# United States Environmental Protection Agency Region III

# **Basic Ordering Agreement Specifications**

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#### Attachment 1

#### **Basic Ordering Agreement**

#### 1.1 Introduction

The purpose of this Agreement is to provide high quality, chemical analyses as part of the Delivery of Analytical Services (DAS) Program in USEPA Region III. The samples analyzed under this Agreement may be collected from hazardous waste sites within Region III for the purpose of enforcement and site re-mediation. In enforcement cases, which can be both civil and criminal in nature, the Government bears the burden of proof. Analytical data provided under a DAS order may be utilized to support such litigation. Therefore, to be in compliance with this agreement, the LABORATORY must strictly adhere to the required analytical methods and quality control procedures stated in this agreement and in each Order (DAS Request) so that resultant analytical data will be usable.

#### 1.2 Facilities (Equipment/Personnel/Materials Specifications)

LABORATORY shall furnish the necessary personnel, material, equipment, services and facilities to perform the analyses of environmental samples utilizing approved analytical methods, following strict quality assurance/quality control procedures, and submitting analytical results in a standardized format, as described in this agreement and in each Order

LABORATORY shall have an operating laboratory with personnel experienced in the preparation and analysis of environmental samples, specifically those described in this agreement, and shall be experienced in the timely, accurate, and precise analysis of environmental samples, as demonstrated by documentation or magnetic media systems for: sample handling, logistics and preparation, methods, procedures, extractions and/or digestions, concentration, standards preparation, instrument repair, automated and manual report generation, and quality assurance/quality control.

LABORATORY shall have installed and operating at a minimum the specified type and number of instrumentation and apparatus required to perform analyses as stated in this agreement. LABORATORY shall be responsible for all maintenance of this equipment.

LABORATORY shall provide personnel, facilities and equipment for performance of sample analyses and data reporting. The sample preparation and analytical specialist(s) assigned to each project shall have experience in the specified preparation technique(s) and in the interpretation of results of analysis of environmental samples by the instrumentation required to perform analyses as stated in this agreement.

### 1.3 Sample Documentation

LABORATORY shall have written standard operating procedures for receipt of samples, maintenance of Chain-of-Custody, sample identification, sample storage, tracking the analysis of samples and assembly of completed data following the guidelines set forth in Attachment 2, Chain-of-Custody, Document Control, Standard Operating Procedures and Quality Assurance Plan Requirements.

LABORATORY shall use the Agreement Number, the Call Order Number and those sample numbers provided on Chain- of-Custody form to identify samples analyzed under this Agreement both orally and in reports/correspondence.

LABORATORY shall maintain chain-of-custody procedures for samples until they are disposed of 60 days after completed data submission as described in Attachment 3, Report Descriptions and Order of Data Deliverables.

#### 1.4 <u>Analytical Methods</u>

LABORATORY shall utilize the methods supplied or referred to QC technical specification for the analysis of environmental samples under this Agreement.

# 1.5 QA/QC Requirements

LABORATORY shall follow the specific quality control requirements for the completion of each project as described in QC technical specifications.

LABORATORY shall have implemented a comprehensive quality assurance program to produce data that defines the reliability of the analytical results for analyses described in each Order. This shall include use of standard reference solutions from EPA Region III or the National Institutes of Standards and Technology (or secondary standards traceable thereto), or from sources which attest to the authenticity and concentrations of the standard solutions.

LABORATORY shall implement standard operating procedures as described in Attachment 2, Chain-of-Custody, Document Control, Standard Operating Procedures and Quality Assurance Plan Requirements. These standard operating procedures shall be made available to EPA Region III in accordance with Attachment 3 Table 3-1, Report Descriptions and Order of Data Deliverables, of this Agreement.

### 1.6 Data Package Format

LABORATORY shall provide reports and other deliverables as specified in Attachment 3 Table 3-1, Report Descriptions and Order of Data Deliverables.

#### 1.7 Sample Handling/Disposal

LABORATORY shall be responsible for all handling or processing required for the receipt of sample shipments.

Because of the potential hazards associated with the handling and analyses of these samples, LABORATORY shall be responsible for taking all necessary measures to ensure the health and safety of its employees.

LABORATORY shall be responsible for receipt of samples on other than normal work days if given prior notice of sample shipment by EPA Region III.

LABORATORY shall return clean sample shipping containers (e.g., metal coolers) to the sampler by ground carrier service within fourteen (14) days of sample receipt. LABORATORY will be provided with billing accounts for return of sample shipping containers and will not be responsible for direct payments to shipping vendors. The billing accounts will not be used for any purpose other than returning the specific coolers that they are associated with.

