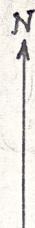


4440 0003  
EXPLANATION

Railroad Valley core  
available from The U. S. G. S.  
in Menlo Park.

(251)

Item 3  
(see accomp. maps  
in map files)



Airborne magnetometer survey, Total intensity,  
with flight altitude 500 feet  
above mean terrain and  
flight line spacing 1/2 mile.  
Aeromagnetic contours  
in gammas  
(Compiled by Aero Service Corp, Tulsa, Okla., for  
Nichol Industrial Mineral Corp. 1962.)

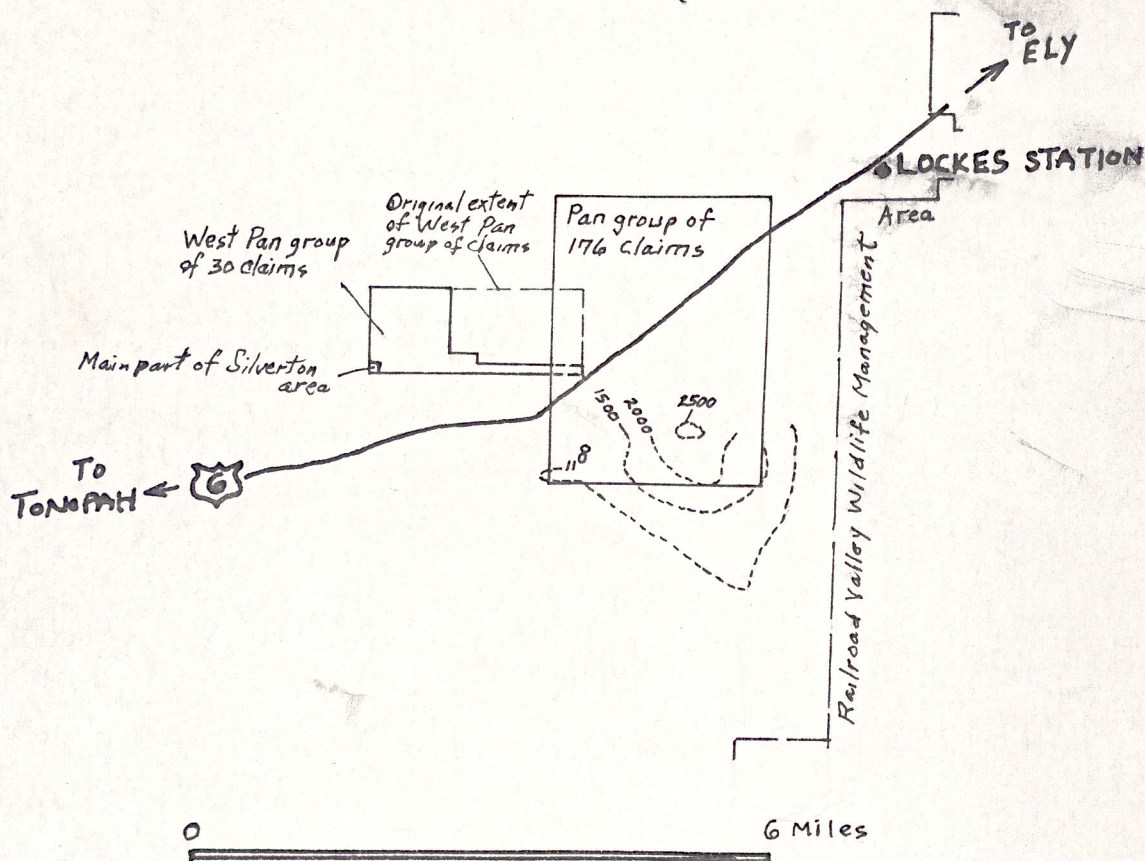


Fig. 3.-West Pan and Pan groups of claims, located in 1962 in Railroad Valley area,  
adjoining Silverton area, Central Pancake Range District, Nye  
County, Nevada. Map shows partial aeromagnetic contours  
(see text for explanation).

for locations see accompanying aeromagnetic maps with claim groups and some drill-hole locations.

PAGE 1 OF 3 PAGES

STANDARD FORM 135  
JULY 1961 EDITION  
GENERAL SERVICES ADMIN.  
REG. 3-IV-302.00

**RECORDS TRANSMITTAL  
AND RECEIPT**

**TO BE COMPLETED AT FEDERAL RECORDS CENTER**

ACCESSION NO.

RECORD GROUP NO.

SIGNATURE

DATE RECORDS RECEIVED

TITLE

**INSTRUCTIONS**

Send original and two copies to appropriate  
Federal Records Center.

**EXCEPTION**—Send original and three copies to the  
Alexandria, Virginia, Center

**FROM:** (Name and address of Agency transferring records)

**U.S. Geological Survey  
345 Middlefield Road  
Menlo Park, California**

**TO:** Federal Records Center, GSA

1. CITE SECURITY CLASSIFICATION AND/OR RESTRICTION ON USE OF RECORDS, IF ANY

2. SQUARE FEET OF SPACE CLEARED

3.

FILING EQUIPMENT EMPTIED

4. CUBIC FEET OF RECORDS  
TRANSFERRED

A. OFFICE

B. STORAGE

A. FILE CABINETS (No.)

B. TRANS. FILES (No.)

C. SHELVING (Lin. Ft.)

5. NAME OF AGENCY CUSTODIAN OF RECORDS

**Frank J. Kleinhumpel**

6. BUILDING AND ROOM NO.

**Building 11, Room 2021**

7. TELEPHONE NO.

**325-6761 Ext. 295**

8. MAY THE RECORDS BE DESTROYED AS SCHEDULED WITHOUT FURTHER AGENCY CONCURRENCE?

☐ YES

☐ NO

9. AGENCY OFFICIAL (Signature)

**Avery J. Rogers**

10. TITLE

**Management Officer**

11. DATE

**February 15, 1965**

12. **68** BOX NUMBERS

13.

DESCRIPTION OF RECORDS WITH INCLUSIVE DATES  
(Show organizational component creating records)

14. DISPOSAL AUTHORITY  
(Schedule and Item No.)

**FRC ONLY**

AGENCY

**Drill core and cuttings from Nye County, Nevada  
(Railroad Valley)**

**30**

**W. Pan #1**

**10'-160'**

**10**

**Miscell. core run for remanent magnetism)**

**160'-164'**

**31**

**Pan. #2**

**10'-101'**

**22**

**Pan. D-14**

**70'-320'**

**23**

**330'-590'**

**24**

**600'-830'**

**25**

**840'-1070'**

**26**

**1080'-1310'**

**27**

**1320'-1550'**

**28**

**1560'-1790'**

**29**

**1800'-1920' bottom(?)**

**11**

**871'-875'? [1925-1929]**

**SW/4 SW/4 SW/4 S29, T8N, R55E**

**28**

**Pan. #18**

**86'-91'**

**29**

**10'-86'**

**Rev. #1 (Railroad Valley, Nye County)**

**SW/4 S15, T15, R55E unsurveyed**

**64**

**110'-300'**

**63**

**310'-530'**

**62**

**540'-800'**

**61**

**810'-1040'**

**16**

**981'-998'**

**60**

**1050'-1280'**



Name of Drill hole: Par D-14  
Location:  
Total depth of well: 1929 ft.

	Depth		Mag.		Description
	From	To	Depth	K.	
0	0	65			Colluvium
✓ ✓	65	850			Tuff, pink rhyodacitic crystal tuff; feldspar and quartz phenocrysts. Biotite with magnetite; amphiboles, altered. Glassy groundmass with finely disseminated magnetite altering to hematite.
✓ ✓			150	0.0013	
✓ ✓			250	0.0013	
✓ ✓			350	0.0013	
✓ ✓			450	0.0013	
500			550	0.0026	
✓ ✓			700	0.0013	
✓ ✓			800	0.0020	
850	850	1010			Same rock, but altered. Plagioclase and biotite in glassy matrix; some small grains of orthoclase. Occasional magnetite. Plagioclase superficially altered to clay. Biotite in part altered to limonite and chlorite. (Pink cast of rock due to hematite in glass.)
✓ ✓			900	0.0013	
✓ ✓			950	0.0014	
1000			1000	0.0014	
✓ ✓			1050	0.0017	
✓ ✓			1100	0.0015	
✓ ✓	1010	1600		0.0013	Same rock as 65-850.
✓ ✓			1200	0.0013	
✓ ✓			1250	0.0011	
✓ ✓			1300	0.0014	
✓ ✓			1350	0.0014	
✓ ✓			1400	0.0014	
✓ ✓			1450	0.0015	
1500			1500	0.0016	
✓ ✓	1600	1925			Same rock with the addition of aquamarine-colored glass and increased amount of magnetite.
✓ ✓			1750	0.0029	
✓ ✓			1800	0.0030	
✓ ✓			1850	0.0031	
✓ ✓			1900	0.0028	
2000	1925	1929			CORED-Andesite porphyry.



Name of drill hole: WEST PAN 1

Location:

Total depth of hole: 164 ft.

