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MINERAL AND FOSSIL COLLECTING SITES IN VIRGINIA

Palmer C. Sweet
and
D. Allen Penick, Jr.

This article presents the most recent information available on mineral and fossil localities that are operated on a fee basis for people interested in collecting in Virginia (Figure 1). All the listed localities were open and the information was correct as of April 1985. However, as time elapses, ownership and fees for collecting may change, and some localities may be closed to collectors. Some of these sites have been exploited commercially as mines, but today all the listed localities are operated only as collecting sites. For additional information on the localities, the individual operator should be contacted. The listing of localities mentioned in this report as collecting sites does not allow one to enter and collect without the permission of the owner or operator of the site. It should be stressed that before attempting to collect any material an individual should make himself known to the owner and obtain permission. Entering private property without permission is punishable under trespass law.

The site locations, Figures 2 through 8, are depicted on topographic maps available from the Virginia Division of Mineral Resources, Box 3667, Charlottesville, Virginia, 22903. General directions to the localities also may be obtained from the official State Highway Map as well as individual county road maps, both of which are available from

the Department of Highways and Transportation,
1221 East Broad Street, Richmond, Virginia 23219.

1. AMETHYST SITE
2. BERYL MINE
3. CHRISTMUT RIDGE QUARTZ CRYSTALS
4. HERB 42 MINE
5. KENNETH RICE FOSSIL PIT
6. LIGON #1 MINE
7. MOREFIELD MINE
8. TRUEHEART MINE

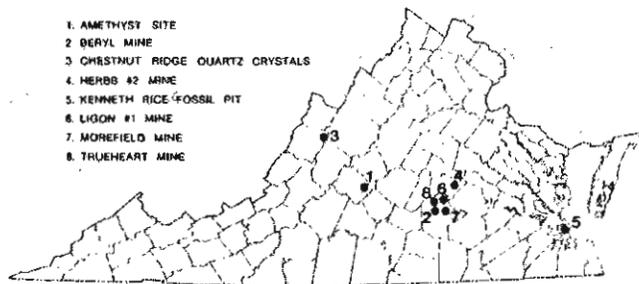


Figure 1. Fee mineral and fossil collecting localities in Virginia.

AMETHYST SITE

This site is located 4.35 miles southeast of Amherst, Amherst County, about 1.0 mile off the south side of State Road 659 approximately 1.1 miles by road east of its intersection with State Road 604 in the Amherst 7.5-minute quadrangle (Figure 2). It is operated by Mrs. Charles R. Schaar of Amherst, Virginia, Telephone (804) 946-5721.

Clear quartz and purple amethyst crystals occur in a large bulldozed cut and in large piles of red

to reddish-brown residual clays derived from underlying granites. Some beautiful gem quality amethyst has been found at this site.

At the present time Mrs. Schaar does not have a set admission fee but charges according to number of visitors, time spent collecting, etc. It would be advisable to call before visiting the property so that a fee could be established before arrival.

BERYL MINE

This site is located 3.8 miles east of Amelia Court House, Amelia County, off the southwest side of State Road 628 approximately 1.65 miles by road southeast of its intersection with U. S. Highway 360 in the Amelia Court House 7.5-minute quadrangle (Figure 3) It is operated by D. R. Boyles of Amelia Court House, Virginia, Telephone (804) 561-2395.

An admission fee of \$5.00 per person per day, any day of the week, is charged to collect from the site, which was operated as the Dobbin (Thraves) prospect by the Seaboard and Southern Materials Company prior to World War II. This kaolinized pegmatite contains quartz and white to pale greenish-blue to clear beryl crystals. Rum-colored to clear mica is also present in the pit, which is about 50 feet long.

CHESTNUT RIDGE QUARTZ-CRYSTAL LOCALITY

This site is located 5.7 miles north of Panther Gap, Bath County, on the eastern slope of Chestnut Ridge, about 0.35 mile off the northwest side of State Road 640 approximately 2.5 miles by road south of its intersection with State Road 629 in the Green Valley 7.5-minute quadrangle (Figure 4). It is operated by C. A. Loan of Millboro, Virginia.

An admission fee of \$0.50 is charged per person per day, any day of the week, to collect clear to smoky quartz crystals that are in clusters along fractures and in cavities in highly iron-oxide-stained and fractured sandstone. Inclusions (individual and twinned crystals) in the quartz crystals have been identified at the Smithsonian Institution as sphalerite ("ruby zinc" variety). Some quartz crystals are coated with a yellowish brown, red, or black iron-oxide crust. Crystals found by the author were as much as 7 mm in diameter and about 15 mm in length; most of the small crystals (1 mm in length) tended to be very well formed.

HERBB NUMBER 2 MINE

The Herbb #2 mine is located in Powhatan County approximately 24 miles west of Richmond and 3.95 miles northeast of Flat Rock. The mine area is situated on the Fine Creek Mills 7.5-minute quadrangle map (Figure 5).

A single fee for an individual is \$3.00 per day. For groups of 10 or more the fee is \$2.00 per person and for school groups \$1.00 per person. Camping spaces are also available for \$4.00 per night. The mine is operated seven days a week by Donald Richardson, Rt. 5, Box 178, Powhatan, VA 23227, Telephone (804) 598-4031.

