

# Aeromagnetic and airborne radioactivity maps and profile in New Mexico published or open-filed by the U.S. Geological Survey

New Mexico Bureau of Mines and Mineral Resources

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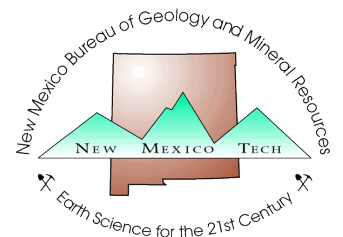
*New Mexico Geology* (NMG) publishes peer-reviewed geoscience papers focusing on New Mexico and the surrounding region. We also welcome submissions to the Gallery of Geology, which presents images of geologic interest (landscape images, maps, specimen photos, etc.) accompanied by a short description.

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# Aeromagnetic and airborne radioactivity maps and profiles in New Mexico published or open-filed by the U.S. Geological Survey

The accompanying index maps (p. 56-57) show the location of airborne magnetic and radioactivity surveys for which results are available. The list of publications or open-file releases is keyed to each index map. Also included are aeromagnetic and aeroradioactivity maps published or open-filed by various states and available only from the states. Not included are airborne projects by other government agencies and private industry except when incorporated in U.S. Geological Survey or individual state publications.

Some publications listed are Geophysical Investigations Maps (GP). These and other Survey maps can be purchased from the Branch Of Distribution, U.S. Geological Survey, 1200 S. Eads St., Arlington, Va. 22202. Professional papers and bulletins can be purchased over the counter from:

Reston, Virginia (22092), 302 National Center, Rm. 1C402, 12201 Sunrise Valley Drive.

Arlington, Virginia (22202), 1200 South Eads St.

Washington, D.C. (20244), 1028 General Services Bldg., 19th and F Sts., N.W.

Denver, Colorado (80294), 169 Federal Bldg., 1961 Stout St.

Dallas, Texas (75242), 1C45 Federal Bldg., 1100 Commerce St.

Los Angeles, California (90012), 7638 Federal Bldg., 300 N. Los Angeles St.

Salt Lake City, Utah (84138), 8105 Federal Bldg., 125 South State St.

San Francisco, California (94111), 504 Customhouse, 555 Battery St.

Spokane, Washington (99201), 678 U.S. Courthouse, W. 920 Riverside Ave.

Anchorage, Alaska (99501), 108 Skyline Bldg., 508 2nd Ave.

Some maps and profiles appear as illustrations in professional journals and technical books which are available in many libraries. Open-file (OF) releases may be examined at certain offices of the Geological Survey, state surveys, or universities. These offices are noted on the supplemental list for the State Index.

All open-file (OF) reports are available in microfiche or paper copies from: Open-File Services Section, Branch of Distribution, U.S. Geological Survey, Box 25425, Federal Center, Denver, Colorado 80225 (Phone, 303-234-5888). Prices are published in the monthly listing New Publications of the Geological Survey. Prepayment is required. Order by series and number (such as Open-File

Report 77-123) and title. Do not mix orders for open-file reports with orders for any other USGS products. Some open-file reports previous to October 1, 1977, are available through the Open-File Services; send inquiries to the address above.

