OHIO VALLEY ELECTRIC CORPORATION
3932 U. S. Route 23
P. O. Box 468
Piketon, Ohio 45661
740-289-7200

WRITER'S DIRECT DIAL NO:
740-897-7768

October 14, 2020

Delivered Electronically

Ms. Laurie Stevenson, Director
Ohio Environmental Protection Agency
50 West Town Street, Suite 700
P.O. Box 1049
Columbus, OH 43216-1049

Dear Ms. Stevenson:

Re: Ohio Valley Electric Corporation
Notification of Revision to Groundwater Monitoring Reports

As required by 40 CFR 257.106(h)(4), the Ohio Valley Electric Corporation (OVEC) is providing notification to the Director of the Ohio Environmental Protection Agency that revisions have been made to the 2017, 2018 and 2019 Annual Groundwater Monitoring and Corrective Actions reports for OVEC's Kyger Creek Station. These revisions were completed in accordance with 40 CFR 257.90(e) of the Federal CCR Rule, and were necessary to resolve an error discovered in the previously determined groundwater flow direction at the station's South Fly Ash Pond facility.

The updated reports have been placed in the facility's operating record in accordance with 40 CFR 257.105(h)(1), as well as on the company's publicly accessible internet site in accordance with 40 CFR 257.107(h)(1). The facility's publicly accessible internet site can be viewed at https://www.ovec.com/CCRCompliance.php.

If you have any questions, or require any additional information, please call me at (740) 897-7768.

Sincerely,

Tim Fulk
Engineer II

TLF:klr

Stantec Consulting Services Inc.
11687 Lebanon Road, Cincinnati OH 45241-2012

October 13, 2020

File: 175534017, 200.201

Ohio Valley Electric Corporation
Indiana-Kentucky Electric Corporation
Attention: Mr. Gabriel Coriell
3932 U.S. Route 23
P.O. Box 468
Piketon, Ohio 45661

Reference: 2017 Annual Groundwater Monitoring and Corrective Action Report (Rev. 1.0)
EPA Final Coal Combustion Residuals (CCR) Rule
Kyger Creek Generating Station
Cheshire, Ohio

Dear Mr. Coriell,

The EPA Final CCR Rule requires owners or operators of existing CCR landfills and surface impoundments to prepare an annual groundwater monitoring and corrective action report no later than January 31 of the year following the calendar year a groundwater monitoring system has been established for such CCR unit as required by 40 CFR 257.90(e). For the Ohio Valley Electric Corporation (OVEC), this applies to the Kyger Creek Station's South Fly Ash Pond, Boiler Slag Pond, and CCR Landfill.

The annual report must document the status of the groundwater monitoring and corrective action program for the CCR unit, summarize key actions completed, describe any problems encountered, discuss actions to resolve the problems, and project key activities for the upcoming year. At a minimum, the annual groundwater monitoring and corrective action report must contain the following information, to the extent available:

1. A map, aerial image, or diagram showing the CCR unit and all background (or upgradient) and downgradient monitoring wells, to include the well identification numbers, that are part of the groundwater monitoring program for the CCR unit;
2. Identification of any monitoring wells that were installed or decommissioned during the preceding year, along with a narrative description of why those actions were taken;
3. In addition to all the monitoring data obtained under §§257.90 through 257.98, a summary including the number of groundwater samples that were collected for analysis for each background and downgradient well, the dates the samples were collected, and whether the sample was required by the detection monitoring or assessment monitoring programs;
4. A narrative discussion of any transition between monitoring programs (e.g., the date and circumstances for transitioning from detection monitoring to assessment monitoring in

Reference: 2017 Annual Groundwater Monitoring and Corrective Action Report (Rev. 1.0)
EPA Final Coal Combustion Residuals (CCR) Rule
Kyger Creek Generating Station
Cheshire, Ohio

addition to identifying the constituent(s) detected at a statistically significant increase over background level); and

5. Other information required to be included in the annual report as specified in §§257.90 through 257.98.

OVEC has retained Applied Geology and Environmental Science, Inc. of Clinton, Pennsylvania (AGES) to perform the Kyger Creek Station's groundwater monitoring and corrective action support under the EPA Final CCR Rule. The 2017 CCR Regulation Groundwater Monitoring and Corrective Action Report (GWCAR) was prepared by AGES to present the annual groundwater monitoring at the South Fly Ash Pond, Boiler Slag Pond, and CCR Landfill of the Kyger Creek Station. AGES (2018) was posted to the Kyger Creek Station's operating record by January 31, 2018. AGES (2020, Revision 1.0) corrected groundwater elevation data for wells at the South Fly Ash Pond. Stantec Consulting Services Inc. (Stantec) has reviewed AGES (2018 and 2020, Rev. 1.0), and they meet the requirements specified in 40 CFR 257.90(e). In accordance with the EPA Final CCR Rule, the eight rounds of groundwater sampling presented in AGES (2018 and 2020) will be used to establish baseline CCR constituent concentrations associated within each operating unit network during 2018 as specified in 40 CFR 257.93.

Please contact us with any questions or concerns. We appreciate the opportunity to continue to work with the Kyger Creek Generating Station and the Ohio Valley Electric Corporation.

Regards,

Stantec Consulting Services Inc.

Jacqueline S. Harmon, P.E.
Senior Associate
Phone: (513) 842-8200 ext 8220
Fax: (513) 842-8250
Jacqueline.Harmon@stantec.com

Attachment: *AGES (2020). Coal Combustion Residuals Regulation. 2017 Groundwater Monitoring and Corrective Action Report. Ohio Valley Electric Corporation. Kyger Creek Station. Cheshire, Ohio. October. Revision 1.0.*

c. Stan Harris, John Griggs, Chris LaLonde

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AGES
Applied Geology And Environmental Science, Inc.

2402 Hookstown Grade Road, Suite 200
Clinton, PA 15026
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P 412. 264. 6453
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COAL COMBUSTION RESIDUALS REGULATION
2017 GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

OHIO VALLEY ELECTRIC CORPORATION
KYGER CREEK STATION
CHESHIRE, OHIO

JANUARY 2018
OCTOBER 2020 REVISION 1.0

Prepared for:

OHIO VALLEY ELECTRIC CORPORATION (OVEC)

By:

APPLIED GEOLOGY AND ENVIRONMENTAL SCIENCE, INC.

COAL COMBUSTION RESIDUALS REGULATION
2017 GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
OHIO VALLEY ELECTRIC CORPORATION
KYGER CREEK STATION
CHESHIRE, OHIO

JANUARY 2018
OCTOBER 2020 REVISION 1.0

Prepared for:

OHIO VALLEY ELECTRIC CORPORATION (OVEC)

Prepared By:

Applied Geology and Environmental Science, Inc.

Bethany Flaherty
Senior Scientist

Robert W. King, P.G.
President/Chief Hydrogeologist

COAL COMBUSTION RESIDUALS REGULATION
GROUNDWATER MONITORING AND
CORRECTIVE ACTION REPORT
OHIO VALLEY ELECTRIC CORPORATION
KYGER CREEK STATION
CHESHIRE, OHIO

T A B L E O F C O N T E N T S

COAL COMBUSTION RESIDUALS REGULATION
GROUNDWATER MONITORING AND
CORRECTIVE ACTION REPORT
OHIO VALLEY ELECTRIC CORPORATION
KYGER CREEK STATION
CHESHIRE, OHIO

T A B L E O F C O N T E N T S

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LIST OF ACRONYMS

AGES	Applied Geology and Environmental Science, Inc.
BSP	Boiler Slag Pond
CCR	Coal Combustion Residuals
GMPP	Groundwater Monitoring Program Plan
MW	Megawatt
OEPA	Ohio Environmental Protection Agency
OVEC	Ohio Valley Electric Corporation
PTI	Permit to Install
RCRA	Resource Conservation and Recovery Act
SAP	Statistical Analysis Plan
SFAP	South Fly Ash Pond
Stantec	Stantec Consulting Services, Inc.
SSI	Statistically Significant Increase
UPL	Upper Prediction Limit
UTL	Upper Tolerance Limit
U.S. EPA	United States Environmental Protection Agency

COAL COMBUSTION RESIDUALS REGULATION
2017 GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
OHIO VALLEY ELECTRIC CORPORATION
KYGER CREEK STATION
CHESHIRE, OHIO

1.0 INTRODUCTION

On December 19, 2014, the United States Environmental Protection Agency (U.S. EPA) issued their final Coal Combustion Residuals (CCR) regulation which regulates CCR as a non-hazardous waste under Subtitle D of Resource Conservation and Recovery Act (RCRA) and became effective six (6) months from the date of its publication (April 17, 2015) in the Federal Register, referred to as the "CCR Rule." The rule applies to new and existing landfills, and surface impoundments used to dispose of or otherwise manage CCR generated by electric utilities and independent power producers. Because the rule was promulgated under Subtitle D of RCRA, it does not require regulated facilities to obtain permits, does not require state adoption, and cannot be enforced by U.S. EPA. The only compliance mechanism is for a state or citizen group to bring a RCRA suit in federal district court against any facility that is alleged to be in non-compliance with the new requirements.

All CCR landfills and CCR surface impoundments are subject to new, and typically more stringent than current state requirements for groundwater monitoring and, if necessary, corrective action. Per §257.90(b)(1), within 30 months after the date of publication (no later than October 17, 2017) in the Federal Register, all existing CCR landfills and existing CCR surface impoundments must be in compliance with the following groundwater monitoring requirements:

(i) Install the groundwater monitoring system as required by §257.91: The groundwater monitoring systems at all of the CCR units at the Kyger Creek Plant were installed in compliance with the CCR Rule and details of the installation are presented in the *Monitoring Well Installation Report* (AGES, 2016).

(ii) Develop the groundwater sampling and analysis program to include selection of the statistical procedures to be used for evaluating groundwater monitoring data as required by §257.93: Details regarding groundwater sampling procedures are presented in the *Groundwater Monitoring Program Plan* (GMPP) (AGES, 2016). Statistical evaluation of groundwater data will be conducted using a statistical method as specified in §257.93(f), and which meets the performance standards specified in §257.93(g) of the CCR Rule.

(iii) Initiate the detection monitoring program to include obtaining a minimum of eight independent samples for each background and downgradient well as required by §257.94(b): Between October 2015 and September 2017, nine (9) independent groundwater samples were collected from each background and downgradient monitoring well at each CCR unit. The collection of these samples from each CCR unit is discussed in the following sections of this report. The analytical data from these nine (9) samples will be used to establish site background conditions.

(iv) Begin evaluating the groundwater monitoring data for statistically significant increases over background levels for the constituents listed in Appendix III of this part as required by §257.94: In accordance with the U.S. EPA's Unified Guidance (U.S. EPA, 2009), Upper Prediction Limits (UPLs) with retesting are the statistical methods that will be used to identify Statistically Significant Increased (SSIs) over background for Appendix III constituents during detection monitoring. The data presented in this report will be used to calculate UPLs. However, additional future data, acquired during the semi-annual sampling events beginning in the Spring of 2018, and subsequent retesting sampling events, if necessary, will be required to identify SSIs.

The original Annual Groundwater Monitoring and Corrective Action Report was prepared in accordance with §257.90(e) of the CCR Rule which states: **The annual report must document the status of the groundwater monitoring and corrective action program for the CCR unit, summarize key actions completed, describe any problems encountered, discuss actions to resolve the problems, and project key activities for the upcoming year. For purposes of this section, the owner or operator has prepared the annual report when the report is placed in the facility's operating record as required by § 257.105(h)(1). At a minimum, the annual groundwater monitoring and corrective action report must contain the following information, to the extent available:**

(1) A map, aerial image, or diagram showing the CCR unit and all background (or upgradient) and downgradient monitoring wells, to include the well identification numbers, that are part of the groundwater monitoring program for the CCR unit: Maps of each CCR unit including all background (or upgradient) and downgradient monitoring wells and well identification numbers are included in this report.

(2) Identification of any monitoring wells that were installed or decommissioned during the preceding year, along with a narrative description of why those actions were taken: Details regarding the installation of all groundwater monitoring wells for each monitoring system at each CCR unit are included in the *Monitoring Well Installation Report* (AGES, 2016). Summaries of the monitoring wells included in each CCR unit groundwater monitoring system are included in the following sections of this report.

(3) A summary including the number of groundwater samples that were collected for analysis for each background and downgradient well, the dates the samples were collected, and whether the sample was required by the detection monitoring or assessment monitoring programs: Tables summarizing all groundwater samples collected from each CCR unit between October 2015 and September 2017 are included in this report.

(4) A narrative discussion of any transition between monitoring programs (e.g., the date and circumstances for transitioning from detection monitoring to assessment monitoring in addition to identifying the constituent(s) detected at a statistically significant increase over background levels): In accordance with the U.S. EPA's Unified Guidance (U.S. EPA, 2009), UPLs with retesting are the statistical methods that will be used to identify SSIs over background for Appendix III constituents. The data presented in this report will be used to calculate UPLs, as appropriate. However, additional future data, acquired during the semi-annual sampling events (beginning in Spring of 2018), and subsequent retesting sampling events, if necessary, will be required to identify SSIs.

(5) Other information required to be included in the annual report as specified in §§ 257.90 through 257.98: Other information required is included in subsequent sections of this report.

This update (Revision 1.0-October 2020) of the 2017 Groundwater Monitoring and Corrective Action Report has been prepared to present corrected groundwater elevation data for wells at the South Fly Ash Pond (SFAP), a CCR unit at the Kyger Creek Station. In April 2019, a review of historic water level data for the SFAP revealed that an error had been made in groundwater elevation calculations for that unit in 2016 that was carried through the 2017 and 2018 calculations. After the error was discovered, groundwater elevations at the SFAP were recalculated, which led to a significant change in the interpretation of groundwater flow directions at the unit and modifications of the upgradient and downgradient designations of several SFAP wells, which are presented in this revised report.

2.0 BACKGROUND

The Kyger Creek Station, located in Cheshire, Ohio, is a 1.1 gigawatt (GW) coal-fired generating station operated by Ohio Valley Electric Corporation (OVEC). The Kyger Creek Station has five (5), 217-megawatt (MW) generating units and has been in operation since 1955. Beginning in 1955, CCRs were sluiced to surface impoundments located in the plant site. During the course of plant operations, CCRs have been managed in various units at the station.

There are three (3) CCR units at the Kyger Creek Station (Figure 1):

- Class III Residual Waste Landfill (Landfill);
- Boiler Slag Pond (BSP); and,
- SFAP.

In March 2015, OVEC contracted with Applied Geology and Environmental Science (AGES), Inc. to identify upgrades in the groundwater monitoring program for the Kyger Creek Station located in Cheshire, Ohio that would be necessary for compliance with the CCR Rule. Based on a review of available site data and the CCR Rule, AGES, OVEC, and staff from Stantec Consulting Services, Inc. (Stantec) worked together to develop a detailed scope of work and schedule for the groundwater monitoring system upgrades. Field work on the project (monitoring well installation and development) was conducted from November 2015 through January 2016. Details of this work are presented in the *Well Installation Report* (AGES, 2016).

This Groundwater Monitoring and Corrective Action Report has been prepared in accordance with §257.90 (e) of the CCR Rule and documents the status of the groundwater monitoring and corrective action program for each CCR unit, summarizes the key actions completed during the previous year, describes any problems encountered, discusses actions to resolve the problems, and project key activities for the upcoming year.

A discussion of the status of the groundwater monitoring program for each CCR unit is presented in the following sections of this report.

3.0 CLASS III RESIDUAL WASTE LANDFILL

The Landfill is a residual solid waste Landfill located approximately one-half mile south of the intersection of Little Kyger Creek Road and Shaver Road in Addison Township, Gallia County, Ohio (Figure 1). The Landfill is bordered on the east by Shaver Road and on the west, north and south by vacant, forested land owned by OVEC. The proposed permitted footprint of the Landfill occupies approximately 98 acres and is capable of managing approximately 20.4 million cubic yards (approximately 4,000 tons per day) of Class III residual waste generated by the coal-powered Kyger Creek Plant located approximately two (2) miles southeast of the Landfill.

3.1 Groundwater Monitoring Network

As detailed in the *Monitoring Well Installation Report* (AGES, 2016), the Buffalo Sandstone is identified as the uppermost aquifer beneath the base of the Landfill. An on-going groundwater monitoring program has been in place since 2008 as part of the Permit to Install (PTI) issued to OVEC by the Ohio Environmental Protection Agency (OEPA) in April 2009. Eleven monitoring wells (BUSW-1 through BUSW-5, BUSW-8, BUSW-10, MW-3D, MW-4D, IMW-1BU and IMW-2BU) were installed prior to 2007 to monitor groundwater quality in the Buffalo sandstone around the proposed final limits of the Landfill with a temporary monitoring well (IMW-1BU) installed close to the limit of the currently active Phase 1, which began operation in early 2011.

Of the 11 monitoring wells installed in 2007 for the OEPA groundwater monitoring program, six (6) of those wells are located around the Phase 1 boundary of the waste:

- BUSW-1 (downgradient);
- BUSW-2 (upgradient);
- BUSW-3 (variable: usually side or downgradient);
- BUSW-4 (downgradient);
- BUSW-5 (upgradient); and
- IMW-1BU (upgradient).

The following five (5) wells are located at least 1,000 feet away from the Phase 1 waste limit and do not satisfy the CCR requirement that downgradient wells be "as close as practicable" to the limit of waste. However, they will remain in the groundwater monitoring network for the Landfill:

- BUSW-8 (upgradient);
- BUSW-10 (downgradient);
- MW-3D (upgradient);
- IMW-2BU (upgradient); and
- MW-4D (upgradient).

In 2015, to comply with §257.91(a)(2) which requires that: **The downgradient monitoring system must be installed at the waste boundary that ensures detection of groundwater contamination in the uppermost aquifer;** and §257.91(c)(1) which requires: **A minimum of one upgradient and three downgradient monitoring wells;** OVEC installed, two (2) additional downgradient monitoring wells (CCR-1BU and CCR-2BU) at the Phase 1 limit of waste. Details of the installation of these monitoring wells are included in the *Monitoring Well Installation Report* (AGES, 2016). The locations of all of the wells in the groundwater monitoring network are shown on Figure 2. As listed above and shown on Table 3-1, the CCR groundwater monitoring network for the Landfill includes seven (7) upgradient monitoring wells and five (5) downgradient monitoring wells, which satisfies the requirements of the CCR Rule.

Groundwater levels measured from the wells through September 2017 are included in Appendix A. Groundwater flow maps for the nine (9) monitoring events completed between October 2015 and September 2017 are included in Appendix B.

3.2 Groundwater Sampling

In accordance with §257.90(b)(iii) of the CCR Rule, following the establishment of the groundwater monitoring system at the Landfill, nine (9) independent groundwater samples were collected from each upgradient and each downgradient monitoring well between October 2015 and September 2017. All of these groundwater samples were collected in accordance with the GMPP (AGES, 2016) and will be used to develop the background data set to be used during future semi-annual Detection Monitoring. Table 3-2 summarizes the measurements of field parameters collected at the completion of purging, immediately prior to collection of each

sample. All samples were shipped to an analytical laboratory to be analyzed for all of the parameters listed in Appendix III and Appendix IV of the CCR Rule (Appendix C).

3.3 Analytical Results

In accordance with §257.93(c), groundwater elevations were measured in each well immediately prior to purging each time groundwater was sampled. Groundwater elevations were also measured in all of the Buffalo Sandstone wells at the Landfill on the first day of field work for each monitoring event to avoid temporal variations in groundwater flow. These groundwater elevations were used to determine the direction of groundwater flow and flow rate each time groundwater was sampled. Table 3-3 summarizes the direction and rates of flow for each sampling event, and the minimum time interval between sampling events calculated per the SAP to evaluate the temporal independence of each sample.

In accordance with §257.90(b)(iii) of the CCR Rule, during each of the nine (9) monitoring events conducted between October 2015 and September 2017, groundwater samples were collected from each monitoring well and analyzed for all of the parameters listed in Appendix III and Appendix IV of the CCR Rule. Tables summarizing all of the analytical results are presented in Appendix D.

4.0 BOILER SLAG POND

The BSP is located at the south end of the Kyger Creek Station and is approximately 32 acres in size (Figure 3). The BSP was built in 1955 to serve as a process and disposal area for the coal combustion waste products generated at the station. Overflow from the BSP is carried into a reinforced concrete intake structure at the south end of the Boiler Slag Complex. Water entering the intake structure is discharged into the Clearwater Pond. The Clearwater Pond was built in 1980, is approximately nine (9) acres in size and is located to the southwest end of the BSP. The Clearwater Pond is not a CCR unit and monitoring is not required.

4.1 Groundwater Monitoring Network

An evaluation of the hydrogeology of the BSP and identification of the uppermost aquifer is detailed in the *Monitoring Well Installation Report* (AGES, 2016). In August 2015, the following eight (8) groundwater monitoring wells were installed around the perimeter of the BSP (Table 4-1 and Figure 3) to form the CCR groundwater monitoring network:

- KC-15-01 (Upgradient)
- KC-15-02 (Upgradient)
- KC-15-03 (Variable)
- KC-15-04 (Downgradient)
- KC-15-05 (Downgradient)

- KC-15-06 (Downgradient)
- KC-15-07 (Downgradient)
- KC-15-08 (Downgradient)

Groundwater levels measured from October 2015 through September 2017 are included in Appendix A. Based on the groundwater level measurements, groundwater in the BSP flows from the northwest to the south and southeast towards the Ohio River. Groundwater flow maps for the nine (9) monitoring events completed between October 2015 and September 2017 are included in Appendix B. Three (3) monitoring wells (KC-15-01 through KC-15-03) were installed along the northern border of the BSP to serve as the upgradient groundwater monitoring wells. However, the groundwater level data indicate that water levels in KC-15-03 appear to fluctuate causing KC-15-03 to occasionally be downgradient. Therefore, KC-15-03 will serve as a downgradient well for purposes of statistical analyses. Five (5) downgradient wells (KC-15-04 through KC-15-08) were installed along the western, southern and eastern borders of the BSP.

4.2 Groundwater Sampling

In accordance with §257.90(b)(iii) of the CCR Rule, following the establishment of the groundwater monitoring system at the BSP, nine (9) independent groundwater samples were collected from each upgradient and each downgradient monitoring well between October 2015 and September 2017. All of these groundwater samples were collected in accordance with the GMPP (AGES, 2016) and will be used to develop the background data set to be used during future semi-annual Detection Monitoring. Table 4-2 summarizes the measurements of field parameters collected at the completion of purging, immediately prior to collection of each sample. All samples were shipped to an analytical laboratory to be analyzed for all of the parameters listed in Appendix III and Appendix IV of the CCR Rule (Appendix C).

4.3 Analytical Results

In accordance with §257.93(c), groundwater elevations were measured in each well immediately prior to purging each time groundwater was sampled. Groundwater elevations were also measured in all of the monitoring wells at the BSP on the first day of field work for each monitoring event to avoid temporal variations in groundwater flow. These groundwater elevations were used to determine the direction and rate of groundwater flow each time groundwater was sampled. Table 4-3 summarizes the directions and rates flow for each sampling event, and the minimum time interval between sampling events calculated per the SAP to evaluate the temporal independence of each sample.

In accordance with §257.90(b)(iii) of the CCR Rule, during each of the nine (9) monitoring events conducted between October 2015 and September 2017, groundwater samples were collected from each monitoring well and analyzed for all of the parameters listed in Appendix III

and Appendix IV of the CCR Rule. Tables summarizing all of the analytical results are presented in Appendix D.

5.0 SOUTH FLY ASH POND

The SFAP is located at the northwest end of the station (Figure 4). The SFAP was built in 1955 to serve as a process and disposal area for the coal combustion waste products generated at the station. This collection pond is approximately 67 acres in size and banked on all sides.

5.1 Groundwater Monitoring Network

An evaluation of the hydrogeology of the SFAP and identification of the uppermost aquifer is detailed in the *Monitoring Well Installation Report* (AGES, 2016). In August 2015, the following 14 groundwater monitoring wells were installed around the perimeter of the SFAP (Table 5-1 and Figure 4) to form the CCR groundwater monitoring network:

- KC-15-09 (Upgradient);
- KC-15-10 (Upgradient);
- KC-15-11 (Upgradient);
- KC-15-12 (Upgradient);
- KC-15-13 (Upgradient);
- KC-15-14 (Upgradient);
- KC-15-15 (Variable);
- KC-15-16 (Variable);
- KC-15-17 (Variable);
- KC-15-18 (Downgradient);
- KC-15-19 (Downgradient);
- KC-15-20 (Downgradient);
- KC-15-21 (Downgradient); and
- KC-15-22 (Downgradient).

Groundwater levels measured from October 2015 through September 2017 are included in Appendix A. Groundwater flow maps for the nine (9) monitoring events are included in Appendix B. Based on the groundwater level measurements, groundwater in the central portion of the SFAP flows generally from the north to the south/southeast toward the Ohio River.

As noted in Appendix A, due to fluctuations in the stage of the nearby Ohio River, well KC-15-17 was located upgradient of the northeast portion of the SFAP during five (5) of the nine (9) events, downgradient of the area during three (3) events, and sidegradient during one (1) event. Well KC-15-15 was located upgradient of the northeast portion of the SFAP during three (3) of the nine (9) events, downgradient of the area during five (5) events, and sidegradient during one (1) event. Because of this high degree of variability in flow direction, wells KC-15-15 and KC-

15-17 (and well KC-15-16 which is located between the wells) could not be designated as either upgradient or downgradient. These wells are therefore not included in the statistical evaluations for the SFAP.

5.2 Groundwater Sampling

In accordance with §257.90(b)(iii) of the CCR Rule, following the establishment of the groundwater monitoring system at the SFAP, nine (9) independent groundwater samples were collected from each upgradient and each downgradient monitoring well between October 2015 and September 2017. All of these groundwater samples were collected in accordance with the GMPP (AGES, 2016) and will be used to develop the background data set to be used during future semi-annual Detection Monitoring. Table 5-2 summarizes the measurements of field parameters collected at the completion of purging, immediately prior to collection of each sample. All samples were shipped to an analytical laboratory to be analyzed for all of the parameters listed in Appendix III and Appendix IV of the CCR Rule (Appendix C).

5.3 Analytical Results

In accordance with §257.93(c), groundwater elevations were measured in each well immediately prior to purging each time groundwater was sampled. Groundwater elevations were also measured in all of the monitoring wells at the SFAP on the first day of field work for each monitoring event to avoid temporal variations in groundwater flow. These groundwater elevations were used to determine the direction and rate groundwater flow each time groundwater was sampled. Table 5-3 summarizes the directions and rates of flow for each sampling event, and the minimum time interval between sampling events calculated per the SAP to evaluate the temporal independence of each sample.

In accordance with §257.90(b)(iii) of the CCR Rule, during each of the nine (9) monitoring events conducted between October 2015 and September 2017, groundwater samples were collected from each monitoring well and analyzed for all of the parameters listed in Appendix III and Appendix IV of the CCR Rule. Tables summarizing all of the analytical results are presented in Appendix D.

6.0 PROBLEMS ENCOUNTERED

During the June 2017 monitoring event, Mercury was detected in both of the equipment blanks and in most of the samples collected from the Landfill and from the other CCR units at similar concentrations. Because 1) Mercury was detected in samples that were collected using either disposable bailers or dedicated pumps; 2) Mercury had not been detected at these concentrations in the historic samples collected from the Landfill since 2007 for the OEPA monitoring program; and 3) Mercury had not been detected in groundwater sampled from either the BSP or the SFAP prior to June 2017; it was determined that the Mercury detections were not indicative of a

release. Standard corrections were applied to the affected samples resulting in all of the corrected results to be non-detect. During future monitoring events, OVEC will collect split samples from select wells to be analyzed at another analytical laboratory for Quality Assurance/Quality Control purposes.

7.0 PROJECTED ACTIVITIES FOR 2018

Detection Monitoring will begin in 2018 in accordance with the GMPP. The first semi-annual Detection Monitoring event is planned for the Spring (March or April) of 2018 and the second semi-annual Detection Monitoring event is planned for the Fall (September or October) of 2018. During the Detection Monitoring, in accordance with §257.94 of the CCR Rule, all wells within the groundwater monitoring network will be sampled and analyzed of all constituents listed in Appendix III of the CCR Rule.

In accordance with the U.S. EPA's Unified Guidance (U.S. EPA, 2009), UPLs with retesting are the statistical methods that will be used to identify SSIs over background for Appendix III constituents. The data presented in this report will be used to calculate UPLs. However, additional future data, acquired during the semi-annual sampling events and subsequent retesting sampling events, if necessary, will be required to identify SSIs.

8.0 REFERENCES

American Electric Power Service Corporation (AEP), 1995. Hydrogeologic Site Investigation Report for the Proposed North Fly Ash Pond Closure. June 1995.

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DLZ Ohio, Inc. (DLZ), 2011. Kyger Creek Power Plant – Subsurface Investigation and Analysis of Ash Pond Embankments. January 12, 2011.

Hull & Associates, Inc. (Hull), 2007. Hydrogeologic and Subsurface Investigation Report, Ohio Valley Electric Corporation, Kyger Creek Plant, Residual Waste Landfill, Gallia County, Cheshire, Ohio. March 2007 (Revised December 2008).

Stantec Consulting Services, Inc. (Stantec), 2017. Coal Combustion Residuals Regulation Statistical Analysis Plan, Ohio Valley Electric Corporation, Kyger Creek Station, Cheshire, Gallia County, Ohio. January 2017.

United States Environmental Protection Agency (U.S. EPA), 1991. Handbook of Suggested Practices for the Design and Installation of Ground-Water Monitoring Wells. March 1991.

U.S. EPA, 2009. Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance. March 2009.

TABLES

TABLE 3-1
GROUNDWATER MONITORING NETWORK
CLASS III RESIDUAL WASTE LANDFILL
KYGER CREEK PLANT

Monitoring Well ID	Designation	Date of Installation	Coordinates		Ground Elevation (ft)[2]	Top of Casing Elevation (ft)[2]	Top of Screen Elevation (ft)	Base of Screen Elevation (ft)	Total Depth From Top of Casing (ft)
			Northing	Easting					
CCR Unit Boundary Wells									
BUSW-1	**Downgradient**	6/20/2006	335756.52	2063859.43	781.46	784.21	521.21	508.10	276.11
BUSW-2	**Upgradient**	-	336285.22	2062985.02	792.19	794.98	526.69	506.69	288.56
BUSW-3	**Variable**	9/13/2007	336746.19	2062430.81	787.57	790.01	529.57	504.57	283.56
BUSW-4	**Downgradient**	5/17/2006	337738.57	2062566.35	780.99	783.46	535.76	525.76	257.70
BUSW-5	**Upgradient**	8/2/2007	338123.59	2063553.15	781.06	783.27	542.06	502.06	281.12
IMW-1BU	**Upgradient**	9/6/2007	337177.94	2064160.50	699.89	702.29	519.39	499.39	202.97
CCR-1BU	**Downgradient**	10/13/2015	337641.36	2063220.23	783.41	785.80	524.41	504.41	281.39
CCR-2BU	**Downgradient**	10/21/2015	336302.19	2064286.87	742.28	744.69	514.78	494.78	249.91
Supplemental CCR Wells									
BUSW-8	**Upgradient**	4/17/2006	337692.04	2065706.88	630.59	633.48	498.12	498.12	145.36
BUSW-10	**Downgradient**	6/29/2007	336364.75	2065495.79	617.26	619.76	513.85	498.85	120.91
IMW-2BU	**Upgradient**	9/10/2007	337417.23	2065170.91	609.77	612.44	508.96	493.96	118.48
MW-3D	**Upgradient**	5/1/2006	338184.68	2065077.38	741.11	743.53	515.58	505.58	237.95
MW-4D	**Upgradient**	5/10/2006	336365.51	2066044.36	576.87	579.51	504.94	494.94	84.57

Notes:
1. The well locations are referenced to the Ohio State Plane South, North American Datum (NAD83), east zone coordinate system.
2. Elevations are referenced to the North American Vertical Datum (NAVD) 1988.

Table 3-2
Kyger Creek Plant
Class III Residual Waste Landfill
CCR Monitoring Program
Summary of Measured Field Parameters
October 2015 through September 2017

Sample ID	Date	Temperature	Conductivity	pH	Oxidation Reduction Potential	Dissolved Oxygen	Turbidity
BUSW-1	Oct-15	18.02	5104	9.1	174.4	0.39	3.6
BUSW-2	Oct-15	12.14	6400	8.26	203.5	2.53	4.28
BUSW-3	Oct-15	14.76	44031	6.77	12.1	0.76	4.1
BUSW-4	Oct-15	13.1	35179	7.1	249.3	2.36	25.9
BUSW-5	Oct-15	15.84	32046	7.11	235.5	4.3	2.91
BUSW-8	Oct-15	16.97	29630	7.15	61.3	3.35	3.17
BUSW-10	Oct-15	12.81	7203	7.69	145.3	0.69	4.62
IMW-1BU	Oct-15	15.64	19721	7.59	213	1.49	2.28
IMW-2BU	Oct-15	15.41	29717	7.51	65.5	3.89	3.78
MW-3D	Oct-15	13.32	20019	6.81	300.6	0.79	1.56
MW-4D	Oct-15	14.84	1529	7.69	124.3	0.73	4.18
CCR-1BU	Oct-15	NA	NA	NA	NA	NA	NA
CCR-2BU	Oct-15	NA	NA	NA	NA	NA	NA
BUSW-1	Jan-16	3.91	44698	7.4	-108.3	6.16	4.73
BUSW-2	Jan-16	9.72	7364	8.06	-87.2	2.4	3.05
BUSW-3	Jan-16	11.32	39509	6.56	-40.3	1.9	4.97
BUSW-4	Jan-16	11.49	38565	7.07	194.2	1.68	52.8
BUSW-5	Jan-16	8.28	39422	6.28	-81.2	1.98	1.76
BUSW-8	Jan-16	13.06	32835	6.43	-28.9	4.33	1.9
BUSW-10	Jan-16	11.09	7479	7.56	56.5	0.81	4.08
IMW-1BU	Jan-16	8.66	20183	7.37	88.3	3.02	3.6
IMW-2BU	Jan-16	13.64	29748	7	69.5	1.61	3.34
MW-3D	Jan-16	8.24	37340	6.91	91.2	1.52	3.49
MW-4D	Jan-16	12.76	1792	6.63	-77.2	6.53	4.92
CCR-1BU	Jan-16	2.82	22771	8.8	-16.6	7.75	4.32
CCR-2BU	Jan-16	7.09	1587	7.87	-92.8	1.2	49.3
BUSW-1	Mar-16	16.91	6234	8.93	103.1	2.61	4.27
BUSW-2	Mar-16	16.93	7639	8.37	128.5	8.23	2.83
BUSW-3	Mar-16	18.28	37716	7.29	26.8	0.42	3.21
BUSW-4	Mar-16	9.76	39521	7.1	193.7	4.27	356
BUSW-5	Mar-16	19.36	33781	7.28	135.8	13.2	26.3
BUSW-8	Mar-16	16.51	28882	7.44	7.1	0.9	3.61
BUSW-10	Mar-16	10.76	6678	7.38	3.4	0.42	1.98
IMW-1BU	Mar-16	14.67	18481	7.68	-25.5	0.59	1.65
IMW-2BU	Mar-16	16.01	29292	7.46	18.5	0.3	3.73
MW-3D	Mar-16	15.63	40663	7.4	19.8	2.83	4.08
MW-4D	Mar-16	15.29	1558	7.68	-11.1	0.22	2.87
CCR-1BU	Mar-16	13.26	26930	7.63	5.4	0.56	4.66
CCR-2BU	Mar-16	20.69	2370	10.22	134.7	0.67	16.8

Table 3-2
Kyger Creek Plant
Class III Residual Waste Landfill
CCR Monitoring Program
Summary of Measured Field Parameters
October 2015 through September 2017

Sample ID	Date	Temperature	Conductivity	pH	Oxidation Reduction Potential	Dissolved Oxygen	Turbidity
BUSW-1	May-16	14.71	5185	8.86	171.2	0.79	4.54
BUSW-2	May-16	14.48	6432	7.28	24.7	0.25	2.75
BUSW-3	May-16	17.29	36553	7.36	20.8	0.41	3.23
BUSW-4	May-16	12.41	35791	7.38	26.1	3.05	15
BUSW-5	May-16	13.85	41320	7.03	182.1	0.69	4.07
BUSW-8	May-16	17.16	29481	7.17	34.2	0.16	3.97
BUSW-10	May-16	13.56	7339	7.44	23.1	0.34	4.36
IMW-1BU	May-16	17.19	19521	8.37	176.1	0.52	4.58
IMW-2BU	May-16	14.48	30361	7.6	190.1	0.68	3.12
MW-3D	May-16	15.26	40559	7.37	25	0.81	3.61
MW-4D	May-16	16.41	1630	7.5	14.1	0.05	3.97
CCR-1BU	May-16	13.75	22294	7.19	173.3	1.47	3.55
CCR-2BU	May-16	15.21	1827	9.99	195.1	1.05	4.86
BUSW-1	Sep-16	21.41	7294	9.08	-97.6	1.91	4.91
BUSW-2	Sep-16	28.52	8552	7.68	-14.9	3.47	3.01
BUSW-3	Sep-16	25.93	43662	6.89	-25.2	4.15	20.7
BUSW-4	Sep-16	13.71	28512	7.32	23	2.06	75.9
BUSW-5	Sep-16	17.67	32632	7.49	27.5	0.29	2.87
BUSW-8	Sep-16	25.31	78645	7.38	11.3	0.12	2.68
BUSW-10	Sep-16	14.81	5921	7.71	23.9	0.12	3.91
IMW-1BU	Sep-16	17.38	16819	7.51	12.1	4.3	2.12
IMW-2BU	Sep-16	20.25	25416	7.46	9.3	0.07	3.63
MW-3D	Sep-16	18.72	32989	7.52	23.5	0.58	2.36
MW-4D	Sep-16	16.87	1353	7.58	24.1	4.38	3.83
CCR-1BU	Sep-16	17.46	20846	7.95	-50.5	510.94	1.46
CCR-2BU	Sep-16	23.54	4002	8.86	-60.3	2.12	13.4
BUSW-1	Dec-16	8.37	2357	9.54	66.1	3.15	4.25
BUSW-2	Dec-16	12.8	9065	6.21	157.5	0.24	4.12
BUSW-3	Dec-16	5.13	53319	6.19	86.7	2.09	3.92
BUSW-4	Dec-16	5.87	46238	6.02	151.7	1.89	21
BUSW-5	Dec-16	7.68	53200	6.39	93.5	3.24	3.91
BUSW-8	Dec-16	8.8	25864	7.84	24.2	1.12	1.25
BUSW-10	Dec-16	7.62	9718	8.01	78	0.71	4.32
IMW-1BU	Dec-16	2.53	13154	9.18	40.2	3.67	2.4
IMW-2BU	Dec-16	7.71	22829	8.01	22.1	4.04	2.85
MW-3D	Dec-16	8.14	52461	6.58	86.6	0.87	3.97
MW-4D	Dec-16	9.33	1450	9.47	16.4	3.51	1.44
CCR-1BU	Dec-16	8.97	24943	6.95	89.2	1.55	2.97
CCR-2BU	Dec-16	8.68	1272	10.64	91.1	3.77	4.25

