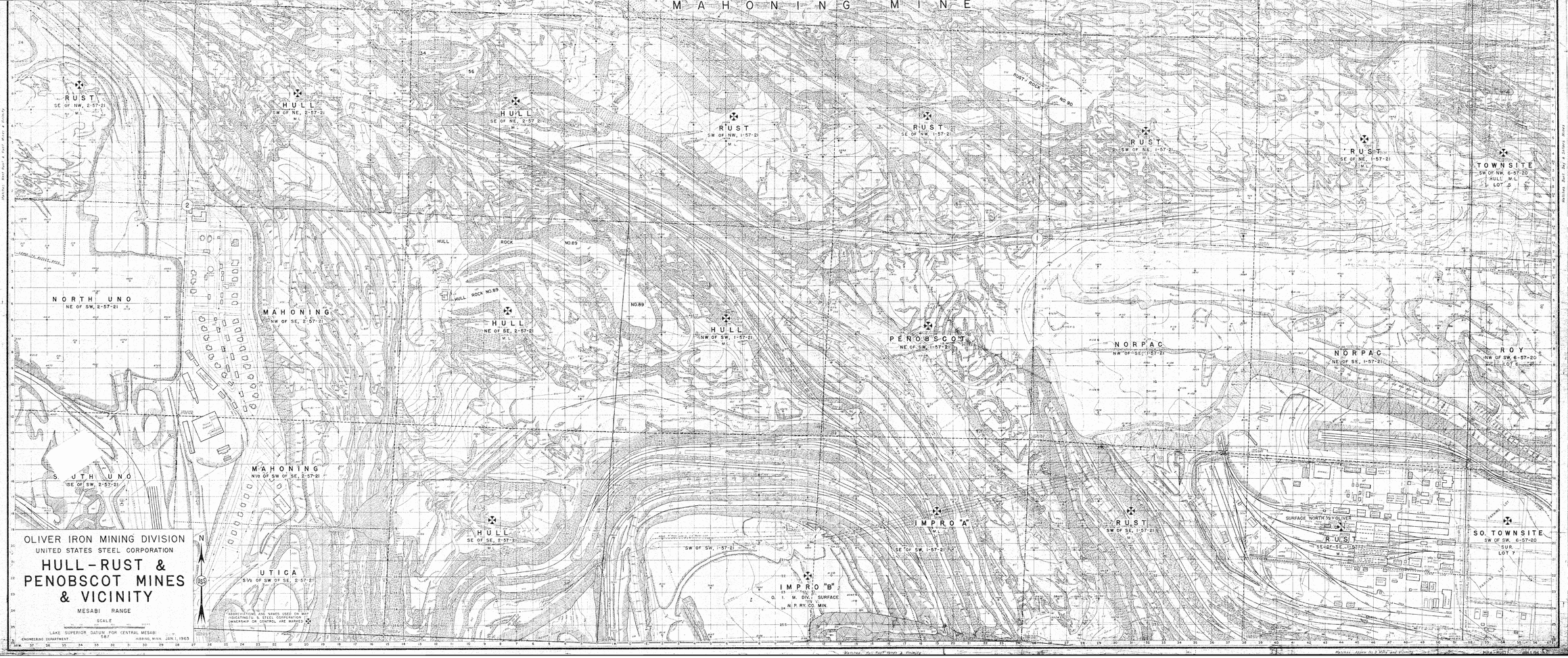
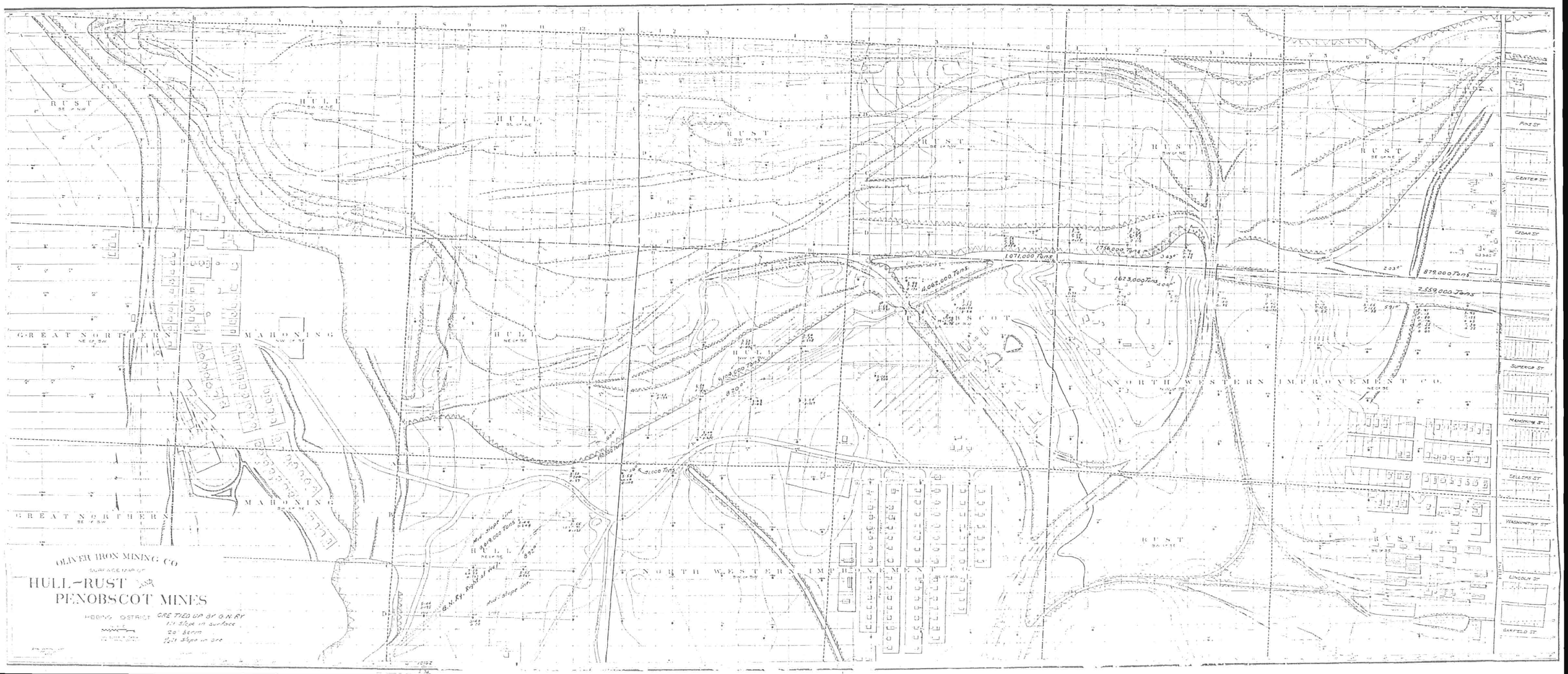