LABORATORY shall dispose of unused sample volume and used sample bottles/containers no earlier than 60 days and sample extracts/digestates no earlier than 365 days following complete submission of analytical data, unless instructed otherwise by EPA Region III. Sample/extract disposal and disposal of unused sample bottles/containers is the responsibility of the laboratory and shall be done pursuant to all applicable laws and regulations governing disposal of such materials. LABORATORY shall be responsible for long-term sample storage regardless of disposal capacity/availability (e.g., >1ppb dioxins).

The requirements specified in Attachment 1 shall apply equally and individually to each group of samples received by LABORATORY , (i.e., each set of samples shall require the full complement of analysis, QA/QC and reporting requirements at the rate and type specified in each Order). If any technical requirements contained within Attachment 1 conflict with instructions received in a specific Order, the specific Order shall take precedence.

#### Attachment 2

# CHAIN-OF-CUSTODY, DOCUMENT CONTROL, STANDARD OPERATING PROCEDURES AND QUALITY ASSURANCE PLAN REQUIREMENTS

# 2.1 Sample Chain-of-Custody

Because of the nature of the data being collected, the custody of EPA Region III samples must be traceable from the time the samples are collected until they are introduced as evidence in legal proceedings.

A sample is physical evidence collected from a facility or from the environment. Controlling evidence is an essential part of the hazardous waste investigation effort. To accomplish this, the following sample identification, Chain-of-Custody, sample receiving, and sample tracking procedures have been established. These procedures must be followed in ALL areas of the laboratory where subject samples for each Order are prepared and analyzed.

#### 2.2 Sample Identification

LABORATORY shall have a specified method for maintaining identification of samples throughout the laboratory to assure traceability of samples while in possession of LABORATORY. Each sample and sample preparation container shall be labeled with the EPA Region III DAS number or a unique laboratory identifier. If a unique laboratory identifier is used, it shall be cross-referenced to the EPA Region III DAS number.

# 2.3 <u>Chain-of-Custody Procedures</u>

LABORATORY shall have procedures ensuring that EPA Region III sample custody is maintained and documented. A sample is under custody if the following applies:

- It is in your possession
- It is in your view after being in your possession
- It was in your possession and you locked it up
- It is in a designated secure area (secure areas shall be accessible to authorized personnel only).

# 2.4 Sample Receiving Procedures

LABORATORY shall designate a sample custodian responsible for receiving all samples.

LABORATORY shall designate a representative to receive samples in the event that the sample custodian is not available.

LABORATORY shall have the sample custodian or designated representative inspect the condition of the shipping containers and sample bottles upon receipt by the LABORATORY.

LABORATORY shall have the sample custodian or designated representative inspect the condition of the custody seals (intact/not intact) upon receipt by the LABORATORY.

LABORATORY shall have the sample custodian or designated representative check for the presence or absence of the following documents accompanying the sample shipment:

- Airbills or airbill stickers
- Custody seals
- EPA Region III Chain-of-Custody records
- Sample Tags.

LABORATORY shall require the sample custodian or designated representative to sign and date all forms (e.g., custody records and airbills) accompanying the samples at the time of sample receipt.

LABORATORY shall contact EPA Region III Client Services team (CST) to resolve discrepancies and problems such as absent documents, conflicting information, broken custody seals, and unsatisfactory sample condition (e.g., leaking sample bottle).

LABORATORY shall record the resolution of discrepancies and problems on Telephone Contact Logs and provide them to EPA Region III Clients.

LABORATORY'S sample custodian or designated representative shall record the following information on EPA Form DC-1 (Attachment 5, Forms) as samples are received and inspected:

- Type and condition of the shipping container
- Presence or absence and condition of custody seals on shipping and/or sample containers
- Custody seal numbers, when present
- Type and condition of the sample bottles
- Presence or absence of airbills or airbill stickers
- Airbill or airbill sticker numbers
- Presence or absence of EPA Region III Chain-of-Custody records
- Presence or absence of sample tags
- Sample tag identification numbers cross-referenced to the EPA Region III sample numbers
- Verification of agreement or non-agreement of information recorded on shipping documents and sample containers
- Problems or discrepancies.

#### 2.5 <u>Sample Tracking Procedures</u>

LABORATORY shall maintain records documenting all phases of sample handling from receipt to final disposal. The records shall include documentation of the movement of samples and prepared samples into and out of designated laboratory storage areas.