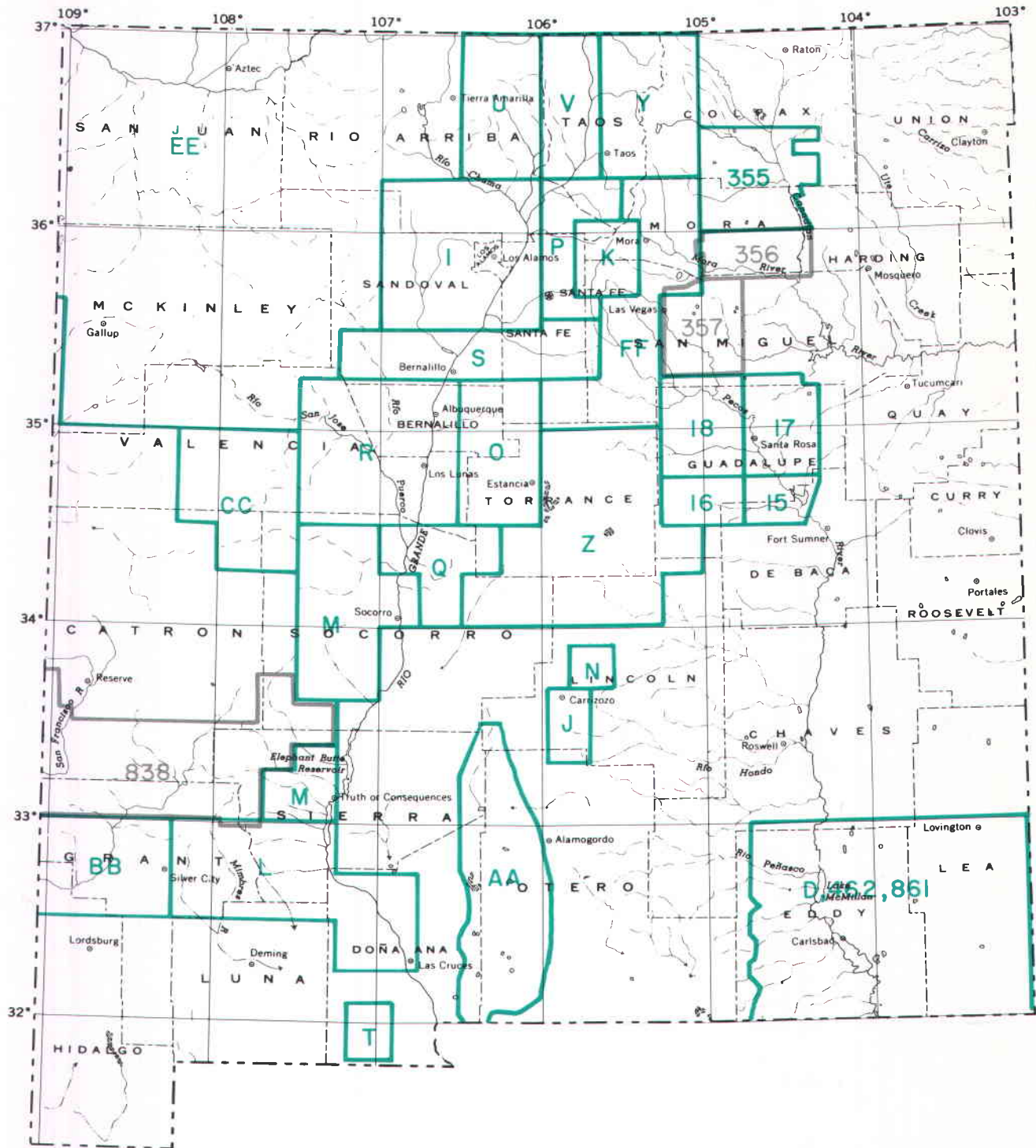
In the past few years the U.S. Department of Energy has conducted an aerial radiometric and magnetic reconnaissance survey program over much of the conterminous United States and Alaska in support of the National Uranium Resource Evaluation (NURE) program. Information on these surveys can be obtained from Bendix Field Engineering Corporation, Technical Library, P.O. Box 1569, Grand Junction, Colorado 81501 (phone 303-242-8621, Ext. 278).

