

ENVIRONMENTAL SAMPLING CORPORATION

Dedicated to Environmental Monitoring, Science & Technology

June 11, 2020

Mr. George Volpentesta
Wisconsin Department of Natural Resources
141 NW Barstow Street, Room 180
Waukesha, WI 53188

**RE: Advanced Disposal Services Emerald Park Landfill
Air Pollution Control Operation Permit No: 268244130-P20
FID No. 268244130
Return to Compliance - Surface Emissions Monitoring Exceedances (First Quarter 2020)**

Dear Mr. Volpentesta,

On behalf of ADS Emerald Park Landfill (ADS-EPL), ESC is providing this letter to notify the Department that all surface emission exceedances identified during the first quarter 2020 surface scan were brought back into compliance (i.e. methane < 500 ppm) within the 120-day timeline specified in the air permit.

During the first quarter 2020 surface emissions monitoring conducted on March 24, 2020, ten locations in Phases 3-7 and along the south slope vaults had measured surface emissions that exceeded 500 ppm methane. Despite the initial corrective actions taken, seven areas (GEW-33R, GEW-63, GEW-78, GEW-89, Vault 6W, Header pipe downslope from GEW-89, and Valve stems between Vault 6E and Vault 5SW) had surface emission exceedances that were not corrected by the 10-day and second 10-day rechecks or were located in active construction areas and could not be monitored during one or both of the 10-day and second 10-day rechecks. These locations are identified in **Attachment 1**.

In a letter dated May 12, 2020, ADS-EPL notified the Department of the seven locations with on-going exceedances and requested Department approval of alternate remedies to correct the exceedances. The Department approved the request in a letter dated May 13, 2020 (**Attachment 2**).

These alternate remedies were successful in reducing the surface emissions in the exceedance areas. All locations were brought back into compliance on May 22, 2020, within the allowable timeline. No additional action is required. The facility will resume quarterly monitoring with the second quarter 2020 surface scan scheduled for June 2020. A summary of the recent surface emission monitoring data is summarized below and included on the drawing provided as **Attachment 3**.

Q1-2020 SEM Exceedance Location	Date	Methane (ppm)
GEW-33R	05/22/20	350
GEW-63	05/22/20	249
GEW-78	05/22/20	330
GEW-89	05/22/20	179
Vault 6W	05/22/20	236
Header pipe downslope from GEW-89	05/22/20	50
Valve stems between Vault 6E and Vault 5SW	05/22/20	382

Mr. George Volpentesta

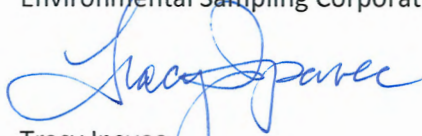
June 11, 2020

Page 2

Please contact Randy Frank, Regional Landfill Gas Manager at 414- 422-9075 ext. 102 or the undersigned with any questions.

