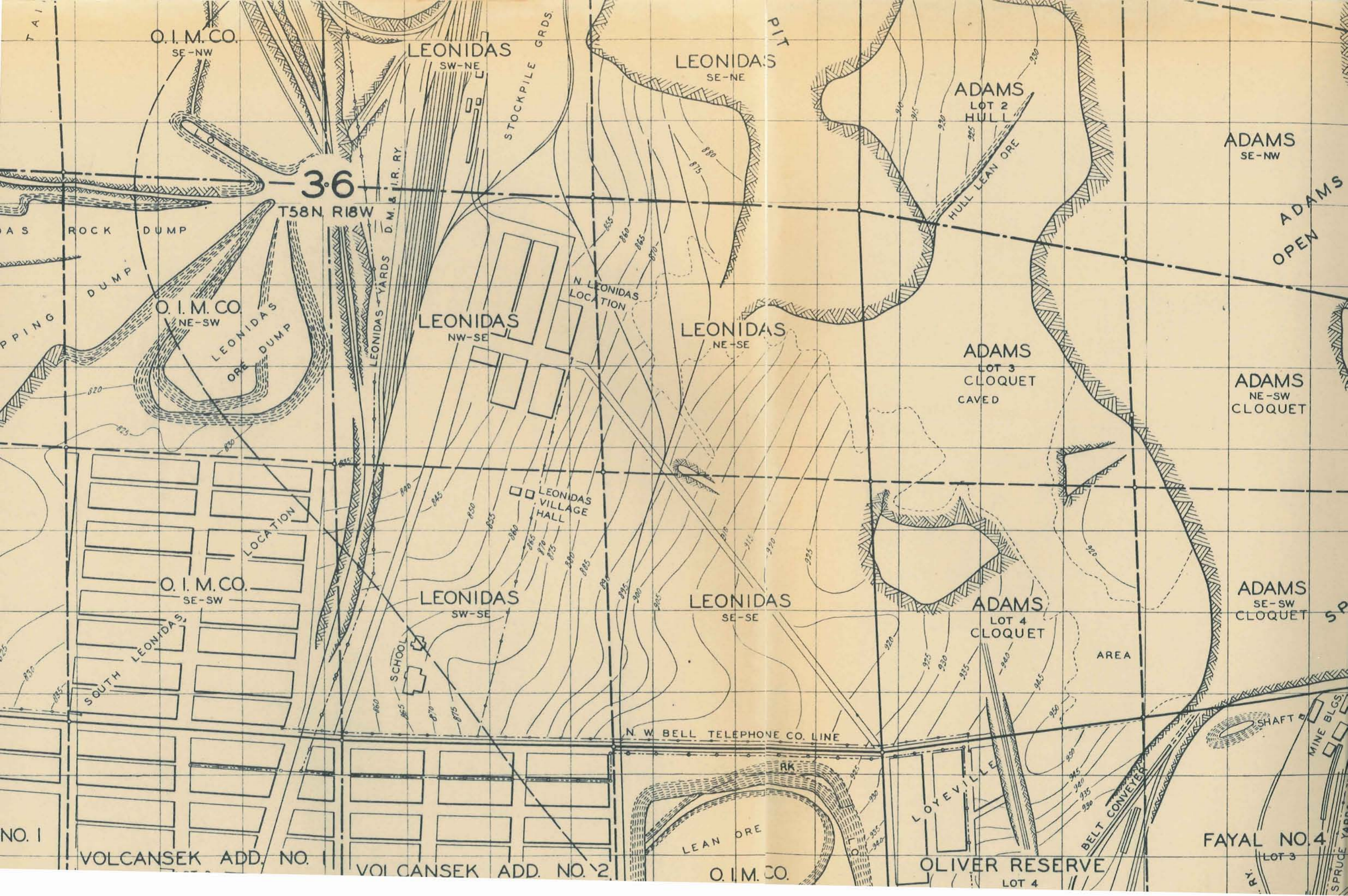


OLIVER IRON MINING CO.
 MAP OF
LEONIDAS MINE
 ADAMS DISTRICT
 LEONIDAS
 MICHIGAN



LEONIDAS
 MICHIGAN





M. BLAZEVICH

O.I.M. CO.
81-58

O.I.M. CO.
81-58

O.I.M. CO.
81-58

GROSS RES
88-58

O.I.M. CO.
81-58

O.I.M. CO.
81-58

LEONIDAS
81-58

LEONIDA
81-58

O.I.M. CO.
81-58

O.I.M. CO.
81-58

LEONIDAS
81-58

LEONIDA
81-58

36

TSHH RBW

O.I.M. CO.
81-58

O.I.M. CO.
81-58

LEONIDAS
81-58

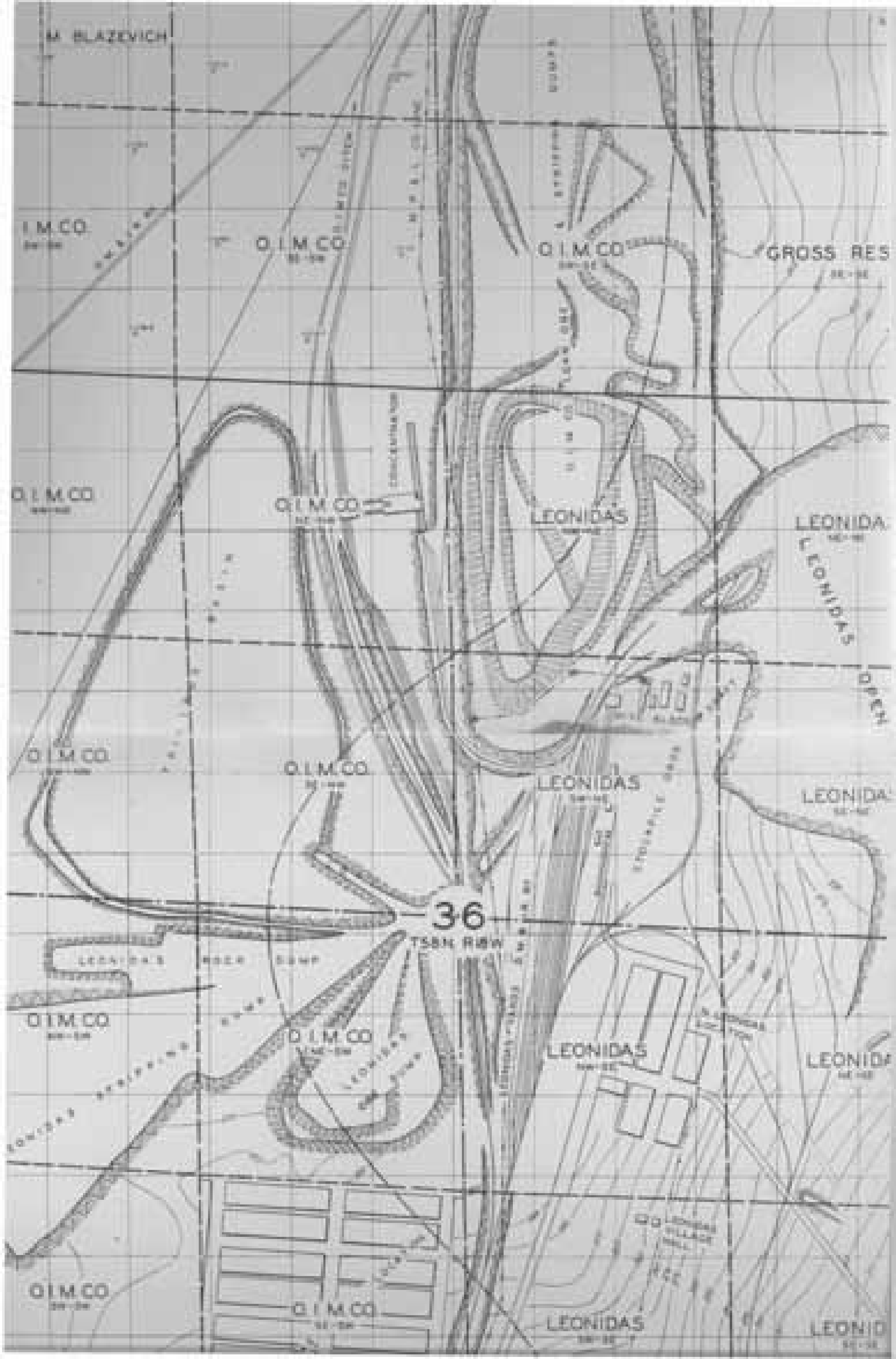
LEONIDA
81-58

O.I.M. CO.
81-58

O.I.M. CO.
81-58

LEONIDAS
81-58

LEONIDA
81-58





OLIVER IRON MINING CO.
MAP OF
LEONIDAS MINE
202 FT. SUB



SCALE
 0' 50' 100'

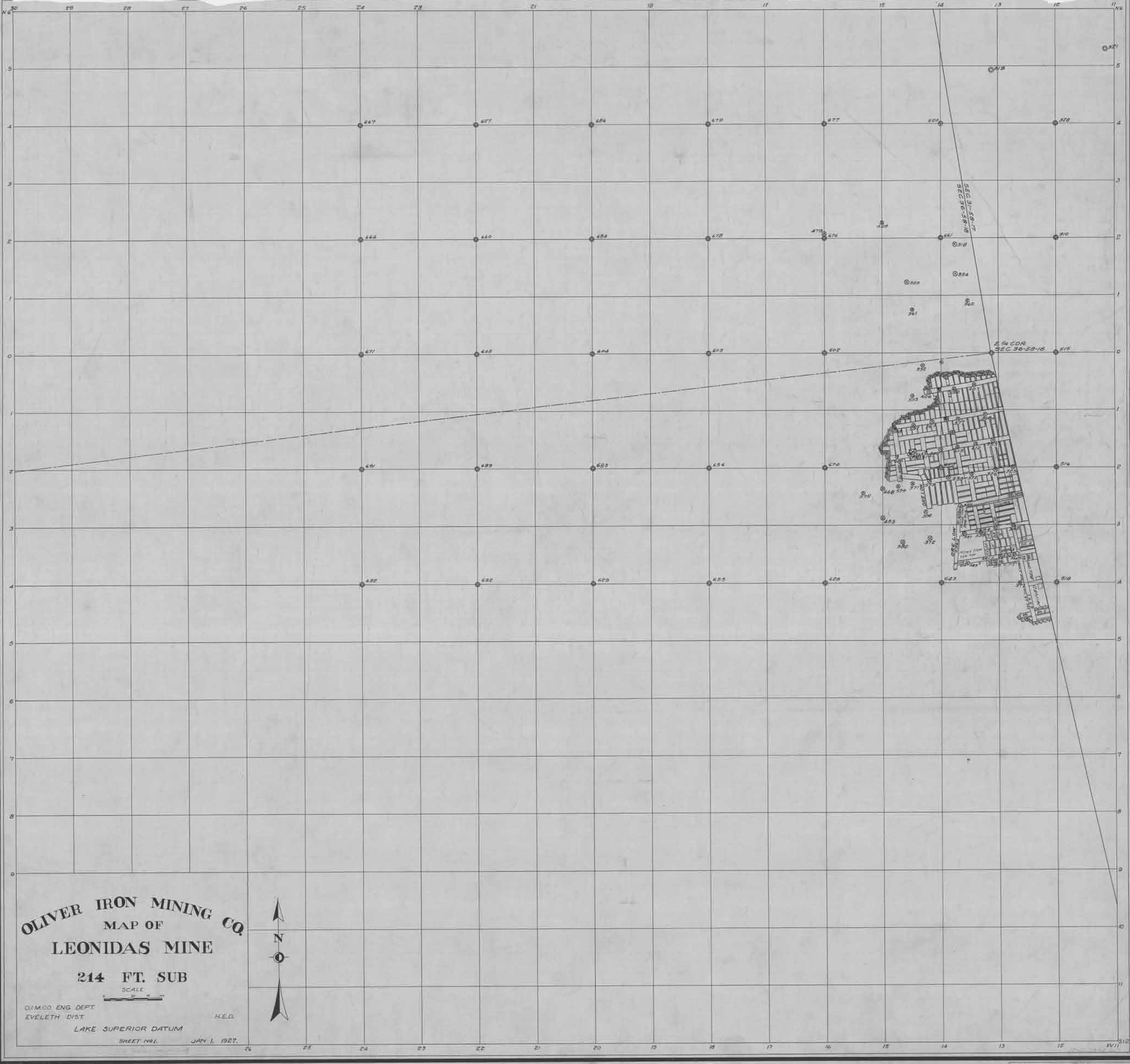
LAKE SUPERIOR DATUM

ENGINEERING DEPT.
 EVELETH, MINN.

H.E.D.

SHEET NO. 1.

JAN. 1, 1927.



OLIVER IRON MINING CO.
MAP OF
LEONIDAS MINE

214 FT. SUB

SCALE

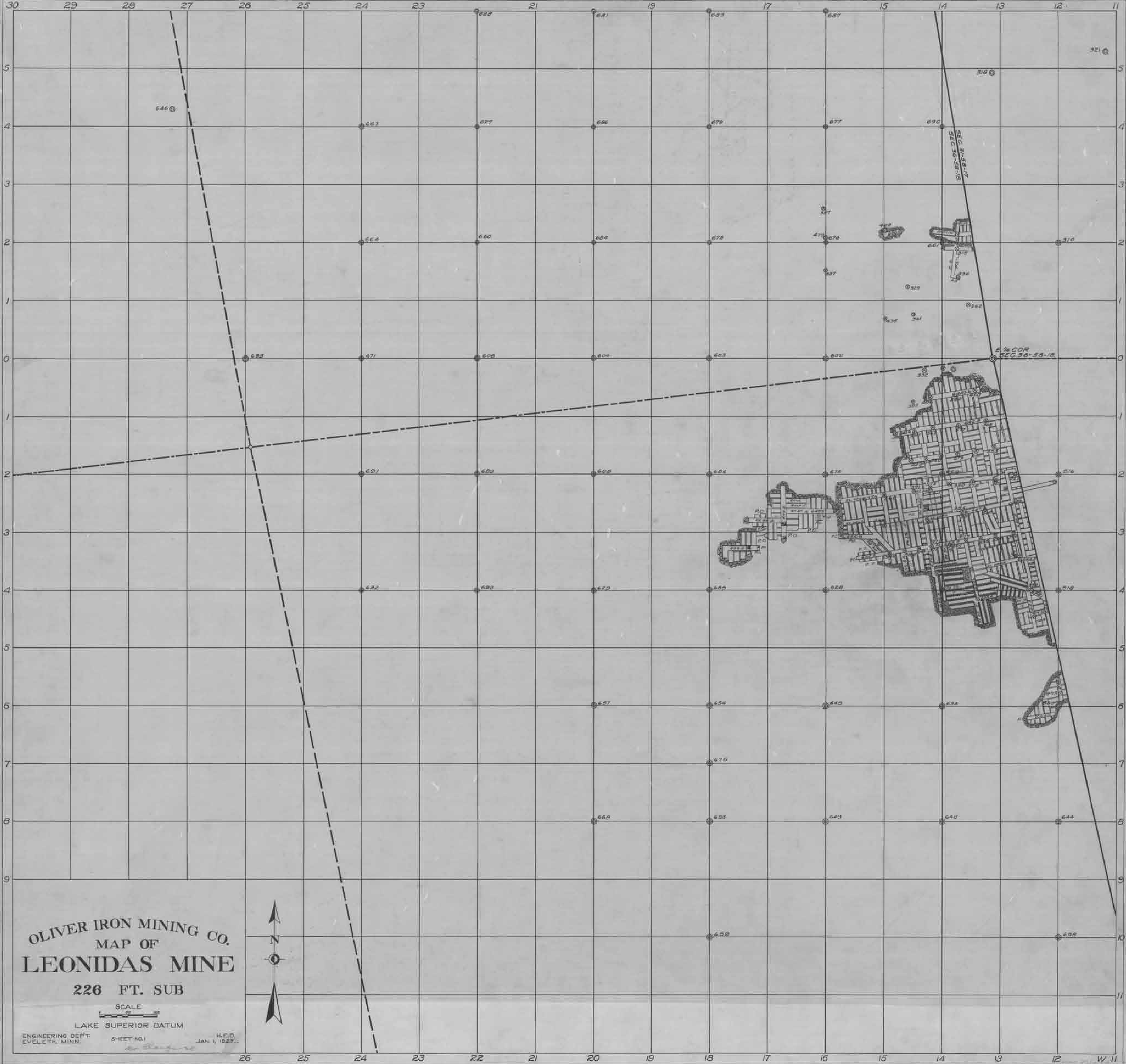
DUMCO ENG. DEPT.
EVELETH DIST.

H.E.D.

LAKE SUPERIOR DATUM

SHEET NO. 1. JAN. 1, 1927.





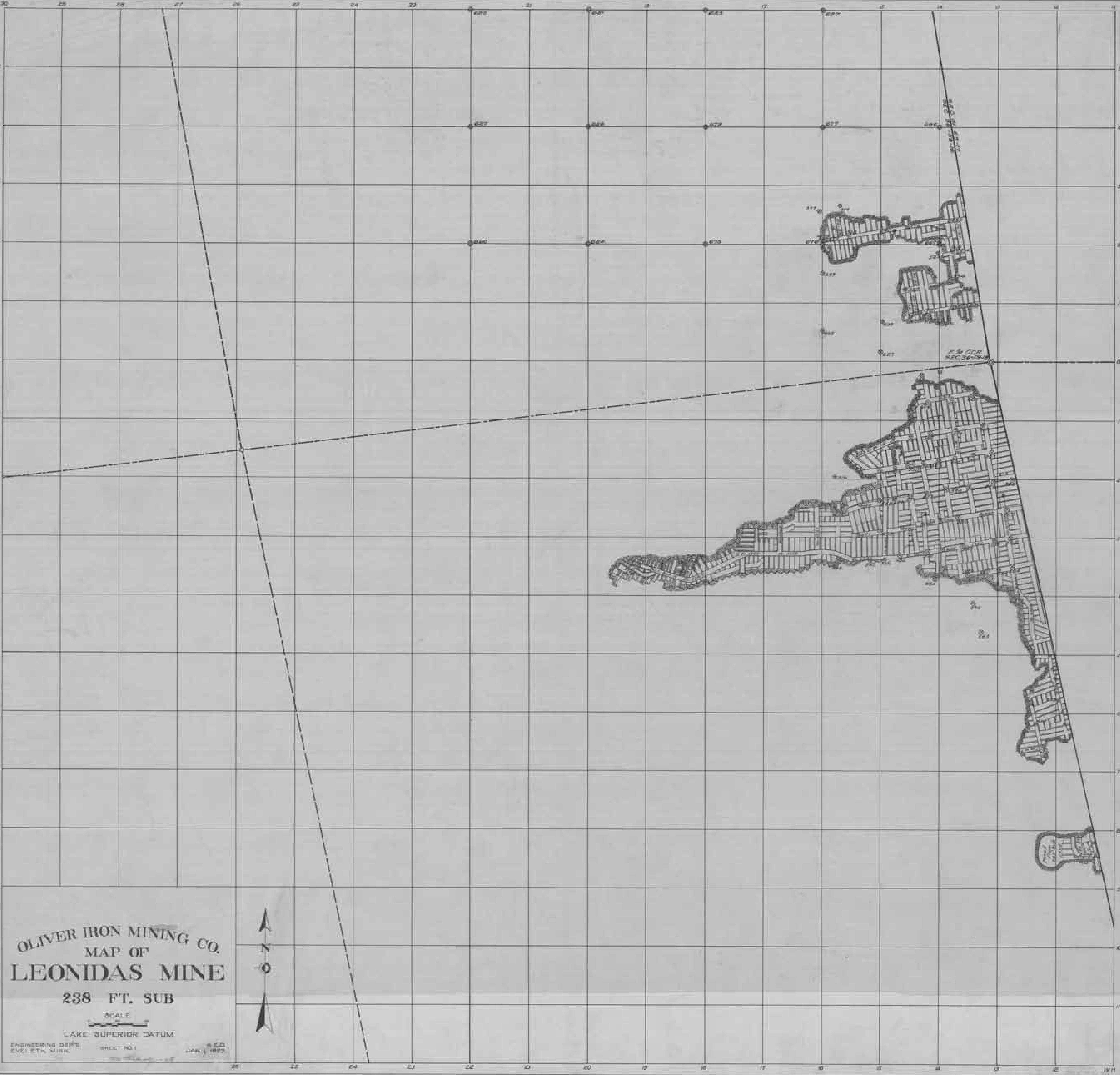
OLIVER IRON MINING CO.
 MAP OF
 LEONIDAS MINE

226 FT. SUB

SCALE

LAKE SUPERIOR DATUM

ENGINEERING DEPT.
 EVELETH, MINN. SHEET NO. 1 H.E.D. JAN. 1, 1927.



OLIVER IRON MINING CO.
 MAP OF
 LEONIDAS MINE

238 FT. SUB

SCALE

LAKE SUPERIOR DATUM



ENGINEERING DEPT'S
 EVELETH MINE SHEET NO. 1
 H.E.O. JAN. 1, 1927

OLIVER IRON MINING CO
MAP OF
LEONIDAS MINE

250 FT. SUB
SCALE

O.I.M.CO. ENG. DEPT.
EVELETH DIST.

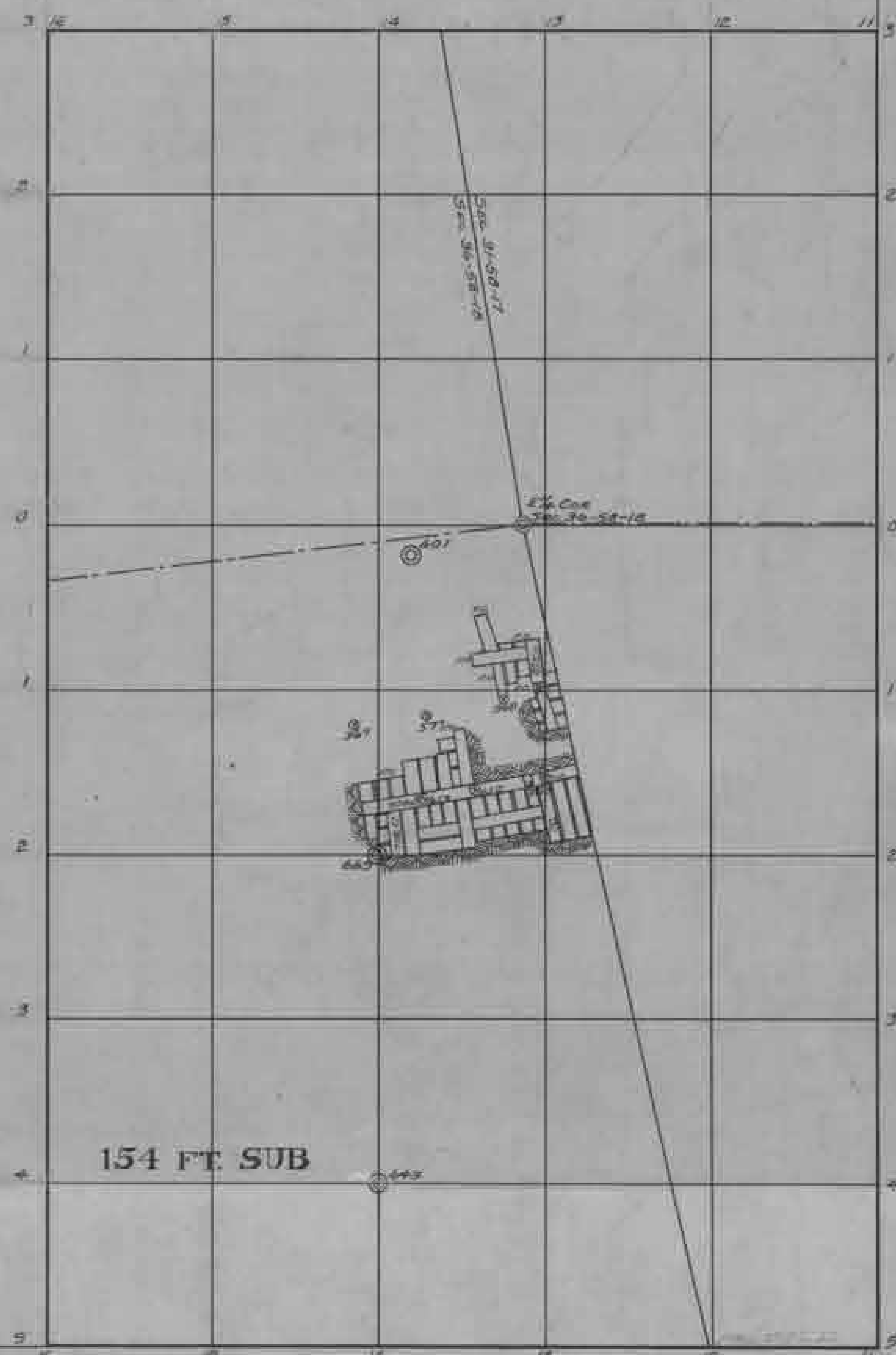
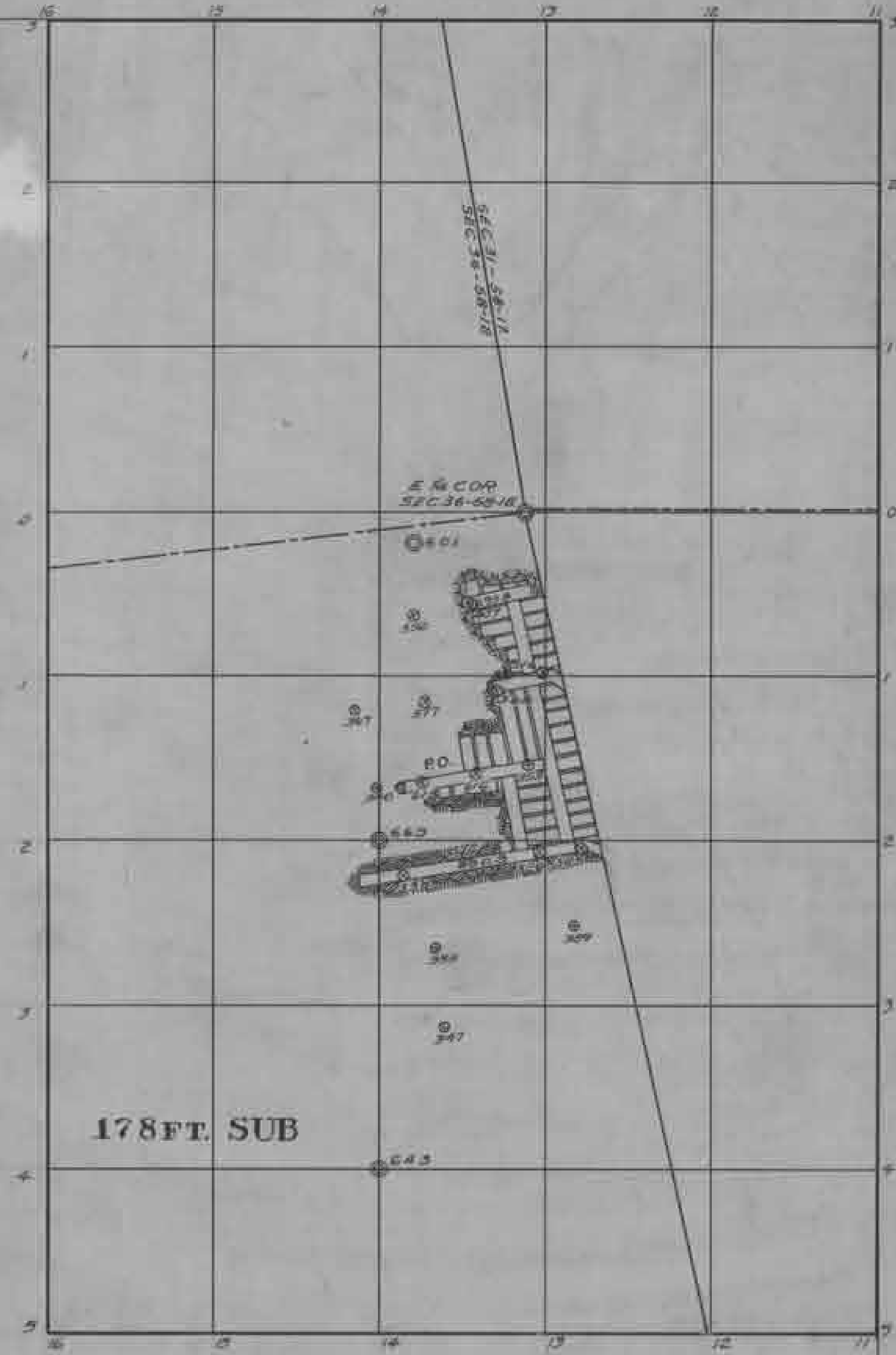
H.E.B.

LAKE SUPERIOR DATUM

SHEET NO. 1

JAN. 1, 1927.





OLIVER IRON MINING CO.
MAP OF
LEONIDAS MINE
SUB LEVELS
 SCALE
 0 50 100
 LAKE SUPERIOR DATUM
 ENGINEERING DEPT.
 EVELETH, MINN.
 SHEET NO. 1

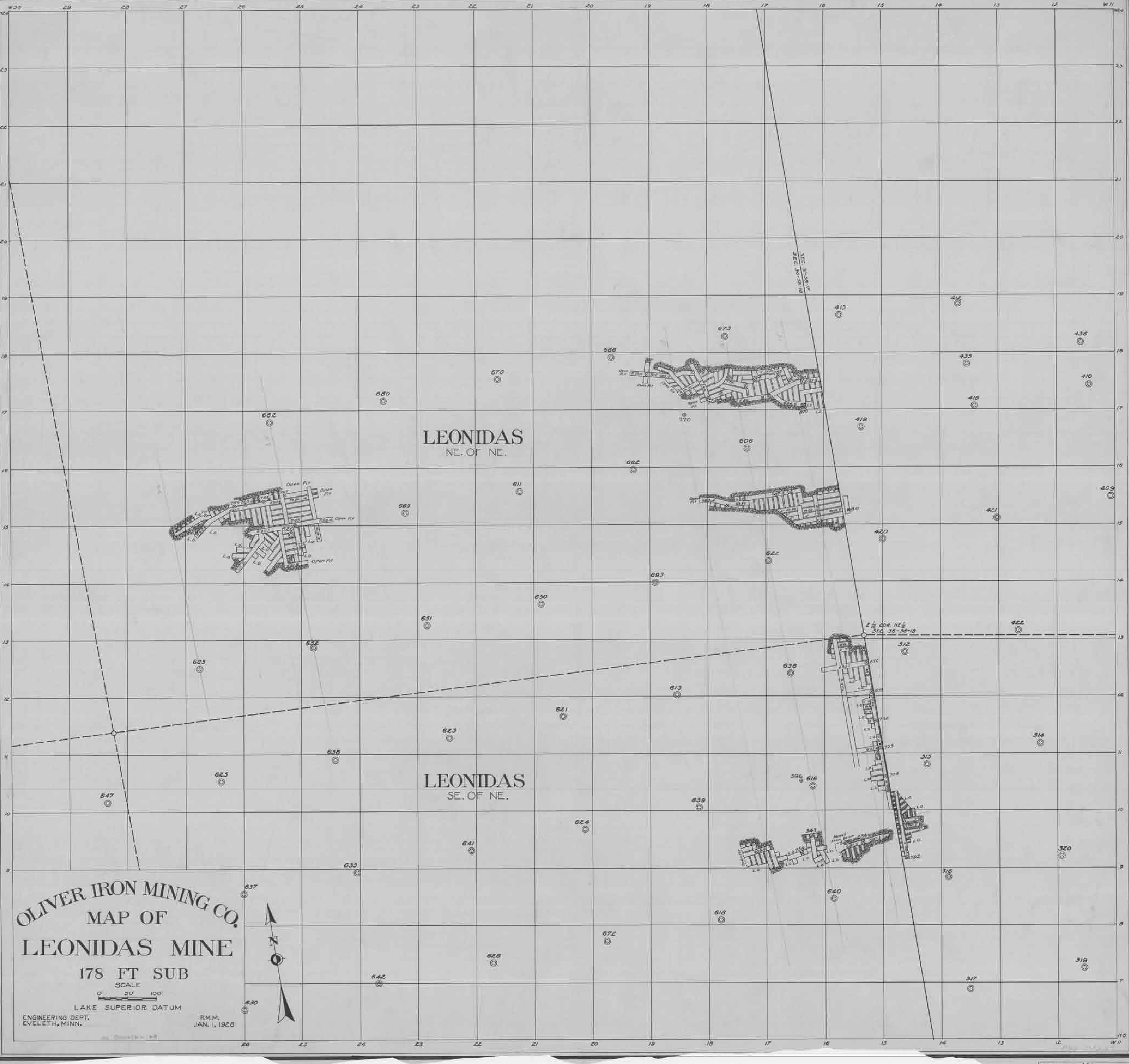


H. E. D.
 JAN. 1, 1927.

OLIVER IRON MINING CO.
MAP OF
LEONIDAS MINE
282 FT. SUB

ENGINEERED BY
FREDERICK
1907





LEONIDAS
NE. OF NE.

LEONIDAS
SE. OF NE.

OLIVER IRON MINING CO.
MAP OF
LEONIDAS MINE
178 FT SUB

SCALE
0 50 100
LAKE SUPERIOR DATUM
ENGINEERING DEPT.
EVELETH, MINN.
R.M.M.
JAN. 1, 1928



LEONIDAS
SE. OF NE.

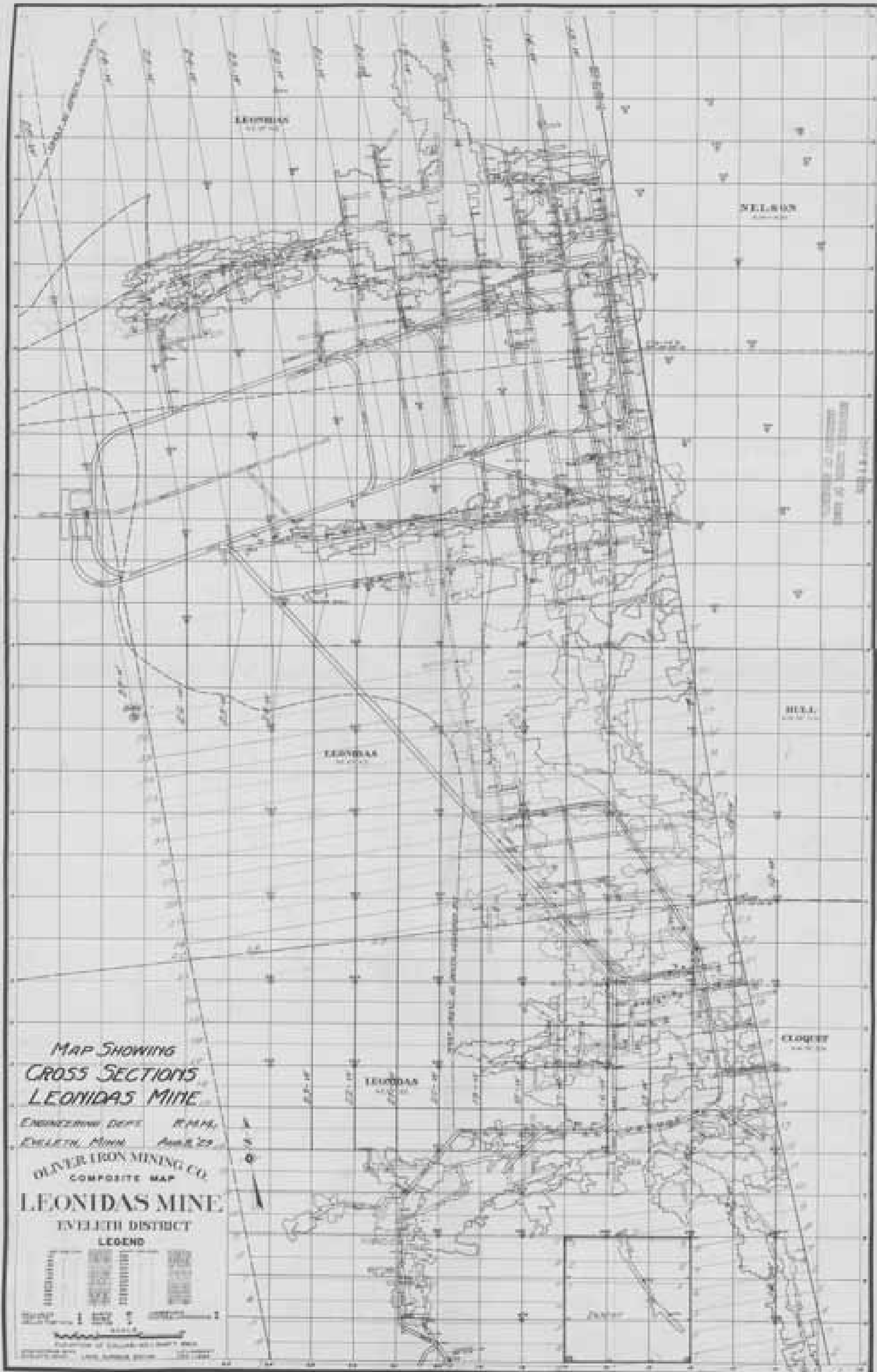
LEONIDAS
NE. OF SE.

OLIVER IRON MINING CO.
MAP OF
LEONIDAS MINE

274 FT. SUB

SCALE 1" = 100'
DATE 1907
BY J. H. ...





MAP SHOWING
CROSS SECTIONS
LEONIDAS MINE

ENGINEERING DEPT. R.M.M.
EUREKA, CALIF. APRIL 22

OLIVER IRON MINING CO.
COMPOSITE MAP

LEONIDAS MINE
EUREKA DISTRICT

LEGEND

SHAFT	TUNNEL	DRIFT	FAULT

Scale: 1" = 100' (Horizontal)
1" = 200' (Vertical)

Copyright © 1915 by Oliver Iron Mining Co.
Eureka, California

ESTIMATED

LEONIDAS
SE. OF NE.

E 1/4 COR
SEC. 36-30-10

LEONIDAS
NE. OF SE.

SEC. 31-30-10
SEC. 36-30-10

LEONIDAS
NE. OF NE.

LEONIDAS
SE. OF NE.

OLIVER IRON MINING CO.
MAP OF
LEONIDAS MINE

190 FT. SUB

SCALE

0' 50' 100'

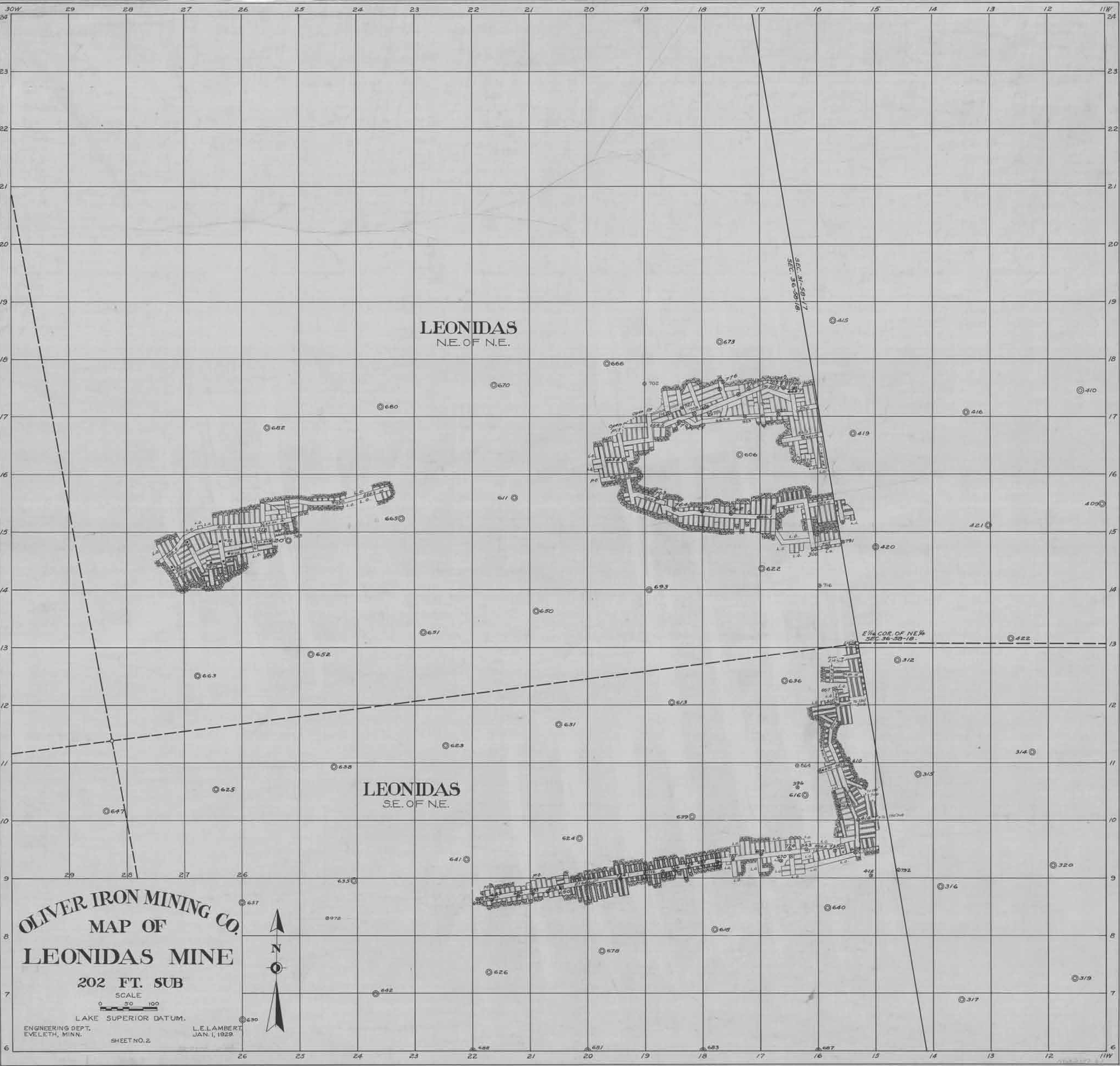
LAKE SUPERIOR DATUM

ENGINEERING DEPT.
EVELETH, MINN.

R.M.M.
JAN. 1, 1929

SHEET NO. 2





LEONIDAS
N.E. OF N.E.

LEONIDAS
S.E. OF N.E.

OLIVER IRON MINING CO.
MAP OF
LEONIDAS MINE
202 FT. SUB
SCALE
0 50 100
LAKE SUPERIOR DATUM.
ENGINEERING DEPT.
EVELETH, MINN.
SHEET NO. 2
L. L. LAMBERT
JAN. 1, 1929.





OLIVER IRON MINING CO.
MAP OF
LEONIDAS MINE
214 FT. SUB
SCALE
0 50 100
LAKE SUPERIOR DATUM.
ENGINEERING DEPT.
EVELETH, MINN.
SHEET NO. 2



L. LAMBERT,
JAN. 1, 1928.



OLIVER IRON MINING CO.
MAP OF
LEONIDAS MINE
226 FT. SUB
 SCALE
 O.I.M.CO. ENG. DEPT.
 EVELETH DIST.
 LAKE SUPERIOR DATUM.
 SHEET NO. 2
 JAN. 1, 1929.



