NPS Form 10-900
(Rev. 8-86)

OMB No. 1024-0018

**United States Department of the Interior**
National Park Service

# National Register of Historic Places Registration Form

NATIONAL REGISTER

This form is for use in nominating or requesting determinations of eligibility for individual properties or districts. See instructions in *Guidelines for Completing National Register Forms* (National Register Bulletin 16). Complete each item by marking "x" in the appropriate box or by entering the requested information. If an item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, styles, materials, and areas of significance, enter only the categories and subcategories listed in the instructions. For additional space use continuation sheets (Form 10-900a). Type all entries.

## 1. Name of Property

historic name: Sterling Hill Mine
other names/site number: Passaic Mine/Noble Mine

## 2. Location

street & number: 30 Plant Street — [NA] not for publication
city, town: Ogdensburg Borough — [ ] vicinity
state: New Jersey code: 034 county: Sussex code: 037 zip code: 07439

## 3. Classification

| Ownership of Property | Category of Property | Number of Resources within Property | |
|---|---|---|---|
| | | Contributing | Noncontributing |
| [X] private | [X] building(s) | 10 | 1 buildings |
| [ ] public-local | [ ] district | 1 | 0 sites |
| [ ] public-State | [ ] site | 5 | 0 structures |
| [ ] public-Federal | [ ] structure | 0 | 0 objects |
| | [ ] object | 16 | 1 Total |

Name of related multiple property listing: N/A

Number of contributing resources previously listed in the National Register: 0

## 4. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act of 1966, 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.

Signature of certifying official — Date: 7/11/94

Acting Assistant Commissioner for Natural & Historic Resources/DSHPO
State or Federal agency and bureau

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

Signature of commenting or other official — Date

State or Federal agency and bureau

## 5. National Park Service Certification

I, hereby, certify that this property is:

[X] 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:) _____

Entered in the National Register — 9/3/94

Signature of the Keeper — Date of Action

## 6. Function or Use

Historic Functions (enter categories from instructions)
Extraction/Extractive Facility

Current Functions (enter categories from instructions)
Culture/Museum

## 7. Description

Architectural Classification
(enter categories from instructions)

Other: Industrial

Materials (enter categories from instructions)

foundation Concrete
walls Brick
roof Iron
other

Describe present and historic physical appearance.

SEE CONTINUATION SHEET 7-1.

[X] See continuation sheet

## 8. Statement of Significance

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

☐ nationally ☒ statewide ☐ locally

Applicable National Register Criteria ☒ A ☐ B ☐ C ☐ D

Criteria Considerations (Exceptions) ☐ A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G N/A

Areas of Significance (enter categories from instructions)
Industry

Period of Significance
1840-1940

Significant Dates
NA

Cultural Affiliation
N/A

Significant Person
N/A

Architect/Builder
N/A

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

SEE CONTINUATION SHEET 8-2.

☒ See continuation sheet

## 9. Major Bibliographical References

☒ See continuation sheet

Previous documentation on file (NPS): N/A

- ☐ 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: Rutgers University (Alexander Library), New Brunswick, NJ

## 10. Geographical Data

Acreage of property 32.917 acres Franklin, NJ Quad

UTM References

| | Zone | Easting | Northing | | Zone | Easting | Northing |
|---|---|---|---|---|---|---|---|
| A | 18 | 532620 | 4547380 | B | 18 | 532820 | 4547880 |
| C | 18 | 533460 | 454840 | D | 18 | 532980 | 454740 |

E 18 532620 4547380

F 18 532820 4547880

☐ See continuation sheet

Verbal Boundary Description

The boundary of the site consists of the entire parcel of land known as Block 31, Lot 11.07 lying and being within the Borough of Ogdensburg, Sussex County, New Jersey.

☐ See continuation sheet

Boundary Justification

The boundary includes the entire municipal lot that has been historically associated with mining activities at Sterling Hill during the period 1730-1940.

☐ See continuation sheet

## 11. Form Prepared By


name/title Daniel E. Russell, City Historian

organization Office of the City Historian date 27 Nov 1990

street & number Bridge Street telephone 516-676-6535

city or town Glen Cove state New York zip code 11542

The Sterling Hill Mine is located on a 32.907 acre tract consisting of four primary mines (one open-cut type, two open-pit type, and one underground type), one secondary mine (open-pit type), and nine contributing buildings, one non-contributing building, and the ruins of a structure on site. The primary period for the construction of the underground mine workings, the secondary open-pit mine, and the buildings on site is 1916-1938; construction of the one open-cut mine and two open-pit mines covers the period of circa 1830-1897. The mines and associated structures maintain good to excellent integrity.

The site is located on the west side of Plant Street and the south side of Passaic Avenue, approximately one-half mile from the municipal center of the Borough of Ogdensburg in Sussex County, New Jersey.

The Sterling Hill Mine is located underground on the site. During the primary era of the development of underground workings (1897-1922), adits, shafts and drifts were established at the mine site. Drift levels were located at roughly 100-foot intervals, with levels existing at 180, 340, 430, 500, 600, 700, 800, 900, 1000, 1100, 1200, 1300, 1400, 1500, 1600, and 1680 feet below mean surface. By the 1950's, additional levels had been established at 1750, 1850, 1950, 2050, 2150, 2250, 2350, 2450, 2550 feet below mean surface. Detailed surveys of the layout of the mine drifts have been preserved.

The mine utilized shrinkage stoping (or "back stoping") as the primary technique in mining ores. From the tunnels on each level, stopes 20 feet wide and with centers placed at 40 foot intervals from each other were cut perpendicular to the orebody, and, after completion of ore removal, were backfilled with waste rock from the Fill Quarry (see below). The pillars which remained between each filled stope, each approximately 20 feet wide, were subsequently excavated using a variant of the top-slicing method.

Shafts which connected the levels were sunk at a 57-degree incline which parallels the strike and dip of the orebody. One primary shaft known colloquially as the Old Shaft is located adjacent to the former mill building (now ruins). This shaft served as the primary operational shaft for the mine for the period 1912 to 1951. The shaft is rectangular in cross section, 10' by 18' in size, and contains three compartments (one for ore haulage, one for transport of personnel and one for water pipes and ladderways). Shaft timbers consisted of 12-inch square long-leaf yellow pine. A 12" x 12" stull on each side of the shaft supports each set as bearing piece; the interior dividers are 8" x 12", and the studdles are 6" x 8". Weak-wall areas and areas immediately above and below levels are lagged with 6" x 8" timbers set 16 inches apart, sheathed with 2-inch plank.

The shaft is equipped with track rails weighing 80lbs/yard, 30 feet per section. The rails are supported on concrete piers built to grade spaced on 10 foot centers and anchored to the footwall by old drill steels.

The shaft hoist (now gone) was a 250 h.p. Vulcan hoist, second motion, herring-bone gear with 3-ton capacity. It was equipped with tight and loose drums 6 ft in diameter and with a 4' 9" face.

Access to this shaft was through a concrete passageway underneath the mill. The shaft was capped by New Jersey Zinc Company prior to their abandonment of the site in 1986; however, it is still accessible through the underground mine drifts.

This shaft was replaced as the primary operational shaft in 1951 by the construction of the Sterling Shaft, which is accessed through an adit located due west of the Mine Superintendent's Office. This shaft is similar in design and construction, with the exception that it contains five compartments instead of three.

Drifts were constructed by driving cross-cuts from the main shaft to the orebody. Curves were kept to a 25-foot minimum radius. Drifts were driven 7' high by 6' wide, then were stripped to the desired size (usually 12" by 10'). Where stulls were required in the drifts, steel I-beam was used.

Drifts were provided with rail track for tramming ore cars. The track is 24-inch gauge, with a weight of 20 lbs/yard, used to service ore cars of 1.4 ton capacity.

Raises were constructed in the mine to serve as ore passes and for ventilation. These were nominally 4.4' x 4.5', but larger raises were constructed to accommodate combined orepass/ladderway functions.

Pumps were connected to sumps established below the 500 and 1850 ft levels; each pump had a capacity of 100 gallons per minute. Mine water was recycled into the mill for ore beneficiation processes.

Contributing mines on site are:

The Passaic Mine: an open-pit mine using traditional quarrying techniques. The mine covers approximately 400' by 250', with a maximum depth of approximately 160 feet below mean surface. The mine possesses good integrity.

The Noble Mine: an open-pit mine using traditional quarrying techniques. The mine covers approximately 400' by 250', with a maximum depth of 160 feet below mean surface. The mine possesses good integrity.

The Sterling Hill Mine: an open-cut (also known as open-face) mine using traditional quarrying techniques. The mine covers a linear distance of 400 feet with a maximum height of 80 feet. Mine maintains good integrity.

The Fill Quarry: a secondary mine used to supply waste-rock for back-filling stopes. The quarry is an open-pit quarry using traditional quarrying techniques. Mine covers an area of approximately 100' by 300'.

Contributing buildings on the site include:

Mine Office (1916): an industrial office building constructed in 1916 comprising one structure in a row of four related structures, specifically, the Laboratory, Change House, and Mine Office (1938) buildings. The building consists of a one-story 22' by 53' brick (common bond) building with cast concrete foundation and composition shingle roof. Main facade (east facade) has 4 windows; window surrounds (heads and sills) consist of smooth-dressed cast stone. Main door is located on north facade opening into an atrium between the building and the 1938 Mine Office; the atrium opens onto the main street (Plant Street) through a wood porch of about 12' by 12', topped by decorative balustrades. Structural evidence indicates that the windows of the east facade have been reduced in height, probably ca. 1945. Similar reduction has been done to windows on west facade, as well as conversion of a window into a door. Building was converted into executive locker room and boiler room in 1948, with major alterations to interior layout of building. Structure demonstrates good integrity.

Mine Office (1938): an industrial office building constructed in 1938, comprising one structure in a row of four related structures, specifically, the Laboratory, Change House, and Mine Office (1916). The building consists of a two-story 47' by 97' brick (common bond) building with cast concrete foundation and corrugated sheet zinc (Zilloy) roof. Main (east) facade first story consists of six windows and a door opening (now bricked in, circa 1945), and second story consisting of seven windows. All window surround sills are composed of smooth-dressed cast stone, while heads consist of brick flat arch vertical joints. Structure demonstrates excellent integrity.

Change House: an industrial locker room for miners constructed 1936 and 1937, comprising one structure in a row of four related structures, specifically, the Mine Office (1916), the Mine Office (1938) and the

Laboratory. The building consists of a one story 47' by 97' brick (common bond) structure, with cast concrete foundation and composition shingle roof. Structure is partially constructed into a hillside. Window surround sills consist of smooth-dressed cast stone, while the heads consist of brick flat arch vertical joints. Large ventilator exhausts (four) are located along centerline of roof. Internally, the building consists of a single central room with locker rooms and steel baskets suspended from ceiling to service miners. Structure demonstrates excellent integrity.

Laboratory: an industrial laboratory constructed in 1920, comprising one of four related buildings in a row, specifically, the Mine Office (1916), the Mine Office (1938), and the Change House. The building consists of a one-story 16' by 25' brick (common bond) structure with cast concrete foundation and composition shingle roof. There are three windows on the east (main) facade which have sills of smooth-dressed cast stone and heads of brick flat arch vertical joints. One doorway located on the south facade was bricked in during 1990 on mandate of local authority. The integrity of this structure is good.

Mine Superintendent's Office: an industrial office constructed in 1916. The building consists of a 32' by 63' one-story brick (common bond) structure with cast concrete foundation and basement, and composition shingle roof. There are five windows on the east facade with window surrounds consisting of smooth-dressed cast stone; windows are set in recessed brick panels surrounded by tiered decorative brickwork. A shed composed of corrugated iron walls and roof was appended to the north facade of the structure in 1928, of 18.5' by 29'. A cinderblock addition to the structure was made to the south-west corner of the building circa 1965 to provide area for miners' time-clock, as was a cast concrete patio; this addition is reversible. One doorway in south facade was bricked in ca. 1945. Building demonstrates good integrity overall.

Drill Core House: an industrial building for the storage of scientific specimens (diamond drill ores from orebody) constructed in 1916. The building consists of a rectangular 37' by 44.5' one story brick (common bond) structure with cast concrete foundation and corrugated iron roof. Building was enlarged several times during its operational life; the first time ca. 1930, expanding the building to the north, and the second time in 1948, expanding the structure to the west. Window surrounds (four on south and one on north facades) consist of smooth-dressed cast stone sills and brick flat arch vertical joint heads, as does door (one on north facade). Expansions closely followed existing style of architecture. Internally, the trays and standing racks used to hold drill cores are still largely preserved. Building demonstrates excellent integrity.

Compressor House: an industrial building for the housing of air compressors and boilers used in mining activities, built in 1918. Building is irregular in form, covering overall an area 86.5' by 35' of a single story and made of brick (common bond) with cast concrete foundation and composition shingle roof. Windows (three) and door on west facade, and windows on south facade (three) consist of smooth-dressed cast stone stills and heads, as do doorways; windows in west facade are set in recessed brick panels with tiered decorative brickwork separating them. Portals in south and west facade for air and steam lines have been partially bricked in, as have two windows on north facade. In 1957, building was converted into garage by removal of entire east facade of structure and replacing brick with cinderblock, resulting in major loss of integrity. Integrity of structure is poor.

Storage Shed: an industrial building used to house rolling stock of mine. A one story frame building of 19' by 97'. Construction is mortise and tenon overlain with vertical planks. Building is dated at circa 1930 based on stylistic evidence only. Building rests on cast-concrete foundation. Structure has four door openings on south facade. Integrity is good.

Chlorinator Building: an industrial building used to chlorinate river water for use in mine. Structure consists of a 13.75' by 9.5' brick (common bond) one story building with asbestos shingle roof. Building is dated at circa 1925 based on stylistic evidence and comparison with other structures on site. Door surround head and sill consists of brick flat arch vertical joints. Building maintains excellent integrity.

Oil Pump House: building consists of a one-story brick (common bond) structure with cast concrete foundation and corrugated iron roof. Window and door surrounds heads and sills are composed of smooth-dressed cast stone. Building demonstrates excellent integrity.

The single contributing site on the parcel is:

Sterling Hill Mine Mill Ruins: the remains of an industrial building used in the crushing, grinding, and beneficiation of ore constructed in 1916. The structure was approximately seven stories high and approximately 126' by 150' in size; it had a cast concrete foundation; the exterior walls consisted of hollow terra-cotta tiles and structure steel. Building was demolished during years 1958-1965. Only the cast concrete foundation, with related underground tunnels and basement, remains. Integrity is poor.

The single non-contributing structure on site is:

Elevator Tower, Shipping Bins and Conveyor Gallery: Constructed in 1957 and 1958, this structure was used to transport crushed and roughly ground ore from the mine to transport vehicles. The conveyor elevator is approximately 6 stories high, and is 16.7' by 18' in section, rectangular, with walls composed of corrugated steel sheet, and contains and elevator to the conveyor gallery. The conveyor gallery is 10 feet high, 15 feet wide, 289' long, horizontal, connecting the mine with the shipping bins. It is composed of corrugated sheet steel. The shipping bins are approximately 4 stories high, 37.5' by 40' in section. The unit contains four shipping bins, each bin being round with a diameter of 17.25 feet and a height of 26' of 6077 cubic feet capacity. The integrity of the structure is excellent; however, the date of construction excludes the structure from inclusion in the National Register.

In conclusion, the site has good to excellent integrity. It is extremely unusual for such a diversity of key mine buildings to be preserved on a mining site, and many buildings are highly representative, both architecturally and historically, of the buildings associated with mining sites in the eastern United States and in New Jersey in particular.

**United States Department of the Interior**
National Park Service

# National Register of Historic Places Continuation Sheet



The Sterling Hill Mine, located in the Borough of Ogdensburg in Sussex County, New Jersey, is historically and architecturally significant. The Sterling Hill Mine is symbolic of the history of the development of extractive industry in the United States and the State of New Jersey in the early to mid 19th century, and of industrial development in the early 1900's. The Sterling Hill Mine was also a primary factor in the growth, settlement patterns, ethnic diversity, and development of the Borough of Ogdensburg. Architecturally, the buildings and structures associated with the Sterling Hill Mine are excellent examples of early 20th century vernacular Industrial architecture.

The mining activities at Sterling Hill Mine relate to extensive and rich iron and zinc deposits found on site. The ore is unusual, being composed of franklinite (an iron, zinc and manganese oxide), zincite (zinc oxide) and willemite (zinc silicate). Another mineral which played an important role in early to mid 19th century mining on the site was hemimorphite, (a zinc silicate) also know as "calamine" or "maggot ore". The ore deposit at the Sterling Hill Mine is almost unique; the only similar deposit known in the world being located at Franklin, Sussex County, New Jersey, two miles north of this site.

The earliest documentary evidence of mining activities on the Sterling Hill Mine site date from 1730, when the property, then known as the "Copper Mine Tract" was divided to the heirs of Anthony Rutgers (deceased) by the Proprietors of New Jersey.

Little is known of the early 18th century mining activities at Sterling Hill. Reports written by Charles T. Jackson, United States Geologist, and A.C. Farrington, mining geologist of the New Jersey Zinc Company (both reprinted in: New Jersey Zinc Co., 1852) mention mine workings consisting of shafts and galleries which, based on growth-rings of trees growing in and adjacent to the workings, predated 1739.

In 1769, the property was acquired by William Alexander (Lord Stirling) (b. 1724, d. 1783). Lord Stirling undertook the mining of iron on site,

sending several tons of ore to his furnace located at Hibernia, New Jersey. Further, he transmitted several tons of the ore to England for processing, apparently having mistaken the red zincite for cuprite, a red-colored primary ore of copper. It is claimed that his efforts to exploit the deposit failed, mainly because the iron-containing franklinite was resistant to smelting by period technology.

After Lord Stirling's death, the property was acquired by Robert Ogden of Sussex County. Title of the property eventually devolved to his son, Elias, circa 1795. While the Ogden family was heavily involved in iron mining and iron foundering in the area (owning the profitable Ogden Mine to the south-west of the Sterling Hill Mine, and operating an iron furnace approximately 1 mile northwest of the Sterling Hill Mine) there is presently no evidence that the family ever attempted to exploit the iron deposits at Sterling Hill. However, in an article published in 1822, it was stated that the mine was used to supply zinc for brass during the War of 1812, contemporaneous with the family's ownership, when the United States was largely isolated from European natural resources.

Elias Ogden died in 1805, and his estate was divided among his issue by a commission appointed by the State of New Jersey for that purpose. The ore body was situated upon 3 separate consecutive parcels of land designated as Lots 8, 9, and 10. Each parcel was approximately 46 acres in size. The northermost parcel, Lot 8, was assigned to Robert Ogden; Lot 9 was assigned to Thomas A. Ogden, and the southernmost parcel, Lot 10, was assigned to Elias Ogden Jr. After this division and until 1897, when the three parcels were consolidated once more under the New Jersey Zinc Co., each lot evolved along separate, albeit parallel, courses.

All three parcels of land were acquired during the period 1818 to 1824 by Samuel Fowler, a physician and amateur mineralogist residing in Franklin, New Jersey. Fowler was also prominent in regional politics, serving in the United States House of Representatives from 1833 to 1837.

Fowler recognized that the mineralogy of the Sterling Hill deposit was significantly different from other iron deposits in the region, and from known zinc deposits, and that many of the minerals occurring in the ore body were new to science. Samples supplied by Fowler to Archibald Bruce, one of the leading American mineralogists, lead to the description in 1818 of the mineral species zincite (previously unknown), the second new mineral described in the Americas and the first major paper of descriptive mineralogy ever published in the United States. He also named the new species franklinite (ostensibly in honor of Benjamin Franklin) and a variety of the mineral rhodonite that is common to the mineral deposit was named in his honor (fowlerite)

More importantly, Fowler's promotion of the ore deposit among geologists, chemists, mineralogists and industrialists throughout the north-eastern United States excited considerable and lasting interest in the potential of Sterling Hill as a nationally-important economic resource.

Fowler, however, experienced considerable problems in exploiting the Sterling Hill Mine ores on a large scale. The franklinite was extremely resistant to smelting on a large industrial scale using period iron furnace technology; frequently, the ore would not liberate melted iron but would simply fuse into a solid crystalline mass, necessitating the dismantling of the entire furnace and removal of a several-ton block of worthless material. The franklinite ores were therefore primarily used to augment other iron ores by foundaries in New Jersey, New York, and Massachusetts. While it was not clearly understood in the early 19th century exploitation of the deposit, the manganese content of the franklinite helped to reduce impurities in the iron, creating steel of exceptional purity and strength.

It was not until the late 1840's when further experimentation with the franklinite iron ores, better understanding of iron and steel metallurgy, and considerable improvement in furnace technology resulted in the ability to consistently smelt the ore in quantity, making large-scale exploitation of the deposit economically viable. One of the innovations was replacing charcoal with anthracite coal, providing further impetus to the development of the Pennsylvania coal mining industry.

The resulting metal was "spiegeleisen", an iron-manganese alloy. The "spiegeleisen" billets were added to iron during steelmaking, and "franklinite steel" became the much-touted product of all of the companies engaged in iron mining at Sterling Hill.

Further, technology was not in place in the early 1800's to smelt the zincite directly into metal cost effectively; the primary product derived from the zincite was "zinc white" (zinc oxide) which formed as a sublimate when the ore was smelted.

Fowler underwrote many projects to develop uses, and therefore markets, for the "zinc white". Principal among these was a replacement for white lead (lead oxide) in commercial paints, which had already been identified as a major health threat to the public. Of nearly equal importance was the fact that zinc oxide based paints, unlike lead based paints, were not subject to "tarnishing by sulphurous exhalations" which had become commonplace in industrialized urban centers. Fowler's Franklin, New Jersey home was painted with the new non-toxic zinc white paint, which was described as of blue-white or lavender color, as a public demonstration of the product's quality.

However, he ultimately failed in his attempt to profitably operate the mines, and sold off his interests to other concerns.

LOT 8 (The Sterling Hill or New Jersey Zinc Company Mine

The mining activities at Lot 8, known as the Sterling Hill mine or, colloquially, as the New Jersey Zinc Co. mine, primarily concentrated on the open-face mining of zinc and iron during the period 1818 to 1897. Techniques were those traditionally associated with open-face mining, specifically, removal of blocks of ore from a vertical cliff-face using manual and blasting techniques.

Lot 8 (the Sterling Hill Mine, also know as the New Jersey Zinc Co. Mines) was sold by Fowler to Nathaniel Witherill and William S. Ames in 1836 in conjunction with Lot 9, for a total of $31,247; they transferred their holdings to Franklin Manufacturing Co. only a month later. The Franklin Manufacturing Co.'s attempts to mine the iron and zinc ores failed, and by 1840 their creditors filed more than $48,000 in unpaid claims against the company with the Sussex County Circuit Court. Their largest creditor, Oakes Ames, a prominent iron founder from Taunton, MA., received the property in satisfaction of a $41,000 loan to the company.

Ames sold the lot to Cyrus Alger in 1845.

Cyrus Alger (b. 1781, d. 1856) was a prominent American iron-founder and inventor, of Massachusetts. Trained in iron-foundering by his father, Alger established his own foundry in 1809, at South Boston. Alger's patents included cast-iron cannon, cast-iron plows of malleable iron, and techniques for casting iron in iron molds; he made improvements on reverberatory furnaces and military ordnance.

In 1848, Alger transferred title to the mineral rights of the property to Samuel Fowler Jr., who immediately sold the title to the property to the New Jersey Exploring and Mining Co. This corporation had been created in 1848 for the principal purpose of establishing a large-scale mining operation of the zinc and iron deposits at Sterling Hill.

In 1852, after extensive mine development on Lot 8 and the erection of an extensive extractive facility and paint factory in Newark, New Jersey, the New Jersey Exploring and Mine Co. changed its name to the New Jersey Zinc Co. In their first annual report, the company stated that their capital was $1.2 million.

In that year, the company was producing large quantities of paint based on zinc white, and were also manufacturing an orange paint out of finely ground zincite and a brown paint made from finely ground franklinite. Their annual report contained a report from a special committee of the New York Board of Assistant Alderman espousing the universal replacement of lead-based paints with zinc paints, as well as testimonials from the United States Navy Yard at Gosport, Virginia, on the durability of zinc paint as a marine anti-fouling coating.

One the early members of the firm was Samuel Wetherill, (b. 1821, d. 1890) who rose to prominence as one of the foremost inventors of extractive metallurgical processes of the mid to late 19th century. Wetherill perfected a new process used to directly extract zinc white from the Sterling Hill ores in a manner more cost effective than any tried previously. He also patented processes for the production of zinc metal and rolled sheet zinc.

In 1880, the New Jersey Zinc Co. was absorbed by the New Jersey Zinc and Iron Co.

In 1897, the New Jersey Zinc and Iron Co. was amalgamated with neighboring mining operations at Sterling Hill to form the New Jersey Zinc Co.

Lot 9 (The Passaic Mine)

The mining activities at Lot 9, (known as the Passaic Mine) primarily concentrated on the open-pit mining of zinc and iron during the period 1824 to 1897. Techniques were those traditionally associated with open-pit mining, specifically, the excavation and removal of blocks of ore from a man-made depression in the earth using manual and blasting techniques.

Fowler sold Lot 9, later known as the Passaic Mine, to Nathaniel Witherill Jr. and William S. Ames in 1836. A month later, they transferred their titles to the Franklin Manufacturing Co. which, by 1840, was bankrupted and its assets liquidated to satisfy numerous creditors. The property was given to Samuel Fowler Jr., who, in 1850, sold the mineral rights to the Consolidated Exploring and Mining Co.

The Consolidated Exploring and Mining Co. liquidated their holdings in 1853, selling Lot 9 to the Passaic Mining and Manufacturing Co.

The company changed its named in 1871 to the Passaic Zinc Co., and continued in operation on the site until 1897, when the company merged with adjacent owners to form the New Jersey Zinc Co.

Lot 10 (The Noble Mine)

The mining activities at Lot 10, (known as the Noble Mine) primarily concentrated on the open-pit mining of zinc and iron during the period 1847 to 1897. Techniques were those traditionally associated with open-pit mining, specifically, the excavation and removal of blocks of ore from a man-made depression in the earth using manual and blasting techniques.

