

**United States Department of the Interior
Heritage Conservation and Recreation Service**

**National Register of Historic Places
Inventory—Nomination Form**



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

1. Name

historic Ironton Sintering Plant Site

and/or common Ironton Sintering Plant Site

2. Location

N of Ironton

street & number _____ not for publication _____

city, town Ironton *mic.* vicinity of _____ congressional district 7th

state Minnesota code 22 county Crow Wing code 035

3. Classification

Category	Ownership	Status	Present Use
<input type="checkbox"/> district	<input checked="" type="checkbox"/> public	<input type="checkbox"/> occupied	<input type="checkbox"/> agriculture
<input type="checkbox"/> building(s)	<input type="checkbox"/> private	<input checked="" type="checkbox"/> unoccupied	<input type="checkbox"/> commercial
<input checked="" type="checkbox"/> structure	<input type="checkbox"/> both	<input type="checkbox"/> work in progress	<input type="checkbox"/> educational
<input type="checkbox"/> site	Public Acquisition	Accessible	<input type="checkbox"/> entertainment
<input type="checkbox"/> object	<input type="checkbox"/> in process	<input type="checkbox"/> yes: restricted	<input type="checkbox"/> government
	<input type="checkbox"/> being considered	<input checked="" type="checkbox"/> yes: unrestricted	<input type="checkbox"/> industrial
		<input type="checkbox"/> no	<input type="checkbox"/> military
			<input checked="" type="checkbox"/> other: none

4. Owner of Property

name City of Crosby

street & number Crosby City Hall

city, town Crosby _____ vicinity of _____ state Minnesota

5. Location of Legal Description

courthouse, registry of deeds, etc. Crow Wing County Courthouse

street & number _____

city, town Brainerd _____ state Minnesota

6. Representation in Existing Surveys

title _____ has this property been determined eligible? yes no

date _____ federal state county local

depository for survey records _____

city, town _____ state _____

7. Description

Condition		Check one	Check one
<input type="checkbox"/> excellent	<input type="checkbox"/> deteriorated	<input type="checkbox"/> unaltered	<input checked="" type="checkbox"/> original site
<input type="checkbox"/> good	<input checked="" type="checkbox"/> ruins	<input checked="" type="checkbox"/> altered	<input type="checkbox"/> moved date _____
<input type="checkbox"/> fair	<input type="checkbox"/> unexposed		

Describe the present and original (if known) physical appearance

The Ironton Sintering Plant site is located approximately one-half mile north of Ironton; it is on the west bank of a lake formed by the pit of the former Portsmouth Mine. The site is, for the most part, vacant, and the remaining structures (with the exception of the warehouse and office) are in fair to poor condition. The sintering structure and trestle appears as a ruin. In all there are eight structures on the Sintering Plant site.

(1) The Sintering Structure and Trestle consists of a tall, square concrete structure at the end of an inclined concrete trestle. The sintering structure is open from above with provision for a central drive-through loading area at the first level. This drive-through is flanked by two small chambers. The sintering structure tapers slightly to the top, resembling an unadorned Egyptian pylon. The Trestle consists of a narrow reinforced concrete ramp leading to the rear of the sintering structure. It formerly supported rails for cars to unload ore into the structure.

(2) The Machine Shops is a multi-unit structure with gable roofs. It is constructed of steel and sheathed with corrugated metal. Floors are concrete. The sections of the structure are arranged in order of increasing size, and lowest section being one story and graduating through one and one-half story to two stories. The building is now vacant. The machine shops are located immediately to the east of the sintering structure and trestle.

(3) The Warehouse/Shops Building (alternately designated Garage #2 on attached map) is a two-section structure erected on a steel framework and sheathed in corrugated metal. It consists of a square two story section and a rectangular one and one-half story section. The latter is divided into three garage bays and an end chamber. It is vacant and located directly to the east of the machine shops.

(4) Garage #1 is a rectangular metal-clad structure with a quonset roof. It is divided into ten bays with overhead doors. The structure is vacant. It is located directly south of the warehouse/shops building.

