# 2020 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
# FOR POND 5, LANDFILL 9, AND THE MULTI-UNIT MONITORING SYSTEMS
# FORMER J.M. STUART ELECTRIC GENERATING STATION
# SPRIGG TOWNSHIP, ADAMS COUNTY, OHIO

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# 1.0 INTRODUCTION

On behalf of Kingfisher Development, LLC (KD), Key Environmental, Inc. (KEY) has prepared this 2020 Annual Groundwater Monitoring and Corrective Action Report for the Coal Combustion Residuals (CCR) units located at the former J.M. Stuart Electric Generating Station (Site) located in Sprigg Township, Adams County, Ohio. The landfills and ponds at the Site that are classified as CCR units include Pond 5, Landfill 9, Pond 3A, Pond 6, Pond 7/7A, Pond 10 and Landfill 11. Groundwater monitoring networks at the Site include the Pond 5 monitoring system, the Landfill 9 monitoring system and the Multi-unit Monitoring System (MMS). Pond 3A, Pond 6, Pond 7/7A, Pond 10 and Landfill 11 were previously monitored by independent monitoring systems that were reclassified in July 2020 as the MMS, as they are located in close proximity to one another, have similar groundwater conditions, and are in similar monitoring phases. Figure 1 shows the Site location on a United States Geological Survey 7.5 minute topographic quadrangle map.

KD acquired the Site and assets (including environmental responsibilities) from AES Ohio Generation, LLC (AES) in December 2019. All groundwater monitoring and investigation activities completed through 2019 were completed by AES or a previous Site owner. The purpose of this report is to document the 2020 groundwater monitoring and potential corrective action of the CCR unit systems as required under the United States Environmental Protection Agency (USEPA) CCR Rule effective October 19, 2015, specifically Code of Federal Regulations (CFR) Title 40, Subsection §257.90(e) (CCR Rule). This report contains a program status summary as per §257.90(e)(6), semi-annual remedy selection progress as per §257.97(a), and program information as per §§257.90(e)(1) through (5).

# 2.0 PROGRAM STATUS SUMMARY AND REMEDY SELECTION PROGRESS

AES implemented a groundwater monitoring program compliant with the April 17, 2015 CCR Rule published by the USEPA. Pond 5, Landfill 9, Pond 7/7A, Pond 10, and Landfill 11 detection monitoring completed in 2017 indicated statistically significant increases (SSI) for some Appendix III constituents (i.e. Appendix III to Part §257 – constituents for detection monitoring). Pond 5, Pond 7/7A, Pond 10, and Landfill 11 assessment monitoring completed in 2018 indicated statistically significant levels (SSL) of Appendix IV constituents (i.e. Appendix IV to Part §257 – constituents for assessment monitoring). As of July 2020, the MMS was established for monitoring of Pond 3A, Pond 6, Pond 7/7A, Pond 10 and Landfill 11. Appendix IV constituents have been detected at SSL within the MMS and the Pond 5 monitoring system.

Corrective measures assessments (CMAs) were completed for each of the monitoring systems for which an Appendix IV constituent SSL was determined. The Pond 5 CMA report was completed in September 2019 and amended in October 2019. The MMS CMA was initially

completed for each individual unit in September 2019 and amended in October 2019, however a revised CMA was completed in July 2020 in consideration of the multi-unit monitoring classification. The CMAs included risk evaluations to identify whether current groundwater conditions pose unacceptable risk to human health and the environment, and whether corrective measures will mitigate such an unacceptable risk, if present. The risk evaluations concluded that there are no adverse effects on human health or the environment currently or under reasonably anticipated future uses from either surface water or groundwater due to CCR management practices at Pond 5, or units within the MMS (Pond 3A, Pond 6, Pond 7/7A, Pond 10, and Landfill 11). In performing the CMA, the following conditions were considered: presence and distribution of constituents, the size and configuration of the CCR units, hydrogeologic setting, and the results of the risk evaluation. The alluvial aquifer beneath the CCR units ranges from approximately 30 feet (ft) to 120 ft in thickness. Flow within the alluvial aquifer is directly controlled by recharge from the north and discharge to the south and west to the Ohio River and Little Three Mile Discharge Canal, respectively.

## 2.1 REMEDIAL ALTERNATIVES

Alternatives were developed for the CMA reports as follows:

- Pond 5
  - Alternative 1: Closure in place (CIP) with low permeability capping and monitored natural attenuation (MNA);
  - Alternative 2: CIP with in-situ stabilization (ISS), low permeability capping and MNA;
  - Alternative 3: CIP with low permeability capping and in-situ groundwater treatment;
  - Alternative 4: CIP with low permeability capping, hydraulic containment (HC) through groundwater pumping, and ex-situ groundwater treatment;
  - Alternative 5: CIP with low permeability capping, HC through groundwater pumping, and ex-situ groundwater treatment and barrier wall; and,
  - Alternative 6: Closure by removal (CBR) with MNA.

- Multi-Unit System
  - Alternative 1: MNA;
  - Alternative 2: Unit Closure (CBR and CIP) and MNA; and,
  - Alternative 3: Hydraulic Control, Unit Closure (CBR and CIP) and MNA.

These alternatives were evaluated based on the threshold criteria provided in CCR rule [§257.97 (b)] and then compared to three of the four balancing criteria stated in CCR Rule [§257.97(c)].

These criteria consist of the following:

§257.97 Selection of remedy

(b) Remedies must [Threshold Criteria]:

(1) Be protective of human health and the environment;

(2) Attain the groundwater protection standard as specified pursuant to §257.95(h);

(3) Control the source(s) of releases so as to reduce or eliminate, to the maximum extent feasible, further releases of constituents in Appendix IV to this part into the environment;

(4) Remove from the environment as much of the contaminated material that was released from the CCR unit as is feasible, taking into account factors such as avoiding inappropriate disturbance of sensitive ecosystems; and,

(5) Comply with standards for management of wastes as specified in §257.98(d).

(c) In selecting a remedy that meets the standards of paragraph (b) of this section, the owner or operator of the CCR unit shall consider the following evaluation factors [Balancing Criteria]:

(1) The long- and short-term effectiveness and protectiveness of the potential remedy(ies), along with the degree of certainty that the remedy will prove successful;

(2) The effectiveness of the remedy in controlling the source to reduce further releases;

(3) The ease or difficulty of implementing a potential remedy(s); and,

(4) The degree to which community concerns are addressed by a potential remedy(s).

The threshold criteria must be met in order for a remedial alternative to be selected. A risk assessment and exposure evaluation was completed as part of the CMAs and it was concluded that there is no complete drinking water exposure pathway. The completed evaluation demonstrates that there is no impact on drinking water and there is no evidence of impact to human health or the environment. There are no downgradient users of groundwater as drinking water – thus, there is no impact on drinking water. There is no exposure to CCR-derived constituents detected in groundwater at the Site – either via groundwater use or surface water. Even for the very few results that may be above Groundwater Protection Standards (GWPS) for some of the groundwater sampling events, there is no risk because there is no complete drinking water exposure pathway to groundwater.

## 2.2 PREFERRED ALTERNATIVE

Each remedial alternative was evaluated with respect to the balancing criteria during the CMA. A favorability rating was assigned to each remedial alternative for each balancing criteria. The following are a list of preferred alternatives with respect to evaluations completed thus far:

- Pond 5 - Alternative 6: CBR and MNA; and,
- Multi-unit System - Alternative 2: Unit Closure (CBR and CIP) and MNA.

The recommended CCR unit closure plans for the Site consist of pond closure via CBR and landfill closure via CIP. The CCR unit closure plans paired with MNA are the most favorable groundwater remedial alternative at this time.

In accordance with §257.97, a final report describing the selected remedy and how it meets the applicable standards will be completed after a remedy is selected. In accordance with §257.98, a corrective action groundwater monitoring program will be established and implemented after a remedial alternative is selected. Corrective measures are considered complete when monitoring reflects that the SSL constituent concentrations in groundwater downgradient of the Ash Pond do not exceed the Appendix IV GWPS for three consecutive years.

## 2.3 KEY ACTIVITIES COMPLETED IN 2020

The following key activities were completed in 2020:

- In January 2020, the 2019 Annual Groundwater Monitoring and Corrective Action Reports were prepared by Haley & Aldrich, Inc., on behalf of AES. Recordkeeping §257.105(h)(1), State Director notification §257.106(h)(1) and public website posting §257.107(h)(1) were completed in accordance with applicable CCR Rule requirements.
- The first semi-annual sampling event was completed in March 2020. Groundwater level gauging, sampling, and analysis was completed in accordance with §257.95 (b) and §257.95 (d)(1). Groundwater sample collection forms are provided in Appendix A and laboratory sample analysis results are provided in Appendix B.
- The Groundwater Remedy Selection Semiannual Progress Report was completed to document progress made towards selecting a groundwater remedy for the Pond 5, Pond 7/7A, Pond 10 and Landfill 11 CCR units as required by §257.97 (a).
- Updating of the Site monitoring systems in July 2020 to combine adjacent, previously individual, CCR unit monitoring systems (Pond 3A, Pond 6, Pond 7/7A, Pond 10 and Landfill 11) into the MMS. The updated MMS is technically appropriate for the CCR units

that are in close proximity, have similar groundwater conditions, and are in similar monitoring phases.

- The second semi-annual sampling event was completed in September/October 2020. Groundwater level gauging, sampling, and analysis was completed in accordance with §257.95 (b) and §257.95 (d)(1). Groundwater sample collection forms are provided in Appendix A and laboratory sample analysis results are provided in Appendix B.
- A statistical analysis of assessment monitoring results was completed following the sampling events, as appropriate, in order to evaluate potential SSL results as required by §257.93(h).

## 2.4 PROBLEMS ENCOUNTERED

No problems were encountered.

## 2.5 ACTIONS TO RESOLVE PROBLEMS

No problems were encountered.

## 2.6 KEY ACTIVITIES PLANNED FOR 2021

The following key activities are planned for 2021:

- The first semi-annual sampling event is planned for April 2021.
- The second semi-annual sampling event is planned for October 2021.
- Statistical analysis of monitoring data will be completed, as appropriate, such that SSL results can be identified. The three monitoring systems will remain in assessment monitoring.
- A semi-annual remedy selection progress report will be prepared per §257.97(a), as appropriate, until a remedy is formally selected. If a remedy is selected during 2021, a final report describing the selected remedy and how it meets the applicable standards will be completed in accordance with §257.97.
- An annual report will be completed in January 2022 for the previous monitoring year.

# 3.0 PROGRAM INFORMATION

The specific reporting requirements listed in Sections §§257.90(e)(1) through 257.90(e)(5) of the CCR Rule are provided in the subsequent sections of this report (bold and italic typeface) followed by a narrative describing how the requirement has been addressed.

## 3.1 §257.90(e)(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***

A map showing the locations of the CCR units and the associated upgradient and downgradient monitoring wells is included in Figure 2, Figure 3 and Figure 4. A potentiometric surface map is presented in Figures 5.

## 3.2 §257.90(e)(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***

No monitoring wells were installed or abandoned during 2020. Monitoring wells MW 11-2, MW 11-3, MW 11-3I, MW 11-4, MW 11-5, MW 11-5I, MW 21, and MW 22 were removed from the sampling network, but remain part of the groundwater gauging network. The wells removed from the sampling network are located between units within the MMS. The objective of the MMS is to monitor the waste boundary rather locations between waste units. Location and construction details for previously installed wells are provided in Table 1.

## 3.3 §257.90(e)(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***

In accordance with §257.94(b) and §257.94(d)(1), two independent samples from each background and downgradient monitoring well were collected and analyzed. A summary table including the sample names, dates of sample collection, reason for sample collection (detection or assessment), and monitoring data obtained for the groundwater monitoring program is presented in Table 2, Table 3, and Table 4 of this report.

## 3.4 §257.90(e)(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)***

Entering the 2020 monitoring period, Pond 3A was in detection monitoring; Pond 5, Pond 6, Pond 7/7A, Pond 10, Landfill 11, and Landfill 9 were in assessment monitoring; and Pond 5, Pond 7/7A, Pond 10, Landfill 11 were also in a remedy selection phase. In July 2020, the MMS was established (combining adjacent units Pond 3A, Pond 6, Pond 7/7A, Pond 10, and Landfill 11). The MMS is in assessment monitoring and remedy selection phase. Entering the 2021 monitoring period, the Pond 5 monitoring system and the MMS are in an assessment monitoring and remedy selection phase whereby CMAs have been completed for each monitoring system. Entering the 2021 monitoring period, Landfill 9 remains in assessment monitoring. Appendix III constituent SSIs were previously determined for the MMS, Pond 5 monitoring system, and Landfill 9 monitoring system. Appendix IV constituent SSLs were previously determined for the MMS and Pond 5 monitoring system.

## 3.5 §257.90(e)(5)

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

Information required to be included in this annual report is presented in the form of tables, figures, and appendices or discussed in the preceding sections, as appropriate.

# TABLES

# TABLE 1
# GROUNDWATER MONITORING WELL LOCATION AND CONSTRUCTION DETAILS
# 2020 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
# FORMER J.M. STUART ELECTRIC GENERATION STATION
# SPRIGG TOWNSHIP, ADAMS COUNTY, OHIO

