NPS Form 10-900
(3-82)

OMB No. 1024-0018
Exp. 10-31-84

United States Department of the Interior
National Park Service

National Register of Historic Places Inventory—Nomination Form

For NPS use only
received AUG 5 1985
date entered

See instructions in *How to Complete National Register Forms*
Type all entries—complete applicable sections

1. Name

historic Hill Annex Mine

and/or common Hill Annex Mine

2. Location

street & number off U.S. Highway 169 N/A not for publication

city, town Greenway Township X vicinity of Calumet

state Minnesota code 22 county Itasca code 061

3. Classification

Category	Ownership	Status	Present Use	
___ district	___ public	___ occupied	___ agriculture	___ museum
___ building(s)	___ private	X unoccupied	___ commercial	X park
___ structure	X both	___ work in progress	___ educational	___ private residence
X site	**Public Acquisition**	**Accessible**	___ entertainment	___ religious
___ object	___ in process	X yes: restricted	___ government	___ scientific
	N/A being considered	___ yes: unrestricted	___ industrial	___ transportation
		___ no	___ military	___ other:

4. Owner of Property

name See continuation sheet - page 1

street & number N/A

city, town N/A N/A vicinity of state N/A

5. Location of Legal Description

courthouse, registry of deeds, etc. Itasca County Courthouse

street & number 4th Street East & Second Avenue East

city, town Grand Rapids state Minnesota

6. Representation in Existing Surveys

title Minnesota Statewide Historic Sites Survey has this property been determined eligible? ___ yes X no

date 1980 ___ federal X state ___ county ___ local

depository for survey records Minnesota Historical Society - Fort Snelling History Center

city, town St. Paul state Minnesota

7. Description

Condition		Check one	Check one
___ excellent	___ deteriorated	___ unaltered	_X_ original site
_X_ good	___ ruins	_X_ altered	___ moved date N/A
___ fair	___ unexposed		

Describe the present and original (if known) physical appearance

The Hill Annex Mine, located entirely within Section 16, T56N, R23W, a state school trust property, is a nonworking iron mine whose principal geographical feature is a large excavation, the bottom of which is filled with water. Terraced by the use of railcars and power shovels to facilitate the exit and entry of large vehicles and excavation, about 500 feet deep, one mile in length, and three-quarters of a mile in width, is overlooked by a flat promontory upon which a complex of buildings is located. These include the mine management office, laboratory, maintenance shops, and beneficiation plant. These buildings and some of their original equipment are still capable, for the most part, of operation. The main building (c. 1930) is the mine manager's office. Located at the edge of the pit, the 2½ story woodframe building was used for offices and the storage of mine records. To the south stands a wooden watertower (c. 1919). Across a scraped gravel area to the southeast are maintenance facilities which housed the repair shops for railroad equipment (c. 1930) and trucks (c. 1961). These maintenance buildings measure approximately 275' by 90' and have 35' high ceilings. To the north of the maintenance buildings are the heavy media plant and prep section (both c. 1953). The heavy media plant is irregularly shaped but is approximately 50' by 60'. A tailings basin to the east of the heavy media plant was constructed in 1957. The entire complex of structures is connected by a belt line to the mining area in the pit. The pocket at the foot of the belt line was constructed in about 1945. A frame truck repair shop (c. 1919) and a metal quonset repair shop (c. 1930) are nearby. Headquarters for the interpretive program are housed in the former Calumet Community Club building (across the mine to the southeast from the main complex of mine structures). The club building is a frame structure constructed in a simple craftsmen style about 1915. It was provided to the nearby town of Calumet by the mine lessee and used by the town until recently as a community center. Other public structures, including a school, which originally stood in the same area have been demolished. Railroad trackage on the property is owned and maintained by the Burlington Northern Inc., under a lease and easement arrangment with the State of Minnesota.

