Haley Griffith (adpce.ad)

| From: | Vaughn, Kiefer <kvaughn@pmico.com></kvaughn@pmico.com> |
|--------------|--|
| Sent: | Tuesday, July 1, 2025 9:19 AM |
| То: | EE GW Reports; Jordan Anderson (adpce.ad) |
| Cc: | Wesson, Jacob; Rasburry, Terri |
| Subject: | Green Bay Packaging - First Half 2025 Notification of Statistically Significant Increases and ASD - Permit 284-S3N |
| Attachments: | 284-S3N - 1st Half 2025 ASD Arkansas Kraft.pdf |

Please find attached 1st Half 2025 Notification of Statistically Significant Increases and ASD for the above referenced facility.

Kiefer Vaughn, P.G., MSc Project Geologist I Environmental

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June 30, 2025

Mr. Jordan Anderson Groundwater Branch ARKANSAS ENERGY AND ENVIRONMENT DIVISION OF ENVIRONMENTAL QUALITY 5301 Northshore Drive North Little Rock, AR 72118-5328 VIA EMAIL: <u>EE.gwreports@arkansas.gov</u> and jordan.anderson@arkansas.gov

RE: First Half 2025 Notification of Statistically Significant Increases and Alternative Source Demonstration Green Bay Packaging Arkansas Kraft Class 3N Landfill Solid Waste Permit 284-S3N

Dear Mr. Anderson:

Pollution Management Inc. (PMI), on behalf of the Green Bay Packaging—Arkansas Kraft Class 3N Landfill—and as required by Regulation No. 22, §22.1204(c)(1), is presenting you with this letter as notification of Statistically Significant Increases (SSIs) that occurred during the First Half 2025 Groundwater Monitoring Event conducted on May 22, 2025. The results of the statistical analysis identified ten (10) constituents, chloride at P-4, P-8 and P-14, sulfate at P-4, P-5, P-7, and P-8, manganese at P-11, and TDS at P-12 as SSIs during the First Half 2025 monitoring event.

The following are Alternative Source Demonstrations (ASD) for this event for these SSIs in accordance with Regulation No. 22, §22.1204(c)(3):

- P-4, P-5, and P-12 are upgradient of the landfill; therefore, elevated sulfate, chloride, TDS concentrations are most likely attributable to natural variability.
- Interwell prediction intervals were performed for chloride at P-8 and P-14, and for sulfate at P-7 and P-8, to compare upgradient and downgradient wells. Except for chloride at P-8, no exceedances of the interwell prediction intervals were identified, suggesting that concentrations at the other wells are likely attributable to natural variability. The interwell prediction interval for chloride at P-8 exceeded the limit, prompting a closer evaluation of the data.
- A review of historical chloride concentrations indicates that P-8 is anomalous compared to other onsite wells, as it consistently shows the highest and only elevated chloride levels at the site. These elevated levels have been present since October 1996 and have been included within the background data for this well. Further review of historical data shows a few anomalously low chloride concentrations for this well that are not consistent with the long-term data trend and may be due to laboratory or data entry errors. Although these points were not flagged by the outlier analysis, they are orders of magnitude lower than the typical range of 700 to 900 mg/L for P-8. Specifically, the reported chloride concentrations of 82.5 mg/L (12/21/95), 24.5 mg/L (6/4/98), and 35.9 mg/L (6/9/99) appear inconsistent with the overall dataset. When these concentrations are removed from the dataset and an intrawell prediction interval is run, the data shows no exceedances. Additionally, P-8 is located side-gradient of the landfill operations, based

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on the site's potentiometric surface map. Together, these factors suggest that chloride concentrations at P-8 are unlikely to be impacted by the landfill. We feel that the SSI for chloride at P-8 is not representative of site conditions and that errors within the dataset caused a false positive SSI and that the site should remain in detection monitoring at this time for P-8.

Sincerely, Pollution Management, Inc., A Terracon Company

Kiefer A. Vaughn, P.G

Riefer A. Vaugnn, P. Project Manager

KAV

cc: Jacob Wesson, w/encl.

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