#### 2.6 Document Control Procedures

The goal of the laboratory document control program is to assure that all documents for a

specified data package will be accounted for when the project is completed. Accountable documents used by LABORATORY shall include, but not be limited to, logbooks, chain-of-custody records, sample work sheets, bench sheets, and other documents relating to the sample or sample analyses. The following document control procedures have been established to assure that all laboratory records are assembled and stored for delivery to EPA Region III, or are available upon request from EPA Region III if prior to the delivery schedule.

All documents produced by LABORATORY which are directly related to the preparation and analysis of EPA Region III samples shall become the property of the EPA Region III and shall be placed in the Complete Sample Data Package File (CSF) as described in Attachment 3, Report Descriptions and Order of Data Deliverables. All observations and results recorded by LABORATORY but not on preprinted laboratory forms shall be entered into permanent laboratory logbooks. When all data from a specific data package is compiled, all original laboratory forms and copies of all data package-related logbook entries shall be included in the documentation package (CSF).

# 2.7 Preprinted Laboratory Forms and Logbooks

LABORATORY shall identify the activity recorded on all laboratory documents that is directly related to the preparation and analysis of EPA Region III samples.

LABORATORY shall use preprinted laboratory forms containing the name of LABORATORY which shall be dated (month/day/year) and signed by the person responsible for performing the activity at the time an activity is performed.

Logbook entries shall be dated (month/day/year) and signed by the person responsible for performing the activity at the time an activity is performed. Logbook entries shall be in chronological order. Entries in logbooks, with the exception of instrument run logs and extraction logs, shall include only one data package per page.

Pages in both bound and unbound logbooks shall be sequentially numbered front to back.

Instrument run logs shall be maintained in order to enable a reconstruction of the run sequence of individual instruments.

Because LABORATORY must provide copies of the instrument run logs to the EPA Region III, LABORATORY may exercise the option of using only laboratory or EPA Region III sample numbers in the logs for sample ID rather than client's names to preserve the confidentiality of other clients.

Corrections to supporting documents and raw data shall be made by drawing a single line through the error, initialing, dating and entering the correct information. Corrections or additions to supporting documents and raw data shall be dated and initialed by responsible party. No information shall be obliterated or rendered unreadable.

All notations shall be recorded in ink. Unused portions of documents shall be marked out with

#### 2.8 Consistency of Documentation

LABORATORY shall assign a Document Control Officer (DCO) responsible for the organization and assembly of the CSF.

All copies of laboratory documents shall be complete and legible.

LABORATORY'S DCO shall, prior to releasing analytical results, assemble and cross-check the information on sample tags, custody records, laboratory bench sheets, personal and instrument logs, and other relevant data to ensure that data pertaining to each particular sample or sample data package is consistent throughout the CSF.

# 2.9 <u>Document Numbering and Inventory Procedure</u>

LABORATORY shall inventory and assign a serialized number as described in Attachment 3, Report Descriptions and Order of Data Deliverables to each item in the CSF to provide document accountability of the completed analysis records. LABORATORY shall inventory relevant to each sample data package, including logbook pages, bench sheets, mass spectra, chromatograms, screening records, re-preparation records, re-analysis records, records of failed or attempted analysis, custody records, library research results, etc.

LABORATORY'S DCO shall be responsible for ensuring that all documents generated are placed in the CSF for inventory and are delivered to the appropriate data recipient. The DCO shall place the sample tags in plastic bags in the CSF.

# 2.10 Storage of EPA Region III Files

LABORATORY shall maintain EPA Region III laboratory documents in a secure location.

#### 2.11 Shipping Data Packages and CSF

LABORATORY shall document the shipment of data packages to the data recipients. These shipments require custody seals on the containers, secured such that they cannot be opened without damaging or breaking the seal.

LABORATORY shall document what was sent, to whom, the date, and the method (carrier) used.

LABORATORY shall submit the Sample Data Package, Sample Data Summary Package (if required), data in computer-readable form (if required), CSF deliverable, and Laboratory Self Assessment Form (if required) to EPA Region III within the number of days designated in each Order.

# 2.12 Specification For Written Standard Operating Procedures

A Standard Operating Procedure (SOP) is defined as a written step-by-step description of LABORATORY operating procedures including examples of LABORATORY documents. The SOPs shall accurately describe the actual procedures used by LABORATORY, and copies of the written SOPs shall be available to the appropriate LABORATORY personnel. These procedures

are necessary to ensure that analytical data produced under this Agreement are acceptable for use in EPA Region III enforcement case preparation and litigation.

LABORATORY SOPs shall provide the mechanisms and documentation to meet each of the following specifications and shall be used by EPA Region III as the basis for laboratory evidence audits when required.