## Map references

- A** The Rio Grande trough near Albuquerque, New Mexico, by H. R. Joesting, J. E. Case, and L. E. Cordell, 1961, *in* Professional Paper 424-D, p. 282-286 (fig. 392.4, p. 285 shows magnetic profiles, flight lines, and generalized geologic map of this area). Reprinted in New Mexico Geological Society, Guidebook 12th field conference, 1961, p. 148-150
- B** Regional geological interpretation of aeromagnetic and gravity data for Rowe-Mora area, New Mexico, by G. E. Andreasen, M. F. Kane, and Isidore Zietz, 1960, *in* Professional Paper 400-B, p. 238-239
- C** Aeromagnetic and gravity studies of the Precambrian in northeastern New Mexico, by G. E. Andreasen, M. F. Kane, and Isidore Zietz, 1962, *Geophysics*, v. 27, no. 3, p. 343-358, (fig. 3, p. 348 shows total intensity aeromagnetic map of part of northeastern New Mexico)
- D** CEX-59.4.24—Aeroradioactivity survey and geology of the Gnome (Carlsbad) area, New Mexico and Texas (ARMS-1), by Jules A. MacKallor, 1965, published by the U.S. Atomic Energy Commission, available from the U.S. Department of Commerce, National Technical Information Service, Springfield, Va. 22151
- E** Misc. Geol. Invest. Map I-533-A—Magnetic map from 100° to 112° W longitude, by Isidore Zietz and J. R. Kirby, 1968, scale 1:1,000,000 (coverage in New Mexico is a combination of data from U.S. Naval Oceanographic Office and U.S. Geological Survey)
- F** Bulletin 1261-E—Mineral resources of the Blue Range Primitive Area, Greenlee County, Arizona and Catron County, New Mexico, by J. C. Ratté, E. R. Landis, D. L. Gaskill, and R. G. Raabe with a section on aeromagnetic interpretation by G. P. Eaton, 1969 (pl. 1 is a geologic-aeromagnetic map at 1:62,500 scale)

