The Environmental Technician conducts tests and field investigations to obtain data for use by environmental, engineering and scientific personnel in determining potential sources of pollution and methods of controlling pollutants in air, water, and soil, utilizing knowledge of agriculture, biology, geology, hydrology, chemistry, meteorology, and engineering principles and applied technologies. This worker conducts chemical, biological and physical laboratory and field tests, under the supervision of others, according to defined standards to determine characteristics or composition of media in question using materials such as but not limited to the following: pH meter, chemicals, autoclaves, centrifuge spectrophotometers, microscope, analytical instrumentation, and other biological, chemical and/or geophysical laboratory and/or field equipment.

This worker may also collect samples of all different matrices (air, water, soils/sediments, sludge, industrial/hazardous wastes, biological materials, etc) and record field data/measurements associated with these samples as well as other conditions or circumstances relevant to the sample (meteorological conditions, flow rates, depths, etc). This worker prepares sample for testing and/or shipment/transfer, establishes the required chain of custody documentation, records data, maintains and calibrates field measurement equipment and necessary instrumentation and/or monitoring systems.

This worker, under the supervision of others, may operate fixed or mobile monitoring or data collection stations, may conduct biological, chemical or physical tests related to research in environmental or pollution control activity.

The Laboratory Technician performs, under the supervision of others, laboratory tests according to prescribed methodologies to determine biological, chemical and physical characteristics or composition of samples. These samples may be solid, liquid, or gaseous materials. These samples may represent, but are not limited to, field samples, process control samples, quality assurance samples, product development samples or samples to demonstrate conformity to specifications. This worker may be responsible for the proper handling, preparation, digestion and/or extraction of materials for analysis for biological, chemical and/or physical parameters of interest. This worker may also be responsible for the analysis or measurements of parameters of interest including the set up of instrumentation/equipment, calibration, analysis and, at least preliminary responsibility for review/assessment of the acceptability of data for its intended use.

The worker is also responsible for work area housekeeping, routine and/or preventative maintenance of instrumentation/equipment which is used for the tests performed. Corrective actions relative to equipment/instrumentation, quality assurance or the usability of data are reported and managed, with the assistance of the worker, by others.

The Laboratory Technician record test results on standard forms or in electronic files, and maintains all other necessary records to assure compliance with the quality system under which the laboratory performs its work. Worker may write test reports describing procedures used, and may prepare graphs and charts as required to present the findings of the tests.
A Laboratory Analyst is a worker, who by any number of titles, represents a senior level individual who is responsible for compliance with regulatory requirements related to the laboratory, compliance with internal or project specific data quality objectives, compliance with laboratories policies and procedures and compliance with specified methodologies/procedures utilized by the laboratory. This individual may or may not be directly involved in laboratory management per se (i.e., Administrative/Supervisory tasks). This individual works in the laboratory, performs some if not all the duties and responsibilities of a Technician but can work independently to provide information to internal or external data users, without oversight of others. This worker may also be directly or indirectly responsible for the activities of technician(s) in the laboratory.

This worker generally possesses higher experience and/or education, more familiarity and operational knowledge of instruments and/or equipment, and maintenance of same, Also this worker is generally more acquainted with principles of quality assurance, quality systems, data quality objectives, and is more versed in various methodologies, protocols and/or procedures

Dependent on the size and the structural organization of the laboratory, this worker may assume other tasks including but not limited to scheduling of other workers activities, training/mentoring and/or coaching, higher levels of data review, communication directly with internal and/or external clients, and a more active role in the corrective action process

Dependent on the activities of the laboratory organization, this worker may also author and/or review/approve Standard Operating Procedures or serve as the responsible individual for accreditation of part or all of the laboratory.