LABORATORY shall have written SOPs for the following.

#### 2.13 Required Evidentiary SOPs

# 2.13.1 Receipt of Samples

LABORATORY shall have written SOPs for receiving and logging in samples. Use DC-1 Checklist to verify cooler, sample condition and documentation. The procedures shall include, but not be limited to, documenting the following information:

- Presence or absence of EPA Region III Chain-of-Custody forms
- Presence or absence of air bills or air bill stickers
- Presence or absence of custody seals on shipping and/or sample containers and their condition
- Custody seal numbers, when present
- Air bill or air bill sticker numbers
- Presence or absence of sample tags
- Sample tag ID numbers
- Type and condition of the shipping container
- Type and condition of the sample bottles
- Verification of agreement or non-agreement of information on receiving documents and sample containers
- Resolution of problems or discrepancies with EPA Region III RSCC
- An explanation of any terms used to describe sample condition upon receipt (e.g. good, fine, OK).

#### 2.13.2 Maintenance of Custody

LABORATORY shall have written SOPs for maintaining identification of EPA Region III samples throughout the laboratory.

LABORATORY shall have written SOPs describing the method by which the laboratory maintains samples under custody.

# 2.13.3 <u>Sample Identification</u>

LABORATORY shall have written SOPs regarding the assignment of unique laboratory identifiers (if this procedure is used by LABORATORY) including a description of the method used to assign the unique LABORATORY identifier and cross-reference to the EPA Region III sample number.

LABORATORY shall have written SOPs on the assigning of prefixes or suffixes in addition to sample identification numbers (if this procedure is used by LABORATORY), including their definitions.

# 2.13.4 Sample Storage

LABORATORY shall have written SOPs describing all storage areas for samples in the laboratory. The SOPs shall include a list of authorized personnel who have access or keys to secure storage areas.

# 2.13.5 Tracking of Sample Analysis

LABORATORY shall have written SOPs for tracking work performed on any particular sample. The tracking SOP shall include:

- A description of the documents used to record sample receipt, sample storage, sample transfers, sample preparations, sample analyses and sample disposal
- A description of the documents used to record calibration and QA/QC laboratory work
- Examples of document formats and laboratory documents used in the sample receipt, sample storage, sample transfer and sample analyses
- A narrative step-wise description of how documents are used to track samples.

### 2.13.6 Assembly of Completed Data

LABORATORY shall have written SOPs describing organization, assembly and submission of all documents related to the Complete Sample Data Package File (CSF). The procedures are to use the DC-2 form to ensure that all documents including logbook pages, sample tracking records, chromatographic/strip charts, computer printouts, raw data summaries, correspondence and any other written documents having reference to the CSF are compiled in one location for submission to EPA Region III. The written SOPs shall include:

- A description of the numbering and inventory system
- A description of the method used by LABORATORY to verify consistency and

- completeness of the CSF
- Procedures for the shipment of deliverables package using custody seals.

#### 2.14 Other SOPs

- 1. Preventing sample contamination
- 2. Security for laboratory and samples
- 3. Standards purity/preparation
- 4. Maintaining instrument records and logbooks
- 5. Sample analysis and data control systems
- 6. Glassware cleaning
- 7. Technical and managerial review of laboratory operation and data package preparation
- 8. Internal review of contractually-required quality assurance and quality control data for each individual data package
- 9. Sample analysis, data handling and reporting
- 10. Laboratory data validation/laboratory self inspection system
  - a. Data flow and chain-of-command for data review
  - b. Procedures for measuring precision and accuracy
  - c. Evaluation parameters for identifying systematic errors
  - d. Procedures to assure that hard copy deliverables are in agreement with their comparable diskette deliverables, if required
  - e. Demonstration of internal QA inspection procedure (demonstrated by supervisory signoff on personal notebooks, internal PE samples, etc.)
  - f. Frequency and type of internal audits (e.g., random, quarterly, spot checks, perceived trouble areas)
  - g. Demonstration of problem identification-corrective actions and resumption of analytical processing. Sequence resulting from internal audit (i.e., QA feedback)
  - h. Documentation of audit reports (internal and external), response, corrective action, etc.

# 11. Data management and handling

- a. Procedures for controlling and estimating data entry errors
- b. Procedures for reviewing changes and data and deliverables and ensuring traceability of updates
- c. Life cycle management procedures for testing, modifying and implementing changes to existing

computing systems including hardware, software, and documentation or installing new systems

- d. Data base security, backup and archival procedures including recovery from system failures
- e. System maintenance procedures and response time
- f. Individual(s) responsible for system operation, maintenance, data integrity and security
- g. Specifications for staff training procedures
- h. List of signatures, initials and typed name of laboratory personnel.