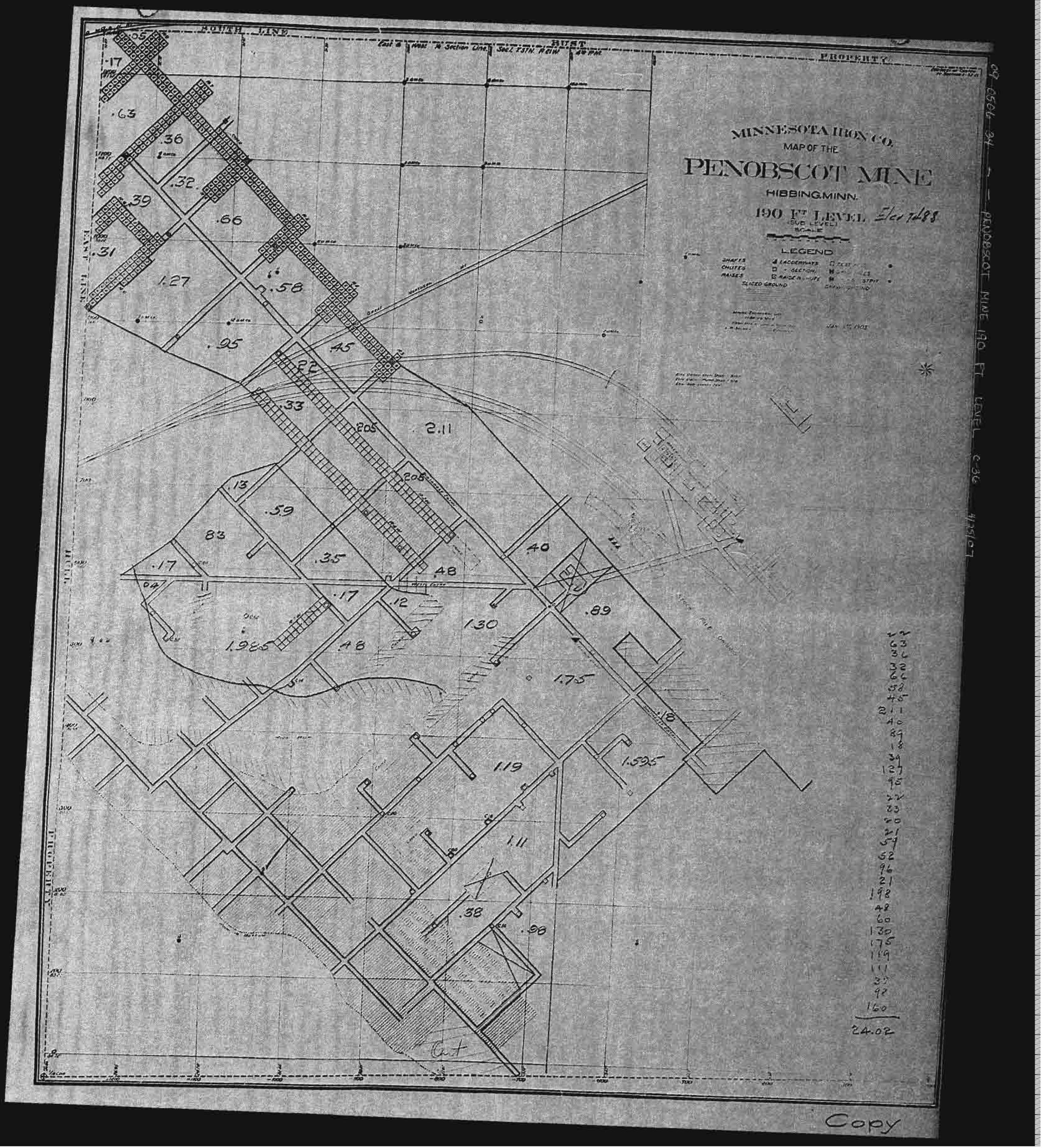
OLIVER IRON MINING DIVISION
UNITED STATES STEEL CORPORATION

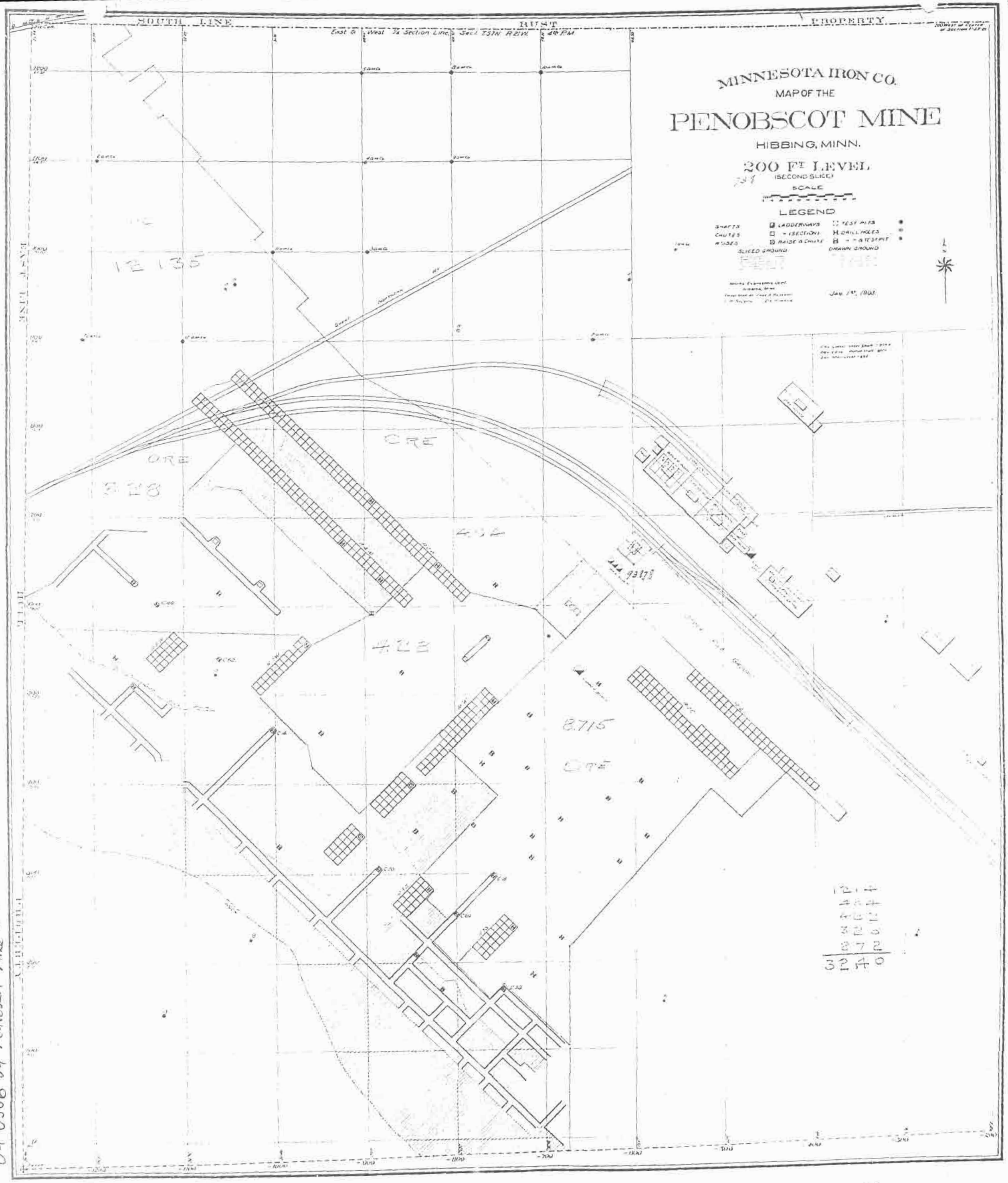
HULL-RUST & PENOBSCOT MINES & VICINITY

MESABI RANGE

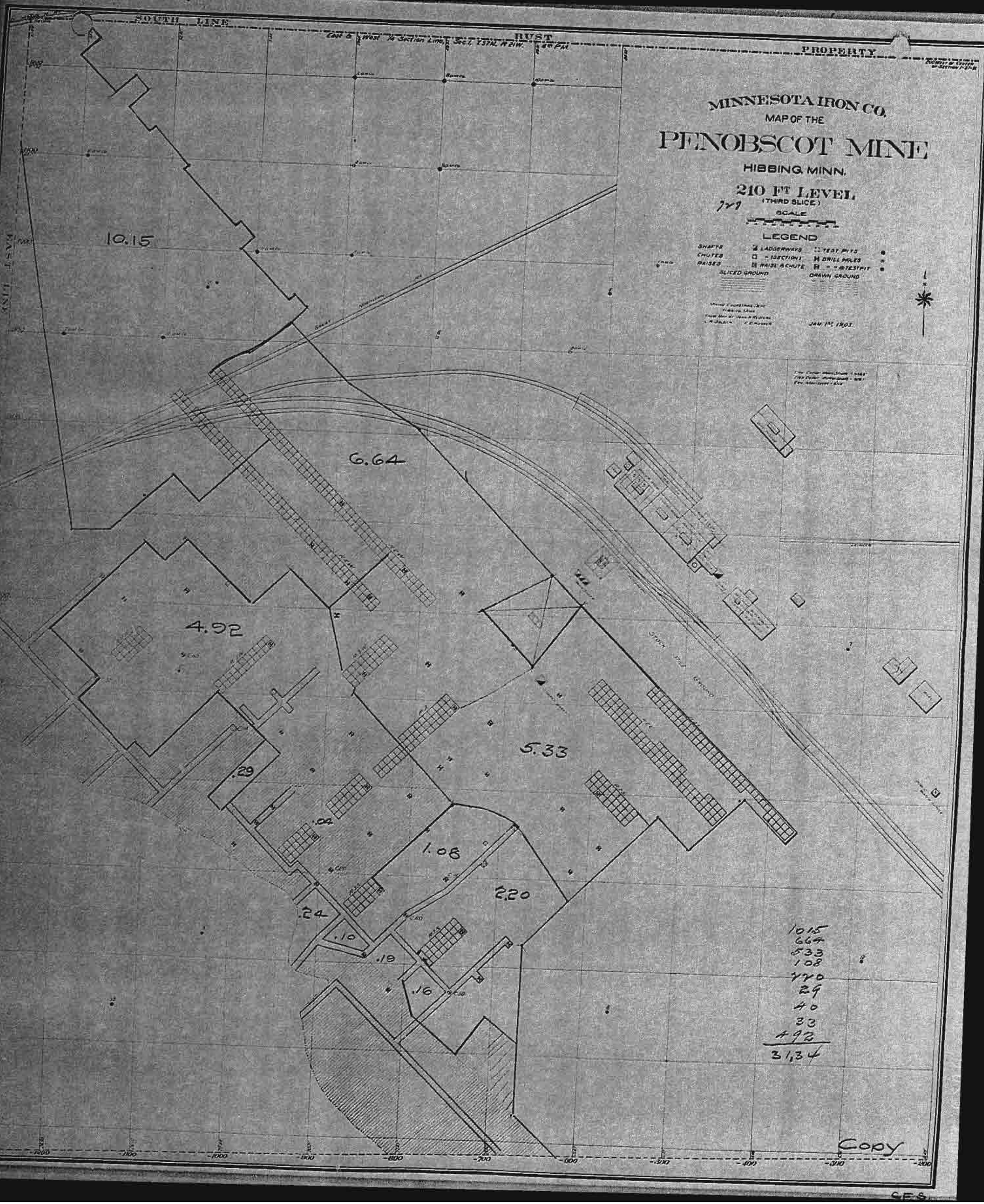
09 0506 49 -- Hull-Rust-Penobscot mines C-45

