If there is any SO₂ in the sample, what is the concentration?

_____________ppm SO₂

If the concentration of sulfur dioxide will be 100 ppm or less in the sample, there should be no sulfuric acid mist problems. If the concentration exceeds 1000 ppm, there will very likely be a sulfuric acid mist problem and a larger system will be required.

Will the DeNOx process be in use (will ammonia be injected into the stack to reduce nitrogen oxide emissions)? If so an ammonia scrubber must be added to the system to protect the dryer and analyzer from the formation of ammonium bisulfate, a precipitate formed by the reaction between residual ammonia and sulfur dioxide in the sample.

The NH₃ concentration is?

_____________ppm NH₃

If there is HCl in the sample, what is the concentration?

_____________ppm HCl

Hydrogen Chloride will not hurt the system, but will require that all wetted surfaces be a fluorocarbon polymer (either Teflon® or Kynar®) instead of stainless steel so that there is no corrosion.

What is the initial water content and temperature of the sample?

Coal or Oil combustion = ~12% H₂O/vol ______
Natural Gas = ~22% H₂O by volume ______
Wet Scrubber = ~50% H₂O by volume ______
Other _______________

Sample Temperature ______________

What is the total sample flow rate required by the analyzers?

_________LPM

The Perma Pure dryer requires a purge gas to remove the water vapor from the system.

Will -40°C dew point air be available?

YES_____  NO_____