#### 2.15 QUALITY ASSURANCE PLAN

LABORATORY shall establish a quality assurance program with the objective of providing sound analytical chemical measurements. This program shall incorporate the quality control procedures, any necessary corrective action, and all documentation required during data collection as well as the quality assessment measures performed by management to ensure acceptable data production.

LABORATORY shall prepare and deliver (see Attachment 3 Table 3-1, Performance/Delivery Schedule) a written Quality Assurance Plan which describes the procedures that are implemented to achieve the following:

- Maintain data integrity, validity, and usability
- Ensure that analytical measurement systems are maintained in an acceptable state of stability and reproducibility
- Detect problems through data assessment and establishes corrective action procedures which keep the analytical process reliable
- Document all aspects of the measurement process in order to provide data which are technically sound and legally defensible.

LABORATORY's quality assurance plan must present the policies, organization, objectives, functional guidelines, and specific QA and QC activities designed to achieve the data quality requirements in this Agreement. Where applicable, SOPs pertaining to each element shall be included or referenced as part of this plan. LABORATORY's quality assurance plan must be available during On-Site Laboratory evaluation and updates submitted upon written request by EPA Region III.

#### Elements of a Quality Assurance Plan

- A. Organization and Personnel
  - 1. QA Policy and Objectives

### 2. QA Management

- a. Organization
- b. Assignment of QA and QC Responsibilities
- c. Reporting Relationships
- d. OA Document Control Procedures
- e. QA Program Assessment Procedures

#### 3. Personnel

- a. Resumes
- b. Education and Experience
- c. Training Progress

# B. Facilities and Equipment

- 1. Instrumentation and Backup Alternatives
- 2. Maintenance Activities and Schedules

#### C. Document Control

- 1. Laboratory Notebook Policy
- 2. Samples Tracking/Custody Procedures
- 3. Logbook Maintenance and Archiving Procedures
- 4. Case File Organization, Preparation and Review Procedures
- 5. Procedures for Preparation, Approval, Review, Revision, and Distribution of SOPs
- 6. Process for Revision of Technical or Documentation Procedures

# D. Analytical Methodology

- 1. Receipt and Review of Order Document
- 2. Calibration Procedures and Frequency
- 3. Sample Preparation/Extraction Procedures
- 4. Sample Analysis Procedures
- 5. Standards Preparation Procedures
- 6. Decision Processes, Procedures, and Responsibility for Initiation of Corrective Action

# E. Data Generation

- 1. Data Collection Procedures
- 2. Data Reduction Procedures
- 3. Data Validation Procedures
- 4. Data Reporting and Authorization Procedures

# F. Quality Control

- 1. Solvent, Reagent and Adsorbent Check Analysis
- 2. Reference Material Analysis
- 3. Internal Quality Control Checks
- 4. Corrective Action and Determination of QC Limit Procedures
- 5. Responsibility Designation
- 6. Participate in Performance Evaluation Studies

# G. Quality Assurance

- 1. Data Quality Assurance
- 2. Systems/Internal Audits
- 3. Performance/External Audits
- 4. Corrective Action Procedures
- 5. Quality Assurance Reporting Procedures
- 6. Responsibility Designation

#### Attachment 3

# REPORT DESCRIPTIONS AND ORDER OF DATA DELIVERABLES

### 3.1 Report Requirements

The analytical and reporting requirements specified in this Attachment 3 shall apply equally and individually to each group of samples received by LABORATORY, i.e., each set of samples shall require the full complement of analyses, QA/QC and reporting requirements at the frequency and of the type specified in technical specifications of this Agreement. Region III requires all original data and support data must be provided in the data package deliverable. If any requirements contained within this Attachment conflict with instructions received in a specific Order, the specific Order shall take precedence.

LABORATORY must provide reports and other deliverables as specified below. Use the DC-2 Checklist to assemble the data package deliverable. All reports and documentation MUST BE:

- Legible
- Clearly labeled and complete in accordance with instructions contained herein
- Arranged in the order specified in this Attachment
- Paginated

If submitted documentation does not conform to the above criteria, LABORATORY will be required to resubmit such documentation with all deficiencies corrected at its own expense. Whenever LABORATORY is required to submit or resubmit data as a result of EPA Region III data review, the data must be sent to all data recipients within 3 business days of transmittal (fax or telephone) of the request for re-submission and at no additional cost to EPA.