The history of Lot 10 is somewhat more complex than that of the other two parcels comprising Sterling Hill. The complexity arises from the fact that the rights to the iron and zinc ores were severed early in the parcel's history, with contemporaneous and competing companies attempting to exploit the same ore.

After the death of Samuel Fowler in 1844, Lot 10 was inherited by his daughter, Mary Estelle Fowler, and, in 1847, was acquired by her brother, Samuel Fowler Jr. He sold the property to the New Jersey Zinc and Copper Mining and Manufacturing Co. that same year, who remained in possession of the parcel until 1853, when Fowler repurchased the lot.

Inexplicably, Samuel Fowler Jr. severed the zinc and iron mineral titles, selling the zinc title to the National Paint Co. They subleased mining rights on the parcel to the Consolidated Franklinite Co. beginning in 1859. Their attempts to economically exploit the deposit failed, and the National Paint Co. went into bankruptcy prior to 1861; to further complicate the title history, title to the parcel was bestowed on separate groups by Peter S. Decker, Sheriff of Sussex County, at a court-ordered public auction, and by George W. Savage, Receiver of the State of New Jersey.

Decker transferred title of the parcel to Ashley Ball in 1861, who operated the site for two years before selling his holdings to John P. Harley in 1863. Harley was bought out in 1864 by George W. Jewitt, William C. Squier, and Henry Aitkin, a compendium of businessman who maintained ownership of the zinc title until 1896. In that year, their holdings were acquired by the Passaic Zinc Co. and merged into the New Jersey Zinc Co. in 1897.

However, Savage, acting as receiver of the State of New Jersey, transferred title to the zinc ores on the property to John Silsby in 1878 at the time of the final liquidation of the National Paint Co.'s assets. Silsby had previously sublet a mining lease on Lot 10 from the Franklinite Steel and Zinc Co., and was actively engaged in iron mining on the site. The Franklinite Steel and Zinc Co. compounded matters further by leasing the same rights to Charles W. Trotter of Brooklyn, N.Y. simultaneous with Silsby's

lease. The confusion continued until 1882, when Silsby sold his interests in the parcel to the Manganese Iron Ore Co.

The history of the iron title to the parcel is less convoluted. Samuel Fowler Jr. transferred the iron title to Samuel Brooks and Silas Stillwell in 1852. They conveyed the property to the Sussex Iron Co. in 1853, who, in turn, sold the parcel to Samuel Fowler Jr. and James L. Curtis in 1854. In 1855, the parcel was conveyed to the Franklinite Steel Co., of which Curtis was President.

The Franklinite Steel Co. was merged with other interests in 1871 to form the Franklinite Steel and Zinc Co., with Curtis serving first as Vice President, then President of the corporation.

In 1878, the parcel was transferred to the Manganese Iron Ore Co., John Silsby, President, which had previously acquired title to the zinc on the parcel. In 1882 the company became bankrupt and its assets were liquidated. The parcel was acquired in 1887 by Edward Cooper and Abram S. Hewitt. With their acquisition of the Manganese Iron Ore Co. holdings, Cooper and Hewitt also received part of the conflicted zinc title, the other part then claimed by Jewitt, Squier and Aitkin.

Edward Cooper (b. 1824, d. 1905) was a prominent American manufacturer and civic leader, of New York City. Cooper organized the company of Cooper, Hewitt & Co., a nationally-prominent 19th century iron and steel manufactory and pioneer producer of iron girders and beams. Cooper invented several innovative devices for improvements on iron manufacture, including the regenerative hot-blast stove for blast furnaces. Cooper was also one of the primary forces behind the destruction of the "Tweed Ring" in New York City, agitating for political reform; in 1879, he was elected Mayor of the City of New York on a Republican-Democrat fusion ticket. He was president of the Board of Trustees of the Cooper Union in NYC, founded by his father.

Abram Stevens Hewitt (b. 1822, d. 1903) was also a prominent American manufacturer and civic leader of New York City and Ringwood, New Jersey. Hewitt joined with Edward Cooper to form the company Cooper, Hewitt and Co., a nationally-prominent iron and steel manufactory and pioneer producer of iron girders and beams. Hewitt was responsible for erecting the first open-hearth furnace in the United States for steel production. He was elected to Congress in 1874, and in 1876 served as the chairman of the Democratic National Committee during the Hayes-Tilden campaign. He served on the committee that established the Electoral Commission that evolved from the campaign. Hewitt was a major motivational force behind the effort to break the "Tweed Ring" in New York City, and in 1886 was elected Mayor of the City of New York.

Among his many projects in office was the establishment of the Rapid Transit Railroad in New York City. He was a trustee of Columbia University, Barnard College, and the Carnegie Institute, as well as President of the American Institute of Mining Engineers.

In 1896, the two groups consisting of Cooper and Hewitt, and Jewitt, Squier and Aitkin sold their holdings to the Passaic Zinc Co., which merged into the New Jersey Zinc Co. in 1897.

Consolidation

In 1897, the New Jersey Zinc and Iron Co., along with the Passaic Zinc Co. of Lot 9 (the Passaic Mine) and the sundry owners of the Noble Mine on Lot 10 (Cooper and Hewitt; and Jewitt, Squier, and Aitkin) amalgamated to form a new corporation, consolidating all of the mineral properties at Sterling Hill. This new company, the New Jersey Zinc Co., undertook an ambitious program of mine development on site; above ground workings were abandoned and efforts concentrated on underground mine development using the most modern technologies then available.

The Board of Directors of the new company consisted of August Heckscher, David B. Jones, Stephen S. Palmer, Moses Taylor Pyne, John L. Riker, Charles B. Squier, and Samuel Price Wetherill.

The new mining operations at Sterling Hill officially began producing ore in 1912. By 1916, a mill was constructed on site to begin grinding and beneficiating the ore on site before it was sent, via railroad, to the company's Palmerton, PA refinery.

Among the most significant consultants to the new venture was Thomas Alva Edison (b. 1847 d. 1931), a prominent American inventor. Edison had acquired an iron mining property several miles from the Sterling Hill mine and had developed several innovative techniques and processes for beneficiating the ores and smelting metal. He maintained an active correspondence with the officers and management of the New Jersey Zinc Co., offering detailed advice on process technology, as well as designing equipment for the company.

The bulk of the buildings now on site date from the early phase of the New Jersey Zinc Co.'s site improvement program, (1912-1920) as well as its subsequent expansion as production at the site increased.

The underground workings at Sterling Hill created by the New Jersey Zinc Co. were on a large scale. Shafts and tunnels to maximize access to the ore deposit were established, and by 1922 tunnel complexes existed at the 180, 340, 430, 500, 600, 700, 800, 900, 1000, 1100, 1200, 1300, 1400, 1500, 1600, and 1680 foot levels. The tunnel complexes were roughly eliptical in shape. By the 1960's levels at the 1750, 1850, 1950, 2050, 2150, 2250, 2350, 2450, and 2550 foot levels were operational.

The principal mining method in use was the shrinkage or back stope method. From each level, stopes 20 feet wide were opened perpendicular to the strike of the orebody; stopes were separated by approximately 40 feet, leaving a pillar 20 feet wide between each stope. Upon completion of all ore removal, the stope was backfilled with rock quarried on site from the Fill Quarry.

Upon completion of the stopes, the pillars were also mined using a variation of the top-slice system.

The mined ores were brought to the surface in a 2.7 ton skip. Based on extant mine flow charts dating from 1933, the treatment of the ores on site was as follows:

The ore was passed through a washing trommel with 2-inch openings; material too large to pass through the openings was passed to a picking table where ore masses were separated from scrap steel and wood waste, then passed through a gyratory crusher. The coarsely crushed ore was then passed through a Niagra vibrating screen with 1.25-inch opening, and the passed ore placed in 300-ton capacity crude ore storage tanks.

From the crude ore storage tanks, ore was carried by belt conveyors to the Fine Crushing department, where it was passed through a #2 roughing screen in 0.750-inch openings; oversized ore fragments were recrushed and run through the cycle until conforming to size. The ore which passed through the roughing screens was passed through a #1 Rowand tower screen with 0.0880-inch openings. The ore was then passed through two dust separators, and the passed ore was transmitted to the Sizing department. Dust was sent to the Fines department, where it was bagged and transmitted to New Jersey Zinc Co.'s Palmerton, PA., facility for treatment and metal recovery.

One from the Fine Crushing department, crushed to a size of 0.0880-inch or less, was take to the Sizing department where it was run through a series of nine different sized Rowand tower screens with openings varying from 0.0820 to 0.0130-inch. Each of the nine different size fractions were run through a magnetic separator, which separated franklinite (magnetic) from willemite and

zincite (non-magnetic). The franklinite fraction was transmitted directly to the company's Palmerton, PA., facility for further treatment.

The non-magnetic fraction was transmitted to the Jigging department, where the crushed ore was treated with Hutch jigs. Jig tailings were dewatered and returned underground to be used in back-fill operations in the mine; jig middlings were transmitted to the Tabling department for further beneficiation; and the primary jig yield of willemite/zincite was dewatered, dried, and sent to Palmerton, PA., for further treatment.

Middlings sent to the Tabling department were first deslimed to remove fine dusts, then run through Pocket Pellett classifiers. The classified ore was tabled using twenty Wilfley tables; table tailings were dewatered and returned underground for back-filling, table middlings were recycled through the tabling process, and the primary table yield was dewatered, dried and transmitted to Palmerton, PA.

At Palmerton, PA., the specific ore fractions (franklinite or willemite/zincite) were treated by traditional pyrometallurgical techniques (roasting) to yield either zinc spelter (impure zinc metal) or directly oxidized into zinc oxide and recovered by precipitation as a powder, based on production needs and ore-feed characteristics.

By 1940, the New Jersey Zinc Company was producing a wide variety of zinc products in addition to spiegeleisen. These included slab zinc (cast zinc ingot) for applications in galvanizing of sheet iron, for alloying into brass and die casting alloys (such as the New Jersey Zinc Co.'s proprietary zinc alloy Zamak); rolled zinc, consisting of sheet zinc used for dry cell batteries, weathering stripping, boiler plates, fencing, and as roofing material (one form being a corrugated zinc roofing sheet given the proprietary name of Zilloy, which, being iron-free, was not subject to rusting); zinc oxide pigments for paints, rubber, ceramics, linoleum, plastics, and printing inks; zinc oxide of pharmaceutical grade, use in ointments, dental cements, and cosmetics; zinc-based luminescent paints (which replaced highly toxic radium-based compounds) for watch dials, paints, and plastics; zinc sulphide pigments for paints, vitreous enamels, ceramics and plastics; and zinc borate for fire retardant textiles. These products were marketed under the name of Horse Head Products, derived from the New Jersey Zinc Co.'s corporate logo.

In addition to the Ogdensburg, New Jersey mining operations, New Jersey Zinc Co. also operated mines in Franklin, Sussex County, New Jersey (two miles due north of Sterling Hill); at Friedensville, PA., Austinsville, VA., Gilman, Co., and Hanover, NM.

In 1948, when the New Jersey Zinc Co. celebrated their 100th anniversary (based not so much upon the corporation's date of founding as the date of the oldest corporate entity ultimately absorbed into New Jersey Zinc), the President of the company was Henry Hardenbergh, Marshall L. Havey serving as Executive Vice President, Walter R. Anyan as Secretary, and Samuel Riker Jr. as Treasurer.

The New Jersey Zinc Co. abandoned the site in 1986, after attempts to reduce property tax assessments on the Sterling Hill site were unsuccessful.

In 1989, the property was acquired by Richard Hauck and Robert Hauck, of Bloomfield, New Jersey, who have converted the facility into a museum dedicated to the history of the Sterling Hill Mine, general mining history, and the mineralogy of the Sterling Hill orebody.

During the period 1820 to date, the ore deposit at Sterling Hill has been scrutinized by some of the most prominent mineralogists and geologists in the United States. These include Archibald Bruce, who achieved prominence in mineralogy as the publisher of the first mineralogical journal in the United States (the American Mineralogical Journal, 1810) and for being the first significant descriptive mineralogist in the nation; Bruce was responsible for describing the mineral zincite from Sterling Hill in 1810. John Torrey, noted American botanist and mineralogist, published a paper on the deposit in 1822. Gerard Troost, a crystallographer and one of the early presidents of the Philadelphia Academy of Natural Sciences, studied the deposit extensively and published papers in 1823 and 1824. Other scientists from the Philadelphia area who undertook studies of the deposit were Henry Seybert, William Maclure, Lardner Vanuxem and William H. Keating, all of whom played pivotal roles in the development of the science of mineralogy in the United States in the early 19th century. Charles T. Jackson, a prominent chemist and mineralogist who served as consultant to the State Assay Office in Massachussets, authored various papers on the ore deposit from 1850 to 1864.

James Dwight Dana, of Yale University, studied the orebody mineralogy extensively in the 1840's and 1850's, and was frequently called to provide expert testimony during the many legal battles in the 1850's and 1860's related to the Sterling Hill ores. Dana authored the System of Mineralogy in 1844 which constituted the first systematic treatment of minerals based on chemical and crystallographic properties; the "Dana System" is still the international standard in mineralogy.

From 1860 to 1900, the ore deposit was studied by mineralogists that included George Brush, S.L. Penfield, and William E. Ford, all of Yale University. By 1900, more than 185 scientific papers on the mineralogy of the ore body had been published. Since that time, the number of papers has increased geometrically. Current estimates place a comprehensive bibliography of papers related to the mineralogy and geology of the deposit at in excess of 1200 professional papers.

In the 20th century, scholars studying the deposit have included Charles Palache of Harvard University, whose monograph on the Minerals of Franklin and Sterling Hill, Sussex County, New Jersey (United States Geological Survey Professional Paper 180, 1935) remains a classic in the field of mineralogy; Clifford Frondel, of Harvard University; and Peter L. Dunn, of the Smithsonian Institution, whose research on the ore deposit mineralogy continues today.

To date, more than 333 mineral species have been identified as occurring in the ore body which constitutes the deposit being mined at both Sterling Hill and Franklin, New Jersey. Many of these minerals, including zincite (zinc oxide), willemite (zinc silicate), franklinite, (iron, manganese, zinc oxide) and chalcophanite (manganese zinc oxide) were first described from Sterling Hill; other minerals (about 60) such as kolicite (manganese zinc arsenate-silicate, named for John Kolic, a Sterling Hill miner now serving as an advisor to the Sterling Hill Mining Museum) were not only first described from the orebody, but are still unique to Sterling Hill or the Franklin-Sterling Hill orebody as an entity. The mineral sterlinghillite (a manganese arsenate) was named in honor of the mine, and the mineral ogdensburgite (a calcium zinc iron hydroxy-aresenate) named in honor of the locality. Of the 333 reported mineral species, 70 per cent can be described as "rare", occuring at few other localities in the world. The mineralogy of the deposit is still under active investigation; several unknown mineral species are awaiting description, and new mineral species from the orebody are announced annually. A complete list of the mineral species reported from Sterling Hill and Franklin is appended.

The mining operations at Sterling Hill were the foremost factor in the growth and development of the Borough of Ogdensburg. Prior to the development of the mines on site, the community consisted of a low-density rural-agrarian population. The mining operations provided alternative employment options for the local population throughout the period circa 1830 to 1986.

In addition, the mining operations were also responsible for the influx of a large immigrant population, whose descendants today comprise the community's core population. In the mid to late 19th century, the predominant immigrant

population consisted of Cornish miners. Beginning about 1900, Hungarian, Slav, Czechoslovakian, Russian, Mexican and Italian workers were imported to work the mine, many taking up permanent residency in Ogdensburg and neighboring communities.

The economic impetus of the mining operations at Sterling Hill also resulted in the village of Ogdensburg seeking political independence from the Town of Sparta, of which it was part, in 1914.

The Sterling Hill Mine, in addition to being the principal employer in the Borough of Ogdensburg, also generated employment and revenue in the community through businesses not related to the corporate entities involved in the mining trade. Such related businesses include retail establishments catering to the personal needs of the miners and their families. It is worth noting that the mining operations have, as early as 1875 and continuing today, generated considerable tourism in Ogdensburg, with local hotels in 1877 making special note in their advertisements that they catered to mineralogists and mineral collectors visiting the Sterling Hill mines.

In the early 20th Century, the New Jersey Zinc Co. also provided valuable social services to the miners living in the Ogdensburg area, including a well-appointed company hospital, clubrooms for the miners and their families, bowling alleys, tennis courts, swimming pools, and even a summer camp for the miners' children (Camp Riker at Lake Hopewell, New Jersey). The mining company even provided company-subsidized housing for employees (consisting of 4-room bungalows for laborers at $8 per month in 1922, and "comfortable houses" for staff at $17 a month).

In conclusion, the Sterling Hill Mine is a significant historic landmark to the growth of the community of Ogdensburg, and an important example of the industrial history of the State of New Jersey and the United States.

Mineral Species From the
Sterling Hill-Franklin Mining District
Sussex County, New Jersey

Actinolite
Adamite
Adelite
Aegirine
Akrochordite
Albite
Allactite
Allanite
Allanite-(Ce)
Alleghanyite
Almandite
Analcime
Anandite
Anatase
Andradite
Anglesite
Anhydrite
Annabergite
Anorthite
Anorthoclase
Anthophyllite
Antlerite
Apatite
Apophyllite
Aragonite
Argentite
Arsenic
Arseniosiderite
Arsenolite
Arsenopyrite
Atacamite
Augite
Aurichalcite
Auroraite
Austinite
Axinite
Azurite
Bakerite
Bannisterite
Barite
Barium-pharmalcolite
Barkevikite
Barylite
Barysilite
Bassanite
Bastnaesite-group minerals
Baumhauerite
Bementite
Berthierite
Bianchite
Biotite
Birnessite
Bixbyite
Bornite
Bostwickite
Brandtite
Breithauptite
Brochantite
Brookite
Brucite
Brunsvigite
Bulfonteinite
Bustamite
Cahnite
Calcite

Canavesite
Carminite
Carrollite
Caryopilite
Caswellite
Celestite
Celsian
Cerussite
Chabazite
Chalcocite
Chalcophanite
Chalcopyrite
Chamosite
Charlesite
Chlorite
Chlorophoenicite
Chondrodite
Chrysocolla
Clinochlore
Clinohedrite
Clinohumite
Clinozoisite
Clintonite
Conichalcite
Connellite
Copper
Corundum
Covellite
Cryptomelane
Cummingtonite
Cuprite
Cuproadamite
Cuprostibite
Cuspidine
Cyptomelane
Datolite
Desaulesite
Descloizite
Devilline
Digenite
Diopside
Djurelite
Dolomite
Domeykite
Dravite
Dypingite
Edenite
Enstatite
Epidote
Epsomite
Erythrite
Esperite
Ettringite
Euchroite
Eveite
Fayalite
Feitknechite
Ferrimolybdite
Ferristilpnomelane
Ferroaxinite
Ferroschallerite
Flinkite
Flourite
Fluckite
Fluoborite
Fluorapatite
Fluorapophyllite
Fluoredenite
Fluorite
Forsterite
Franklinfurnaceite
Franklinite
Friedelite
Fuchsite
Gageite-1Tc
Gageite-2M
Gahnite
Galena
Ganomalite
Ganophyllite

Genthelvite
Gersdorffite
Glauchochroite
Goethite
Gold
Goldmanite
Graphite
Greenockite
Grimaldite
Grossular
Groutite
Guerinite
Gypsum
Haidingerite
Halloysite
Halotrichite
Hancockite
Hardystonite
Hastingsite
Hauckite
Hausmannite
Hawleyite
Hedenburgite
Hedyphane
Hematite
Hematolite-like mineral
Hemimorphite
Hendricksite
Hercynite
Hetaerolite
Heulandite
Hexahydrite
Hodgkinsonite
Holdenite
Homilite
Hopeite
Hortonolite
Huebnerite
Humire
Hyalophane
Hydrohausmannite
Hydrohetaerolite
Hydrotalcite
Hydroxyapophyllite
Hydrozincite
Illite
Ilmenite
Jacobsite
Jerrygibbsite
Johannsenite
Johnbaumite
Junitoite
Kaolinite
Kentrolite
Kittatinnyite
Koettigite
Koettigite
Kolicite
Koninckite
Kraisslite
Kutnahorite
Larsenite
Laumontite
Lawsonbauerite
Lead
Legrandite
Lennilenapeite
Leucaugite
Leucophenacite
Limonite
Linarite
Liroconite
Loellingite
Loseyite
Magarite
Magnesiohornblende
Magnesioriebeckite
Magnesium-chlorophoenicite
Magnetite
Magnussonite

Malachite
Manganaxinite
Manganberzeliite
Manganbrucite
Manganese-hoernesite
Manganhedenbergite
Manganhumite
Manganite
Manganosite
Manganpyrosmalite
Marcasite
Margarite
Margarosanite
Marialite
Marsturite
Mcallisterite
Mcgovernite
Meionite
Melanterite
Meta-ankoleite
Metalodevite
Metastrengite
Metazeunerite
Microcline
Millerite
Mimetite
Minehillite
Molybdenite
Monohydrocalcite
Montmorillonite
Mooreite
Muscovite
Nasonite
Natrolite
Nelenite
Neotocite
Newberyite
Niahite
Niccolite
Nontronite
Norbergite
Ogdensburgite
Ojuelaite
Oligoclase
Orpiment
Orthochrysotile
Orthoclase
Orthoserpierite
Otavite
Oyelite-like mineral
Parabrandtite
Pararammelsburgite
Parasymplesite
Pargasite
Pectolite
Pennantite
Pennite
Petedunnite
Pharmacolite
Pharmacosiderite
Phlogopite
Picropharmacolite
Pimelite
Pitticite
Powellite
Prehnite
Psilomelane
Pumpellyite-(Mg)
Pyrite
Pyroaurite
Pyrobelonite
Pyrochroite
Pyrolusite
Pyromorphite
Pyrophanite
Pyrophyllite
Pyroxmangite
Pyrrhotite
Quartz
Rammelsbergite

Realgar
Retzian-La
Retzian-Nd
Rhodochrosite
Rhodonite
Richterite
Riebeckite
Roeblingite
Roepperite
Romeite
Rosasite
Roweite
Rutile
Safflorite
Sarkinite
Sauconite
Scapolite
Schallerite
Scheelite
Schorl
Sclarite
Scorodite
Seligmannite
Sepiolite
Serpentine
Serpierite
Siderite
Sillimanite
Silver
Sjogrenite
Skutterudite
Smithsonite
Sonolite
Spessartine
Sphalerite
Spinel
Starkeyite
Sterlinghillite
Stibnite
Stilbite
Stilpnomelane (Mn dominant)
Stilpnomelane
Strontianite
Sulfur
Sussexite
Svabite
Symplesite
Synadelphite
Talc
Tennantite
Tenorite
Tephroite
Thomsonite
Thorite
Thortveite
Tilasite
Titanite
Todorokite
Torreyite
Tourmaline
Tremolite
Turneaureite
Uraninite
Uranophane
Uranospinite
Uvarovite
Uvite
Vesuvianite
Villyaellenite
Voltzite
Vredenbergite
Wallkilldellite
Wawayandaite
Wendwilsonite
Willemite
Wollastonite
Woodruffite
Wulfenite
Wurtzite
Xonotlite
Yeatmanite
Yukonite

Zinalsire
Zinc-Schefferite
Zincite
Zinkenite
Zircon
Zoisite

BIBLOGRAPHY

Anon.
Franklinite Ore and Iron, Their Uses for the Improvement of Other Iron Ores and Iron... Also, the Proper Location for a National Foundry
1862 New York 16 pp.

Anon.
History and Documentary Evidence Relating to the Property of the Consolidated Franklinite Company
1859 New York 50 pp.

Alger, Francis
On the Zinc Mines of Franklin, Sussex County, New Jersey
1845 Amer. Jour. Sci. p.252-264

Baker, G.W.
Geological Report: The Mineral Belt of Sussex County, New Jersey (Stirling Hill, Mine Hill)
1881 Phila. 115 pp.

Darton N.H.
The Zinc Mines of Sussex County, New Jersey
1883 Scientific Amer. Suppl. Vol 16, p. 6278

Jackson, C.T.
On the Manufacture of Zinc and Zinc White
1850 Proc. Amer. Assoc. Adv. of Sci. p. 335-337

New Jersey Zinc Company
Reports of the New Jersey Zinc Company, 1852
1852 New York 32 pp.

New Jersey Zinc Company
Sterling Hill Mine
1966 Ogdensburg, NJ 11 pp.

Nuttall, Thomas
Observations and Geological Remarks on the Minerals of Paterson and the Valley of Sparta in New Jersey
1822 Amer. Jour. Sci. pp. 239-248

Rogers, H.D.
Description of the Geology of the State of New Jersey Final Report
1840 Trenton pp. 63-73

Salton, G.H.
Mining Practices at Sterling Hill Mine, New Jersey Zinc Co.
1923 Canadian Inst. Mining & Metallurgy Monthly Bull. pp. 567-593

Shuster. E.D.
Historical Notes of the Iron and Zinc Mining Industry in Sussex County,
1927 Franklin, NJ. 48 pp.

Spencer, A.C.
The Mine Hill and Sterling Hill zinc deposits
1909 New Jersey Geological Survey for 1908 (Part 2) pp. 23-52

Manuscript Materials:

New Jersey Zinc Co. Collection (MC 672)
Alexander Library, Special Collections Div.
Rutgers University, New Brunswick, New Jersey
(Consists of 142 boxes of records)

All published references cited above are available from:

Daniel Russell
Office of the City Historian
Glen Cove, New York 11542
516-676-6535

PHOTOGRAPH IDENTIFICATION SHEET

STERLING HILL MINE
30 PLANT STREET
OGDENSBURG BOROUGH, SUSSEX COUNTY, NEW JERSEY

Photography by Gary Grenier. 1990.

Location of negatives: Sterling Hill Mining Museum
30 Plant Street
Ogdensburg, New York
201-209-7212

1. View of east facades of 1916 Mine Office Bldg (left) and 1938 Mine Office Bldg (right) fronting Plant Street. Looking north-west.