8. Significance

Period	Areas of Significance—Check and justify below				
___ prehistoric	___ archeology-prehistoric	___ community planning	___ landscape architecture	___ religion	
___ 1400–1499	___ archeology-historic	___ conservation	___ law	___ science	
___ 1500–1599	___ agriculture	___ economics	___ literature	___ sculpture	
___ 1600–1699	___ architecture	___ education	___ military	___ social/ humanitarian	
___ 1700–1799	___ art	___ engineering	___ music	___ theater	
___ 1800–1899	___ commerce	___ exploration/settlement	___ philosophy	___ transportation	
X 1900–	___ communications	X industry	___ politics/government	___ other (specify)	
		___ invention			

Specific dates 1912 **Builder/Architect** Jones & Laughlin Steel Corporation

Statement of Significance (in one paragraph)

The Hill Annex Mine demonstrates considerable significance as one of the major producers of iron ore on the Mesabi Range. During the first half of the century the Range supplied 85% of the nation's ore and the Hill Annex was a major contributor. It also represents the largest single group of leases producing the largest tonnage in the history of Itasca County

The Hill Annex is also exceptional as one of Minnesota's few state owned mine properties. The North West Ordinance of 1787 provided that sections 16 & 36 of each township of the North West Territory should be retained by the state for educational uses and would not be available for homesteading. Since the greater part of the Hill Annex Mine falls within section 16, the property not only remained state owned but also provided the state of Minnesota with over $25 million in royalty payments for educational purposes.

Numerous historic buildings located on the site, as well as the excavation itself, effectively represent the early mining process. The office building (c. 1930), laboratory (c. 1930), maintenance shop (c. 1930), truck repair shop (c. 1919), wooden watertower (c. 1919), and community club (c. 1915) all contribute to interpreting the history of Minnesota mining. Subsequent physical changes have been limited to the addition of a conveyor belt line to the pit in 1944, the prep section built in 1953, the heavy media plant, architecturally reminiscent of the earlier 1920 wash plant, also built in 1953 and a garage built in 1961. The major topographical change has been the gradual expansion of the mine pit toward the south and northeast since 1940.

Yet, the integrity of the mine is not impaired by the more recent developments. They merely represent the continuing evolution of mining technology begun in the earliest years of the industry. Even in 1901, it was realized that the high grade hematite ore, which could be shipped direct without processing, would soon be exhausted. This lead to the development of various washing processes to produce an ore of acceptable blast furnace quality. After the ore was blasted and crushed, it was broken down on log washers and the fine silica waste was freed. The ore and silica were then separated in classifiers. However, the ores which had responded so well to this simple washing process were eventually depleted. Silica in the lower grade ore was in chunk form and could not be broken down and separated. This lead to the development of the heavy media process which used several advanced techniques to successfully removed the silica.

(see continuation sheet - page 2)

9. Major Bibliographical References

See Continuation sheet

10. Geographical Data

Acreage of nominated property 640 acres

Quadrangle name Calumet, MN **Quadrangle scale** 1:24000

UTM References

	Zone	Easting	Northing
A	15	478960	5124824
B	15	481056	5124138
C	15	481056	5124124
D	15	478960	5124124
E			
F			
G			
H			

Verbal boundary description and justification

The property nominated is all that which is located in Section 16, T56N, R23W, Greenway Township, Minnesota.

List all states and counties for properties overlapping state or county boundaries

state	N/A	code	N/A	county	N/A	code	N/A
state	N/A	code	N/A	county	N/A	code	N/A

11. Form Prepared By

name/title State Historic Preservation Office and Rolf Anderson (volunteer)

organization Minnesota Historical Society **date** May 1985

street & number Fort Snelling History Center **telephone** 612-726-1171

city or town St. Paul **state** Minnesota

12. State Historic Preservation Officer Certification

The evaluated significance of this property within the state is:

___ national ___X___ state ___ local

As the designated State Historic Preservation Officer for the National Historic Preservation Act of 1966 (Public Law 89-665), I hereby nominate this property for inclusion in the National Register and certify that it has been evaluated according to the criteria and procedures set forth by the National Park Service.

State Historic Preservation Officer signature Russell W. Fridley

title Russell W. Fridley, State Historic Preservation Officer **date** 7/11/85

For NPS use only

I hereby certify that this property is included in the National Register

Beth Grosvenor **date** 8/1/86

Keeper of the National Register

Attest: **date**

Chief of Registration

Owners

Iron Range Resource and Rehabilitation Board
Attn: Gary Lamppa, Commissioner
P.O. Box 441
Eveleth, Minnesota 55734

Burlington Northern Railroad
Attn: O.J. Norman
Twin Cities Region
176 East 5th Street
St. Paul, Minnesota 55109

When the Hill Annex first opened in 1912, ore was transported to nearby Nashwauk for processing. Later, in 1920, a wash plant was constructed at the mine. A portion of this plant was converted to the heavy media process in 1950 and was finally replaced by the present plant in 1953. (The modern day taconite process was never implemented at the Hill Annex.) These developments represented refinements and improvements of the original methods rather than a true technological departure. No mine on the Mesabi Range could have survived without continually improving the recovery process.