This pegmatite mine shipped beryl and mica during the 1940's. It has also produced some of the largest and finest mineral specimens found in Virginia. Among the more noteworthy specimens found are a 9 pound gem quality topaz crystal, a 300 pound beryl crystal and a 3.5-inch-long cassiterite crystal. In addition, the rare mineral wodginite (tin-rich tantalum-oxide) has been found although it is relatively uncommon. Other minerals include clear and smoky quartz, cleavelandite, amazonite, tantalite, columbite, muscovite, biotite, spessartine garnet, and several clay minerals.

KENNETH E. RICE MEMORIAL MUSEUM AND FOSSIL PIT

This marl pit in the Yorktown Formation is located in the city of Hampton, 2.35 miles southeast of Langley Air Force Base, off the west side of Harris Creek Road approximately 0.25 mile by road north of its intersection with Fox Hill Road in the Hampton 7.5-minute quadrangle (Figure 6). It is operated by Mrs. W. Macon Rice of Hampton, Virginia, Telephone (804) 851-3180.

The pit and museum are open, weather permitting, from 9:30 a.m. to 4:00 p.m. on weekdays. The facilities are closed on weekends. The pit contains the fossils of many Pliocene species. Specimens that have been found in the silt and sand include many species of mollusks, entire skeletal remains of whales, teeth of sharks and porpoises, and worm tubes. As of this writing only group rates are applicable as individual collectors will not be submitted. The current rates are \$1.00 per person in groups over 25; \$2.00 per person in groups less than 25 people. Groups interested in visiting the pit should call ahead for an appointment.

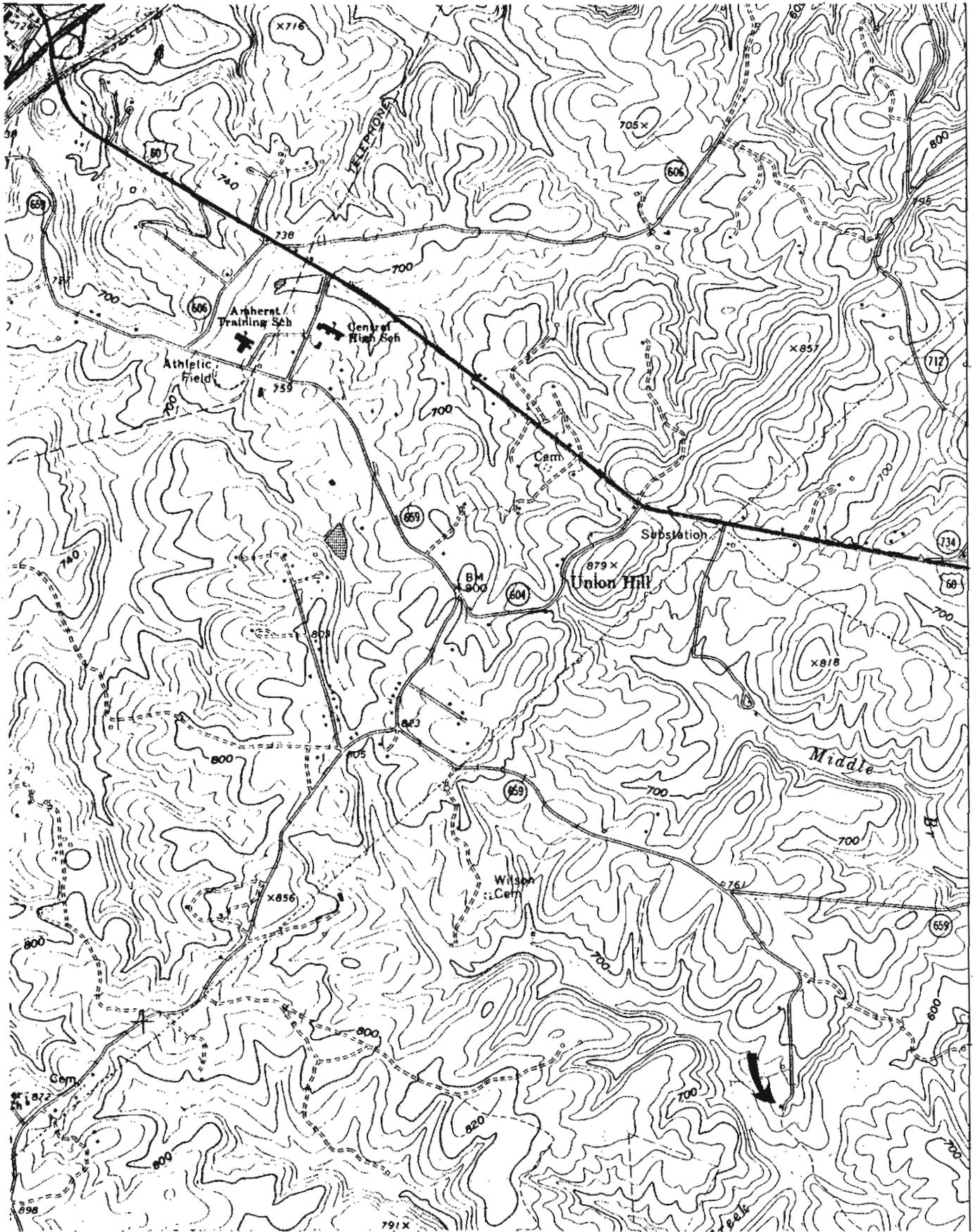


Figure 2. Portion of the topographic map of the Amherst 7.5-minute quadrangle; arrow is pointed toward the residence of the operator of the amethyst site; scale 1:24,000 (1 inch equals 2000 feet).