Table 3-2
Kyger Creek Plant
Class III Residual Waste Landfill
CCR Monitoring Program
Summary of Measured Field Parameters
October 2015 through September 2017

Sample ID	Date	Temperature	Conductivity	pH	Oxidation Reduction Potential	Dissolved Oxygen	Turbidity
BUSW-1	Mar-17	11.54	5100	8.47	-92	3.82	4.38
BUSW-2	Mar-17	12.17	9897	7.09	50.9	0.65	2.31
BUSW-3	Mar-17	12.68	45331	6.53	32.6	1.12	3.12
BUSW-4	Mar-17	11.87	48897	6.74	63.8	4.53	26
BUSW-5	Mar-17	11.85	35742	9.57	-67.2	2.88	4.01
BUSW-8	Mar-17	18.78	36634	7.35	123.5	0.55	3.32
BUSW-10	Mar-17	13.11	9858	8.15	47.8	1.14	2.86
IMW-1BU	Mar-17	12.02	22019	9.48	-53.6	2.15	3.1
IMW-2BU	Mar-17	12.32	16312	9.76	-87.9	4.7	2.89
MW-3D	Mar-17	14.68	51929	6.72	58.8	0.75	1.36
MW-4D	Mar-17	16.3	2122	9.17	87.7	1.05	3.73
CCR-1BU	Mar-17	14.08	20798	7.39	47.5	1.15	4.31
CCR-2BU	Mar-17	11.78	3357	8.23	-96.5	3.85	3.71
BUSW-1	Jun-17	11.27	4977	8.21	-82.4	3.56	4.27
BUSW-2	Jun-17	21.33	9297	7.89	91.6	5.64	3.78
BUSW-3	Jun-17	18.1	46036	6.51	112	6.24	3.91
BUSW-4	Jun-17	15.26	35180	7.25	-164.7	4.01	78.1
BUSW-5	Jun-17	13.05	33668	8.12	-71.3	2.57	3.78
BUSW-8	Jun-17	19.35	36231	7.13	1213	5.98	3.76
BUSW-10	Jun-17	14.74	10063	7.98	96.9	9.38	2.91
IMW-1BU	Jun-17	14.97	22123	8.75	-65.7	2.07	2.14
IMW-2BU	Jun-17	14.85	16851	9.01	-72.1	4.21	2.69
MW-3D	Jun-17	15.27	51308	6.77	88.6	7.57	3.75
MW-4D	Jun-17	16.55	1978	6.67	115.8	8.46	3.17
CCR-1BU	Jun-17	16.14	21212	7.52	-105.3	1.81	2.52
CCR-2BU	Jun-17	15.75	3397	8.15	102.4	3.44	2.95
BUSW-1	Sep-17	19.46	6496	7.34	132.9	6.65	3.71
BUSW-2	Sep-17	20.19	9119	7.59	132.9	6.21	3.16
BUSW-3	Sep-17	17.80	45408	6.75	32.8	0.31	3.81
BUSW-4	Sep-17	13.78	50561	6.68	109.7	7.13	48.1
BUSW-5	Sep-17	23.65	51165	6.57	142.6	4.1	2.97
BUSW-8	Sep-17	20.27	36541	6.82	130.7	5.57	2.58
BUSW-10	Sep-17	19.22	10009	7.76	138.8	0.05	2.23
IMW-1BU	Sep-17	17.73	28632	7.1	134.1	0.08	2.65
IMW-2BU	Sep-17	18.65	37791	6.87	136.1	6.21	1.41
MW-3D	Sep-17	18.76	51754	6.63	140.7	5.83	0.81
MW-4D	Sep-17	17.91	654	7.01	130.7	0.23	2.66
CCR-1BU	Sep-17	18.42	20391	7.35	136.1	0.11	2.23
CCR-2BU	Sep-17	16.53	4928	6.24	125.8	8.33	3.93

Table 3-3
Kyger Creek Station
Class III Residual Waste Landfill
CCR Groundwater Monitoring Program
Flow Direction, Flow Rates and Minimum Time Between Samples

Well ID	Oct-15			Jan-16			Mar-16		
	Flow Direction	Flow Rate (ft/day)	t_{min} (days)	Flow Direction	Flow Rate (ft/day)	t_{min} (days)	Flow Direction	Flow Rate (ft/day)	t_{min} (days)
Landfill Area I**									
IMW-1BU[(a)(b)]	West/ Northwest	0.0040	41.68	West/ Northwest	0.0041	40.65	West/ Northwest	0.0041	40.65
BUSW-2[(b)]									
BUSW-3[(b)]									
BUSW-4[(a)]									
BUSW-5[(b)]									
CCR-1BU									
Landfill Area II**									
BUSW-1	East/ Southeast	0.000738	226	East/ Southeast	0.000722	231	East/ Southeast	0.000722	231
BUSW-8[(b)]									
BUSW-10[(a)]									
IMW-1BU[(a)(b)]									
IMW-2BU[(b)]									
CCR-2BU									
MW-3D[(b)]									
MW-4D[(b)]									

**Wells are grouped into areas based on general flow direction.
(a) Well used to calculate flow rate.
(b) Upgradient/Background Well.
t_{min}: Minimum time interval (days) between sampling events.

Table 3-3
Kyger Creek Station
Class III Residual Waste Landfill
CCR Groundwater Monitoring Program
Flow Direction, Flow Rates and Minimum Time Between Samples

Well ID	May-16			Sep-16			Dec-16		
	Flow Direction	Flow Rate (ft/day)	t_{min} (days)	Flow Direction	Flow Rate (ft/day)	t_{min} (days)	Flow Direction	Flow Rate (ft/day)	t_{min} (days)
Landfill Area I**									
IMW-1BU[(a)(b)]	West/ Northwest	0.0040	41.68	West/ Northwest	0.0040	41.68	West/ Northwest	0.0040	41.68
BUSW-2[(b)]									
BUSW-3[(b)]									
BUSW-4[(a)]									
BUSW-5[(b)]									
CCR-1BU									
Landfill Area II**									
BUSW-1	East/ Southeast	0.000574	290	East/ Southeast	0.00082	203	East/ Southeast	0.000869	192
BUSW-8[(b)]									
BUSW-10[(a)]									
IMW-1BU[(a)(b)]									
IMW-2BU[(b)]									
CCR-2BU									
MW-3D[(b)]									
MW-4D[(b)]									

**Wells are grouped into areas based on general flow direction.
(a) Well used to calculate flow rate.
(b) Upgradient/Background Well.
t_{min}: Minimum time interval (days) between sampling events.

Table 3-3
Kyger Creek Station
Class III Residual Waste Landfill
CCR Groundwater Monitoring Program
Flow Direction, Flow Rates and Minimum Time Between Samples

Well ID	Mar-17			Jun-17			Sep-17		
	Flow Direction	Flow Rate (ft/day)	t_{min} (days)	Flow Direction	Flow Rate (ft/day)	t_{min} (days)	Flow Direction	Flow Rate (ft/day)	t_{min} (days)
Landfill Area I**									
IMW-1BU[(a)(b)]	West/ Northwest	0.0039	42.74	West/ Northwest	0.0041	40.65	West/ Northwest	0.0041	40.65
BUSW-2[(b)]									
BUSW-3[(b)]									
BUSW-4[(a)]									
BUSW-5[(b)]									
CCR-1BU									
Landfill Area II**									
BUSW-1	East/ Southeast	0.000836	199	East/ Southeast	0.000787	212	East/ Southeast	0.000787	212
BUSW-8[(b)]									
BUSW-10[(a)]									
IMW-1BU[(a)(b)]									
IMW-2BU[(b)]									
CCR-2BU									
MW-3D[(b)]									
MW-4D[(b)]									

**Wells are grouped into areas based on general flow direction.
(a) Well used to calculate flow rate.
(b) Upgradient/Background Well.
t_{min}: Minimum time interval (days) between sampling events.

TABLE 4-1
GROUNDWATER MONITORING NETWORK
BOILER SLAG POND
KYGER CREEK PLANT

Monitoring Well ID	Designation	Date of Installation	Coordinates		Ground Elevation (ft)[2]	Top of Casing Elevation (ft)[2]	Top of Screen Elevation (ft)	Base of Screen Elevation (ft)	Total Depth From Top of Casing (ft)
			Northing	Easting					
KC-15-01	Upgradient	8/5/2015	332114.55	2072393.84	579.77	579.20	519.77	509.77	69.43
KC-15-02	Upgradient	8/7/2012	332500.654	2072569.222	580.79	580.25	520.79	510.79	69.46
KC-15-03	Variable	8/12/2015	332546.402	2073001.342	582.03	581.55	520.03	510.03	71.52
KC-15-04	Downgradient	8/12/2015	331782.439	2073755.607	579.89	579.37	519.89	509.89	69.48
KC-15-05	Downgradient	8/19/2015	331569.994	2073574.832	580.52	580.07	520.52	510.52	69.55
KC-15-06	Downgradient	8/18/2015	331218.52	2073210.42	579.98	579.48	519.98	509.98	69.50
KC-15-07	Downgradient	8/11/2015	331291.75	2072957.79	578.54	578.04	508.54	498.54	79.50
KC-15-08	Downgradient	8/10/2015	331460.59	2072675.87	579.41	578.75	509.41	499.41	79.34

Notes:
1. The well locations are referenced to the Ohio State Plane South, North American Datum (NAD83), east zone coordinate system.
2. Elevations are referenced to the North American Vertical Datum (NAVD) 1988

Table 4-2
Kyger Creek Plant
Boiler Slag Pond
CCR Monitoring Program
Summary of Measured Field Parameters
October 2015 through September 2017

Sample ID	Date	Temperature	Conductivity	pH	Oxidation Reduction Potential	Dissolved Oxygen	Turbidity
KC-15-01	Oct-15	15.4	522	6.16	39.3	4.01	3.9
KC-15-02	Oct-15	14.32	534	6.91	-32.1	5.91	4
KC-15-03	Oct-15	15.97	661	6.92	117.6	1.37	4.19
KC-15-04	Oct-15	18.06	769	6.68	81.7	1.18	4.83
KC-15-05	Oct-15	17.2	800	6.38	-41.4	0.57	2.5
KC-15-06	Oct-15	15.92	674	6.91	200.2	1.7	4.36
KC-15-07	Oct-15	15.6	624	6.74	-49.1	3.24	19.5
KC-15-08	Oct-15	18.73	1416	6.98	-81.9	6.22	3
KC-15-01	Jan-16	13.37	641	5.57	61	0.58	4.77
KC-15-02	Jan-16	10.32	625	5.88	-28.1	5.29	4.11
KC-15-03	Jan-16	13.19	712	6.3	34.2	0.59	4.13
KC-15-04	Jan-16	10.32	825	6.32	76.2	0.49	4.79
KC-15-05	Jan-16	10.89	938	5.92	-16.7	3.11	4.3
KC-15-06	Jan-16	13.44	664	6.16	74.8	0.54	4.91
KC-15-07	Jan-16	11.67	736	6.65	-42.1	3.65	4.8
KC-15-08	Jan-16	11.84	1576	5.99	-40.9	7.46	4.46
KC-15-01	Mar-16	15.41	446	7.35	26.3	3.44	2.43
KC-15-02	Mar-16	15.4	436	7.41	27.8	5.74	3.31
KC-15-03	Mar-16	17.42	632	7.39	20.9	8.36	4.12
KC-15-04	Mar-16	16.50	692	7.45	20.1	7.8	4.01
KC-15-05	Mar-16	17.71	1060	6.5	156.6	0.37	4.75
KC-15-06	Mar-16	15.71	725	6.61	137.1	0.37	4.26
KC-15-07	Mar-16	14.78	805	6.77	145.1	0.39	4.78
KC-15-08	Mar-16	19.87	1558	7.11	140.2	0.33	4.58
KC-15-01	May-16	17.02	616	6.7	170.4	0.93	3.78
KC-15-02	May-16	17.27	578	7.17	25.4	2.73	4.01
KC-15-03	May-16	15.73	591	7.14	34.5	3.7	3.06
KC-15-04	May-16	16.13	661	7.41	12.1	4.77	4.17
KC-15-05	May-16	15.52	770	7.48	19.9	3.5	3.12
KC-15-06	May-16	16.95	616	7.28	24.6	3.35	3.63
KC-15-07	May-16	14.8	580	7.25	24.8	0.45	2.72
KC-15-08	May-16	17.86	1185	7.17	25.9	3.71	3.73
KC-15-01	Sep-16	17.23	500	7.62	41.8	3.43	3.91
KC-15-02	Sep-16	17.28	531	7.62	47.7	2.18	3.86
KC-15-03	Sep-16	17	550	7.48	35.5	0.44	3.1
KC-15-04	Sep-16	16.85	650	7.46	40.1	0.21	2.8
KC-15-05	Sep-16	22.39	8445	7.57	20.1	2.94	5.81
KC-15-06	Sep-16	17.05	510	7.57	33.4	2.86	3.33
KC-15-07	Sep-16	15.61	471	7.59	36.1	0.45	4.54
KC-15-08	Sep-16	22.35	1059	7.55	28.6	3.3	4.06

Table 4-2
Kyger Creek Plant
Boiler Slag Pond
CCR Monitoring Program
Summary of Measured Field Parameters
October 2015 through September 2017

Sample ID	Date	Temperature	Conductivity	pH	Oxidation Reduction Potential	Dissolved Oxygen	Turbidity
KC-15-01	Dec-16	13.21	525	5.57	141.5	5.88	2.31
KC-15-02	Dec-16	12.38	7.64	6.34	130.8	0.76	3.23
KC-15-03	Dec-16						
KC-15-04	Dec-16	13.66	1032	5.7	129.5	0.86	3.32
KC-15-05	Dec-16	14.73	1140	5.84	148.1	0.46	3.71
KC-15-06	Dec-16	15.12	931	6.04	148.3	0.34	3.34
KC-15-07	Dec-16	14.15	894	6.04	132.1	0.57	3.21
KC-15-08	Dec-16	15.08	1532	6	135.5	0.34	3.62
KC-15-01	Mar-17	13.43	581	8.09	60.3	0.84	3.73
KC-15-02	Mar-17	11.37	752	8.83	52.3	1.83	3.71
KC-15-03	Mar-17	11.51	865	6.12	87.1	1.09	3.64
KC-15-04	Mar-17	13.25	907	6.19	53.6	0.25	2.71
KC-15-05	Mar-17	9.8	939	6.51	44.3	1.03	4.23
KC-15-06	Mar-17	8.71	777	6.35	47.2	0.71	3.72
KC-15-07	Mar-17	9.89	871	6.47	48.5	0.9	18
KC-15-08	Mar-17	16.51	1648	7.09	114.9	1.56	3.91
Clear Water Pond	Mar-17	5.51	490	6.86	31.8	2.05	3.56
KC-15-01	Jun-17	21.12	846	6.74	111.3	5.91	4.32
KC-15-02	Jun-17	16.55	888	7.55	97.7	8.43	2.96
KC-15-03	Jun-17	15.82	919	6.56	98.1	8.91	2.75
KC-15-04	Jun-17	21.27	968	6.24	112.3	5.93	15.5
KC-15-05	Jun-17	18.91	1077	6.29	99.1	7.04	2.85
KC-15-06	Jun-17	19.62	899	6.39	113.8	6.49	1.71
KC-15-07	Jun-17	20.81	884	6.38	98.7	6.08	3.81
KC-15-08	Jun-17	17.72	1685	6.74	79	7.68	3.09
Clear Water Pond	Jun-17	26.92	560	7.07	115.7	3.48	39.5
KC-15-01	Sep-17	21.79	327	6.14	135.6	5.82	2.76
KC-15-02	Sep-17	20.55	317	5.65	149.5	6.18	4.35
KC-15-03	Sep-17	19.95	334	6.46	141.2	6.53	3.82
KC-15-04	Sep-17	17.27	718	8.46	-51	1.2	4.12
KC-15-05	Sep-17	16.39	730	8.1	-24.8	0.93	3.68
KC-15-06	Sep-17	22.99	764	6.49	51.8	5.24	3.76
KC-15-07	Sep-17	20.77	688	6.52	134.6	6.11	4.32
KC-15-08	Sep-17	20.92	369	6.78	148.1	0.15	4.12
Clear Water Pond	Sep-17	25.16	284	6.64	158.3	0.32	4.9

Table 4-3
Kyger Creek Station
Boiler Slag Pond
CCR Groundwater Monitoring Program
Flow Direction, Flow Rates and Minimum Time Between Samples

Well ID	Oct-15			Jan-16			Mar-16		
	Flow Direction	Flow Rate (ft/day)	t_{min} (days)	Flow Direction	Flow Rate (ft/day)	t_{min} (days)	Flow Direction	Flow Rate (ft/day)	t_{min} (days)
KC-15-01[(b)]	Southeast	0.0662	2.52	Southeast	0.0662	2.52	Southeast	0.0869	1.92
KC-15-02[(a)(b)]									
KC-15-03									
KC-15-04									
KC-15-05									
KC-15-06[(a)]									
KC-15-07									
KC-15-08									

(a) Well used to calculate Flow Rate.
(b) Upgradient/Background Well
t_{min}: Minimum time interval (days) between sampling events.

Table 4-3
Kyger Creek Station
Boiler Slag Pond
CCR Groundwater Monitoring Program
Flow Direction, Flow Rates and Minimum Time Between Samples

Well ID	May-16			Sep-16			Dec-16		
	Flow Direction	Flow Rate (ft/day)	t_{min} (days)	Flow Direction	Flow Rate (ft/day)	t_{min} (days)	Flow Direction	Flow Rate (ft/day)	t_{min} (days)
KC-15-01[b]	Southeast	0.0845	1.97	South/ Southeast	0.0449	3.71	South/ Southeast	0.0449	3.71
KC-15-02[a][b]									
KC-15-03				Northeast			Northeast		
KC-15-04									
KC-15-05									
KC-15-06[a]				South/ Southeast			South/ Southeast		
KC-15-07									
KC-15-08									

(a) Well used to calculate Flow Rate.
(b) Upgradient/Background Well
t_{min}: Minimum time interval (days) between sampling events.

Table 4-3
Kyger Creek Station
Boiler Slag Pond
CCR Groundwater Monitoring Program
Flow Direction, Flow Rates and Minimum Time Between Samples

Well ID	Mar-17			Jun-17			Sep-17		
	Flow Direction	Flow Rate (ft/day)	t_{min} (days)	Flow Direction	Flow Rate (ft/day)	t_{min} (days)	Flow Direction	Flow Rate (ft/day)	t_{min} (days)
KC-15-01[(b)]	South	0.0146	11.4	North/ Northeast	0.0115	14.5	North/ Northeast	0.0109	15.3
KC-15-02[(a)(b)]									
KC-15-03									
KC-15-04									
KC-15-05									
KC-15-06[(a)]									
KC-15-07									
KC-15-08									

(a) Well used to calculate Flow Rate.
(b) Upgradient/Background Well
t_{min}: Minimum time interval (days) between sampling events.

TABLE 5-1
GROUNDWATER MONITORING NETWORK
SOUTH FLY ASH POND
KYGER CREEK PLANT

Monitoring Well ID	Designation	Date of Installation	Coordinates		Ground Elevation (ft)[2]	Top of Casing Elevation (ft)[2]	Top of Screen Elevation (ft)	Base of Screen Elevation (ft)	Total Depth From Top of Casing (ft)
			Northing	Easting					
KC-15-09	Upgradient	9/15/2015	334631.959	2072494.446	587.85	587.47	516.85	506.85	80.62
KC-15-10	Upgradient	9/16/2015	335018.949	2072695.744	587.75	587.45	523.75	513.75	73.70
KC-15-11	Upgradient	8/20/2015	335426.144	2072970.304	588.07	587.71	524.07	514.07	73.64
KC-15-12	Upgradient	9/17/2015	335867.034	2073268.666	588.40	587.94	524.40	514.40	73.54
KC-15-13	Upgradient	9/1/2015	336047.047	2073665.155	588.23	587.86	521.23	511.23	76.73
KC-15-14	Upgradient	8/20/2015	335808.537	2074057.138	588.85	587.80	524.85	513.85	72.95
KC-15-15	Variable	9/2/2015	335558.54	2074472.666	587.95	587.63	523.95	513.95	73.68
KC-15-16	Variable	9/3/2015	335223.916	2074799.53	588.82	588.38	524.82	514.82	73.50
KC-15-17	Variable	9/3/2015	334881.253	2074480.308	588.68	588.13	524.68	514.68	73.45
KC-15-18	Downgradient	8/25/2015	334507.455	2074126.888	588.27	587.72	524.27	514.27	73.45
KC-15-19	Downgradient	9/9/2015	334132.454	2073771.27	588.47	588.18	524.47	514.47	73.71
KC-15-20	Downgradient	8/27/2015	333841.393	2073452.842	589.45	588.72	525.45	515.45	73.26
KC-15-21	Downgradient	8/27/2015	334089.953	2073009.526	588.28	587.84	518.28	508.28	79.56
KC-15-22	Downgradient	9/10/2015	334307.567	2072647.434	587.51	587.27	518.51	508.51	78.76

Notes:
1. The well locations are referenced to the Ohio State Plane South, North American Datum (NAD83), east zone coordinate system.
2. Elevations are referenced to the North American Vertical Datum (NAVD) 1988.

Table 5-2
Kyger Creek Plant
South Fly Ash Pond
CCR Monitoring Program
Summary of Measured Field Parameters
October 2015 through September 2017

Sample ID	Date	Temperature	Conductivity	pH	Oxidation Reduction Potential	Dissolved Oxygen	Turbidity
KC-15-09	Oct-15	14.48	521	7.07	113.8	0.82	2.34
KC-15-10	Oct-15	13.83	430	6.57	160.1	0.84	4.27
KC-15-11	Oct-15	14.69	409	6.25	55.7	4.48	3.96
KC-15-12	Oct-15	14.39	443	6.99	-70.2	0.73	3.1
KC-15-13	Oct-15	15.35	791	6.04	26.8	1.33	1.89
KC-15-14	Oct-15	15.67	751	6.5	-52.6	1.01	1.2
KC-15-15	Oct-15	15.25	558	5.54	244.2	0.87	4.16
KC-15-16	Oct-15	17.09	568	6.87	141.8	0.7	4.79
KC-15-17	Oct-15	17.85	899	6.43	146.8	0.77	3.04
KC-15-18	Oct-15	16.58	912	6.12	144.8	1.07	2.59
KC-15-19	Oct-15	18.2	1170	6.52	57	1.03	3.98
KC-15-20	Oct-15	18.08	1119	6.9	-96.3	0.55	4.1
KC-15-21	Oct-15	16.16	779	6.88	129.3	2.2	3.94
KC-15-22	Oct-15	15.34	610	7.21	122.7	1.15	1.83
KC-15-09	Jan-16	11.73	504	8.46	70.4	0.72	4.48
KC-15-10	Jan-16	10.73	429	6.48	68.1	0.57	4.94
KC-15-11	Jan-16	10.84	438	6.35	64	0.64	4.92
KC-15-12	Jan-16	10.64	551	6.95	66.3	0.62	4.81
KC-15-13	Jan-16	12.3	819	6.89	-18.9	2.37	4.98
KC-15-14	Jan-16	10.72	816	6.58	68.8	0.64	3.09
KC-15-15	Jan-16	12.78	593	5.76	61.3	2.23	4.32
KC-15-16	Jan-16	10.82	598	6.81	69.9	0.68	3.93
KC-15-17	Jan-16	13.39	1042	6.91	-36.7	1.83	4.81
KC-15-18	Jan-16	13.78	1048	6.63	74.8	0.75	2.74
KC-15-19	Jan-16	12.79	1411	5.98	-14.7	2.03	4.51
KC-15-20	Jan-16	10.95	1155	7.77	133.1	0.79	4.87
KC-15-21	Jan-16	13.65	636	6.69	-63.4	5.82	4.89
KC-15-22	Jan-16	13.84	868	6.75	68	0.58	4.61
KC-15-09	Mar-16	14.33	569	7.77	124.9	1.72	4.11
KC-15-10	Mar-16	14.76	483	6.46	134.9	0.4	4.71
KC-15-11	Mar-16	14.91	324	6.49	140.6	0.46	3.05
KC-15-12	Mar-16	14.57	589	7.01	104.2	0.53	3.81
KC-15-13	Mar-16	16.71	958	6.04	170.1	0.39	4.17
KC-15-14	Mar-16	17.91	942	6.42	175.7	0.39	4.12
KC-15-15	Mar-16	16.77	721	6.07	146.5	0.57	3.89
KC-15-16	Mar-16	17.12	716	7.25	140.3	1.3	4.72
KC-15-17	Mar-16	16.98	977	7.32	-1.8	4	3.67
KC-15-18	Mar-16	15.89	854	7.4	20	2.19	3.82
KC-15-19	Mar-16	16.86	1223	7.35	30.5	7.78	4.01
KC-15-20	Mar-16	17.64	1162	7.34	21.9	4.95	4.13
KC-15-21	Mar-16	16.92	722	7.35	-13.2	7.45	16.1
KC-15-22	Mar-16	17.09	445	7.26	32.7	6.15	4.81

Table 5-2
Kyger Creek Plant
South Fly Ash Pond
CCR Monitoring Program
Summary of Measured Field Parameters
October 2015 through September 2017

Sample ID	Date	Temperature	Conductivity	pH	Oxidation Reduction Potential	Dissolved Oxygen	Turbidity
KC-15-09	May-16	20.81	481	6.9	216.5	0.55	4.11
KC-15-10	May-16	15.78	342	6.42	231.1	0.51	4.35
KC-15-11	May-16	16.55	358	6.4	232.8	0.85	4.11
KC-15-12	May-16	18.52	495	7.11	236	0.52	4.46
KC-15-13	May-16	18.38	687	6.01	210.6	6.93	18.8
KC-15-14	May-16	17.43	695	6.39	218.9	0.48	4.23
KC-15-15	May-16	17.94	550	5.89	181.9	0.58	4.48
KC-15-16	May-16	17.94	521	6.64	240.8	0.44	4.21
KC-15-17	May-16	20.64	1034	7.15	29.8	1.02	2.27
KC-15-18	May-16	17.43	909	7.16	34.4	2.97	4.37
KC-15-19	May-16	18.25	1251	7.13	30.2	289	2.23
KC-15-20	May-16	19.04	1181	7.17	30.5	3.97	3.96
KC-15-21	May-16	17.84	679	6.79	248.1	0.46	3.52
KC-15-22	May-16	18.4	520	7.11	243.4	0.41	4.12
KC-15-09	Sep-16	17.8	678	5.69	164.1	3.59	3.21
KC-15-10	Sep-16	16	592	6.14	179.6	9.36	3.68
KC-15-11	Sep-16	15.63	560	5.29	182.7	1.41	4.56
KC-15-12	Sep-16	19.39	508	7.46	35.7	3.35	3.7
KC-15-13	Sep-16	20.15	1083	5.55	182.9	1.18	3.35
KC-15-14	Sep-16	19.21	1101	5.91	171.2	1.21	3.68
KC-15-15	Sep-16	18.22	831	5.76	89.2	2.15	4.41
KC-15-16	Sep-16	19.5	876	5.86	181.1	3.53	371
KC-15-17	Sep-16	20.48	1598	6.26	178.4	1.27	3.92
KC-15-18	Sep-16	17.75	1208	5.94	175.6	1.82	3.55
KC-15-19	Sep-16	20.73	1784	5.87	152.2	1.27	4.83
KC-15-20	Sep-16	19.12	1566	6.17	87.5	1.94	4.33
KC-15-21	Sep-16	20.34	702	7.52	27.4	3.18	3.92
KC-15-22	Sep-16	16.37	481	7.54	37.1	4.78	4.66
KC-15-09	Dec-16	9.47	377	6.91	26.9	3.84	14.5
KC-15-10	Dec-16	10.7	342	6.31	9.9	4.71	4.02
KC-15-11	Dec-16	11.21	572	5.8	118.3	1.15	2.81
KC-15-12	Dec-16	10.19	887	6.12	121.5	0.76	3.73
KC-15-13	Dec-16	12.53	734	6.27	-7.5	3.51	3.55
KC-15-14	Dec-16	13.11	699	6.38	-30.2	2.87	4.15
KC-15-15	Dec-16	13.13	648	5.44	13.4	4.02	3.65
KC-15-16	Dec-16	12	552	6.56	6.9	2.56	4.02
KC-15-17	Dec-16	14.03	1225	6.72	22.2	4.31	4.2
KC-15-18	Dec-16	12.98	850	6.72	33.6	3.69	3.9
KC-15-19	Dec-16	12.06	1635	5.99	151.7	0.25	3.12
KC-15-20	Dec-16	14.03	1525	5.95	145.8	0.38	3.85
KC-15-21	Dec-16	14.64	785	6.88	-25.4	3.17	4.05
KC-15-22	Dec-16	13	618	6.96	-44.3	2.33	3.71

Table 5-2
Kyger Creek Plant
South Fly Ash Pond
CCR Monitoring Program
Summary of Measured Field Parameters
October 2015 through September 2017

Sample ID	Date	Temperature	Conductivity	pH	Oxidation Reduction Potential	Dissolved Oxygen	Turbidity
KC-15-09	Mar-17	7.03	245	6.87	37.3	3.89	15.4
KC-15-10	Mar-17	9.78	348	9.48	-40.5	2.17	4.53
KC-15-11	Mar-17	9.7	389	7.55	6	4.63	4.11
KC-15-12	Mar-17	8.53	610	5.72	29.8	3.55	3.12
KC-15-13	Mar-17	13.39	762	8.18	-51.1	3.51	4.22
KC-15-14	Mar-17	13	779	9.08	-56.4	2.71	3.09
KC-15-15	Mar-17	13.33	6.55	8.14	-13.1	3.97	3.91
KC-15-16	Mar-17	13.83	818	6.39	79	1.76	3.98
KC-15-17	Mar-17	14.15	1794	6.28	87.8	0.79	3.86
KC-15-18	Mar-17	12.97	1140	6.29	60.3	1.15	3.72
KC-15-19	Mar-17	12.52	1471	6.26	68.4	0.55	3.24
KC-15-20	Mar-17	15.19	1498	6.44	121.1	1.69	17.5
KC-15-21	Mar-17	10.86	859	10.51	-48.2	3.14	14.3
KC-15-22	Mar-17	10.79	670	10.1	-92.8	2.51	3.58
KC-15-09	Jun-17	19.31	580	7.53	-38.9	3.69	3.57
KC-15-10	Jun-17	16.08	5650	7.03	-31.2	1.95	3.55
KC-15-11	Jun-17	16.07	609	7.41	9.4	4.51	4.72
KC-15-12	Jun-17	16.56	718	6.97	-10.8	3.4	3.71
KC-15-13	Jun-17	17.03	751	7.48	-27.8	3.45	3.45
KC-15-14	Jun-17	17.1	306	7.3	-31.2	3.01	3.54
KC-15-15	Jun-17	20.69	285	7	-31.6	3.77	3.98
KC-15-16	Jun-17	20.2	671	7.78	-68.2	1.67	3.47
KC-15-17	Jun-17	18.44	720	7.79	-42	0.64	4.17
KC-15-18	Jun-17	16.79	594	7.16	-63.9	1.25	4.75
KC-15-19	Jun-17	20.63	719	7.28	-39.5	0.61	3.77
KC-15-20	Jun-17	20.26	1428	6.22	124.8	6.32	3.86
KC-15-21	Jun-17	16.93	236	7.16	-60.6	3.1	3.77
KC-15-22	Jun-17	17.52	657	7.11	-100.1	2.42	3.14
KC-15-09	Sep-17	15.64	652	7.65	-30	1.36	4.28
KC-15-10	Sep-17	15.5	639	7.26	-5.8	0.37	3.4
KC-15-11	Sep-17	21.67	678	7.53	-10.7	0.7	3.52
KC-15-12	Sep-17	17.18	881	7.3	52.1	0.77	3.78
KC-15-13	Sep-17	16.46	789	7.84	30.1	0.6	3.78
KC-15-14	Sep-17	18.1	805	7.61	31.7	0.32	4.15
KC-15-15	Sep-17	17.22	436	7.58	96.7	0.32	3.25
KC-15-16	Sep-17	18.57	865	7.88	-36.1	1.08	3.78
KC-15-17	Sep-17	18.33	705	7.36	-38.1	1.1	3.73
KC-15-18	Sep-17	21.64	1077	7.16	-22	0.82	4.91
KC-15-19	Sep-17	19.83	735	7.65	29.3	0.98	4.72
KC-15-20	Sep-17	17.25	700	7.5	-60.6	1.2	3.61
KC-15-21	Sep-17	17.99	368	7.8	-42.7	1.13	5.15
KC-15-22	Sep-17	17.23	792	7.84	-98.4	0.95	3.78

Table 5-3
Kyger Creek Station
South Fly Ash Pond
CCR Groundwater Monitoring Program
Flow Direction, Flow Rates and Minimum Time Between Samples

Well ID	Oct-15			Jan-16			Mar-16		
	Flow Direction	Flow Rate (ft/day)	t_{min}	Flow Direction	Flow Rate (ft/day)	t_{min}	Flow Direction	Flow Rate (ft/day)	t_{min}
KC-15-09	South/ Southeast	0.014	11.56	South/ Southeast	0.116	14.42	Southwest	0.022	7.66
KC-15-10									
KC-15-11									
KC-15-12 (a)									
KC-15-13									
KC-15-14									
KC-15-15									
KC-15-16									
KC-15-17									
KC-15-18									
KC-15-19									
KC-15-20 (b)									
KC-15-21									
KC-15-22									

(a)Upgradient Well

(b) Downgradient Well

t_{min}: Minimum time interval (days) between sampling events.

Table 5-3
Kyger Creek Station
South Fly Ash Pond
CCR Groundwater Monitoring Program
Flow Direction, Flow Rates and Minimum Time Between Samples

Well ID	May-16			Sep-16			Dec-16		
	Flow Direction	Flow Rate (ft/day)	t_{min}	Flow Direction	Flow Rate (ft/day)	t_{min}	Flow Direction	Flow Rate (ft/day)	t_{min}
KC-15-09	South/ Southeast	0.013	12.25	South/ Southeast	0.008	20.42	South / Southeast	0.008	20.42
KC-15-10									
KC-15-11									
KC-15-12 (a)									
KC-15-13									
KC-15-14									
KC-15-15									
KC-15-16									
KC-15-17									
KC-15-18									
KC-15-19									
KC-15-20 (b)									
KC-15-21									
KC-15-22									

(a)Upgradient Well

(b) Downgradient Well

t_{min}: Minimum time interval (days) between sampling events.

Table 5-3
Kyger Creek Station
South Fly Ash Pond
CCR Groundwater Monitoring Program
Flow Direction, Flow Rates and Minimum Time Between Samples

Well ID	Mar-17			Jun-17			
	Flow Direction	Flow Rate (ft/day)	t_{min}	Flow Direction	Flow Rate (ft/day)	t_{min}	Flow Direction
KC-15-09	South/ Southeast	0.004	40.85	South/ Southeast	0.004	36.04	South/ Southeast
KC-15-10							
KC-15-11							
KC-15-12 (a)							
KC-15-13							
KC-15-14							
KC-15-15							
KC-15-16							
KC-15-17							
KC-15-18							
KC-15-19							
KC-15-20 (b)							
KC-15-21							
KC-15-22							

(a)Upgradient Well

(b) Downgradient Well
t_{min}: Minimum time interval (days) between sampling events.