The Hill Annex Mine remains significant not only for its high production and effective representation of the early mine but also in its clear depiction of the evolving nature of mining inherent on the Mesabi Range. Since the property is state owned, the site also provides a unique preservation opportunity.

Historically, mining facilities in Minnesota, like the Hill Annex Mine, were involved in the extraction of high-grade hematite or natural ore. Natural ore typically required only simplified processing and contained approximately 50% iron in its natural state. In the early years of Minnesota mining, various washing processes were developed in order to produce a natural ore of acceptable blast furnace quality. The ore would typically be broken down on log washers and the fine silica waste freed. However, the ores which had responded so well to this process were eventually depleted. Processing methods were then enhanced to include techniques such as the heavy media process which would float off the silica waste from the ore. By the 1960s the better grades of natural ore were nearly depleted and the emphasis was shifted toward the development of the taconite industry which used modern technology to process low-grade magnetic ore.

Of the more than 400 natural ore mines on Minnesota's three iron ranges, which contained the largest iron ore deposits the world had ever known, all but one are now closed. Most were dismantled or fell into disrepair while several converted to taconite operations. However, only 3 taconite plants still remain. The McKinley Mine, the only remaining operating natural ore mine, is scheduled to discontinue operations within two years. That facility will then be dismantled as required by Minnesota State Statutes 93.44-51 of 1981. These regulations require that all "power plants and associated facilities, transmission lines, pipelines, docks and associated facilities, and railroads shall be removed or provisions made for continued subsequent use with an approval deactivation plan....and all other equipment, facilities, and structures shall be removed and foundations razed and covered with a minimum of 2 feet of soil."

The Hill Annex Mine will thus remain the State's only intact natural ore facility. Its buildings and equipment were sold to the State of Minnesota for $1.00 when mining operations ceased in 1979. It remains fully equipped with trucks, conveyers, railroad cars and processing facilities. The mine is now operated by the Iron Range Resources and Rehabilitation Board which utilizes the site for offices and interpretative purposes.

The Hill Annex Mine is, therefore, the best preserved example of a pivotal industry now nearly extinct in Minnesota. It offers a complete interpretation of the historic natural ore mining process which had its beginnings in the State in 1884 and continue to the present day. With the end of natural ore mining, the Hill Annex Mine will remain the State's only intact reminder of an industry which allowed Minnesota to become the nation's, as well as the world's, largest producer of iron ore and enabled the United States to become the world's largest manufacturer of steel.

In view of the particular importance of the Hill Annex Mine, the period of significance is expanded from the opening of the mine in 1914, through its peak production during World War II, and extended to the construction of the heavy media plant in 1953, and the tailings basin constructed in 1957, immediately adjacent to the heavy media plant.

The Hill Annex Mine Nomination contains 1 contributing Site

Hill Annex Mine

The nomination contains 7 contributing buildings

Laboratory
Mine Manager's Office
Railroad Equipment Repair Shops
Heavy Media Plant
Frame Truck Repair Shop
Quonset Repair Shop
Calumet Community Club

The nomination contains 4 contributing structures

Prep Section
Conveyor Belt
Wooden Water Tower
Tailings Basin

The nomination contains 1 non-contributing building

Truck Repair Shop (1961)

SPECIFIC DATES: 1912-1957

Bibliographical References:

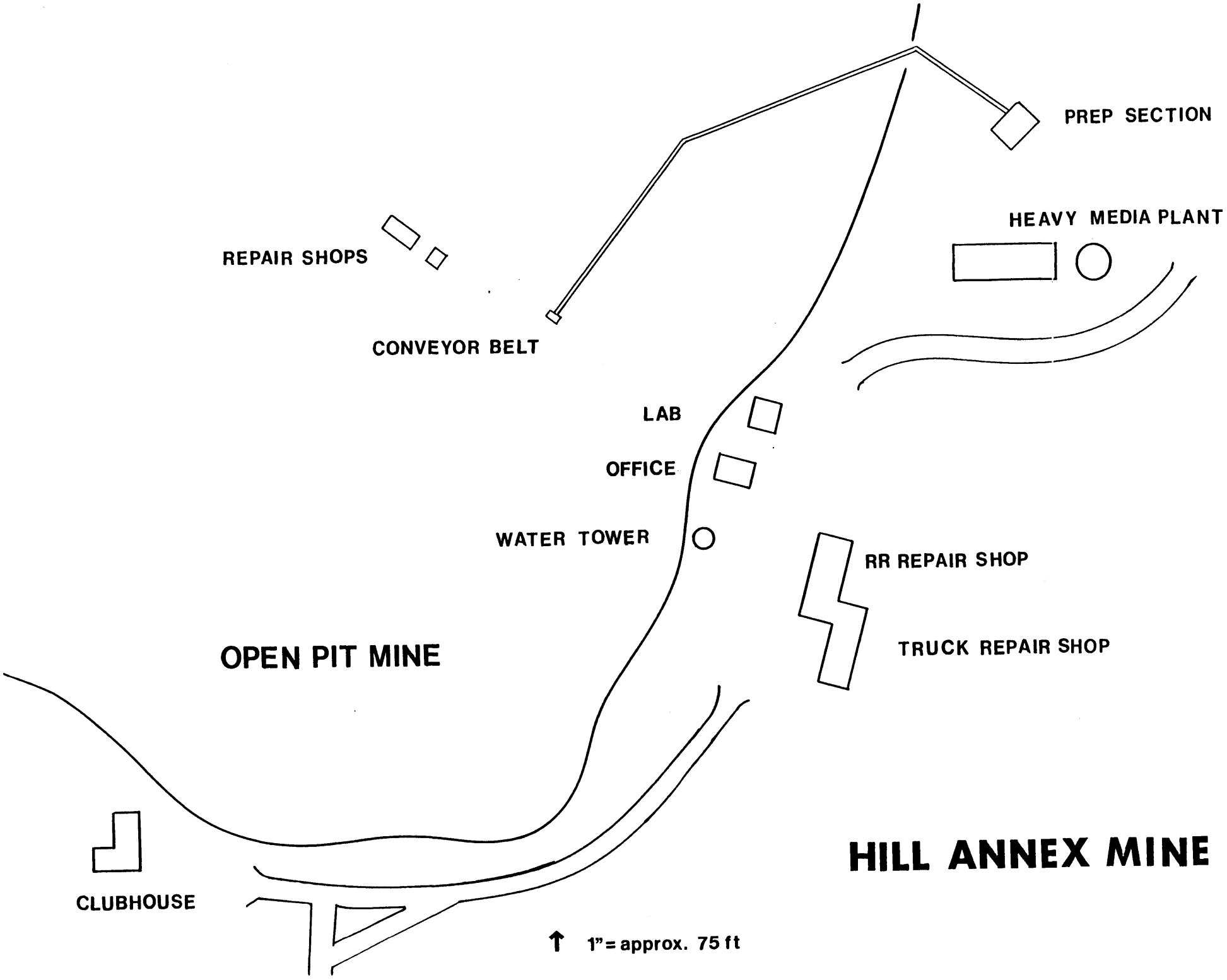
Calumet Golden Jubliee Committee, Calumet Golden Jubliee, 1909-1959. Calumet, 1959.

Lake Superior Iron Ores (Second edition, Cleveland: Lake Superior Iron Ore Association, 1952), and subsequent annuals.

A Report to the Department of Natural Resources on the Historical Aspects of the Vermilion, Cuyuna, and Mesabi Iron Ranges Of Northeast Minnesota (Eveleth: 1977).

Rottsolk, James E. Pines, Mines and Lakes: The Story of Itasca County, Minnesota. /Grand Rapids/: Itasca County Historical Society, 1960.

Walker, David A. Discovery and Early Development of Minnesota's Three Ranges. St. Paul: Minnesota Historical Society, 1979.


PREP SECTION
HEAVY MEDIA PLANT
REPAIR SHOPS
CONVEYOR BELT
LAB
OFFICE
WATER TOWER
RR REPAIR SHOP
TRUCK REPAIR SHOP
OPEN PIT MINE
CLUBHOUSE
1" = approx. 75 ft
HILL ANNEX MINE