01	Field Fluoride	0.74			

**ANALYTICAL RESULTS**

Lab Sample ID: **7053611-01**  
Description: **Fluoride**

Sample Collection Date Time: 05/25/2017 10:16  
Sample Received Date Time: 05/25/2017 13:46

Matrix: Drinking Water

Discharge/Site No: 118

Regulatory ID: KY0980350

**Conventional Chemistry Analyses Madisonville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Fluoride	0.80		mg/L	0.20		4500-F C-1997	06/01/2017 09:12	06/01/2017 09:12	JTL

**Notes for work order 7053611**

- Samples collected by MMLI personnel are done so in accordance with procedures set forth in MMLI field services SOPs.
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identification based on the presumptive evidence of the mass spectra.

U Target analyte was analyzed for, but was below detection limit (the value associated with the qualifier is the laboratory method detection limit in our LIMS system).

**Standard Qualifiers/Acronyms**

- MDL Method Detection Limit
- MRL Minimum Reporting Limit
- ND Not Detected
- LCS Laboratory Control Sample
- MS Matrix Spike
- MSD Matrix Spike Duplicate
- DUP Sample Duplicate
- % Rec Percent Recovery
- RPD Relative Percent Difference
- > Greater than
- < Less than

**Certified Analyses Included in this Report**

Analyte	Certifications
<b>4500-F C-1997 in Water</b>	
Fluoride	KY Drinking Water Mdv (00030) VA NELAC Mdv (460210) IN Drinking Water Mdv (C-KY-02) IL Drinking Water Mdv (200079)

**KENTUCKY DIVISION OF WATER / DRINKING WATER BRANCH  
DISINFECTION BYPRODUCT PRECURSOR ANALYSIS REPORT FORM**

SAMPLE CATEGORY = TOC

**This Section To Be Completed By Collector**

PWS ID	<u>KY0980350</u>	Plant ID	<u>A</u>	Plant Name	<u>INTAKE - LEVISA FORK/BIG SANDY RIVE</u>	Location Code	<u>R01</u>
PWS Name	<u>Pikeville Water Department</u>			PWS Contact	<u>Ralph Varney</u>		
PWS Address	<u>306 Island Creek Road, Pikeville, KY 41501</u>			PWS Phone	<u>(606) 437-5123</u>		
Sample Date (MMDDYYYY)	<u>05/25/2017</u>	Time	<u>09:16</u>	Sample Type	<u>RT</u>	Collector Name	<u>Ralph Varney</u>
				RT = Routine (For Compliance)			
				SP = Special (Not for Compliance)			

**This Section to Be Completed By Lab**

Lab ID	<u>00030</u>	Lab Sample Number	<u>7052246-01RE1</u>	Lab Phone	<u>(270) 821-7375</u>
Lab Analyst	<u>Tracy Benton</u>	<u>05/31/2017 11:05</u>	Lab Supervisor	<u><i>Mark Damm</i></u>	<u>06/02/2017</u>
		Signature/Date			

Analyte Code	Analyte Name	Analysis Method Code	<	Result (mg/L)	Analysis Date
				-or- Lab Minimum Reporting Limit (mg/L)	
1927	Alkalinity, Total (as CaCO3)	849		58	05312017
2920	Total Organic Carbon	839		2.2	05312017

The signatories of this form certify by their signature that collection and analysis of the water sample analyzed and the resulting data hereby submitted, were completed in accordance with the provisions of 401 KAR Chapter 8; and that the data submitted on this form is a true and accurate report of the results of collection and analysis performed pursuant to the above-referenced regulations. Violations of 401 KAR Chapter 8 are subject to severe penalties prescribed in KRS 224.99-010, up to \$25,000 fine per day per violation and in some cases a violation may subject a violator to prison.

**KENTUCKY DIVISION OF WATER / DRINKING WATER BRANCH  
DISINFECTION BYPRODUCT PRECURSOR ANALYSIS REPORT FORM**

SAMPLE CATEGORY = TOC

**This Section To Be Completed By Collector**

PWS ID	<u>KY0980350</u>	Plant ID	<u>A</u>	Plant Name	<u>PIKEVILLE WTP</u>	Location Code	<u>CF1</u>
PWS Name	<u>Pikeville Water Department</u>			PWS Contact	<u>Ralph Varney</u>		
PWS Address	<u>306 Island Creek Road, Pikeville, KY 41501</u>			PWS Phone	<u>(606) 437-5123</u>		
Sample Date (MMDDYYYY)	<u>05/25/2017</u>	Time	<u>09:19</u>	Sample Type	<u>RT</u>	Collector Name	<u>Ralph Varney</u>
				RT = Routine (For Compliance)			
				SP = Special (Not for Compliance)			

**This Section to Be Completed By Lab**

Lab ID	<u>00030</u>	Lab Sample Number	<u>7052246-02</u>	Lab Phone	<u>(270) 821-7375</u>		
Lab Analyst	<u>Tracy Benton</u>	<u>05/31/2017 18:16</u>	Lab Supervisor	<u><i>Mark Simon</i></u>	<u>06/02/2017</u>		
		Signature/Date					

Analyte Code	Analyte Name	Analysis Method Code	<	Result (mg/L)	Analysis Date
				-or- Lab Minimum Reporting Limit (mg/L)	
2920	Total Organic Carbon	839		2.0	05312017

The signatories of this form certify by their signature that collection and analysis of the water sample analyzed and the resulting data hereby submitted, were completed in accordance with the provisions of 401 KAR Chapter 8; and that the data submitted on this form is a true and accurate report of the results of collection and analysis performed pursuant to the above-referenced regulations. Violations of 401 KAR Chapter 8 are subject to severe penalties prescribed in KRS 224.99-010, up to \$25,000 fine per day per violation and in some cases a violation may subject a violator to prison.

May, 2017

DMR CALCULATIONS

date	tss cyclone	pH cyclone	tss intake	pH intake	hrs operated
05/01/17					11.00
05/02/17					12.50
05/03/17					12.00
05/04/17					11.50
05/05/17					12.00
05/06/17					12.00
05/07/17					11.50
05/08/17					12.00
05/09/17					13.00
05/10/17					12.00
05/11/17					11.50
05/12/17					11.75
05/13/17					12.75
05/14/17					11.50
05/15/17					11.50
05/16/17					14.00
05/17/17					13.00
05/18/17					12.75
05/19/17					13.50
05/20/17					20.00
05/21/17					13.00
05/22/17					16.25
05/23/17					15.75
05/24/17					13.00
05/25/17	256	7.42	73	7.47	11.00
05/26/17					11.75
05/27/17					10.75
05/28/17					11.75
05/29/17					11.75
05/30/17					13.00
05/31/17					12.50

**CYCLONE ESTIMATE**  
 100 gpm  
 X 2 hrs  
 200 gpm total  
 Tot Hours 392.25  
 times flushed 4 hr cycle 98  
 gallons flushed 19,613  
 mg flushed 0.0196  
 mgd flushed 0.00063

**GRIT PUMP AT RWI**  
 200 gpm  
 Total pumping hours 31  
 Total gallons pumped 372,000  
 Million gallons pumped 0.3720  
 Million gallons a day 0.0120

**TSS-001**    **TSS-002**  
 256            73

**pH**  
**Cyclone**    **Pump**  
 7.42            7.47

ENTERED  
 DMR  
 6/7/17  
 RV



**SAMPLE SUMMARY**

Lab ID	Client Sample ID/Alias	Matrix	Date Collected	Date Received	Sampled By
7052247-01	Backwash/Cyclone	Wastewater	05/25/2017 13:22	05/25/2017 13:46	Ralph Varney
7052247-02	Backwash/Pump	Wastewater	05/25/2017 13:23	05/25/2017 13:46	Ralph Varney

**ANALYTICAL RESULTS**

Lab Sample ID: **7052247-01**  
Description: **Backwash Cyclone**

Sample Collection Date Time: 05/25/2017 13:22  
Sample Received Date Time: 05/25/2017 13:46

**Conventional Chemistry Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Suspended Solids	256		mg/L	5	5	2540 D-1997	05/31/2017 17:11	05/31/2017 18:09	SNB

**Field Analysis Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
pH (Field)	7.42		Std. Units	0.10	0.10	4500-H+ B-2000	05/25/2017 13:22	05/25/2017 13:29	ADH

**ANALYTICAL RESULTS**

Lab Sample ID: **7052247-02**  
Description: **Backwash Pump**

Sample Collection Date Time: 05/25/2017 13:23  
Sample Received Date Time: 05/25/2017 13:46

**Conventional Chemistry Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Suspended Solids	73		mg/L	4	4	2540 D-1997	05/31/2017 17:11	05/31/2017 18:11	SNB

**Field Analysis Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
pH (Field)	7.47		Std. Units	0.10	0.10	4500-H+ B-2000	05/25/2017 13:23	05/25/2017 13:32	ADH

KENTUCKY DIVISION OF WATER

Revised 7/1/06

DRINKING WATER BRANCH

MONTHLY OPERATION REPORT (MOR)--ALL WATER SYSTEMS

MONTH & YEAR OF: XXXXXXXXXX

DEP Form 4012--Revised 07/2006

PWS ID :	0980350	PLANT ID:	A	PLANT NAME:	PIKEVILLE WATER PLANT
PWS NAME:	CITY OF PIKEVILLE	PLANT CLASS:	IVA	DIST. CLASS:	II
AGENCY INTEREST (AI):	3691	DATE MAILED:			
SOURCE NAME:	LEVISA FORK OF THE BIG SANDY RIVER	COUNTY:	PIKE		
OPERATOR(S) RESPONSIBLE / IN-CHARGE				CLASS	CERTIFICATION NUMBER
WTP SHIFT 1:	RALPH VARNEY		IVA		645
WTP SHIFT 2:	GREG PENNINGTON		IVA		777
WTP SHIFT 3:	DEMPSEY MILES		IVA		1549
DISTRIBUTION:	DONNIE SLONE		IID		2236
<p>THIS REPORT MUST BE RECEIVED BY THE DIVISION OF WATER AND APPLICABLE FIELD OFFICE  <b><u>NO LATER THAN 10 DAYS AFTER THE END OF THE MONTH.</u></b></p>					
<b>TREATMENT PLANTS COMPLETE:</b>					
1. DESIGN CAPACITY (gpm):	4400				
2. TYPE OF FILTRATION USED:	DUAL MEDIA RAPID SAND				
3. DESIGN FILTRATION RATE (gpm/sq. ft.):	3				
4. PERCENT BACKWASH WATER USED:	3.0				
5. DATE FLOCCULATION BASIN(S) LAST CLEANED:	NOVEMBER 2015				
6. DATE SETTLING BASIN(S) LAST CLEANED:	NOVEMBER 2015				

I certify under penalty of law that I have personally examined and am familiar with the information submitted herein. Based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. See KRS 224.99-010 and 401 KAR 8:020. (Penalties under this statute and regulation may include fines up to \$25,000 per violation or by imprisonment for not more than one year, or both)

\_\_\_\_\_  
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

\_\_\_\_\_  
DATE



KENTUCKY DIVISION OF WATER - DRINKING WATER BRANCH  
 WATER TREATMENT PLANT MONTHLY OPERATION REPORT

PWS ID : 0980350  
 PLANT ID: A

REPORT MONTH/YEAR: Jun, 2017

PAGE 2 OF 11

DAY	DISINFECTANT		FLUORIDE		CARBON		pH ADJUSTMENT		KMnO4		CORROSION INHIBITOR			
	LBS	PPM	LBS	PPM	LBS	PPM	LBS	PPM	LBS	PPM	LBS	PPM	LBS	PPM
			13.7	0.59										
			17.8	0.64										
			19.8	0.68										
			18.0	0.66										
			16.6	0.62										
			15.1	0.59										
			15.3	0.58										
			18.7	0.72										
			15.1	0.58										
			15.5	0.59										
			15.7	0.60										
			18.7	0.62										
			17.6	0.66										
			17.5	0.64										
			18.0	0.69										
			19.8	0.78										
			18.0	0.64										
			14.9	0.56										
			18.2	0.72										
			18.0	0.71										
			19.8	0.69										
			16.2	0.67										
			18.0	0.68										
			18.0	0.67										
			18.0	0.69										
			18.0	0.69										
			18.0	0.60										
			13.5	0.53										
			18.5	0.68										
			19.3	0.72										
<b>TOTAL</b>			519.3											
<b>AVERAGE</b>			17.3	0.90										

KENTUCKY DIVISION OF WATER - DRINKING WATER BRANCH  
 WATER TREATMENT PLANT MONTHLY OPERATION REPORT

PWS ID : 0980350  
 PLANT ID: A

REPORT MONTH/YEAR: Jun, 2017

PAGE 3 OF 11

DAY	pH			TOTAL ALKALINITY		TOTAL HARDNESS		CHLORINE RESIDUAL				TURBIDITY (NTU)		
	RAW	TOP OF	TAP	RAW	TAP	RAW	TAP	TOP OF FILTER		PLANT TAP		RAW	SETTLED WATER	PLANT TAP
		FILTER						TOTAL	FREE	TOTAL	FREE			
	8.03	7.91	7.77	84	82	214	208		0.52		1.40	11.2	1.11	0.07
	7.97	7.92	7.78	86	80	208	210		0.48		1.36	14.1	1.18	0.06
	8.02	7.94	7.88	90	90	232	232		0.35		1.50	8.8	1.02	0.08
	8.04	7.96	7.83	90	100	230	240		0.44		1.43	7.7	1.07	0.08
	8.04	7.96	7.86	84	88	188	208		0.46		1.45	7.2	1.08	0.08
	8.04	7.96	7.86	84	70	216	216		0.36		1.25	13.2	1.38	0.08
	8.01	7.96	7.85	96	98	212	206		0.50		1.38	8.0	1.08	0.07
	8.06	7.95	7.88	96	96	236	240		0.47		1.39	5.2	0.80	0.06
	8.24	8.02	7.86	92	94	232	240		0.44		1.37	4.1	0.74	0.06
	8.26	8.08	7.88	88	92	208	210		0.51		1.29	4.1	0.84	0.06
	8.26	8.10	7.90	112	104	234	224		0.58		1.33	3.6	0.85	0.06
	8.23	8.04	7.90	108	102	250	244		0.40		1.41	3.7	0.85	0.06
	8.14	7.99	7.90	100	100	244	254		0.40		1.43	3.8	0.71	0.07
	8.15	8.05	7.89	94	102	212	204		0.46		1.46	5.1	1.03	0.08
	8.15	8.05	7.88	118	102	260	266		0.44		1.75	5.9	0.89	0.07
	7.96	7.88	7.90	90	100	200	210		0.22		1.53	57.6	1.31	0.09
	7.96	7.79	7.91	92	94	228	224		0.37		1.52	21.3	0.95	0.07
	8.02	7.94	7.81	98	96	230	240		0.25		1.43	9.8	0.89	0.07
	8.08	7.98	7.84	104	100	242	232		0.28		1.44	9.9	1.04	0.07
	8.15	8.02	7.85	106	104	252	248		0.43		1.56	5.8	1.04	0.05
	8.26	8.12	7.95	104	100	230	228		0.44		1.38	8.9	0.93	0.05
	8.12	8.04	7.93	100	98	240	232		0.48		1.54	11.7	0.97	0.06
	8.08	8.00	7.90	102	108	248	244		0.44		1.51	5.9	1.12	0.07
	8.16	8.06	7.89	106	110	252	246		0.46		1.58	7.7	1.03	0.05
	8.28	8.12	7.91	104	108	246	244		0.30		1.55	6.6	0.95	0.05
	8.19	8.07	7.95	110	110	252	260		0.38		1.50	3.6	0.91	0.06
	8.12	8.07	8.00	110	112	280	272		0.39		1.54	3.0	0.81	0.06
	8.10	8.05	8.01	118	118	290	290		0.34		1.49	3.3	0.76	0.06
	8.15	7.98	7.97	112	120	292	288		0.34		1.41	3.2	0.83	0.06
	8.12	7.97	7.96	118	124	298	302		0.42		1.30	2.5	0.82	0.07
<b>AVE</b>	8.11	8.00	7.89	100	100	239	239		0.41		1.45	8.9	0.97	0.06

KENTUCKY DIVISION OF WATER  
 DRINKING WATER BRANCH  
 WATER TREATMENT PLANT MONTHLY OPERATION REPORT

PWS ID: 0980350  
 PLANT ID: A  
 AGENCY INTEREST: 3691  
 REPORT MONTH/YEAR: Jun, 2017

AREA-WIDE OPTIMIZATION PROGRAM TURBIDITY DATA  
 COPY PAGE AS NEEDED

DAY	RAW DAILY MAX	SEDIMENTATION BASIN EFFLUENT DAILY MAXIMUM						INDIVIDUAL FILTER EFFLUENT DAILY MAXIMUM							CFE DAILY MAX
		#1	#2	#3	#4	#5	#6	#1	#2	#3	#4	#5	#6	#7	
		13.6	1.38	1.28					0.06	0.20	0.06	0.11	0.05		
14.4	1.26	1.10					0.09	0.07	0.12	0.17	0.07			0.06	
10.0	1.02	0.90					0.11	0.07	0.06	0.22	0.09			0.06	
8.1	1.10	0.98					0.16	0.10	0.07	0.48	0.09			0.07	
8.5	1.02	0.80					0.18	0.09	0.08	0.11	0.09			0.18	
13.9	1.71	1.34					0.19	0.10	0.07	0.11	0.06			0.06	
8.7	1.08	1.01					0.06	0.14	0.09	0.12	0.07			0.06	
5.6	0.79	0.81					0.09	0.07	0.11	0.13	0.06			0.05	
4.4	0.75	0.79					0.09	0.07	0.06	0.30	0.09			0.06	
5.0	0.88	0.76					0.13	0.10	0.07	0.13	0.10			0.06	
3.8	0.97	0.79					0.13	0.10	0.10	0.15	0.10			0.08	
3.8	0.83	0.73					0.19	0.13	0.11	0.15	0.06			0.08	
3.9	0.66	0.64					0.25	0.12	0.11	0.15	0.07			0.11	
6.3	0.89	0.99					0.09	0.13	0.14	0.17	0.09			0.07	
6.7	0.95	0.82					0.09	0.07	0.12	0.15	0.08			0.06	
73.8	0.70	0.53					0.10	0.09	0.12	0.21	0.07			0.06	
30.0	1.00	0.76					0.14	0.11	0.18	0.18	0.16			0.08	
12.6	1.08	0.82					0.12	0.10	0.08	0.15	0.06			0.05	
13.3	1.20	1.08					0.12	0.12	0.09	0.18	0.07			0.06	
6.3	0.98	0.91					0.12	0.08	0.10	0.16	0.06			0.05	
12.0	0.98	0.94					0.11	0.08	0.07	0.25	0.09			0.05	
11.9	1.17	0.82					0.10	0.07	0.07	0.13	0.09			0.05	
6.2	1.06	0.77					0.10	0.08	0.07	0.12	0.09			0.06	
8.6	0.96	0.85					0.12	0.11	0.10	0.17	0.07			0.06	
7.5	1.01	0.92					0.11	0.11	0.10	0.15	0.07			0.06	
4.6	0.92	1.01					0.09	0.08	0.13	0.17	0.10			0.07	
3.5	0.75	0.63					0.12	0.10	0.08	0.33	0.12			0.07	
3.7	0.70	0.56					0.13	0.12	0.10	0.17	0.10			0.07	
3.9	0.97	0.70					0.11	0.09	0.09	0.15	0.07			0.06	
3.4	0.53	0.46					0.13	0.10	0.08	0.14	0.07			0.06	
<b>AVE</b>	10.6	0.98	0.85				0.12	0.10	0.09	0.18	0.08			0.07	

KENTUCKY DIVISION OF WATER - DRINKING WATER BRANCH  
 WATER TREATMENT PLANT MONTHLY OPERATION REPORT

PWSID: 0980350  
 PLANT ID: A

REPORT MONTH/YEAR: Jun, 2017

\*Please answer Y/N question below this chart.

