



# FRIENDS OF MINERALOGY

## Pennsylvania Chapter

### NEWSLETTER

Summer, 1998

Vol. 26, No. 2, Summer, 1998

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#### PRESIDENT'S MESSAGE

See you at the Symposium! Regards, Roland Bounds

#### CHAPTER NEWS

##### Board of Directors

After a good return of ballots, the Board of Directors met on September 13 at the home of Neil Wintringham in New Jersey. The meeting was interrupted by the advent of a group of turkeys crossing the back yard, before a delicious barbecue lunch. Afterwards, members of the Board had the opportunity to view some of Neil's fine collection of books and minerals.

Roland Bounds was re-elected President of the Board, and David Saja volunteered to take over the chairmanship of the Grant Committee from Juliet Reed, who has retired from the Board, but continues as Editor until the position is filled. Marge Matula, who has done a fine job as Membership Chairman, has agreed to stay on in that position, although she also has retired from the Board. On the agenda were the Fall Symposium, and the possibility of several Chapter projects, which will be discussed at the Chapter meeting on the Saturday of the Symposium.

##### Fall Symposium: "Classic Localities"

George Rambo (302-798-4163) reports that several interesting talks have been lined up on "Classic Localities." John White, former curator of minerals at the Smithsonian, will speak on the Foote Mine, North Carolina; Don Schmerling will recount his recent adventures while collecting in Russia; Jay Lininger will talk about historical locations associated with Charles Wheatley; and Lance Kearns, of James Madison University, will describe the Amelia Courthouse, Va., Morefield Mine pegmatite. Bring a favorite specimen along on Saturday to mystify the experts, and don't forget the giveaways from your extra minerals. The field trip on Sunday, to Kibblehouse Quarry, in Perkiomenville, Montgomery County, is for members only

##### X-ray Identification Available at the Auction

This year, several geologists have offered X-ray identification of specimens for auction bids. This is an opportunity to both contribute to the Memorial Fund and find out more about that mystery mineral.

Donated by members and friends, specimens, as well as mining stock certificates, maps, books, photographs, and almost anything pertaining to mineralogy and geology will be available at the auction.

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### Montgomery Book On Collecting Reminiscences and Introductory Crystallography

The Chapter-sponsored, Matrix-published book by Arthur Montgomery, edited by Juliet Reed, with a format and cover designed by Jay Lininger of Matrix Publishing, has been successful as far as sales are concerned, and has received very good reviews in *Rocks and Minerals*, as well as the *Mineralogical Record* and *Mineral News*.

Order your copy or copies (\$20.00 plus \$3.00 mailing and \$1.20 tax for Pa. residents) from the treasurer: Arnold Mogel, 15 Oak Rd., Schuylkill Haven, Pa. 17972. Arnold is also handling sales of other Chapter books.

### Officers of the Board of Directors

**President:** Roland Bounds, 315 Stamford Drive, Newark, DE 19711-2723 (302-731-8407 or e-mail, 25628@udel.edu)

**Vice-President:** Jay Lininger, 119 West Ridge Rd., Dillsburg, PA 17019

**Treasurer:** Arnold Mogel, 15 Oak Rd., Schuylkill Haven, PA 17972

**Editor:** Juliet C. Reed, 252 Crosslands Drive, Kennett Square, PA 19348 (610-388-4148)

**Membership Chairman:** Marge Matula, 10231 Honeysuckle Drive, Walnutport, PA 18988 (610-767-8056)

### Dues

Thanks to all who have sent in their 1998 dues, which are now \$15.00 (seniors and students, \$10.00). Dues for 1998, and back dues, should be sent to the membership chairman, Marge Matula. Contributions to the Memorial Fund are welcome any time.

### Coming Events

**October 3: P.E.S.A. "Autumn Mineral Fest";** 9 a.m to 3 p.m., at McCungie Memorial Park, just off Route 100 at Poplar Street, McCungie, Pa.; 100 tables for gems, jewelry, minerals and fossils; breakfast and lunch available.

**October 10 and 11: Mineralogical Society of Pennsylvania "Earth Treasures" Show;** Lancaster County Convention and Exhibition Center; Leola, Pa. (Rt. 23, NE of Lancaster); Sat., 10 a.m. to 6 a.m. and Sun. 10 a.m. to 5 p.m.; contact Barry Gehret (610-378-0978 or bgehretjr@aol.com for information.

