

ECCS **NATIONWIDE** MOBILE LABORATORIES

IMPLEMENTATION OF DoD QSM 5.0 IN A MOBILE LABORATORY SETTING

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EMDQ 2014, OMAHA, NE

Your Partner in the Field

Your Partner in the Lab

Your Partner in Success

Presentation Overview

- **Introduction**
- **Project-Specific Quality Requirements**
- **Analytical Quality System**
- **Project-Based Quality System**
- **LIMS System**
- **Entity Status**
- **Case Studies**
- **Conclusion**

Introduction

- **ECCS Nationwide Mobile Laboratories**
 - 22 years in mobile laboratory business
 - 1,300 project sites in 38 states and 2 international locations
 - Analysts have an average of 15 years experience
- **DoD ELAP for All Mobile Labs (A2LA - since 3/27/12)**
- **Certified as an Entity**
- **VOAs, TPH, PAHs, PCBs, Pesticides/Herbicides, Explosives, Metals (6200 and 6020)**
- **Definitive Data - QSM 5.0 Compliant**



Project Specific Requirements - General

GEN SOP 13 is backbone of ECCS project quality system

- Discovery and Proposal
- Project Award and Establishment
- Health & Safety
- Mobilization / Demobilization
- On-Site Testing Activities
- Final Report Prep and Delivery
- Project Based QA/QC Systems



Project Specific Requirements - DoD

General SOP 29, DoD Project Requirements

- Quarterly thermometer verification
- Mechanical volumetric pipettes checked daily
- PT samples
- Batch QC evaluation to DoD requirements
 - Blanks, LCSs, MS/MSDs
- DoD LODs



Analytical Quality System

- Full industry standard analytical batch and calibration quality control – NOT DoD “*lite*”
- At a minimum, DOCs and LOD verification (each analyst and instrument) are required before sample analysis can start
 - Project specific LOD determination is sometimes requested.
- For longer term projects, site specific QC limits are generated
- 100% peer review
- Final project manager review
- Complete project case narrative



Project Based Quality System – ECCS “Standard”

Project Quality Control Systems

- Detailed proposals
- Project set-up forms
- Project kick-off meeting
- Project close out requirements
- Client feedback
- Project Based Filing System
 - Project client info: QAPP, maps, historical data
 - ECCS Project Info
 - All instrument electronic data
 - Draft and Final Reports
 - Copy of Project-specific LIMS database
 - Contract and Invoice Information



Project Based Quality System – Quality Assurance

Project Quality Assurance Systems

- Project closeout meeting – lessons learned
- All staff meeting to discuss lessons learned
- 10% on-site internal audits – unannounced
- 10% project closeout audits – assure all project details are in electronic and hard copy files



Laboratory Information Management System (LIMS)

- Promium Element[®] is a production-oriented LIMS dedicated to the unique needs of laboratories that focus on environmental testing
- Element is operated in all ECCS fixed facility and on-site testing facilities
- A detached Access database is used offline in the field and the data is synchronized with the main LIMS upon return



Laboratory Information Management System (LIMS)

- Final Report Options
 - Summary style – 6 samples per page, no batch QC
 - Standard Level 2 – 1 sample per page, full batch QC
 - Standard level 3 – CLP forms, no raw data
 - Standard Level 4 – CLP forms, full raw data
- EDD options – 70+ EDD formats available including
 - ADR A1, A3 and eQAPP
 - SEDD 2A
 - DoD Specific (ERPIMS, NIRIS, ERIS, etc)
 - EQuIS

LIMS - EDD Format Examples

- ADR A1 / A3
- AK EDRS
- Analyte Pivot
- APG Upload
- Bechtel
- CA Write-On
- CALTrans
- CH2MHill V4
- Chevron
- CIWQS CDF
- COELT 1.2a
- COELT 1.2i
- EDD Builder
- EDF 1.2i
- EDMan
- eDWR_SDWIS
- EM EDD 13
- EnviroData
- EPA Scribe
- EQUIS 3.x
- ERA CSV Upload
- ERIMS v2.1
- ERIS
- ERPIMS LAB DLH 4.0
- EPRIMS PRM DLH 4.0
- Esmart EDD
- FL Validator
- Florida DEP ADAPT
- GEMS EDATA
- GEMS EDATA V6
- GIS/Key 2.3
- GIS/Key 3.1
- Illinois xls
- IRPIMS DLH 3.0
- LINKO
- LOCUS EIM
- LOCUS EIM 53
- MassDEP
- Michigan DEQ_WMD
- Minn PCA
- MW ERPIMS DLH 4.0
- MW IRPIMS DLH 3.0
- NHEMD
- NPDES DNR
- Oregon DOH
- Sample Analyte Pivot
- SAP QM-IDI 4.6
- SCWRB 2
- SEDD 2a Rev 5.0
- SEDD SOM01.1 Exhibit H
- Simple Excel
- Simple Excel B
- Standard Access 2
- Standard Access 7
- Standard DBASE
- Standard Excel
- Standard FoxPro
- Standard Lotus
- Standard Text/CSV
- Standard Text/FxW
- Standard Text/TAB
- Standard XML
- STEERS EDMR
- SWAMP
- SWRCB ERS 2.0
- TCEQ
- TerraBase Lvl2
- TetraTech
- TRANSFER FILE
- TRANSFER FILE No Sample Name
- UCMR Text
- UCMR2
- UCRM2 CDX
- Visual Site Manager 2.0
- WaterTrax
- Weston Text
- WI DNR Text
- Wibby Upload
- Wis DNR LDES
- WQX

Entity Certification Status

- Single profit center
- Single management system
- Single Quality Manual and SOPs, same for fixed or mobile
- Rotating staff
- Same equipment and supplies from lab to lab; instruments, LIMS, support equipment, supplies, computers/printers

Benefits of Real-Time Definitive Data

- 1-2 hr TAT – no comparison at FBL
- Triad Concept - Maximize site resources to reduce time to remediation – Great for PBR contracts
- Minimize down-time for yellow iron, others
- Minimize sample management tasks for consultant
- Reduce number and longevity of site visits normally required to support RI and other activities
- Direct excavation / remedial / extent activities based on definitive data from a single site mobilization – “one and done” concept

Project Examples – Ft. Riley, KS

- Two episodes initial and pre-remedial site investigations
- QAPP Worksheets completed
- BTEX, 1,2-DCA, GRO, DRO, PAHs
- Kansas City USACE audit – successfully completed
- 24-hr TAT or less
- 10% Level 4 data packages



Project Examples – USCG Yap, Micronesia

INTERNATIONAL PROJECT

Former Coast Guard LORAN Station – Yap, Federated States of Micronesia

- All necessary instrumentation and supplies for PCBs by Method 8082 shipped to Yap.
- Within 48 hours of arrival of the ISO shipping container, ECCS had the laboratory equipment set up with passing method detection limit (MDL) study and proficiency test (PT) study.
- Real-time analytical results allowed minimization of off-island soil transport/disposal.



Project Examples – USCG Yap, Micronesia



Conclusions

- ECCS “Standard” quality system incorporates 90% of DoD Requirements
- DoD – specific project SOPs facilitate full QSM compliance
- Promium Element LIMS system facilitates reporting per QSM and DoD requirements
- Compliance with certification requirements + robust documentation and reporting = **Definitive Data**
- Entity status allows ECCS to set up a certified laboratory delivering definitive data on-site anywhere in the world



Additional questions?

Contact ECCS:

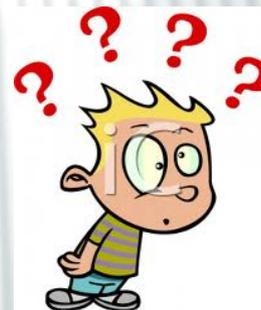
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