

Bid Specifications

1. System must combine a purge and trap (P&T) and multi-matrix 84-position XYZ autosampler into a single operating platform.
2. System must be able to automate methanol extractions in accordance with USEPA method 5035 for high-level soil samples.
3. System must be compliant with USEPA methods 5030, 5035, 8260, 524.2 and 524.3 for the analysis of soils, wastewater and drinking water.
4. System must use a moisture control system (MCS) that reduces moisture by up to 60% over previous models.
5. Standard injection system must use dosing valves capable of varying volumes and generating no waste.
6. System must be capable of dilution options up to 1:100 for aqueous samples.
7. System must be capable of performing automatic blanks pulled from a separate reservoir.
8. System must be capable of automatic methanol rinsing, hot water rinsing with a dual-stage water heater or a combination of both, for the entire sample pathway, allowing for the lowest achievable carryover.
9. System must have a sample syringe that dispenses variable volumes of liquid from 1 mL to 25 mL in 1mL increments.
10. System must employ an electronic mass flow controller (MFC) capable of varying flows for independent modes, in all matrix methods, including soil purging.
11. System must be capable of vial heating from 40 to 60 °C and soil mixing in variable speeds.
12. System must use a 3-stage concentric needle design.
13. System must be able to be controlled by a PC in Windows® 7 or higher environment.
14. System must utilize a complete diagnostic scheme including an automated leak check capable of diagnosing to the subsystem level.
15. System must be capable of vial cooling, with an optional tray and recirculating bath, at a temperature of approximately 4 °C.
16. System must contain a U-shaped trap design capable of heating to 350 °C.
17. Base model system must include three (3) independent injection systems for internal standards, surrogates and matrix spikes.
18. System must be capable of logging the sample history, including the purge and bake pressures.
19. System must be capable of automatically shutting off gas flow in the event of a potentially hazardous over-pressure situation.
20. System must be compatible with major gas chromatograph (GC) manufacturers' models via an optional, single, handshaking interface cable.
21. System must have a soil sample return line of less than 61 cm to the analytical trap.
22. System must be able to bake the analytical trap and sweep the sample needle simultaneously during a soil method.
23. System must have a runtime of 20 minutes or less for aqueous samples.
24. System must have a one-year manufacturer's warranty.
25. Autosampler and concentrator combined must occupy 71 cm or less of bench space.
26. System must be capable of conducting a semi-automated benchmark test that verifies the proper function of all electronically controlled components of the system and logs the test results to the history log.