2. View of east facades of Change House (left), 1916 Mine office Bldg (center) and 1938 Mine Office Bldg (right) fronting Plant St. Looking north-west.

3. View of east facades of Laboratory (left) and Change House (right) fronting Plant Street. Looking north-west.

4. View of south facades of Change House (center) and Laboratory (right). Looking north.

5. Interior of Change House, looking north.

6. View of west facades of 1938 Mine Office Bldg (right), 1916 Office Bldg (center) and Change House (left). Looking south-east.

7. West facade of 1916 Mine Office Bldg. Looking east.

8. View of west facade of Mine Superintendent's Office, looking east-north-east.

9. View of south facade of Mine Superintendent's Office. Looking north.

10. View of north facade of Chlorinator Bldg, looking south.

11. View of west and south facades of Oil Pump House. Looking south-west.

12. View of south and west facades of Shed, looking north-east.

13. View of south and west facades of Drill Core House, looking north-east.

14. View of north and west facades of Compressor House, looking south-east.

15. View of north and east facades of Compressor House, looking south-west.

16. View of Mill Ruins, looking south, from an elevation of approximately 50 feet.

17. There is no photograph number 17.

18. View of Sterling Hill Mine, looking south-west at open-face quarry. Main adit of Sterling Hill Mine (underground workings) in center. Taken from an elevation of approximately 75 feet.

19. View of Passaic Mine, looking east.

20. View of Noble mine, looking north-west.

21. View of Fill Quarry, looking south.

22. View of south facade of Ore Elevator and Storage Bins, looking north.

23. Appearance of Sterling Hill site circa 1918. 1916 Mine Office Bldg in foreground; Mine Superintendent's Office at right; Mill Building at left. Photograph looking west-south-west.

24. Appearance of Sterling Hill site circa 1918. Oil Pump house in foreground, Mill in background. Looking south-west.

25. Appearance of Sterling Hill site circa 1918. Mine Superintendent's Office in foreground, right; Mill Bldg in background. Looking South.

26. Appearance of Sterling Hill site circa 1918. Looking west.

27. Appearance of Sterling Hill circa 1875. Taken from Plant Street, looking west.

28. Appearance of Sterling Hill circa 1875, showing workings of open-face mine at Sterling Hill, looking north-west.

29. Appearance of Sterling Hill circa 1875, showing mining operations at Noble Mine, looking east.

PF-054
/86

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF NEW JERSEY HERITAGE
INDIVIDUAL STRUCTURE SURVEY FORM

HISTORIC SITES INVENTORY NO.

HISTORIC NAME: STORAGE SHED
COMMON NAME:
LOCATION: 30 PLANT STREET
BLOCK/LOT Block 31, Lot 11.07

MUNICIPALITY: OGDENSBURG BOROUGH
COUNTY: SUSSEX
USGS QUAD: FRANKLIN
UTM REFERENCES:
OWNER/ADDRESS: Richard Hauck and Robert Hauck
30 Plant Street, Ogdensburg, New Jersey 07439
Zone/Easting/Northing

DESCRIPTION

Construction Date: ca. 1930
Source of Date: stylistic evidence

Architect: unknown
Builder: New Jersey Zinc Co.

Style: vernacular Industrial
Form/Plan Type: Rectangular

Number of Stories: One (1)

Foundation: Cast concrete

Exterior Wall Fabric: Wood (vertical plank)

Fenestration: None

Roof/Chimneys: Corrugated iron sheet metal; no chimney.

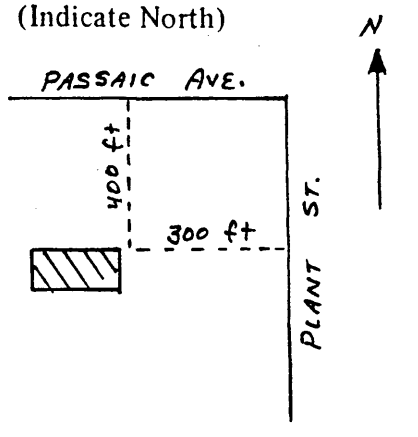
Additional Architectural Description:

Structure consists of a wood frame building 19' x 98'. Construction is mortise and tenon overlain by vertical planks.

Building maintains excellent integrity.

CN 404, TRENTON, NEW JERSEY 08625 (609) 292-2023

Map (Indicate North)



SITING, BOUNDARY DESCRIPTION, AND RELATED STRUCTURES:

The building is located on a 32 acre parcel of land at the south-west corner of Plant Street and Passaic Avenue. It is one of a group of 10 buildings as well as other structures and objects on site related to mining activities undertaken during the period 1897-1986 by the New Jersey Zinc Co., which include mine offices, mill (ore grinding and crushing) offices, administrative offices, compressor and boiler houses, change houses, open-pit quarries and underground mines.

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SURROUNDING ENVIRONMENT: Urban ☐ Suburban ☐ Scattered Buildings ☒
Open Space ☒ Woodland ☒ Residential ☒ Agricultural ☐ Village ☐
Industrial ☒ Downtown Commerical ☐ Highway Commercial ☐ Other ☐

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SIGNIFICANCE: The structure appears to have been used as a storage shed and light equipment (vehicle) shed throughout its life.

The building is highly representative of this type of structure, and exhibits excellent integrity. It is extremely unusual for a structure of this type from this era to survive intact on a mining site of this scope.

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ORIGINAL USE: Storage of equipment PRESENT USE: MUSEUM
PHYSICAL CONDITION: Excellent ☐ Good ☐ Fair ☒ Poor ☐
REGISTER ELIGIBILITY: Yes ☒ Possible ☐ No ☐ Part of District ☐
THREATS TO SITE: Roads ☐ Development ☐ Zoning ☐ Deterioration ☐
No Threat ☐ Other ☐

COMMENTS: Preservation is actively sought by owner of site who has converted facility into a museum dedicatedto mining history of site. Preservation of site is supported by community and local government, as well as members of special interest groups such as Franklin-Ogdensburg Mineral Society, a group dedicated to study of mineralogy and history of the mine.

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REFERENCES:

New Jersey Zinc Co. Collection (MC672)
Alexander Library, Special Collections Div., Rutgers University, New Brunswick, New Jersey [142 boxes]

Shuster, Elwood D.
Historical Notes of the Iron and Zinc Mining Industry in Sussex County, New Jersey.
Franklin, N.J., 1927 48 p.

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RECORDED BY: DANIEL E. RUSSELL DATE: 21 NOVEMBER 1990
ORGANIZATION: OFFICE OF CITY HISTORIAN
CITY HALL, GLEN COVE, NEW YORK 11542 516-676-6535

DPF-054
8/86

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF NEW JERSEY HERITAGE
INDIVIDUAL STRUCTURE SURVEY FORM

HISTORIC SITES INVENTORY NO.

HISTORIC NAME: CHLORINATOR BUILDING
COMMON NAME:
LOCATION: 30 PLANT STREET
BLOCK/LOT Block 31, Lot 11.07

MUNICIPALITY: OGDENSBURG BOROUGH
COUNTY: SUSSEX
USGS QUAD: FRANKLIN
UTM REFERENCES:
OWNER/ADDRESS: Richard Hauck and Robert Hauck
30 Plant Street, Ogdensburg, New Jersey 07439
Zone/Easting/Northing

DESCRIPTION

Construction Date: ca. 1925
Source of Date: stylistic evidence

Architect: unknown
Builder: New Jersey Zinc Co.

Style: vernacular Industrial
Form/Plan Type: Rectangular

Number of Stories: One (1)

Foundation: Cast concrete

Exterior Wall Fabric: Brick

Fenestration: None

Roof/Chimneys: Asbestos shingle ; no chimney

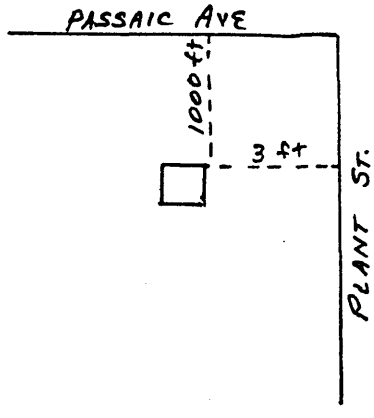
Additional Architectural Description:

Structure consists of a 13.75' x 9.5' brick building with asbestos shingle roof. Main window and door surrounds (heads and sills) consist of flat arch vertical joints in brick.

Building maintains excellent integrity.

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF NEW JERSEY HERITAGE
CN 404, TRENTON, NEW JERSEY 08625 (609) 292-2023

Map (Indicate North)



SITING, BOUNDARY DESCRIPTION, AND RELATED STRUCTURES:

The building is located on a 32 acre parcel of land at the south-west corner of Plant Street and Passaic Avenue. It is one of a group of 10 buildings as well as other structures and objects on site related to mining activities undertaken during the period 1897-1986 by the New Jersey Zinc Co., which include mine offices, mill (ore grinding and crushing) offices, administrative offices, compressor and boiler houses, change houses, open-pit quarries and underground mines.

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SURROUNDING ENVIRONMENT: Urban ☐ Suburban ☐ Scattered Buildings ☒
Open Space ☒ Woodland ☒ Residential ☒ Agricultural ☐ Village ☐
Industrial ☒ Downtown Commerical ☐ Highway Commercial ☐ Other ☐

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SIGNIFICANCE: The structure was constructed circa 1925 to served as a chlorine station, to chlorinate river water from the Walkill River used in mining operations at the Sterling Hill Mine.

The building is highly representative of this type of structure, and exhibits excellent integrity. It is extremely unusual for a structure of this type from this era to survive intact on a mining site of this scope.

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ORIGINAL USE: Chlorination of river water PRESENT USE: MUSEUM
PHYSICAL CONDITION: Excellent ☐ Good ☒ Fair ☐ Poor ☐
REGISTER ELIGIBILITY: Yes ☒ Possible ☐ No ☐ Part of District ☐
THREATS TO SITE: Roads ☐ Development ☐ Zoning ☐ Deterioration ☐
No Threat ☐ Other ☐

COMMENTS: Preservation is actively sought by owner of site who has converted facility into a museum dedicated to mining history of site. Preservation of site is supported by community and local government, as well as members of special interest groups such as Franklin-Ogdensburg Mineral Society, a group dedicated to study of mineralogy and history of the mine.

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REFERENCES:

New Jersey Zinc Co. Collection (MC672)
Alexander Library, Special Collections Div., Rutgers University, New Brunswick, New Jersey [142 boxes]

Shuster, Elwood D.
Historical Notes of the Iron and Zinc Mining Industry in Sussex County, New Jersey.
Franklin, N.J., 1927 48 p.

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RECORDED BY: DANIEL E. RUSSELL DATE: 23 NOVEMBER 1990
ORGANIZATION: CITY HISTORIAN
CITY HALL, GLEN COVE, N.Y. 11542 516-676-6535

DPF-054
8/86

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF NEW JERSEY HERITAGE
INDIVIDUAL STRUCTURE SURVEY FORM — HISTORIC SITES INVENTORY NO.

HISTORIC NAME: MINE SUPERINTENDENT'S OFFICE — COMMON NAME:
LOCATION: 30 PLANT STREET — BLOCK/LOT Block 31, Lot 11.07

MUNICIPALITY: OGDENSBURG BOROUGH — COUNTY: SUSSEX
USGS QUAD: FRANKLIN — UTM REFERENCES:
OWNER/ADDRESS: Richard Hauck and Robert Hauck — Zone/Easting/Northing
30 Plant Street, Ogdensburg, New Jersey 07439

DESCRIPTION

Construction Date: 1916 — Source of Date: New Jersey Zinc Co. Records

Architect: unknown — Builder: New Jersey Zinc Co.

Style: vernacular Industrial — Form/Plan Type: Rectangular

Number of Stories: One (1)

Foundation: Cast concrete

Exterior Wall Fabric: Brick

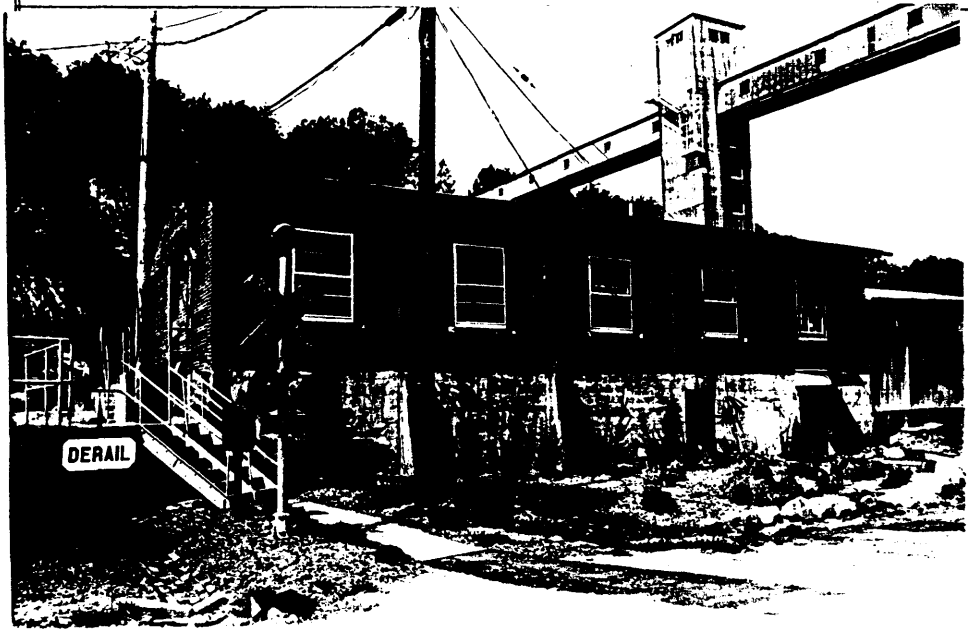
Fenestration: None

Roof/Chimneys: Composition shingle; no chimney

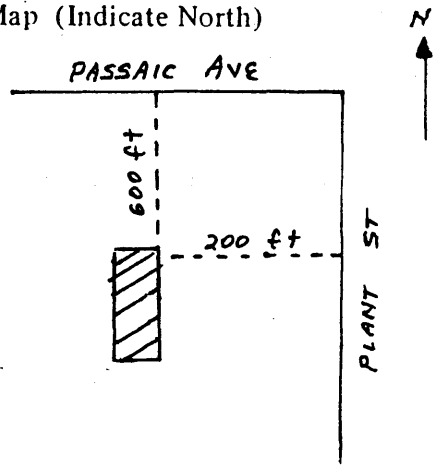
Additional Architectural Description:

Structure consists of a 32' x 63' brick building constructed in 1916. Main facade (east facade) consists of windows within recessed panels; doorway and window surrounds (heads and sills) consist of smooth-dressed cast stone.

In 1923, an addition was made on the north facade of the building, consisting of an 18.5' x 29' annex (garage) composed of corrugated sheet iron roof and walls. A second addition was made ca. 1965 consisting of a cinderblock structure of approximately 12' x 20', located on the southwest corner of the building; the structure served as a time-clock area for miners to "punch in". Despite this second addition (which is reversible) the building demonstrates good integrity.




Map (Indicate North)




NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF NEW JERSEY HERITAGE
CN 404, TRENTON, NEW JERSEY 08625 (609) 292-2023

SITING, BOUNDARY DESCRIPTION, AND RELATED STRUCTURES:

The building is located on a 32 acre parcel of land at the south-west corner of Plant Street and Passaic Avenue. It is one of a group of 10 buildings as well as other structures and objects on site related to mining activities undertaken during the period 1897-1986 by the New Jersey Zinc Co., which include mine offices, mill (ore grinding and crushing) offices, administrative offices, compressor and boiler houses, change houses, open-pit quarries and underground mines.

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SURROUNDING ENVIRONMENT: Urban ☐ Suburban ☐ Scattered Buildings ☒
Open Space ☒ Woodland ☒ Residential ☒ Agricultural ☐ Village ☐
Industrial ☒ Downtown Commerical ☐ Highway Commercial ☐ Other ☐

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SIGNIFICANCE: The building was constructed in 1916 to serve as the offices of mine shift bosses (shift managers) at the Sterling Hill Mine, as well as offices of staff geologists. An annex (garage) constructed on the northern facade of the structure served as storage and garage facilities for the office.

The building is highly representative of this type of structure, and survives with good integrity. It is extremely unusual for a structure of this type from this era to survive intact on a mining site of this scope.

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ORIGINAL USE: Mine Supervisor's Office PRESENT USE: Museum
PHYSICAL CONDITION: Excellent ☐ Good ☒ Fair ☐ Poor ☐
REGISTER ELIGIBILITY: Yes ☒ Possible ☐ No ☐ Part of District ☐
THREATS TO SITE: Roads ☐ Development ☐ Zoning ☐ Deterioration ☐
No Threat ☒ Other ☐

COMMENTS: Preservation is actively sought by owner of site who has converted facility into a museum dedicatedto mining history of site. Preservation of site is supported by community and local government, as well as members of special interest groups such as Franklin-Ogdensburg Mineral Society, a group dedicated to study of mineralogy and history of the mine.

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REFERENCES:

New Jersey Zinc Co. Collection (MC672)
Alexander Library, Special Collections Div., Rutgers University, New Brunswick, New Jersey [142 boxes]

Shuster, Elwood D.
Historical Notes of the Iron and Zinc Mining Industry in Sussex County, New Jersey.
Franklin, N.J., 1927 48 p.

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RECORDED BY: DANIEL E. RUSSELL DATE: 21 November 1990
ORGANIZATION: OFFICE OF THE CITY HISTORIAN,
CITY HALL, GLEN COVE, NEW YORK 11542 516-676-6535

F-054
86

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF NEW JERSEY HERITAGE
INDIVIDUAL STRUCTURE SURVEY FORM

HISTORIC SITES INVENTORY NO.

HISTORIC NAME: OIL PUMP HOUSE
COMMON NAME:
LOCATION: 30 PLANT STREET
BLOCK/LOT Block 31, Lot 11.07

MUNICIPALITY: OGDENSBURG BOROUGH
COUNTY: SUSSEX
USGS QUAD: FRANKLIN
UTM REFERENCES:
OWNER/ADDRESS: Richard Hauck and Robert Hauck
30 Plant Street, Ogdensburg, New Jersey 07439
Zone/Easting/Northing

DESCRIPTION

Construction Date: 1916
Source of Date: New Jersey Zinc Co. Records

Architect: unknown
Builder: New Jersey Zinc Co.

Style: vernacular Industrial
Form/Plan Type: Square

Number of Stories: One (1)

Foundation: Cast concrete

Exterior Wall Fabric: Brick

Fenestration: None

Roof/Chimneys: corrugated sheet iron; no chimney

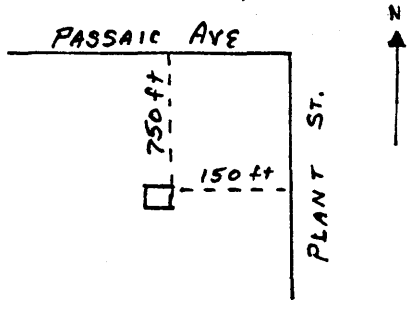
Additional Architectural Description:

Building is a brick structure 12' X 12', on poured concrete foundation. Roof is composed of corrugated sheet iron. A corrugated sheet iron overhang on the south facade of the structure is approximately 12' x 12'; its original function is unknown. Window and door surrounds (sills and heads) are composed of smooth-dressed cast stone.

Building maintains excellent integrity.

CN 404, TRENTON, NEW JERSEY 08625 (609) 292-2023


Map (Indicate North)



SITING, BOUNDARY DESCRIPTION, AND RELATED STRUCTURES:

The building is located on a 32 acre parcel of land at the south-west corner of Plant Street and Passaic Avenue. It is one of a group of 10 buildings as well as other structures and objects on site related to mining activities undertaken during the period 1897-1986 by the New Jersey Zinc Co., which include mine offices, mill (ore grinding and crushing) offices, administrative offices, compressor and boiler houses, change houses, open-pit quarries and underground mines.

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SURROUNDING ENVIRONMENT: Urban ☐ Suburban ☐ Scattered Buildings ☒
Open Space ☒ Woodland ☒ Residential ☒ Agricultural ☐ Village ☐
Industrial ☒ Downtown Commerical ☐ Highway Commercial ☐ Other ☐

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SIGNIFICANCE: The Oil Pump House was the centralized location for the distribution of petroleum product for heating purposes to the mine and mill on site during the period 1916 to circa 1986, when mining activities were terminated on site.

It is extremely unusual for a structure of this type from this era to survive intact on a mining site of this scope. The building is highly representative of this type of structure, and is unaltered.

---

ORIGINAL USE: Oil Pumping facility PRESENT USE: MUSEUM
PHYSICAL CONDITION: Excellent ☐ Good ☒ Fair ☐ Poor ☐
REGISTER ELIGIBILITY: Yes ☒ Possible ☐ No ☐ Part of District ☐
THREATS TO SITE: Roads ☐ Development ☐ Zoning ☐ Deterioration ☐
No Threat ☐ Other ☐

COMMENTS: Preservation is actively sought by owner of site who has converted facility into a museum dedicated to mining history of site. Preservation of site is supported by community and local government, as well as members of special interest groups such as Franklin-Ogdensburg Mineral Society, a group dedicated to study of mineralogy and history of the mine.

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REFERENCES:

New Jersey Zinc Co. Collection (MC672)
Alexander Library, Special Collections Div., Rutgers University, New Brunswick, New Jersey [142 boxes]

Shuster, Elwood D.
Historical Notes of the Iron and Zinc Mining Industry in Sussex County, New Jersey.
Franklin, N.J., 1927 48 p.

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RECORDED BY: Daniel E. Russell DATE: 21 November 1990
ORGANIZATION: OFFICE OF CITY HISTORIAN
CITY HALL, GLEN COVE, N.Y. 11542 516-676-6535

DPF-054
8/86

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF NEW JERSEY HERITAGE
INDIVIDUAL STRUCTURE SURVEY FORM

HISTORIC SITES INVENTORY NO.

HISTORIC NAME: COMPRESSOR HOUSE
COMMON NAME:
LOCATION: 30 PLANT STREET
BLOCK/LOT Block 31, Lot 11.07

MUNICIPALITY: OGDENSBURG BOROUGH
COUNTY: SUSSEX
USGS QUAD: FRANKLIN
UTM REFERENCES:
OWNER/ADDRESS: Richard Hauck and Robert Hauck
30 Plant Street, Ogdensburg, New Jersey 07439
Zone/Easting/Northing

DESCRIPTION

Construction Date: 1918
Source of Date: New Jersey Zinc Co. Records

Architect: unknown
Builder: New Jersey Zinc Co.

Style: vernacular Industrial
Form/Plan Type: Irregular

Number of Stories: One (1)

Foundation: Cast concrete

Exterior Wall Fabric: Brick

Fenestration: None

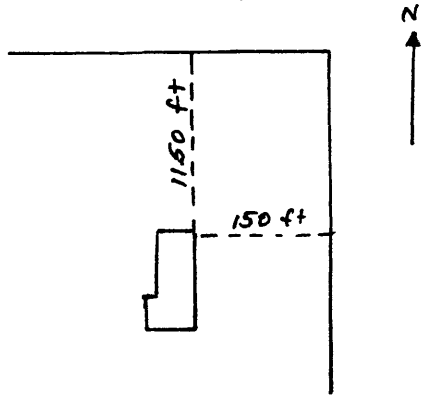
Roof/Chimneys: Composition shingle; no chimney

Additional Architectural Description:

Building is an irregularly-shaped structure 86.5' by 35', constructed of brick with a cast concrete foundation in 1918. Windows consist of smooth dressed cast stone heads and sills; window openings are set in recessed panels. Windows on northern facade have been bricked in, and orifices in south facade originally used for compressed air transmission lines have been partially or completed bricked in.

In 1957, building was converted into to garage by New Jersey Zinc Co.; this was accomplished by removal of eastern facade of structure and replacement with cinder-block wall with openings for wood garage doors, resulting in a significant loss of integrity.

Map (Indicate North)




NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF NEW JERSEY HERITAGE
CN 404, TRENTON, NEW JERSEY 08625 (609) 292-2023

SITING, BOUNDARY DESCRIPTION, AND RELATED STRUCTURES:

The building is located on a 32 acre parcel of land at the south-west corner of Plant Street and Passaic Avenue. It is one of a group of 10 buildings as well as other structures and objects on site related to mining activities undertaken during the period 1897-1986 by the New Jersey Zinc Co., which include mine offices, mill (ore grinding and crushing) offices, administrative offices, compressor and boiler houses, change houses, open-pit quarries and underground mines.

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SURROUNDING ENVIRONMENT: Urban ☐ Suburban ☐ Scattered Buildings ☒
Open Space ☒ Woodland ☒ Residential ☒ Agricultural ☐ Village ☐
Industrial ☒ Downtown Commerical ☐ Highway Commercial ☐ Other ☐

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SIGNIFICANCE: The compressor house was constructed in 1918 to house the primary air compressors and associated boilers used in the Sterling Hill mine, specifically to power air drills used to drill rock for diamond core sampling and creation of blasting holes in ore. In addition, the compressors powered pumps used to dewater the mine. A major alteration of the structure in 1957 converting the building into a garage resulted in the complete removal of the entire eastern facade, resulting in a significant loss of integrity.

Despite this loss of integrity, the building is highly representative of this type of structure. It is extremely unusual for a structure of this type from this era to survive on a mining site of this scope.

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ORIGINAL USE: COMPRESSOR HOUSE PRESENT USE: MUSEUM
PHYSICAL CONDITION: Excellent ☐ Good ☒ Fair ☐ Poor ☐
REGISTER ELIGIBILITY: Yes ☐ Possible ☒ No ☐ Part of District ☐
THREATS TO SITE: Roads ☐ Development ☐ Zoning ☐ Deterioration ☐
No Threat ☐ Other ☐

COMMENTS: Preservation is actively sought by owner of site who has converted facility into a museum dedicatedto mining history of site. Preservation of site is supported by community and local government, as well as members of special interest groups such as Franklin-Ogdensburg Mineral Society, a group dedicated to study of mineralogy and history of the mine.