(5) The Electric Transformer consists of a one-story metal-clad quonset-like structure with an adjacent open-frame transformer crib. It is located at the southern end of the site, southwest of Garage #1

(6) The Oil Tank is a single cylindrical metal tank which is elevated on three reinforced concrete supports. The entire unit is anchored to a concrete pad. The oil tank is located to the northwest of the Electric Transformer.

(7) The Dryhouse is a rectangular one-story structure with a gable roof. It is sheathed with corrugated metal and has a tall brick chimney. It is set on a concrete slab foundation. The dryhouse is located directly north of the oil tank and slightly to the southwest of the sintering structure.

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Ironton Sintering Plant Site

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(8) The Warehouse and Office is essentially two contiguous structures. The warehouse portion is a one-story rectangular metal clad building on a concrete slab foundation. The office section forms the eastern end of the warehouse and is constructed of wood frame on a concrete slab foundation. The warehouse has a gable roof whereas the office has a jerkin roof. It is located to the west of the oil tank and at the intersection of the service road and the county road. It is presently in use and is well maintained.

8. Significance

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

Specific dates 1924

Builder/Architect Hanna Mining Company

Statement of Significance (in one paragraph)

The Ironton sintering plant was the second major beneficiation plant built in the United States to process nonselectively mined iron ore. The development of beneficiation processes (such as sintering, crushing, and washing) are hallmarks of non-selective iron ore mining operations and reflect a major shift in the economics of the industry that occurred after 1900. In order to meet the increasing demand of the U.S. iron and steel industry iron mining corporations sought to exploit low grade deposits such as those on the Cuyuna Range. In order to market the lower grade product the mining interests first had to 'beneficiate' the iron ore to meet user specifications. This market process of demand, innovation, and supply exemplifies the dynamic process of growth of iron mining; the sintering plant itself reflects the capacity of the iron mining industry for great technical innovation. Sintering was a beneficiation process that was unique to the Cuyuna Range. It was also necessary from the opening of that range for most of the ore that was removed. On the other ranges there was some delay between the opening of a range and the institution of large-scale beneficiation.

9. Major Bibliographical References

Lake Superior Iron Ores (Second edition, Cleveland: Lake Superior Iron Ore Association, 1952), and subsequent annuals; William D. Trethewey, Annual Mining Directory, 1974-1979 (Minneapolis: University of Minnesota, 1974-1979).

10. Geographical Data

ACREAGE NOT VERIFIED

Acreege of nominated property approx. 20
 Quadrangle name Crosby, Minn.-Crow Wing Co.

UTM NOT VERIFIED

Quadrangle scale 7.5

UMT References

A

1	5	4	2	5	2	8	0	5	1	4	8	9	6	0
Zone			Easting				Northing							

B

1	5	4	2	5	5	2	0	5	1	4	8	7	8	0
Zone			Easting				Northing							

C

1	5	4	2	5	2	4	0	5	1	4	8	4	0	0
Zone			Easting				Northing							

D

1	5	4	2	5	0	0	0	5	1	4	8	5	8	0
Zone			Easting				Northing							

E

Zone			Easting				Northing							

F

Zone			Easting				Northing							

G

Zone			Easting				Northing							

H

Zone			Easting				Northing							

Verbal boundary description and justification

See continuation sheet - page 2

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

state code county code

state code county code

11. Form Prepared By

name/title Charles W. Skrief, Supervisor, State Historic Preservation Office

organization Minnesota Historical Society date September 10, 1979

street & number 240 Summit Avenue telephone 612-296-9070

city or town St. Paul state Minnesota

12. State Historic Preservation Officer Certification

The evaluated significance of this property within the state is:

national 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 Heritage Conservation and Recreation Service.

State Historic Preservation Officer signature Russell W. Fridley

Russell W. Fridley
 title State Historic Preservation Officer date 6/28/80

For HCRS use only
 I hereby certify that this property is included in the National Register
James W. Ray Juce
 Keeper of the National Register date 9/11/80
 Attest: Kristin T. O'Connell date 8/20/80
~~Chief of Registration~~

