

October 29, 2018

Keystone Sanitary Landfill, Inc.
Mr. Dominic DeNaples
249 Dunham Drive
Dunmore, PA 18512

Re: MW-15AD Groundwater Assessment & Abatement Report
Keystone Sanitary Landfill
I.D. #101247
Dunmore/Throop Boroughs, Lackawanna County

Dear Mr. DeNaples:

The Department received and reviewed the MW-15AD Groundwater Assessment & Abatement Report for the Keystone Sanitary Landfill Facility. The report was received on August 21, 2018 prepared by ARM Group, Inc. and submitted under their letterhead.

The report addresses the recent assessment/abatement related activity downgradient of the lagoon and treatment plant areas, including the recent drilling of two additional investigation wells downgradient of the west lagoon, MW-49D (mine drainage flow) and MW-50D (regional groundwater flow) installed early in 2018. Wells included in assessment/abatement as part of the investigation of the vertical and horizontal limits of degradation related to MW15AD are MWs: 16, 43, 46, 47, 49 and 50. MW 15, 46, 47, 49 and 50 indicate leachate impacted water mixed with mine drainage water. MW-49 reports nitrates hovering slightly below or slightly above the 10 mg/l MCL. MW 47 reported somewhat elevated concentration of ammonia-nitrogen, however, this is expected as the lagoon area is flushed of contaminants. Several volatile organic constituents were reported in MWs 15, 46, 47, 49 and 50; notably benzene in MW50 at 2.2ug/l in the May 2018 annual sample, although less than the standard of 5ug/l. The leachate concentrations are decreasing in MW-15AD. Abatement measures ongoing or planned include: pumping MW-15, Hole B and MW-46 with automated sensors and relays with continued quarterly sampling of all wells at the site.

The Department approves this Assessment & Abatement Report with the following conditions:

- Water from MW15, MW46, and Hole B shall be pumped into the leachate lagoons.
- MW15 may return to quarterly monitoring and wells MW 46, 47, 49 and 50 should be monitored on a quarterly basis beginning in January 2019.
- Submit corrected Table 4 - date and benzene quantity, correct page 9 first sentence should read "Figure 11 shows concentrations....".

- Comprehensive trends and evaluation of the Assessment & Abatement area shall be submitted semi- annually.
- A compliance evaluation shall be submitted 90 days after the previous yearly quarterly sample event.

If you have any comments please do not hesitate to call me.

Sincerely,

A handwritten signature in cursive script, appearing to read "Roger Bellas".

Roger Bellas
Waste Management Program

cc: Dunmore Borough President/Chairperson
Throop Borough Secretary