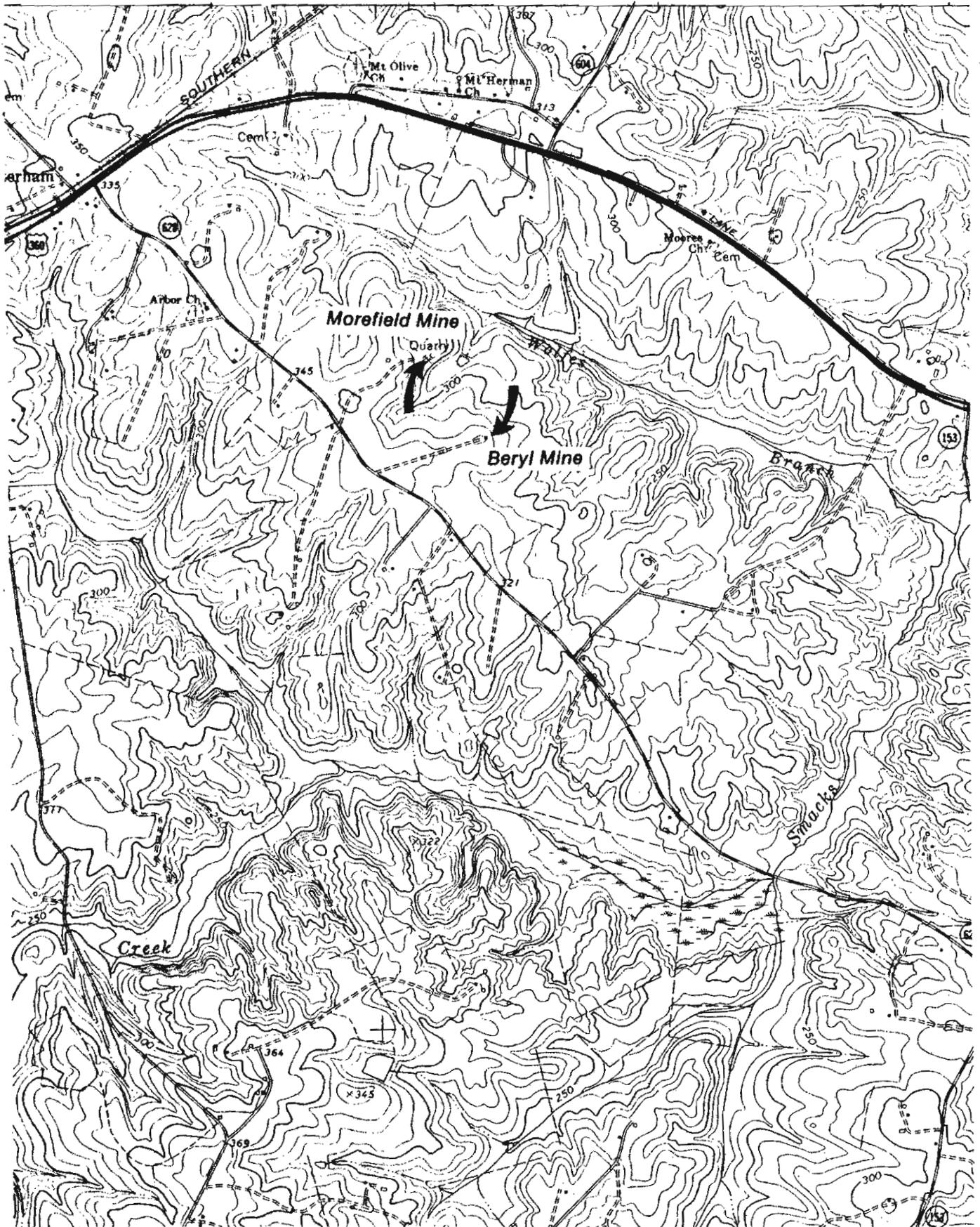


Figure 3. Portion of the topographic map of the Amelia Court House 7.5-minute quadrangle; arrows point toward the residences of the operators of the Morefield and the Beryl mines; scale 1:24,000 (1 inch equals 2000 feet).

