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July 10, 2015

Betty Adrian
NGGDPP Program Coordinator
U.S. Geological Survey
Denver Federal Center
Box 25046, MS 975
Denver, CO 80225

Re: Letter of Transmittal for NGGDPP Deliverables; Massachusetts, Award No. G14AP00138

Dear Betty:

This letter serves as our formal transmittal of the Final Technical Report and verification of the metadata submission to the National Catalog for the above referenced project. As required, we have uploaded the metadata file to the sciencebase.gov website. We have selected the csv format for upload.

This fulfills our project deliverable obligations for FY2014. Attached is the Final Technical Report as well as a copy of the metadata file that was uploaded.

If you have any additional questions, please do not hesitate to contact me.

Sincerely,

Stephen B. Mabee, Ph.D., PG
State Geologist

cc: Raymond Obuch, USGS
Theresa Girardi, OGCA
Lloyd Thomas, Accounting

MA Data Preservation Program FY14: Conversion of Geological Documents To Digital Format

National Geophysical and Geological Data Preservation Program
Award No. G14AP00138

Final Technical Report

September 15, 2014 to September 14, 2015



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July 10, 2015

Abstract

Metadata for 76 publications was created and uploaded to the National Digital Catalog. This represents the metadata for the 50 publications that were scanned in FY13 plus the metadata for the additional 26 publications that were scanned under this project in FY14. The combined metadata was created in CSV format in accordance with the procedures and schema outlined in the Metadata Profile for the National Catalog (March 17, 2008; version 1.0) and the NNGDPP Metadata Preparation Guide (01/2013).

<http://datapreservation.usgs.gov/docs/NNGDPPMetadataProfile.pdf>

http://datapreservation.usgs.gov/docs/NNGDPP_MetadataPreparation_CatalogGuide_012013.pdf

The metadata can be found at:

<https://www.sciencebase.gov/catalog/item/53bc2cb9e4b084059e8bffe5>

These 26 publications are part of a larger collection of paper documents that comprise the University of Massachusetts, Department of Geosciences Contribution Series. This series consists of field trip guidebooks, field reports, theses and dissertations prepared primarily by faculty and students in the Department of Geosciences at the University of Massachusetts in Amherst. These documents were printed by the University of Massachusetts and were made available to the public upon request. Many of the documents are now out of print or have been damaged (moisture) due to poor storage environments and recent flooding. Accordingly, the Massachusetts Geological Survey, which is housed in the Department of Geosciences, took the responsibility of scanning a subset of this collection so that the documents can be available to the public online.

The entire Contribution Series collection contains 76 publications ranging in time from 1969 to 2000. For this project, 26 have been scanned. The initial 50 publications were scanned and uploaded as part of NNGDPP FY13. The online digital versions of these publications can be found at: <http://www.geo.umass.edu/research/list.html#field>

This now completes the scanning and preservation of the entire University of Massachusetts, Department of Geosciences Contribution Series.

Mandatory and optional fields included in the metadata file are: collectionID, Title (gives the Contribution Series Number), Alternate Title (gives the title of the publication), Abstract, which gives the full reference for the publication, DataType, SupplementalInformation, which includes the URL where the data can be found, Coordinates, the centroid (or thereabouts) of the study area or map, DatasetReferenceDate and BoundingCoordinates (starting with the NW corner and proceeding clockwise). All metadata records were inspected visually twice for accuracy and typographical errors. Any errors were corrected.

Introduction

The following technical report describes the work completed on Award No. G14AP00138. The award period was from September 15, 2014 to September 14, 2015. This award is for the creation or updating of digital infrastructure. The metadata provided is for 76 published field trip guides, field reports, theses and dissertations that are part of the University of Massachusetts, Department of Geosciences Contribution Series. Metadata for 50 of these publications was prepared in FY13 and submitted. For this project, we have added metadata for 26 more publications in FY14. We concatenated the metadata for the 26 new publications with the previous 50 publications and created a single metadata file for all 76 publications since these are all part of the same collection.

This collection of geologic reports was originally printed by the University of Massachusetts for the purpose of public distribution. Many of the reports are out of print or have been damaged (flooded) due to poor storage conditions. The Massachusetts Geological Survey took responsibility to scan these documents so that they can be available to the public for download. All metadata for this project was uploaded to the ScienceBase.gov as instructed on July 10, 2015. The metadata file can be found at:

<https://www.sciencebase.gov/catalog/item/53bc2cb9e4b084059e8bffe5>

The scanned documents can be found at:

<http://www.geo.umass.edu/research/list.html#field>

Work Completed Between September 15, 2014 and September 14, 2015

Good quality hard copies of the 26 remaining geologic documents were retrieved from various sources. If the volume is a rare book that cannot be taken apart, each individual page was scanned on a flat bed scanner using Adobe Acrobat Pro XI and Adobe Creative Suite 6 software. Once scanned, the pages were compiled into a single PDF. Margins were cropped as necessary. Pages containing photographs were scanned and processed separately to improve quality. Large maps and plates were scanned on a large format scanner and added to the PDF. After each scan, the individual pages were inspected visually for quality control and a page count was conducted to make sure no pages were missing. Random pages were zoomed to inspect pages for blurriness or pixilation. Pages were replaced as necessary. Landscape pages were rotated so they are readable when opened. All documents were analyzed with Optical Character Recognition software to create searchable PDF documents.

Documents that could be disassembled were taken to a copy works vender to remove the bindings. Documents were then scanned to USB on a Xerox WorkCentre 5845 in the Department of Geosciences. Pages were cropped as necessary. After scanning, all documents were analyzed with Optical Character Recognition software. Each page was inspected visually for quality. If there were oversized maps these were scanned separately on a large format scanner and added manually to the PDF.

The metadata were prepared in accordance with the procedures outlined in the metadata profile for the National Catalog (March 17, 2008; version 1.0) and the NNGDPP Metadata Preparation Guide (01/2013).

<http://datapreservation.usgs.gov/docs/NNGDPPMetadataProfile.pdf>

http://datapreservation.usgs.gov/docs/NNGDPP_MetadataPreparation_CatalogGuide_012013.pdf

All mandatory fields were populated as well as one optional field, AlternateTitle. Bounding Coordinates for map areas were also provided starting with the northwest corner and moving clockwise to the southwest corner.

Nick Venti performed all the scanning and developed a detailed protocol for the operation. Dr. Mabee and Nick Venti conducted quality control and Dr. Mabee completed all the metadata preparation and submissions.

Comparison of Accomplishments to Project Goals

The project goal was to scan 21 documents in the Contribution Series collection. A total of 26 documents were scanned, exceeding project expectations. All work was completed on time and on budget.