

August 1, 2025

Transmitted Electronically

Mr. Austin Tweedy
Hydrogeologist
Division of Environmental Response & Revitalization
Ohio EPA – Southeast District Office
2195 Front Street
Logan, Ohio 43138

**Re: RESPONSE TO THE JULY 7, 2025 OHIO EPA LETTER
HOWMET - FORMER WEAREVER FACILITY
CHILLICOTHE, OHIO**

Dear Mr. Tweedy:

On behalf of Howmet Aerospace Inc. (Howmet), Key Environmental Inc. (KEY) has prepared this letter in response to Ohio Environmental Protection Agency's (Ohio EPA) letter received on July 7, 2025. The subject of Ohio EPA's letter was related to the anticipated cessation of pumping from the Pixelle production wells, specifically Wells 17 and 18. The 1998 Decision Document identifies the selected remedy for groundwater based on the Remedial Action Objectives (RAOs) which were to:

- “Control access to affected groundwater, both on-site and off-site, such that unacceptable exposure does not occur, and
- Ultimately achieve Maximum Contaminant levels (MCLs) for select volatile organic compounds (VOCs) found in the groundwater on-site.”

To achieve the RAOs, the remedy selected by Ohio EPA for groundwater is a combination of the Source Area soil vapor extraction/air sparging (SVE/AS) and the Limited Action alternatives. The Limited Action alternative includes groundwater monitoring to evaluate the effectiveness of the SVE/AS at the source areas and to monitor both the on-site and off-site plume.

Ohio EPA included contingencies in the selected alternative to address a future situation like the anticipated cessation of pumping of the Pixelle production wells which is a groundwater use modification. Specifically, the 1998 Decision Document states: “*under this alternative, contingencies are provided in the event that operation of any of the industrial wells along the Scioto River changes in such a way that the plume of VOC impacted groundwater changes in size or direction.*” Howmet understands Ohio EPA's concerns regarding this matter and plans to

collaborate with Ohio EPA to implement the contingencies listed in the 1998 Decision Document which include:

- “Evaluate the proposed groundwater use/change and determine the potential human health and environmental risks (including the risk of contaminating previously uncontaminated groundwater);
- Identify alternative responses to the proposed groundwater use/change if determined to pose an unacceptable risk; and
- Work with the [potentially downgradient] landowner and Ohio EPA to implement the alternative response that best suits the [potentially downgradient] landowner's needs, minimizes risk, and is most cost-effective.”

Quarterly groundwater monitoring has been ongoing for decades at the Site, and enhanced monitoring was completed during periods of reduced Pixelle pumping conditions in the past. Past monitoring has indicated that groundwater flow at the Site has been variable with northeast, east, and southeast flow directions. As noted in Five-Year Review (FYR) reports for the Site going back to 2010, occasional variations in pumping rates at collector wells operated by Pixelle Specialty Solutions temporarily modified the groundwater flow direction beneath the Site area for extended periods of time. Shifts in groundwater flow direction to the southeast occurred from 2008 to 2013, and again from 2020 to 2021. Enhanced monitoring during these periods indicated that flow direction at the Site did not cause a significant increase of constituent concentrations at the southeast property boundary. In fact, VOCs were not detected during these southeast groundwater flow conditions in the sentinel well MW-G-S that is directly between the Site and the two residential dwellings that are located southeast of the Site. Additionally, it's worth noting that the residences located southeast of the Site are connected to the municipal water supply and are not using groundwater as a source of drinking water.

Fate and transport modeling and data collected during past monitoring periods when southeast flow was observed for an extended period of time suggest that in the absence of pumping wells, the plume size will likely contract in size because it will no longer be pulled toward the pumping wells under steep hydraulic gradients. However, the first contingency step in response to the cessation of Pixelle's pumping wells is to characterize non-pumping groundwater conditions in order to collect more accurate risk assessment data.

Additional monitoring and evaluations during the upcoming quarterly monitoring events and the Five-Year Review evaluation, the work plan for which is scheduled for submittal to Ohio EPA later this year will be critical to this characterization. Enhanced quarterly monitoring will be initiated during the next quarterly monitoring event. In addition to quarterly sampling locations MW-I-S, MW-D-S, MW-OS-1, MW-OS-2, and MW-C-I that are identified in the Groundwater Monitoring Plan; enhanced quarterly monitoring will also consist of sampling MW-D-I, MW-D-

D, MW-I-I, MW-G-S, MW-G-I, MW-G-D, and MW-OS-3. In addition, Howmet agrees with the installation of two wells that the Ohio EPA has proposed beyond the southeast property boundary identified as proposed monitoring wells OS-4 and OW-5 on the attached Figure 1. There is not a clear benefit of installing monitoring wells OS-6 and OS-7 as these are located to the east-northeast and will not be downgradient of the Site during a natural southeast flow direction.

Statistical trend testing or other statistical methods are recommended for forecasting potential plume expansion, contraction, or migration. Mann Kendall trend testing has been used to evaluate statistically significant trends in data at the Site and is described in Chapter 17 of the USEPA Unified Guidance which is specifically referenced in the Ohio EPA Technical Guidance manual. A statistically significant increasing trend at a perimeter monitoring well can be interpreted as an indicator of any plume expansion or migration and would allow for informed decisions regarding further well installation and/or remediation.