PAGE 5 OF 11

DAY	FLUORIDE		IRON		MANGANESE				Lowest Daily Cl Res Plant Tap On-Line Cl Analyzer	RAINFALL	WATER TEMP. DEGREES
	RAW	TAP	RAW	TAP	RAW	TAP	RAW	TAP	FREE	INCHES	F°/C°
	0.10	0.62							1.40	0.13	19.0
	0.13	0.74							1.36		19.0
	0.12	0.74							1.50		20.0
	0.11	0.71							1.43		20.0
	0.11	0.66							1.45	0.90	21.0
	0.12	0.72							1.25	0.19	20.0
	0.12	0.69							1.38		20.0
	0.11	0.72							1.39	0.11	20.0
	0.11	0.71							1.37		19.0
	0.12	0.68							1.29		19.0
	0.13	0.70							1.33		20.0
	0.12	0.72							1.41	0.42	21.0
	0.11	0.74							1.43		22.5
	0.12	0.73							1.46	0.49	22.0
	0.14	0.74							1.75	0.19	22.0
	0.11	0.76							1.53		23.0
	0.10	0.73							1.52		22.5
	0.11	0.75							1.43		23.0
	0.11	0.73							1.44	0.89	23.0
	0.12	0.72							1.56		22.0
	0.12	0.70							1.38		23.0
	0.11	0.68							1.54	0.15	24.0
	0.11	0.76							1.51		24.0
	0.13	0.78							1.58	0.52	25.0
	0.11	0.72							1.55		24.0
	0.10	0.68							1.50		24.0
	0.11	0.66							1.54		24.0
	0.10	0.65							1.49		23.0
	0.10	0.63							1.41		24.0
	0.13	0.79							1.30		25.0
<b>AVE</b>	0.11	0.71									21.9
									1.25		
									Number of readings	30	3.99
									For Free Cl, # < 0.2 mg/L	0	
Disinfectant Chloramines? (Y/N)									For Chloramines, # < 0.5 mg/L		

KENTUCKY DIVISION OF WATER - DRINKING WATER BRANCH  
 WATER TREATMENT PLANT MONTHLY OPERATION REPORT

PWS ID: 0980350

PLANT ID: A

REPORT MONTH/YEAR: Jun, 2017

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DAY	TOTAL WASH WATER GALLONS	No: 1		No: 2		No: 3		No: 4		No: 5	
		AREA (ft2)	363								
		WASH GALLONS	FILT RUN HRS								
	81,750			81,750	81.75						
	65,320					65,320	81.75				
	92,880							92,880	97.00		
	64,800									64,800	101.00
	90,387	90,387	75.75								
	65,280			65,280	77.00						
	88,066					88,066	63.25				
	96,528							96,528	68.00		
	72,630									72,630	76.00
	75,800	75,800	84.75								
	72,450			72,450	90.00						
	81,600					81,600	92.25				
	97,452							97,452	87.25		
	114,100									114,100	79.00
	99,060	99,060	69.50								
	82,350			82,350	52.75						
	82,820					82,820	61.25				
	97,212							97,212	64.25		
	80,350									80,350	73.75
	166,060	166,060	73.50								
	81,700			81,700	71.50						
	80,890					80,890	77.00				
	73,530							73,530	84.00		
	81,650									81,650	66.00
	86,955	86,955	79.00								
<b>TOT</b>	2,171,620	518,262	382.5	383,530	373.0	398,696	375.5	457,602	400.5	413,530	395.8
<b>AVE</b>	86,865	103,652	76.5	76,706	74.6	79,739	75.1	91,520	80.1	82,706	79.2

COPY AS NEEDED

KENTUCKY DIVISION OF WATER - DRINKING WATER BRANCH  
 WATER TREATMENT PLANT MONTHLY OPERATION REPORT

PWS ID : 0980350  
 PLANT ID: A

REPORT MONTH/YEAR: Jun, 2017

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DAY	CHEMICALS ADDED		TEST RESULTS								
	CHLORINE BOOSTER	CHLORINE BOOSTER	TOTAL (T) AND FREE (F) CHLORINE RESIDUAL (ppm)								
	LBS	LBS	NORTH		SOUTH		EAST		WEST		
			T	F	T	F	T	F	T	F	
				1.02							
							0.95				
									0.87		
											0.91
				0.78							
							1.02				
									0.85		
											0.89
				0.87							
							0.81				
									1.01		
											0.97
				1.05							
							0.94				
									0.98		
											0.89
				0.99							
							1.12				
									1.07		
											0.92
				1.01							
							0.82				
									1.03		
											0.89
				0.99							
							1.12				
									0.79		
											1.10
				0.87							
							0.90				
AVE			AVERAGE	0.95		0.96		0.94		0.94	
TOT			TOT MIN								
			FREE MIN	0.78		0.81		0.79		0.89	
Total # Chlorine Samples				8		8		7		7	
# Less than 0.2 mg/L/0.5 mg/L				0		0		0		0	
Number of Free Residuals			30	Minimum Monthly Total Residual			NA				
Number of Total Residuals			0	Minimum Monthly Free Residual			0.78				
Total # Less than 0.2 mg/L			0	Disinfectant Chloramines? (Y/N)			N				
				Number of days of operation?			30				

KENTUCKY DIVISION OF WATER - DRINKING WATER BRANCH  
 WATER TREATMENT PLANT MONTHLY OPERATION REPORT

PWS ID : 0980350  
 PLANT ID: A

TURBIDITY REPORT

Report Period (MM/YYYY): Jun, 2017

PWS Name: CITY OF PIKEVILLE

PAGE:  
8 OF 11

DAY										
11.3	3		0.06	0.07	0.08	0.06		0.08		
13.3	4		0.06	0.06	0.06	0.07		0.07		
13.8	4		0.08	0.07	0.07	0.08		0.08		
13.0	4		0.09	0.09	0.08	0.07	0.07	0.09		
12.5	4		0.08	0.08	0.09	0.06		0.09		
12.0	3		0.07	0.06	0.09	0.08		0.09		
12.5	4		0.08	0.07	0.06	0.08		0.08		
12.5	4		0.07	0.06	0.05	0.05		0.07		
12.5	4		0.05	0.06	0.06	0.06		0.06		
12.5	4		0.05	0.06	0.06	0.06		0.06		
12.8	4		0.06	0.06	0.06	0.06		0.06		
14.3	4		0.06	0.06	0.07	0.06		0.07		
12.5	4		0.07	0.07	0.06	0.09		0.09		
13.3	4		0.08	0.09	0.06	0.08		0.09		
12.8	4		0.07	0.07	0.07	0.06		0.07		
13.5	4		0.08	0.08	0.10	0.08		0.10		
13.5	4		0.08	0.07	0.06	0.06		0.08		
12.5	4		0.05	0.08	0.07	0.09	0.05	0.09		
12.0	3		0.06	0.07	0.06	0.07		0.07		
12.0	3		0.04	0.05	0.06	0.06		0.06		
13.5	4		0.06	0.05	0.04	0.04		0.06		
11.5	3		0.05	0.05	0.06	0.06		0.06		
13.0	4		0.07	0.06	0.08	0.07		0.08		
13.3	4		0.06	0.04	0.04	0.05		0.06		
12.5	4		0.04	0.06	0.05	0.05		0.06		
13.5	4		0.06	0.05	0.05	0.06		0.06		
14.5	4		0.06	0.06	0.06	0.06		0.06		
12.5	4		0.06	0.07	0.08	0.05		0.07		
13.3	4		0.07	0.06	0.06	0.06		0.07		
13.5	4		0.05	0.08	0.07	0.06		0.08		
Total	385.8	115	TOTAL # OF TURBIDITY SAMPLES TAKEN --				122	0.10		

ARE YOU USING EITHER CONVENTIONAL or DIRECT FILTRATION? (Y/N)  Y

(Any type of filtration besides slow sand)

Number of samples exceeding ----> 0.1 NTU 0 0.3 NTU 0 1 NTU 0

For slow sand filtration, the number of samples exceeding ----> 1 NTU 5 NTU

\*NOTE: The "Number of Turbidity Samples Required" is the number of hours the plant operated divided by 4 rounded up to the next whole number.

I certify that the above turbidity readings were taken every 4 hours during plant operation and in the time frames noted above.

Signature of Principal Executive Officer or Authorized Agent

Date

KENTUCKY DIVISION OF WATER / DRINKING WATER BRANCH  
 Monthly Operating Report (MOR) Plant Summary Form

PWS ID : 0980350

Monitoring Period (MM/YYYY): Jun, 2017

**NOTE: COMPLETE ALL APPLICABLE FIELDS!!! NOT ALL OF THE FIELDS ARE  
 PRE-POPULATED FOR YOU!!!**

APPLICABLE TO ALL PLANTS			
PLANT ID: <u>A</u>	TOTAL WATER TREATED (gallons)	<u>95,774,000</u>	
PLANT NAME: <u>PIKEVILLE WATER PLANT</u>	AVE. DAILY PRODUCTION (gallons)	<u>3,192,467</u>	
AGENCY INTEREST: <u>3691</u>	MAXIMUM PUMPAGE (gallons per day)	<u>3,590,000</u>	

APPLICABLE TO ALL PLANTS WITH FILTRATION	
ANALYTE CODE <u>0100</u>	
Was each filter monitored continuously? (Y/N).....	<b>Y</b>
Were measurements recorded every 15 minutes? (Y/N).....	<b>Y</b>
Was there a failure of the continuous monitoring equipment? (Y/N).....	<b>N</b>
If Yes, (1) were individual filter effluent turbidity grab samples collected every four hours of operation? (Y/N).....	
(2) was the continuous monitoring equipment repaired within 5 working days? (Y/N).....	
Was individual filter level greater than 1.0 NTU in two consecutive measurements? (Y/N).....	<b>N</b>
Was individual filter level < 0.5 NTU in two consecutive measurements after online more than 4 hours? (Y/N).....	<b>N</b>
Was individual filter level < 1.0 NTU in two consecutive measurements in three consecutive months? (Y/N).....	<b>N</b>
Was individual filter level greater than 2.0 NTU in two consecutive measurements in two consecutive months? (Y/N)	<b>N</b>
<b>If any of the last 4 boxes are YES, fill out the Individual Filter Turbidity Sheet and submit with MOR</b>	

APPLICABLE TO ALL PLANTS WITH FILTRATION		APPLICABLE TO ALL PLANTS	
ANALYTE CODE <u>0100</u>		ANALYTE CODE <u>0999</u>	
Number of hours of plant operation.....	<b>385.8</b>	Number of days of plant operation.....	<b>30</b>
Were samples taken every 4 hrs of plant operation? (Y/N)	<b>Y</b>	Were samples taken each day of operation? (Y/N)	<b>Y</b>
Number of samples taken.....	<b>122</b>	Number of lowest chlorine samples recorded .....	<b>30</b>
Highest single turbidity reading .....	<b>0.10</b>	Lowest single chlorine reading .....	<b>1.25</b>
For all filtration except slow sand filtration:		If less than required:	
Number of samples exceeded 0.1 NTU .....	<b>0</b>	Was residual restored within 4 hrs of plant operation	
Number of samples exceeded 0.3 NTU .....	<b>0</b>	Free chlorine (for all disinfectants except chloramine):	
Number of samples exceeded 1.0 NTU .....	<b>0</b>	Number of samples under 0.2 mg/L .....	<b>0</b>
When filtration is slow sand filtration:		Total Chlorine (when disinfectant is chloramine):	
Number of samples exceeded 1 NTU .....		Number of samples under 0.5 mg/L .....	
Number of samples exceeded 5 NTU .....			

APPLICABLE TO PLANTS UTILIZING CHLORINE DIOXIDE		APPLICABLE TO PLANTS USING CHLORINE DIOXIDE	
ANALYTE CODE <u>1008</u>		ANALYTE CODE <u>1009</u>	
Number of days of plant operation.....	<b>30</b>	Number of days of plant operation.....	<b>30</b>
Were samples taken each day of operation? (Y/N).....		Were samples taken each day of operation? (Y/N)	
Number of samples taken .....	<b>####</b>	Number of samples taken .....	<b>####</b>
Highest single chlorine dioxide reading .....	<b>####</b>	Highest single chlorite reading .....	<b>####</b>
Number of chlorine dioxide samples exceeded 0.8 mg/L ..	<b>####</b>	Number of chlorite samples exceeded 1 mg/L .....	<b>####</b>

I certify under penalty of law that I have personally examined and am familiar with the information submitted herein. Based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. See KRS 224.99-010 and 401 KAR 8:020. (Penalties under this statute and regulation may include fines up to \$25,000 per violation or by imprisonment for not more than one year, or both).

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

DATE



# Water Withdrawal Report Form

Preprint ID:

Agency Interest

Subject Item:

Monitoring Period:

3691 - Pikeville Water Department

GACT000000001-0638 Levisa Fork

06/01/17 to 06/30/17

Day	Result	Parameter	Unit
1	2.793	Withdrawal	MGD (MA)
2	3.327	Withdrawal	MGD (MA)
3	3.481	Withdrawal	MGD (MA)
4	3.290	Withdrawal	MGD (MA)
5	3.185	Withdrawal	MGD (MA)
6	3.045	Withdrawal	MGD (MA)
7	3.162	Withdrawal	MGD (MA)
8	3.096	Withdrawal	MGD (MA)
9	3.139	Withdrawal	MGD (MA)
10	3.158	Withdrawal	MGD (MA)
11	3.116	Withdrawal	MGD (MA)
12	3.589	Withdrawal	MGD (MA)
13	3.185	Withdrawal	MGD (MA)
14	3.304	Withdrawal	MGD (MA)
15	3.118	Withdrawal	MGD (MA)
16	3.046	Withdrawal	MGD (MA)
17	3.358	Withdrawal	MGD (MA)
18	3.183	Withdrawal	MGD (MA)
19	3.044	Withdrawal	MGD (MA)
20	3.050	Withdrawal	MGD (MA)
21	3.418	Withdrawal	MGD (MA)
22	2.910	Withdrawal	MGD (MA)
23	3.179	Withdrawal	MGD (MA)
24	3.227	Withdrawal	MGD (MA)
25	3.107	Withdrawal	MGD (MA)
26	3.123	Withdrawal	MGD (MA)
27	3.590	Withdrawal	MGD (MA)
28	3.083	Withdrawal	MGD (MA)
29	3.244	Withdrawal	MGD (MA)
30	3.224	Withdrawal	MGD (MA)
		Withdrawal	MGD (MA)

ENTERED  
6/7/17  
KW 315

June, 2017

DMR CALCULATIONS

date	tss cyclone	pH cyclone	tss intake	pH intake	hrs operated
06/01/17					11.25
06/02/17					13.25
06/03/17					13.75
06/04/17					13.00
06/05/17					12.50
06/06/17					12.00
06/07/17					12.50
06/08/17					12.50
06/09/17					12.50
06/10/17					12.50
06/11/17					12.75
06/12/17					14.25
06/13/17					12.50
06/14/17					13.25
06/15/17					12.75
06/16/17					13.50
06/17/17					13.50
06/18/17					12.50
06/19/17					12.00
06/20/17					12.00
06/21/17	8	8.18	7	8.22	13.50
06/22/17					11.50
06/23/17					13.00
06/24/17					13.25
06/25/17					12.50
06/26/17					13.50
06/27/17					14.50
06/28/17					12.50
06/29/17					13.25
06/30/17					13.50

CYCLONE ESTIMATE

100 gpm for 30 min

Tot Hours 385.75  
 times flushed 1 hr cycle 386  
 gallons flushed 1,157,250  
 mg flushed 1,1573  
 mgd flushed 0.03733

GRIT PUMP AT RWI

200 gpm

Total pumping hours 31  
 Total gallons pumped 372,000  
 Million gallons pumped 0.3720  
 Million gallons a day 0.0120

TSS-001 8  
 TSS-002 7

pH  
 Cyclone 8.18  
 Pump 8.22

In June 17 no cyclone flushing until the 22nd due to equipment breakdown.