**October 31: "Ultraviolation, 1998, A Halloween Show - The Shining";** presented by the Rock and Mineral Club of Lower Bucks County; 9 a.m.- 4 p.m., United Methodist Church, 840 Trenton Rd., Fairless Hills, Pa; call Ralph Thomas, 215-295-9730 for table information.

**Nov. 6, 7, and 8: Friends of Mineralogy, Pa.Chapter, Symposium on "Classic Localities";** Friday night "What's New" at the Delaware Geological Survey Building on the University of Delaware campus, Newark; Saturday, talks and luncheon at the Brandywine Terrace, Philadelphia Pike, Claymont, Delaware (off I95, north of Wilmington); Sunday, field trip (to be announced). For information, call George or Doug Rambo, (302) 798-4163. registration blank is included with this issue.

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**LEAD AND ZINC VEINS AT  
NEW GALENA, BUCKS COUNTY, PA.  
(Part II)**

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**Summary of Part I**

The New Galena Mesozoic-age veins are located just east of the forgotten little village of New Galena, three miles west of Doylestown, Bucks County, Pa. (F.M., Pa. Chapter Newsletter, Vol. 25, no. 1, 1997). These deposits, similar to those at Phoenixville, Chester County, and Audubon, Montgomery County, Pa., now lie beneath a water supply reservoir in Peace Valley Park

The veins found in 1856 near the creek in the center of the North Branch of Neshaminy Creek were prospected or mined at intervals from 1860 to the 1940's (see sketch map, fig. 1, p. 7). The primary minerals were found in veins and lodes of northeast-trending faults which dip steeply eastward. Very probably, other parallel veins extend across the wide valley, undiscovered. The main silver-lead mineral recovered was galena, associated with sphalerite and chalcopyrite. Quartz and ferroan dolomite are the main gangue minerals, but the barite and fluorite common at Phoenixville are not present. The supergene minerals are similar, but less common, because of the very shallow depth to the water table, and the shallow depth of oxidation.

The galena contains silver, gold, uranium, vanadium, and a little antimony. In 1860, two men digging post holes encountered a large block of lead ore. In that same year, Dr. Montroville Dickeson obtained control of the 104-acre property, and prospected widely. He found the veins, and opened them, but his efforts to promote the venture met with little success. In April, 1861, Jacob and George Neimeyer bought the property for \$21,000, and began an active search for ore. They were successful, and began production near the house southeast of the creek. They produced 206 short tons of galena concentrates (75%, with 11 ounces per short ton of silver). All of this ore came from shallow depths of less than 100 feet. Drifts and stopes extended northwest to beneath the creek, southwest under the road to beneath the house, and also to the northeast of the main shaft on the veins. The Neimeyers operated the mines for about one year.

**Development of the Deposits:  
The 1860's and 1870's**

We concluded the first part of the New Galena silver-lead veins (*F.M., Pa. Newsletter*, Vol. 25, No. 1, 1997) with the description of most of the Jacob and George Neimeyer effort in mining and production. The Neimeyers operated the mines for at least a year. They produced about 200 short tons of galena from the small open pit and from a drift and stopes southwestward under the house, about 150 feet away (Miller, 1924). A second stope was dug westward from the main, or pump shaft to beneath Neshaminy Creek (formerly Pine Run). A third working (130 feet long) was then extended northeastward from the pump shaft, which is in

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**LEAD AND ZINC VEINS AT NEW GALENA, PA. (cont'd)**

the northeast end of the open pit. It is 126 feet deep, and the Dickeson shaft at the west side of the southwest end of the 151-foot-long open pit is 106 feet deep. No shafts were mentioned to have been dug at this time to the northwest of Neshaminy Creek, and about 350 feet northeast of the pump shaft. These were probably sunk after the Neimeyers' mining effort.

A small trial shaft, about 150 feet southwest of the house, was sunk during the Neimeyer mining period. Another shaft with a trench is located 45 feet away to the southwest (S 52 degrees W) of the trial shaft (Annear, 1862). South of this shaft, about 100 feet, is still another trial shaft, sunk to find the main vein (Ashmore, 1863), and a drain trench of southeast trend which cut a lot of small lead veins. The dumps of these trial shafts contained pieces of ore grade sphalerite and galena when examined by the author and his party in the 1960's.