	Depth		Description
	From	To	
0	0	10	Colluvium.
10	10	80	Dolomite - for most part silicified. Cut by some quartz stringers which has also introduced some iron which is now in the form of limonite.
80	80	82	Clay zone - considerable vein quartz, much introduced iron - possibly some sulfides.
82	82	125	Dolomite gray - mostly silicified. Numerous quartz stringers - introduced iron.
125	125	15	
160			

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Item 3

4440 0003





UNITED STATES  
DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY  
Branch of Western Mineral Resources  
Geologic Division  
345 Middlefield Road  
Menlo Park, California 94025

251  
Item 3

July 13, 1977

Mr. Larry Garside  
Nevada Bureau of Mines  
and Geology  
Reno, Nevada 89507

Dear Larry:

Enclosed is the storage list on drill core from Railroad Valley, Nevada. I have not been able to find map with hole locations, however. Perhaps the Nichols Industrial Minerals people had to file hole locations with the state or county back then. Was about 1962. Note that some of the Pan and West Pan holes probably fall in the areas on enclosed outline map. The deep Reveille (Rev #1) or Pan D-14 hole bottomed in a reversely polarized basalt; as I remember, they drilled right on a strong small mag anomaly. Please let me know if you think locations of holes can be recovered. If so, I will pass data on to Jim Vine, who is doing the Lithium study for U.S. Geological Survey.

Sincerely yours,

Frank J. Kleinhampl  
Geologist

Enclosure

January 4, 1978

Frank Kleinhampl  
U. S. Geological Survey  
345 Middlefield Road  
Menlo Park, CA 94025

Dear Frank:

Please excuse the delay in reply to your letter concerning the drill core from Railroad Valley (Nichols Industrial Minerals). I have not found any location data for these holes, and suspect that the only possible source of information would be the county recorder's office (if the work was filed as a "proof-of-labor"). I will hold on to the well data you sent me in the hope of visiting the court house some time and checking it out further.

