SVE Pilot Testing Workplan SOP

The SVE Pilot Testing Workplan shall be reviewed and signed by a NM PE. The SVE pilot test shall be conducted under the direct supervisory control of a NM PE.

SVE pilot test workplans should include at a minimum but not be limited to the following:

- Brief narrative description of:
  - the pilot testing unit:
    - Blower specs (including brand, type, motor size, operational RPMs, and respective performance curves for vacuum operation)
    - Vapor treatment strategy
  - Instrumentation used to measure vacuum/pressure
    - manometers/U tubes or
    - vacuum/pressure gauges
  - Instrumentation used to measure flow
    - Pitot tube with a differential pressure gauge and chart or calculation as appropriate to convert to flow
    - Direct reading differential pressure flow meters (with readings in acfm) or
    - Variable area flow meters (e.g rotameters) that measure scfm directly
  - Instrumentation used to measure temperature
  - Instrumentation used to measure barometric pressure
  - Methodology for measuring concentrations of VOCs
  - Methodology for measuring concentrations of fixed gases
  - Pilot testing protocol:
    - Wells to be tested
    - Parameters to be measured including frequency and interval between recordings/measurements
    - Duration of pilot tests
    - Step testing
    - Data recording/strategy (e.g. hand recording, data logger, etc.)
  - Supplemental fuel use information if appropriate

- A Process and Instrumentation Diagram (P&ID) of pilot testing unit depicting the following:
  - Piping
  - Moisture/vapor separator tank
  - Blower
  - Vapor treatment
  - Sampling locations
  - Supplemental fuel source
  - Flow meters, vacuum and temperature gauges
  - Power source
  - Indicate on P&ID where measurements will be taken, including but not limited to the following:
    - Well effluent concentrations (field instrument measurements and bag or canister samples for lab analysis)
    - Temperature pre- extraction blower (well effluent temperature)
    - Test well effluent flow
    - Test well vacuum
    - Total system flow (pre-extraction blower)
    - Dilution flow
    - Applied vacuum at blower inlet
    - Fixed gases effluent vapor concentrations

- Plan view of the site depicting SVE test wells and observation wells.

- Cross-section schematic depicting screened intervals for test well and observation wells in relation to the subsurface contamination and geology including current ground water levels.

- Field Data Sheet