In 1862, the Neimeyers sold the property to a New York syndicate for \$75,000. Thus, in a little more than a year, the Neimeyers made \$54,000 on the property, not including the 400,000 pounds of lead-silver ore that they produced and sold. This production (worth \$16,000) must have taken care of their expenses, with some left over, largely due to the fact that labor costs were so very low in those days (about \$1.00 per day per miner). If put into 1990's money, they made \$200,000 to \$250,000. In fact, Jacob Neimeyer and his brother, George, were the only 19th century operators to make a profit from the New Galena mine. His fortune made, Jacob Neimeyer then moved back to his farm in Overpeck, Butler County, Ohio.

The Doylestown Borough Engineer, William J. Wintzen, reported in the April 12, 1907 *Doylestown Intelligencer* that he had pumped the mines in 1874 for Messrs. Lee and Wren of Mahonoy City, Pa. "I was then working as an engineer, and I pumped the mines dry for the first and last time since the 1860's. I found that there were two deep shafts. One was 126 feet deep; it was a 10 by 10-foot shaft timbered all the way through. There was a Cornish pump in it from 1862, and it [the pump] is still there. This shaft run extends 113 feet [in depth] to a drift, which goes northwest for 200 feet [beneath Neshaminy Creek]." Wintzen goes on to say that "the shaft is deeper, and it has a pump hole 13 feet below the drift. The other shaft [the Dickeson shaft] is 109 feet deep to a tunnel, which runs southwest in the vein to a pit under the old stone house."

**Details of Operations in the 1860-1863 period**

Jacob and George Neimeyer developed and mined several veins (Miller, 1924, p. 17). These included the main vein and two smaller ones on each side, exposed in the main open pit. They also worked the Dickeson vein, which lies parallel to the main vein to the northwest of the northwest side of the open pit, at a distance of about 20 feet. They found some lead ore and produced it from veins which run beneath Neshaminy Creek to the northwest of the open pit. Rich galena ore was found in stopes to the northeast of the pump shaft, probably from the main vein system. The wallrock was reported as carbonaceous black shale, dipping steeply from S 70 degrees E to nearly vertical, with veins of quartz, drusy quartz, and ferroan dolomite, associated with galena, some sphalerite, a few copper minerals, and calcite. The veins of quartz and galena cemented black shale breccia, in part bleached.

There is a description in Dickeson's 1860 report of a shaft and some mining on the main vein just southwest of the northwest-trending Old Limekiln Road. Southwest of this shaft is another whose dumps are rich in lead-zinc ore. It is located 296 feet southwest of the road and

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**LEAD AND ZINC MINES AT NEW GALENA, PA..(cont'd)**

the house. Another shaft, which has a trench dug to the southwest, is located 45 feet away, S 52 degrees W of the first shaft (Smith, 1977, fig. 84). About 100 feet south of this second trial shaft is one more shaft which was sunk to locate the main vein (Smith, 1977, fig. 84). Between these last two shafts are drainage trenches, which cut many small veins of galena.

Far to the southwest of the open pit, on the southeast side of Neshaminy Creek, is a shaft found by the author and his party in the early 1960's. It is located about 1000 feet southwest of the open pit, on the general main vein trend. The dumps were found good samples of galena-sphalerite ore, plus angular fragments of diabase. The shaft is located very near to the "probably fault" of northwestward trend shown on Mills (fig. 1 (1924)). The data suggest to me that the fault exists and is filled with a diabase dike. Also, if Miller is correct, these veins have probably been offset along the fault about 1200 feet to the southeast, so their extension beyond the Miller fault should be looked for on the southeast side of the Neshaminy Creek Valley, well up the slope on that side of the valley, and well above the reservoir. We found one more prospect from the Neimeyer period, located to the southwest of the cluster of shafts and ditches southwest of the house. Worthy of note is mention, in the 1920's period *Doylestown Intelligencer* newspaper articles, of prospects extending from Chalfont to the southwest and Fountainville far to the northeast along Pa. Rt. 313. Many other prospects are mentioned as located in the Neshaminy Valley between these two end points.