Sincerely,

Larry J. Garside  
Geologist

LJG:ja



5-26-58

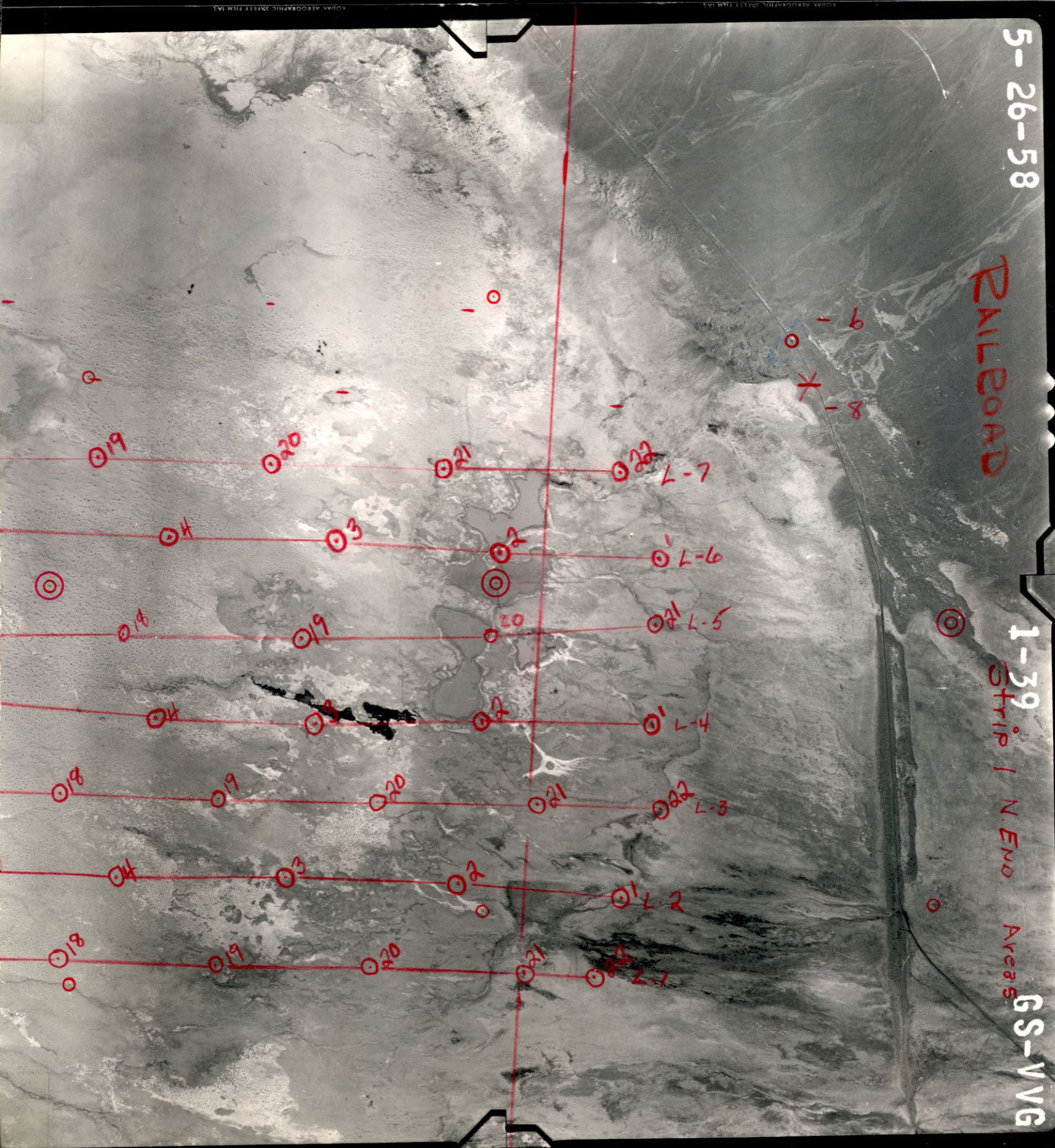
RAILROAD

1-39

Strip 1 N. End

Areas

GS-VVG





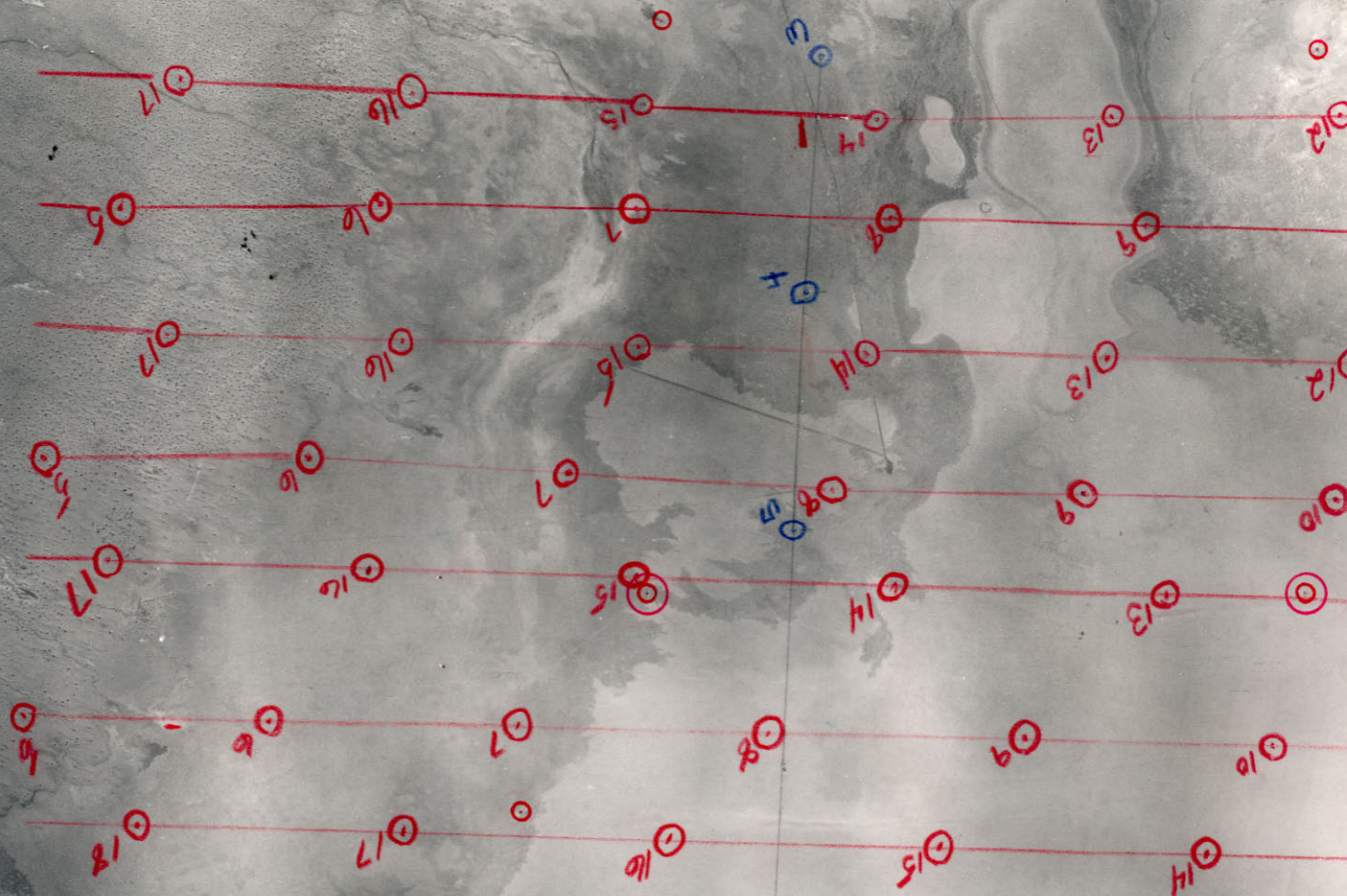
GS-VVG

1-41

RAILROAD

5-26-58

B-1



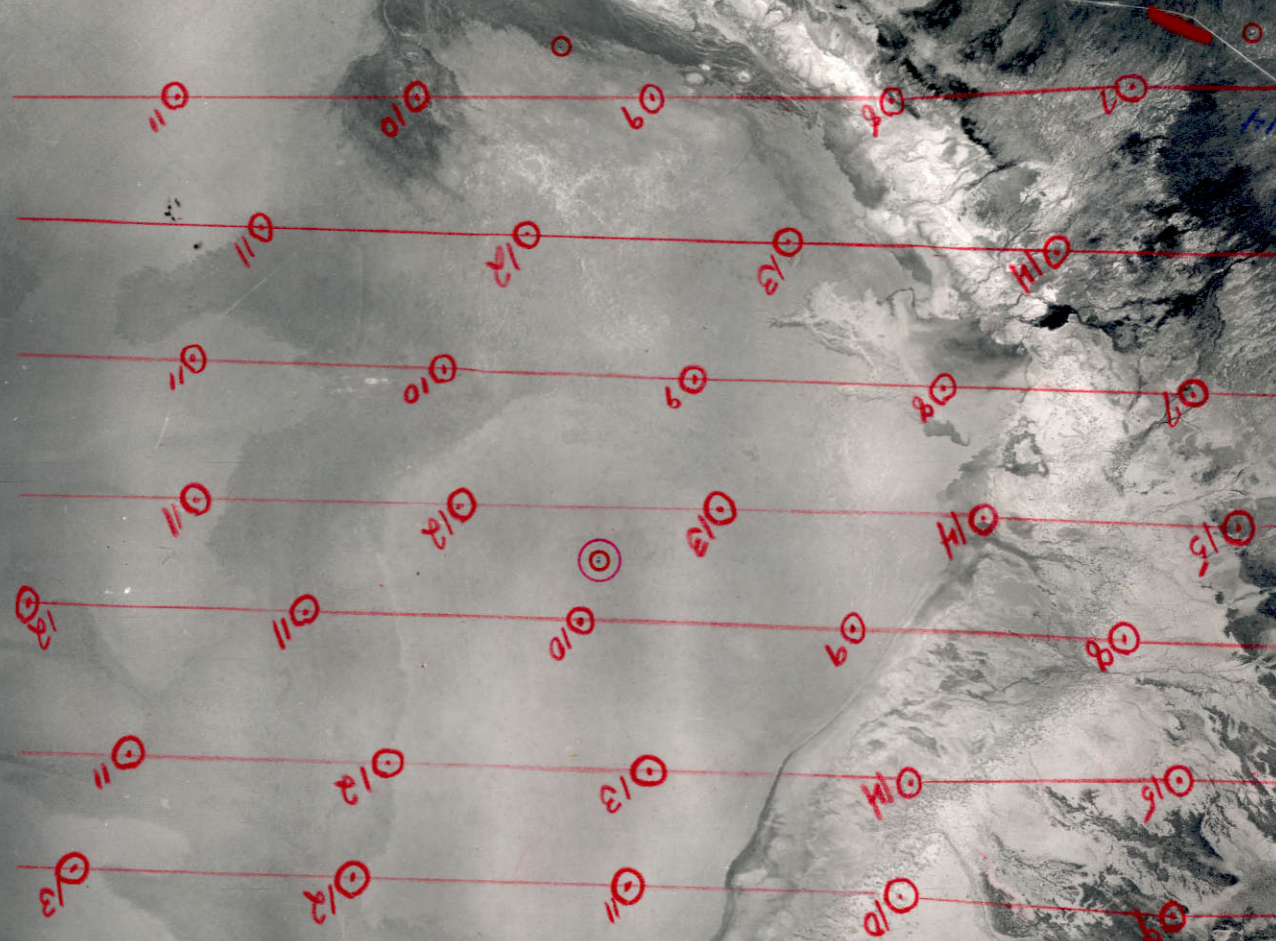


GS-VVG

1-43

RAILROAD

5-26-58



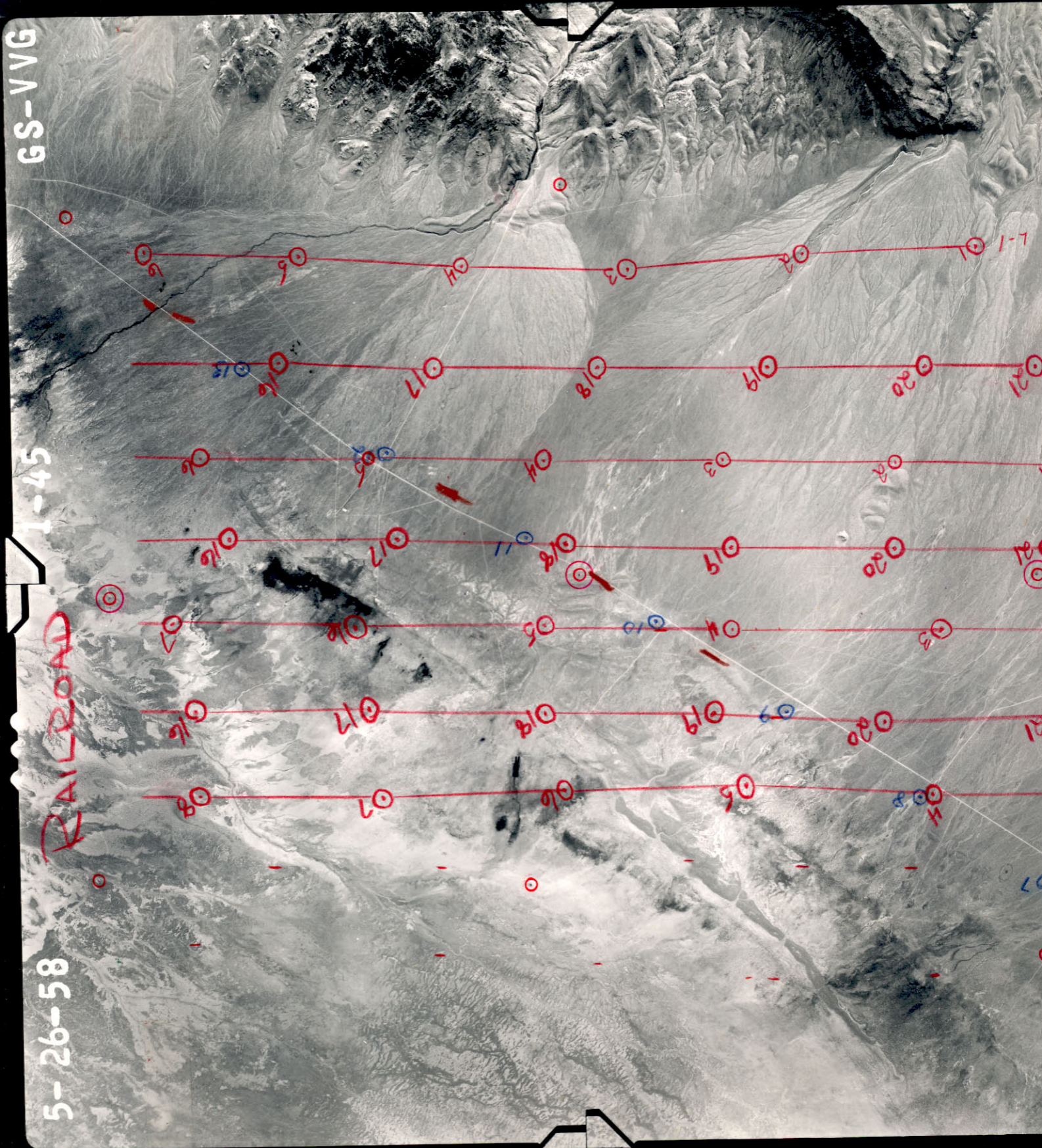


GS-VVG

1-45

RAILROAD

5-26-58



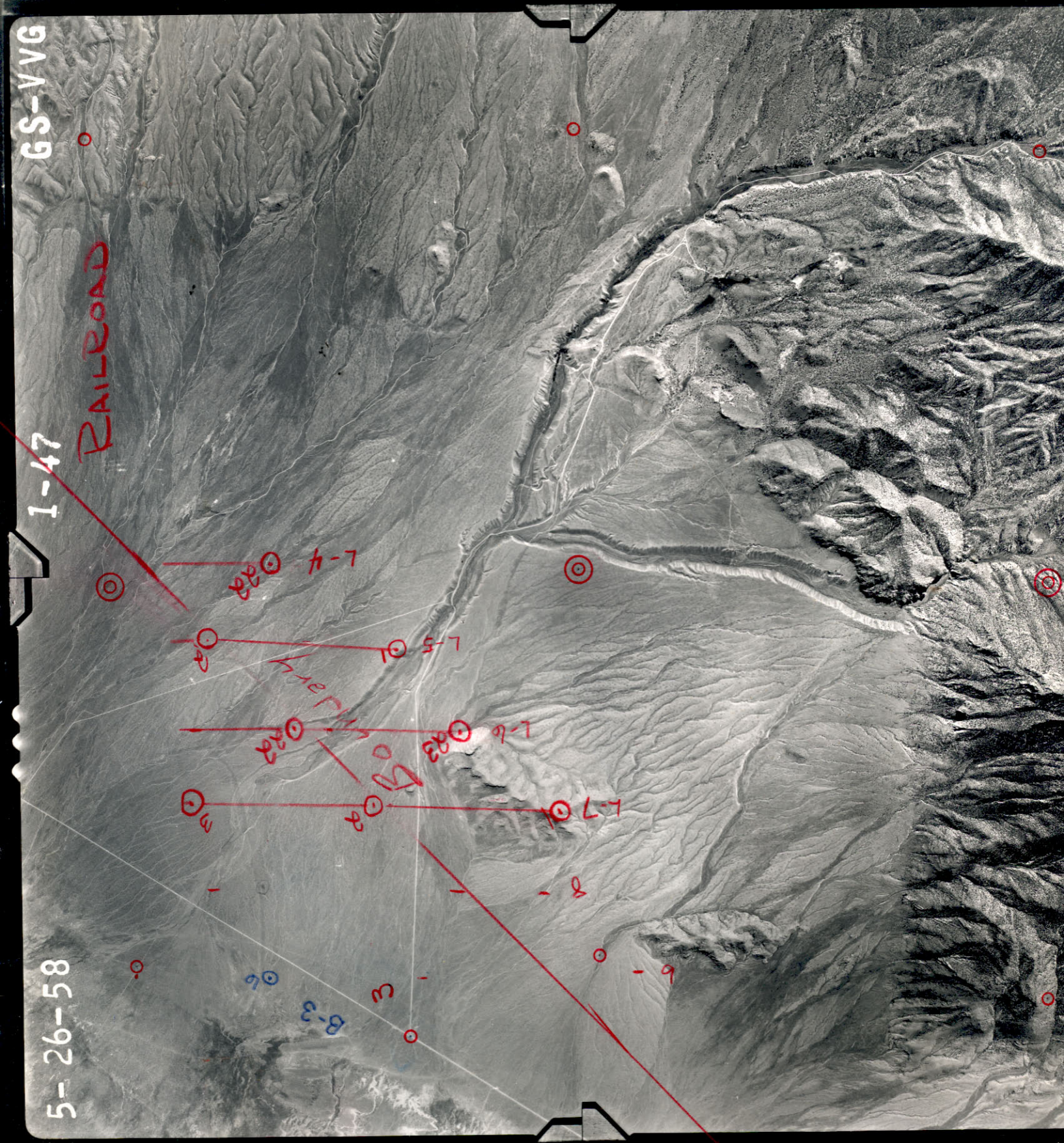


GS-VVG

1-47

RAILROAD

5-26-58

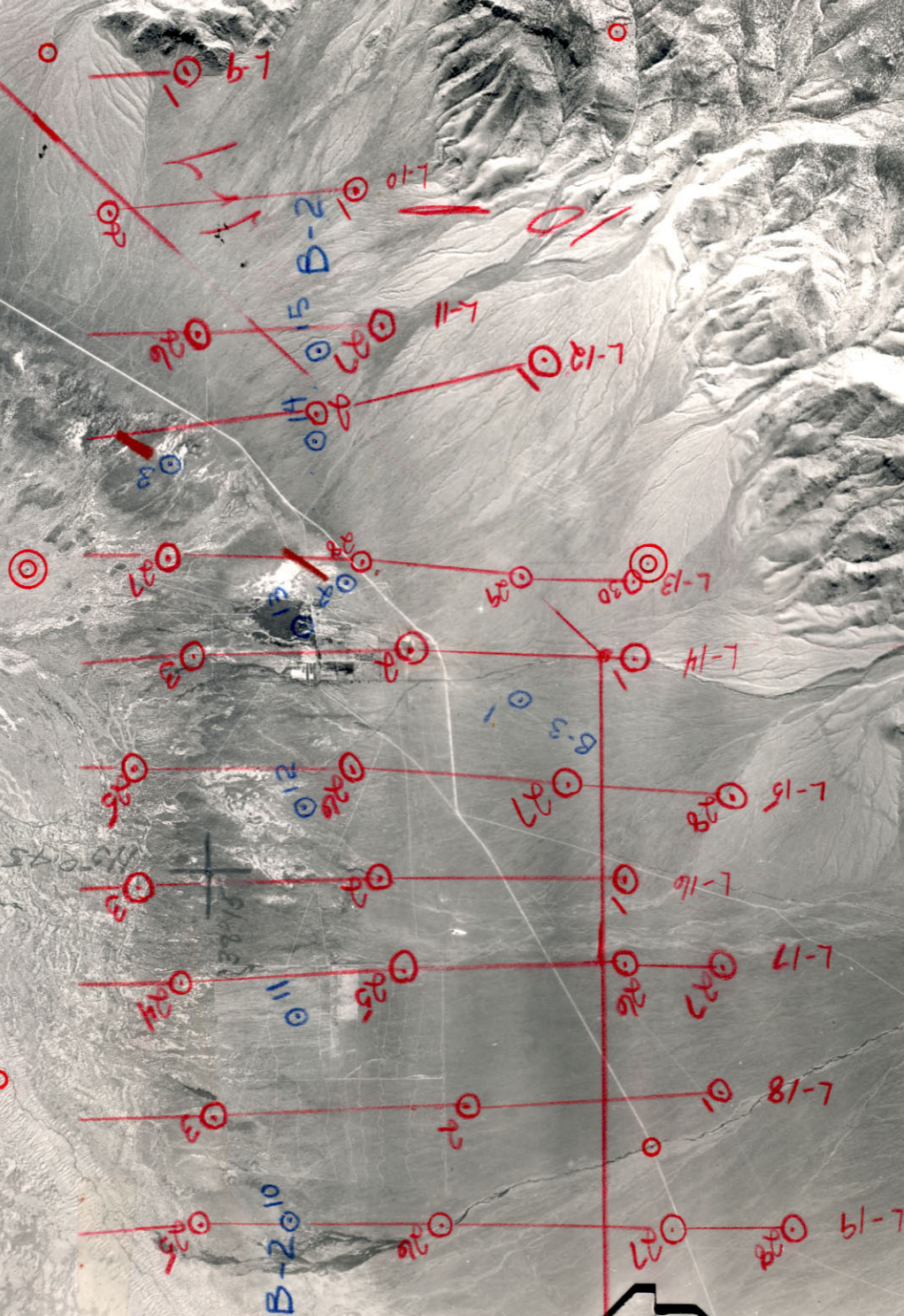




60-448

RAILROAD

5-26-58





GS-VVG

2014.10.10

5-26-58

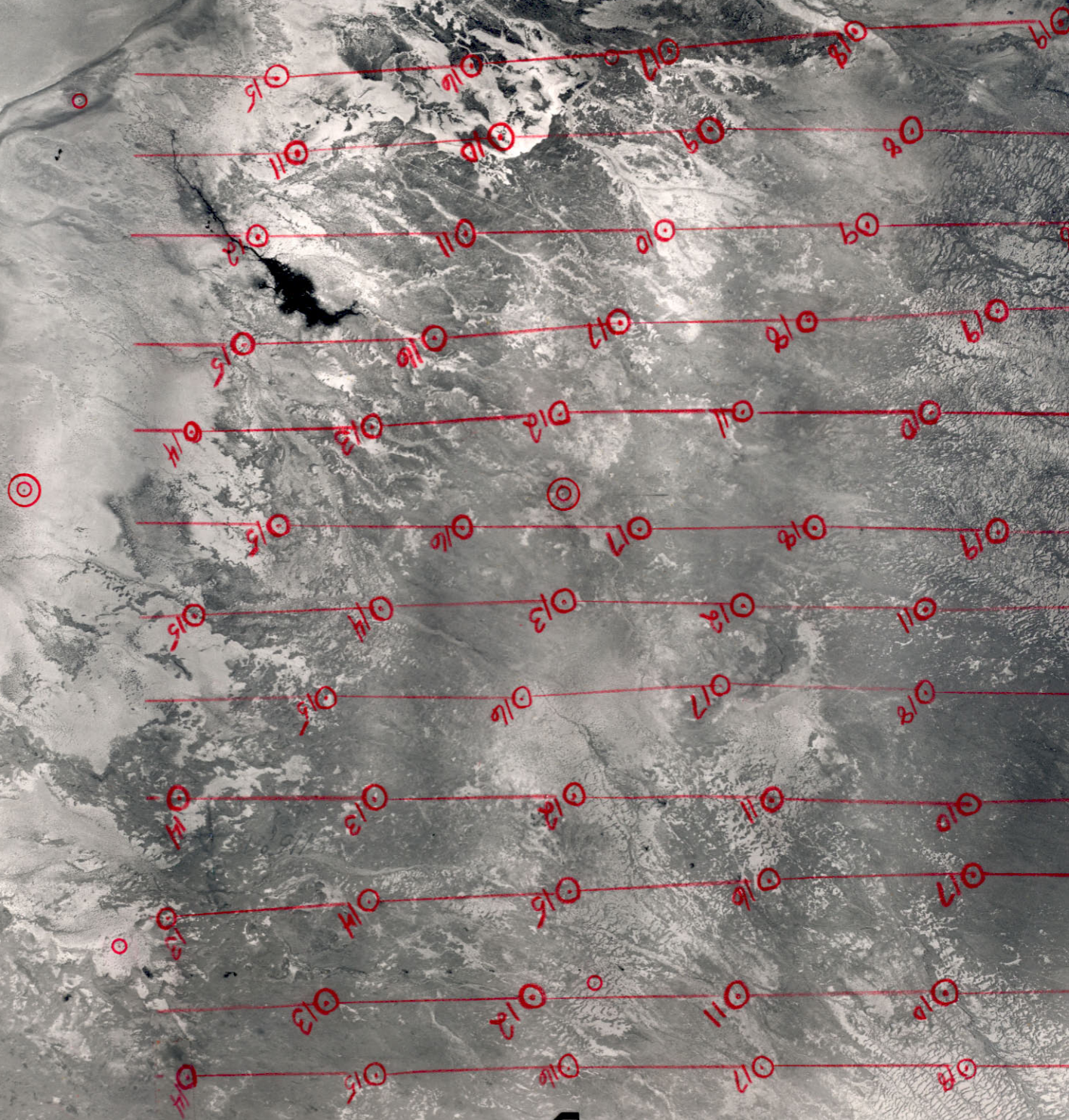


GS-VVG

1-6

RAILROAD

5-26-58





GS-VVG