Sincerely,

Environmental Sampling Corporation



Tracy Ipavec

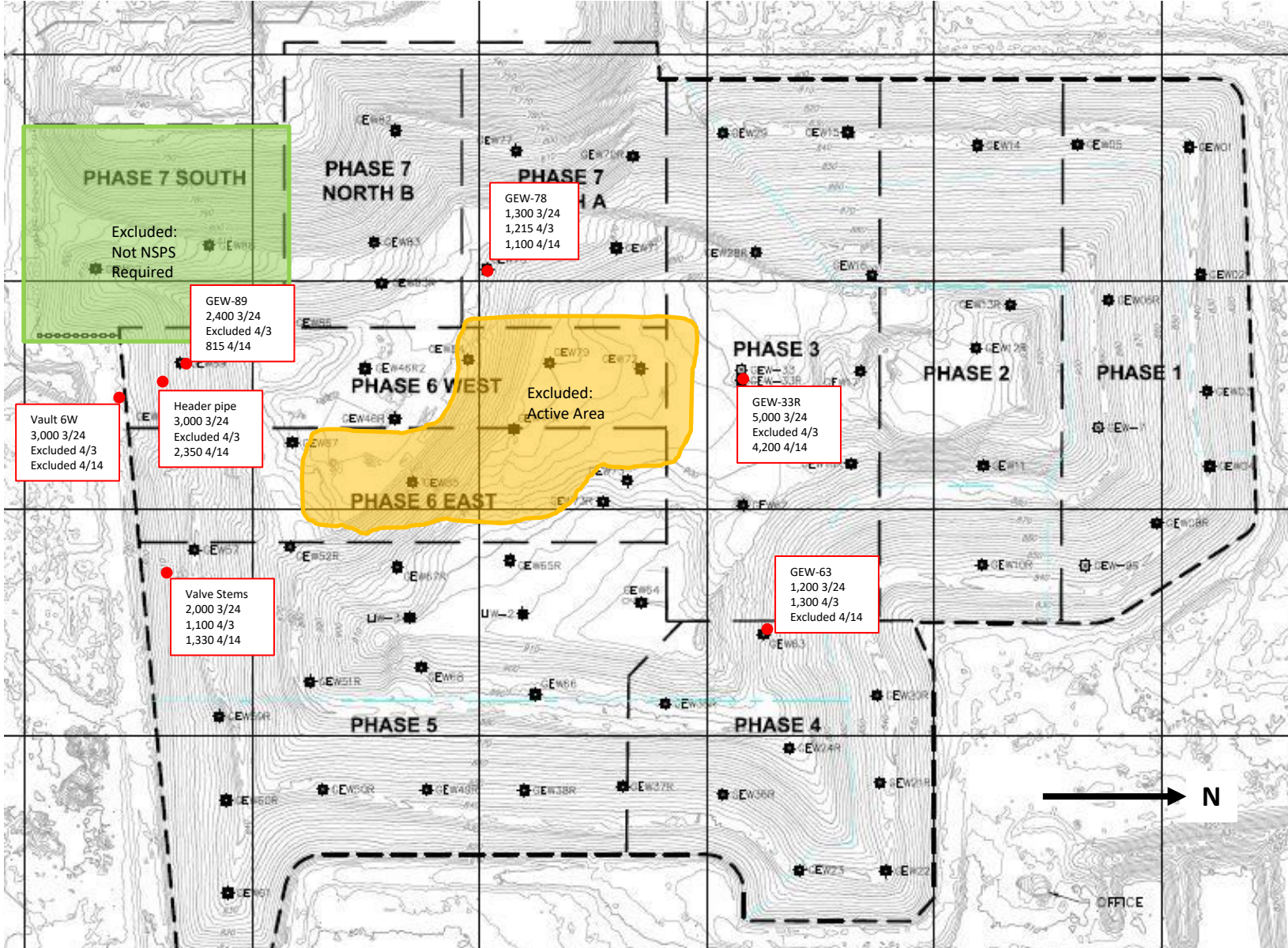
Sr. Environmental Specialist

Attachments

cc: Randy Frank: ADS-Midwest (electronic copy)
Dan DeWaard: ADS-Midwest (electronic copy)
Tim Curry: ADS-Midwest (electronic copy)
Kari Rabideau: ADS-Midwest (electronic copy)
Anthony Militello: ADS-Midwest (electronic copy)
Scott Croft: ADS-EPL (electronic copy)
ADS-EPL File Copy
Tyler Field: Tetra Tech (electronic copy)
Jo Spear: JSA Environmental (electronic copy)
City of Muskego, EPL Standing Committee (electronic copy)
Mark Slocomb: EPL Standing Committee (electronic copy)
Sherren Clark: SCS Engineers (electronic copy)
Frank Perugini: ESC (electronic copy)

Attachment 1

First Quarter 2020
Surface Emissions Monitoring Locations with
On-going Exceedances



GEW-78
1,300 3/24
1,215 4/3
1,100 4/14

GEW-89
2,400 3/24
Excluded 4/3
815 4/14

Vault 6W
3,000 3/24
Excluded 4/3
Excluded 4/14

Header pipe
3,000 3/24
Excluded 4/3
2,350 4/14

Excluded:
Active Area

GEW-33R
5,000 3/24
Excluded 4/3
4,200 4/14

Valve Stems
2,000 3/24
1,100 4/3
1,330 4/14

GEW-63
1,200 3/24
1,300 4/3
Excluded 4/14



OFFICE



SURFACE EMISSIONS TESTING AREA

Areas with On-going Surface Emissions Exceedances

First Quarter 2020 Surface Emission Report
Advanced Disposal Services Emerald Park Landfill
Muskego, Wisconsin