*New timing dump 3 minutes  
 Flush 30 minutes  
 Dumping every hour.*

*14 times most  
 3 minutes each 200 gpm 600  
 30 minutes each 100 gpm 3000  
 3600  
 Per dump  
 .0504 mgd max*

**ENTERED**  
 6/26/17  
 RV 5:12



**SAMPLE SUMMARY**

Lab ID	Client Sample ID/Alias	Matrix	Date Collected	Date Received	Sampled By
7063088-01	Backwash/Grit Cyclone	Wastewater	06/21/2017 14:25	06/21/2017 14:31	Ralph Varney
7063088-02	Backwash/Grit Pump	Wastewater	06/21/2017 14:27	06/21/2017 14:31	Ralph Varney

**ANALYTICAL RESULTS**

Lab Sample ID: **7063088-01**  
Description: **Backwash Grit Cyclone**

Sample Collection Date Time: 06/21/2017 14:25  
Sample Received Date Time: 06/21/2017 14:31

Conventional Chemistry Analyses Pikeville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Suspended Solids	8		mg/L	3	3	2540 D-1997	06/27/2017 15:08	06/27/2017 15:08	CEB

Field Analysis Pikeville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
pH (Field)	8.18		Std. Units	0.10	0.10	4500-H+ B-2000	06/21/2017 14:25	06/21/2017 14:34	ADH

**ANALYTICAL RESULTS**

Lab Sample ID: **7063088-02**  
Description: **Backwash Grit Pump**

Sample Collection Date Time: 06/21/2017 14:27  
Sample Received Date Time: 06/21/2017 14:31

Conventional Chemistry Analyses Pikeville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Suspended Solids	7		mg/L	3	3	2540 D-1997	06/27/2017 15:08	06/27/2017 15:08	CEB

Field Analysis Pikeville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
pH (Field)	8.22		Std. Units	0.10	0.10	4500-H+ B-2000	06/21/2017 14:27	06/21/2017 14:36	ADH

**PIKEVILLE WATER TREATMENT PLANT  
WATER PUMPED TO DISTRIBUTION SYSTEM  
FOR THE MONTH OF: June, 2017**

06/01/17	3.0396
06/02/17	3.3390
06/03/17	3.4015
06/04/17	3.4602
06/05/17	3.2419
06/06/17	3.2134
06/07/17	3.3039
06/08/17	3.2145
06/09/17	3.1929
06/10/17	3.3930
06/11/17	3.1605
06/12/17	3.6363
06/13/17	3.4055
06/14/17	3.3929
06/15/17	3.2746
06/16/17	3.1874
06/17/17	3.2668
06/18/17	3.2090
06/19/17	3.1158
06/20/17	3.3553
06/21/17	3.2375
06/22/17	3.0201
06/23/17	3.1551
06/24/17	3.0291
06/25/17	3.1867
06/26/17	3.2240
06/27/17	3.4956
06/28/17	3.0878
06/29/17	3.3154
06/30/17	3.2485

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<b>Total</b>	<b>97.8038</b>
<b>Average</b>	<b>3.2601</b>
<b>Minimum</b>	<b>3.0201</b>
<b>Maximum</b>	<b>3.6363</b>

<b>Water plant usage</b>	<b>77,288</b>
<b>Raw water intake usage</b>	<b>198,420</b>
<b>Total non metered usage</b>	<b>275,708</b>

WATER DEPARTMENT  
MASTER WATER READINGS

DATE: 7-3-17

ACCOUNT NUMBER	LOCATION	PRESENT	PREVIOUS	USAGE	AMOUNT
	SANDY VALLEY-Pikeville	477447	461211	10236	9192 DON'T BILL
54-9966200-0	TOWN MOUNTAIN	796135	776500	19635	
54-9909400-0	CHLOE ROAD	81020	78928	2092	
54-9911500-0	ISLAND CREEK	82380	78772	3608	
54-9928000-0	MUD CREEK-Southern Wt.	179019	168205	10809	
54-9914600-0	COON BRANCH	12330	12197	133	
54-9913000-0	SOUTH MAYO TRAIL	55414	44527	10887	
54-9925500-0	HOOPWOOD HOLLOW	15693	15573	120	
54-9911800-0	ISLAND CK. TRAILER PK.	01955	01712	243	
54-9911900-0	HURRICANE CREEK	315958	313638	2320	
54-9912000-0	PIKE FLOYD-Southern	058192	55026	3166	
54-9900100-0	COWPEN-Mt. Water	281979	278051	3928	
				TOTAL	73177

MAIN ROAD FIRE 5  
 NUMBER 5

METER READER INITIALS CBOR

NON METERED WATER

FLUSHING - EST \_\_\_\_\_

LEAKS - EST \_\_\_\_\_

TOTAL GALLONS \_\_\_\_\_

	FLOW TO DIST	START C. WELL	Settling Basin Turbidity						Sludge Hauled	Spent B/W Return	DUP pH TAP
			MID - 4	4A - 8AM	8AM - 12N	12N - 4PM	4PM - 8PM	8PM - 12M			
06/01/17	3.0396	7.2		1.04	0.87	0.99	1.33			119,000	7.76
06/02/17	3.3390	4.4		1.11	1.22	1.21	1.18			100,000	7.78
06/03/17	3.4015	5.0		1.05	1.00	0.86	1.14			21,000	7.86
06/04/17	3.4602	8.2		1.23	1.04	1.04	1.04	1.01		154,000	7.83
06/05/17	3.2419	7.6		1.35	0.97	1.24	0.91		62,200	181,000	7.85
06/06/17	3.2134	8.0		1.15	1.34	1.34	1.52			191,000	7.86
06/07/17	3.3039	6.4		1.11	1.07	1.11	1.04		45,900	155,000	7.85
06/08/17	3.2145	5.6		0.73	0.62	0.80	1.04		27,800	137,000	7.88
06/09/17	3.1929	5.2		0.67	0.72	0.75	0.77			74,000	7.87
06/10/17	3.3930	5.0		1.01	0.75	0.80	0.82			169,000	7.88
06/11/17	3.1605	4.4		0.82	0.88	0.77	0.88			165,000	7.91
06/12/17	3.6363	5.2		0.66	0.66	0.78	1.38			80,000	7.91
06/13/17	3.4055	6.6		0.70	0.60	0.65	0.94			156,000	7.90
06/14/17	3.3929	4.8		1.36	1.01	0.92	0.94			140,000	7.88
06/15/17	3.2746	5.0		0.99	0.94	0.77	0.88			143,000	7.88
06/16/17	3.1874	4.9		2.41	1.45	1.45	0.62			140,000	7.91
06/17/17	3.2668	4.4		1.14	0.97	0.88	0.90			207,000	7.90
06/18/17	3.2090	8.0		0.73	0.86	0.95	1.04	0.81		146,000	7.80
06/19/17	3.1158	9.0		0.87	0.79	1.24	1.14			113,000	7.84
06/20/17	3.3553	9.0		1.16	1.03	1.04	0.94			638,000	7.88
06/21/17	3.2375	4.4		1.06	0.89	0.96	0.78			159,000	7.96
06/22/17	3.0201	8.6		0.90	0.82	1.13	1.00			77,000	7.93
06/23/17	3.1551	5.4		1.44	1.01	1.31	0.92			160,000	7.90
06/24/17	3.0291	6.6		1.01	0.98	0.90	1.36			197,000	7.90
06/25/17	3.1867	8.0		0.92	1.03	0.96	0.86			116,000	7.92
06/26/17	3.2240	6.8		1.04	0.91	0.96	0.68			118,000	7.96
06/27/17	3.4956	4.8		0.96	0.84	0.69	0.86			114,000	8.00
06/28/17	3.0878	6.6		0.88	0.85	0.63	0.80			183,000	8.00
06/29/17	3.3154	6.4		0.84	0.83	0.80	0.84			81,000	8.06
06/30/17	3.2485	5.3		1.17	0.90	0.50	1.03			151,000	8.06
Ave	3.2601	6.2		1.05	0.93	0.95	0.99	0.91		152,833	
Tot	97.8038								135,900	4,585,000	
Min	3.0201	4.4		0.66	0.60	0.50	0.62	0.81		21,000	
Max	3.6363	9.0		2.41	1.45	1.45	1.52	1.01		638,000	

# Monthly Chlorine Report- June. 2017

Water Dist. – Utility Management Group – JM,CB, JR

- 6-1-17 = 306 Island Creek = 1.02
- 6-2-17 = 844 Ratliff Creek = 0.95
- 6-3-17 = 396 Williams Hollow = 0.87
- 6-4-17 = 976 Lykins Creek = 0.91
- 6-5-17 = 102 Billips Drive = 0.78
- 6-6-17 = 35 Flora Street = 1.02
- 6-7-17 = 394 Mary Drew = 0.85
- 6-8-17 = 197 North Gate = 0.89
- 6-9-17 = 130 Justice Way = 0.87
- 6-10-17 = 560 Ziegler Drive = 0.81
- 6-11-17 = 348 Peach Orchard = 1.01
- 6-12-17 = 3630 Island Creek = 0.97
- 6-13-17 = 252 Scott Ave. = 1.05
- 6-14-17 = 584 Chloe Road = 0.94
- 6-15-17 = 272 Fife Fork = 0.98
- 6-16-17 = 150 Pauley Add. = 0.89
- 6-17-17 = 350 Williams Hollow = 0.99
- 6-18-17 = 1068 South Mayo Trail = 1.12
- 6-19-17 = 274 Cassidy Blvd = 1.07
- 6-20-17 = 174 Ky Ave. = 0.92
- 6-21-17 = 161 Park Street = 1.01
- 6-22-17 = 254 Cedar Creek = 0.82
- 6-23-17 = 143 Pen Friend Ln. = 1.03
- 6-24-17 = 293 Deskins Hollow = 0.89
- 6-25-17 = 4053 North Mayo = 0.99
- 6-26-17 = 238 South Mayo = 1.12
- 6-27-17 = 149 Mt. Chase = 0.79
- 6-28-17 = 112 Amba Street = 1.10
- 6-29-17 = 117 Johnson Hollow = 0.87
- 6-30-17 = 316 Right Fork Island Creek = 0.90

9983600  
 9785180  


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 198420  
 RWJ

8149717  
 8072429  


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 77288  
 WTP



WATER PLANT MONTHLY OPERATIONS REPORT

MONTH/YEAR: 6/17

CHEMICALS ADDED

DAY	RAW WATER TREATED (M.G.D.)	COAGULANT PAC LBS	FLUORIDE LBS	PRE LBS	POST LBS
01	2.793	686	13.7	34.1	46.2
02	3.327	721	17.8	44	56.1
03	3.481	742	19.8	41.8	57.2
04	3.240	700	18	35.2	55
05	3.185	697	16.6	41.8	57.2
06	3.045	645	15.1	38.5	48.4
07	3.162	676	15.3	47.3	52.8
08	3.096	686	18.7	37.4	51.7
09	3.139	686	15.1	39.6	53.9
10	3.158	676	15.5	40.7	52.8
11	3.116	676	15.7	40.7	53.9
12	3.589	749	18.7	47.3	60.5
13	3.185	728	17.6	44	55
14	3.204	707	17.5	38.5	55
15	3.118	707	18	40.7	57.2
16	3.046	958	19.8	46.2	63.8
17	3.358	978	18	42.9	55
18	3.183	572	14.9	38.5	44
19	3.044	659	18.2	42.9	53.9
20	3.050	618	18.0	41.8	52.8
21	3.418	690	19.8	53.9	56.1
22	2.910	572	16.2	36.3	52.8
23	3.179	618	18.0	44.0	61.6
24	3.227	618	18.0	48.0	60.5
25	3.107	515	18.0	42.9	55.0
26	3.123	659	18	55	60.5
27	3.540	618	18	60.5	71.5
28	3.083	566	13.5	33	55
29	3.244	572	18.5	46.2	60.5
30	3.224	721	19.3	49.5	60.5
31					



WATER PLANT MONTHLY OPERATIONS REPORT

MONTH/YEAR:

6/17

DAILY READINGS

DAY	WATER TO DIST MGD	SLUDGE HAULED Gals	S BW RETURN	RAIN FALL (inches)	WATER TEMP DEG C	CLEAR WELL LEVEL FT.
1	3.0396		119000	.13	19	7.2
2	3.3390		100000		19	4.4
3	3.4018		21000		20	5
4	3.4602		154000		20	8.2
5	3.2419	62200	181000	.90	21	7.6
6	3.2134	45900	191000	.19	20	8.0
7	3.3039	75500 <sup>kw</sup>	155000		20	6.4
8	3.2145	27800	137000	.11	20	5.6
9	3.1429		74000		19	5.2
10	3.3930		169000		19	5
11	3.1605		165000		20	4.4
12	3.6363		80000	.42	21	5.2
13	3.4055		156000		22.5	6.6
14	3.3929		140000	.49	22	4.8
15	3.2746		143000	.19	22	5
16	3.1874		140000		23	4.9
17	3.2668		207000		22.5	4.4
18	3.2090		146000		23	8
19	3.1158	71300 <sup>kw</sup>	113000	.89	23	9
20	3.3553		638000		22°	9
21	3.2375		159000		23°	4.4
22	3.0201		77000	.15	24°	8.6
23	3.1551		160000		24	5.4
24	3.0291		197000	.52	25°	6.6
25	3.1867		116000		24°	8.0
26	3.2240		118000		24°	6.8
27	3.4956		114000		24	4.8
28	3.0878		183000		23	6.6
29	3.3154		81000		25 <sup>24</sup> <sub>rw</sub>	5.3 <sup>6.4</sup> <sub>rw</sub>
30	3.2485		151000		25	5.3
31						

PIKEVILLE WATER TREATMENT PLANT  
AWOP INFORMATION

MONTH/YR: 6/17

ANALYTICAL RESULTS (NTU)									
DAY	RAW DAILY MAX	SED BASIN EFF		INDIVIDUAL FILTER EFFLUENT					CFE DAILY MAX
		DAILY MAX		DAILY MAXIMUM					
		#1	#2	#1	#2	#3	#4	#5	
1	13.6	1.38	1.28	.06	.20	.06	.11	.05	.05
2	14.4	1.26	1.1	.09	.07	.12	.17	.07	.06
3	10	1.02	.90	.11	.07	.06	.22	.09	.06
4	8.1	1.1	.98	.16	.10	.07	.48	.09	.07
5	8.5	1.02	.80	.18	.09	.08	.11	.09	.18
6	13.9	1.71	1.34	.19	.10	.07	.11	.06	.06
7	8.7	1.08	1.01	.06	.14	.09	.12	.07	.06
8	5.6	.79	.81	.09	.07	.11	.13	.06	.05
9	4.4	.75	.79	.09	.07	.06	.3	.09	.06
10	5	.88	.76	.13	.10	.07	.13	.10	.06
11	3.8	.97	.79	.13	.10	.10	.15	.10	.08
12	3.8	.83	.73	.19	.13	.11	.15	.06	.08
13	3.9	.66	.64	.25	.12	.11	.15	.07	.11
14	6.3	.89	.99	.09	.13	.14	.17	.09	.07
15	6.7	.95	.82	.09	.07	.12	.15	.08	.06
16	73.8	.70	.53	.1	.09	.12	.21	.07	.06
17	30	1.0	.76	.14	.11	.18	.18	.16	.08
18	12.6	1.08	.82	.12	.10	.08	.15	.06	.05
19	13.3	1.20	1.08	.12	.12	.09	.18	.07	.06
20	6.3	.98	.98	.12	.08	.10	.16	.06	.05
21	12.0	.98	.94	.11	.08	.07	.25	.09	.05
22	11.9	1.17	.82	.10	.07	.07	.13	.09	.05
23	6.2	1.06	.77	.10	.08	.07	.12	.09	.06
24	8.6	.96	.85	.12	.11	.10	.17	.07	.06
25	7.5	1.01	.92	.11	.11	.10	.15	.07	.06
26	4.6	.92	1.01	.09	.08	.13	.17	.1	.07
27	3.5	.75	.63	.12	.10	.08	.33	.12	.07
28	3.7	.70	.56	.13	.12	.10	.17	.10	.07
29	3.9	.97	.7	.11	.09	.09	.15	.07	.06
30	3.4	.53	.46	.13	.1	.08	.14	.07	.06
31									

3193/4274  
3214/4274  
3254/4274  
3168/4267  
3162/4270  
3202/4286  
3220/4286  
3217/4264  
3193/4264  
3220/4264  
3147/4255  
3205/4249  
3202/4249  
3202/4249  
3190/4240  
3184/4277  
3211/4261  
3215/4255  
3159/4240  
3199/4249  
3190/4249  
3196/4237  
3159/4225  
3168/4237  
3153/4252  
3156/4231  
3205/4237  
3175/4219  
3211/4203  
3172/4206

