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Gas Testing



Clean Methane Systems offers comprehensive gas testing services to analyze contaminant levels in biogas waste streams. Our laboratory has extensive experience in gas analysis and utilizes equipment with the highest sensitivity and detection levels to ensure the most accurate results for our customers.

CMS Gas Analyses

- **Siloxanes Analysis:** This analysis measures the amount of several different types of siloxane at an industry leading 5 ppb detection limit. Some of the Siloxanes included in this analysis are hexamethyldisiloxane, octamethyltrisiloxane, and hexamethylcyclotrisiloxane, among others.
- **Inorganic and Organic Sulfur Species:** This test determines the levels of H₂S, mercaptans, sulfides, disulfides, thiophenes, and other sulfur species present in digester gas.
- **Volatile Organic Compounds and Non-Methane Organic Compounds:** VOCs are measured by a specific analytical procedure that identifies and quantifies the concentrations of over 300 different organic compounds, including acetone, benzene, toluene, styrene, and carbon tetrachloride, among others.
- **Major Gas Constituents:** This test determines the presence and concentrations of the permanent gases contained in the digester gas sample. The major gases are methane, carbon dioxide, carbon monoxide, nitrogen, and oxygen. This analysis also includes the BTU value of the gas.

Advantages of CMS Gas Testing

- CMS's gas analysis is the industry standard for identifying contaminants.
- Gas testing indicates the overall status of the gas conditioning system and its gas quality.
- CMS will analyze and generate gas quality reports for single or multiple specified sample points.
- Regular gas testing protects your investment by ensuring your gas conditioning system continually produces clean gas.

Why Do I Need Gas Testing?

It is important for CMS to continually monitor the contaminant levels in your biogas. Concentrations and types of contaminants change over time, and gas testing is the only way to monitor those changes. Gas testing results indicate whether CMS needs to adjust your gas conditioning system configuration by media types, volumes, blends, or service frequency. Gas testing results are also used to determine when the siloxane or sulfur removal media in a gas conditioning system need to be changed.

CMS also uses the results of gas analyses to produce **engineered proposals**, which summarize the energy and contamination content of the biogas, and offer recommendations regarding possible uses of the gas and which treatment systems may be necessary.

How Do I Get CMS Gas Testing Services?

- Request a customized quote for CMS testing.
- Order an **CMS Gas Sampling Kit**.
- Collect gas samples and send them to the CMS lab for analysis. *Samples degrade quickly and must be tested within 24 hours of collection.*
- Gas analysis results are generally available in 7-8 working days.
- CMS will then interpret those results based on the customer's specific needs.