Legend

 Initial Rds. 03/24/2020
10-Day Re-check 04/03/2020
Second 10-Day Re-check 04/14/2020
One month re-check 04/24/2020

Attachment 2

WDNR Approval of Proposed Alternate Remedies for
Correcting Exceedances, dated May 13, 2020



May 13, 2020

File Ref.: 4530
FID#: 268244130

Mr. Randy Frank
Midwest Regional Landfill Gas Manager
Advanced Disposal Services
Emerald Park Landfill
W124 S10629 S. 124th St.
Muskego WI 53150

Subject: Request for Alternate Remedies for Exceedances at Advance Disposal Services Emerald Park Landfill

Dear Mr. Frank:

The Department received your request, by way of Tracy Ipavec of Environmental Sampling Corporation, dated May 12, 2020, for approval of alternate remedies for correcting exceedances at the Advance Disposal Services Emerald Park Landfill (ADS-EPL) facility located at W124 S10629 S. 124th St., Muskego, WI 53150.

The seven areas of concern are GEW-33R, GEW-63, GEW-78, GEW-89, Vault 6W, Header pipe downslope from GEW-89, and Valve stems between Vault 6E and Vault 5SW. These seven areas had surface emissions that exceeded 500 ppm methane during the 10-day recheck conducted on April 3, 2020 and the second 10-day recheck conducted on April 14, 2020.

In order to reduce surface emissions at these seven areas, ADS-EPL plans to complete the following gas system improvements by July 22, 2020, which is within the 120-day timeline specified in air operation permit 268244130-P30. These improvements, listed below, include alternative remedies which require Department approval.

- Install additional and enhance existing soil cover around penetrations and structures where surface emissions exceedance are identified.
- Install new or additional air, forcemain pipe, and pumps to 33 existing vertical gas wells which will provide these wells with dual extraction capability (liquids and LFG). This work was completed on May 8, 2020.
- Use the dual extraction enhancements (described above) to dewater parts of the wellfield where surface emissions are identified and increase the collection efficiency of the existing vertical gas wells.
- Continue to re-tune the wellfield as existing vertical gas wells are dewatered to ensure well tuning for maximum gas collection efficiencies.
- Install a larger submersible pump in gas condensate sump CS-2 in order to maintain low liquid levels in the 12" Gas Header on West Side of Phase 7 North. Lower liquid levels in this header will increase available vacuum to wells connected to this header which are in the vicinity of several of the SEM Exceedances. This work was completed on May 1, 2020 with notable increases observed in available header vacuum in areas of SEM exceedances.
- Video Inspect and jet clean, if necessary, to ensure proper function of the landfill gas header drip-legs DL-3 and DL-4 on South Side of Landfill. Ensuring fully functional drip-legs here will help increase available vacuum to wells on south side of site in areas identified with SEM Exceedances. The video inspection of DL-3 and DL-4 was completed on April 15, 2020; jetting was not required. Noticeable vacuum increases were observed following the installation of the larger pump at CS-2.
- Request a higher operating value for temperature at LIW03 to allow for increased applied vacuum to this well to reduce the methane. Currently the applied vacuum at LIW03 is limited to allow the well to operate below the NSPS temperature limit of 131 degrees F.

- Evaluate gas extraction well GEW-33R with a camera to determine if blockage can be cleared or if the well will need to be replaced.

Operation permit 268244130-P30 condition Part I.A.1.b.(19)(e)(i).states that “An alternative remedy to the exceedance, such as upgrading the blower, header pipes or control device, and a corresponding timeline for installation may be conducted if approved by the Department, in writing.” The Department has reviewed the ADS-EPL request, and hereby grants approval of the above alternate remedies and timeline, including allowing the operating temperature at LIW03 to increase to 148 degrees F. Please feel free to call me with any questions at 262-574-2150 or cell #262-330-2345.