1-8

RAILROAD

5-26-58

21 06

07

08

09

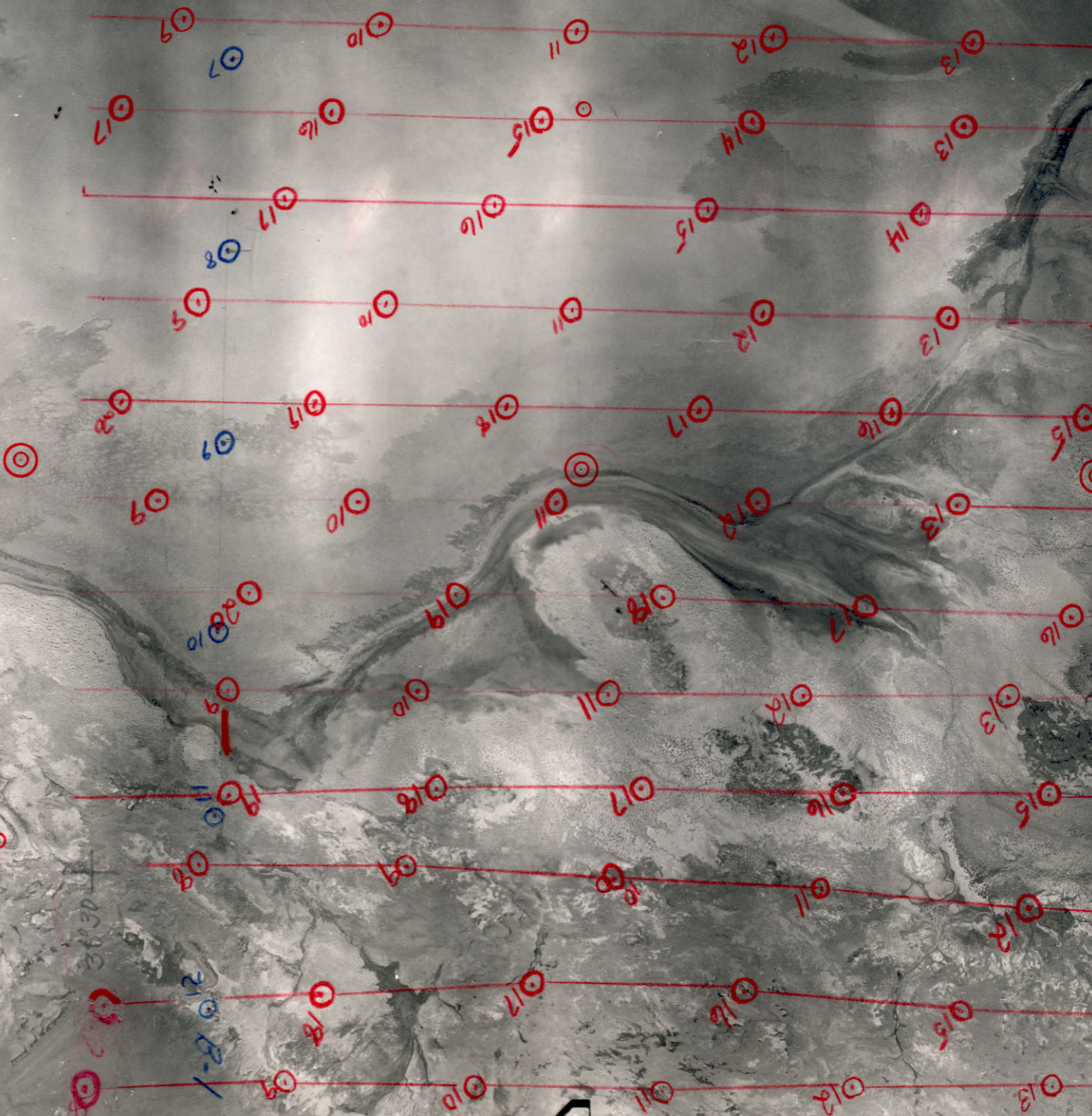
10 02

11 09

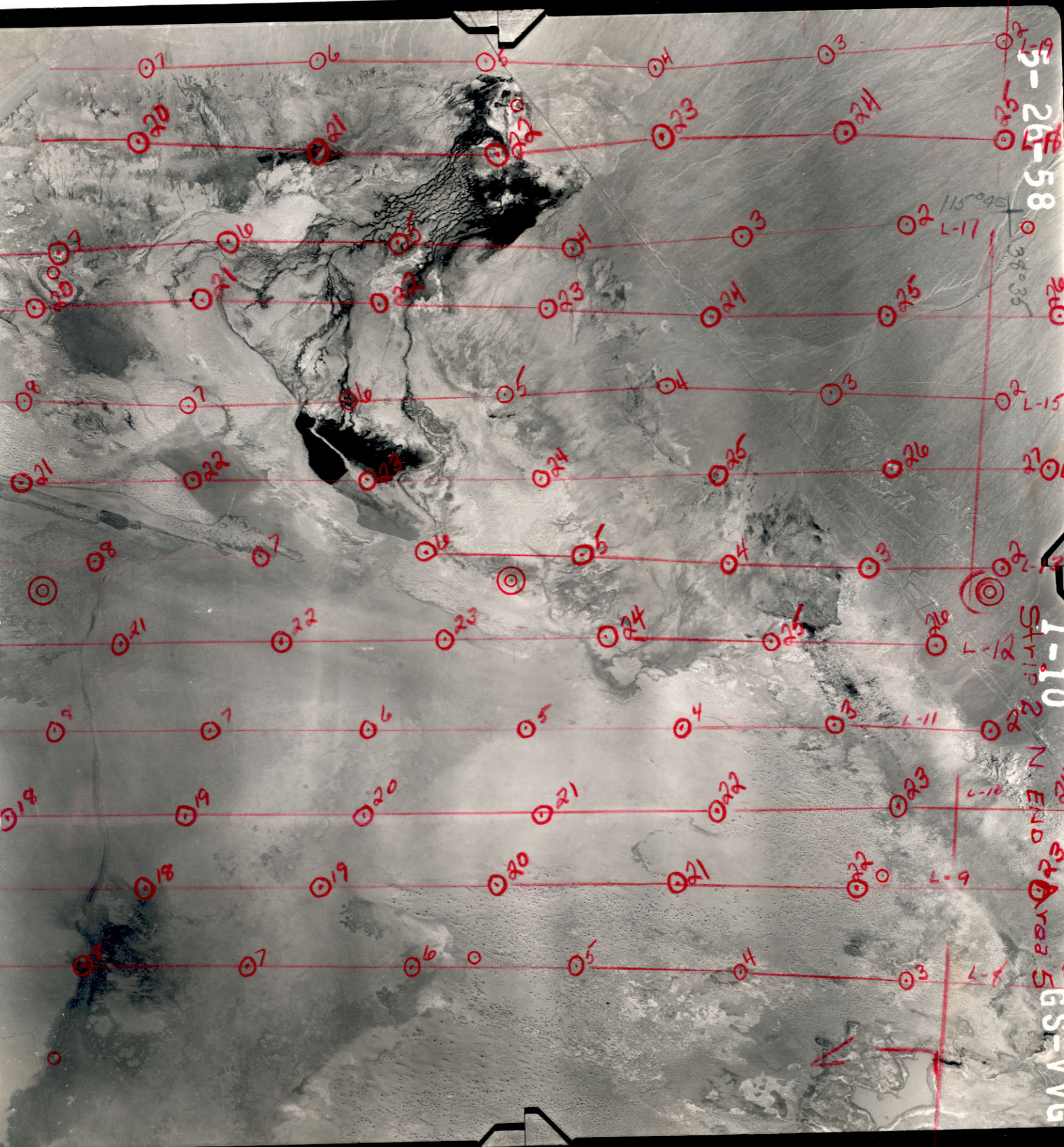
12 19

13 09

21 02-1









(251)  
Item 3

**HERBERT M. OCHS**  
CHEMIST & SPECTROGRAPHER  
31 South Main Street -- RA. 9-6886  
DENVER 22, COLORADO

Lab: #8430-45  
April 11, 1963

Nicol Industrial Minerals Corporation  
2850 Bay Road  
Redwood City, California

Samples: WP Series

SPECTROGRAPHIC ANALYSIS  
Figures are percentage estimates

	<u>N-1</u>	<u>N-2</u>	<u>10</u>	<u>6</u>	<u>11</u>	<u>15</u>	<u>23</u>	<u>25</u>	<u>27</u>	<u>29</u>	<u>30</u>	<u>31</u>	<u>40</u>	<u>42</u>	<u>48</u>	<u>52</u>
Au	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
Ag	.005	No	No	No	No	.001	.005	.01	No	.001	.001	No	.005	.001	.001	.01
Cu	.02	.01	.01	.05	.01	.05	.02	.02	.01	.02	.02	.01	.01	.01	.05	.02
Pb	No	No	.001	.001	.01	No	.001	No	.005	No	.01	.001	No	.001	No	.001
Zn	.01	.03	.01	.01	.01	.01	.01	.02	.01	.01	.01	.01	No	.01	1	No
Mo	.01	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
W	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
Hg	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
As	.1	.2	.01	.2	.05	No	.2	.02	No	.02	.1	No	No	.02	No	.1
Sb	No	No	No	No	No	No	No	.02	No	No	No	No	No	No	No	.1
Sn	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No