LEONIDAS
SE. OF NE.

LEONIDAS
NE. OF SE.

OLIVER IRON MINING CO.
MAP OF
LEONIDAS MINE
200 FT. SCL.



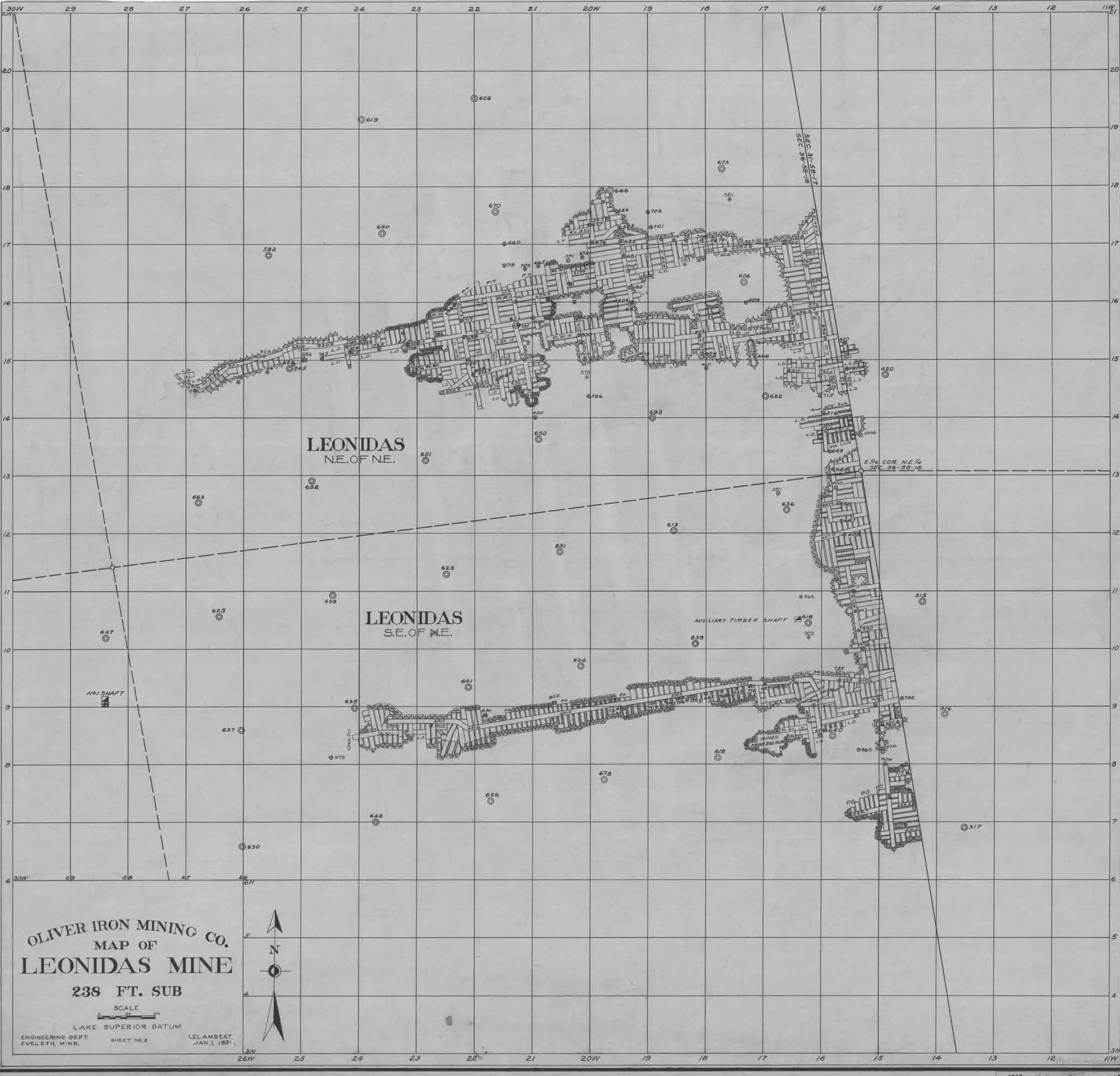
LEONIDAS
SE. OF NE.

LEONIDAS
NE. OF SE.

OLIVER IRON MINING CO
MAP OF
LEONIDAS MINE
200 FT. SUB

1
0
1





OLIVER IRON MINING CO.
MAP OF
LEONIDAS MINE

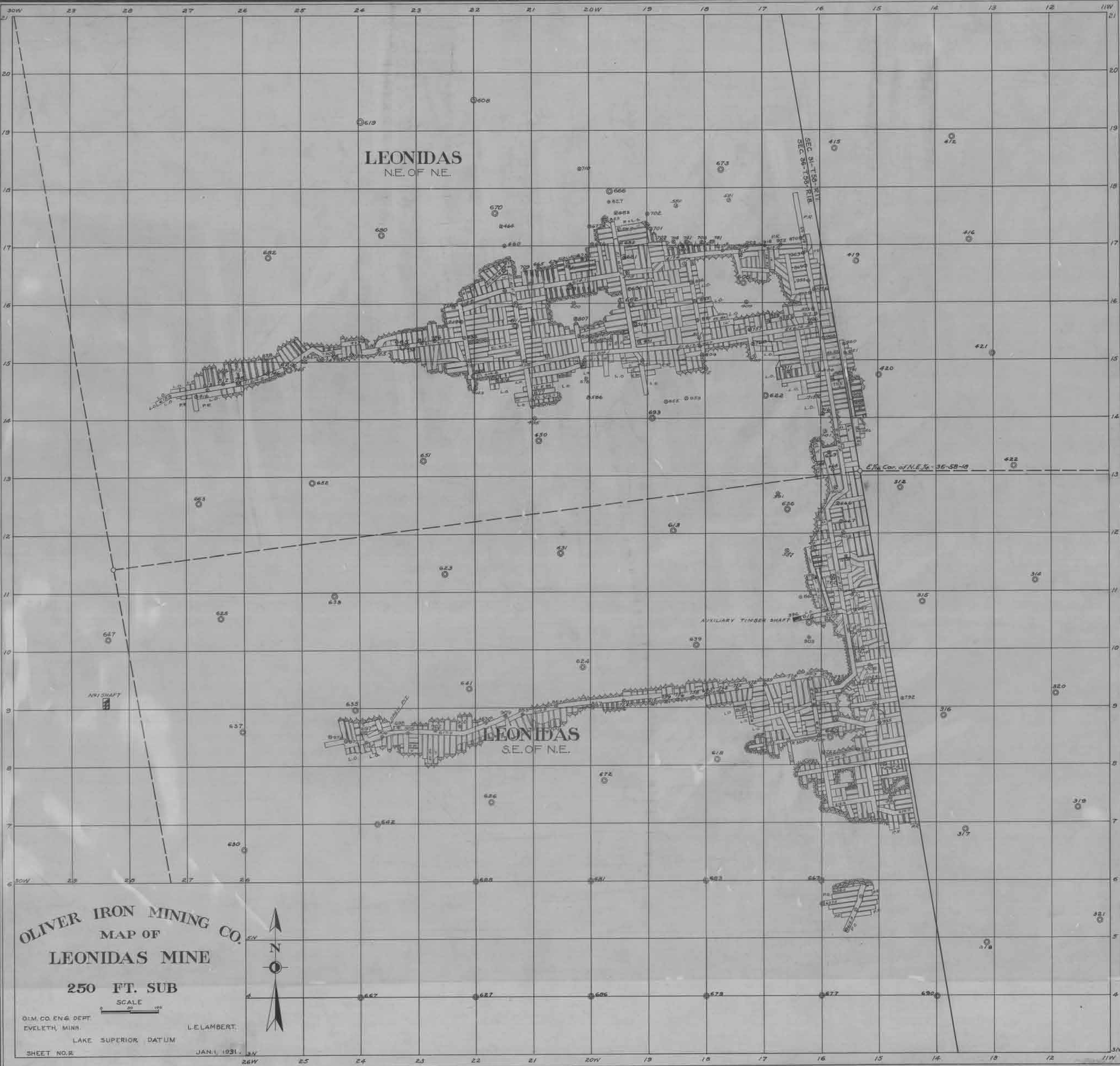
238 FT. SUB

SCALE
1" = 100'

LAKE SUPERIOR DATUM

ENGINEERING DEPT. EVELETH, MINN. SHEET NO. 2 LELAMBERT, JAN. 1, 1931.





LEONIDAS
N.E. OF N.E.

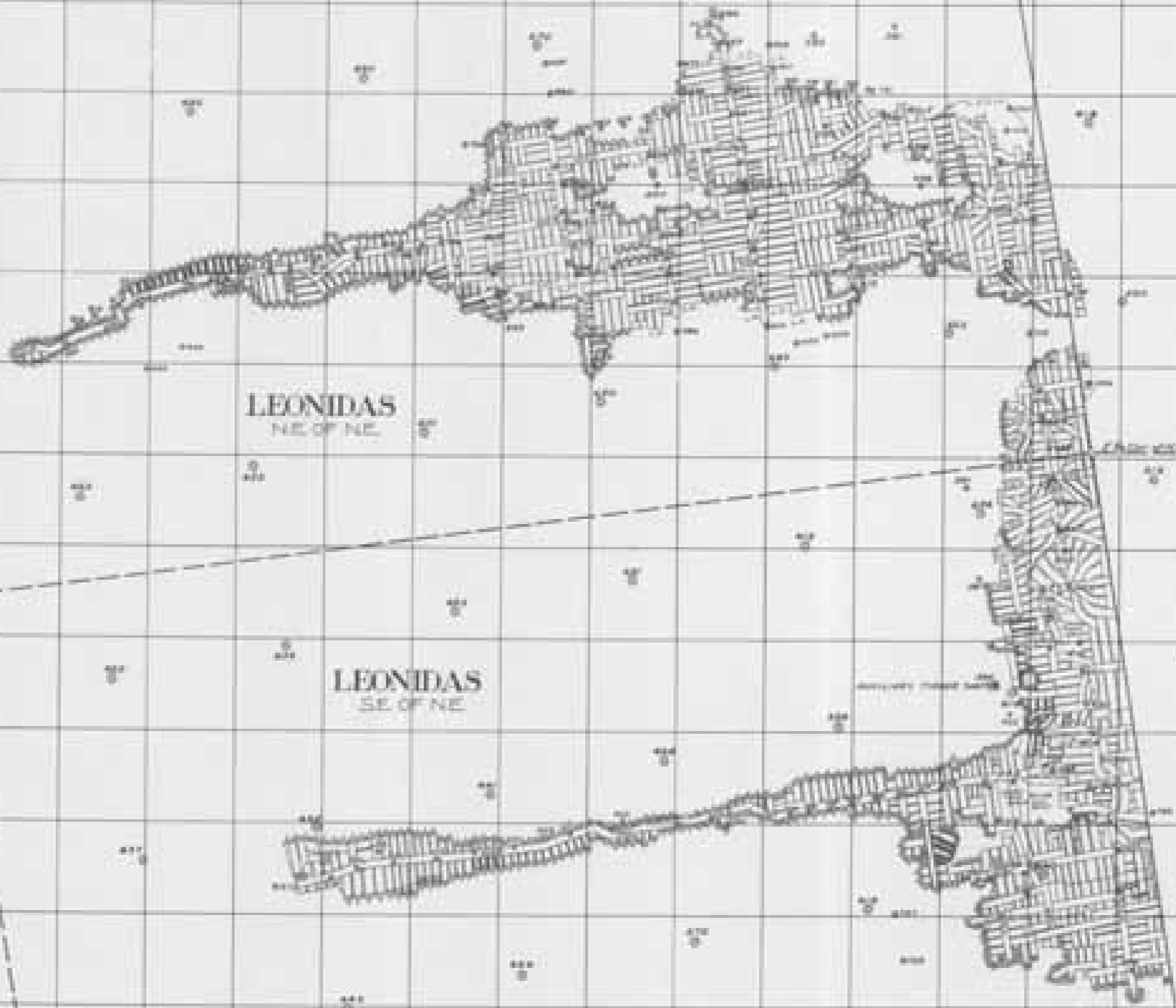
LEONIDAS
S.E. OF N.E.

OLIVER IRON MINING CO.
MAP OF
LEONIDAS MINE

250 FT. SUB
SCALE
0 50 100

OLM. CO. ENG. DEPT.
EVELETH, MINN.
LAKE SUPERIOR DATUM
SHEET NO. 2
JAN. 1, 1931.
L. E. LAMBERT.





LEONIDAS
NE OF NE

LEONIDAS
SE OF NE

OLIVER IRON MINING CO.
MAP OF
LEONIDAS MINE

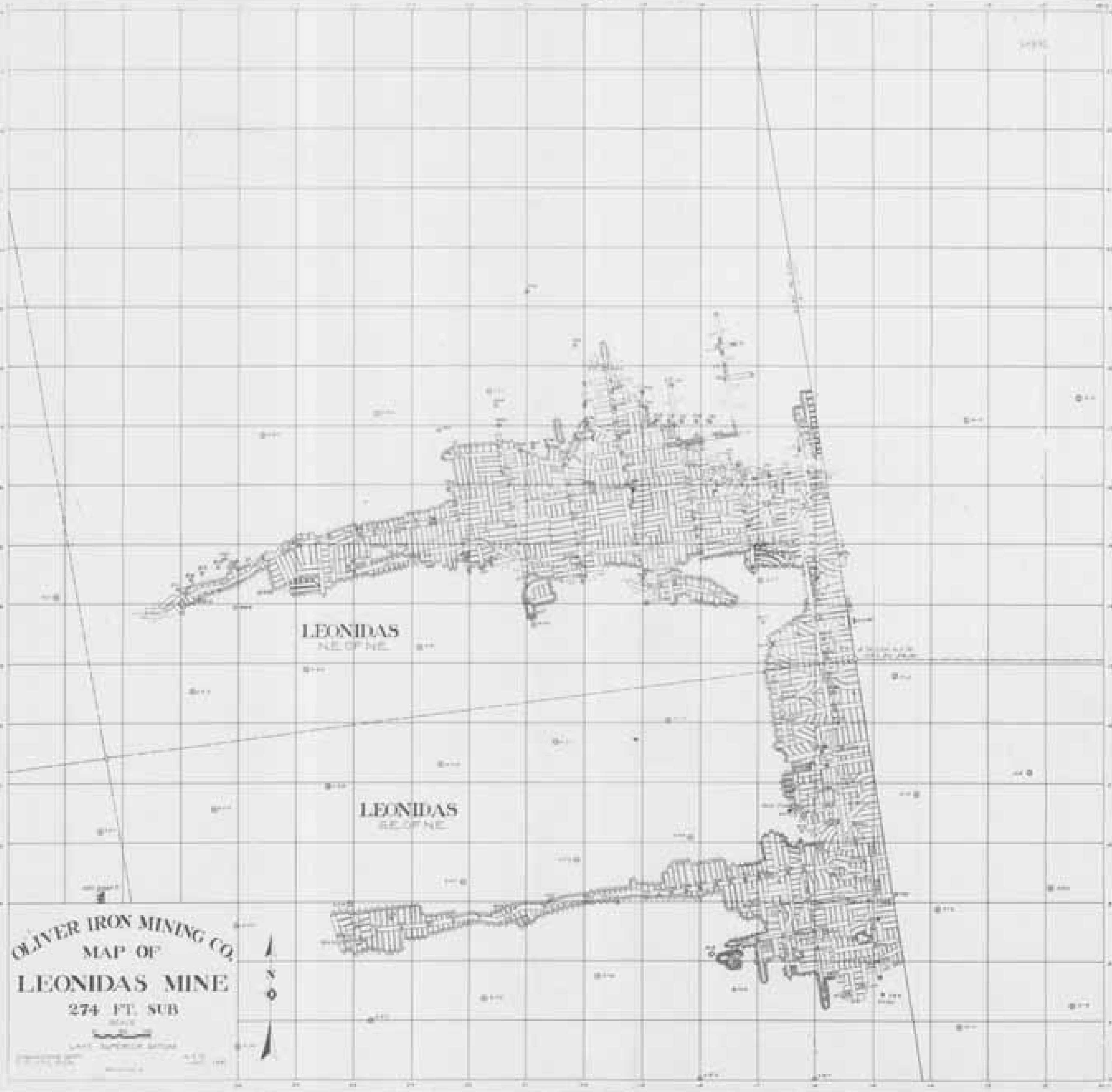
262 FT. SUB



MADE AND PUBLISHED BY
OLIVER IRON MINING CO.
LEONIDAS, MISSOURI
1911

OLIVER IRON MINING CO.
MAP OF
LEONIDAS MINE
274 FT. SUB

Scale
L.A.S. SYSTEM
1910



OLIVER IRON MINING CO
MAP OF
LEONIDAS MINE

286 FT. SUB

SCALE

1" = 100 FT.

AS SHOWN BY SURVEY

BY H. C. BROWN
JANUARY 1910



LEONIDAS
SE. OF NE

LEONIDAS
NE. OF SE

OLIVER IRON MINING CO.
LEONIDAS MINE
310 FT. SUB
1912



LEONIDAS
SE OF NE

LEONIDAS
NE OF SE

OLIVER IRON MINING CO
MAP OF
LEONIDAS MINE

322 FT. SUB



Scale: 1" = 1000 FT.
Date: 1910
By: [illegible]



LEONIDAS
SE. OF NE.

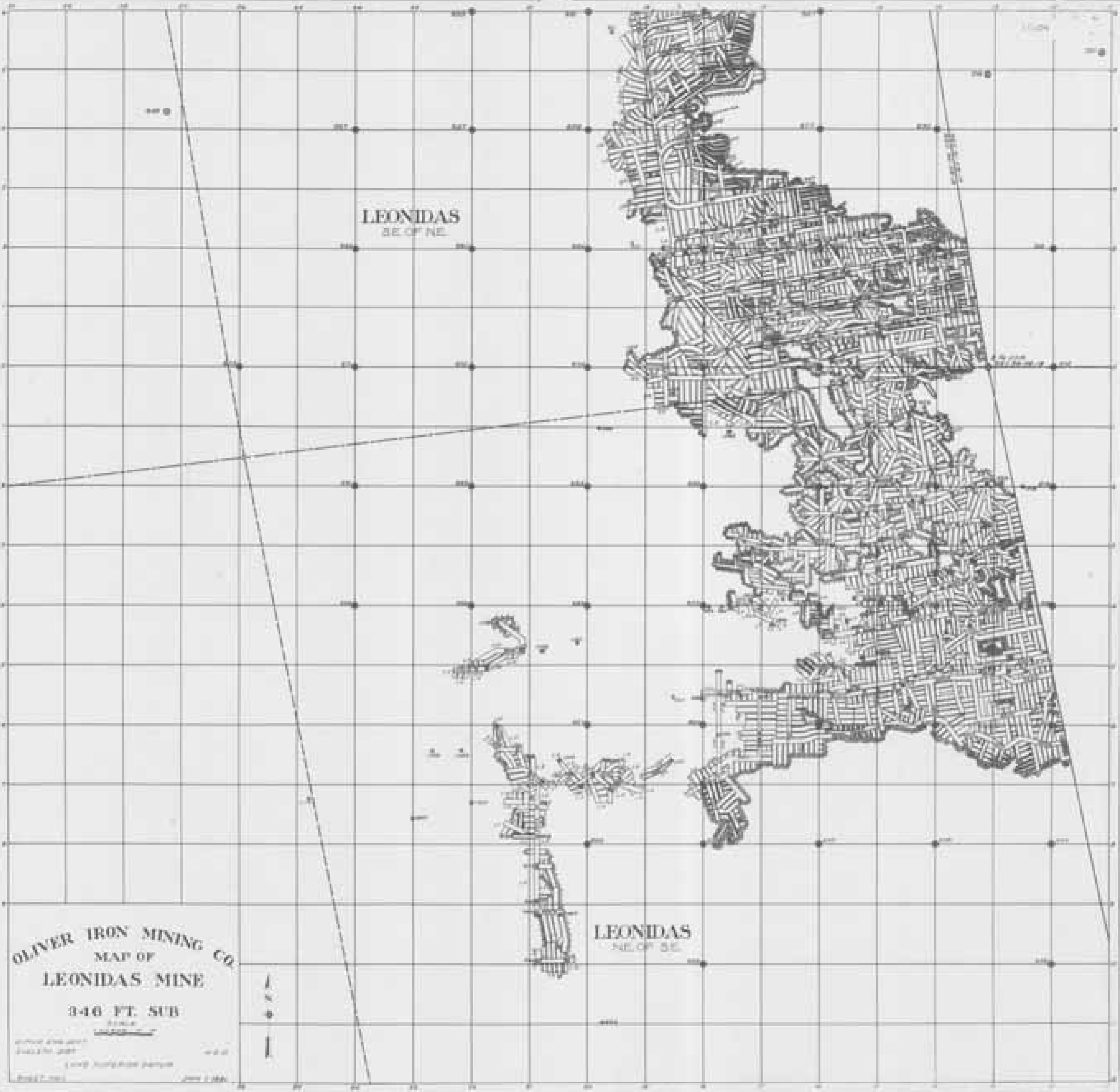
LEONIDAS
SE.

OLIVER IRON MINING CO.
MAP OF
LEONIDAS MINE

394 FT. SUB

ENGINEER
DRAWN BY
1900





LEONIDAS
SE OF NE

LEONIDAS
NE OF SE

OLIVER IRON MINING CO
MAP OF
LEONIDAS MINE

346 FT. SUB



SCALE 1" = 100'
LARGE SCALE SECTION
1907-1911



LEONTIDAS

LEONTIDAS

LEONTIDAS

LEONTIDAS

LEONTIDAS

LEONTIDAS

LEONTIDAS

QUINCY IRON MINING CO.
COMPLETE MAP
LEONTIDAS MINE

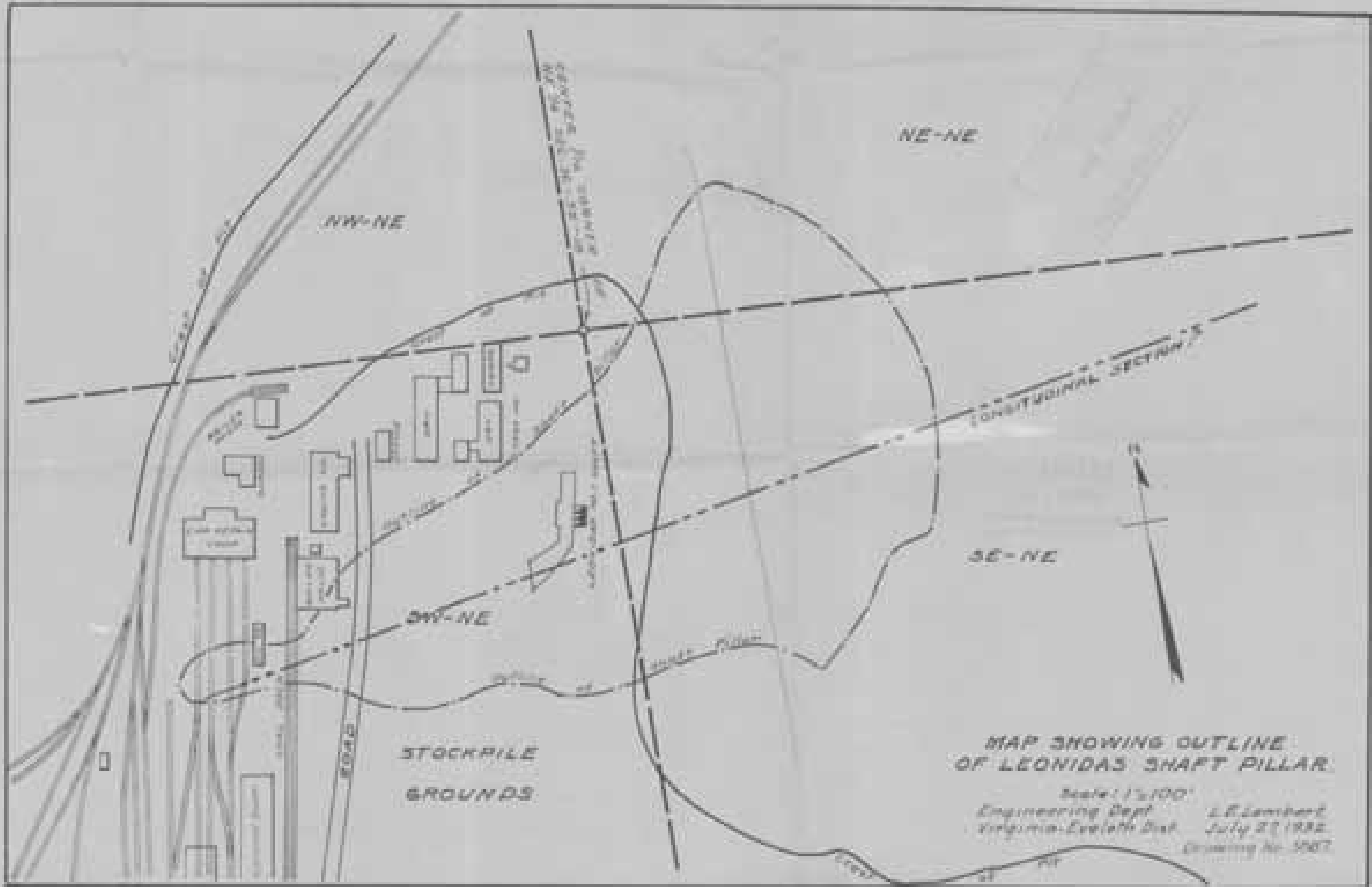
LEGEND

SHAFT	DRIFT	TUNNEL	OTHER

SCALE: 1" = 100'

DATE: 1901

BY: [Name]



NW-NE

NE-NE

LONGITUDINAL SECTION 1

SE-NE

STOCKPILE
GROUNDS

MAP SHOWING OUTLINE
OF LEONIDAS SHAFT PILLAR

Scale: 1"=100'
 Engineering Dept. L.E. Lambert
 Virginia-Evelett Dist. July 27, 1932.
 Drawing No. 5007

LEONIDAS
NE OF NE

LEONIDAS
SE OF NE

OLIVER IRON MINING CO
MAP OF
LEONIDAS MINE

200 FT. SUB

LOW SPEED ATLAS
PUBLISHED BY
AMERICAN MINING CO.



LEONIDAS
NE. 1/4 NE

LEONIDAS
SW. 1/4 NE

OLIVER IRON MINING CO.
MAP OF
LEONIDAS MINE
310 FT. SUB

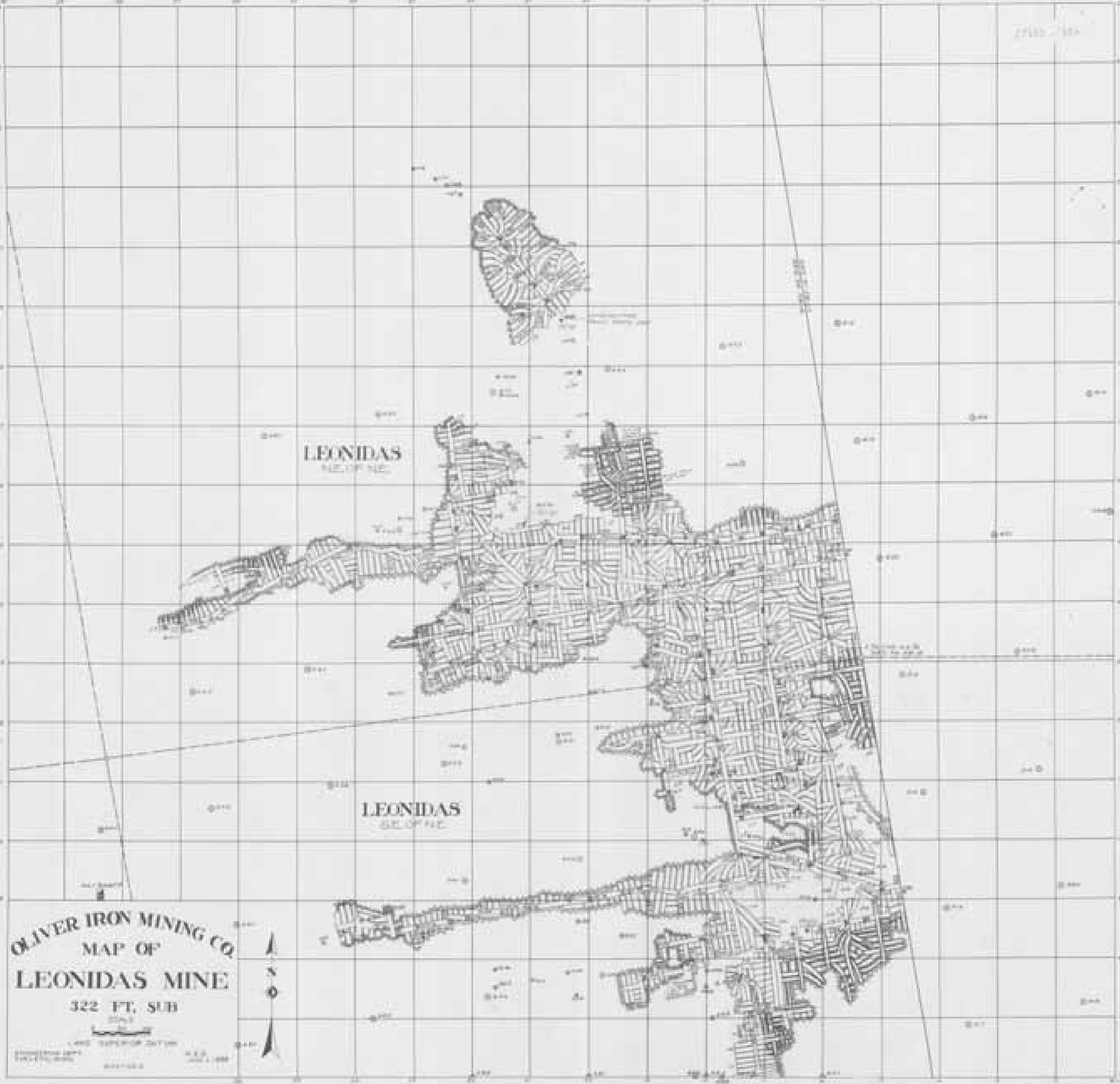
SCALE
1" = 100 FT.
L. S. OLIVER
1911



OLIVER IRON MINING CO
MAP OF
LEONIDAS MINE

322 FT. SUB

ENGINEERING
DIVISION
MAY 1, 1908



LEONIDAS
SE. OF NE.

LEONIDAS
E. OF SE.

OLIVER IRON MINING CO.
MAP OF
LEONIDAS MINE

358 FT. SUB

MINED 2000 FT.
DRAIN 200'
LAMP BURNER SECTION
SCALE 1" = 100'

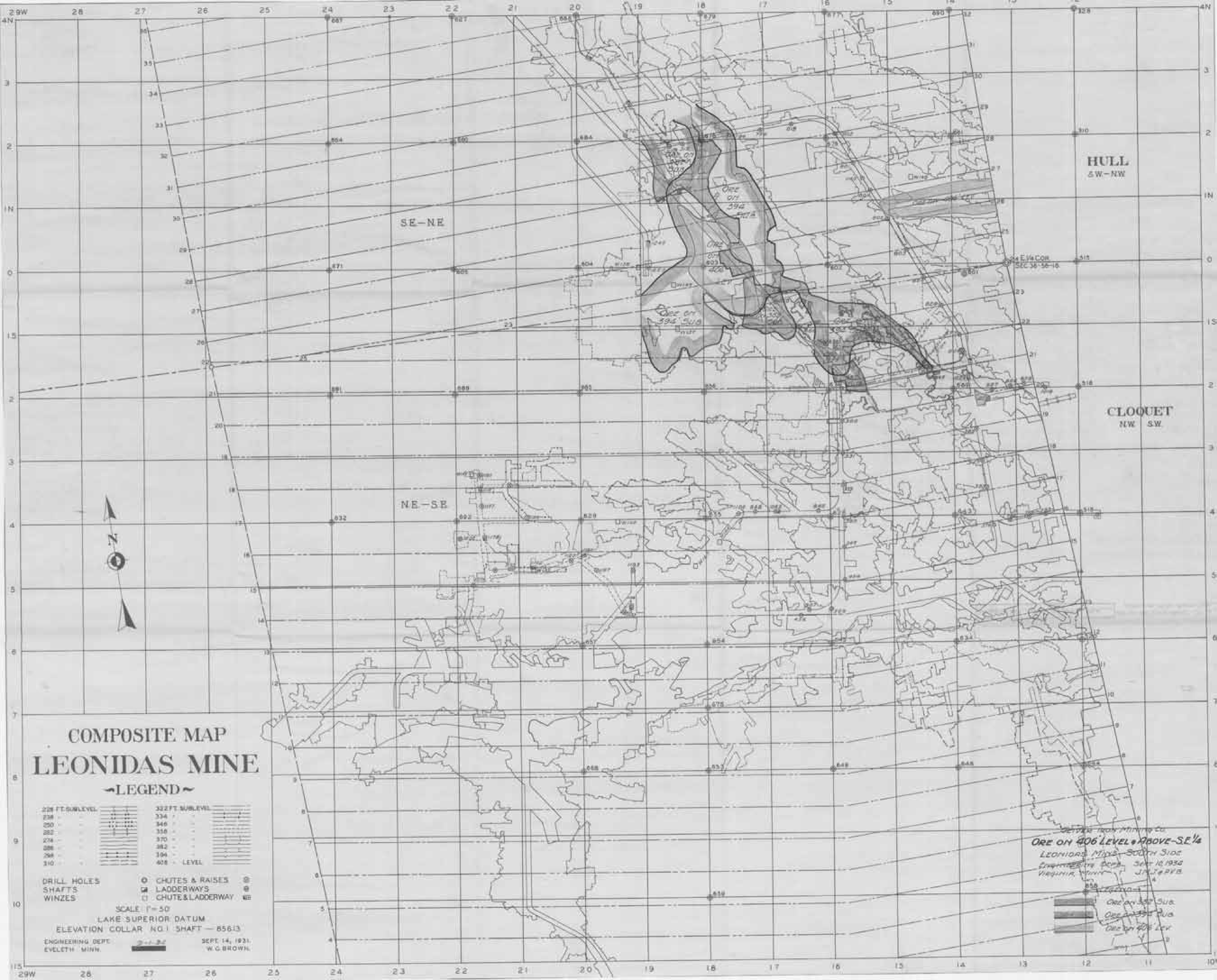




OLIVER IRON MINING CO.
MAP OF
LEONIDAS MINE
406 FT. LEVEL

SCALE
G.I.M. CO. ENG. DEPT.
EVELETH DIST.
LAKE SUPERIOR DATUM.
SHEET NO. 1
JAN. 1, 1936





COMPOSITE MAP LEONIDAS MINE

~LEGEND~

228 FT. SURLEVEL	322 FT. SUBLEVEL
238	314
250	306
262	298
274	290
286	282
298	274
310	266
	408 - LEVEL

- DRILL HOLES
- SHAFTS
- WINZES
- CHUTES & RAISES
- LADDERWAYS
- CHUTE & LADDERWAY

SCALE 1" = 50'

LAKE SUPERIOR DATUM

ELEVATION COLLAR NO. 1 SHAFT - 856.13

ENGINEERING DEPT. EVELETH MINN. SEPT. 14, 1931. W.C. BROWN

ORE ON 406 LEVEL ABOVE SE 1/4
LEONIDAS MINE SOUTH SIDE
ENGINEERING DEPT. SEPT. 10, 1930
VIRGINIA MINN. J.P. BRYAN

- Ore on 406 Sur
- Ore on 398 Sur
- Ore on 406 Lev

OLIVER IRON MINING CO.
MAP OF
LEONIDAS MINE

114 FT. SUB

Scale: 1" = 100 FT.
NORTH

LEONIDAS
NO. 107 N.E.

LEONIDAS
NO. 108 N.E.





LEONIDAS

LEONIDAS

OLIVER IRON MINING CO
MAP OF
LEONIDAS MINE

346 FT. SUB



ENGINEER: JAMES H. ...
DRAWN BY: ...
DATE: ...



OLIVER IRON MINING CO.
MAP OF
LEONIDAS MINE
358 FT. SUB
SCALE
DATE 10/15/1914



LEONIDAS
S.E. OF N.E.

LEONIDAS
N.E. OF S.E.

OLIVER IRON MINING CO.
MAP OF
LEONIDAS MINE

370 FT. SUB



Scale: 1 inch = 100 feet
Date: 1900
Sheet 1 of 1



OLIVER IRON MINING CO
MAP OF
LEONIDAS MINE
382 FT. SUB



Scale bar
LARGE SCALE DATA
SHEET 101

LEONIDAS
SE OF NE

1882-1883

1887

LEONIDAS
NE OF SE

OLIVER IRON MINING CO
MAP OF
LEONIDAS MINE

30-1 FT. SUB
SCALE OF 1" = 100 FT.
LARGEST SCALE SECTION

BLUES AND GRAY
200 FT. DEPT.
1887



LEONIDAS
NE 1/4 4E



OLIVER IRON MINING CO
MAP OF
LEONIDAS MINE

370 FT SUB

ENGINEERED BY
JAMES H. HAYES
CONSULTING ENGINEER
CHICAGO, ILL.

LEONIDAS
NE. 1/4 SEC.

LEONIDAS
SE. 1/4 SEC.

OLIVER IRON MINING CO.
MAP OF
LEONIDAS MINE

582 FT. SUB

LAKE SUPERIOR DATUM

ENGINEERING DEPT. L. LAMBERT,
EVELETH, MINN. JAN. 1940



LEONIDAS
NE OF NE

SEC 31-34-17
SEC 35-38-18

E 1/4 COR NE 1/4
SEC 36-38-18

LEONIDAS
SE OF NE

OLIVER IRON MINING CO.
MAP OF
LEONIDAS MINE

406 FT. LEV.

SCALE
0 50 100

LAKE SUPERIOR DATUM

ENGINEERING DEPT.
EVELETH, MINN.

FILED
JAN. 1, 1941

SHEET NO. 2





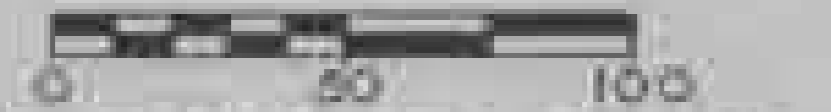
LEONIDAS
N.E. OF N.E.

LEONIDAS
S.E. OF N.E.

OLIVER IRON MINING CO.
MAP OF
LEONIDAS MINE

418 FT. SUB

SCALE



LAKE SUPERIOR DATUM
ENGINEERING DEPT. L. LAMBERT,
VIRGINIA, MINN. JAN-1, 1941



LEONIDAS
NE. 1/4 SEC.

LEONIDAS
SE. 1/4 SEC.

OLIVER IRON MINING CO.
MAP OF
LEONIDAS MINE
394 FE. SUB



SCALE
LARGE SURFACE SYSTEM
PROPORTION 1" = 100 FE.
DATE 1900



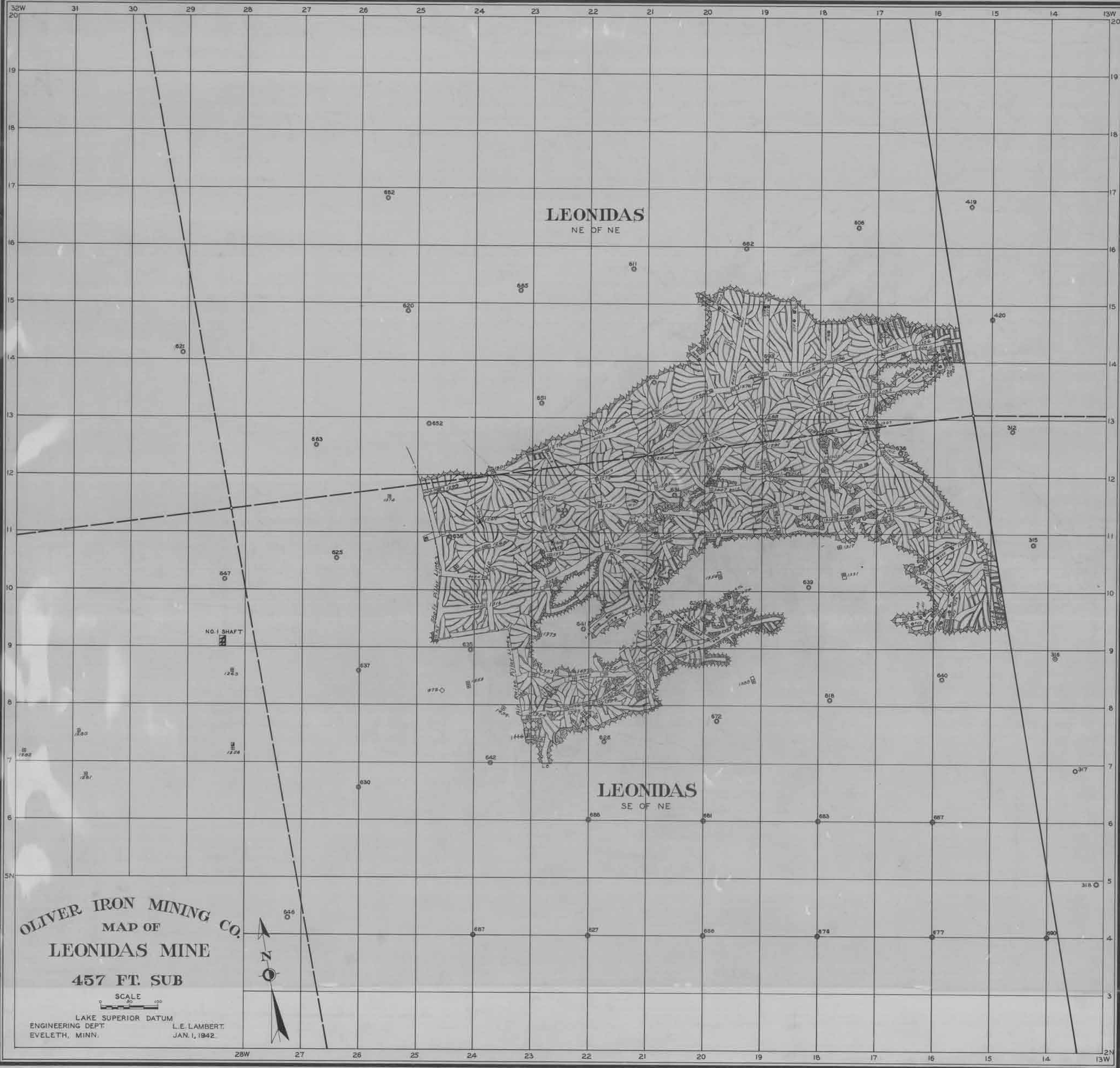
LEONIDAS
N.E. OF N.E.

LEONIDAS
S.E. OF N.E.

OLIVER IRON MINING CO.
MAP OF
LEONIDAS MINE
442 FT. SUB

SCALE
0 50 100
LAKE SUPERIOR DATUM
ENGINEERING DEPT.
EVELETH, MINN.
Y. Y. W. - H. E. D.
JAN 1, 1912.