Table 5-3
Kyger Creek Station
South Fly Ash Pond
CCR Groundwater Monitoring Program
Flow Direction, Flow Rates and Minimum Time Between Samples

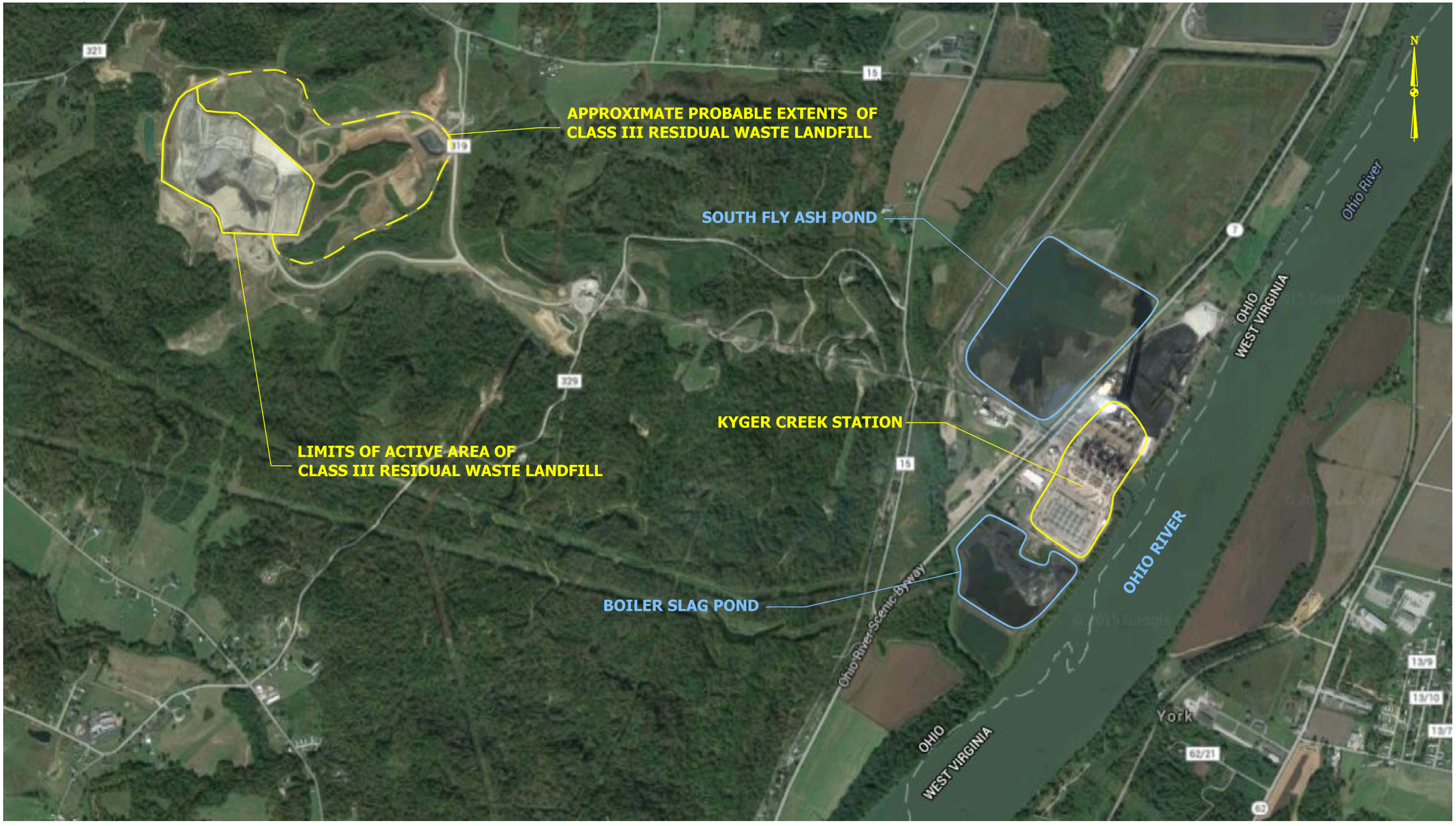
Well ID	Sep-17	
	Flow Rate (ft/day)	t_{min}
KC-15-09	0.004	34.04
KC-15-10		
KC-15-11		
KC-15-12 (a)		
KC-15-13		
KC-15-14		
KC-15-15		
KC-15-16		
KC-15-17		
KC-15-18		
KC-15-19		
KC-15-20 (b)		
KC-15-21		
KC-15-22		

(a)Upgradient Well

(b) Downgradient Well

t_{min}: Minimum time interval (days) between sampling events.

FIGURES



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JOB NO.	2017110-KYG
DWG FILE	KYGER Corrective Action_CCR_Aerial Site b01.dwg
DRAWING SCALE	NOT TO SCALE

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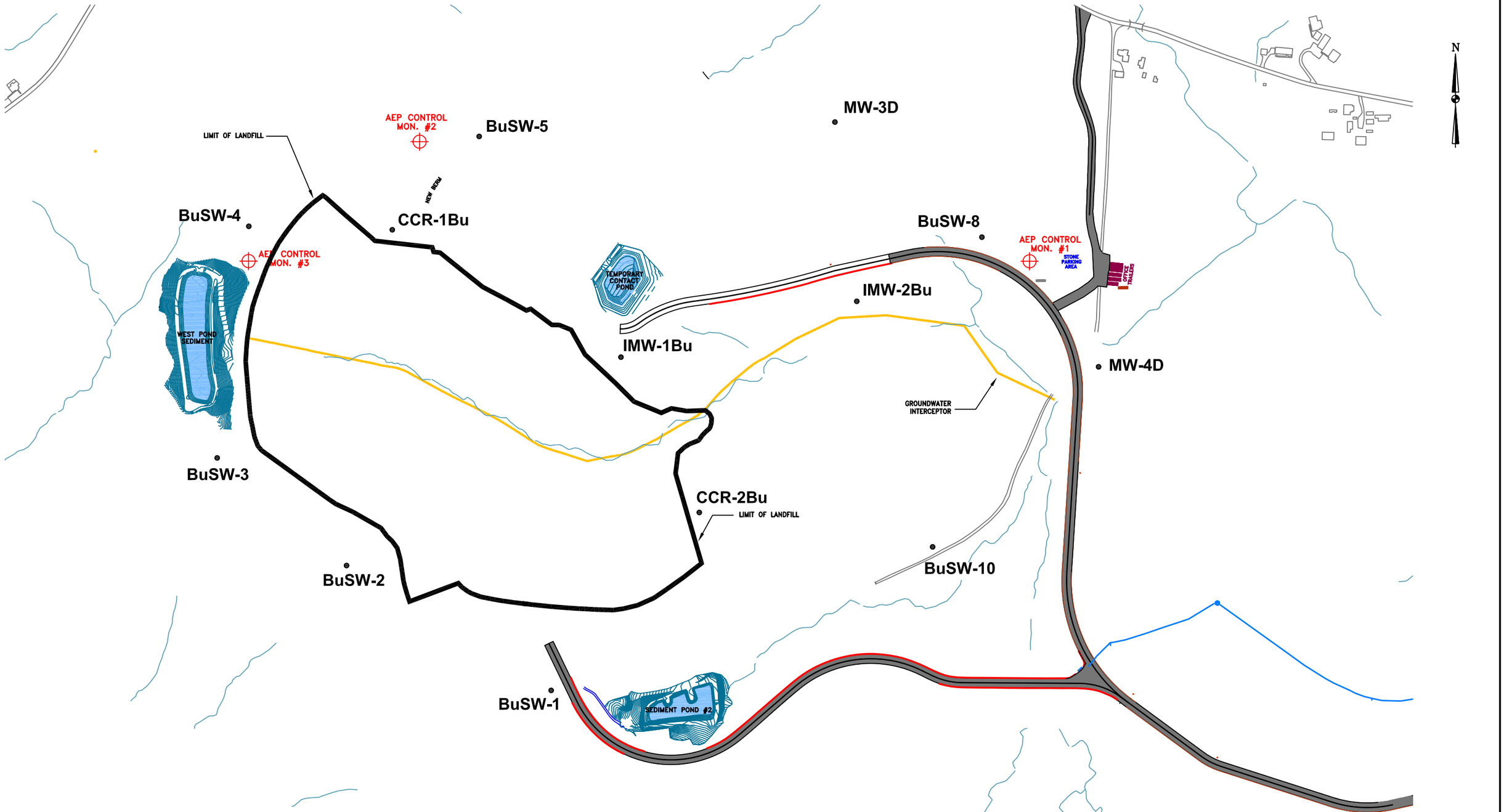
OHIO VALLEY ELECTRIC COMPANY

KYGER CREEK STATION
CHESHIRE, GALLIA COUNTY, OHIO
SITE LOCATION MAP

DRAWING NAME	REV.
FIGURE 1	0

Plot: 01/15/2018 14:32 _PROGRAMS-KYGER OVEC\Kyger Creek-CCR Program\CAD\2017 GW Monitoring-Corrective Action Rpt\KYGER Corrective Action_CRR_Aerial Site b01.dwg



DRAWN BY	JM
DATE	
CHECKED BY	
JOB NO.	2017110-KYGER
DWG FILE	KYGER Corrective Action_CCR_Well Locs b02.dwg
DRAWING SCALE	AS SHOWN

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OHIO VALLEY ELECTRIC COMPANY

KYGER CREEK STATION
CHESHIRE, GALLIA COUNTY, OHIO
CLASS III RESIDUAL WASTE LANDFILL
GROUNDWATER MONITORING WELL LOCATIONS

DRAWING NAME: FIGURE 2

REV.: 0

Plot: 01/15/2018 14:55 _PROGRAMS-KYGER OVEC\Kyger Creek-CCR Program\CAD\2017 GW Monitoring-Corrective Action Rpt\KYGER Corrective Action_CCR_Well Locs b02.dwg

N

KC-15-03

KC-15-02

OHIO ROUTE 7

KC-15-01

BOILER SLAG POND

KC-15-04

KC-15-05

KYGER CREEK

KC-15-08

KC-15-07

KC-15-06

CLEARWATER POND

OHIO RIVER

200' 0' 200' 400'

SCALE: 1"= 200'

DRAWN BY	JM
DATE	
CHECKED BY	
JOB NO.	2017110-KYGER
DWG FILE	KYGER Corrective Action_CCR_Ponds+MWs b03.dwg
DRAWING SCALE	1"=200'

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OHIO VALLEY ELECTRIC COMPANY

KYGER CREEK STATION
CHESHIRE, GALLIA COUNTY, OHIO
BOILER SLAG POND
GROUNDWATER MONITORING WELL LOCATIONS

DRAWING NAME: FIGURE 3

REV. 0

Plot: 01/15/2018 15:12 _PROGRAMS-KYGER OVEC\Kyger Creek-CCR Program\CAD\2017 GW Monitoring-Corrective Action Rpt\KYGER Corrective Action_CCR_Ponds+MWs b03.dwg

N

KYGER CREEK

RAILROAD TRACKS

DRAINAGE DITCH

NORTH FLY ASH POND

KC-15-13

KC-15-12

KC-15-14

KC-15-11

KC-15-15

KC-15-16

SOUTH FLY ASH POND

KC-15-10

KC-15-17

KC-15-09

KC-15-18

OHIO ROUTE 7

KC-15-22

KC-15-21

KC-15-19

KC-15-20

POWER PLANT

OHIO RIVER

300’ 0’ 300’ 600’

SCALE: 1”= 300’

DRAWN BY	JM
DATE	
CHECKED BY	
JOB NO.	2017110-KYGER
DWG FILE	KYGER Corrective Action_CCR_Ponds+MWs b04.dwg
DRAWING SCALE	1”=300’

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OHIO VALLEY ELECTRIC COMPANY

KYGER CREEK STATION
CHESHIRE, GALLIA COUNTY, OHIO
SOUTH FLY ASH POND
GROUNDWATER MONITORING WELL LOCATIONS

DRAWING NAME: FIGURE 4

REV. 0

Plot: 01/15/2018 15:22 _PROGRAMS-KYGER OVEC\Kyger Creek-CCR Program\CAD\2017 GW Monitoring-Corrective Action Rpt\KYGER Corrective Action_CCR_Ponds+MWs b04.dwg

APPENDIX A

GROUNDWATER ELEVATIONS

TABLE A-1
KYGER CREEK PLANT
SUMMARY OF GROUNDWATER ELEVATION DATA
OCTOBER 2015 - SEPTEMBER 2017

	Oct-15	Jan-16	Mar-16	May-16	Sep-16	Dec-16	Mar-17	Jun-17	Sep-17
Monitoring Well Designation	**Groundwater Elevation (ft)**	**Groundwater Elevation (ft)**	**Groundwater Elevation (ft)**	**Groundwater Elevation (ft)**	**Groundwater Elevation (ft)**	**Groundwater Elevation (ft)**	**Groundwater Elevation (ft)**	**Groundwater Elevation (ft)**	**Groundwater Elevation (ft)**
CLASS III RESIDUAL WASTE LANDFILL									
BuSW-1	568.54	568.16	568.21	568.04	568.13	568.42	568.07	568.48	571.90
BuSW-2	570.93	570.88	570.89	570.78	570.88	571.21	570.89	571.17	574.58
BuSW-3	552.15	551.31	548.21	556.72	558.01	554.28	561.29	551.55	554.97
BuSW-4	530.81	529.68	529.35	529.05	531.74	531.31	532.08	530.10	533.53
BuSW-5	575.69	575.19	575.10	574.27	575.46	574.48	575.06	575.44	578.86
BuSW-8	564.75	564.35	564.33	564.21	564.29	564.58	564.20	564.67	568.08
BuSW-10	565.82	565.26	565.38	565.24	565.32	564.77	565.18	565.47	568.89
1MW-1Bu	573.01	572.29	571.92	570.77	573.24	573.15	573.39	573.16	576.59
1MW-2Bu	565.23	564.62	564.57	564.44	564.54	564.93	564.51	565.07	568.49
MW-4D	566.41	565.89	566.20	565.76	565.81	566.06	565.78	566.19	569.62
MW-3D	577.48	571.20	573.05	560.30	575.21	574.56	573.93	571.56	574.98
CCR-1BU	NM	559.00	575.76	577.45	579.00	578.25	579.04	559.18	562.59
CCR-2BU	NM	566.71	564.75	566.61	566.69	567.00	566.57	547.06	550.48
BOILER SLAG POND									
KC-15-01	539.27	539.78	540.23	539.56	539.25	539.30	542.39	539.06	538.59
KC-15-02	539.48	539.97	540.46	539.79	539.40	539.45	542.42	539.00	538.51
KC-15-03	539.32	539.81	540.27	539.63	538.63	538.68	542.32	538.78	538.28
KC-15-04	538.52	539.07	539.20	538.52	538.81	538.86	542.32	538.97	538.49
KC-15-05	538.49	539.07	539.12	538.47	538.75	538.80	542.22	538.80	538.31
KC-15-06	538.39	538.88	539.03	538.40	538.66	538.71	542.18	538.81	538.33
KC-15-07	538.46	539.04	539.19	538.54	538.66	538.71	542.18	538.94	538.48
KC-15-08	538.86	539.38	539.68	539.03	538.93	539.38	542.25	538.95	538.48
SOUTH FLY ASH POND									
KC-15-09	540.73	540.88	541.51	540.90	540.10	540.16	542.60	540.96	539.87
KC-15-10	540.91	541.04	541.70	541.10	540.22	540.28	542.71	541.08	540.00
KC-15-11	541.13	541.21	541.91	541.32	540.37	540.43	542.89	541.54	540.46
KC-15-12	541.20	541.22	541.95	541.38	540.36	540.42	542.86	541.22	540.13
KC-15-13	541.09	541.21	541.92	541.42	540.32	540.44	542.88	541.24	540.15
KC-15-14	541.00	541.10	541.82	541.20	540.27	540.33	NM	541.13	540.04
KC-15-15	540.76	540.96	541.63	540.97	540.18	540.24	542.68	541.04	539.95
KC-15-16	540.47	540.76	541.30	540.75	540.07	540.13	542.73	541.07	539.96
KC-15-17	540.66	544.98	541.46	540.84	540.18	540.26	542.83	541.18	540.08
KC-15-18	540.39	540.69	541.30	540.61	539.99	538.05	542.62	540.98	539.89
KC-15-19	540.21	540.58	541.15	540.46	539.88	539.94	NM	537.41	536.22
KC-15-20	540.14	540.37	540.97	540.30	539.74	539.80	542.56	540.88	539.76
KC-15-21	540.38	540.57	541.18	540.54	539.90	539.96	542.43	540.77	NM
KC-15-22	540.58	540.79	541.40	540.74	540.09	540.15	542.58	540.95	539.37

TABLE A-2
Summary of Groundwater Elevation Data: KC-15-15 & KC-15-17
October 2015 through September 2017

Date of Event	Groundwater Elevation KC-15-17 (ft-msl)	Groundwater Elevation KC-15-15 (ft-msl)	Elevation Difference (ft)	Designation of KC-15-17
October 2015	540.66	540.76	-0.1	Downgradient
January 2016	544.98	540.96	4.02	Upgradient
March 2016	541.46	541.63	-0.17	Downgradient
May 2016	540.84	540.97	-0.13	Downgradient
September 2016	540.18	540.18	0	Side-gradient
December 2016	540.26	540.24	0.02	Upgradient
March 2017	542.83	542.68	0.15	Upgradient
June 2017	541.18	541.04	0.14	Upgradient
September 2017	540.08	539.95	0.13	Upgradient

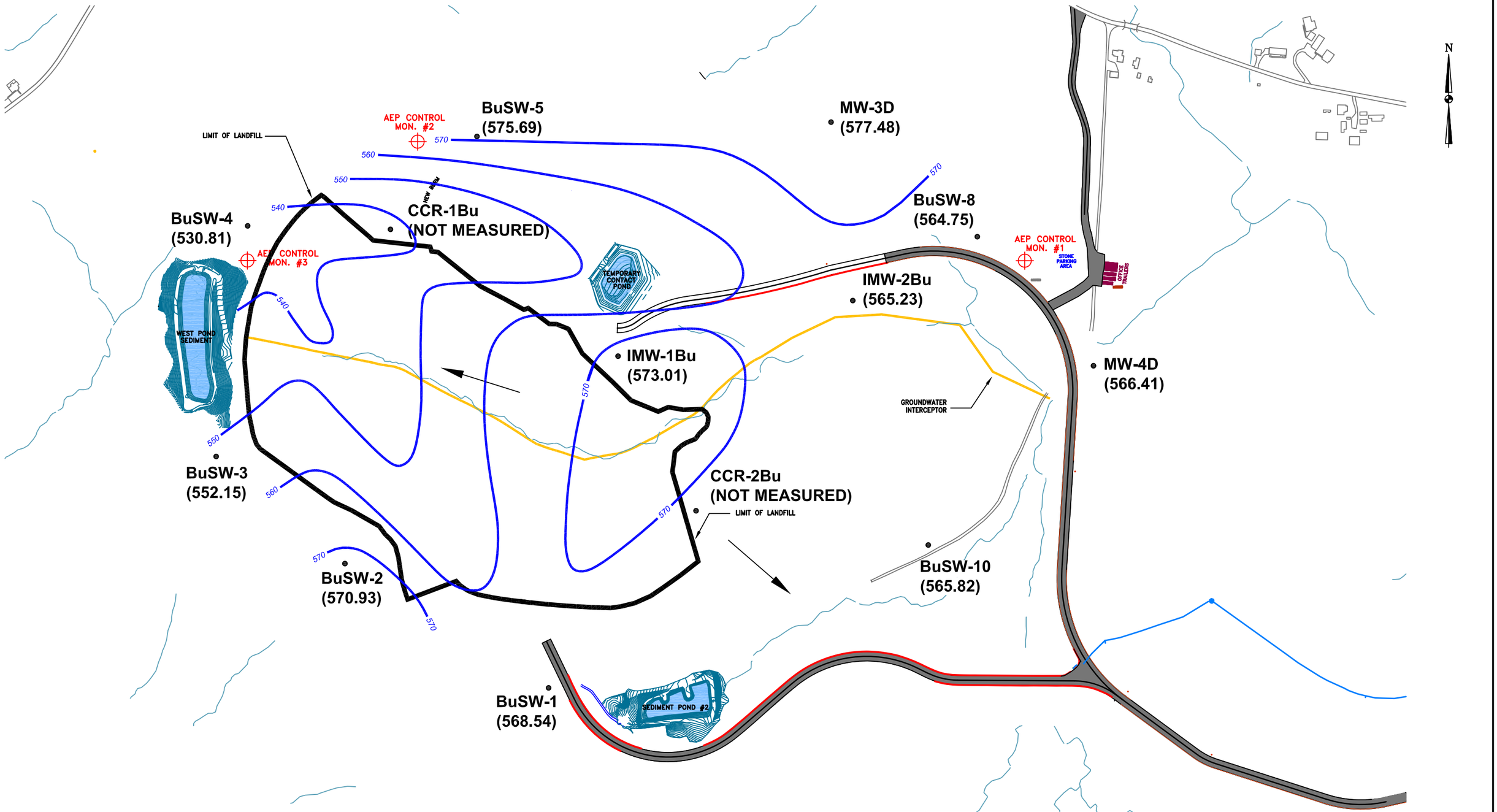
Notes:

- Elevation difference calculated by subtracting the elevation of well KC-15-15 from well KC-15-17. A positive result indicates that well KC-15-17 is upgradient of well KC-15-15 and the SFAP. A result of zero indicates no flow and well KC-15-17 is assumed to be side-gradient.
- Well KC-15-17 was noted as an upgradient well during five (5) of the nine (9) events, side-gradient during one (1) event, and downgradient during three (3) events.
- Well KC-15-15 was noted as an upgradient well during three (3) events, side-gradient during one (1) event, and downgradient during five (5) events.
- Based on these results, the hydraulic location of wells KC-15-15 and KC-15-17 and well KC-15-16 (between the other wells) are highly variable and the three (3) wells cannot be designated as upgradient or downgradient.

APPENDIX B

GROUNDWATER FLOW MAPS

Class III Residual Waste Landfill



LEGEND:

- POTENTIOMETRIC SURFACE CONTOUR
- BuSW-1 — MONITORING WELL
- (570.89) — GROUNDWATER ELEVATION
- GROUNDWATER FLOW DIRECTION

400' 0' 400' 800'

SCALE: 1"= 400'

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DATE	
CHECKED BY	
JOB NO.	2017110-KYGER
DWG FILE	B-1_KYGER GW CONTOURS_OCT 2015_BUFFALO b01.dwg
DRAWING SCALE	AS SHOWN

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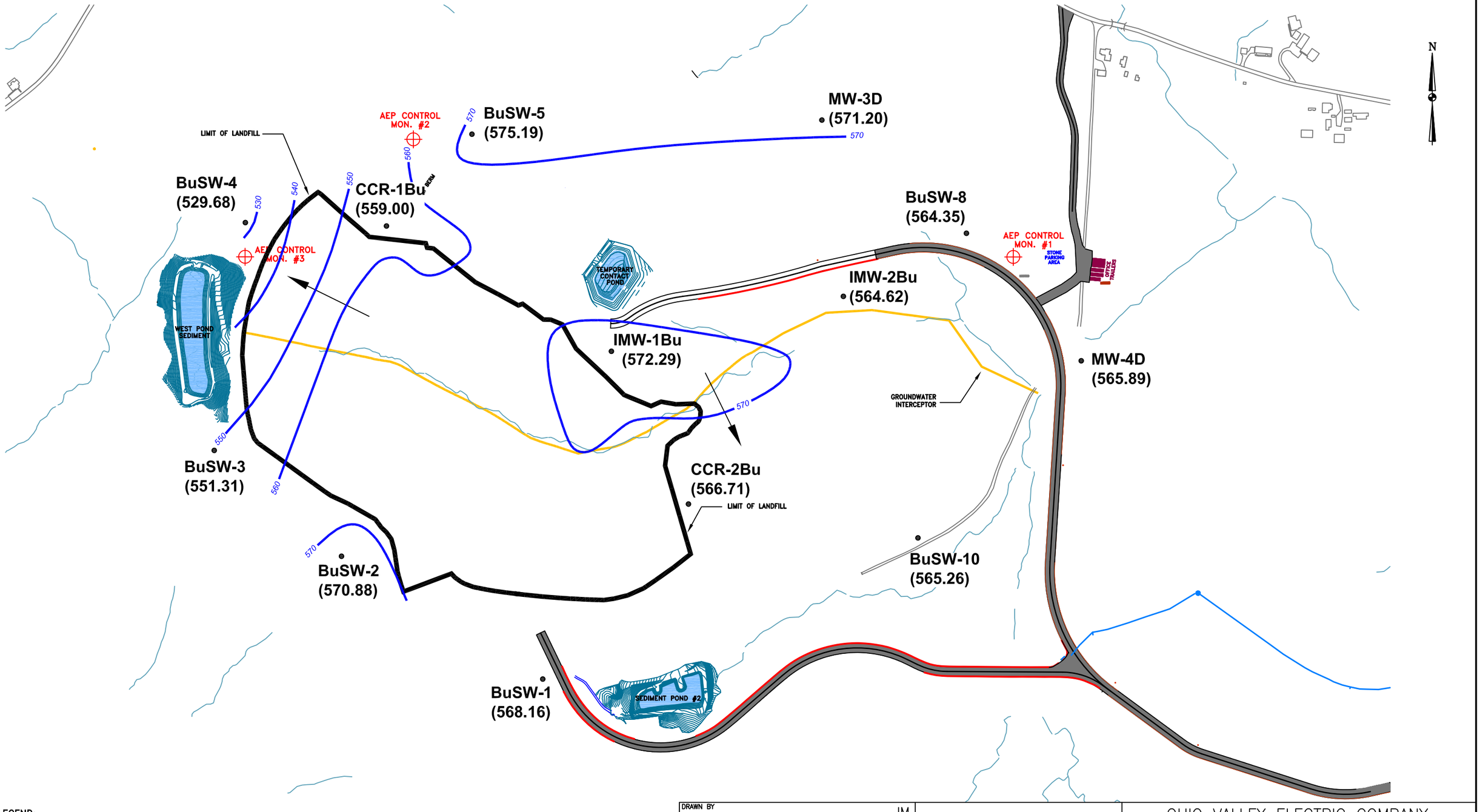
OHIO VALLEY ELECTRIC COMPANY

KYGER CREEK STATION
CHESHIRE, GALLIA COUNTY, OHIO
CLASS III RESIDUAL WASTE LANDFILL
GROUNDWATER CONTOUR MAP – OCTOBER 2015

DRAWING NAME: FIGURE B-1

REV.: 0

Plot: 01/15/2018 10:27 _PROGRAM-KYGER OVEC\Kyger Creek-CCR Program\CAD\2017 GW Monitoring-Corrective Action Rpt\APPX B\B-1_KYGER GW CONTOURS_OCT15_BUFFALO b01.dwg



LEGEND:

- POTENTIOMETRIC SURFACE CONTOUR
- BuSW-1 — MONITORING WELL
- (570.88) — GROUNDWATER ELEVATION
- GROUNDWATER FLOW DIRECTION

400' 0' 400' 800'

SCALE: 1"= 400'

DRAWN BY	JM
DATE	
CHECKED BY	
JOB NO.	2017110-KYGER
DWG FILE	B-2_KYGER GW CONTOURS_JAN16_BUFFALO b02.dwg
DRAWING SCALE	AS SHOWN

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CHESHIRE, GALLIA COUNTY, OHIO
CLASS III RESIDUAL WASTE LANDFILL
GROUNDWATER CONTOUR MAP – JANUARY 2016

DRAWING NAME: FIGURE B-2

REV. 0

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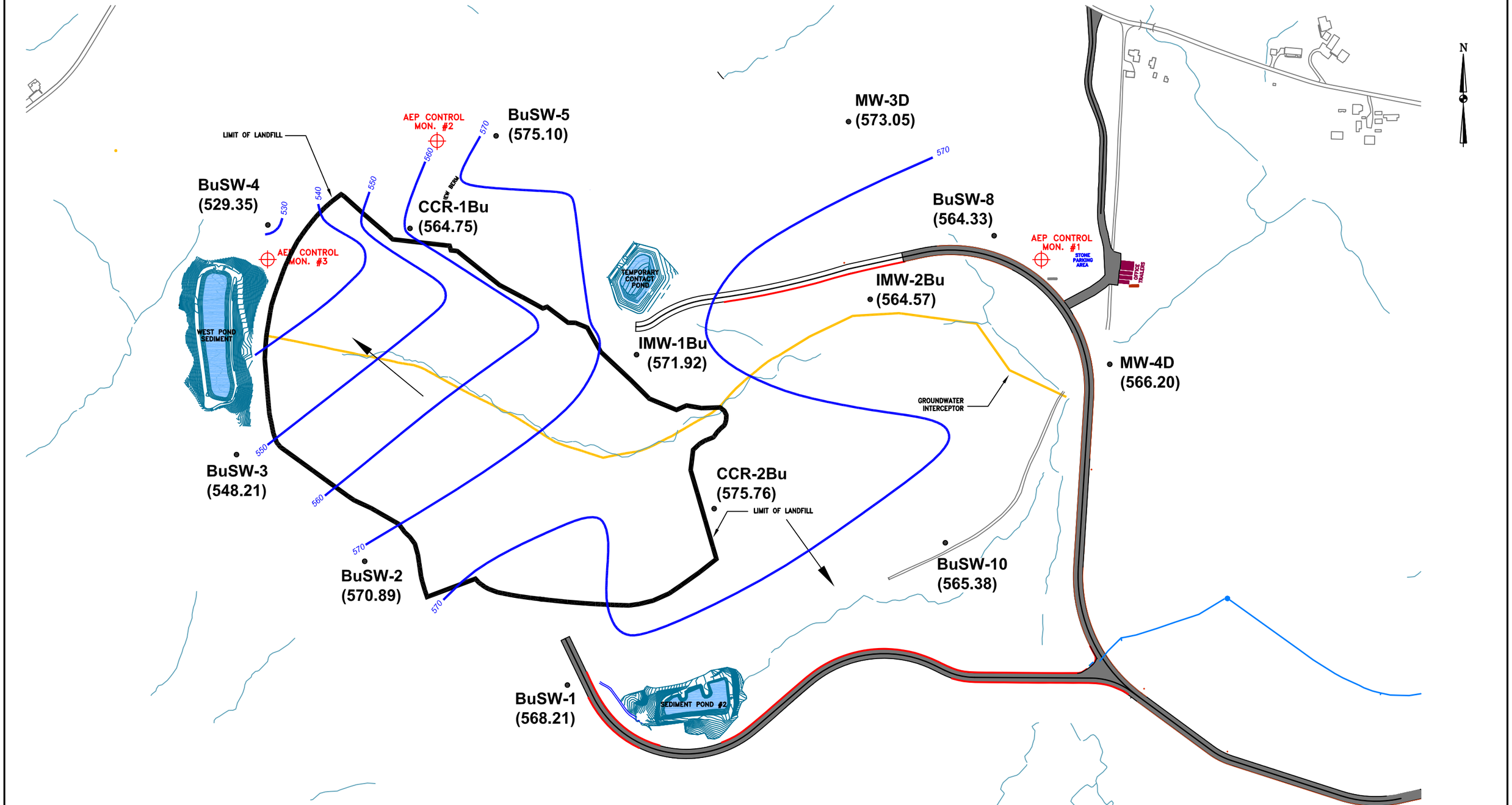

LEGEND:

- POTENTIOMETRIC SURFACE CONTOUR
- BuSW-1 — MONITORING WELL
- (570.89) — GROUNDWATER ELEVATION
- GROUNDWATER FLOW DIRECTION

400' 0' 400' 800'

SCALE: 1"= 400'

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CHECKED BY	
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DWG FILE	B-3_KYGER GW CONTOURS_MAR16_BUFFALO b03.dwg
DRAWING SCALE	AS SHOWN

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KYGER CREEK STATION
CHESHIRE, GALLIA COUNTY, OHIO
CLASS III RESIDUAL WASTE LANDFILL
GROUNDWATER CONTOUR MAP – MARCH 2016

DRAWING NAME: FIGURE B-3

REV.: 0

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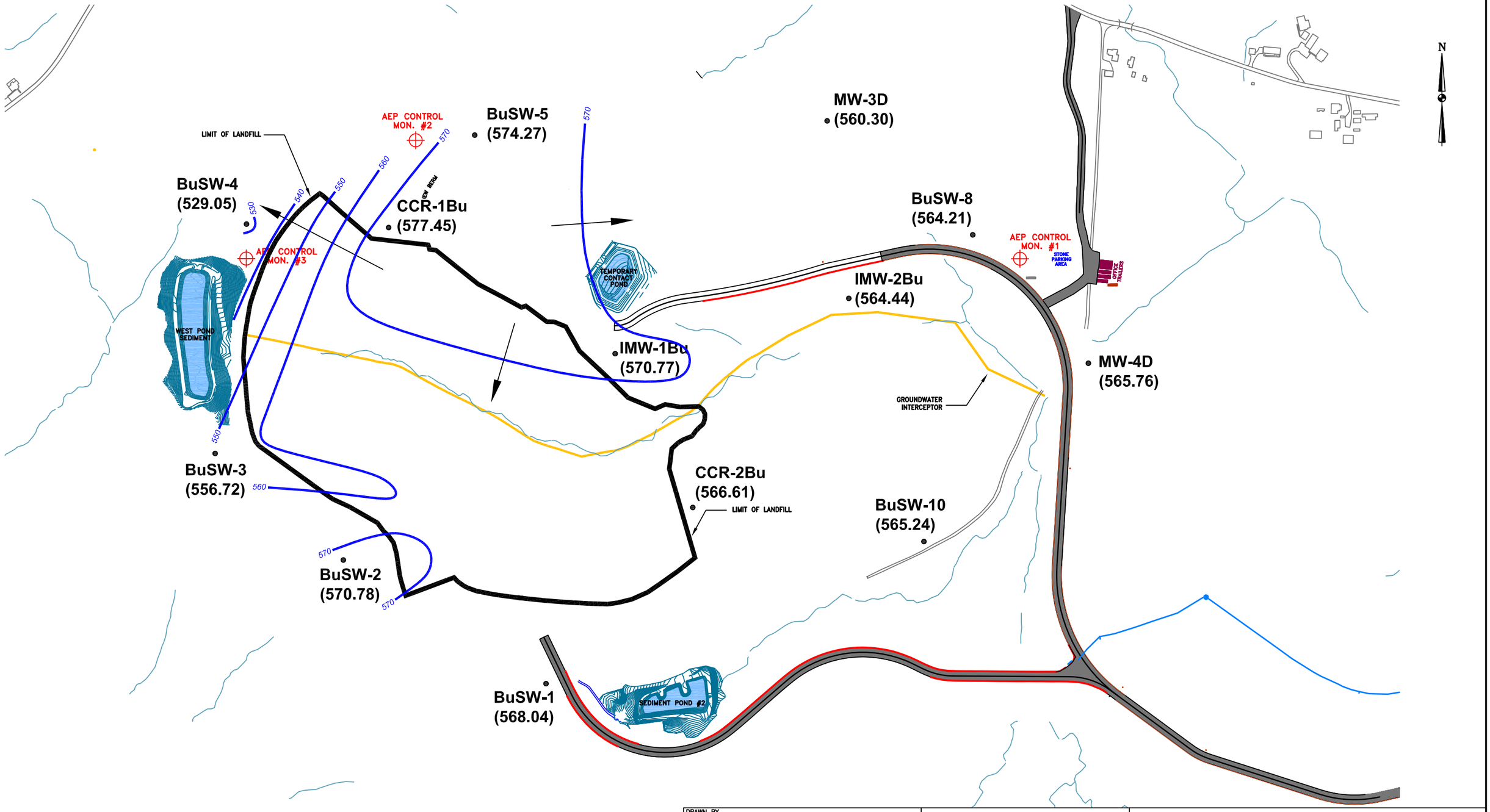

LEGEND:

- POTENTIOMETRIC SURFACE CONTOUR
- BuSW-1 MONITORING WELL
- (570.89) GROUNDWATER ELEVATION
- GROUNDWATER FLOW DIRECTION

400' 0' 400' 800'

SCALE: 1"= 400'

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CHECKED BY	
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DWG FILE	B-4_KYGER GW CONTOURS_MAY16_BUFFALO b04.dwg
DRAWING SCALE	AS SHOWN

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OHIO VALLEY ELECTRIC COMPANY

KYGER CREEK STATION
CHESHIRE, GALLIA COUNTY, OHIO
CLASS III RESIDUAL WASTE LANDFILL
GROUNDWATER CONTOUR MAP – MAY 2016

DRAWING NAME: FIGURE B-4

REV.: 0

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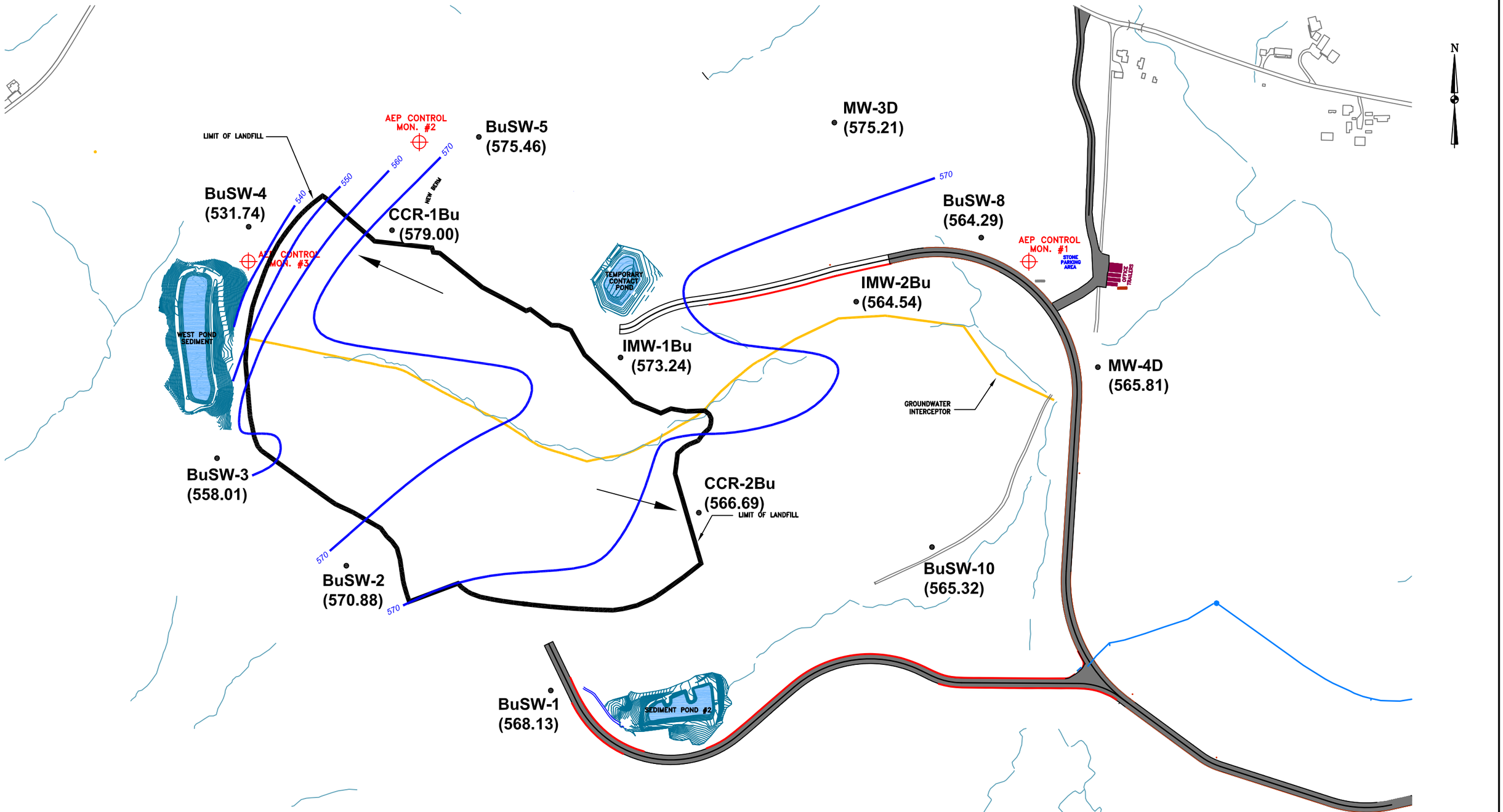

