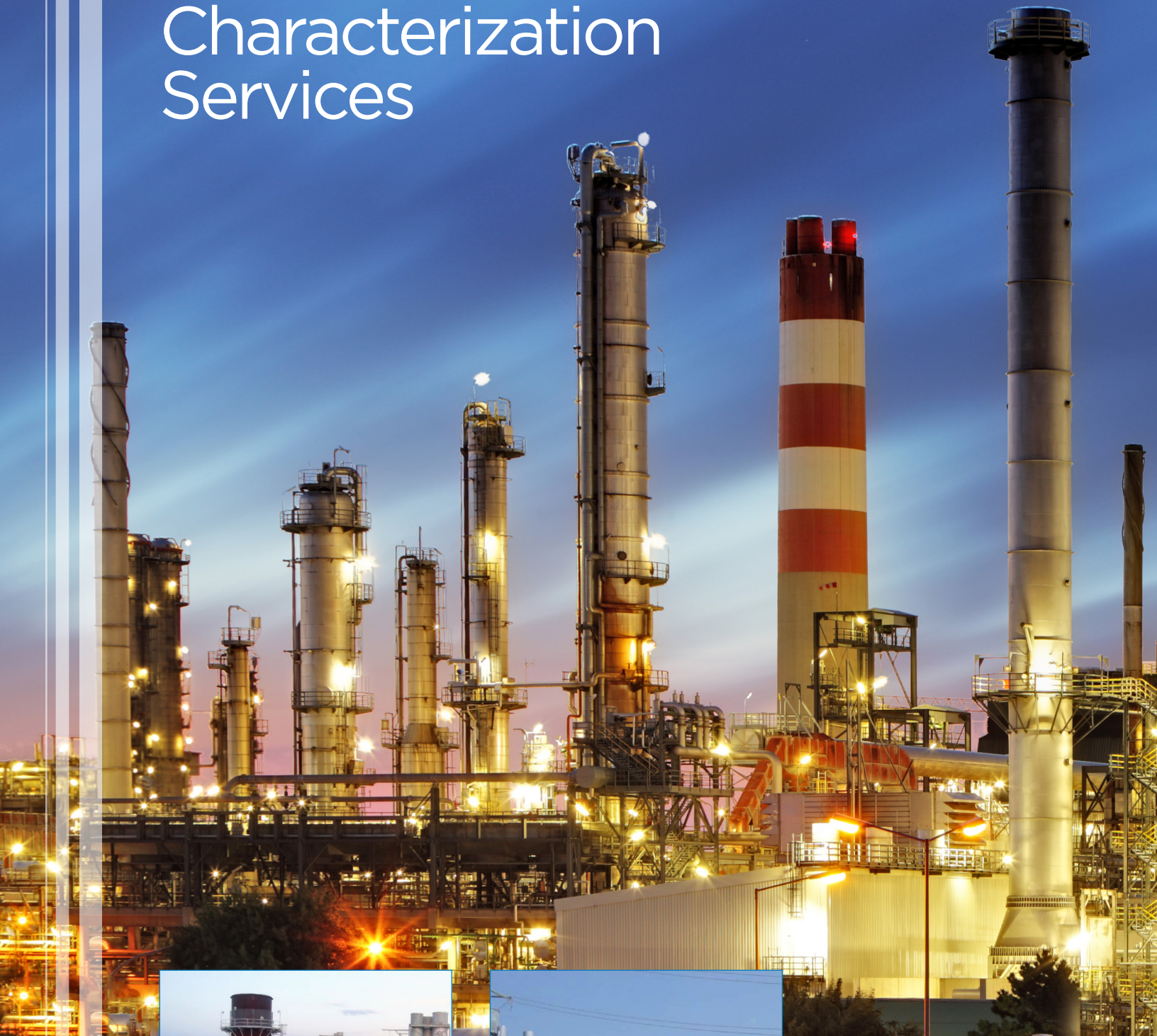


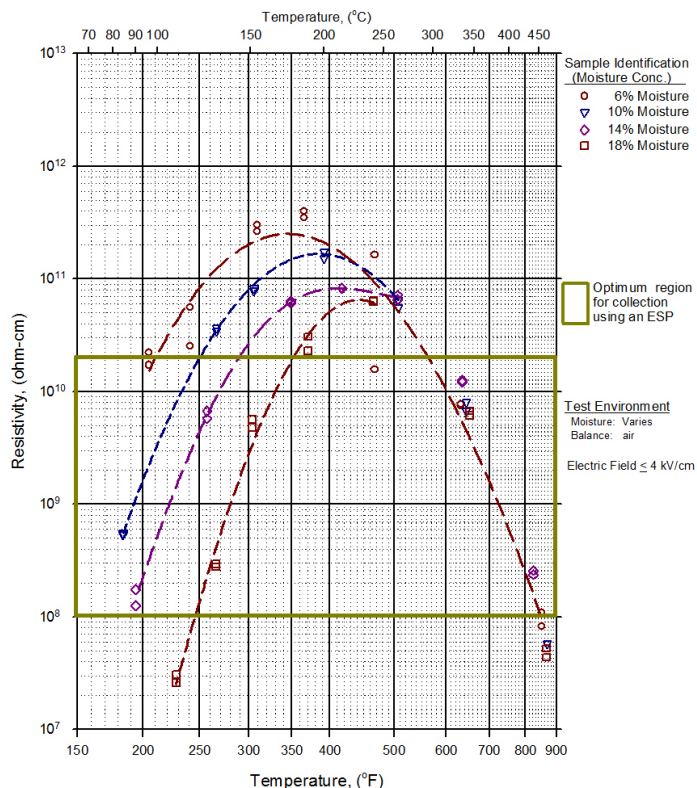
# Particle Characterization Services



  
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Figure 1



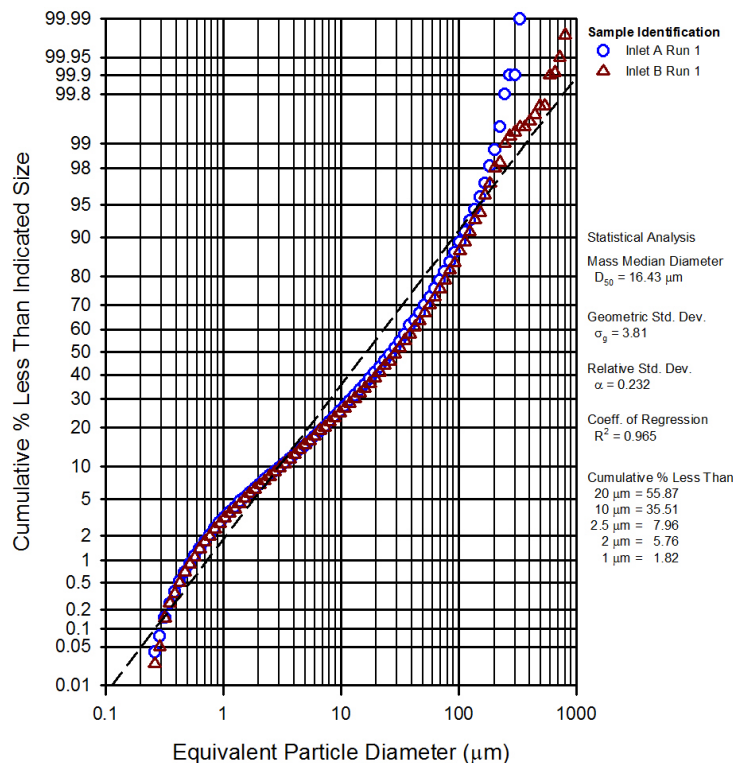
## SERVICES OVERVIEW

Increasing concern over global resources, air quality and sustainable development has led us to the age where economic development and the global stewardship are converging. At CleanAir, our aim is to support the growth, profit and sustainability goals of our clients by delivering innovative solutions with 10x value.

We do this first and foremost by gaining a deep understanding of our client's needs and business objectives and leveraging our technical knowledge, innovative thinking, and vast equipment resources. From air quality management and emissions measurement, to thermal performance and efficiency determination, CleanAir delivers the results.

Our complete service offering is designed to deliver the value utilities, manufacturers, power generators and plant operators need to meet their financial goals. From stack testing to complicated process optimizations -- CleanAir helps your business deliver the results.

Figure 2



## PRECIPITATOR COLLECTION PROBLEMS?

The dust properties that influence the collection efficiency of an electrostatic precipitator (ESP) include electrical resistivity, particle size distribution, particle morphology, and chemical composition. A combination of laboratory tests allows one to measure this pertinent information.

*The resistivity curves shown as a function of temperature and gaseous moisture concentration in Figure 1 illustrate how water vapor can be used as a conditioning agent.*

**Note: Each moisture concentration is measured as a separate laboratory test**

**Figure 2 illustrates a typical particle size distribution measured on two equilibrium catalyst samples. These samples were acquired isokinetically using EPA Method 17.**

Particle size distribution is determined using the Bahco Micro Particle Classifier or one of several sedimentation techniques. The data are used to compare dusts with respect to electrostatic collectibility based on the amount of material finer than 10 µm, 2.5 µm and 1 µm. The particle size distribution is also key information needed (along with resistivity) to model precipitator performance.

Contact our Particle Characterization Services directly at:  
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