| | Downgradient-Upgradient Well | Easting | Northing | Ground Elevation (ft msl) | Top of Casing Elevation (ft msl) | Surface Grout (ft bgs) | Bentonite (ft bgs) | Sand Pack (ft bgs) | Screen Zone (ft bgs) | Screen Length (ft) | Well Diameter (in) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **POND 5** | | | | | | | | | | | |
| MW5-1 | Downgradient | 1,625,291 | 236,432 | 490.62 | 490.29 | 0-13 | 13-15 | 15-27 | 17-27 | 10 | 2.00 |
| MW5-2 | Downgradient | 1,624,355 | 235,844 | 489.70 | 489.45 | 0-2 | 2-3.8, 15-22 | 3.8-15 | 5-15 | 10 | 2.00 |
| MW5-3 | Downgradient | 1,632,783 | 235,844 | 498.70 | 498.42 | 0-16 | 16-18 | 18-32 | 20-30 | 10 | 2.00 |
| MW5-4 | Downgradient | 1,624,541 | 235,425 | 496.75 | 496.31 | 0-15.5 | 15.5-18 | 18-32 | 20-30 | 10 | 2.00 |
| MW5-5 | Downgradient | 1,623,796 | 236,234 | 487.67 | 490.69 | 1-17 | 17-19 | 19-31.2 | 21-31 | 10 | 2.00 |
| MW5-6 | Downgradient | 1,625,425 | 234,996 | 497.33 | 500.30 | 1-16 | 16-18 | 18-30.2 | 20-30 | 10 | 2.00 |
| MW5-7 | Downgradient | 1,626,025 | 235,942 | 529.77 | 533.01 | 1-45 | 45-48 | 48-60.2 | 50-60 | 10 | 2.00 |
| MW5-8I | Nature and Extent | 1,629,323 | 234,430 | 499.70 | 502.04 | 1-45 | 45-48 | 48-60.2 | 50-60 | 10 | 2.00 |
| **POND 7/7A** | | | | | | | | | | | |
| MW-15 | Downgradient | 1,631,153 | 231,865 | 493.59 | 493.26 | 0-11 | 0-13 | 13-27 | 15-25 | 10 | 2.00 |
| MW-15I | Nature and Extent | 1,631,158 | 231,863 | 493.30 | 496.16 | 0-39 | 39-42 | 42-55 | 45-55 | 10 | 2.00 |
| MW-16 | Downgradient | 1,631,934 | 231,597 | 495.07 | 494.44 | 0-11 | 11-12.8 | 12.8-27 | 15-25 | 10 | 2.00 |
| MW-17 | Downgradient | 1,633,347 | 231,253 | 510.56 | 510.08 | 0-21 | 21-24.5 | 24.5-37 | 27-37 | 10 | 2.00 |
| MW-19 | Downgradient | 1,632,686 | 231,369 | 494.58 | 497.27 | 1-25 | 25-27 | 27-39 | 29-39 | 10 | 2.00 |
| MW-19I | Nature and Extent | 1,632,690 | 231,369 | 494.70 | 497.39 | 0-55 | 55-58 | 58-71 | 61-71 | 10 | 2.00 |
| **LANDFILL 9** | | | | | | | | | | | |
| MW-B5 | Downgradient | 1,634,357 | 233,436 | NA | 544.75 | 0-43.5[C] | 43.5-46[C] | 46-70[C] | 48-68 | 20 | 2.00 |
| MW-N00 | Upgradient | 1,639,443 | 234,592 | NA | 526.71 | 0-28[C] | 28-31[C] | 31.55[C] | 34.5-54.5 | 20 | 2.00 |
| MW-3B | Downgradient | 1,634,457 | 231,523 | NA | 520.90 | 4-29.5 | 2-4, 29.5-32 | 0-2, 32-49.4 | 32-49.4 | NA | NA |
| MW-4 | Downgradient | 1,635,647 | 230,953 | 511.00 | 511.68 | 0-1.5 | 24-29 | 34-39 | 34-39 | 5 | 2.00 |
| MW-5A | Downgradient | 1,636,947 | 231,163 | NA | 506.02 | 3-24.5 | 24.5-27.5 | 0-3, 27.5-40.06 | NA | NA | NA |
| MW-L7A | Downgradient | 1,638,028 | 231,339 | 509.40 | 507.59 | NA | 2-13 | 13-35 | 15-35 | 20 | 2.00 |
| MW-9 | Downgradient | 1,638,839 | 232,190 | NA | 510.56 | 2-9 | 9-12 | 12-40 | 14.5-39.5 | 25 | 2.00 |
| MW-10 | Downgradient | 1,639,391 | 233,129 | NA | 514.47 | 2.5-8 | 8-10 | 10-40 | 14-39 | 25 | 2.00 |
| MW-11 | Downgradient | 1,639,500 | 233,717 | NA | 511.35 | 0-2.5[A] | 2.5-5 | 5-32+ | 7-32 | 25 | 2.00 |
| MW-12 | Upgradient | 1,633,873 | 234,674 | NA | 543.06 | 0-1[A] | 1-4 | 4-21.3 | 5.5-20.5 | 15 | 2.00 |
| MW-24 | Downgradient | 1,634,506 | 232,467 | 531.79 | 534.54 | 1-50 | 50-52 | 52-64 | 54-64 | 10 | 2.00 |
| **POND 10** | | | | | | | | | | | |
| MW10-1 | Upgradient | 1,630,790 | 235,572 | 535.67 | 536.99 | 0.5-5[C] | 5.5-7.5[C] | 7.5-19.5[C] | 8-18 | 10 | 2.00 |
| MW10-2 | Downgradient | 1,629,928 | 235,643 | 548.80 | 550.35 | 0-55[C] | 55-57[C] | 57-78[C] | 58-68 | 10 | 2.00 |
| MW10-3 | Downgradient | 1,629,375 | 235,593 | 548.07 | 549.83 | 0-59[C] | 59-61[C] | 61-72.5[C] | 62.5-72.5 | 10 | 2.00 |
| MW10-4 | Downgradient | 1,628,935 | 235,460 | 550.57 | 551.38 | 0-60[C] | 60-62.5[C] | 62.5-74.5[C] | 64.5-74.5 | 10 | 2.00 |
| MW10-5 | Downgradient | 1,628,883 | 235,064 | 542.55 | 544.27 | 0-55.5[C] | 55.5-57.5[C] | 57.5-69.5[C] | 59.5-69.5 | 10 | 2.00 |
| MW10-6 | Downgradient | 1,629,100 | 234,791 | 547.11 | 548.61 | 0-56.5[C] | 56.5-58.5[C] | 58.5-69.7[C] | 59.7-69.7 | 10 | 2.00 |
| MW10-7 | Downgradient | 1,629,317 | 234,428 | 543.67 | 545.39 | 0-55[C] | 55-56[C] | 56-67.5[C] | 57-67 | 10 | 2.00 |
| MW10-7I | Nature and Extent | 1,629,323 | 234,430 | 544.20 | 546.41 | 0-81 | 81-85 | 85-97 | 87-97 | 10 | 2.00 |
| **LANDFILL 11** | | | | | | | | | | | |
| MW11-1 | Downgradient | 1,629,997 | 234,175 | 560.70 | 561.59 | 5-67.5[BC] | 67.5-69.5[C] | 69.5-82[C] | 72-82 | 10 | 2.00 |
| MW11-2 | Downgradient | 1,630,675 | 233,877 | 568.90 | 570.09 | NA | NA | NA | 69-89 | 20 | 2.00 |
| MW11-3 | Downgradient | 1,632,192 | 233,203 | 536.20 | 538.57 | 4.5-43.5[BC] | 43.5-45.5[C] | 45.5-57.5[C] | 47-57 | 10 | 2.00 |
| MW11-3I | Nature and Extent | 1,631,931 | 233,202 | 536.20 | 538.80 | 0-71 | 71-75 | 75-77 | 77-87 | 10 | 2.00 |
| MW11-4 | Downgradient | 1,632,417 | 233,051 | 536.10 | 538.26 | NA | NA | NA | 39-59 | 20 | 2.00 |
| MW11-5 | Downgradient | 1,632,417 | 232,789 | 536.10 | 537.36 | 2-43[BC] | 43-44.5[C] | 44.5-57[C] | 47-57 | 10 | 2.00 |
| MW11-5I | Nature and Extent | 1,633,217 | 232,787 | 534.80 | 537.18 | 0-72 | 72-75 | 75-87 | 77-87 | 10 | 2.00 |
| MW11-6 | Downgradient | 1,633,752 | 232,913 | 536.80 | 538.53 | 4-44[BC] | 44-46.5[C] | 46.5-59[C] | 48.5-58.5 | 10 | 2.00 |
| MW11-7 | Downgradient | 1,633,684 | 233,685 | 543.30 | 545.81 | 4-51.5[BC] | 51.5-53.5[C] | 53.5-65.5[C] | 55.5-65.5 | 10 | 2.00 |
| MW11-8 | Upgradient | 1,633,085 | 234,926 | 568.30 | 570.70 | 2-40.5[BC] | 40.5-43.5[C] | 43.5-55.9[C] | 44.5-55.5 | 10 | 2.00 |
| MW11-9 | Upgradient | 1,632,252 | 235,151 | 569.15 | 570.61 | 3-36[BC] | 36-38[C] | 38-50[C] | 40-50 | 10 | 2.00 |
| MW11-10 | Upgradient | 1,631,152 | 235,409 | 550.50 | 553.16 | 1.5-19.5[BC] | 19.5-21[C] | 21-34.1[C] | 23-33 | 10 | 2.00 |
| **POND 3A** | | | | | | | | | | | |
| MW-13 | Downgradient | 1,629,438 | 232,657 | 496.34 | 496.01 | 0-10 | 10-12.5 | 12.5-27 | 15-25 | 10 | 2.00 |
| MW-14 | Downgradient | 1,630,280 | 232,243 | 499.21 | 498.64 | 0-12 | 12-14.8 | 14.8-27 | 17.27 | 10 | 2.00 |
| MW-18 | Downgradient | 1,629,901 | 232,422 | 497.31 | 500.18 | 1-17 | 17-19 | 19-31 | 21-31 | 10 | 2.00 |
| **POND 6** | | | | | | | | | | | |
| MW-20 | Downgradient | 1,633,785 | 232,067 | 501.51 | 504.03 | 1-21 | 21-23 | 23-35.2 | 25-35 | 10 | 2.00 |
| MW-21 | Downgradient | 1,631,881 | 232,511 | 533.79 | 536.83 | 1-41 | 41-44 | 44-56 | 46-56 | 10 | 2.00 |
| MW-22 | Downgradient | 1,632,812 | 232,207 | 533.85 | 536.86 | 3-46 | 46-48 | 48-60.2 | 51-61 | 10 | 2.00 |

**Notes:**

bgs - below ground surface

ft - feet

in - inches

msl - mean sea level

NA - not identified

[A] - Concrete, no surface grout

[B] - "Cement/Bentonite Grout"

[C] - Estimated from visual inspection

National Geodetic Vertical Datum (NGVD 1988)

Surveyed coordinates reference Ohio State Plane

**TABLE 2**
**MULTI-UNIT MONITORING SYSTEM GROUNDWATER SAMPLE ANALYTICAL DATA**
**2020 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT**
**FORMER J.M. STUART ELECTRIC GENERATION STATION**
**SPRIGG TOWNSHIP, ADAMS COUNTY, OHIO**

| | | | | **Chemical Group** | **Field Parameters** | | | | | | **EPA Appendix III Constituents** | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **Chemical Name** | Conductivity | Dissolved Oxygen | ORP | pH | Temperature | Turbidity | Boron, Total | Calcium, Total | Chloride | Fluoride | pH (lab) | Sulfate | Total Dissolved Solids (TDS) |
| | | | | **US EPA MCL/RSL (THQ=1.0)** | - | - | - | - | - | - | - | - | - | 4 | - | - | - |
| | | | | **Units** | mS/cm | mg/L | mV | SU | °C | NTU | mg/L | mg/L | mg/L | mg/L | SU | mg/L | mg/L |
| | **Well Location** | **Sample Reason** | **Sample Date** | **Sample Name** | | | | | | | | | | | | | |
| | **POND 3A** | | | | | | | | | | | | | | | | |
| **Downgradient** | MW-13 | *Detection* | 03/04/2020 | MW-13-030420-1235 | 0.357 | 5.98 | 30.5 | 5.81 | 13.03 | 19.4 | **0.13** | **42** | **16** | **0.093** | **6.5 HF** | **54** | **230** |
| | MW-13 | *Assessment* | 09/29/2020 | MW-13-092920-0950 | 0.312 | 0.36 | 67.8 | 4.96 | 14.60 | 6.06 | **0.11** | **35** | **8** | **0.094** | **6.4 HF** | **55** | **190** |
| | MW-14 | *Detection* | 03/04/2020 | MW-14-030420-1001 | 0.529 | 4.69 | 29.4 | 5.83 | 12.63 | 7.84 | **0.097 J** | **67** | **16** | **0.068** | **6.4 HF** | **98** | **360** |
| | MW-14 | *Assessment* | 09/29/2020 | MW-14-092920-0855 | 0.330 | 0.46 | 37.2 | 6.23 | 15.57 | 5.08 | **0.072 J** | **35** | **14** | **0.062** | **6.2 HF** | **82** | **200** |
| | MW-18 | *Detection* | 03/04/2020 | MW-18-030420-1134 | 0.431 | 3.68 | 23.1 | 5.85 | 14.15 | 19.1 | **0.35** | **65** | **9.1** | **0.11** | **6.5 HF** | **62** | **300** |
| | MW-18 | *Assessment* | 09/29/2020 | MW-18-092920-1040 | 0.734 | 0.34 | 72.6 | 5.96 | 15.64 | 9.32 | **5.1** | **110** | **31** | **0.055** | **5.9 HF** | **350** | **560** |
| | **POND 6** | | | | | | | | | | | | | | | | |
| **Down-gradient** | MW-20 | *Assessment* | 03/05/2020 | MW-20-030520-1636 | 0.892 | 0.26 | 79.6 | 9.78 | 14.31 | 3.49 | **5.9** | **110** | **42** | **0.33** | **7 HF** | **230** | **630** |
| | MW-20 | *Assessment* | 09/29/2020 | MW-20-092920-1145 | 0.780 | 0.35 | 104.6 | 5.54 | 14.98 | 2.87 | **3.5** | **84** | **14** | **0.34** | **6.8 HF** | **130** | **470** |
| | MW-21 | *Assessment* | 03/03/2020 | MW-21-030320-1746 | 1.039 | 0.67 | -11.8 | 7.16 | 18.81 | 5.62 | **5.3** | **150** | **34** | **0.63** | **7.5 HF** | **420** | **850** |
| | MW-22 | *Assessment* | 03/04/2020 | MW-22-030420-1555 | 0.663 | 1.82 | 26.0 | 7.29 | 17.44 | 35.9 | **2.9** | **86** | **11** | **0.43** | **7.8 HF** | **250** | **560** |
| | **POND 7/7A** | | | | | | | | | | | | | | | | |
| **Downgradient** | MW-15 | *Assessment* | 03/03/2020 | MW-15-030320-1430 | 0.463 | 0.23 | 209.6 | 5.90 | 14.00 | 3.87 | **0.36** | **56** | **13** | **0.075** | **6.4 HF** | **64** | **290** |
| | MW-15 | *Assessment* | 09/29/2020 | MW-15-092920-1330 | 0.445 | 0.27 | 91.6 | 6.05 | 18.82 | 2.01 | **3.3** | **57** | **15** | **0.073** | **6.1 HF** | **120** | **300** |
| | MW-16 | *Assessment* | 03/03/2020 | MW-16-030320-1311 | 0.474 | 0.59 | 136.2 | 6.29 | 15.40 | 14.3 | **0.54** | **54** | **17** | **0.096** | **6.7 HF** | **84** | **300 H** |
| | MW-16 DUP | *Assessment* | 03/03/2020 | M-99B-030320-2000 | - | - | - | - | - | - | **0.56** | **58** | **16** | **0.096** | **6.7 HF** | **83** | **320** |
| | MW-16 | *Assessment* | 09/29/2020 | MW-16-092920-1245 | 0.763 | 0.27 | 89.8 | 6.08 | 19.20 | 11.2 | **5.3** | **86** | **26** | **0.049 J** | **6.1 HF** | **360** | **590** |
| | MW-17 | *Assessment* | 03/05/2020 | MW-17-030520-1505 | 0.828 | 0.20 | 84.6 | 9.34 | 16.83 | 4.32 | **4.2** | **100** | **40** | **0.14** | **6.9 HF** | **290** | **630** |
| | MW-17 | *Assessment* | 09/29/2020 | MW-17-092920-1430 | 0.802 | 1.04 | 89.8 | 6.50 | 16.69 | 10.4 | **3.5 B** | **89** | **33** | **0.11** | **6.6 HF** | **280** | **540** |
| | MW-19 | *Assessment* | 03/03/2020 | MW-19-030320-1136 | 0.622 | 0.23 | -95.7 | 6.72 | 17.60 | 10.7 | **1.9** | **86** | **25** | **0.091** | **7.1 HF** | **110** | **430** |
| | MW-19 | *Assessment* | 09/29/2020 | MW-19-092920-1643 | 0.614 | 0.70 | -51.9 | 6.73 | 18.85 | 6.12 | **1.6 B** | **70** | **20** | **0.075** | **6.7 HF** | **130** | **380** |
| **N&E** | MW-15I | *Assessment* | 03/03/2020 | MW-15I-030320-1435 | 1.130 | 0.37 | 134.4 | 7.58 | 16.57 | 6.37 | **20** | **180** | **38** | **2.5** | **7.9 HF** | **490** | **900** |
| | MW-15I | *Assessment* | 09/29/2020 | MW-15I-092920-1420 | 1.108 | 0.18 | -2.1 | 7.82 | 20.37 | 4.37 | **17** | **170** | **37** | **2.8** | **7.7 HF** | **510** | **910** |
| | MW-19I | *Assessment* | 03/03/2020 | MW-19I-030320-1136 | 0.970 | 0.41 | 64.9 | 7.54 | 16.94 | 2.86 | **5.7** | **140** | **30** | **1.1** | **7.8 HF** | **390** | **750** |
| | MW-19I | *Assessment* | 09/29/2020 | MW-19I-092920-1740 | 0.869 | 0.55 | -64.9 | 7.45 | 17.89 | 8.98 | **5.6 B** | **120** | **24** | **1.1** | **7.4 HF** | **370** | **630** |
| | **POND 10** | | | | | | | | | | | | | | | | |
| **Up-gradient** | MW10-1 | *Assessment* | 03/04/2020 | MW10-1-030420-1248 | 0.414 | 8.19 | 121.3 | 6.65 | 13.74 | 5.96 | **0.072 J** | **59** | **25** | **0.2** | **7.2 HF** | **31** | **270** |
| | MW10-1 | *Assessment* | 10/01/2020 | MW10-1-100120-1135 | 0.556 | 5.10 | 30.1 | 6.74 | 18.65 | 3.02 | **0.042 J** | **78** | **32** | **0.32** | **7.1 HF** | **41** | **410** |
| **Downgradient** | MW10-2 | *Assessment* | 03/05/2020 | MW10-2-030520-1823 | 0.986 | 8.37 | 44.7 | 7.50 | 12.63 | 55 | **0.1** | **120** | **98** | **0.13** | **8 HF** | **66** | **600** |
| | MW10-2 | *Assessment* | 10/01/2020 | MW10-2-100120-1425 | 0.664 | 3.37 | 64.0 | 6.92 | 16.43 | 2.89 | **0.1** | **91** | **39** | **0.11** | **7.2 HF** | **57** | **390** |
| | MW10-3 | *Assessment* | 03/05/2020 | MW10-3-030520-0944 | 0.788 | 4.06 | 112.9 | 7.11 | 13.86 | 1.33 | **0.15** | **110** | **69** | **0.1** | **7.4 HF** | **60** | **480** |
| | MW10-3 | *Assessment* | 09/30/2020 | MW10-3-093020-1030 | 0.891 | 6.48 | -91.3 | 7.92 | 16.26 | 8.61 | **0.081 JB** | **120** | **52** | **0.09** | **7.1 HF** | **75** | **600** |
| | MW10-4 | *Assessment* | 03/05/2020 | MW10-4-030520-1124 | 0.913 | 0.52 | 130.7 | 7.11 | 14.31 | 1.49 | **3.2** | **150** | **27** | **0.089** | **7.4 HF** | **200** | **630** |
| | MW10-4 | *Assessment* | 09/30/2020 | MW10-4-093020-1353 | 0.717 | 2.76 | 1.1 | 6.95 | 20.60 | 1.5 | **2.9** | **150** | **28** | **0.095** | **7.2 HF** | **180** | **640** |
| | MW10-5 | *Assessment* | 03/05/2020 | MW10-5-030520-1355 | 0.929 | 1.89 | 81.7 | 7.40 | 15.09 | 1.95 | **6.3** | **140** | **22** | **0.12** | **7.7 HF** | **340** | **700** |
| | MW10-5 | *Assessment* | 09/30/2020 | MW10-5-093020-1102 | 0.702 | 1.10 | 2.7 | 7.25 | 16.23 | 1.73 | **5.9** | **130** | **20** | **0.12** | **7.4 HF** | **340** | **660** |
| | MW10-5 DUP | *Assessment* | 09/30/2020 | M-99B-093020-2000 | - | - | - | - | - | - | **5.9** | **140** | **20** | **0.12** | **7 HF** | **360** | **660** |
| | MW10-6 | *Assessment* | 03/05/2020 | MW10-6-030520-1529 | 0.839 | 2.41 | 85.7 | 7.29 | 15.86 | 0.99 | **4.9** | **130** | **18** | **0.18** | **7.6 HF** | **290** | **590** |
| | MW10-6 | *Assessment* | 09/30/2020 | MW10-6-093020-1320 | 0.723 | 0.47 | -207.3 | 7.89 | 18.03 | 4.48 | **6.5 B** | **120** | **13** | **0.2** | **7.4 HF** | **270** | **540** |
| | MW10-7 | *Assessment* | 03/04/2020 | MW10-7-030420-0932 | 0.808 | 1.00 | 111.7 | 7.29 | 15.70 | 1.33 | **4.6** | **120** | **14** | **0.33** | **7.7 HF** | **280** | **570** |
| | MW10-7 | *Assessment* | 09/29/2020 | MW10-7-092920-1605 | 0.915 | 1.57 | 53.7 | 6.39 | 17.17 | 5.65 | **5.1** | **140** | **14** | **0.25** | **7.3 HF** | **300** | **660** |
| **N&E** | MW10-7I | *Assessment* | 03/04/2020 | MW10-7I-030420-1023 | 0.751 | 0.73 | 123.3 | 7.38 | 15.84 | 35 | **6.5** | **120** | **20** | **0.35** | **8 HF** | **320** | **570** |
| | MW10-7I | *Assessment* | 09/30/2020 | MW10-7I-093020-0900 | 0.570 | 1.01 | -163.2 | 7.61 | 12.87 | 25 | **6 B** | **140** | **21** | **0.29** | **7.7 HF** | **380** | **620** |