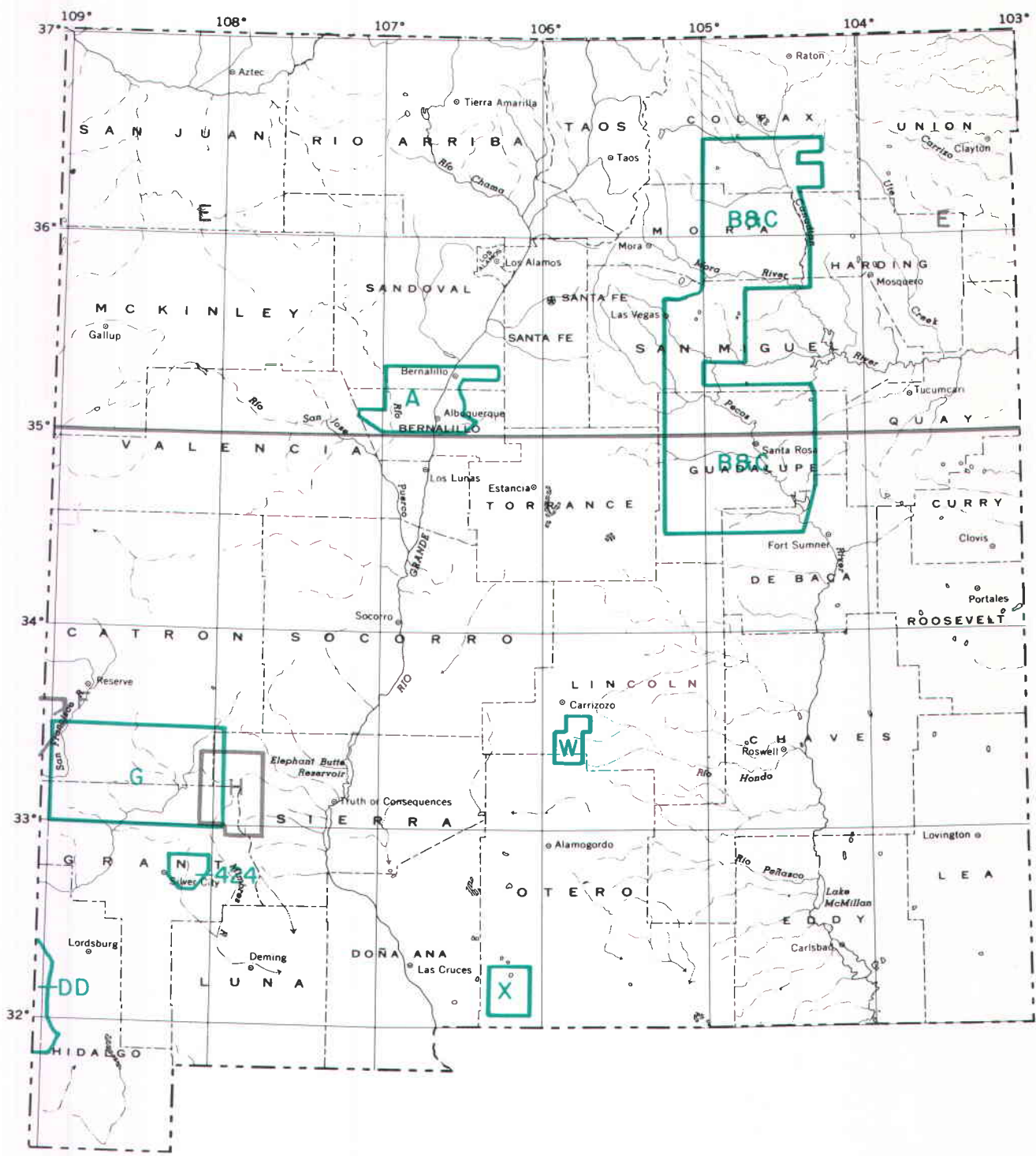
- G** OF Rept. 72-306—Mineral resources of the Gila Primitive Area and Gila Wilderness, Catron and Grant Counties, New Mexico, by J. C. Ratté and others, 1972, 428 p., 7 pls., 51 figs., 11 tables (pl. 2B is an aeromagnetic map of the Gila study area, scale 1:250,000). Copies on file at 1, 2, 3, 4, 5, 7, 8, 9, 10
- H** Bulletin 1319-E—Mineral resources of the Black Range Primitive Area, Grant, Sierra, and Catron Counties, New Mexico, by G. E. Ericksen, Helmuth Wedow, Jr., G. P. Eaton, and G. R. Leland, 1970 (pl. 1 is an aeromagnetic-geologic map at 1:63,360 scale)
- I** OF Rept. 72-391—Aeromagnetic map of the Jemez area, New Mexico, by the U.S. Geological Survey, 1972, scale 1:250,000. Copies on file at 1, 2, 3, 4, 5, 6, 7, 9. Reproductions may be ordered from 15
- J** OF Rept. 71-288—Aeromagnetic map of part of south-central New Mexico, by U.S. Geological Survey, 1971, scale 1:62,500. Copies on file at 1, 2, 3, 4, 5, 6, 7, 9. Reproductions may be ordered from 15
- K** OF Rept. 73-290—Aeromagnetic map of an area northeast of Santa Fe, New Mexico, by U.S. Geological Survey, 1973, scale 1:62,500. Copies on file at 1, 2, 3, 4, 5, 6, 9. Reproductions may be ordered from 15
- L** OF Rept. 74-1107—Aeromagnetic map of parts of the Silver City and Las Cruces 1° by 2° quadrangles, southwestern New Mexico, by U.S. Geological Survey, 1974, scale 1:250,000. Copies on file at 1, 2, 3, 4, 5, 6, 9. Reproductions may be ordered from 15 as may copies of the 12 scale 1:62,500 maps from which the 1:250,000 map was prepared
- M** OF Rept. 74-1108—Aeromagnetic map of parts of the Socorro and Tularosa 1° by 2° quadrangles, southwestern New Mexico, by U.S. Geological Survey, 1974, scale 1:250,000. Copies on file at 1, 2, 3, 4, 5, 6, 9. Reproductions may be ordered from 15 as may copies of the 12 scale 1:62,500 maps from which the 1:250,000 map was prepared
- N** OF Rept. 74-104—Aeromagnetic map of the Jicarilla-White Oaks area, Lincoln County, New Mexico, by U.S. Geological Survey, 1974, scale 1:62,500. Copies on file at 1, 2, 3, 4, 5, 6, 7, 9. Reproductions may be ordered from 15
- O** OF Rept. 75-183—Aeromagnetic map of an area east of Albuquerque, New Mexico, by U.S. Geological Survey, 1975, scale 1:125,000. Copies on file at 1, 2, 3, 4, 5, 6, 7, 9. Reproductions may be ordered from 15
- P** OF Rept. 75-184—Aeromagnetic map of Santa Fe and vicinity, New Mexico, by U.S. Geological Survey, 1975, scale 1:125,000. Copies on file at 1, 2, 3, 4, 5, 6, 7, 9. Reproductions may be ordered from 15
- Q** OF Rept. 75-185—Aeromagnetic map of an area north and east of Socorro, New Mexico, by U.S. Geological Survey, 1975, scale 1:125,000. Copies on file at 1, 2, 3, 4, 5, 6, 7, 9. Reproductions may be ordered from 15
- R** OF Rept. 75-186—Aeromagnetic map of Albuquerque and vicinity, New Mexico, by U.S. Geological Survey, 1975, scale 1:125,000. Copies on file at 1, 2, 3, 4, 5, 6, 7, 9. Reproductions may be ordered from 15
- S** OF Rept. 75-187—Aeromagnetic map of an area north of Albuquerque, New Mexico, by U.S. Geological Survey, 1975, scale 1:125,000. Copies on file at 1, 2, 3, 4, 5, 6, 7, 9. Reproductions may be ordered from 15
- T** Combined geophysical studies at Kilbourne Hole maar, New Mexico, by Lindrieth Cordell, 1975, *in* New Mexico Geological Society,