LEGEND:

- POTENTIOMETRIC SURFACE CONTOUR
- BuSW-1 — MONITORING WELL
- (570.89) — GROUNDWATER ELEVATION
- GROUNDWATER FLOW DIRECTION

400' 0' 400' 800'

SCALE: 1"= 400'

DRAWN BY	JM
DATE	
CHECKED BY	
JOB NO.	2017110-KYGER
DWG FILE	B-5_KYGER GW CONTOURS_SEPT16_BUFFALO b05.dwg
DRAWING SCALE	AS SHOWN

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OHIO VALLEY ELECTRIC COMPANY

KYGER CREEK STATION
CHESHIRE, GALLIA COUNTY, OHIO
CLASS III RESIDUAL WASTE LANDFILL
GROUNDWATER CONTOUR MAP – SEPTEMBER 2016

DRAWING NAME: FIGURE B-5

REV.: 0

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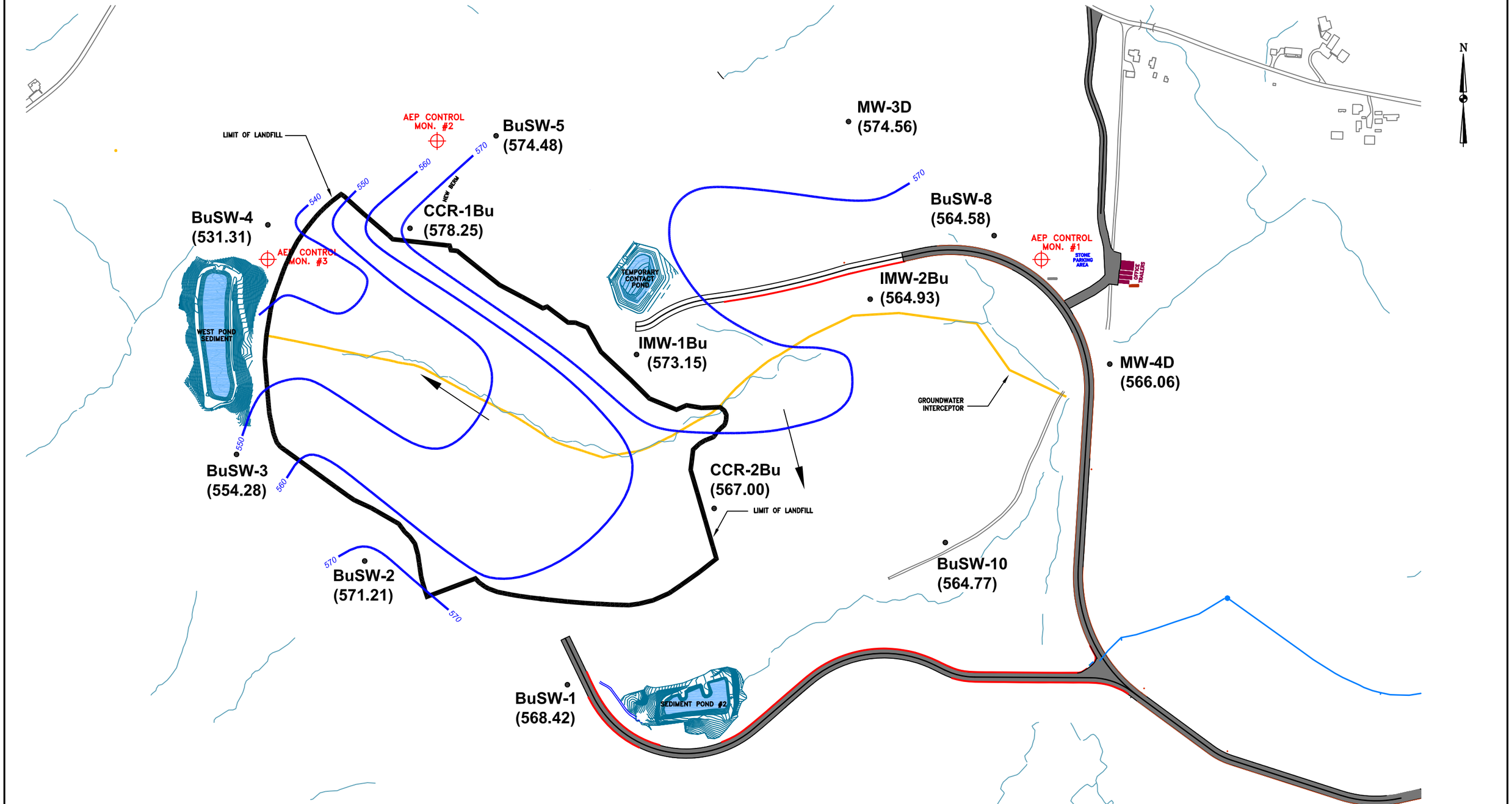

LEGEND:

- POTENTIOMETRIC SURFACE CONTOUR
- BuSW-1 MONITORING WELL
- (570.89) GROUNDWATER ELEVATION
- GROUNDWATER FLOW DIRECTION

400' 0' 400' 800'

SCALE: 1"= 400'

DRAWN BY	JM
DATE	
CHECKED BY	
JOB NO.	2017110-KYGER
DWG FILE	B-6_KYGER GW CONTOURS_DEC16_BUFFALO b06.dwg
DRAWING SCALE	AS SHOWN

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OHIO VALLEY ELECTRIC COMPANY

KYGER CREEK STATION
CHESHIRE, GALLIA COUNTY, OHIO
CLASS III RESIDUAL WASTE LANDFILL
GROUNDWATER CONTOUR MAP – DECEMBER 2016

DRAWING NAME: FIGURE B-6

REV.: 0

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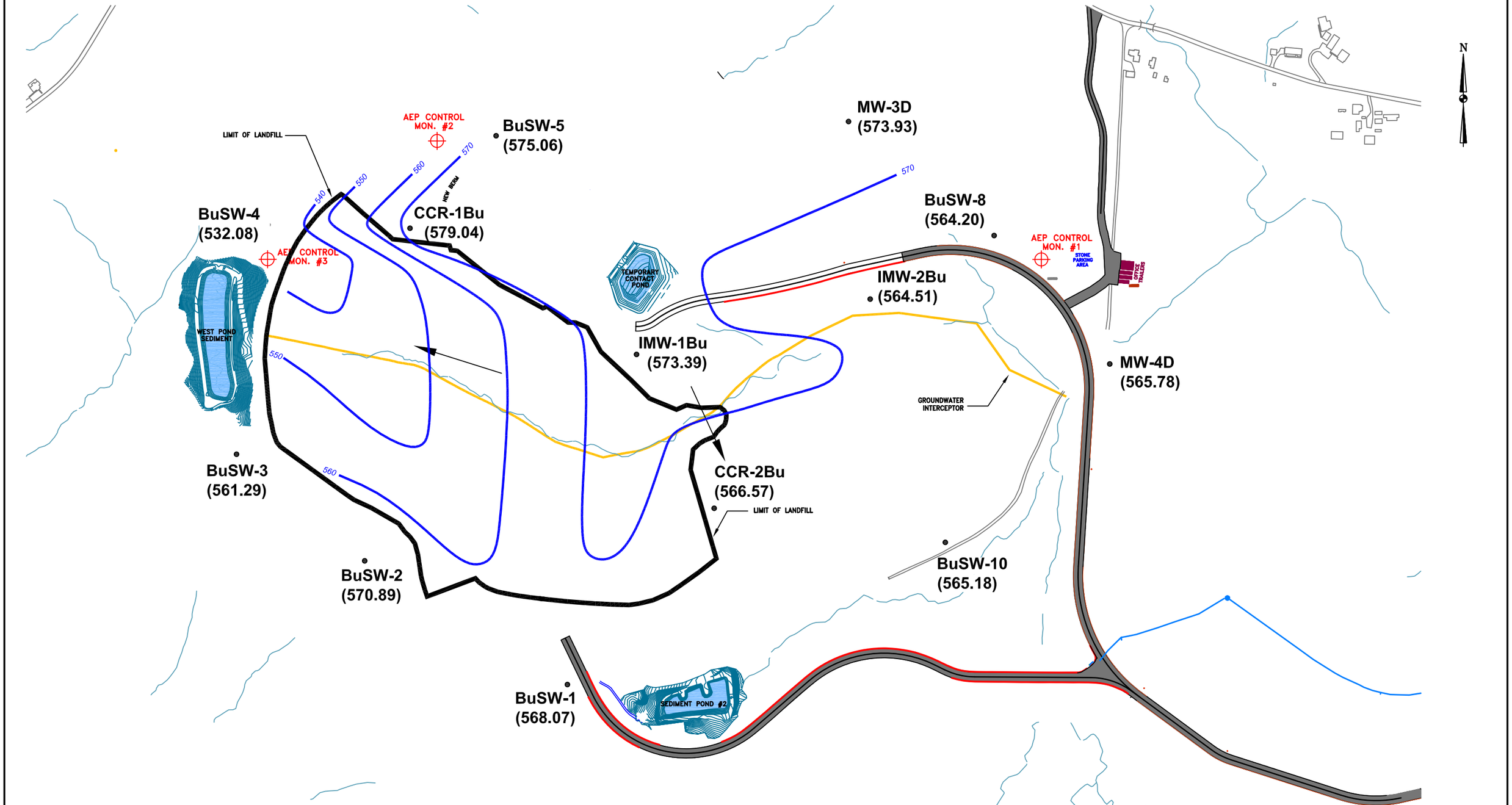

LEGEND:

- POTENTIOMETRIC SURFACE CONTOUR
- BuSW-1 MONITORING WELL
- (570.89) GROUNDWATER ELEVATION
- GROUNDWATER FLOW DIRECTION

400' 0' 400' 800'

SCALE: 1"= 400'

DRAWN BY	JM
DATE	
CHECKED BY	
JOB NO.	2017110-KYGER
DWG FILE	B-7_KYGER GW CONTOURS_MAR17_BUFFALO b07.dwg
DRAWING SCALE	AS SHOWN

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OHIO VALLEY ELECTRIC COMPANY

KYGER CREEK STATION
CHESHIRE, GALLIA COUNTY, OHIO
CLASS III RESIDUAL WASTE LANDFILL
GROUNDWATER CONTOUR MAP – MARCH 2017

DRAWING NAME: FIGURE B-7

REV.: 0

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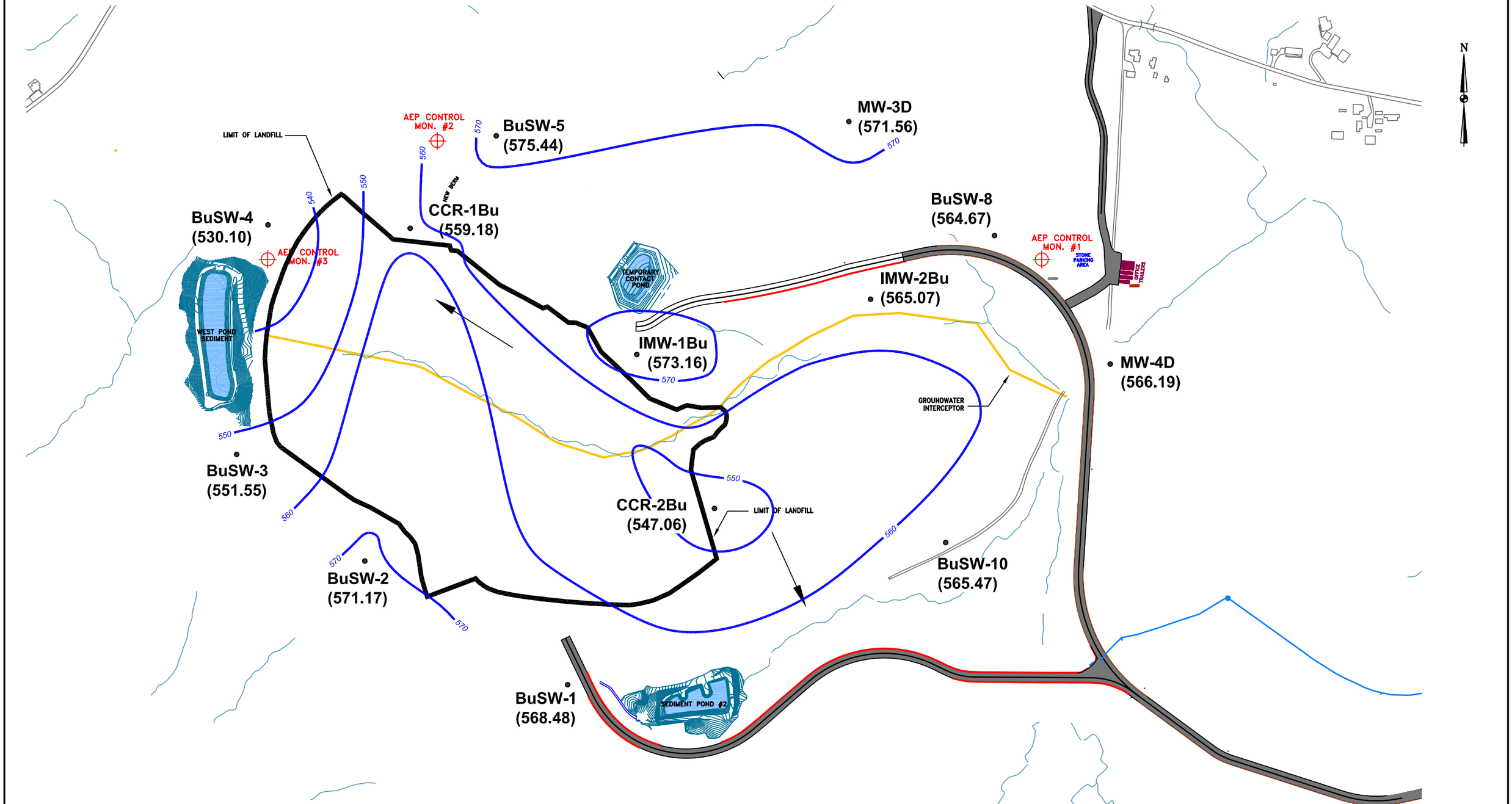

LEGEND:

- POTENTIOMETRIC SURFACE CONTOUR
- BuSW-1 — MONITORING WELL
- (570.89) — GROUNDWATER ELEVATION
- GROUNDWATER FLOW DIRECTION

400' 0' 400' 800'

SCALE: 1"= 400'

DRAWN BY	JM
DATE	
CHECKED BY	
JOB NO.	2017110-KYGER
DWG FILE	B-8_KYGER GW CONTOURS_JUN17_BUFFALO b08.dwg
DRAWING SCALE	AS SHOWN

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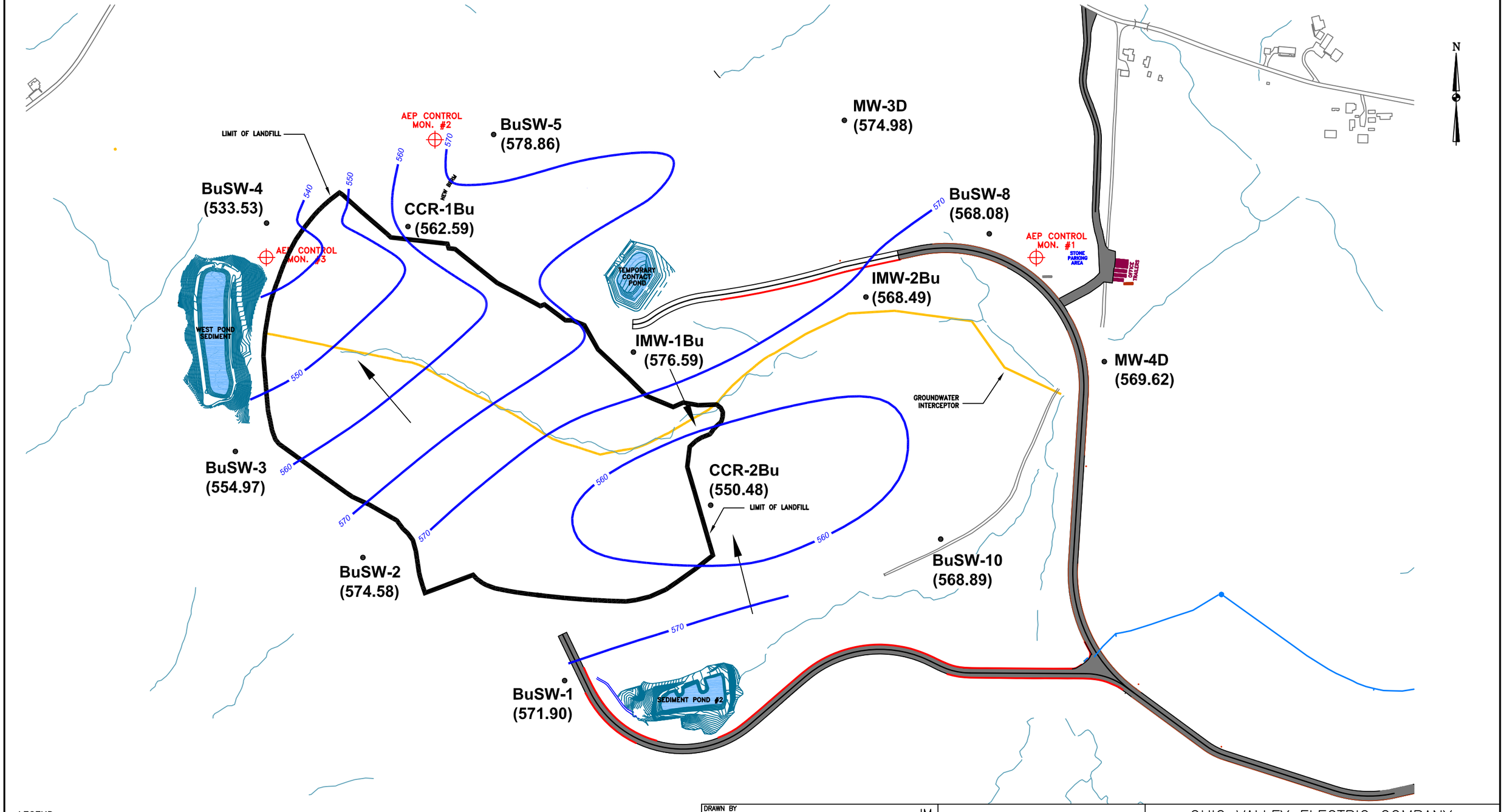
KYGER CREEK STATION
CHESHIRE, GALLIA COUNTY, OHIO
CLASS III RESIDUAL WASTE LANDFILL
GROUNDWATER CONTOUR MAP – JUNE 2017

DRAWING NAME: FIGURE B-8

REV.: 0

Plot: 01/15/2018 11:30 _PROGRAM-KYGER OVEC\Kyger Creek-CCR Program\CAD\2017 GW Monitoring-Corrective Action Rpt\APPX B\B-8_KYGER GW CONTOURS_JUN17_BUFFALO b08



LEGEND:

- POTENTIOMETRIC SURFACE CONTOUR
- BuSW-1 — MONITORING WELL
- (570.89) — GROUNDWATER ELEVATION
- GROUNDWATER FLOW DIRECTION

400' 0' 400' 800'

SCALE: 1"= 400'

DRAWN BY	JM
DATE	
CHECKED BY	
JOB NO.	2017110-KYGER
DWG FILE	B-9_KYGER GW CONTOURS_SEPT17_BUFFALO b09.dwg
DRAWING SCALE	AS SHOWN

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KYGER CREEK STATION
CHESHIRE, GALLIA COUNTY, OHIO
CLASS III RESIDUAL WASTE LANDFILL
GROUNDWATER CONTOUR MAP – SEPTEMBER 2017

DRAWING NAME	REV.
FIGURE B-9	0

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Boiler Slag Pond

N

OHIO ROUTE 7

KC-15-02
539.48

KC-15-03
539.32

KC-15-01
539.27

539.4

539.2

539.0

538.8

538.6

538.4

BOILER SLAG POND

CLEARWATER POND

KYGER CREEK

OHIO RIVER

KC-15-04
538.52

KC-15-05
538.49

KC-15-08
538.86

KC-15-07
538.46

KC-15-06
538.39

LEGEND:

PRIMARY GROUNDWATER FLOW DIRECTION

200' 0' 200' 400'

SCALE: 1"= 200'

DRAWN BY	JM
DATE	
CHECKED BY	
JOB NO.	2017110-KYGER
DWG FILE	B-10_KYGER MW INSTALL_CONTOURS 10-15 SLAG b10.dwg
DRAWING SCALE	1"=200'

AGES
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OHIO VALLEY ELECTRIC COMPANY

KYGER CREEK STATION
CHESHIRE, GALLIA COUNTY, OHIO
BOILER SLAG POND
GROUNDWATER CONTOUR MAP – OCTOBER 2015

DRAWING NAME	REV.
FIGURE B-10	0

Plot: 01/15/2018 11:40 \Kyger Creek-CCR Program\CAD\2017 GW Monitoring-Corrective Action Rpt\APPX B\B-10_KYGER MW INSTALL_CONTOURS 10-15 SLAG b10.dwg

N

OHIO ROUTE 7

KC-15-02
539.97

KC-15-03
539.81

KC-15-01
539.78

539.60

539.40

BOILER SLAG POND

KC-15-04
539.07

539.20

KC-15-05
539.07

KC-15-08
539.38

539.00

KC-15-07
539.04

KC-15-06
538.88

CLEARWATER POND

KYGER CREEK

OHIO RIVER

LEGEND:

PRIMARY GROUNDWATER FLOW DIRECTION

200' 0' 200' 400'

SCALE: 1"= 200'

DRAWN BY	JM
DATE	
CHECKED BY	
JOB NO.	2017110-KYGER
DWG FILE	B-11_KYGER MW INSTALL_CONTOURS 01-16 SLAG b11.dwg
DRAWING SCALE	1"=200'

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OHIO VALLEY ELECTRIC COMPANY

KYGER CREEK STATION
CHESHIRE, GALLIA COUNTY, OHIO
BOILER SLAG POND
GROUNDWATER CONTOUR MAP – JANUARY 2016

DRAWING NAME: FIGURE B-11

REV.: 0

Plot: 01/15/2018 11:43 \Kyger Creek-CCR Program\CAD\2017 GW Monitoring-Corrective Action Rpt\APPX B\B-11_KYGER MW INSTALL_CONTOURS 01-16 SLAG b11.dwg

N

OHIO ROUTE 7

KC-15-02
540.46

KC-15-03
540.27

KC-15-01
540.23

540.40

540.20

540.00

539.80

539.60

539.40

539.20

BOILER SLAG POND

KC-15-04
539.20

KC-15-05
539.12

KC-15-08
539.68

KC-15-07
539.19

KC-15-06
539.03

CLEARWATER POND

KYGER CREEK

OHIO RIVER

LEGEND:

PRIMARY GROUNDWATER FLOW DIRECTION

200' 0' 200' 400'

SCALE: 1"= 200'

DRAWN BY	JM
DATE	
CHECKED BY	
JOB NO.	2017110-KYGER
DWG FILE	B-12_KYGER MW INSTALL_CONTOURS 03-16 SLAG b12.dwg
DRAWING SCALE	1"=200'

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OHIO VALLEY ELECTRIC COMPANY

KYGER CREEK STATION
CHESHIRE, GALLIA COUNTY, OHIO
BOILER SLAG POND
GROUNDWATER CONTOUR MAP – MARCH 2016

DRAWING NAME: FIGURE B-12

REV.: 0

Plot: 01/15/2018 13:33 \Kyger Creek-CCR Program\CAD\2017 GW Monitoring-Corrective Action Rpt\APPX B\B-12_KYGER MW INSTALL_CONTOURS 03-16 SLAG b12.dwg

N

OHIO ROUTE 7

KC-15-02
539.79

KC-15-03
539.63

KC-15-01
539.56

539.60

539.40

539.20

539.00

538.80

538.60

BOILER
SLAG
POND

KC-15-04
538.52

KC-15-05
538.47

KC-15-06
538.40

KC-15-07
538.54

KC-15-08
539.03

CLEARWATER POND

KYGER CREEK

OHIO RIVER

LEGEND:

PRIMARY GROUNDWATER FLOW DIRECTION

200' 0' 200' 400'

SCALE: 1"= 200'

DRAWN BY	JM
DATE	
CHECKED BY	
JOB NO.	2017110-KYGER
DWG FILE	B-13_KYGER MW INSTALL_CONTOURS 05-16 SLAG b13.dwg
DRAWING SCALE	1"=200'

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OHIO VALLEY ELECTRIC COMPANY

KYGER CREEK STATION
CHESHIRE, GALLIA COUNTY, OHIO
BOILER SLAG POND
GROUNDWATER CONTOUR MAP – MAY 2016

DRAWING NAME: FIGURE B-13

REV.: 0

Plot: 01/15/2018 13:35 \Kyger Creek-CCR Program\CAD\2017 GW Monitoring-Corrective Action Rpt\APPX B\B-13_KYGER MW INSTALL_CONTOURS 05-16 SLAG b13.dwg

N

OHIO ROUTE 7

KC-15-02
539.40

KC-15-03
538.63

KC-15-01
539.25

539.2

BOILER SLAG POND

539.0

KC-15-04
538.81

KC-15-05
538.75

538.8

KC-15-08
538.93

KC-15-07
538.66

KC-15-06
538.66

CLEARWATER POND

KYGER CREEK

OHIO RIVER

LEGEND:

PRIMARY GROUNDWATER FLOW DIRECTION

SECONDARY GROUNDWATER FLOW DIRECTION

200' 0' 200' 400'

SCALE: 1"= 200'

DRAWN BY	JM
DATE	
CHECKED BY	
JOB NO.	2017110-KYGER
DWG FILE	B-14_KYGER MW INSTALL_CONTOURS 09-16 SLAG b14.dwg
DRAWING SCALE	1"=200'

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OHIO VALLEY ELECTRIC COMPANY

KYGER CREEK STATION
CHESHIRE, GALLIA COUNTY, OHIO
BOILER SLAG POND
GROUNDWATER CONTOUR MAP – SEPTEMBER 2016

DRAWING NAME: FIGURE B-14

REV. 0

Plot: 01/15/2018 13:40 \Kyger Creek-CCR Program\CAD\2017 GW Monitoring-Corrective Action Rpt\APPX B\B-14_KYGER MW INSTALL_CONTOURS 09-16 SLAG b14.dwg

N

OHIO ROUTE 7

KC-15-02
539.45

KC-15-03
538.68

KC-15-01
539.30

539.4

539.2

539.0

538.8

BOILER SLAG POND

KYGER CREEK

KC-15-04
538.86

KC-15-05
538.80

KC-15-08
539.38

KC-15-07
538.71

KC-15-06
538.71

CLEARWATER POND

OHIO RIVER

LEGEND:

PRIMARY GROUNDWATER FLOW DIRECTION

200' 0' 200' 400'

SCALE: 1"= 200'

DRAWN BY	JM
DATE	
CHECKED BY	
JOB NO.	2017110-KYGER
DWG FILE	B-15_KYGER MW INSTALL_CONTOURS 12-16 SLAG b15.dwg
DRAWING SCALE	1"=200'

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OHIO VALLEY ELECTRIC COMPANY

KYGER CREEK STATION
CHESHIRE, GALLIA COUNTY, OHIO
BOILER SLAG POND
GROUNDWATER CONTOUR MAP – DECEMBER 2016

DRAWING NAME: FIGURE B-15

REV.: 0

Plot: 01/15/2018 13:43 \Kyger Creek-CCR Program\CAD\2017 GW Monitoring-Corrective Action Rpt\APPX B\B-15_KYGER MW INSTALL_CONTOURS 12-16 SLAG b15.dwg

N

OHIO ROUTE 7

KC-15-02
542.42

KC-15-03
542.32

542.40

KC-15-01
542.39

542.30

BOILER SLAG POND

542.30

KC-15-04
542.32

KYGER CREEK

KC-15-05
542.22

542.20

KC-15-08
542.25

KC-15-07
542.18

KC-15-06
542.18

CLEARWATER POND

OHIO RIVER

LEGEND:

PRIMARY GROUNDWATER FLOW DIRECTION

200' 0' 200' 400'

SCALE: 1"= 200'

DRAWN BY	JM
DATE	
CHECKED BY	
JOB NO.	2017110-KYGER
DWG FILE	B-16_KYGER MW INSTALL_CONTOURS 03-17 SLAG b16.dwg
DRAWING SCALE	1"=200'

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OHIO VALLEY ELECTRIC COMPANY

KYGER CREEK STATION
CHESHIRE, GALLIA COUNTY, OHIO
BOILER SLAG POND
GROUNDWATER CONTOUR MAP – MARCH 2017

DRAWING NAME: FIGURE B-16

REV.: 0

Plot: 01/15/2018 13:47 \Kyger Creek-CCR Program\CAD\2017 GW Monitoring-Corrective Action Rpt\APPX B\B-16_KYGER MW INSTALL_CONTOURS 03-17 SLAG b16.dwg

N

OHIO ROUTE 7

KC-15-02
539.00

KC-15-03
538.78

538.8

538.9

539.0

KC-15-01
539.06

BOILER SLAG POND

KC-15-04
538.97

538.9

KYGER CREEK

KC-15-05
538.80

KC-15-08
538.95

KC-15-07
538.94

KC-15-06
538.81

CLEARWATER POND

OHIO RIVER

LEGEND:

PRIMARY GROUNDWATER FLOW DIRECTION

200' 0' 200' 400'

SCALE: 1"= 200'

DRAWN BY	JM
DATE	
CHECKED BY	
JOB NO.	2017110-KYGER
DWG FILE	B-17_KYGER MW INSTALL_CONTOURS 06-17 SLAG b17.dwg
DRAWING SCALE	1"=200'

AGES
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OHIO VALLEY ELECTRIC COMPANY

KYGER CREEK STATION
CHESHIRE, GALLIA COUNTY, OHIO
BOILER SLAG POND
GROUNDWATER CONTOUR MAP – JUNE 2017

DRAWING NAME: FIGURE B-17

REV.: 0

Plot: 01/15/2018 13:50 \Kyger Creek-CCR Program\CAD\2017 GW Monitoring-Corrective Action Rpt\APPX B\B-17_KYGER MW INSTALL_CONTOURS 06-17 SLAG b17.dwg

N

OHIO ROUTE 7

KC-15-02
538.51

KC-15-03
538.28

KC-15-01
538.59

538.50

538.40

538.30

538.40

BOILER SLAG POND

KC-15-04
538.49

KYGER CREEK

538.50

KC-15-05
538.31

KC-15-08
538.48

KC-15-07
538.48

538.40

KC-15-06
538.33

CLEARWATER POND

OHIO RIVER

LEGEND:

PRIMARY GROUNDWATER FLOW DIRECTION

200' 0' 200' 400'

SCALE: 1"= 200'

DRAWN BY	JM
DATE	
CHECKED BY	
JOB NO.	2017110-KYGER
DWG FILE	B-18_KYGER MW INSTALL_CONTOURS 09-17 SLAG b18.dwg
DRAWING SCALE	1"=200'

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OHIO VALLEY ELECTRIC COMPANY

KYGER CREEK STATION
CHESHIRE, GALLIA COUNTY, OHIO
BOILER SLAG POND
GROUNDWATER CONTOUR MAP – SEPTEMBER 2017

DRAWING NAME: FIGURE B-18

REV.: 0

Plot: 01/15/2018 13:53 \Kyger Creek-CCR Program\CAD\2017 GW Monitoring-Corrective Action Rpt\APPX B\B-18_KYGER MW INSTALL_CONTOURS 09-17 SLAG b18.dwg

South Fly Ash Pond

N

KYGER CREEK

RAILROAD TRACKS

DRAINAGE DITCH

NORTH FLY ASH POND

KC-15-13
541.09

KC-15-12
541.20

KC-15-14
541.0

KC-15-15
540.76

KC-15-11
541.13

KC-15-16
540.47

541

SOUTH FLY ASH POND

KC-15-10
540.91

KC-15-17
540.66

KC-15-09
540.73

KC-15-18
540.39

OHIO ROUTE 7

KC-15-22
540.58

KC-15-21
540.38

KC-15-19
540.21

KC-15-20
540.14

NOTE:
GROUNDWATER FLOW DIRECTIONS NEAR WELLS KC-15-15, KC-15-16 AND KC-15-17 ARE HIGHLY VARIABLE.

LEGEND:

GENERAL DIRECTION OF GROUNDWATER FLOW

POWER PLANT

OHIO RIVER

300' 0' 300' 600'

SCALE: 1"= 300'

DRAWN BY	JM
DATE	
CHECKED BY	
JOB NO.	2020016-KYG
DWG FILE	B-19_RVSD_KYGER_SFAP_GW FLOW_OCT15.dwg
DRAWING SCALE	1"=300'

AGES
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OHIO VALLEY ELECTRIC COMPANY

KYGER CREEK STATION
CHESHIRE, GALLIA COUNTY, OHIO
SOUTH FLY ASH POND
GROUNDWATER CONTOUR MAP – OCTOBER 2015

DRAWING NAME: FIGURE B-19

REV. 0

Plot: 10/09/2020 09:18 \Kyger Creek-CCR Program\CAD_REVISED 2017 GW Monitoring & Corrective Action Rept\B-19_RVSD_KYGER_SFAP_GW FLOW_OCT15.dwg

N

KYGER CREEK

RAILROAD TRACKS

DRAINAGE DITCH

NORTH FLY ASH POND

KC-15-13
541.21

KC-15-12
541.22

KC-15-14
541.10

KC-15-11
541.21

KC-15-15
540.96

541

542

544

KC-15-16
540.76

KC-15-10
541.04

SOUTH FLY ASH POND

KC-15-17
544.98

KC-15-09
540.88

KC-15-18
540.69

OHIO ROUTE 7

KC-15-22
540.79

KC-15-19
540.58

KC-15-21
540.57

KC-15-20
540.37

NOTE:
GROUNDWATER FLOW DIRECTIONS NEAR WELLS KC-15-15, KC-15-16 AND KC-15-17 ARE HIGHLY VARIABLE.

LEGEND:

GENERAL DIRECTION OF GROUNDWATER FLOW

POWER PLANT

OHIO RIVER

300' 0' 300' 600'

SCALE: 1"= 300'

DRAWN BY	JM
DATE	
CHECKED BY	
JOB NO.	2020016-KYG
DWG FILE	B-20_RVSD_KYGER_SFAP_GW FLOW_JAN16.dwg
DRAWING SCALE	1"=300'

AGES
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OHIO VALLEY ELECTRIC COMPANY

KYGER CREEK STATION
CHESHIRE, GALLIA COUNTY, OHIO
SOUTH FLY ASH POND
GROUNDWATER CONTOUR MAP – JANUARY 2016

DRAWING NAME: FIGURE B-20

REV. 0

Plot: 10/09/2020 09:21 \Kyger Creek-CCR Program\CAD_REVISED 2017 GW Monitoring & Corrective Action Rept\B-20_RVSD_KYGER_SFAP_GW FLOW_JAN16.dwg

N

KYGER CREEK

RAILROAD TRACKS

DRAINAGE DITCH

NORTH FLY ASH POND

KC-15-13
541.92

KC-15-12
541.95

KC-15-14
541.82

KC-15-15
541.63

KC-15-11
541.91

KC-15-16
541.30

SOUTH FLY ASH POND

KC-15-10
541.70

541.5

KC-15-17
541.46

KC-15-09
541.51

KC-15-18
541.30

OHIO ROUTE 7

KC-15-22
541.40

KC-15-19
541.15

KC-15-21
541.18

540

KC-15-20
540.97

NOTE:
GROUNDWATER FLOW DIRECTIONS NEAR WELLS KC-15-15, KC-15-16 AND KC-15-17 ARE HIGHLY VARIABLE.

LEGEND:

GENERAL DIRECTION OF GROUNDWATER FLOW

POWER PLANT

OHIO RIVER

300' 0' 300' 600'

SCALE: 1"= 300'

DRAWN BY	JM
DATE	
CHECKED BY	
JOB NO.	2020016-KYG
DWG FILE	B-21_RVSD_KYGER_SFAP_GW FLOW_MAR16.dwg
DRAWING SCALE	1"=300'

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OHIO VALLEY ELECTRIC COMPANY

KYGER CREEK STATION
CHESHIRE, GALLIA COUNTY, OHIO
SOUTH FLY ASH POND
GROUNDWATER CONTOUR MAP – MARCH 2016

DRAWING NAME: FIGURE B-21

REV. 0

Plot: 10/09/2020 09:25 \Kyger Creek-CCR Program\CAD_REVISED 2017 GW Monitoring & Corrective Action Rept\B-21_RVSD_KYGER_SFAP_GW FLOW_MAR16.dwg

N

KYGER CREEK

RAILROAD TRACKS

DRAINAGE DITCH

NORTH FLY ASH POND

KC-15-13
541.42

KC-15-12
541.38

KC-15-14
541.20

KC-15-15
540.97

KC-15-11
541.32

KC-15-16
540.75

541

SOUTH FLY ASH POND

KC-15-10
541.10

KC-15-17
540.84

KC-15-09
540.90

KC-15-18
540.61

OHIO ROUTE 7

KC-15-22
540.74

KC-15-21
540.54

540.5

KC-15-19
540.46

KC-15-20
540.30

NOTE:
GROUNDWATER FLOW DIRECTIONS NEAR WELLS KC-15-15, KC-15-16 AND KC-15-17 ARE HIGHLY VARIABLE.

LEGEND:

GENERAL DIRECTION OF GROUNDWATER FLOW

POWER PLANT

OHIO RIVER

300' 0' 300' 600'

SCALE: 1"= 300'

DRAWN BY	JM
DATE	
CHECKED BY	
JOB NO.	2020016-KYG
DWG FILE	B-22_RVSD_KYGER_SFAP_GW FLOW_MAY16.dwg
DRAWING SCALE	1"=300'

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OHIO VALLEY ELECTRIC COMPANY

KYGER CREEK STATION
CHESHIRE, GALLIA COUNTY, OHIO
SOUTH FLY ASH POND
GROUNDWATER CONTOUR MAP – MAY 2016

DRAWING NAME: FIGURE B-22

REV. 0

Plot: 10/09/2020 09:27 \Kyger Creek-CCR Program\CAD_REVISED 2017 GW Monitoring & Corrective Action Rept\B-22_RVSD_KYGER_SFAP_GW FLOW_MAY16.dwg

N

KYGER CREEK

RAILROAD TRACKS

DRAINAGE DITCH

NORTH FLY ASH POND

KC-15-13
540.32

KC-15-12
540.36

KC-15-14
540.27

KC-15-15
540.18

KC-15-11
540.37

KC-15-16
540.07

SOUTH FLY ASH POND

KC-15-10
540.22

KC-15-17
540.18

KC-15-09
540.10

540

KC-15-18
539.99

OHIO ROUTE 7

KC-15-22
540.09

KC-15-21
539.90

KC-15-19
539.88

NOTE:
GROUNDWATER FLOW DIRECTIONS NEAR WELLS KC-15-15, KC-15-16 AND KC-15-17 ARE HIGHLY VARIABLE.

