

United States Department of the Interior  
National Park Service

# National Register of Historic Places Continuation Sheet

Section number \_\_\_\_\_ Page \_\_\_\_\_

AD

**SUPPLEMENTARY LISTING RECORD**

NRIS Reference Number: 73001593

Date Listed: 9/6/91

Etna Furnace                      Blair              PA  
Property Name:                      County:              State:

Iron and Steel Resources in Pennsylvania MPS  
Multiple Name

-----  
This property is listed in the National Register of Historic Places in accordance with the attached nomination documentation subject to the following exceptions, exclusions, or amendments, notwithstanding the National Park Service certification included in the nomination documentation.

for/ Patrick Andrus  
Signature of the Keeper

9/19/91  
Date of Action

=====  
Amended Items in Nomination:

This nomination amends the previously listed Etna Furnace. The boundary has been changed. 94 acres have been deleted (UTM 17 E738140 N4489760) and 105 acres have been added (UTM 17 E739470 N4489270). This information was provided by Bill Sisson of the PA SHPO. The form is officially amended to include this information.

-----  
**DISTRIBUTION:**

- National Register property file
- Nominating Authority (without nomination attachment)

United States Department of the Interior  
National Park Service

NATIONAL  
REGISTER

**NATIONAL REGISTER OF HISTORIC PLACES  
REGISTRATION FORM**

1. Name of Property

historic name: Etna Furnace (boundary increase)

other name/site number: Mount Etna Furnace, Aetna Furnace  
Aetna Iron Works

2. Location

street & number: TR 463 & TR 07020 (N/A) not for publication

city, town: Catherine Township (N/A) vicinity

state: PA code: PA county: Blair code: 013 zip code: 16693

3. Classification

Ownership of Property: Private

Category of Property: District

Number of Resources within Property:

<u>Contributing</u>	<u>Noncontributing</u>	
<u>9</u>	<u>8</u>	buildings
<u>1</u>	<u>—</u>	sites
<u>2</u>	<u>—</u>	structures
<u>—</u>	<u>—</u>	objects
<u>12</u>	<u>8</u>	TOTAL

Number of contributing resources previously listed in the  
National Register: 4

Name of related multiple property listing: Iron and Steel  
Resources in Pennsylvania 1716-1945

**4. State/Federal Agency Certification**

As the designated authority under the National Historic Preservation Act of 1986, as amended, I hereby certify that this X nomination    request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60.

In my opinion, the property X meets    does not meet the National Register criteria. See continuation sheet.

Brent D. Glass 7/3/91  
 Signature of certifying official Date  
Brent D. Glass Pennsylvania Historical & Museum Commission  
 State or Federal agency and bureau

In my opinion, the property    meets    does not meet the National Register criteria.    See continuation sheet.

   Signature of certifying official    Date  
   State or Federal agency and bureau

**5. National Park Service Certification**

I ✓ hereby, certify that this property is: Patrick Andrews 9/6/91  
✓ entered in the National Register. See continuation sheet.  
   determined eligible for the National Register. See continuation sheet.  
   determined not eligible for the National Register.  
   removed from the National Register

✓ other (explain): boundary increase  
decrease of a previously listed  
property. for Signature of Keeper Date  
 of action

**6. Function or Use**

Historic Functions  
10 industry/processing/extraction  
01 domestic  
01 domestic  
 Current functions  
01 domestic  
01 domestic

Subfunctions  
10A manufacturing facility  
01A single dwelling  
01B multiple dwelling  
 Subfunctions  
01A single dwelling  
01B multiple dwelling

JUL 25 199

7. Description

Architectural Classification

80 other

other: 99 iron furnace

Materials

foundation 40 stone

roof 54 tin

walls 40 stone

other N/A

Describe present and historic appearance:

X see continuation sheet

8. Statement of Significance

Certifying official has considered the significance of this property in relation to other properties:

\_ Nationally    X Statewide    \_ Locally

Applicable National Register Criteria: A, C, D

Criteria Considerations (Exceptions): N/A

Areas of Significance: 160 industry

070 community planning

030 architecture

023 archaeology-historic non aboriginal

Period(s) of Significance: 1808-1874

Significant Dates: 1808, 1831-2

Years of Alterations: 1831-2

Significant Person(s): N/A

Cultural Affiliation: N/A

Architect/Builder: unknown

State significance of property, and justify criteria, criteria considerations, and areas and periods of significance noted above.