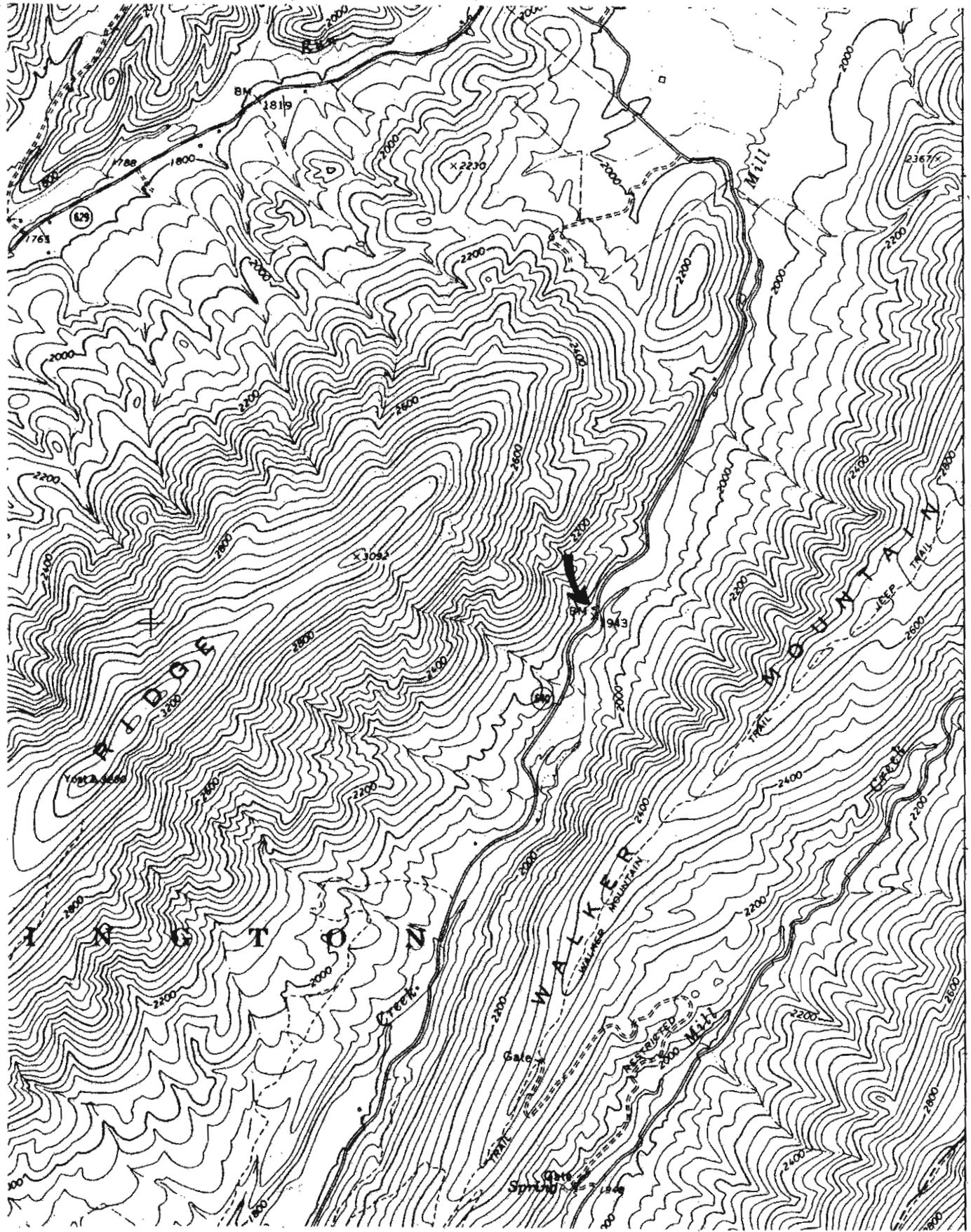


Figure 4. Portion of the topographic map of the Green Valley 7.5-minute quadrangle; arrow is pointed toward the residence of the operator of the Chestnut Ridge quartz-crystal locality; scale 1:24,000 (1 inch equals 2000 feet).