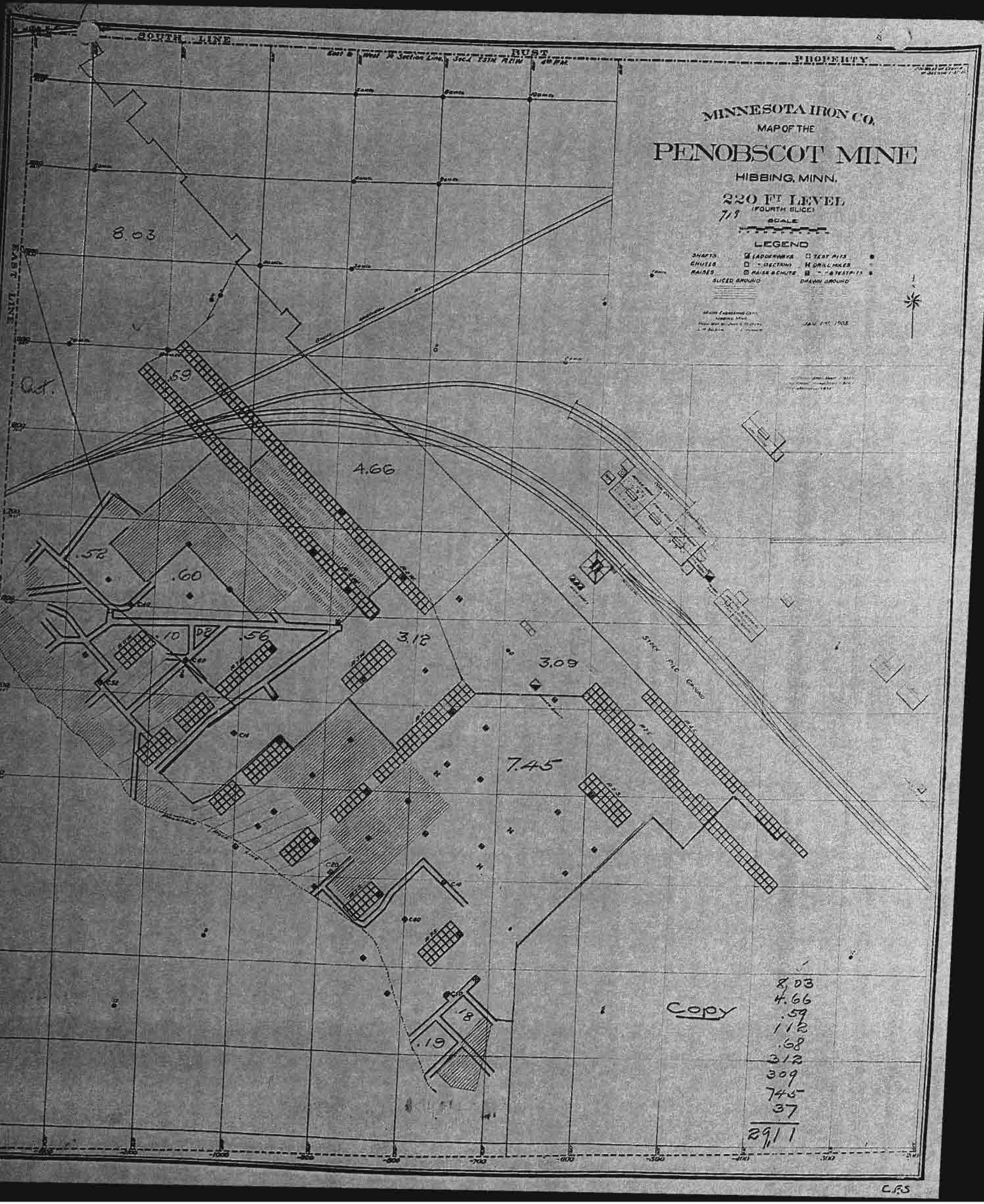


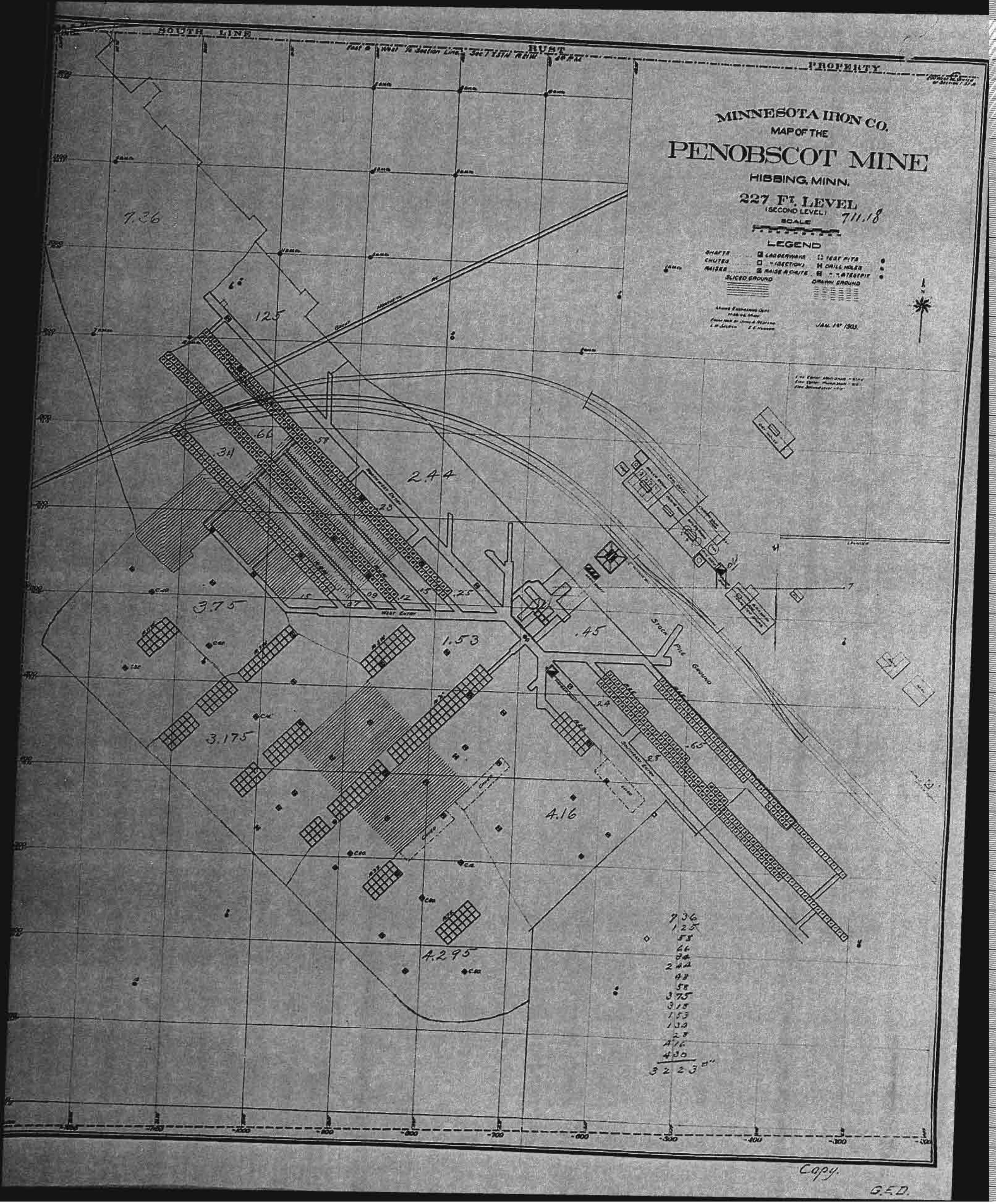

MINNESOTA IRON CO.
MAP OF THE
PENOBSCOT MINE
HIBBING, MINN.
190 FT LEVEL
(SUB LEVEL)
SCALE
LEGEND
SHAFTS
CHUTES
RAISES
SLICED GROUND
SOUTH LINE
EAST
PROPERTY
.17
.63
.36
.32
.39
.66
.31
1.27
.58
.95
.45
.22
.33
2.05
2.11
.13
.59
.83
.35
.40
.17
.48
.04
.17
.12
1.30
.89
1.9805
.48
1.75
.18
1.19
1.5925
1.11
.38
.98
Cut
24.02
Copy