X See continuation sheet

9. Major Bibliographical References

See continuation sheet

Previous documentation on file (NPS):

- preliminary determination of individual listing (36 CFR 67) has been requested.
- previously listed in the National Register
- previously determined eligible by the National Register
- designated a National Historic Landmark
- recorded by Historic American Buildings Survey # \_\_\_\_\_
- recorded by Historic American Engineering Record # \_\_\_\_\_

Primary location of additional data:

- State Historic Preservation Office
- Other state agency
- Federal agency
- Local government
- University
- Other - Specify Repository: \_\_\_\_\_

10. Geographical Data

Acreage of property: 161 acres

UTM References: Spruce Creek

	<u>Zone</u>	<u>Easting</u>	<u>Northing</u>		<u>Zone</u>	<u>Easting</u>	<u>Northing</u>
A	17	738450	4489840	C	17	739400	4488940
B	17	739960	4489600	D	17	738340	4489380

see continuation sheet

Verbal Boundary Description

see continuation sheet

Boundary Justification

see continuation sheet

11. Form Prepared By

name/title Diane Reed, Hist. Pres. Spec./Chris Davis HAER

organization PHMC-BHP/HAER date March 18, 1991

street & number P.O. Box 1026 telephone (717)787-8045

city or town Harrisburg state PA zip 17108

United States Department of the Interior  
National Park Service

001 20 00

## National Register of Historic Places Continuation Sheet

Section number 7 Page 1

Etna Furnace (bound. inc.)

---

Etna Furnace is located in the northeast corner of Blair County, between the towns of Williamsburg and Alexandria. The district is located 12 miles northeast of Altoona, east of U.S. Rt. 22. It is located along the valley formed by Roaring Run, east of U.S. Route 22, and runs along the valley to the confluence of the run with the Frankstown Branch of the Juniata River. It includes the oxbow located at that confluence, and its corresponding peninsula, as well as the meadow south of that peninsula along the river. The western end of the district contains fields, the slope of the valley becomes progressively steeper, and the land more heavily wooded as Roaring Run flows down to the Juniata. The area along the west side of the Juniata has a number of meadows, while the peninsula formed by the oxbow is heavily wooded.

The property, which was listed on the National Register in 1973, includes the western portion of the Etna Furnace plantation, essentially the section along Roaring Run, and its attendant buildings, including the store, manager's house, tenant house and barn. A sizeable area of land surrounding those structures, and to their west and north was also included.

The boundary increase incorporates the balance of the buildings and structures which constituted the Etna iron plantation, including the furnace, workers' houses, ironmaster's house, church, and archaeological features (canal locks, mill, etc.). The Juniata Division of the Pennsylvania Canal crossed the oxbow formed by the river, then turned south between the river and T 482. The present nomination revises the boundaries to more closely correspond to the natural contours of the valleys, and to reflect the included resources. While the original nomination consisted of 150 acres, the revised district is 161 acres. A large tract of land west and north of the principal structures, is being removed from the district, while a large section of land east of the previously registered property, and containing important elements of the plantation is being added to the district.

United States Department of the Interior  
National Park ServiceNational Register of Historic Places  
Continuation SheetSection number 7 Page 2Etna Furnace (bound. inc.)

The district is comprised of the following buildings, structures, and sites (see map of district for corresponding locations by number):

1. bank barn c. 1831 **contributing building**

The bank barn is one of the earliest and largest barns in the region, a 19th. century Germanic bank barn, with a cantilevered forebay. This coursed stone structure is composed of five bays and six trusses, and measures 100 feet by 50 feet. Remnants of the 6 foot high stone wall that once enclosed the barnyard exist northeast of the stable doors. Such features are more closely identified with eastern Pennsylvania bank barns, and may well reflect the origins of Henry Spang, who migrated to the region from Chester County. Original grain storage bins, animal stalls, and wrought-iron hardware are still extant. Despite a new roof and alterations to the first floor when the building was converted to a dairy barn, the structure retains its historic appearance. Presently the building is in good condition, and is used to store farm equipment.

2.-3. residences 2 **non contributing buildings**

These consist of a mobile home and a frame building of unknown use.

4. archaeological resources **contributing site**

**A. cemetery** A small cemetery is located on the ridge behind the tenant house, and includes over a dozen burials, principally children. Dates on the graves range from 1832 to 1859.