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REFERENCES:

New Jersey Zinc Co. Collection (MC672)
Alexander Library, Special Collections Div., Rutgers University, New Brunswick, New Jersey [142 boxes]

Shuster, Elwood D.
Historical Notes of the Iron and Zinc Mining Industry in Sussex County, New Jersey.
Franklin, N.J., 1927 48 p.

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RECORDED BY: Daniel E. Russell DATE: 21 November 1990
ORGANIZATION: Office of City Historian
City Hall, Glen Cove, New York 11542 516-676-6535

PF-054
/86

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF NEW JERSEY HERITAGE
INDIVIDUAL STRUCTURE SURVEY FORM

HISTORIC SITES INVENTORY NO.

HISTORIC NAME: DRILL CORE HOUSE
COMMON NAME:
LOCATION: 30 PLANT STREET
BLOCK/LOT Block 31, Lot 11.07

MUNICIPALITY: OGDENSBURG BOROUGH
COUNTY: SUSSEX
USGS QUAD: FRANKLIN
UTM REFERENCES: Zone/Easting/Northing
OWNER/ADDRESS: Richard Hauck and Robert Hauck
30 Plant Street, Ogdensburg, New Jersey 07439

DESCRIPTION

Construction Date: 1916
Source of Date: New Jersey Zinc Co. Records

Architect: unknown
Builder: New Jersey Zinc Co.

Style: vernacular Industrial
Form/Plan Type: Rectangular

Number of Stories:

Foundation: Cast concrete

Exterior Wall Fabric: Brick

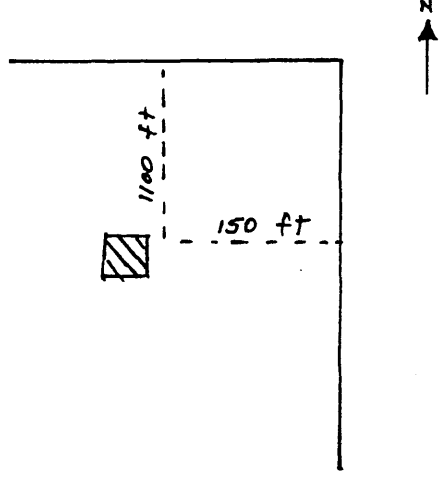
Fenestration: None

Roof/Chimneys:
Corrugated iron sheet metal roof; no chimney

Additional Architectural Description:
Building consists of a 37' x 44.5' brick structure. The earliest portion of the building, dating from 1916, is the south-east quarter of the structure. Two additions were made to the structure: the first, ca. 1930, expanded the building to the north, and the second, in 1948, expanding the building to the west. Each expansion of the structure closely followed the existing style of the structure in detail, resulting in good overall integrity to the structure.

CN 404, TRENTON, NEW JERSEY 08625 (609) 292-2023

Map (Indicate North)



SITING, BOUNDARY DESCRIPTION, AND RELATED STRUCTURES:

The building is located on a 32 acre parcel of land located at the south-west corner of Plant Street and Passaic Avenue. It is one of a group of 10 buildings as well as other structures and objects on site related to mining activities undertaken on site during the period 1897-1986 by the New Jersey Zinc Co., which include mine offices, mill (ore grinding and crushing) offices, administrative offices, compressor and boiler houses, change houses, open-pit quarries and underground mines.

SURROUNDING ENVIRONMENT: Urban ☐ Suburban ☐ Scattered Buildings ☒
Open Space ☒ Woodland ☐ Residential ☒ Agricultural ☐ Village ☐
Industrial ☒ Downtown Commerical ☐ Highway Commercial ☐ Other ☐

SIGNIFICANCE: Structure was used to house diamond drill cores, i.e., samples of ore taken in sequence with a circular hollow diamond drill bit for estimating position and quality of ore desposit. The bulk of the diamond drill cores have been transferred to the New Jersey Geological Survey and Leheigh University for study and analysis; however, numerous cases of drill cores are still in storage in core shed. The Drill Core House is a vital repository for data on the ore body that was routinely used by New Jersey Zinc Co. geologists and chemists in their exploratory work on site. Period of use is 1916 to present, with additions to enlarge facility made ca. 1930 and in 1948.

The building is highly representative of this type of structure, and survives with good integrity. It is extremely unusual for a structure of this type from this era to survive intact on a mining site of this scope.

ORIGINAL USE: Storage of drill core samples PRESENT USE: MUSEUM
PHYSICAL CONDITION: Excellent ☒ Good ☐ Fair ☐ Poor ☐
REGISTER ELIGIBILITY: Yes ☒ Possible ☐ No ☐ Part of District ☐
THREATS TO SITE: Roads ☐ Development ☐ Zoning ☐ Deterioration ☐
No Threat ☒ Other ☐
COMMENTS: Preservation is actively sought by owner of site who has converted facility into a museum dedicatedto mining history of site. Preservation of site is supported by community and local government, as well as members of special interest groups such as Franklin-Ogdensburg Mineral Society, a group dedicated to study of mineralogy and history of the mine.

REFERENCES:

New Jersey Zinc Co. Collection (MC672)
Alexander Library, Special Collections Div., Rutgers University, New Brunswick, New Jersey [142 boxes]

Shuster, Elwood D.
Historical Notes of the Iron and Zinc Mining Industry in Sussex County, New Jersey.
Franklin, N.J., 1927 48 p.

RECORDED BY: Daniel E. Russell DATE: 21 November 1990
ORGANIZATION: Office of City Historian, City Hall
Glen Cove, New York 11542 516-676-6535

F-054
36

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF NEW JERSEY HERITAGE
INDIVIDUAL STRUCTURE SURVEY FORM — HISTORIC SITES INVENTORY NO.

HISTORIC NAME: CHANGE HOUSE — COMMON NAME:
LOCATION: 30 PLANT STREET — BLOCK/LOT Block 31, Lot 11.07

MUNICIPALITY: OGDENSBURG BOROUGH — COUNTY: SUSSEX
USGS QUAD: FRANKLIN — UTM REFERENCES:
OWNER/ADDRESS: Richard Hauck and Robert Hauck — Zone/Easting/Northing
30 Plant Street, Ogdensburg, New Jersey 07439

DESCRIPTION

Construction Date: 1936-7 — Source of Date: New Jersey Zinc Co. Records

Architect: unknown — Builder: New Jersey Zinc Co.

Style: vernacular Industrial — Form/Plan Type: Rectangular

Number of Stories: One (1)

Foundation: Cast concrete

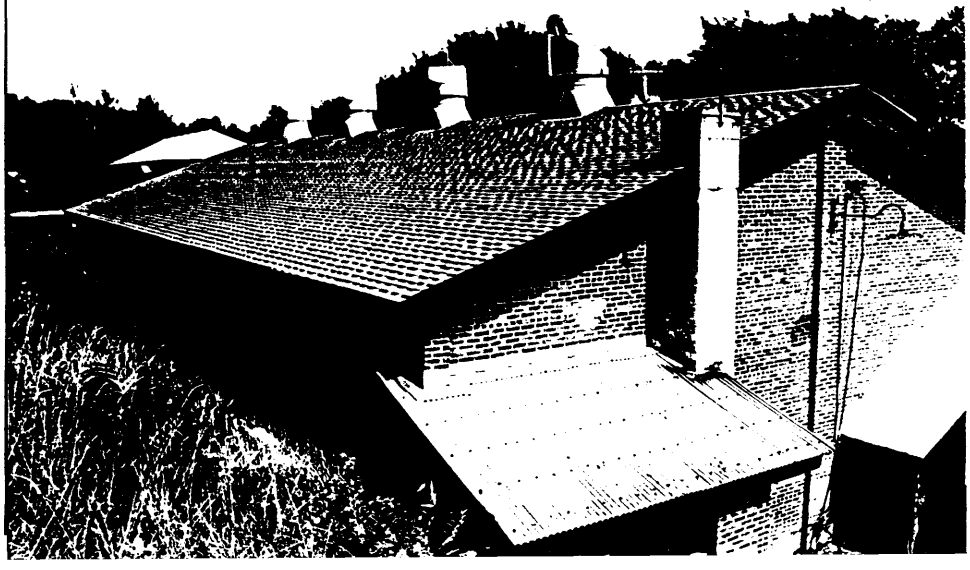
Exterior Wall Fabric: Brick

Fenestration: None

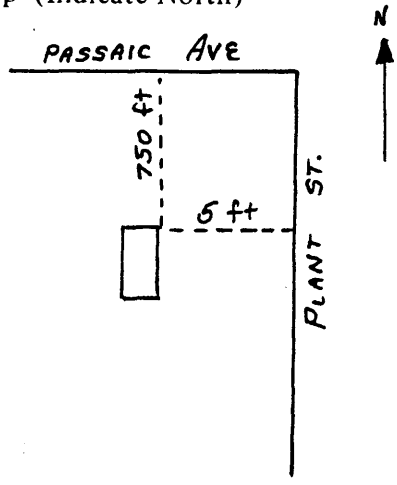
Roof/Chimneys: Composition shingle; one chimney (brick)

Additional Architectural Description:
Building is a 47' x 97' brick structure constructed during 1936 and 1937. Window surrounds (sills) consist of smooth-dressed cast stone, with flat arch vertical joint heads.
Structure is appended to south facade of 1916 Mine Office.
Building maintains excellent integrity.





Map (Indicate North)



SITING, BOUNDARY DESCRIPTION, AND RELATED STRUCTURES:

The building is located on a 32 acre parcel of land at the south-west corner of Plant Street and Passaic Avenue. It is one of a group of 10 buildings as well as other structures and objects on site related to mining activities undertaken during the period 1897-1986 by the New Jersey Zinc Co., which include mine offices, mill (ore grinding and crushing) offices, administrative offices, compressor and boiler houses, change houses, open-pit quarries and underground mines.

SURROUNDING ENVIRONMENT: Urban ☐ Suburban ☐ Scattered Buildings ☒
Open Space ☒ Woodland ☒ Residential ☒ Agricultural ☐ Village ☐
Industrial ☒ Downtown Commerical ☐ Highway Commercial ☐ Other ☐

SIGNIFICANCE: The Change House was constructed during the years 1936 and 1937 as a locker room and wash house for miners working at Sterling Hill Mine. Several units of lockers and hoist baskets (metal baskets suspended from the ceiling in which miners placed work clothes to dry overnight) are still preserved internal to the building. The building was in use from 1937 to 1986 as the Change House, and was converted into a Museum Exhibit Hall dedicated to mining history in 1989, without loss of internal integrity. No significant modifications to the external facade are apparent.

The building is highly representative of this type of structure, and exhibits excellent integrity. It is extremely unusual for a structure of this type from this era to survive intact on a mining site of this scope.

ORIGINAL USE: Change house for miners PRESENT USE: MUSEUM
PHYSICAL CONDITION: Excellent ☒ Good ☐ Fair ☐ Poor ☐
REGISTER ELIGIBILITY: Yes ☒ Possible ☐ No ☐ Part of District ☐
THREATS TO SITE: Roads ☐ Development ☐ Zoning ☐ Deterioration ☐
No Threat ☐ Other ☐

COMMENTS: Preservation is actively sought by owner of site who has converted facility into a museum dedicatedto mining history of site. Preservation of site is supported by community and local government, as well as members of special interest groups such as Franklin-Ogdensburg Mineral Society, a group dedicated to study of mineralogy and history of the mine.

REFERENCES:

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Shuster, Elwood D.
Historical Notes of the Iron and Zinc Mining Industry in Sussex County, New Jersey.
Franklin, N.J., 1927 48 p.

RECORDED BY: Daniel E. Russell DATE: 23 November 1990
ORGANIZATION: Office of City Historian
City Hall, Glen Cove New York 11542 516-676-6535

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NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF NEW JERSEY HERITAGE
INDIVIDUAL STRUCTURE SURVEY FORM

HISTORIC SITES INVENTORY NO.

HISTORIC NAME: LABORATORY
COMMON NAME:
LOCATION: 30 PLANT STREET
BLOCK/LOT Block 31, Lot 11.07

MUNICIPALITY: OGDENSBURG BOROUGH
COUNTY: SUSSEX
USGS QUAD: FRANKLIN
UTM REFERENCES:
OWNER/ADDRESS: Richard Hauck and Robert Hauck
30 Plant Street, Ogdensburg, New Jersey 07439
Zone/Easting/Northing

DESCRIPTION

Construction Date: 1920
Source of Date: New Jersey Zinc Co. Records

Architect: unknown
Builder: New Jersey Zinc Co.

Style: vernacular Industrial
Form/Plan Type: Rectangular/

Number of Stories: One (1)

Foundation: Cast concrete

Exterior Wall Fabric: Brick

Fenestration: None

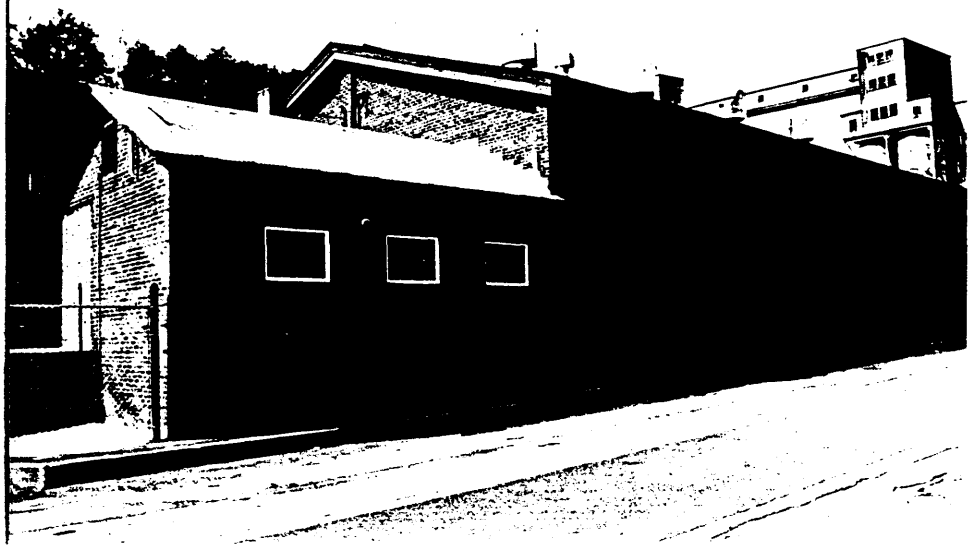
Roof/Chimneys: Composition shingle; no chimney

Additional Architectural Description:

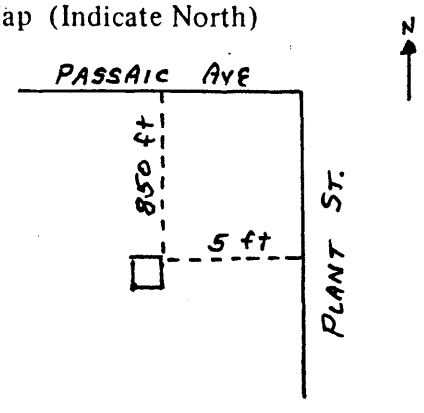
Building is a 16' x 25' brick structure with poured concrete foundation. Roof is composed of composition shingle. Window surrounds (sills) are smooth dressed cast stone, with flat arch vertical joint heads; door surrounds (head and sills) consist of smooth-dressed cast stone. One doorway located on the south facade was bricked in prior to 1986.

Building is appended to south facade of Change House. It demonstrates good integrity, despite modification of doorway.

CN 404, TRENTON, NEW JERSEY 08625 (609) 292-2023



Map (Indicate North)



SITING, BOUNDARY DESCRIPTION, AND RELATED STRUCTURES:

The building is located on a 32 acre parcel of land at the south-west corner of Plant Street and Passaic Avenue. It is one of a group of 10 buildings as well as other structures and objects on site related to mining activities undertaken during the period 1897-1986 by the New Jersey Zinc Co., which include mine offices, mill (ore grinding and crushing) offices, administrative offices, compressor and boiler houses, change houses, open-pit quarries and underground mines.

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SURROUNDING ENVIRONMENT: Urban ☐ Suburban ☐ Scattered Buildings ☒
Open Space ☒ Woodland ☒ Residential ☒ Agricultural ☐ Village ☐
Industrial ☒ Downtown Commerical ☐ Highway Commercial ☐ Other ☐

---

SIGNIFICANCE: The building was constructed in 1920 as a Sample house, were samples of ore from the mine and from the grinding circuit were analyzed for zinc content and contamination by other metals. The building was converted into a Dispensery (First Aid Station) circa 1940, without modification of the external facade of the structure. In 1974, the building was converted back into a Laboratory for a brief period, at which time a door on the south facade was bricked in. The structure was converted into restrooms circa 1980.

The building is highly representative of this type of structure, and exhibits good integrity. It is extremely unusual for a structure of this type from this era to survive intact on a mining site of this scope.

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ORIGINAL USE: LABORATORY PRESENT USE: MUSEUM
PHYSICAL CONDITION: Excellent ☐ Good ☒ Fair ☐ Poor ☐
REGISTER ELIGIBILITY: Yes ☒ Possible ☐ No ☐ Part of District ☐
THREATS TO SITE: Roads ☐ Development ☐ Zoning ☐ Deterioration ☐
No Threat ☐ Other ☐

COMMENTS: Preservation is actively sought by owner of site who has converted facility into a museum dedicatedto mining history of site. Preservation of site is supported by community and local government, as well as members of special interest groups such as Franklin-Ogdensburg Mineral Society, a group dedicated to study of mineralogy and history of the mine.

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REFERENCES:

New Jersey Zinc Co. Collection (MC672)
Alexander Library, Special Collections Div., Rutgers University, New Brunswick, New Jersey [142 boxes]

Shuster, Elwood D.
Historical Notes of the Iron and Zinc Mining Industry in Sussex County, New Jersey.
Franklin, N.J., 1927 48 p.

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RECORDED BY: Daniel E. Russell DATE: 21 November 1990
ORGANIZATION: Office of the City Historian
City Hall Bridge Street, Glen Cove N.Y. 11542 516-676-6535

-054
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NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF NEW JERSEY HERITAGE
INDIVIDUAL STRUCTURE SURVEY FORM

HISTORIC SITES INVENTORY NO.

HISTORIC NAME: MINE OFFICE (1938)
LOCATION: 30 PLANT STREET

COMMON NAME:
BLOCK/LOT Block 31, Lot 11.07

MUNICIPALITY: OGDENSBURG BOROUGH
USGS QUAD: FRANKLIN

COUNTY: SUSSEX
UTM REFERENCES:

OWNER/ADDRESS: Richard Hauck and Robert Hauck
30 Plant Street, Ogdensburg, New Jersey 07439

Zone/Easting/Northing

DESCRIPTION

Construction Date: 1937-1938

Source of Date: New Jersey Zinc Co. Records

Architect: unknown

Builder: New Jersey Zinc Co.

Style: vernacular Industrial

Form/Plan Type: Rectangular

Number of Stories: Two (2)

Foundation: Cast concrete

Exterior Wall Fabric: Brick

Fenestration: None

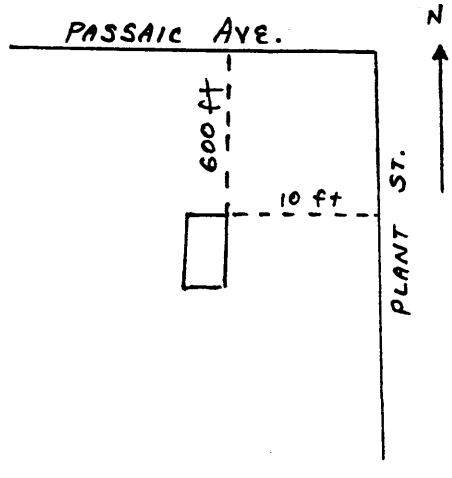
Roof/Chimneys: Roof is Zilloy, a proprietary corrugated zinc sheet manufactured by New Jersey Zinc Co.; no chimneys.

Additional Architectural Description:

Building consists of two-storey brick structure 47' by 97' with cast concrete foundation, constructed during 1937 and 1938. Windows surrounds (sills) are composed of smooth-dressed cast stone; heads consist of brick flat arch vertical joints. Roof is corrugated zinc. Structure demonstrates excellent integrity.

Building is appended to north facade of 1916 Mine Office, which it replaced.

Map (Indicate North)




CN 404, TRENTON, NEW JERSEY 08625 (609) 292-2023

SITING, BOUNDARY DESCRIPTION, AND RELATED STRUCTURES:

The building is located on a 32 acre parcel of land at the south-west corner of Plant Street and Passaic Avenue. It is one of a group of 10 buildings as well as other structures and objects on site related to mining activities undertaken during the period 1897-1986 by the New Jersey Zinc Co., which include mine offices, mill (ore grinding and crushing) offices, administrative offices, compressor and boiler houses, change houses, open-pit quarries and underground mines.

---

SURROUNDING ENVIRONMENT: Urban ☐ Suburban ☐ Scattered Buildings ☒
Open Space ☒ Woodland ☒ Residential ☒ Agricultural ☐ Village ☐
Industrial ☒ Downtown Commerical ☐ Highway Commercial ☐ Other ☐

---

SIGNIFICANCE: The building was constructed to replace a smaller office building (dating from 1916) immediately south of this structure. The building housed most of the administrative staff of the mine and milling (ore crushing) operations including the mine management and mill management, payroll and personnel offices, engineering (general and mine) departments, drafting department, and telephone switchboard. The facility continued this function until closure of the mine in 1986. The structure is currently used as museum administrative offices.

The building is highly representative of this type of structure, and exhibits excellent integrity. It is extremely unusual for a structure of this type from this era to survive intact on a mining site of this scope.

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ORIGINAL USE: Mine Office PRESENT USE: MUSEUM
PHYSICAL CONDITION: Excellent ☒ Good ☐ Fair ☐ Poor ☐
REGISTER ELIGIBILITY: Yes ☒ Possible ☐ No ☐ Part of District ☐
THREATS TO SITE: Roads ☐ Development ☐ Zoning ☐ Deterioration ☐
No Threat ☐ Other ☐

COMMENTS: Preservation is actively sought by owner of site who has converted facility into a museum dedicatedto mining history of site. Preservation of site is supported by community and local government, as well as members of special interest groups such as Franklin-Ogdensburg Mineral Society, a group dedicated to study of mineralogy and history of the mine.

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REFERENCES:

New Jersey Zinc Co. Collection (MC672)
Alexander Library, Special Collections Div., Rutgers University, New Brunswick, New Jersey [142 boxes]

Shuster, Elwood D.
Historical Notes of the Iron and Zinc Mining Industry in Sussex County, New Jersey. Franklin, N.J. 1927 48 p.

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RECORDED BY: Daniel E. Russell DATE: 21 November 1990
ORGANIZATION: Office of City Historian
City Hall, Glen Cove, New York 11542 516-676-6535

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NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF NEW JERSEY HERITAGE
INDIVIDUAL STRUCTURE SURVEY FORM

HISTORIC SITES INVENTORY NO.

HISTORIC NAME: MINE OFFICE (1916)
COMMON NAME: EXECUTIVE CHANGE HOUSE
LOCATION: 30 PLANT STREET
BLOCK/LOT Block 31, Lot 11.07

MUNICIPALITY: OGDENSBURG BOROUGH
COUNTY: SUSSEX
USGS QUAD: FRANKLIN
UTM REFERENCES: Zone/Easting/Northing
OWNER/ADDRESS: Richard Hauck and Robert Hauck
30 Plant Street, Ogdensburg, New Jersey 07439

DESCRIPTION

Construction Date: 1916
Source of Date: New Jersey Zinc Co. Records

Architect: unknown
Builder: New Jersey Zinc Co.

Style: vernacular Industrial
Form/Plan Type:

Number of Stories: One (1)

Foundation: Cast concrete

Exterior Wall Fabric: Brick

Fenestration: None

Roof/Chimneys: Composition shingle; no chimney

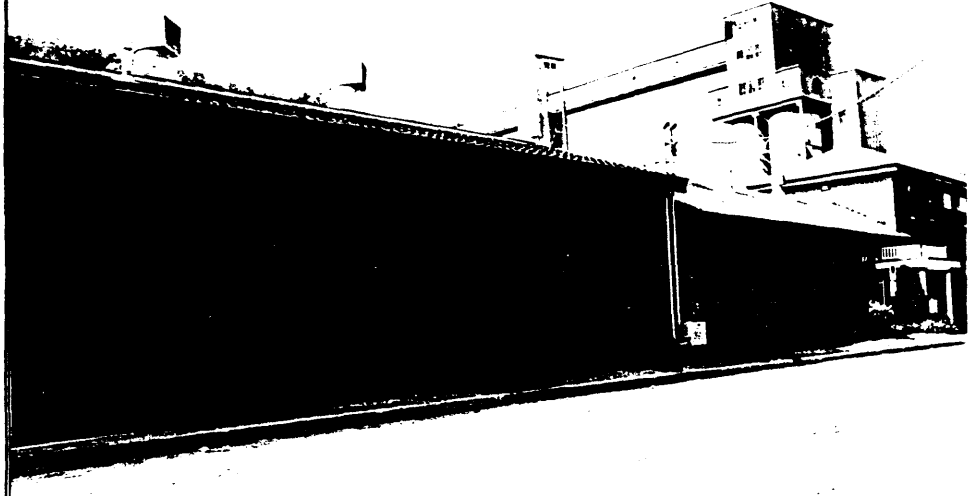
Additional Architectural Description:

Building is a 22' by 53' brick structure with cast concrete foundation built in 1916. Window surrounds (heads and sills) consist of smooth-dressed cast stone. An atrium is located on the northern facade connecting building with 1938 Mine Office building; the atrium opens onto the main roadway through a wood porch approximately 12' x 12', topped by decorative balastrades.

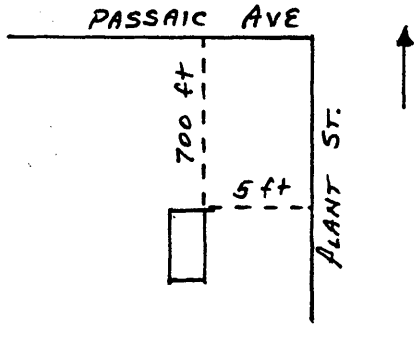
Structural evidence indicates windows on east facade have been reduced in height; on west facade, window positions have been changed and similarly reduced, as well as creation of a large doorway circa 1948 which is presumed to facilitate conversion from office to boiler room.