#### 3.2 Sample Data Package

LABORATORY shall supply a sample data package that includes all analytical data for, but not limited to, field samples, re-analyses, blanks, matrix spikes, duplicates and/or matrix spike duplicates, pre-analysis spikes or startup tests (if applicable), QC check samples and laboratory control samples and EPA Region III reference samples for the subject analyses as described in each Order.

LABORATORY shall submit an individual set of report deliverables for each Sample Delivery Group (SDG). A sample delivery group is defined, depending on requested turnaround time, as follows:

Samples received over a 7 day period and/or not to exceed 20 samples.

The lowest EPA sample number within an SDG should be used as the SDG number.

LABORATORY's sample data package shall be complete prior to submission and must be consecutively paginated (front to back).

LABORATORY shall arrange sample data forms in increasing EPA Region III Sample Number order.

LABORATORY shall supply a cover page for each data package. The cover page shall include:

- Date of report
- Laboratory name and code
- EPA Region III Agreement number
- DAS Order number
- EPA Region III sample numbers in alphanumeric order cross referenced to laboratory ID number
- Definitions of laboratory data qualifiers.

LABORATORY shall supply a narrative with each data package. The narrative shall include:

- DAS Order number
- Number and matrix of samples received
- Date of sample receipt and condition of received samples
- Methods used for the analysis of samples
- One or more examples showing how final results were obtained from raw data for each analyte. The calculations performed by LABORATORY in generating sample data must be able to be reproduced by a third party from the data package
- Any deviations from required methods
- Instrument identification and operating conditions
- Problems encountered during sample receipt and/or analysis and decision tree process used to solve problems
- The following statement <u>verbatim</u>: "I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. In addition, I certify, that to the best of my knowledge and belief, the data as reported are true and accurate. Release of the data contained in this data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature." This statement shall be directly followed by signature of the Laboratory Manager or his designee with a typed line below it containing the signer's name and title, and the date of signature.
- Copies of all telephone record logs that document conversations regarding the particular Order
- Narrative components of the laboratory self assessment checklist.

LABORATORY shall supply summary data forms (including appropriate suffixes listed here) for field samples, dilutions (DL or DL2 for Pest only), re-analyses (RE), laboratory blanks (fraction designator BLK##), matrix spikes (MS), duplicates (DU) and/or spike duplicates (MSD), laboratory control samples (LCS), QC check samples, calibrations, detection limits, surrogate recoveries, holding time information and any other method specific QC items required in technical specifications.

LABORATORY shall supply all original raw data (i.e., strip charts, chromatograms, quantitation reports, etc.) for samples, blanks, spikes, duplicates and/or spike duplicates, laboratory control samples, QC check samples, calibrations, tunes as generated by instrument readout and any other QC items required in Attachment 5. If no instrument readout or recorder paper is produced, LABORATORY must submit bench sheets with hand-written instrument readings. Each sheet must have the analyst's name and signature on it. All raw data supplied by the LABORATORY must contain the corresponding EPA sample number, SDG number, date and time of analysis, instrument identification number, and laboratory file identification number.

LABORATORY shall supply analysis/run logs indicating the sequence of all analyses including standards, samples, blanks, etc. LABORATORY may exercise the option of using only LABORATORY or EPA Region III sample numbers in the logs for sample ID rather than client's names to preserve the confidentiality of other clients.

LABORATORY shall store <u>all</u> raw and processed GC/MS data on magnetic tape, CD-ROM or other electronic media in appropriate instrument manufacturer's format. This tape or other electronic media must include data for samples, blanks, initial calibrations, continuing calibrations, BFB and DFTPP, as well as all laboratory-generated spectral libraries and quantitation reports required to generate the data package.

LABORATORY shall maintain a written reference logbook of tape files and other electronic media to EPA Region III sample number, calibration data, standards, and blanks. The logbook should include Sample Numbers and standard and blank ID's, identified by Agreement number.

LABORATORY shall retain the GC/MS tapes for 365 days after data submission. During that time, LABORATORY shall submit tapes, other electronic media, and associated logbook pages within seven days after receipt of a written request from EPA Region III.

LABORATORY shall supply copies of the following sample documentation, signed and dated, indicating receipt of samples:

- Chain-of-Custody
- Shipping receipts (airbills).

LABORATORY shall supply a copy of each Order in each of its corresponding data packages. LABORATORY must also include copies of any methods supplied with each Order in the data package.

LABORATORY shall retain a copy of the Sample Data Package for 365 days after final submission of data. After this time, the LABORATORY may dispose of the package.