**B. blacksmith shop** c. 1831 The blacksmith shop burned sometime after 1979. Only the walls of the structure still stand. Apparently the building was converted to a residence at some point. The door is on the gable end of the building, facing the tenant house. A stone corner fireplace has been modified with brick, and there is a large opening with iron lintel in the eastern facade of the building.

United States Department of the Interior  
National Park Service

**National Register of Historic Places  
Continuation Sheet**

Section number 7 Page 3

Etna Furnace (bound. inc.)

---

4. (cont.)

C. charcoal house 1808 The remains of a large charcoal house sit on the hill above the furnace, consisting of two parallel stone walls. Three stone buttresses support the southern wall, and the northern wall is built into the hill.

D. gristmill site c. 1793 The gristmill predated the Etna Furnace complex, but later became an integral part of the iron plantation. The foundations of the mill are clearly visible, and parts of the race are still extant.

E. canal locks c. 1832 There are two canal locks from the Juniata Division of the Pennsylvania canal.

F. site of lock keeper's house c. 1832 The lock keeper's house shows clearly on maps of the period, and the foundation is clearly visible at the site.

5. tenant house c. 1831 contributing building

The largest and finest of the workers' houses is a twelve bay tenant house. This large two story stone house measures 70 by 18 feet. Each of the three two-story apartments is composed of three rooms, an individual front door, and a staircase to connect the two stories. Minor floor plan alterations, the addition of one door in the facade, and the removal of one of the staircases are modifications in the original structure. The building is still used as a residence, and is in good condition.

6. furnace 1808 contributing structure

The furnace is a truncated pyramid of dolomite with rounded corners and three stilted arches. Refractory brick, impressed with the name "Anderson" lines the interior bosh. During preservation work in 1961 the furnace was capped with concrete, but subsequent freeze-thaw action collapsed the main arch. The other two arches and walls are intact and in good condition. During stabilization of the furnace in 1989 the main arch and upper walls were stabilized, and a temporary protective roof was erected over the furnace.



United States Department of the Interior  
National Park ServiceNational Register of Historic Places  
Continuation SheetSection number 7 Page 4Etna Furnace (bound. inc.)7. company store c. 1831 contributing building

The company store, a vernacular structure, was constructed c. 1831. The building has double entry doors with glass transoms. A central brick chimney pierces the hipped roof. Old photographs indicate that the first floor front facade was stuccoed at one time. The two and a half story building remains in excellent condition.

8. manager's house c. 1808 contributing building

Adjacent to the company store is the earliest stone structure at Mount Etna. This three bay, two and a half story residence may have originally had a full-length front porch. There is evidence that the first floor front facade was stuccoed at one time. A massive stone interior chimney opens into a fireplace on the first floor, and on the same wall a winding staircase leads to the second floor. Other early elements including random width floor boards, beaded moldings, and hand hewn roof rafters and floor joists, suggest the building is contemporary with the furnace, and may have been the first ironmaster's house. A stone retaining wall has been constructed in front of the building. The structure is vacant, and is showing signs of structural deterioration.

9. cottage c. 1900 non contributing building

This one story frame cottage with hip roof is built on a stone foundation. It does not related to the period of the furnace.

10. mobile home c. 1970 non contributing building11, 12, 13. workers' houses c. 1831 3 contributing buildings

This row of three log houses were once occupied by Mount Etna's forgemen. They have retained their integrity and appear to be in good condition. Two of the hand-hewn log houses (12 and 13) measure 24 by 20 feet and were originally heated by stoves. Bases on irregularities in the log construction as well as ground disturbances around the foundation, the last house in the row (11) may have been moved or separated from a larger double-pen house. The stone foundation of a double log house that recently burned completes the row of forgemen's houses.

United States Department of the Interior  
National Park ServiceNational Register of Historic Places  
Continuation SheetSection number 7 Page 5Etna Furnace (bound. inc.)14. house non contributing building

This two story L shaped frame house dates from the late 19th. century and was not related to the furnace complex.

15. house non contributing building

This two story two bay house is of undetermined age, and does not appear to relate to the furnace complex.

16. house non contributing building

West of the log houses and oriented to the canal is a two story house. Although this has at various times been referred to as the "canal house", and is supposed to date c. 1830, there is no evidence at this time to support this contention. The structure does not appear on any period maps, and there is no documentation for its origin or use. The building is covered with unpainted clapboards. The house is currently occupied and in good condition.