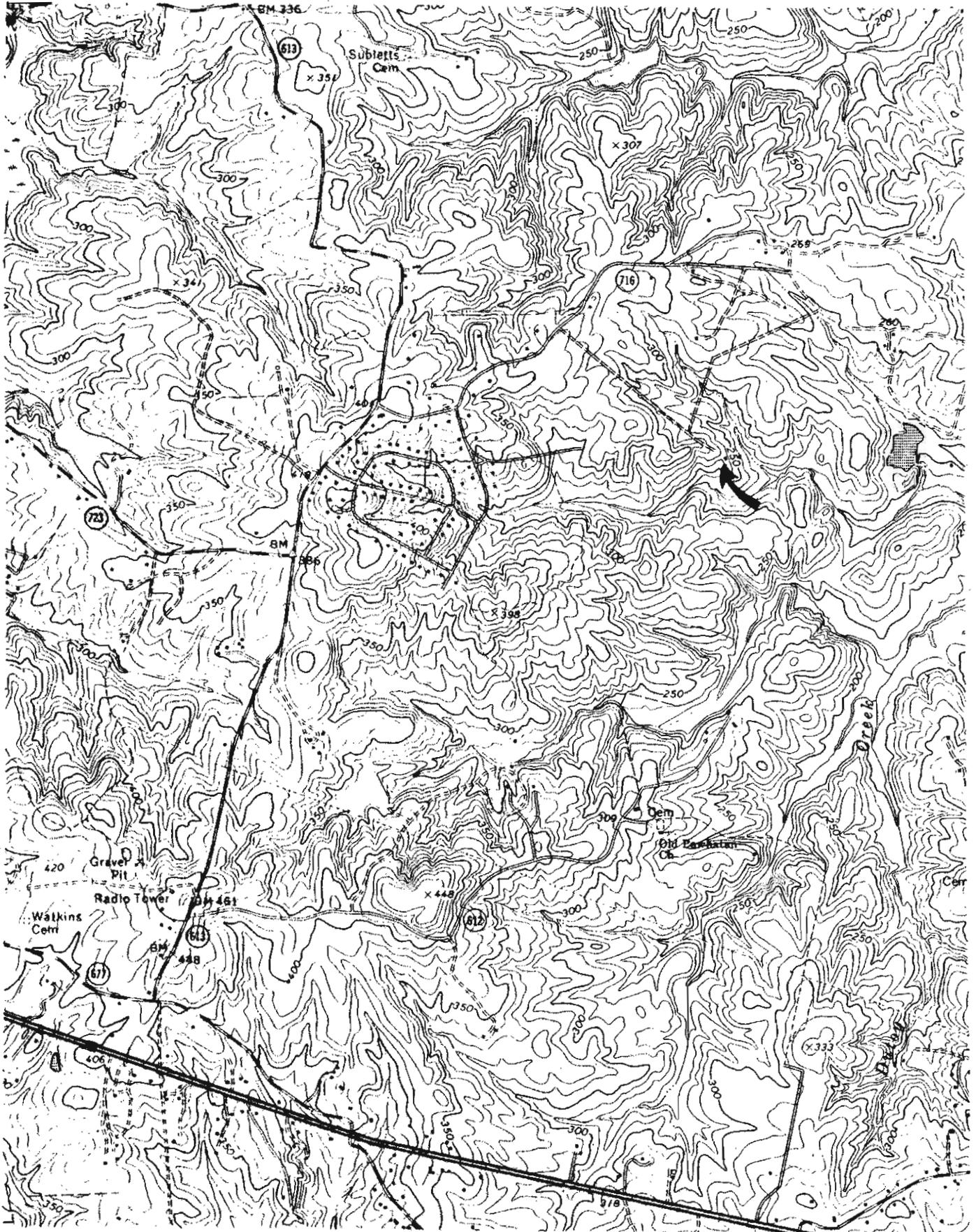


Figure 5. Portion of the topographic map of the Fine Creek Mills 7.5-minute quadrangle; arrow is pointed toward the residence of the operator of the Herbb #2 mine; scale 1:24,000 (1 inch equals 2000 feet).



Figure 6. Portion of the topographic map of the Hampton 7.5-minute quadrangle; arrow is pointed toward the residence of the operator of Kenneth E. Rice Memorial Museum and Fossil Pit; scale 1:24,000 (1 inch equals 2000 feet).