### FINISHED WATER TURBIDITY

PWSID: 0980350

PWS NAME: PIKEVILLE WATER MONTH 6/17

DAY	MID - 4AM	4AM - 8AM	8AM - NOON	NOON - 4PM	4PM - 8PM	8PM - MID
1		.06	.07	.08	.06	
2		.06	.06	.06	.07	
3		.08	.07	.07	.08	
4		.09	.09	.08	.07	.07
5		.08	.08	.09	.06	
6		.07	.06	.09	.08	
7		.08	.07	.06	.08	
8		.07	.06	.05	.05	
9		.05	.06	.06	.06	
10		.05	.06	.06	.06	
11		.06	.06	.06	.06	
12		.08	.06	.07	.06	
13		.07	.07	.06	.09	
14		.08	.09	.06	.08	
15		.07	.07	.07	.06	
16		.08	.08	.10	.08	
17		.08	.07	.06	.06	
18		.05	.08	.07	.09	.05
19		.06	.07	.06	.07	
20		.04	.05	.06	.06	
21		.06	.05	.04	.04	
22		.05	.05	.06	.06	
23		.07	.06	.08	.07	
24		.06	.04	.04	.05	
25		.04	.04	.05	.05	
26		.06	.05	.05	.06	
27		.06	.06	.06	.06	
28		.06	.07	.06	.05	
29		.07	.06	.06	.06	
30		.05	.08	.07	.06	
31						

### SETTLING BASIN TURBIDITY

PWSID: 0980350

PWS NAME: PIKEVILLE WATER MONTH 6/17

DAY	MID - 4AM	4AM - 8AM	8AM - NOON	NOON - 4PM	4PM - 8PM	8PM - MID
1		1.04	.87	.99	1.38/1.28/1.33	
2		1.11	1.22	1.21	1.26/1.1/1.18	
3		1.05	1.0	1.02/90/86	1.14	
4		1.23	1.04	1.11/98/1.04	1.04	1.01
5		1.35	.97	1.24	1.02/80/91	
6		1.15	1.34	1.34	1.71/1.34/1.52	
7		1.11	1.07	1.11	1.08/1.01/1.04	
8		.73	.62	.79/81/86	1.04	
9		.67	.72	.75	.75/79/77	
10		1.01	.75	.80	.88/76/82	
11		<del>1.33</del> .82	.88	.77	.97/79/88	
12		.66	.66	.83/73/78	1.38	
13		.7	.6	.66/64/65	.94	
14		1.36	1.01	.92	.89/99/94	
15		.99	.94	.77	.85/82/88	
16		2.41	1.45	1.45	.7/53/62	
17		1.14	.97	1.0/76/88	.90	
18		.73	.86	1.08/82/95	1.04	.81
19		.87	.79	1.24	1.2/1.08/1.14	
20		1.16	1.03	1.04	.98/91/94	
21		1.06	.89	.98/94/96	.78	
22		.90	.82	1.13	1.17/82/1	
23		1.44	1.01	1.31	1.06/77/92	
24		1.01	.98	.96/85/90	1.36	
25		.92	1.03	1.01/92/96	.86	
26		1.04	.91	.91/1.01/96	.68	
27		.96	.84	.75/63/69	.86	
28		.88	.85	.70/56/63	.80	
29		.84	.83	.8	.97/7/84	
30		1.17	.9	.53/46/50	1.03	
31						

8

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 6/1/17 RAW TEMP 19 RAINFALL 13

OPERATOR [Signature] OPERATOR [Signature]

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	25	↓ 20 (12)			
FLUORIDE	73/40				
PRECL2	180	↓ 165 (12)			
POSTCL2	240				

CLEAR WELL RFT/SHT 28.4 7.2 Town Mtn. 26.4 On    Off   

METERS/WEIGHTS/LEVELS			
FINISHED	54275779		PAX 83/49/180
RAW	34911674		FLUORIDE 300
SLUDGE	281753		PRE CL2 70/51/120
S B/W RET	250770		POST CL2 75/52/120

FILTERS	ON	OFF	HOURS RUN										
#1	↓	↑	↓	↑	↓	↑	↓	↑	↓	↑	↓	↑	1,125
#2	↓	↑	↓	↑	↓	↑	↓	↑	↓	↑	↓	↑	↓
#3	↓	↑	↓	↑	↓	↑	↓	↑	↓	↑	↓	↑	↓
#4	↓	↑	↓	↑	↓	↑	↓	↑	↓	↑	↓	↑	↓
#5	↓	↑	↓	↑	↓	↑	↓	↑	↓	↑	↓	↑	↓

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
2	102	10	8175	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 6-2-17 RAW TEMP 19 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE [Signature]

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	165	↓/55 (140)			
POSTCL2	240				

CLEARWELL 4.4 Town Mtn. 25.2 On Off  
 RFT/SHT 26.4 | 25

METERS/WEIGHTS/LEVELS			
FINISHED	5430	6175	PAX 153
RAW	3491	4467	FLUORIDE 224
SLUDGE	281	753	PRE CL2 108
S B/W RET	2508	89	POST CL2 101

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600		1606	655	1900								13.25
#2													
#3	↓	417	435										
#4	↓												
#5	↓			↓	↓	↓							

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
3	419	8	8/65		

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 6/3/17 RAW TEMP 20 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	155				
POSTCL2	240				

CLEAR WELL 5 Town Mtn. 24.4 On Off  
 RFT/SHT 27 | 26.2

### METERS/WEIGHTS/LEVELS

FINISHED	54339565	PAX	83 / 220
RAW	34917794	FLUORIDE	125 / 500
SLUDGE	281753	PRE CL2	68 / 150
S B/W RET	250989	POST CL2	50 / 150

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600	1400	630	1015							13.70
#2											
#3											
#4											
#5											

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 6/4/13 RAW TEMP 20 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	155				
POSTCL2	240				

CLEAR WELL 8.2 Town Mtn. 24 On Off  
 RFT/SHT 26.8 | 26

### METERS/WEIGHTS/LEVELS

FINISHED	54373580	PAX	148
RAW	34921275	FLUORIDE	390
SLUDGE	281753	PRE CL2	112
S B/W RET	251010	POST CL2	98

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600		1130		400	1930					13
#2											
#3											
#4		1105	1110								12 <sup>25</sup>
#5											13

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
4	1100	12	7740	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 6/5/17 RAW TEMP 21 RAINFALL 90

OPERATOR [Signature] OPERATOR [Signature]

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	155	↑165			
POSTCL2	240				

CLEAR WELL 2.6 (230) Town Mtn. 24.2 On Off  
 RFT/SHT 27.8 | 26

METERS/WEIGHTS/LEVELS			
FINISHED	5440	8182	PAX 80/48/185
RAW	3492	4565	FLUORIDE 290
SLUDGE	281	753	PRE CL2 80/60/140
S B/W RET	251	164	POST CL2 48/22/148

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	609		1158		353	1800	915	1945					12.5
#2													
#3													
#4													
#5	↑1145		↓		↓		↓		↓		↓		

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
5	147	8	8100	←	→

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 6-6-17 RAW TEMP 20 RAINFALL .19

OPERATOR *JK* OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	165				
POSTCL2	240				

CLEAR WELL RFT/SHT 27.8 8.0 | 27 Town Mtn. 24.2 On Off

METERS/WEIGHTS/LEVELS			
FINISHED	5444	0601	PAX 150
RAW	3492	7750	FLUORIDE 198
SLUDGE	282	375	PRE CL2 122
S B/W RET	251	345	POST CL2 122

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600	130	149	1233	430	1700	800	1900			12
#2	↓										↓
#3	↓										↓
#4	↓										↓
#5	↓		↓		↓		↓		↓		↓

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
1	133	11	<del>07150</del>	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 6-7-17 RAW TEMP 20 RAINFALL \_\_\_\_\_

OPERATOR Jm OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	165				
POSTCL2	240				

CLEAR WELL 6.4 Town Mtn. 24.6 On Off  
 RFT/SHT 26.2 | 25.4

### METERS/WEIGHTS/LEVELS

FINISHED	54472735		PAX	88/150
RAW	34930795		FLUORIDE	114/600
SLUDGE	282375		PRE CL2	87/131
S B/W RET	251536		POST CL2	78/130

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600	1	1245	1	7:40	15	7:55	1	1830	1	12.5
#2	1	1228	1	1	1	1	1	1	1	1	1
#3	1	1	1	1	1	1	1	1	1	1	1
#4	1	1	1	1	1	1	1	1	1	1	1
#5	1	1	1	1	1	1	1	1	1	1	1

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
2	231	8	8160		

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 6/8/17 RAW TEMP 20 RAINFALL \_\_\_\_\_

OPERATOR RU for Dm OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	165				
POSTCL2	240				

CLEAR WELL 5.6 Town Mtn. 24.6 On  Off   
 RFT/SHT 28 128

METERS/WEIGHTS/LEVELS			
FINISHED	54505774		PAX 85 68/220
RAW	349 33957		FLUORIDE 515
SLUDGE	282 834		PRE CL2 88 80/120
S B/W RET	251691		POST CL2 82 68/170

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	6:00		1:30		4:45	8:10					12.5
#2											↓
#3		11:45	2:15								12
#4											12.5
#5	6		17		0						↓

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
3	1:48	11	8006	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 6/9/17 RAW TEMP 19 RAINFALL .11

OPERATOR R. V. Waring OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	90				
FLUORIDE	73/40				
PRECL2	165				
POSTCL2	240				

CLEAR WELL 5.2 Town Mtn. 23.8 On Off  
 RFT/SHT 26.8 | 25.6

METERS/WEIGHTS/LEVELS			
FINISHED	54537919		PAX 171
RAW	34937053		FLUORIDE 411
SLUDGE	283112		PRE CL2 143
S B/W RET	251828		POST CL2 137
	275	225	

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600	1245	415	1	1800						125
#2											
#3											
#4			1615	645							12
#5	615	1	1	1							125

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
4	615	12	8044		

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 6-10-17 RAW TEMP 19 RAINFALL \_\_\_\_\_

OPERATOR Jm OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	165				
POSTCL2	240				

CLEAR WELL 5.0 Town Mtn. 26.4 On Off ✓  
 RFT/SHT 26 124.8

METERS/WEIGHTS/LEVELS			
FINISHED	54569848		PAX 105
RAW	34940192		FLUORIDE 327
SLUDGE	283 112		PRE CL2 107
S B/W RET	251902		POST CL2 88

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600	1300	430	1800							12.5
#2											
#3											
#4											
#5											

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 6-11-17 RAW TEMP 20 RAINFALL \_\_\_\_\_

OPERATOR Jr OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	↓ 160				
POSTCL2	240				

CLEAR WELL 4.4 Town Mtn. 26.4 On  Off   
 RFT/SHT 25.8 124

### METERS/WEIGHTS/LEVELS

FINISHED	54603414	PAX	40/160
RAW	34943350	FLUORIDE	241
SLUDGE	283 112	PRE CL2	70/120
S B/W RET	252 071	POST CL2	40/138

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600	1	520	1	640	1	755	1			12.75
#2	1	1									
#3	1	1									
#4	1	1									
#5	↓ 1335	250	↓	14							

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
5	338	9	8070	←	→

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 6/12/17 RAW TEMP 21 RAINFALL \_\_\_\_\_

OPERATOR Rej OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	160				
POSTCL2	240				

CLEAR WELL 5.3 Town Mtn. 24.6 On  Off   
 RFT/SHT 23.8 | 20.2

METERS/WEIGHTS/LEVELS			
FINISHED	54635019		PAX 95 33/220
RAW	349 46466		FLUORIDE 154 70/775
SLUDGE	283112		PRE CL2 83 48/175
S B/W RET	252 236		POST CL2 89 39/170
	115 275		

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600	530	630	910							14 <sup>25</sup>
#2											
#3											
#4											
#5	↓	↓	↓	↓							↓

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 6/13/17 RAW TEMP 22.5 RAINFALL .42

OPERATOR RW OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	160				
POSTCL2	240				

CLEAR WELL 6.6 Town Mtn. 23.6 On Off  
 RFT/SHT 23.8 | 22

METERS/WEIGHTS/LEVELS			
FINISHED	54671382		PAX 260
RAW	34950055		FLUORIDE 755
SLUDGE	283112		PRE CL2 170
S B/W RET	252316		POST CL2 165
	35	105	

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600	1930	1000	1430	600	800					12
#2											125
#3											1
#4											
#5	✓		✓		✓						0

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
1	934	10	7580	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 6-14-17 RAW TEMP 22 RAINFALL 49

OPERATOR Ja OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	26				
FLUORIDE	73/40				
PRECL2	160				
POSTCL2	240				

CLEAR WELL 4.8 Town Mtn. 24 On  Off

RFT/SHT 24.6 | 24

METERS/WEIGHTS/LEVELS					
FINISHED	54705437			PAX	140
RAW	54953240			FLUORIDE	657
SLUDGE	283112			PRE CL2	130
S B/W RET	252472			POST CL2	115

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600			1005	652	800					13.25
#2		320	335								↓
#3											↓
#4											↓
#5											↓

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
2	322	9	8050	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 8-15-17 RAW TEMP 22 RAINFALL 19

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	160				
POSTCL2	240				

CLEAR WELL 25.9 5.0 Town Mtn. 23.4 On  Off   
 RFT/SHT 25.8 | 23

METERS/WEIGHTS/LEVELS			
FINISHED	5473	9366	PAX 72/160
RAW	3495	6544	FLUORIDE 560
SLUDGE	283	112	PRE CL2 45
S B/W RET	252	612	POST CL2 65/140

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600			155	630		800						12.75
#2													
#3		415	435										
#4													
#5	↓				↓	↓							↓

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
3	418	10	5160	—————	—————

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 6/16/17 RAW TEMP 23 RAINFALL \_\_\_\_\_

OPERATOR RV worky (vac) OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20	30 805			
FLUORIDE	73/40				
PRECL2	160				
POSTCL2	270				

CLEAR WELL 4.9 Town Mtn. 26.6 On  Off   
 RFT/SHT 26.4 126

METERS/WEIGHTS/LEVELS			
FINISHED	54772112		PAX 92 80/220
RAW	349 59662		FLUORIDE 460
SLUDGE	283112		PRE CL2 5.8 51/170
S B/W RET	252 755		POST CL2 88 80/170

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600			1730									135
#2													↓
#3													↓
#4		1300	330	1730									13
#5	↓			↓									135

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
4	311	12	8121	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 6/17/12 RAW TEMP 22.5 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	30				
FLUORIDE	73/40				
PRECL2	160				
POSTCL2	240				

CLEAR WELL 4.4 Town Mtn. 25.2 On    Off     
 RFT/SHT 26.2 | 22.6

METERS/WEIGHTS/LEVELS			
FINISHED	5480	3986	PAX 135/220
RAW	3496	2708	FLUORIDE 350
SLUDGE	283	112	PRE CL2 135
S B/W RET	252	89.5	POST CL2 125

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	6/01	4/30	6/45	1/00							13.5
#2											
#3											
#4											
#5	4/14	05	4/1	4							13

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
5	4/10	14	8/50	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 6/18/17 RAW TEMP 23 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	30 <sup>695</sup> / 210				
FLUORIDE	73/40				
PRECL2	160				
POSTCL2	240				

CLEAR WELL 8 Town Mtn. 23.8 On \_\_\_ Off \_\_\_  
 RFI/SHT 26.2 | 23.6

METERS/WEIGHTS/LEVELS			
FINISHED	54836654		PAX 125 / 200
RAW	34966066		FLUORIDE 250
SLUDGE	283112		PRE CL2 96
S B/W RET	253102		POST CL2 75 / 120

FILTERS	ON	OFF	HOURS RUN								
#1	6	10	2	15	4	40	1	10			12
#2	↓	↓	↓	↓	↓	↓	↓	↓			↓
#3	↓	↓	↓	↓	↓	↓	↓	↓			↓
#4	↓	↓	↓	↓	↓	↓	↓	↓			↓
#5	↓	↓	↓	↓	↓	↓	↓	↓			↓

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
1	220	12	8255	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 6/19/17 RAW TEMP 23° RAINFALL 89

OPERATOR RJ working SP(WAC) OPERATOR JM

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	160	170			
POSTCL2	240	250			

CLEAR WELL 9 Town Mtn. 24.8 On  Off   
 RFT/SHT 25.6 | 125 1.44

### METERS/WEIGHTS/LEVELS

FINISHED	54868744	PAX	145/111/250
RAW	34969249	FLUORIDE	167/116/650
SLUDGE	283112	PRE CL2	61/42/150
S B/W RET	253248	POST CL2	80/53/150

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600	1152	412	1	1715	830	1930				
#2	1	1	1	640	655	1	1				
#3	1	1	1	1	1	1	1				
#4	1	1	1	1	1	1	1				
#5	1	1	1	1	1	1	1				

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
2	642	10	8235	←	

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 6/20/17 RAW TEMP 22° RAINFALL \_\_\_\_\_

OPERATOR DM OPERATOR *[Signature]*

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	23/40				
PRECL2	178				
POSTCL2	250				

CLEAR WELL 9.0 Town Mtn. 28.8 On Off

RFT/SHT 26.4 | 24.8

METERS/WEIGHTS/LEVELS			
FINISHED	54899902		PAX /80
RAW	34972293		FLUORIDE 600
SLUDGE	283112		PRE CL2 /30
S B/W RET	253361		POST CL2 /28

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	5:10	11:10	3:00	5:55	6:30	18:00					12.0
#2	↓	↓	↓	↓	↓	↓					
#3	↓	12:57	↓	↓	↓	↓					
#4	↓	11:10	↓	↓	↓	↓					
#5	↓	↓	↓	↓	↓	↓					