17. ironmaster's house c. 1832 contributing building

The ironmaster's house was constructed in 1832 by Henry S. Spang, and is oriented to and contemporary with the Juniata Division of the Pennsylvania Main Line Canal. This five bay, two and a half story residence with rear ell has an ashlar facade and coursed fieldstone on the remaining three sides. The interior retains paneling and mantel pieces. A Victorian porch was added to the facade when the home was occupied by Samuel Islet and his family, and subsequently a frame addition to the ell. A front dormer gable was also added in the late 19th. century. A fire in 1980 destroyed the roof and portions of the second floor of the house. The roof was subsequently replaced.

United States Department of the Interior  
National Park Service

**National Register of Historic Places  
Continuation Sheet**

Section number 7 Page 6

Etna Furnace (bound. inc.)

---

18. Methodist/Episcopal church 1860 **contributing building**

The clapboard Methodist/Episcopal church was constructed in 1860. The structure was recently modified for residential use, and its windows were infilled, and the interior modified.

19. house **non contributing building**

This is a two story frame house of undetermined age, with a porch surrounding three sides.

20. aqueduct c. 1832, reconstructed 1848 **contributing structure**

The original aqueduct was of wood construction with stone piers and abutments. The piers and curved abutments remain in excellent condition, and presently support an abandoned railroad bridge of a later period.

United States Department of the Interior  
National Park ServiceNational Register of Historic Places  
Continuation SheetSection number 8 Page 1Etna Furnace (bound. inc.)

Etna Furnace (boundary increase) is nominated under Criterion A for industry as a representative of the westward expansion of the Pennsylvania iron industry. Etna Furnace is also the most intact iron plantation of the celebrated Juniata Valley iron industry. Iron that was produced in the valley was considered among the finest in quality in the country. Etna was one of the first furnaces in the region, and became the most prominent. Etna is also notable under Criterion A for community planning and development. The ironmaking environs includes company store, church, worker's housing and manager's house. In addition, the community adapted to the change brought by the canal. Initially, buildings were oriented to the industrial complex, such as the boarding house, store, and manager's house. Subsequent buildings at Etna were oriented to the canal, as were the ironmaster's mansion and the church. Etna Furnace is also eligible under Criterion C for architecture ranging from the understated elegance of the ironmaster's house to the simple log houses of the workers. The log workers' houses are similar to those found at Curtin Village in Centre County. They are scarce remnants of a type of housing once common at iron plantations. The Etna Furnace complex, as a representative of the general scale and layout of an iron plantation, is one of the most significant in Pennsylvania. It can be favorably compared to Hopewell Village, Curtin and Cornwall, both in terms of the range of resources, as well as in the integrity of the site and its buildings. Under Criterion D for archaeological significance, Etna Furnace is important in several ways. On one hand, the survival of the canal bed, locks, and aqueduct abutments have the potential to yield information on construction methods used on the Pennsylvania Canal. In addition, the blacksmith shop, and the area around the furnace and charcoal house have potential to provide information on the ironmaking industry, both in terms of remains of iron products, and perhaps in the analysis of its slag deposits. The areas around workers' houses, manager's house, and the ironmaster's house have the potential to yield information about the lives of the worker's and the ironmaster. Because of the overall integrity of the district, with little subsequent disturbance, it could yield valuable information about the overall layout of the iron plantation, particularly suggesting the size and configuration of lost buildings.

United States Department of the Interior  
National Park ServiceNational Register of Historic Places  
Continuation SheetSection number 8 Page 2Etna Furnace (bound. inc.)

The first settlement within what is now the Mount Etna Furnace complex was comprised of a saw mill and a grist mill, which was built on Roaring Run in 1793 by David Stewart to meet the needs of Juniata Valley farmers. The mill site had access to both river transportation, and to pack horse and wagon travel on the Frankstown Path. In 1806 Stewart purchased 4,320 acres with rich natural resources, including iron ore, limestone, and timber - all the necessary raw materials for iron production.

In 1807 the Harrisburg, Lewistown, Huntingdon and Pittsburgh Turnpike (now US 22) was authorized by the legislature. The turnpike passed just to the west of the site, and opened up a major transportation route linking the area with other parts of the state.