H. M. Ochs





251  
Item 3

## MAPS AND INFORMATION IN BAY ROAD LAB FILES (Geologic)

### BASE MAP COPY:

1. Map of Nevada, B & W, scale 1:500 000 (USGS).....3 copies
2. Highway maps of Nevada state (Nye Co.):
  - a. Sheets 1, 3, 4, 5 (reduced).....1 each
  - b. Sheet 5 (enlarged) .....1 copy
3. One uncontrolled mosaic (edition prints) of  
AMS sheets Ely, Tonopah, Lund, Goldfield, Caliente,  
and Millett at scale 1:250 000; also individual  
prints as follows:

Ely (w/out woodland green).....	1 copy	
Millett (w/out woodland green).....	1 copy	
Lund (with woodland green) .....	2 copies	O'Toole (1)
Tonopah (with and w/out woodland green).....	2 copies	O'Toole (1)
Caliente (with and w/out woodland green).....	2 copies	O'Toole (1)
Goldfield (with and w/out woodland green).....	2 copies	O'Toole (1)

also,

Reveille Peak (quad. series, Scale 1:62 500, w/out woodland green).....	2 copies	
--	----------	--
4. Mining districts of approx. 100 mile radius at  
Scale 1:250 000 of claims registered to combined  
AMS sheets (original and 1 sepia).
5. Reduced (1/2) AMS sheets reduced to scale 1:500,000 of Lund, Tonopah, Wilson (1)  
Caliente, Goldfield, Millett, and Ely Sheets...negatives...1 copy ea. O'Toole (1)  
positives...4 " "

### CLAIMS NOTICES

- |                                   |       |              |
|-----------------------------------|-------|--------------|
| 1. Pan Group originals .....      | 1 set | Wells Fargo  |
| 2. West Pan Group originals ..... | 1 set | safe deposit |
| 3. Rev. Group (originals) .....   | 1 set | box.         |



CONTINUED

AERO SERVICE TRANSMITTAL:

1. Flight Strips, Nye Co., Nev. (mosaic photos). O'Toole
2. North Railroad Valley (Scale 1:48 000) (Pan & West Pan Gr.)
  - a. Isomagnetic map (orig. and 1 blue-line)
  - b. Isomagnetic map w/structure (sepia transparency)
  - c. Orig. work map
  - d. Rough autopositive showing geology of Pan group area and wells
  - e. 35 mm. films (lines 1-17 and 18-37)
  - f. Aeromagnetic Data sheets (copy here, orig. sent to Nettleton)
  - g. Altimeter charts (copy here, orig. sent to Nettleton) O'Toole
  - h. Oil Well Logs (Electrical logs w/index map and Geologic cross sections) O'Toole
  - i. Profiles (salids only of Nos. 18-32 inclusive and line base 1) O'Toole  
(Originals Profiles Nos. 1-36 and base lines 1-3 sent to Nettleton)
  - j. Air Photos (BR and GS series) O'Toole (except 13 BR Photos)
3. South Railroad Valley (Rev. Gr.) (Scale 1:48 000)
  - a. Isomagnetic map (orig.)
  - b. Isomagnetic map w/structure (sepia transparency)
  - c. Orig. work map.
  - d. 35 mm. film
  - e. Air Photos (RP series) O'Toole
4. Hot Creek (Scale 1:48 000)
  - a. Isomagnetic map (orig. and 1 blue-line)
  - b. Isomagnetic map w/structure (sepia transparency)
  - c. Orig. work map.
  - d. 35 mm. film
  - e. Aeromagnetic Data sheets (originals)
  - f. Altimeter charts (originals)
  - g. Profiles (originals)
  - h. Air photos
5. Penoyer Valley (Scale 1:48 000)
  - a. Isomagnetic map (orig. and 1 blue-line)
  - b. Isomagnetic map w/structure (sepia transparency)
  - c. Orig. work map
  - d. 35 mm. film
  - e. Aeromagnetic Data sheets (originals)
  - f. Altimeter charts (originals)
  - g. Profiles (originals)
  - h. Air Photos
6. Reconnaissance area
  - a. 35 mm. film
  - b. Profiles
  - c. Altimeter charts
7. Photo mosaics of Pan, W. Pan, Rev. areas (2)
8. 2 copies BR-3-07 (West Pan area) Blow-ups of air photos.



CONTINUED

LAND SURVEYS OF LODE CLAIMS, Nye Co., Nev.

(Duplicate originals, sepias, and prints); also Geochem. sample sheet of each.

1. "Rev" group (sheets 3 and 4 of 4 sheets)
2. "West" group (sheet 2 of 4 sheets)
3. "Pan" group (sheet 1 of 4 sheets)
4. "Rev" group showing POST numbers



The following claims have the signature of an agent for Mr. George L. Nicol,  
and are witnessed by two signatures:

<u>Name of Claim</u>	<u>Name of Claim</u>	<u>Name of Claim</u>	<u>Name of Claim</u>	<u>Name of Claim</u>	<u>Name of Claim</u>
Rev A-27	Rev F-12	Rev H-9	Rev L-8	Pan A-14	Pan C-13
A-28	F-13	H-10	L-9	A-15	
A-29	F-14	H-11	L-10	A-16	C-15
A-30	F-15	H-12	L-11	A-17	C-16
	F-16	H-13	L-12	A-18	C-17
Rev B-27	F-17	H-14	L-13	A-19	C-18
B-28	F-18	H-15	L-14	A-20	C-19
B-29	F-19	H-16	L-15	A-21	C-20
B-30	F-20	H-17	L-16	A-22	C-21
	F-27	H-18	L-17	A-23	C-22
Rev C-27	F-28	H-27	L-18	A-24	C-23
C-28	F-29	H-28	L-27	A-25	C-24
C-29	F-30	H-29	L-28	A-26	C-25
C-30		H-30	L-29	A-27	C-26
	Rev G-1		L-30		C-27
Rev D-27	G-2	Rev J-11		Pan B-6	
D-28	G-3	J-12	REV M-1	B-7	Pan D-6
D-29	G-4	J-13	M-2	B-8	D-7
D-30	G-5	J-14	M-3	B-9	D-8
	G-6	J-15	M-4	B-10	D-9
Rev E-1	G-7	J-16	M-5	B-11	D-10
E-2	G-8	J-17	M-6	B-12	D-11
E-8	G-9	J-18	M-7	B-13	D-12
E-9	G-10	J-28	M-8	B-14	D-13
E-10	G-11	J-29	M-9	B-15	D-14
E-11	G-12	J-30	M-10	B-16	D-15
E-12	G-13		M-11	B-17	D-16
E-13	G-14	Rev K-11	M-12	B-18	D-17
E-14	G-15	K-12	M-13	B-19	
E-15	G-16	K-13	M-14	B-20	
E-16	G-17	K-14	M-15	B-21	D-20
E-17	G-18	K-16	M-16	B-22	D-21
E-18	G-27	K-17	M-17	B-23	D-22
E-19	G-28	K-18	M-18	B-24	D-23
E-20	G-29	K-28	M-27	B-25	D-24
E-27	G-30	K-29	M-28	B-26	D-25
E-28		K-30	M-29	B-27	D-26
E-29	Rev H-1		M-30		D-27
E-30	H-2	Rev L-1	Pan A-6	Pan C-6	
	H-3	L-2	A-7	C-7	Pan E-6
Rev F-1	H-4	L-3	A-8	C-8	E-7
F-2	H-5	L-4	A-9	C-9	E-8
F-9	H-6	L-5	A-10	C-10	E-9
F-10	H-7	L-6	A-11	C-11	E-10
F-11	H-8	L-7	A-12	C-12	E-11
			A-13		E-12



Claims with agent's signature and two witnesses:

<u>Claim Name</u>	<u>Claim Name</u>	<u>Claim Name</u>
Pan E- 14	Pan G-12	West Pan No. 2
E-15	G-13	3
E-16	G-14	4
E-17	G-15	5
E-18	G-16	6
E-19	G-17	7
E-20	G-18	8
E-21	G-19	9
E-22	G-20	10
E-23	G-21	11
E-24	G-22	12
E-25	G-23	13
E-26	G-24	14
E-27	G-25	15
	G-26	16
Pan F-6	G-27	17
F-7		18
F-8	Pan H- 6	19
F-9	H-7	20
F-11	H-8	21
F-12	H-9	22
F-13	H-10	23
F-14	H-11	24
F-15	H-12	25
F-16	H-13	26
F-17	H-14	27
F-18	H-15	28
F-19	H-16	29
F-20	H-17	30
F-21	H-18	
F-22	H-19	
F-23	H-20	
F-24	H-21	
F-25	H-22	
F-26	H-23	
F-27	H-24	
	H-25	
Pan G-6	H-26	
G-7	H-27	
G-8		
G-9		
G-10		
G-11		

40

43

42

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43

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41

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38

40

(485 Total)



The following claims do not have the signature of an agent, but are witnessed by two signatures (with the one exception of REV D-4);

<u>Name of Claim</u>	<u>No. of Witnesses</u>	<u>Name of Claim</u>	<u>No. of Witnesses</u>
Rev A-1	2	C-7	2
A-2	2	C-8	2
A-3	2	C-9	2
A-4	2	C-10	2
A-5	2	C-11	2
A-6	2	C-12	2
A-7	2	C-13	2
A-8	2	C-14	2
A-9	2	C-15	2
A-10	2	C-16	2
A-11	2	C-17	2
A-12	2	C-18	2
A-13	2	C-19	2
A-14	2	C-20	2
A-15	2	C-21	2
A-16	2	C-22	2
A-17	2		
A-18	2		
A-19	2	Rev D-1	2
A-20	2	D-2	2
Rev B-1	2	D-3	2
B-2	2	D-4	1
B-3	2	D-5	2
B-4	2	D-6	2
B-5	2	D-7	2
B-6	2	D-8	2
B-7	2	D-9	2
B-8	2	D-10	2
B-9	2	D-11	2
B-10	2	D-12	2
B-11	2	D-13	2
B-12	2	D-14	2
B-13	2	D-15	2
B-14	2	D-16	2
B-15	2	D-17	2
B-16	2	D-18	2
B-17	2	D-19	2
B-18	2	D-20	2
B-19	2	D-21	2
Rev C-1	2	D-22	2
C-2	2		
C-3	2		
C-4	2		
C-5	2		
C-6	2		



