Form No. 10-300 (Rev. 10-74)

UNITED STATES DEPARTMENT OF THE INTERIOR NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES INVENTORY -- NOMINATION FORM

78
Ç,.,
28.01

NAME		and the second second second	
		- - -	
HISTORIC			
Bruce Mine Headfr	ame		
AND/OR COMMON	•		
Bruce Headframe			
LOCATION	n 1.0		· ,
	Lisholm		
			-
<u> </u>	T58N, R20W	NOT FOR PUBLICATION CONGRESSIONAL DISTRIC	
			, ,
Chisholm		8 <u>th</u>	CODE
Minnesota	22	St. Louis	137 -
	······································	SL. LOUIS	1.57
CLASSIFICATION			
		DDEOE	
CATEGORY OWNERSH		and the second	NTUSE
DISTRICT X_PUBLIC		AGRICULTURE	MUSEUM
BUILDING(S)PRIVATE		COMMERCIAL	PARK
XSTRUCTUREBOTH	WORK IN PROGRESS	EDUCATIONAL	PRIVATE RESIDEN
SITE PUBLIC AC	QUISITION ACCESSIBLE	ENTERTAINMENT	RELIGIOUS
OBJECTIN PROCESS	YES: RESTRICTED	GOVERNMENT	SCIENTIFIC
BEING CONSID	ERED X_YES: UNRESTRICTED	INDUSTRIAL	TRANSPORTATION
	NO	MILITARY	X_OTHER: Vacant
NAME St. Louis County			
STREET & NUMBER		· · · · · · · · · · · · · · · · · · ·	
STREET & NOWBER			
· · · · · · · · · · · · · · · · · · ·	First Street		
5th Avenue West &	First Street	STATE	·
5th Avenue West &			
5th Avenue West & CITY, TOWN Duluth	VICINITY OF	STATE Minnesota	
5th Avenue West &	VICINITY OF		
5th Avenue West & CITY, TOWN Duluth LOCATION OF LEGA COURTHOUSE.	VICINITY OF L DESCRIPTION		
5th Avenue West & CITY, TOWN Duluth LOCATION OF LEGA COURTHOUSE.	VICINITY OF		
5th Avenue West & CITY, TOWN Duluth LOCATION OF LEGA COURTHOUSE, REGISTRY OF DEEDS,ETC. St. Loui STREET & NUMBER	VICINITY OF L DESCRIPTION s County Courthouse		
5th Avenue West & CITY, TOWN Duluth LOCATION OF LEGA COURTHOUSE, REGISTRY OF DEEDS,ETC. St. Loui STREET & NUMBER	VICINITY OF L DESCRIPTION		
5th Avenue West & CITY, TOWN Duluth LOCATION OF LEGA COURTHOUSE, REGISTRY OF DEEDS,ETC. St. Loui STREET & NUMBER 5th Avenue CITY, TOWN	VICINITY OF L DESCRIPTION s County Courthouse	Minnesota	
5th Avenue West & CITY, TOWN Duluth LOCATION OF LEGA COURTHOUSE. REGISTRY OF DEEDS,ETC. St. Loui STREET & NUMBER 5th Avenue CITY, TOWN Duluth.	VICINITY OF L DESCRIPTION s County Courthouse ue West & First Street	Minnesota STATE Minnesota	
5th Avenue West & CITY, TOWN Duluth LOCATION OF LEGA COURTHOUSE. REGISTRY OF DEEDS,ETC. St. Loui STREET & NUMBER 5th Avenue CITY, TOWN Duluth, REPRESENTATION I	VICINITY OF L DESCRIPTION s County Courthouse	Minnesota STATE Minnesota	
5th Avenue West & CITY, TOWN Duluth LOCATION OF LEGA COURTHOUSE. REGISTRY OF DEEDS,ETC. St. Loui STREET & NUMBER 5th Avenu CITY, TOWN Duluth. REPRESENTATION I	VICINITY OF L DESCRIPTION s County Courthouse ue West & First Street N EXISTING SURVEYS	Minnesota STATE Minnesota	
5th Avenue West & CITY, TOWN Duluth LOCATION OF LEGA COURTHOUSE. REGISTRY OF DEEDS,ETC. St. Loui STREET & NUMBER 5th Avenu CITY, TOWN Duluth. REPRESENTATION I TITLE Minnesota Statewic	VICINITY OF L DESCRIPTION s County Courthouse ue West & First Street N EXISTING SURVEYS	Minnesota STATE Minnesota	
5th Avenue West & CITY, TOWN Duluth LOCATION OF LEGA COURTHOUSE. REGISTRY OF DEEDS,ETC. St. Loui STREET & NUMBER 5th Avenue CITY, TOWN Duluth, REPRESENTATION I TITLE Minnesota Statewic DATE	VICINITY OF L DESCRIPTION s County Courthouse ue West & First Street N EXISTING SURVEYS de Survey	Minnesota STATE Minnesota S	
5th Avenue West & CITY, TOWN Duluth LOCATION OF LEGA COURTHOUSE. REGISTRY OF DEEDS,ETC. St. Loui STREET & NUMBER 5th Avenu CITY, TOWN Duluth. REPRESENTATION I TITLE Minnesota Statewic DATE November	VICINITY OF L DESCRIPTION s County Courthouse ue West & First Street N EXISTING SURVEYS de Survey	Minnesota STATE Minnesota	
5th Avenue West & CITY, TOWN Duluth LOCATION OF LEGA COURTHOUSE. REGISTRY OF DEEDS,ETC. St. Loui STREET & NUMBER 5th Aven CITY, TOWN Duluth, REPRESENTATION I TITLE Minnesota Statewic DATE November DEPOSITORY FOR	VICINITY OF L DESCRIPTION s County Courthouse ue West & First Street N EXISTING SURVEYS de Survey	Minnesota STATE Minnesota S	
5th Avenue West & CITY, TOWN Duluth LOCATION OF LEGA COURTHOUSE. REGISTRY OF DEEDS,ETC. St. Loui STREET & NUMBER 5th Aven CITY, TOWN Duluth, REPRESENTATION I TITLE Minnesota Statewic DATE November DEPOSITORY FOR	VICINITY OF L DESCRIPTION s County Courthouse ue West & First Street N EXISTING SURVEYS de Survey FEDERAL	Minnesota STATE Minnesota S	