Several months after this transaction, Stewart went into partnership with William Moore and Col. John Canan, deputy surveyor of Huntingdon County to construct a cold blast charcoal iron furnace. Stewart selected an ideal furnace site adjacent to the swift-flowing Roaring Run. A narrow terrace bordering the stream provided space for the casting shed, while the adjacent cliff was faced with stone to support the charging bridge. Mount Etna went into blast in 1808. The following year Stewart erected a forge to refine pig iron from the blast furnace into the standard wrought-iron bars used to manufacture finished iron products.

Before the War of 1812 Mount Etna and six other regional iron furnaces prospered as the Juniata iron industry became internationally recognized. Following the war, however, a decade of national economic crisis depressed the industry, and in 1817 the ironworks failed.

United States Department of the Interior  
National Park ServiceNational Register of Historic Places  
Continuation SheetSection number 8 Page 3Etna Furnace (bound. inc)

In 1823, as feasibility studies were underway for construction of a canal through the Juniata Valley, Henry S. Spang of Berks County acquired the works. Under Spang's management Mount Etna expanded and became an important regional ironworks. The success of the Mount Etna ironworks was due in large part to the construction of the Juniata Division of the Pennsylvania Main Line Canal in 1832. Prior to this, products were shipped by two methods - either overland by road, or by "arks" which floated on the river only during flood seasons. Because both methods required the storage of goods for long periods, the ironmaster experienced considerable delays before receiving payment for his products. The canal provided an improved link to western markets, a connection even more important to Spang, who operated a rolling mill near the Pittsburgh terminus of the canal in the town of Etna. Spang operated both the rolling mill and the Mount Etna Furnace from 1826 to 1847. The Blair County furnace provided the pig iron necessary for the manufacture of nails, brads, spikes, and other products of the rolling mill.

With the security of canal transportation in his backyard, Spang was able to initiate a significant expansion at Mount Etna, and to increase the furnace's production. In 1832, the output of the furnace was 600 tons of pig iron. By 1837 production of pig iron was 900 tons. It further increased with the introduction of the hot blast in 1839, and by 1842 production of pig reached 1200 tons per year.

During this period a new ironmaster's house was constructed, oriented to the canal, and a storehouse was built adjacent to the canal to store the output of the furnace for shipping. Spang also established a new company store. He employed 150 workers, and about 40 families lived at Mount Etna in workers' houses.

Transportation between the furnace and the forge, which was located near the canal was significantly improved when Spang constructed a tram railroad along Roaring Run. Around 1839 the furnace was converted to hot blast.

During the mid 19th. century decline of the charcoal iron industry Henry Spang died. In 1851 the Mount Etna works were sold to an experienced Blair County ironmaster, Samuel Isett, the business partner of Spang's son in Pittsburgh.

United States Department of the Interior  
National Park Service

## National Register of Historic Places Continuation Sheet

Section number 8 Page 4

Etna Furnace (bound. inc.)

---

In 1857 the Pennsylvania Main Line Canal was bought by the Pennsylvania Railroad. The railroad maintained portions of the old canal for the iron companies, even though rail service bypassed the area.

Just before the Civil War, Mount Etna experienced another period of prosperity that was soon augmented by the tremendous need for iron products during the war. The rejuvenated works produced iron not only for ordnance and munitions, but for the rails used in hundreds of miles of new railroad lines.

After the Civil War the works continued to prosper as long as the post-war reconstruction and railroad building boom prolonged the high demand for iron products. By 1872 the demand had declined, in part due to the advent of steel rails, and only four Blair County charcoal iron furnaces, including Mount Etna were manufacturing pig iron. When the canal was abandoned by the railroad in 1874, Mount Etna produced iron for the last time. By the early 1880's Mount Etna was in ruins, only the gristmill continued to operate into the early 1900s. Today the area is primarily agricultural and residential in character.

United States Department of the Interior  
National Park Service

**National Register of Historic Places  
Continuation Sheet**

Section number 9 Page 1

Etna Furnace (bound. inc.)

---

Africa, J. Simpson History of Huntingdon County. Philadelphia:  
Louis H. Everts, 1883.

Davis, Christine Mount Etna Iron Works. ms. National Park  
Service, Historic American Engineering Record, 1988.

Jones, G. G. History of the Juniata Valley.

National Park Service, U.S. Department of the Interior Study of  
Alternatives: Mount Etna Iron Furnace Complex., 1990.

Nichols, Beach Atlas of Blair and Huntingdon Counties, Pennsyl-  
vania. Philadelphia: A. Pomeroy & Co., 1870.