**TABLE 2**
**MULTI-UNIT MONITORING SYSTEM GROUNDWATER SAMPLE ANALYTICAL DATA**
**2020 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT**
**FORMER J.M. STUART ELECTRIC GENERATION STATION**
**SPRIGG TOWNSHIP, ADAMS COUNTY, OHIO**

| | Chemical Group | | | | EPA Appendix IV Constituents | | | | | | | | | | | | | Radiological | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Chemical Name | Antimony, total | Arsenic, total | Barium, total | Beryllium, total | Cadmium, total | Chromium, total | Cobalt, total | Fluoride | Lead, total | Lithium, total | Mercury, total | Molybdenum, total | Selenium, total | Thallium, total | Radium-226 | Radium-228 | Radium-226 & 228 |
| | | | | US EPA MCL/RSL (THQ=1.0) | 0.006 | 0.01 | 2 | 0.004 | 0.005 | 0.1 | 0.006 | 4 | 0.015 | 0.04 | 0.002 | 0.1 | 0.05 | 0.002 | - | - | 5 |
| | | | | Units | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | pCi/L | pCi/L | pCi/L |
| | Well Location | Sample Reason | Sample Date | Sample Name | | | | | | | | | | | | | | | | |
| | POND 3A | | | | | | | | | | | | | | | | | | | |
| Downgradient | MW-13 | *Detection* | 03/04/2020 | MW-13-030420-1235 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | MW-13 | *Assessment* | 09/29/2020 | MW-13-092920-0950 | < 0.0075 | < 0.0041 | **0.04 J** | < 0.0006 | < 0.0002 | < 0.00063 | **0.0011 J** | **0.094** | < 0.0028 | < 0.0067 | < 0.00013 | < 0.0049 | < 0.006 | < 0.0027 | 0.0882 U ± 0.0833 | **0.499 ± 0.285** | **0.587 ± 0.297** |
| | MW-14 | *Detection* | 03/04/2020 | MW-14-030420-1001 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | MW-14 | *Assessment* | 09/29/2020 | MW-14-092920-0855 | < 0.0075 | < 0.0041 | **0.036 J** | < 0.0006 | < 0.0002 | **0.0013 J** | **0.0068 J** | **0.062** | < 0.0028 | < 0.0067 | < 0.00013 | < 0.0049 | < 0.006 | < 0.0027 | 0.0992 U ± 0.0884 | 0.313 U ± 0.250 | **0.412 ± 0.265** |
| | MW-18 | *Detection* | 03/04/2020 | MW-18-030420-1134 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | MW-18 | *Assessment* | 09/29/2020 | MW-18-092920-1040 | < 0.0075 | < 0.0041 | **0.042 J** | < 0.0006 | **0.00052 J** | **0.00071 J** | **0.0051 J** | **0.055** | < 0.0028 | < 0.0067 | < 0.00013 | < 0.0049 | < 0.006 | < 0.0027 | 0.0576 U ± 0.0823 | -0.277 U ± 0.222 | -0.219 U ± 0.237 |
| | POND 6 | | | | | | | | | | | | | | | | | | | |
| Down-gradient | MW-20 | *Assessment* | 03/05/2020 | MW-20-030520-1636 | < 0.00057 | **0.00095 J** | **0.082** | < 0.00031 | **0.00029 J** | < 0.00098 | **0.003** | **0.33** | < 0.0028 | **0.036** | < 0.00013 | **0.37** | < 0.00089 | **0.00056 J** | 0.164 U ± 0.159 | 0.316 U ± 0.260 | **0.48 ± 0.305** |
| | MW-20 | *Assessment* | 09/29/2020 | MW-20-092920-1145 | < 0.0075 | < 0.0041 | **0.059 J** | < 0.0006 | < 0.0002 | < 0.00063 | **0.0016 J** | **0.34** | < 0.0028 | **0.03 J** | < 0.00013 | **0.37** | < 0.006 | < 0.0027 | **0.201 ± 0.115** | 0.0712 U ± 0.265 | 0.272 U ± 0.289 |
| | MW-21 | *Assessment* | 03/03/2020 | MW-21-030320-1746 | < 0.00057 | **0.0015 J** | **0.051** | < 0.00031 | < 0.0002 | < 0.00098 | **0.0011** | **0.63** | **0.00074 J** | **0.11** | < 0.00013 | **0.044** | **0.066** | < 0.0002 | 0.0648 U ± 0.104 | 0.246 U ± 0.291 | 0.311 U ± 0.309 |
| | MW-22 | *Assessment* | 03/04/2020 | MW-22-030420-1555 | < 0.00057 | **0.0017 J** | **0.039** | < 0.00031 | < 0.0002 | **0.0019 J** | **0.0022** | **0.43** | **0.0017** | **0.093** | < 0.00013 | **0.036** | **0.053** | < 0.0002 | 0.0778 U ± 0.123 | **0.936 ± 0.434** | **1.01 ± 0.451** |
| | POND 7/7A | | | | | | | | | | | | | | | | | | | |
| Downgradient | MW-15 | *Assessment* | 03/03/2020 | MW-15-030320-1430 | < 0.00057 | < 0.00075 | **0.045** | < 0.00031 | < 0.0002 | < 0.00098 | **0.0055** | **0.075** | < 0.00045 | **0.002 J** | < 0.00013 | < 0.0011 | < 0.00089 | < 0.0002 | 0.118 U ± 0.102 | 0.0765 U ± 0.238 | 0.195 U ± 0.259 |
| | MW-15 | *Assessment* | 09/29/2020 | MW-15-092920-1330 | < 0.0075 | **0.0042 J** | **0.058 J** | < 0.0006 | **0.00035 J** | < 0.00063 | **0.0072 J** | **0.073** | < 0.0028 | < 0.0067 | < 0.00013 | < 0.0049 | < 0.006 | < 0.0027 | 0.0682 U ± 0.0879 | 0.107 U ± 0.277 | 0.176 U ± 0.291 |
| | MW-16 | *Assessment* | 03/03/2020 | MW-16-030320-1311 | < 0.00057 | < 0.00075 | **0.049** | < 0.00031 | < 0.0002 | < 0.00098 | **0.00097 J** | **0.096** | < 0.00045 | **0.0022 J** | < 0.00013 | < 0.0011 | < 0.00089 | < 0.0002 | 0.148 U ± 0.109 | 0.0483 U ± 0.231 | 0.196 U ± 0.255 |
| | MW-16 DUP | *Assessment* | 03/03/2020 | M-99B-030320-2000 | < 0.00057 | < 0.00075 | **0.052** | < 0.00031 | < 0.0002 | < 0.00098 | **0.0011** | **0.096** | < 0.00045 | **0.0024 J** | < 0.00013 | < 0.0011 | < 0.00089 | < 0.0002 | 0.104 U ± 0.0987 | 0.272 U ± 0.247 | 0.376 U ± 0.266 |
| | MW-16 | *Assessment* | 09/29/2020 | MW-16-092920-1245 | < 0.0075 | < 0.0041 | **0.071 J** | < 0.0006 | **0.00058 J** | < 0.00063 | **0.00093 J** | **0.049 J** | < 0.0028 | **0.0069 J** | < 0.00013 | < 0.0049 | < 0.006 | < 0.0027 | 0.0377 U ± 0.111 | 0.282 U ± 0.392 | 0.319 U ± 0.407 |
| | MW-17 | *Assessment* | 03/05/2020 | MW-17-030520-1505 | < 0.00057 | < 0.00075 | **0.046** | < 0.00031 | **0.00026 J** | < 0.00098 | **0.00053 J** | **0.14** | < 0.00045 | **0.0025 J** | < 0.00013 | **0.03** | < 0.00089 | **0.00056 J** | 0.0995 U ± 0.0955 | -0.0787 U ± 0.258 | 0.0209 U ± 0.275 |
| | MW-17 | *Assessment* | 09/29/2020 | MW-17-092920-1430 | < 0.0075 | < 0.0041 | **0.044 J** | < 0.0006 | **0.00046 J** | **0.00081 J** | **0.0012 JB** | **0.11** | < 0.0028 | < 0.0067 | < 0.00013 | **0.011 J** | < 0.006 | **0.0033 J** | **0.189 ± 0.129** | 0.271 U ± 0.377 | 0.461 U ± 0.398 |
| | MW-19 | *Assessment* | 03/03/2020 | MW-19-030320-1136 | < 0.00057 | **0.012** | **0.19** | < 0.00031 | **0.00033 J** | < 0.00098 | **0.012** | **0.091** | < 0.00045 | **0.004 J** | < 0.00013 | < 0.0011 | < 0.00089 | **0.00024 J** | **0.212 ± 0.130** | 0.473 U ± 0.317 | **0.685 ± 0.343** |
| | MW-19 | *Assessment* | 09/29/2020 | MW-19-092920-1643 | < 0.0075 | **0.014 J** | **0.16 J** | < 0.0006 | **0.00022 J** | **0.0019 J** | **0.0068 JB** | **0.075** | < 0.0028 | < 0.0067 | < 0.00013 | < 0.0049 | < 0.006 | **0.0076 J** | 0.157 U ± 0.133 | 0.169 U ± 0.300 | 0.326 U ± 0.328 |
| N&E | MW-15I | *Assessment* | 03/03/2020 | MW-15I-030320-1435 | < 0.00057 | < 0.00075 | **0.057** | < 0.00031 | **0.0016** | < 0.00098 | **0.00044 J** | **2.5** | < 0.00045 | **0.024** | < 0.00013 | **5.2** | < 0.00089 | < 0.0002 | 0.196 U ± 0.139 | 0.132 U ± 0.235 | 0.328 U ± 0.273 |
| | MW-15I | *Assessment* | 09/29/2020 | MW-15I-092920-1420 | < 0.0075 | **0.012 J** | **0.072 J** | < 0.0006 | < 0.0002 | **0.00096 J** | < 0.00075 | **2.8** | < 0.0028 | **0.021 J** | < 0.00013 | **4.9** | < 0.006 | < 0.0027 | -0.00924 U ± 0.0730 | -0.113 U ± 0.265 | -0.123 U ± 0.275 |
| | MW-19I | *Assessment* | 03/03/2020 | MW-19I-030320-1136 | < 0.00057 | **0.0011 J** | **0.063** | < 0.00031 | **0.00034 J** | < 0.00098 | **0.00033 J** | **1.1** | < 0.00045 | **0.098** | < 0.00013 | **0.97** | **0.0059** | < 0.0002 | 0.0357 U ± 0.115 | 0.0365 U ± 0.245 | 0.0722 U ± 0.271 |
| | MW-19I | *Assessment* | 09/29/2020 | MW-19I-092920-1740 | < 0.0075 | < 0.0041 | **0.055 J** | < 0.0006 | < 0.0002 | **0.0012 J** | < 0.00075 | **1.1** | < 0.0028 | **0.074** | < 0.00013 | **0.98** | < 0.006 | < 0.0027 | 0.156 U ± 0.118 | -0.335 U ± 0.287 | -0.179 U ± 0.310 |
| | POND 10 | | | | | | | | | | | | | | | | | | | |
| Up-gradient | MW10-1 | *Assessment* | 03/04/2020 | MW10-1-030420-1248 | < 0.00057 | < 0.00075 | **0.038** | < 0.00031 | < 0.0002 | **0.0011 J** | < 0.00019 | **0.2** | < 0.00045 | < 0.0017 | < 0.00013 | < 0.0011 | **0.0014 J** | < 0.0002 | 0.0948 U ± 0.123 | 0.144 U ± 0.242 | 0.239 U ± 0.271 |
| | MW10-1 | *Assessment* | 10/01/2020 | MW10-1-100120-1135 | < 0.0075 | < 0.0041 | **0.041 J** | < 0.0006 | **0.00021 J** | **0.0012 J** | < 0.00075 | **0.32** | < 0.0028 | < 0.0067 | < 0.00013 | < 0.0049 | < 0.006 | < 0.0027 | -0.111 U ± 0.170 | 0.314 U ± 0.333 | 0.203 U ± 0.374 |
| Downgradient | MW10-2 | *Assessment* | 03/05/2020 | MW10-2-030520-1823 | **0.00071 J** | **0.018** | **0.12** | **0.00072 J** | **0.00031 J** | **0.034** | **0.011** | **0.13** | **0.019** | **0.017** | < 0.00013 | **0.0081** | **0.0011 J** | **0.0003 J** | **0.597 ± 0.292** | 0.77 U ± 0.574 | **1.37 ± 0.644** |
| | MW10-2 | *Assessment* | 10/01/2020 | MW10-2-100120-1425 | < 0.0075 | < 0.0041 | **0.046 J** | < 0.0006 | < 0.0002 | **0.0018 J** | < 0.00075 | **0.11** | < 0.0028 | < 0.0067 | < 0.00013 | < 0.0049 | < 0.006 | < 0.0027 | 0.175 U ± 0.160 | 0.178 U ± 0.290 | 0.353 U ± 0.331 |
| | MW10-3 | *Assessment* | 03/05/2020 | MW10-3-030520-0944 | < 0.00057 | **0.00078 J** | **0.063** | < 0.00031 | < 0.0002 | < 0.00098 | < 0.00019 | **0.1** | < 0.00045 | **0.0047 J** | < 0.00013 | < 0.0011 | < 0.00089 | < 0.0002 | 0.0645 U ± 0.0889 | **2.21 ± 0.443** | **2.28 ± 0.452** |
| | MW10-3 | *Assessment* | 09/30/2020 | MW10-3-093020-1030 | < 0.0075 | < 0.0041 | **0.08 J** | < 0.0006 | **0.00046 J** | **0.0032 J** | < 0.00075 | **0.09** | < 0.0028 | < 0.0067 | < 0.00013 | < 0.0049 | < 0.006 | < 0.0027 | **0.206 ± 0.120** | 0.368 U ± 0.319 | **0.575 ± 0.341** |
| | MW10-4 | *Assessment* | 03/05/2020 | MW10-4-030520-1124 | < 0.00057 | **0.0013 J** | **0.079** | < 0.00031 | < 0.0002 | < 0.00098 | < 0.00019 | **0.089** | < 0.00045 | **0.0041 J** | < 0.00013 | < 0.0011 | **0.021** | < 0.0002 | 0.0529 U ± 0.104 | 0.284 U ± 0.285 | 0.337 U ± 0.303 |
| | MW10-4 | *Assessment* | 09/30/2020 | MW10-4-093020-1353 | < 0.0075 | **0.0056 J** | **0.075 J** | < 0.0006 | **0.00039 J** | **0.00091 J** | < 0.00075 | **0.095** | < 0.0028 | **0.0093 J** | < 0.00013 | < 0.0049 | **0.019 J** | < 0.0027 | 0.114 U ± 0.175 | 0.287 U ± 0.375 | 0.401 U ± 0.414 |
| | MW10-5 | *Assessment* | 03/05/2020 | MW10-5-030520-1355 | < 0.00057 | **0.0008 J** | **0.032** | < 0.00031 | < 0.0002 | < 0.00098 | < 0.00019 | **0.12** | < 0.00045 | **0.0033 J** | < 0.00013 | **0.0017 J** | **0.0021 J** | < 0.0002 | -0.00112 U ± 0.0744 | 0.205 U ± 0.282 | 0.203 U ± 0.292 |
| | MW10-5 | *Assessment* | 09/30/2020 | MW10-5-093020-1102 | < 0.0075 | < 0.0041 | **0.027 J** | < 0.0006 | **0.00026 J** | **0.00078 J** | < 0.00075 | **0.12** | < 0.0028 | **0.0081 J** | < 0.00013 | < 0.0049 | < 0.006 | < 0.0027 | 0.0176 U ± 0.0966 | 0.204 U ± 0.229 | 0.221 U ± 0.249 |
| | MW10-5 DUP | *Assessment* | 09/30/2020 | M-99B-093020-2000 | < 0.0075 | < 0.0041 | **0.026 J** | < 0.0006 | **0.00022 J** | < 0.00063 | < 0.00075 | **0.12** | < 0.0028 | **0.013 J** | < 0.00013 | < 0.0049 | < 0.006 | < 0.0027 | -0.00885 U ± 0.0959 | 0.263 U ± 0.264 | 0.254 U ± 0.281 |
| | MW10-6 | *Assessment* | 03/05/2020 | MW10-6-030520-1529 | < 0.00057 | **0.00076 J** | **0.032** | < 0.00031 | < 0.0002 | < 0.00098 | < 0.00019 | **0.18** | < 0.00045 | **0.0053 J** | < 0.00013 | **0.22** | **0.0087** | < 0.0002 | 0.0647 U ± 0.113 | 0.156 U ± 0.364 | 0.221 U ± 0.381 |
| | MW10-6 | *Assessment* | 09/30/2020 | MW10-6-093020-1320 | < 0.0075 | < 0.0041 | **0.029 J** | < 0.0006 | **0.00021 J** | < 0.00063 | < 0.00075 | **0.2** | < 0.0028 | < 0.0067 | < 0.00013 | **0.79** | **0.062** | < 0.0027 | 0.0638 U ± 0.0756 | -0.168 U ± 0.224 | -0.104 U ± 0.236 |
| | MW10-7 | *Assessment* | 03/04/2020 | MW10-7-030420-0932 | < 0.00057 | < 0.00075 | **0.022** | < 0.00031 | **0.00024 J** | < 0.00098 | < 0.00019 | **0.33** | < 0.00045 | **0.0054 J** | < 0.00013 | **0.8** | **0.0082** | < 0.0002 | 0.0944 U ± 0.0841 | 0.19 U ± 0.207 | 0.284 U ± 0.223 |
| | MW10-7 | *Assessment* | 09/29/2020 | MW10-7-092920-1605 | < 0.0075 | < 0.0041 | **0.03 J** | < 0.0006 | < 0.0002 | < 0.00063 | < 0.00075 | **0.25** | < 0.0028 | < 0.0067 | < 0.00013 | **0.63** | < 0.006 | < 0.0027 | 0.0886 U ± 0.0895 | -0.117 U ± 0.253 | -0.0288 U ± 0.268 |
| N&E | MW10-7I | *Assessment* | 03/04/2020 | MW10-7I-030420-1023 | < 0.00057 | **0.0018 J** | **0.032** | < 0.00031 | < 0.0002 | **0.001 J** | **0.0014** | **0.35** | **0.00067 J** | **0.0034 J** | < 0.00013 | **0.32** | **0.0048 J** | < 0.0002 | 0.0418 U ± 0.078 | 0.196 U ± 0.232 | 0.238 U ± 0.245 |
| | MW10-7I | *Assessment* | 09/30/2020 | MW10-7I-093020-0900 | < 0.0075 | < 0.0041 | **0.037 J** | < 0.0006 | < 0.0002 | **0.0011 J** | **0.00091 JB** | **0.29** | < 0.0028 | < 0.0067 | < 0.00013 | **0.3** | **0.028** | < 0.0027 | 0.0760 U ± 0.121 | -0.0442 U ± 0.282 | 0.0318 U ± 0.307 |

