

## **X. Reporting Options**

### **Hardcopy Delivery Options**

ENCO's Element LIMS is a state-of-the-art data management and reporting system. Element allows ENCO to generate, track, archive, manipulate, transfer and report data all within a single system so that reporting and transcription errors can be eliminated. Our tried and true LIMS is currently used in approximately 200 laboratories including several EPA facilities. Element provides the mechanism for ENCO to create laboratory reports that meet our clients' specifications. ENCO automatically includes enough quality control information with our standard reports to perform a level a basic level of data validation. Additionally, fully validatable packages (including summary forms and raw data) are available. Our standard reports include the following QA/QC information:

- Date(s) of Sample Collection
- Date(s) of Sample Receipt
- Date(s) of Sample Extraction(s)
- Date(s) of Sample Analysis
- Surrogate Percent Recoveries (Where Applicable)
- Laboratory Blank Results
- Matrix Spike/Matrix Spike Duplicate Recoveries
- MS/MSD Relative Percent Differences
- Acceptable Recovery Ranges

Hardcopy laboratory reports are available via facsimile, the internet, US mail, by common carrier. We offer many reporting format options and often tailor our reporting formats to meet individual client needs. While hardcopy (paper) reports are still popular, they are becoming less so with each passing day. However, the trend in today's world is to reject hardcopy reports in favor of electronic data.

### **E-Data Delivery Options**

Standard Electronic Data Deliverables (EDDs) are typically provided to our customers free of charge and are delivered concurrently with each hardcopy report. However, more and more lab customers are now choosing to forego the traditional hardcopy report and rely solely on e-data – or a combination of e-data and an 'electronically signed' PDF file. These E-data files can be delivered to your e-mail address, posted to a web-site, transferred to you along with the hardcopy reports via CD-ROM. – or be made available to you via our interactive website.

### **Customization Options**

ENCO has endeavored to provide and support our clients' growing electronic information requirements by developing a comprehensive library to handle the vast majority of common formats. However, due to the many potential applications and variety of end data uses, we may not have a push-button solution that fully addresses your requirements. Thus, custom formats are available on a Programming Fee basis.

## Standard EDD Library

ENCO's EDD library includes a wide selection of both basic and nationally recognized complex Electronic Data Deliverable output formats. The library is updated regularly as common state, regional, national and commercial formats are added or updated. Examples of the standard library EDD formats are presented in the following sections.

Format Name	Description
<b>Flat File Formats</b>	
Standard Text/FxW	Basic EDD in ASCII format with fixed-width field separation
Standard Text/CSV	Basic EDD in ASCII format with comma-separated value (CSV) field separation
Standard Text/TAB	Basic EDD in ASCII format with tab-delimited field formatting
<b>Spreadsheet File Formats</b>	
Standard Excel	Basic EDD in Excel 5.0/7.0 format
Standard Lotus	Basic EDD in Lotus format
Simple Excel	Simple results-only EDD in Excel 5.0/7.0 format
Analyte Pivot	Simple Analyte-based result EDD in Excel 5.0/7.0 format
Custom Excel	Variations of excel spreadsheet content and formatting from the ENCO archive.
<b>Database File Formats</b>	
Standard Access 2	Basic EDD in Access 2.0 format
Standard Access 7	Basic EDD in Access 7.0 (95) format
Standard DBASE IV	Basic EDD in Dbase IV format
Standard FoxPro3	Basic EDD in Fox Pro3.0 format
<b>Nationally/Regionally Recognized Formats</b>	
Adapt (with ADR)	Laboratory Data Consultants, Inc. Adapt version 2.0
FL DEP Adapt	Florida DEP's version of LDC's Adapt version 2.0
Validator	FDEP Lab Data Support group format for automated data review
COELT 1.2a	Corps of Engineers Loading Tool / EDMS and EDF format
Equis 3.x	Earthsoft, Inc. 4-table format
GIS/Key 2.3	GIS/Solutions, Inc. GIS/Key version 2.3
GIS/Key 3.1	GIS/Solutions, Inc. GIS/Key version 3.1
IRPIMS DLH 3.0	AFCEE IRPIMS Data loading Handbook version 3.0 format
ERPIMS DLH 4.0	AFCEE ERPIMS Data loading Handbook version 4.0 format
Envirodata	Environmental Data Management System (EDMS)
SEDD (2a 5.0, 2b 5.0, and Exhibit H)	Staged Electronic Data Deliverable - new USEPA format
<b>Other</b>	
Standard XML	Basic EDD in Extensible Markup Language (XML) format
Client Specific	Several client-specific proprietary e-data formats