Sharp, Myron and William H. Thomas A Guide to Old Stone Blast  
Furnaces in Western Pennsylvania. Pittsburgh: Historical  
Society of Western Pennsylvania, 1966.

A Photo Essay on the former Etna Iron Works. Williamsburg  
Heritage and Historical Society, n.d.



JUL 25 1993

United States Department of the Interior  
National Park ServiceNational Register of Historic Places  
Continuation SheetSection number 10 Page 1Etna Furnace (bound. inc.)

Verbal boundary description: The nominated property begins at the point 100' north of where Roaring Run enters the Frankstown Branch of the Juniata River. Crossing the Juniata River, the boundary follows the southern shoreline of the river approximately 3,000' to a point, thence south 1000' to the top of a steep bank, thence southwest along that 800' contour 600' to a point, thence continuing southwest 2000', recrossing the Juniata south of the church to a point, thence up the hill behind the ironmaster's mansion and following the 900' contour at the summit 1,600' northwest, thence west 2500' continuing along the 900' contour to a point, thence north 1600', crossing the township road, thence northeast 500', to a point north of the cemetery, thence east 400' to a point, thence 400' along the 1000' contour to a point, thence south 1000' along the 1000' contour to a point, thence east 600' along the 1000' contour to a point, thence 600' down a bluff to the point of beginning.

Boundary justification: The Etna Furnace boundary increase is to establish the perimeter of the iron plantation and its attendant buildings. This will increase the district from 150 to 161 acres, while removing some vacant land and noncontributing buildings previously included in the original Etna Furnace nomination, primarily to the west and north extremes of the existing district, and adding lands to the east and north which incorporate the known resources of the plantation which were previously excluded from the nomination. These include the worker's housing, ironmaster's mansion, and the canal locks and aqueduct abutments. The boundaries utilize many of the natural contours of the the area, and are based to some extent on the "viewscape" from the built resources, particularly in the Roaring Run Valley. The revised and expanded district includes all buildings which were associated with the iron plantation. There are no known resources associated with the furnace which are outside the district. Also included are the two visible canal locks, canal bed, and foundation of the lock keeper's house. Excluded from the district is the site of two additional locks east of the existing locks, which have apparently been destroyed or covered by a very large pile of tailings.

United States Department of the Interior  
National Park Service

**National Register of Historic Places  
Continuation Sheet**

Section number \_\_\_\_\_ Page \_\_\_\_\_ Photographs Etna Furnace (bound. inc.)

---

All photos: Etna Furnace (boundary increase)  
TR 463 and TR 07020, Catherine Township  
Blair County, PA  
date of photographs: 1988, 2/1991  
photographers: Jet Lowe, HAER; Diane Reed PHMC/BHP  
negatives: HAER, PHMC/BHP

photo key

- A. bank barn  
camera points northeast
- B. tenant house  
camera points northeast
- C. blacksmith shop  
camera points north
- D. furnace  
camera points west
- E. furnace  
camera points southwest
- F. charcoal house  
camera points north
- G. company store  
camera points southeast
- H. manager's house  
camera points south
- I. worker's housing  
camera points southwest
- J. worker's housing  
camera points northwest

