

Implementation of Advanced Geophysical Classification *GCMR-QAPP and DAGCAP*

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Overview

- Overview of Quality Programs associated with Implementation
 - GCMR-QAPP
 - DAGCAP
- Examples of Issues seen with Advanced Geophysical Classification Implementation
- Next Steps
- Conclusion

IDQTF and EDQW Efforts for Geophysical Classification

Develop and implement a quality system based on national and international standards for the performance of Geophysical Classification at DoD Munitions Response Sites

- Develop a Quality Assurance Project Plan template using the *Uniform Federal Policy for Quality Assurance Project Plans (UFP-QAPP)*
 - ✓ Implements ANSI/ASQ E4 (IDQTF)
- Develop quality systems documentation for the 3rd-party accreditation of organizations performing geophysical classification
 - ✓ Implements ISO/IEC 17025 (EDQW)

Geophysical Classification for Munitions Response (GCMR) QAPP Highlights

- Focuses the *systematic planning process* on achieving site-specific objectives
- All decision-makers, including regulators and stakeholders, participate in planning
- Contains all *technical and quality specifications* necessary for successful implementation
- Provides a structured, documented, and reproducible process for decision-making in the field, saving time and resources

Ensures a scientific basis for decision-making

Geophysical Classification for Munitions Response (GCMR) QAPP Highlights

- Provides instructions on how to complete worksheets (**Green text**)
- Contains examples (**Blue Text**)
- Specifies recommended minimum requirements (**Black text**)
 - Quality Control and Quality Assurance
 - QC Seeds
 - QA (validation) Seeds
 - Data Review

DAGCAP Overview

Why Use Accreditation?

- *Qualifications, training and experience of staff*
- Demonstrations of capability
- Proper equipment maintenance
- Documented organizational quality systems
- Management accountability
- Measurement traceability
- Recordkeeping and reporting
- External assessments

DAGCAP Overview

Why Use Accreditation?

- Effectiveness of internal quality assurance, quality control,
 - Corrective action
 - Prevent reoccurrence
 - Continual improvement (Management Review)

DAGCAP Overview

Why Use Accreditation?

- Provides formal recognition to competent testing organizations
- Provides a means to identify and select testing organizations that meet minimum program requirements
- Provides for ongoing demonstrations of capability and periodic re-evaluation for continued compliance

Enhances confidence in results by clients, regulators and the public

DAGCAP Overview

- Modeled after DoD Environmental Laboratory Accreditation Program (ELAP)
- Third-party Accreditation Bodies (ABs) conduct assessments
- Applies to all testing organizations regardless of size or volume of business
- Applies to use of advanced geophysical classification at all munitions response sites (MRS)

Examples of Early Issues seen with Advanced Geophysical Classification Implementation

- Portion of data delivered to client had quality issues
- Dig team did not dig up all validation seeds
- Variability in contractor performance (due to training and experience)
- Frequency of background measurements
- Some of the anomalies were not evaluated

Examples of Early Issues seen with Advanced Geophysical Classification Implementation

- Some data delivered to client had quality issues

The QAPP template documents site-specific data deliverables, how and when the data are checked, by whom, as well as the communication pathway.

The accreditation process will require SOPs for how data will be communicated to the client. The SOPs will specify appropriate QA/QC checks prior to communicating data. Internal and external assessments will ensure organizations are following their SOPs

Examples of Early Issues seen with Advanced Geophysical Classification Implementation

- Dig team did not dig up all validation seeds

Accreditation program will contain requirements for a feedback mechanism between the dig team and Project QC Geophysicist to ensure all seeds are recovered and what was dug matches what was identified. Any inconsistency will trigger the corrective action process.

Examples of Early Issues seen with Advanced Geophysical Classification Implementation

- Inconsistent contractor performance (**due to training and experience**)

The accreditation process requires organizations to specify training requirements and internal demonstration of capability (DOC) procedures for their staff. As part of the accreditation process there will be a DOC that will utilize a DoD-managed test site.

QAPP template documents contractor training and experience, contains contractor QC seeds, validation (QA) seeds (placed by third-party), threshold verification checks and process validation requirements.

Examples of Early Issues seen with Advanced Geophysical Classification Implementation

- Frequency of background measurements

QAPP recommended minimum requirements specify that backgrounds be collected at least once every 2 hours of cued survey data collection. QC reports specified in the GCMR-QAPP template will identify the frequency (temporal and spatial) of the backgrounds to confirm they were collected appropriately.

Accreditation will ensure that organizations have these requirement in their SOPs.

Examples of Early Issues seen with Advanced Geophysical Classification Implementation

- Some anomalies not evaluated

Ongoing QC checks and review and creation of summary reports specified in QAPP template will greatly reduce the chance of not evaluating samples. Role of third-party QA and data review process in QAPP template will identify any data gaps.

Accreditation process will contain requirements for a system of checks to ensure that all QA/QC checks are completed and associated actions are taken when issues arise.

Next Steps GCMR QAPP Template

1st qtr FY15 Incorporated stakeholder comments on beta draft GCMR QAPP template

2nd qtr FY15 Select beta test site and develop project-specific GCMR-QAPP based on updated template

3rd qtr FY15 Validate the GCMR-QAPP beta-test

4th qtr FY15 Conduct formal DoD, EPA review and finalize template

Next Steps DAGCAP

- Feb 2015*** White paper and draft Memo to establish DAGCAP drafted and sent to OSD for signature
- April 2015*** Recognize ABs
- May 2015*** Issue draft DoD Quality System Requirements (QSR)
- July 2015*** Finalize QSR; develop AB training
- Sept 2015*** Begin assessments, Memo requiring accreditation signed out
- Summer 2016*** Organizations must be accredited

Conclusions

- The GCMR-QAPP template
 - Facilitates a systematic planning process
 - Objectives and data quality requirements are determined up-front and documented
 - Makes review easier
- DAGCAP
 - Ensures organizations will have quality systems in place
 - Requires demonstration of capability
 - Standard Operating Procedures
 - Corrective actions and continual improvement is a condition of accreditation