LEONIDAS
NE OF NE

LEONIDAS
SE OF NE

OLIVER IRON MINING CO.
MAP OF
LEONIDAS MINE
457 FT. SUB

SCALE
0 50 100
LAKE SUPERIOR DATUM
ENGINEERING DEPT. L.E. LAMBERT.
EVELETH, MINN. JAN. 1, 1942.

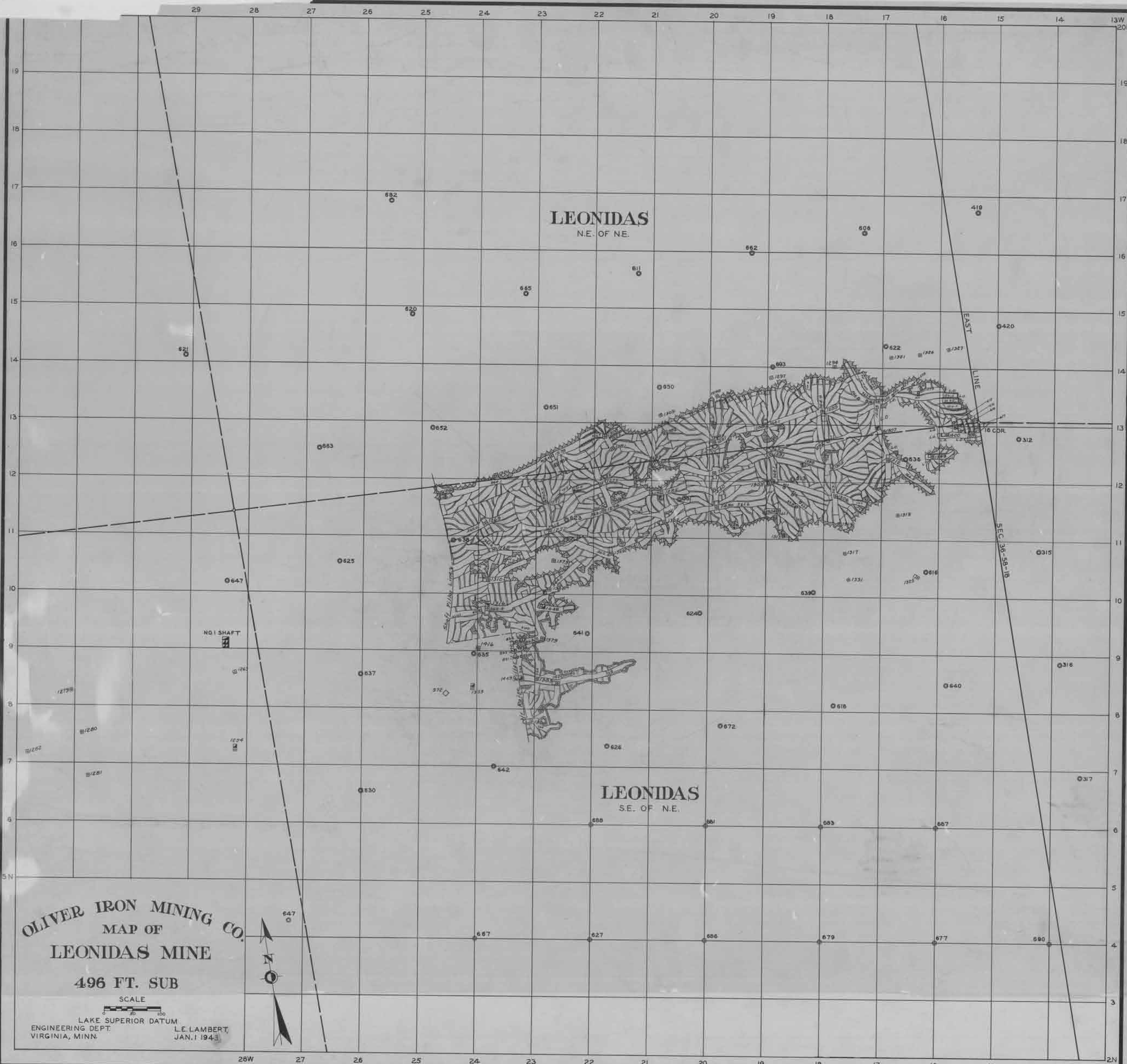




OLIVER IRON MINING CO.
MAP OF
LEONIDAS MINE
470 FT. SUB

SCALE
0 50 100
LAKE SUPERIOR DATUM
ENGINEERING DEPT.
EVELETH, MINN. L. E. LAMBERT,
JAN. 1, 1942.





LEONIDAS
N.E. OF N.E.

LEONIDAS
S.E. OF N.E.

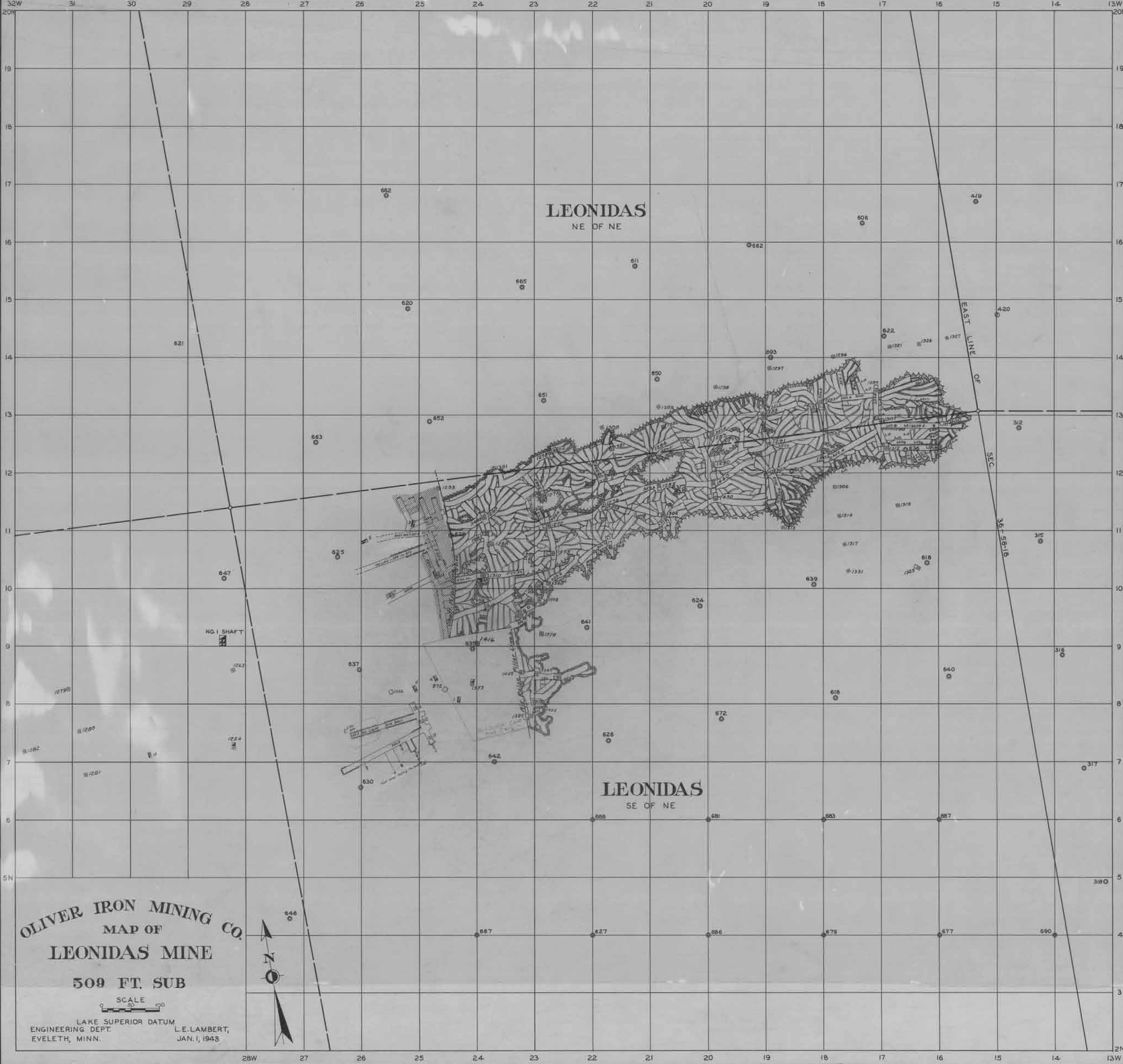
OLIVER IRON MINING CO.
MAP OF
LEONIDAS MINE
496 FT. SUB
SCALE
LAKE SUPERIOR DATUM
ENGINEERING DEPT. L.E. LAMBERT
VIRGINIA, MINN. JAN. 1 1943



EAST
LINE
SEC. 36-58-18

NO. 1 SHAFT





LEONIDAS
NE OF NE

LEONIDAS
SE OF NE

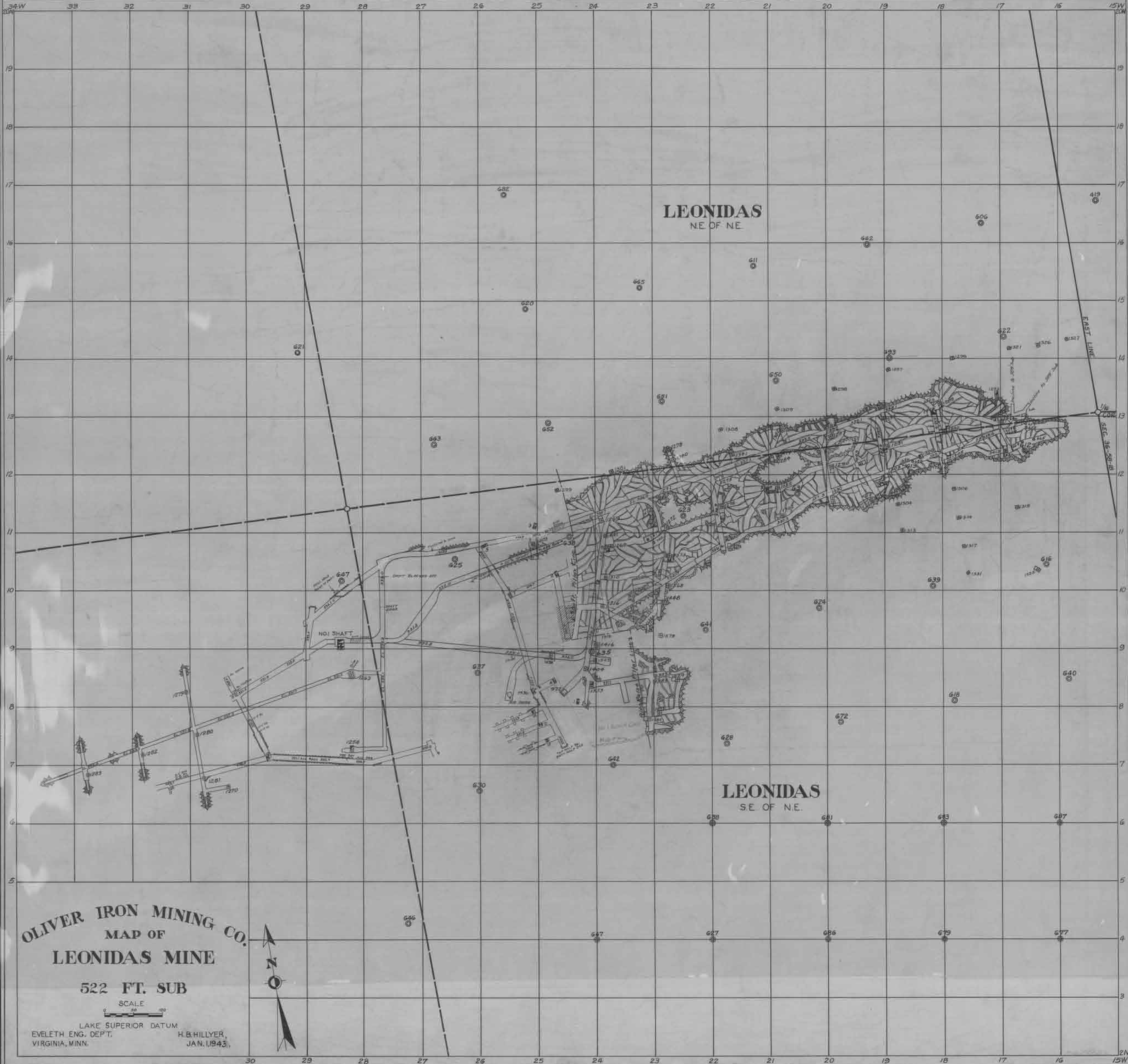
OLIVER IRON MINING CO.
MAP OF
LEONIDAS MINE
509 FT. SUB



LAKE SUPERIOR DATUM
ENGINEERING DEPT.
EVELETH, MINN.

L. LAMBERT,
JAN. 1, 1943





LEONIDAS
NE OF NE

LEONIDAS
SE OF NE

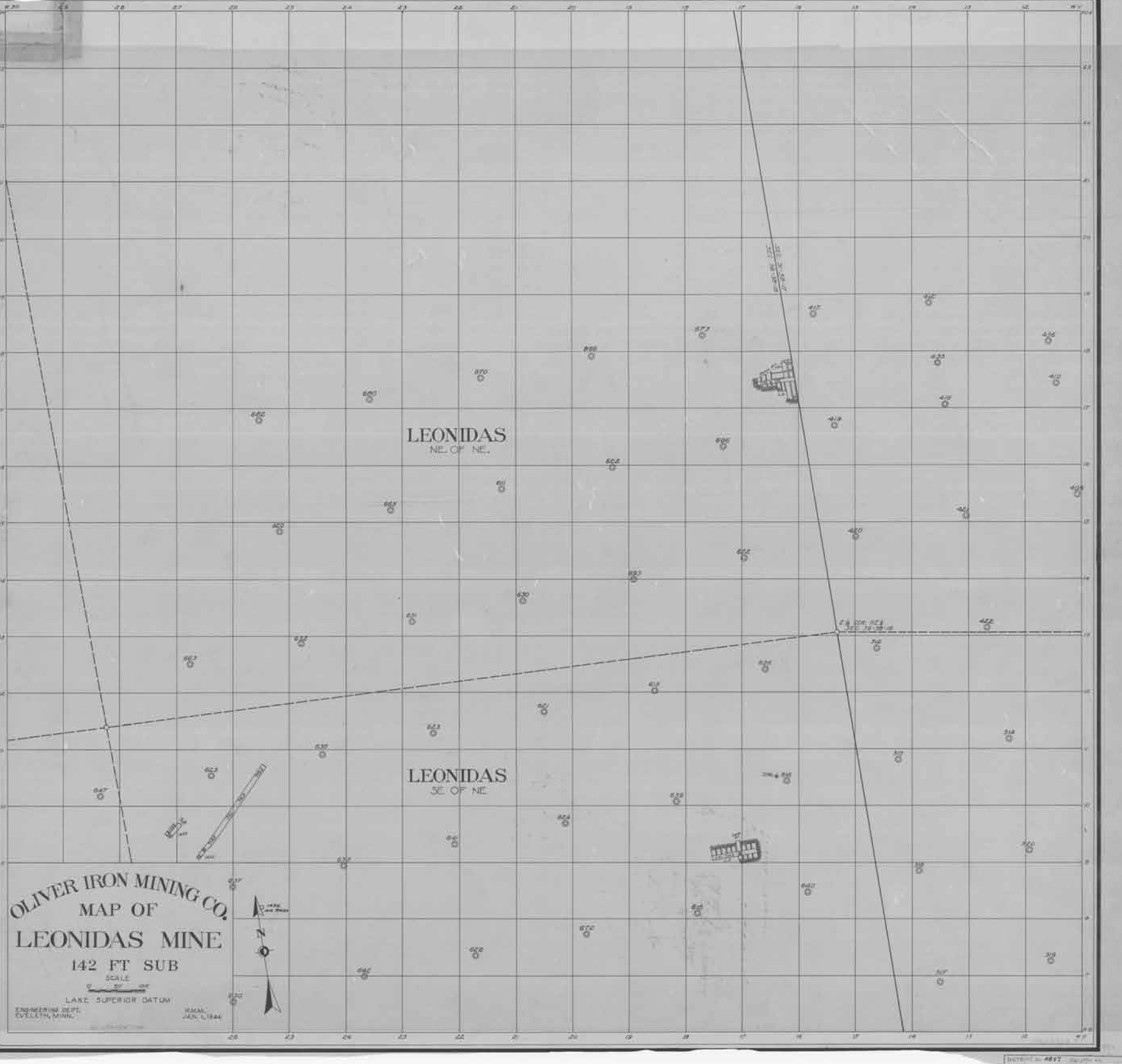
OLIVER IRON MINING CO.
MAP OF
LEONIDAS MINE

522 FT. SUB

SCALE

LAKE SUPERIOR DATUM
EVELETH ENG. DEPT. H.B. HILLYER,
VIRGINIA, MINN. JAN. 1943.





OLIVER IRON MINING CO.
MAP OF
LEONIDAS MINE
142 FT SUB

SCALE
0 20 40
LAKE SUPERIOR DATUM
ENGINEERING DEPT.
EVELETH, MINN.
SCALE
JAN. 5, 1944

OLIVER IRON MINING CO.
MAP OF
LEONIDAS MINE

155 FT. SUB
SCALE

L.A.S.T. SUPERIOR DATUM

ENGINEERING DEPT.
EVELETH, MINN.

H.M.M.
JAN. 1, 1944.

LEONIDAS
NE. OF NE.

LEONIDAS
SE. OF NE.

SCRAMMED AND MILLED FROM OPEN PIT

SEE PLAN 217

SEE PLAN 177 &
216-227-228

SEE PLAN 210



LEONIDAS
NE OF NE

LEONIDAS
SE OF NE

EAST LINE OF

SEC. 36-58-18

NO. 1 SHAFT

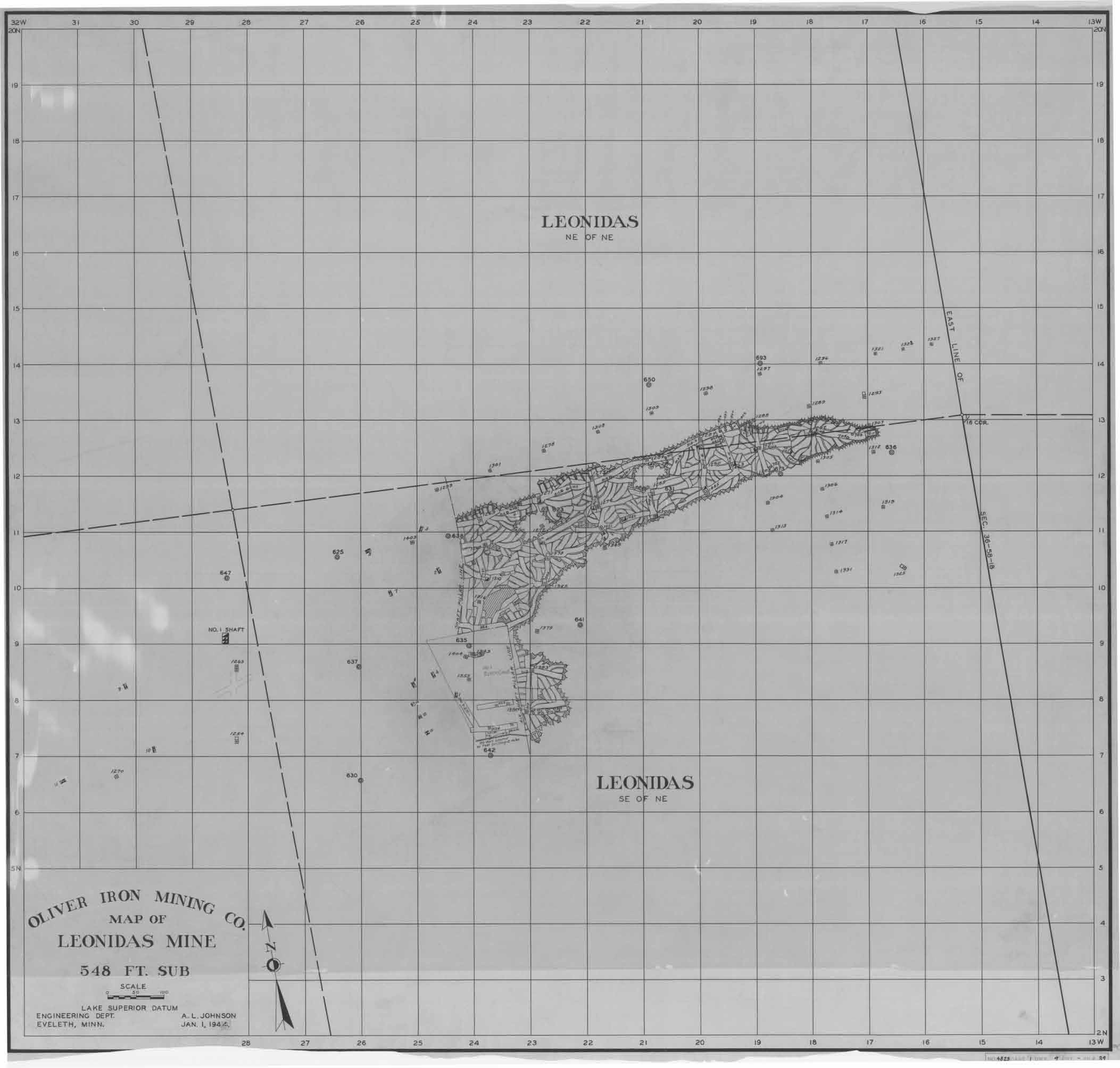
OLIVER IRON MINING CO.
MAP OF
LEONIDAS MINE
535 FT. SUB

SCALE
0 30 100



LAKE SUPERIOR DATUM
ENGINEERING DEPT.
EVELETH, MINN. A. L. JOHNSON
JAN. 1, 1944





LEONIDAS
NE OF NE

LEONIDAS
SE OF NE

OLIVER IRON MINING CO.
MAP OF
LEONIDAS MINE

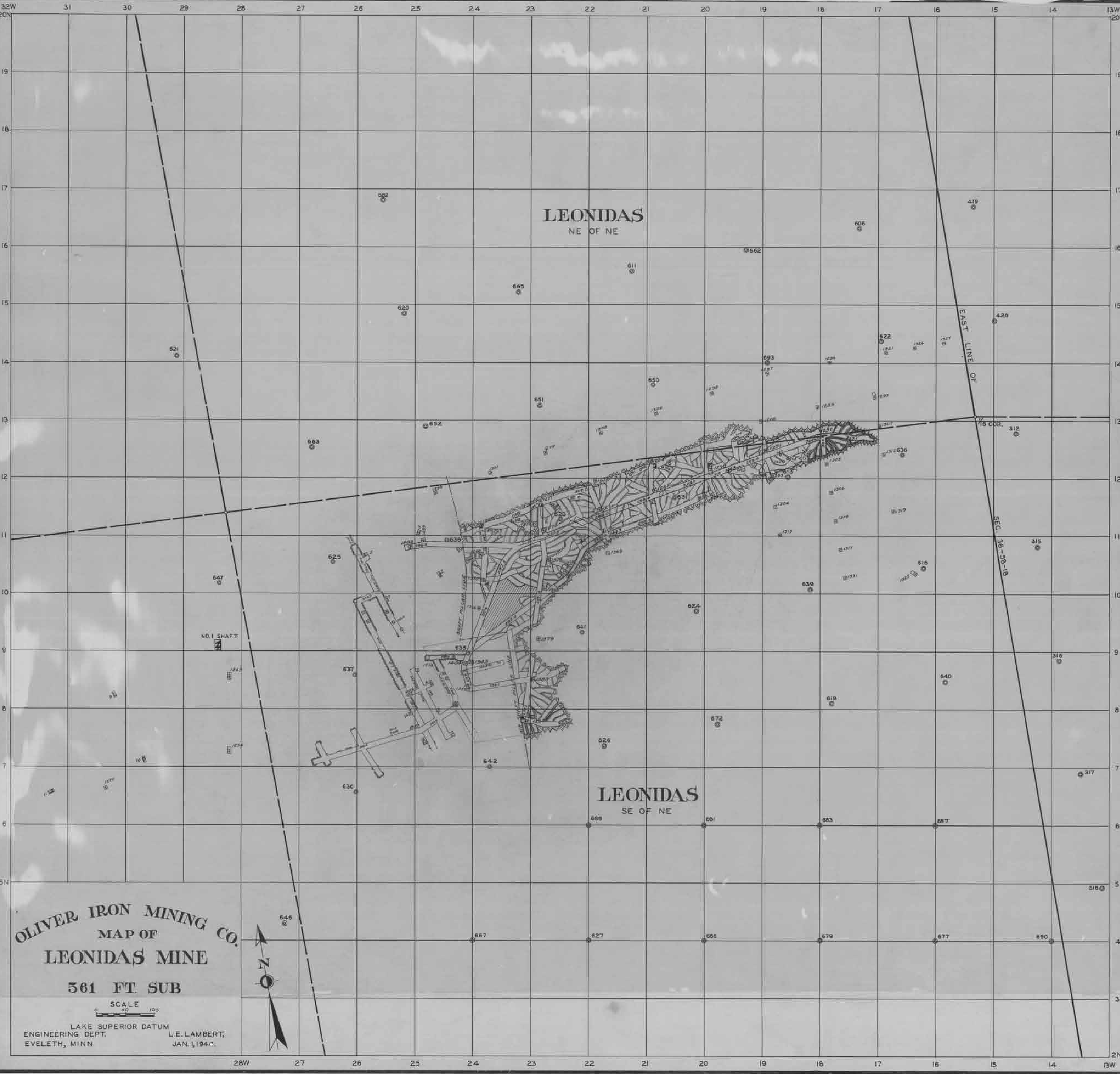
548 FT. SUB

SCALE
0 50 100

LAKE SUPERIOR DATUM
ENGINEERING DEPT.
EVELETH, MINN.

A. L. JOHNSON
JAN. 1, 1942.





LEONIDAS
NE OF NE

LEONIDAS
SE OF NE

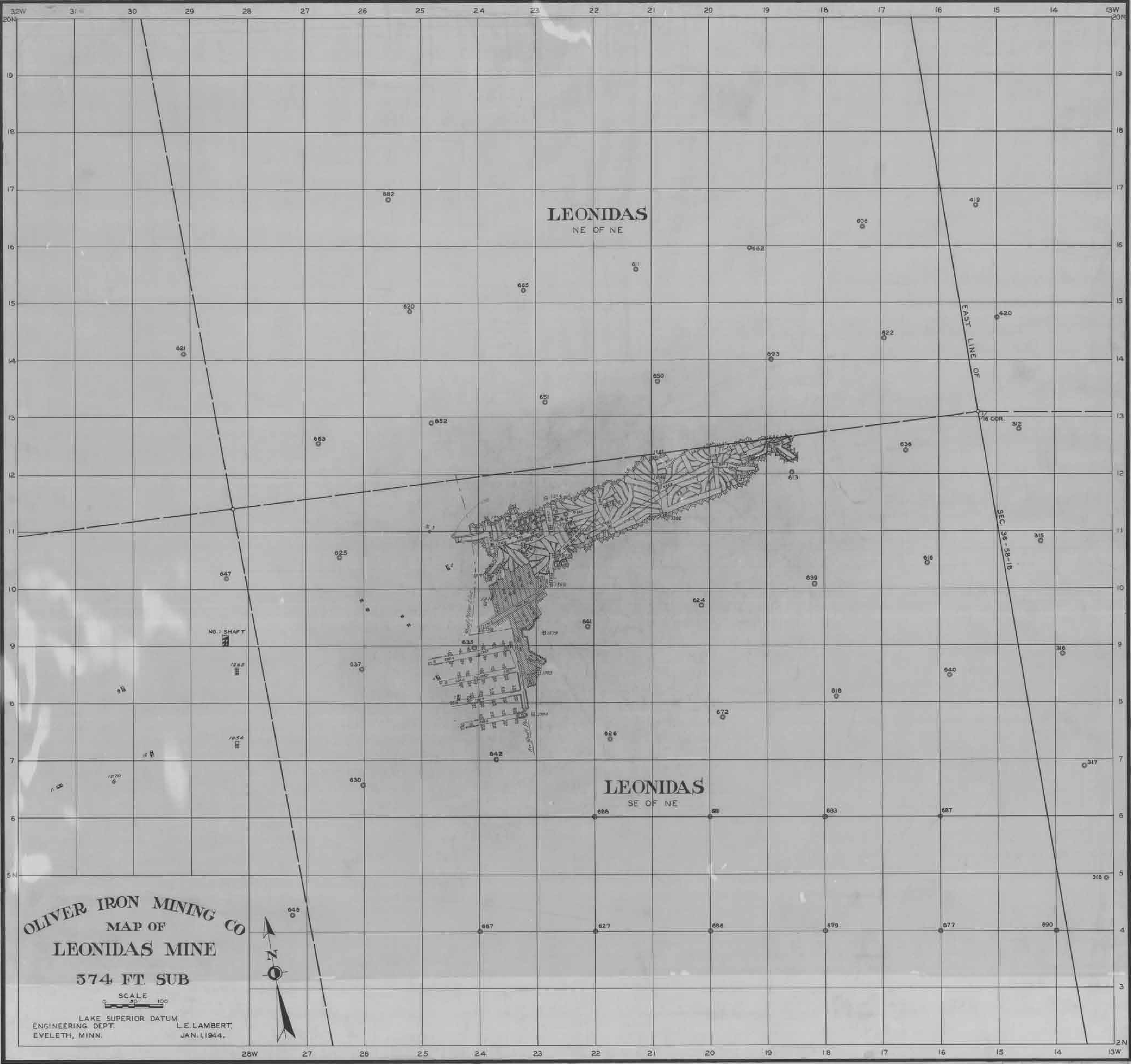
OLIVER IRON MINING CO.
MAP OF
LEONIDAS MINE
561 FT. SUB

NO. 1 SHAFT

SCALE 100
LAKE SUPERIOR DATUM
ENGINEERING DEPT. L.E. LAMBERT,
EVELETH, MINN. JAN. 1, 1940.

EAST LINE OF
SEC. 36-58-18

18 COR.



OLIVER IRON MINING CO
MAP OF
LEONIDAS MINE
574 FT. SUB

SCALE
0 50 100
LAKE SUPERIOR DATUM
ENGINEERING DEPT. L.E. LAMBERT,
EVELETH, MINN. JAN. 1, 1944.





LEONIDAS
NE OF NE

LEONIDAS
SE OF NE

OLIVER IRON MINING CO.
MAP OF
LEONIDAS MINE

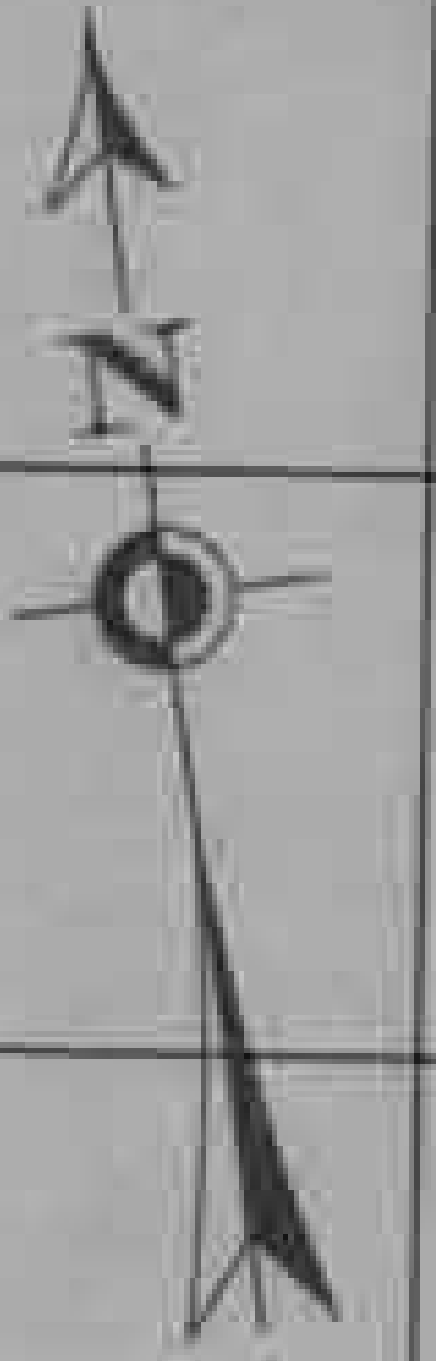
587 FT. SUB

SCALE
0 50 100

LAKE SUPERIOR DATUM
ENGINEERING DEPT. E.A. GOFF, JR.,
EVELETH, MINN. JAN. 1, 1944



OLIVER IRON MINING CO.
COMPOSITE MAP
LEONIDAS MINE



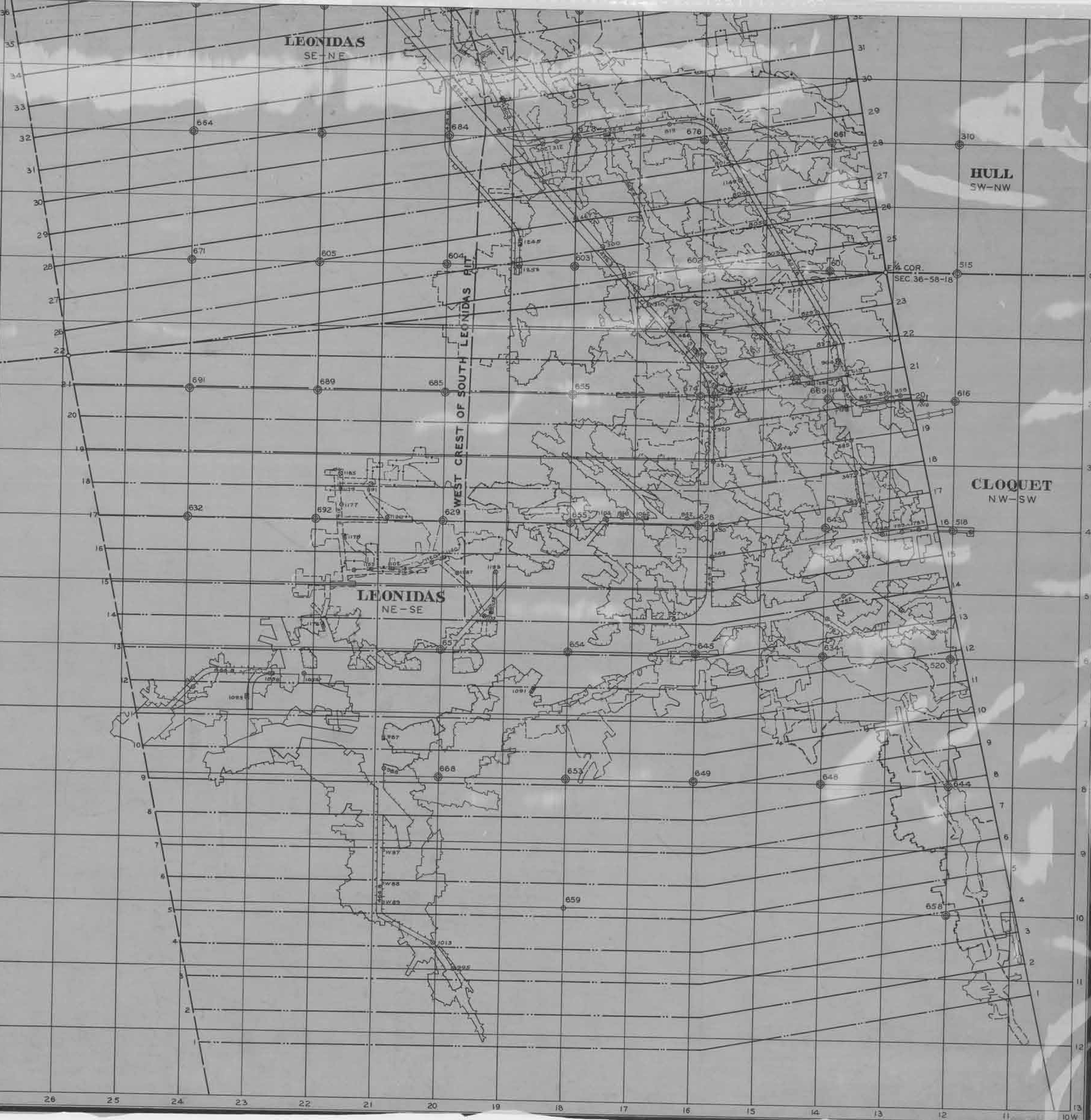
LEGEND

155 FT. SUB-LEVEL	370 FT. SUB-LEVEL
166 " " "	382 " " "
178 " " "	394 " " "
190 " " "	406 FT. LEVEL
202 " " "	418 FT. SUB-LEVEL
214 " " "	431 " " "
226 " " "	442 " " "
238 " " "	457 " " "
250 " " "	470 " " "
262 " " "	483 " " "
274 " " "	496 " " "
286 " " "	509 " " "
298 " " "	522 " " "
310 " " "	535 " " "
322 " " "	548 " " "
334 " " "	561 " " "
346 " " "	574 " " "
358 " " "	587 " " "

600 FT. LEVEL SCALE

ELEVATION OF COLLAR NO. 1 SHAFT 656.3

ENGINEERING DEPT. VIRGINIA, MINN. LAKE SUPERIOR DATUM L. E. LAMBERT JAN. 1, 1944.



LEONIDAS SE-NW

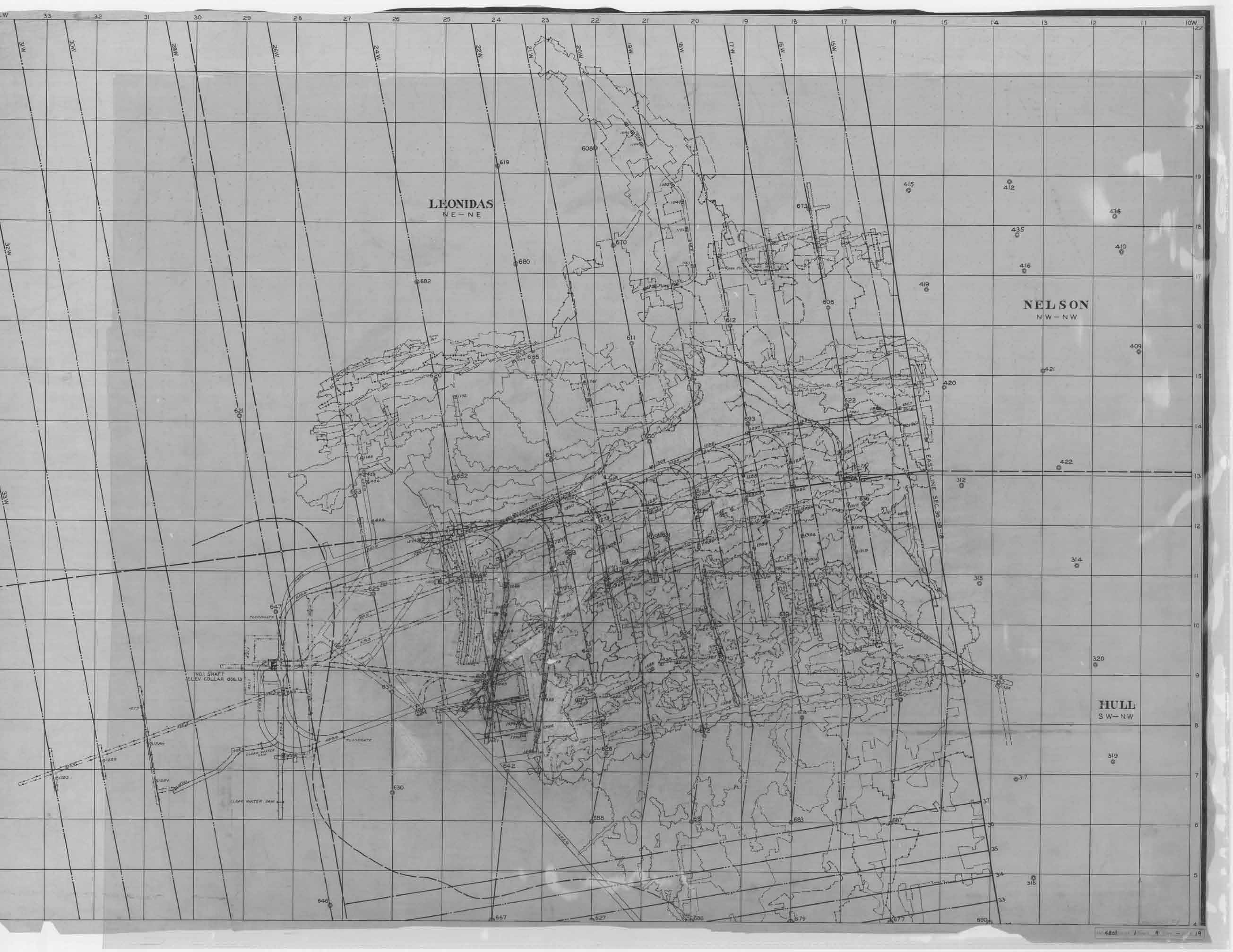
HULL SW-NW

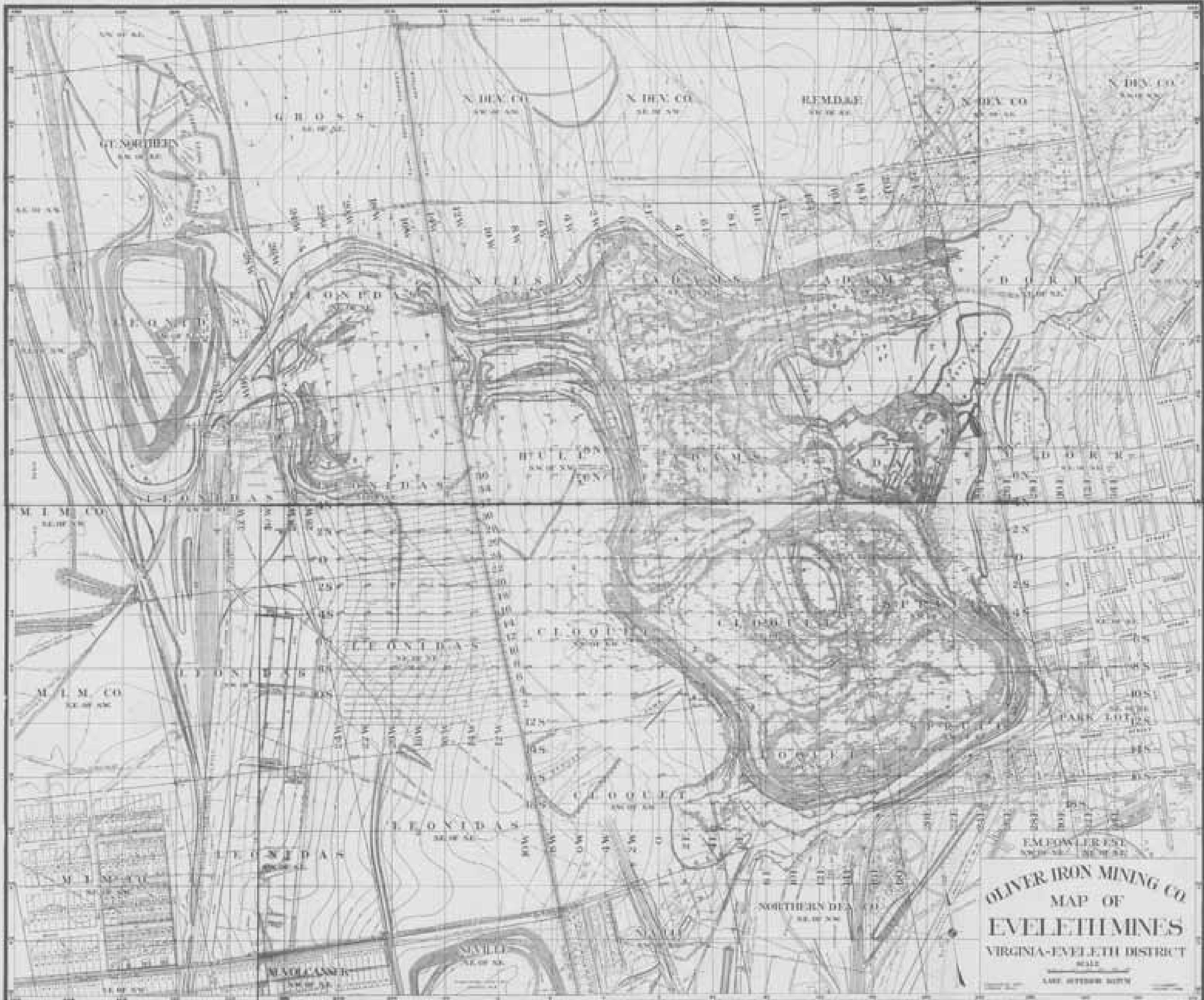
E 1/4 COR. SEC 36-58-18

WEST CREST OF SOUTH LEONIDAS PIT

CLOQUET NW-SW

LEONIDAS NE-SE







LEONIDAS
NE OF NE

LEONIDAS
SE OF NE

OLIVER IRON MINING CO.
MAP OF
LEONIDAS MINE
600 FT. LEVEL

SCALE
0 30 100

LAKE SUPERIOR DATUM
ENGINEERING DEPT. L.E. LAMBERT,
EVELETH, MINN. JAN. 1, 1945





LEONIDAS
NE OF NE

LEONIDAS
SE OF NE

OLIVER IRON MINING CO.
MAP OF
LEONIDAS MINE
483 FT. SUB

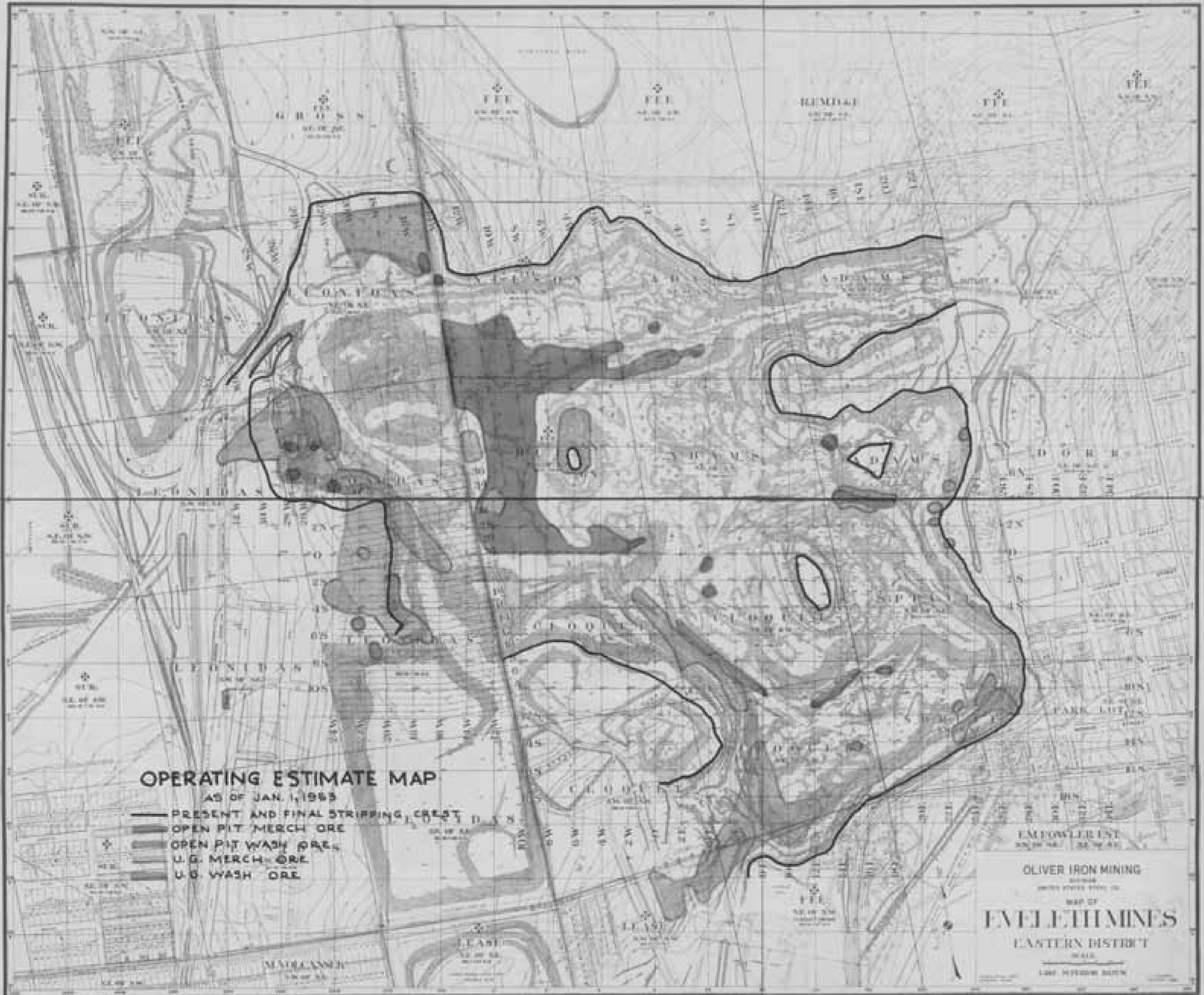
SCALE

LAKE SUPERIOR DATUM

ENGINEERING DEPT.
VIRGINIA, MINN.