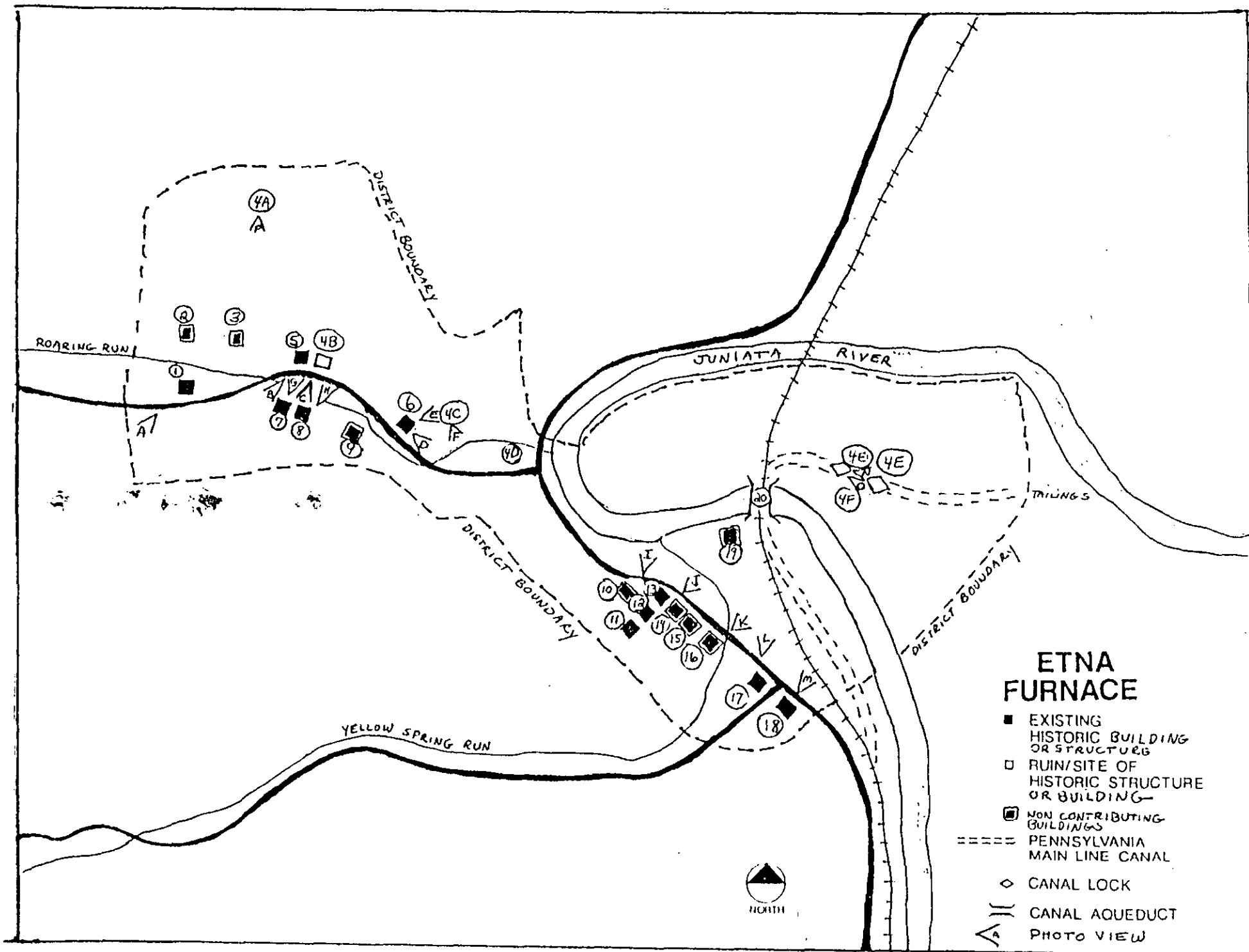
United States Department of the Interior  
National Park Service