KC-15-20
539.74

LEGEND:

GENERAL DIRECTION OF GROUNDWATER FLOW

POWER PLANT

OHIO RIVER

300' 0' 300' 600'

SCALE: 1"= 300'

DRAWN BY	JM
DATE	
CHECKED BY	
JOB NO.	2020016-KYG
DWG FILE	B-23_RVSD_KYGER_SFAP_GW FLOW_SEP16.dwg
DRAWING SCALE	1"=300'

AGES
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OHIO VALLEY ELECTRIC COMPANY

KYGER CREEK STATION
CHESHIRE, GALLIA COUNTY, OHIO
SOUTH FLY ASH POND
GROUNDWATER CONTOUR MAP – SEPTEMBER 2016

DRAWING NAME: FIGURE B-23

REV. 0

Plot: 10/09/2020 09:28 \Kyger Creek-CCR Program\CAD_REVISED 2017 GW Monitoring & Corrective Action Rept\B-23_RVSD_KYGER_SFAP_GW FLOW_SEP16.dwg

N

KYGER CREEK

RAILROAD TRACKS

DRAINAGE DITCH

NORTH FLY ASH POND

KC-15-13
540.44

KC-15-12
540.42

KC-15-14
540.33

KC-15-15
540.24

KC-15-11
540.43

KC-15-16
540.13

SOUTH FLY ASH POND

KC-15-10
540.28

KC-15-17
540.26

540.0

538.5

KC-15-09
540.16

KC-15-18
538.05

OHIO ROUTE 7

KC-15-22
540.15

KC-15-21
539.96

KC-15-19
539.94

KC-15-20
539.80

NOTE:
GROUNDWATER FLOW DIRECTIONS NEAR WELLS KC-15-15, KC-15-16 AND KC-15-17 ARE HIGHLY VARIABLE.

LEGEND:

GENERAL DIRECTION OF GROUNDWATER FLOW

POWER PLANT

OHIO RIVER

300' 0' 300' 600'

SCALE: 1"= 300'

DRAWN BY	JM
DATE	
CHECKED BY	
JOB NO.	2020016-KYG
DWG FILE	B-24_RVSD_KYGER_SFAP_GW FLOW_DEC16.dwg
DRAWING SCALE	1"=300'

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OHIO VALLEY ELECTRIC COMPANY

KYGER CREEK STATION
CHESHIRE, GALLIA COUNTY, OHIO
SOUTH FLY ASH POND
GROUNDWATER CONTOUR MAP – DECEMBER 2016

DRAWING NAME: FIGURE B-24

REV. 0

Plot: 10/09/2020 09:31 \Kyger Creek-CCR Program\CAD_REVISED 2017 GW Monitoring & Corrective Action Rept\B-24_RVSD_KYGER_SFAP_GW FLOW_DEC16.dwg

N

KYGER CREEK

RAILROAD TRACKS

DRAINAGE DITCH

NORTH FLY ASH POND

KC-15-13
542.88

KC-15-12
542.86

KC-15-14
NM

KC-15-15
542.68

KC-15-11
542.89

KC-15-16
542.73

SOUTH FLY ASH POND

KC-15-10
542.71

KC-15-17
542.83

KC-15-09
542.60

KC-15-18
542.62

OHIO ROUTE 7

KC-15-22
542.58

KC-15-21
542.43

KC-15-19
NM

KC-15-20
542.56

NOTE:
GROUNDWATER FLOW DIRECTIONS NEAR WELLS KC-15-15, KC-15-16 AND KC-15-17 ARE HIGHLY VARIABLE.

LEGEND:

GENERAL DIRECTION OF GROUNDWATER FLOW

NOTE:
NM = NOT MEASURED

INSUFFICIENT GRADIENT FOR CONTOURING.

POWER PLANT

OHIO RIVER

300' 0' 300' 600'
SCALE: 1"= 300'

DRAWN BY	JM
DATE	
CHECKED BY	
JOB NO.	2020016-KYG
DWG FILE	B-25_RVSD_KYGER_SFAP_GW FLOW_MAR17.dwg
DRAWING SCALE	1"=300'

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OHIO VALLEY ELECTRIC COMPANY

KYGER CREEK STATION
CHESHIRE, GALLIA COUNTY, OHIO
SOUTH FLY ASH POND
GROUNDWATER CONTOUR MAP – MARCH 2017

DRAWING NAME: FIGURE B-25
REV. 0

N

KYGER CREEK

RAILROAD TRACKS

DRAINAGE DITCH

NORTH FLY ASH POND

KC-15-13
541.24

KC-15-12
541.22

KC-15-14
541.13

KC-15-15
541.04

KC-15-11
541.54

KC-15-16
541.07

SOUTH FLY ASH POND

KC-15-10
541.08

KC-15-17
541.18

541

KC-15-09
540.96

KC-15-18
540.98

OHIO ROUTE 7

540

KC-15-22
540.95

KC-15-21
540.77

KC-15-19
537.41

KC-15-20
540.88

NOTE:
GROUNDWATER FLOW DIRECTIONS NEAR WELLS KC-15-15, KC-15-16 AND KC-15-17 ARE HIGHLY VARIABLE.

LEGEND:

GENERAL DIRECTION OF GROUNDWATER FLOW

POWER PLANT

OHIO RIVER

300' 0' 300' 600'

SCALE: 1"= 300'

DRAWN BY	JM
DATE	
CHECKED BY	
JOB NO.	2020016-KYG
DWG FILE	B-26_RVSD_KYGER_SFAP_GW FLOW_JUN17.dwg
DRAWING SCALE	1"=300'

AGES
Applied Geology And Environmental Science, Inc.
2402 Hookstown Grade Road, Suite 200
Clinton, PA 15026
412.264.6453

OHIO VALLEY ELECTRIC COMPANY

KYGER CREEK STATION
CHESHIRE, GALLIA COUNTY, OHIO
SOUTH FLY ASH POND
GROUNDWATER CONTOUR MAP – JUNE 2017

DRAWING NAME: FIGURE B-26

REV. 0

Plot: 10/09/2020 09:35 \Kyger Creek-CCR Program\CAD_REVISED 2017 GW Monitoring & Corrective Action Rept\B-26_RVSD_KYGER_SFAP_GW FLOW_JUN17.dwg

N

KYGER CREEK

RAILROAD TRACKS

DRAINAGE DITCH

NORTH FLY ASH POND

KC-15-13
540.15

KC-15-12
540.13

KC-15-14
540.04

KC-15-15
539.95

KC-15-11
540.46

540

KC-15-16
539.96

SOUTH FLY ASH POND

540

KC-15-10
540.0

KC-15-17
540.08

KC-15-09
539.87

KC-15-18
539.89

OHIO ROUTE 7

538

KC-15-22
539.37

KC-15-19
536.22

KC-15-21
NM

KC-15-20
539.76

NOTE:
GROUNDWATER FLOW DIRECTIONS NEAR WELLS KC-15-15, KC-15-16 AND KC-15-17 ARE HIGHLY VARIABLE.

LEGEND:

GENERAL DIRECTION OF GROUNDWATER FLOW

NOTE:
NM = NOT MEASURED

POWER PLANT

OHIO RIVER

300' 0' 300' 600'

SCALE: 1"= 300'

DRAWN BY	JM
DATE	
CHECKED BY	
JOB NO.	2020016-KYG
DWG FILE	B-27_RVSD_KYGER_SFAP_GW FLOW_SEP17.dwg
DRAWING SCALE	1"=300'

AGES
Applied Geology And Environmental Science, Inc.
2402 Hookstown Grade Road, Suite 200
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OHIO VALLEY ELECTRIC COMPANY

KYGER CREEK STATION
CHESHIRE, GALLIA COUNTY, OHIO
SOUTH FLY ASH POND
GROUNDWATER CONTOUR MAP – SEPTEMBER 2017

DRAWING NAME: FIGURE B-27

REV. 0

Plot: 10/09/2020 09:37 \Kyger Creek-CCR Program\CAD_REVISED 2017 GW Monitoring & Corrective Action Rept\B-27_RVSD_KYGER_SFAP_GW FLOW_SEP17.dwg

APPENDIX C

APPENDIX III AND APPENDIX IV CONSTITUENTS

APPENDIX III AND APPENDIX IV CONSTITUENTS

Appendix III Constituents (Detection Monitoring)
Constituent
Boron, B
Calcium, Ca
Chloride, Cl
Fluoride, F
pH (units=SU)
Sulfate, SO4
Total Dissolved Solids (TDS)
Appendix IV Constituents (Assessment Monitoring)
Constituent
Antimony, Sb
Arsenic, As
Barium, Ba
Beryllium, Be
Cadmium, Cd
Chromium, Cr
Cobalt, Co
Fluoride, F
Lithium, Li
Lead, Pb
Mercury, Hg
Molybdenum, Mo
Radium 226 & 228 (combined)(units=pCi/L)
Selenium, Se
Thallium, Tl

APPENDIX D

ANALYTICAL RESULTS

Class III Residual Waste Landfill

BuSW-1
SUMMARY OF ANALYTICAL RESULTS
Ohio Valley Electric Corporation
Kyger Creek Station
Gallia County, Ohio

Parameter	Units	Oct-15	Jan-16	Mar-16	May-16	Sep-16
Appendix III Constituents						
Boron, B	mg/L	0.439	0.306	0.318	0.341	0.344
Calcium, Ca	mg/L	7.93	8.54	10.6	16.6	13.1
Chloride, Cl	mg/L	1900	1870	2010	2150	1960
Fluoride, F	mg/L	1.08	1.13	1.23	1.14	1.26
pH	s.u.	8.83	8.75	8.4	7.49	9.08
Sulfate, SO4	mg/L	120	120	90.7	75.4	95.1
Total Dissolved Solids (TDS)	mg/L	3520	3470	3760	3850	3770
Appendix IV Constituents						
Antimony, Sb	ug/L	0.2 J	0.2 J	0.16	0.15	0.16
Arsenic, As	ug/L	96.1	84.6	76.5	67.9	79.5
Barium, Ba	ug/L	105	129	152	257	203
Beryllium, Be	ug/L	0.009 J	0.005 J	0.04 U	0.01 J	0.06 U
Cadmium, Cd	ug/L	0.1 U	0.1 U	0.04 U	0.04 U	0.06 U
Chromium, Cr	ug/L	0.5	0.5	0.6	1	3.2
Cobalt, Co	ug/L	0.062	0.059	0.07	0.125	0.225
Fluoride, F	mg/L	1.08	1.13	1.23	1.14	1.26
Lithium, Li	mg/L	0.102	0.077	0.064	0.074	0.07
Lead, Pb	ug/L	0.115	0.095	0.174	0.113	0.125
Mercury, Hg	ug/L	0.002 J	0.005 U	0.005 U	0.002 J	0.002 J
Molybdenum, Mo	ug/L	24.5	21.9	17.1	14.8	18.9
Radium 226 & 228 (combined)	pCi/L	0.969	1.768	1.11	2.034	1.458
Selenium, Se	ug/L	0.08 J	0.2 U	0.2 U	0.2 U	0.3 U
Thallium, Tl	ug/L	0.04 U	0.04 U	0.1 U	0.03 J	0.2 U

BuSW-1
SUMMARY OF ANALYTICAL RESULTS
Ohio Valley Electric Corporation
Kyger Creek Station
Gallia County, Ohio

Parameter	Units	Dec-16	Mar-17	Jun-17	Sep-17
Appendix III Constituents					
Boron, B	mg/L	0.271	0.316	0.361	0.4
Calcium, Ca	mg/L	15.8	14.6	12.8	12.9
Chloride, Cl	mg/L	1890	1860	2040	2000
Fluoride, F	mg/L	1.17	1.11	1.03	1.1
pH	s.u.	9.54	8.47	8.21	7.34
Sulfate, SO4	mg/L	120	109	87.6	82.9
Total Dissolved Solids (TDS)	mg/L	3490	3590	3770	3750
Appendix IV Constituents					
Antimony, Sb	ug/L	0.19	1.09	0.2 J	0.1 J
Arsenic, As	ug/L	94.8	95.3	81	76.7
Barium, Ba	ug/L	188	207	191	195
Beryllium, Be	ug/L	0.02 J	0.095	0.08 U	0.08 U
Cadmium, Cd	ug/L	0.01 J	0.03 J	0.08 U	0.08 U
Chromium, Cr	ug/L	7.33	9.2	1.96	1.27
Cobalt, Co	ug/L	0.482	1.02	0.254	0.17
Fluoride, F	mg/L	1.17	1.11	1.03	1.1
Lithium, Li	mg/L	0.077	0.073	0.066	0.079
Lead, Pb	ug/L	0.243	0.95	0.179	0.136
Mercury, Hg	ug/L	0.004 J	0.002 J	1.04	0.002 J
Molybdenum, Mo	ug/L	24.5	25.9	20.4	17
Radium 226 & 228 (combined)	pCi/L	4.282	2.235	2.078	1.666
Selenium, Se	ug/L	0.1 J	0.07 J	0.4 U	0.4 U
Thallium, Tl	ug/L	0.02 J	0.03 J	0.2 U	0.2 U

BuSW-2
SUMMARY OF ANALYTICAL RESULTS
Ohio Valley Electric Corporation
Kyger Creek Station
Gallia County, Ohio

Parameter	Units	Oct-15	Jan-16	Mar-16	May-16	Sep-16
Appendix III Constituents						
Boron, B	mg/L	0.478	0.367	0.341	0.424	0.428
Calcium, Ca	mg/L	33.6	32.4	30.4	31.4	28.8
Chloride, Cl	mg/L	2500	2680	2520	2520	2500
Fluoride, F	mg/L	1.14	1.17	1.25	1.18	1.09
pH	s.u.	7.78	7.76	8	7.28	7.68
Sulfate, SO4	mg/L	2 J	2 U	7.8	3.6	2.7
Total Dissolved Solids (TDS)	mg/L	4480	4720	4480	4390	4450
Appendix IV Constituents						
Antimony, Sb	ug/L	0.2 J	0.2 U	0.35	0.2 U	0.88
Arsenic, As	ug/L	5.86	6.61	2.87	5.42	4.38
Barium, Ba	ug/L	1570	1890	1310	1460	1600
Beryllium, Be	ug/L	0.005 J	0.006 J	0.04 U	0.08 U	0.094
Cadmium, Cd	ug/L	0.04 J	0.1 U	0.04 U	0.08 U	0.01 J
Chromium, Cr	ug/L	0.5	1.3	0.8	1.1	4
Cobalt, Co	ug/L	0.24	0.167	0.388	0.439	0.963
Fluoride, F	mg/L	1.14	1.17	1.25	1.18	1.09
Lithium, Li	mg/L	0.093	0.072	0.053	0.072	0.076
Lead, Pb	ug/L	0.197	0.136	0.181	0.262	1.39
Mercury, Hg	ug/L	0.003 J	0.005 U	0.005 U	0.005 U	0.002 J
Molybdenum, Mo	ug/L	1.04	1.13	3.79	2.63	12.5
Radium 226 & 228 (combined)	pCi/L	12.07	12.3	11.14	6.94	7.194
Selenium, Se	ug/L	0.2 U	0.2 U	0.2 U	0.4 U	0.1
Thallium, Tl	ug/L	0.04 U	0.009 J	0.1 U	0.2 U	0.02 J

BuSW-2
SUMMARY OF ANALYTICAL RESULTS
Ohio Valley Electric Corporation
Kyger Creek Station
Gallia County, Ohio

Parameter	Units	Dec-16	Mar-17	Jun-17	Sep-17
Appendix III Constituents					
Boron, B	mg/L	0.417	0.429	0.419	0.439
Calcium, Ca	mg/L	42.5	41.2	37.5	38.7
Chloride, Cl	mg/L	2700	2870	2740	2970
Fluoride, F	mg/L	1.1	1.05	0.99	1.16
pH	s.u.	6.21	7.09	7.89	7.59
Sulfate, SO4	mg/L	57.4	23.9	10.4	2
Total Dissolved Solids (TDS)	mg/L	4360	5050	4890	4980
Appendix IV Constituents					
Antimony, Sb	ug/L	0.06 J	0.2 U	0.09 J	0.2 U
Arsenic, As	ug/L	6.79	6.82	7.78	6.39
Barium, Ba	ug/L	1780	1720	1520	2190
Beryllium, Be	ug/L	0.02 J	0.08 U	0.1 U	0.03 J
Cadmium, Cd	ug/L	0.02 J	0.02 J	0.1 U	0.1 U
Chromium, Cr	ug/L	1.63	17.1	11	2.79
Cobalt, Co	ug/L	1.27	2.24	2.35	0.461
Fluoride, F	mg/L	1.1	1.05	0.99	1.16
Lithium, Li	mg/L	0.074	0.079	0.078	0.085
Lead, Pb	ug/L	0.115	0.357	0.326	0.28
Mercury, Hg	ug/L	0.005 U	0.005 U	0.724	0.005 U
Molybdenum, Mo	ug/L	7.06	7.58	321	3.23
Radium 226 & 228 (combined)	pCi/L	13	11.44	12.75	13.75
Selenium, Se	ug/L	0.2 J	0.4 U	0.5 U	0.5 U
Thallium, Tl	ug/L	0.06 J	0.2 U	0.2 U	0.2 U

BuSW-3
SUMMARY OF ANALYTICAL RESULTS
Ohio Valley Electric Corporation
Kyger Creek Station
Gallia County, Ohio

Parameter	Units	Oct-15	Jan-16	Mar-16	May-16	Sep-16
Appendix III Constituents						
Boron, B	mg/L	0.482	0.403	0.402	0.453	0.398
Calcium, Ca	mg/L	1330	770	802	900	700
Chloride, Cl	mg/L	21500	17300	17500	16500	16000
Fluoride, F	mg/L	2 U	60 U	0.8 U	0.8 U	2 U
pH	s.u.	6.98	6.9	6.84	7.36	6.89
Sulfate, SO4	mg/L	126	128	136	114	101
Total Dissolved Solids (TDS)	mg/L	35000	27100	27900	29500	26900
Appendix IV Constituents						
Antimony, Sb	ug/L	2 U	2 U	1 U	1 U	1 U
Arsenic, As	ug/L	8.32	5.95	5.44	4.69	5.6
Barium, Ba	ug/L	2560	777	946	1040	939
Beryllium, Be	ug/L	0.04 J	0.2 U	0.4 U	0.4 U	0.4 U
Cadmium, Cd	ug/L	1 U	1 U	0.09 J	0.1 J	0.4 U
Chromium, Cr	ug/L	2.9	0.9 J	1 J	1	1.4
Cobalt, Co	ug/L	4.76	5.84	5.7	5.54	6.33
Fluoride, F	mg/L	2 U	60 U	0.8 U	0.8 U	2 U
Lithium, Li	mg/L	0.41	0.47	0.357	0.39	0.429
Lead, Pb	ug/L	1.46	1.22	1.06	1.2	0.922
Mercury, Hg	ug/L	0.004 J	0.003 J	0.002 J	0.004 J	0.005 U
Molybdenum, Mo	ug/L	7.62	38.4	33.2	14.8	88.8
Radium 226 & 228 (combined)	pCi/L	27.43	16.42	10.12	11.59	4.939
Selenium, Se	ug/L	2 U	2 U	2 U	2 U	0.6 J
Thallium, Tl	ug/L	0.09 J	0.08 J	0.3 J	1 U	1 U

BuSW-3
SUMMARY OF ANALYTICAL RESULTS
Ohio Valley Electric Corporation
Kyger Creek Station
Gallia County, Ohio

Parameter	Units	Dec-16	Mar-17	Jun-17	Sep-17
Appendix III Constituents					
Boron, B	mg/L	0.328	0.405	0.424	0.42
Calcium, Ca	mg/L	1060	689	770	772
Chloride, Cl	mg/L	20200	16500	18100	18700
Fluoride, F	mg/L	0.3 J	2 U	2 U	3 U
pH	s.u.	6.19	6.53	6.51	6.75
Sulfate, SO4	mg/L	71.9	77.7	71.5	39.5
Total Dissolved Solids (TDS)	mg/L	31200	26500	31300	29200
Appendix IV Constituents					
Antimony, Sb	ug/L	1 U	1 U	2 U	2 U
Arsenic, As	ug/L	7.48	6.92	6.89	7.84
Barium, Ba	ug/L	4280	1450	2580	2660
Beryllium, Be	ug/L	0.4 U	0.4 U	0.8 U	0.6 U
Cadmium, Cd	ug/L	0.1 J	0.09 J	0.3 J	0.6 U
Chromium, Cr	ug/L	6.22	2.09	3.27	2.68
Cobalt, Co	ug/L	6.22	6.08	5.63	5.2
Fluoride, F	mg/L	0.3 J	2 U	2 U	3 U
Lithium, Li	mg/L	0.478	0.471	0.437	0.48
Lead, Pb	ug/L	0.807	0.989	1.26	1.08
Mercury, Hg	ug/L	0.005	0.005 U	0.817	0.005 U
Molybdenum, Mo	ug/L	15.9	41.6	30.1	26.3
Radium 226 & 228 (combined)	pCi/L	22.92	8.73	15.04	16.43
Selenium, Se	ug/L	0.6 J	2 U	4 U	3 U
Thallium, Tl	ug/L	1 U	0.2 J	0.8 J	2 U

BuSW-4
SUMMARY OF ANALYTICAL RESULTS
Ohio Valley Electric Corporation
Kyger Creek Station
Gallia County, Ohio

Parameter	Units	Oct-15	Jan-16	Mar-16	May-16	Sep-16
Appendix III Constituents						
Boron, B	mg/L	0.323	0.385	0.431	0.408	0.373
Calcium, Ca	mg/L	948	995	990	1090	952
Chloride, Cl	mg/L	19600	19300	18800	19100	18700
Fluoride, F	mg/L	2 U	2 U	0.8 U	2 U	2 U
pH	s.u.	7.14	6.83	6.88	7.35	7.32
Sulfate, SO4	mg/L	4 J	8 J	14.3	18.9	13.4
Total Dissolved Solids (TDS)	mg/L	32500	29500	29700	30000	30300
Appendix IV Constituents						
Antimony, Sb	ug/L	0.6 J	2 U	0.5 J	0.5 J	1 U
Arsenic, As	ug/L	3.51	3.16	5.18	2.85	3.36
Barium, Ba	ug/L	40400	30200	19500	15800	18300
Beryllium, Be	ug/L	0.2 U	0.05 J	0.3 J	0.4 U	0.2 J
Cadmium, Cd	ug/L	1 U	0.7 J	1.19	0.67	0.68
Chromium, Cr	ug/L	12.1	1 J	9.9	11.3	3.6
Cobalt, Co	ug/L	1.59	3.99	9.59	5.03	6.99
Fluoride, F	mg/L	2 U	2 U	0.8 U	2 U	2 U
Lithium, Li	mg/L	0.37	0.415	0.352	0.31	0.361
Lead, Pb	ug/L	3.52	0.998	8.3	0.401	6.17
Mercury, Hg	ug/L	0.585	0.004 J	0.018	0.003 J	0.013
Molybdenum, Mo	ug/L	11.6	5.63	2.51	8.18	2.44
Radium 226 & 228 (combined)	pCi/L	NA	67.3	58.9	NA	NA
Selenium, Se	ug/L	2 U	3.5	3.2	2.9	3.7
Thallium, Tl	ug/L	0.4 U	0.2 J	0.3 J	0.2 J	0.3 J

Notes:
1. NA = Not analyzed due to insufficent water in monitoring well or the reduced sampling plan

BuSW-4
SUMMARY OF ANALYTICAL RESULTS
Ohio Valley Electric Corporation
Kyger Creek Station
Gallia County, Ohio

Parameter	Units	Dec-16	Mar-17	Jun-17	Sep-17
Appendix III Constituents					
Boron, B	mg/L	0.418	0.427	0.368	0.405
Calcium, Ca	mg/L	974	611	887	852
Chloride, Cl	mg/L	18900	18200	19900	19600
Fluoride, F	mg/L	2 U	0.8 U	2 U	3 U
pH	s.u.	6.02	6.74	7.25	6.68
Sulfate, SO4	mg/L	2 J	5.3	3.2	13.2
Total Dissolved Solids (TDS)	mg/L	28100	28800	33100	33500
Appendix IV Constituents					
Antimony, Sb	ug/L	0.2 J	2.05	2 U	2 U
Arsenic, As	ug/L	1.96	18.7	3.69	2.35
Barium, Ba	ug/L	29200	429000	42400	35300
Beryllium, Be	ug/L	0.4 U	0.2 J	0.2 J	0.8 U
Cadmium, Cd	ug/L	0.4 J	1.78	0.8 U	0.3 J
Chromium, Cr	ug/L	0.3 J	8.59	9.5	2 J
Cobalt, Co	ug/L	4.22	35.8	4.86	5.29
Fluoride, F	mg/L	2 U	0.8 U	2 U	3 U
Lithium, Li	mg/L	0.407	0.407	0.397	0.408
Lead, Pb	ug/L	0.3 J	6.59	3.31	1.04
Mercury, Hg	ug/L	0.005 U	0.007	1.35	0.005 J
Molybdenum, Mo	ug/L	2.34	28.1	5.22	3 J
Radium 226 & 228 (combined)	pCi/L	35.42	NA	NA	NA
Selenium, Se	ug/L	1 J	4.2	2 J	4 U
Thallium, Tl	ug/L	0.4 J	2.34	0.6 J	2 U

Notes:
1. NA = Not analyzed due to insufficent water in monitoring well or the reduced sampling plan

BuSW-5
SUMMARY OF ANALYTICAL RESULTS
Ohio Valley Electric Corporation
Kyger Creek Station
Gallia County, Ohio

Parameter	Units	Oct-15	Jan-16	Mar-16	May-16	Sep-16
Appendix III Constituents						
Boron, B	mg/L	0.443	0.308	0.368	0.61	0.324
Calcium, Ca	mg/L	764	872	735	1040	1000
Chloride, Cl	mg/L	15700	18100	14500	20300	19700
Fluoride, F	mg/L	2 U	0.5 U	0.3 J	0.8 U	2 U
pH	s.u.	7.26	6.95	7.38	7.03	7.49
Sulfate, SO4	mg/L	10 U	0.4 J	13.4	2	2 U
Total Dissolved Solids (TDS)	mg/L	25100	28900	22600	32900	32500
Appendix IV Constituents						
Antimony, Sb	ug/L	2 U	2 U	0.52	0.5 U	1 U
Arsenic, As	ug/L	8.06	8	3.22	5.32	7.29
Barium, Ba	ug/L	26100	43100	15800	50800	53100
Beryllium, Be	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.4 U
Cadmium, Cd	ug/L	1 U	1 U	0.2 U	0.2 U	0.4 U
Chromium, Cr	ug/L	0.8 J	0.7 J	1.2	0.5	0.7 J
Cobalt, Co	ug/L	0.29	0.1 J	0.818	0.263	0.274
Fluoride, F	mg/L	2 U	0.5 U	0.3 J	0.8 U	2 U
Lithium, Li	mg/L	0.316	0.337	0.263	0.278	0.368
Lead, Pb	ug/L	0.162	1.34	0.42	0.1 J	0.2 J
Mercury, Hg	ug/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Molybdenum, Mo	ug/L	4.36	2.17	10.1	2.68	2.58
Radium 226 & 228 (combined)	pCi/L	108.8	230	75.1	163.1	75.7
Selenium, Se	ug/L	0.6 J	2 U	1 U	1 U	2 U
Thallium, Tl	ug/L	0.4 U	0.4 U	0.5 U	0.2 J	1 U

BuSW-5
SUMMARY OF ANALYTICAL RESULTS
Ohio Valley Electric Corporation
Kyger Creek Station
Gallia County, Ohio

Parameter	Units	Dec-16	Mar-17	Jun-17	Sep-17
Appendix III Constituents					
Boron, B	mg/L	0.251	0.321	0.377	0.39
Calcium, Ca	mg/L	833	701	912	907
Chloride, Cl	mg/L	20600	17800	20900	20200
Fluoride, F	mg/L	2 U	0.3 J	2 U	2 U
pH	s.u.	6.39	9.57	8.12	6.57
Sulfate, SO4	mg/L	2 U	1.3	2.7	2 U
Total Dissolved Solids (TDS)	mg/L	33300	27100	35000	36000
Appendix IV Constituents					
Antimony, Sb	ug/L	1 U	0.6 J	2 U	2 U
Arsenic, As	ug/L	6.3	4.2	6.33	5.81
Barium, Ba	ug/L	53600	33800	43200	55800
Beryllium, Be	ug/L	0.4 U	0.4 U	0.8 U	0.8 U
Cadmium, Cd	ug/L	0.4 U	0.4 U	0.8 U	0.8 U
Chromium, Cr	ug/L	0.5 J	1.22	1 J	4.24
Cobalt, Co	ug/L	0.479	0.516	0.5 J	0.7 J
Fluoride, F	mg/L	2 U	0.3 J	2 U	2 U
Lithium, Li	mg/L	0.298	0.309	0.37	0.406
Lead, Pb	ug/L	0.2 J	0.484	0.2 J	1.3
Mercury, Hg	ug/L	0.005 U	0.004 J	0.764	0.005 U
Molybdenum, Mo	ug/L	2.19	4.65	7.76	3 J
Radium 226 & 228 (combined)	pCi/L	99.99	52.82	46.96	55.2
Selenium, Se	ug/L	2 U	2 U	4 U	4 U
Thallium, Tl	ug/L	1 U	1 U	2 U	2 U

BuSW-8
SUMMARY OF ANALYTICAL RESULTS
Ohio Valley Electric Corporation
Kyger Creek Station
Gallia County, Ohio

Parameter	Units	Oct-15	Jan-16	Mar-16	May-16	Sep-16
Appendix III Constituents						
Boron, B	mg/L	0.362	0.332	0.344	0.336	0.317
Calcium, Ca	mg/L	492	479	598	463	497
Chloride, Cl	mg/L	14800	13600	13600	13300	13500
Fluoride, F	mg/L	1 U	1 U	0.8 U	0.8 U	2 U
pH	s.u.	7.22	7.22	7.29	7.17	7.38
Sulfate, SO4	mg/L	3 J	2 J	2.5	3.6	2 U
Total Dissolved Solids (TDS)	mg/L	23600	21800	23000	22800	20800
Appendix IV Constituents						
Antimony, Sb	ug/L	1 U	1 U	0.5 U	0.2 J	1 U
Arsenic, As	ug/L	19.6	24.4	24.3	14.6	18.4
Barium, Ba	ug/L	20000	22300	20900	23700	21400
Beryllium, Be	ug/L	0.1 U	0.1 U	0.2 U	0.2 U	0.4 U
Cadmium, Cd	ug/L	0.5 U	0.5 U	0.2 U	0.2 U	0.4 U
Chromium, Cr	ug/L	3.7	2.5	1.2	0.5 U	1.3
Cobalt, Co	ug/L	3.24	3.98	3.7	3.6	3.17
Fluoride, F	mg/L	1 U	1 U	0.8 U	0.8 U	2 U
Lithium, Li	mg/L	0.309	0.314	0.221	0.27	0.269
Lead, Pb	ug/L	0.437	0.08	0.315	0.09 J	0.2 J
Mercury, Hg	ug/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Molybdenum, Mo	ug/L	3.84	3.58	3.54	3.21	6.44
Radium 226 & 228 (combined)	pCi/L	164.6	144	206	185.5	74.31
Selenium, Se	ug/L	1 U	1 U	1 U	0.3 J	0.9 J
Thallium, Tl	ug/L	0.06 J	0.2 U	0.5 U	0.5 U	1 U

BuSW-8
SUMMARY OF ANALYTICAL RESULTS
Ohio Valley Electric Corporation
Kyger Creek Station
Gallia County, Ohio

Parameter	Units	Dec-16	Mar-17	Jun-17	Sep-17
Appendix III Constituents					
Boron, B	mg/L	0.237	0.243	0.371	0.424
Calcium, Ca	mg/L	375	395	485	454
Chloride, Cl	mg/L	13600	13100	14000	14200
Fluoride, F	mg/L	0.4 J	0.3 J	0.8 U	3 U
pH	s.u.	7.84	7.35	7.13	6.82
Sulfate, SO4	mg/L	2 U	1.7	22.2	5 U
Total Dissolved Solids (TDS)	mg/L	20800	20900	21500	22100
Appendix IV Constituents					
Antimony, Sb	ug/L	1 U	1 U	1 U	1 U
Arsenic, As	ug/L	19.6	13.6	23.5	23.8
Barium, Ba	ug/L	22400	22700	23100	25500
Beryllium, Be	ug/L	0.4 U	0.4 U	0.4 U	0.4 U
Cadmium, Cd	ug/L	0.4 U	0.4 U	0.4 U	0.4 U
Chromium, Cr	ug/L	0.5 J	1.18	1.57	1.01
Cobalt, Co	ug/L	3.48	3.95	4.88	4.28
Fluoride, F	mg/L	0.4 J	0.3 J	0.8 U	3 U
Lithium, Li	mg/L	0.185	0.198	0.248	0.254
Lead, Pb	ug/L	0.4 U	0.3 J	0.3 J	0.3 J
Mercury, Hg	ug/L	0.003 J	0.005 U	0.005 U	0.005 U
Molybdenum, Mo	ug/L	3.07	3.66	6.12	26.4
Radium 226 & 228 (combined)	pCi/L	93.61	69.88	84.37	0.2892
Selenium, Se	ug/L	2 U	2 U	2 U	2 U
Thallium, Tl	ug/L	1 U	1 U	0.2 J	1 U

BuSW-10
SUMMARY OF ANALYTICAL RESULTS
Ohio Valley Electric Corporation
Kyger Creek Station
Gallia County, Ohio

Parameter	Units	Oct-15	Jan-16	Mar-16	May-16	Sep-16
Appendix III Constituents						
Boron, B	mg/L	0.383	0.362	0.375	0.396	0.36
Calcium, Ca	mg/L	34.5	32.6	38.1	36.6	33.5
Chloride, Cl	mg/L	3130	2980	2960	3080	2970
Fluoride, F	mg/L	1.1	1.05	1.07	1.1	1.19
pH	s.u.	7.82	7.88	7.78	7.44	7.71
Sulfate, SO4	mg/L	2	1 J	1.4	1.4	0.5 U
Total Dissolved Solids (TDS)	mg/L	4980	5160	5120	5070	5160
Appendix IV Constituents						
Antimony, Sb	ug/L	0.2 U	0.3 U	0.1 U	0.2 U	0.2 U
Arsenic, As	ug/L	2.98	2.75	2.84	2.47	2.89
Barium, Ba	ug/L	1250	1250	1210	1360	1390
Beryllium, Be	ug/L	0.02 U	0.03 U	0.04 U	0.06 U	0.06 U
Cadmium, Cd	ug/L	0.1 U	0.2 U	0.04 U	0.06 U	0.06 U
Chromium, Cr	ug/L	3.8	0.3 J	0.9	0.5	1
Cobalt, Co	ug/L	0.234	0.102	0.08	0.098	0.177
Fluoride, F	mg/L	1.1	1.05	1.07	1.1	1.19
Lithium, Li	mg/L	0.073	0.082	0.071	0.073	0.076
Lead, Pb	ug/L	0.103	0.111	0.064	0.04 J	0.186
Mercury, Hg	ug/L	0.005 U	0.005 U	0.005 U	0.003 J	0.005 U
Molybdenum, Mo	ug/L	2.23	1.35	1.3	1.5	1.8
Radium 226 & 228 (combined)	pCi/L	24.1	22.4	21.9	24.58	22.25
Selenium, Se	ug/L	0.2 U	0.3 U	0.2 U	0.3 U	0.3 U
Thallium, Tl	ug/L	0.01 J	0.06 U	0.1 U	0.2 U	0.2 U

BuSW-10
SUMMARY OF ANALYTICAL RESULTS
Ohio Valley Electric Corporation
Kyger Creek Station
Gallia County, Ohio

Parameter	Units	Dec-16	Mar-17	Jun-17	Sep-17
Appendix III Constituents					
Boron, B	mg/L	0.402	0.373	0.393	0.513
Calcium, Ca	mg/L	32.9	34.7	36	36.6
Chloride, Cl	mg/L	2880	3000	3070	3020
Fluoride, F	mg/L	1.22	1.02	0.8 J	1.05
pH	s.u.	8.01	8.15	7.98	7.76
Sulfate, SO4	mg/L	0.3 J	0.8	2 U	0.5 J
Total Dissolved Solids (TDS)	mg/L	4930	5140	5100	5250
Appendix IV Constituents					
Antimony, Sb	ug/L	0.1 J	0.2 U	0.2 U	0.2 U
Arsenic, As	ug/L	2.86	3.44	3.15	3.59
Barium, Ba	ug/L	1320	1290	1550	1970
Beryllium, Be	ug/L	0.06 U	0.06 U	0.08 U	0.1 U
Cadmium, Cd	ug/L	0.01 J	0.06 U	0.08 U	0.1 U
Chromium, Cr	ug/L	2.36	1.47	2.78	1.02
Cobalt, Co	ug/L	0.276	0.127	0.194	0.139
Fluoride, F	mg/L	1.22	1.02	0.8 J	1.05
Lithium, Li	mg/L	0.089	0.094	0.07	0.08
Lead, Pb	ug/L	0.183	0.132	0.152	0.133
Mercury, Hg	ug/L	0.005 U	0.005 U	0.882	0.005 U
Molybdenum, Mo	ug/L	1.64	1.57	2.14	19
Radium 226 & 228 (combined)	pCi/L	24.35	20.66	25.61	21.44
Selenium, Se	ug/L	0.1 J	0.3 U	0.4 U	0.5 U
Thallium, Tl	ug/L	0.2 U	0.2 U	0.2 U	0.2 U