L.E. LAMBERT
JAN. 1, 1907





OPERATING ESTIMATE MAP

AS OF JAN. 1, 1963

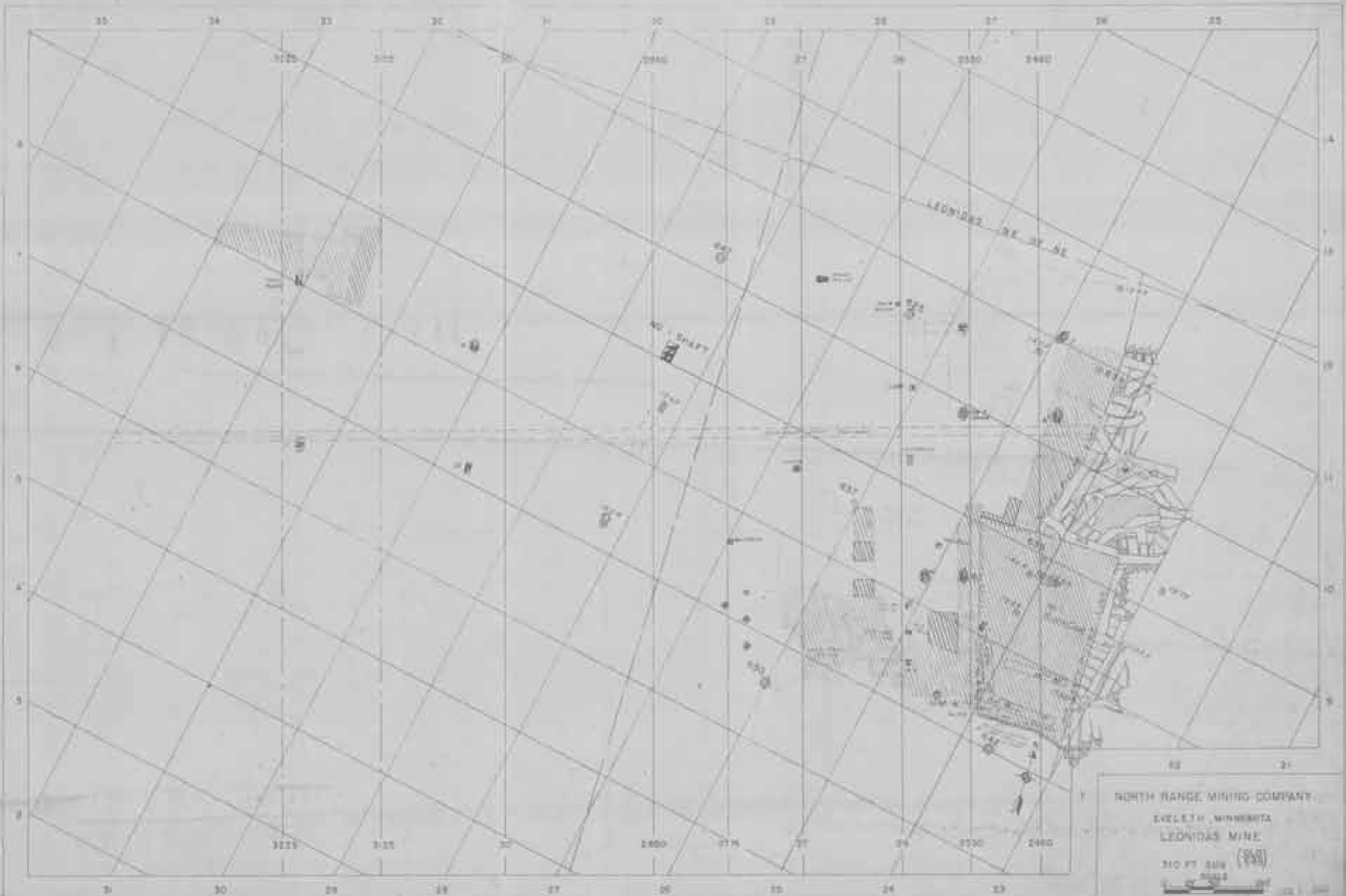
- PRESENT AND FINAL STRIPPING CREST
- OPEN PIT MERCH ORE
- OPEN PIT WASH ORE
- U.G. MERCH ORE
- U.G. WASH ORE

EM FOWLER EST
 1962

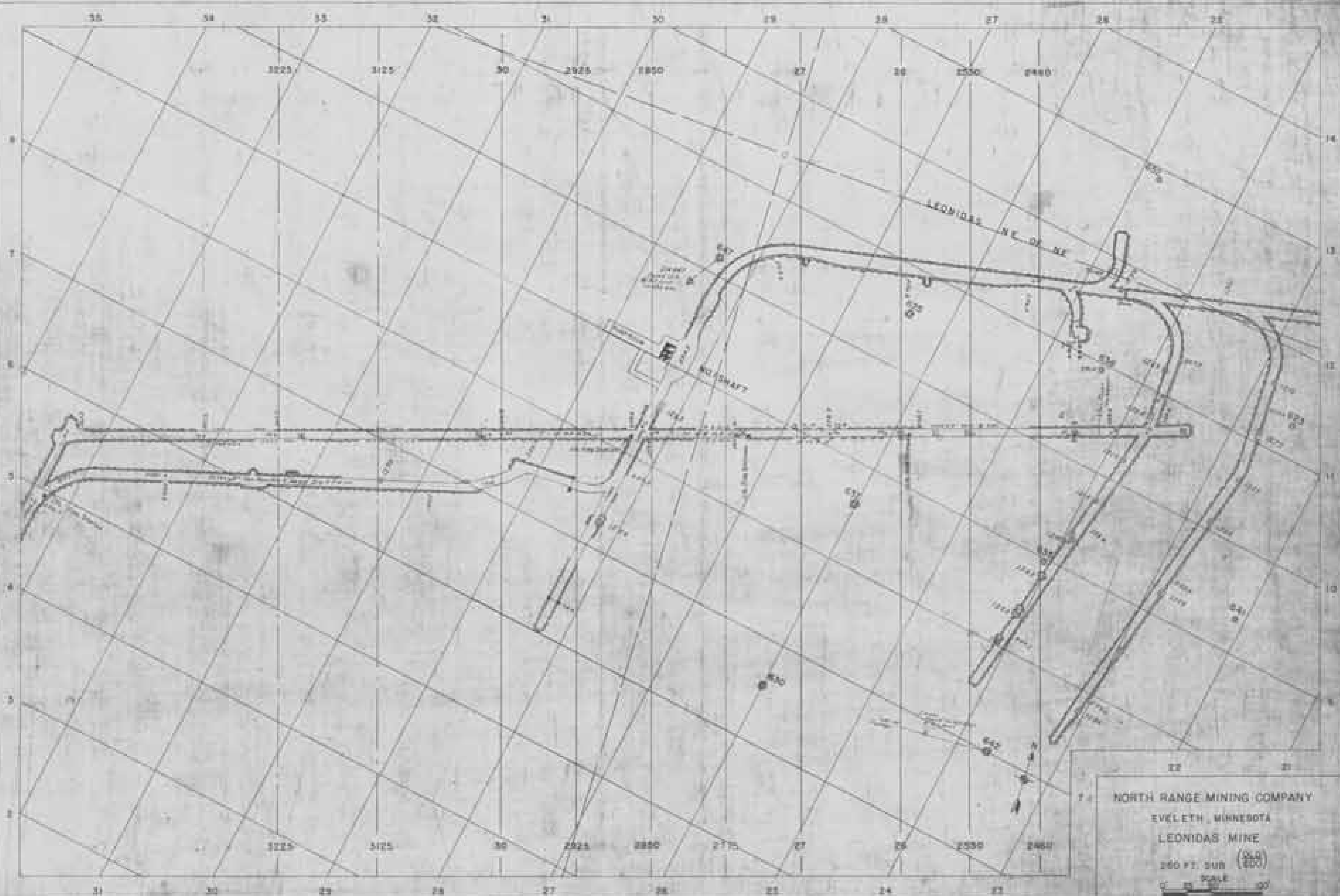
OLIVER IRON MINING
 DIVISION
 MINNESOTA STEEL CO.

MAP OF
EVELETH MINES
 EASTERN DISTRICT

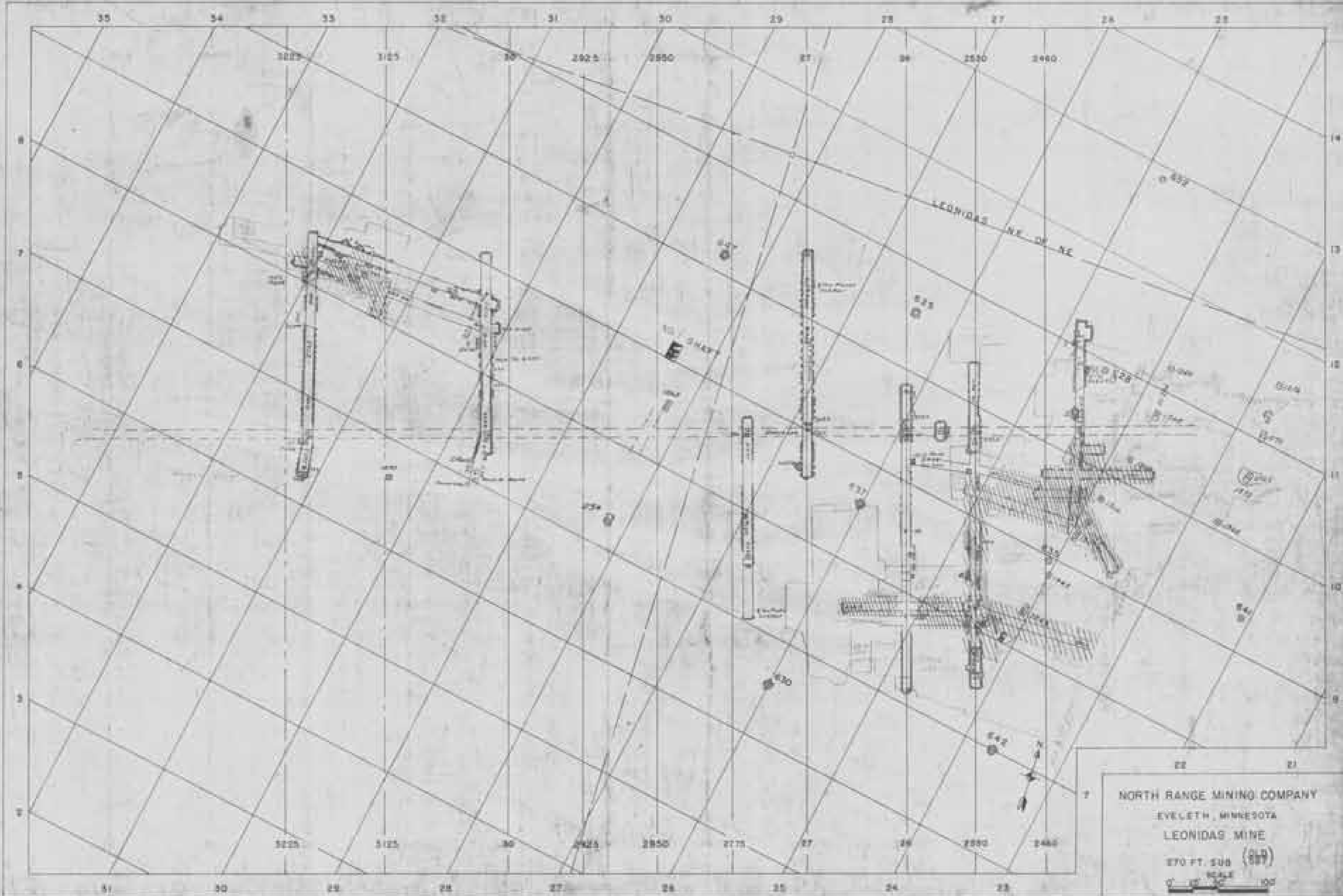
SCALE
 1:50,000

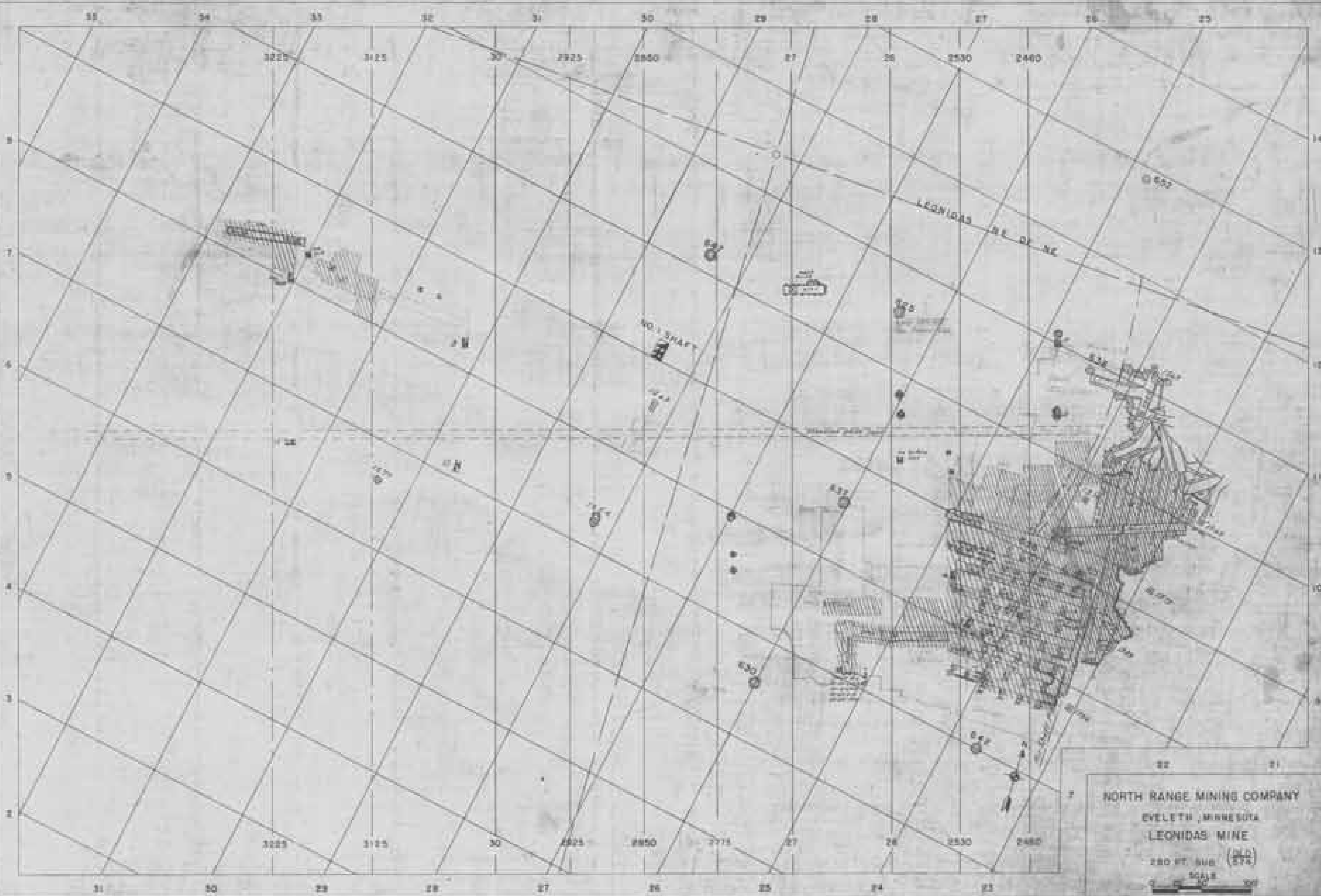


NORTH RANGE MINING COMPANY
 SIBLEY, MINNESOTA
 LEONIDAS MINE
 200 FT. SCALE (850)
 1912

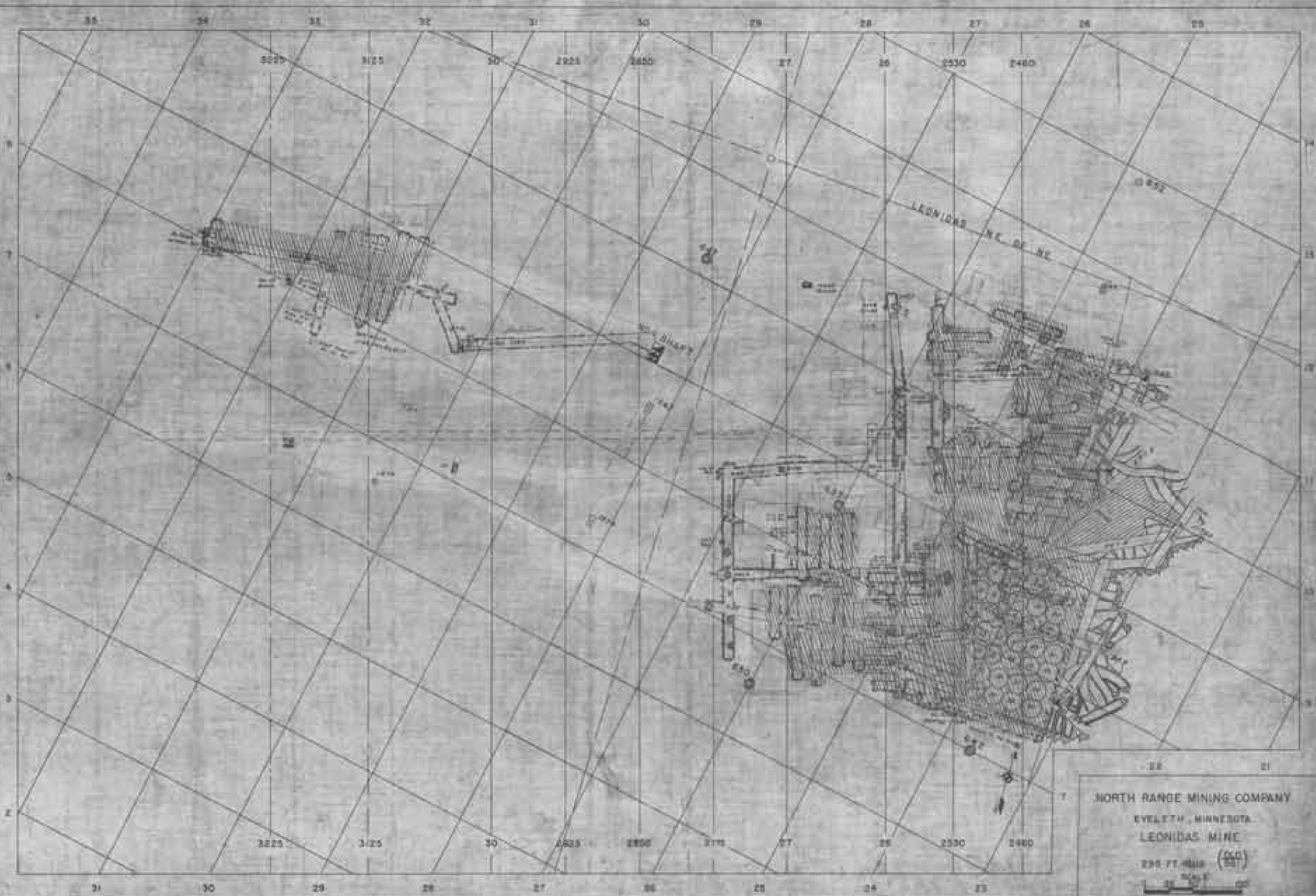


NORTH RANGE MINING COMPANY
 EVELETH, MINNESOTA
 LEONIDAS MINE
 260 FT. SUB (OLD)
 SCALE

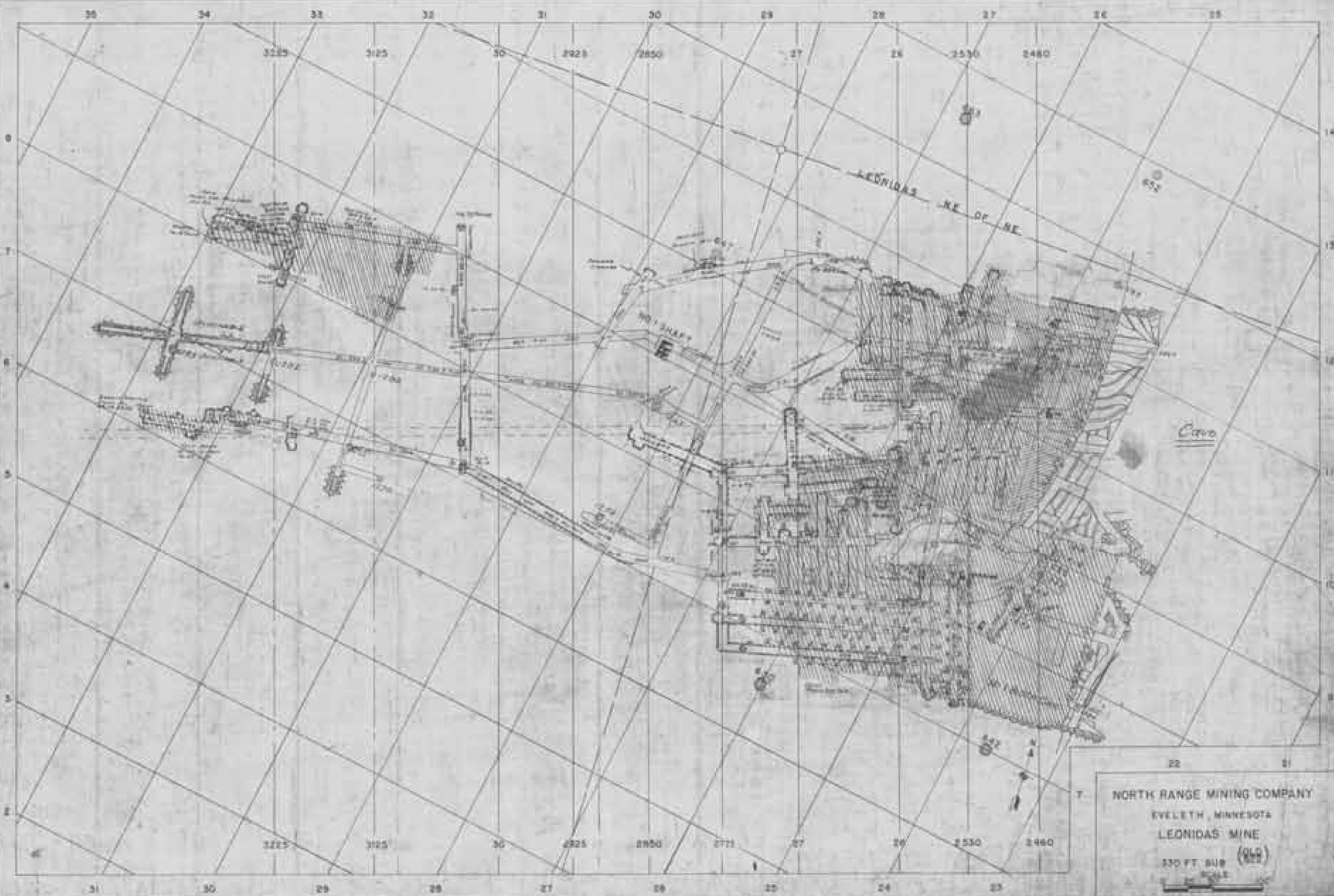




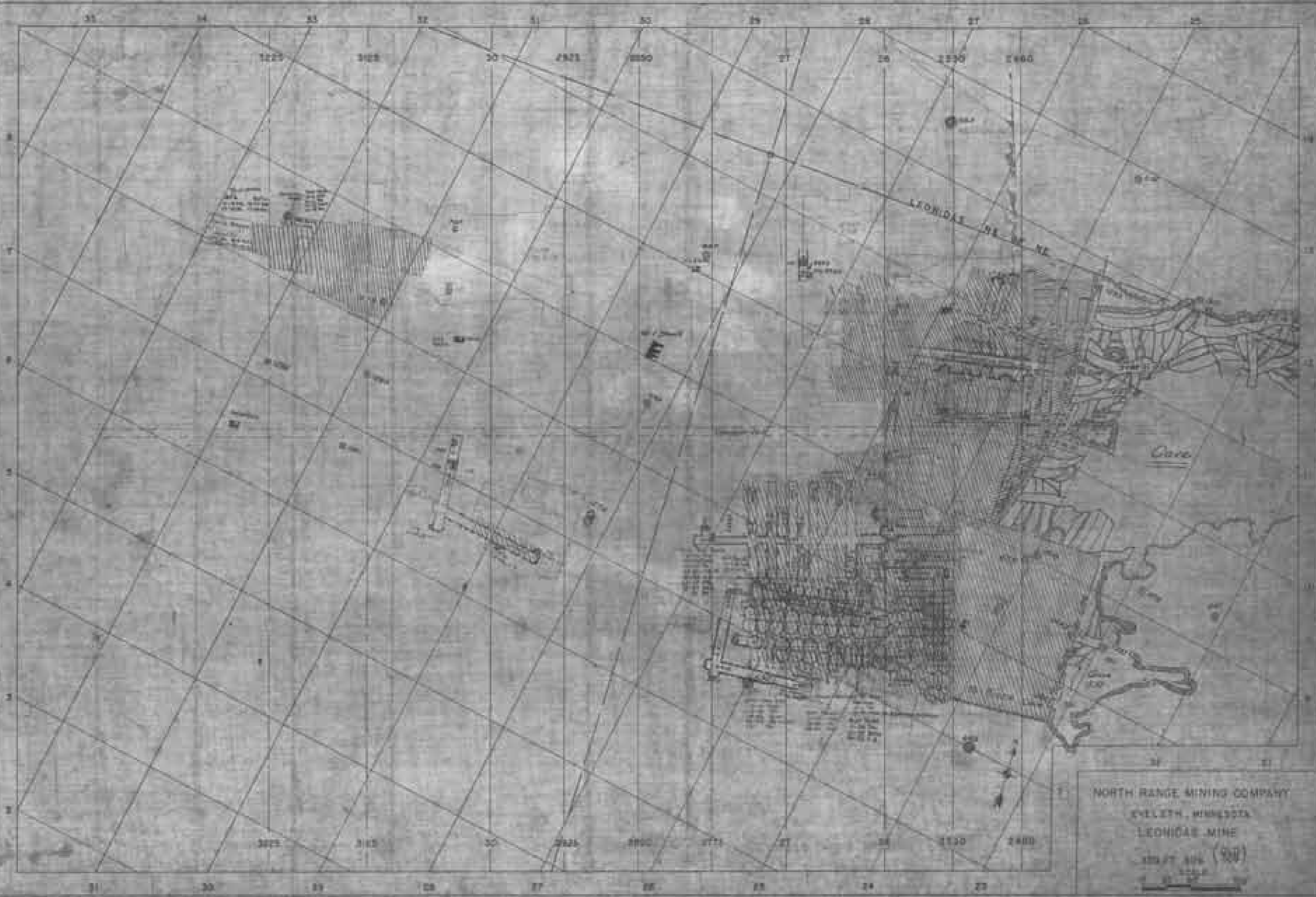
NORTH RANGE MINING COMPANY
EVELETH, MINNESOTA
LEONIDAS MINE
280 FT. SUB. (OLD)
274
SCALE
0 10 20 30



NORTH RANGE MINING COMPANY
 EVELYTH, MINNESOTA
 LEONIDAS MINE
 230 FT. (60)



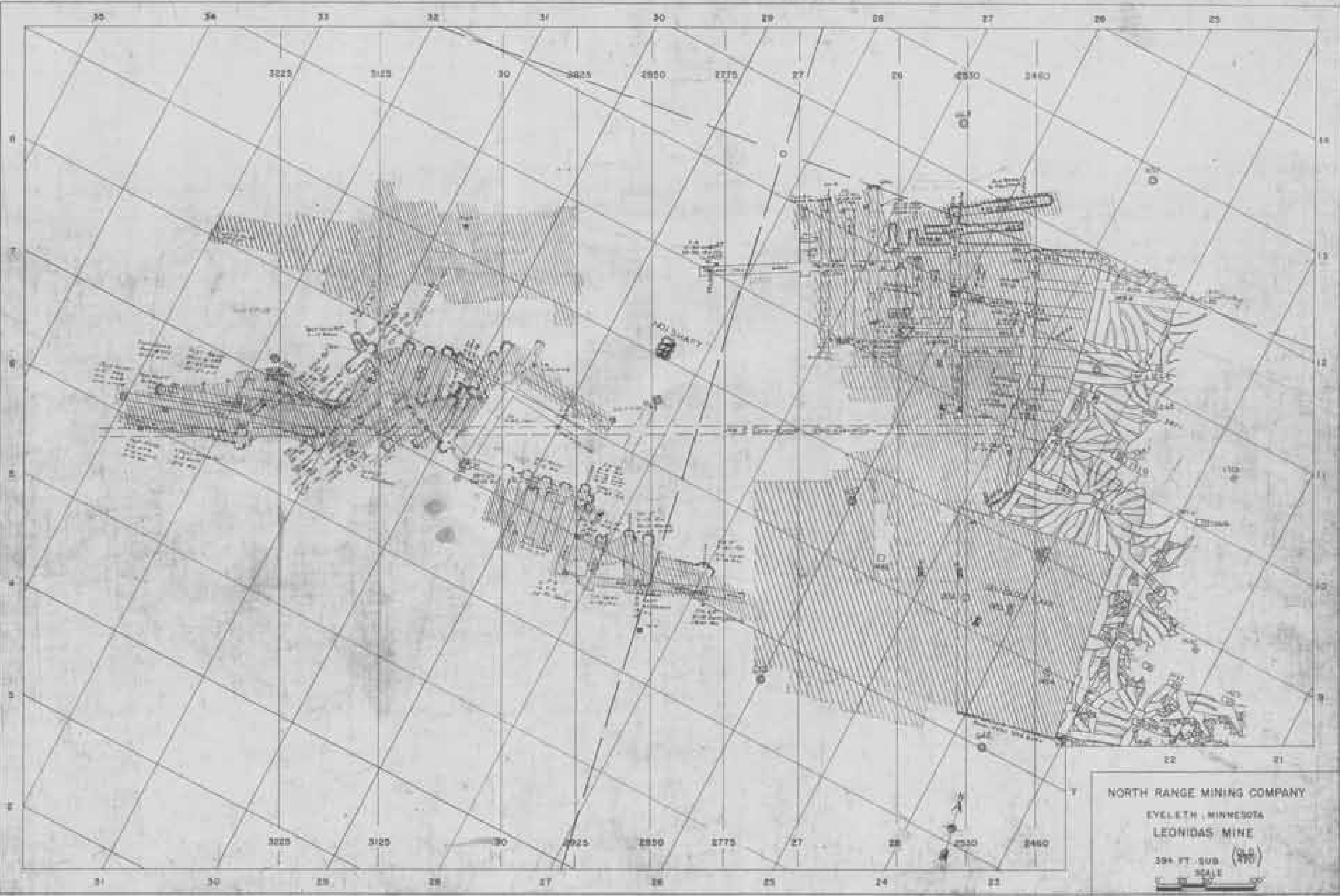
NORTH RANGE MINING COMPANY
 EVELETH, MINNESOTA
 LEONIDAS MINE
 130 FT. SUB (189)



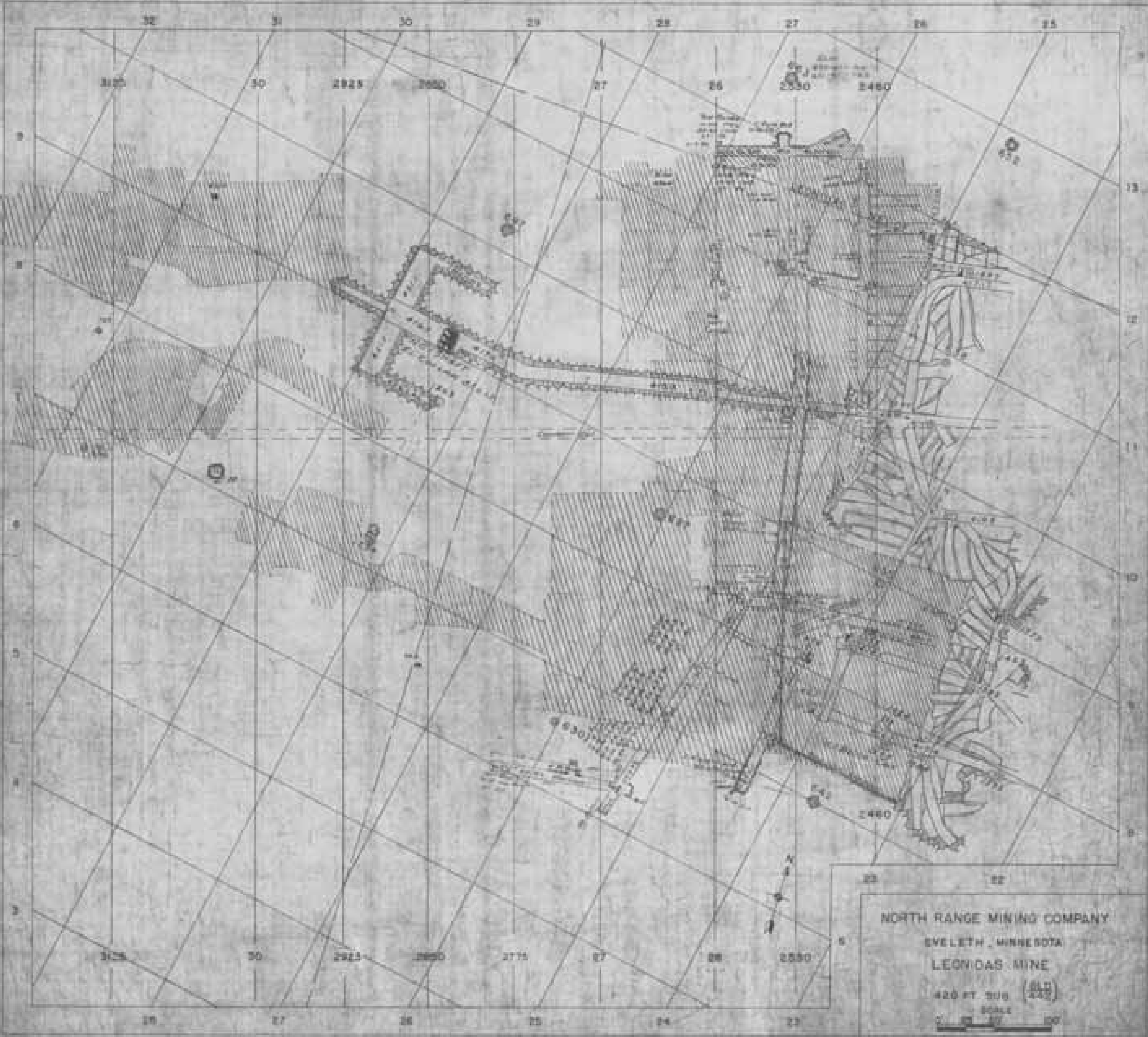
NORTH RANGE MINING COMPANY
EVELETH, MINNESOTA
LEONIDAS MINE
100 FT. 1:25,000 (98)
1904



NORTH RANGE MINING COMPANY
 EYELETH, MINNESOTA
 LEONIDAS MINE
 370 FT. SUB (305)
 SCALE
 0 50 100



NORTH RANGE MINING COMPANY
EVELETH, MINNESOTA
LEONIDAS MINE
394 FT. SUB (200)
SCALE
1" = 100'