#### 3.3 Complete Sample Data Package File (CSF)

The Complete Sample Data Package File (CSF) for each SDG will consist of the following original documents in addition to the documents in the Sample Data Package. The contents of the CSF will be consecutively numbered. No copies will be placed in the CSF unless the originals are bound in a logbook that is maintained by LABORATORY.

LABORATORY shall supply one CSF to EPA Region III within the number of days designated in each Order.

- 1. The original Sample Data Package and EDDs
- 2. A completed and signed DC-2 Data Package Inventory Checklist in Attachment 5.
- 3. All original shipping documents, including, but not limited to, the following documents:
  - Chain-of-Custody Record(s)
  - Air bills
  - Sample Tags (if present) sealed in plastic bags.
- 4. All original receiving documents, including, but not limited to, the following documents:
  - Sample Log-In Sheet (see example Form DC-1 in Attachment 5, Forms)
- 5. Web Site for Region 3 EDDs

#### http://www.epa.gov/reg3hwmd/edd/index.htm

- Other receiving forms or copies of receiving logbooks
- Cover Sheet for Chain-of-Custody record.
- 5. All original laboratory records, not already submitted in the Sample Data Package, of sample transfer, preparation and analysis, including, but not limited to, the following documents:
  - Original preparation and analysis forms or copies of preparation and analysis logbook pages
  - Internal sample and sample extract transfer chain-of-custody records
  - Screening records
  - All instrument output, including strip charts from screening activities.
- 6. All other original Order-specific documents in the possession of the laboratory, including, but not limited to, the following documents:
  - Telephone contact logs
  - Copies of personal logbook pages
  - All handwritten Order-specific notes
  - Any other Order-specific documents not covered by the above.

All documentation related to a particular SDG may be used or admitted as evidence in subsequent legal proceedings. Any other Order-specific documents generated after the CSF is sent to EPA Region III, as well as copies that are altered in any fashion, are also deliverables to EPA Region III. If the laboratory submits Order-specific documents to EPA Region III after submission of the CSF, the documents should be numbered as an addendum to the CSF and a revised document inventory checklist should be submitted, or the documents should be numbered as a new CSF and a data package inventory checklist form should be submitted (original) to the Region.

# 3.4 Sample Data Summary Package

LABORATORY shall submit to EPA Region III a separate (i.e., separated by rubber bands, clips or other means) Sample Data Summary Package directly <u>preceding</u> the Sample Data Package. The Sample Data Summary Package consists of copies of specified items from the Sample Data Package in the following order:

- 1. Cover Page
- 2. Narrative
- 3. Copy of the Order

- 4. Copies of Chain-of-Custody Records signed by laboratory
- 5. Summary forms for samples, standards and QC.

A Sample Data Summary Package shall be submitted for all data.

# 3.5 Order Of Data Deliverables

LABORATORY shall supply data in the format listed below:

- 1. Sample Data Summary Package
- 2. Document Inventory sheet
- 3. Cover Page
- 4. Narrative
- 5. Copy of the Order including any methods supplied
- 6. Copies of Chain-of-Custody Records
- 7. Summary forms for field samples, standards and QC samples
- 8. Raw data for samples, standards and QC
- 9. Sample preparation logs
- 10. CSF

LABORATORY shall retain a copy of each sample data package (Sample Data Summary Package, Sample Data Package and CSF) for 365 days after final submission of data. After this time, the laboratory may dispose of the package.

TABLE 3-1
PERFORMANCE/DELIVERY SCHEDULE

Item	Description	O www.	Time Required for Performance Completion	Destruction
<u>No.</u>	<u>Description</u>	Quantity	and/or Delivery +	Recipients
1	Evidentiary SOPs	2 copies	Submit updates within 7 days of written request by EPA Region III	EPA Region III Clients
2	Sample Preparation, Extraction and Analysis	N/A	As specified in method and in Technical Specifications	N/A
3	Sample Data Summary Package	1 copy	1 per SDG	EPA Region III Clients
4	Sample Data Package and EDDs	1 copy	As specified in Attachment 3 14 or 21 days from VTSR *	EPA Region III Clients
5	Data in Computer - Readable Form (if applicable)	If requested	If requested	EPA Region III Clients
6	Complete Sample Data Package File	1/Package	As specified in Attachment 3	EPA Region III Clients
7	GC/MS Tapes	Lot	Retain for 365 days after data submission; or submit within 7 days after receipt of written request by EPA Region III	As Requested by EPA Region III Clients
8	Extracts	Lot	Retain for 365 days after data submission; submit within 7 days after receipt of written request by EPA Region III (store at 4°C)	As Requested by EPA Region III Clients
9	Quality Assurance Plan	1 copy	Submit within 7 days of written request by EPA Region III	EPA Region III Clients
10	Other Standard Operating Procedures (see Attachment 2)	1 copy	Submit within 7 days of receipt of written request by EPA Region III	EPA Region III Clients