**TABLE 2**
**MULTI-UNIT MONITORING SYSTEM GROUNDWATER SAMPLE ANALYTICAL DATA**
**2020 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT**
**FORMER J.M. STUART ELECTRIC GENERATION STATION**
**SPRIGG TOWNSHIP, ADAMS COUNTY, OHIO**

| | Chemical Group | | | | Field Parameters | | | | | | EPA Appendix III Constituents | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Chemical Name | | | | Conductivity | Dissolved Oxygen | ORP | pH | Temperature | Turbidity | Boron, Total | Calcium, Total | Chloride | Fluoride | pH (lab) | Sulfate | Total Dissolved Solids (TDS) |
| | US EPA MCL/RSL (THQ=1.0) | | | | - | - | - | - | - | - | - | - | - | 4 | - | - | - |
| | Units | | | | mS/cm | mg/L | mV | SU | °C | NTU | mg/L | mg/L | mg/L | mg/L | SU | mg/L | mg/L |
| | **Well Location** | **Sample Reason** | **Sample Date** | **Sample Name** | | | | | | | | | | | | | |
| | **LANDFILL 11** | | | | | | | | | | | | | | | | |
| **Downgradient** | MW11-1 | *Assessment* | 03/04/2020 | MW11-1-030420-1500 | 0.816 | 2.59 | 25.0 | 6.91 | 15.29 | 6.48 | **4.3** | **140** | **20** | **0.27** | **7.6 HF** | **200** | **600** |
| | MW11-1 | *Assessment* | 10/01/2020 | MW11-1-100120-1002 | 0.839 | 1.73 | 138.4 | 7.08 | 16.50 | 3.86 | **4.1** | **150** | **17** | **0.29** | **7.3 HF** | **210** | **580** |
| | MW11-2 | *Assessment* | 03/03/2020 | MW11-2-030320-1712 | 1.140 | 1.55 | 205.3 | 6.91 | 15.10 | 4.19 | **4.6** | **180** | **19** | **0.19** | **7.4 HF** | **290** | **900** |
| | MW11-3 | *Assessment* | 03/04/2020 | MW11-3-030420-1205 | 0.879 | 0.70 | 109.6 | 6.76 | 15.78 | 6.31 | **3.8** | **140** | **11** | **0.2** | **7.5 HF** | **220** | **660** |
| | MW11-4 | *Assessment* | 03/03/2020 | MW11-4-030320-1042 | 0.930 | 1.47 | 4.0 | 7.04 | 16.00 | 6.99 | **4.9** | **160** | **11** | **0.22** | **7.5 HF** | **270** | **730** |
| | MW11-5 | *Assessment* | 03/04/2020 | MW11-5-030420-1331 | 0.846 | 1.82 | 119.0 | 6.87 | 14.36 | 8.76 | **2.2** | **130** | **12** | **0.17** | **7.4 HF** | **130** | **600** |
| | MW11-6 | *Assessment* | 03/05/2020 | MW11-6-030520-1159 | 0.544 | 6.97 | 33.2 | 6.88 | 13.85 | 6.97 | **0.046 J** | **110** | **16** | **0.19** | **7.5 HF** | **31** | **390** |
| | MW11-6 | *Assessment* | 09/30/2020 | MW11-6-093020-1450 | 0.755 | 6.70 | 195.2 | 6.81 | 15.50 | 4.81 | **0.036 J** | **140** | **8.2** | **0.18** | **7.2 HF** | **28** | **470** |
| | MW11-7 | *Assessment* | 03/05/2020 | MW11-7-030520-1005 | 0.453 | 8.21 | 35.3 | 7.24 | 11.44 | 10.4 | **0.046 J** | **85** | **4.7** | **0.22** | **7.8 HF** | **21** | **280** |
| | MW11-7 | *Assessment* | 09/30/2020 | MW11-7-093020-1040 | 0.500 | 9.42 | 213.6 | 7.21 | 12.10 | 10.3 | **0.024 J** | **96** | **5** | **0.21** | **7.5 HF** | **28** | **300** |
| **N&E** | MW11-3I | *Assessment* | 03/04/2020 | MW11-3I-030420-1157 | 1.047 | 1.32 | 146.1 | 7.14 | 16.10 | 20.9 | **5.1** | **160** | **17** | **0.22** | **7.6 HF** | **360** | **780** |
| | MW11-5I | *Assessment* | 03/04/2020 | MW11-5I-030420-1320 | 0.597 | 2.24 | 166.0 | 7.24 | 14.90 | 10.5 | **0.51** | **91** | **11** | **0.24** | **7.7 HF** | **39** | **390** |
| **Upgradient** | MW11-8 | *Assessment* | 03/03/2020 | MW11-8-030320-1220 | 0.641 | 1.87 | 8.5 | 6.93 | 14.32 | 3.15 | **0.047 J** | **120** | **17** | **0.23** | **7.3 HF** | **46** | **430** |
| | MW11-8 | *Assessment* | 09/30/2020 | MW11-8-093020-1745 | 0.660 | 5.66 | 126.9 | 6.83 | 17.00 | 3.41 | < 0.023 | **130** | **18** | **0.24** | **6.9 HF** | **45** | **480** |
| | MW11-9 | *Assessment* | 03/03/2020 | MW11-9-030320-1416 | 0.501 | 1.80 | 4.6 | 6.59 | 14.31 | 6.15 | < 0.023 | **110** | **110** | **0.11** | **7 HF** | **46** | **440** |
| | MW11-9 | *Assessment* | 09/30/2020 | MW11-9-093020-1225 | 0.403 | 1.81 | 120.0 | 6.57 | 18.50 | 7.01 | **0.044 J** | **20** | **97** | **0.12** | **6.9 HF** | **44** | **210** |
| | MW11-10 | *Assessment* | 03/03/2020 | MW11-10-030320-1545 | 0.674 | 2.29 | 7.2 | 7.00 | 14.21 | 2.79 | **0.043 J** | **130** | **11** | **0.18** | **7.5 HF** | **39** | **450** |
| | MW11-10 DUP | *Assessment* | 03/03/2020 | MW-99A-030320-2000 | - | - | - | - | - | - | **0.047 J** | **120** | **11** | **0.19** | **7.3 HF** | **40** | **450** |
| | MW11-10 | *Assessment* | 09/30/2020 | MW11-10-093020-0910 | 0.679 | 6.36 | 92.6 | 6.83 | 15.37 | 2.69 | **0.034 J** | **140** | **3.6** | **0.16** | **7.2 HF** | **59** | **450** |

**Notes:**
**Bold** indicates detected concentration
Shaded values exceed criteria
mg/L - milligram per liter
MCL - Maximum Contaminant Level
SU - standard units
mV - millivolt
mS/cm - milliSiemen per centimeter
RSL - Regional Screening Level
THQ - Target Hazard Quotient
US EPA - United States Environmental Protection Agency
HF - Field parameter with a holding time of 15 minutes
H - Sample was prepped or analyzed beyond spcified holding time.
J - Estimated result
B - Blank contamination
G - Sample MDC is greater than the requested RL
NTU - Nephelometric Turbidity Units
°C - degrees Celcius
"-" - Denotes constituent not required to be sampled during this event
pCi/L - picoCurie per liter
N&E - Nature and Extent

**TABLE 2**
**MULTI-UNIT MONITORING SYSTEM GROUNDWATER SAMPLE ANALYTICAL DATA**
**2020 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT**
**FORMER J.M. STUART ELECTRIC GENERATION STATION**
**SPRIGG TOWNSHIP, ADAMS COUNTY, OHIO**

| | Chemical Group | | | | EPA Appendix IV Constituents | | | | | | | | | | | | | Radiological | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Chemical Name | | | | Antimony, total | Arsenic, total | Barium, total | Beryllium, total | Cadmium, total | Chromium, total | Cobalt, total | Fluoride | Lead, total | Lithium, total | Mercury, total | Molybdenum, total | Selenium, total | Thallium, total | Radium-226 | Radium-228 | Radium-226 & 228 |
| | US EPA MCL/RSL (THQ=1.0) | | | | 0.006 | 0.01 | 2 | 0.004 | 0.005 | 0.1 | 0.006 | 4 | 0.015 | 0.04 | 0.002 | 0.1 | 0.05 | 0.002 | - | - | 5 |
| | Units | | | | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | pCi/L | pCi/L | pCi/L |
| | Well Location | Sample Reason | Sample Date | Sample Name | | | | | | | | | | | | | | | | | |
| | LANDFILL 11 | | | | | | | | | | | | | | | | | | | | |
| Downgradient | MW11-1 | *Assessment* | 03/04/2020 | MW11-1-030420-1500 | < 0.00057 | **0.0009 J** | **0.042** | < 0.00031 | **0.00022 J** | < 0.00098 | **0.00037 J** | **0.27** | < 0.00045 | **0.02** | < 0.00013 | **0.7** | **0.014** | < 0.0002 | 0.0461 U ± 0.0683 | 0.157 U ± 0.248 | 0.203 U ± 0.257 |
| | MW11-1 | *Assessment* | 10/01/2020 | MW11-1-100120-1002 | < 0.0075 | < 0.0041 | **0.048 J** | **0.00061 J** | < 0.0002 | **0.001 J** | < 0.00075 | **0.29** | < 0.0028 | **0.019 J** | < 0.00013 | **0.71** | **0.022** | **0.0029 J** | -0.0275 U ± 0.0965 | 0.362 U ± 0.251 | 0.334 U ± 0.269 |
| | MW11-2 | *Assessment* | 03/03/2020 | MW11-2-030320-1712 | < 0.00057 | < 0.00075 | **0.053** | < 0.00031 | < 0.0002 | < 0.00098 | < 0.00019 | **0.19** | < 0.00045 | **0.015** | < 0.00013 | **0.011** | **0.012** | < 0.0002 | 0.0906 U ± 0.101 | 0.178 U ± 0.243 | 0.269 U ± 0.263 |
| | MW11-3 | *Assessment* | 03/04/2020 | MW11-3-030420-1205 | < 0.00057 | **0.00082 J** | **0.041** | < 0.00031 | < 0.0002 | < 0.00098 | **0.00021 J** | **0.2** | < 0.00045 | **0.015** | < 0.00013 | **0.0025 J** | **0.004 J** | < 0.0002 | 0.0522 U ± 0.0684 | 0.0595 U ± 0.208 | 0.112 U ± 0.219 |
| | MW11-4 | *Assessment* | 03/03/2020 | MW11-4-030320-1042 | < 0.00057 | **0.00086 J** | **0.046** | < 0.00031 | < 0.0002 | < 0.00098 | < 0.00019 | **0.22** | < 0.00045 | **0.031** | < 0.00013 | < 0.0011 | **0.001 J** | **0.00037 J** | 0.00579 U ± 0.100 | 0.309 U ± 0.370 | 0.315 U ± 0.383 |
| | MW11-5 | *Assessment* | 03/04/2020 | MW11-5-030420-1331 | < 0.00057 | < 0.00075 | **0.057** | < 0.00031 | < 0.0002 | **0.0011 J** | **0.00036 J** | **0.17** | < 0.00045 | **0.039** | < 0.00013 | **0.0014 J** | **0.0039 J** | < 0.0002 | 0.113 U ± 0.117 | 0.17 U ± 0.460 | 0.283 U ± 0.475 |
| | MW11-6 | *Assessment* | 03/05/2020 | MW11-6-030520-1159 | < 0.00057 | < 0.00075 | **0.034** | < 0.00031 | < 0.0002 | < 0.00098 | < 0.00019 | **0.19** | < 0.00045 | **0.029** | < 0.00013 | < 0.0011 | < 0.00089 | < 0.0002 | 0.0807 U ± 0.0934 | 0.252 U ± 0.216 | 0.333 U ± 0.235 |
| | MW11-6 | *Assessment* | 09/30/2020 | MW11-6-093020-1450 | < 0.0075 | < 0.0041 | **0.044 J** | < 0.0006 | **0.00024 J** | **0.0011 J** | < 0.00075 | **0.18** | < 0.0028 | **0.034 J** | < 0.00013 | < 0.0049 | < 0.006 | < 0.0027 | 0.0431 U ± 0.124 | 0.0501 U ± 0.259 | 0.0932 U ± 0.287 |
| | MW11-7 | *Assessment* | 03/05/2020 | MW11-7-030520-1005 | < 0.00057 | **0.0012 J** | **0.031** | < 0.00031 | < 0.0002 | < 0.00098 | **0.00033 J** | **0.22** | < 0.00045 | **0.0034 J** | < 0.00013 | < 0.0011 | < 0.00089 | < 0.0002 | 0.049 U ± 0.0675 | **0.523 ± 0.265** | **0.572 ± 0.273** |
| | MW11-7 | *Assessment* | 09/30/2020 | MW11-7-093020-1040 | < 0.0075 | < 0.0041 | **0.031 J** | < 0.0006 | **0.00022 J** | < 0.00063 | < 0.00075 | **0.21** | < 0.0028 | **0.013 J** | < 0.00013 | < 0.0049 | < 0.006 | < 0.0027 | 0.205 U ± 0.185 | -0.0307 U ± 0.237 | 0.174 U ± 0.301 |
| N&E | MW11-3I | *Assessment* | 03/04/2020 | MW11-3I-030420-1157 | < 0.00057 | **0.0008 J** | **0.042** | < 0.00031 | < 0.0002 | < 0.00098 | **0.0012** | **0.22** | **0.00047 J** | **0.042** | < 0.00013 | **0.0016 J** | **0.0085** | < 0.0002 | -0.0163 U ± 0.0606 | 0.378 U ± 0.280 | 0.362 U ± 0.286 |
| | MW11-5I | *Assessment* | 03/04/2020 | MW11-5I-030420-1320 | < 0.00057 | **0.0014 J** | **0.04** | < 0.00031 | < 0.0002 | **0.0021** | **0.0019** | **0.24** | **0.00067 J** | **0.086** | < 0.00013 | **0.0076** | < 0.00089 | < 0.0002 | 0.0471 U ± 0.0841 | 0.31 U ± 0.257 | 0.357 U ± 0.270 |
| Upgradient | MW11-8 | *Assessment* | 03/03/2020 | MW11-8-030320-1220 | < 0.00057 | < 0.00075 | **0.045** | < 0.00031 | < 0.0002 | < 0.00098 | < 0.00019 | **0.23** | < 0.00045 | **0.0054 J** | < 0.00013 | < 0.0011 | < 0.00089 | < 0.0002 | 0.0947 U ± 0.080 | 0.101 U ± 0.189 | 0.196 U ± 0.205 |
| | MW11-8 | *Assessment* | 09/30/2020 | MW11-8-093020-1745 | < 0.0075 | < 0.0041 | **0.043 J** | < 0.0006 | **0.00028 J** | **0.0008 J** | < 0.00075 | **0.24** | < 0.0028 | **0.012 J** | < 0.00013 | < 0.0049 | < 0.006 | < 0.0027 | 0.0792 U ± 0.118 | 0.0952 U ± 0.359 | 0.174 U ± 0.378 |
| | MW11-9 | *Assessment* | 03/03/2020 | MW11-9-030320-1416 | < 0.00057 | **0.00097 J** | **0.074** | **0.0004 J** | < 0.0002 | < 0.00098 | **0.00036 J** | **0.11** | < 0.00045 | **0.0021 J** | < 0.00013 | < 0.0011 | < 0.00089 | **0.00087 J** | **0.103 ± 0.0736** | 0.264 U ± 0.245 | 0.367 U ± 0.256 |
| | MW11-9 | *Assessment* | 09/30/2020 | MW11-9-093020-1225 | < 0.0075 | < 0.0041 | **0.016 J** | < 0.0006 | **0.00035 J** | < 0.00063 | < 0.00075 | **0.12** | < 0.0028 | **0.011 J** | < 0.00013 | < 0.0049 | < 0.006 | < 0.0027 | 0.0717 U ± 0.114 | -0.0958 U ± 0.235 | -0.0240 U ± 0.261 |
| | MW11-10 | *Assessment* | 03/03/2020 | MW11-10-030320-1545 | < 0.00057 | < 0.00075 | **0.064** | < 0.00031 | < 0.0002 | < 0.00098 | < 0.00019 | **0.18** | < 0.00045 | **0.0052 J** | < 0.00013 | < 0.0011 | < 0.00089 | < 0.0002 | -0.0134 U ± 0.0472 | 0.12 U ± 0.200 | 0.106 U ± 0.205 |
| | MW11-10 DUP | *Assessment* | 03/03/2020 | MW-99A-030320-2000 | < 0.00057 | < 0.00075 | **0.065** | < 0.00031 | < 0.0002 | < 0.00098 | < 0.00019 | **0.19** | < 0.00045 | **0.0035 J** | < 0.00013 | < 0.0011 | < 0.00089 | < 0.0002 | -0.0944 U ± 0.143 | 0.356 U ± 0.249 | 0.262 U ± 0.287 |
| | MW11-10 | *Assessment* | 09/30/2020 | MW11-10-093020-0910 | < 0.0075 | < 0.0041 | **0.062 J** | < 0.0006 | < 0.0002 | < 0.00063 | < 0.00075 | **0.16** | < 0.0028 | **0.0091 J** | < 0.00013 | < 0.0049 | < 0.006 | < 0.0027 | 0.00464 U ± 0.0729 | 0.136 U ± 0.328 | 0.141 U ± 0.336 |

**Notes:**
**Bold** indicates detected concentration
Shaded values exceed criteria
mg/L - milligram per liter
MCL - Maximum Contaminant Level
SU - standard units
mV - millivolt
mS/cm - milliSiemen per centimeter
RSL - Regional Screening Level
THQ - Target Hazard Quotient
US EPA - United States Environmental Protection Agency
HF - Field parameter with a holding time of 15 minutes
H - Sample was prepped or analyzed beyond spcified holding time.
J - Estimated result
B - Blank contamination
G - Sample MDC is greater than the requested RL
NTU - Nephelometric Turbidity Units
°C - degrees Celcius
"-" - Denotes constituent not required to be sampled during this event
pCi/L - picoCurie per liter
N&E - Nature and Extent

# TABLE 3
# POND 5 MONITORING SYSTEM GROUNDWATER SAMPLE ANALYTICAL DATA
# 2020 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
# FORMER J.M. STUART ELECTRIC GENERATION STATION
# SPRIGG TOWNSHIP, ADAMS COUNTY, OHIO

| | | | | | Chemical Group | Field Parameters | | | | | | EPA Appendix III Constituents | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Chemical Name | Conductivity | Dissolved Oxygen | ORP | pH | Temperature | Turbidity | Boron, Total | Calcium, Total | Chloride | Fluoride | pH (lab) | Sulfate | Total Dissolved Solids (TDS) |
| | | | | | US EPA MCL/RSL (THQ=1.0) | - | - | - | - | - | - | - | - | - | 4 | - | - | - |
| | | | | | Units | mS/cm | mg/L | mV | SU | °C | NTU | mg/L | mg/L | mg/L | mg/L | SU | mg/L | mg/L |
| | Well Location | Sample Reason | Sample Date | Sample Name | | | | | | | | | | | | | | |
| Downgradient | MW5-1 | *Assessment* | 03/03/2020 | MW5-1-030320-1005 | | 0.938 | 0.60 | -40.9 | 6.80 | 16.40 | 15.7 | **2.2** | **110** | **110** | **0.15 J** | **7.1 HF** | **120** | **640** |
| | MW5-1 | *Assessment* | 09/29/2020 | MW5-1-092920-1040 | | 0.844 | 0.81 | -101.9 | 6.79 | 18.10 | 8.42 | **1.8 B** | **92** | **110** | **0.16** | **6.9 HF** | **140** | **560** |
| | MW5-2 | *Assessment* | 03/03/2020 | MW5-2-030320-1201 | | 0.627 | 1.38 | -97.5 | 7.13 | 12.53 | 22.8 | **0.061 J** | **75** | **36** | **0.16** | **7.4 HF** | **21** | **410** |
| | MW5-2 | *Assessment* | 09/29/2020 | MW5-2-092920-0830 | | 1.130 | 0.76 | -204.6 | 6.84 | 18.30 | 24.2 | **0.097 JB** | **120** | **74** | **0.25** | **7 HF** | **2.1** | **590** |
| | MW5-3 | *Assessment* | 03/03/2020 | MW5-3-030320-1322 | | 3.286 | 0.19 | -144.3 | 6.89 | 15.81 | 4.26 | **5** | **270** | **750** | **0.44** | **6.9 HF** | **6.4 J** | **1900** |
| | MW5-3 | *Assessment* | 09/29/2020 | MW5-3-092920-1320 | | 3.145 | 0.78 | -173.3 | 6.90 | 17.30 | 5.21 | **5 B** | **270** | **910** | **0.43** | **6.7 HF** | < 0.35 | **1600** |
| | MW5-4 | *Assessment* | 03/03/2020 | MW5-4-030320-1459 | | 1.002 | 1.13 | -129.1 | 6.86 | 15.25 | 28.5 | **0.11** | **85** | **44** | **0.30** | **7.1 HF** | **11** | **510** |
| | MW5-4 | *Assessment* | 09/29/2020 | MW5-4-092920-0933 | | 1.256 | 0.79 | -170.1 | 6.62 | 17.30 | 10.12 | **0.13 B** | **90** | **140** | **0.26** | **6.7 HF** | **1.1** | **590** |
| | MW5-5 | *Assessment* | 03/03/2020 | MW5-5-030320-1702 | | 1.357 | 1.27 | -44.6 | 6.24 | 13.64 | 10.21 | **0.41** | **120** | **170** | **0.11** | **6.6 HF** | **18** | **710** |
| | MW5-5 | *Assessment* | 09/29/2020 | MW5-5-092920-1145 | | 2.647 | 0.76 | -124.2 | 6.33 | 19.20 | 5.39 | **1.2 B** | **180** | **590** | **0.12** | **6.4 HF** | **6.1** | **1100** |
| | MW5-6 | *Assessment* | 03/04/2020 | MW5-6-030420-1108 | | 2.920 | 0.27 | 34.5 | 6.56 | 20.43 | 9.31 | **14** | **370** | **600** | **0.23** | **7 HF** | **580** | **1900** |
| | MW5-6 | *Assessment* | 09/29/2020 | MW5-6-092920-1608 | | 2.836 | 0.94 | 22.9 | 6.62 | 21.70 | 15.9 | **15 B** | **410** | **700** | **0.25** | **6.7 HF** | **870** | **1900** |
| | MW5-7 | *Assessment* | 03/04/2020 | MW5-7-030420-1538 | | 0.601 | 0.41 | 119.2 | 6.80 | 19.39 | 11.6 | **0.43** | **72** | **18** | **0.35** | **7.2 HF** | **140** | **410** |
| | MW5-7 | *Assessment* | 09/29/2020 | MW5-7-092920-1303 | | 0.610 | 0.88 | 34.5 | 6.93 | 20.05 | 25.3 | **0.45** | **63** | **43** | **0.34** | **6.9 HF** | **140** | **400** |
| N&E | MW5-8I | *Assessment* | 03/04/2020 | MW5-8I-030420-0947 | | 3.285 | 0.73 | 77.4 | 6.86 | 16.28 | 7.36 | **16** | **460** | **680** | **0.09** | **7.2 HF** | **600** | **1900** |
| | MW5-8I | *Assessment* | 09/29/2020 | MW5-8I-092920-1425 | | 3.371 | 0.87 | 8.8 | 6.81 | 17.00 | 9.76 | **16 B** | **510** | **860** | **0.074** | **7 HF** | **760** | **1800** |