7' DESCRIPTION

CON	IDITION	CHECK ONE	CHECK O	NE
EXCELLENT	DETERIORATED	LUNALTERED	X_ORIGINAL	SITE
XGOOD	RUINS	ALTERED	MOVED	DATE
FAIR	UNEXPOSED			

DESCRIBE THE PRESENT AND ORIGINAL (IF KNOWN) PHYSICAL APPEARANCE

The Bruce Headframe was built on the south half of the Mesabi Iron Range near Chisholm, Minnesota in 1925-26. It was built at the Bruce Mine by the International Harvester Company. The headframe held the pulleys carrying the cables used to lower or raise the crew elevators and iron ore skips in the mine shaft. The shaft at the Bruce Mine was a five compartment shaft operated by two hoists through the headframe. Ore raised to the surface by the headframe was loaded in tram cars on an oval track beneath the frame. The ore was then taken to the on-site crusher for processing. Power for operating the cable of the headframe was produced in the engine house. The hoisting cables were powered by electricity supplied by the Minnesota Power and Light Company

A sintering plant was added to the mine facilities within three years of the mine's construction. This was necessary because of the lower grade of ore excavated at the Bruce site. The Bruce Mine was one of three such plants in Minnesota and the only one on the Mesabi to handle underground iron ore exclusively.