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#3	12:57	10	8282	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 6/21/17 RAW TEMP 23° RAINFALL \_\_\_\_\_

OPERATOR AM OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/10				
PRECL2	170				
POSTCL2	250				

CLEAR WELL 4.4 Town Mtn. 24.2 On  Off   
 RFT/SHT 26.0 | 22.0

METERS/WEIGHTS/LEVELS						
FINISHED	54933455			PAX	120	220
RAW	34975343			FLUORIDE	500	800
SLUDGE	283/12			PRE CL2	92	170
S B/W RET	253499			POST CL2	80	170

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	6:40	5:10	6:30	9:35							13.5
#2	↓	↓	↓	↓							↓
#3	↓	↓	↓	↓							↓
#4	↓	14:55	↓	↓							↓
#5	↓	15:10	↓	↓							↓

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#4	4:57	12	8101	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 6/22/17 RAW TEMP 24° RAINEALL 15

OPERATOR Dm OPERATOR [Signature]

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	178				
POSTCL2	250				

CLEAR WELL 8.6 Town Mtn. 25.8 On Off  
 RFT/SHT 27.2 | 24.8

METERS/WEIGHTS/LEVELS			
FINISHED	5496	5830	PAX 158
RAW	3497	8761	FLUORIDE 690
SLUDGE	2831	12	PRE CL2 121
S B/W RET	2536	58	POST CL2 119

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	6:01	Plat	3:34	1:02	6:55	1:00							
#2													
#3													
#4													
#5													

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 6-23-17 RAW TEMP 24 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	170				
POSTCL2	1255				

CLEAR WELL 5.4 Town Mtn. 24.8 On  Off   
 RFT/SHT 26.4 | 25.8

METERS/WEIGHTS/LEVELS			
FINISHED	54996031		PAX 103/150
RAW	34981671		FLUORIDE 600
SLUDGE	283112		PRE CL2 88/120
S B/W RET	253735		POST CL2 71/120

FILTERS	ON		OFF		ON		OFF		ON		OFF		HOURS RUN
	1	2	1	2	1	2	1	2	1	2	1	2	
#1	600			500	605			800					13
#2													
#3													
#4													
#5	↓	1255	315	↓	↓	↓	↓	↓					12 <sup>75</sup>

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
5	259	10	8035	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 6/24/17 RAW TEMP 25° RAINFALL .52

OPERATOR DM OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	180				
POSTCL2	255				

CLEAR WELL 6.6 Town Mtn. 24.6 On  Off   
 RFT/SHT 28.4 | 27.4

### METERS/WEIGHTS/LEVELS

FINISHED	55027582	PAX	90 / 220
RAW	34984850	FLUORIDE	500
SLUDGE	283112	PRE CL2	80 / 175
S B/W RET	253895	POST CL2	64 / 175

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	5:05	12:25	1:00	2:00	4:15	7:00	8:30	10:00			13.25
#2											
#3											
#4											
#5											

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#1	12:27	20	8303		

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 6/25/17 RAW TEMP 24° RAINFALL \_\_\_\_\_

OPERATOR DM OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	180				
POSTCL2	255				

CLEAR WELL RFT/SHT 27.2 | 24.8 Town Mtn. 26.2 On  Off \_\_\_\_\_

### METERS/WEIGHTS/LEVELS

FINISHED	55057873		PAX	160
RAW	34988077		FLUORIDE	400
SLUDGE	283112		PRE CL2	131
S B/W RET	254092		POST CL2	120

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	5:05		11:00		3:00	4:30	6:00	9:00			12.5
#2	12:05	12:30									
#3											
#4											
#5											

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#2	12:07	10	8170	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 6/26/17 RAW TEMP 24 RAINFALL \_\_\_\_\_

OPERATOR Dm OPERATOR rv for JM

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	180				
POSTCL2	255				

CLEAR WELL RFT/SHT 27.8 | 25.6 Town Mtn. 26.6 On  Off

METERS/WEIGHTS/LEVELS			
FINISHED	55089740		PAX 110 56/220
RAW	34991184		FLUORIDE 300
SLUDGE	283112		PRE CL2 92 52/175
S B/W RET	254208		POST CL2 70 20/175

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	6:09		1630	700	1800						135
#2											6
#3 <sup>935</sup>		1315	3451								13
#4											125
#5	↓		↓	↓	↓						↓

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
#3	9:34	10	8089	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 6/27/17 RAW TEMP 24 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	180				
POSTCL2	255				

CLEAR WELL 4.8 Town Mtn. 25.2 On Off  
 RFT/SHT 26.2 | 24

METERS/WEIGHTS/LEVELS			
FINISHED	55121980		PAX 210
RAW	34994307		FLUORIDE 200
SLUDGE	283112		PRE CL2 165
S B/W RET	254326		POST CL2 170

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600	630	800	1000							14.5
#2											
#3											
#4		1615									
#5	1630										

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
4	618	9	8170	—	—

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 6/28/17 RAW TEMP 23 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	180				
POSTCL2	255				

CLEAR WELL 66 Town Mtn. 26.2 On Off  
 RFT/SHT 28.4 | 26.8

METERS/WEIGHTS/LEVELS			
FINISHED	55156936		PAX 150   220
RAW	34997897		FLUORIDE 100   1600
SLUDGE	283112		PRE CL2 110
S B/W RET	254440		POST CL2 105

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	629320	530	855								12.5
#2											
#3											
#4											
#5	↓	1250	↓	↓							

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
5	255	10	8165		

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 6/29/17 RAW TEMP 24 RAINFALL \_\_\_\_\_

OPERATOR [Signature] OPERATOR RU for Jim (vac)

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	180				
POSTCL2	255				

CLEAR WELL 6.4 Town Mtn. 24.8 On Off  
 RFT/SHT 26.2 | 24.6

METERS/WEIGHTS/LEVELS			
FINISHED	55187814		PAX 165 / 225
RAW	35000980		FLUORIDE 525
SLUDGE	283112		PRE CL2 80 / 175
S B/W RET	254623		POST CL2 55 / 175
	115	175	

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	609	530	630	815							15 <sup>25</sup>
#2											
#3											
#4											
#5											

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM

COMMENTS:

# PIKEVILLE WATER TREATMENT PLANT LOG

DATE 6/30/17 RAW TEMP 25 RAINFALL \_\_\_\_\_

OPERATOR RW for Jim (VAE) OPERATOR \_\_\_\_\_

FLOW RATE \_\_\_\_\_

CHEMICAL	FEED RATE AT START	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	FEED RATE TIME CHANGE	PPM
PAC	20				
FLUORIDE	73/40				
PRECL2	180				
POSTCL2	255				

CLEAR WELL 5.3 Town Mtn. 26 On Off  
 RFT/SHT 27 | 25.6

### METERS/WEIGHTS/LEVELS

FINISHED	552 20968	PAX	170
RAW	35004224	FLUORIDE	422
SLUDGE	283112	PRE CL2	133
S B/W RET	254704	POST CL2	120

FILTERS	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	HOURS RUN
#1	600	1200	700	1215	600	1200	230	615	700	815	13
#2		1615									135
#3											
#4											
#5											

FILTER #	TIME	B/W RUN	BW GPM	SSW RUN	SSW GPM
1	203	11	7905	—	—

COMMENTS:





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**SAMPLE SUMMARY**

Lab ID	Client Sample ID/Alias	Matrix	Date Collected	Date Received	Sampled By
7061791-01	BACT/	Drinking Water	06/07/2017 12:29	06/07/2017 13:50	Ralph Varney
7061791-02	BACT/	Drinking Water	06/07/2017 12:46	06/07/2017 13:50	Ralph Varney
7061791-03	BACT/	Drinking Water	06/07/2017 12:53	06/07/2017 13:50	Ralph Varney
7061791-04	BACT/	Drinking Water	06/07/2017 13:02	06/07/2017 13:50	Ralph Varney
7061791-05	BACT/	Drinking Water	06/07/2017 13:11	06/07/2017 13:50	Ralph Varney

<u>LabNumber</u>	<u>Measurement</u>	<u>Value</u>
7061791-01	Field Residual Chlorine	1.09
7061791-02	Field Residual Chlorine	1.13
7061791-03	Field Residual Chlorine	1.50
7061791-04	Field Residual Chlorine	1.38
7061791-05	Field Residual Chlorine	1.40



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**ANALYTICAL RESULTS**

Lab Sample ID: **7061791-01**  
Description: **BACT**

Sample Collection Date Time: 06/07/2017 12:29  
Sample Received Date Time: 06/07/2017 13:50

Matrix: Drinking Water

Discharge/Site No: 111

Regulatory ID: KY0980350

**Microbiological Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Colliert 24	06/07/2017 17:05	06/08/2017 17:06	SNB

**ANALYTICAL RESULTS**

Lab Sample ID: **7061791-02**  
Description: **BACT**

Sample Collection Date Time: 06/07/2017 12:46  
Sample Received Date Time: 06/07/2017 13:50

Matrix: Drinking Water

Discharge/Site No: 030

Regulatory ID: KY0980350

**Microbiological Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Colliert 24	06/07/2017 17:05	06/08/2017 17:06	SNB

**ANALYTICAL RESULTS**

Lab Sample ID: **7061791-03**  
Description: **BACT**

Sample Collection Date Time: 06/07/2017 12:53  
Sample Received Date Time: 06/07/2017 13:50

Matrix: Drinking Water

Discharge/Site No: 009

Regulatory ID: KY0980350

**Microbiological Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Colliert 24	06/07/2017 17:05	06/08/2017 17:06	SNB



**ANALYTICAL RESULTS**

Lab Sample ID: **7061791-04**  
Description: **BACT**

Sample Collection Date Time: 06/07/2017 13:02  
Sample Received Date Time: 06/07/2017 13:50

Matrix: Drinking Water

Discharge/Site No: 110

Regulatory ID: KY0980350

**Microbiological Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Collert 24	06/07/2017 17:05	06/08/2017 17:06	SNB

**ANALYTICAL RESULTS**

Lab Sample ID: **7061791-05**  
Description: **BACT**

Sample Collection Date Time: 06/07/2017 13:11  
Sample Received Date Time: 06/07/2017 13:50

Matrix: Drinking Water

Discharge/Site No: 040

Regulatory ID: KY0980350

**Microbiological Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Collert 24	06/07/2017 17:05	06/08/2017 17:06	SNB

**Notes for work order 7061791**

- Samples collected by MMLI personnel are done so in accordance with procedures set forth in MMLI field services SOPs.
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identification based on the presumptive evidence of the mass spectra.

**Standard Qualifiers/Acronyms**

- MDL      Method Detection Limit
- MRL      Minimum Reporting Limit
- ND      Not Detected
- LCS      Laboratory Control Sample
- MS      Matrix Spike
- MSD      Matrix Spike Duplicate
- DUP      Sample Duplicate
- % Rec      Percent Recovery
- RPD      Relative Percent Difference
- >      Greater than
- <      Less than



**SAMPLE SUMMARY**

Lab ID	Client Sample ID/Alias	Matrix	Date Collected	Date Received	Sampled By
7061792-01	Fluoride/	Drinking Water	06/07/2017 10:51	06/07/2017 13:50	Ralph Varney
<u>LabNumber</u>	<u>Measurement</u>	<u>Value</u>			
7061792-01	Field Fluoride	0.69			

**ANALYTICAL RESULTS**

Lab Sample ID: **7061792-01**  
Description: **Fluoride**

Sample Collection Date Time: 06/07/2017 10:51  
Sample Received Date Time: 06/07/2017 13:50

Matrix: Drinking Water

Discharge/Site No: P01

Regulatory ID: KY0980350

**Conventional Chemistry Analyses Madisonville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Fluoride	0.71		mg/L	0.20		4500-F C-1997	06/14/2017 07:54	06/14/2017 07:54	JTL

**Notes for work order 7061792**

- Samples collected by MMLI personnel are done so in accordance with procedures set forth in MMLI field services SOPs.
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identification based on the presumptive evidence of the mass spectra.

U Target analyte was analyzed for, but was below detection limit (the value associated with the qualifier is the laboratory method detection limit in our LIMS system).

**Standard Qualifiers/Acronyms**

- MDL Method Detection Limit
- MRL Minimum Reporting Limit
- ND Not Detected
- LCS Laboratory Control Sample
- MS Matrix Spike
- MSD Matrix Spike Duplicate
- DUP Sample Duplicate
- % Rec Percent Recovery
- RPD Relative Percent Difference
- > Greater than
- < Less than

**Certified Analyses Included in this Report**

Analyte	Certifications
<b>4500-F C-1997 in Water</b>	
Fluoride	KY Drinking Water Mdv (00030) VA NELAC Mdv (460210) IN Drinking Water Mdv (C-KY-02) IL Drinking Water Mdv (200079)

FIELD CHAIN OF CUSTODY RECORD

FIELD MONITORING PROGRAM

SAMPLERS (SIGNATURES)

*[Handwritten Signature]*

FACILITY	SAMPLE SOURCE	COMPOSITING PERIOD				SAMPLE COLLECTION			FLOW	CONTAINER		Volatile Organics	Pesticides/PCB's	Trace Metals	Cyanide	Phenols	Oil and Grease	Solids	BOD	Ammonia Nitrogen	Phosphorous	Coliform	pH	Preservation	COMMENTS	
		DATE	TIME	DATE	TIME	DATE	TIME	G/C	MGD	VOLUME	G/P															
Pikeview WTP	115					6/21/17	1228	G			P													Fals - 650		
	118					"	1243	"			S															
	120					"	1300	"			"															
	028					"	1316	"			"															
	033					"	1327	"			"															
	20C	WTP CYCLONE					"	1425	"			P														JSS
	20C	WTP PUMP					"	1427	"			"														JSS
CYC	PH	14:34	20°																							
Pump	PH	1436	20°																							
RELINQUISHED BY		DATE	TIME	RECEIVED BY		DATE	TIME	RECEIVED BY		DATE	TIME	RECEIVED BY		DATE	TIME	RECEIVED BY		DATE	TIME	RECEIVED BY						
<i>[Signature]</i>		6/21/17	1431	<i>[Signature]</i>																						

REMARKS: transported with ice 6/21/17

002183



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### SAMPLE SUMMARY

Lab ID	Client Sample ID/Alias	Matrix	Date Collected	Date Received	Sampled By
7063086-01	BACT/	Drinking Water	06/21/2017 12:29	06/21/2017 14:45	Ralph Varney
7063086-02	BACT/	Drinking Water	06/21/2017 12:43	06/21/2017 14:45	Ralph Varney
7063086-03	BACT/	Drinking Water	06/21/2017 13:00	06/21/2017 14:45	Ralph Varney
7063086-04	BACT/	Drinking Water	06/21/2017 13:16	06/21/2017 14:45	Ralph Varney
7063086-05	BACT/	Drinking Water	06/21/2017 13:27	06/21/2017 14:45	Ralph Varney

<u>LabNumber</u>	<u>Measurement</u>	<u>Value</u>
7063086-01	Field Residual Chlorine	0.73
7063086-02	Field Residual Chlorine	1.17
7063086-03	Field Residual Chlorine	1.04
7063086-04	Field Residual Chlorine	1.21
7063086-05	Field Residual Chlorine	1.33



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**ANALYTICAL RESULTS**

Lab Sample ID: **7063086-01**  
Description: **BACT**

Sample Collection Date Time: 06/21/2017 12:29  
Sample Received Date Time: 06/21/2017 14:45

Matrix: Drinking Water

Discharge/Site No: 115

Regulatory ID: KY0980350

**Microbiological Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Colliert 24	06/21/2017 16:25	06/22/2017 17:02	ADH

**ANALYTICAL RESULTS**

Lab Sample ID: **7063086-02**  
Description: **BACT**

Sample Collection Date Time: 06/21/2017 12:43  
Sample Received Date Time: 06/21/2017 14:45

Matrix: Drinking Water

Discharge/Site No: 118

Regulatory ID: KY0980350

**Microbiological Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Colliert 24	06/21/2017 16:25	06/22/2017 17:02	ADH

**ANALYTICAL RESULTS**

Lab Sample ID: **7063086-03**  
Description: **BACT**

Sample Collection Date Time: 06/21/2017 13:00  
Sample Received Date Time: 06/21/2017 14:45

Matrix: Drinking Water

Discharge/Site No: 120

Regulatory ID: KY0980350

**Microbiological Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Colliert 24	06/21/2017 16:25	06/22/2017 17:02	ADH



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**ANALYTICAL RESULTS**

Lab Sample ID: **7063086-04**  
Description: **BACT**

Sample Collection Date Time: 06/21/2017 13:16  
Sample Received Date Time: 06/21/2017 14:45

Matrix: Drinking Water

Discharge/Site No: 028

Regulatory ID: KY0980350

**Microbiological Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Colliert 24	06/21/2017 16:25	06/22/2017 17:02	ADH

**ANALYTICAL RESULTS**

Lab Sample ID: **7063086-05**  
Description: **BACT**

Sample Collection Date Time: 06/21/2017 13:27  
Sample Received Date Time: 06/21/2017 14:45

Matrix: Drinking Water

Discharge/Site No: 033

Regulatory ID: KY0980350

**Microbiological Analyses Pikeville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Total Coliform	Absent		Present/Absent	1.00		SM9223 Colliert 24	06/21/2017 16:25	06/22/2017 17:02	ADH

**Notes for work order 7063086**

- Samples collected by MMLI personnel are done so in accordance with procedures set forth in MMLI field services SOPs.
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identification based on the presumptive evidence of the mass spectra.

