ENVIRONMENTAL SAMPLING CORPORATION

Dedicated to Environmental Monitoring, Science & Technology

September 29, 2020

Mr. David Buser
Wisconsin Department of Natural Resources
2300 N. Dr. Martin Luther King Jr. Drive
Milwaukee, WI 53212

Re: July 2020 Monitoring Event
Advanced Disposal Services Emerald Park Landfill, LLC - WDNR License No. 03290
Waukesha County, Wisconsin

Dear Mr. Buser:

On behalf of Advanced Disposal Services Emerald Park Landfill, LLC (ADS-EPL), Environmental Sampling Corporation (ESC) is submitting the environmental monitoring data for the July 2020 monitoring event. A CD containing analytical results is also being submitted to the GEMS Data Submittal Contact at the WDNR Central Office. The quarterly monitoring conducted in July 2020 was performed by ESC, ADS-EPL, and Tetra Tech personnel.

ESC personnel were on site in July 2020 to conduct the following monitoring:

- Collect one leachate sample,
- Collect 13 surface water point samples,
- Measure 26 staff gauge elevations,
- Collect five gradient control sump samples,

Additional monitoring was conducted during July 2020 by site personnel:

- Collect readings from 66 landfill gas extraction wells,
- Collect readings from 11 landfill gas monitoring probes.

Additional monitoring was conducted during July 2020 by Tetra Tech personnel:

- Record 16 leachate headwell elevations,

Information regarding the monitoring program conducted at ADS-EPL during the July 2020 event is provided in the following sections.

LEACHATE SAMPLE

One leachate sample was collected in July 2020 by ESC personnel. A grab sample was collected using a Hach Autosampler. One trip blank prepared by the laboratory accompanied the leachate sample from the collection back to the laboratory. Leachate analytical results from the monitoring conducted during the July 2020 event were generally consistent with historic data. A discussion of leachate quality and trends can be found in the annual report submitted in April each year.

LEACHATE HEAD WELL ELEVATIONS

Leachate head elevation measurements are required to be monitored monthly at 16 leachate head wells. As indicated in prior communication with the Department, it was determined in May 2020 that several leachate headwell levels exceeded the regulatory requirements. Since that time, weekly headwell readings have been taken by ESC and/or Tetra Tech personnel. These additional readings, beyond the scope of the monthly permit requirement, were discussed with the Department during weekly conference calls. Leachate headwells have been decreasing since the issue was first identified in May 2020. During the July 2020 monitoring events, there were five leachate headwells (LH-5, LH-12, LH-14, LH-15, and LH-17) that had levels greater than one foot during one or more of the weekly readings. Average liquid levels across the facility have also been decreasing and averaged 0.79 ft. to 1.09 ft. in July 2020. Currently, as of September 23, 2020, the average liquid level across the site has been reduced to 0.67 ft. and only three leachate headwells (LH-12, LH-14, and LH-15) indicate liquid levels greater than one foot. The leachate head elevation data is submitted to the WDNR quarterly under separate cover for upload to the GEMS database. Additional information will be provided in the third quarter GEMS data submittal.

SURFACE WATER MONITORING

Surface water samples were collected from 11 of the 13 surface water points in July 2020. Samples could not be collected from SW-1 and SW-5 because the locations were dry. Samples collected from SW-2, SW-3, SW-4, SW-21, SW-22, and SW-35 were analyzed for TSS, BOD, sodium, chloride, sulfate, hardness, alkalinity, and potassium. Samples collected from SB-1, SB-2, SB-3, SB-5, SB-6, and SB-7 were analyzed for total suspended solids. All surface water samples were collected with a Teflon dipper. In addition to the surface water samples collected, 25 staff gauge elevations were also measured in July 2020.

GRADIENT CONTROL SYSTEM MONITORING

Samples were collected from five gradient control sumps (GSUMP-6E, GSUMP-6W, GSUMP-7N, GSUMP-7SE, and GSUMP-7SC) in July 2020. As required, only field parameters (pH, conductivity, temperature, color, odor and turbidity) were collected. The field readings collected from the gradient control system in July 2020 were consistent with historic data; there is no indication that the landfill has affected the water quality in the gradient control system.

GAS EXTRACTION WELL AND BLOWER MONITORING

The monitoring of the landfill gas blower for percent methane, oxygen, gas temperature, flow and header pressure was conducted at least twice monthly during the reporting period by ADS-EPL personnel. Percent methane, oxygen, gas temperature, flow, well head pressure, and valve settings were measured by ADS-EPL personnel in the headspace of 66 gas extraction wells using an Envision gas meter. The landfill gas blower and gas extraction well data are submitted to the WDNR quarterly under separate cover for upload to the GEMS database.

GAS PROBE MONITORING

Eleven gas monitoring probes were measured by ADS-EPL personnel in July 2020 for percent methane, oxygen, carbon dioxide, ambient air temperature, barometric pressure, trend in barometric pressure, ground conditions and gas pressure using an Envision gas meter. No methane was detected in any of the gas probes during the reporting period. The gas probe monitoring results are submitted to the WDNR quarterly under separate cover for upload to the GEMS database.

CONCLUSIONS AND RECOMMENDATIONS

Results from the gradient control and leachate samples collected during the July 2020 event were consistent with historic data. There was no methane detected in any of the gas probes and no deviations of the solid waste permit monitoring requirements for the vertical gas extraction wells or the gas blower during the July 2020 monitoring event. Any deviations of the air permit requirements were addressed under a separate cover and provided to the WDNR Air Management Division. The environmental monitoring data collected in July 2020 is consistent with historic data.

This letter satisfies the reporting requirements for the July 2020 monitoring event. If you have any questions or comments regarding this submittal, please contact me at 414-427-5033.

Sincerely,

Tracy Ipavec
Sr. Environmental Specialist

Attachments

cc: GEMS Data Submittal Contact: WDNR (w/CD)
Ann Bekta: WDNR (electronic copy)
Tim Curry: ADS-Midwest (electronic copy)
Randy Frank: ADS-Midwest (electronic copy)
Anthony Militello: ADS-Midwest (electronic copy)
Kari Rabideau: ADS-Midwest (electronic copy)
ADS-EPL: File Copy
Dan Otzelberger: ADS-EPL (electronic copy)
Chad Siegle: ADS-EPL (electronic copy)
Scott Croft: ADS-EPL (electronic copy)
Mark Torresani: Tetra Tech (electronic copy)
Nick Dykstra: Tetra Tech (electronic copy)
Jo Spear: JSA Environmental (electronic copy)
Sherren Clark: SCS Engineers (electronic copy)
ADS-EPL Standing Committee (electronic copy)
Mark Slocomb: EPL Standing Committee (electronic copy)
Frank Perugini: ESC (electronic copy)