NORTH RANGE MINING COMPANY
EVELETH, MINNESOTA
LEVIDAS MINE
420 FT. SUB (817)
SCALE
0 100 200



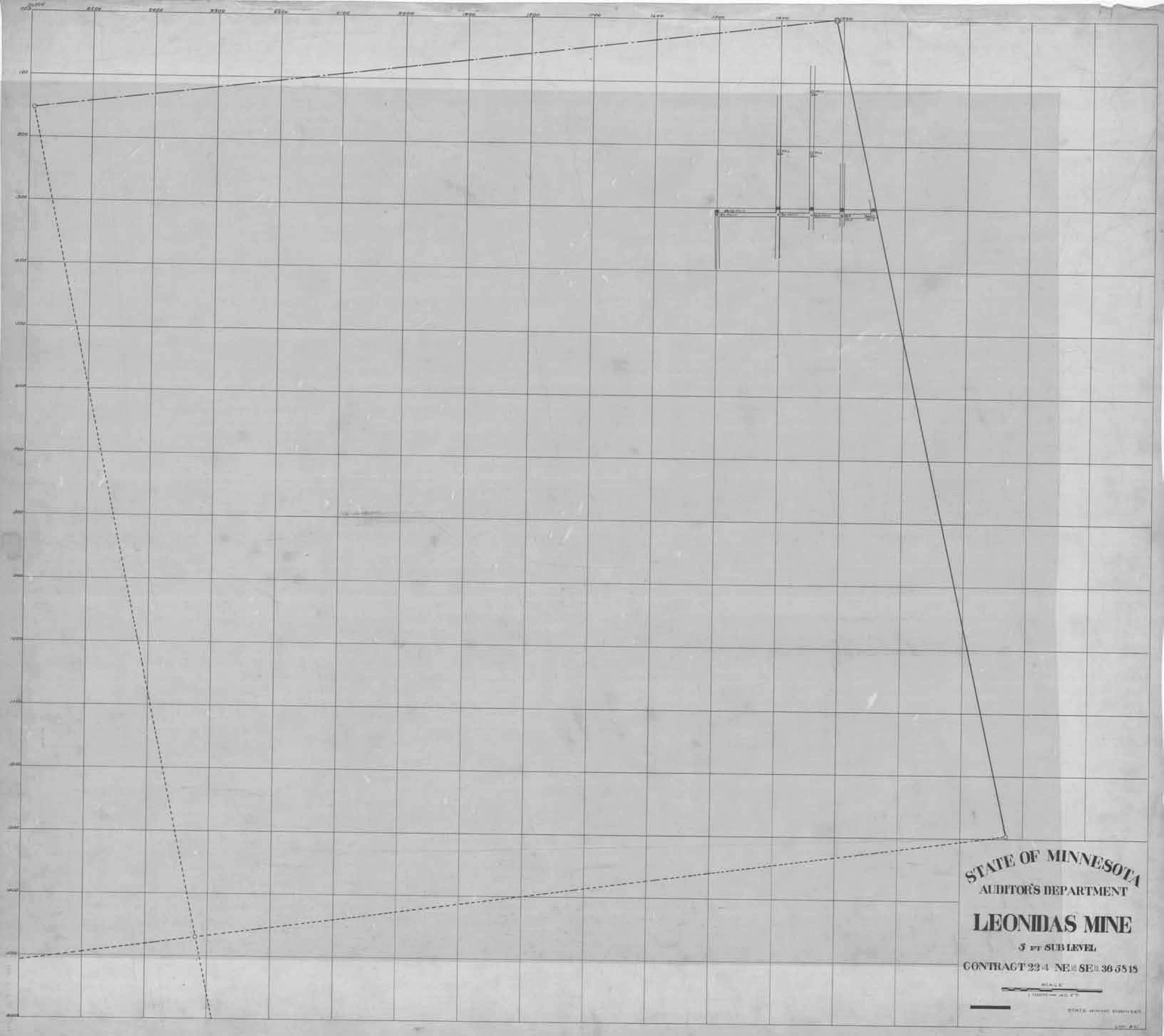
STATE OF MINNESOTA
AUDITOR'S DEPARTMENT
CONSERVATION DEPT.
FROM APRIL 1, 1933
LEONIDAS MINE

522 FT LEVEL

CONTRACT N^o 221 SENE Sec 36-58-18

DIVISION OF LANDS & MINERALS
SCALE 1" = 40 FT





STATE OF MINNESOTA
AUDITOR'S DEPARTMENT

LEONIDAS MINE

5 FT SUBLEVEL

CONTRACT 224 NE SE 36-55-15

SCALE
1 INCH = 40 FT
STATE MINING COMMISSION

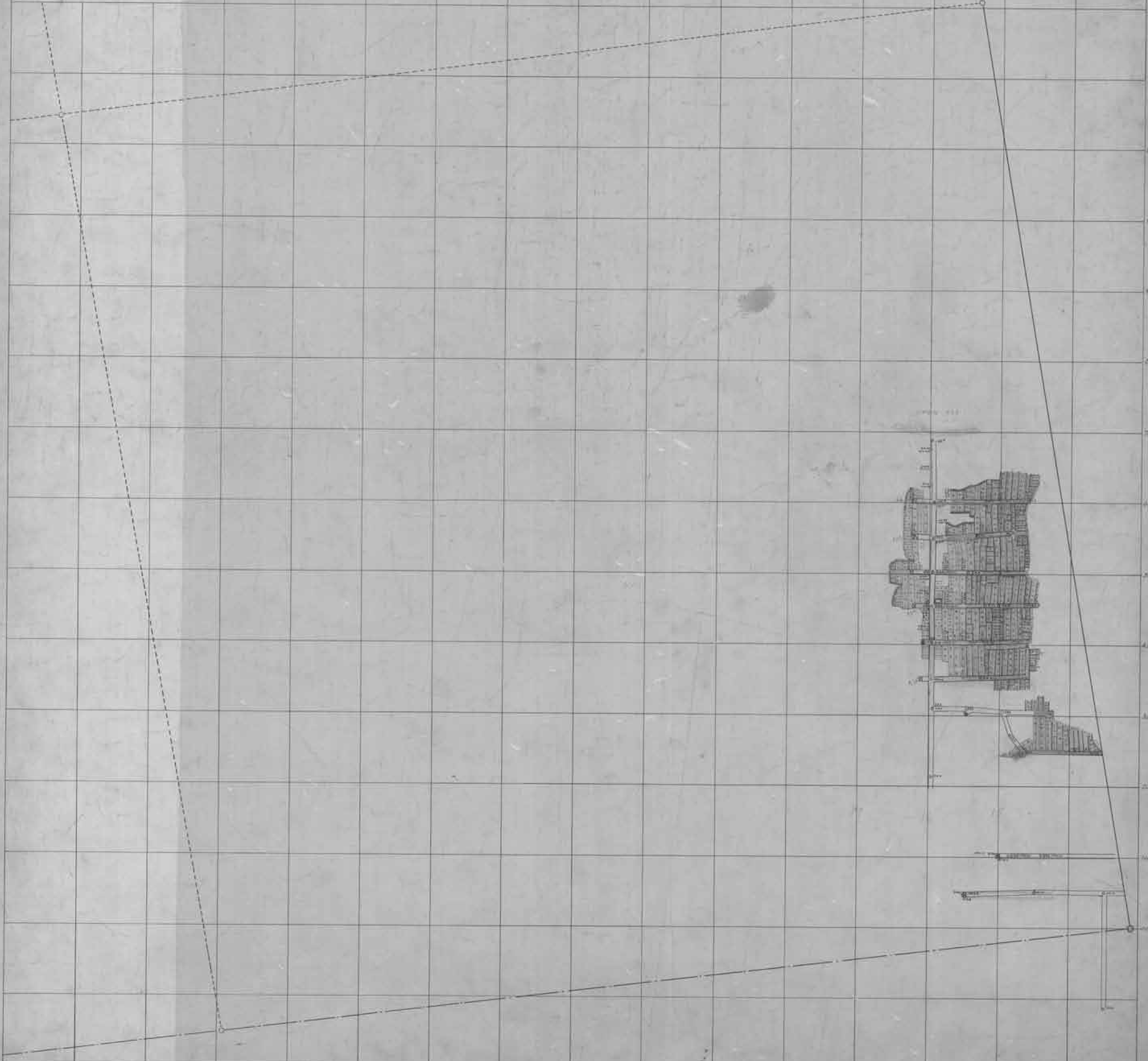
STATE OF MINNESOTA
AUDITOR'S DEPARTMENT

LEONIDAS MINE

3 FT. SUBLEVEL

CONTRACT 221 SE & NE 36 35 15

SCALE
1 INCH = 100 FEET
STATE HOUSE BUILDING

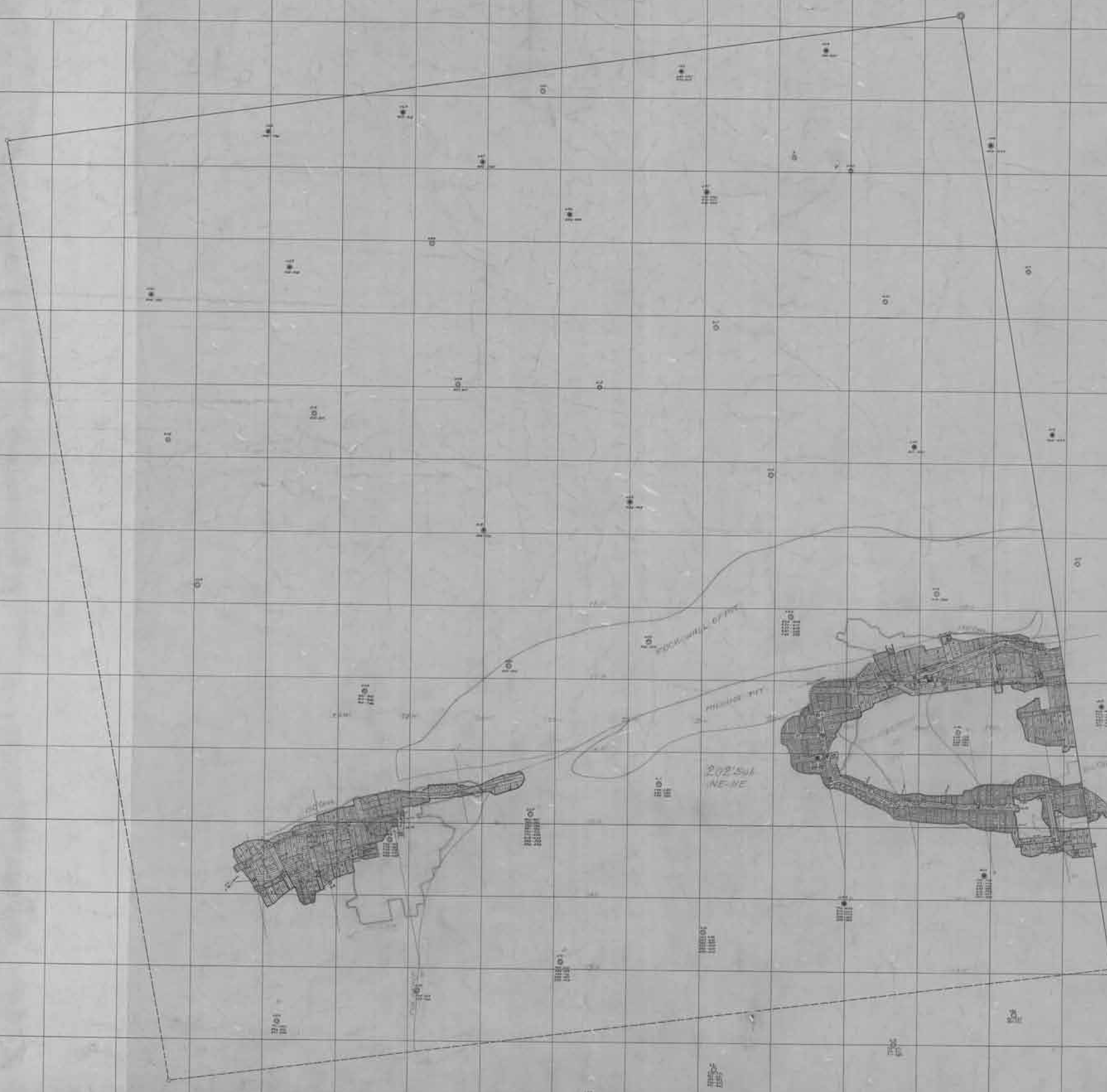


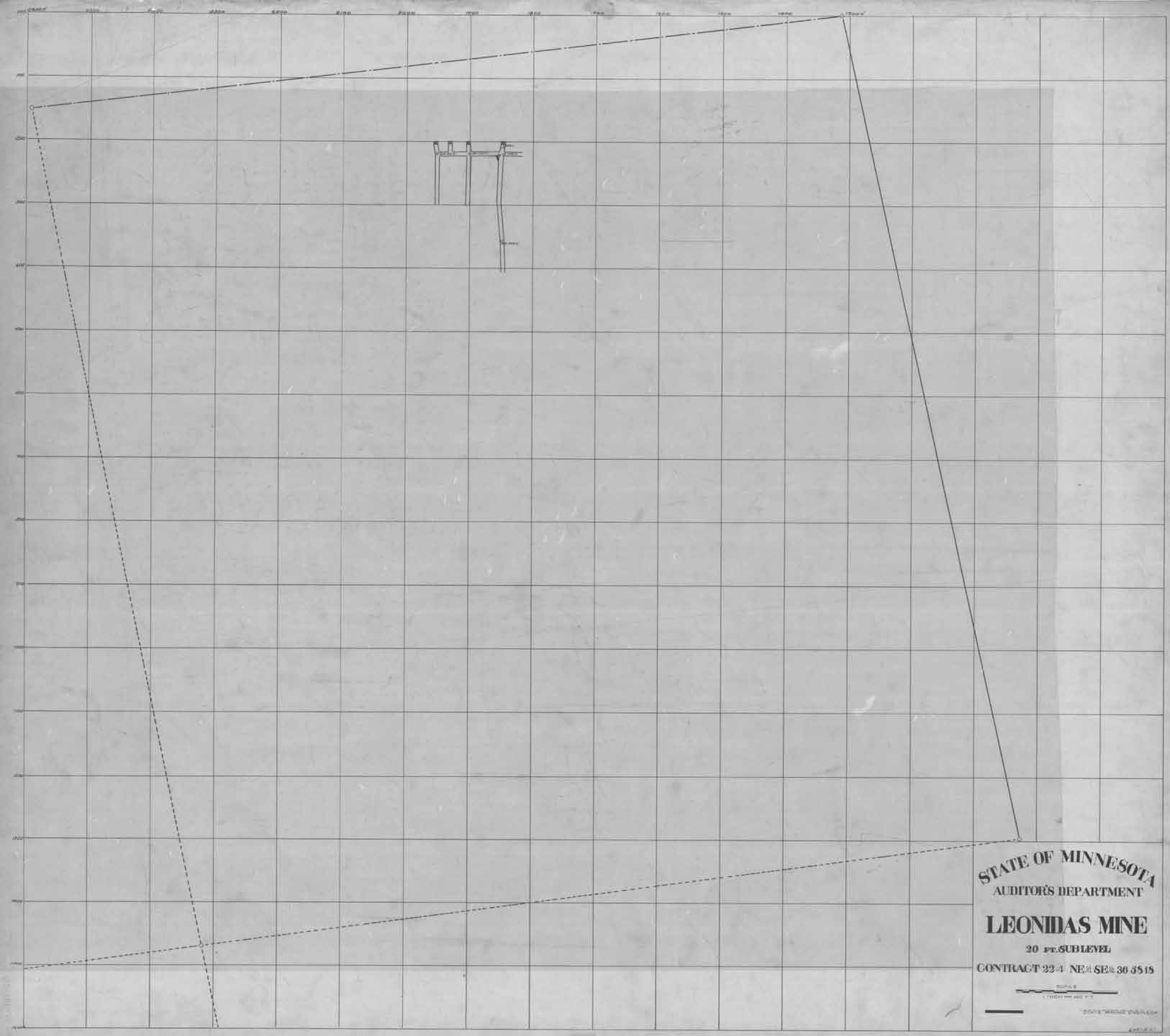
STATE OF MINNESOTA
AUDITOR'S DEPARTMENT

LEONIDAS MINE

202 FT. SUB LEVEL

CONTRACT NO 221 NE-NE Sec 36-58-48





STATE OF MINNESOTA
AUDITOR'S DEPARTMENT

LEONIDAS MINE

20 FT. SUBLEVEL

CONTRACT 2247 NEAR SEC. 30 55 15

SCALE
1 INCH = 40 FT.

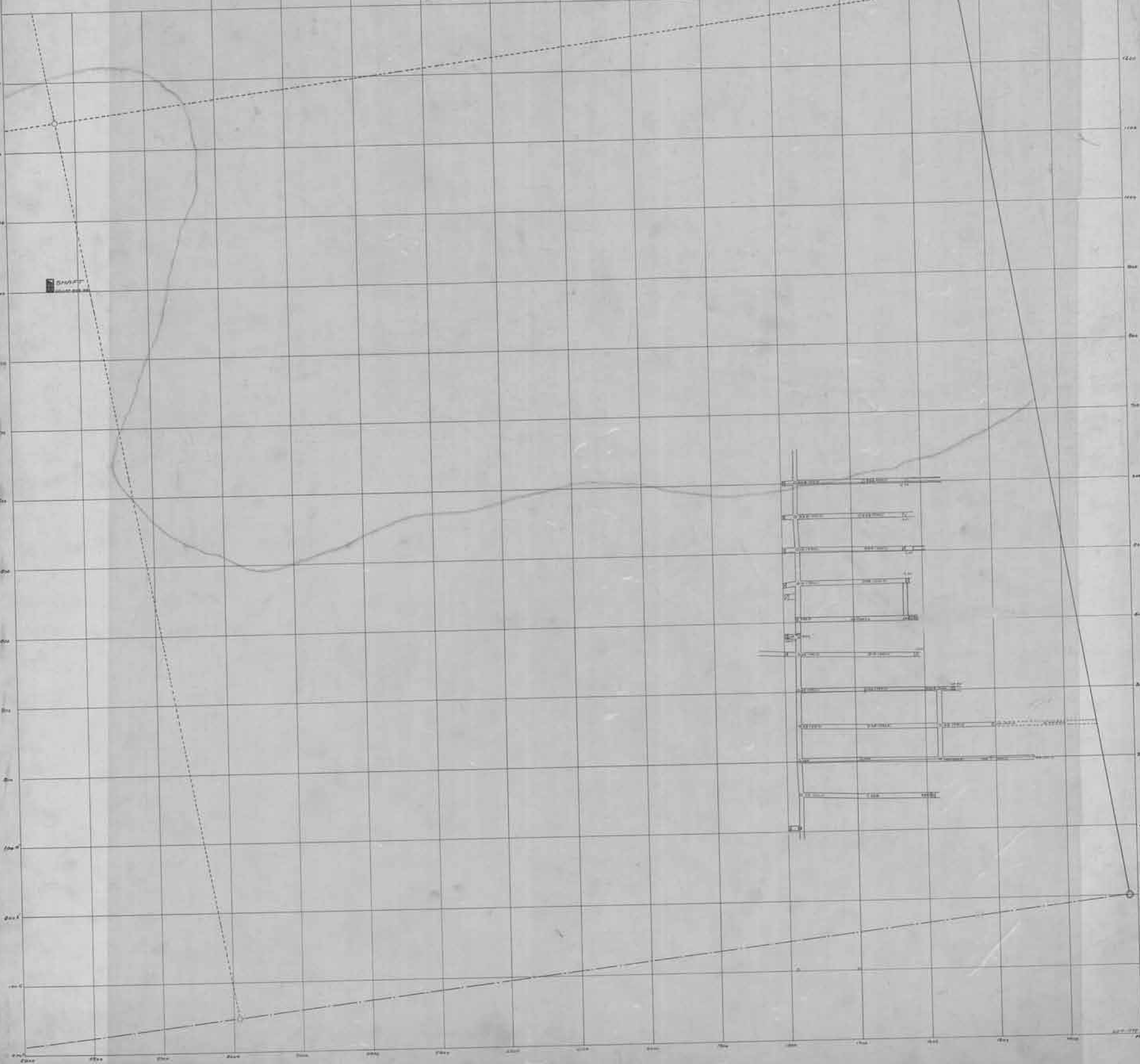
STATE MINING DIVISION

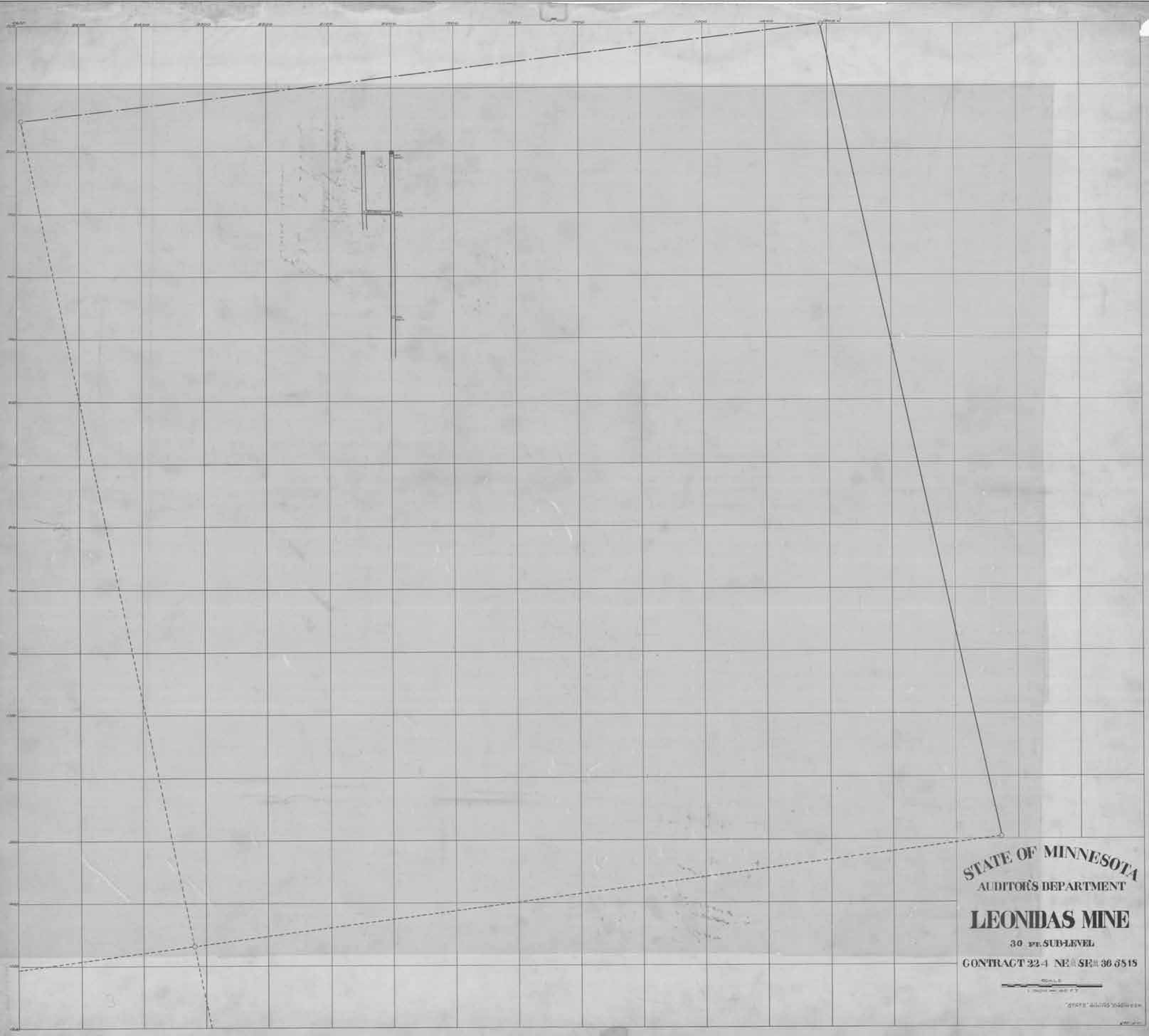
STATE OF MINNESOTA
AUDITORS DEPARTMENT

LEONIDAS MINE

20 FT. SUBLEVEL

CONTRACT 221 SE 4 NE 4 SEC. 30-29-15





STATE OF MINNESOTA
AUDITOR'S DEPARTMENT

LEONIDAS MINE

30 FT. SUB-LEVEL

CONTRACT 22-4 NE 38 65 15

SCALE
1" = 100 FT.

PRINTED AND PUBLISHED BY
THE STATE OF MINNESOTA

STATE OF MINNESOTA
AUDITOR'S DEPARTMENT

LEONIDAS MINE

30 FT. SUBLEVEL

CONTRACT 221 SE & NE 30-55-15

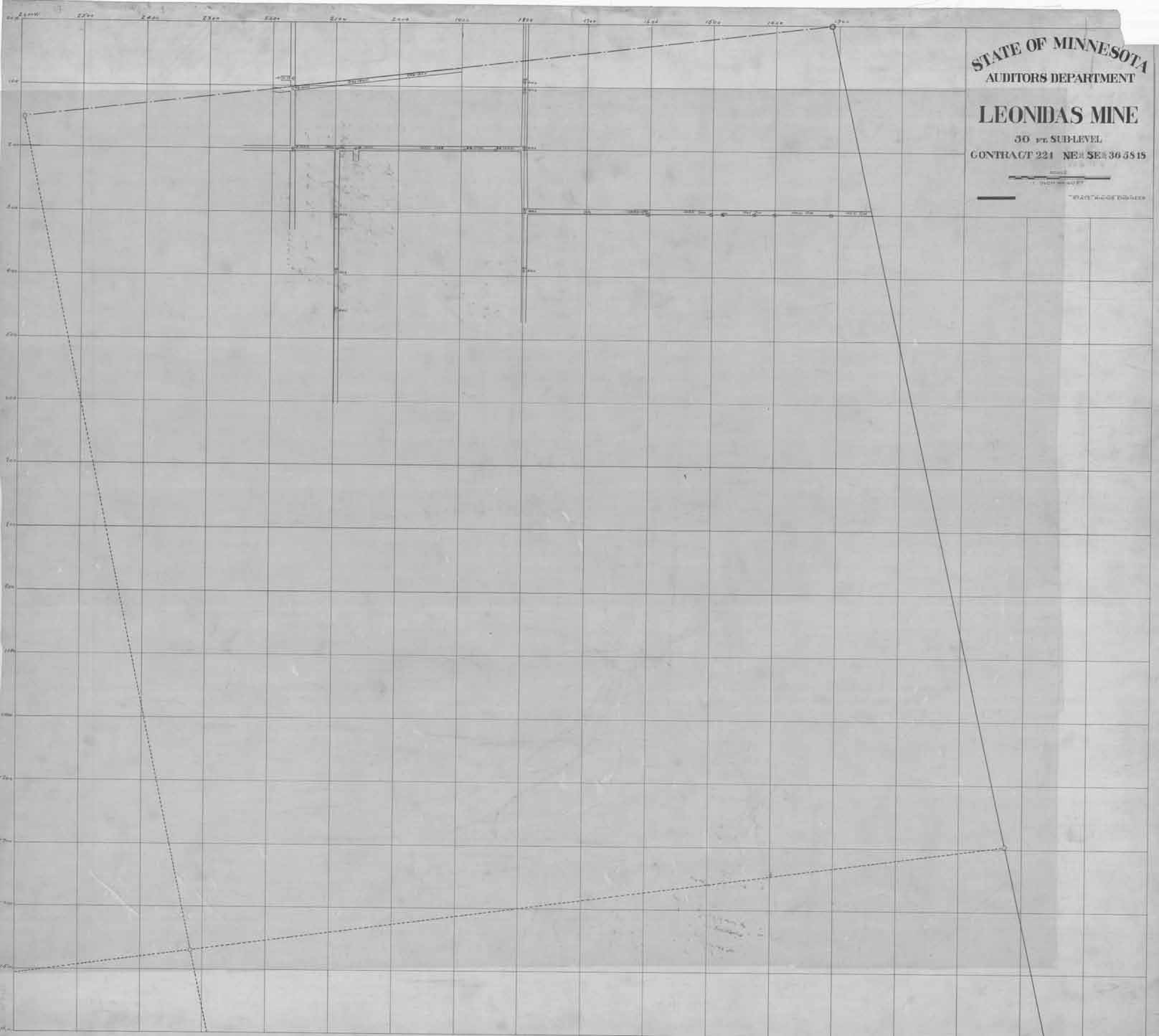


STATE OF MINNESOTA
AUDITORS DEPARTMENT

LEONIDAS MINE

30 FT. SUBLEVEL
CONTRACT 221 NE 36 35 15

1" = 100' HORIZONTAL
1" = 10' VERTICAL
STATE ENGINEERS



STATE OF MINNESOTA
AUDITORS DEPARTMENT

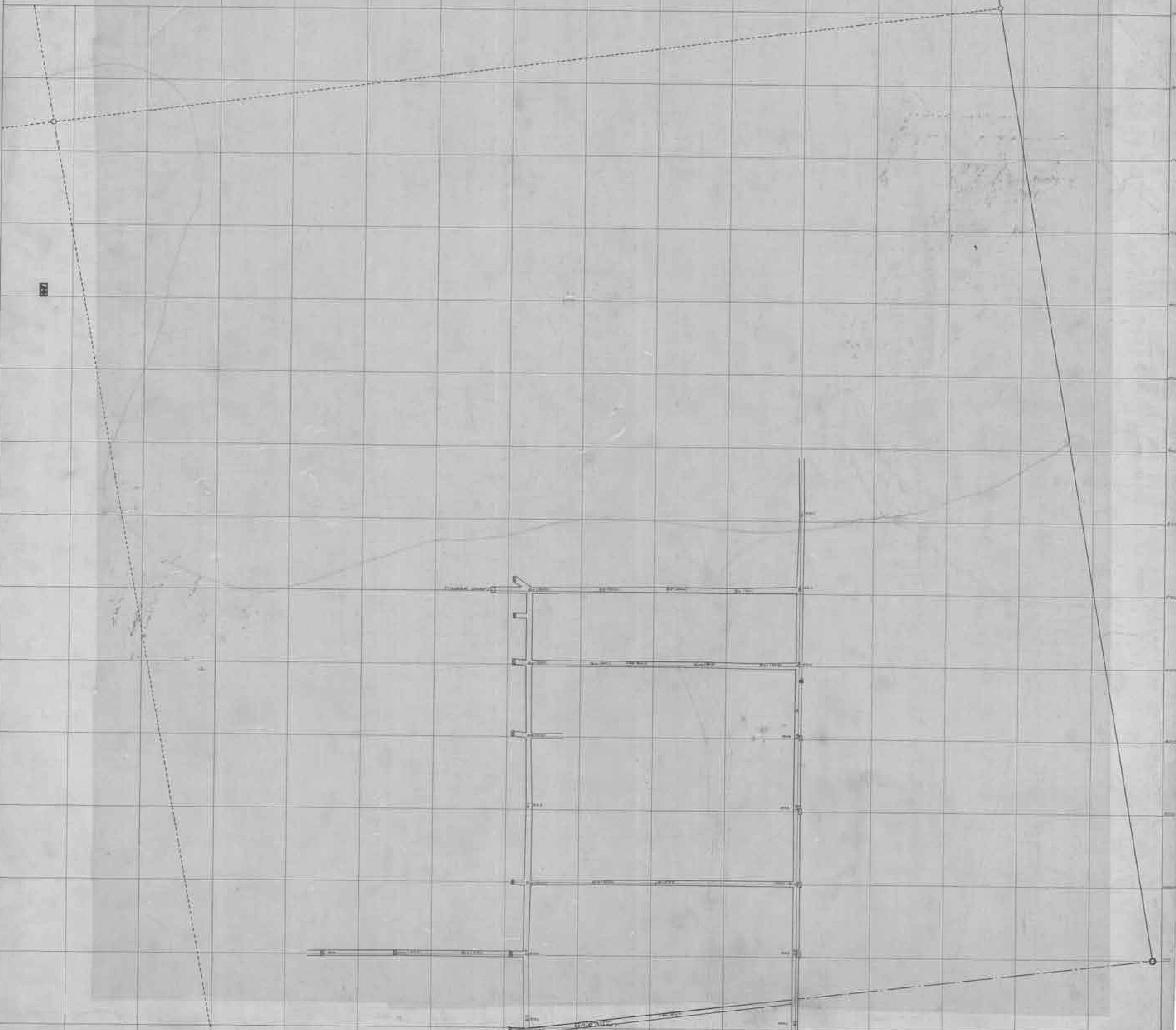
LEONIDAS MINE

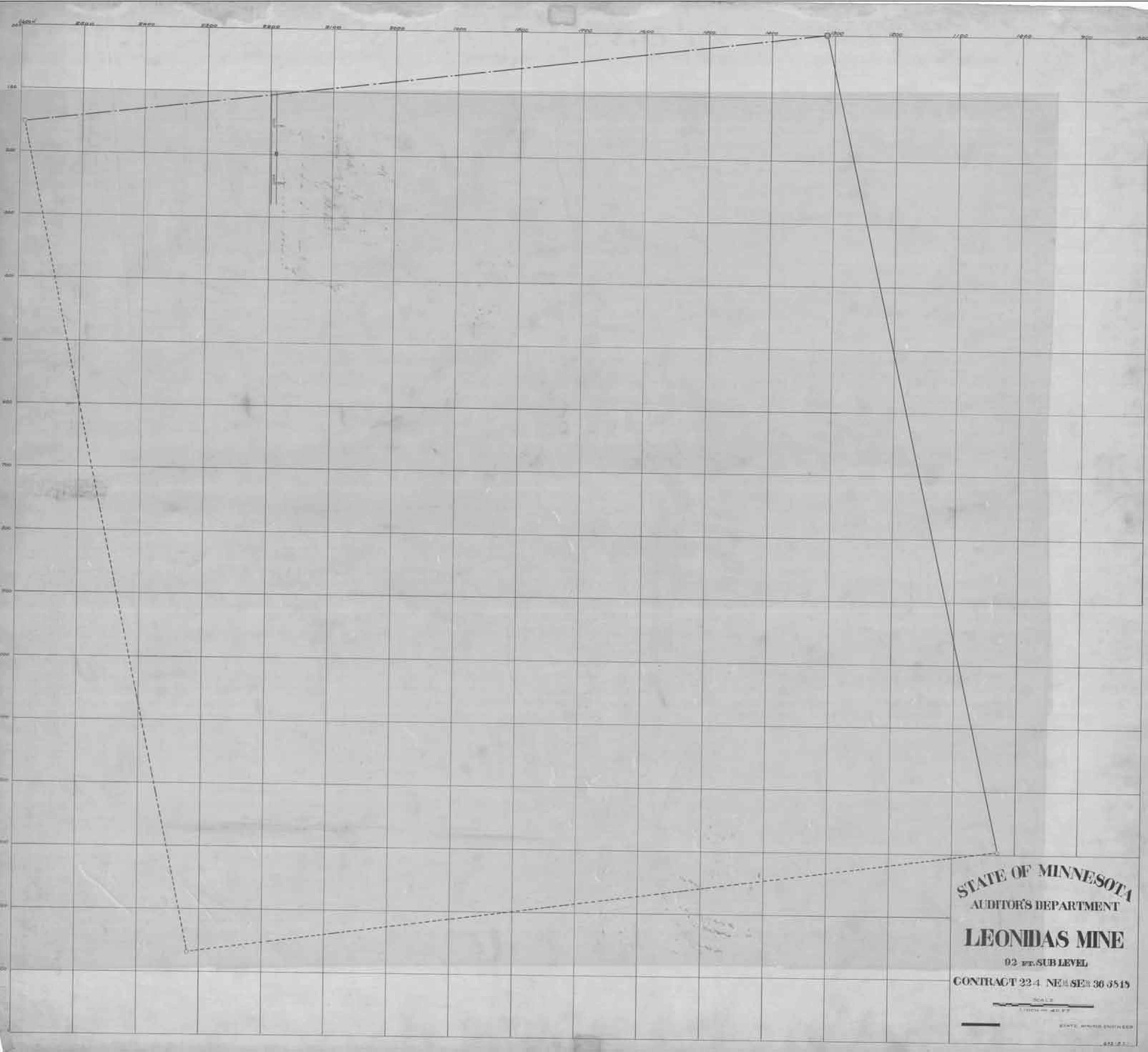
50 FT. SUB-LEVEL

CONTRACT 221 SE#NE# 36 55 15

SCALE
1 INCH = 40 FT.

STATE MINING ENGINEER





STATE OF MINNESOTA
AUDITOR'S DEPARTMENT

LEONIDAS MINE

92 FT. SUB LEVEL

CONTRACT 224. NEM. SER. 36 5515

SCALE
1 INCH = 40 FT.

STATE MINING ENGINEER

STATE OF MINNESOTA
AUDITOR'S DEPARTMENT

LEONIDAS MINE

92rd. SUB-LEVEL

CONTRACT 221 SE¹/₄NE¹/₄363515

SCALE

1 INCH = 40 FEET

STATE MINING ENGINEER





1600 1500 1400 1300

100
200

STATE OF MINNESOTA
AUDITOR'S DEPARTMENT
LEONIDAS MINE
CONTRACT NO. NEA SEM 36-58-18
140 FT. SUBLEVEL
SCALE 1/4"

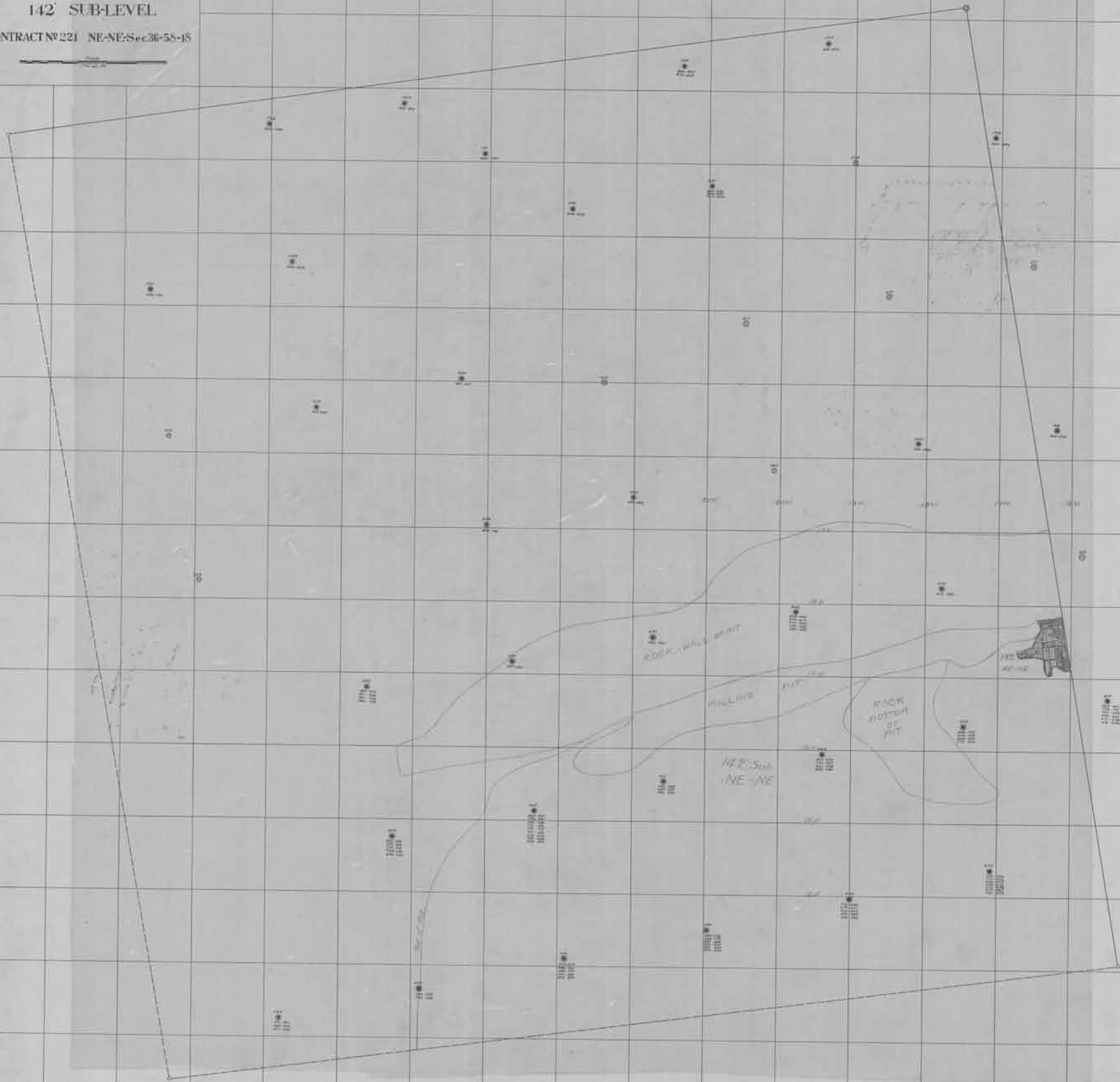
STATE OF MINNESOTA

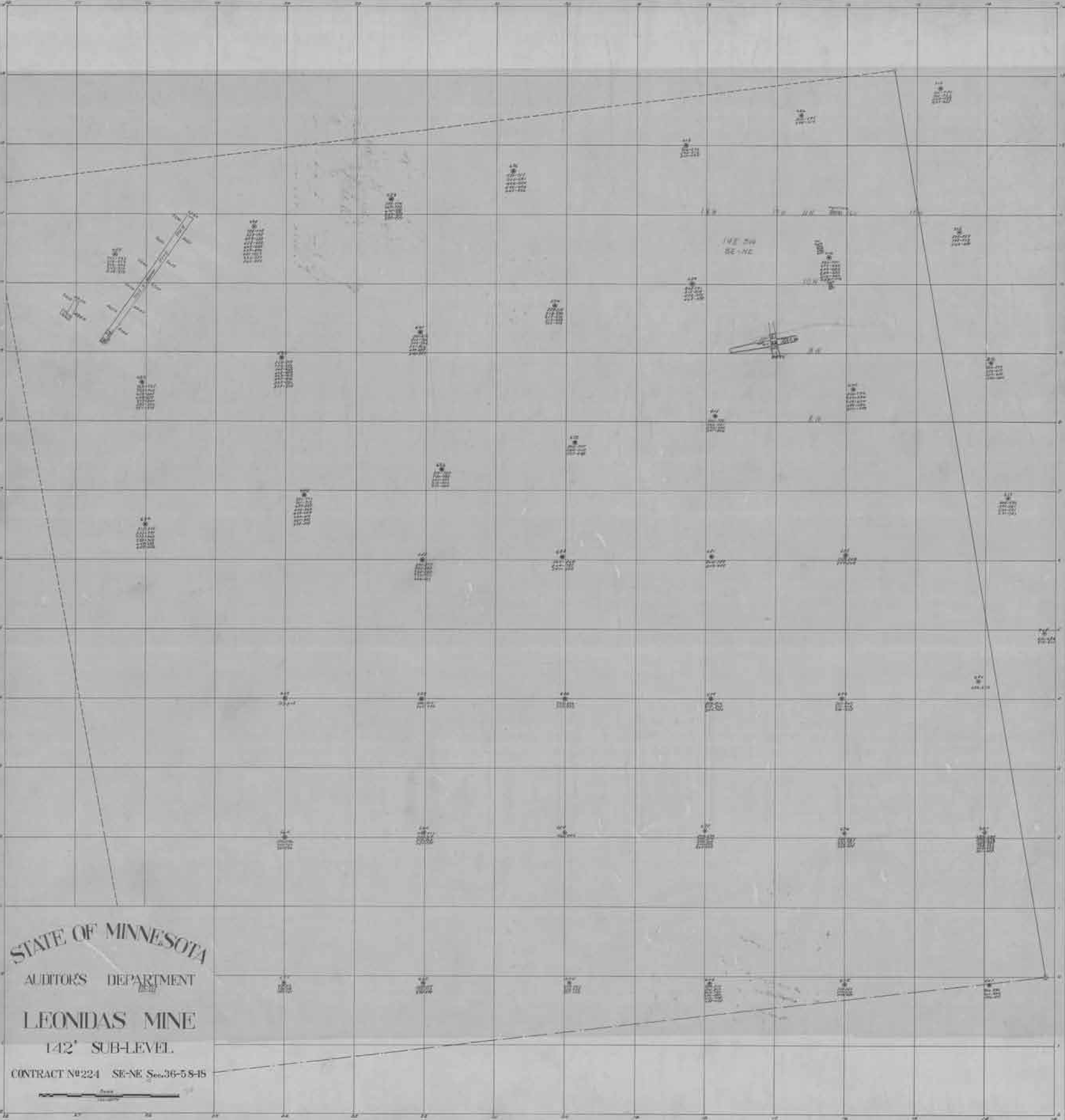
AUDITOR'S DEPARTMENT

LEONIDAS MINE

142' SUB-LEVEL

CONTRACT NO 221 NE-NE-SEC 36-58-18





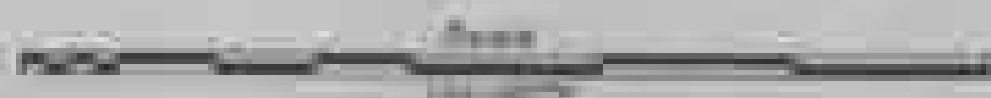
STATE OF MINNESOTA

AUDITORS DEPARTMENT

LEONIDAS MINE

142' SUB-LEVEL.

CONTRACT No 224 SE-NE Sec. 36-58-18



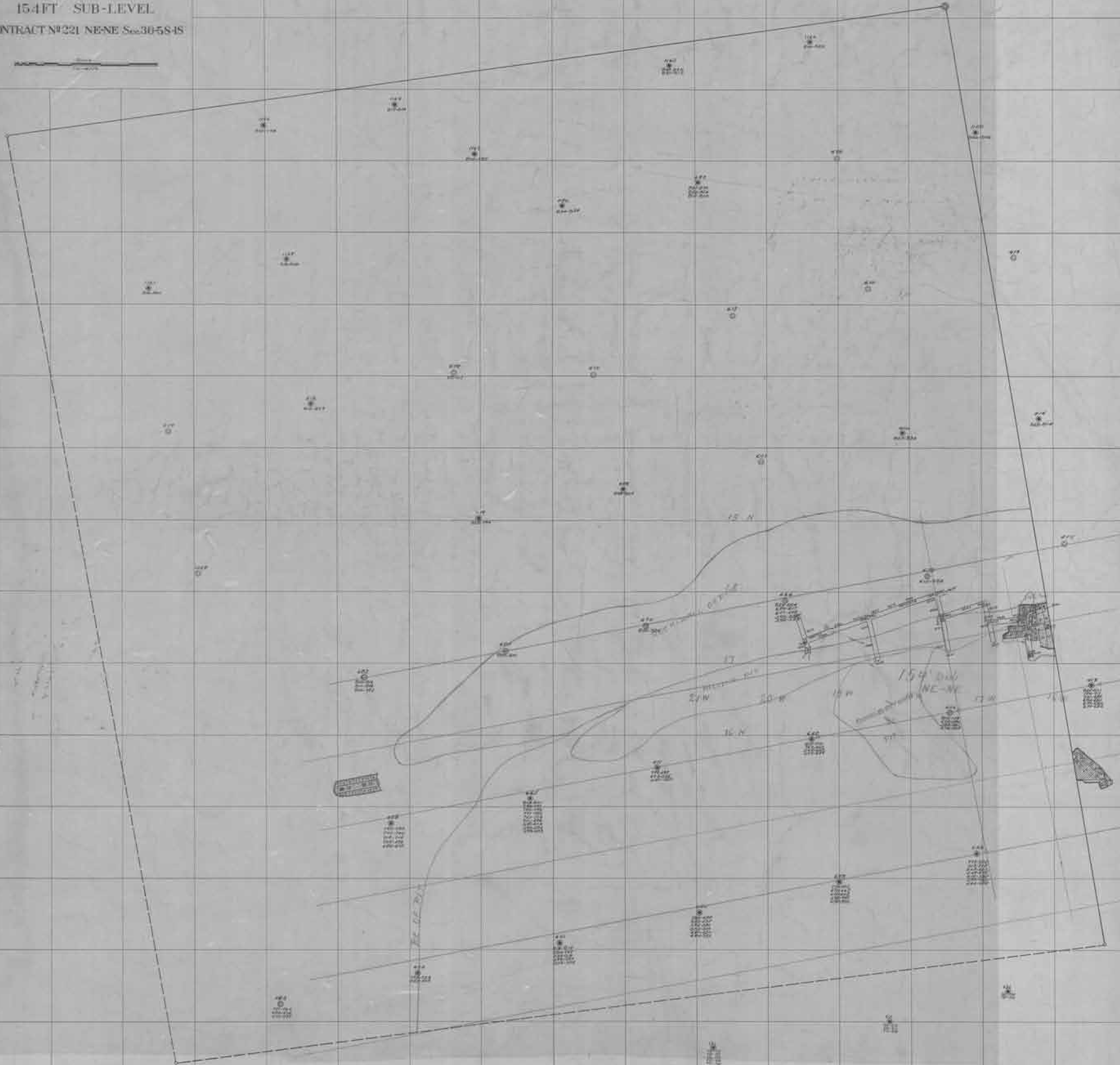
STATE OF MINNESOTA

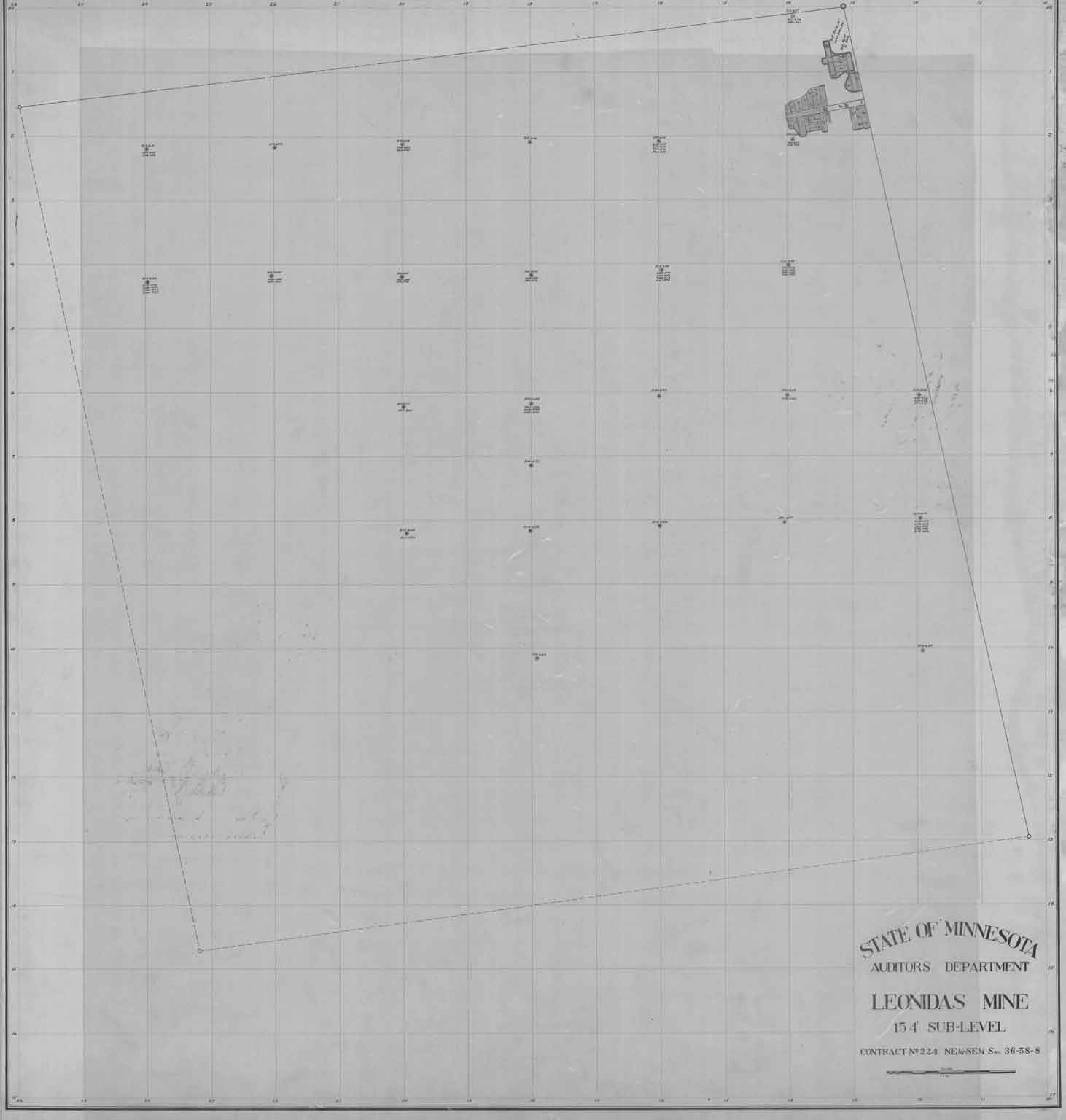
AUDITORS DEPARTMENT

LEONIDAS MINE

154 FT SUB-LEVEL

CONTRACT NO 221 NE-NE Sec 30-58-4S



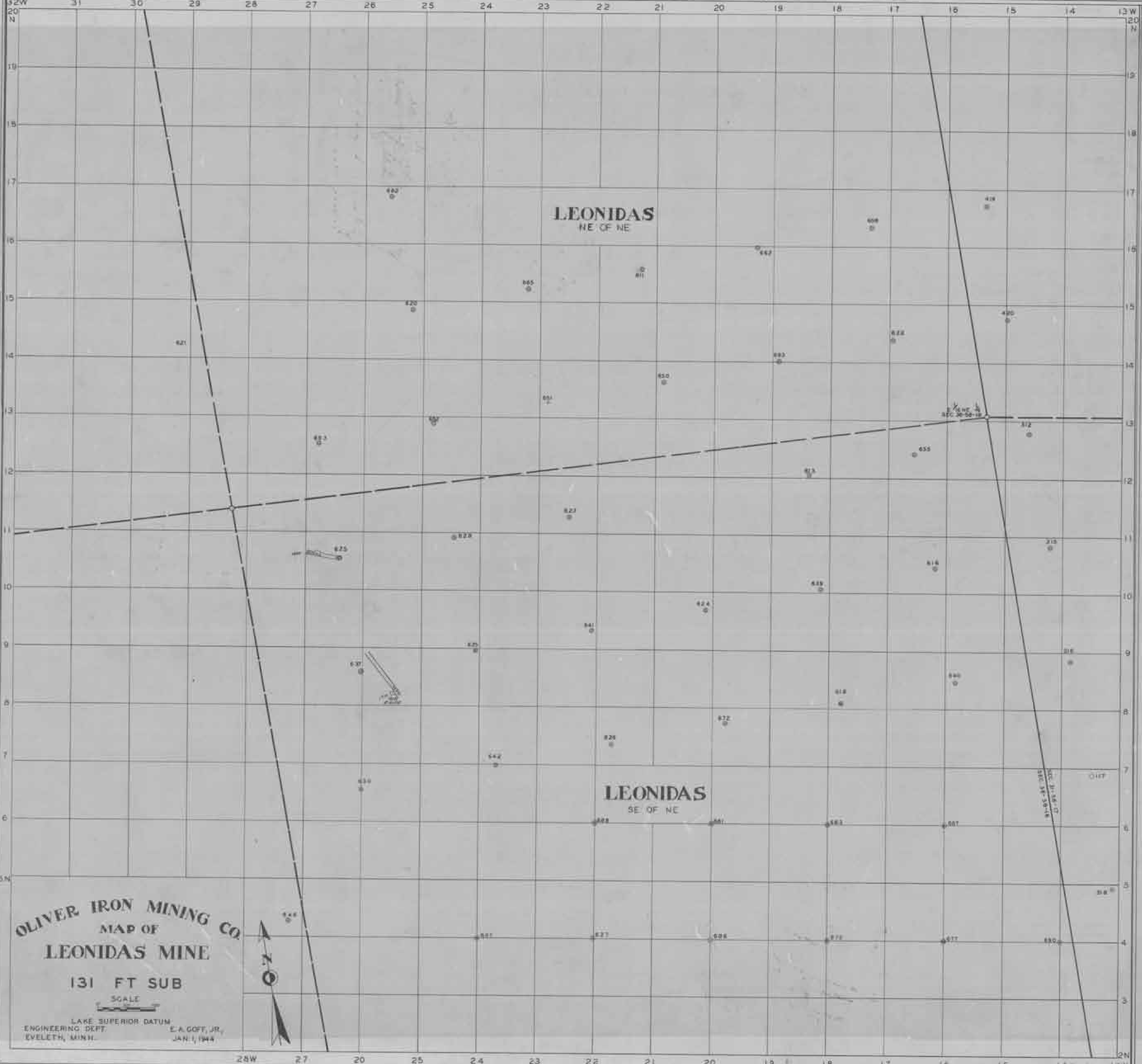


STATE OF MINNESOTA
AUDITORS DEPARTMENT

LEONIDAS MINE
15'4" SUB-LEVEL

CONTRACT N° 224 NEA-SEM S. 36-58-8





LEONIDAS
NE OF NE

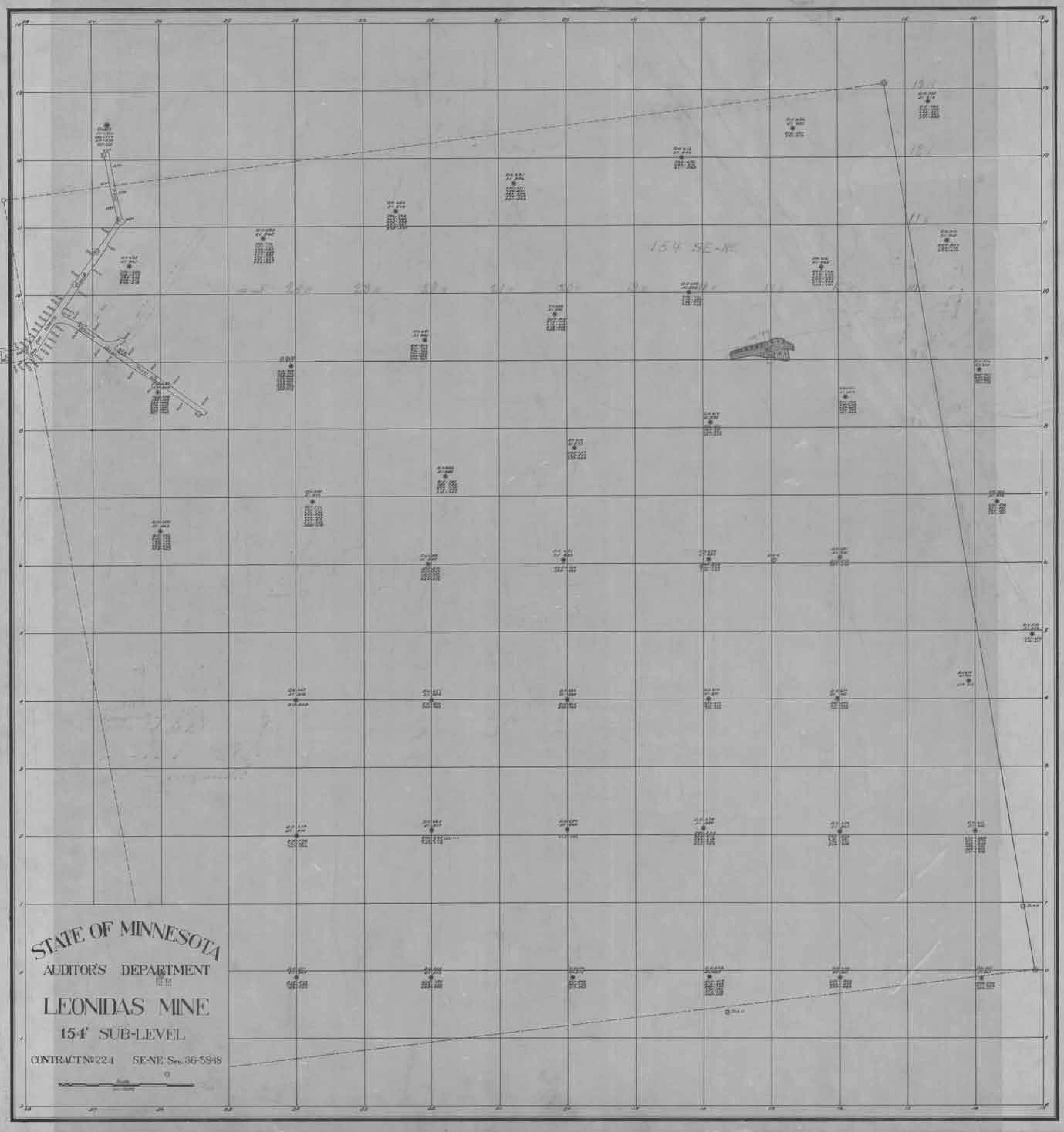
LEONIDAS
SE OF NE

OLIVER IRON MINING CO.
MAP OF
LEONIDAS MINE

131 FT SUB
SCALE

LAKE SUPERIOR DATUM
ENGINEERING DEPT.
EVELETH, MINN.

E. A. GOFT, JR.
JAN. 1, 1944



STATE OF MINNESOTA

AUDITOR'S DEPARTMENT

LEONIDAS MINE

154' SUB-LEVEL

CONTRACT NO 224 SE-NE S. 36-5848



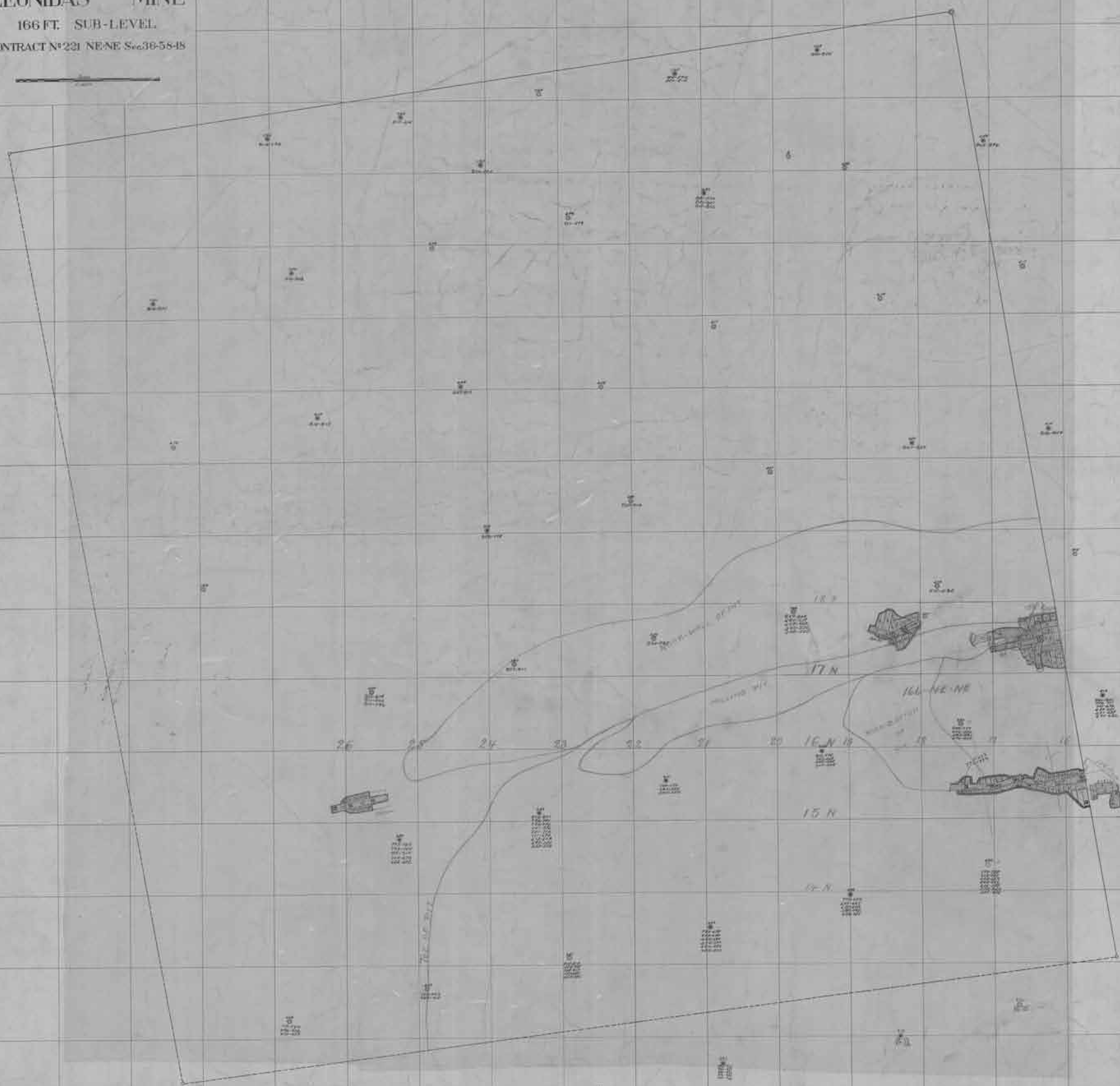
STATE OF MINNESOTA

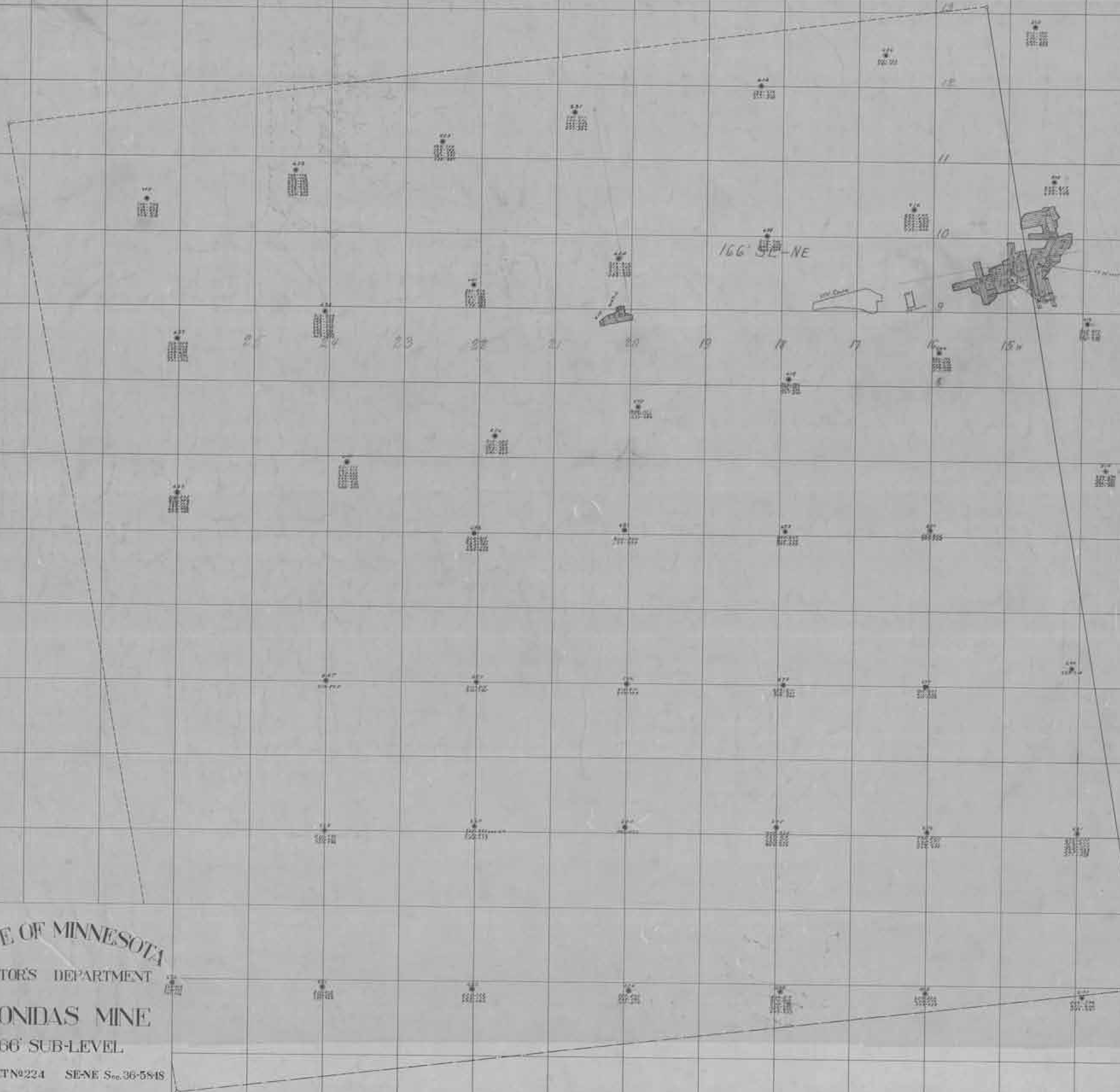
AUDITORS DEPARTMENT

LEONIDAS MINE

166 FT. SUB-LEVEL

CONTRACT N° 221 NE-NE Sec 36-58-18





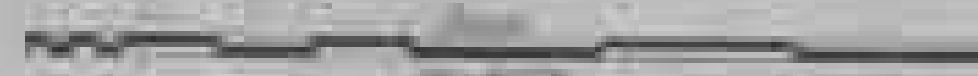
STATE OF MINNESOTA

AUDITORS DEPARTMENT

LEONIDAS MINE

166' SUB-LEVEL

CONTRACT No 224 SE-NE Sec. 36-5848

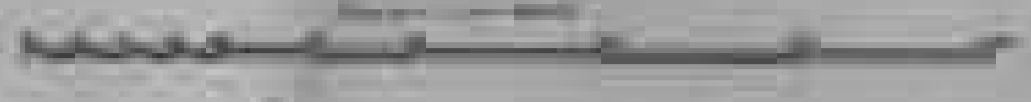


STATE OF MINNESOTA
AUDITORS DEPARTMENT

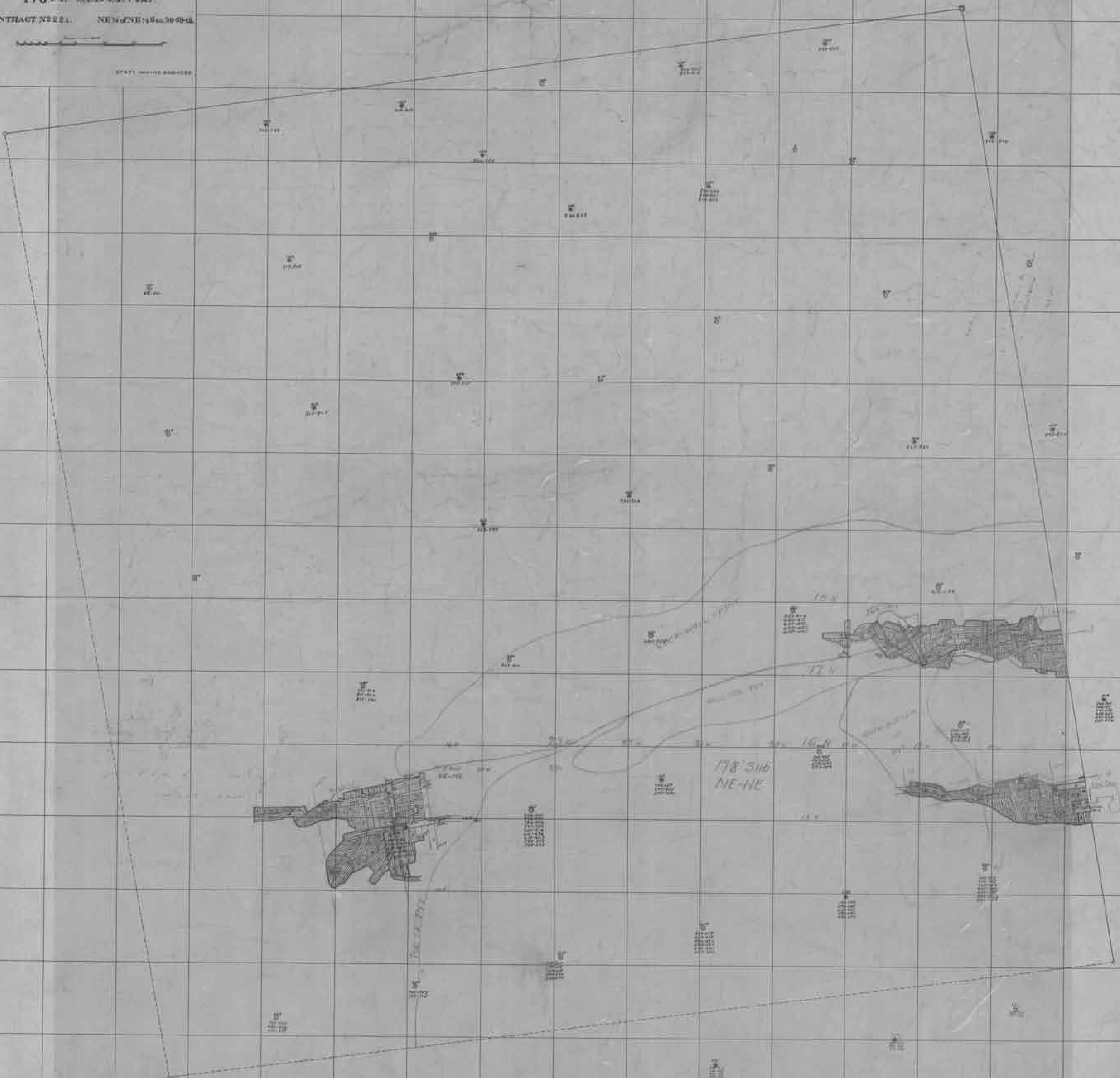
LEONIDAS MINE

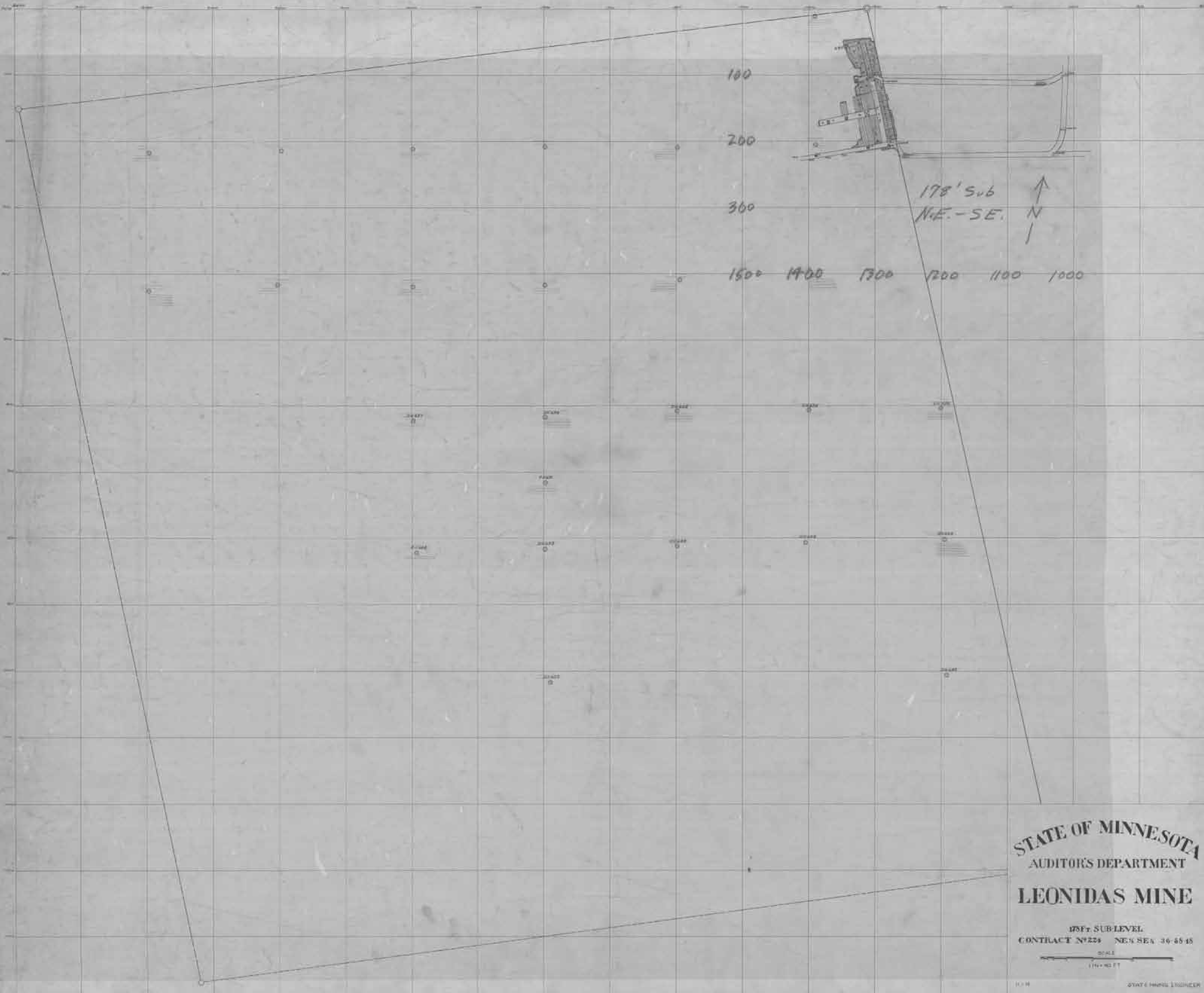
178 FT. SUB LEVEL

CONTRACT NO 221. NE 1/4 of NE 1/4 Sec. 30 59-48.



STATE MINE ADDRESS



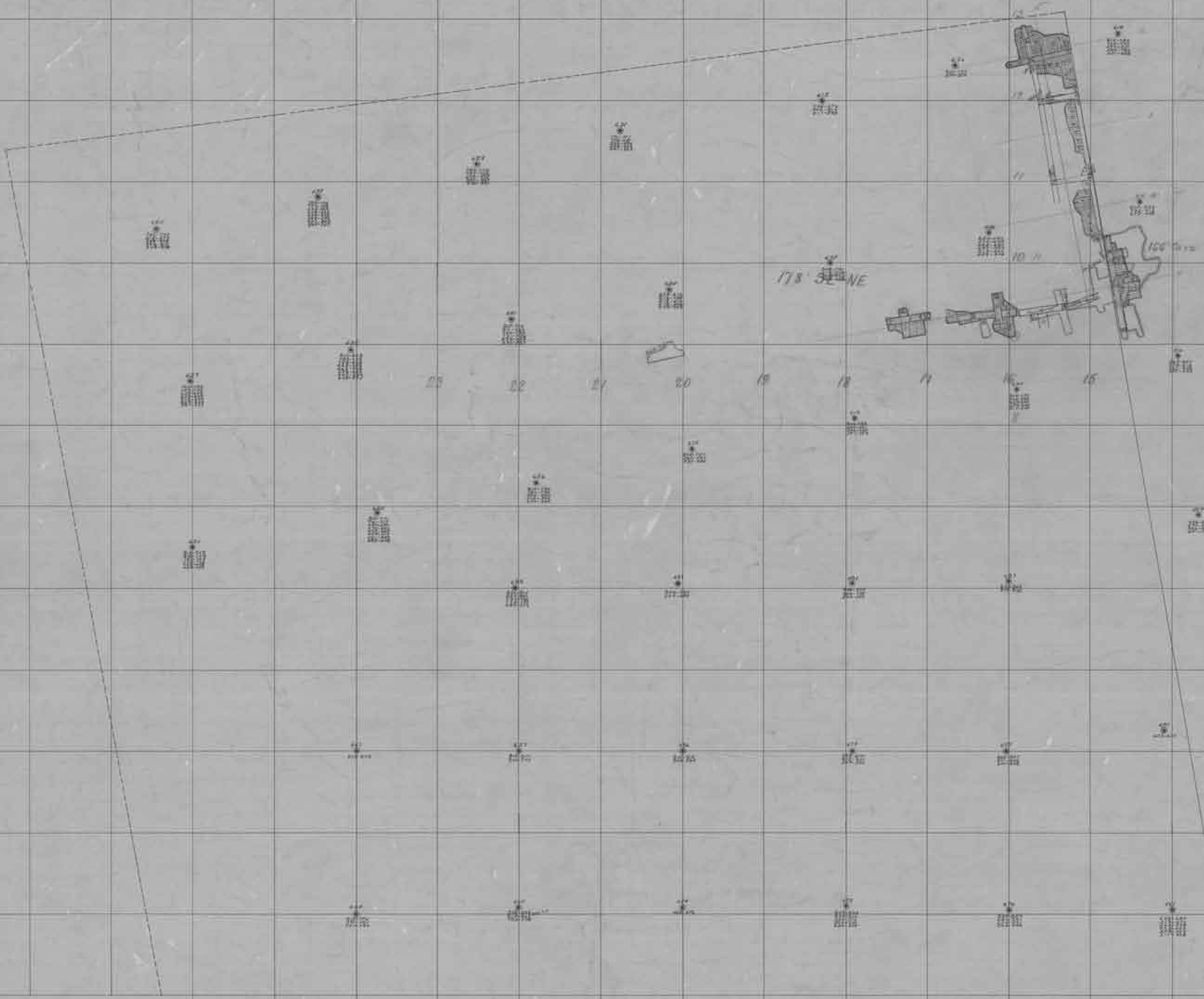


STATE OF MINNESOTA
AUDITOR'S DEPARTMENT

LEONIDAS MINE

178 FT. SUB-LEVEL
CONTRACT NO. 224 N.E.S.E. 30-55-45





STATE OF MINNESOTA
 AUDITORS DEPARTMENT
 LEONIDAS MINE
 178' SUB-LEVEL
 CONTRACT NO. 224 SE-NE S. 36-58-18

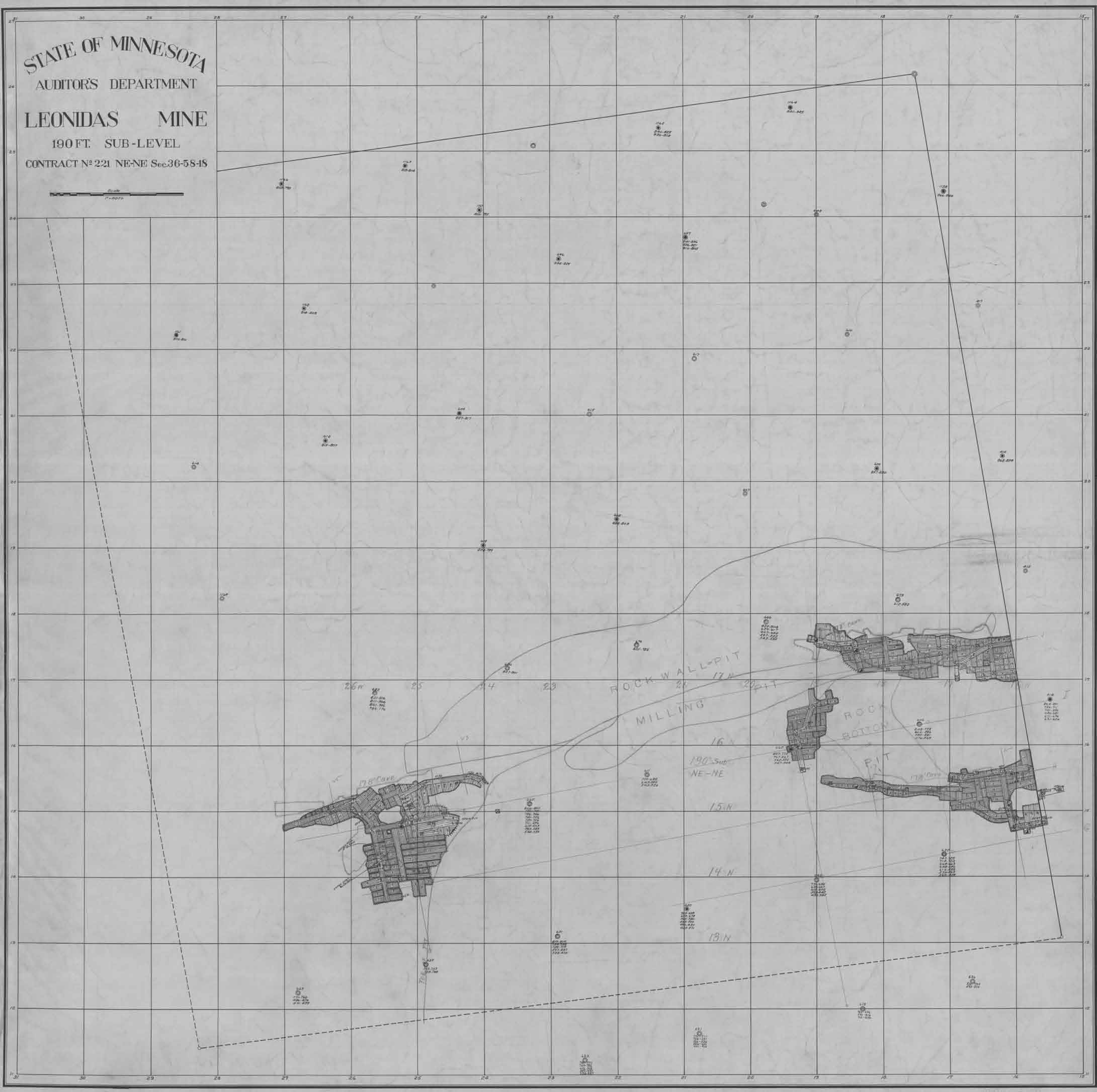


STATE OF MINNESOTA
AUDITORS DEPARTMENT

LEONIDAS MINE

190 FT. SUB-LEVEL

CONTRACT N° 221 NE-NE Sec.36-58-18

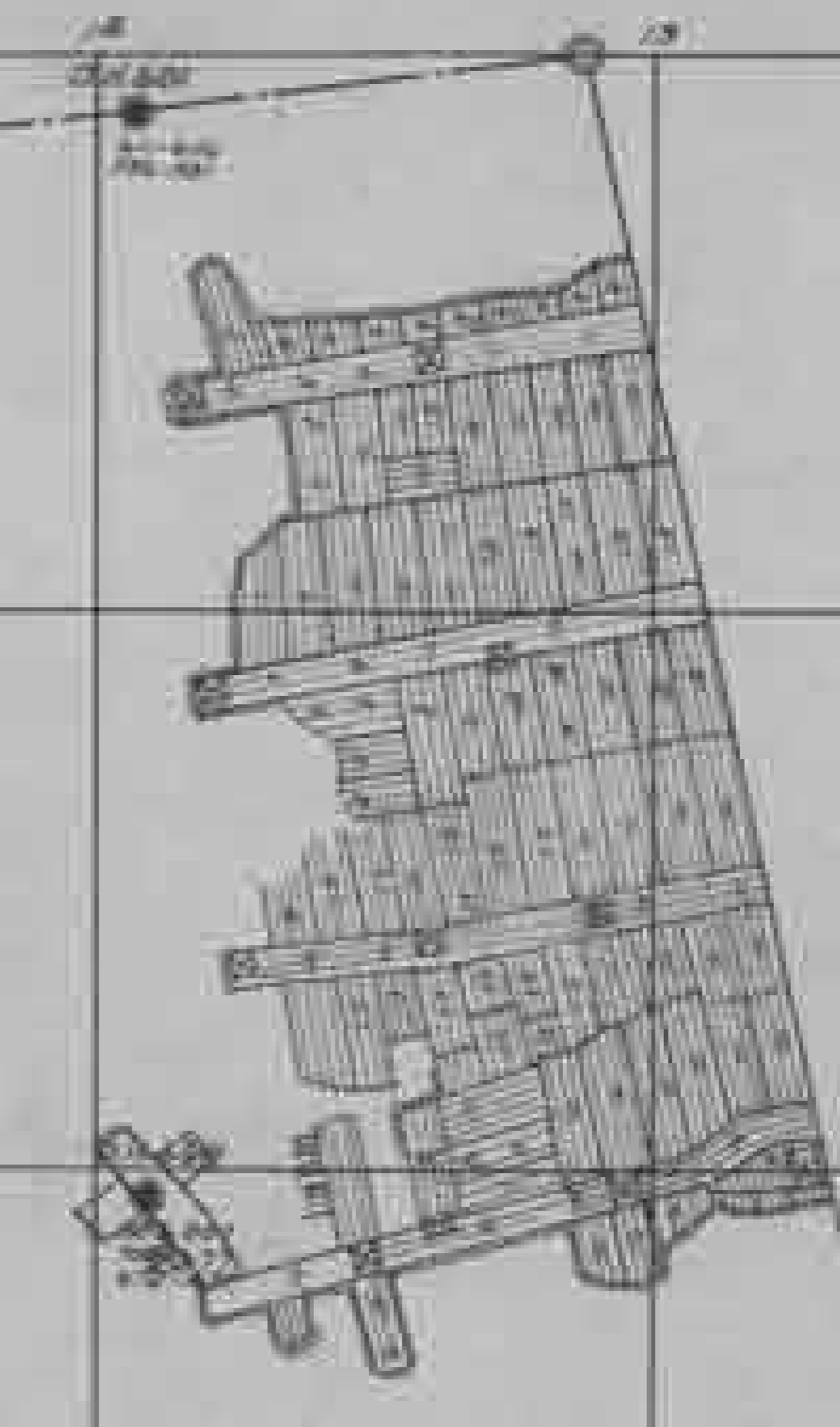


STATE OF MINNESOTA
AUDITOR'S DEPARTMENT
LEONIDAS MINE

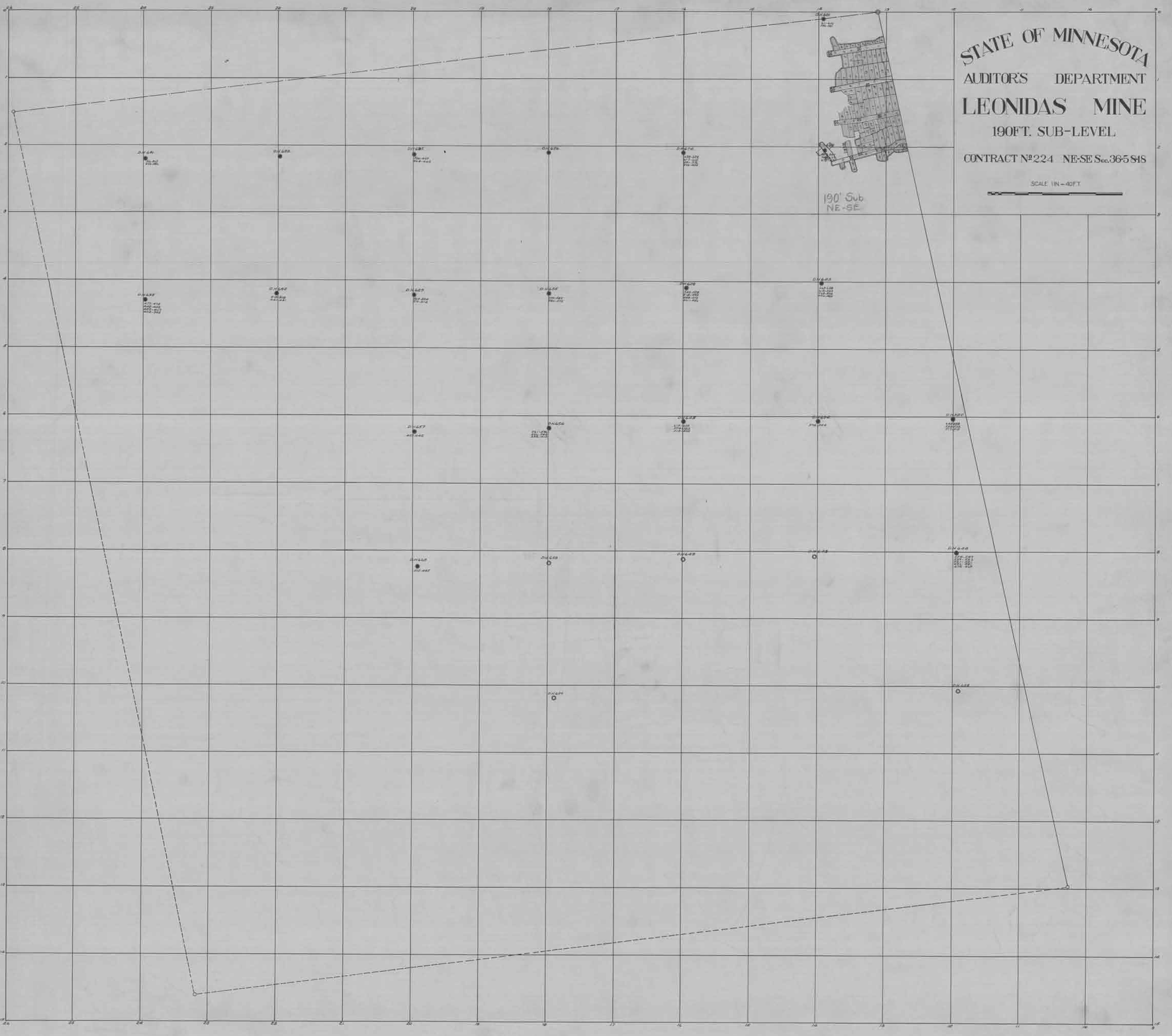
190FT. SUB-LEVEL

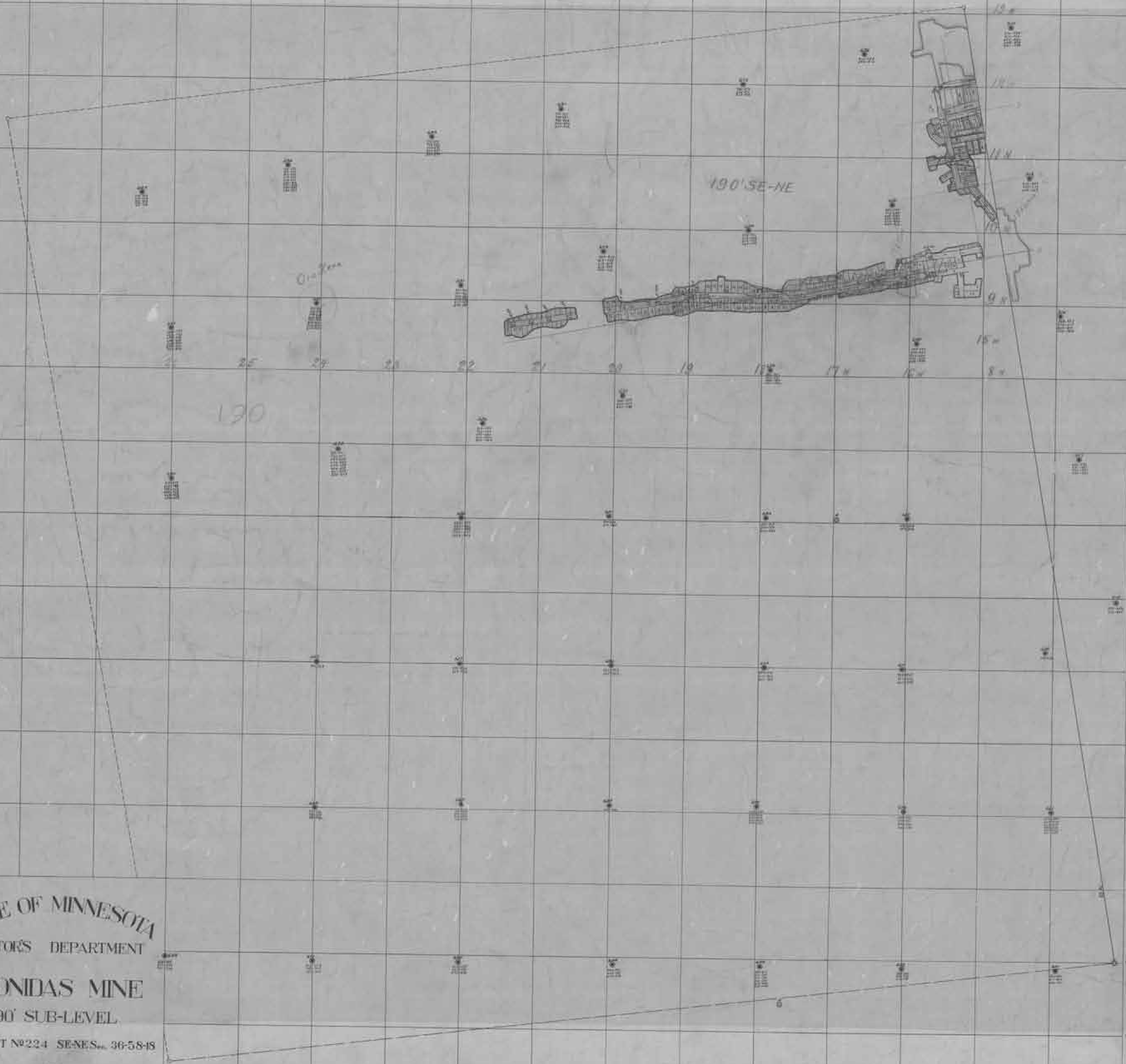
CONTRACT N^o 224 NE-SE Sec. 36-5-818

SCALE 1IN=40FT.



190' Sub
NE-SE





STATE OF MINNESOTA
AUDITOR'S DEPARTMENT

LEONIDAS MINE

190' SUB-LEVEL

CONTRACT No 224 SE-NES. 36-58-18



STATE OF MINNESOTA

AUDITOR'S DEPARTMENT

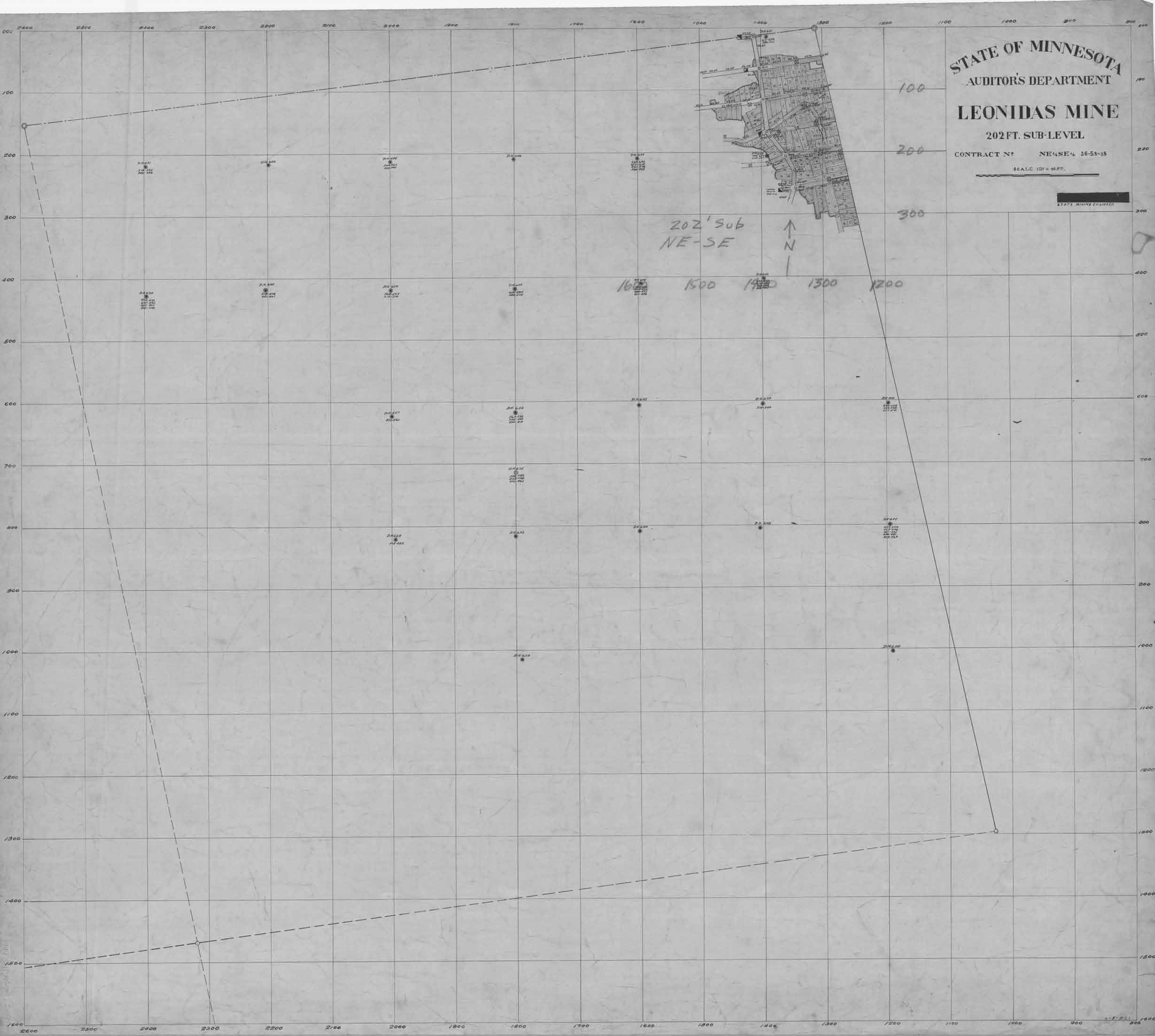
LEONIDAS MINE

202 FT. SUB-LEVEL

CONTRACT N^o NEASE 38-55-15

SCALE 1 IN = 40 FT.

STATE MINING ENGINEER



202' SUB
NE-SE



1600 1500 1400 1300 1200



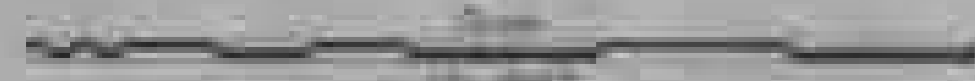
STATE OF MINNESOTA

AUDITORS DEPARTMENT

LEONIDAS MINE

202' SUB-LEVEL

CONTRACT No 224 SENE S. 36-58-18

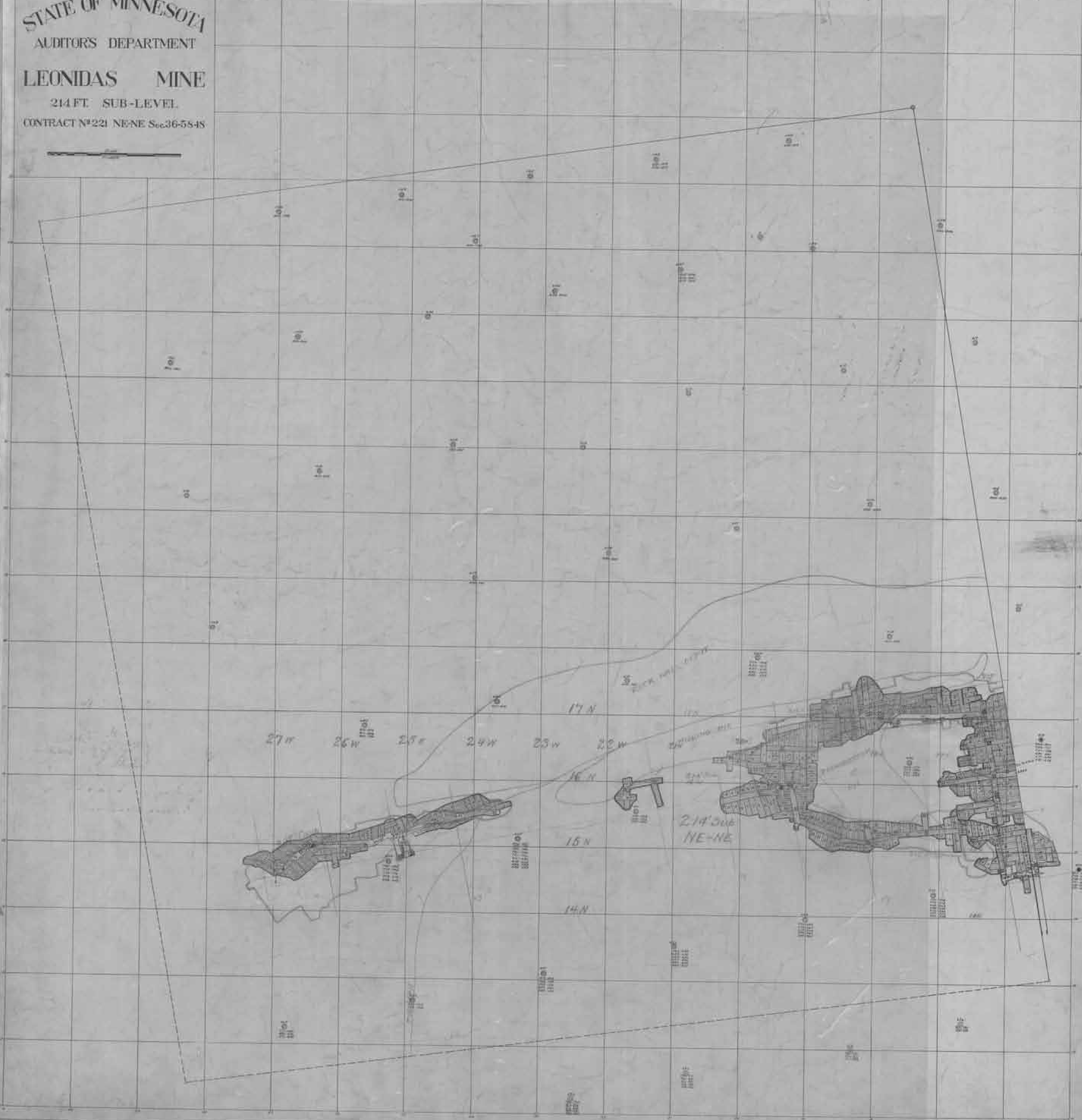


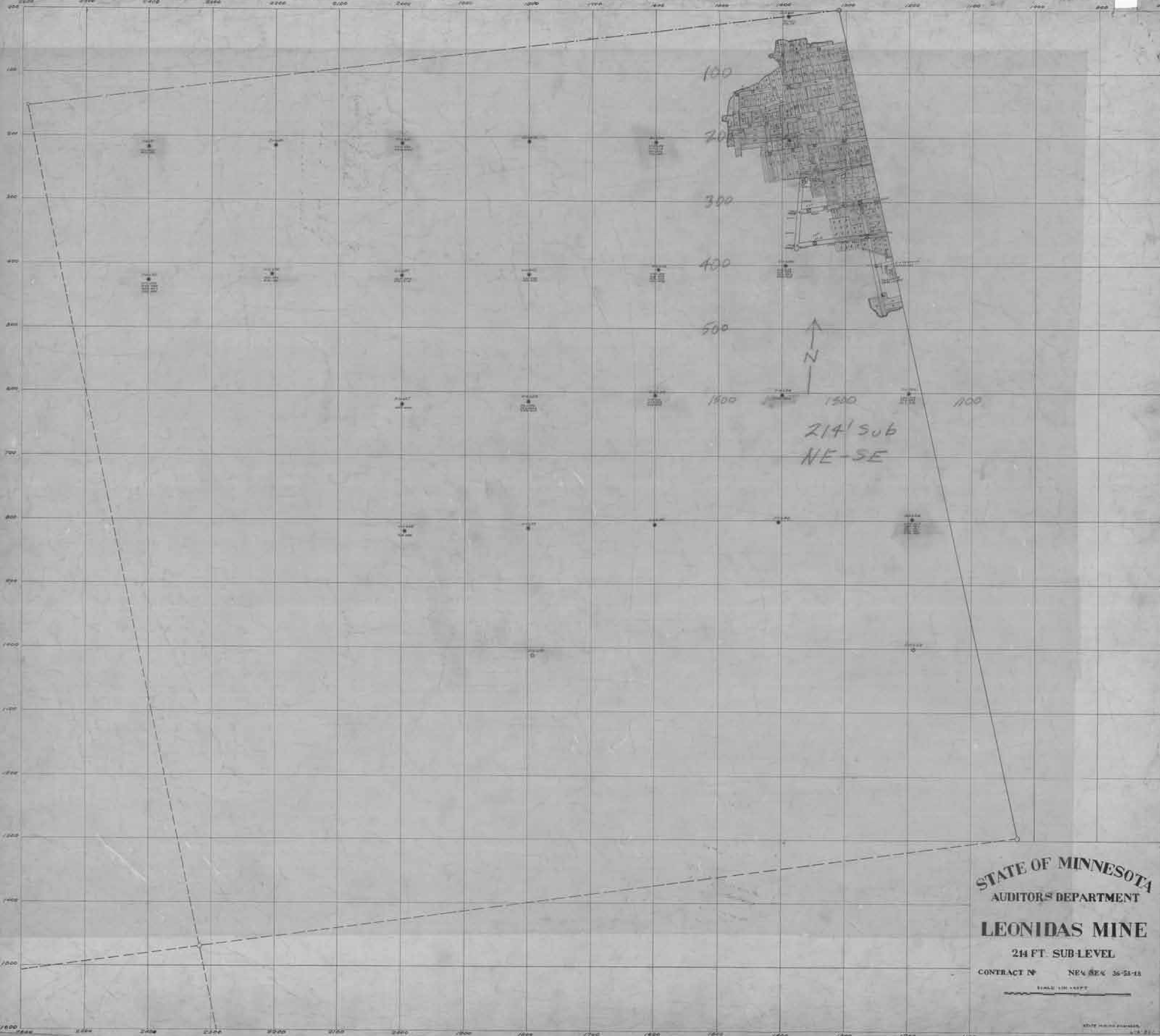
STATE OF MINNESOTA
AUDITORS DEPARTMENT

LEONIDAS MINE

214 FT. SUB-LEVEL

CONTRACT N^o 221 NE-NE Sec. 36-58-48





214' SUB
NE-SE

STATE OF MINNESOTA
AUDITORS DEPARTMENT
LEONIDAS MINE
214 FT. SUB-LEVEL
CONTRACT NO. NEA SEC 36-51-18
SCALE 1/8" = 100 FT.

OLIVER IRON MINING CO.
MAP OF
LEONIDAS MINE
166 FT SUB

SCALE

0 50 100'

LAKE SUPERIOR DATUM

ENGINEERING DEPT.
EVELETH, MINN.

R.M.M.
JAN. 1, 1929

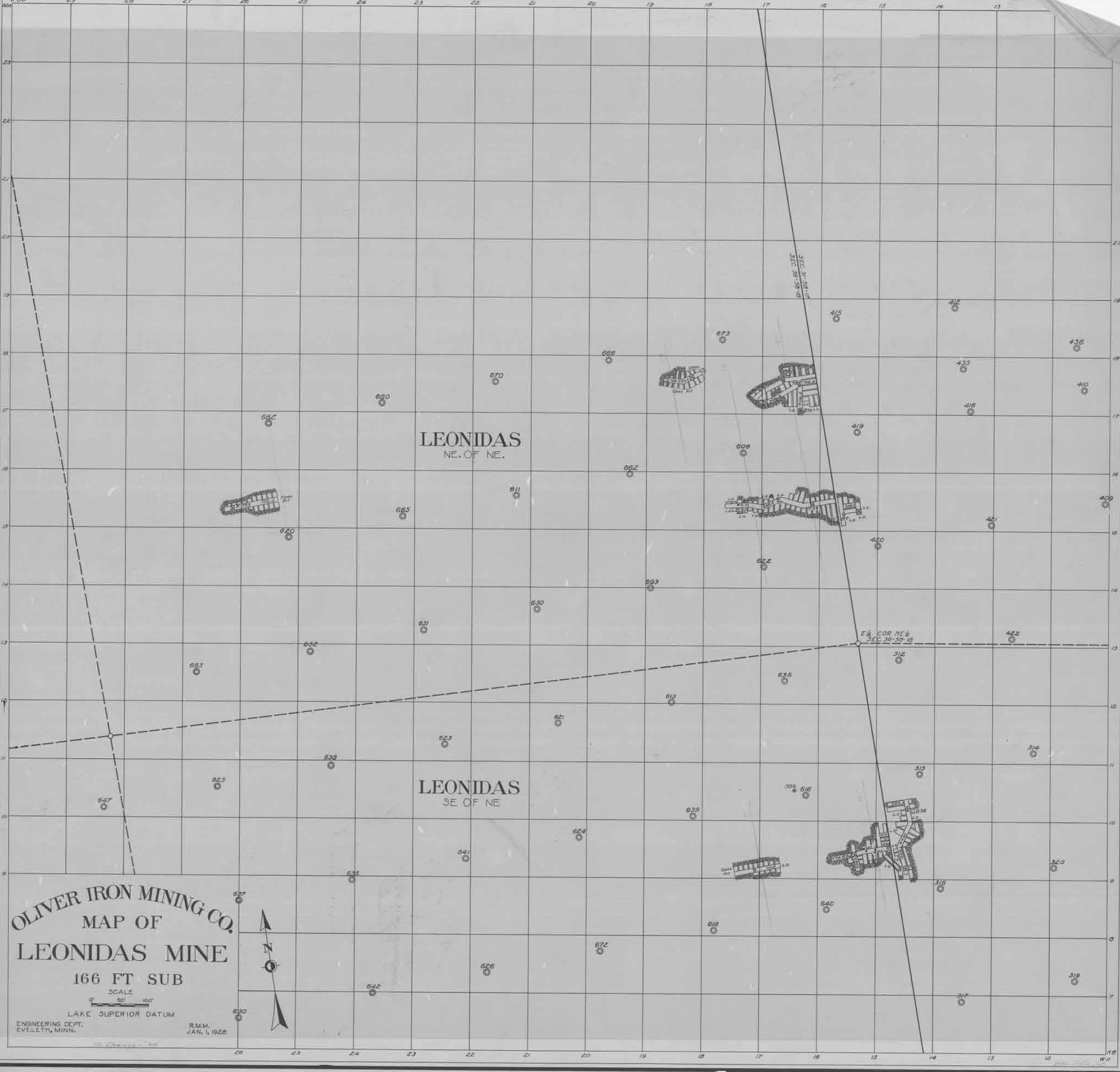


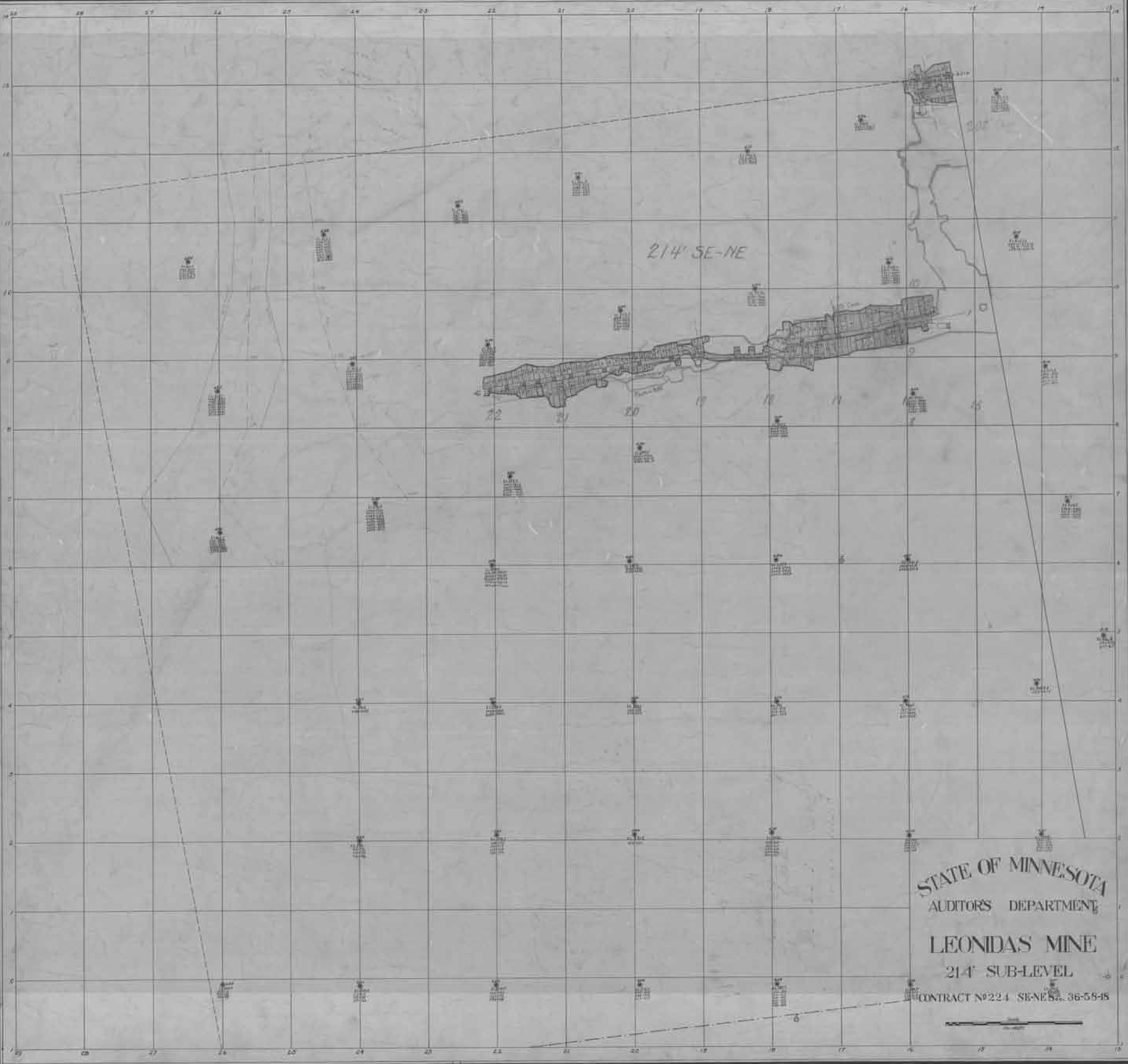
LEONIDAS
NE. OF NE.

LEONIDAS
SE. OF NE.

D-05-BE 235
M-05-1E 235

E. COR NE 4
SEC. 35-30-18





214' SE-NE

STATE OF MINNESOTA
AUDITORS DEPARTMENT

LEONIDAS MINE
214' SUB-LEVEL

CONTRACT NO. 224 SE-NE 36-58-48



STATE OF MINNESOTA
AUDITOR'S DEPARTMENT

LEONIDAS MINE

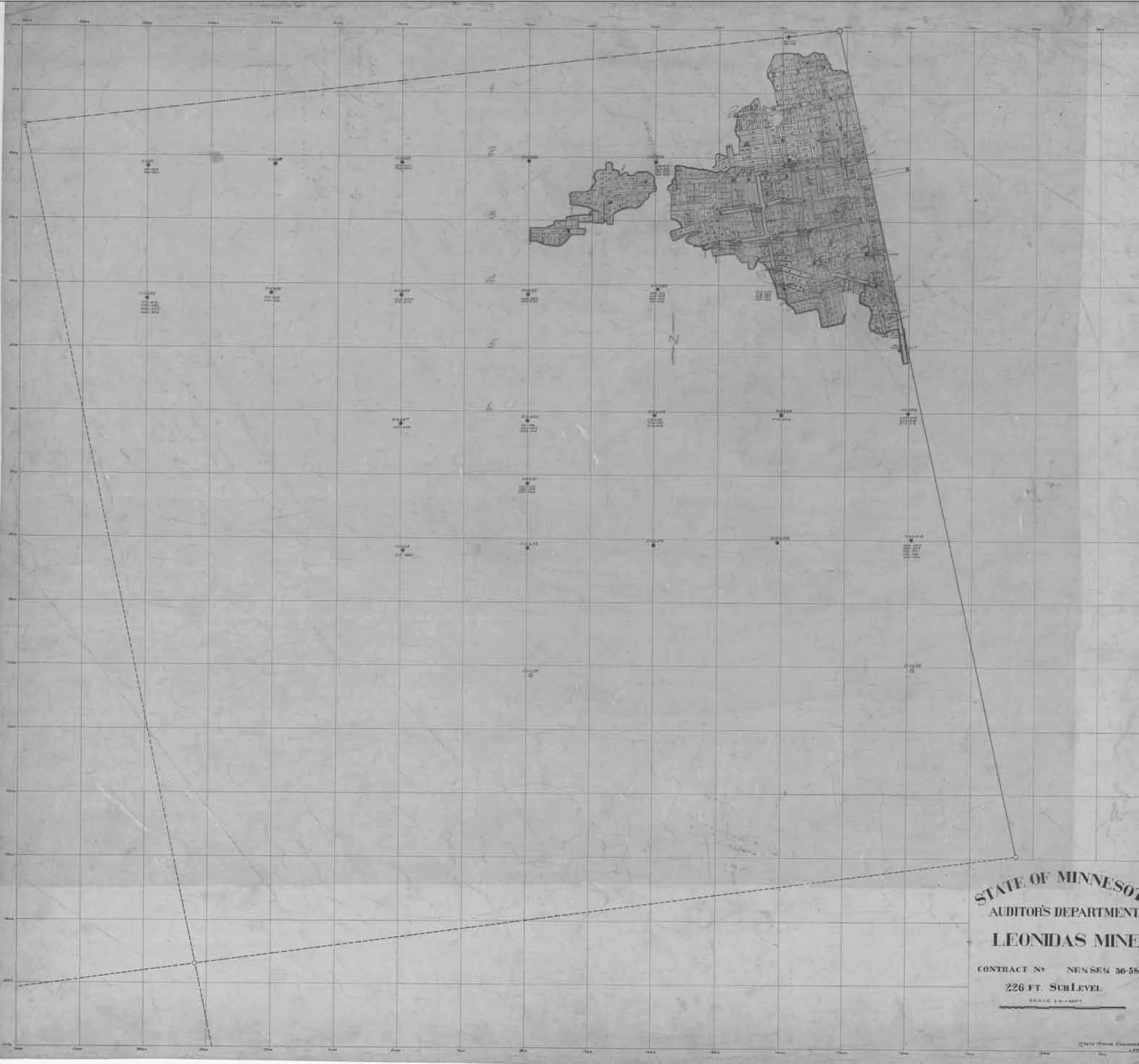
226 FT. SUB LEVEL

CONTRACT NO 221. NE 1/4 of NE 1/4 Sec. 36-58-19



STATE MINING ENGINEER





STATE OF MINNESOTA
AUDITOR'S DEPARTMENT
LEONIDAS MINE

CONTRACT NO: NENSEM 30-58

226 FT. SUBLEVEL

SCALE 1"=400'

STATE OF MINNESOTA
AUDITOR'S DEPARTMENT

LEONIDAS MINE

224 FE. SUB-LEVEL
CONTRACT N° 424 SEN. MIN. 33-35-16

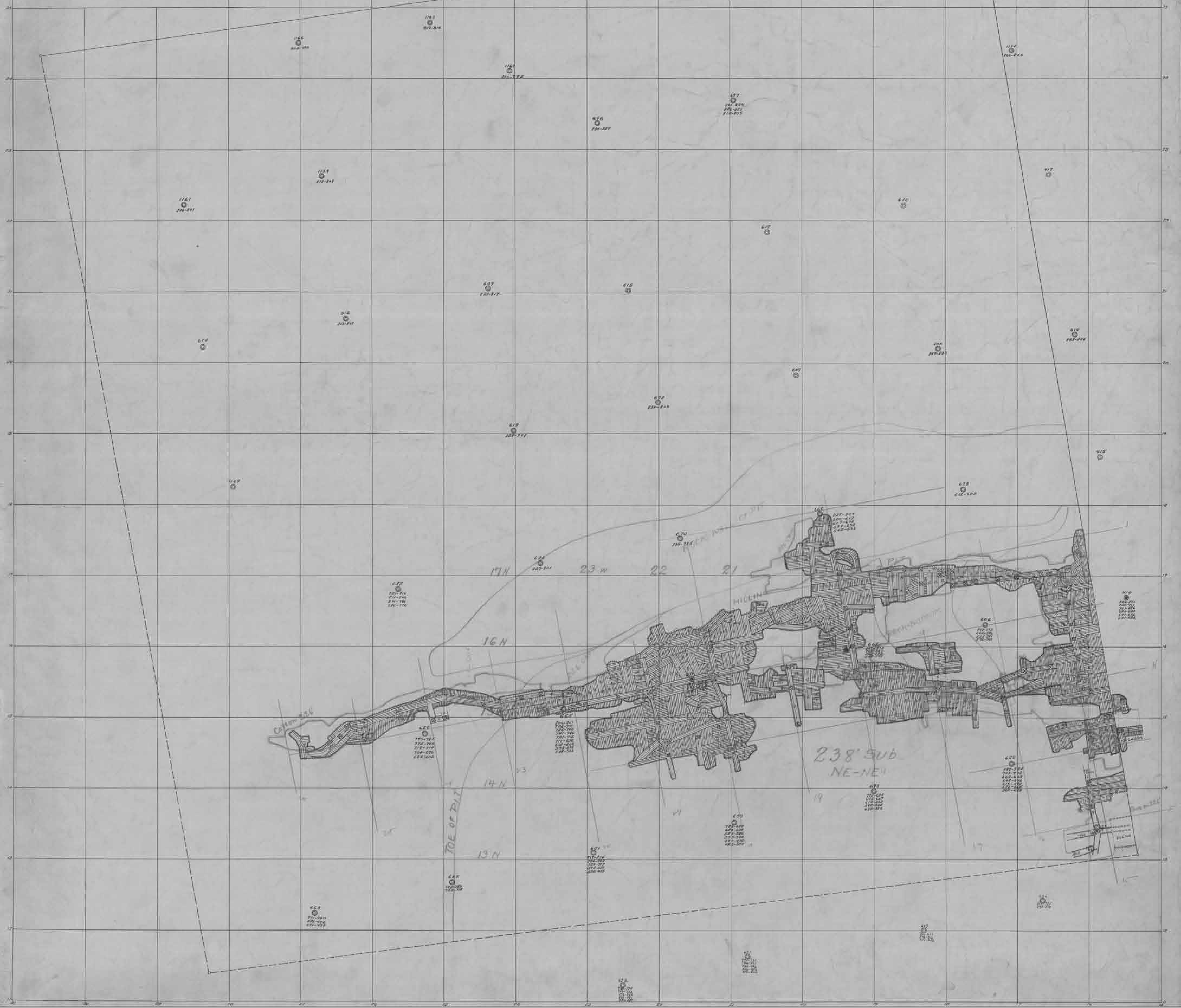
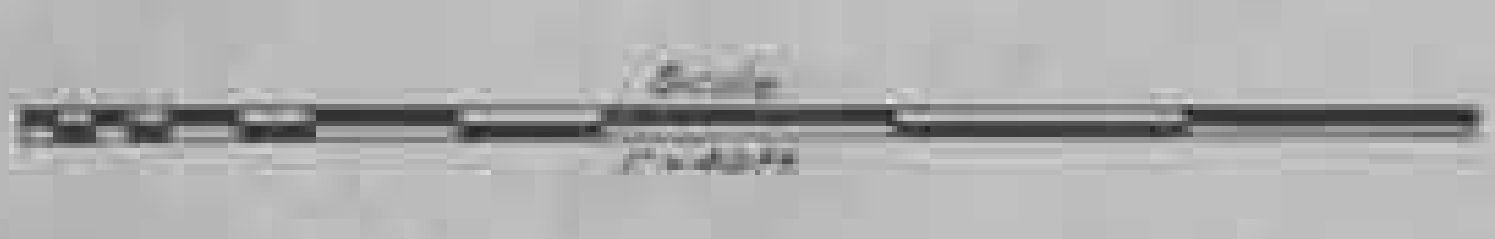
Scale
1" = 100 FT.



224
SE-NE

LEONIDAS MINE

238 FT. SUB-LEVEL
CONTRACT N^o 221 NE-NE S. 36-58-4S





238' Sub,
NE-5E

2
3
4
5
6
7
8
9
11

20 19 18 17 16 15 14 13

STATE OF MINNESOTA
AUDITOR'S DEPARTMENT
LEONIDAS MINE
 CONTRACT N° NE $\frac{1}{4}$ SE $\frac{1}{4}$ 36-58-48
238 FT. SUBLEVEL
 SCALE 1" = 40 FT.