09 0506 34 Penobscot Mine 200' Lev - 16

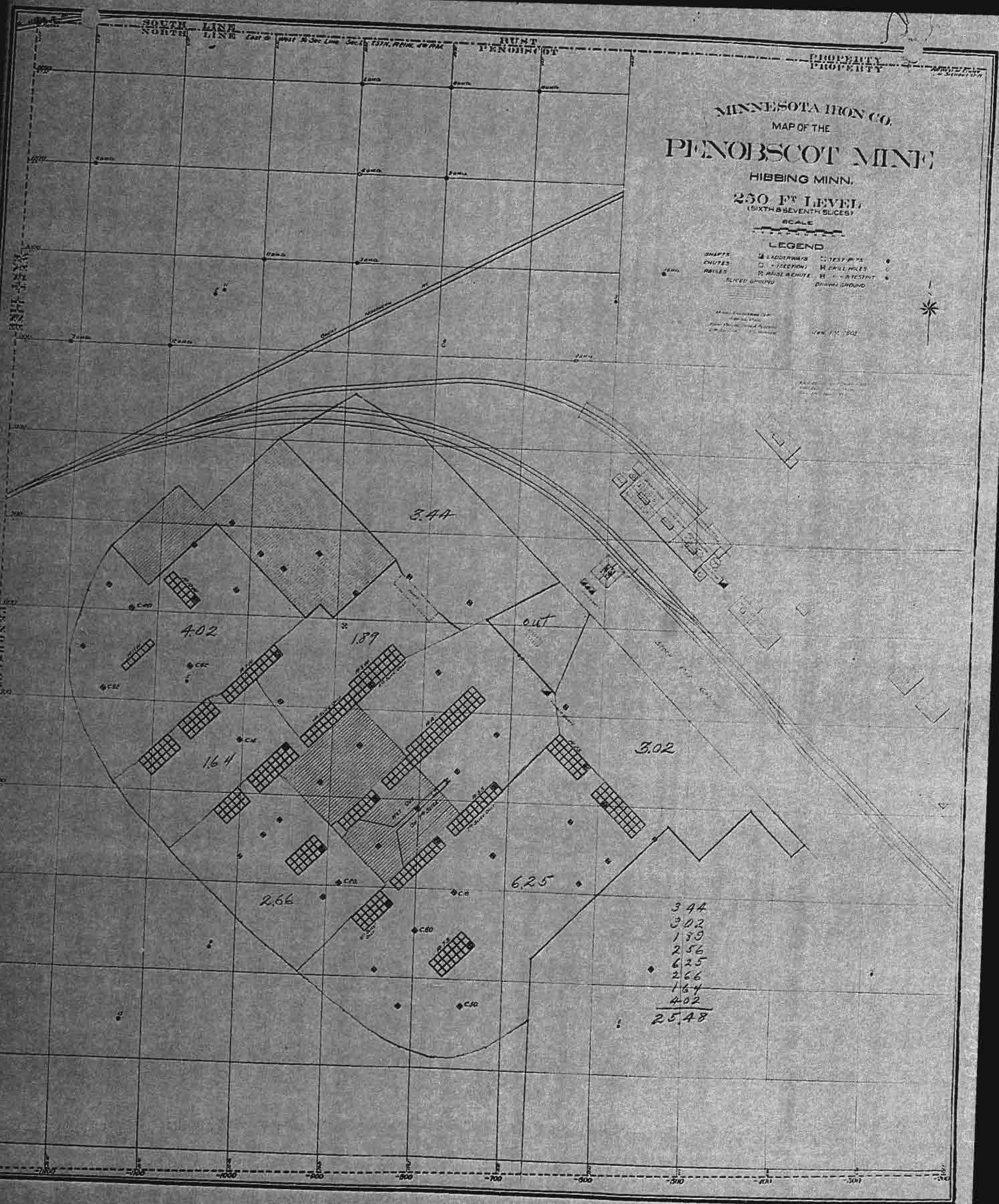

SOUTH LINE
RUST
PROPERTY
MINNESOTA IRON CO.
MAP OF THE
PENOBSCOT MINE
HIBBING, MINN.
210 FT LEVEL
(THIRD SLICE)
SCALE
LEGEND
SHAFTS
CHUTES
RAISES
LADDERWAYS
TEST PITS
DRILL HOLES
SLICED GROUND
DRAWN GROUND
JAN 1st 1903.
10.15
6.64
4.92
5.33
.29
.04
1.08
2.20
.24
.10
.19
.16
1015
664
533
108
220
29
40
33
492
3134
Copy


SOUTH LINE
RUST
PROPERTY
MINNESOTA IRON CO.
MAP OF THE
PENOBSCOT MINE
HIBBING, MINN.
220 FT LEVEL
(FOURTH SLICE)
SCALE
LEGEND
SHAFTS
CHUTES
RAISES
SLICED GROUND
DRAWN GROUND
JAN. 1st, 1903
EAST LINE
PROPERTY
8.03
.59
4.66
.52
.60
.10
.56
3.12
3.09
7.45
.18
.19
STOCK PILE GROUND
Copy
8.03
4.66
.59
1.12
.68
3.12
3.09
7.45
.37
29.11


SOUTH LINE
RUST
PROPERTY
MINNESOTA IRON CO.
MAP OF THE
PENOBSCOT MINE
HIBBING, MINN.
227 FT. LEVEL
(SECOND LEVEL)
711.18
SCALE
LEGEND
SHAFTS
CHUTES
RAISES
LADDERWAYS
RAISE & CHUTE
TEST PITS
DRILL HOLES
SLICED GROUND
DRAWN GROUND
JAN. 1ST 1905.
7.36
125
.66
.34
.58
2.44
.23
3.75
1.53
.45
3.175
4.16
4.295
Stock Pile Ground
7 36
1 25
58
66
34
2 44
43
58
3 75
3 18
1 53
1 30
28
4 16
4 30
32 23 tons