Sincerely,

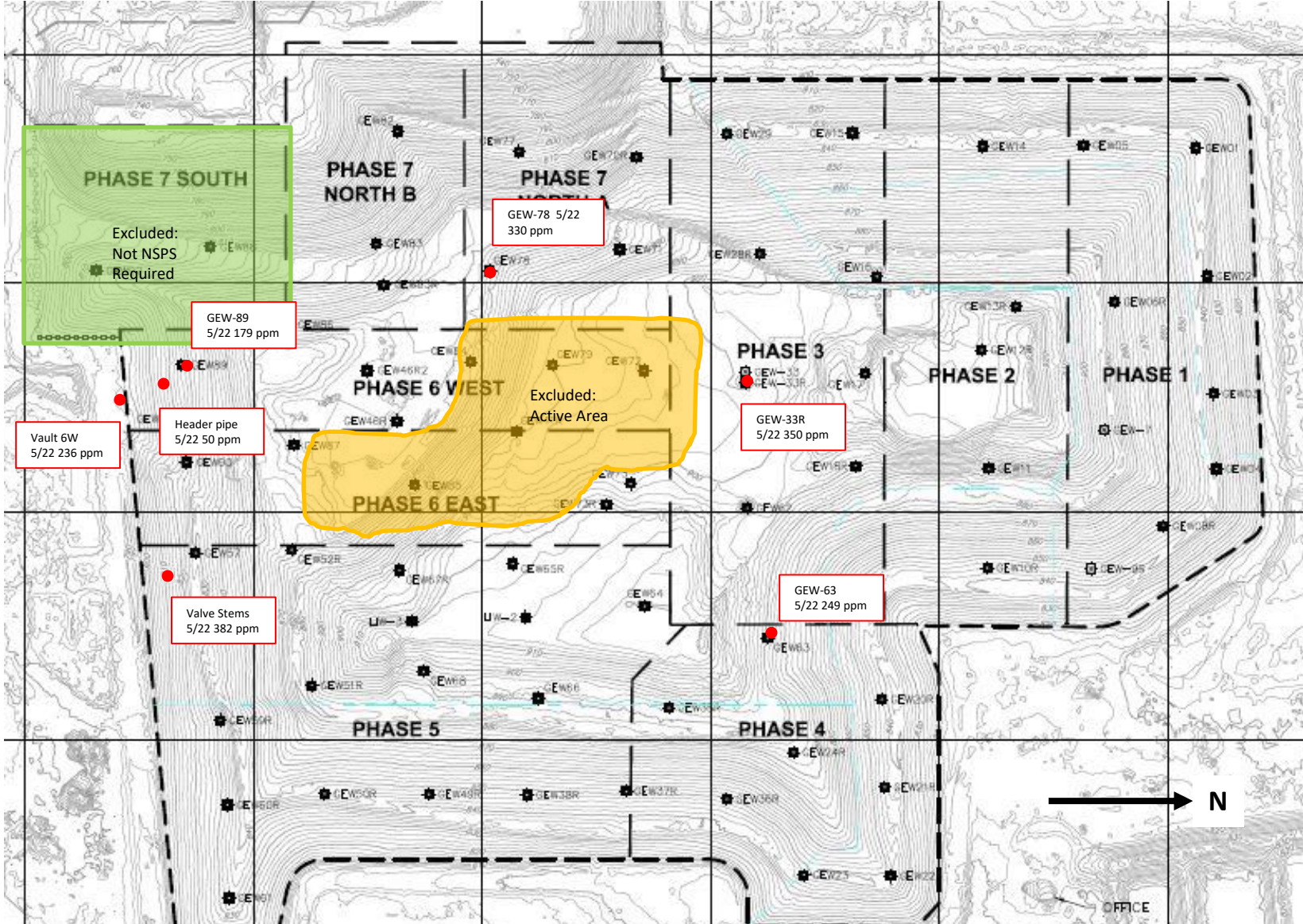
/s/ George Volpentesta

George Volpentesta, P.E.
Air Management Engineer
Southeast Region, Waukesha Service Center

cc: Bureau of Air Management – AM/7
Waukesha Service Center Case Files

Attachment 3

First Quarter 2020
Surface Emissions Monitoring Locations
Return to Compliance
(May 22, 2020)



	SURFACE EMISSIONS TESTING AREA	<u>Legend</u> 
	Surface Scan Following Repairs to the 1st Quarter 2020 SEM Exceedances Advanced Disposal Services Emerald Park Landfill Muskego, Wisconsin	