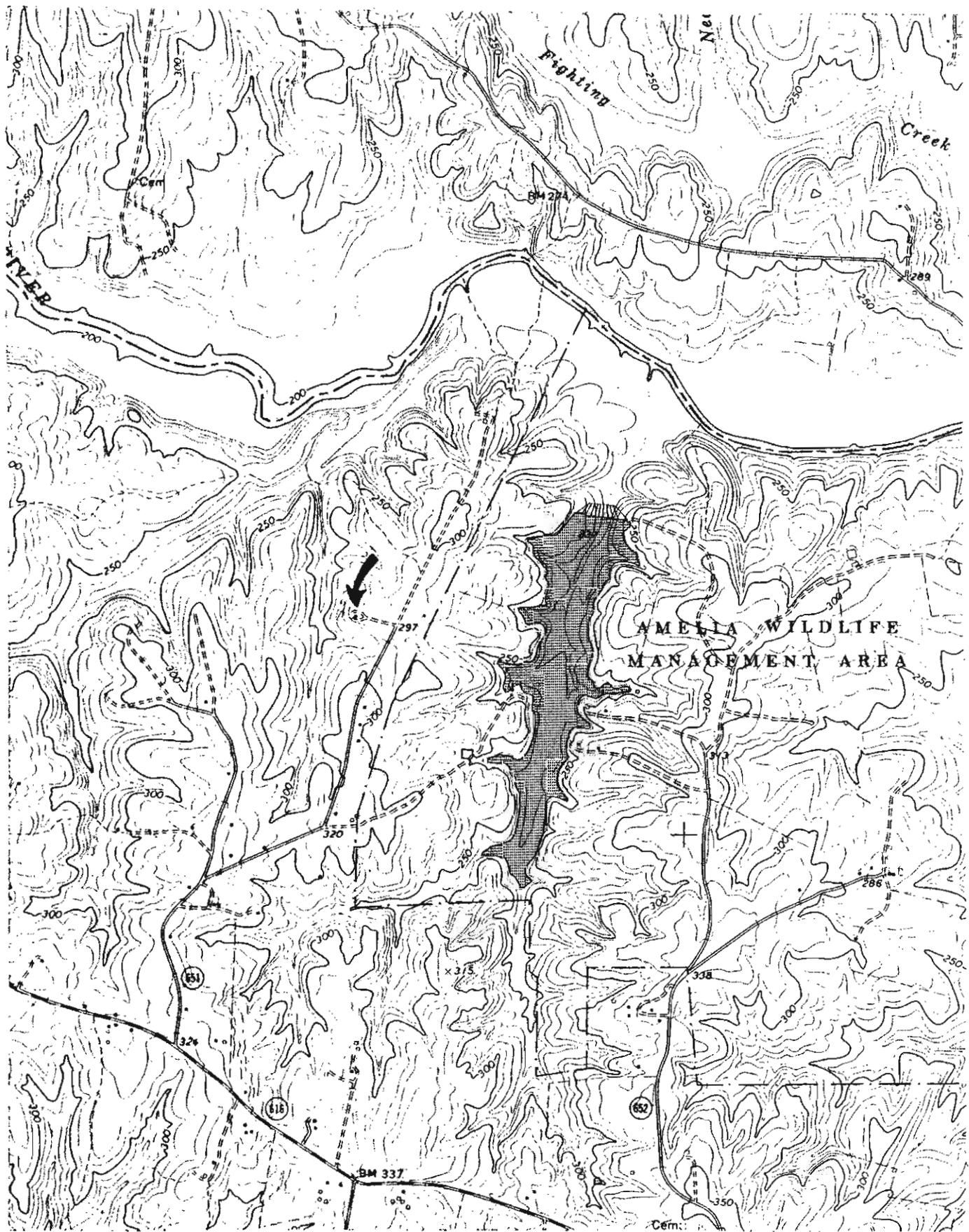


Figure 7. Portion of the topographic map of the Chula 7.5-minute quadrangle; arrow is pointed toward the residence of the operator of the Ligon Number 1 mine; scale 1:24,000 (1 inch equals 2000 feet).

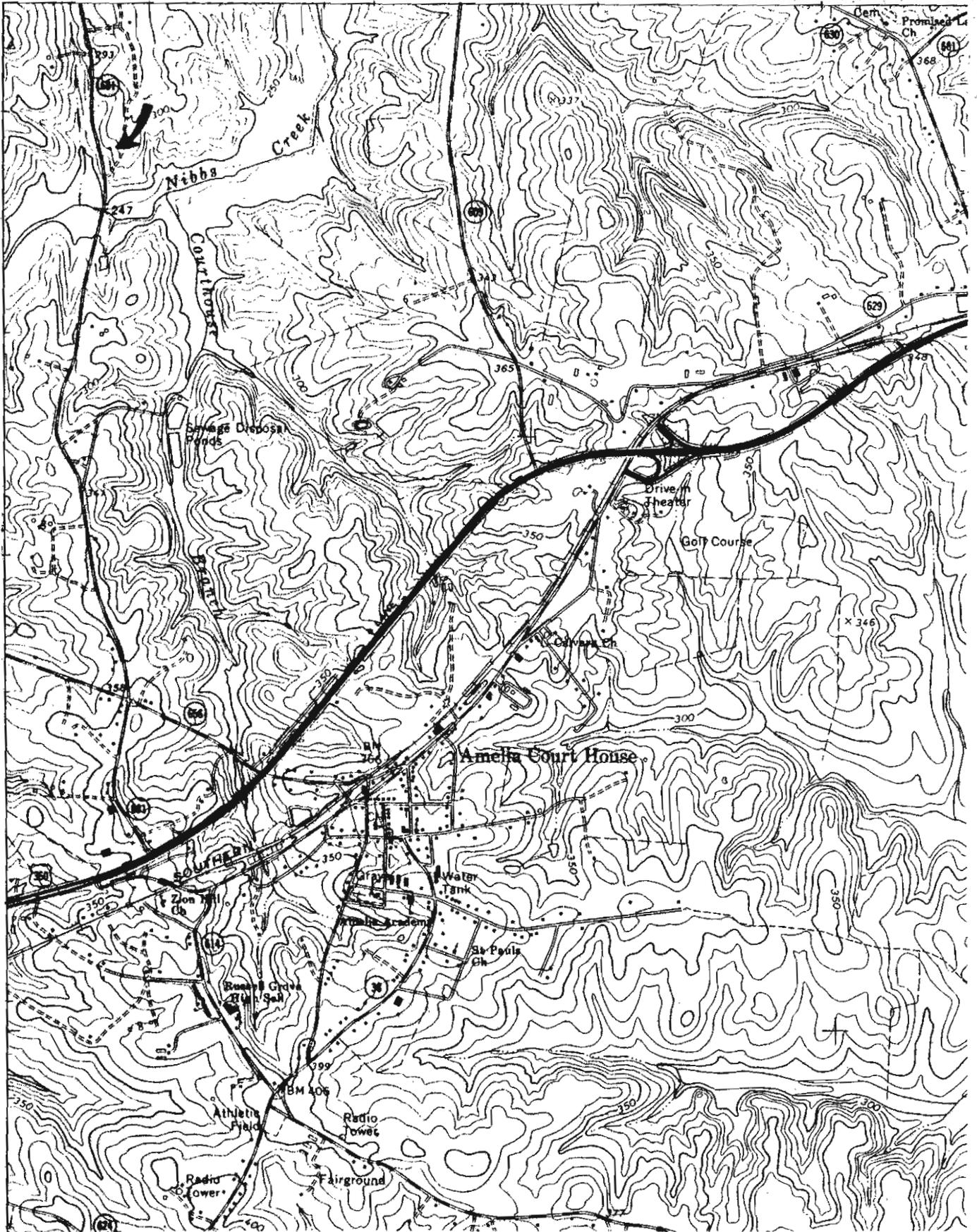


Figure 8. Portion of the topographic map of the Amelia Court House 7.5-minute quadrangle; arrow is pointed toward the residence of the owner of the Trueheart mine; scale 1:24,000 (1 inch equals 2000 feet).