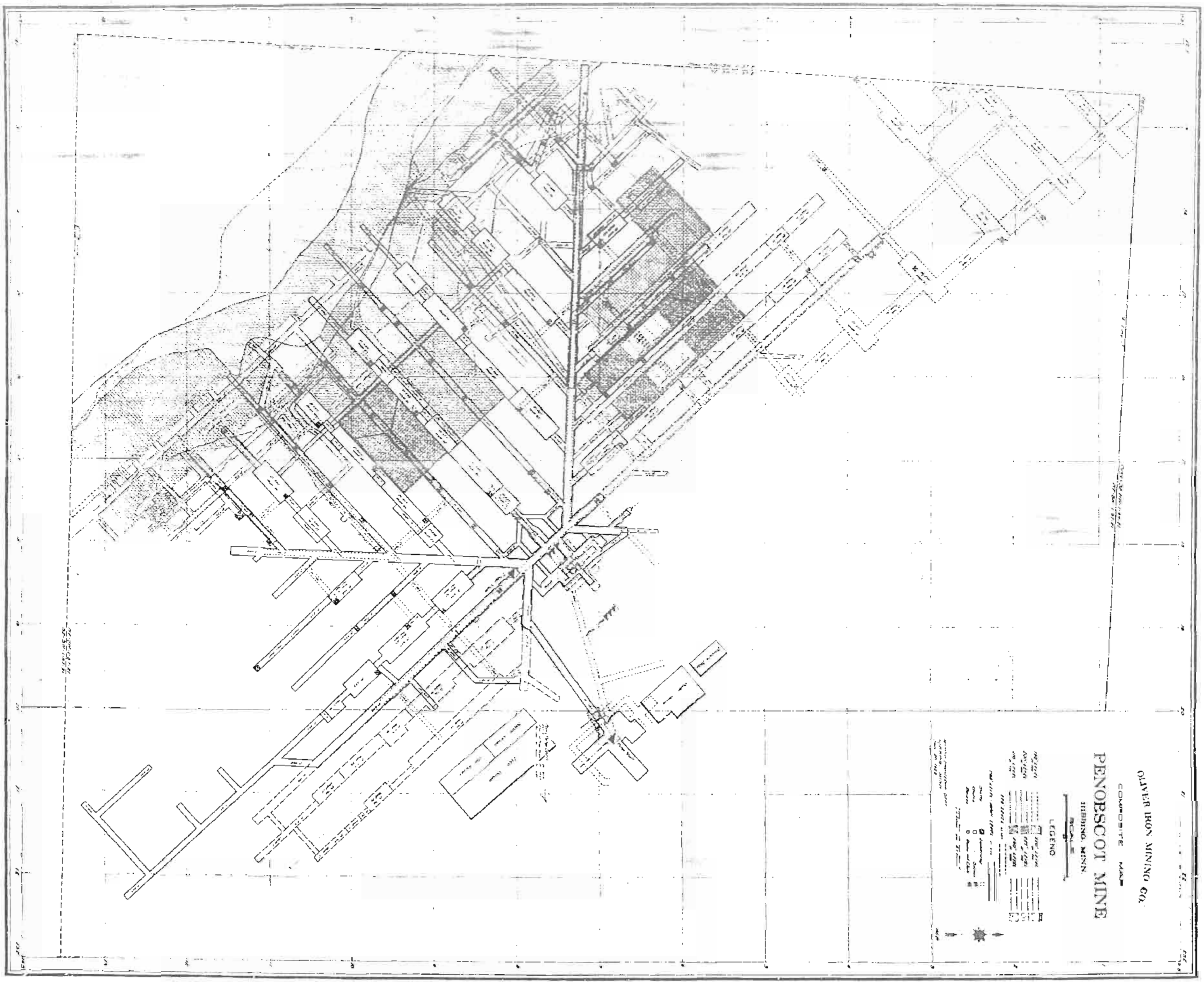
Copy.

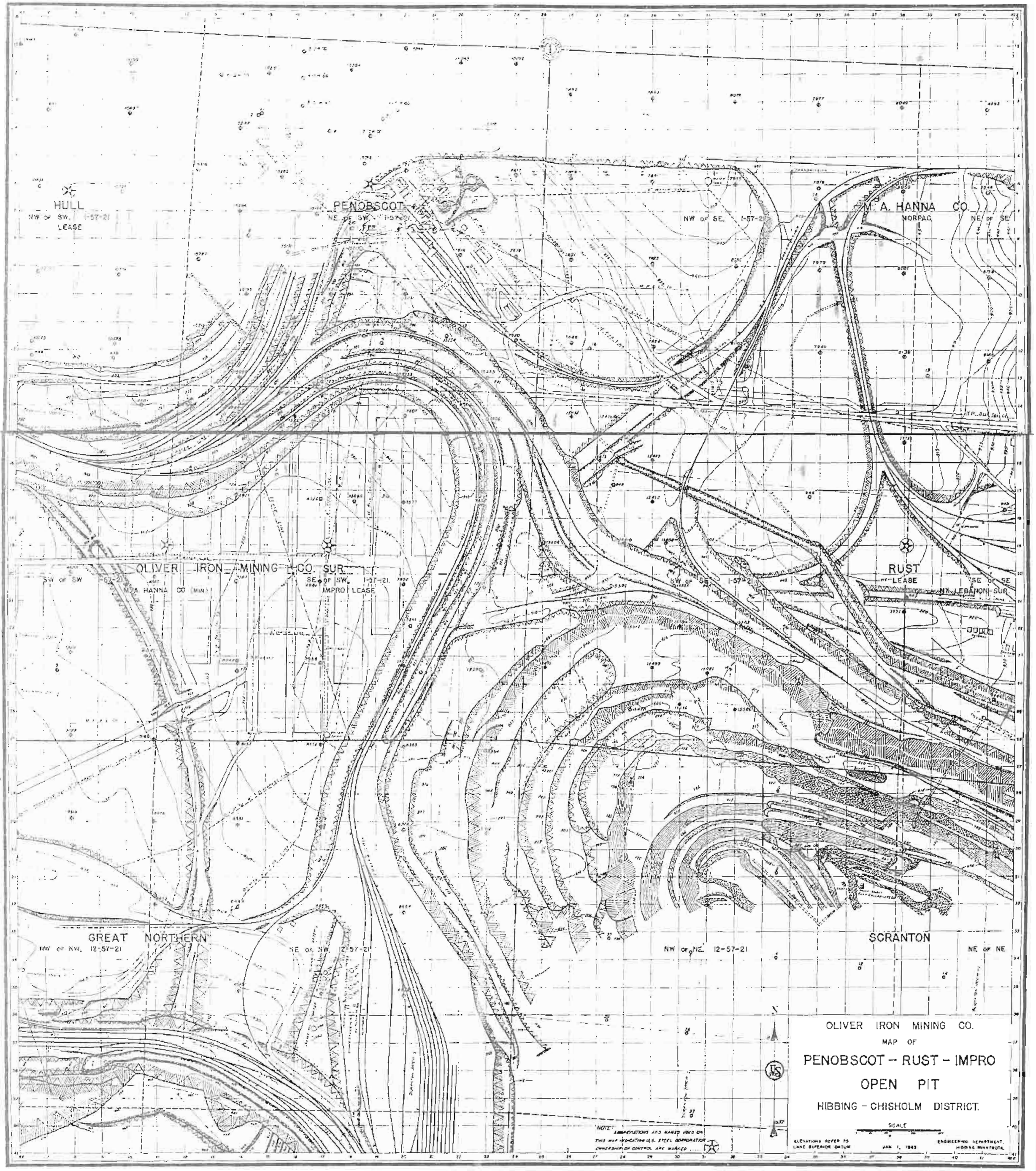
G.E.D.