**Standard Qualifiers/Acronyms**

MDL	Method Detection Limit
MRL	Minimum Reporting Limit
ND	Not Detected
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
% Rec	Percent Recovery
RPD	Relative Percent Difference
>	Greater than
<	Less than



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**SAMPLE SUMMARY**

Lab ID	Client Sample ID/Alias	Matrix	Date Collected	Date Received	Sampled By
7063087-01	Fluoride/	Drinking Water	06/21/2017 12:29	06/21/2017 14:31	Ralph Varney
<u>LabNumber</u>	<u>Measurement</u>	<u>Value</u>			
7063087-01	Field Fluoride	0.68			

**ANALYTICAL RESULTS**

Lab Sample ID: **7063087-01**  
Description: **Fluoride**

Sample Collection Date Time: 06/21/2017 12:29  
Sample Received Date Time: 06/21/2017 14:31

Matrix: Drinking Water

Discharge/Site No: 115

Regulatory ID: KY0980350

**Conventional Chemistry Analyses Madisonville**

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Fluoride	0.74		mg/L	0.20		4500-F C-1997	06/26/2017 09:09	06/26/2017 09:09	JTL

**Notes for work order 7063087**

- Samples collected by MMLI personnel are done so in accordance with procedures set forth in MMLI field services SOPs.
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identification based on the presumptive evidence of the mass spectra.

U Target analyte was analyzed for, but was below detection limit (the value associated with the qualifier is the laboratory method detection limit in our LIMS system).

**Standard Qualifiers/Acronyms**

MDL	Method Detection Limit
MRL	Minimum Reporting Limit
ND	Not Detected
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
% Rec	Percent Recovery
RPD	Relative Percent Difference
>	Greater than
<	Less than

**Certified Analyses included in this Report**

Analyte	Certifications
<b>4500-F C-1997 in Water</b>	
Fluoride	KY Drinking Water Mdv (00030) VA NELAC Mdv (460210) IN Drinking Water Mdv (C-KY-02) IL Drinking Water Mdv (200079)

**KENTUCKY DIVISION OF WATER / DRINKING WATER BRANCH  
DISINFECTION BYPRODUCT PRECURSOR ANALYSIS REPORT FORM**

SAMPLE CATEGORY = TOC

**This Section To Be Completed By Collector**

PWS ID	<u>KY0980350</u>	Plant ID	<u>A</u>	Plant Name	<u>INTAKE - LEVISA FORK/BIG SANDY RIVE</u>	Location Code	<u>R01</u>
PWS Name	<u>Pikeville Water Department</u>			PWS Contact	<u>Ralph Varney</u>		
PWS Address	<u>306 Island Creek Road, Pikeville, KY 41501</u>			PWS Phone	<u>(606) 437-5123</u>		
Sample Date (MMDDYYYY)	<u>06/07/2017</u>	Time	<u>13:23</u>	Sample Type	<u>RT</u>	Collector Name	<u>Ralph Varney</u>
				RT = Routine (For Compliance) SP = Special (Not for Compliance)			

**This Section to Be Completed By Lab**

Lab ID	<u>00030</u>	Lab Sample Number	<u>7061793-01</u>	Lab Phone	<u>(270) 821-7375</u>
Lab Analyst	<u>Tracy Benton</u>	Signature/Date	<u>06/13/2017 11:12</u>	Lab Supervisor	<u><i>Cherie Bragato</i></u>
					<u>06/20/2017</u>

Analyte Code	Analyte Name	Analysis Method Code	<	Result (mg/L)	Analysis Date
				-or- Lab Minimum Reporting Limit (mg/L)	
1927	Alkalinity, Total (as CaCO3)	849		92	06132017
2920	Total Organic Carbon	839		1.6	06142017

The signatories of this form certify by their signature that collection and analysis of the water sample analyzed and the resulting data hereby submitted, were completed in accordance with the provisions of 401 KAR Chapter 8; and that the data submitted on this form is a true and accurate report of the results of collection and analysis performed pursuant to the above-referenced regulations. Violations of 401 KAR Chapter 8 are subject to severe penalties prescribed in KRS 224.99-010, up to \$25,000 fine per day per violation and in some cases a violation may subject a violator to prison.

**KENTUCKY DIVISION OF WATER / DRINKING WATER BRANCH  
DISINFECTION BYPRODUCT PRECURSOR ANALYSIS REPORT FORM**

SAMPLE CATEGORY: TOC

**This Section To Be Completed By Collector**

PWS ID	<u>KY0980350</u>	Plant ID	<u>A</u>	Plant Name	<u>PIKEVILLE WTP</u>	Location Code	<u>CF1</u>
PWS Name	<u>Pikeville Water Department</u>			PWS Contact	<u>Ralph Varney</u>		
PWS Address	<u>306 Island Creek Road, Pikeville, KY 41501</u>			PWS Phone	<u>(606) 437-5123</u>		
Sample Date (MMDDYYYY)	<u>06/07/2017</u>	Time	<u>13:31</u>	Sample Type	<u>RT</u>	Collector Name	<u>Ralph Varney</u>
				RT = Routine (For Compliance) SP = Special (Not for Compliance)			

**This Section to Be Completed By Lab**

Lab ID	<u>00030</u>	Lab Sample Number	<u>7061793-02</u>	Lab Phone	<u>(270) 821-7375</u>
Lab Analyst	<u>Tracy Benton</u>	<u>06/14/2017 17:53</u>	Lab Supervisor	<u><i>Rubie Fugate Jr</i></u>	<u>06/20/2017</u>
		Signature/Date			

Analyte Code	Analyte Name	Analysis Method Code	Result (mg/L) -or- Lab Minimum Reporting Limit (mg/L)	Analysis Date
2920	Total Organic Carbon	839	1.8	06142017

The signatories of this form certify by their signature that collection and analysis of the water sample analyzed and the resulting data hereby submitted, were completed in accordance with the provisions of 401 KAR Chapter 8; and that the data submitted on this form is a true and accurate report of the results of collection and analysis performed pursuant to the above-referenced regulations. Violations of 401 KAR Chapter 8 are subject to severe penalties prescribed in KRS 224.99-010, up to \$25,000 fine per day per violation and in some cases a violation may subject a violator to prison.

**CASE NO. 2019-00080**  
**CITY OF PIKEVILLE WHOLESALE WATER SERVICE RATES**  
**RESPONSES TO COMMISSION STAFF'S SECOND REQUEST FOR INFORMATION**

24. Provide a profit and loss statement that includes all revenue and expense accounts of UMG attributable to work performed for Pikeville. All entries to these accounts to record allocation of UMG common costs shall be clearly marked and explained. All accounts should be referenced to the books of original entry referred to above.

Response: The City of Pikeville objects to this request, as UMG's profit and loss is not relevant to the determination of whether Pikeville's expenses are reasonable. Notwithstanding this objection, Pikeville requested that UMG provide this information and UMG declined to provide a profit and loss statement. Please see the attached letter and information provided by UMG related to UMG's breakdown of costs related to Pikeville's water system.

WITNESS: Legal; Grondall Potter; Philip Elswick

**CASE No. 2019-00080**  
**CITY OF PIKEVILLE WHOLESALE WATER SERVICE RATES**  
**RESPONSES TO COMMISSION STAFF'S SECOND REQUEST FOR INFORMATION**

# Letter from UMG



July 12, 2019

Re: UMG Cost of Operations for Waterplant and Distribution

Dear Phillip Elswick

UMG will supply the City the cost that UMG incurs with the operation and maintenance of Pikeville's water treatment plant and water distribution system. It will include the cost of labor, fringe benefits, chemicals, fuel etc. It will also include the allocated cost of the overhead with company profit margin.

UMG will not supply any information concerning the company's balance sheet or cost of any other service that we supply to the city or names of employees.

We are a private company and supplying the necessary information to determine the cost of operating and maintaining the water plant and distribution system will be made available.

Sincerely,

A handwritten signature in black ink that reads "Greg May". The signature is written in a cursive style with a long, sweeping underline.

Greg May  
Chief Operating Officer

**CASE NO. 2019-00080**  
**CITY OF PIKEVILLE WHOLESALE WATER SERVICE RATES**  
**RESPONSES TO COMMISSION STAFF'S SECOND REQUEST FOR INFORMATION**

<b>Breakdown of UMG costs for Pikeville Water Service</b>						
<b>PSC 2-24, 2-25, 2-26, 2-27; MWD 1-52, 1-53</b>						
Labor	\$ 825,635	including fringes				
Fuel	\$ 39,200	including plant, meter readers and distribution				
Telephone	\$ 4,929					
Uniforms	\$ 2,400					
Safety	\$ 15,000	include PPE and signs etc.				
Tools	\$ 25,000	hand tools and speciality tools				
Chemicals	\$ 86,000	for plant and some additional pump sites				
Vehicles	\$ 48,220	for UMG vehicles				
Office Supplies	\$ 5,500					
Insurance	\$ 61,000	includes vehicle and liability				
Overhead	\$ 68,000	includes office staff, training and some lab				
Repairs	\$ 65,000	equipment and vehicle repairs				
Out of Scope	\$ 175,000	equipment rental or other contracted work				
Profit	\$ 250,000					
	\$ 1,670,884					

**CASE NO. 2019-00080**  
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**RESPONSES TO COMMISSION STAFF'S SECOND REQUEST FOR INFORMATION**

25. Provide a schedule that lists all employees that were on UMG's payroll that were involved in the operation, maintenance, and management of Pikeville during the FYE June 30, 2017. For each employee listed provide:

- a. A form of employee identification;
- b. Employee position title;
- c. A brief description of each employees duties;
- d. The length of employment with UMG;
- e. The FYE June 30, 2017 salary or wage rate;
- f. The FYE June 30, 2017 regular hours and overtime hours worked;
- g. The percentage of the FYE June 30, 2017 salary that was reported in a capital project;
- h. The FYE June 30, 2018 salary or wage rate; and
- i. The total employee salary paid in FYE June 30, 2017,

Response: The City of Pikeville objects to this request, as UMG's expenses are not relevant to the determination of whether Pikeville's expenses are reasonable. Notwithstanding this objection, Pikeville requested that UMG provide this information and UMG provided the information attached to Pikeville's response to Item 24 above.

WITNESS: Philip Elswick; Grondall Potter

**CASE NO. 2019-00080**  
**CITY OF PIKEVILLE WHOLESALE WATER SERVICE RATES**  
**RESPONSES TO COMMISSION STAFF'S SECOND REQUEST FOR INFORMATION**

26. State whether UMG employees use direct time reporting to separate the actual hours worked between Pikeville's water division and sewer division,

a. If direct time reporting is used, separate for each employee the regular and overtime hours reported in the response to item 25(f) between the two divisions.

b. If direct time reporting is not used, provide an estimate for the division between the two divisions the regular and overtime hours reported in the response to Item 25(f) for each employee and explain how UMG derived the estimate(s).

Response: The City of Pikeville objects to this request, as UMG's expenses are not relevant to the determination of whether Pikeville's expenses are reasonable. Notwithstanding this objection, Pikeville requested that UMG provide this information and UMG provided the information attached to Pikeville's response to Item 24 above.

WITNESS: Philip Elswick; Grondall Potter

**CASE NO. 2019-00080**  
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27. For each UMG employee listed in Item 25 provide the following employee benefit information. Provide the requested tables in an Excel spreadsheet format with all columns and rows unprotected and accessible:

- a. Health Benefit cost for each employee:
  - (1) Amount paid by UMG;
  - (2) Amount paid by each individual employee.
  
- b. Dental Benefits cost for each employee:
  - (1) Amount paid by UMG;
  - (2) Amount paid by each individual employee.
  
- c. Vision Benefits cost for each employee:
  - (1) Amount paid by UMG;
  - (2) Amount paid by each individual employee.
  
- d. Life Insurance cost for each employee:
  - (1) Amount paid by UMG;
  - (2) Amount paid by each individual employee.
  
- e. Accidental Death and Disability Benefits for each employee:

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- (1) Amount paid by UMG;
  - (2) Amount paid by each individual employee.
- f. 401 (K) Plan cost for each employee:
- (1) Amount paid by UMG;
  - (2) Amount paid by each individual employee.
- g. Defined Benefit Retirement cost for each employee:
- (1) Amount paid by UMG;
  - (2) Amount paid by each individual employee.
- h. Cost of any other benefit available to an employee (specify),

Response: The City of Pikeville objects to this request, as UMG's expenses are not relevant to the determination of whether Pikeville's expenses are reasonable. Notwithstanding this objection, Pikeville requested that UMG provide this information and UMG provided the information attached to Pikeville's response to Item 24 above.

WITNESSES: Philip Elswick; Grondall Potter

**CASE NO. 2019-00080**  
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**RESPONSES TO COMMISSION STAFF'S SECOND REQUEST FOR INFORMATION**

28. Provide the information requested in Items 25 and 27 for the two Pikeville employees.

Response: Please see the attached Excel spreadsheet, a portion of which is being filed with a Petition for Confidentiality.

WITNESS: Tonya Taylor

**CASE NO. 2019-00080**  
**CITY OF PIKEVILLE WHOLESALE WATER SERVICE RATES**  
**RESPONSES TO COMMISSION STAFF'S SECOND REQUEST FOR INFORMATION**

29. Refer to Pikeville's responses to the Commission's June 10, 2019 Order, Item 10, Inside Water Adjusted Trial Balance for Fiscal Years Ending (FYE) June 30, 2017, and June 30, 2018. For each expense listed below, explain how Pikeville allocated the expense between the separate utility division (Water, Sewer, Gas, and Garbage Collection).

a.	Gasoline	\$ 144,173.71
b.	Bank Charges-Water Revenue	\$ 3,889.81
c.	Dues	\$ 850.00
d.	Freight/Postage	\$ 1,349.44
e.	Office Supplies	\$ 2,488.80
f.	Purchase Software	\$ 1,844.52
g.	Repairs/Maintenance	\$ 139,076.81
h.	Repairs and Maintenance Plant	\$ 30,632.00
i.	Telephone/Public Works	\$ 8,205.92
j.	Electric	\$ 299,596.48
k.	City Utilities	\$ 4,445.42
l.	Workers Comp	\$ 285.75
m.	Salaries & Wages	\$ 21,293.81
n.	Payroll Tax	\$ 1,628.99
o.	Employee Benefit Insurance	\$ 7,566.81
p.	Pension Matching	\$ 8,718.74
q.	Unemployment Tax	\$ 126.98

Response:

- a. No allocation, billed to UMG and reflected in water special revenue 210.10.451.00.
- b. Allocated based upon payments collected in utility department. Each is charged the corresponding percentage of the payments collected for fund.
- c. Dues for KY Rural Water are allocated equally between inside and outside water.
- d. Allocated equally between all utility funds.

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- e. Allocated equally between all utility funds.
- f. Allocated to utilities based upon type of module and then equally between all utility funds.
- g. No allocation, inside water repairs/maintenance only.
- h. Allocated between inside and outside water based upon consumption.
- i. No allocation, billed to UMG and reflected in water special revenue 210.10.451.00.
- j. Electric for plant is allocated based upon consumption, all other electric is inside water.
- k. City utilities for plant is allocated based upon consumption, all other is inside water.
- l. Allocated based upon budgeted wages for each fund.
- m. Allocated monthly based upon percentage of revenues billed for each utility fund.
- n. Allocated monthly based upon percentage of revenues billed for each utility fund.
- o. Allocated monthly based upon percentage of revenues billed for each utility fund.
- p. Allocated monthly based upon percentage of revenues billed for each utility fund.
- q. Allocated based upon wages for each fund.

WITNESS: Tonya Taylor

**CASE NO. 2019-00080**  
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**RESPONSES TO COMMISSION STAFF'S SECOND REQUEST FOR INFORMATION**

30. Refer to Pikeville's responses to the Commission's June 10, 2019 Order, Item 10, Inside Water Adjusted Trial Balance for Fiscal Years Ending (FYE) June 30, 2017, and June 30, 2018. For each insurance expense account listed below, list each item included in the account total. Describe how each item contained in this expense was allocated between the separate utility division (Water, Sewer, Gas, and Garbage Collection). This description should identify each factor used to make the allocations and an explanation of how each factor was derived.

a.	Insurance Vehicle	\$2,443.03
b.	Insurance General Liability	\$26,436.47
c.	Insurance Other	\$254.50

Response:

- a. Kentucky League of Cities-insurance for 3 vehicles used for inside water only. No allocation, inside water only, \$909.17, \$894.65, \$639.23
- b. Kentucky League of Cities-general liability insurance and property insurance. General liability is allocated based percentage of budgeted revenues by fund including general fund, 10.51% of total revenues for inside water, \$6,011.52 inside water.

Public Works building property insurance is allocated equally between landscape, streets, parks, general, gas, inside water, outside water, garbage, inside sewer and outside sewer, \$175.72 each.

Property insurance for water treatment plant is allocated based upon consumption between inside water 75.16% and outside water, \$6,580.44 inside water.

All other property insurance for inside water assets \$13,668.79.

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- c. CNA Surety-KY Highway encroachment bond has no separate allocation.

WITNESS: Tonya Taylor

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31. Refer to Pikeville's responses to the Commission's June 10, 2019 Order, Item 10, Inside Water Adjusted Trial Balance for Fiscal Years Ending (FYE) June 30, 2017 and June 30, 2018.

- a. Describe the nature of the expenses labeled "Repairs/Maintenance."
- b. Describe the nature of the expenses labeled "Repairs and Maintenance Plant."
- c. Explain how the two maintenance expense accounts were allocated between the separate utility division (Water, Sewer, Gas, and Garbage Collection). This description should identify each factor used to make the allocations and an explanation of how each factor was derived.
- d. Explain the difference between the two maintenance expense accounts.