USGS aeromagnetic and airborne rad



NOTE—Lettered and numbered areas refer to references listed in the text (p.

activity maps and profiles of New Mexico



58); the index maps and colors are used only as aids in locating separate sheets.

## Geographic Names

by Stephen J. Frost,  
New Mexico Bureau of Mines and Mineral Resources  
Correspondent  
U.S. Board on Geographic Names

This feature will appear regularly in *New Mexico Geology* and will present the decisions of the United States Board on Geographic Names that concern New Mexico geographic features.

A geographic name is the proper name or geographic expression by which a particular geographic entity is known. The name may be one or more words used consistently in spoken and written language to refer to a particular, relatively permanent place, feature, or area on the earth's surface, or to a conceptually related group of such places, features, or areas.

Geographic names given New Mexico places and features, such as mountains and rivers, help document the history of this state. Names are significant to any map user, but to those depending on a map for performance of duty, an erroneous name can be costly, confusing, and time consuming. Personal place names are often a source of pride to a family or a community; the misspelling, misapplication, or omission of such a name may cause distrust of the accuracy of an otherwise excellent map.

**Mangas**—Locality, 26 km (16 mi) southwest of Quemado; named for the Apache chief Mangas Colorados, who lived with his tribe in the area; Catron County; sec. 5, T. 2 S., R. 14 W., New Mexico Principal Meridian; 34° 09' 25" N., 108° 19' 07" W. *not*: Mangus.

**Peña Blanca**—Populated place, 35 km (22 mi) south of Los Alamos; Spanish name meaning "white rock"; Sandoval County; 35° 34' 15" N., 106° 20' 15" W.; *not*: Pena Blanca, Penablanca.

**Quemazones, Rito de los**—Stream, 3.2 km (2 mi) long, heads at 35° 31' 19" N., 105° 38' 48" W., flows to Bull Creek 35 km (22 mi) east of Santa Fe; Spanish name meaning "small river of the burned areas" in reference to a fire that occurred in this area about 1906; San Miguel County; sec. 2, T. 16 N., R. 13 E.; New Mexico Principal Meridian; 35° 38' 48" N., 105° 32' W.; *not*: Rito Jarosa, Rito Jaroso.