The Bruce Headframe, a structure typical of the underground mining process, the process initially brought to the Mesabi Iron Range, was constructed of riveted steel and was equipped with pulleys which lifted ore loads from a depth of 300 feet. The headframe provided locomotion for a newly developed remote-controlled cage so that an operator could control upward and downward movement of the cage and ore skips from within. Or, by disconnecting that control, the cage could be operated by remote control from within the engine house. The Bruce Headframe operated between 1926 and the early 1940s when the mine was closed because of the rising costs of ore production and the low grade of ore. Presently, the headframe is in stable condition, but in need of preservation.

8 SIGNIFICANCE PERIOD AREAS OF SIGNIFICANCE -- CHECK AND JUSTIFY BELOW ___ARCHEOLOGY-PREHISTORIC -PREHISTORIC __COMMUNITY PLANNING __LANDSCAPE ARCHITECTURE -RELIGION __1400-1499 ___ARCHEOLOGY-HISTORICCONSERVATION ___LAW ___SCIENCE __1500-1599 ___AGRICULTURE __ECONOMICS __LITERATURE ___SCULPTURE ----1600-1699 ___ARCHITECTURE EDUCATION ___MILITARY __SOCIAL/HUMANITARIAN ART XENGINEERING __MUSIC ___THEATER ___1800-1899 ___COMMERCE EXPLORATION/SETTLEMENT __PHILOSOPHY ___TRANSPORTATION X.1900-....COMMUNICATIONSINDUSTRY POLITICS/GOVERNMENT __OTHER (SPECIFY)

....INVENTION

SPECIFIC DATES 1925-1926

BUILDER/ARCHITECT

STATEMENT OF SIGNIFICANCE

The Bruce Headframe is significant because it is the last standing headframe on the Mesabi Iron Range and because it is associated with the on-site iron ore sintering process. The Mesabi Range, located in northeastern Minnesota, was the largest iron ore producing region in the United States for several decades and has remained a high producer since then. Initially underground mining was the technology for excavating iron ore on the Mesabi and headframes were built at every underground mining site. Many of these sites could be found on the Mesabi in the 1890s. However, a shift to open pit mining operations began shortly thereafter. Open pit mining has predominated and character ized the mining procedures of the Mesabi Range since that time. With the exception of the Bruce Headframe, all headframes on the Mesabi were taken down as underground mining was superceded by the open pit process. The Bruce Headframe remains as the last such vestige of underground mining operations which were once prevelant on the Mesabi.

9 MAJOR BIBLIOGRAPHICAL REFERENCES

"Mesabi Range in Minnesota in 1926." <u>Skillings' Mining Review</u>. 8 January 1927, p. 14.
"Remote Controlled Cage at Bruce Mine is Success." <u>Skillings' Mining Review</u>.
31 March 1928, p. 20.

10GEOGRAPHICAL DATA

ACREAGE OF NOMINATED PROPERTY _____ 1 acre_____

 A [1,5]
 [5]1,0[4,6,0]
 [5,2]5,7[6,0,0]
 B
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []
 []