Response:

- a. Repairs and maintenance account 210.10.630.00, is for non-capitalized repairs/purchases to the inside water system. It includes items such as repairs to meters, maintenance to water tanks, etc.
- b. Repairs and maintenance plant , account 210.10.630.09,is for non-capitalized repairs/purchases to the water treatment plant.
- c. Nothing is allocated from repairs and maintenance account, 210.10.630.00. It is for inside water items only. Account 210.10.630.09, repairs and maintenance plant, is allocated between inside and outside water based upon consumption.

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d. Repairs and maintenance, 210.10.630.00, is for inside water system only excluding any plant cost. Repairs and maintenance plant, 210.10.630.09, is expenses related to the water treatment plant only.

WITNESS: Tonya Taylor

**CASE NO. 2019-00080**  
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32. Refer to Pikeville's responses to the Commission's June 10, 2019 Order, Item 10, Inside Water Adjusted Trial Balance for Fiscal Years Ending (FYE) June 30, 2017 and June 30, 2018. Provide an analysis for bad debt expense of \$1,158.

Response: Bad debt expense is an allowance for doubtful entry based upon water accounts receivable balance.

WITNESS: Tonya Taylor

**CASE NO. 2019-00080**  
**CITY OF PIKEVILLE WHOLESALE WATER SERVICE RATES**  
**RESPONSES TO COMMISSION STAFF'S SECOND REQUEST FOR INFORMATION**

33. Refer to Pikeville's responses to the Commission's June 10, 2019 Order, Item 1, FY 2017 Audit, page 50, Note J - Retirement Plan. Pikeville's employees are participants of the County Employee Retirement System (CERS). Provide the total amount Pikeville actually contributed to the CERS in FYE June 30, 2017, and the amount of the contribution that was allocated to its water division. Explain how Pikeville's CERS contribution was allocated to the water division.

Response: City of Pikeville contributed a total of \$891,592 for hazardous and non-hazardous CERS retirement. \$3,632.26 was allocated to inside water. The retirement expense for the two employees allocated to utilities was allocated monthly based upon percentage of revenue of water revenue to total of all revenue for gas, inside water, outside water, inside sewer, outside sewer and garbage.

WITNESS: Tonya Taylor

**CASE NO. 2019-00080**  
**CITY OF PIKEVILLE WHOLESALE WATER SERVICE RATES**  
**RESPONSES TO COMMISSION STAFF'S SECOND REQUEST FOR INFORMATION**

34. Provide the following information concerning the costs for the preparation of this case:

- a. A detailed schedule of expenses incurred to date for the following categories:
  - (1) Accounting;
  - (2) Engineering;
  - (3) Legal;
  - (4) Consultants; and
  - (5) Other Expenses (Identify separately).

For each category, the schedule should include the date of each transaction, check number or other document references, the vendor, the hours worked, the rates per hour, amount, a description of the services performed, and the account number in which the expenditure was recorded. Provide copies of contracts or other documentation that support charges incurred in the preparation of this case. Identify any costs incurred for this case that occurred during the base period.

b. An itemized estimate of the total cost to be incurred for this case. Expenses should be broken down into the same categories as identified in (a) above, with an estimate of the hours to be worked and the rates per hour. Include a detailed explanation of how the estimate was determined, along with all supporting workpapers and calculations.

**CASE NO. 2019-00080**  
**CITY OF PIKEVILLE WHOLESALE WATER SERVICE RATES**  
**RESPONSES TO COMMISSION STAFF'S SECOND REQUEST FOR INFORMATION**

c. Provide monthly updates of the actual costs incurred in conjunction with this rate case, reported in the manner requested in (a) above.

Response:

- a. Please see the chart below for the itemized information requested. The expenditures have been paid out of the general fund. Copies of the vendor's invoices are attached.
- b. As described in Item 3 above, Pikeville's proposed rate case expense surcharge is an estimate based actual rate case expenses identified in municipal wholesale rate cases over the last 10 years before this Commission, including City of Lebanon (\$162,695), City of Augusta (\$69,535), City of Danville (\$57,190), Hopkinsville Water and Environment Authority (\$153,416), and Frankfort Electric and Water Plant Board (\$78,405). The chart below has been produced in response to this information request.
- c. Pikeville will submit updates monthly.

**CASE NO. 2019-00080**  
**CITY OF PIKEVILLE WHOLESALE WATER SERVICE RATES**  
**RESPONSES TO COMMISSION STAFF'S SECOND REQUEST FOR INFORMATION**

Date	Invoice #	Vendor Name	Hours	Rate/Hr	Total Amount	Amount Included for MWD Rate Case Expense	Description	
10/8/2018	115036	Sturgill Turner	19.4	\$214.07	\$ 4,301.24	\$ 2,523.50	Legal Services	Reduced for time spent on Southern Water
11/2/2018	115445	Sturgill Turner	1.2	\$245	\$ 294.40	\$ -	Legal Services	Reduced for time spent on Southern Water
12/10/2018	116442	Sturgill Turner	0.5	\$245	\$ 122.50	\$ 122.50	Legal Services	
1/3/2019	116803	Sturgill Turner	13.7	\$245	\$ 3,356.50	\$ 3,356.50	Legal Services	
2/4/2019	117381	Sturgill Turner	3.3	\$245	\$ 808.50	\$ 808.50	Legal Services	
3/4/2019	118037	Sturgill Turner	5.1	\$245	\$ 1,250.90	\$ 1,250.90	Legal Services	
4/3/2019	118641	Sturgill Turner	1	\$245	\$ 245.00	\$ 245.00	Legal Services	
5/6/2019	119293	Sturgill Turner	1.7	\$245	\$ 416.50	\$ 416.50	Legal Services	
7/3/2019	120341	Sturgill Turner	38.8	\$ 202.06	\$ 8,743.92	\$ 8,743.92	Legal Services	
		<b>Total Legal</b>			\$ 19,539.46	\$ 17,467.32		
10/4/2017		RateStudies	flat rate		\$ 9,000.00	\$ 1,839.60	Consulting Services	*- A factor of 20.44% is based on the FY17 audited expenses of \$5,213,038 for inside/outside water and sewer and Mr. Petty's recommended revenue requirement of 1,065,428
11/15/2017		RateStudies	flat rate		\$ 7,200.00	\$ 1,471.68	Consulting Services	*
1/18/2018		RateStudies	flat rate		\$ 1,800.00	\$ 367.92	Consulting Services	*
1/18/2018		RateStudies	flat rate		\$ 2,000.00	\$ 408.80	Consulting Services	*
10/3/2018		RateStudies	flat rate		\$ 6,000.00	\$ 6,000.00	Consulting Services	All work related to MWD exclusively
5/31/2019		RateStudies	16	\$ 125.00	\$ 2,274.08	\$ 2,274.08	Consulting Services	All work related to MWD exclusively
		<b>Total Consulting</b>			\$ 28,274.08	\$ 12,362.08		
		<b>Total RC Expense to date</b>				\$ 29,829.40		

**CASE No. 2019-00080**  
**CITY OF PIKEVILLE WHOLESALE WATER SERVICE RATES**  
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<b>PSC 2-34(b)</b>					
	Total Estimate	Expense to date	Remainder of estimate	Hourly rate	Estimated additional hours
Legal Services	\$65,000	\$ 17,467.32	\$47,532.68	\$ 245	185
Rate Consultant	\$25,000	\$ 12,362.08	\$12,637.92	\$ 125	100
Totals	\$90,000		\$60,170.60		

**CASE No. 2019-00080**  
**CITY OF PIKEVILLE WHOLESALE WATER SERVICE RATES**  
**RESPONSES TO COMMISSION STAFF'S SECOND REQUEST FOR INFORMATION**

**Rate Case Expense**  
**Invoices**



4636 Lebanon Pike #112  
Hermitage, Tennessee 37076  
615.426.4404  
[buddy@ratestudies.com](mailto:buddy@ratestudies.com)  
[www.ratestudies.com](http://www.ratestudies.com)

Invoice

January 18, 2018

**Philip Elswick, P.E.**  
**City Manager**  
**243 Main St**  
**Pikeville, Kentucky 41501**

RE: Rate Study

**Consulting services for preparing a Rate Study for Pikeville, Kentucky**

Original Fee	\$18,000
Percent Complete	100%
Amount Completed	\$18,000
Previously Paid	<u>\$16,200</u>
Amount Due this Invoice	\$ 1,800

A handwritten signature in cursive script that reads "Buddy Petty".

Buddy Petty, PE



4636 Lebanon Pike #112  
Hermitage, Tennessee 37076  
615.426.4404  
[buddy@ratestudies.com](mailto:buddy@ratestudies.com)  
[www.ratestudies.com](http://www.ratestudies.com)

888510

Invoice  
*Study*

November 15, 2017

**Philip Elswick, P.E.**  
**City Manager**  
**243 Main St**  
**Pikeville, Kentucky 41501**

RE: Rate Study

**Consulting services for preparing a Rate Study for Pikeville, Kentucky**

Original Fee	\$18,000
Percent Complete	90%
Amount Completed	\$16,200
Previously Paid	\$ 9,000
Amount Due this Invoice	\$ 7,200

*Buddy Petty*  
Buddy Petty, PE



4636 Lebanon Pike #112  
Hermitage, Tennessee 37076  
615.426.4404  
[buddy@ratestudies.com](mailto:buddy@ratestudies.com)  
[www.ratestudies.com](http://www.ratestudies.com)

Invoice

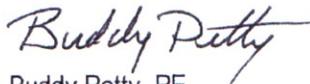
October 4, 2017

**Philip Elswick, P.E.**  
**City Manager**  
**243 Main St**  
**Pikeville, Kentucky 41501**

RE: Rate Study

**Consulting services for preparing a Rate Study for Pikeville, Kentucky**

Original Fee	\$18,000
Percent Complete	50%
Amount due this invoice	\$ 9,000

  
Buddy Petty, PE



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Invoice

January 18, 2018

**Philip Elswick, P.E.**  
**City Manager**  
**243 Main St**  
**Pikeville, Kentucky 41501**

RE: Cost of Service Analysis

**Consulting services for preparing a Cost of Service Analysis for Pikeville, Kentucky**

Original Fee	\$2,500
Percent Complete	80%
Amount Completed	\$2,000
Previously Paid	\$ 0
Amount Due this Invoice	\$2,000

*Buddy Petty*  
Buddy Petty, PE



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Invoice

May 31, 2019

Philip Elswick, P.E.  
City Manager  
243 Main St  
Pikeville, Kentucky 41501

RE: Inch-Mile determination for Cost of Service Analysis (May 2019)

**Consulting services for preparing an inch-mile analysis for the Cost of Service Analysis**

Hourly Rate	\$125 per hour
Total hours	16 hours
Total Hourly Cost	\$2,000.00
Hotel Expense	<u>\$ 274.08</u>
Amount Due this Invoice	\$2,274.08

  
Buddy Petty, PE



831 HAMBLEY BLVD  
 PIKEVILLE, KY 41501  
 TELEPHONE 606-432-8181 • FAX 606-432-4971



**PETTY, SAMUEL**  
 1127 MCMAHAN DRIVE SOUTH  
 GALLATIN TN 37066  
 UNITED STATES OF AMERICA

name  
address

room number: 308/SXQL  
 arrival date: 5/5/2019 8:27:00 PM  
 departure date: 5/7/2019  
 adult/child: 1/0  
 room rate: 119.70

If the debit/credit card you are using for check-in is attached to a bank or checking account, a hold will be placed on the account for the full anticipated dollar amount to be owed to the hotel, including estimated incidentals, through your date of check-out and such funds will not be released for 72 business hours from the date of check-out or longer at the discretion of your financial institution

Rate Plan: ARP  
 HH # 895514288 BLUE  
 AL:  
 Car:

Confirmation Number: 81731325

5/7/2019

Rates subject to applicable sales, occupancy, or other taxes. Please do not leave any money or items of value unattended in your room. A safety deposit box is available for you in the lobby. I agree that my liability for this bill is not waived and agree to be held personally liable in the event that the indicated person, company or association fails to pay for any part or the full amount of these charges. In the event of an emergency, I, or someone in my party, require special evacuation due to a physical disability. Please indicate yes by checking here:

signature:

date	reference	description	amount
5/5/2019	715679	GUEST ROOM	\$119.70
5/5/2019	715679	STATE TAX	\$7.76
5/5/2019	715679	OCCUPANCY TAX	\$9.58
5/6/2019	715750	GUEST ROOM	\$119.70
5/6/2019	715750	STATE TAX	\$7.76
5/6/2019	715750	OCCUPANCY TAX	\$9.58
5/7/2019	715847	VS *0514	(\$274.08)
		**BALANCE**	\$0.00

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thanks.

account no.	date of charge	folio/check no.
VS *0514	5/7/2019	261156 A
card member name	authorization	initial
PETTY, SAMUEL	092443	
establishment no. and location	purchases & services	
	taxes	
	tips & misc.	
signature of card member	total amount	
X		-274 08





4636 Lebanon Pike #112  
Hermitage, Tennessee 37076  
615.426.4404  
[buddy@ratestudies.com](mailto:buddy@ratestudies.com)  
[www.ratestudies.com](http://www.ratestudies.com)

Invoice

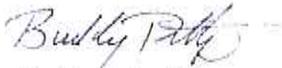
October 3, 2018

**Philip Elswick, P.E.**  
**City Manager**  
**243 Main St**  
**Pikeville, Kentucky 41501**

RE: Cost of Service Analysis – Wholesale Rate

**Consulting services for preparing a “Stand-Alone” Cost of Service Analysis to determine a wholesale rate for Mountain Water and Southern Water utility systems.**

Original Fee	\$7,500
Percent Complete	80%
Amount Completed	\$6,000
Previously Paid	\$ 0
Amount Due this Invoice	\$6,000

  
Buddy Petty, PE



Sturgill, Turner, Barker & Moloney, PLLC

Philip Elswick, P.E.  
 City of Pikeville  
 Pikeville City Manager  
 243 Main Street  
 Pikeville, KY 41501

**STATEMENT OF SERVICES**

Employer I.D. No. 61-0576615

Statement Date: 05/06/2019  
 Account No: 65902.0001 M  
 Statement No: 119293

**City of Pikeville Wholesale Water Rates**

			Hours		
04/02/2019	MTO	Communicate (with client) with Pikeville regarding some information to be produced and UMG.	0.20		
04/11/2019	MTO	Communicate (with client) with Philip Elswick regarding whether it would be possible to add certain provisions in Amended Contract with MWD.	0.50		
04/22/2019	MTO	Review response of MWD and draft proposed language for the response.	0.50		
04/28/2019	MTO	Review response by MWD and draft communications with Davis and Elswick regarding same.	0.50		
		For Current Services Rendered	1.70	416.50	

Recapitulation

<u>Timekeeper</u>	<u>Title</u>	<u>Hours</u>	<u>Hourly Rate</u>	<u>Total</u>
M. Todd Osterloh	Member	1.70	\$245.00	\$416.50
	Total Current Work			416.50
	Previous Balance			\$245.00
04/26/2019	Thank you for your payment.			-245.00
	Balance Due			\$416.50

**PAYMENT DUE UPON RECEIPT**  
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**Sturgill, Turner, Barker & Moloney, PLLC**  
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 Lexington, KY 40507  
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Philip Elswick, P.E.  
 City of Pikeville  
 Pikeville City Manager  
 243 Main Street  
 Pikeville, KY 41504

**STATEMENT OF SERVICES**

Employer I.D. No. 61-0576615

Statement Date: 04/03/2019  
 Account No: 65902.0001 M  
 Statement No: 118641

**City of Pikeville Wholesale Water Rates**

			Hours		
03/02/2019	MTO	Review recent PSC cases involving Lebanon, Central City, Augusta, and Danville for insight on best strategy moving forward; draft email to Elswick and Davis regarding action items for near future.	0.50		
03/04/2019	MTO	Review protest letter from Jack Hughes; draft email to Hughes; draft email to Elswick and Davis	0.20		
03/29/2019	MTO	Review order from PSC establishing case; draft email to Elswick and Davis regarding same.	<u>0.30</u>		
For Current Services Rendered			1.00	245.00	

		<u>Recapitulation</u>	<u>Hours</u>	<u>Hourly Rate</u>	<u>Total</u>
<u>Timekeeper</u>	<u>Title</u>				
M. Todd Osterloh	Member		1.00	\$245.00	\$245.00
Total Current Work					245.00
Previous Balance					\$1,250.90
03/28/2019	Thank you for your payment.				-1,250.90
Balance Due					<u>\$245.00</u>

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**Sturgill, Turner, Barker & Moloney, PLLC**  
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 Louisville, KY 40202  
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 www.sturgillturner.com

Philip Elswick, P.E.  
 City of Pikeville  
 Pikeville City Manager  
 243 Main Street  
 Pikeville, KY 41501

**STATEMENT OF SERVICES**

Employer I.D. No. 61-0576615

Statement Date: 02/04/2019  
 Account No: 65902.0001 M  
 Statement No: 117381

**City of Pikeville Wholesale Water Rates**

			Hours	
01/03/2019	MTO	Review RateStudies' revised analysis and draft proposed revisions for acceptance by PSC	1.00	
01/07/2019	MTO	Draft/revise - draft detailed analysis of 2002 PSC decision involving Pikeville and how PSC decision and COSS could relate to current increase	1.80	
01/30/2019	MTO	Review PSC case law to confirm that PSC would not accept a "reserve" expense amount for rate case; draft email response to B. Petty regarding that issue.	0.50	
		For Current Services Rendered	3.30	808.50