STATE OF MINNESOTA
AUDITOR'S DEPARTMENT

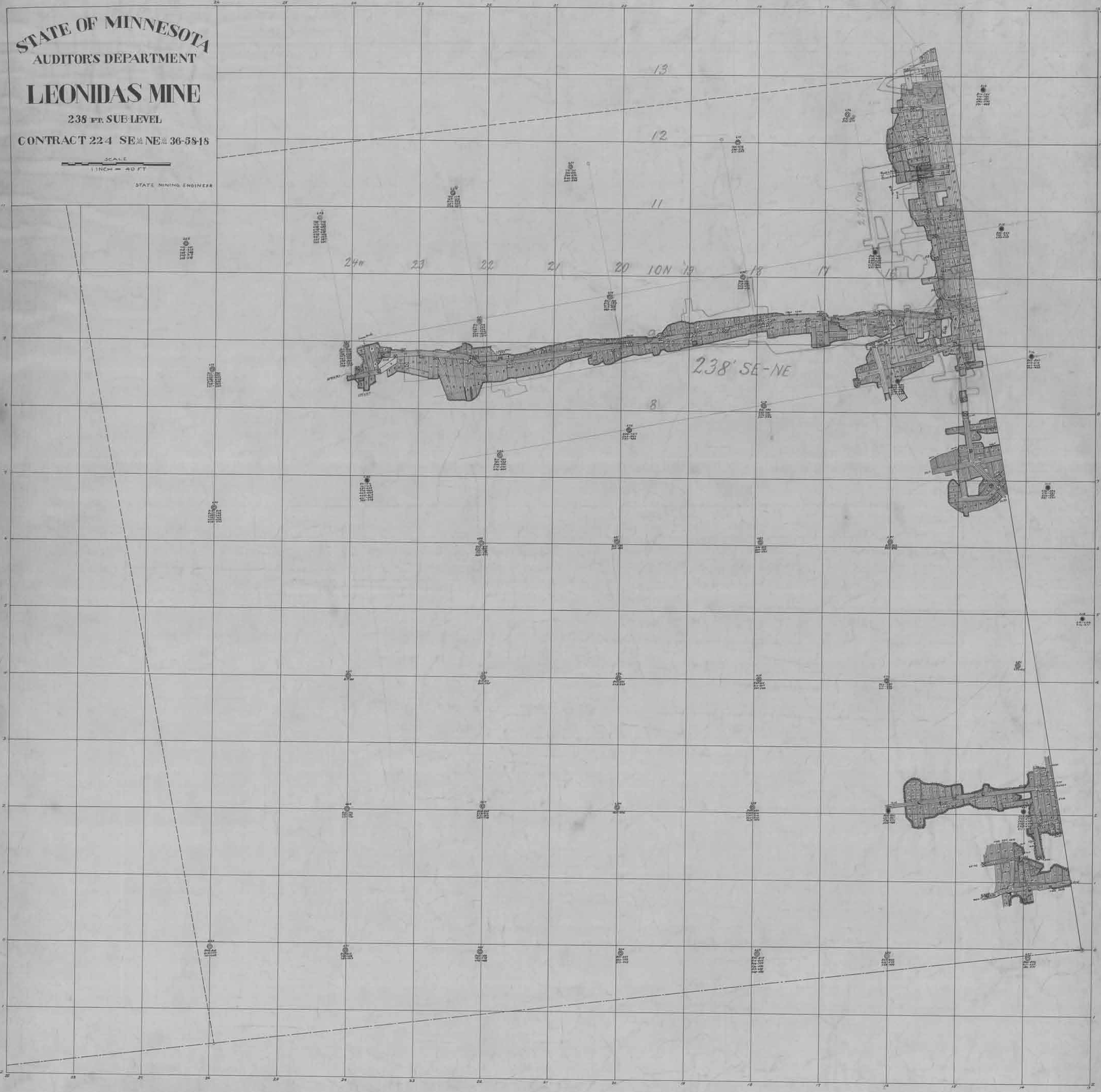
LEONIDAS MINE

238 FT. SUB-LEVEL

CONTRACT 22-4 SE ¼ NE ¼ 36-58-18



STATE MINING ENGINEER



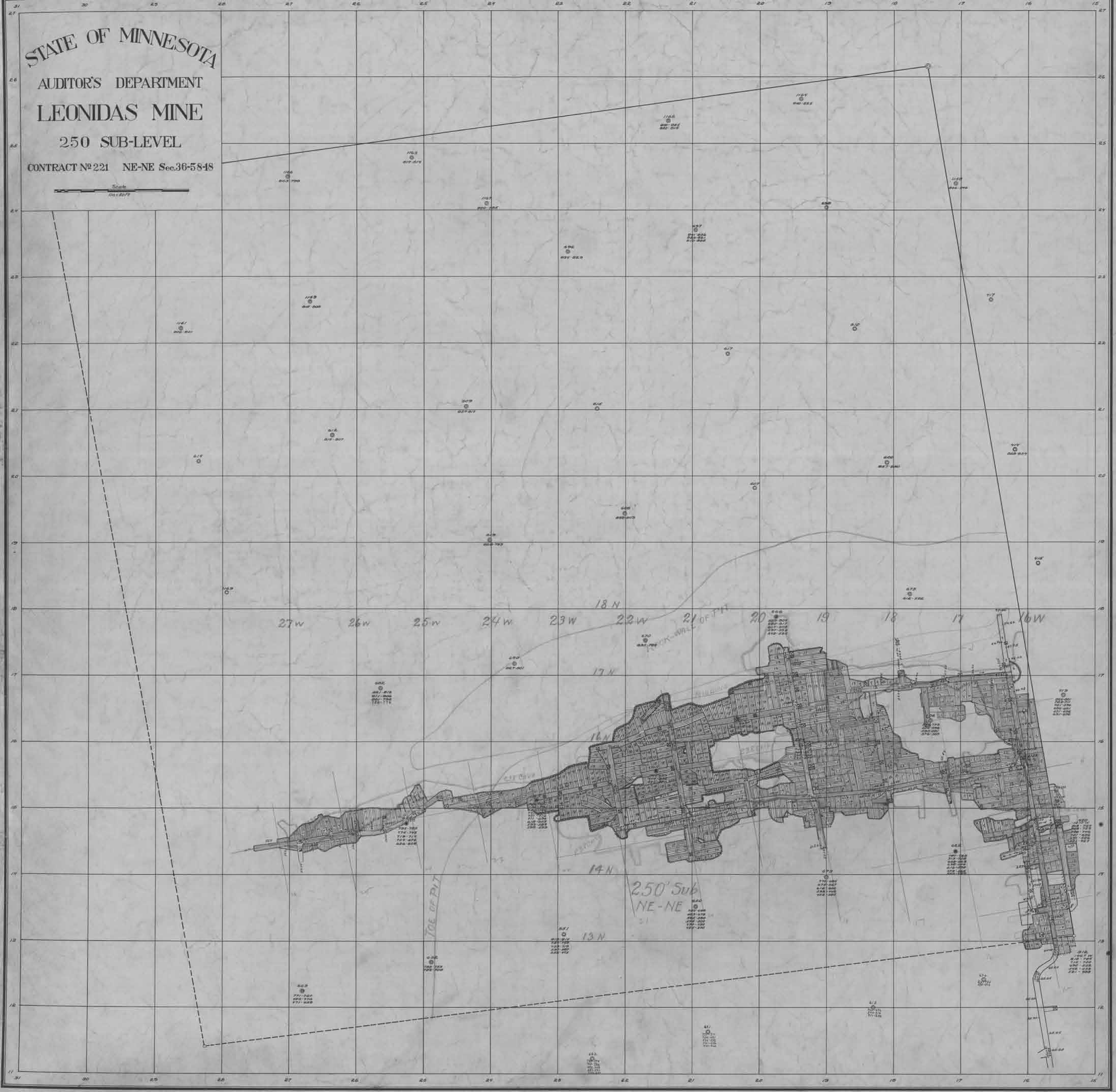
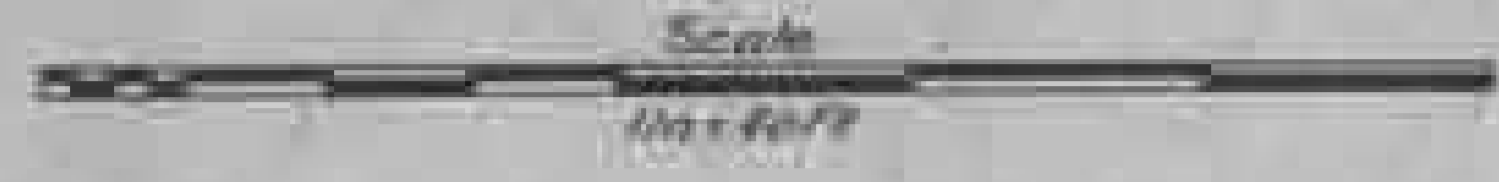
STATE OF MINNESOTA

AUDITOR'S DEPARTMENT

LEONIDAS MINE

250 SUB-LEVEL

CONTRACT No 221 NE-NE Sec.36-58-18





STATE OF MINNESOTA
AUDITOR'S DEPARTMENT
LEONIDAS MINE
CONTRACT No 224 NE 1/4 SEC 30-50-19
250 FT SUBLEVEL



STATE MINING ENGINEER
G. E. J. S.

STATE OF MINNESOTA

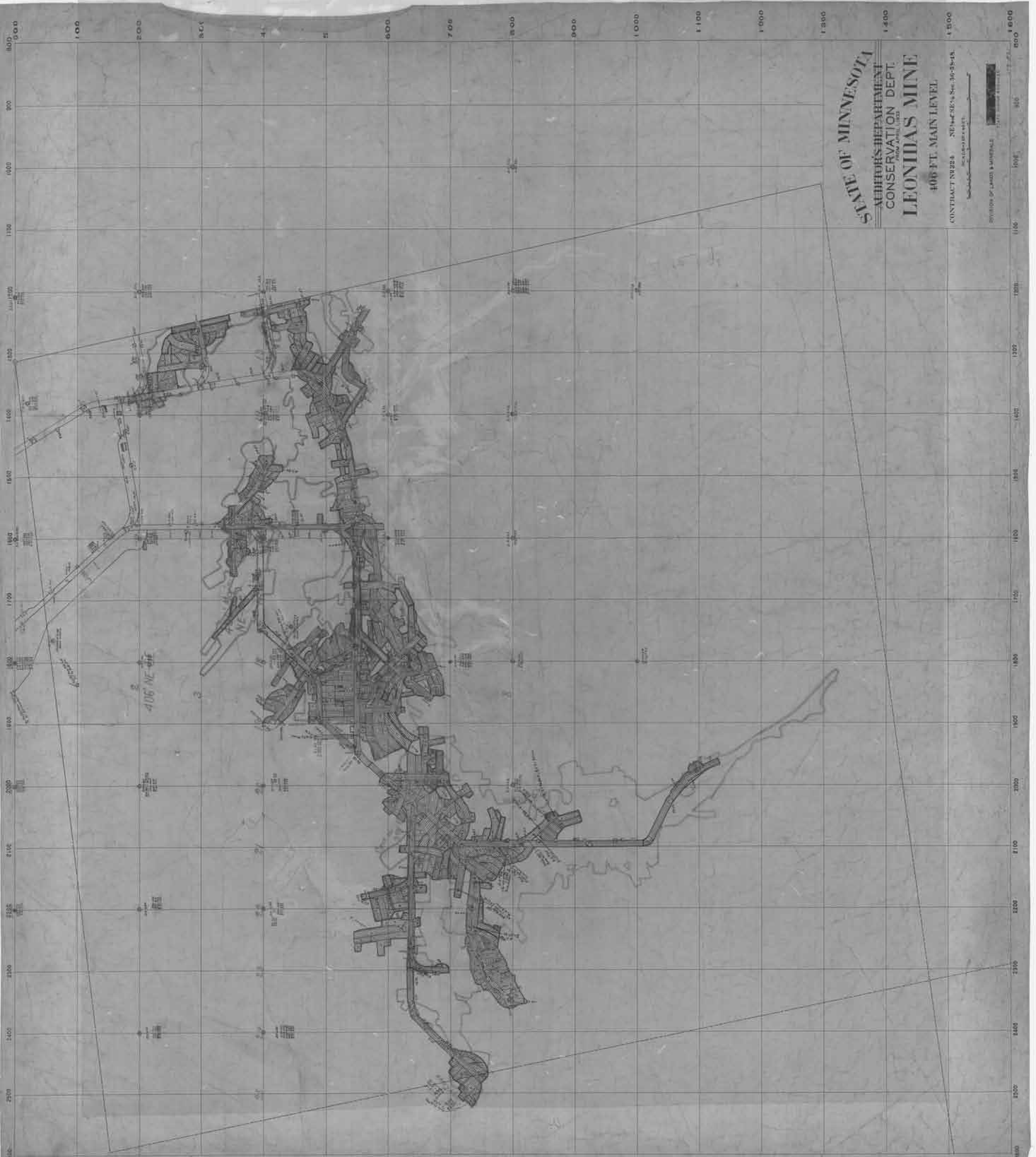
AUDITOR'S DEPARTMENT

LEONIDAS MINE

250' SUB-LEVEL

CONTRACT N° 221 SE-NE Sec. 36-58-18





STATE OF MINNESOTA
AUDITOR'S DEPARTMENT
CONSERVATION DEPT.
FROM APRIL, 1933
LEONIDAS MINE
406 FT. MAIN LEVEL

CONTRACT NR 22 & NE 1/4 SEC. 5, Twp. 30-55-15
SCALE 1" = 40 FT.
DIVISION OF LANDS & MINERALS
STATE OF MINNESOTA

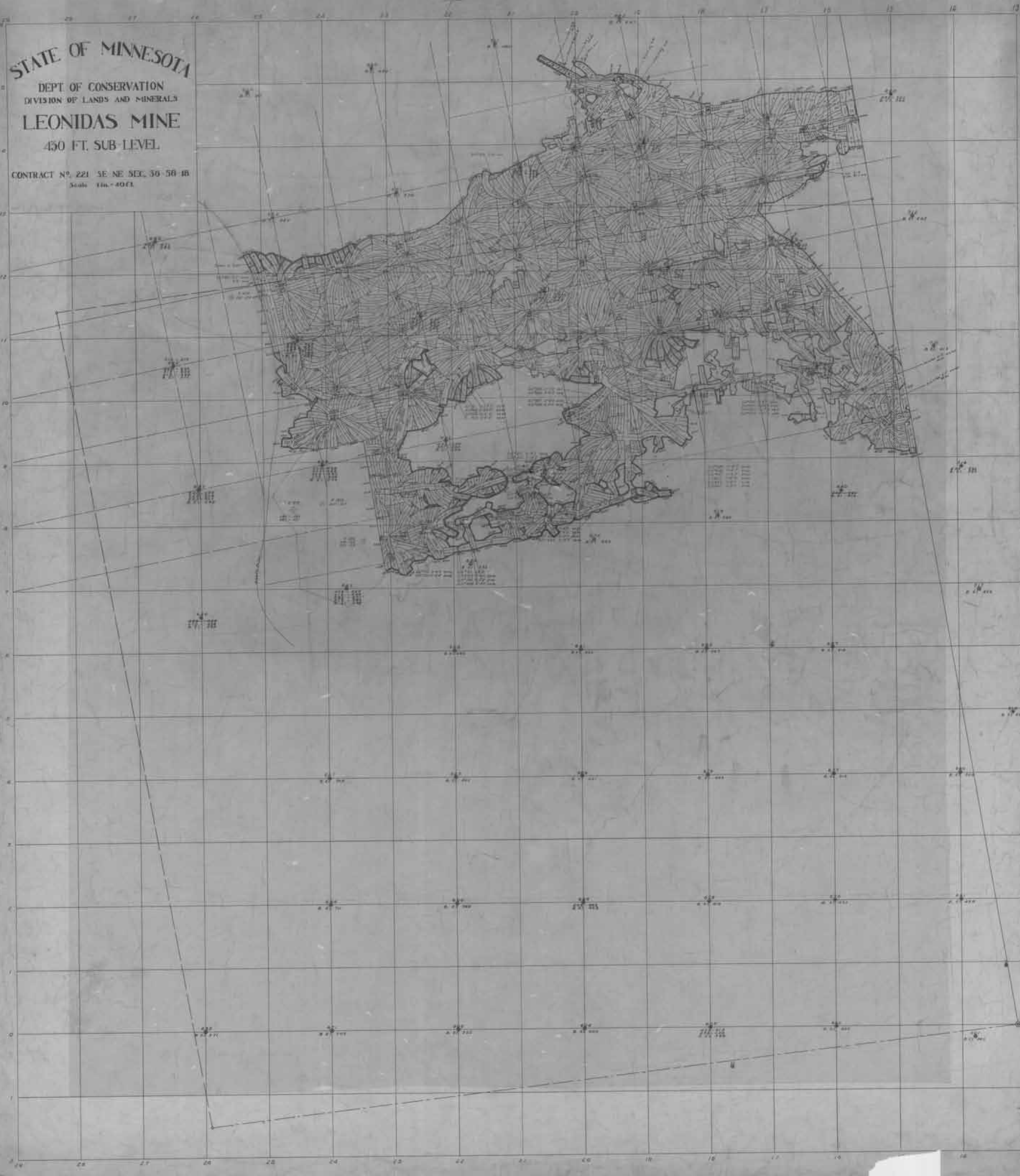
STATE OF MINNESOTA

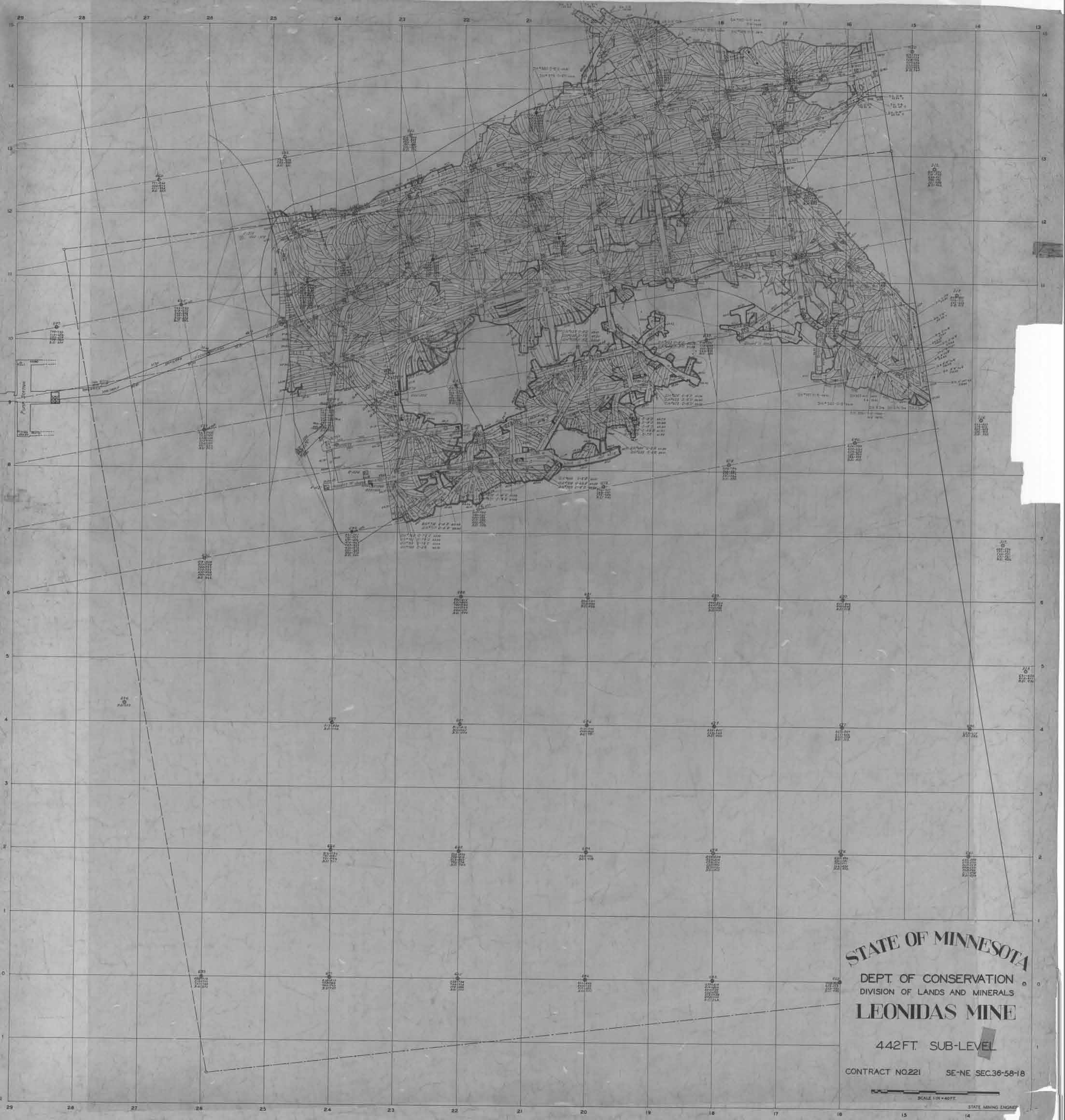
DEPT. OF CONSERVATION
DIVISION OF LANDS AND MINERALS

LEONIDAS MINE

450 FT. SUB-LEVEL

CONTRACT NO. 221 SE NE SEC. 30-50-10
Scale 1 in. = 400 ft.





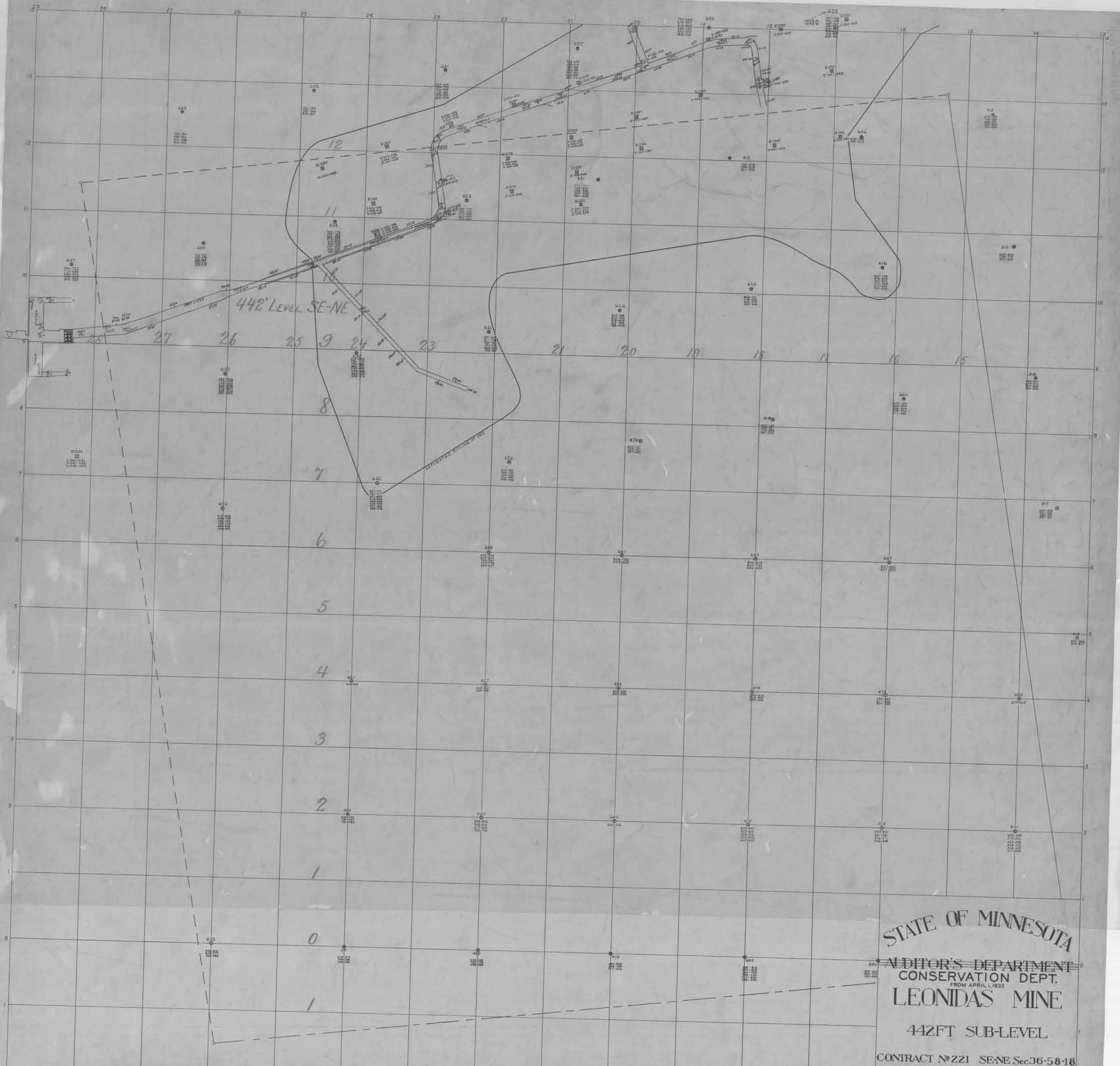
STATE OF MINNESOTA
DEPT. OF CONSERVATION
DIVISION OF LANDS AND MINERALS
LEONIDAS MINE

442 FT. SUB-LEVEL

CONTRACT NO. 221 SE-NE SEC. 36-58-18

SCALE 1" = 60 FT.

STATE MINING ENGINEER



STATE OF MINNESOTA
 AUDITOR'S DEPARTMENT
 CONSERVATION DEPT.
FROM APRIL 1, 1933
LEONIDAS MINE
 442FT SUB-LEVEL
 CONTRACT No 221 SE-NE Sec.36-58-18
 DIVISION OF LANDS & MINERALS



LEONIDAS
N.E. OF N.E.

LEONIDAS
SE. OF N.E.

NO. 1 SHAFT

OLIVER IRON MINING CO.
MAP OF
LEONIDAS MINE
431 FT. SUB

SCALE
0 50 100
LAKE SUPERIOR DATUM
ENGINEERING DEPT. L.E. LAMBERT,
VIRGINIA, MINN. JAN. 1, 1942.



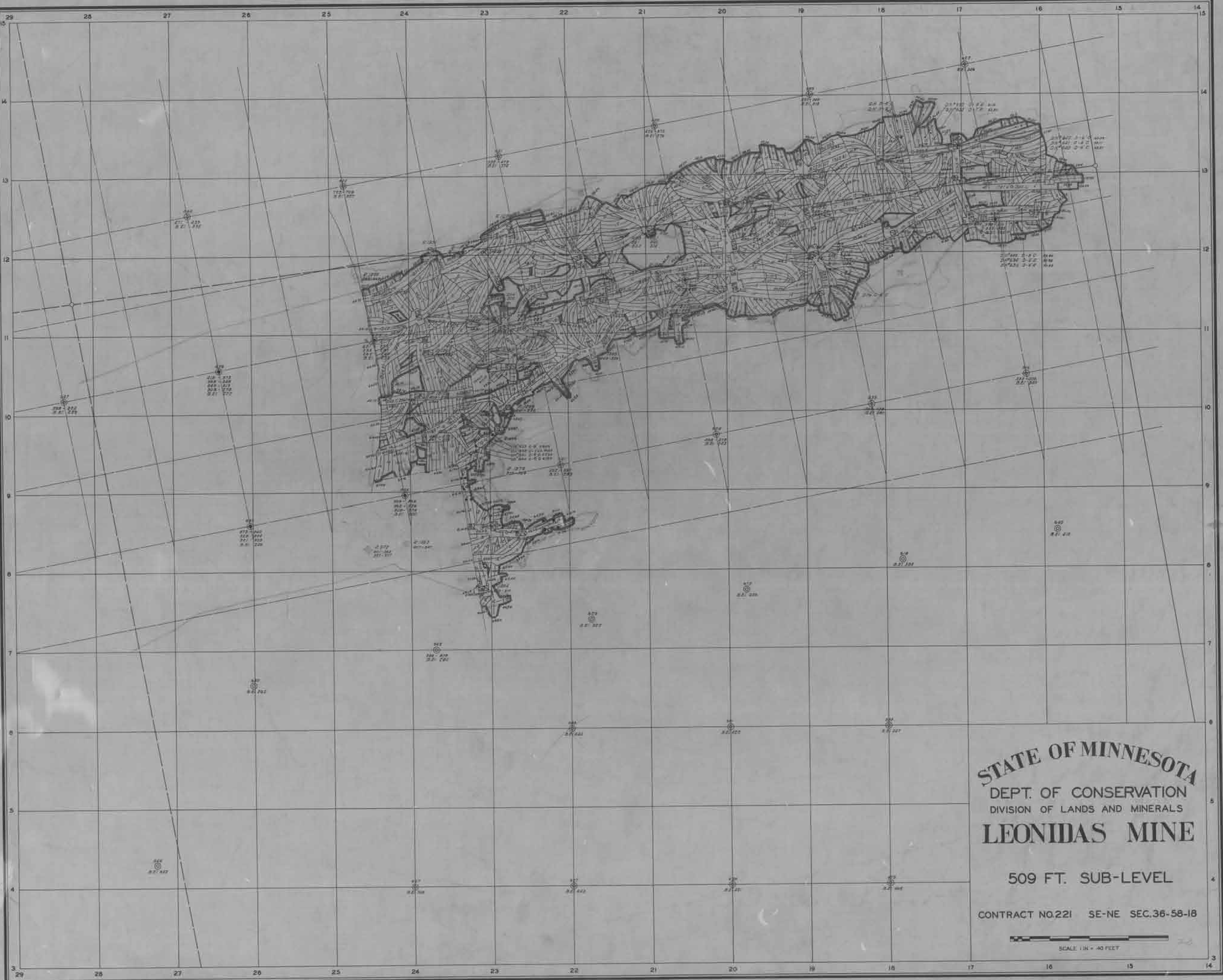


STATE OF MINNESOTA
DEPT. OF CONSERVATION
DIVISION OF LANDS AND MINERALS
LEONIDAS MINE

496 FT. SUB-LEVEL

CONTRACT NO.221 SE-NE SEC.36-58-18

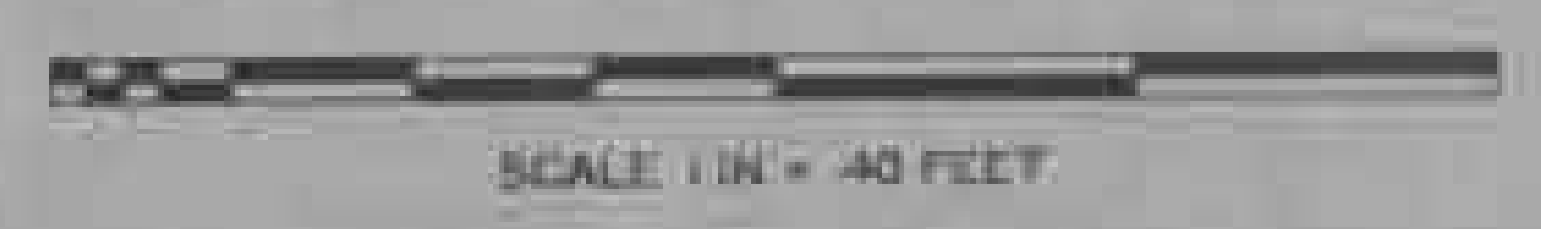
SCALE 1/8" = 40 FEET



STATE OF MINNESOTA
DEPT. OF CONSERVATION
DIVISION OF LANDS AND MINERALS
LEONIDAS MINE

509 FT. SUB-LEVEL

CONTRACT NO.221 SE-NE SEC.36-58-18



LEAN ORE STOCKPILE

DRY

10

MINION HOUSE

POWER HOUSE

52° SW-NE

7

6

ENGINE HOUSE

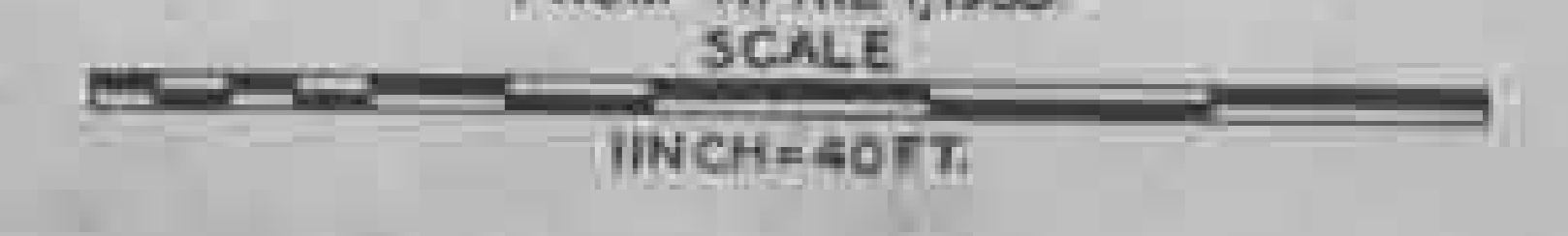
MACHINE OR CONVERTER SHOP

STATE OF MINNESOTA
AUDITOR'S DEPARTMENT
CONSERVATION DEPT.
LEONIDAS MINE

CONTRACT NO. 224 SW-NE SEC. 36-5818

522 FT. SUB-LEVEL

DIVISION OF LANDS & MINERALS
FROM APRIL 1, 1933
SCALE



STATE OF MINNESOTA
DEPARTMENT OF CONSERVATION
DIVISION OF LANDS AND MINERALS
MINNEAPOLIS
LEONIDAS MINE COMPOSITE



STATE OF MINNESOTA

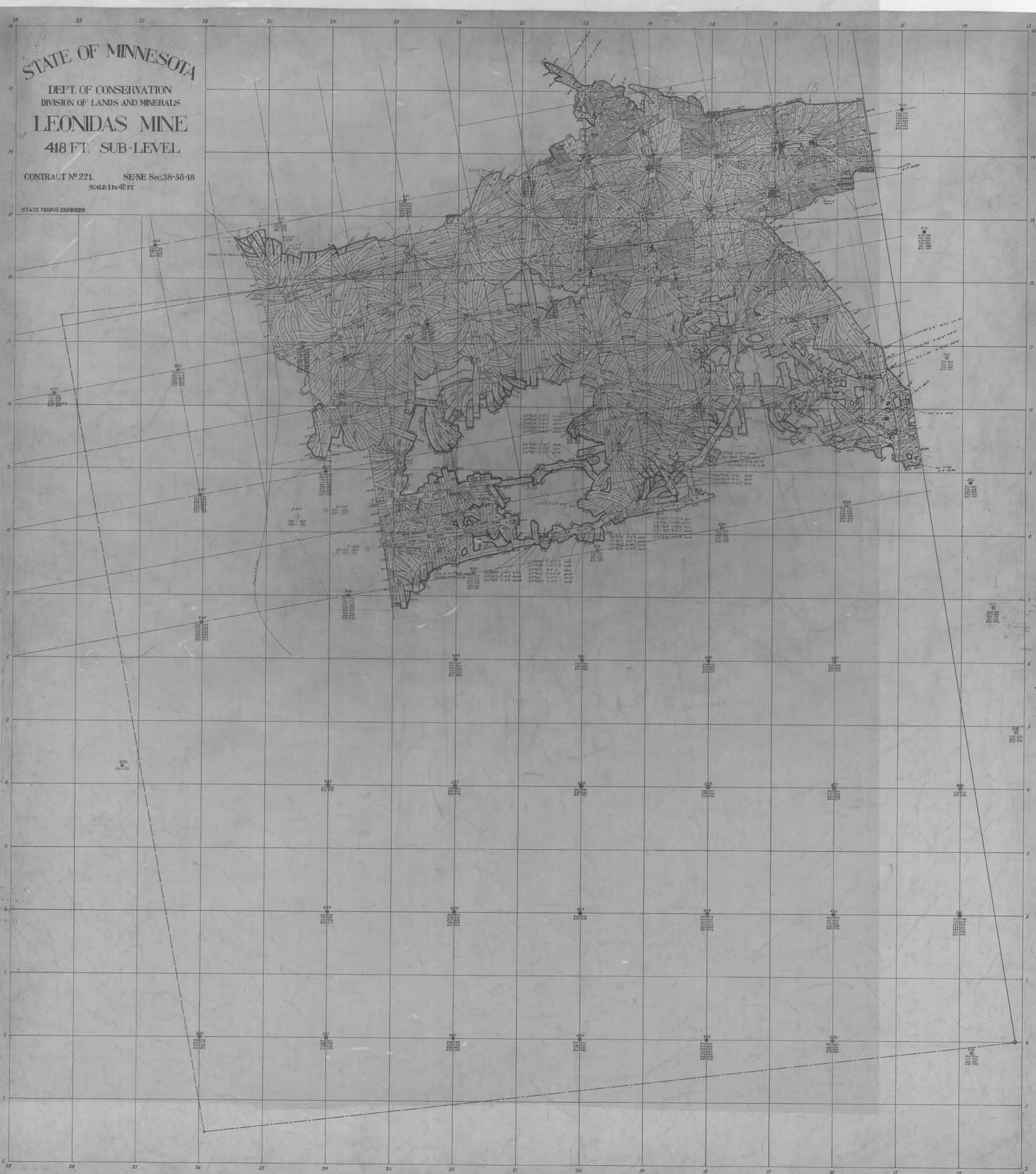
DEPT. OF CONSERVATION
DIVISION OF LANDS AND MINERALS

LEONIDAS MINE

418 FT. SUB-LEVEL

CONTRACT N° 221. SE-NE Sec. 36-56-18
SCALE 1 IN = 40 FT.

STATE MINING ENGINEER



LEONIDAS

ATLANTON

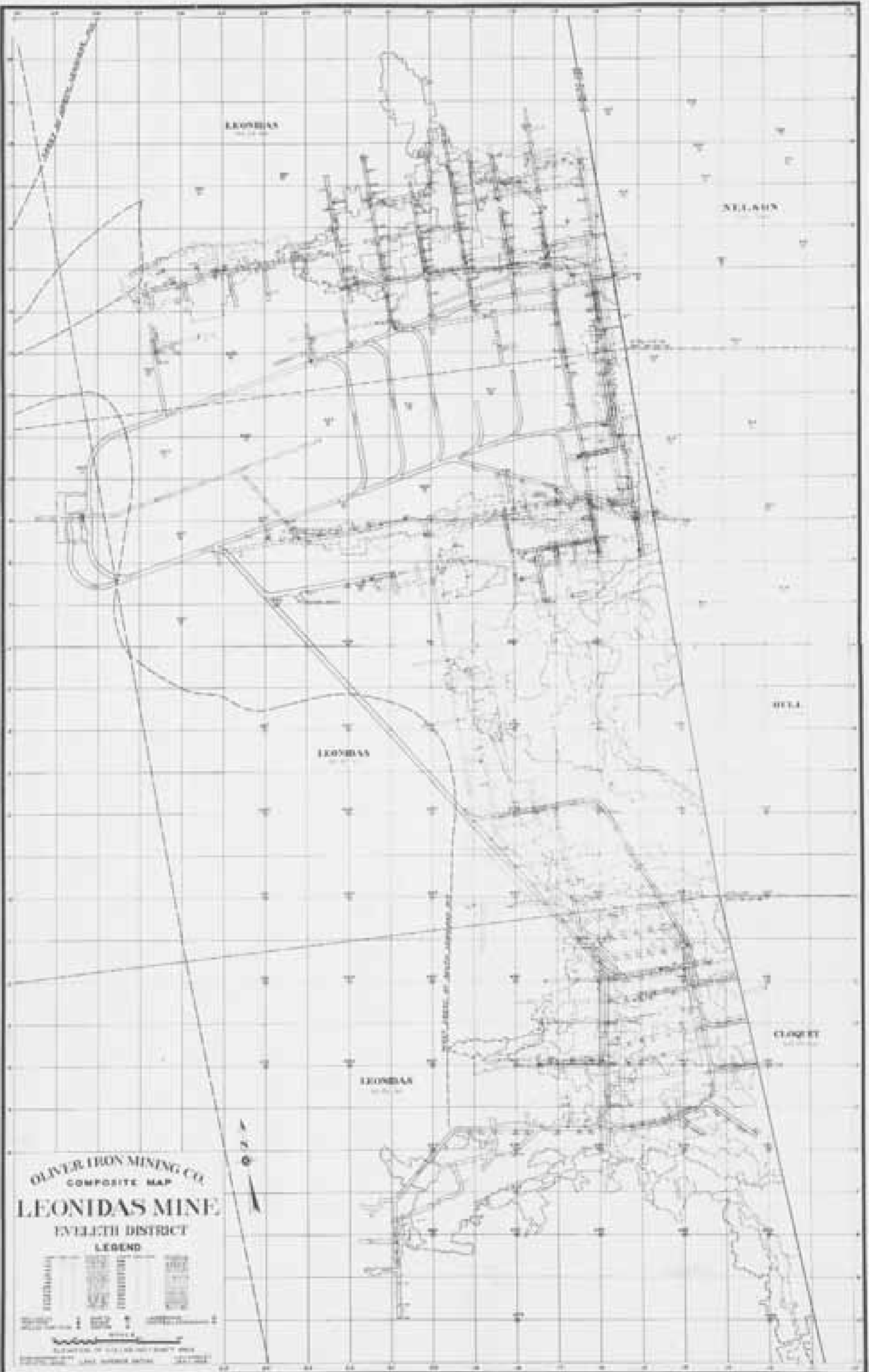
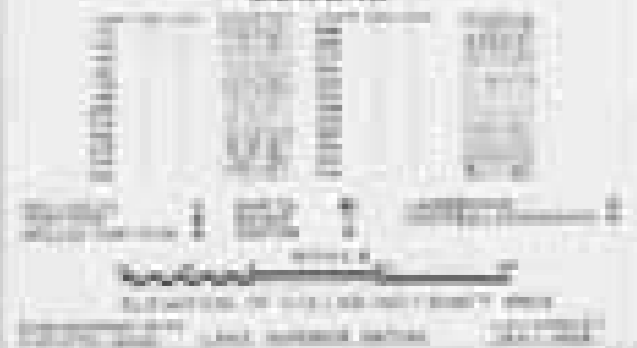
WYLLI

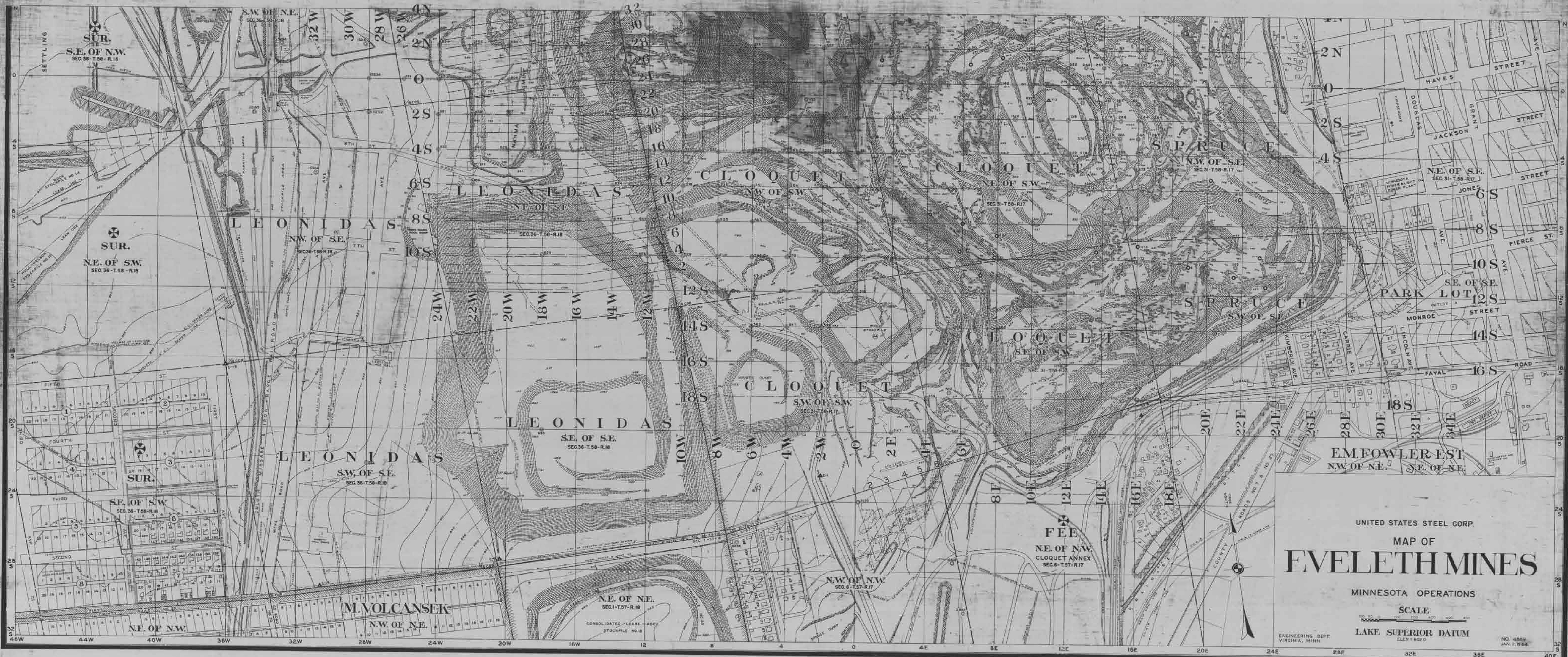
LEONIDAS

CLAGGET

LEONIDAS

OLIVER IRON MINING CO.
 COMPOSITE MAP
LEONIDAS MINE
 WYLLIETH DISTRICT
 LEGEND





UNITED STATES STEEL CORP.
 MAP OF
EVELETH MINES
 MINNESOTA OPERATIONS
 SCALE
 LAKE SUPERIOR DATUM
 ELEV. 652.0
 ENGINEERING DEPT.
 VIRGINIA, MINN.
 NO. 4889
 JAN. 1, 1964.

FEE
 NE. OF N.W.
 CLOQUET ANNEX
 SEC. 6-T.57-R.17

NE. OF NE.
 SEC. 1-T.57-R.18
 CONSOLIDATED LEASE - ROCK
 STOCKPILE NO. 3

SE. OF S.W.
 SEC. 36-T.58-R.18

SUR.
 NE. OF SW.
 SEC. 36-T.58-R.18

SUR.
 S.E. OF N.W.
 SEC. 36-T.58-R.18

EM. FOWLER EST.
 N.W. OF NE. NE. OF NE.

M. VOLCANSEK
 N.W. OF N.E.