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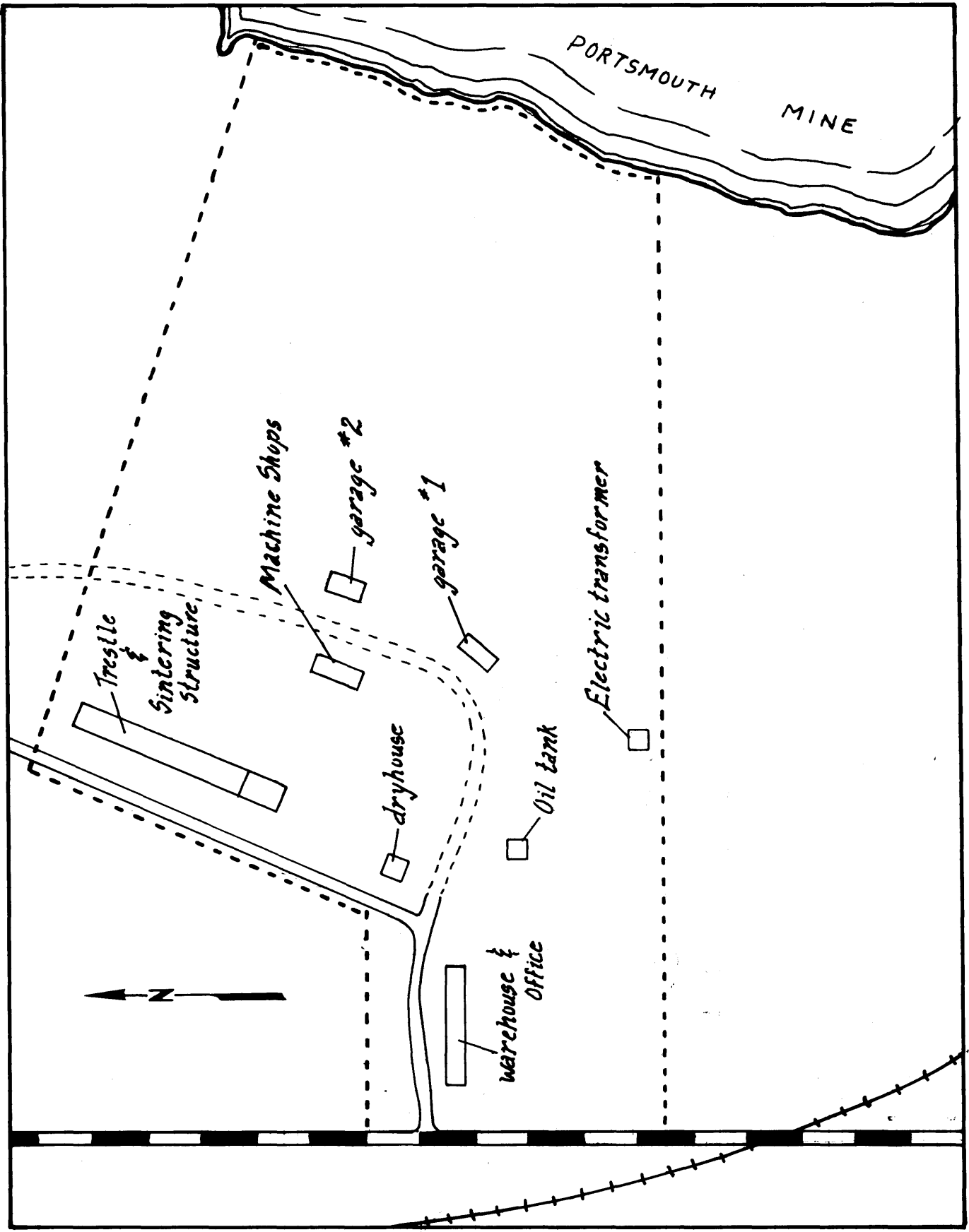
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Verbal boundary description:

Beginning at the intersection of CSAH #30 and the Sintering Plant access road, thence easterly a distance of 200 feet to the point of intersection with the left fork of the access road, thence northeasterly a distance of 1000 feet along the western edge of the access road, thence southeasterly at 90 degrees to the access road a distance of 1000 feet to the western shore of the lake formed by the Portsmouth Mine Pit, thence southwesterly along the western shore of the Mine Pit a distance of 800 feet, thence due westerly a distance 1200 feet to the point of intersection with CSAH #30, thence northerly along CSAH a distance of 400 feet to the point of beginning.



IRONTON SINTERING PLANT DISTRICT

February 1901