CCR-1BU
SUMMARY OF ANALYTICAL RESULTS
Ohio Valley Electric Corporation
Kyger Creek Station
Gallia County, Ohio

Parameter	Units	Oct-15	Jan-16	Mar-16	May-16	Sep-16
Appendix III Constituents						
Boron, B	mg/L	0.192	0.185	0.228	0.908	0.209
Calcium, Ca	mg/L	628	733	949	604	244
Chloride, Cl	mg/L	9100	11800	12400	10300	6480
Fluoride, F	mg/L	1 U	1 U	2 U	0.8 U	0.5 J
pH	s.u.	7.41	7.32	7.32	7.19	7.95
Sulfate, SO4	mg/L	27.3	18.7	15.8	20.6	27.4
Total Dissolved Solids (TDS)	mg/L	15800	19500	20100	17500	10900
Appendix IV Constituents						
Antimony, Sb	ug/L	0.5 J	0.4 J	0.2 J	0.07 J	0.2 J
Arsenic, As	ug/L	4.25	3.34	4.89	3.89	2.29
Barium, Ba	ug/L	7280	12500	12100	9510	3200
Beryllium, Be	ug/L	0.1 U	0.1 U	0.2 U	0.04 U	0.2 U
Cadmium, Cd	ug/L	0.5 U	0.2 J	0.2 U	0.04 U	0.07 J
Chromium, Cr	ug/L	0.3 J	1.2	0.4 J	1.2	0.5 J
Cobalt, Co	ug/L	2.03	3.3	2.66	2.54	1.41
Fluoride, F	mg/L	1 U	1 U	2 U	0.8 U	0.5 J
Lithium, Li	mg/L	0.148	0.188	0.196	0.16	0.119
Lead, Pb	ug/L	0.164	0.816	0.323	0.267	0.1 J
Mercury, Hg	ug/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Molybdenum, Mo	ug/L	14.5	19.9	13.2	15.7	21.9
Radium 226 & 228 (combined)	pCi/L	43.4	58.2	88.1	171.6	12.27
Selenium, Se	ug/L	0.4 J	0.3 J	1 U	0.1 J	1 U
Thallium, Tl	ug/L	0.1 J	0.1 J	0.3 J	0.1 U	0.1 J

CCR-1BU
SUMMARY OF ANALYTICAL RESULTS
Ohio Valley Electric Corporation
Kyger Creek Station
Gallia County, Ohio

Parameter	Units	Dec-16	Mar-17	Jun-17	Sep-17
Appendix III Constituents					
Boron, B	mg/L	0.222	0.287	0.281	0.284
Calcium, Ca	mg/L	420	224	240	317
Chloride, Cl	mg/L	1740	6880	7530	8610
Fluoride, F	mg/L	0.4 J	0.4 J	0.5 J	0.5 J
pH	s.u.	6.95	7.39	7.52	7.35
Sulfate, SO4	mg/L	19.5	13.9	12.8	8
Total Dissolved Solids (TDS)	mg/L	13500	10900	12500	14500
Appendix IV Constituents					
Antimony, Sb	ug/L	0.5 U	0.5 U	1 U	0.5 U
Arsenic, As	ug/L	4.52	3.95	2.17	3.89
Barium, Ba	ug/L	7350	3520	4680	6210
Beryllium, Be	ug/L	0.2 U	0.05 J	0.4 U	0.2 U
Cadmium, Cd	ug/L	0.2 U	0.2 U	0.4 U	0.2 U
Chromium, Cr	ug/L	0.81	2.04	3.62	1.32
Cobalt, Co	ug/L	1.12	0.971	0.675	1
Fluoride, F	mg/L	0.4 J	0.4 J	0.5 J	0.5 J
Lithium, Li	mg/L	0.169	0.15	0.147	0.17
Lead, Pb	ug/L	0.1 J	0.252	0.58	0.22
Mercury, Hg	ug/L	0.003 J	0.005 U	0.857	0.005 U
Molybdenum, Mo	ug/L	16.4	16.2	19.3	12.9
Radium 226 & 228 (combined)	pCi/L	28.64	10.54	8.75	16.11
Selenium, Se	ug/L	1 U	1 U	2 U	1 U
Thallium, Tl	ug/L	0.5 U	0.5 U	1 U	0.1 J

CCR-2BU
SUMMARY OF ANALYTICAL RESULTS
Ohio Valley Electric Corporation
Kyger Creek Station
Gallia County, Ohio

Parameter	Units	Oct-15	Jan-16	Mar-16	May-16	Sep-16
Appendix III Constituents						
Boron, B	mg/L	0.179	0.188	0.168	0.217	0.28
Calcium, Ca	mg/L	9.48	13.1	8.02	6.1	18
Chloride, Cl	mg/L	335	506	521	524	1110
Fluoride, F	mg/L	1.86	1.7	1.48	1.6	0.92
pH	s.u.	8.66	8.18	10.1	9.42	8.86
Sulfate, SO4	mg/L	97.8	88.2	76.2	66	41.8
Total Dissolved Solids (TDS)	mg/L	878	1170	1210	1020	2020
Appendix IV Constituents						
Antimony, Sb	ug/L	1.64	1.36	0.8 J	0.56	0.2
Arsenic, As	ug/L	207	107	104	103	52.5
Barium, Ba	ug/L	119	169	119	117	419
Beryllium, Be	ug/L	0.09	0.067	0.4 U	0.2 U	0.01 J
Cadmium, Cd	ug/L	0.05 U	0.02 J	0.4 U	0.2 U	0.02 U
Chromium, Cr	ug/L	1.6	2.2	0.6 J	1.3	2
Cobalt, Co	ug/L	0.577	0.552	0.2 J	0.233	0.721
Fluoride, F	mg/L	1.86	1.7	1.48	1.6	0.92
Lithium, Li	mg/L	0.009	0.012	0.08	0.108	0.051
Lead, Pb	ug/L	0.492	0.562	0.2 J	0.2 J	0.142
Mercury, Hg	ug/L	0.002 J	0.005 U	0.005 U	0.002 J	0.002 J
Molybdenum, Mo	ug/L	163	211	166	147	161
Radium 226 & 228 (combined)	pCi/L	1.078	0.408 U	0.431	0.987	1.947
Selenium, Se	ug/L	0.2	0.1	2 U	1 U	0.1
Thallium, Tl	ug/L	0.02 J	0.02 J	1 U	0.5 U	0.05 U

CCR-2BU
SUMMARY OF ANALYTICAL RESULTS
Ohio Valley Electric Corporation
Kyger Creek Station
Gallia County, Ohio

Parameter	Units	Dec-16	Mar-17	Jun-17	Sep-17
Appendix III Constituents					
Boron, B	mg/L	0.174	0.302	0.251	0.3
Calcium, Ca	mg/L	3.51	28.2	32.3	34.1
Chloride, Cl	mg/L	64.9	1320	1400	1560
Fluoride, F	mg/L	1.37	1.09	1	0.98
pH	s.u.	10.64	8.23	8.15	6.24
Sulfate, SO4	mg/L	52.5	22.5	36.7	35.9
Total Dissolved Solids (TDS)	mg/L	1220	2350	2540	2860
Appendix IV Constituents					
Antimony, Sb	ug/L	0.86	0.09 J	0.06 J	0.04 J
Arsenic, As	ug/L	72.8	55.5	36.5	35.7
Barium, Ba	ug/L	145	608	614	669
Beryllium, Be	ug/L	0.009 J	0.01 J	0.01 J	0.06 U
Cadmium, Cd	ug/L	0.007 J	0.04 U	0.04 U	0.06 U
Chromium, Cr	ug/L	11.9	1.2	9.59	3.18
Cobalt, Co	ug/L	0.639	0.291	0.909	0.874
Fluoride, F	mg/L	1.37	1.09	1	0.98
Lithium, Li	mg/L	0.116	0.042	0.043	0.049
Lead, Pb	ug/L	0.151	0.226	0.287	0.152
Mercury, Hg	ug/L	0.005 J	0.005 U	1.25	0.005 U
Molybdenum, Mo	ug/L	153	127	115	103
Radium 226 & 228 (combined)	pCi/L	0.572	1.765	1.616	2.97
Selenium, Se	ug/L	0.1	0.06 J	0.2 U	0.3 U
Thallium, Tl	ug/L	0.02 J	0.03 J	0.1 U	0.2 U

IMW-1BU
SUMMARY OF ANALYTICAL RESULTS
Ohio Valley Electric Corporation
Kyger Creek Station
Gallia County, Ohio

Parameter	Units	Oct-15	Jan-16	Mar-16	May-16	Sep-16
Appendix III Constituents						
Boron, B	mg/L	0.432	0.309	0.372	0.389	0.335
Calcium, Ca	mg/L	303	277	259	335	312
Chloride, Cl	mg/L	8860	9220	8470	10000	10100
Fluoride, F	mg/L	0.6 J	1 U	0.7 J	0.4 J	0.6 J
pH	s.u.	7.27	7.32	7.22	8.37	7.51
Sulfate, SO4	mg/L	17.6	3 J	3.6	6.8	2 U
Total Dissolved Solids (TDS)	mg/L	13700	15100	13800	16600	16500
Appendix IV Constituents						
Antimony, Sb	ug/L	1 U	1 U	0.5 U	0.5 U	0.5 U
Arsenic, As	ug/L	4.14	5.16	5.01	4.87	3.97
Barium, Ba	ug/L	6180	10800	8920	11900	12000
Beryllium, Be	ug/L	0.1 U	0.1 U	0.2 U	0.2 U	0.2 U
Cadmium, Cd	ug/L	0.5 U	0.5 U	0.2 U	0.2 U	0.2 U
Chromium, Cr	ug/L	0.4 J	0.6 J	1.9	0.5 J	2.1
Cobalt, Co	ug/L	0.526	0.325	0.316	0.574	0.43
Fluoride, F	mg/L	0.6 J	1 U	0.7 J	0.4 J	0.6 J
Lithium, Li	mg/L	0.231	0.204	0.172	0.236	0.229
Lead, Pb	ug/L	0.366	0.475	0.246	0.1 J	0.507
Mercury, Hg	ug/L	0.005 U	0.005 U	0.002 J	0.005 U	0.005 U
Molybdenum, Mo	ug/L	2.2	1.9	1.13	2.79	7.2
Radium 226 & 228 (combined)	pCi/L	56.1	95.9	98.7	52.2	52.25
Selenium, Se	ug/L	0.4 J	1 U	1 U	1 U	0.6 J
Thallium, Tl	ug/L	0.2 J	0.2 U	0.5 U	0.5 U	0.5 U

IMW-1BU
SUMMARY OF ANALYTICAL RESULTS
Ohio Valley Electric Corporation
Kyger Creek Station
Gallia County, Ohio

Parameter	Units	Dec-16	Mar-17	Jun-17	Sep-17
Appendix III Constituents					
Boron, B	mg/L	0.307	1.09	0.37	0.354
Calcium, Ca	mg/L	175	243	253	302
Chloride, Cl	mg/L	7740	9760	9450	11000
Fluoride, F	mg/L	0.9 J	0.5 J	0.7 J	0.6 J
pH	s.u.	9.18	9.48	8.73	7.1
Sulfate, SO4	mg/L	16.9	2.1	9.8	2 U
Total Dissolved Solids (TDS)	mg/L	12000	15500	14200	17200
Appendix IV Constituents					
Antimony, Sb	ug/L	0.1 J	0.1 J	1 U	1 U
Arsenic, As	ug/L	4.65	3.87	5.48	4.49
Barium, Ba	ug/L	5700	10900	7390	16300
Beryllium, Be	ug/L	0.2 U	0.2 U	0.4 U	0.4 U
Cadmium, Cd	ug/L	0.05 J	0.2 U	0.4 U	0.4 U
Chromium, Cr	ug/L	2.1	0.748	0.8 J	1.44
Cobalt, Co	ug/L	0.353	0.256	1.85	0.496
Fluoride, F	mg/L	0.9 J	0.5 J	0.7 J	0.6 J
Lithium, Li	mg/L	0.17	0.218	0.21	0.241
Lead, Pb	ug/L	0.2 J	0.271	0.474	0.4 J
Mercury, Hg	ug/L	0.002 J	0.005 U	0.01 U	0.003 J
Molybdenum, Mo	ug/L	1.65	1.68	2.73	2.7
Radium 226 & 228 (combined)	pCi/L	46.14	83.92	56.76	86.55
Selenium, Se	ug/L	1 U	1 U	1 J	2 U
Thallium, Tl	ug/L	0.3 J	0.2 J	1 U	1 U

IMW-2BU
SUMMARY OF ANALYTICAL RESULTS
Ohio Valley Electric Corporation
Kyger Creek Station
Gallia County, Ohio

Parameter	Units	Oct-15	Jan-16	Mar-16	May-16	Sep-16
Appendix III Constituents						
Boron, B	mg/L	0.396	0.35	0.35	0.378	0.321
Calcium, Ca	mg/L	625	515	706	609	535
Chloride, Cl	mg/L	14800	13600	14200	14100	14000
Fluoride, F	mg/L	1 U	1 U	0.8 U	0.8 U	2 U
pH	s.u.	7.24	7.22	7.26	7.6	7.46
Sulfate, SO4	mg/L	2 J	2 J	2.3	0.9 J	2 U
Total Dissolved Solids (TDS)	mg/L	22300	22100	23100	24600	23300
Appendix IV Constituents						
Antimony, Sb	ug/L	1 U	1 U	0.5 U	0.5 U	1 U
Arsenic, As	ug/L	3.83	1.28	2.99	2.36	2.45
Barium, Ba	ug/L	27400	28500	28800	29100	28400
Beryllium, Be	ug/L	0.1 U	0.1 U	0.2 U	0.2 U	0.4 U
Cadmium, Cd	ug/L	0.5 U	0.5 U	0.2 U	0.2 U	0.4 U
Chromium, Cr	ug/L	0.6 J	0.4 J	0.6	0.8	0.4 J
Cobalt, Co	ug/L	0.117	0.08 J	0.114	0.09 J	0.1 J
Fluoride, F	mg/L	1 U	1 U	0.8 U	0.8 U	2 U
Lithium, Li	mg/L	0.302	0.314	0.264	0.248	0.302
Lead, Pb	ug/L	0.615	0.084	0.375	0.1 J	0.1 J
Mercury, Hg	ug/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Molybdenum, Mo	ug/L	0.7 J	0.7 J	0.9 J	0.6 J	6.46
Radium 226 & 228 (combined)	pCi/L	219.8	197.7	302	218.6	76.87
Selenium, Se	ug/L	1 U	1 U	1 U	1 U	1 J
Thallium, Tl	ug/L	0.06 J	0.256	0.5 U	0.5 U	1 U

IMW-2BU
SUMMARY OF ANALYTICAL RESULTS
Ohio Valley Electric Corporation
Kyger Creek Station
Gallia County, Ohio

Parameter	Units	Dec-16	Mar-17	Jun-17	Sep-17
Appendix III Constituents					
Boron, B	mg/L	0.293	0.487	0.389	0.333
Calcium, Ca	mg/L	374	457	427	487
Chloride, Cl	mg/L	12400	13900	12600	15100
Fluoride, F	mg/L	0.6 J	0.3 J	0.49	2 U
pH	s.u.	8.01	9.76	9.01	6.87
Sulfate, SO4	mg/L	2 U	1 U	1.8	2 U
Total Dissolved Solids (TDS)	mg/L	20200	21500	19600	23200
Appendix IV Constituents					
Antimony, Sb	ug/L	1 U	1 U	1 U	1 U
Arsenic, As	ug/L	1.25	2.86	2.19	2.99
Barium, Ba	ug/L	24000	29100	21300	31400
Beryllium, Be	ug/L	0.4 U	0.1 J	0.4 U	0.4 U
Cadmium, Cd	ug/L	0.4 U	0.4 U	0.4 U	0.4 U
Chromium, Cr	ug/L	0.7 J	5.59	2.69	0.8 J
Cobalt, Co	ug/L	0.1 J	0.319	0.1 J	0.2 J
Fluoride, F	mg/L	0.6 J	0.3 J	0.49	2 U
Lithium, Li	mg/L	0.223	0.277	0.262	0.28
Lead, Pb	ug/L	0.09 J	0.407	0.3 J	0.442
Mercury, Hg	ug/L	0.002 J	0.005 U	0.708	0.005 U
Molybdenum, Mo	ug/L	0.7 J	1 J	2 J	1 J
Radium 226 & 228 (combined)	pCi/L	98.73	89.53	81.8	81.18
Selenium, Se	ug/L	2 U	2 U	2 U	2 U
Thallium, Tl	ug/L	0.3 J	0.2 J	1 U	1 U

MW-3D
SUMMARY OF ANALYTICAL RESULTS
Ohio Valley Electric Corporation
Kyger Creek Station
Gallia County, Ohio

Parameter	Units	Oct-15	Jan-16	Mar-16	May-16	Sep-16
Appendix III Constituents						
Boron, B	mg/L	0.396	0.303	0.36	0.361	0.32
Calcium, Ca	mg/L	1160	972	996	1150	1020
Chloride, Cl	mg/L	21200	20200	20200	20200	19800
Fluoride, F	mg/L	2 U	1 U	0.8 U	0.8 U	2 U
pH	s.u.	7.09	7.05	6.63	7.37	7.51
Sulfate, SO4	mg/L	10 U	2 J	2.4	1.4	2 U
Total Dissolved Solids (TDS)	mg/L	32800	32400	31400	33300	33600
Appendix IV Constituents						
Antimony, Sb	ug/L	2 U	2 U	1 U	1 U	1 U
Arsenic, As	ug/L	5.76	2.83	3.42	6.05	2.28
Barium, Ba	ug/L	50900	49400	52500	51500	49400
Beryllium, Be	ug/L	0.2 U	0.2 U	0.4 U	0.4 U	0.4 U
Cadmium, Cd	ug/L	1 U	1 U	0.2 J	0.4 U	0.4 U
Chromium, Cr	ug/L	1 J	1 J	1.5	0.9 J	1 U
Cobalt, Co	ug/L	0.205	0.419	0.667	0.435	0.331
Fluoride, F	mg/L	2 U	1 U	0.8 U	0.8 U	2 U
Lithium, Li	mg/L	0.327	0.365	0.291	0.326	0.378
Lead, Pb	ug/L	0.149	0.87	0.489	0.407	0.4 U
Mercury, Hg	ug/L	0.005 U	0.002 J	0.002 J	0.003 J	0.005 U
Molybdenum, Mo	ug/L	2.41	3.15	3.4	2.53	3.91
Radium 226 & 228 (combined)	pCi/L	181	93.1	231.1	155.9	50.02
Selenium, Se	ug/L	2 U	2 U	2 U	2 U	2 U
Thallium, Tl	ug/L	0.4 U	0.06 J	0.4 J	1 U	1 U

MW-3D
SUMMARY OF ANALYTICAL RESULTS
Ohio Valley Electric Corporation
Kyger Creek Station
Gallia County, Ohio

Parameter	Units	Dec-16	Mar-17	Jun-17	Sep-17
Appendix III Constituents					
Boron, B	mg/L	0.24	0.315	0.343	0.56
Calcium, Ca	mg/L	841	859	808	835
Chloride, Cl	mg/L	20300	20000	21500	21100
Fluoride, F	mg/L	2 U	0.8 U	0.8 U	3 U
pH	s.u.	6.58	6.72	6.77	6.63
Sulfate, SO4	mg/L	2 U	1 U	1.4	5 U
Total Dissolved Solids (TDS)	mg/L	30100	31500	32700	30800
Appendix IV Constituents					
Antimony, Sb	ug/L	1 U	1 U	2 U	2 U
Arsenic, As	ug/L	6.04	6.45	5.24	4.49
Barium, Ba	ug/L	52700	52300	51200	61500
Beryllium, Be	ug/L	0.4 U	0.4 U	0.6 U	0.8 U
Cadmium, Cd	ug/L	0.4 U	0.4 U	0.6 U	0.8 U
Chromium, Cr	ug/L	0.8 J	1.23	6.29	4.2
Cobalt, Co	ug/L	0.339	0.474	0.799	0.7 J
Fluoride, F	mg/L	2 U	0.8 U	0.8 U	3 U
Lithium, Li	mg/L	0.271	0.28	0.355	0.406
Lead, Pb	ug/L	0.2 J	0.3 J	0.3 J	0.4 J
Mercury, Hg	ug/L	0.005 U	0.005 U	0.005 U	0.002 J
Molybdenum, Mo	ug/L	2 J	3	5.23	503
Radium 226 & 228 (combined)	pCi/L	75.21	47.86	59.2	47.75
Selenium, Se	ug/L	0.8 J	2 U	3 U	4 U
Thallium, Tl	ug/L	1 U	1 U	2 U	2 U

MW-4D
SUMMARY OF ANALYTICAL RESULTS
Ohio Valley Electric Corporation
Kyger Creek Station
Gallia County, Ohio

Parameter	Units	Oct-15	Jan-16	Mar-16	May-16	Sep-16
Appendix III Constituents						
Boron, B	mg/L	0.416	0.366	0.312	0.372	0.36
Calcium, Ca	mg/L	3.44	3.18	3.14	3.35	3.47
Chloride, Cl	mg/L	233	218	199	220	219
Fluoride, F	mg/L	1.85	1.94	1.85	1.56	1.63
pH	s.u.	8.42	8.48	8.4	7.5	7.58
Sulfate, SO4	mg/L	276	272	249	276	277
Total Dissolved Solids (TDS)	mg/L	1230	1190	1200	1180	1190
Appendix IV Constituents						
Antimony, Sb	ug/L	0.1 U	0.1 U	0.01 J	0.01 J	0.04 J
Arsenic, As	ug/L	0.94	0.7	0.67	1.28	0.88
Barium, Ba	ug/L	31.4	30.7	28.4	37	28.8
Beryllium, Be	ug/L	0.003 J	0.01 U	0.02 U	0.02 U	0.02 U
Cadmium, Cd	ug/L	0.05 U	0.05 U	0.02 U	0.02 U	0.02 U
Chromium, Cr	ug/L	2.9	0.5	0.3	0.1	0.2
Cobalt, Co	ug/L	0.165	0.037	0.025	0.073	0.028
Fluoride, F	mg/L	1.85	1.94	1.85	1.56	1.63
Lithium, Li	mg/L	0.019	0.015	0.012	0.014	0.018
Lead, Pb	ug/L	0.077	0.058	0.034	0.131	0.084
Mercury, Hg	ug/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Molybdenum, Mo	ug/L	0.95	0.56	0.51	0.53	0.52
Radium 226 & 228 (combined)	pCi/L	0.417	0.491	0.343	0.629	0.812
Selenium, Se	ug/L	0.1 U	0.1 U	0.1 U	0.1 U	0.04 J
Thallium, Tl	ug/L	0.008 J	0.02 U	0.05 U	0.01 J	0.05 U

MW-4D
SUMMARY OF ANALYTICAL RESULTS
Ohio Valley Electric Corporation
Kyger Creek Station
Gallia County, Ohio

Parameter	Units	Dec-16	Mar-17	Jun-17	Sep-17
Appendix III Constituents					
Boron, B	mg/L	0.462	0.409	0.402	0.398
Calcium, Ca	mg/L	4.1	3.49	3.12	3.14
Chloride, Cl	mg/L	223	218	213	213
Fluoride, F	mg/L	1.73	1.47	1.55	1.68
pH	s.u.	9.47	9.17	6.67	7.01
Sulfate, SO4	mg/L	277	275	269	269
Total Dissolved Solids (TDS)	mg/L	1190	1220	1160	1150
Appendix IV Constituents					
Antimony, Sb	ug/L	0.01 J	0.03 J	0.01 J	0.01 J
Arsenic, As	ug/L	0.62	0.74	0.49	0.43
Barium, Ba	ug/L	39.4	28.9	27.4	24.7
Beryllium, Be	ug/L	0.02 U	0.02 U	0.02 U	0.02 U
Cadmium, Cd	ug/L	0.02 U	0.02 U	0.02 U	0.008 J
Chromium, Cr	ug/L	0.278	0.155	0.809	0.229
Cobalt, Co	ug/L	0.02	0.024	0.035	0.024
Fluoride, F	mg/L	1.73	1.47	1.55	1.68
Lithium, Li	mg/L	0.021	0.041	0.014	0.018
Lead, Pb	ug/L	0.024	0.056	0.04	0.039
Mercury, Hg	ug/L	0.002 J	0.005 U	1.05	0.005 U
Molybdenum, Mo	ug/L	0.46	0.47	0.86	0.55
Radium 226 & 228 (combined)	pCi/L	1.347	0.722	1.114	1.207
Selenium, Se	ug/L	0.1 U	0.1 U	0.1 U	0.1 U
Thallium, Tl	ug/L	0.05 U	0.05 U	0.05 U	0.05 U

Boiler Slag Pond

KC-15-01
SUMMARY OF ANALYTICAL RESULTS
Ohio Valley Electric Corporation
Kyger Creek Station
Gallia County, Ohio

Parameter	Units	Oct-15	Jan-16	Mar-16	May-16	Sep-16
Appendix III Constituents						
Boron, B	mg/L	0.265	0.398	0.266	0.395	0.317
Calcium, Ca	mg/L	81.6	74.4	81.5	77	77.4
Chloride, Cl	mg/L	34.3	29.6	32.5	29.9	30
Fluoride, F	mg/L	0.03 J	0.2 U	0.06 J	0.2 U	0.2 U
pH	s.u.	6.51	5.7	6.45	6.7	7.62
Sulfate, SO4	mg/L	210	273	189	290	236
Total Dissolved Solids (TDS)	mg/L	468	486	452	498	476
Appendix IV Constituents						
Antimony, Sb	ug/L	0.04 J	0.1 U	0.02 J	0.05 U	0.05 J
Arsenic, As	ug/L	3.24	0.93	3.58	0.66	1.54
Barium, Ba	ug/L	25.7	22.4	28.5	22.2	22.6
Beryllium, Be	ug/L	0.037	0.094	0.023	0.079	0.056
Cadmium, Cd	ug/L	0.05 U	0.01 J	0.02 U	0.008 J	0.03
Chromium, Cr	ug/L	0.2	0.3	0.1	0.3	0.4
Cobalt, Co	ug/L	3.62	3.59	2.56	3.39	3.05
Fluoride, F	mg/L	0.03 J	0.2 U	0.06 J	0.2 U	0.2 U
Lithium, Li	mg/L	0.007	0.003 J	0.007	0.003	0.002
Lead, Pb	ug/L	0.123	0.241	0.069	0.134	0.197
Mercury, Hg	ug/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Molybdenum, Mo	ug/L	0.49	0.08 J	0.29	0.11	0.37
Radium 226 & 228 (combined)	pCi/L	0.4647	0.297 U	0.586 U	0.1357	0.57
Selenium, Se	ug/L	0.06 J	0.04 J	0.05 J	0.07 J	0.1
Thallium, Tl	ug/L	0.004 J	0.007 J	0.05 U	0.05 U	0.01 J

KC-15-01
SUMMARY OF ANALYTICAL RESULTS
Ohio Valley Electric Corporation
Kyger Creek Station
Gallia County, Ohio

Parameter	Units	Dec-16	Mar-17	Jun-17	Sep-17
Appendix III Constituents					
Boron, B	mg/L	0.228	0.292	0.212	0.279
Calcium, Ca	mg/L	51.9	56.4	84.7	87
Chloride, Cl	mg/L	17.8	17.6	33.9	33.1
Fluoride, F	mg/L	0.07	0.05 J	0.05 J	0.05 J
pH	s.u.	5.57	8.09	6.74	6.14
Sulfate, SO4	mg/L	172	167	234	239
Total Dissolved Solids (TDS)	mg/L	344	340	480	454
Appendix IV Constituents					
Antimony, Sb	ug/L	0.17	0.07	0.05 U	0.01 J
Arsenic, As	ug/L	0.8	0.88	3.15	2.21
Barium, Ba	ug/L	26.5	22.8	31.6	22.1
Beryllium, Be	ug/L	0.052	0.06	0.023	0.046
Cadmium, Cd	ug/L	0.12	0.02	0.008 J	0.009 J
Chromium, Cr	ug/L	1.32	1.07	0.086	0.17
Cobalt, Co	ug/L	1.44	2.12	2.87	3.83
Fluoride, F	mg/L	0.07	0.05 J	0.05 J	0.05 J
Lithium, Li	mg/L	0.008	0.004	0.005	0.01
Lead, Pb	ug/L	0.441	0.245	0.027	0.104
Mercury, Hg	ug/L	0.004 J	0.005 U	1.15	0.005 U
Molybdenum, Mo	ug/L	4.84	0.95	0.32	0.2
Radium 226 & 228 (combined)	pCi/L	0.784	1.427	0.732	0.23
Selenium, Se	ug/L	0.4	0.2	0.06 J	0.08 J
Thallium, Tl	ug/L	0.03 J	0.03 J	0.05 U	0.05 U

KC-15-02
SUMMARY OF ANALYTICAL RESULTS
Ohio Valley Electric Corporation
Kyger Creek Station
Gallia County, Ohio

Parameter	Units	Oct-15	Jan-16	Mar-16	May-16	Sep-16
Appendix III Constituents						
Boron, B	mg/L	0.023	0.031	0.188	0.041	0.023
Calcium, Ca	mg/L	96.2	101	87.1	100	102
Chloride, Cl	mg/L	35	36	27.9	32	36
Fluoride, F	mg/L	0.2 J	0.1 J	0.1 J	0.11	0.14
pH	s.u.	6.93	6.82	6.76	7.17	7.62
Sulfate, SO4	mg/L	95.4	89.7	90	112	90.5
Total Dissolved Solids (TDS)	mg/L	446	436	396	466	454
Appendix IV Constituents						
Antimony, Sb	ug/L	0.21	0.1 J	0.07	0.04 J	0.02 J
Arsenic, As	ug/L	3.1	3.21	3.08	2.58	3.83
Barium, Ba	ug/L	103	118	90.4	89.1	108
Beryllium, Be	ug/L	0.007 J	0.016	0.006 J	0.02 U	0.006 J
Cadmium, Cd	ug/L	0.01 J	0.02 J	0.04	0.04	0.03
Chromium, Cr	ug/L	2.5	1.5	0.7	0.3	0.7
Cobalt, Co	ug/L	1.9	1.79	1.8	2.06	1.8
Fluoride, F	mg/L	0.2 J	0.1 J	0.1 J	0.11	0.14
Lithium, Li	mg/L	0.005	0.002 J	0.007	0.004	0.006
Lead, Pb	ug/L	0.237	0.392	0.142	0.042	0.171
Mercury, Hg	ug/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Molybdenum, Mo	ug/L	4.36	2.13	3.17	2.51	1.38
Radium 226 & 228 (combined)	pCi/L	0.612	0.409	0.397 U	0.783	0.639
Selenium, Se	ug/L	0.2	0.1	0.2	0.2	0.06 J
Thallium, Tl	ug/L	0.02 J	0.01 J	0.02 J	0.01 J	0.05 U

KC-15-02
SUMMARY OF ANALYTICAL RESULTS
Ohio Valley Electric Corporation
Kyger Creek Station
Gallia County, Ohio

Parameter	Units	Dec-16	Mar-17	Jun-17	Sep-17
Appendix III Constituents					
Boron, B	mg/L	0.019	0.055	0.094	0.033
Calcium, Ca	mg/L	79.3	92.7	109	112
Chloride, Cl	mg/L	52.1	27.8	34.1	34.2
Fluoride, F	mg/L	0.1 J	0.1 J	0.09 J	0.13
pH	s.u.	6.34	8.83	7.55	5.65
Sulfate, SO4	mg/L	94.7	82.7	95.5	99.1
Total Dissolved Solids (TDS)	mg/L	376	398	452	442
Appendix IV Constituents					
Antimony, Sb	ug/L	0.06	0.05	0.02 J	0.02 J
Arsenic, As	ug/L	0.62	2.89	4.8	3.81
Barium, Ba	ug/L	85.4	82.7	118	125
Beryllium, Be	ug/L	0.007 J	0.01 J	0.02 U	0.004 J
Cadmium, Cd	ug/L	0.15	0.07	0.03	0.04
Chromium, Cr	ug/L	0.649	0.927	0.149	0.274
Cobalt, Co	ug/L	6.03	1.76	0.781	0.717
Fluoride, F	mg/L	0.1 J	0.1 J	0.09 J	0.13
Lithium, Li	mg/L	0.005	0.005	0.008	0.006
Lead, Pb	ug/L	0.08	0.218	0.049	0.115
Mercury, Hg	ug/L	0.002 J	0.004 J	0.005 U	0.005 U
Molybdenum, Mo	ug/L	2.92	2.09	1.23	1.08
Radium 226 & 228 (combined)	pCi/L	0.826	1.851	1.334	0.859
Selenium, Se	ug/L	0.06 J	0.1	0.1 U	0.07 J
Thallium, Tl	ug/L	0.02 J	0.02 J	0.05 U	0.05 U

KC-15-03
SUMMARY OF ANALYTICAL RESULTS
Ohio Valley Electric Corporation
Kyger Creek Station
Gallia County, Ohio

Parameter	Units	Oct-15	Jan-16	Mar-16	May-16	Sep-16
Appendix III Constituents						
Boron, B	mg/L	0.082	0.053	0.056	0.057	0.06
Calcium, Ca	mg/L	109	100	91.6	92.3	107
Chloride, Cl	mg/L	29.5	28.1	29	27.9	28.1
Fluoride, F	mg/L	0.17	1.29	0.1 J	0.1 J	0.11
pH	s.u.	7.02	6.55	6.68	7.14	7.48
Sulfate, SO4	mg/L	171	182	186	182	192
Total Dissolved Solids (TDS)	mg/L	520	534	490	504	504
Appendix IV Constituents						
Antimony, Sb	ug/L	0.04 J	0.03 J	0.41	0.05	0.03 J
Arsenic, As	ug/L	6.71	6.1	7.72	4.15	3.98
Barium, Ba	ug/L	118	97.7	111	90.1	80.3
Beryllium, Be	ug/L	0.01	0.012	0.01 J	0.006 J	0.02 U
Cadmium, Cd	ug/L	0.01 J	0.05 U	0.009 J	0.01 J	0.01 J
Chromium, Cr	ug/L	0.3	0.3	1.2	0.6	0.3
Cobalt, Co	ug/L	3.27	4.79	6.09	6.6	8.03
Fluoride, F	mg/L	0.17	1.29	0.1 J	0.1 J	0.11
Lithium, Li	mg/L	0.004 J	0.002 J	0.001 J	0.007	0.013
Lead, Pb	ug/L	0.151	0.566	0.191	0.075	0.036
Mercury, Hg	ug/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Molybdenum, Mo	ug/L	5.4	2.97	7.02	2.71	2.38
Radium 226 & 228 (combined)	pCi/L	0.449	0.247	0.486	0.665	1.472
Selenium, Se	ug/L	0.1	0.08 J	0.3	0.1	0.06 J
Thallium, Tl	ug/L	0.009 J	0.004 J	0.01 J	0.05 U	0.05 U

KC-15-03
SUMMARY OF ANALYTICAL RESULTS
Ohio Valley Electric Corporation
Kyger Creek Station
Gallia County, Ohio

Parameter	Units	Dec-16	Mar-17	Jun-17	Sep-17
Appendix III Constituents					
Boron, B	mg/L	0.028	0.053	0.094	0.108
Calcium, Ca	mg/L	75.1	102	109	108
Chloride, Cl	mg/L	31.2	28.8	27.5	27.5
Fluoride, F	mg/L	0.1 J	0.1	0.08 J	0.09 J
pH	s.u.	7.65	6.12	6.56	6.46
Sulfate, SO4	mg/L	194	190	182	186
Total Dissolved Solids (TDS)	mg/L	448	444	584	468
Appendix IV Constituents					
Antimony, Sb	ug/L	0.04 J	0.02 J	0.22	0.04 J
Arsenic, As	ug/L	2.29	4.81	6.36	2.53
Barium, Ba	ug/L	70.8	73.1	85	73
Beryllium, Be	ug/L	0.02 U	0.02 U	0.006 J	0.004 J
Cadmium, Cd	ug/L	0.03	0.007 J	0.01 J	0.06
Chromium, Cr	ug/L	0.54	0.461	0.444	0.301
Cobalt, Co	ug/L	10.6	6.28	5.13	9.24
Fluoride, F	mg/L	0.1 J	0.1	0.08 J	0.09 J
Lithium, Li	mg/L	0.009	0.0003 J	0.008	0.01
Lead, Pb	ug/L	0.022	0.032	0.107	0.052
Mercury, Hg	ug/L	0.004 J	0.005 U	0.005 U	0.005 U
Molybdenum, Mo	ug/L	2.31	1.83	3.32	1.72
Radium 226 & 228 (combined)	pCi/L	0.548	1.163	0.618	1.067
Selenium, Se	ug/L	0.05 J	0.1 U	0.08 J	0.04 J
Thallium, Tl	ug/L	0.01 J	0.05 U	0.03 J	0.01 J

KC-15-04
SUMMARY OF ANALYTICAL RESULTS
Ohio Valley Electric Corporation
Kyger Creek Station
Gallia County, Ohio

Parameter	Units	Oct-15	Jan-16	Mar-16	May-16	Sep-16
Appendix III Constituents						
Boron, B	mg/L	0.656	0.706	0.673	0.896	0.846
Calcium, Ca	mg/L	100	108	91.7	97.8	117
Chloride, Cl	mg/L	33.2	31.8	32.1	32	30.8
Fluoride, F	mg/L	0.12	0.1 J	0.09	0.09	0.12
pH	s.u.	6.78	6.49	6.47	7.41	7.46
Sulfate, SO4	mg/L	298	334	315	326	344
Total Dissolved Solids (TDS)	mg/L	608	614	594	600	550
Appendix IV Constituents						
Antimony, Sb	ug/L	0.06 J	0.02 J	0.04 J	0.02 J	0.01 J
Arsenic, As	ug/L	7.56	6.31	3.38	5.04	5.24
Barium, Ba	ug/L	155	138	112	104	91.9
Beryllium, Be	ug/L	0.016	0.019	0.027	0.007 J	0.01 J
Cadmium, Cd	ug/L	0.05 U	0.05 U	0.02	0.008 J	0.02 U
Chromium, Cr	ug/L	0.4	0.3	0.7	0.2	0.2
Cobalt, Co	ug/L	4.05	4.12	5.45	4.93	5.34
Fluoride, F	mg/L	0.12	0.1 J	0.09	0.09	0.12
Lithium, Li	mg/L	0.012	0.008	0.007	0.01	0.021
Lead, Pb	ug/L	0.231	0.225	0.507	0.047	0.056
Mercury, Hg	ug/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Molybdenum, Mo	ug/L	3.43	1.95	1.31	1.27	1.06
Radium 226 & 228 (combined)	pCi/L	0.118	0.724	0.624 U	0.7	0.806
Selenium, Se	ug/L	0.04 J	0.1 U	0.1 J	0.1 U	0.04 J
Thallium, Tl	ug/L	0.026	0.003 J	0.02 J	0.01 J	0.05 U