**Notes:**
**Bold** indicates detected concentration
Shaded values exceed criteria
mg/L - milligram per liter
MCL - Maximum Contaminant Level
SU - standard units
mV - millivolt
mS/cm - milliSiemen per centimeter
RSL - Regional Screening Level
THQ - Target Hazard Quotient
US EPA - United States Environmental Protection Agency
HF - Field parameter with a holding time of 15 minutes
J - Estimated result
B - Blank contamination
G - Sample MDC is greater thane the requested RL
NTU - Nephelometric Turbidity Units
°C - degrees Celsius
"-" - Denotes constituent not required to be sampled during this event
pCi/L - picoCurie per liter
N&E - Nature and Extent

# TABLE 3
# POND 5 MONITORING SYSTEM GROUNDWATER SAMPLE ANALYTICAL DATA
# 2020 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
# FORMER J.M. STUART ELECTRIC GENERATION STATION
# SPRIGG TOWNSHIP, ADAMS COUNTY, OHIO

| | Chemical Group | | | | EPA Appendix IV Constituents | | | | | | | | | | | | | Radiological | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Chemical Name | | | | Antimony, total | Arsenic, total | Barium, total | Beryllium, total | Cadmium, total | Chromium, total | Cobalt, total | Fluoride | Lead, total | Lithium, total | Mercury, total | Molybdenum, total | Selenium, total | Thallium, total | Radium-226 | Radium-228 | Radium-226 & 228 |
| | US EPA MCL/RSL (THQ=1.0) | | | | 0.006 | 0.01 | 2 | 0.004 | 0.005 | 0.1 | 0.006 | 4 | 0.015 | 0.04 | 0.002 | 0.1 | 0.05 | 0.002 | - | - | 5 |
| | Units | | | | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | pCi/L | pCi/L | pCi/L |
| | Well Location | Sample Reason | Sample Date | Sample Name | | | | | | | | | | | | | | | | | |
| Downgradient | MW5-1 | *Assessment* | 03/03/2020 | MW5-1-030320-1005 | < 0.00057 | **0.0087** | **0.15** | **0.00033 J** | **0.00021 J** | < 0.00098 | **0.0028** | **0.15 J** | < 0.00045 | **0.0037 J** | < 0.00013 | **0.0027 J** | < 0.00089 | **0.00066 J** | 0.241 U ± 0.189 | 0.152 U ± 0.244 | 0.392 U ± 0.309 |
| | MW5-1 | *Assessment* | 09/29/2020 | MW5-1-092920-1040 | < 0.0075 | **0.0071 J** | **0.12 J** | < 0.0006 | **0.00042 J** | < 0.00063 | **0.0024 JB** | **0.16** | < 0.0028 | < 0.0067 | < 0.00013 | < 0.0049 | < 0.006 | **0.026** | **0.200 ± 0.122** | 0.194 U ± 0.266 | 0.394 U ± 0.293 |
| | MW5-2 | *Assessment* | 03/03/2020 | MW5-2-030320-1201 | < 0.00057 | **0.015** | **0.25** | < 0.00031 | < 0.0002 | **0.0013 J** | **0.0032** | **0.16** | **0.0007 J** | **0.0044 J** | < 0.00013 | **0.0032 J** | < 0.00089 | < 0.0002 | **0.337 ± 0.241** | 0.268 U ± 0.354 | **0.605 ± 0.428** |
| | MW5-2 | *Assessment* | 09/29/2020 | MW5-2-092920-0830 | < 0.0075 | **0.037** | **0.470** | < 0.0006 | **0.00048 J** | **0.0012 J** | **0.0017 JB** | **0.25** | < 0.0028 | < 0.0067 | < 0.00013 | < 0.0049 | **0.0074 J** | **0.011 J** | 0.259 U ± 0.265 | 0.277 U ± 0.390 | 0.536 U ± 0.472 |
| | MW5-3 | *Assessment* | 03/03/2020 | MW5-3-030320-1322 | < 0.00057 | **0.06** | **2.4** | < 0.00031 | < 0.0002 | **0.0012 J** | **0.019** | **0.44** | < 0.00045 | < 0.0017 | < 0.00013 | **0.0067** | < 0.00089 | < 0.0002 | **3.96 ± 0.728** | **2.54 ± 0.514** | **6.5 ± 0.891** |
| | MW5-3 | *Assessment* | 09/29/2020 | MW5-3-092920-1320 | < 0.0075 | **0.059** | **2** | < 0.0006 | **0.00058 J** | < 0.00063 | **0.018 B** | **0.43** | < 0.0028 | < 0.0067 | < 0.00013 | **0.0061 J** | < 0.006 | **0.0065 J** | **4.51 ± 0.668** | **2.40 ± 0.590** | **6.91 ± 0.891** |
| | MW5-4 | *Assessment* | 03/03/2020 | MW5-4-030320-1459 | < 0.00057 | **0.051** | **0.48** | < 0.00031 | < 0.0002 | **0.0011 J** | **0.0021** | **0.30** | **0.00068 J** | < 0.0017 | < 0.00013 | < 0.0011 | < 0.00089 | < 0.0002 | **0.531 ± 0.281** | **0.704 ± 0.378** | **1.23 ± 0.471** |
| | MW5-4 | *Assessment* | 09/29/2020 | MW5-4-092920-0933 | < 0.0075 | **0.074** | **0.48** | < 0.0006 | **0.00027 J** | < 0.00063 | < 0.00075 | **0.26** | < 0.0028 | < 0.0067 | < 0.00013 | < 0.0049 | **0.0063 J** | **0.0043 J** | **0.674 ± 0.368** | 0.0179 U ± 0.397 | 0.692 U ± 0.541 |
| | MW5-5 | *Assessment* | 03/03/2020 | MW5-5-030320-1702 | < 0.00057 | **0.064** | **0.49** | < 0.00031 | < 0.0002 | **0.0022** | **0.015** | **0.11** | **0.00075 J** | **0.0054 J** | < 0.00013 | **0.0023 J** | < 0.00089 | < 0.0002 | **0.719 ± 0.312** | 0.445 U ± 0.361 | **1.16 ± 0.477** |
| | MW5-5 | *Assessment* | 09/29/2020 | MW5-5-092920-1145 | < 0.0075 | **0.021** | **0.65** | < 0.0006 | **0.00057 J** | **0.0021 J** | **0.0063 JB** | **0.12** | < 0.0028 | < 0.0067 | < 0.00013 | < 0.0049 | < 0.006 | **0.0072 J** | **0.736 ± 0.241** | **0.972 ± 0.447** | **1.71 ± 0.508** |
| | MW5-6 | *Assessment* | 03/04/2020 | MW5-6-030420-1108 | < 0.00057 | < 0.00075 | **0.082** | < 0.00031 | **0.00059 J** | **0.0017 J** | **0.0042** | **0.23** | < 0.00045 | **0.012** | < 0.00013 | **0.0042 J** | < 0.00089 | **0.00024 J** | 0.174 U ± 0.155 | **0.392 ± 0.248** | **0.566 ± 0.292** |
| | MW5-6 | *Assessment* | 09/29/2020 | MW5-6-092920-1608 | < 0.0075 | < 0.0041 | **0.05 J** | < 0.0006 | **0.00069 J** | < 0.00063 | **0.0023 JB** | **0.25** | < 0.0028 | **0.015 J** | < 0.00013 | < 0.0049 | < 0.006 | **0.021** | 0.0629 U ± 0.0969 | 0.369 U ± 0.307 | 0.432 U ± 0.322 |
| | MW5-7 | *Assessment* | 03/04/2020 | MW5-7-030420-1538 | < 0.00057 | **0.0012 J** | **0.056** | < 0.00031 | < 0.0002 | **0.0013 J** | **0.0019** | **0.35** | **0.0012** | **0.0038 J** | < 0.00013 | **0.0013 J** | < 0.00089 | < 0.0002 | -0.013 U ± 0.151 | 0.301 U ± 0.271 | 0.288 U ± 0.310 |
| | MW5-7 | *Assessment* | 09/29/2020 | MW5-7-092920-1303 | < 0.0075 | < 0.0041 | **0.062 J** | < 0.0006 | **0.00034 J** | **0.008 J** | **0.0032 J** | **0.34** | < 0.0028 | < 0.0067 | < 0.00013 | **0.01 J** | < 0.006 | < 0.0027 | 0.283 U ± 0.213 | -0.102 UG ± 0.621 | 0.181 U ± 0.657 |
| N&E | MW5-8I | *Assessment* | 03/04/2020 | MW5-8I-030420-0947 | < 0.00057 | < 0.00075 | **0.064** | < 0.00031 | **0.00039 J** | < 0.00098 | **0.0034** | **0.09** | < 0.00045 | **0.0058 J** | < 0.00013 | < 0.0011 | < 0.00089 | < 0.0002 | 0.0192 U ± 0.113 | **1.08 ± 0.351** | **1.1 ± 0.369** |
| | MW5-8I | *Assessment* | 09/29/2020 | MW5-8I-092920-1425 | < 0.0075 | < 0.0041 | **0.063 J** | < 0.0006 | **0.0017 J** | < 0.00063 | **0.0012 JB** | **0.074** | < 0.0028 | **0.011 J** | < 0.00013 | < 0.0049 | < 0.006 | **0.0059 J** | **0.205 ± 0.130** | 0.155 U ± 0.299 | 0.360 U ± 0.326 |

**Notes:**

**Bold** indicates detected concentration
Shaded values exceed criteria
mg/L - milligram per liter
MCL - Maximum Contaminant Level
SU - standard units
mV - millivolt
mS/cm - milliSiemen per centimeter
RSL - Regional Screening Level
THQ - Target Hazard Quotient
US EPA - United States Environmental Protection Agency
HF - Field parameter with a holding time of 15 minutes
J - Estimated result
B - Blank contamination
G - Sample MDC is greater thane the requested RL
NTU - Nephelometric Turbidity Units
°C - degrees Celsius
"-" - Denotes constituent not required to be sampled during this event
pCi/L - picoCurie per liter
N&E - Nature and Extent

# TABLE 4
# LANDFILL 9 MONITORING SYSTEM GROUNDWATER SAMPLE ANALYTICAL DATA
# 2020 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
# FORMER J.M. STUART ELECTRIC GENERATION STATION
# SPRIGG TOWNSHIP, ADAMS COUNTY, OHIO

| | | | | | Field Parameters | | | | | | EPA Appendix III Constituents | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Chemical Group | | | | | | | | | | | | | |
| | | | | Chemical Name | Conductivity | Dissolved Oxygen | ORP | pH | Temperature | Turbidity | Boron, Total | Calcium, Total | Chloride | Fluoride | pH (lab) | Sulfate | Total Dissolved Solids (TDS) |
| | | | | US EPA MCL/RSL (THQ=1.0) | - | - | - | - | - | - | - | - | - | 4 | - | - | - |
| | | | | Units | mS/cm | mg/L | mV | SU | °C | NTU | mg/L | mg/L | mg/L | mg/L | SU | mg/L | mg/L |
| | Well Location | Sample Reason | Sample Date | Sample Name | | | | | | | | | | | | | |
| Upgradient | MW-N00 | *Assessment* | 03/05/2020 | MW-N00-030520-1706 | 0.911 | 6.01 | 38.7 | 6.83 | 13.66 | 7.99 | **0.057 J** | **140** | **41** | **0.11** | **7.4 HF** | **150** | **580** |
| | MW-N00 | *Assessment* | 09/30/2020 | MW-N00-093020-1643 | 1.040 | 7.06 | 72.3 | 6.85 | 15.87 | 0.89 | **0.059 J** | **160** | **16** | **0.14** | **7.2 HF** | **160** | **550** |
| | MW-12 | *Assessment* | 03/04/2020 | MW-12-030420-1714 | 0.647 | 2.25 | 166.7 | 6.70 | 10.70 | 2.97 | **0.027 J** | **120** | **14** | **0.09** | **7.2 HF** | **17** | **400** |
| | MW-12 | *Assessment* | 10/01/2020 | MW-12-100120-0810 | 0.774 | 1.05 | 41.6 | 6.66 | 15.73 | 19.2 | **0.036 J** | **140** | **57** | **0.057** | **6.9 HF** | **40** | **480** |
| Downgradient | MW-10 | *Assessment* | 03/05/2020 | MW-10-030520-0942 | 0.208 | 2.30 | 207.3 | 7.54 | 12.73 | 5.96 | < 0.023 | **24** | **6** | **0.087** | **6.6 HF** | **27** | **150** |
| | MW-10 | *Assessment* | 09/30/2020 | MW-10-093020-1655 | 0.120 | 2.91 | 102.2 | 5.67 | 17.31 | 4.41 | < 0.023 | **11** | **6.3** | **0.064** | **6.1 HF** | **13** | **72** |
| | MW-11 | *Assessment* | 03/05/2020 | MW-11-030520-1216 | 0.156 | 1.93 | 201.7 | 6.97 | 13.01 | 4.96 | < 0.023 | **19** | **0.93 J** | **0.071** | **6.8 HF** | **25** | **100** |
| | MW-11 | *Assessment* | 09/30/2020 | MW-11-093020-1325 | 0.168 | 1.00 | 211.6 | 6.93 | 16.81 | 3.86 | < 0.023 | **21** | **0.82 J** | **0.092** | **6.7 HF** | **13** | **110** |
| | MW-24 | *Assessment* | 03/05/2020 | MW-24-030520-1424 | 0.569 | 3.28 | 34.1 | 6.72 | 12.92 | 30.4 | **0.066 J** | **93** | **5** | **0.13** | **7.3 HF** | **17** | **360** |
| | MW-24 | *Assessment* | 09/29/2020 | MW-24-092920-0859 | 0.517 | 2.71 | 160.5 | 7.08 | 13.14 | 43.4 | **0.081 JB** | **89** | **5.3** | **0.11** | **7 HF** | **17** | **300** |
| | MW-3B | *Assessment* | 03/05/2020 | MW-3B-030520-1542 | 0.706 | 2.76 | 32.1 | 6.70 | 14.14 | 2.06 | **0.15** | **120** | **9.9** | **0.28** | **7.3 HF** | **37** | **440** |
| | MW-3B | *Assessment* | 09/30/2020 | MW-3B-093020-1525 | 0.715 | 1.51 | 5.7 | 6.40 | 15.37 | 1.00 | **0.11** | **110** | **11** | **0.23** | **6.8 HF** | **43** | **430** |
| | MW-4 | *Assessment* | 03/05/2020 | MW-4-030520-1333 | 0.204 | 3.51 | 160.6 | 9.20 | 14.37 | 2.66 | **0.043 J** | **29** | **2.3** | **0.046 J** | **6.5 HF** | **30** | **130** |
| | MW-4 | *Assessment* | 10/01/2020 | MW-4-100120-0845 | 0.191 | 0.33 | 89.1 | 5.43 | 14.86 | 2.11 | **0.16** | **23** | **2.4** | **0.069** | **6.2 HF** | **42** | **110** |
| | MW-5A | *Assessment* | 03/04/2020 | MW-5A-030420-1600 | 0.119 | 0.37 | 116.9 | 6.18 | 14.00 | 21.9 | **0.086 J** | **16** | **1.9** | **0.22** | **6.8 HF** | **19** | **100** |
| | MW-5A | *Assessment* | 09/30/2020 | MW-5A-093020-1225 | 0.157 | 0.58 | 35.6 | 5.80 | 14.75 | 3.98 | < 0.023 | **94** | **12** | **0.17** | **6.6 HF** | **25** | **410** |
| | MW-9 | *Assessment* | 03/05/2020 | MW-9-030520-1055 | 0.106 | 0.65 | 232.8 | 6.52 | 13.43 | 7.11 | < 0.023 | **11** | **1.6** | **0.028 J** | **5.7 HF** | **35** | **95** |
| | MW-9 | *Assessment* | 09/30/2020 | MW-9-093020-1055 | 0.114 | 1.28 | 69.0 | 5.09 | 14.82 | 3.46 | < 0.023 | **12** | **9.9** | **0.037 J** | **5.6 HF** | **27** | **92** |
| | MW-9 DUP | *Assessment* | 09/30/2020 | M-99A-093020-2200 | - | - | - | - | - | - | < 0.023 | **11** | **9.9** | **0.033 J** | **5.6 HF** | **27** | **84** |
| | MW-B5 | *Assessment* | 03/03/2020 | MW-B5-030320-1549 | 0.781 | 7.88 | 230.6 | 6.84 | 12.20 | 3.06 | **0.098 J** | **130** | **9.9** | **0.13** | **7.4 HF** | **49** | **480** |
| | MW-B5 | *Assessment* | 09/30/2020 | MW-B5-093020-1815 | 0.996 | 7.79 | 71.9 | 6.86 | 16.10 | 0.15 | **0.079 J** | **130** | **9.4** | **0.15** | **7.2 HF** | **56** | **490** |
| | MW-L7A | *Assessment* | 03/04/2020 | MW-L7A-030420-1450 | 0.152 | 0.30 | 248.0 | 5.60 | 14.40 | 8.69 | < 0.023 | **16** | **2.3** | **0.057** | **6.1 HF** | **33** | **110** |
| | MW-L7A | *Assessment* | 09/30/2020 | MW-L7A-093020-1540 | 0.149 | 0.45 | 134.8 | 5.61 | 15.09 | 2.52 | < 0.023 | **16** | **2.2** | **0.064** | **6 HF** | **33** | **92** |