An updated conceptual site model will be constructed based on monitoring data collected during non-pumping conditions. Once groundwater flow is no longer under the influence of the pumping wells, and non-pumping conditions have been characterized and assessed, a revised remedial approach that ensures continued protection of human health and the environment, including the health and safety of the nearby residents, will be developed for Ohio EPA evaluation and approval under the DFFOs.

Howmet is committed to working with Ohio EPA on this important project. Should you have any questions regarding this submittal, please feel free to contact me at (412) 428-9396.

Sincerely,

Key Environmental, Inc.



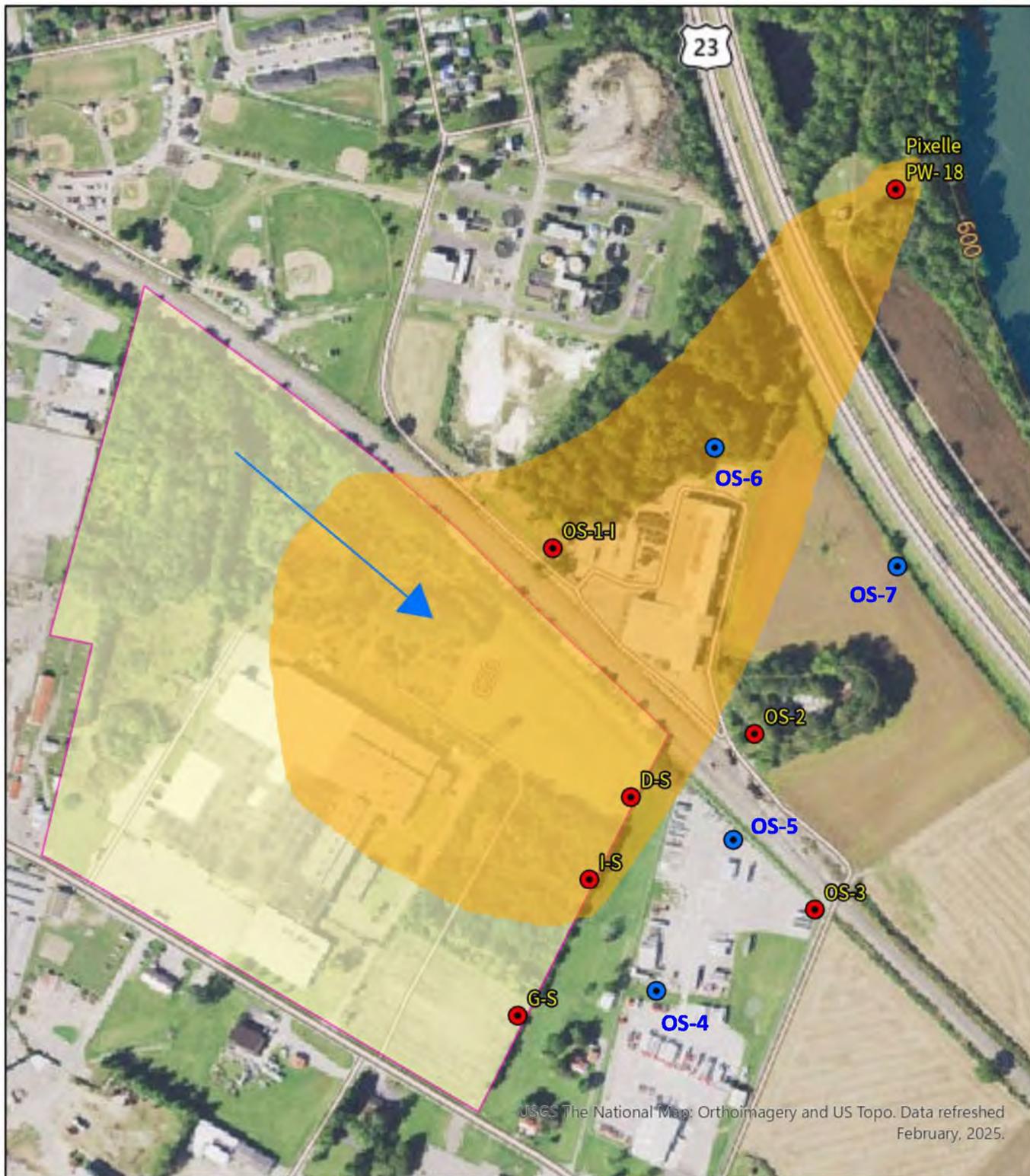
Andrew Franze, P.G.
Supervising Geologist

Attachments:

Figure 1 Site Details

cc: P. Cook, Howmet

FIGURE



- Proposed Sentinel Wells
- Existing Monitoring Wells
- Estimated Extent of CVOC Plume
- Site Boundary
- ➔ Natural GW Flow Direction

WearEver Site
Ross County

Figure 1: Site Details