Building was converted from Mine Office to Executive Change House (management locker rooms) and boiler room in 1948. Integrity is moderate to good, especially along east facade overlooking main road.

CN 404, TRENTON, NEW JERSEY 08625 (609) 292-2023



Map (Indicate North)



SITING, BOUNDARY DESCRIPTION, AND RELATED STRUCTURES:

The building is located on a 32 acre parcel of land at the south-west corner of Plant Street and Passaic Avenue. It is one of a group of 10 buildings as well as other structures and objects on site related to mining activities undertaken during the period 1897-1986 by the New Jersey Zinc Co., which include mine offices, mill (ore grinding and crushing) offices, administrative offices, compressor and boiler houses, change houses, open-pit quarries and underground mines.

---

SURROUNDING ENVIRONMENT: Urban ☐ Suburban ☐ Scattered Buildings ☒
Open Space ☒ Woodland ☒ Residential ☒ Agricultural ☐ Village ☐
Industrial ☒ Downtown Commerical ☐ Highway Commercial ☐ Other ☐

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SIGNIFICANCE: The building was constructed as the first Mine Office for the Sterling Hill Mine in 1916. The facility housed most of the administrative staff of the mine, including mine management, mill management, payroll and personnel departments, engineering (general and mine) departments, and drafting department, as well as the telephone switchboard. In 1938, with the construction of the new Mine Office Building to the north, the structure was surplanted, and in 1948 converted into an Executive Change House (locker room) and boiler house with some loss of initial integrity, especially with respect to the western facade.

The building is highly representative of this type of structure, and survives with moderate integrity. It is extremely unusual for a structure of this type from this era to survive intact on a mining site of this scope.

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ORIGINAL USE: Mine Office PRESENT USE: Museum
PHYSICAL CONDITION: Excellent ☐ Good ☒ Fair ☐ Poor ☐
REGISTER ELIGIBILITY: Yes ☒ Possible ☐ No ☐ Part of District ☐
THREATS TO SITE: Roads ☐ Development ☐ Zoning ☐ Deterioration ☐
No Threat ☐ Other ☐

COMMENTS:

Preservation is actively sought by owner of site who has converted facility into a museum dedicated to mining history of site. Preservation of site is supported by community and local government, as well as members of special interest groups such as Franklin-Ogdensburg Mineral Society, a group dedicated to study of mineralogy and history of the mine.

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REFERENCES:

New Jersey Zinc Co. Collection (MC672)
Alexander Library, Special Collections Div., Rutgers University, New Brunswick, New Jersey [142 boxes]

Shuster, Elwood D.
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Franklin, N.J., 1927 48 p.

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RECORDED BY: Daniel E. Russell DATE: 21 November 1990
ORGANIZATION: Office of the City Historian
City Hall, Glen Cove, New York 11542 516-676-6535

F-054
36

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF NEW JERSEY HERITAGE
INDIVIDUAL STRUCTURE SURVEY FORM — HISTORIC SITES INVENTORY NO.

HISTORIC NAME: FILL QUARRY
LOCATION: 30 PLANT STREET
COMMON NAME:
BLOCK/LOT Block 31, Lot 11.07

MUNICIPALITY: OGDENSBURG BOROUGH
COUNTY: SUSSEX
USGS QUAD: FRANKLIN
UTM REFERENCES: Zone/Easting/Northing
OWNER/ADDRESS: Richard Hauck and Robert Hauck
30 Plant Street, Ogdensburg, New Jersey 07439

DESCRIPTION

Construction Date: ca. 1916
Source of Date: New Jersey Zinc Co. Records

Architect: unknown
Builder: New Jersey Zinc Co.

Style: vernacular open-pit mine
Form/Plan Type: Irregular

Number of Stories: n/a

Foundation: n/a

Exterior Wall Fabric: n/a

Fenestration: n/a

Roof/Chimneys: n/a

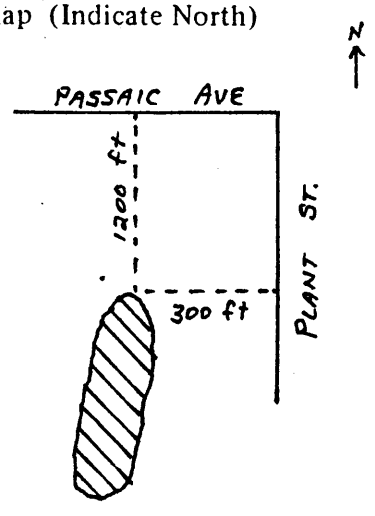
Additional Architectural Description:

Mine consists of open-pit quarry using traditional quarrying techniques. Mine covers are area of apprximately 100 x 300 feet, with a maximum depth of 70 feet below ground surface.

Mine maintains excellent integrity.

CN 404, TRENTON, NEW JERSEY 08625 (609) 292-2023

Map (Indicate North)



SITING, BOUNDARY DESCRIPTION, AND RELATED STRUCTURES:

The open-pit mine is located on a 32 acre parcel of land at the south-west corner of Plant Street and Passaic Avenue. It is related to a group of 10 buildings as well as other structures and objects on site related to mining activities undertaken during the period 1897-1986 by the New Jersey Zinc Co., which include mine offices, mill (ore grinding and crushing) offices, administrative offices, compressor and boiler houses, change houses, open-pit quarries and underground mines.

---

SURROUNDING ENVIRONMENT: Urban ☐ Suburban ☐ Scattered Buildings ☒
Open Space ☒ Woodland ☒ Residential ☒ Agricultural ☐ Village ☐
Industrial ☒ Downtown Commerical ☐ Highway Commercial ☐ Other ☐

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SIGNIFICANCE: The Fill Quarry was used during the period circa 1916 to circa 1950 to provide broken and crushed stone to the underground workings of the Sterling Hill Mine for the purpose of back-filling stopes and for general engineering purposes underground. Broken rock remove from the Fill Quarry was dropped down a shaft on the northern perimeter of the quarry and distributed underground as needed.

The quarry is highly representative of this type of structure, and exhibits excellent integrity.

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ORIGINAL USE: open-pit mine PRESENT USE: museum
PHYSICAL CONDITION: Excellent ☐ Good ☒ Fair ☐ Poor ☐
REGISTER ELIGIBILITY: Yes ☒ Possible ☐ No ☐ Part of District ☐
THREATS TO SITE: Roads ☐ Development ☐ Zoning ☐ Deterioration ☐
No Threat ☐ Other ☐
COMMENTS: Preservation is actively sought by owner of site who has converted facility into a museum dedicatedto mining history of site. Preservation of site is supported by community and local government, as well as members of special interest groups such as Franklin-Ogdensburg Mineral Society, a group dedicated to study of mineralogy and history of the mine.

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REFERENCES:

New Jersey Zinc Co. Collection (MC672)
Alexander Library, Special Collections Div., Rutgers University, New Brunswick, New Jersey [142 boxes]

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RECORDED BY: Daniel E. Russell DATE: 23 November 1990
ORGANIZATION: Office of City Historian
City Hall, Glen Cove, New York 11542 516-676-6535

F-054
86

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF NEW JERSEY HERITAGE
INDIVIDUAL STRUCTURE SURVEY FORM

HISTORIC SITES INVENTORY NO.

HISTORIC NAME: NOBLE MINE
LOCATION: 30 PLANT STREET

COMMON NAME:
BLOCK/LOT Block 31, Lot 11.07

MUNICIPALITY: OGDENSBURG BOROUGH
USGS QUAD: FRANKLIN
OWNER/ADDRESS: Richard Hauck and Robert Hauck
30 Plant Street, Ogdensburg, New Jersey 07439

COUNTY: SUSSEX
UTM REFERENCES:
Zone/Easting/Northing

DESCRIPTION

Construction Date: ca. 1840 to 1897

Source of Date: New Jersey Zinc Co. Records

Architect: unknown

Builder: various

Style: vernacular open-pit mine

Form/Plan Type: irregular

Number of Stories: n/a

Foundation: n/a

Exterior Wall Fabric: n/a

Fenestration: n/a

Roof/Chimneys: n/a

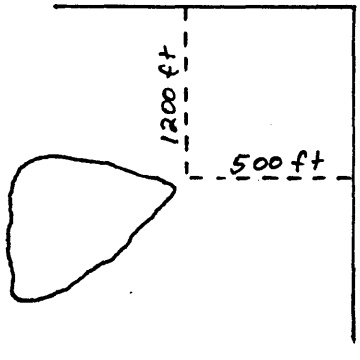
Additional Architectural Description:

Mine consists of open-pit quarry using traditional quarrying techniques. Mine covers an area of approximately 400 x 250 feet, with a maximum depth below ground level of 160 feet.

Mine maintains excellent integrity.

CN 404, TRENTON, NEW JERSEY 08625 (609) 292-2023

Map (Indicate North)



SITING, BOUNDARY DESCRIPTION, AND RELATED STRUCTURES:

The open-pit mine is located on a 32 acre parcel of land at the south-west corner of Plant Street and Passaic Avenue. It is related to a group of 10 buildings as well as other structures and objects on site related to mining activities undertaken during the period 1897-1986 by the New Jersey Zinc Co., which include mine offices, mill (ore grinding and crushing) offices, administrative offices, compressor and boiler houses, change houses, open-pit quarries and underground mines.

SURROUNDING ENVIRONMENT: Urban ☐ Suburban ☐ Scattered Buildings ☒
Open Space ☒ Woodland ☒ Residential ☒ Agricultural ☐ Village ☐
Industrial ☒ Downtown Commerical ☐ Highway Commercial ☐ Other ☐

SIGNIFICANCE: The Noble mine has an extremely convoluted history, with numerous conflicting titles to mineral rights, specifically iron and zinc ores. It was common practice that two or more companies would be engaged in mining activities in the open-pit mine exploiting the same ore for separate minerals.

Mining of zinc was conducted as early as 1853 by the National Paint Co. until the company went bankrupt and was liquidated ca. 1860. Due to a technical oversight, the property was sold twice:once by the Sheriff of Sussex County, followed by Receiver of the State of New Jersey, to separate parties. This resulted in some confusion relative to ownership, and, in the period 1861-1896, the property was mined by 5 separate companies or individuals who claimed ownership, including the Manganese Iron Ore Co.; George W. Jewitt, William C. Squire, and Henry Aitkin; John Silsby; and Edward Cooper and Abram S. Hewitt, wealthy New York City merchants and philanthropists.

Iron mining was conducted as early as 1853 by the Sussex Iron Co., followed by the Franklinite Steel Co. in 1855. In 1871, their holdings were sold to the Franklinite Steel and Zinc Co.

Ultimately, all titles were transferred to the Passaic Zinc Co. in 1896, and brought to the New Jersey Zinc Co. in 1897 by merger of the former company with other interests. Open-pit mining was terminated ca. 1897.

The quarry is highly representative of this type of structure, and exhibits excellent integrity.

ORIGINAL USE: Mine PRESENT USE: Museum
PHYSICAL CONDITION: Excellent ☒ Good ☐ Fair ☐ Poor ☐
REGISTER ELIGIBILITY: Yes ☒ Possible ☐ No ☐ Part of District ☐
THREATS TO SITE: Roads ☐ Development ☐ Zoning ☐ Deterioration ☐
No Threat ☐ Other ☐

COMMENTS: Preservation is actively sought by owner of site who has converted facility into a museum dedicatedto mining history of site. Preservation of site is supported by community and local government, as well as members of special interest groups such as Franklin-Ogdensburg Mineral Society, a group dedicated to study of mineralogy and history of the mine.

REFERENCES:

New Jersey Zinc Co. Collection (MC672)
Alexander Library, Special Collections Div., Rutgers University, New Brunswick, New Jersey [142 boxes]

Shuster, Elwood D.
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Franklin, N.J., 1927 48 p.

RECORDED BY: Daniel E. Russell DATE: 23 November 1990
ORGANIZATION: Office of City Historian
City Hall, Glen Cove, NY 11542 516-676-6535

PF-054
/86

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF NEW JERSEY HERITAGE
INDIVIDUAL STRUCTURE SURVEY FORM

HISTORIC SITES INVENTORY NO.

HISTORIC NAME: PASSAIC MINE
COMMON NAME:
LOCATION: 30 PLANT STREET
BLOCK/LOT Block 31, Lot 11.07

MUNICIPALITY: OGDENSBURG BOROUGH
COUNTY: SUSSEX
USGS QUAD: FRANKLIN
UTM REFERENCES:
OWNER/ADDRESS: Richard Hauck and Robert Hauck
30 Plant Street, Ogdensburg, New Jersey 07439
Zone/Easting/Northing

DESCRIPTION

Construction Date: ca. 1840-1897
Source of Date: New Jersey Zinc. Co. Records

Architect: unknown
Builder: Various

Style: Vernacular open-pit mine
Form/Plan Type: Irregular

Number of Stories: n/a

Foundation: n/a

Exterior Wall Fabric: n/a

Fenestration: n/a

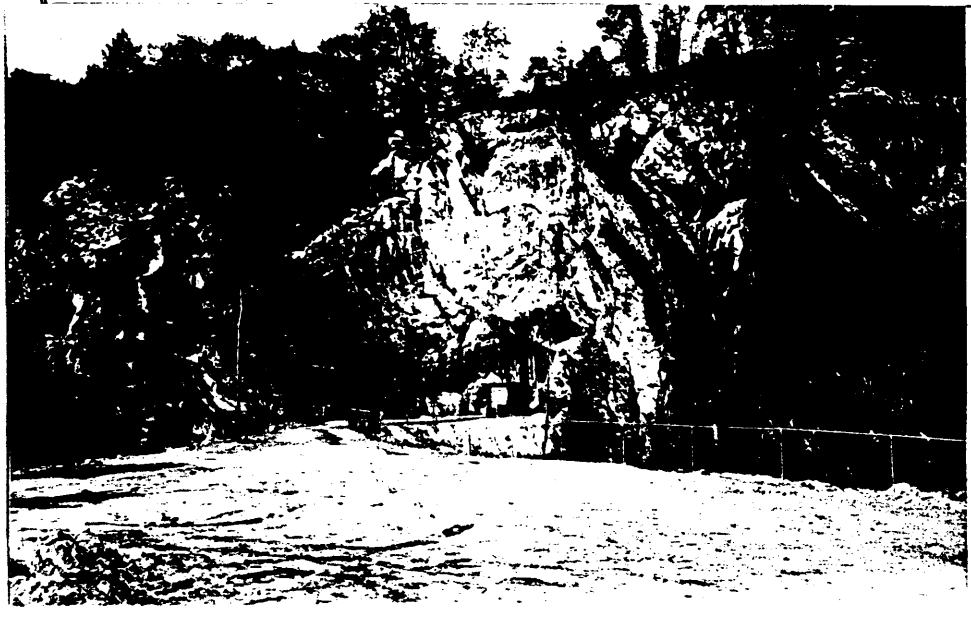
Roof/Chimneys: n/a

Additional Architectural Description:

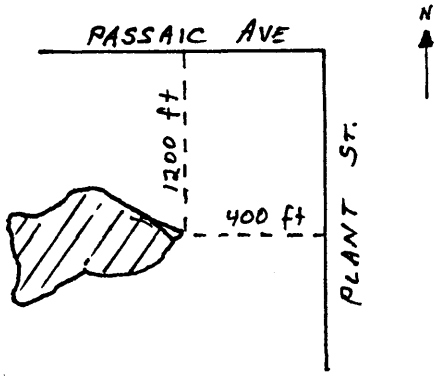
Mine consists of open-pit quarry using traditional quarrying techniques. Mine covers an area of approximately 400 x 250 feet, with a maximum depth of 160 feet below ground surface.

Mine maintains excellent integrity.

CN 404, TRENTON, NEW JERSEY 08625 (609) 292-2023



Map (Indicate North)



SITING, BOUNDARY DESCRIPTION, AND RELATED STRUCTURES:

The open-pit mine is located on a 32 acre parcel of land at the south-west corner of Plant Street and Passaic Avenue. It is related to a group of 10 buildings as well as other structures and objects on site related to mining activities undertaken during the period 1897-1986 by the New Jersey Zinc Co., which include mine offices, mill (ore grinding and crushing) offices, administrative offices, compressor and boiler houses, change houses, open-pit quarries and underground mines.

SURROUNDING ENVIRONMENT: Urban ☐ Suburban ☐ Scattered Buildings ☒
Open Space ☒ Woodland ☒ Residential ☒ Agricultural ☐ Village ☐
Industrial ☒ Downtown Commerical ☐ Highway Commercial ☐ Other ☐

SIGNIFICANCE: Mining activities on site were initiated as early as 1770, when William Alexander (Lord Stirling) undertook to mine iron on site. In 1836, the property was sold to the Franklin Manufacturing Co., who actively mined zinc and iron on site; in 1850, the property was sold to the Consolidated Exploring and Mining Co., who transferred the property to the Passaic Zinc Co. in 1853. The Passaic Zinc Co. actively mined the site from 1853 to 1897, at which time the company merged with the New Jersey Zinc Co. Surface mining activities were suspended at that time.

ORIGINAL USE: Mine PRESENT USE: Museum
PHYSICAL CONDITION: Excellent ☒ Good ☐ Fair ☐ Poor ☐
REGISTER ELIGIBILITY: Yes ☒ Possible ☐ No ☐ Part of District ☐
THREATS TO SITE: Roads ☐ Development ☐ Zoning ☐ Deterioration ☐
No Threat ☐ Other ☐

COMMENTS: Preservation is actively sought by owner of site who has converted facility into a museum dedicated to mining history of site. Preservation of site is supported by community and local government, as well as members of special interest groups such as Franklin-Ogdensburg Mineral Society, a group dedicated to study of mineralogy and history of the mine.

REFERENCES:

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RECORDED BY: Daniel E. Russell. DATE: 23 November 1990
ORGANIZATION: City Historian
City Hall, Glen Cove, N.Y. 11542 516-676-6535

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86

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF NEW JERSEY HERITAGE
INDIVIDUAL STRUCTURE SURVEY FORM

HISTORIC SITES INVENTORY NO.

HISTORIC NAME: STERLING HILL MINE (UNDERGROUND) COMMON NAME:
LOCATION: 30 PLANT STREET BLOCK/LOT Block 31, Lot 11.07

MUNICIPALITY: OGDENSBURG BOROUGH COUNTY: SUSSEX
USGS QUAD: FRANKLIN UTM REFERENCES:
OWNER/ADDRESS: Richard Hauck and Robert Hauck Zone/Easting/Northing
30 Plant Street, Ogdensburg, New Jersey 07439

DESCRIPTION

Construction Date: 1912-1986 Source of Date: New Jersey Zinc Co. Records

Architect: n/a Builder: New Jersey Zinc Co.

Style: vernacular Mine Form/Plan Type: irregular

Number of Stories: n/a

Foundation: n/a

Exterior Wall Fabric: n/a

Fenestration: n/a

Roof/Chimneys: n/a

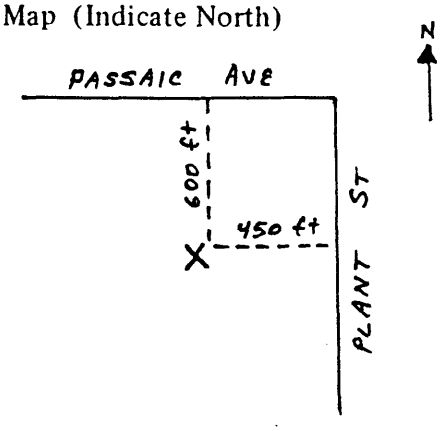
Additional Architectural Description:

Mine consists of adits, underground tunnels, and shafts. Operational levels of the mine are located at 180, 340, 430, 500, 600, 700, 800, 900, 1000, 1100, 1200, 1300, 1400, 1500, 1600, 1680, 1750, 1850, 1950, 2050, 2150, 2250, 2350, 2450, 2550 feet below ground surface, with levels to 1680 foot in existence by 1922. Mining technique was a variation of traditional stoping method.

Mine maintains excellent integrity.

CN 404, TRENTON, NEW JERSEY 08625 (609) 292-2023


Map (Indicate North)



SITING, BOUNDARY DESCRIPTION, AND RELATED STRUCTURES:

The underground workings of the Sterling Hill Mine are located on a 32 acre parcel of land at the south-west corner of Plant Street and Passaic Avenue. It connects Plant Street with the Noble Mine open-pit mine. It is related to a group of 10 buildings as well as other structures and objects on site related to mining activities undertaken during the period 1897-1986 by the New Jersey Zinc Co., which include mine offices, mill (ore grinding and crushing) offices, administrative offices, compressor and boiler houses, change houses, open-pit quarries and underground mines.

SURROUNDING ENVIRONMENT: Urban ☐ Suburban ☐ Scattered Buildings ☒
Open Space ☒ Woodland ☒ Residential ☒ Agricultural ☐ Village ☐
Industrial ☒ Downtown Commerical ☐ Highway Commercial ☐ Other ☐

SIGNIFICANCE: In 1897, when three zinc and iron mines on site were consolidated under one company, the New Jersey Zinc Co., an ambitious program of mine development was initiated on site, concentrating on underground, as opposed to open-pit, mining. The decision to use the former technique over the latter was largely economic: previous mining activities had removed ore to a sufficient depth it was no longer cost effective to continue utilizing open-pit mining technology.

Extensive underground workings were initiated, with levels of tunnels laid out at approximately 100 foot intervals of depth, and by 1922 levels existed from 180 feet deep to 1680 feet deep. The tunnels followed the basic shape of the orebody; the primary mining technique in use was stoping, the excavation of ore either above or below the tunnel with subsequent filling of voids left by ore removal with waste rock. Ultimately, tunnels to a depth of approximately 2500 feet were established.

Mining activities were terminated in 1986.

The mine is highly representative of this type of structure, and exhibits excellent integrity. Further, the preservation of extensive underground workings is uncommon to rare.

ORIGINAL USE: Mine PRESENT USE: Museum
PHYSICAL CONDITION: Excellent ☐ Good ☒ Fair ☐ Poor ☐
REGISTER ELIGIBILITY: Yes ☒ Possible ☐ No ☐ Part of District ☐
THREATS TO SITE: Roads ☐ Development ☐ Zoning ☐ Deterioration ☐
No Threat ☐ Other ☒ FLOODING OF MINE

COMMENTS: Preservation is actively sought by owner of site who has converted facility into a museum dedicatedto mining history of site. Preservation of site is supported by community and local government, as well as members of special interest groups such as Franklin-Ogdensburg Mineral Society, a group dedicated to study of

REFERENCES:

New Jersey Zinc Co. Collection (MC672)
Alexander Library, Special Collections Div., Rutgers University, New Brunswick, New Jersey [142 boxes]

Shuster, Elwood D.
Historical Notes of the Iron and Zinc Mining Industry in Sussex County, New Jersey.
Franklin, N.J., 1927 48 p.