The Neimeyers engaged John Annear to write a report on the property. A careful examination of his report suggests that it is a factual, clear report, without gross exaggeration of the value of the deposits. Annear stated that most of the mining operations in 1862 were in the longitudinal open pit, 256 feet long, with a varying depth of from 20 to 44 feet. At the southwestern face, next to the road, northeastward to a few feet southwest of the engine shaft, the main vein averaged about two feet in width. It was rich in galena, with some sphalerite, and included rich specimens of cuprite and the black oxide of copper (tenorite). At this time, Annear related, the engine shaft was being sunk. Some 20 feet east of the vein dipping S 75 degrees E was a branch vein four inches wide which, Annear noted, "will enrich the deposit." A similar vein, he related, occurred west of, and parallel to, the main vein in the open pit or "gauphin." In the immediate vicinity of the engine shaft, the veins were displaced by a fault zone which passed through it across the vein. In the workings northeast of the main shaft, the main lode was followed down to a depth of 44 feet. Here the water was kept out by a three-inch branch pump. The direction of this working was about 70 feet to the northeast, on the strike of the vein. In this working was the richest ore yet discovered on the property. For about 35 feet in length, the vein consisted of very rich, hard, compact galena, three inches wide. Annear stated that he thought this thick zone had "every appearance" of extending to greater depth. It must be remembered that they could not mine deeper because of great influxes of water. Here, they dug a northward crosscut to the Dickeson vein. It was found to strike parallel to the main vein at a distance of 35 feet.

The Dickeson vein at the bottom of the 38-foot deep shaft of the same name was reported as 18 inches wide by Annear (1862). At the time of the report, the Neimeyers were cleaning out this shaft. Later, they found that the Dickeson vein extended southwest, 38 feet to Old Limekiln Road and northeastward from the Dickeson shaft.

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### LEAD AND ZINC MINES AT NEW GALENA, PA. (cont'd)

Of interest are articles about Daniel Barndt and his partner, Christian Moyer, who were the two men who had been digging post holes in early 1860, and encountered lumps of galena, which were then determined to be lead ore. Thus, they were very likely the discoverers of the district, according to *the Doylestown Democrat*, at intervals in 1861-1863.

The syndicate which bought the property from the Neimeyers operated under the name "Bucks County Lead Company." Very little is known about what they may have accomplished beyond promotion. The paper by Ashmore (1863) indicates that work continued into 1863. They also built a small lead furnace to the south of the engine shaft (fig. 1, Part 1 of this paper, *F.M., Pa. Chapter Newsletter*, Vol. 25, No. 1, 1997) on the southeast side of the open pit. The mill, located about 1000 feet west of the house, was converted to a stamp and jib mill in order to process the ore. Whether it ever operated is unknown. The conversion had been proposed by Montroville Dickeson in his 1860 prospectus.

The syndicate apparently deepened the shafts next to the open pit to their present depths, and prospected around Chalfont and elsewhere in the area. However, nowhere is there any reference to any lead or silver production in late 1862 or 1863, when the Bucks County Lead Company held and operated the mines. Probably, the effort of the Syndicate was almost entirely promotional.

### Operations and Prospecting in the Rest of the 19th century

The next recorded effort was that by Messrs. Lee and Wren of Mahanoy City, in 1874 (*Doylestown Intelligencer*, April 12, 1907). They employed William J. Wintzen to pump out the main mine workings, and he gave one of the best and most complete descriptions of the mine, largely completed by the Neimeyers' development and mining efforts. However, Lee and Wren left no record of further development or production. They were either pure promoters or completely defeated by the major water problems in the mine, since it was probably quite hopeless to mine deeper with the pumps available at the time. According to Wintzen, they had the mine pumped out and worked it for about a year, finding galena of the "purest kind," and zinc, but the effort cost them too much. Wintzen found several other shafts 60 to 80 feet deep, on the property, but the cost of pumping was still probably too high to continue.

Miller (1924, p. 18) states that the mines were operated in 1888 and again in 1891, but he said that the reports are vague and conflicting. Lyman (1895, who visited the mines for the Second Pennsylvania Geological Survey in 1889, found the mines quite full of water, so the 1888 effort, if it happened, must have been brief and not successful. Another brief effort was executed in 1891 by the Eastern Mining and Oil Company. They opened an old shaft, but work was soon stopped.

Miller (1924, p. 18) stated that a man named Cowan started to work at the mine in 1894, but evidently accomplished little. This apparently was the last effort of the nineteenth century.