		<u>Recapitulation</u>			
<u>Timekeeper</u>	<u>Title</u>		<u>Hours</u>	<u>Hourly Rate</u>	<u>Total</u>
M. Todd Osterloh	Member		3.30	\$245.00	\$808.50
	Total Current Work				808.50
	Previous Balance				\$3,509.10
01/22/2019	Thank you for your payment.				-3,509.10
	Balance Due				<u>\$808.50</u>

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Philip Elswick, P.E.  
 City of Pikeville  
 Pikeville City Manager  
 243 Main Street  
 Pikeville, KY 41501

**STATEMENT OF SERVICES**

Employer I.D. No. 61-0576615

Statement Date: 03/04/2019  
 Account No: 65902.0001 M  
 Statement No: 118037

**City of Pikeville Wholesale Water Rates**

			Hours	
02/01/2019	MTO	Review cost-of-service study; draft comments and circulate to client	0.80	
02/05/2019	MTO	Communicate (with client) with Elswick and Davis regarding strategy in working with MWD; draft letter to MWD's attorney Dan Stratton	0.60	
02/14/2019	MTO	Review letter from Dan Stratton and draft email with options to Elswick and Davis	0.80	
02/18/2019	MTO	Draft/revise - drafting notice and proposed tariff; review materials related to rate case expense; calculate estimated rate case expense for inclusion in proposed tariff; communicate with Davis and Elswick regarding Sandy Valley customers.	2.00	
02/19/2019	MTO	Draft/revise cover letter for increased rates to MWD	0.20	
	MTO	Communicate (with client) - draft email to Elswick and Davis regarding rate case expense surcharge to be requested in case.	0.30	
02/21/2019	MTO	Draft/revise - finalize PSC tariff filing; communicate with Elswick and Davis regarding same.	0.40	
		For Current Services Rendered	5.10	1,249.50

**Recapitulation**

<u>Timekeeper</u>	<u>Title</u>	<u>Hours</u>	<u>Hourly Rate</u>	<u>Total</u>
M. Todd Osterloh	Member	5.10	\$245.00	\$1,249.50

**Costs**

02/19/2019	2 Document Reproduction	0.40
02/19/2019	5 Document Reproduction	1.00
	E101 (653) Document Reproduction	1.40
	<b>Total Costs Thru 02/28/2019</b>	<b>1.40</b>

City of Pikeville

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03/04/2019  
Account No. 65902-0001M  
Invoice No. 118037

City of Pikeville Wholesale Water Rates

	Total Current Work	1,250.90
	Previous Balance	\$808.50
02/28/2019	Thank you for your payment.	-808.50
	Balance Due	<u>\$1,250.90</u>

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Sturgill, Turner, Barker & Moloney, PLLC

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 Lexington, KY 40502  
 Phone: 606.253.1100  
 Fax: 606.253.1101

Philip Elswick, P.E.  
 City of Pikeville  
 Pikeville City Manager  
 243 Main Street  
 Pikeville, KY 41501

**STATEMENT OF SERVICES**

Employer I.D. No. 61-0576615

Statement Date: 01/03/2019  
 Account No: 65902.0001 M  
 Statement No: 116803

**City of Pikeville Wholesale Water Rates**

			Hours	
12/09/2018	MTO	Review costs of service study, City and MWD audits, prior cases, contract, and other related information in preparation for tomorrow's meeting and negotiations with WMD.	2.30	
12/10/2018	MTO	Appear for/attend - travel to/from Pikeville to attend meetings with City Manager and Mountain Water District to discuss and negotiate wholesale water rate increase.	5.00	
	MTO	Appear for/attend meetings with City Manager, City Attorney, Rate Analyst Buddy Petty, and Mountain Water District to discuss and negotiate wholesale water rate.	2.50	
12/11/2018	MTO	Draft/revise summary of strategy going forward; communicate with Rusty Davis regarding strategy	0.60	
12/13/2018	MTO	Communicate (other outside counsel) - phone call with Jack Hughes; draft email to Pikeville regarding strategy going forward.	0.50	
12/17/2018	MTO	Communicate (with client) - conference call with Philip Elswick and Rusty Davis regarding strategy for rate case filing.	0.30	
	MTO	Review 2018 audit, financial statement, and new analysis by Buddy Petty	0.50	
12/20/2018	MTO	Review PSC decisions; review Buddy Petty's analysis; draft email to Buddy regarding how the PSC typically calculates revenue requirement	1.50	
12/27/2018	MTO	Communicate (with client) with Philip Elswick and Buddy Petty to discuss strategy and how PSC will consider rate filing.	0.50	
		For Current Services Rendered	13.70	3,356.50

**Recapitulation**

<u>Timekeeper</u>	<u>Title</u>	<u>Hours</u>	<u>Hourly Rate</u>	<u>Total</u>
M. Todd Osterloh	Member	13.70	\$245.00	\$3,356.50

City of Pikeville

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01/03/2019  
Account No. 65902-0001M  
Invoice No. 116803

City of Pikeville Wholesale Water Rates

Costs

12/10/2018	Travel - MTO travel 280 miles to/from Pikeville for meetings	152.60
	Travel - Mileage	152.60
	Total Costs Thru 12/31/2018	<u>152.60</u>
	Total Current Work	3,509.10
	Previous Balance	\$122.50
01/02/2019	Thank you for your payment.	-122.50
	Balance Due	<u>\$3,509.10</u>

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Philip Elswick, P.E.  
 City of Pikeville  
 Pikeville City Manager  
 243 Main Street  
 Pikeville, KY 41501

**STATEMENT OF SERVICES**

Employer I.D. No. 61-0576615

Statement Date: 12/10/2018  
 Account No: 65902.0001 M  
 Statement No: 116442

**City of Pikeville Wholesale Water Rates**

			Hours
11/01/2018	MTO	Communicate (with client) with Elswick and Davis regarding meeting with Mountain Water and contractual requirements	0.30
11/06/2018	MTO	Communicate (with client) with City Manager and City Attorney regarding meeting with Mountain Water District	0.20
			<u>0.50</u>
For Current Services Rendered			<u>122.50</u>

**Recapitulation**

<u>Timekeeper</u>	<u>Hours</u>	<u>Hourly Rate</u>	<u>Total</u>
M. Todd Osterloh	0.50	\$245.00	\$122.50

Total Current Work 122.50

Previous Balance \$294.40

12/04/2018 Thank you for your payment. -294.40

Balance Due \$122.50

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 www.sturgillturner.com

Philip Elswick, P.E.  
 City of Pikeville  
 Pikeville City Manager  
 243 Main Street  
 Pikeville, KY 41501

**STATEMENT OF SERVICES**

Employer I.D. No. 61-0576615

Statement Date: 11/02/2018  
 Account No: 65902.0001 M  
 Statement No: 115445

**City of Pikeville Wholesale Water Rates**

			Hours	
10/02/2018	MTO	Communicate (with client) with Buddy Petty and Philip Elswick regarding rate increase and strategy; phone call with PSC Daniel Hinton to discuss Southern's approval and ask question regarding documentation of same.	0.50	
10/11/2018	MTO	Communicate (with client) with Daniel Hinton with PSC who has asked for revision to tariff; discuss with Staff on how to make revision.	0.30	
10/12/2018	MTO	Review tariff approved by PSC; communicate with Philip Elswick regarding tariff and regarding Mountain WD.	0.40	
		For Current Services Rendered	1.20	294.00

<u>Timekeeper</u>	<u>Recapitulation</u>	<u>Hours</u>	<u>Hourly Rate</u>	<u>Total</u>
M. Todd Osterloh		1.20	\$245.00	\$294.00

Costs

10/11/2018	1 Document Reproduction	0.20
10/11/2018	1 Document Reproduction	0.20
	E101 (653) Document Reproduction	0.40
	Total Costs Thru 10/31/2018	0.40
	Total Current Work	294.40
	Previous Balance	\$4,301.24
10/26/2018	Thank you for your payment.	-4,301.24
	Balance Due	\$294.40

City of Pikeville

City of Pikeville Wholesale Water Rates

Page. 2  
11/02/2018  
Account No. 65902-0001M  
Invoice No. 115445

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Sturgill, Turner, Barker & Moloney, PLLC

Philip Elswick, P.E.  
 City of Pikeville  
 Pikeville City Manager  
 243 Main Street  
 Pikeville, KY 41501

**STATEMENT OF SERVICES**

Employer I.D. No. 61-0576615

Statement Date: 10/08/2018  
 Account No: 65902.0001 M  
 Statement No: 115036

**City of Pikeville Wholesale Water Rates**

		Hours
08/31/2018	MTO Communicate (with client) with Rusty Davis regarding concerns of Mountain Water related to supporting documentation	0.30
	MTO Communicate (with client) - draft email to Phillip Elswick regarding production of information to Mountain Water	0.30
	MTO Detailed review of cost-of-service study, including drafting questions related to COSS; review current and past contracts of Pikeville with wholesale customers; review 2002 PSC decision involving City; review other records on file with PSC.	3.80
09/04/2018	MTO Review AWWA M54 manual on which Pikeville's cost of service study is based to determine consistency and areas that PSC may address in rate case.	0.50
	MTO Review PSC decisions related to AWWA M54 manual and Cash Flow Analysis	0.30
	MTO Communicate (with client) - phone call with Philip and Rusty regarding draft rate study and negotiations with parties.	0.80
09/05/2018	MTO Review correspondence to/from WDs and audit related to city operations; communicate with City Manager regarding same.	0.50
09/07/2018	MTO Prepare for meeting with Southern by reviewing their recent PSC filings and reviewing their contract with Pikeville.	1.30
09/10/2018	MTO Appear for/attend - travel to/from McDowell to meet with City and Southern Water and Sewer District officials to discuss proposed rate increase (courtesy reduced hourly rate for long travel).	5.00
	MTO Appear for/attend meeting with City and Southern W&S District officials to discuss proposed rate and its implementation	1.00
	MTO Draft/revise - draft various documents for proposed rate increase, including customer notice and proposed tariff; review detailed documentation from RateStudies.	2.20
09/11/2018	MTO Communicate (with client) with Buddy Petty regarding cost of service analysis and review COSS regarding his comments	0.60

City of Pikeville

Page. 2  
10/08/2018  
Account No. 65902-0001M  
Invoice No. 115036

City of Pikeville Wholesale Water Rates

			Hours	
09/12/2018	MTO	Draft/revise - prepare notices, letters, and related documents for proposed increase to Southern Water; communicate with Elswick and Davis regarding same.	1.30	
09/13/2018	MTO	Draft/revise cover letter to PSC; prepare documents for filing.	0.50	
09/27/2018	MTO	Review COSS for wholesale customers sent by RateStudies; review and respond to email correspondence from Philip Elswick	1.00	
For Current Services Rendered			19.40	4,153.00

**Recapitulation**

<u>Timekeeper</u>	<u>Hours</u>	<u>Hourly Rate</u>	<u>Total</u>
M. Todd Osterloh	5.00	\$125.00	\$625.00
M. Todd Osterloh	14.40	245.00	3,528.00

**Costs**

09/10/2018	Travel - MTO travel 272 miles to/from McDowell for meeting	148.24
	Travel - Mileage	148.24
	Total Costs Thru 09/30/2018	148.24
	Total Current Work	4,301.24
	Balance Due	\$4,301.24

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Philip Elswick, P.E.  
 City of Pikeville  
 Pikeville City Manager  
 243 Main Street  
 Pikeville, KY 41501

**STATEMENT OF SERVICES**

Employer I.D. No. 61-0576615

Statement Date: 07/03/2019  
 Account No: 65902.0001 M  
 Statement No: 120341

**City of Pikeville Wholesale Water Rates**

				Hours
06/10/2019	MTO	L320	A104 Review PSC document request and procedural schedule; draft email to Philip Elswick regarding same.	0.50
06/13/2019	MTO	L320	A106 Communicate (with client) - phone call with Philip Elswick to discuss proposed testimony	0.80
	MTO	L320	A104 Review documents responsive to data requests and begin drafting testimony	3.00
06/14/2019	MTO	L320	A106 Communicate (with client) - phone call with Tonya Taylor regarding certain documents to produce to PSC	0.60
	MTO	L320	A106 Communicate (with client) with Buddy Petty regarding his testimony and COSS to produce	0.20
	MTO	L320	A104 Review - continued review of materials to be produced to PSC	2.70
06/17/2019	MTO	L320	A106 Communicate (with client) with Pikeville's Donnie Sloan regarding City's water system.	0.20
	MTO	L210	A103 Draft/revise - begin working on testimony of Buddy Petty.	2.00
06/18/2019	MTO	L120	A104 Review proposed ordinance and suggest revisions.	0.20
	MTO	L320	A103 Draft/revise - continue drafting proposed testimony for response to DRs and discuss with client regarding same.	3.10
	MTO	L320	A106 Communicate (with client) phone call and numerous emails to Tonya Taylor regarding information the City has provided for responses to the PSC's data request.	0.70
	MTO	L320	A103 Draft/revise - drafting responses to data requests issued by PSC	1.50

City of Pikeville Wholesale Water Rates

					Hours	
	MTO	L320	A103	Draft/revise - review of additional materials sent by City for responses to data requests.	4.00	
06/19/2019	MTO	L320	A106	Communicate (with client) with Tonya Taylor regarding documents to produce to the PSC	0.30	
	MTO	L320	A104	Review and incorporate changes to testimony as proposed by Buddy Petty	0.40	
	MTO	L320	A106	Communicate (with client) with Buddy Petty regarding inch-mile chart	0.30	
	MTO	L320	A104	Review - continued review of documents and information sent by Pikeville for inclusion in data responses; continued drafting of data responses.	3.00	
06/20/2019	MTO	L320	A104	Review - continued review of materials to be submitted to PSC; draft responses to DRs.	4.00	
	MTO	L320	A106	Communicate (with client) with Tonya Taylor, Philip Elswick, and Rusty Davis regarding responses to PSC data requests	0.80	
06/21/2019	MTO	L320	A103	Finalize Pikeville's responses to data requests; coordinate with Staff to compile and prepare documents; communicate with T. Taylor and P. Elswick regarding information to be provided.	3.30	
	MTO	L210	A103	Draft/revise emails to counsel of record, Commission Staff, and client regarding electronic filing error. (no charge)	0.50	N/C
06/23/2019	MTO	L320	A101	Prepare responses to information requests for paper filing; draft necessary motions related thereto. (no charge)	4.00	N/C
06/24/2019	MTO	L320	A101	Prepare - finalize motions and filing; phone call with Jack Hughes to discuss motions. (no charge)	2.30	N/C
06/26/2019	MTO	C300	A103	Draft/revise - draft Open Records Request to public agency that may have information to support Pikeville's rate case.	0.30	
06/28/2019	MTO	L210	A104	Review MWD's Response to our motions; send brief email to Jack Hughes regarding same.	0.10	
					<u>32.00</u>	<u>7,840.00</u>
					For Current Services Rendered	
					Total Non-Billable Hours	6.80

City of Pikeville Wholesale Water Rates

**Recapitulation**

<u>Timekeeper</u>	<u>Title</u>	<u>Hours</u>	<u>Hourly Rate</u>	<u>Total</u>
M. Todd Osterloh	Member	32.00	\$245.00	\$7,840.00

**Costs**

06/23/2019	L110	E101	2089 Document Reproduction	417.80
06/23/2019	L110	E101	1785 Document Reproduction	357.00
06/23/2019	L110	E101	134 Document Reproduction	26.80
06/23/2019	L110	E101	170 Document Reproduction	34.00
06/23/2019	L110	E101	110 Document Reproduction	22.00
06/24/2019	L110	E101	1 Document Reproduction	0.20
06/24/2019	L110	E101	6 Document Reproduction	1.20
06/24/2019	L110	E101	60 Document Reproduction	12.00
06/24/2019	L110	E101	2 Document Reproduction	0.40
06/24/2019	L110	E101	6 Document Reproduction	1.20
			E101 (653) Document Reproduction	<u>872.60</u>
06/24/2019	L110	E110	Travel - (8.002) Anna Marie Miller (runner) travel to/from PSC office	31.32
			Travel - Mileage	<u>31.32</u>
			Total Costs Thru 06/30/2019	<u>903.92</u>
			Total Current Work	8,743.92
			Previous Balance	\$416.50
06/04/2019			Thank you for your payment.	-416.50
			Balance Due	<u><u>\$8,743.92</u></u>

**Task Code Summary**

		<u>Fees</u>	<u>Expenses</u>
C300	Analysis and Advice	73.50	0.00
C300	Analysis and Advice	73.50	0.00
L110	Fact Investigation/Development	0.00	903.92
L120	Analysis/Strategy	49.00	0.00
L100	Do not Use-See L110-L190 Case Assessment,Development &Admin	49.00	903.92
L210	Pleadings	514.50	0.00
L200	Do Not Use-See L210-L260 Pre-Trial Pleadings & Motions	514.50	0.00
L320	Document Production	7203.00	0.00
L300	Do Not Use - See L310-L390 Discovery	7,203.00	0.00

City of Pikeville

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07/03/2019  
Account No. 65902-0001M  
Invoice No. 120341

City of Pikeville Wholesale Water Rates

PAYMENT DUE UPON RECEIPT  
To ensure proper credit to your account  
Please write Account 65902.0001 on your check  
Thank you

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY

In the Matter of:

Proposed Adjustment of the Wholesale )  
Water Service Rates of the City of Pikeville ) Case No. 2019-00080  
To Mountain Water District )

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**CERTIFICATION OF RESPONSES TO INFORMATION REQUESTS**

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This is to certify that I have supervised the preparation of the City of Pikeville's responses to the Commission Staff's second request for information and Mountain Water District's first request for information and that the responses are true and accurate to the best of my knowledge, information, and belief after reasonable inquiry.

Date: 7/12/19

  
Philip Elswick, City Manager