LIGON NUMBER 1 MINE

This pegmatite mine site is located 5.7 miles north of Chula, Amelia County, about 0.2 mile off the west side of State Road 651 approximately 1.0 mile by road north-northeast of its intersection with State Road 692 in the Chula 7.5-minute quadrangle (Figure 7). It is operated by Kenneth Hooley of Amelia Court House, Virginia.

Four prospects were first opened in about 1923, but mining was discontinued in 1928; some prospecting took place in 1944. The mine was worked for muscovite; some feldspar, quartz, and large beryl crystals were also recovered.

The site is closed on Sunday. During all other days an admission fee of \$2.00 per person, with no charge for children under 12, is charged to look for clear to rum-colored, small, flat mica books, some of which are soft, clay stained, and fractured; clear and rose quartz; pale beryl crystals; tourmaline; and various feldspars are also present. The cut in the quartz-feldspar pegmatite is about 35 feet long and 15 to 20 feet wide.

MOREFIELD MINE

This site is located 3.8 miles east of Amelia Court House, Amelia County, about 0.4 mile off the northeast side of State Road 628 approximately 1.0 mile by road southeast of its intersection with U. S. Highway 360 in the Amelia Court House 7.5-minute quadrangle (Figure 3). It is operated by W. D. "Bill" Baltzley of Amelia Court House, Virginia, Telephone (804) 561-3399.

This pegmatite mine was first worked commercially in 1929 for such minerals as mica, feldspar, gem amazonite (microcline), beryl, phenakite, and minerals of the tantalite-columbite series. Commercial mining operations ceased in 1948.

Other than the minerals previously listed, those commonly found in the dumps include the feldspar albite (cleavelandite), topaz, spessartine garnet, and quartz. Masses of glassy quartz are present with partly kaolinized albite, perthite, muscovite, and biotite. Glass, (1935) lists the following minerals from the complex part of the dike: beryl, cassiterite, columbite, fluorite, galena, manganotantalite, microlite, monazite, phenakite, pyrolusite, spessartine garnet, topaz, tourmaline, triplite, zinnwaldite, and zircon. Lemke, Jahns and Griffitts (1952) have identified allanite, almandine-spessartine, apatite, bertrandite, chalcopyrite, pyrite, and rutile. Mr. Baltzley has just taken over operation

of the mine, and has not yet set a definite collecting fee. He plans on having several different types of collecting available to visitors. His long range plans for the operation include a rock shop, museum and camping facilities. Until he gets organized, Mr. Baltzley suggests calling the mine so that a possible fee can be discussed before visiting the property. Over 40 published mineral species and varieties have been reported from this complex pegmatite.

TRUEHEART MINE

This site, which is owned by Mrs. B. M. Trueheart, is located 2.2 miles north-northwest of Amelia Court House, Amelia County, about 0.1 mile off the east side of State Road 681 approximately 2.05 miles by road north of its intersection with the U. S. Highway 360 By-pass in the Amelia Court House 7.5-minute quadrangle (Figure 8). It is operated by W. W. McMillion of Amelia Court House, Virginia, Telephone (804) 561-2643.

An admission fee of \$3.00 per person, any day of the week, is charged to look for clear to smoky quartz, black tourmaline crystals, tiny golden and aquamarine beryl crystals, and small mica books. These minerals can usually be found in the dumps and in the shallow pits cut into a pegmatite body that has a large quartz core and a thin feldspathic wall zone (Lemke, Jahns and Griffitts, 1952).

FOR FURTHER STUDY

There are numerous collecting localities for rocks, minerals, and fossils, as well as sites of abandoned mines and prospects in Virginia. Many collecting localities are noted in "Appalachian Mineral and Gem Trails," by June C. Zeitner, "Eastern Gem Trails," by Floyd and Helga Oles, "Gems and Minerals of America," by J. E. Ransom, and "Minerals of Virginia," by R. V. Dietrich (available from the Division of Mineral Resources). A publication of the Virginia Division of Mineral Resources that provides summary information and the approximate locations of many mines and prospects is Mineral Resources Report 7, "Base- and Precious-Metal and Related Ore Deposits in Virginia," as well as Publication 27, "Metallic Mineralization in the Blue Ridge Province of Virginia." Additional and more specific information on some of the metallic mines can be found in the Division's quarterly "Virginia Minerals"; pertinent articles by volume and number, follow:

- Vol. 17, No. 3 "Gold Mines and Prospects in Virginia"
- Vol. 19, No. 3 "Iron Sulfide Mines in Virginia"
- Vol. 20, No. 2 "Notes on Some Abandoned Copper, Lead, and Zinc Mines in the Piedmont of Virginia"
- Vol. 21, No. 1 "Road Log to Some Abandoned Gold Mines of the Gold-Pyrite Belt, Northeastern Virginia"
- Vol. 22, No. 1 "Silver in Virginia"
- Vol. 22, No. 3 "Abandoned Copper Mines and Prospects in the Virgilina District, Virginia"
- Vol. 23, No. 2 "Geochemical Reconnaissance for Gold in the Caledonia and Pendleton Quadrangles in the Piedmont of Central Virginia"
- Vol. 26, No. 3 "Processes of Gold Recovery in Virginia"
- Vol. 28, No. 4 "Gold Occurrences in Virginia, An Update"
- Vol. 29, No. 1 "Large Gem Topaz Crystal Discovery"

REFERENCES

- Glass, J. J., 1935, The pegmatite minerals from near Amelia, Virginia: *Am. Mineralogist*, 20: p. 741-768.
- Lemke, R. W., Jahns, R. H. and Griffiths, W. R., 1952, Mica deposits of the southeastern Piedmont; Pt. 2, Amelia district, Virginia: U. S. Geol. Survey Prof. Paper 248-B, p. 103-139.
- Smith, J. W., Milici, R. C., and Greenberg, S. S., 1964, Geology and mineral resources of Fluvanna County: Virginia Division of Mineral Resources Bull. 79, 62 p.