### To be Continued

Editor's Note: References will appear with the third part of this article, which will bring the story of the New Galena Mines up-to-date.

LEAD AND ZINC MINES AT NEW GALENA, PA. (cont'd)

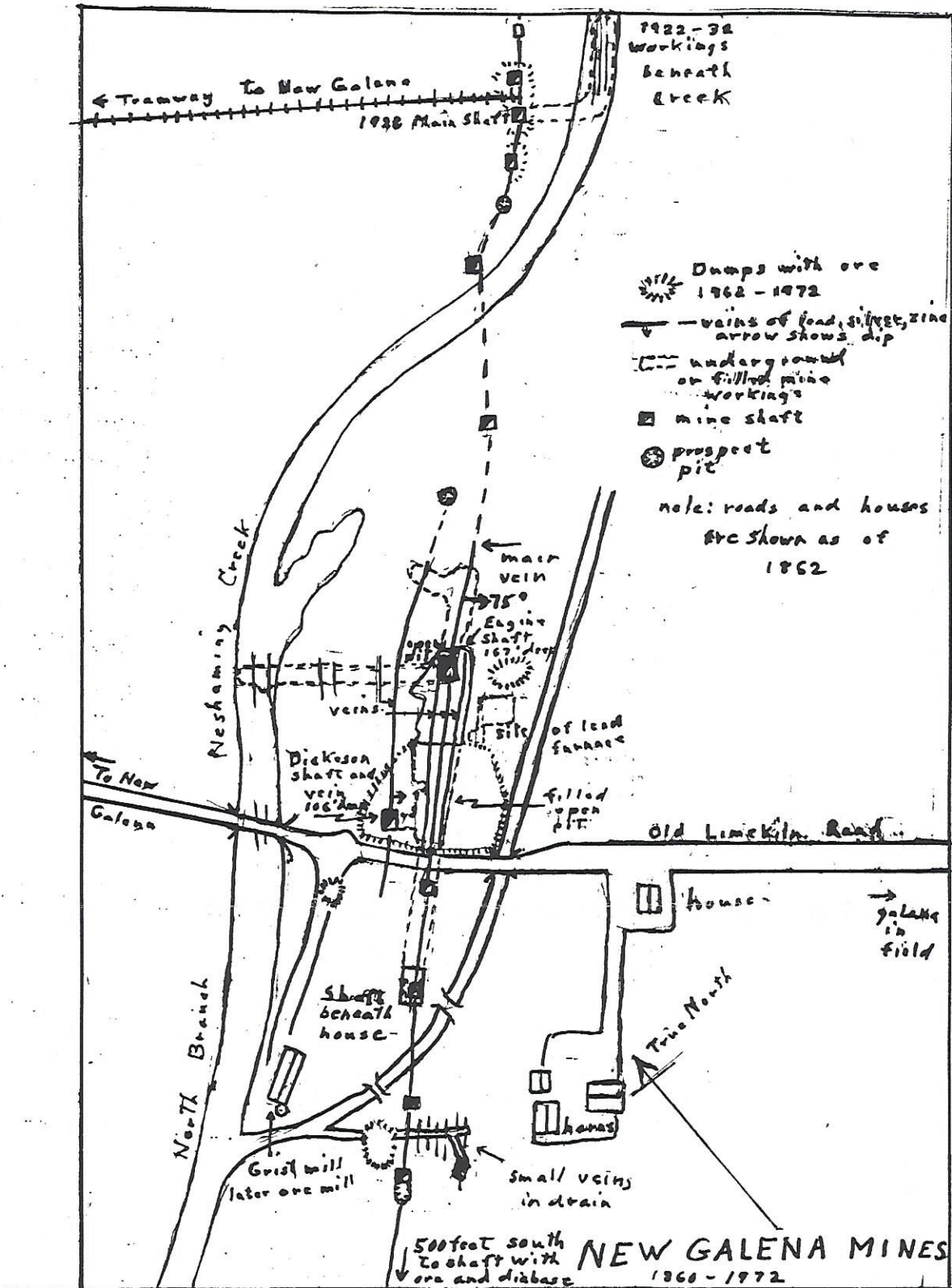


Figure 1: Map of the New Galena Mines, Bucks County, Pa., 1860-1972