KC-15-04
SUMMARY OF ANALYTICAL RESULTS
Ohio Valley Electric Corporation
Kyger Creek Station
Gallia County, Ohio

Parameter	Units	Dec-16	Mar-17	Jun-17	Sep-17
Appendix III Constituents					
Boron, B	mg/L	0.769	0.612	0.788	0.722
Calcium, Ca	mg/L	108	97.7	109	125
Chloride, Cl	mg/L	29.7	25.2	28.5	32.5
Fluoride, F	mg/L	0.08	0.08	0.08	0.09 J
pH	s.u.	5.7	6.19	6.24	8.46
Sulfate, SO4	mg/L	344	306	381	388
Total Dissolved Solids (TDS)	mg/L	740	430	680	660
Appendix IV Constituents					
Antimony, Sb	ug/L	0.03 J	0.05 J	0.04 J	0.05 U
Arsenic, As	ug/L	5.03	3.4	3.07	4.02
Barium, Ba	ug/L	89.5	77.5	80	80.4
Beryllium, Be	ug/L	0.02 J	0.027	0.039	0.01 J
Cadmium, Cd	ug/L	0.009 J	0.08	0.02 J	0.02 U
Chromium, Cr	ug/L	0.499	0.872	1.01	0.142
Cobalt, Co	ug/L	5.68	6.89	6.33	7.57
Fluoride, F	mg/L	0.08	0.08	0.08	0.09 J
Lithium, Li	mg/L	0.012	0.003	0.013	0.015
Lead, Pb	ug/L	0.211	0.537	0.635	0.094
Mercury, Hg	ug/L	0.002 J	0.007	1.4	0.005 U
Molybdenum, Mo	ug/L	0.86	0.93	0.56	0.55
Radium 226 & 228 (combined)	pCi/L	1.075	0.763	3.2002	1.058
Selenium, Se	ug/L	0.2	0.1	0.2	0.04 J
Thallium, Tl	ug/L	0.05 U	0.03 J	0.02 J	0.05 U

KC-15-05
SUMMARY OF ANALYTICAL RESULTS
Ohio Valley Electric Corporation
Kyger Creek Station
Gallia County, Ohio

Parameter	Units	Oct-15	Jan-16	Mar-16	May-16	Sep-16
Appendix III Constituents						
Boron, B	mg/L	0.758	0.695	0.71	1.02	0.764
Calcium, Ca	mg/L	127	98.2	112	119	135
Chloride, Cl	mg/L	32.6	31.1	31.6	32.2	31.2
Fluoride, F	mg/L	0.1 J	0.1 J	0.1	0.1	0.1 J
pH	s.u.	6.86	6.81	6.52	7.48	7.57
Sulfate, SO4	mg/L	354	348	385	384	383
Total Dissolved Solids (TDS)	mg/L	696	728	734	700	760
Appendix IV Constituents						
Antimony, Sb	ug/L	0.06 J	0.08 J	0.03 J	0.05	0.07
Arsenic, As	ug/L	7.16	5.68	6.32	4.79	2.56
Barium, Ba	ug/L	101	72.2	72.3	65.3	60.1
Beryllium, Be	ug/L	0.011	0.013	0.007 J	0.01 J	0.02 J
Cadmium, Cd	ug/L	0.05 U	0.01 J	0.006 J	0.02 J	0.04
Chromium, Cr	ug/L	0.2	1.1	0.3	0.6	0.7
Cobalt, Co	ug/L	5.76	6.15	6.47	6.45	5.42
Fluoride, F	mg/L	0.1 J	0.1 J	0.1	0.1	0.1 J
Lithium, Li	mg/L	0.002 J	0.022	0.005 U	0.01	0.005
Lead, Pb	ug/L	0.115	0.203	0.069	0.204	0.327
Mercury, Hg	ug/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Molybdenum, Mo	ug/L	2.2	2.38	1.29	0.94	1.04
Radium 226 & 228 (combined)	pCi/L	1.162	0.303	0.403	0.73	0.436
Selenium, Se	ug/L	0.06 J	0.1	0.1 U	0.07 J	0.1
Thallium, Tl	ug/L	0.008 J	0.008 J	0.05 U	0.02 J	0.03 J

KC-15-05
SUMMARY OF ANALYTICAL RESULTS
Ohio Valley Electric Corporation
Kyger Creek Station
Gallia County, Ohio

Parameter	Units	Dec-16	Mar-17	Jun-17	Sep-17
Appendix III Constituents					
Boron, B	mg/L	0.774	0.521	0.612	0.788
Calcium, Ca	mg/L	134	110	130	152
Chloride, Cl	mg/L	31	27.2	31.7	31.4
Fluoride, F	mg/L	0.1	0.1 J	0.1 J	0.1 J
pH	s.u.	5.84	6.51	6.29	8.1
Sulfate, SO4	mg/L	369	291	367	414
Total Dissolved Solids (TDS)	mg/L	712	566	742	772
Appendix IV Constituents					
Antimony, Sb	ug/L	0.06	0.03 J	0.03 J	0.02 J
Arsenic, As	ug/L	2.78	2.42	1.88	1.77
Barium, Ba	ug/L	58.1	45.7	45.4	47.1
Beryllium, Be	ug/L	0.01 J	0.02 J	0.009 J	0.007 J
Cadmium, Cd	ug/L	0.06	0.05	0.05	0.06
Chromium, Cr	ug/L	0.425	0.881	0.238	0.098
Cobalt, Co	ug/L	6.39	5.58	4.36	7.11
Fluoride, F	mg/L	0.1	0.1 J	0.1 J	0.1 J
Lithium, Li	mg/L	0.008	0.003	0.007	0.01
Lead, Pb	ug/L	0.17	0.316	0.123	0.054
Mercury, Hg	ug/L	0.003 J	0.003 J	1.55	0.005 U
Molybdenum, Mo	ug/L	0.81	0.72	0.55	0.43
Radium 226 & 228 (combined)	pCi/L	0.7655	0.055	5.677	1.436
Selenium, Se	ug/L	0.06 J	0.1	0.07 J	0.1 U
Thallium, Tl	ug/L	0.03 J	0.03 J	0.02 J	0.02 J

KC-15-06
SUMMARY OF ANALYTICAL RESULTS
Ohio Valley Electric Corporation
Kyger Creek Station
Gallia County, Ohio

Parameter	Units	Oct-15	Jan-16	Mar-16	May-16	Sep-16
Appendix III Constituents						
Boron, B	mg/L	0.182	0.191	0.183	0.198	0.203
Calcium, Ca	mg/L	92.3	93.1	84.3	92.6	84.6
Chloride, Cl	mg/L	36.7	35.6	36.6	36.8	33
Fluoride, F	mg/L	0.09 J	0.1 J	0.1 J	0.1 J	0.07 J
pH	s.u.	6.78	6.62	6.62	7.28	7.57
Sulfate, SO4	mg/L	143	146	150	154	134
Total Dissolved Solids (TDS)	mg/L	470	440	460	478	464
Appendix IV Constituents						
Antimony, Sb	ug/L	0.04 J	0.1 U	0.02 J	0.06	0.02 J
Arsenic, As	ug/L	4.95	4.05	5.89	5.98	1.95
Barium, Ba	ug/L	114	89.3	114	122	72.8
Beryllium, Be	ug/L	0.01	0.006 J	0.02 U	0.006 J	0.02 U
Cadmium, Cd	ug/L	0.04 J	0.04 J	0.03	0.05	0.11
Chromium, Cr	ug/L	0.8	0.3	0.3	0.5	0.3
Cobalt, Co	ug/L	3.46	3.24	2.85	1.74	4.26
Fluoride, F	mg/L	0.09 J	0.1 J	0.1 J	0.1 J	0.07 J
Lithium, Li	mg/L	0.008	0.002 J	0.005 U	0.007	0.005
Lead, Pb	ug/L	0.304	0.132	0.117	0.197	0.104
Mercury, Hg	ug/L	0.002 J	0.005 U	0.005 U	0.005 U	0.005 U
Molybdenum, Mo	ug/L	1.88	1.28	1.15	1.29	0.7
Radium 226 & 228 (combined)	pCi/L	1.25	0.25	0.315 U	2.657	0.9095
Selenium, Se	ug/L	0.08 J	0.04 J	0.06 J	0.08 J	0.08 J
Thallium, Tl	ug/L	0.01 J	0.01 J	0.02 J	0.01 J	0.02 J

KC-15-06
SUMMARY OF ANALYTICAL RESULTS
Ohio Valley Electric Corporation
Kyger Creek Station
Gallia County, Ohio

Parameter	Units	Dec-16	Mar-17	Jun-17	Sep-17
Appendix III Constituents					
Boron, B	mg/L	0.226	0.192	0.276	0.218
Calcium, Ca	mg/L	112	86.8	106	90.8
Chloride, Cl	mg/L	36.7	31.2	36.7	33.1
Fluoride, F	mg/L	0.08 J	0.09 J	0.08 J	0.1 J
pH	s.u.	6.04	6.35	6.39	6.49
Sulfate, SO4	mg/L	175	136	160	148
Total Dissolved Solids (TDS)	mg/L	504	437	504	452
Appendix IV Constituents					
Antimony, Sb	ug/L	0.02 J	0.04 J	0.01 J	0.02 J
Arsenic, As	ug/L	12.6	3.19	8.53	1.27
Barium, Ba	ug/L	157	79.9	153	71.9
Beryllium, Be	ug/L	0.008 J	0.02 J	0.007 J	0.01 J
Cadmium, Cd	ug/L	0.02	0.19	0.04	0.2
Chromium, Cr	ug/L	0.283	0.886	0.308	0.54
Cobalt, Co	ug/L	2.37	3.39	1.55	3.78
Fluoride, F	mg/L	0.08 J	0.09 J	0.08 J	0.1 J
Lithium, Li	mg/L	0.006	0.009	0.001	0.006
Lead, Pb	ug/L	0.101	0.329	0.168	0.239
Mercury, Hg	ug/L	0.005 U	0.005 J	1.1	0.005 U
Molybdenum, Mo	ug/L	0.74	0.72	0.46	0.43
Radium 226 & 228 (combined)	pCi/L	0.692	0.835	0.429	1.517
Selenium, Se	ug/L	0.1	0.1	0.08 J	0.08 J
Thallium, Tl	ug/L	0.02 J	0.02 J	0.05 U	0.02 J

KC-15-07
SUMMARY OF ANALYTICAL RESULTS
Ohio Valley Electric Corporation
Kyger Creek Station
Gallia County, Ohio

Parameter	Units	Oct-15	Jan-16	Mar-16	May-16	Sep-16
Appendix III Constituents						
Boron, B	mg/L	0.128	0.143	0.116	0.11	0.12
Calcium, Ca	mg/L	111	111	94.4	97.5	80.8
Chloride, Cl	mg/L	35.5	33.1	33.6	32.3	30.7
Fluoride, F	mg/L	0.1 J	0.1 J	0.09 J	0.07 J	0.07 J
pH	s.u.	6.88	6.66	6.52	7.25	7.54
Sulfate, SO4	mg/L	153	145	135	106	71.6
Total Dissolved Solids (TDS)	mg/L	542	480	488	350	444
Appendix IV Constituents						
Antimony, Sb	ug/L	0.22	0.04 J	0.03 J	0.1 U	0.02 J
Arsenic, As	ug/L	29	60.1	104	112	135
Barium, Ba	ug/L	287	338	451	444	543
Beryllium, Be	ug/L	0.017	0.008 J	0.01 J	0.04 U	0.02 U
Cadmium, Cd	ug/L	0.01 J	0.05 U	0.01 J	0.04 U	0.005 J
Chromium, Cr	ug/L	1.1	0.4	0.6	0.3	0.3
Cobalt, Co	ug/L	1.5	0.497	0.516	0.311	0.245
Fluoride, F	mg/L	0.1 J	0.1 J	0.09 J	0.07 J	0.07 J
Lithium, Li	mg/L	0.01	0.003 J	0.003 J	0.002	0.001
Lead, Pb	ug/L	0.328	0.161	0.207	0.03 J	0.024
Mercury, Hg	ug/L	0.005 U	0.005 U	0.005 U	0.002 J	0.005 U
Molybdenum, Mo	ug/L	3.24	1.27	1.11	0.8	0.92
Radium 226 & 228 (combined)	pCi/L	-0.554	0.898	0.786	0.843	1.374
Selenium, Se	ug/L	0.1	0.08 J	0.1	0.07 J	0.1 J
Thallium, Tl	ug/L	0.004 J	0.003 J	0.03 J	0.1 U	0.02 J

KC-15-07
SUMMARY OF ANALYTICAL RESULTS
Ohio Valley Electric Corporation
Kyger Creek Station
Gallia County, Ohio

Parameter	Units	Dec-16	Mar-17	Jun-17	Sep-17
Appendix III Constituents					
Boron, B	mg/L	0.089	0.102	0.15	0.092
Calcium, Ca	mg/L	88.3	96.7	99.9	71.5
Chloride, Cl	mg/L	31.6	32.7	35.7	28.3
Fluoride, F	mg/L	0.06 J	0.08 J	0.06 J	0.06 J
pH	s.u.	6.04	6.47	6.38	6.52
Sulfate, SO4	mg/L	86.5	94	119	26.2
Total Dissolved Solids (TDS)	mg/L	446	437	450	316
Appendix IV Constituents					
Antimony, Sb	ug/L	0.02 J	0.02 J	0.08	0.02 J
Arsenic, As	ug/L	133	123	66.9	153
Barium, Ba	ug/L	501	465	411	506
Beryllium, Be	ug/L	0.008 J	0.007 J	0.008 J	0.008 J
Cadmium, Cd	ug/L	0.009 J	0.007 J	0.006 J	0.01 J
Chromium, Cr	ug/L	0.319	0.217	0.27	0.292
Cobalt, Co	ug/L	0.333	0.319	0.665	0.201
Fluoride, F	mg/L	0.06 J	0.08 J	0.06 J	0.06 J
Lithium, Li	mg/L	0.01	0.001	0.006	0.006
Lead, Pb	ug/L	0.051	0.034	0.095	0.049
Mercury, Hg	ug/L	0.003 J	0.004 J	0.005 U	0.005 U
Molybdenum, Mo	ug/L	0.84	0.84	0.98	0.86
Radium 226 & 228 (combined)	pCi/L	2.004	2.25	1.405	2.576
Selenium, Se	ug/L	0.1	0.08 J	0.1 J	0.1
Thallium, Tl	ug/L	0.03 J	0.05 U	0.05 U	0.05 U

KC-15-08
SUMMARY OF ANALYTICAL RESULTS
Ohio Valley Electric Corporation
Kyger Creek Station
Gallia County, Ohio

Parameter	Units	Oct-15	Jan-16	Mar-16	May-16	Sep-16
Appendix III Constituents						
Boron, B	mg/L	0.489	0.521	0.411	0.399	0.379
Calcium, Ca	mg/L	277	290	219	215	183
Chloride, Cl	mg/L	41.4	40.1	38.9	38.5	38.6
Fluoride, F	mg/L	0.1 J	0.1 J	0.1 J	0.09 J	0.1 J
pH	s.u.	6.97	6.97	6.71	7.17	7.55
Sulfate, SO4	mg/L	807	817	654	571	542
Total Dissolved Solids (TDS)	mg/L	1420	1420	1200	1070	1040
Appendix IV Constituents						
Antimony, Sb	ug/L	0.25	0.14	0.03 J	0.07	0.13
Arsenic, As	ug/L	10.6	9.01	8.91	6.17	6
Barium, Ba	ug/L	72.7	61.3	66	63.6	53.6
Beryllium, Be	ug/L	0.004 J	0.004 J	0.005 J	0.02 U	0.02 U
Cadmium, Cd	ug/L	0.05 U	0.05 U	0.02 U	0.005 J	0.007 J
Chromium, Cr	ug/L	0.4	0.2	0.3	0.3	0.8
Cobalt, Co	ug/L	2.78	1.38	2.53	3.22	3.34
Fluoride, F	mg/L	0.1 J	0.1 J	0.1 J	0.09 J	0.1 J
Lithium, Li	mg/L	0.006	0.002 J	0.005 U	0.011	0.04
Lead, Pb	ug/L	0.083	0.072	0.138	0.053	0.047
Mercury, Hg	ug/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Molybdenum, Mo	ug/L	3.47	2.59	1.71	1.23	1.53
Radium 226 & 228 (combined)	pCi/L	0.577	0.807	0.475	0.583	1.302
Selenium, Se	ug/L	0.07 J	0.04 J	0.03 J	0.07 J	0.1 J
Thallium, Tl	ug/L	0.02 U	0.02 U	0.05 U	0.01 J	0.05 U

KC-15-08
SUMMARY OF ANALYTICAL RESULTS
Ohio Valley Electric Corporation
Kyger Creek Station
Gallia County, Ohio

Parameter	Units	Dec-16	Mar-17	Jun-17	Sep-17
Appendix III Constituents					
Boron, B	mg/L	0.374	0.46	0.555	0.455
Calcium, Ca	mg/L	200	246	252	218
Chloride, Cl	mg/L	40.3	40.5	43	40.8
Fluoride, F	mg/L	0.12	0.1 J	0.1 J	0.1 J
pH	s.u.	6	7.09	6.74	6.78
Sulfate, SO4	mg/L	541	615	700	530
Total Dissolved Solids (TDS)	mg/L	1030	1190	1320	1060
Appendix IV Constituents					
Antimony, Sb	ug/L	0.07	0.06	0.05	0.01 J
Arsenic, As	ug/L	7.44	10.2	11.5	10.3
Barium, Ba	ug/L	54.7	56.2	50.1	55.2
Beryllium, Be	ug/L	0.02 U	0.008 J	0.008 J	0.006 J
Cadmium, Cd	ug/L	0.01 J	0.01 J	0.009 J	0.01 J
Chromium, Cr	ug/L	0.43	0.324	0.386	0.249
Cobalt, Co	ug/L	4	2.9	2.36	5.12
Fluoride, F	mg/L	0.12	0.1 J	0.1 J	0.1 J
Lithium, Li	mg/L	0.029	0.01	0.017	0.015
Lead, Pb	ug/L	0.031	0.063	0.094	0.049
Mercury, Hg	ug/L	0.003 J	0.004 J	0.005 U	0.005 U
Molybdenum, Mo	ug/L	1.97	1.18	0.88	0.65
Radium 226 & 228 (combined)	pCi/L	1.499	0.933	1.312	2.429
Selenium, Se	ug/L	0.03 J	0.04 J	0.07 J	0.1 U
Thallium, Tl	ug/L	0.05 U	0.01 J	0.05 U	0.05 U

South Fly Ash Pond

KC-15-09
SUMMARY OF ANALYTICAL RESULTS
Ohio Valley Electric Corporation
Kyger Creek Station
Gallia County, Ohio

Parameter	Units	Oct-15	Jan-16	Mar-16	May-16	Sep-16
Appendix III Constituents						
Boron, B	mg/L	0.043	0.033	0.077	0.022	0.038
Calcium, Ca	mg/L	82	58.4	54	66.7	76.8
Chloride, Cl	mg/L	17.8	13.4	7.62	10.8	10.7
Fluoride, F	mg/L	0.32	0.2 J	0.18	0.16	0.17
pH	s.u.	7.01	6.97	7.11	6.9	5.69
Sulfate, SO4	mg/L	48.7	55.6	72.8	61.6	54
Total Dissolved Solids (TDS)	mg/L	328	306	318	306	306
Appendix IV Constituents						
Antimony, Sb	ug/L	0.06 J	0.07 J	0.09	0.03 J	0.03 J
Arsenic, As	ug/L	2.98	1.81	3.78	3.28	2.26
Barium, Ba	ug/L	179	143	114	109	70.7
Beryllium, Be	ug/L	0.008 J	0.008 J	0.051	0.028	0.006 J
Cadmium, Cd	ug/L	0.05 U	0.05 U	0.03	0.01 J	0.006 J
Chromium, Cr	ug/L	0.2	0.3	1.7	1.1	0.7
Cobalt, Co	ug/L	0.672	0.645	1.43	2.49	2.08
Fluoride, F	mg/L	0.32	0.2 J	0.18	0.16	0.17
Lithium, Li	mg/L	0.024	0.013	0.008	0.007	0.011
Lead, Pb	ug/L	0.112	0.143	1.21	0.61	0.175
Mercury, Hg	ug/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Molybdenum, Mo	ug/L	11.1	5.61	5.26	2.72	1.7
Radium 226 & 228 (combined)	pCi/L	0.43	0.296 U	2 U	0.49	0.446
Selenium, Se	ug/L	0.05 J	0.08 J	0.3	0.2	0.06 J
Thallium, Tl	ug/L	0.02 J	0.02 U	0.03 J	0.05 U	0.01 J

KC-15-09
SUMMARY OF ANALYTICAL RESULTS
Ohio Valley Electric Corporation
Kyger Creek Station
Gallia County, Ohio

Parameter	Units	Dec-16	Mar-17	Jun-17	Sep-17
Appendix III Constituents					
Boron, B	mg/L	0.026	0.059	0.053	0.089
Calcium, Ca	mg/L	70.7	45	72.1	71.5
Chloride, Cl	mg/L	9.97	3.47	10.7	6.47
Fluoride, F	mg/L	0.1 J	0.08 J	0.1 J	0.1 J
pH	s.u.	6.91	6.87	7.53	7.65
Sulfate, SO4	mg/L	55.4	61.9	51.2	31.4
Total Dissolved Solids (TDS)	mg/L	298	234	316	400 U
Appendix IV Constituents					
Antimony, Sb	ug/L	0.05 J	0.15	0.06	0.02 J
Arsenic, As	ug/L	2.52	1.09	0.57	1.31
Barium, Ba	ug/L	74.2	36.4	55.5	59.1
Beryllium, Be	ug/L	0.02 J	0.034	0.007 J	0.004 J
Cadmium, Cd	ug/L	0.008 J	0.01 J	0.05	0.04
Chromium, Cr	ug/L	0.956	1.57	0.284	0.129
Cobalt, Co	ug/L	2.27	0.621	2.8	2.89
Fluoride, F	mg/L	0.1 J	0.08 J	0.1 J	0.1 J
Lithium, Li	mg/L	0.009	0.002	0.004	0.01
Lead, Pb	ug/L	0.324	0.576	0.069	0.025
Mercury, Hg	ug/L	0.002 J	0.002 J	0.005 U	0.005 U
Molybdenum, Mo	ug/L	1.94	4.65	1.31	1.05
Radium 226 & 228 (combined)	pCi/L	1.467	1.036	0.36731	0.6546
Selenium, Se	ug/L	0.1	0.3	0.07 J	0.1 U
Thallium, Tl	ug/L	0.01 J	0.04 J	0.02 J	0.02 J

KC-15-10
SUMMARY OF ANALYTICAL RESULTS
Ohio Valley Electric Corporation
Kyger Creek Station
Gallia County, Ohio

Parameter	Units	Oct-15	Jan-16	Mar-16	May-16	Sep-16
Appendix III Constituents						
Boron, B	mg/L	0.022	0.083	0.047	0.013	0.059
Calcium, Ca	mg/L	64	59.4	60.7	53.4	69.3
Chloride, Cl	mg/L	9.9	9.22	9	8.81	8.56
Fluoride, F	mg/L	0.18	0.2 J	0.19	0.17	0.19
pH	s.u.	6.66	6.55	6.77	6.42	6.14
Sulfate, SO4	mg/L	61.9	60.7	59	64.8	58.3
Total Dissolved Solids (TDS)	mg/L	291	265	288	270	292
Appendix IV Constituents						
Antimony, Sb	ug/L	0.05 J	0.1 U	0.02 J	0.05 U	0.02 J
Arsenic, As	ug/L	4.37	3.28	4.08	2.43	2.7
Barium, Ba	ug/L	73.7	56.6	56	44	42.6
Beryllium, Be	ug/L	0.015	0.016	0.02 J	0.01 J	0.01 J
Cadmium, Cd	ug/L	0.05 U	0.05 U	0.02 U	0.02 U	0.008 J
Chromium, Cr	ug/L	0.3	0.2	0.3	0.2	0.3
Cobalt, Co	ug/L	2.31	1.7	1.88	1.26	1.4
Fluoride, F	mg/L	0.18	0.2 J	0.19	0.17	0.19
Lithium, Li	mg/L	0.009	0.003 J	0.008	0.007	0.008
Lead, Pb	ug/L	0.237	0.242	0.251	0.173	0.172
Mercury, Hg	ug/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Molybdenum, Mo	ug/L	1.52	0.48	0.48	0.18	0.26
Radium 226 & 228 (combined)	pCi/L	0.888	0.179 U	0.79 U	0.5241	0.9117
Selenium, Se	ug/L	0.04 J	0.05 J	0.07 J	0.05 J	0.1 U
Thallium, Tl	ug/L	0.004 J	0.006 J	0.05 U	0.05 U	0.01 J

KC-15-10
SUMMARY OF ANALYTICAL RESULTS
Ohio Valley Electric Corporation
Kyger Creek Station
Gallia County, Ohio

Parameter	Units	Dec-16	Mar-17	Jun-17	Sep-17
Appendix III Constituents					
Boron, B	mg/L	0.012	0.014	0.092	0.103
Calcium, Ca	mg/L	54.2	66.3	57.2	55.8
Chloride, Cl	mg/L	8.93	9.9	8.8	8.94
Fluoride, F	mg/L	0.15	0.18	0.15	0.16
pH	s.u.	6.31	9.48	7.03	6.39
Sulfate, SO4	mg/L	59.3	60.8	59.7	65.6
Total Dissolved Solids (TDS)	mg/L	288	302	290	256
Appendix IV Constituents					
Antimony, Sb	ug/L	0.02 J	0.01 J	0.05 U	0.05 U
Arsenic, As	ug/L	2.92	3.37	2.19	2.35
Barium, Ba	ug/L	42.9	43.7	39.6	38.6
Beryllium, Be	ug/L	0.01 J	0.01 J	0.01 J	0.01 J
Cadmium, Cd	ug/L	0.02 U	0.02 U	0.006 J	0.009 J
Chromium, Cr	ug/L	0.295	0.178	0.112	0.118
Cobalt, Co	ug/L	1.41	1.28	1.14	1.19
Fluoride, F	mg/L	0.15	0.18	0.15	0.16
Lithium, Li	mg/L	0.009	0.005	0.006	0.008
Lead, Pb	ug/L	0.147	0.135	0.07	0.079
Mercury, Hg	ug/L	0.002 J	0.005 U	0.005 U	0.005 U
Molybdenum, Mo	ug/L	0.23	6.56	0.12	0.2
Radium 226 & 228 (combined)	pCi/L	0.681	0.586	0.569	0.729
Selenium, Se	ug/L	0.03 J	0.05 J	0.04 J	0.05 J
Thallium, Tl	ug/L	0.02 J	0.05 U	0.05 U	0.05 U

KC-15-11
SUMMARY OF ANALYTICAL RESULTS
Ohio Valley Electric Corporation
Kyger Creek Station
Gallia County, Ohio

Parameter	Units	Oct-15	Jan-16	Mar-16	May-16	Sep-16
Appendix III Constituents						
Boron, B	mg/L	0.016	0.084	0.047	0.031	0.051
Calcium, Ca	mg/L	55.2	63.3	70	61.6	63.1
Chloride, Cl	mg/L	10.7	10.3	10.4	10.8	10.7
Fluoride, F	mg/L	0.16	0.2 J	0.22	0.14	0.17
pH	s.u.	6.55	6.54	6.8	6.4	5.29
Sulfate, SO4	mg/L	82.8	81	80	79.1	74.6
Total Dissolved Solids (TDS)	mg/L	312	284	322	290	256
Appendix IV Constituents						
Antimony, Sb	ug/L	0.03 J	0.02 J	0.02 J	0.04 J	0.02 J
Arsenic, As	ug/L	0.99	1.04	1.43	1.47	0.79
Barium, Ba	ug/L	34.6	34	35.1	36.2	31.7
Beryllium, Be	ug/L	0.017	0.011	0.007 J	0.024	0.008 J
Cadmium, Cd	ug/L	0.03 J	0.03 J	0.02 J	0.19	0.1
Chromium, Cr	ug/L	0.4	0.2	0.1	0.7	0.2
Cobalt, Co	ug/L	1.62	1.68	1.49	1.88	1.07
Fluoride, F	mg/L	0.16	0.2 J	0.22	0.14	0.17
Lithium, Li	mg/L	0.006	0.004 J	0.007	0.004	0.008
Lead, Pb	ug/L	0.352	0.13	0.083	0.461	0.116
Mercury, Hg	ug/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Molybdenum, Mo	ug/L	0.39	0.3	0.5	0.26	0.22
Radium 226 & 228 (combined)	pCi/L	0.1217	0.394	0.532 U	-0.5506	0.1892
Selenium, Se	ug/L	0.04 J	0.1 U	0.05 J	0.08 J	0.03 J
Thallium, Tl	ug/L	0.02 J	0.02 J	0.03 J	0.02 J	0.04 J

KC-15-11
SUMMARY OF ANALYTICAL RESULTS
Ohio Valley Electric Corporation
Kyger Creek Station
Gallia County, Ohio

Parameter	Units	Dec-16	Mar-17	Jun-17	Sep-17
Appendix III Constituents					
Boron, B	mg/L	0.015	0.031	0.035	0.067
Calcium, Ca	mg/L	56.8	81.9	56.3	57.9
Chloride, Cl	mg/L	10.9	11.2	11.7	12
Fluoride, F	mg/L	0.16	0.2	0.14	0.16
pH	s.u.	5.8	7.55	7.41	6.78
Sulfate, SO4	mg/L	74.5	74.7	67.8	72.3
Total Dissolved Solids (TDS)	mg/L	238	332	278	275
Appendix IV Constituents					
Antimony, Sb	ug/L	0.15	0.02 J	0.02 J	0.02 J
Arsenic, As	ug/L	1.05	1.12	0.87	0.44
Barium, Ba	ug/L	34.4	34.9	35.4	29.2
Beryllium, Be	ug/L	0.009 J	0.01 J	0.01 J	0.01 J
Cadmium, Cd	ug/L	0.04	0.07	0.12	0.12
Chromium, Cr	ug/L	0.169	0.198	0.419	0.189
Cobalt, Co	ug/L	1.28	1.35	1.53	1.04
Fluoride, F	mg/L	0.16	0.2	0.14	0.16
Lithium, Li	mg/L	0.008	0.003	0.016	0.007
Lead, Pb	ug/L	0.033	0.123	0.192	0.11
Mercury, Hg	ug/L	0.005 U	0.005 U	1.12	0.005 U
Molybdenum, Mo	ug/L	0.73	0.31	0.24	0.15
Radium 226 & 228 (combined)	pCi/L	0.113	0.737	1.237	0.648
Selenium, Se	ug/L	0.06 J	0.04 J	0.05 J	0.04 J
Thallium, Tl	ug/L	0.02 J	0.02 J	0.02 J	0.02 J

KC-15-12
SUMMARY OF ANALYTICAL RESULTS
Ohio Valley Electric Corporation
Kyger Creek Station
Gallia County, Ohio

Parameter	Units	Oct-15	Jan-16	Mar-16	May-16	Sep-16
Appendix III Constituents						
Boron, B	mg/L	0.104	0.32	0.263	0.111	0.32
Calcium, Ca	mg/L	90	91.5	89.9	95.3	86
Chloride, Cl	mg/L	15.1	16.6	16.5	14.3	20.1
Fluoride, F	mg/L	0.1 J	0.1 J	0.16	0.13	0.12
pH	s.u.	7.18	6.82	6.96	7.11	7.46
Sulfate, SO4	mg/L	69.9	74.3	75	67.7	79.2
Total Dissolved Solids (TDS)	mg/L	388	364	354	364	396
Appendix IV Constituents						
Antimony, Sb	ug/L	0.11	0.03 J	0.02 J	0.02 J	0.04 J
Arsenic, As	ug/L	2.59	3.09	3.61	2.09	1.74
Barium, Ba	ug/L	96	93.2	90.5	87	65.6
Beryllium, Be	ug/L	0.002 J	0.005 J	0.02 U	0.006 J	0.02 U
Cadmium, Cd	ug/L	0.02 J	0.05 U	0.005 J	0.009 J	0.02 J
Chromium, Cr	ug/L	0.09 J	0.3	0.1	0.5	1.4
Cobalt, Co	ug/L	1.51	1.92	1.91	1.36	3.42
Fluoride, F	mg/L	0.1 J	0.1 J	0.16	0.13	0.12
Lithium, Li	mg/L	0.004 J	0.003 J	0.006	0.005	0.02
Lead, Pb	ug/L	0.049	0.107	0.046	0.138	0.095
Mercury, Hg	ug/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Molybdenum, Mo	ug/L	2.77	1.68	1.54	1.37	1.36
Radium 226 & 228 (combined)	pCi/L	0.48	1.156	0.476	0.3113	0.4876
Selenium, Se	ug/L	0.1 U	0.07 J	0.04 J	0.04 J	0.08 J
Thallium, Tl	ug/L	0.004 J	0.008 J	0.05 U	0.05 U	0.098

KC-15-12
SUMMARY OF ANALYTICAL RESULTS
Ohio Valley Electric Corporation
Kyger Creek Station
Gallia County, Ohio

Parameter	Units	Dec-16	Mar-17	Jun-17	Sep-17
Appendix III Constituents					
Boron, B	mg/L	0.779	1.23	0.224	0.225
Calcium, Ca	mg/L	91.8	116	81.2	100
Chloride, Cl	mg/L	42.5	52.7	21.6	20.9
Fluoride, F	mg/L	0.1 J	0.1	0.09 J	0.13
pH	s.u.	6.12	5.72	6.97	7.3
Sulfate, SO4	mg/L	141	182	80.5	78.7
Total Dissolved Solids (TDS)	mg/L	474	541	386	382
Appendix IV Constituents					
Antimony, Sb	ug/L	0.04 J	0.05 J	0.03 J	0.03 J
Arsenic, As	ug/L	1.58	1.6	0.93	0.82
Barium, Ba	ug/L	79.8	89.9	62.2	68.4
Beryllium, Be	ug/L	0.006 J	0.022	0.009 J	0.007 J
Cadmium, Cd	ug/L	0.02	0.17	0.03	0.05
Chromium, Cr	ug/L	0.736	0.796	0.945	0.36
Cobalt, Co	ug/L	4.05	2.83	2.36	1.29
Fluoride, F	mg/L	0.1 J	0.1	0.09 J	0.13
Lithium, Li	mg/L	0.011	0.005	0.022	0.005
Lead, Pb	ug/L	0.103	0.291	0.148	0.144
Mercury, Hg	ug/L	0.003 J	0.002 J	1.24	0.005 U
Molybdenum, Mo	ug/L	0.79	0.84	1.23	1.1
Radium 226 & 228 (combined)	pCi/L	0.471	0.073	0.82	0.5515
Selenium, Se	ug/L	0.05 J	0.1	0.07 J	0.05 J
Thallium, Tl	ug/L	0.02 J	0.02 J	0.01 J	0.01 J

KC-15-13
SUMMARY OF ANALYTICAL RESULTS
Ohio Valley Electric Corporation
Kyger Creek Station
Gallia County, Ohio

Parameter	Units	Oct-15	Jan-16	Mar-16	May-16	Sep-16
Appendix III Constituents						
Boron, B	mg/L	3.58	3.81	3.09	2.98	3.67
Calcium, Ca	mg/L	82	88.5	81	76.5	91
Chloride, Cl	mg/L	46.8	46.4	44.1	44.7	45.3
Fluoride, F	mg/L	0.09 J	0.08 J	0.09	0.05 J	0.09
pH	s.u.	6.43	6.24	6.27	6.01	5.55
Sulfate, SO4	mg/L	328	321	330	288	298
Total Dissolved Solids (TDS)	mg/L	708	622	644	560	618
Appendix IV Constituents						
Antimony, Sb	ug/L	0.07 J	0.06 J	0.04 J	0.04 J	0.02 J
Arsenic, As	ug/L	5.38	3.44	4.44	3.23	2.94
Barium, Ba	ug/L	110	117	113	107	104
Beryllium, Be	ug/L	0.013	0.024	0.02 J	0.026	0.01 J
Cadmium, Cd	ug/L	0.05 U	0.01 J	0.01 J	0.02	0.006 J
Chromium, Cr	ug/L	0.2	0.4	0.4	0.7	0.2
Cobalt, Co	ug/L	5.33	7.17	4.38	6.02	6.12
Fluoride, F	mg/L	0.09 J	0.08 J	0.09	0.05 J	0.09
Lithium, Li	mg/L	0.015	0.014	0.016	0.012	0.014
Lead, Pb	ug/L	0.244	0.554	0.485	0.562	0.164
Mercury, Hg	ug/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Molybdenum, Mo	ug/L	4.51	1.92	1.87	1.13	0.74
Radium 226 & 228 (combined)	pCi/L	0.786	0.268	0.437 U	2.4	0.899
Selenium, Se	ug/L	0.08 J	0.1	0.2	0.1	0.05 J
Thallium, Tl	ug/L	0.003 J	0.007 J	0.05 U	0.05 U	0.01 J

KC-15-13
SUMMARY OF ANALYTICAL RESULTS
Ohio Valley Electric Corporation
Kyger Creek Station
Gallia County, Ohio