The following claims are signed by an agent for Mr. George L. Nicol, but are witnessed as shown:

<u>Name of Claim</u>	<u>No. of Witnesses</u>
Rev E-3	none
E-4	"
E-5	"
E-6	"
E-7	"
F-3	"
F-4	"
F-5	"
F-6	"
F-7	"
F-8	"
Rev J-1	1
J-2	1
J-3	1
J-4	1
J-5	1
J-6	1
J-7	1
J-8	1
J-9	1
J-10	1
J-27	1
Rev K-1	1
K-2	1
K-3	1
K-4	1
K-5	1
K-6	1
K-7	1
K-8	1
K-9	1
K-10	1
K-15	1
K-27	1
Pan C-14	1
D-18	1
D-19	1
E-13	1
F-10	1
West Pan #1	1



January 14, 1963

Dr. C. Hutton  
Stanford University  
Stanford, California

Dear Doctor Hutton:

Would you be kind enough to do a complete mineralogic and petrologic analysis of the inclosed two samples at your earliest convenience?

The samples are to be referred to as "West Pan #49 and #41".

Thanking you, I remain

Sincerely yours ,

B. Robert Gentry  
Secretary-Treasurer

brg-ib  
incls.



January 9, 1963

Mr. George L. Nicol  
11 Michaels Way  
Atherton, California

Re: Claim Posting

Dear Mr. Nicol:

Herewith are file copies of three Statements of Posting covering the PAN group of claims, WEST PAN, and REV groups. These statements testify to the manner in which all of the original three groups of claims were posted, and posts labeled, in accordance with Nevada State Law.

The notarized statements are certified by Robert W. Millard, the registered land and mineral surveyor who supervised the claim locations under my direction. His certification of the positioning of these claims provides you with irrefutable evidence that Nevada's 20-day limit for posting new claims has been complied with.

I recorded these notices January 4th, and the original papers are to be returned by Nye County Recorder to you in Atherton.

Yours very truly,

L. K. Wilson

lkW-1b

encl.: 3 Statements of Posting



**MINING RECORD**

**Statement of Posting: "PAN" Group**

The corner posts and side-center posts were positioned by Brunton surveys and measurement and were properly set in a mound of earth and stone, under my supervision and direction, and were completed on or before December 14, 1962 on the "PAN" Group of Lode Claims owned by George L. Nicol, 11 Michaels Way, Atherton, California.

These corner and side-center posts were properly identified by stamped metal plates, firmly attached to the posts, all as shown and delineated on Record of Survey Nye No. 7, to be filed with the Nye County Recorder in Tonopah, Nevada.

**Robert W. Millard, P.E.**  
**Mineral Surveyor and Registered**  
**Land Surveyor**

Subscribed and sworn before  
me this \_\_\_\_ day of January  
1963.

**Notary Public in and for**  
**the County of White Pine,**  
**State of Nevada**

**My Commission expires:**

\_\_\_\_\_



**MINING RECORD**

**Statement of Posting: "WEST PAN" Group**

C  
O  
P  
Y

The corner posts and side-center posts were positioned by Brunton surveys and measurement and were properly set in a mound of earth and stone, under my supervision and direction, and were completed on or before December 17, 1962 on the "WEST PAN" Group of Lode Claims owned by George L. Nicol, 11 Michaels Way, Atherton, California.

These corner and side-center posts were properly identified by stamped metal plates, firmly attached to the posts, all as shown and delineated on Record of Survey Nye No. 7, to be filed with the Nye County Recorder in Tonopah, Nevada.

Robert W. Millard, P.E.  
Mineral Surveyor and Registered  
Land Surveyor

Subscribed and sworn before  
me this \_\_\_\_ day of January  
1963.

Notary Public in and for  
the County of White Pine,  
State of Nevada

My Commission expires:

\_\_\_\_\_



**MINING RECORD**

**Statement of Posting: "REV" Group**

C  
O  
P  
Y  
The corner posts and side-center posts were positioned by Brunton surveys and measurement and were properly set in a mound of earth and stone, under my supervision and direction, and were completed on or before December 18, 1962 on the "REV" Group of Lode Claims owned by George L. Nicol, 11 Michaels Way, Atherton, California.

These corner and side-center posts were properly identified by stamped metal plates, firmly attached to the posts, all as shown and delineated on Record of Survey Nye No. 7, to be filed with the Nye County Recorder in Tonopah, Nevada.

\_\_\_\_\_  
Robert W. Millard, P.E.  
Mineral Surveyor and Registered  
Land Surveyor

Subscribed and sworn before  
me this \_\_\_\_ day of January  
1963.

\_\_\_\_\_  
Notary Public in and for  
the County of White Pine,  
State of Nevada

My Commission expires:  
  
\_\_\_\_\_



Ely, Nevada  
January 6, 1965

Memorandum for  
Mr. Walter O'Toole

I am mailing to you today at Carrant Ranch Motel, Carrant,  
the following:

Ten work sheet profiles by Kalman Isaacs of Aero Service  
showing:

North-south profiles through north-side center  
posts of Tier E, claims 10 to 21, 1 sheet each of  
orientation north, south, east and west, spacing 600 ft.

East-west profiles along north side line posts of  
Tier 16, claims A to H, 1 sheet each of orient-  
ation north, south, east and west, spacing 750 ft.

One east-west profile, north orientation, Tier 14,  
claims A to H.

Mr. Isaacs's sketch generalizing the anomaly approx-  
imately on claims D-15, E-15, D-16, and E-16.

Also enclosed are prints of Aero Service's air-mag  
profiles #18 through #32 and base line 1.

You have the other air-mag data supplied by Mr. Nicol's  
Redwood City office.

L. K. Wilson

cc: George Nicol  
R.C. Files



January 2, 1963

Received from Jordan International Company:

One Jalander Magnetometer, Serial # 5796 , on a loan basis. To be returned on or before January 23, 1963.

Signed: by [signature]

DIAMOND CORE DRILLING  
DIAMOND DRILLING EQUIPMENT  
ROUTING  
FOUNDATION TESTING  
MINING  
QUARRYING  
SHAFT SINKING  
TUNNEL DRIVING  
MINE PLANT DESIGN  
AND FABRICATION

**Boyles Bros.**  
**DRILLING COMPANY,**

CONTRACTORS - ENGINEERS - GEOLOGISTS

600 Industrial Way  
SPARKS, NEVADA  
Phone: 355-3233

General Offices and Plant  
1624 Pioneer Road P. O. Box 58  
SALT LAKE CITY 10, UTAH  
HUnter 7-7595

BRANCH OFFICES  
PHOENIX  
RENO  
SPOKANE  
DENVER  
SACRAMENTO  
ST. LOUIS

December 29, 1962

Mr. George L. Nicol  
Nicol Industrial Minerals  
11 Michaels Way  
Atherton, California

Dear Mr. Nicol:

This is in answer to your request for prices for drilling your property in the Ely, Nevada area.

1. Mobilisation - \$150.00
2. Rotary drilling rates - \$22.50 per hour plus cost of bits and drilling mud when used.

We will plan to use a Pilling 1500 drill which is equipped with an air compressor for dry drilling. In event that the holes go deeper than the capacity of this compressor, we can bring in a 600 compressor for \$2.50 an hour more, making it \$25.00 an hour when it is being used.

3. Core drilling rates - \$22.50 per hour plus cost of bits and drilling mud. If only a small amount of coring is anticipated, a core barrel can be run on the rotary rods. Otherwise the holes will have to be cased and wire line equipment used. The only additional charge for this will be for casing lost in the hole. This will be charged at cost f.o.b. the job.

If these prices are satisfactory, we will be prepared to start the work within a few days after notification.

Thank you for calling us.

Yours truly

*J. D. Fetterhoff*  
J.D. Fetterhoff  
District Manager

cc: Mr. Ken Wilson  
Boyles Bros. Salt Lake

C  
O  
P  
Y



December 28, 1962

Mr. L. Kenneth Wilson  
Hotel Nevada  
Ely, Nevada

Dear Mr. Wilson:

Confirming our telephone conversation this morning, I will arrive in Ely as soon as possible after January 1st to run the ground magnetometer survey over the two anomalies in Railroad Valley and South Railroad Valley. I have not yet been able to obtain a reservation, but I imagine that I will be able to arrive January 2nd or 3rd.

The instrument I will use will be an Arvela Hand Magnetometer. Local transportation will be provided by you, and facilities for locating stations in the form of maps, staked locations, photos, etc. I anticipate that the survey should last three or four days, and at the conclusion, an oral report will be given to you in the field. A formal written report will be mailed to you from Philadelphia shortly thereafter.

Our charge for this work will be one hundred dollars per day plus expenses.

Yours very truly,

AERO SERVICE CORPORATION



Kalman N. Isaacs  
Geophysicist

KNI:hs

G.L. Nicol

December 26, 1962

Geophysical Associates International  
Gravity Meter Exploration Co.  
P. O. Box 22007  
Houston 27, Texas

Attention: L. L. Nettleton

Dear Sirs:

In response to your letter of December 20, 1962 we are sending, under separate cover, a sepia transparency of the magnetometer Survey map of Railroad Valley at scale 1:48 000 (1 in. = 4,000 ft) by the Aero Service Corporation.