**Notes:**
**Bold** indicates detected concentration
Shaded values exceed criteria
mg/L - milligram per liter
MCL - Maximum Contaminant Level
SU - standard units
mV - millivolt
mS/cm - milliSiemen per centimeter
RSL - Regional Screening Level
THQ - Target Hazard Quotient
US EPA - United States Environmental Protection Agency
HF - Field parameter with a holding time of 15 minutes, Sample was prepped or analyzed beyond the specified holding time.

J - Estimated result
B - Blank contamination
NTU - Nephelometric Turbidity Units
°C - degrees Celsius
"-" - Denotes constituent not required to be sampled during this event
pCi/L - picoCurie per liter

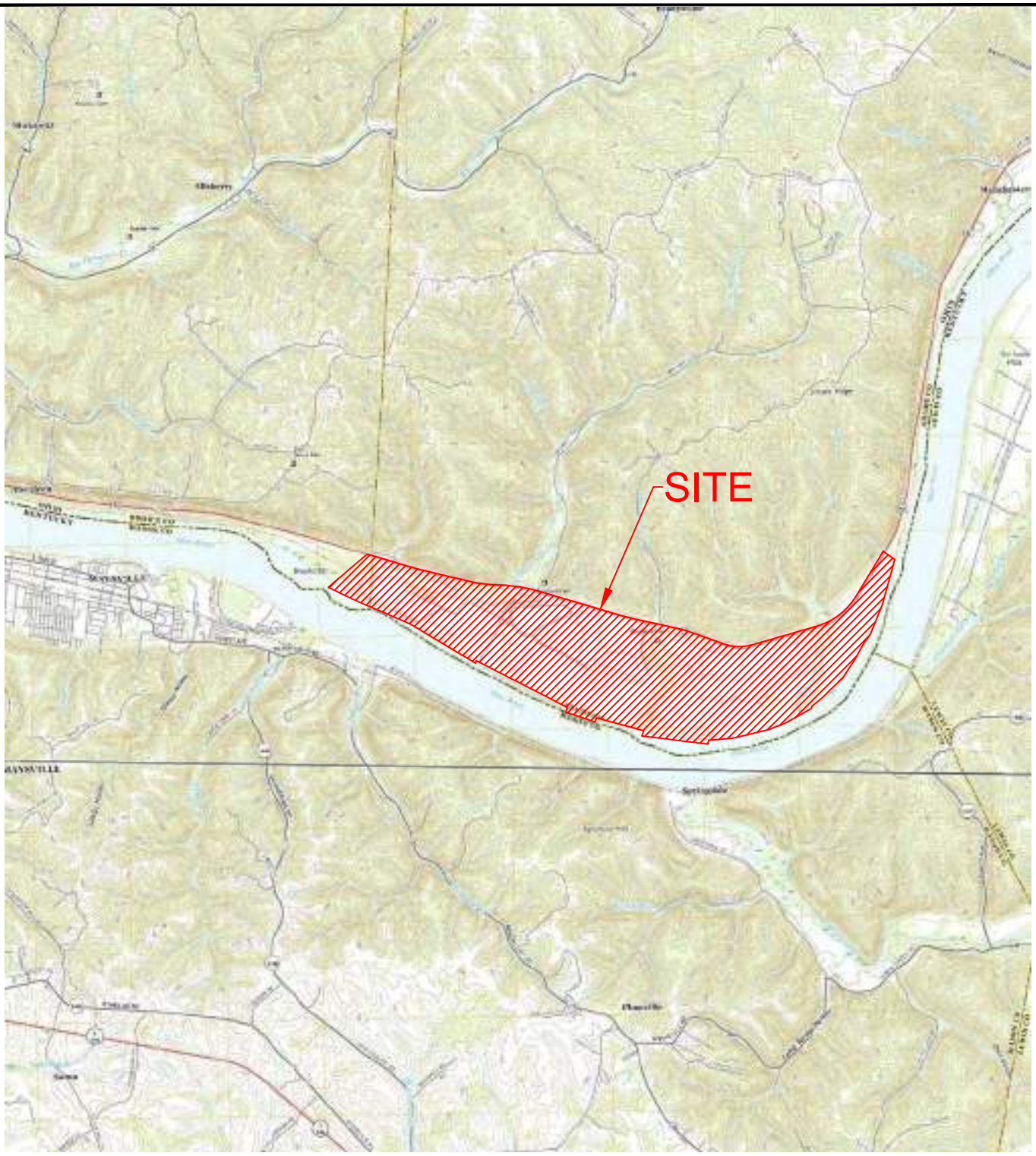
# TABLE 4
# LANDFILL 9 MONITORING SYSTEM GROUNDWATER SAMPLE ANALYTICAL DATA
# 2020 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
# FORMER J.M. STUART ELECTRIC GENERATION STATION
# SPRIGG TOWNSHIP, ADAMS COUNTY, OHIO

| | | | | | EPA Appendix IV Constituents | | | | | | | | | | | | | Radiological | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Chemical Name | Antimony, total | Arsenic, total | Barium, total | Beryllium, total | Cadmium, total | Chromium, total | Cobalt, total | Fluoride | Lead, total | Lithium, total | Mercury, total | Molybdenum, total | Selenium, total | Thallium, total | Radium-226 | Radium-228 | Radium-226 & 228 |
| | | | | US EPA MCL/RSL (THQ=1.0) | 0.006 | 0.01 | 2 | 0.004 | 0.005 | 0.1 | 0.006 | 4 | 0.015 | 0.04 | 0.002 | 0.1 | 0.05 | 0.002 | - | - | 5 |
| | | | | Units | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | pCi/L | pCi/L | pCi/L |
| | Well Location | Sample Reason | Sample Date | Sample Name | | | | | | | | | | | | | | | | | |
| Upgradient | MW-N00 | *Assessment* | 03/05/2020 | MW-N00-030520-1706 | < 0.00057 | **0.0013 J** | **0.064** | < 0.00031 | < 0.0002 | **0.0013 J** | **0.0019** | **0.11** | **0.0011** | **0.0046 J** | < 0.00013 | < 0.0011 | < 0.00089 | < 0.0002 | 0.0967 U ± 0.0928 | 0.175 U ± 0.215 | 0.271 U ± 0.234 |
| | MW-N00 | *Assessment* | 09/30/2020 | MW-N00-093020-1643 | < 0.0075 | < 0.0041 | **0.056 J** | < 0.0006 | **0.00037 J** | **0.00071 J** | < 0.00075 | **0.14** | < 0.0028 | **0.016 J** | < 0.00013 | < 0.0049 | < 0.006 | < 0.0027 | 0.0828 U ± 0.133 | 0.322 U ± 0.295 | 0.404 U ± 0.324 |
| | MW-12 | *Assessment* | 03/04/2020 | MW-12-030420-1714 | < 0.00057 | < 0.00075 | **0.055** | < 0.00031 | < 0.0002 | < 0.00098 | < 0.00019 | **0.09** | < 0.00045 | **0.0032 J** | < 0.00013 | < 0.0011 | < 0.00089 | < 0.0002 | -0.0286 U ± 0.0586 | 0.131 U ± 0.236 | 0.103 U ± 0.243 |
| | MW-12 | *Assessment* | 10/01/2020 | MW-12-100120-0810 | < 0.0075 | **0.008 J** | **0.27** | < 0.0006 | < 0.0002 | < 0.00063 | < 0.00075 | **0.057** | < 0.0028 | < 0.0067 | < 0.00013 | < 0.0049 | < 0.006 | < 0.0027 | 0.133 U ± 0.135 | 0.233 U ± 0.252 | 0.366 U ± 0.286 |
| Downgradient | MW-10 | *Assessment* | 03/05/2020 | MW-10-030520-0942 | < 0.00057 | < 0.00075 | **0.045** | < 0.00031 | < 0.0002 | **0.003** | **0.00025 J** | **0.087** | < 0.00045 | **0.0026 J** | < 0.00013 | < 0.0011 | < 0.00089 | < 0.0002 | 0.0317 U ± 0.0663 | -0.0269 U ± 0.228 | 0.00484 U ± 0.237 |
| | MW-10 | *Assessment* | 09/30/2020 | MW-10-093020-1655 | < 0.0075 | < 0.0041 | **0.028 J** | < 0.0006 | **0.00042 J** | **0.0051 J** | < 0.00075 | **0.064** | < 0.0028 | < 0.0067 | < 0.00013 | < 0.0049 | < 0.006 | < 0.0027 | -0.00456 U ± 0.0588 | -0.210 U ± 0.237 | -0.215 U ± 0.244 |
| | MW-11 | *Assessment* | 03/05/2020 | MW-11-030520-1216 | < 0.00057 | < 0.00075 | **0.041** | < 0.00031 | < 0.0002 | < 0.00098 | < 0.00019 | **0.071** | < 0.00045 | < 0.0017 | < 0.00013 | < 0.0011 | < 0.00089 | < 0.0002 | 0.0432 U ± 0.0554 | 0.122 U ± 0.232 | 0.165 U ± 0.239 |
| | MW-11 | *Assessment* | 09/30/2020 | MW-11-093020-1325 | < 0.0075 | < 0.0041 | **0.051 J** | < 0.0006 | < 0.0002 | < 0.00063 | **0.0019 J** | **0.092** | < 0.0028 | < 0.0067 | < 0.00013 | < 0.0049 | < 0.006 | **0.004 J** | 0.124 U ± 0.109 | 0.136 U ± 0.321 | 0.259 U ± 0.339 |
| | MW-24 | *Assessment* | 03/05/2020 | MW-24-030520-1424 | < 0.00057 | **0.0022 J** | **0.043** | < 0.00031 | < 0.0002 | **0.0018 J** | **0.0031** | **0.13** | **0.002** | **0.0029 J** | < 0.00013 | < 0.0011 | **0.0013 J** | < 0.0002 | **0.328 ± 0.225** | **1.05 ± 0.587** | **1.38 ± 0.629** |
| | MW-24 | *Assessment* | 09/29/2020 | MW-24-092920-0859 | < 0.0075 | < 0.0041 | **0.042 J** | < 0.0006 | < 0.0002 | **0.0037 J** | **0.0051 JB** | **0.11** | < 0.0028 | < 0.0067 | < 0.00013 | < 0.0049 | < 0.006 | < 0.0027 | **0.640 ± 0.289** | 0.182 U ± 0.549 | 0.822 U ± 0.620 |
| | MW-3B | *Assessment* | 03/05/2020 | MW-3B-030520-1542 | < 0.00057 | < 0.00075 | **0.046** | < 0.00031 | < 0.0002 | < 0.00098 | < 0.00019 | **0.28** | < 0.00045 | **0.0021 J** | < 0.00013 | < 0.0011 | < 0.00089 | < 0.0002 | 0.0635 U ± 0.0679 | 0.106 U ± 0.218 | 0.17 U ± 0.228 |
| | MW-3B | *Assessment* | 09/30/2020 | MW-3B-093020-1525 | < 0.0075 | < 0.0041 | **0.047 J** | < 0.0006 | **0.00021 J** | < 0.00063 | < 0.00075 | **0.23** | < 0.0028 | **0.0077 J** | < 0.00013 | < 0.0049 | < 0.006 | < 0.0027 | 0.132 U ± 0.205 | 0.362 U ± 0.265 | **0.494 ± 0.335** |
| | MW-4 | *Assessment* | 03/05/2020 | MW-4-030520-1333 | < 0.00057 | < 0.00075 | **0.066** | < 0.00031 | < 0.0002 | < 0.00098 | < 0.00019 | **0.046 J** | < 0.00045 | **0.002 J** | < 0.00013 | < 0.0011 | < 0.00089 | < 0.0002 | 0.0655 U ± 0.0756 | 0.248 U ± 0.275 | 0.313 U ± 0.285 |
| | MW-4 | *Assessment* | 10/01/2020 | MW-4-100120-0845 | < 0.0075 | < 0.0041 | **0.06 J** | < 0.0006 | < 0.0002 | < 0.00063 | < 0.00075 | **0.069** | < 0.0028 | < 0.0067 | < 0.00013 | < 0.0049 | < 0.006 | < 0.0027 | 0.0736 U ± 0.131 | 0.394 U ± 0.266 | **0.467 ± 0.297** |
| | MW-5A | *Assessment* | 03/04/2020 | MW-5A-030420-1600 | < 0.00057 | **0.00099 J** | **0.025** | < 0.00031 | < 0.0002 | < 0.00098 | **0.00099 J** | **0.22** | **0.00084 J** | **0.0025 J** | < 0.00013 | < 0.0011 | < 0.00089 | < 0.0002 | 0.121 U ± 0.104 | -0.0242 U ± 0.280 | 0.0965 U ± 0.299 |
| | MW-5A | *Assessment* | 09/30/2020 | MW-5A-093020-1225 | < 0.0075 | < 0.0041 | **0.064 J** | < 0.0006 | < 0.0002 | < 0.00063 | < 0.00075 | **0.17** | < 0.0028 | **0.0085 J** | < 0.00013 | < 0.0049 | < 0.006 | **0.0028 J** | 0.0932 U ± 0.110 | 0.381 U ± 0.361 | 0.474 U ± 0.377 |
| | MW-9 | *Assessment* | 03/05/2020 | MW-9-030520-1055 | < 0.00057 | < 0.00075 | **0.046** | < 0.00031 | < 0.0002 | **0.0017 J** | < 0.00019 | **0.028 J** | < 0.00045 | **0.0029 J** | < 0.00013 | < 0.0011 | < 0.00089 | < 0.0002 | 0.0352 U ± 0.0746 | 0.353 U ± 0.253 | 0.388 U ± 0.264 |
| | MW-9 | *Assessment* | 09/30/2020 | MW-9-093020-1055 | < 0.0075 | < 0.0041 | **0.047 J** | < 0.0006 | **0.00033 J** | **0.0019 J** | < 0.00075 | **0.037 J** | < 0.0028 | **0.0069 J** | < 0.00013 | < 0.0049 | < 0.006 | < 0.0027 | 0.0232 U ± 0.0967 | 0.0801 U ± 0.281 | 0.103 U ± 0.297 |
| | MW-9 DUP | *Assessment* | 09/30/2020 | M-99A-093020-2200 | < 0.0075 | < 0.0041 | **0.046 J** | < 0.0006 | **0.00027 J** | **0.0019 J** | < 0.00075 | **0.033 J** | < 0.0028 | **0.008 J** | < 0.00013 | < 0.0049 | < 0.006 | < 0.0027 | 0.0622 U ± 0.0829 | 0.0887 U ± 0.326 | 0.151 U ± 0.336 |
| | MW-B5 | *Assessment* | 03/03/2020 | MW-B5-030320-1549 | < 0.00057 | < 0.00075 | **0.064** | < 0.00031 | < 0.0002 | < 0.00098 | < 0.00019 | **0.13** | < 0.00045 | **0.0068 J** | < 0.00013 | **0.0027 J** | **0.0027 J** | < 0.0002 | **0.199 ± 0.130** | -0.158 U ± 0.280 | 0.0403 U ± 0.309 |
| | MW-B5 | *Assessment* | 09/30/2020 | MW-B5-093020-1815 | < 0.0075 | < 0.0041 | **0.053 J** | < 0.0006 | **0.00026 J** | < 0.00063 | < 0.00075 | **0.15** | < 0.0028 | **0.014 J** | < 0.00013 | < 0.0049 | < 0.006 | < 0.0027 | 0.248 U ± 0.189 | 0.423 U ± 0.316 | **0.670 ± 0.368** |
| | MW-L7A | *Assessment* | 03/04/2020 | MW-L7A-030420-1450 | < 0.00057 | < 0.00075 | **0.045** | < 0.00031 | **0.00021 J** | < 0.00098 | **0.0021** | **0.057** | < 0.00045 | **0.0023 J** | < 0.00013 | < 0.0011 | < 0.00089 | < 0.0002 | 0.0348 U ± 0.0733 | 0.252 U ± 0.244 | 0.287 U ± 0.255 |
| | MW-L7A | *Assessment* | 09/30/2020 | MW-L7A-093020-1540 | < 0.0075 | < 0.0041 | **0.039 J** | < 0.0006 | **0.00038 J** | < 0.00063 | **0.0016 J** | **0.064** | < 0.0028 | < 0.0067 | < 0.00013 | < 0.0049 | < 0.006 | < 0.0027 | 0.00209 U ± 0.0657 | -0.0362 U ± 0.255 | -0.0341 U ± 0.263 |