NEW PUBLICATIONS

PUBLICATION 47

Simple Bouguer Gravity Anomaly Map of the Farmville, Briery Creek, Roanoke Creek, Randolph, and Scottsburg Basins and Vicinity, Virginia by Stanley S. Johnson, Gerald P. Wilkes, and Tracey L. Zeiler; one sheet, 1985.

\$3.00

On this map, Bouguer gravity contours are shown for the central belt in Virginia (Farmville basin

southwest to Scottsburg basin). The Triassic stratigraphy of this belt is described in table format and shown on the map by pattern differentiations. Contacts and faults have also been plotted (scale 1:125000).

General geology and procedure and instrumentation are described in the text. The location map shows the positions and names of Mesozoic basins in the central, eastern, and western belts of Virginia.

The publication can be ordered from the Division for \$3.00. Four percent will need to be added for in-State orders; postage will be billed.

PUBLICATIONS 48 and 49

PUBLICATION 48

Geologic Map of the Spring Garden Quadrangle, Virginia by William S. Henika and Paul A. Thayer, one sheet, 1983.

\$8.00

PUBLICATION 49

Geologic Map of the Pittsville and Chatham Quadrangles, Virginia by John D. Marr, Jr., one sheet, 1984.

\$12.00

The geologic maps of publications 48 and 49 indicate in color on a topographic base (scale 1:24000) the various rock units which underlie the area. Publication 48 covers Dodson Corners northward to Sheva and Publication 49 covers Dry Fork northward to Pittsville. Contacts, folds, and faults are symbolized on each map. Strike and dip of inclined beds, foliation, mines and/or quarries, and sample locations are some of the information represented on the maps. An interpretive cross-section is given for each map.

The nature of the rock units (stratigraphy and structure) are described in accompanying texts. The susceptibility of these units to erosion and slides are major aspects of the section on geologic and economic factors affecting land modification. There is also a section on economic geology in which important minerals and other deposits of the area are described. References are included.

Publications 48 and 49 can be ordered from the Division for \$8.00 and \$12.00, respectively. A four percent sales tax will be added to in-State orders; postage will be billed.

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PUBLICATION 50

Wells Drilled for Natural Gas in Buchanan County, Virginia by Joseph J. Arnold; one sheet, 1985.

\$5.00

Publication 50 is a map of Buchanan County divided into quadrangles in which wells drilled for gas have been plotted. The map has a topographic base (black and white) and scale of 1:50,000. Wells are listed for fourteen quadrangles. The drilling company, farm, and well number are also listed. Natural gas discoveries are denoted by symbols ranging from major gas wells to small shows and dry holes. Shows of oil are also reported.

The cost of this publication is \$5.00 plus an additional four percent if the order is in-State; postage will be billed.

PUBLICATION 51

Selected Virginia Mineral-Resource Information, by Palmer C. Sweet and William D. Rowe, Jr.; 28 p., 1984.

\$4.00

This publication introduces the Mineral Resources Data System (MRDS), which is maintained by the U. S. Geological Survey. Although it is an international file, it presently contains 1,120 records of mineral resource information for Virginia localities in a subset of the data base.

Twenty individual commodities which are documented in MRDS-VIRGINIA have been selected and summarized in Publication 51. The commodities are gold-silver, copper, lead-zinc, barite, iron-manganese, aluminum-kyanite-emery, nickel-cobalt-arsenic-pyrite-pyrrhotite, and tantalum-tungsten-titanium. Eight maps of Virginia are presented on which the deposits and occurrences of the commodities listed above are shown.

The cost of this publication is \$4.00. An additional four percent will be added to in-State orders and postage will be billed.

PUBLICATION 52

Geology of the Prater and Vansant Quadrangles, Virginia, by Jack E. Nolde and Martin L. Mitchell with sections on subsurface stratigraphy and gas resources by John K. Polzin; 28 p. text and geologic map, 1984.

\$12.00

In Geology of the Prater and Vansant Quadrangles, Virginia, surface and subsurface stratigraphy and structure are described. The coal geology of the area is presented in the following sections on formation coals: Pocahontas, Lee-New River, Norton, and Wise. A short section on formations yielding natural gas is also given, along with a list of twenty-seven test holes, their locations and results. Thirty-three coal samples collected from the quadrangle areas and their analysis comprise appendixes II and III. The geologic map in the pocket of the report shows in color on a topographic base (scale 1:24000), the various rock units which underlie the area. Contacts, faults, mines and tests, and repository numbers are shown.

This publication (text and geologic map) is being sold by the Division for \$12.00. A sales tax of \$0.48 is charged to in-State residents. Postage is billed.