**Bear Canyon**—Canyon, 17.7 km (11 mi) long, heads at 34° 02' 20" N., 108° 17' 39" W., trends east-northeast to Nester Draw; 43 km (25 mi) southeast of Quemado; Catron County; sec. 12, T. 3 S., R. 13 W.; New Mexico Principal Meridian; 34° 03' 52" N., 108° 09' 03" W.; *not*: Nester Draw. □

Guidebook 26th field conference, p. 269-271 (fig. 3 is a total intensity aeromagnetic map)

**U** OF Rept. 76-503—Aeromagnetic map of an area north of Abiquiu, New Mexico, by U.S. Geological Survey, 1976, scale 1:62,500. Copies on file at 1, 2, 3, 4, 5, 6, 7, 9. Reproductions may be ordered from 15

**V** OF Rept. 76-504—Aeromagnetic map of Wheeler Peak and vicinity, New Mexico, by U.S. Geological Survey, 1976, scale 1:62,500. Copies on file at 1, 2, 3, 4, 5, 6, 7, 9. Reproductions may be ordered from 15

**W** OF Rept. 75-385—Mineral resources of the White Mountain Wilderness and adjacent areas, Lincoln County, New Mexico, by K. Segerstrom and others, 1975, aeromagnetic map scale 1:62,500. Copies on file at 1, 2, 3, 4, 5, 6, 7. Reproductions may be ordered from 15

**X** OF Rept. 76-440—Interpretation of magnetic surveys in intermontane valleys of Nevada and southern New Mexico, by G. D. Bath, 1976 (p. 15 contains an aeromagnetic map, data from U.S. Naval Oceanographic Office). Copies on file at 1, 2, 3, 4, 5, 6, 7, 11

**Y** OF Rept. 76-686—Aeromagnetic map of Carson and vicinity, New Mexico, by U.S. Geological Survey, 1976, scale 1:62,500. Copies on file at 1, 2, 3, 4, 5, 6, 7, 9. Reproductions may be ordered from 15

**Z** OF Rept. 76-806—Residual magnetic intensity map of central New Mexico, by U.S. Geological Survey, 1976, scale 1:250,000. Copies on file at 1, 2, 3, 4, 5, 6, 7, 9. Reproductions may be ordered from 15

**AA** OF Rept. 77-258—Aeromagnetic maps with geologic interpretations for the Tularosa Valley, south-central New Mexico, by G. D. Bath, 1977, scale 1:62,500 and 1:400,000 (data from U.S. Naval Oceanographic Office). Copies on file at 1, 2, 3, 4, 5, 6, 7. Reproductions may be ordered from 15

**BB** OF Rept. 79-1452—Aeromagnetic map of the north and west parts of the Silver City 1° by 2° quadrangle, New Mexico and Arizona, 1979, scale 1:62,500. Copies on file at 1, 2, 3, 4, 5, 6, 7, 12, 13, 14. Reproductions may be ordered from 15

**CC** OF Rept. 79-1644—Aeromagnetic map of the Malpais area, New Mexico, 1979, scale 1:250,000. Copies on file at 1, 2, 3. Reproductions may be ordered from 15

**DD** OF Rept. 66-137—Aeromagnetic map of San Simon Valley and vicinity, Cochise, Graham and Greenlee Counties, Arizona, and Hidalgo County, New Mexico, 1966, scale 1:125,000. Copies on file at 4, 5, 8, 13. Reproductions may be ordered from 15

**EE** OF Rept. 80-614—Aeromagnetic map of northeast Arizona and northwest New Mexico, 1980, scale 1:250,000, 4 sheets. Reproductions may be ordered from 15

**FF** OF Rept. 80-671—Aeromagnetic map of the Pecos area, New Mexico, scale 1:62,500, 4 sheets (in process)

**18** GP-18—Parts of San Miguel and Guadalupe Counties (R. 16 E.—R. 21 E. and T. 6 N.—T. 10 N., and part of Anton Chico Grant), by W. J. Dempsey and M. E. Hill, 1950

Aeromagnetic maps of the following quadrangles are at 1 mile = 1 inch scale:

**355** GP-355—Parts of southern Colfax, northern Mora, and western Harding Counties, by W. J. Dempsey, Ernest Page, and others, 1963

**356** GP-356—Parts of southern Mora, northern San Miguel, and western Harding Counties, by W. J. Dempsey, Carl Long, and others, 1963

**357** GP-357—Central part of San Miguel County, by W. J. Dempsey, Frank Petrafeso, and others, 1963

**424** GP-424—Aeromagnetic and geologic map of part of the Silver City mining region, Grant County, New Mexico, by W. R. Jones, J. E. Case, and W. P. Pratt, 1974, scale 1:63,360

**462** GP-462—Natural gamma aeroradioactivity of the Gnome (Carlsbad) area, New Mexico and Texas, by J. A. MacKallor, 1964, scale 1:250,000

**838** GP-838—Aeromagnetic map of the Morenci-Monticello area, southeastern Arizona and southwestern New Mexico, by U.S. Geological Survey, 1972, scale 1:250,000

**861** GP-861—Aeromagnetic map of the Carlsbad area, New Mexico and Texas, by U.S. Geological Survey, 1973, scale 1:250,000

### Map inspection locations

1. U.S. Geological Survey Library, Rm. 4-A-100, 12201 Sunrise Valley Dr., Reston, Virginia 22092
2. U.S. Geological Survey Library, 345 Middlefield Rd., Menlo Park, California 94025
3. U.S. Geological Survey Library, Steverson Bldg. #3, Denver West Office Park, 1526 Cole Blvd., Golden, Colorado 80401
4. Federal Office Building, Rm. 8105, Salt Lake City, Utah 84138
5. Federal Building, Rm. 169, 1961 Stout St., Denver, Colorado 80294
6. Rm. 1-C-45, 1100 Commerce St., Dallas, Texas 75242
7. U.S. Geological Survey, 505 Marquette N.W., Albuquerque, New Mexico 87125
8. Arizona Bureau of Mines, University of Arizona, Tucson, Arizona 85721
9. New Mexico Bureau of Mines and Mineral Resources, Socorro, New Mexico 87801
10. U.S. Geological Survey, Water Resources Division, Silver City, New Mexico 88601
11. Nevada Bureau of Mines and Geology, University of Nevada, Reno, Nevada 89557
12. Custom House, Rm. 504, 555 Battery St., San Francisco, California 94111
13. Federal Building, Rm. 7638, 300 N. Los Angeles St., Los Angeles, California 90012
14. Arizona Bureau of Geology and Mineral Technology, 845 N. Park Ave., Tucson, Arizona 85719
15. Open-File Services, U.S. Geological Survey, Box 25425, Federal Center, Denver, Colorado 80225 □

Total intensity aeromagnetic maps of the following quadrangle are at 1 mile = 1 inch scale:

**15** GP-15—Parts of Guadalupe and De Baca Counties (R. 21 E.—R. 26 E. and T. 3 N.—T. 6 N.), by W. J. Dempsey and M. E. Hill, 1950

**16** GP-16—parts of Guadalupe and De Baca Counties (R. 16 E.—R. 21 E. and T. 3 N.—T. 6 N.), by W. J. Dempsey and M. E. Hill, 1950

**17** GP-17—Parts of San Miguel and Guadalupe Counties (R. 21 E.—R. 25 E. and T. 6 N.—T. 12 N.), by W. J. Dempsey and M. E. Hill, 1950

## New Drilling Directory

Directory of New Mexico drillers 1980-1981, compiled by W. K. Summers and Associates, Inc., geologists and hydrologists, P. O. Box 684, Socorro, New Mexico 87801, free.

The directory lists in alphabetical order the firms that drill water wells, test holes, core holes, or foun-

dation bores; gives addresses; details equipment available; and is indexed by county and type of equipment. Copies are available from W. K. Summers and Associates, Inc., or the BDM Corporation, 1801 Randolph Road SE, Albuquerque, NM 87106.