RECORDED BY: Daniel E. Russell DATE: 23 November 1990
ORGANIZATION: Office of City Historian
City Hall, Glen Cove, NY 11542 516-676-6535

2500 N.

3000 N.

3500 N.

EMERGEN

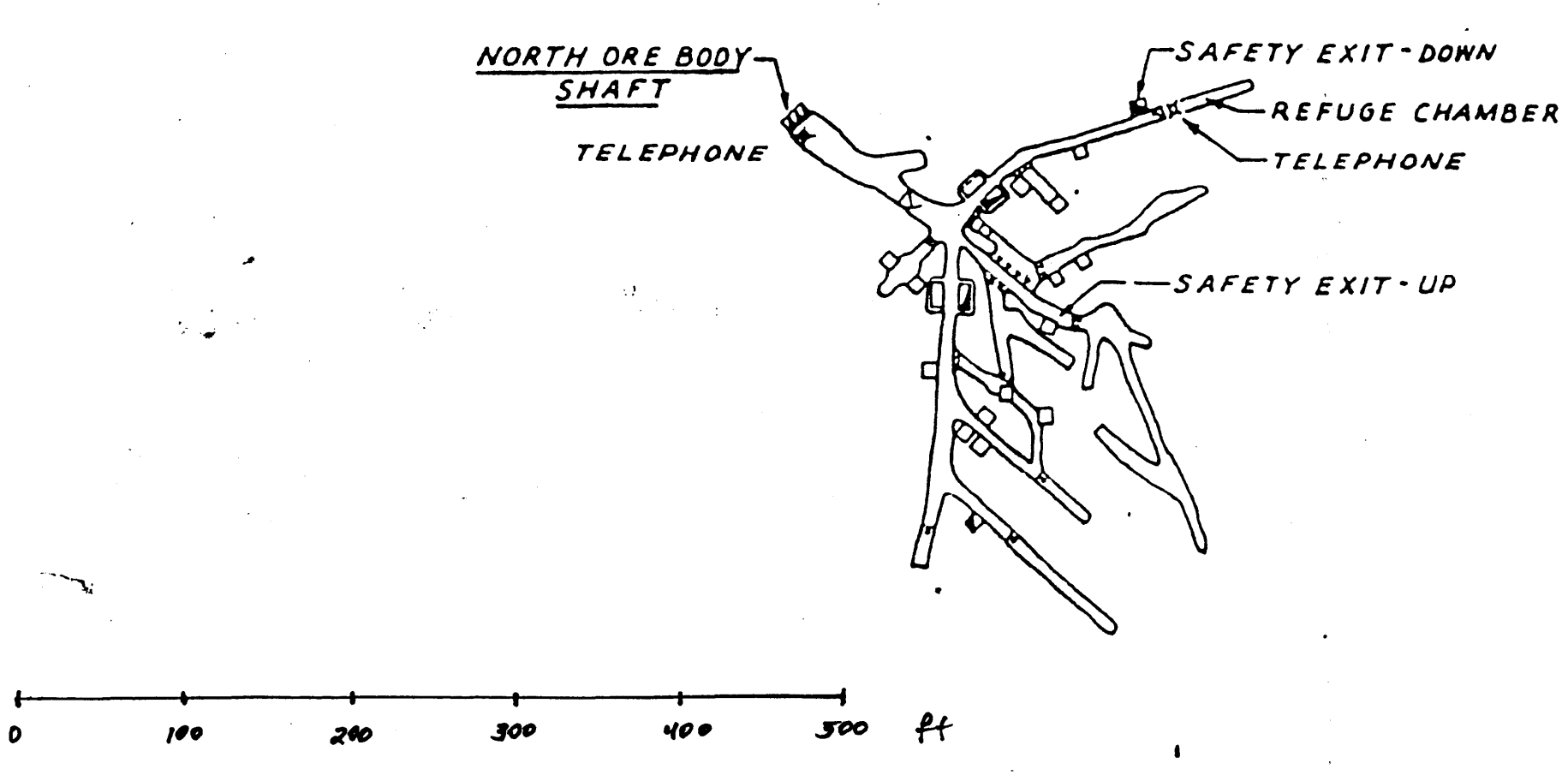
SCALE: 1"=1

Sterling Hill Mine, Ogdensburg Borough, Sussex County, NJ

2450 LEVEL
STERLING HILL MINE

SCALE 1" = 100'

NORTH




LEGEN

- DIRECTION OF AIR FLO
- VENTILATION DO
- RAISE UP
- RAISE DOWN
- RAISE UP
- BULKHEAD DOORS
- INACCESSIBLE AREA
- BRATTICE
- UPCAST
- DOWNCAST

MAP OF 2450
SHOWIN
AIR FLOW DIRE
10
EMER FA

2550 LEVEL
STERLING HILL MINE
SCALE 1"= 100'

NORTH

NORTH ORE BODY
SHAFT

SAFETY EXIT

TELEPHONE

PUMPING STATION

SUMP

SUMP

0 100 200 300 400 500 ft

2500 N.

3000 N.

3500 N.

LEGEND

DIRECTION OF VENTILATION

RAISE UP

RAISE DOWN

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BRATTICE

UPCAST

DOWNCAST

MAP O. _
SHOWING
AIR FLOW DIRE
AND
EMERGENC FA
100

500 N.

1000 N.

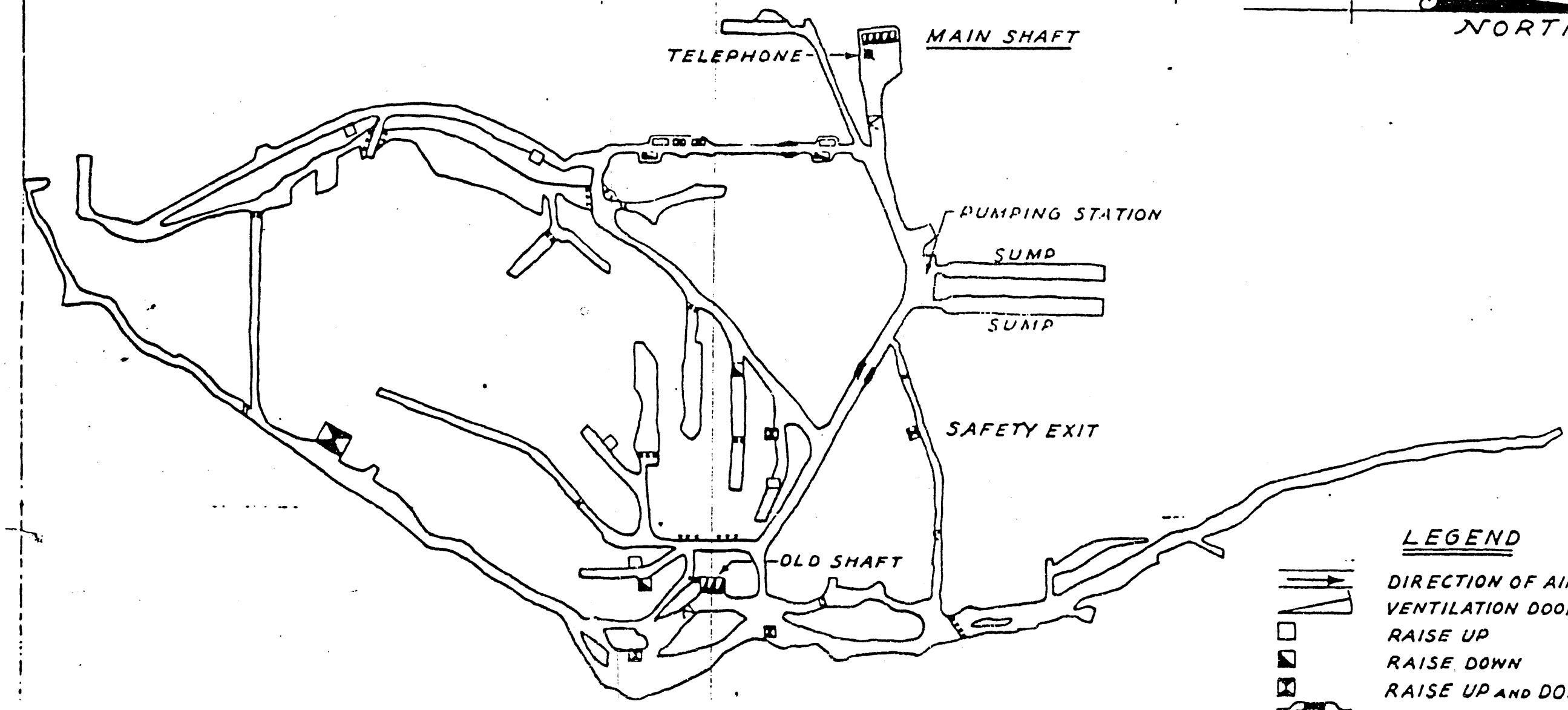
1500 N.

EME

500 LEVEL
STERLING HILL MINE
SCALE 1" = 100'

Sterling Hill Mine, Ogdensburg Borough, Sussex County, NJ

0 100 200 300 400 500 Ft




NORTH

2000 N.

LEGEND

- DIRECTION OF AIR FLOW
- VENTILATION DOORS
- RAISE UP
- RAISE DOWN
- RAISE UP AND DOWN
- BULKHEAD DOORS
- INACCESSIBLE AREA
- BRATTICE
- UPCAST

MAP O
S
AIR FLO

500 N.

1000 N.

1500 N.

# EMERGE.
SCAL

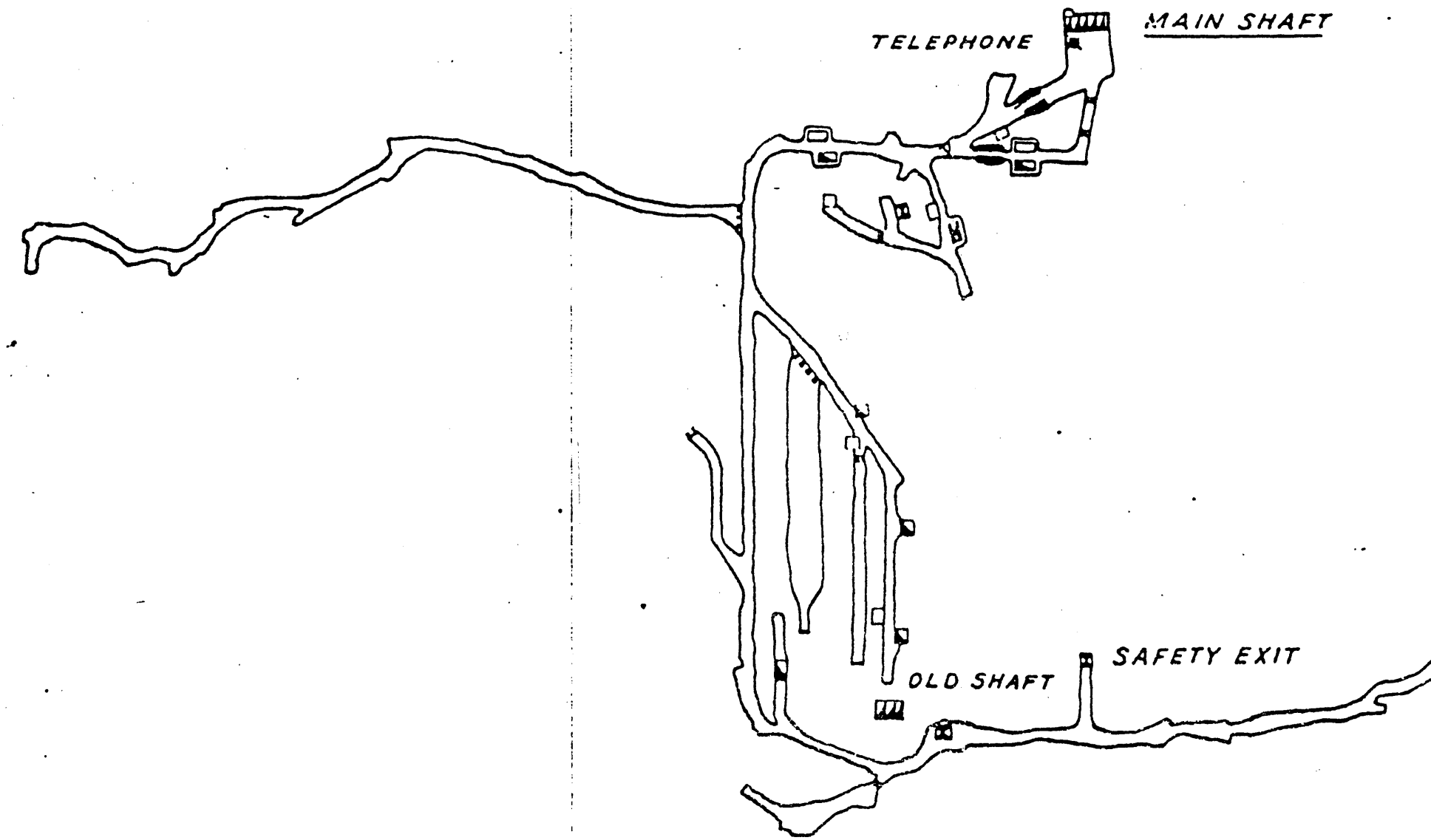
430 LEVEL
STERLING HILL MINE

Sterling Hill Mine, Ogdensburg Borough, Sussex County, NJ

SCALE 1" = 100'

0 100 200 300 400 500 Ft

NORTH




## LEGEND

- DIRECTION OF AIR FLOW
- VENTILATION DOORS
- RAISE UP
- RAISE DOWN
- RAISE UP AND DOWN
- BULKHEAD DOORS
- INACCESSIBLE ARE
- BRATTICE
- UPCAST
- DOWNCAST

MAP OF 4
SHOW
AIR FLOW D
AN
EM... ...ICY

500 N.

1000 N.

2000 N.

500'

1500N

1500W

EMERGENCY

SCALE: 1"

340

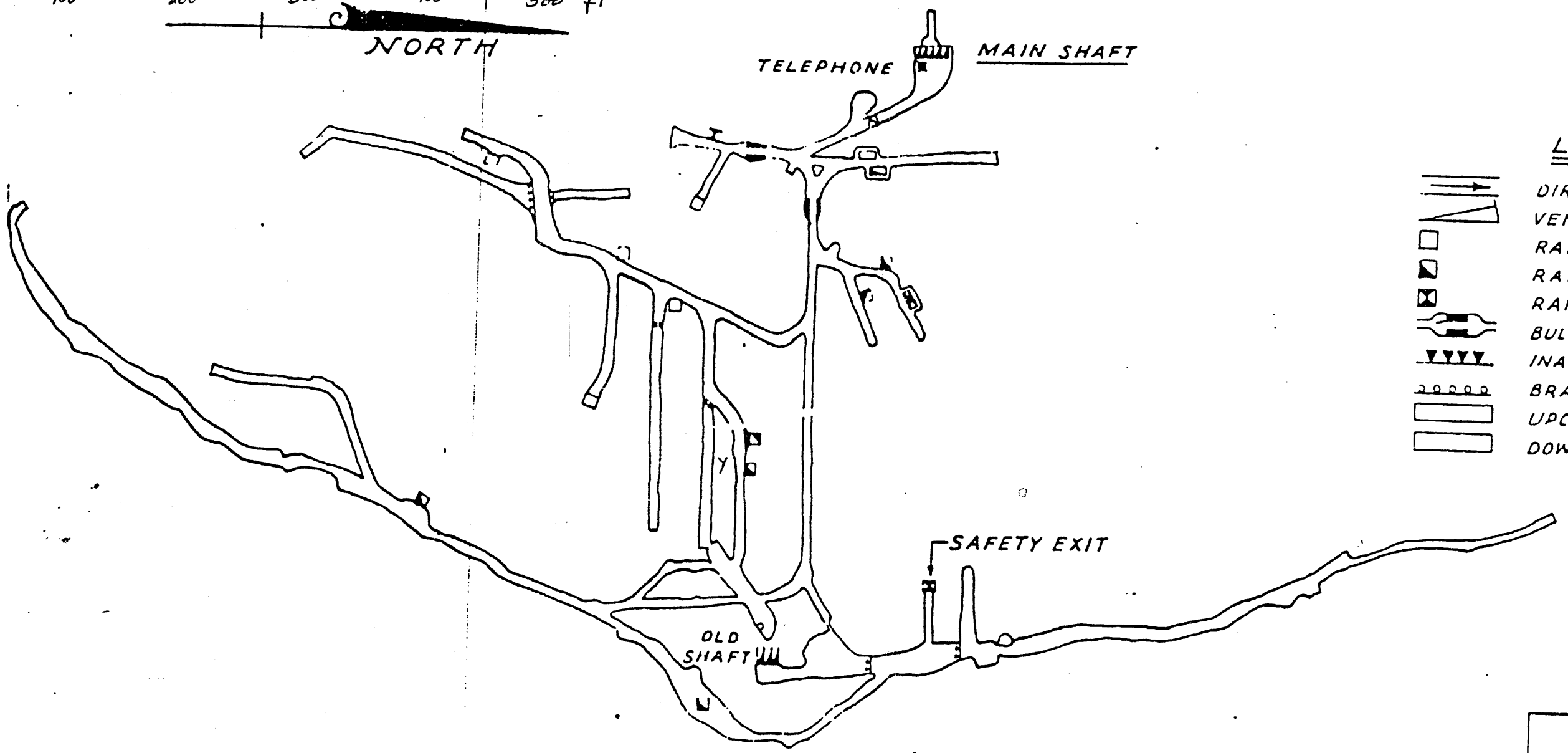
Sterling Hill Mine, Ogdensburg
Borough, Sussex County, NJ

340 LEVEL
STERLING HILL MINE

SCALE 1" = 100'

0 100 200 300 400 500 ft

NORTH




LEGEND

- DIRECTION OF AIR FLOW
- VENTILATION DOORS
- RAISE UP
- RAISE DOWN
- RAISE UP AND DOWN
- BULKHEAD DOORS
- INACCESSIBLE AREA
- BRATTICE
- UPCAST
- DOWNCAST

2000 N.

MAP OF 340
SHOWIN
AIR FLOW DIR
AND
EMERGENCY F

500 N.

1000 N.

500 N.

Sterling Hill Mine, Ogdensburg
Borough, Sussex County, NJ

180 LEVEL
STERLING HILL MINE
SCALE 1" = 100'

0 100 200 300 400 500 ft

NORTH

TELEPHONE

MAIN SHAFT

MIXING STATION

SAFETY EXIT

OLD SHAFT

500N.

1000N.

1500N.

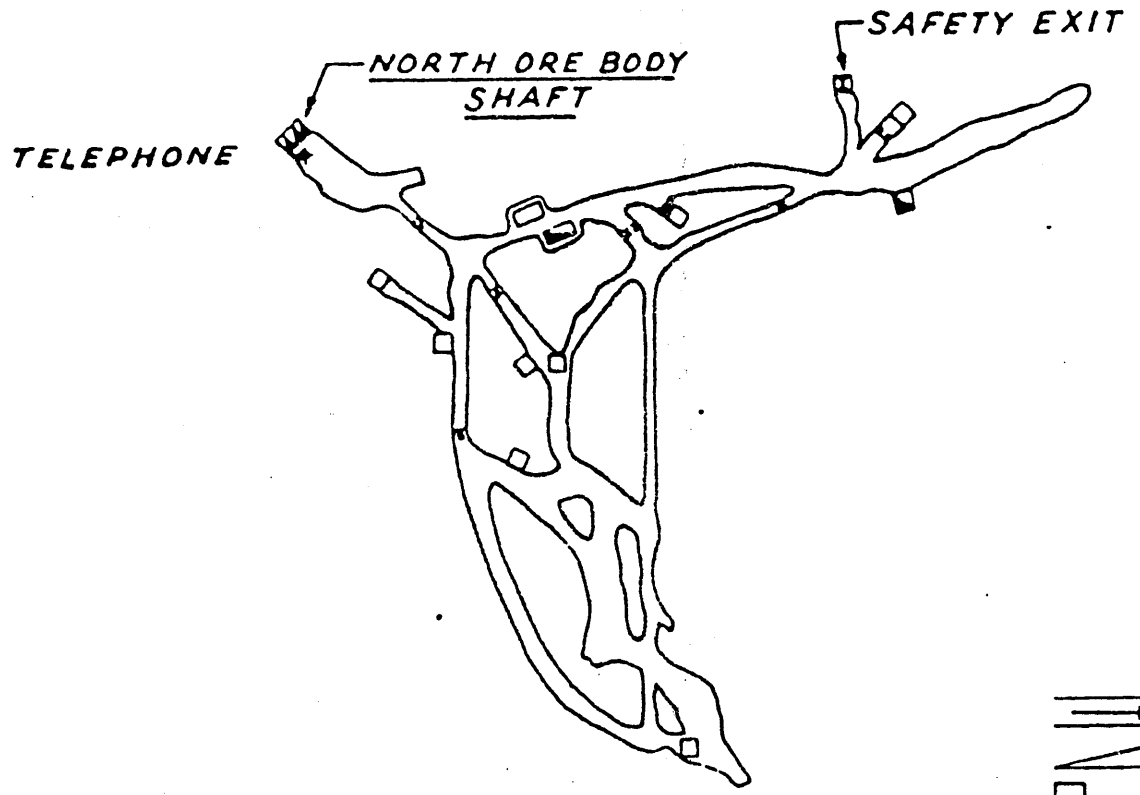
LEGEND

DIRECTION OF AIR F.
VENTILATION DOORS
RAISE UP
RAISE DOWN
RAISE UP AND DOWN
BULKHEAD DOORS
INACCESSIBLE
BRATTICE
UPCAST
DOWNC

MAP
S
AIR FL
EMERG
SC

2150 LEVEL
STERLING HILL MINE
SCALE 1" = 100'

NORTH




0 100 200 300 400 500 ft

2000 N.
2500 N.
3000 N.
3500 N.

LEGEND

- DIRECTION OF AIR FLOW
- VENTILATION DOORS
- RAISE UP
- RAISE DOWN
- RAISE UP AND DOWN
- BULKHEAD DOORS
- INACCESSIBLE AREA
- BRATTICE
- UPCAST
- DOWNCAST

# MAP OF 2150
# SHOWIN
# AIR FLOW DIRE
# AND
# EMERGENCY FA

SCALE: 1" = 100

Sterling Hill Mine, Ogdensburg Borough, Sussex County, NJ

1600 LEVEL
STERLING HILL MINE
SCALE 1" = 100'

NORTH

TELEPHONE

MAIN SHAFT

SAFETY EXIT

OLD SHAFT

0 100 200 300 400 500 ft

1000 N.

1500 N.

2000 N.

2500 N.

LEGEND

- DIRECTION OF AIR FLOW
- VENTILATION DOORS
- RAISE UP
- RAISE DOWN
- RAISE UP AND DOWN
- BULKHEAD DOORS
- INACCESSIBLE AREA
- BRATTICE
- UPCAST
- DOWNCAST

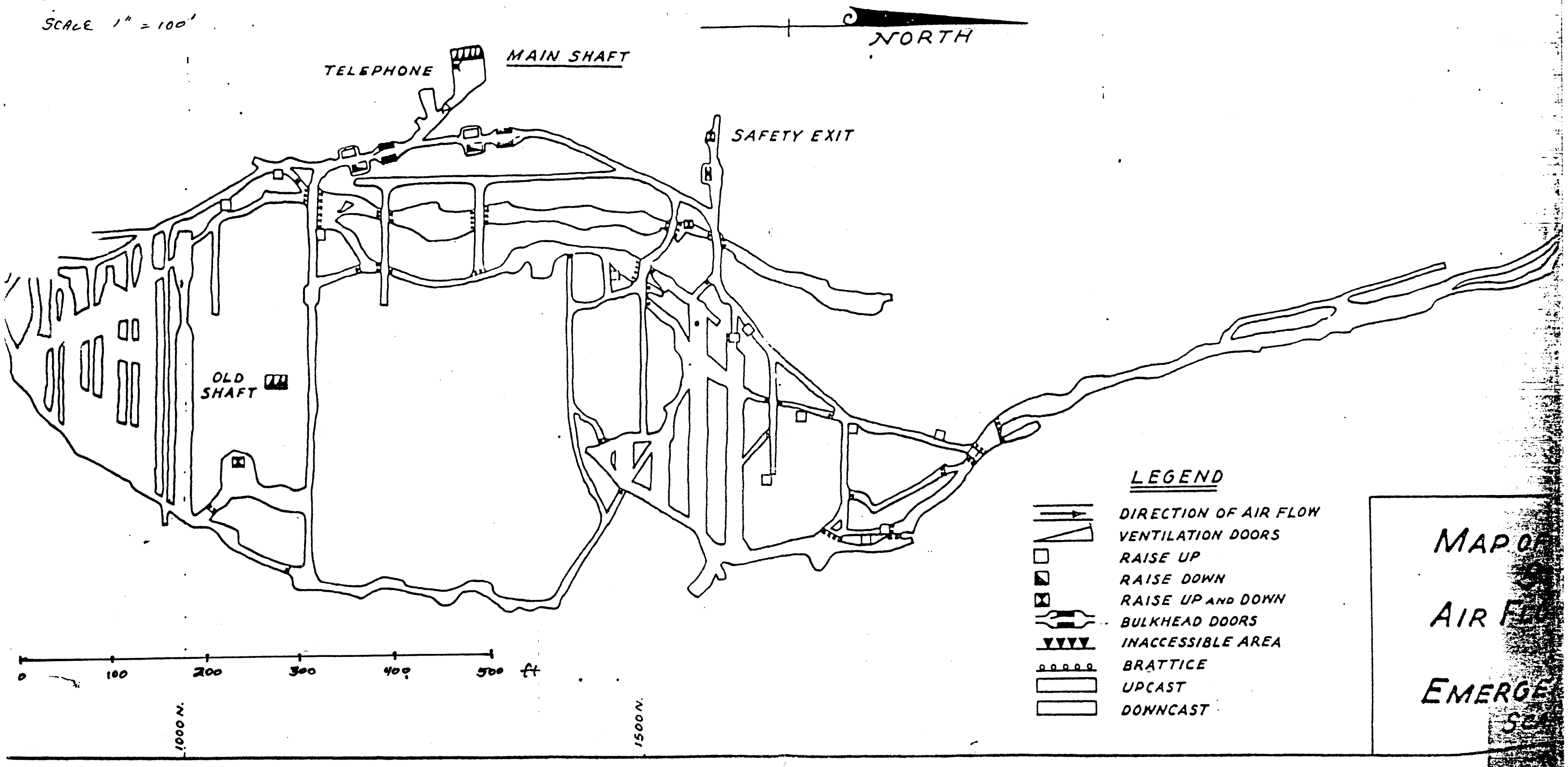
MAP OF
SH
AIR FLOW

EMERGEN

SCALE

1500 LEVEL
STERLING HILL MINE
SCALE 1" = 100'

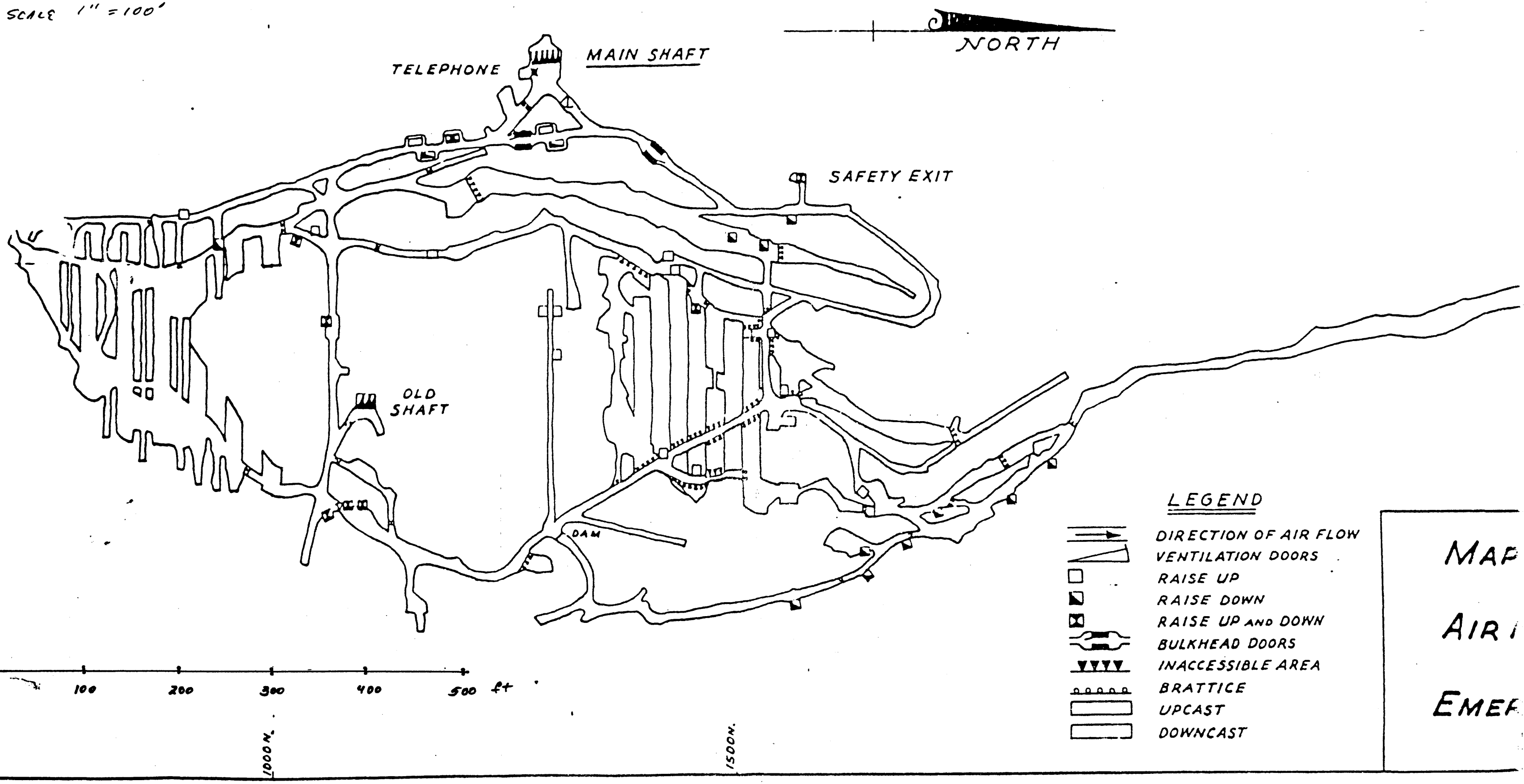
Sterling Hill Mine, Ogdensburg Borough, Sussex County, NJ