	DEDTICO OVEDLA DDINI	G STATE OR COUNTY BOUNDARIES
	PERTIES OVERLAPPING	STATE OR COUNTY BOUNDARIES
STATE CODE	COUNTY	CODE
	coontri	
STATE CODE	COUNTY	CODE
		e data da
FORM PREPARED BY		
NAME / TITLE		
Liza Nagle, Survey Specialist		
ORGANIZATION		DATE
Minnesota Historical Society		5 October 1977
STREET & NUMBER	анан алан алан алан алан алан алан алан	TELEPHONE
Building 25, Fort Snelling		612-726-1171
CITY OR TOWN	· · · · · · · · · · · · · · · · · · ·	STATE
St. Paul		Minnesota
	37	VITHIN THE STATE IS:
NATIONAL	STATE X	LOCAL
		LOCAL
As the designated State Historic Preservation Officer for	the National Historic Pre	LOCAL servation Act of 1966 (Public Law 89-665), I
As the designated State Historic Preservation Officer for hereby nominate this property for inclusion in the Natio	the National Historic Pre	LOCAL servation Act of 1966 (Public Law 89-665), I
As the designated State Historic Preservation Officer for hereby nominate this property for inclusion in the Natio criteria and procedures set forth by the National Park Ser	the National Historic Pre	LOCAL servation Act of 1966 (Public Law 89-665), I
As the designated State Historic Preservation Officer for hereby nominate this property for inclusion in the Natio criteria and procedures set forth by the National Park Ser STATE HISTORIC PRESERVATION OFFICER SIGNATURE	the National Historic Pre	LOCAL servation Act of 1966 (Public Law 89-665), I
As the designated State Historic Preservation Officer for hereby nominate this property for inclusion in the Natio criteria and procedures set forth by the National Park Ser STATE HISTORIC PRESERVATION OFFICER SIGNATURE TITLE RUSSELL W. Fridley	the National Historic Pre- onal Register and certify rvice.	LOCAL servation Act of 1966 (Public Law 89-665), I
As the designated State Historic Preservation Officer for hereby nominate this property for inclusion in the Natio criteria and procedures set forth by the National Park Ser STATE HISTORIC PRESERVATION OFFICER SIGNATURE TITLE Russell W. Fridley State Historic Preservation Off	the National Historic Pre- onal Register and certify rvice.	LOCAL eservation Act of 1966 (Public Law 89-665), I that it has been evaluated according to the
As the designated State Historic Preservation Officer for hereby nominate this property for inclusion in the Natio criteria and procedures set forth by the National Park Ser STATE HISTORIC PRESERVATION OFFICER SIGNATURE Russell W. Fridley TITLE Russell W. Fridley State Historic Preservation Off	the National Historic Pre- onal Register and certify rvice.	LOCAL eservation Act of 1966 (Public Law 89-665), I that it has been evaluated according to the Articles DATE
As the designated State Historic Preservation Officer for hereby nominate this property for inclusion in the Natio criteria and procedures set forth by the National Park Ser STATE HISTORIC PRESERVATION OFFICER SIGNATURE TITLE Russell W. Fridley State Historic Preservation Off FINPS USE ONLY	the National Historic Pre- onal Register and certify rvice.	LOCAL eservation Act of 1966 (Public Law 89-665), I that it has been evaluated according to the Articles DATE
As the designated State Historic Preservation Officer for hereby nominate this property for inclusion in the Natio criteria and procedures set forth by the National Park Ser STATE HISTORIC PRESERVATION OFFICER SIGNATURE TITLE RUSSE11 W. Fridley TITLE RUSSE11 W. Fridley State Historic Preservation Officer State Historic Preservatic Preservatic Preservat	the National Historic Pre- onal Register and certify rvide. <i>ussell</i> Eicer DED IN THE NATIONAL	LOCAL eservation Act of 1966 (Public Law 89-665), I that it has been evaluated according to the
As the designated State Historic Preservation Officer for hereby nominate this property for inclusion in the Natio criteria and procedures set forth by the National Park Ser STATE HISTORIC PRESERVATION OFFICER SIGNATURE TITLE Russell W. Fridley State Historic Preservation Off R NPS USE ONLY I HEREBY CERTIFY THAT THIS PROPERTY IS INCLU	the National Historic Pre- onal Register and certify rvide. <i>ussell</i> Eicer DED IN THE NATIONAL	LOCAL eservation Act of 1966 (Public Law 89-665), I that it has been evaluated according to the Hardley DATE
As the designated State Historic Preservation Officer for hereby nominate this property for inclusion in the Natio criteria and procedures set forth by the National Park Ser STATE HISTORIC PRESERVATION OFFICER SIGNATURE TITLE Russell W. Fridley TITLE Russell W. Fridley State Historic Preservation Off R NPS USE ONLY I HEREBY CERTIFY THAT THIS PROPERTY IS INCLU	the National Historic Pre- onal Register and certify rvide. <i>ussell</i> Eicer DED IN THE NATIONAL	LOCAL eservation Act of 1966 (Public Law 89-665), I that it has been evaluated according to the