**Notes:**
**Bold** indicates detected concentration
Shaded values exceed criteria
mg/L - milligram per liter
MCL - Maximum Contaminant Level
SU - standard units
mV - millivolt
mS/cm - milliSiemen per centimeter
RSL - Regional Screening Level
THQ - Target Hazard Quotient
US EPA - United States Environmental Protection Agency
HF - Field parameter with a holding time of 15 minutes, Sample was prepped or analyzed beyond the specified holding time.

J - Estimated result
B - Blank contamination
NTU - Nephelometric Turbidity Units
°C - degrees Celsius
"-" - Denotes constituent not required to be sampled during this event
pCi/L - picoCurie per liter

# FIGURES




N

OHIO

QUADRANGLE LOCATION

0 5000 10000 FEET

KINGFISHER DEVELOPMENT, LLC

| | | |
|---|---|---|
| DRWN: SCC | DATE: 01/13/21 | KEY ENVIRONMENTAL INCORPORATED |
| CHKD: AJR | DATE: 01/13/21 | |
| APPD: AEF | DATE: 01/29/21 | |
| SCALE: AS SHOWN | | |

2020 ANNUAL GROUNDWATER MONITORING
AND CORRECTIVE ACTION REPORT
FORMER J.M. STUART ELECTRIC GENERATING STATION
SPRIGG TOWNSHIP, ADAMS COUNTY, OHIO

REFERENCE: USGS 7.5 MINUTE TOPOGRAPHIC QUADRANGLE:
- MAYSVILLE EAST, OH-KY, 2019
- ORANGEBURG, KY, 2019

ISSUE DATE:

KEY ENVIRONMENTAL, INC.
200 THIRD AVENUE
CARNEGIE, PA 15106

SITE LOCATION MAP

PROJECT NO: 17-464

FIGURE 1

y:\00civil\commercial liability partners\stuart\production drawings\01_groundwater monitoring\2020 annual report\gw monitoring and ca report\figure 1 site location map.dwg Last Saved By: Scomer 1/13/2021 1:38 PM Plotted By: Shelly Comer 1/27/2021 3:58 PM Scale: 1:1


## LEGEND

- PROPERTY BOUNDARY
- APPROXIMATE WASTE BOUNDARY
- UPGRADIENT MONITORING WELLS
- DOWNGRADIENT MONITORING WELLS
- NATURE AND EXTENT MONITORING WELLS
- OTHER MONITORING WELLS

| REV # | DATE | DESCRIPTION | APPD |
|---|---|---|---|
| 3 | | | |
| 2 | | | |
| 1 | | | |

REFERENCE:

ISSUE DATE:

KEY ENVIRONMENTAL, INC.
200 THIRD AVENUE
CARNEGIE, PA 15106

KINGFISHER DEVELOPMENT, LLC

| | |
|---|---|
| DRWN: SCC | DATE: 01/13/21 |
| CHKD: AJR | DATE: 01/13/21 |
| APPD: AEF | DATE: 01/29/21 |
| SCALE: AS SHOWN | |

KEY ENVIRONMENTAL INCORPORATED

2020 ANNUAL GROUNDWATER MONITORING
AND CORRECTIVE ACTION REPORT
FORMER J.M. STUART ELECTRIC GENERATING STATION
SPRIGG TOWNSHIP, ADAMS COUNTY, OHIO

MULTI-UNIT MONITORING SYSTEM (POND 3A, POND 6, POND 7/7A, POND 10, AND LANDFILL 11) GROUNDWATER MONITORING NETWORK

PROJECT NO: 17-464

FIGURE 2

y:\00civil\commercial liability partners\stuart\production drawings\01_groundwater monitoring\2020 annual report\gw monitoring and ca report\figure 2 gw mon network.dwg Last Saved By: Scorner 1/13/2021 2:20 PM Plotted By: Shelly Corner 1/27/2021 3:59 PM Scale: 1:1


N

## LEGEND

- PROPERTY BOUNDARY
- APPROXIMATE WASTE BOUNDARY
- DOWNGRADIENT MONITORING WELLS
- NATURE AND EXTENT MONITORING WELLS

0 500 1000 FEET

KINGFISHER DEVELOPMENT, LLC

| | | | |
|---|---|---|---|
| DRWN: SCC | DATE: 01/13/21 | KEY ENVIRONMENTAL INCORPORATED | |
| CHKD: AJR | DATE: 01/13/21 | | |
| APPD: AEF | DATE: 01/29/21 | | |
| SCALE: AS SHOWN | | | |

2020 ANNUAL GROUNDWATER MONITORING
AND CORRECTIVE ACTION REPORT
FORMER J.M. STUART ELECTRIC GENERATING STATION
SPRIGG TOWNSHIP, ADAMS COUNTY, OHIO

POND 5 GROUNDWATER MONITORING NETWORK

PROJECT NO: 17-464

FIGURE 3

| REV # | DATE | DESCRIPTION | APPD |
|---|---|---|---|
| 3 | | | |
| 2 | | | |
| 1 | | | |

REFERENCE:

ISSUE DATE:

KEY ENVIRONMENTAL, INC.
200 THIRD AVENUE
CARNEGIE, PA 15106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## LEGEND

- PROPERTY BOUNDARY
- APPROXIMATE WASTE BOUNDARY
- UPGRADIENT MONITORING WELLS
- DOWNGRADIENT MONITORING WELLS

0 500 1000 FEET

KINGFISHER DEVELOPMENT, LLC

| | |
|---|---|
| DRWN: SCC | DATE: 01/13/21 |
| CHKD: AJR | DATE: 01/13/21 |
| APPD: AEF | DATE: 01/29/21 |
| SCALE: AS SHOWN | |

KEY ENVIRONMENTAL INCORPORATED

2020 ANNUAL GROUNDWATER MONITORING
AND CORRECTIVE ACTION REPORT
FORMER J.M. STUART ELECTRIC GENERATING STATION
SPRIGG TOWNSHIP, ADAMS COUNTY, OHIO

LANDFILL 9 GROUNWATER
MONITORING NETWORK

PROJECT NO: 17-464
FIGURE 4

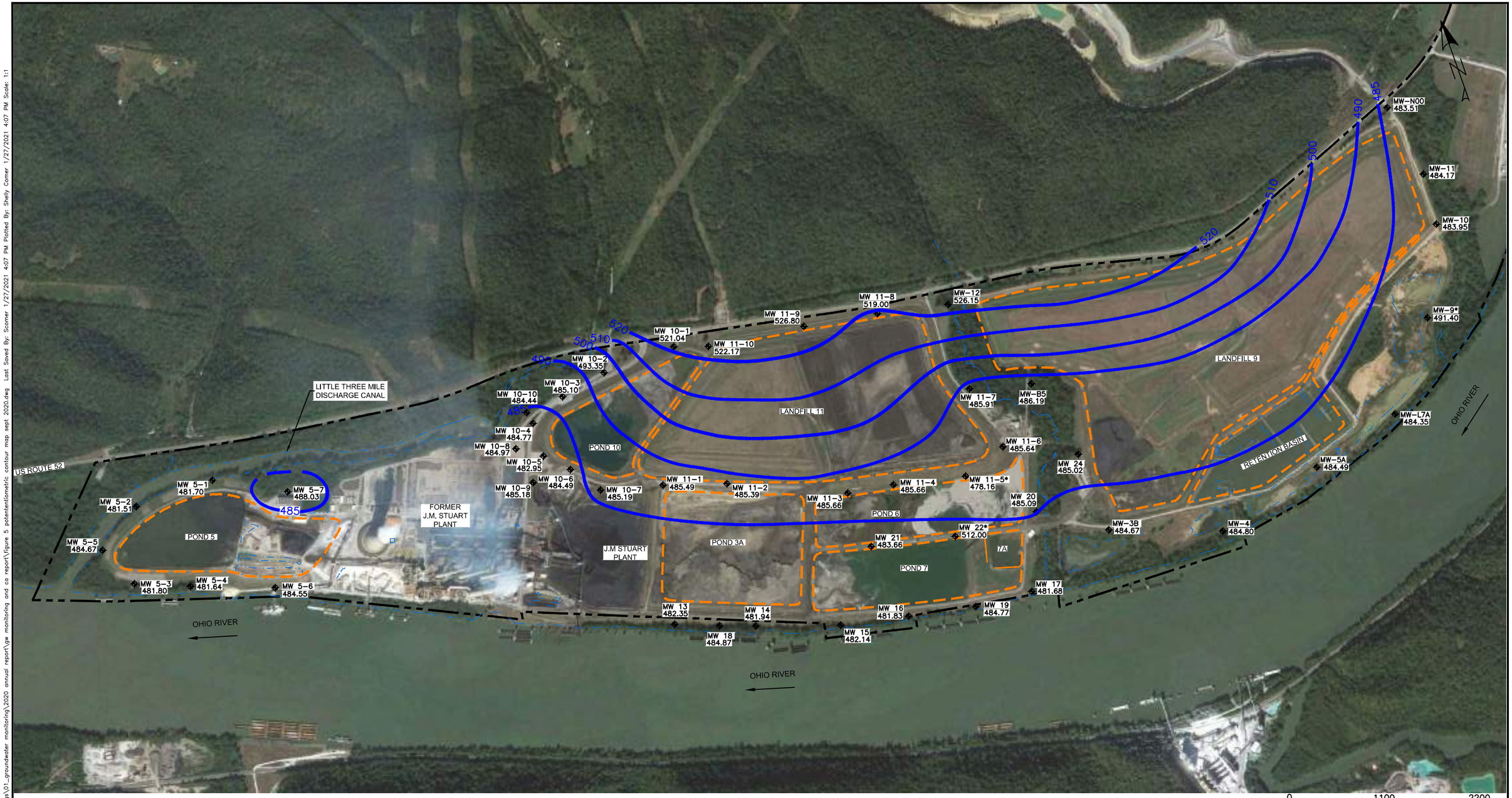
| REV # | DATE | DESCRIPTION | APPD |
|---|---|---|---|
| 3 | | | |
| 2 | | | |
| 1 | | | |

REFERENCE:

ISSUE DATE:

KEY ENVIRONMENTAL, INC.
200 THIRD AVENUE
CARNEGIE, PA 15106

y:\00civil\commercial liability partners\stuart\production drawings\01_groundwater monitoring\2020 annual report\gw monitoring and ca report\figure 4 gw mon network.dwg Last Saved By: Scomer 1/13/2021 1:36 PM Plotted By: Shelly Comer 1/27/2021 4:00 PM Scale: 1:1




## LEGEND

- PROPERTY BOUNDARY
- APPROXIMATE WASTE BOUNDARY
- MW 5-6 — MONITORING WELL LOCATION
- 484.55 — POTENTIOMETRIC SURFACE ELEVATION (FT-MSL)
- 525 — POTENTIOMETRIC SURFACE CONTOUR (FT-MSL) (DASHED WHERE INFERRED)

NOTE:

* – INCONSISTENT RESULTS FOR MW 11-5 AND MW 22 NOT USED FOR CONTOURING PURPOSES.

0 1100 2200 FEET

| REV # | DATE | DESCRIPTION | APPD |
|---|---|---|---|
| 3 | | | |
| 2 | | | |
| 1 | | | |

REFERENCE:

ISSUE DATE:

KEY ENVIRONMENTAL, INC.
200 THIRD AVENUE
CARNEGIE, PA 15106

KINGFISHER DEVELOPMENT, LLC

| | |
|---|---|
| DRWN: SCC | DATE: 01/13/21 |
| CHKD: AJR | DATE: 01/13/21 |
| APPD: AEF | DATE: 01/29/21 |
| SCALE: AS SHOWN | |

KEY ENVIRONMENTAL INCORPORATED

2020 ANNUAL GROUNDWATER MONITORING
AND CORRECTIVE ACTION REPORT
FORMER J.M. STUART ELECTRIC GENERATING STATION
SPRIGG TOWNSHIP, ADAMS COUNTY, OHIO

POTENTENTIOMETRIC SURFACE MAP
SEPTEMBER 28, 2020

PROJECT NO: 17-464

FIGURE 5