MAP OF
AIR FL
EMERGE
SC

Sterling Hill Mine, Ogdensburg Borough, Sussex County, NJ

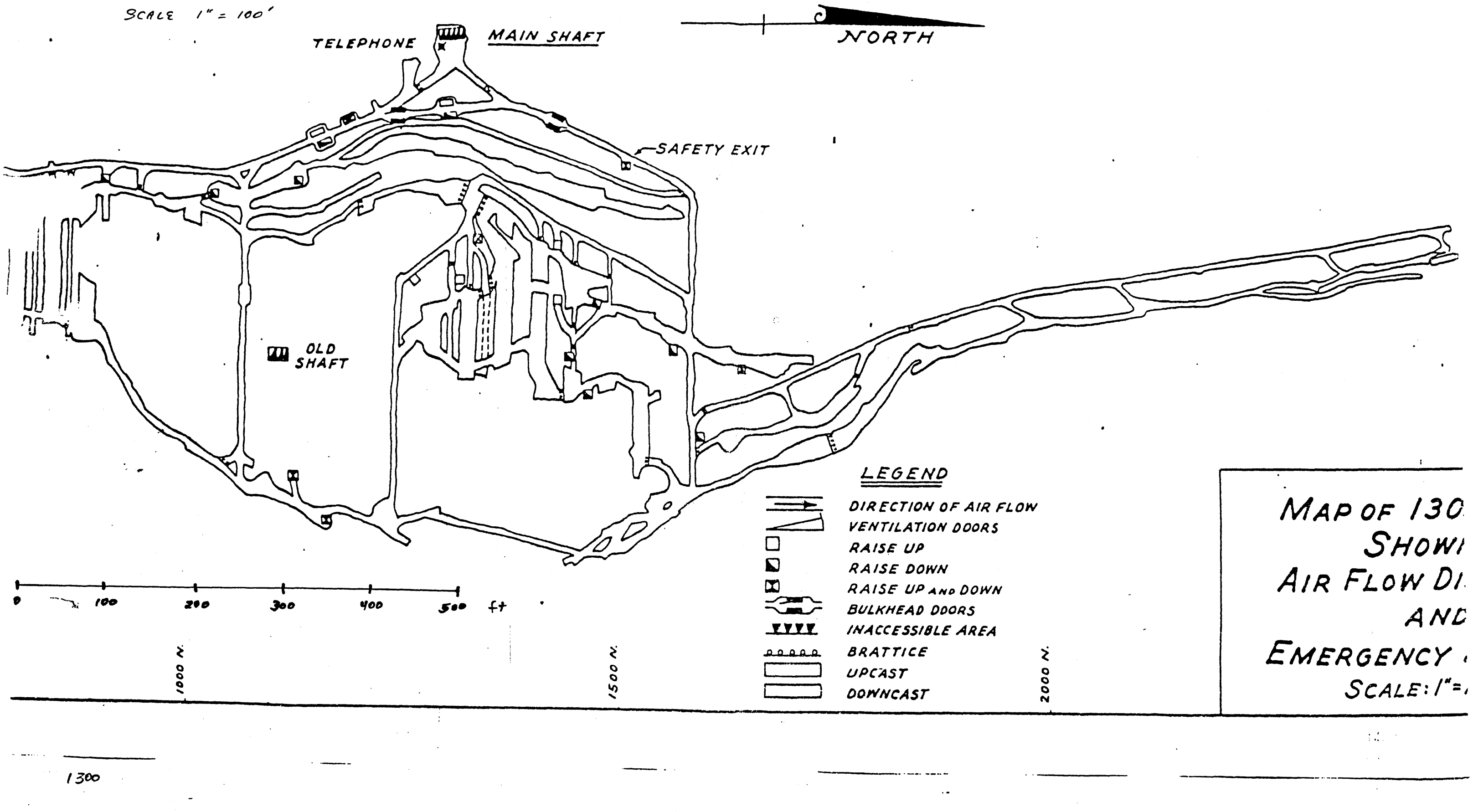
1400 LEVEL
STERLING HILL MINE
SCALE 1" = 100'




MAP
AIR
EMER

1750

1300 LEVEL
STERLING HILL MINE
SCALE 1" = 100'




MAP OF 130
SHOWI
AIR FLOW DI
AND
EMERGENCY
SCALE: 1"=

Sterling Hill Mine, Ogdensburg Borough, Sussex County, NJ

1200 LEVEL
STERLING HILL MINE
SCALE 1" = 100'

NORTH

TELEPHONE

MAIN SHAFT

SAFETY EXIT

OLD SHAFT

0 100 200 300 400 500 Ft

1000 N

1500 N

2000 N

LEGEND

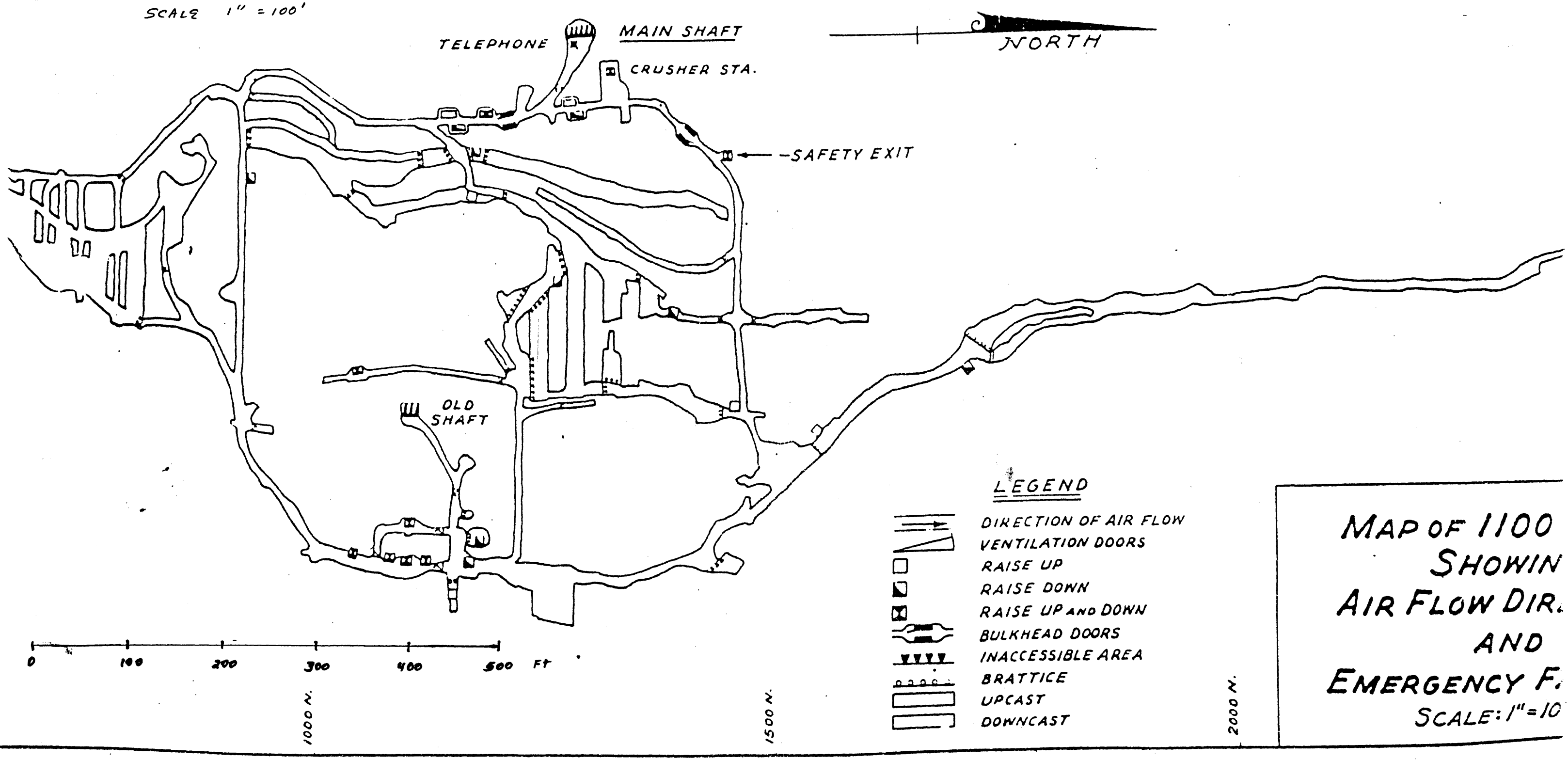
- DIRECTION OF AIR FLOW
- VENTILATION DOORS
- RAISE UP
- RAISE DOWN
- RAISE UP AND DOWN
- BULKHEAD DOORS
- INACCESSIBLE AREA
- BRATTICE
- UPCAST
- DOWNCAST

MAP OF 12(
SHOW
AIR FLOW D
AN
EMERGENCY
SCALE: 1"

1200

Sterling Hill Mine, Ogdensburg Borough, Sussex County, NJ

1100 LEVEL
STERLING HILL MINE
SCALE 1" = 100'




LEGEND

- DIRECTION OF AIR FLOW
- VENTILATION DOORS
- RAISE UP
- RAISE DOWN
- RAISE UP AND DOWN
- BULKHEAD DOORS
- INACCESSIBLE AREA
- BRATTICE
- UPCAST
- DOWNCAST

MAP OF 1100
SHOWIN
AIR FLOW DIR.
AND
EMERGENCY F.
SCALE: 1" = 10

1100

Sterling Hill Mine, Ogdensburg
Borough, Sussex County, NJ

NORTH

1000 LEVEL
STERLING HILL MINE
SCALE 1" = 100'

TELEPHONE

MAIN SHAFT

SAFETY EXIT

POWDER MAGAZINE

OLD SHAFT

0 100 200 300 400 500 Ft

1000 N.

1500 N.

2000 N.

LEGEND

- DIRECTION OF AIR FLOW
- VENTILATION DOORS
- RAISE UP
- RAISE DOWN
- RAISE UP AND DOWN
- BULKHEAD DOORS
- INACCESSIBLE AREA
- BRATTICE
- UPCAST
- DOWNCAST

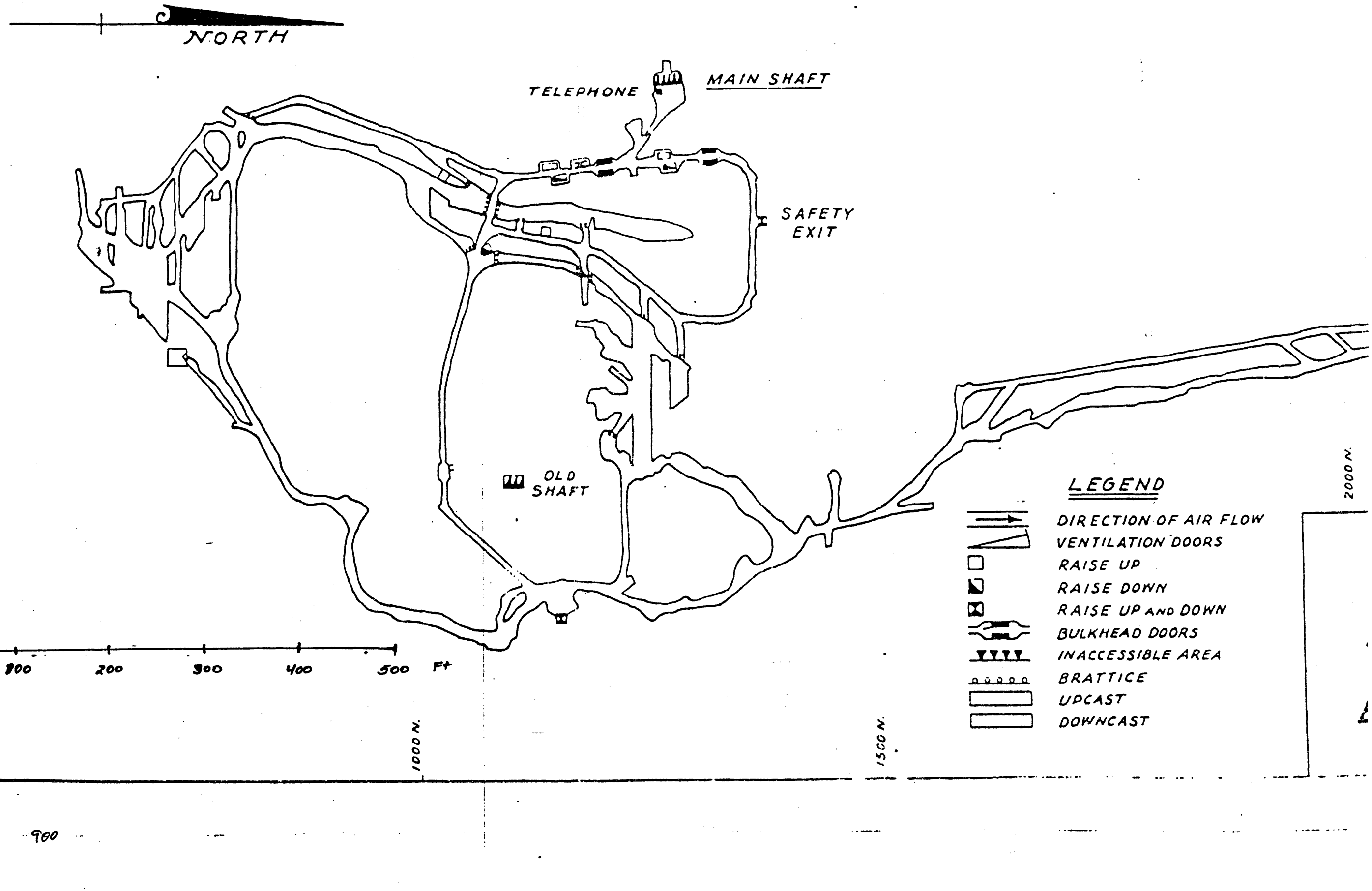
# MAP OF 1000
# SHOWIN
# AIR FLOW DIRE
# AND
# EMERGENCY FA

SCALE: 1" = 10(

1000

900 LEVEL
STERLING HILL MINE

SCALE 1" = 100'

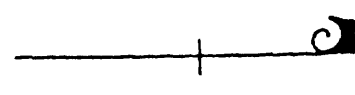


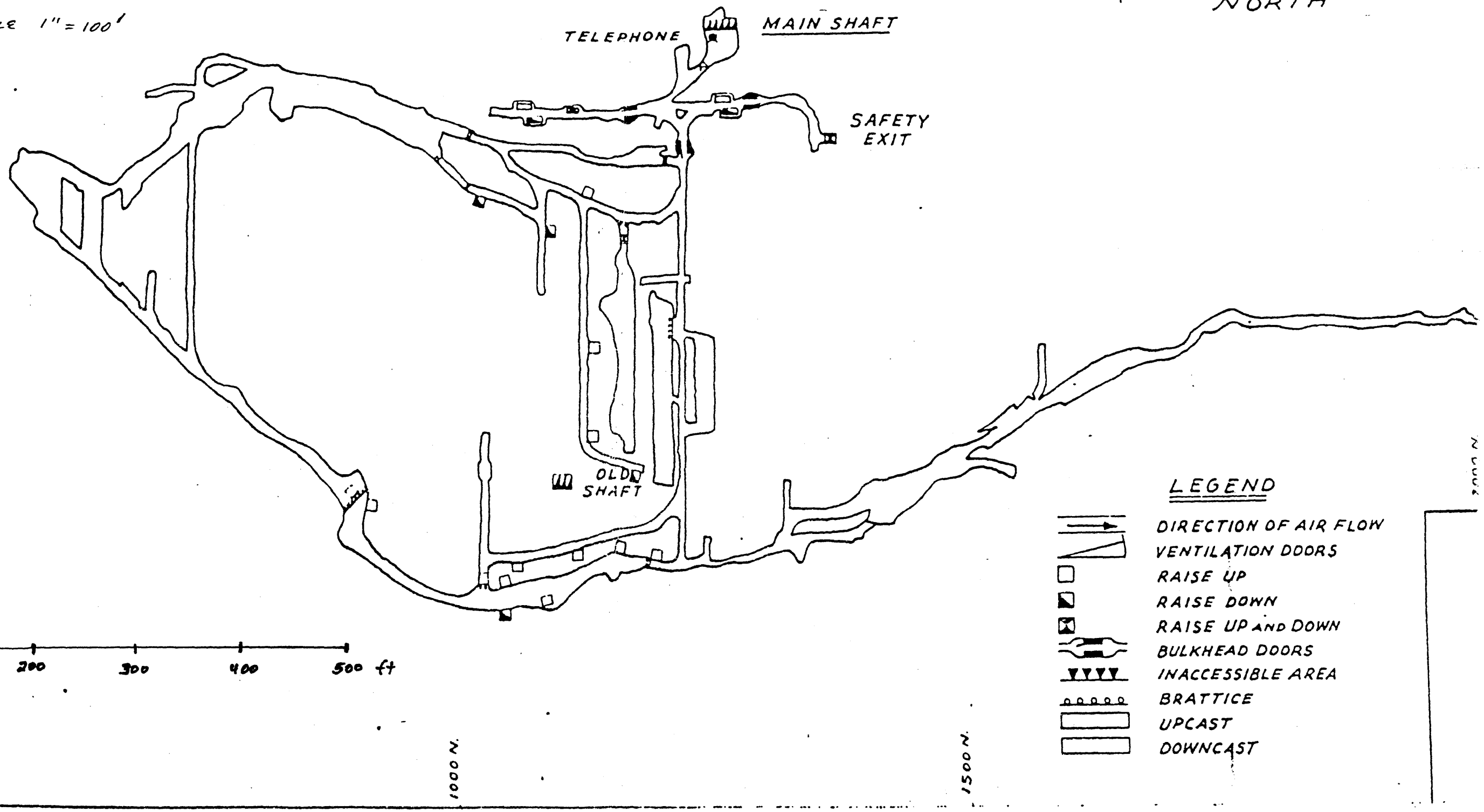

900

Sterling Hill Mine, Ogdensburg Borough, Sussex County, NJ

700 LEVEL
STERLING HILL MINE

SCALE 1" = 100'



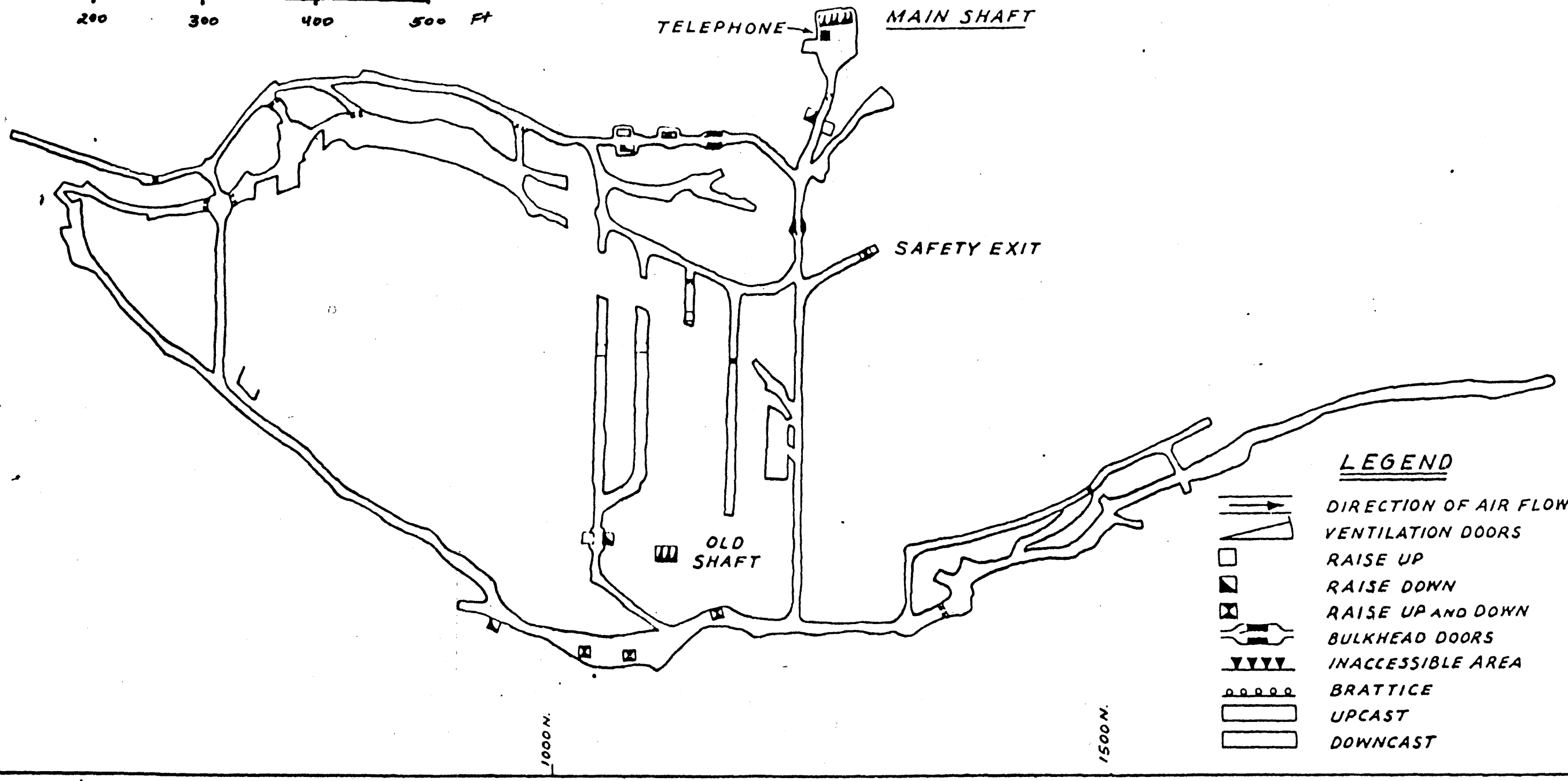



Sterling Hill Mine, Ogdensburg Borough, Sussex County, NJ

600 LEVEL
STERLING HILL MINE
SCALE 1" = 100'

NORTH

0 100 200 300 400 500 FT




600

1680 LEVEL
STERLING HILL MINE
SCALE 1" = 100'

Sterling Hill Mine, Ogdensburg
Borough, Sussex County, NJ

NORTH

MAIN SHAFT

TELEPHONE

SAFETY EXIT

OLD SHAFT

0 100 200 300 400 500 FT

1500 N.

2000 N.

2500 N.

MAP O

AIR F

EMERG

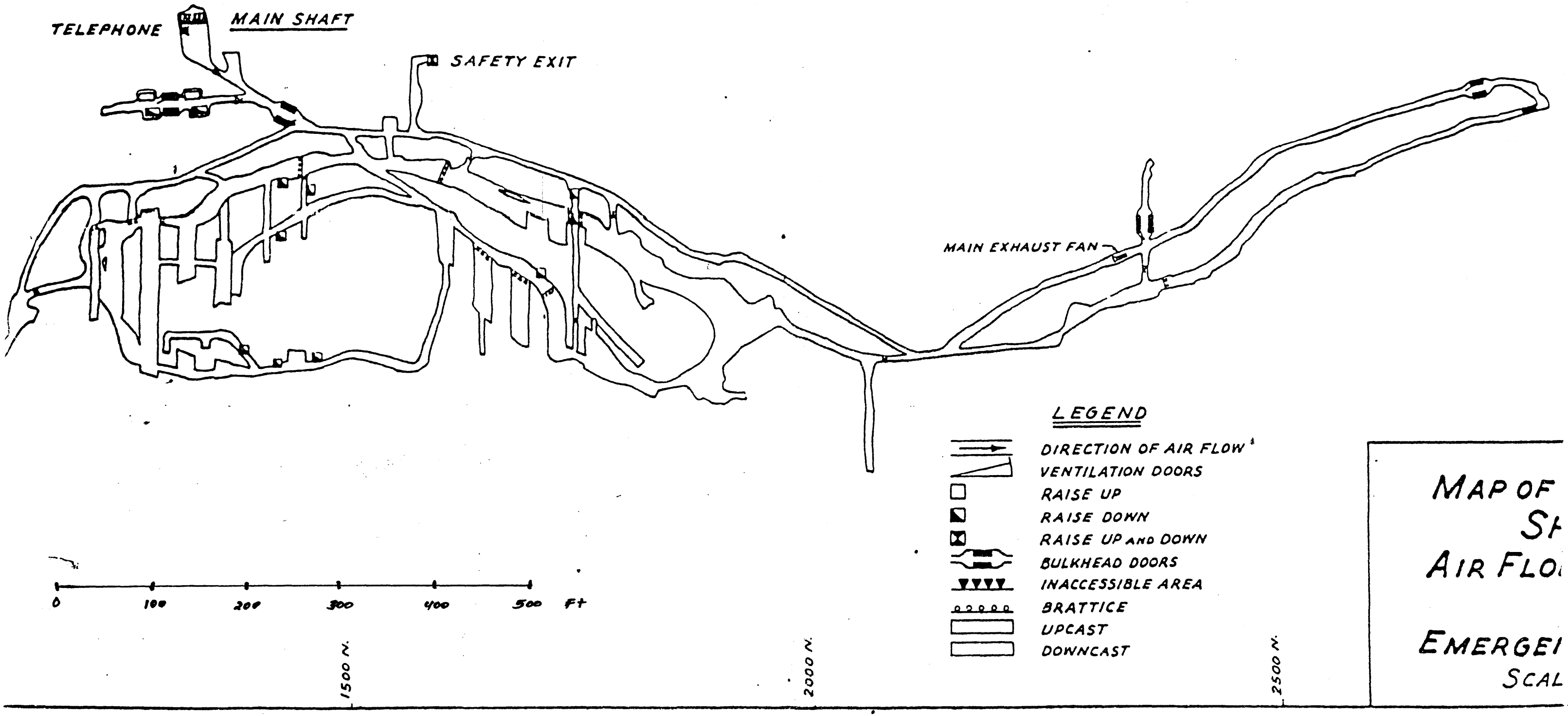
S

1750 LEVEL

STERLING HILL MINE

SCALE 1" = 100'