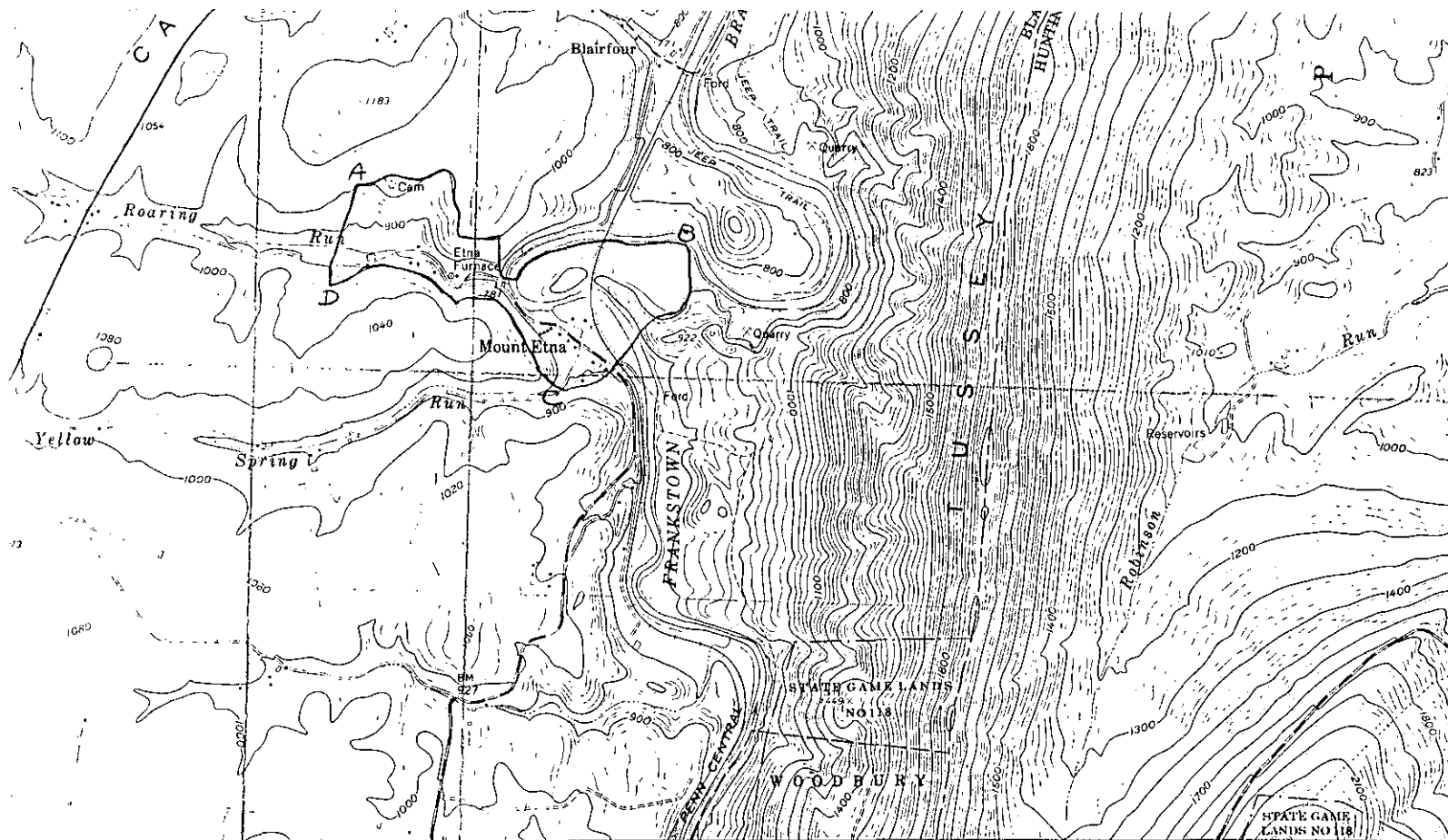
## National Register of Historic Places Continuation Sheet

Section number \_\_\_\_\_ Page \_\_\_\_\_ Photographs Etna Furnace (bound inc.)

---

- K. house - non contributing  
camera points west
- L. ironmaster's house  
camera points south
- M. church  
camera points west
- N. canal lock  
camera points north
- O. canal lock  
camera points west
- P. cemetery - typical stone  
camera points north

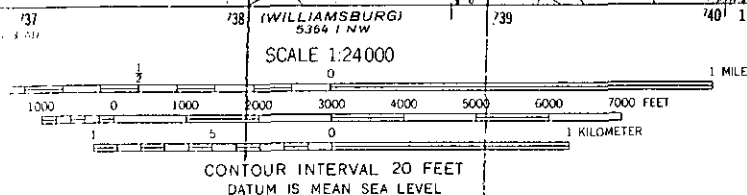




ETNA FURN  
 (BOUNDARY)  
 BLAIR COUNTY  
 SPRUCE CREEK  
 201E 17

4489  
 (A) E 738430  
 N 4487841  
 (B) E 737700  
 N 4487600  
 (C) E 724100  
 N 4488940  
 4488000m N.  
 (D) E 738340  
 N 4487380

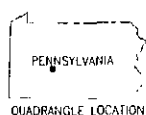
40° 30'  
 78° 07' 30"  
 (HUNTINGTON)  
 5364 NW



INTERIOR-GEOLOGICAL SURVEY WASHINGTON, D. C. - 1973  
 WILLIAMSBURG 5 M

ROAD CLASSIFICATION

Heavy-duty	—————	Light-duty	- - - - -
Medium-duty	- - - - -	Unimproved dirt	.....
	U. S. Route		State Route



SPRUCE CREEK, PA.  
 SW/4 TYRONE 15' QUADRANGLE  
 N4030—W7807.5/7.5

1963  
 PHOTOREVISED 1972  
 AMS 5365 II SW—SERIES V831

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS  
 FOR SALE BY U. S. GEOLOGICAL SURVEY, WASHINGTON, D. C. 20242  
 A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST