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Subject	**Interim Update for Groundwater Detection Monitoring, North Ravine Cell, Ada County Landfill**	**Project Name**	Ada County Landfill Groundwater Monitoring Program
Attention	Fritz Durham/IDEQ	**Project No.**	ACLFFY21
From	Allan Erickson/Jacobs		
Date	1/20/21		
Copies to	**Chad Schwend/Ada County Landfill**		

This technical memorandum (TM) provides the Idaho Department of Environmental Quality (IDEQ) with a statistical summary of the October 2020 North Ravine Cell (NRC) inorganic groundwater sample data. This is consistent with the reporting requirements of 40 CFR 258.54(c) and the requirements of Ada County's *Work Plan for the Statistical Analysis Groundwater Detection Monitoring Data, Ada County Landfill* (CH2M HILL, 2011). A comprehensive report for the October 2020 detection/assessment/ remediation sampling event at the entire Ada County Landfill will be submitted to IDEQ after this TM.

The primary objective of this TM is to provide IDEQ with timely notification of potential exceedances of the 95% upper prediction limits (UPLs), or Background Threshold Values (BTVs), in groundwater samples collected from NRC Detection Monitoring Wells in October 2020, and to evaluate the need to collect confirmation samples from wells that exceeded UPLs. Note that this TM does not address potential UPL exceedances at the Hidden Hollow Cell (HHC) because the HHC is known to have had a release and is already subject to assessment and corrective action monitoring. The following discussion is thus limited to UPL exceedances at the NRC.

- In October 2020, *total* concentrations of nine Appendix I inorganic (metal) constituents including antimony, arsenic, barium, beryllium, chromium, cobalt, copper, lead, and vanadium exceeded their respective UPLs, in six NRC monitoring wells.
- In October 2020, none of the *dissolved* concentration of Appendix I inorganic constituents exceeded their respective UPLs.

The following discussion compares the NRC's October 2020 total (unfiltered) and dissolved (filtered) groundwater detection monitoring results for metals to the UPLs. The UPLs are based on data collected through October 2019 as presented in the attached Table.

In October 2020, concentrations of all total Appendix I inorganic constituents were below UPLs at monitoring wells MW-102, MW-103, MW-108, MW-109, MW-110, and MW-111. Therefore, retesting for inorganics is not warranted at these wells.

The following provides a summary of metals concentrations and UPL exceedances at the other six NRC monitoring wells. Refer to the attached Statistics Summary Table for concentrations of total and dissolved metals:

- At MW-101 the total arsenic concentration exceeded the k=165 UPL. The dissolved arsenic concentration of 0.003 is "J" flagged and did not exceed the UPL. No retesting of this well is recommended.
- At MW-104 (P-3) the total antimony and total r concentrations exceeded their respective k=165 UPLs. However, the dissolved concentrations for these two metals were non-detections and thus below the UPLs. No retesting of this well is recommended.
- At MW-105 the total barium and beryllium concentrations exceeded their respective UPLs (k=165, and Single Detect). For barium, the dissolved concentration was below the UPL. The beryllium dissolved concentration was a non-detection. No resting of this well is recommended.
- At MW-106, the total r concentrations exceeded their respective k=165 UPLs. The dissolved arsenic and cobalt concentrations were below the UPLs and also "J" flagged. The dissolved copper concentration was a non-detection. No resting of this well is recommended.
- At MW-107A the total chromium, cobalt, and copper exceeded their respective k=165 UPLs. The dissolved concentrations of these three metals were below the k=165 UPLs. Also, the cobalt and copper concentrations were both "J" flagged. No resting of this well is recommended.
- At MW-112 the total antimony, barium, cobalt, copper, and vanadium concentrations exceeded the k=165 UPLs. Dissolved concentrations for antimony was a non-detection. Dissolved concentrations for cobalt and copper were "J" flagged and below their respective UPLs. Dissolved concentrations of barium and vanadium were below the k=165 UPLs. No resting of this well is recommended.

REFERENCES

CH2M HILL. 2011. *Workplan for the Statistical Analysis Groundwater Detection Monitoring Data, Ada County Landfill.* June

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