NORTH



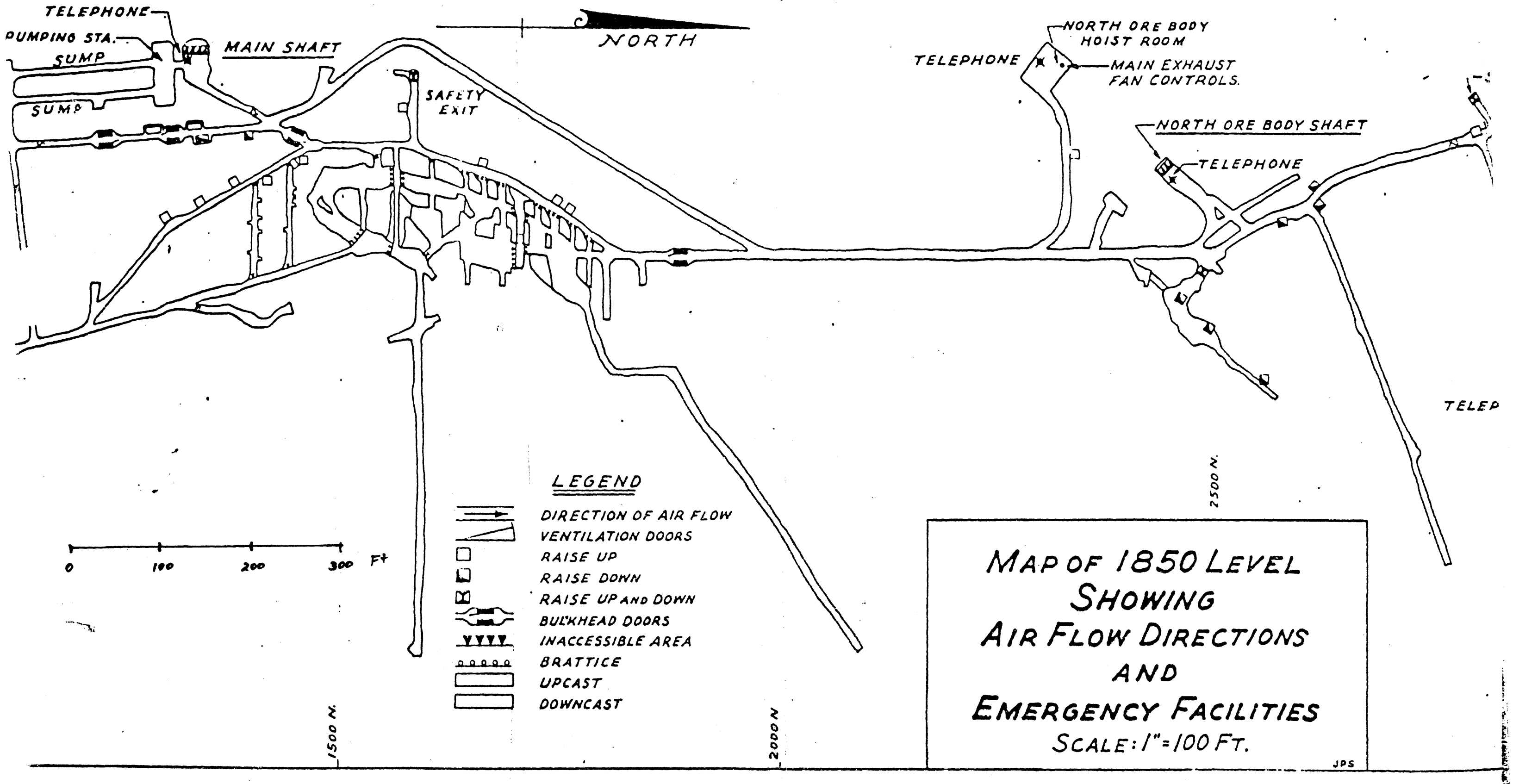

LEGEND

- DIRECTION OF AIR FLOW
- VENTILATION DOORS
- RAISE UP
- RAISE DOWN
- RAISE UP AND DOWN
- BULKHEAD DOORS
- INACCESSIBLE AREA
- BRATTICE
- UPCAST
- DOWNCAST

MAP OF
ST
AIR FLO

EMERGEI
SCAL

1850 Level
STERLING HILL MINE
SCALE 1" = 100'




# MAP OF 1850 LEVEL SHOWING AIR FLOW DIRECTIONS AND EMERGENCY FACILITIES

SCALE: 1" = 100 FT.

JPS

Sterling Hill Mine, Ogdensburg
Borough, Sussex County, NJ

JPS

1950 LEVEL
STERLING HILL MINE

SCALE 1" = 100'

NORTH

SAFETY EXIT

NORTH ORE BODY
SHAFT

TELEPHONE

0 100 200 300 400 500 FT.

2000 N.

2500 N.

3000 N.

3500 N.

LEGEND

- DIRECTION OF AIR FLOW
- VENTILATION DOORS
- RAISE UP
- RAISE DOWN
- RAISE UP AND DOWN
- BULKHEAD DOORS
- INACCESSIBLE AREA
- BRATTICE
- UPCAST
- DOWNCAST

MAP

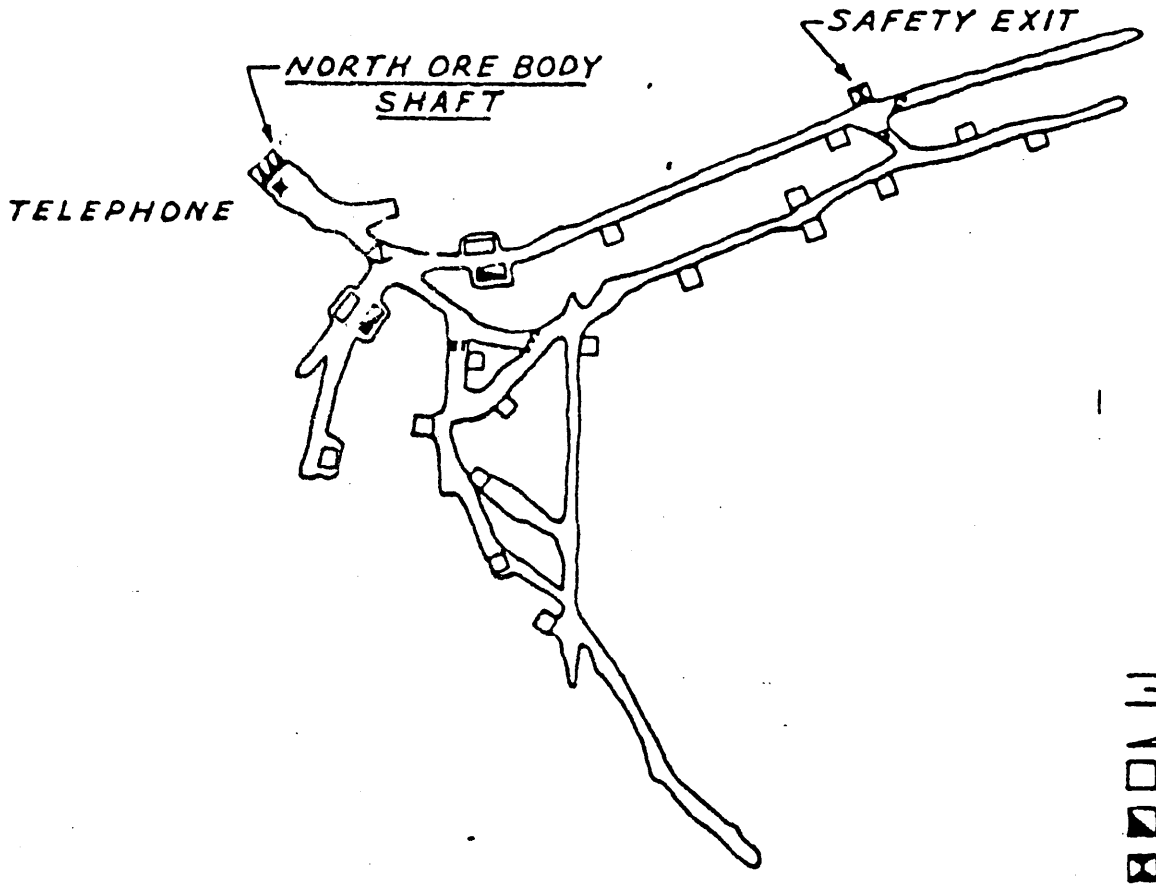
AIR F

EMERG

Sterling Hill Mine, Ogdensburg Borough, Sussex County, NJ

2050 LEVEL
STERLING HILL MINE
SCALE 1" = 100'

NORTH




0 100 200 300 400 500 Ft

2000 N.

2500 N.

3000 N.

LEGEND

- DIRECTION OF AIR FLOW
- VENTILATION DOORS
- RAISE UP
- RAISE DOWN
- RAISE UP AND DOWN
- BULKHEAD DOORS
- INACCESSIBLE AREA
- BRATTICE
- UPCAST
- DOWNCAST

N

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2000 N.

2500 N.

3000 N.

UPCAST

DOWNCAST

EMERGENCY

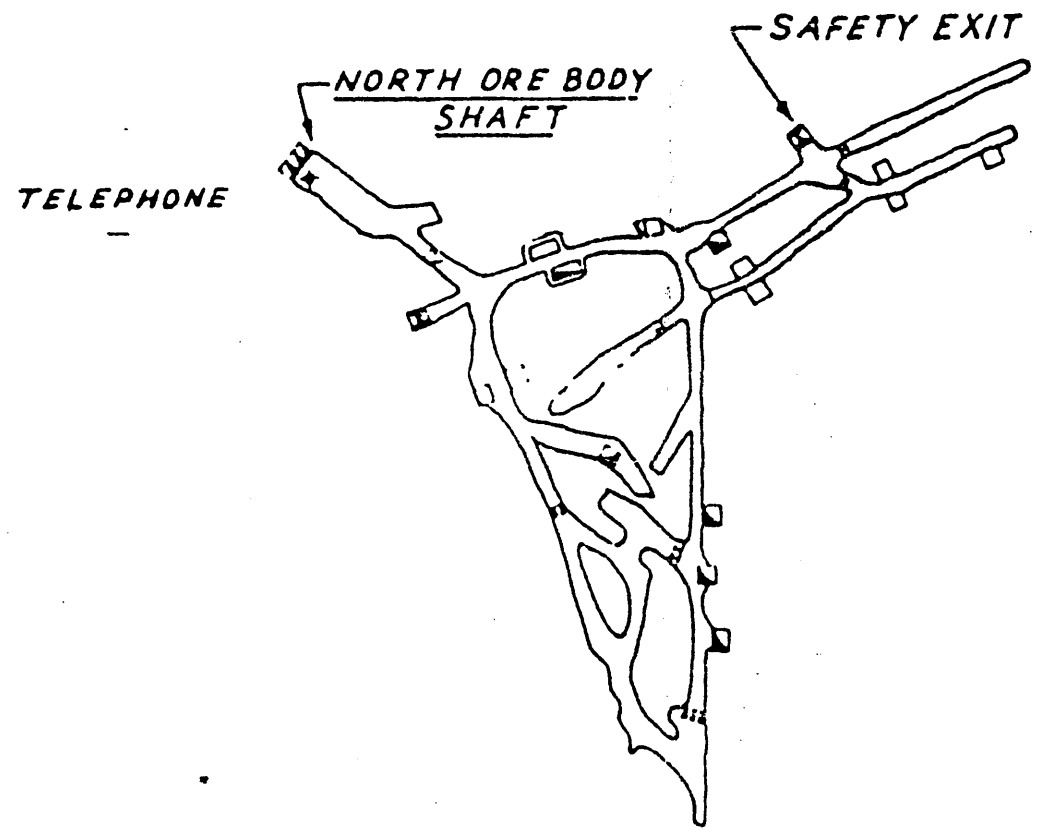
SCALE: 1

Sterling Hill Mine, Ogdensburg Borough, Sussex County, NJ

7250 LEVEL
STERLING HILL MINE

SCALE 1" = 100'

NORTH




0 100 200 300 400 500 ft

LEGEND

DIRECTION OF AIR FLOW
VENTILATION DOORS
RAISE UP
RAISE DOWN
RAISE UP AND DOWN
BULKHEAD DOORS
INACCESSIBLE AREA
BRATTICE
UPCAST

3500 N.

MAP OF 2
SHO
AIR FLOW
A
EMERGENC

2500

3000

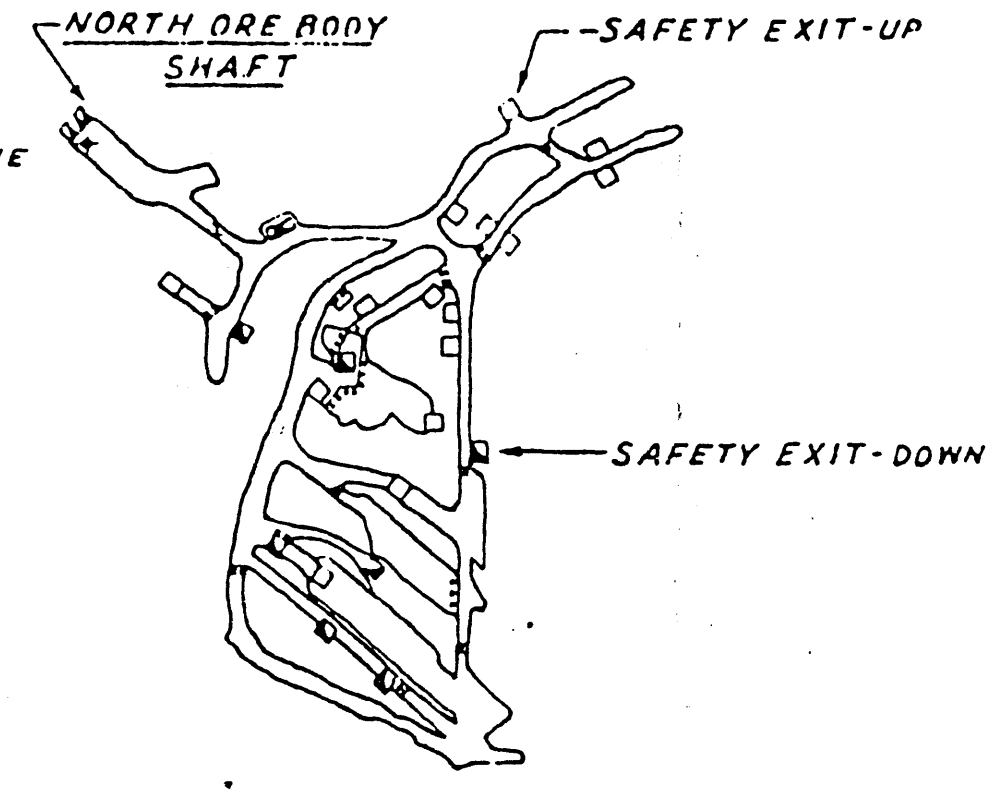
SCALE: 1" = 100 F

Sterling Hill Mine, Ogdensburg
Borough, Sussex County, NJ

2350 LEVEL
STERLING HILL MINE

SCALE 1" = 100'

NORTH



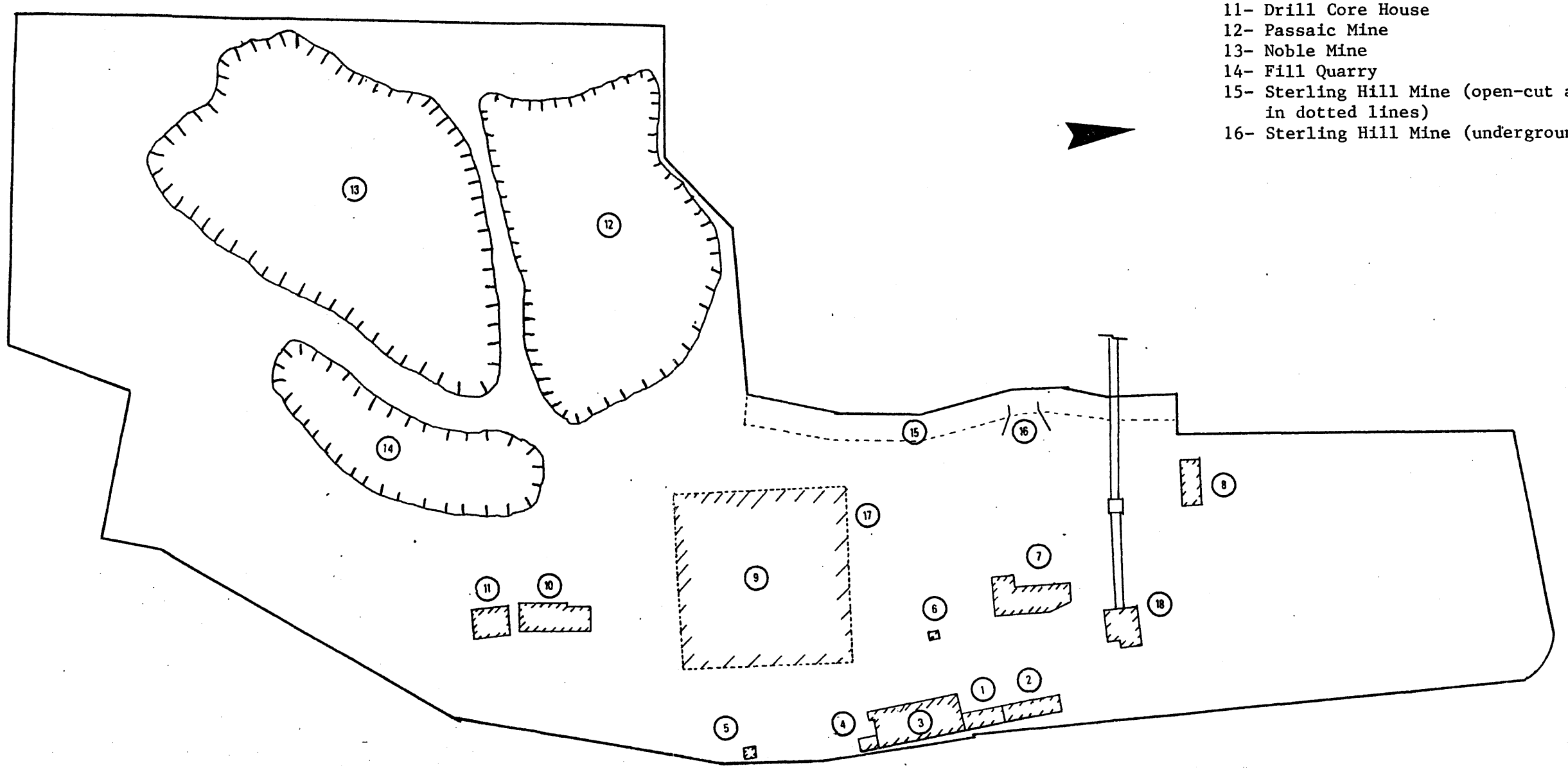

0 100 200 300 400 500 ft

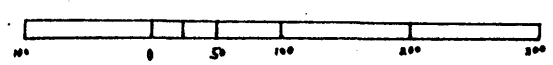
LEGEND

DIRECTION OF AIR F.
VENTILATION DOORS
RAISE UP
RAISE DOWN
RAISE U[illegible]
BULKHEA.
INACCESSIB.
BRATTICE
UPCAST
DOWNCAST

MAP OF 2350 L.
SHOWING
AIR FLOW DIREC
AND
EMERGENC FAC

1- 1916 Mine Office Building
2- 1938 Mine Office Building
3- Change House Building
4- Laboratory Building
5- Chlorinator Building
6- Oil Pump House
7- Mine Superintendent's Office
8- Shed
9- Mill Ruins Area
10- Compressor House
11- Drill Core House
12- Passaic Mine
13- Noble Mine
14- Fill Quarry
15- Sterling Hill Mine (open-cut area shown in dotted lines)
16- Sterling Hill Mine (underground) adit



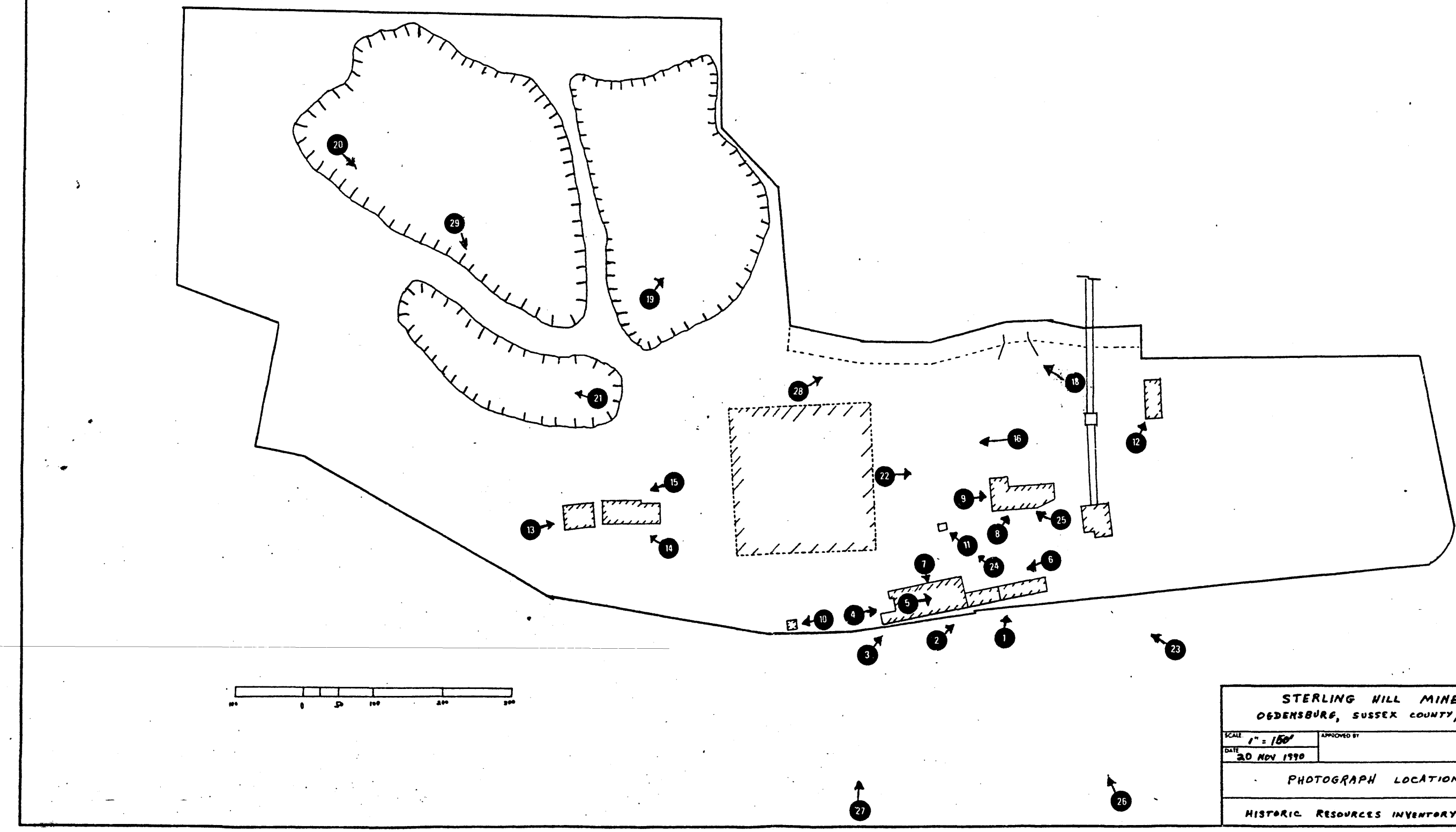




STERLING HILL MINE
OGDENSBURG, SUSSEX COUNTY, NEW JERSEY

| | | |
|---|---|---|
| SCALE 1" = 150' | APPROVED BY: | DRAWN BY: D.E. RUSSELL |
| DATE: 30 NOV 1990 | | REVISED |

GENERAL SITE PLAN — LOT 11.07 BLOCK 30

| | |
|---|---|
| HISTORIC RESOURCES INVENTORY | DRAWING NUMBER 90-001 |




STERLING HILL MINE
OGDENSBURG, SUSSEX COUNTY, NEW JERSEY

| | | |
|---|---|---|
| SCALE 1" = 150' | APPROVED BY | DRAWN BY D.E. RUSSELL |
| DATE 30 NOV 1990 | | REVISED |

PHOTOGRAPH LOCATIONS

HISTORIC RESOURCES INVENTORY

DRAWING NUMBER 90-002