New Mexico Bureau of Geology & Mineral Resources
Geologic Information Center

Data management - Archives Standards

Our archival scanning standards are based on:

- The University of North Texas (https://www.library.unt.edu/digital-projects-unit/standards)
- Library of Congress (https://www.loc.gov/preservation/resources/rfs/RFS%202017-2018.pdf)

A. Archival scanning default standards.

Notes: All original tiff images are non-compressed. Photos are saved as low quality jpg for serving online. High quality jpg or the original tiff are available upon request. Photo requests for printing publications are to go through the NMBGMR editing department first before contacting the Geologic Information Coordinator.

a. Photos

Type	Scan Color	Resolution	Formats saved as:
Prints	B&W - 16 bit Grayscale Color – 24 bit RGB	600 dpi	a. Original – tiff b. Photoshop file c. Low quality jpg
35 mm Negative and photo slides	B&W - 16 bit Grayscale Color – 24 bit RBG	4800 dpi	a. Original – tiff b. Photoshop file c. Low quality jpg
Negative and photo slides– all other sizes	B&W - 16 bit Grayscale Color – 24 bit RGB	4800 dpi	a. Original – tiff b. Photoshop file c. Low quality jpg
Color Negative and photo slides– all other sizes	24 bit RGB	1200	a. Original – tiff b. Photoshop file c. Low quality jpg

b. Petrographic Samples

Type	Scan Color	Resolution	Formats saved as:
All Thin sections	24 bit RGB	1200 dpi	a. Original – Tiff b. PDF with any notes c. Cross polarization scan
Microprobe plugs	24 bit RGB	1200 dpi	a. Original – tiff b. print

c. Documents

Type	Scan Color	Resolution	Formats saved as:
Text – B&W	Black and White	600 dpi	a. Original – Tiff

			b. OCR - PDF
Text – with B&W illustrations	16 bit Grayscale	600 dpi	a. Original – Tiff b. OCR - PDF
Text – with color illustrations	24-bit RGB	600 dpi	a. Original – Tiff b. OCR - PDF
Documents – B&W text only, typed on archival paper	Black and White	600 dpi	a. Original Tiff b. PDF – high quality
Documents – handwritten notes, ledgers, non-archival paper	16 bit Grayscale	600 dpi	a. Original Tiff b. PDF – high quality
Correspondence, Letters	24 bit RGB	600 dpi	a. Original Tiff b. PDF – high quality c. Photoshop file

d. Maps

Type	Scan Color	Resolution	Formats saved as:
Black & White	16 bit Grayscale	600 dpi	a. Original Tiff b. Photoshop file c. PDF – medium quality
Blue Line	16 bit RBG	600 dpi	a. Original Tiff b. Photoshop file c. PDF – medium quality
Color and Any Color Markings	24-bit RGB	600 dpi	a. Original Tiff b. Photoshop file c. PDF – medium quality

B. Archival preservation and process:
- a. Photos
    - i. Scan at NMBGMR archives default
    - ii. Enter into Photos database and get assigned number
    - iii. Place into NMBGMR Historical Photo Collection
        1. Loose photos – photos obtained singling or source unknown
            - a. Place assigned number on back of photo
            - b. Determine if part of a collection of photos.
                - i. If no:
                    1. Place in consecutive archival photo box between two sheets of archival bond.
                    2. Go to step c
                - ii. If yes:
                    1. Make new Collection box and print label
                    2. Make note of Collection location in Photos database and put into photo proctors.
                    3. Print caption with photo number on archival bond paper and place behind photo.

        c. On front paper write in pencil:
- i. Photo number
- ii. Caption about photo
- iii. Source if known: Courtesy of XXXX
- iv. If bought cost of item.

   2. Part of report
- a. Place assigned number on back of photo
- b. Put note as to photo location into Photos database
- c. Place into archival photo sleeves
- d. Print caption/ figure number from report on Archival Bond paper
- e. Place caption in photo slide with photo.
- f. Put report and photo sleeves into archival report binder
- g. Place in mine folder in archives after report is scanned.

   3. Adjustment of photos through photoshop.
- a. Original is straightened and cropped.
- b. Save Original as photo number and _orig. i.e. 7483_orig
- c. Make copy of original.
- d. Make adjustments to copy
  - i. Fix color
  - ii. Remove/Heal large spots and tears in photo if possible without changing photo too much.
  - iii. Save psd file with photo number I.e. 7483.psd
  - iv. Save file as jpg medium compression. I.e. 7483.jpg

   iv. Put file in: photo_scans folder to be checked for image quality by supervisor.

   v. After quality is checked place in GIC photos directory for serving to the website.

b. Photo Slides and Negatives
- i. Scan at NMBGMR default
- ii. After entering in database get secondary collection number from Geologic Information coordinator
  - 1. Slides collection number gets SL and number; I.e. SL-1234
  - 2. Negatives collection number gets a SN and number; I.e. SN-4321
- iii. Write that number on the slide in pencil
- iv. Place in their archival locations.
  - 1. If necessary add more archival negative or slide protectors.
  - 2. Photo number label goes on the protector.
- v. Make print of photo for Photo Collection on photo paper with a note on the front archival paper that it is a slide or negative and its collection number.

c. Petrographic Slides
- i. Scan at NMBGMR default
- ii. Enter in to Petrographic Slide Database
- iii. Give to Geologic Information Coordinator to place in new boxes if necessary
- iv. Return to geologist with a CD copy of scans for their use.
- v. Upload to USGS
- vi. Place image in GIC archives folder on network.

d. Microprobe plug samples
- i. Scan at NMBGMR default
- ii. Enter in to Petrographic Slide Database

        iii.   Return to geologist with a copy and print of scan for their use.

        iv.   Upload to USGS

e.   Documents

    i.   Document Quality

       1.   Is it a duplicate:

          a.   Are there notes on the copy?

          b.   Who made the notes?

          c.   Can you tell why?

          d.   With drafts of reports: We only need the final draft if all the data from the notes of previous drafts are in that draft. If there is no final draft keep both until final draft is found.

          e.   Is there a copy in the files already?

             i.   Yes: Post 1930 recycle.

             ii.   No: Continue to part B.