# NOTE: ALL RESULTS ARE TO BE REPORTED TOTAL AND COMPLETE

<sup>\*</sup>VTSR (Validated Time of Sample Receipt) is the date of sample receipt at the Contractor's facility, as recorded on the shipper's delivery receipt and the Chain-of-Custody Records.Clients: EPA REGION III Client Services Team, 701 Mapes Road, Fort Meade, MD 20755-5350. + Time is cited in calendar days.

#### Attachment 4

#### **INVOICE INSTRUCTIONS**

#### 4.1 Billable Units

The cost of quality control samples, and re-analysis required under this agreement must be incorporated into unit price of the sample.

- \*SDG: The laboratory must follow the CLP sample deliver group (SDG) definition which is 20 samples or less per batch delivered to the laboratory within a span of 7 consecutive days.
  - \* Deliverables: All data package deliverables are as per CLP or CLP like which the laboratory can produce with its own software. Upon request, reporting forms are available from the region.

The DC-1 and DC-2 Data Package Inentory Checklist is provide with this BOA.

\*All analysis must be performed at the contracted laboratory.

Subcontracting is not permitted under this agreement without prior approval of the contracting officer.

\* Quality control specification are attached on a separate sheet.

Appropriate suffixes as described in Attachment 3, Section 3.2 must be included in invoice line items. If any requirements contained within this Attachment conflict with instructions received in a specific Order, the specific Order shall take precedence.

#### Dilutions will be billed according to the following schedule:

Volatiles (1 dilution allowed): Full unit price

Semivolatiles (1 dilution allowed): 50% unit price

Pesticides/PCBs (2 dilutions allowed): 50% unit price

Metals (1 dilution per metal allowed): 1/23 of unit price multiplied by 0.2

All other analyses that only require dilution at the instrument will be billable at 20% of unit price. Analyses that require re-preparation of samples for dilutions will be billable at unit price.

# Attachment 5

# Report Forms

Data Package Deliverables: All data package deliverables are as per CLP or CLP like which the laboratory can produce with its own software. The regional DC-1 is provided to be used to inventory sample cooler shipments. The Data Package Inventory Checklist is provided to be used in the assembly of the data package for parameters other than CLP.

# Region III DC-1 SAMPLE LOG-IN SHEET

LOG-IN DATE:	DAS NO.:
LAB NAME:	SDG NO.:
RECEIVED BY:	

SIGNATURE:

# CHECK THE APPROPRIATE RESPONSE:

CUSTODY SEAL(S)	PRESENT	ABSENT	INTACT	BROKEN
CHAIN OF CUSTODY (COC) RECORD				
TRAFFIC REPORT OR PACKING LIST				
AIRBILL / STICKER				
SAMPLE TAGS				
SAMPLE TAG NUMBERS ON CHAIN OF CUSTODY				
DATE RECEIVED BY LAB:				
TIME RECEIVED:				
DOES INFORMATION AGREE ON C O C, AND TAGS				
10. AIRBILL NUMBER				

SAMPLE TRANSFER					
	DATE				
FRACTION					
TRACTION					

REVIEWED BY:	
LOGBOOK NO.:	LOGBOOK PAGE NO.:

DATE:

DC-1

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#### SAMPLE LOG-IN SHEET

	STANTED BOOTEVORED				
EPA SAMPLE#	SAMPLE TAG #	LAB ASSIGNED#	CUSTODY SEAL #	SAMPLE CONDITION	

# DC- 2 Data Package Inventory Checklist

Lab Name:	DAS Number:		SDG Number:
City:	State:		Zip Code:
Order Number:		Parameter:	

Page Numbers From To

Inventory Sheet	XXXXXXX	XXXXXXX	Lab	EPA
SDG Narrative	1			
SDG Cover Sheet/Traffic Report				
QC Data			Check	
Sample Data				
Standard Data				
Blank Data				
Raw Data				
Preparation Logs				
Clean-up Logs				
Analysis Logs				
Internal Chain of Custody Logs				
Shipping / Receiving Documents				
Telephone / e-mail Logs				
Other Records				

Organization	Lab Inventory	Region 3 Auditor	EPA Verifier
Print Name			
Title			
Date			
Signature			