SOUTH LINE
NORTH LINE
BUST
PENOBSCOT
PROPERTY
PROPERTY
MINNESOTA IRON CO.
MAP OF THE
PENOBSCOT MINE
HIBBING MINN.
250 FT LEVEL
(SIXTH & SEVENTH SLICES)
SCALE
LEGEND
SHAFTS
CHUTES
RAISES
LADDERWAYS
TEST PITS
DRILL HOLES
SLICED GROUND
DRAWN GROUND
3.44
4.02
1.89
OUT
1.64
3.02
2.66
6.25
3.44
3.02
1.89
2.56
6.25
2.66
1.64
4.02
25.48
Copy
G.E.D.

SOUTH LINE
RUST
PROPERTY
MINNESOTA IRON CO.
MAP OF THE
PENOBSCOT MINE
HIBBING, MINN.
285 FT. LEVEL
(MAIN LEVEL) El. 653.8
SCALE
LEGEND
SHAFTS
CHUTES
RAISES
LADDERWAYS
TEST PITS
DRILL HOLES
SLICED GROUND
CROWN GROUND
JAN. 1st 1903
Area outside of mine workings = 38.05 Ac
OUT
2.23
1.59
.37
1.20
.56
1.42
.48
.66
.81
.88
.80
.80
.80
.39
1.22
.55
.40
.24
.06
.68
.47
.81
.40
.42
.62
.20
.89
1.24
21.69
09 0506 34 C-36
Copy