Parameter	Units	Dec-16	Mar-17	Jun-17	Sep-17
Appendix III Constituents					
Boron, B	mg/L	2.74	8.21	3.52	4.58
Calcium, Ca	mg/L	89.6	74.1	75.8	82.2
Chloride, Cl	mg/L	42.8	42.1	45.1	58.1
Fluoride, F	mg/L	0.07 J	0.08 J	0.06 J	0.1 J
pH	s.u.	6.27	8.18	7.48	7.84
Sulfate, SO4	mg/L	316	336	344	305
Total Dissolved Solids (TDS)	mg/L	550	647	592	548
Appendix IV Constituents					
Antimony, Sb	ug/L	0.02 J	0.02 J	0.02 J	0.01 J
Arsenic, As	ug/L	3.14	0.27	2.54	2.31
Barium, Ba	ug/L	112	21.4	96.9	97.9
Beryllium, Be	ug/L	0.021	0.01 J	0.02 J	0.02 J
Cadmium, Cd	ug/L	0.01 J	1.2	0.02	0.01 J
Chromium, Cr	ug/L	0.296	0.201	0.278	0.125
Cobalt, Co	ug/L	5.8	9.17	6.18	6.61
Fluoride, F	mg/L	0.07 J	0.08 J	0.06 J	0.1 J
Lithium, Li	mg/L	0.019	0.015	0.015	0.011
Lead, Pb	ug/L	0.307	0.075	0.213	0.108
Mercury, Hg	ug/L	0.002 J	0.005 U	0.005 U	0.005 U
Molybdenum, Mo	ug/L	1.34	0.06 J	0.47	0.36
Radium 226 & 228 (combined)	pCi/L	0.652	2.02	1.446	0.764
Selenium, Se	ug/L	0.09 J	0.07 J	0.08 J	0.08 J
Thallium, Tl	ug/L	0.05 U	0.02 J	0.05 U	0.02 J

KC-15-14
SUMMARY OF ANALYTICAL RESULTS
Ohio Valley Electric Corporation
Kyger Creek Station
Gallia County, Ohio

Parameter	Units	Oct-15	Jan-16	Mar-16	May-16	Sep-16
Appendix III Constituents						
Boron, B	mg/L	13.3	14.6	13.9	12.8	15.4
Calcium, Ca	mg/L	100	106	94.6	94.8	103
Chloride, Cl	mg/L	40.4	38.8	38.8	37.5	38.9
Fluoride, F	mg/L	0.1 J	0.2 J	0.17	0.1 J	0.14
pH	s.u.	6.68	6.54	6.39	7.13	5.91
Sulfate, SO4	mg/L	397	372	368	338	345
Total Dissolved Solids (TDS)	mg/L	796	720	700	646	662
Appendix IV Constituents						
Antimony, Sb	ug/L	0.09 J	0.04 J	0.06	0.02 J	0.02 J
Arsenic, As	ug/L	2.91	4.99	4.97	4.14	3.88
Barium, Ba	ug/L	66.2	58.9	59.8	53.6	48.8
Beryllium, Be	ug/L	0.009 J	0.01 J	0.028	0.01 J	0.02 J
Cadmium, Cd	ug/L	0.05 U	0.05 U	0.01 J	0.005 J	0.008 J
Chromium, Cr	ug/L	0.09 J	0.1	0.7	0.2	0.3
Cobalt, Co	ug/L	6.22	7.3	6.85	5.51	6.63
Fluoride, F	mg/L	0.1 J	0.2 J	0.17	0.1 J	0.14
Lithium, Li	mg/L	0.017	0.02	0.023	0.017	0.026
Lead, Pb	ug/L	0.052	0.071	0.468	0.157	0.173
Mercury, Hg	ug/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Molybdenum, Mo	ug/L	2.37	2.54	2.13	1.7	1.32
Radium 226 & 228 (combined)	pCi/L	0.1502	0.487	0.755 U	0.3155	0.544
Selenium, Se	ug/L	0.05 J	0.05 J	0.1	0.08 J	0.04 J
Thallium, Tl	ug/L	0.004 J	0.004 J	0.01 J	0.01 J	0.02 J

KC-15-14
SUMMARY OF ANALYTICAL RESULTS
Ohio Valley Electric Corporation
Kyger Creek Station
Gallia County, Ohio

Parameter	Units	Dec-16	Mar-17	Jun-17	Sep-17
Appendix III Constituents					
Boron, B	mg/L	12.6	15.2	16.2	17.1
Calcium, Ca	mg/L	92.9	105	111	116
Chloride, Cl	mg/L	39.5	41.6	44.4	43.8
Fluoride, F	mg/L	0.17	0.16	0.1 J	0.17
pH	s.u.	6.38	9.08	7.3	7.61
Sulfate, SO4	mg/L	351	427	508	476
Total Dissolved Solids (TDS)	mg/L	608	720	830	816
Appendix IV Constituents					
Antimony, Sb	ug/L	0.04 J	0.03 J	0.02 J	0.03 J
Arsenic, As	ug/L	4.37	3.73	3	2.65
Barium, Ba	ug/L	50.1	48.1	42.8	37.5
Beryllium, Be	ug/L	0.031	0.025	0.01 J	0.02 J
Cadmium, Cd	ug/L	0.01 J	0.06	0.08	0.08
Chromium, Cr	ug/L	0.75	0.463	0.345	0.337
Cobalt, Co	ug/L	8.18	12.7	7.81	7.33
Fluoride, F	mg/L	0.17	0.16	0.1 J	0.17
Lithium, Li	mg/L	0.024	0.011	0.025	0.024
Lead, Pb	ug/L	0.398	0.205	0.152	0.22
Mercury, Hg	ug/L	0.004 J	0.005 U	0.005 U	0.005 U
Molybdenum, Mo	ug/L	1.91	2.21	1.19	0.69
Radium 226 & 228 (combined)	pCi/L	0.2316	0.2275	0.32521	0.4753
Selenium, Se	ug/L	0.1	0.04 J	0.07 J	0.1
Thallium, Tl	ug/L	0.02 J	0.03 J	0.03 J	0.04 J

KC-15-15
SUMMARY OF ANALYTICAL RESULTS
Ohio Valley Electric Corporation
Kyger Creek Station
Gallia County, Ohio

Parameter	Units	Oct-15	Jan-16	Mar-16	May-16	Sep-16
Appendix III Constituents						
Boron, B	mg/L	13.2	12.7	11.3	13.1	14.4
Calcium, Ca	mg/L	67.6	68.2	69	66	74.1
Chloride, Cl	mg/L	51.5	50.6	59	49.6	50.5
Fluoride, F	mg/L	0.2 U	0.08 J	0.06 J	0.05 J	0.07
pH	s.u.	6.17	6.36	6.09	5.89	5.76
Sulfate, SO4	mg/L	226	231	241	231	234
Total Dissolved Solids (TDS)	mg/L	420	474	488	468	518
Appendix IV Constituents						
Antimony, Sb	ug/L	0.02 J	0.1	0.01 J	0.01 J	0.01 J
Arsenic, As	ug/L	0.74	0.95	0.29	0.4	0.33
Barium, Ba	ug/L	35	25.8	23.1	20.6	20.8
Beryllium, Be	ug/L	0.017	0.023	0.01 J	0.01 J	0.01 J
Cadmium, Cd	ug/L	0.21	0.72	0.73	0.74	1
Chromium, Cr	ug/L	0.1	0.4	0.1	0.1	0.2
Cobalt, Co	ug/L	10.5	11	11.1	11.2	12.5
Fluoride, F	mg/L	0.2 U	0.08 J	0.06 J	0.05 J	0.07
Lithium, Li	mg/L	0.026	0.027	0.027	0.018	0.028
Lead, Pb	ug/L	0.077	0.424	0.049	0.073	0.175
Mercury, Hg	ug/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Molybdenum, Mo	ug/L	0.16	0.21	0.04 J	0.05 J	0.08 J
Radium 226 & 228 (combined)	pCi/L	0.4702	0.458	0.961 U	-0.587	0.2455
Selenium, Se	ug/L	0.04 J	0.1	0.1 J	0.07 J	0.07 J
Thallium, Tl	ug/L	0.021	0.031	0.02 J	0.02 J	0.03 J

KC-15-15
SUMMARY OF ANALYTICAL RESULTS
Ohio Valley Electric Corporation
Kyger Creek Station
Gallia County, Ohio

Parameter	Units	Dec-16	Mar-17	Jun-17	Sep-17
Appendix III Constituents					
Boron, B	mg/L	8.9	2.38	9.52	11
Calcium, Ca	mg/L	79.2	90.9	65.1	58.9
Chloride, Cl	mg/L	78.5	77.5	83.1	57.5
Fluoride, F	mg/L	0.08 J	0.08 J	0.06 J	0.07 J
pH	s.u.	5.44	8.14	7	7.58
Sulfate, SO4	mg/L	271	265	249	212
Total Dissolved Solids (TDS)	mg/L	544	548	524	414
Appendix IV Constituents					
Antimony, Sb	ug/L	0.04 J	0.04 J	0.02 J	0.01 J
Arsenic, As	ug/L	0.24	3.6	0.25	0.18
Barium, Ba	ug/L	23.1	101	40.4	16.4
Beryllium, Be	ug/L	0.01 J	0.036	0.01 J	0.01 J
Cadmium, Cd	ug/L	0.91	0.02 J	0.78	0.56
Chromium, Cr	ug/L	0.125	0.952	0.192	0.159
Cobalt, Co	ug/L	13	6.4	8.9	8.59
Fluoride, F	mg/L	0.08 J	0.08 J	0.06 J	0.07 J
Lithium, Li	mg/L	0.026	0.014	0.019	0.015
Lead, Pb	ug/L	0.048	0.848	0.087	0.032
Mercury, Hg	ug/L	0.003 J	0.005 U	0.005 U	0.005 U
Molybdenum, Mo	ug/L	0.47	5.72	0.17	0.05 J
Radium 226 & 228 (combined)	pCi/L	0.6218	2.737	1.617	1.364
Selenium, Se	ug/L	0.09 J	0.2	0.07 J	0.07 J
Thallium, Tl	ug/L	0.02 J	0.05 U	0.04 J	0.03 J

KC-15-16
SUMMARY OF ANALYTICAL RESULTS
Ohio Valley Electric Corporation
Kyger Creek Station
Gallia County, Ohio

Parameter	Units	Oct-15	Jan-16	Mar-16	May-16	Sep-16
Appendix III Constituents						
Boron, B	mg/L	9.02	9.04	9.66	8.09	9.66
Calcium, Ca	mg/L	80.8	76.9	82.9	70.8	84.6
Chloride, Cl	mg/L	60.6	59.6	59.7	61	64.2
Fluoride, F	mg/L	0.23	0.2 J	0.16	0.09 J	0.06 J
pH	s.u.	7.07	6.88	6.71	6.64	6.26
Sulfate, SO4	mg/L	162	174	186	194	202
Total Dissolved Solids (TDS)	mg/L	408	428	420	432	476
Appendix IV Constituents						
Antimony, Sb	ug/L	0.05 J	0.03 J	0.06	0.02 J	0.02 J
Arsenic, As	ug/L	3.33	2.99	2.57	2.7	1.95
Barium, Ba	ug/L	136	148	145	108	73.9
Beryllium, Be	ug/L	0.008 J	0.004 J	0.005 J	0.01 J	0.005 J
Cadmium, Cd	ug/L	0.05 U	0.05 U	0.01 J	0.006 J	0.005 J
Chromium, Cr	ug/L	0.3	0.2	0.4	0.7	0.2
Cobalt, Co	ug/L	1.48	1.06	2.22	3.99	4.95
Fluoride, F	mg/L	0.23	0.2 J	0.16	0.09 J	0.06 J
Lithium, Li	mg/L	0.013	0.006	0.012	0.007	0.008
Lead, Pb	ug/L	0.149	0.065	0.109	0.22	0.078
Mercury, Hg	ug/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Molybdenum, Mo	ug/L	10.7	8.59	7.19	2.85	1.71
Radium 226 & 228 (combined)	pCi/L	0.4	0.98	2 U	0.7711	0.689
Selenium, Se	ug/L	0.06 J	0.1 U	0.06 J	0.06 J	0.04 J
Thallium, Tl	ug/L	0.01 J	0.004 J	0.05 U	0.05 U	0.05 U

KC-15-16
SUMMARY OF ANALYTICAL RESULTS
Ohio Valley Electric Corporation
Kyger Creek Station
Gallia County, Ohio

Parameter	Units	Dec-16	Mar-17	Jun-17	Sep-17
Appendix III Constituents					
Boron, B	mg/L	9.47	7.73	9.36	9.34
Calcium, Ca	mg/L	84.3	86.9	101	106
Chloride, Cl	mg/L	64.2	59.8	75.1	79.4
Fluoride, F	mg/L	0.04 J	0.02 J	0.05 J	0.07
pH	s.u.	6.56	6.39	7.78	7.88
Sulfate, SO4	mg/L	209	209	291	299
Total Dissolved Solids (TDS)	mg/L	434	460	556	572
Appendix IV Constituents					
Antimony, Sb	ug/L	0.02 J	0.05	0.02 J	0.02 J
Arsenic, As	ug/L	2.47	2.5	3.03	4.05
Barium, Ba	ug/L	66.9	57	74.4	78.6
Beryllium, Be	ug/L	0.009 J	0.01 J	0.005 J	0.01 J
Cadmium, Cd	ug/L	0.01 J	0.07	0.04	0.04
Chromium, Cr	ug/L	0.447	0.732	0.722	0.601
Cobalt, Co	ug/L	5.53	4.83	5.75	6.03
Fluoride, F	mg/L	0.04 J	0.02 J	0.05 J	0.07
Lithium, Li	mg/L	0.01	0.01	0.01	0.016
Lead, Pb	ug/L	0.125	0.243	0.031	0.211
Mercury, Hg	ug/L	0.002 J	0.002 J	0.005 U	0.005 U
Molybdenum, Mo	ug/L	1.35	1.61	1.63	1.54
Radium 226 & 228 (combined)	pCi/L	0.824	0.3969	2.537	1.037
Selenium, Se	ug/L	0.08 J	0.09 J	0.1 U	0.09 J
Thallium, Tl	ug/L	0.01 J	0.02 J	0.02 J	0.03 J

KC-15-17
SUMMARY OF ANALYTICAL RESULTS
Ohio Valley Electric Corporation
Kyger Creek Station
Gallia County, Ohio

Parameter	Units	Oct-15	Jan-16	Mar-16	May-16	Sep-16
Appendix III Constituents						
Boron, B	mg/L	15.9	17.7	16.9	14.9	15.9
Calcium, Ca	mg/L	153	175	172	154	210
Chloride, Cl	mg/L	55.7	58.2	62.2	55.8	76.4
Fluoride, F	mg/L	0.08 J	0.2 J	0.07 J	0.2 U	0.08 J
pH	s.u.	6.85	6.64	6.65	7.15	5.86
Sulfate, SO4	mg/L	454	492	495	517	611
Total Dissolved Solids (TDS)	mg/L	828	884	908	884	1110
Appendix IV Constituents						
Antimony, Sb	ug/L	0.04 J	0.04 J	0.04 J	0.02 J	0.03 J
Arsenic, As	ug/L	9.78	9.45	12.4	12.2	10
Barium, Ba	ug/L	68.8	85.1	86.6	81.2	79.6
Beryllium, Be	ug/L	0.009 J	0.015	0.009 J	0.01 J	0.02 J
Cadmium, Cd	ug/L	0.02 J	0.04 J	0.03	0.03	0.1
Chromium, Cr	ug/L	0.2	0.4	0.2	0.3	0.5
Cobalt, Co	ug/L	13.5	16.6	14.9	16.8	23.1
Fluoride, F	mg/L	0.08 J	0.2 J	0.07 J	0.2 U	0.08 J
Lithium, Li	mg/L	0.029	0.024	0.02	0.024	0.028
Lead, Pb	ug/L	0.114	0.281	0.119	0.115	0.283
Mercury, Hg	ug/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Molybdenum, Mo	ug/L	9.71	7.82	8.51	6.33	3.04
Radium 226 & 228 (combined)	pCi/L	0.1252	0.379	2 U	0.1733	0.7652
Selenium, Se	ug/L	0.1 U	0.08 J	0.07 J	0.06 J	0.08 J
Thallium, Tl	ug/L	0.005 J	0.006 J	0.01 J	0.01 J	0.01 J

KC-15-17
SUMMARY OF ANALYTICAL RESULTS
Ohio Valley Electric Corporation
Kyger Creek Station
Gallia County, Ohio

Parameter	Units	Dec-16	Mar-17	Jun-17	Sep-17
Appendix III Constituents					
Boron, B	mg/L	13.1	15.3	15.3	14.9
Calcium, Ca	mg/L	234	231	237	226
Chloride, Cl	mg/L	84.6	91.5	116	122
Fluoride, F	mg/L	0.07 J	0.2 U	0.05 J	0.06 J
pH	s.u.	6.72	6.28	7.79	7.36
Sulfate, SO4	mg/L	681	745	908	954
Total Dissolved Solids (TDS)	mg/L	1200	1290	1540	1580
Appendix IV Constituents					
Antimony, Sb	ug/L	0.04 J	0.03 J	0.1 U	0.01 J
Arsenic, As	ug/L	11.3	9.5	8.67	6.94
Barium, Ba	ug/L	82.3	71.8	67.7	57
Beryllium, Be	ug/L	0.029	0.009 J	0.01 J	0.01 J
Cadmium, Cd	ug/L	0.1	0.06	0.07	0.11
Chromium, Cr	ug/L	0.911	0.287	0.296	0.069
Cobalt, Co	ug/L	23.7	20.9	22.8	22.7
Fluoride, F	mg/L	0.07 J	0.2 U	0.05 J	0.06 J
Lithium, Li	mg/L	0.029	0.029	0.034	0.039
Lead, Pb	ug/L	0.541	0.098	0.097	0.057
Mercury, Hg	ug/L	0.004 J	0.005 U	0.005 U	0.002 J
Molybdenum, Mo	ug/L	3.12	3.11	2.64	2.75
Radium 226 & 228 (combined)	pCi/L	1.222	0.443	4.093	0.715
Selenium, Se	ug/L	0.2	0.06 J	0.1 J	0.08 J
Thallium, Tl	ug/L	0.02 J	0.01 J	0.04 J	0.03 J

KC-15-18
SUMMARY OF ANALYTICAL RESULTS
Ohio Valley Electric Corporation
Kyger Creek Station
Gallia County, Ohio

Parameter	Units	Oct-15	Jan-16	Mar-16	May-16	Sep-16
Appendix III Constituents						
Boron, B	mg/L	16	15	16.7	14.5	15.8
Calcium, Ca	mg/L	150	136	151	126	137
Chloride, Cl	mg/L	45	44.4	42.3	45	45.6
Fluoride, F	mg/L	0.1 J	0.1 J	0.1 J	0.08 J	0.09 J
pH	s.u.	6.71	6.63	6.63	7.16	5.94
Sulfate, SO4	mg/L	492	487	476	478	463
Total Dissolved Solids (TDS)	mg/L	848	883	840	832	818
Appendix IV Constituents						
Antimony, Sb	ug/L	0.07 J	0.08 J	0.07	0.04 J	0.02 J
Arsenic, As	ug/L	2.84	2.95	3.82	2.79	2.25
Barium, Ba	ug/L	58.1	57.1	53.1	42.3	35.8
Beryllium, Be	ug/L	0.008 J	0.006 J	0.006 J	0.007 J	0.008 J
Cadmium, Cd	ug/L	0.02 J	0.02 J	0.01 J	0.02	0.03
Chromium, Cr	ug/L	0.2	0.3	0.3	0.4	0.3
Cobalt, Co	ug/L	3.36	3.81	4.01	4.72	4.77
Fluoride, F	mg/L	0.1 J	0.1 J	0.1 J	0.08 J	0.09 J
Lithium, Li	mg/L	0.03	0.02	0.032	0.025	0.023
Lead, Pb	ug/L	0.025	0.066	0.057	0.044	0.058
Mercury, Hg	ug/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Molybdenum, Mo	ug/L	5.75	4.85	4.56	2.73	1.69
Radium 226 & 228 (combined)	pCi/L	0.3668	1.37	2 U	1.621	0.315
Selenium, Se	ug/L	0.04 J	0.1 U	0.07 J	0.06 J	0.05 J
Thallium, Tl	ug/L	0.004 J	0.004 J	0.02 J	0.05 U	0.05 U

KC-15-18
SUMMARY OF ANALYTICAL RESULTS
Ohio Valley Electric Corporation
Kyger Creek Station
Gallia County, Ohio

Parameter	Units	Dec-16	Mar-17	Jun-17	Sep-17
Appendix III Constituents					
Boron, B	mg/L	13.7	14.8	16.7	17.6
Calcium, Ca	mg/L	144	123	134	132
Chloride, Cl	mg/L	46.9	44.4	47.6	49.6
Fluoride, F	mg/L	0.09 J	0.08 J	0.07 J	0.09 J
pH	s.u.	6.72	6.29	7.16	7.16
Sulfate, SO4	mg/L	460	436	449	425
Total Dissolved Solids (TDS)	mg/L	812	766	782	740
Appendix IV Constituents					
Antimony, Sb	ug/L	0.05 J	0.05 J	0.02 J	0.02 J
Arsenic, As	ug/L	3.64	4.44	4.63	5.06
Barium, Ba	ug/L	35.3	34.5	30.6	28.4
Beryllium, Be	ug/L	0.009 J	0.01 J	0.007 J	0.006 J
Cadmium, Cd	ug/L	0.02	0.03	0.01 J	0.008 J
Chromium, Cr	ug/L	0.547	0.612	0.262	0.471
Cobalt, Co	ug/L	5.64	6.29	4.84	5.76
Fluoride, F	mg/L	0.09 J	0.08 J	0.07 J	0.09 J
Lithium, Li	mg/L	0.027	0.028	0.027	0.037
Lead, Pb	ug/L	0.095	0.078	0.046	0.088
Mercury, Hg	ug/L	0.003 J	0.005 U	0.005 U	0.005 U
Molybdenum, Mo	ug/L	2.32	2.94	2.06	2.4
Radium 226 & 228 (combined)	pCi/L	0.125	0.5948	3.441	78.09
Selenium, Se	ug/L	0.1 U	0.1	0.08 J	0.07 J
Thallium, Tl	ug/L	0.106	0.01 J	0.05 U	0.05 U

KC-15-19
SUMMARY OF ANALYTICAL RESULTS
Ohio Valley Electric Corporation
Kyger Creek Station
Gallia County, Ohio

Parameter	Units	Oct-15	Jan-16	Mar-16	May-16	Sep-16
Appendix III Constituents						
Boron, B	mg/L	13.7	13	13.1	11.7	14.1
Calcium, Ca	mg/L	223	219	208	193	229
Chloride, Cl	mg/L	35.2	34.7	33.1	33.3	36
Fluoride, F	mg/L	0.08 J	0.08 J	0.1 J	0.08 J	0.1 J
pH	s.u.	6.86	6.54	6.66	7.13	5.87
Sulfate, SO4	mg/L	782	800	738	726	781
Total Dissolved Solids (TDS)	mg/L	1260	1270	1240	1210	1320
Appendix IV Constituents						
Antimony, Sb	ug/L	0.11	0.05 J	0.07	0.05 J	0.03 J
Arsenic, As	ug/L	2.85	3.09	2.34	2.07	1.64
Barium, Ba	ug/L	50.3	37.1	34	27.4	23.3
Beryllium, Be	ug/L	0.013	0.013	0.01 J	0.02 J	0.01 J
Cadmium, Cd	ug/L	0.01 J	0.01 J	0.04	0.04	0.05
Chromium, Cr	ug/L	0.2	0.3	0.5	0.6	0.3
Cobalt, Co	ug/L	11.5	13.3	14.7	13	12.6
Fluoride, F	mg/L	0.08 J	0.08 J	0.1 J	0.08 J	0.1 J
Lithium, Li	mg/L	0.013	0.015	0.035	0.024	0.017
Lead, Pb	ug/L	0.151	0.241	0.352	0.323	0.174
Mercury, Hg	ug/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Molybdenum, Mo	ug/L	1.83	1.51	1.17	1.18	0.91
Radium 226 & 228 (combined)	pCi/L	1.998	0.22	0.373 U	0.47	0.68
Selenium, Se	ug/L	0.07 J	0.07 J	0.1	0.1 J	0.1
Thallium, Tl	ug/L	0.02 J	0.005 J	0.02 J	0.03 J	0.06

KC-15-19
SUMMARY OF ANALYTICAL RESULTS
Ohio Valley Electric Corporation
Kyger Creek Station
Gallia County, Ohio

Parameter	Units	Dec-16	Mar-17	Jun-17	Sep-17
Appendix III Constituents					
Boron, B	mg/L	14.5	12.2	14.8	15.2
Calcium, Ca	mg/L	227	191	214	210
Chloride, Cl	mg/L	35.5	31.7	36.5	37.2
Fluoride, F	mg/L	0.08 J	0.08 J	0.08 J	0.1 J
pH	s.u.	5.99	6.26	7.28	7.65
Sulfate, SO4	mg/L	744	653	735	735
Total Dissolved Solids (TDS)	mg/L	1220	1060	1210	1180
Appendix IV Constituents					
Antimony, Sb	ug/L	0.16	0.06	0.02 J	0.02 J
Arsenic, As	ug/L	3.72	1.38	1.06	0.76
Barium, Ba	ug/L	26.4	19.6	18.9	17.6
Beryllium, Be	ug/L	0.022	0.025	0.01 J	0.008 J
Cadmium, Cd	ug/L	0.2	0.13	0.09	0.11
Chromium, Cr	ug/L	0.772	0.631	0.319	0.062
Cobalt, Co	ug/L	20.8	13.2	12	11.6
Fluoride, F	mg/L	0.08 J	0.08 J	0.08 J	0.1 J
Lithium, Li	mg/L	0.02	0.007	0.019	0.026
Lead, Pb	ug/L	0.532	0.337	0.16	0.073
Mercury, Hg	ug/L	0.003 J	0.005 U	0.005 U	0.005 U
Molybdenum, Mo	ug/L	2.34	1.3	0.73	1.18
Radium 226 & 228 (combined)	pCi/L	1.259	0.671	3.562	0.907
Selenium, Se	ug/L	0.1 J	0.08 J	0.06 J	0.08 J
Thallium, Tl	ug/L	0.158	0.05 J	0.05 J	0.04 J

KC-15-20
SUMMARY OF ANALYTICAL RESULTS
Ohio Valley Electric Corporation
Kyger Creek Station
Gallia County, Ohio

Parameter	Units	Oct-15	Jan-16	Mar-16	May-16	Sep-16
Appendix III Constituents						
Boron, B	mg/L	7.66	7.2	8	6.94	8.73
Calcium, Ca	mg/L	203	174	193	189	219
Chloride, Cl	mg/L	32.1	30.6	30.6	30.8	31.6
Fluoride, F	mg/L	0.1 J	0.2 J	0.1 J	0.09 J	0.1 J
pH	s.u.	7.12	7.06	6.8	7.17	6.17
Sulfate, SO4	mg/L	596	565	602	618	633
Total Dissolved Solids (TDS)	mg/L	1010	1020	1080	1060	1140
Appendix IV Constituents						
Antimony, Sb	ug/L	0.04 J	0.07 J	0.04 J	0.06	0.02 J
Arsenic, As	ug/L	2.54	2.97	2.56	2.79	3.33
Barium, Ba	ug/L	83.3	97.8	72.9	76.8	50.6
Beryllium, Be	ug/L	0.006 J	0.012	0.005 J	0.026	0.007 J
Cadmium, Cd	ug/L	0.05 U	0.05 U	0.02 U	0.01 J	0.008 J
Chromium, Cr	ug/L	0.6	0.9	0.3	1.4	0.2
Cobalt, Co	ug/L	2.1	1.09	2.54	2.3	3.03
Fluoride, F	mg/L	0.1 J	0.2 J	0.1 J	0.09 J	0.1 J
Lithium, Li	mg/L	0.02	0.061	0.037	0.028	0.016
Lead, Pb	ug/L	0.438	0.251	0.139	0.506	0.06
Mercury, Hg	ug/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Molybdenum, Mo	ug/L	11.2	13.1	4.99	4.7	3.13
Radium 226 & 228 (combined)	pCi/L	-0.2688	0.596	0.245 U	0.2547	0.279
Selenium, Se	ug/L	0.04 J	0.1	0.07 J	0.1 J	0.07 J
Thallium, Tl	ug/L	0.01 J	0.004 J	0.05 U	0.05 U	0.095

KC-15-20
SUMMARY OF ANALYTICAL RESULTS
Ohio Valley Electric Corporation
Kyger Creek Station
Gallia County, Ohio

Parameter	Units	Dec-16	Mar-17	Jun-17	Sep-17
Appendix III Constituents					
Boron, B	mg/L	9.08	8.25	9.02	9.3
Calcium, Ca	mg/L	217	212	217	232
Chloride, Cl	mg/L	31.2	32	32	33.2
Fluoride, F	mg/L	0.08 J	0.09 J	0.08 J	0.09 J
pH	s.u.	5.95	6.44	6.22	7.5
Sulfate, SO4	mg/L	580	600	609	655
Total Dissolved Solids (TDS)	mg/L	1090	1100	1150	1140
Appendix IV Constituents					
Antimony, Sb	ug/L	0.03 J	0.04 J	0.02 J	0.01 J
Arsenic, As	ug/L	3.9	2.67	3.64	3.42
Barium, Ba	ug/L	50.5	48.3	38.8	40.6
Beryllium, Be	ug/L	0.02 J	0.01 J	0.01 J	0.005 J
Cadmium, Cd	ug/L	0.01 J	0.01 J	0.01 J	0.007 J
Chromium, Cr	ug/L	0.853	0.699	0.576	0.051
Cobalt, Co	ug/L	3.04	2.43	2.61	3.12
Fluoride, F	mg/L	0.08 J	0.09 J	0.08 J	0.09 J
Lithium, Li	mg/L	0.036	0.04	0.017	0.018
Lead, Pb	ug/L	0.282	0.188	0.231	0.01 J
Mercury, Hg	ug/L	0.002 J	0.005 U	1.37	0.005 U
Molybdenum, Mo	ug/L	3.2	2.82	2.16	2.87
Radium 226 & 228 (combined)	pCi/L	0.683	0.2904	3.085	1.351
Selenium, Se	ug/L	0.06 J	0.04 J	0.05 J	0.1 U
Thallium, Tl	ug/L	0.05 U	0.03 J	0.05 U	0.05 U

KC-15-21
SUMMARY OF ANALYTICAL RESULTS
Ohio Valley Electric Corporation
Kyger Creek Station
Gallia County, Ohio

Parameter	Units	Oct-15	Jan-16	Mar-16	May-16	Sep-16
Appendix III Constituents						
Boron, B	mg/L	3.24	0.249	3.12	3.2	4.18
Calcium, Ca	mg/L	139	99.2	124	118	136
Chloride, Cl	mg/L	25.4	17.7	22.4	25.5	24.9
Fluoride, F	mg/L	0.08 J	0.1 J	0.1 J	0.1 J	0.15
pH	s.u.	6.85	7.08	6.92	6.79	7.52
Sulfate, SO4	mg/L	279	92.4	285	270	275
Total Dissolved Solids (TDS)	mg/L	572	414	606	630	620
Appendix IV Constituents						
Antimony, Sb	ug/L	0.04 J	0.2	0.06	0.02 J	0.03 J
Arsenic, As	ug/L	5.44	2.41	5.36	6.16	5.21
Barium, Ba	ug/L	111	107	102	106	88.8
Beryllium, Be	ug/L	0.01 J	0.014	0.01 J	0.029	0.006 J
Cadmium, Cd	ug/L	0.05 U	0.05 U	0.007 J	0.006 J	0.008 J
Chromium, Cr	ug/L	0.1	0.7	1.2	0.7	0.2
Cobalt, Co	ug/L	3.44	0.332	3.16	3.68	3.49
Fluoride, F	mg/L	0.08 J	0.1 J	0.1 J	0.1 J	0.15
Lithium, Li	mg/L	0.007	0.016	0.008	0.005	0.01
Lead, Pb	ug/L	0.118	0.284	0.213	0.507	0.038
Mercury, Hg	ug/L	0.005 U	0.005 U	0.005 U	0.2 U	0.005 U
Molybdenum, Mo	ug/L	2.26	1.47	4.41	2.67	3.03
Radium 226 & 228 (combined)	pCi/L	-0.147	0.186 U	-.0119 U	0.906	0.8
Selenium, Se	ug/L	0.07 J	0.09 J	0.1	0.1	0.03 J
Thallium, Tl	ug/L	0.004 J	0.004 J	0.055	0.04 J	0.02 J

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SUMMARY OF ANALYTICAL RESULTS
Ohio Valley Electric Corporation
Kyger Creek Station
Gallia County, Ohio

Parameter	Units	Dec-16	Mar-17	Jun-17	Sep-17
Appendix III Constituents					
Boron, B	mg/L	4.11	3.6	4.28	4.55
Calcium, Ca	mg/L	122	146	127	127
Chloride, Cl	mg/L	25.8	24.2	25.7	27.1
Fluoride, F	mg/L	0.1 J	0.1 J	0.1 J	0.1 J
pH	s.u.	6.88	10.51	7.16	7.8
Sulfate, SO4	mg/L	257	323	326	313
Total Dissolved Solids (TDS)	mg/L	630	660	684	634
Appendix IV Constituents					
Antimony, Sb	ug/L	0.03 J	0.05 J	0.01 J	0.02 J
Arsenic, As	ug/L	7.57	4.71	4.28	5.32
Barium, Ba	ug/L	97.2	52.2	51.9	52.2
Beryllium, Be	ug/L	0.022	0.05	0.008 J	0.006 J
Cadmium, Cd	ug/L	0.02 U	0.02	0.01 J	0.01 J
Chromium, Cr	ug/L	0.43	2.39	0.304	0.24
Cobalt, Co	ug/L	5.42	5.67	8.63	13.7
Fluoride, F	mg/L	0.1 J	0.1 J	0.1 J	0.1 J
Lithium, Li	mg/L	0.006	0.006	0.008	0.009
Lead, Pb	ug/L	0.308	1.07	0.122	0.061
Mercury, Hg	ug/L	0.002 J	0.002 J	1.75	0.005 U
Molybdenum, Mo	ug/L	2.85	1.96	1.79	2.22
Radium 226 & 228 (combined)	pCi/L	1.027	0.7229	0.2196	0.69
Selenium, Se	ug/L	0.1	0.3	0.07 J	0.05 J
Thallium, Tl	ug/L	0.05 U	0.02 J	0.02 J	0.01 J

KC-15-22
SUMMARY OF ANALYTICAL RESULTS
Ohio Valley Electric Corporation
Kyger Creek Station
Gallia County, Ohio

Parameter	Units	Oct-15	Jan-16	Mar-16	May-16	Sep-16
Appendix III Constituents						
Boron, B	mg/L	0.261	3.3	0.307	0.125	0.214
Calcium, Ca	mg/L	114	130	93.8	96.7	97.5
Chloride, Cl	mg/L	16.7	25.6	14.6	15	13.5
Fluoride, F	mg/L	0.08 J	0.1 J	0.1 J	0.1 J	0.12
pH	s.u.	7.08	6.75	6.99	7.11	7.54
Sulfate, SO4	mg/L	98	277	99.6	81.6	105
Total Dissolved Solids (TDS)	mg/L	404	664	414	418	384
Appendix IV Constituents						
Antimony, Sb	ug/L	0.02 J	0.03 J	0.06	0.05 U	0.03 J
Arsenic, As	ug/L	1.47	7.1	2.3	2.19	1.74
Barium, Ba	ug/L	124	116	98.3	86.3	63.6
Beryllium, Be	ug/L	0.002 J	0.012	0.027	0.006 J	0.02 U
Cadmium, Cd	ug/L	0.05 U	0.05 U	0.01 J	0.02 U	0.008 J
Chromium, Cr	ug/L	0.1	0.1	1.5	0.3	0.7
Cobalt, Co	ug/L	0.109	3.94	0.569	0.109	0.193
Fluoride, F	mg/L	0.08 J	0.1 J	0.1 J	0.1 J	0.12
Lithium, Li	mg/L	0.011	0.005 J	0.011	0.005	0.033
Lead, Pb	ug/L	0.018	0.153	0.506	0.098	0.063
Mercury, Hg	ug/L	0.005 U	0.005 U	0.002 J	0.005 U	0.005 U
Molybdenum, Mo	ug/L	1.18	2.49	0.98	0.58	1.05
Radium 226 & 228 (combined)	pCi/L	0.674	0.257 U	0.296 U	0.557	0.729
Selenium, Se	ug/L	0.1 U	0.06 J	0.2	0.05 J	0.1
Thallium, Tl	ug/L	0.02 U	0.02 U	0.05 U	0.01 J	0.03 J

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SUMMARY OF ANALYTICAL RESULTS
Ohio Valley Electric Corporation
Kyger Creek Station
Gallia County, Ohio

Parameter	Units	Dec-16	Mar-17	Jun-17	Sep-17
Appendix III Constituents					
Boron, B	mg/L	0.469	0.841	0.406	0.429
Calcium, Ca	mg/L	116	129	108	121
Chloride, Cl	mg/L	18.3	20.8	17.8	18
Fluoride, F	mg/L	0.09	0.1	0.09	0.11
pH	s.u.	6.96	10.1	7.11	7.84
Sulfate, SO4	mg/L	138	209	116	143
Total Dissolved Solids (TDS)	mg/L	458	536	480	458
Appendix IV Constituents					
Antimony, Sb	ug/L	0.02 J	0.03 J	0.01 J	0.05 U
Arsenic, As	ug/L	2.63	2.2	2.38	2.62
Barium, Ba	ug/L	112	143	100	95.1
Beryllium, Be	ug/L	0.01 J	0.006 J	0.009 J	0.02 U
Cadmium, Cd	ug/L	0.006 J	0.008 J	0.02 U	0.02 U
Chromium, Cr	ug/L	0.293	0.363	0.31	0.04 J
Cobalt, Co	ug/L	0.119	0.129	0.121	0.033
Fluoride, F	mg/L	0.09	0.1	0.09	0.11
Lithium, Li	mg/L	0.008	0.005	0.008	0.01
Lead, Pb	ug/L	0.162	0.104	0.146	0.01 J
Mercury, Hg	ug/L	0.005 U	0.005 U	0.005 U	0.005 U
Molybdenum, Mo	ug/L	0.65	0.43	0.38	0.42
Radium 226 & 228 (combined)	pCi/L	1.129	2.016	1.325	1.242
Selenium, Se	ug/L	0.1 J	0.1 U	0.06 J	0.1 U
Thallium, Tl	ug/L	0.075	0.05 U	0.05 U	0.01 J