       2.   Maps:

          a.   First copy kept.

          b.   Last copy is kept.

          c.   Recycle rest unless data isn't carried onto last copy.

          d.   General rule of thumb. The original usually wins. With copies the best copy wins.

Example 1: A poor copy exists in the mining records. The original is found. Make a new copy, scan and recycle existing copy.

Example 2: Original is water stained and unreadable. The copy in the mining records isn't. Keep the copy.

    ii.   Is the document damaged?

       1.   Water damage:

          a.   Is the document still readable?

          b.   If yes and it's not a duplicate keep

          c.   If no and it's a duplicate: recycle

          d.   If no and it's not a duplicate. Try:

             i.   Make a photo copy to see if it makes a better copy

             ii.   Scan at high DPI. Start at 800 to see if there is enough resolution to read.

            iii.   Find supervisor.

       2.   Mold:

          a.   Give to supervisor to deal with. There is a process to deal with mold but students aren't expected to.

          b.   Wash hands with warm soapy water.

    iii.   Is document vellum paper or other delicate paper?

       1.   Make Xerox copy. Today's copiers usually make a better copy then the original.

       2.   Scan copy. If resolution was lost with the copy, scan the original but put a piece of paper behind it and do NOT send through auto-feed scanner.

    iv.   After scanning

       1.   Use archive document tape to fix tears and ragged edges.

       2.   Place single page originals in page protector.

          a.   Pre-1930 - Place original into archive boxes, copy goes into files for public

           b.   Post-1930 files are placed into mine folder.

      3.   Reports are placed into archival report covers.

           a.   Print label. With title of report, author, date, mine (if not in title), and county.

           b.   Go to next step.

  v.   Mine Folders:

      1.   Find Mines folder for document: Folders are organized alphabetically by county and name.

           a.   Does a folder for the mine exist?

           b.   Also check for aliases

           c.   Pull whole folder.

           d.   Put 'Out for scanning' board in folders place.

           e.   Check folder to make sure everything is scanned.

           f.   Check folder for duplicate documents.

           g.   Make confidential sub-folder for "War Materials" documents.

               i.   Make label.

               ii.   Put Red dot on folder.

      2.   No folder?

           a.   Check for aliases again.

           b.   Get expanding folder.

           c.   Pencil in name of mine.

           d.   Scan records.

           e.   Enter record data in database.

           f.   Print folder label.

               i.   Mine Claim/Name

               ii.   County

              iii.   District

              iv.   Confidential

           g.   File by County and name in archives.

C.   Data Entry.

    a.   The numbers for the databases are dictated by an autonumber. Make sure you are using the right database before entering. Mines File database is for documents including those with photos, Photos Database is for all photos, and Petrographic slides.

    b.   For all records note providence:

       i.   Author

      ii.   Date

     iii.   Title

     iv.   Location

D. Point Locations

    a.   Sources: All-Topo 7, Geologist field topos, NMBGMR historical mines, NMBGMR mine features database, MMRDS. Priority given to All-Topo locations. This allows for data assurity. It allows NMBGMR to know the source of the coordinate and the coordinate system used.

    b.   Methods:

       i.   Examine mine record for location data. Usually PLSS.

      ii.   Enter data into Mines database

     iii.   Import data into All-Topo with scan ID for label.

     iv.   Verify against other databases.

          1.   Is the point close to the mine on the topo map?

2. If there is not mark on the topo map how sure are you of your entry of the location?
   a. Double check entry.
   b. If you are sure of entry then locate to nearest quarter section and record that assurity in the database.
3. Is the database recording a specific mine feature?
   v. Export out data coordinate info from All-Topo.
   vi. Reimport into Access using scan ID as the relational field.
   vii. Goal is at a minimum the quarter section for each location.

II. Policies for sharing and access:

a. Photo requests for printing publications are to go through the NMBGMR editing department
b. The charge is $10/image/document for personal use.
c. Photo rights are still the property of NMBGMR shouldn't be resold.
d. Any documents used in reports will have either: "Courtesy of NMBGMR Mining Archives" or the credit information provided with the photo.
e. Petrographic slides will have "Image courtesy of New Mexico Bureau of Geology and Mineral Resources (NMBGMR)" and the name of the geologist who made the slide.

III. Privacy and confidentiality:

a. Security: All records are kept in a temperature controlled locked room. Access to this room and the files are under supervision only. Supervision is not intrusive, it is to ensure that the document doesn't get misplaced, stolen, or answer any questions the visitor may have. All records except any confidential records are open to the public and will be made available digitally.
b. Plans for archiving: With our current man power we are scanning just the new additions to the historical mining archives. They are being scanned at 600 DPI as pdfs then entered into a database with a brief description. The Bureau has long term plans to create a map server for the Mining GIS projects. It is our hope that when this server is made it can query our records and all the public records for a district can be shown and accessed. All images are being backed up on two different servers in the Bureau to prevent loss of data.

VII. Plans for maintaining free public access:

We are open from 8-5 Monday thru Friday. We are closed on most federal or NMT mandated holidays. Part of NMBGMR's mandate is to maintain such records and to provide public and educational access. Visiting any part of the state survey is free. For extensive research it is best to call ahead or notify the librarian of the visit so the records can be pulled and somebody made available to answer questions.