09 1531 1948 1-20-22 Penobscot Mine composite A-89

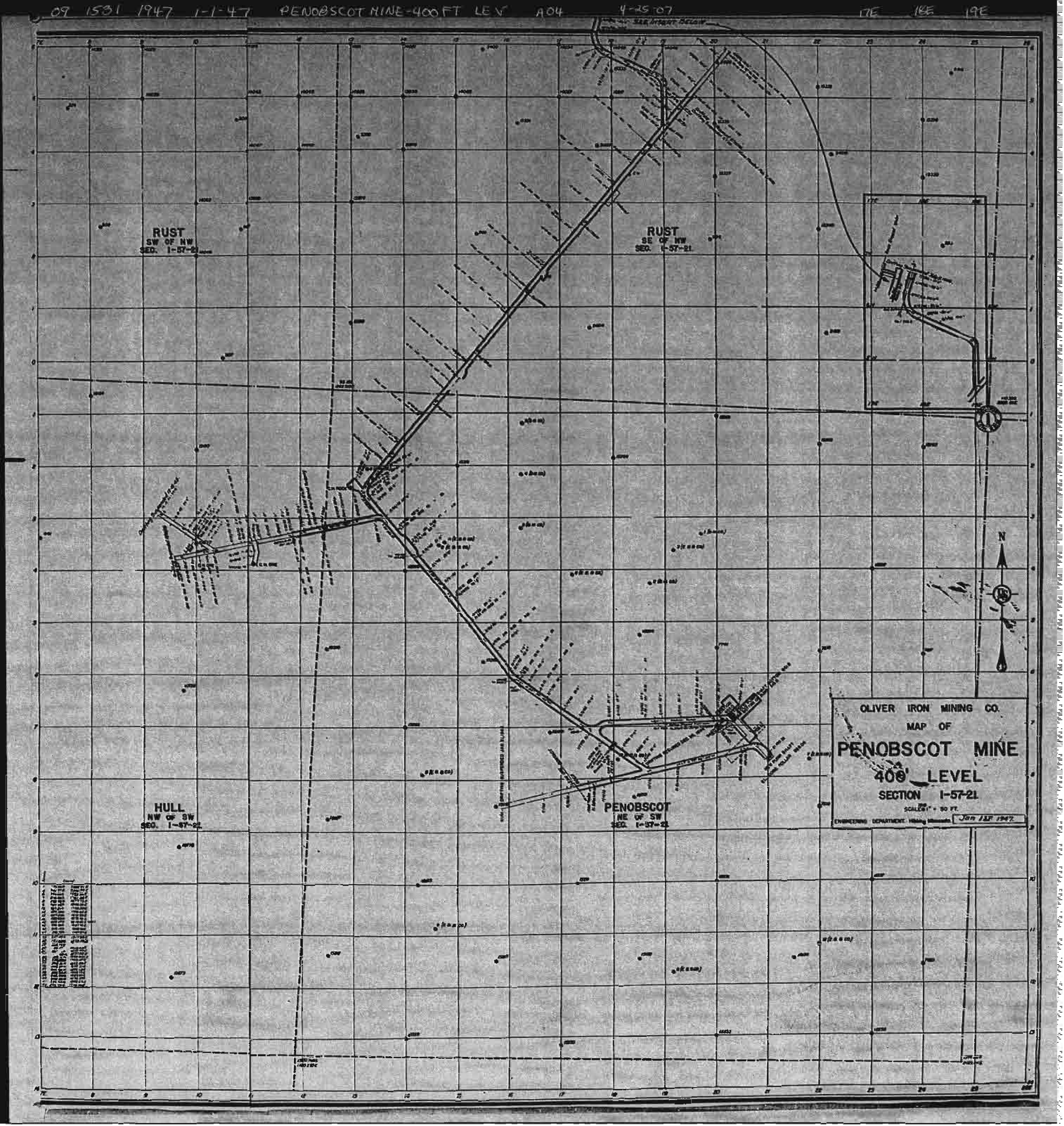


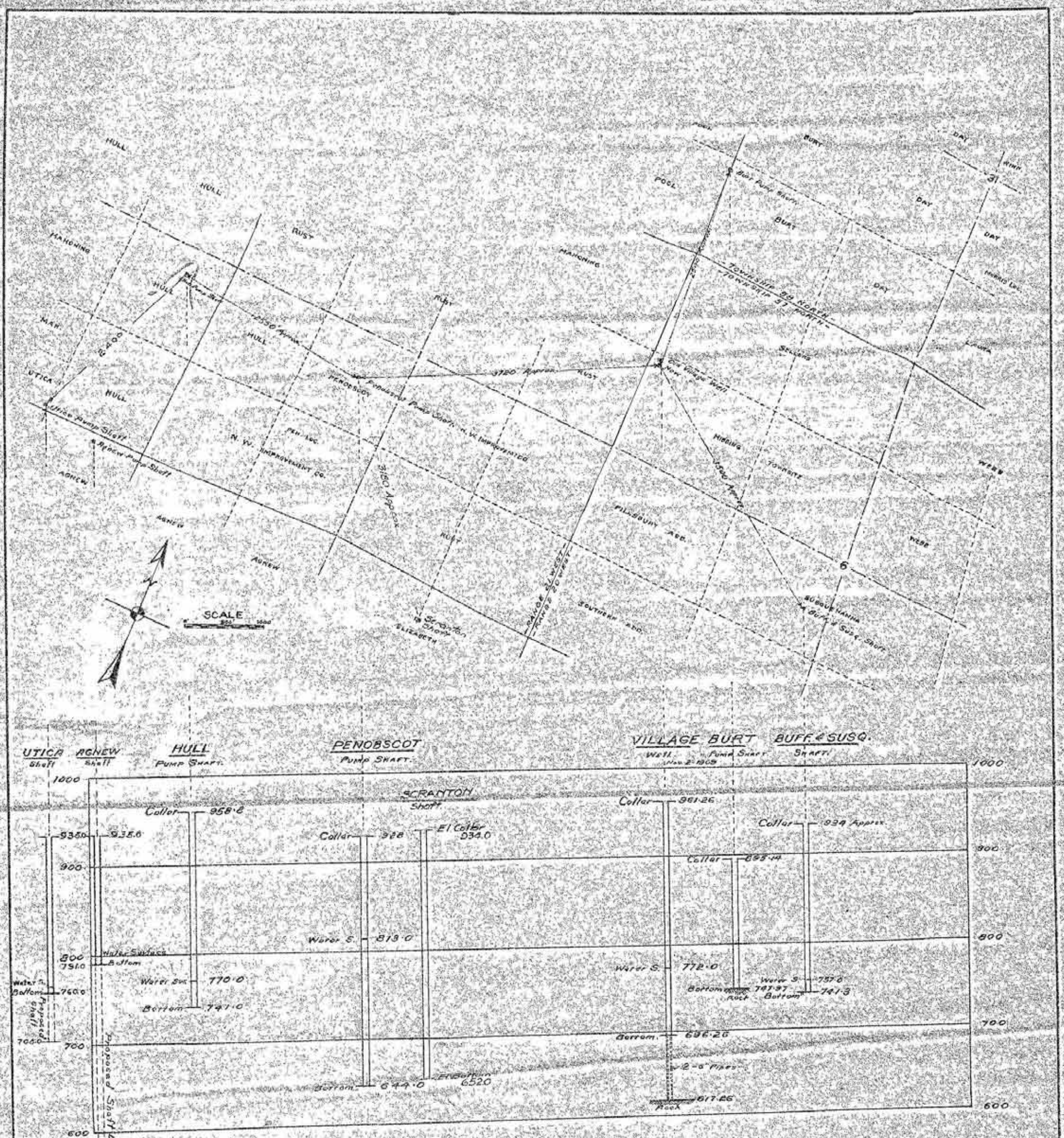


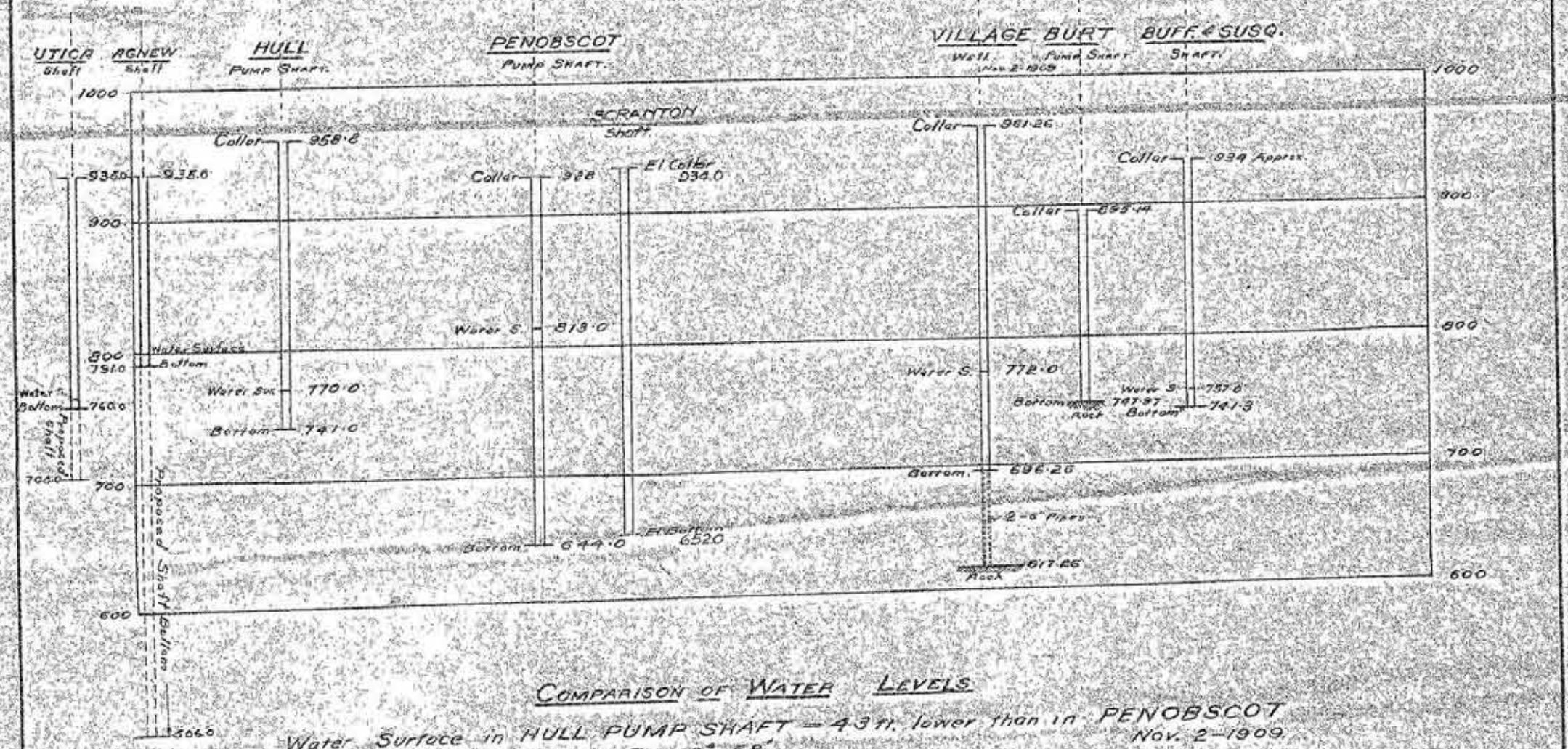
04 1531 1946 1-8-46 Penobscot-Rust-Impro Open Pit H-86

23692

09 1531 1947 1-1-47 PENOBSCOT MINE-400 FT LEV A04 4-25-07 17E 18E 19E







COMPARISON OF WATER LEVELS

Water Surface in HULL PUMP SHAFT — 43 ft. lower than in PENOBSCOT Nov. 2-1909
HYDRAULIC ANGLE = 0°-58'

Water Surface in VILLAGE WELL — 41 ft. lower than in PENOBSCOT Nov. 2-1909.
HYDRAULIC ANGLE = 0°-37'

Norman Shaft — Water level 82 [illegible]
[illegible] Shaft — Water in Sump 720 [illegible]

OLIVER IRON MINING CO.

WATER LEVELS IN SHAFTS IN VICINITY OF HIBBING

Hibbing, Minn. Sept. 1-1910
W.C.S.

H2819 — 9