LEMOS LABS, LLC

September 11, 2020

Mr. Brian Stewart
Noble Environmental
111 Conner Lane
Belle Vernon, PA 15102

Subject: **Westmoreland County Sanitary Landfill**
Leachate Evaporation System
Lemos Labs Proposal 20-334-1058

Dear Mr. Stewart:

Lemos Labs, LLC is pleased to present this proposal to conduct compliance stack testing for the leachate evaporation system at the Westmoreland County Sanitary Landfill facility, located in Belle Vernon, Pennsylvania.

1.0 INTRODUCTION

Noble Environmental is in need of stack testing to be conducted for one leachate evaporation system at the facility located in Belle Vernon, Pennsylvania. Three compliance test runs are to be performed for each specified emission. For proposal purposes, we are proposing to conduct the testing over one trip, four days (mobilization and setup the first day, testing the next three days and demobilization on the last day). Lemos Labs is flexible to accommodate any testing scenario that you may have (early start, longer days etc.).

2.0 SCOPE OF WORK

2.1 PROJECT PLANNING

Lemos Labs' Project Manager will contact Noble Environmental before sampling begins to accomplish the following:

1. Establish lines of communication;

2. Discuss the project scope and objectives to ensure Noble Environmental and Lemos Labs are in agreement;

3. Prepare a Test Protocol (and revisions, if needed) for submission to the PADEP; and

4. Ensure that requirements for sampling have been or will be completed by the scheduled testing date.

2.2 FIELD SAMPLING

Lemos Labs will provide the necessary personnel for one trip, (one trip: four days) to complete the required testing. The first day will be dedicated to mobilization to the site and setting up the sampling equipment for the testing (up to 3 hrs on site). The full days will be dedicated to collecting three compliance sampling runs for each emission and demobilization from the site (up to 35 hrs on site over 3 days). Test plan: Day 1: Setup; Day 2: CO, NOx, SO_2, Cadmium, Mercury, Nickel, Chromium, Arsenic, Lead and VE; Day 3: HCl, Particulate and one PCDDs/PCDFs run; Day 4: remaining two PCDDs/PCDFs runs.

The sample runs will follow the principles of reference methodology to determine the following:

PM
HCl
O_2
CO_2
SO_2
NOx
CO
VE

Chromium
Arsenic
Nickel
Cadmium
Mercury
Lead

PCDDs/PCDFs

The following test methods will be used:

EPA Method 1 - Sample and velocity traverses for stationary sources,

EPA Method 2 - Determination of stack gas velocity and volumetric flow rate (Type S pitot tube),

EPA Method 3A - Determination of Oxygen and Carbon Dioxide concentrations in emissions from stationary sources,

EPA Method 4 - Determination of moisture content in stack gases,

EPA Method 5 - Determination of particulate matter emissions from stationary sources,

EPA Method 6C - Determination of Sulfur Dioxide Emissions from stationary sources (Instrumental Analyzer Procedure),

EPA Method 7E - Determination of Nitrogen Oxides emissions from stationary sources,

EPA Method 9 – Visual Determination of the Opacity of emissions from stationary sources,

EPA Method 10 - Determination of Carbon Monoxide emissions from stationary sources,

EPA Method 22 – Visual Determination of Fugitive Emission,

EPA Method 23 - Determination of Polychlorinated dibenzo-p-dioxins and polychlorinated dibenzofurans from station sources,

EPA Method 26A - Determination of Hydrogen Halide and Halogen emissions from stationary sources isokinetic method, and

EPA Method 29 - Determination of metal emissions from stationary sources.

2.3 DATA EVALUATION AND REPORT PREPARATION

Lemos Labs' personnel will review the compliance testing data and incorporate the following information into a final test report:

1. Description of work undertaken;
2. Discussion of the sampling and analytical techniques used;
3. Tabulation of field and laboratory data; and
4. Summarization of results.

One pdf copy and/or two paper copies of the final report will be submitted for distribution within three weeks from the completion of the field sampling and analyses.

3.0 CLIENT RESPONSIBILITY

To ensure that the proposed project is completed successfully, it will be the responsibility of Noble Environmental to provide the following:

1. Plant liaison for the Lemos Labs field team for the duration of the sampling program;
2. Coordination of process operations and process data collection during testing;
3. Process information for the Test Protocol and Final Reports;
4. Lighting (if working in the dark);
5. Heated Test Area (if ambient temperature is below freezing);
6. Safe access to the sampling locations; and
7. Electrical power: 110V, 20-amp dedicated service to within 100 feet of each sampling location and 480V, 30-amp single phase dedicated service or 240V, 50-amp single phase dedicated service for the emission testing trailer.