Hoping this will cover your needs for your report.

Sincerely,

L. Kenneth Wilson



December 24, 1962

SPECIAL DELIVERY

Mr. Robert Millard  
F. W. Millard & Son  
Licensed Land Surveyors  
P.O. Box 150  
Ely, Nevada

Re: Account of  
George L. Nicol  
11 Michaels Way  
Atherton, Calif.

Dear Bob:

This will confirm our telephone discussions concerning the location of additional mining claims in the West Pan area.

Mr. Nicol has requested that we fill in the West Pan block bounded on the south by the connecting string of claims and bounded on the west by the claims already located. This will make a solid block between the West Pan and the main Pan group. These total 34 in number and they are to be numbered consecutively beginning with Pan #31.

Please post the discovery notices as soon as possible in time for me to record the notices in Tonopah not later than Friday, December 28th. Mr. Nicol has requested that these be recorded in 1962 and of course, Friday is the last office day. The posting of corners and side centers can be done after January 1st as we discussed it.

With reference to our earlier locations I would like to refer to the "statement", that you will prepare, which will serve as the recorded evidence that the posting of all of our claims has been completed as required by law. I believe it would be well to record this at the same time as the four plats are recorded. Probably you have planned it this way and I can plan to do this at the same time as I record the new claims in Tonopah. As I recall, the one item to be added to the four maps was the state highway right-of-way across the Pan group.

Once more the seasons best to you, Bob, and again let me express my appreciation, and my admiration, for your excellent cooperation. I include your son, Dave, Bob Gunderson and all of the many boys who worked with me. We will be in Ely, Thursday, December 27th.

Sincerely yours,

LKW:pc

L. Kenneth Wilson

cc: George L. Nicol

L. KENNETH WILSON  
400 MONTGOMERY STREET  
SAN FRANCISCO 4  
EXBROOK 2-4313

At Ely, Nevada  
December 10, 1962

F. W. Millard & Son  
Licensed Land Surveyors  
P. O. Box 150  
Ely, Nevada

Re: Account of  
George L. Nicol  
11 Michaels Way  
Atherton, California

Gentlemen:

This is written so that you may have a record in your files of the work completed for the account of Mr. George L. Nicol, together with the work remaining to be completed and in progress at the present time.

In the period November 23rd to 29th, you completed at my request the initial location of 485 mining claims in the name of George L. Nicol, of 11 Michaels Way, Atherton, California. This assignment included erecting a 4 x 4 post on the center line of each claim in the manner prescribed by State and Federal laws, with a Notice of Location attached to each discovery post. I recorded the Notices in Tonopah as follows:

Pan Group of claims	176 claims recorded Nov. 26 & 28
West Pan Group	30 " " Nov. 28 & 30
Rev Group	279 " " Nov. 28 & 30.

Your invoices covering this part of the assignment, but not including the cost of recording, have been paid by my office for Mr. Nicol's account, in the total amount of \$4558.65. These initial costs have averaged about \$9.40 per claim and this is a splendid testimonial to the excellence of your programming crews and materials. We are pleased.

On further assignment at the present time, you are completing for Mr. Nicol's account also, the monumenting and marking of all corners as required by State law. Although the law allows 20 days for this work, I have asked that you arrange to complete the field work



by not later than December 15th. If it is necessary for you to add additional men to meet this schedule, or to work into time and a half or more overtime, I have authorized you to do so at our expense. When setting posts on the REV Group, please omit the 15 claims west of tier 18, and do not hesitate to charge us for any expense incurred prior to this change.

C  
O  
P  
Y

We have requested that you also obtain a sample of soil from the bottom of each corner and side-center post hole, in the manner we have demonstrated to your field crews, and using the special bags we have provided. Here also we have requested that you add to your crews if it appears necessary in order to meet the time schedule. The empty sample bags were delivered to your office freight COD for our account, but the cost of the bags will be invoiced to us directly in California by the manufacturers.

Each of the samples taken is to show the number of the post hole sampled, and the depth of the sample. A copy of our claim map is to be provided us on which you will show the location of each sample taken according to sample number (the sample number of course being the same as post number).

You have offered to bag and ship our samples for us, at our expense, using PIE motor freight. We are pleased to have your help on this. Please address the shipment to:

Nicol Industrial Minerals  
2850 Bay Road  
Redwood City, California

Shipment should be scheduled for arrival in Redwood City not later than December 18th, and if this presents any problem, I would appreciate your letting me know in time so that we can meet the deadline. Please use boxes small enough to be handled by one man (at 3 pounds per sack average, weight adds up fast).

The corner posts and side-centers which are being installed at the present time will be identified and tagged separately within 20 days allowed by law. I must say I am impressed with your tagging preparations! The total number of posts, which will be compared with field crew records, appears to be as follows:

Pan Group	391
West Pan	81
<u>Rev Group</u>	<u>575</u>
Posts	1047

When all corners and side centers have been posted and marked,



I have requested that you prepare a statement of your completion of this work, by groups of claims. I understand that the statement is to convey the information dictated by law and I will plan to record the ones you prepare.

You are also preparing for our account, three reproducible claim maps on a scale of 1 inch equals 600 feet, one each of the three groups of claims. The maps should show the plotted position of section corners throughout the PAN Group, and in the easternmost part of the REV Group. We will also be supplied with a tabulation of dates of location, posting, etc., in your customary manner. You estimated the cost of these maps at \$100 each.

I understand that the claim maps should be certified for filing purposes if desired, and I would ask that in terms of certification that you be satisfied that each claim shown on the map is identified correctly the same as the corresponding Notices of Location. For example, The State Highway right of way should be shown across the PAN Group of claims so that discovery monuments can be seen in proper position, and similarly the tie of claim A-16 near the highway with West Pan #30.

Your invoice covering charges for the above services should be addressed to Mr. Nicol at his Atherton address. This will be paid promptly as heretofore after your itemized invoice is received upon completion of the assignment. If I am in Ely at that time, this of course can be handed to me here.

I will be in Ely until the program is completed. If there are any questions about these or any other arrangements I might have overlooked, I would appreciate your letting me know.

Yours sincerely,

L. Kenneth Wilson

cc: George L. Nicol

Approved: \_\_\_\_\_

Date: \_\_\_\_\_





## Geophysical Associates International

Gravity Meter Exploration Company

Cable: Geonal

Phone MO 7-3344

20 December 1962

P. O. Box 22007

Houston 27, Texas

Nicol Industrial Minerals Corporation  
2850 Bay Road  
Redwood City, California

Attention Mr. L. Kenneth Wilson

Aeromagnetic Analysis  
Nevada

Gentlemen:

We have your letter of December 18 and the accompanying magnetometer profiles numbers 1 through 17, 33 through 36, and base lines 2 and 3. This completes the profiles on the area covered by the magnetic map of the Railroad Valley which was furnished us earlier.

These profiles raise the total mileage for analysis from 337 as given in my letter of 17 December to 814 miles, and the cost quotation as given in my letter should be raised accordingly.

It would be helpful to us if we could be supplied with a transparency of the magnetic map. The only map we have is the print which accompanied the Aero Service report. Presumably you were supplied by Aero Service with a transparency of some kind at scale 1:48,000 (1 in = 4000 ft) showing the magnetic contours over the area of the survey. If we could have either a sepia print (transparency) or the original film print, they could be used as a base map for the report on the results of our analysis.

Yours very truly,

GRAVITY METER EXPLORATION COMPANY

L. L. Nettleton

LLN/jj

cc - Mr. L. Kenneth Wilson  
400 Montgomery Street  
San Francisco 4, Calif.





# ***Geophysical Associates International***

Gravity Meter Exploration Company

Cable Geonal

Phone MO 7-3344

17 December 1962

P. O. Box 22007

Houston 27, Texas

Nicol Industrial Minerals Corporation  
2850 Bay Road  
Redwood City, California

Attention Mr. B. Robert Gentry, Treasurer

Aeromagnetic Analysis  
Nevada

Gentlemen:

The materials described in Mr. Wilson's letter of December 12 and listed in your letter of December 14 arrived today. There are 337 miles of aeromagnetic tape, so GMX's fee for this project will be \$337.00. Please show your acceptance of this arrangement by signing and returning one of the enclosed copies of this letter.

The analysis has already begun. Meanwhile, may we express our appreciation for this assignment.

Yours very truly,

GRAVITY METER EXPLORATION COMPANY

L. L. Nettleton

L.L.N./jj

In duplicate

cc - Mr. L. Kenneth Wilson  
400 Montgomery Street  
San Francisco 4, California

ACKNOWLEDGED

NICOL INDUSTRIAL MINERALS CORPORATION



**December 20, 1962**

**Dr. L. L. Nettleton  
Geophysical Associates International  
Gravity Meter Exploration Company  
P.O. Box 22007  
Houston 27, Texas**

**Dear Doctor Nettleton:**

**We received your letter of December 17, 1962.**

**After sending you the original data referred to in Mr. Wilson's letter of December 12, we found additional data was necessary for your study. This data was forwarded to you on December 18th.**

**We would appreciate your revising your letter of December 17th.**

**Yours very truly,**

**B. Robert Gentry  
Treasurer**

**brg-ib  
cc: L. Kenneth Wilson  
cc: File *✓***

December 18, 1962

Dr. L. L. Nettleton  
Gravity Meter Exploration  
P.O. Box 22007  
Houston 27, Texas

Dear Doctor Nettleton:

When we air mailed, special delivery, the profiles sent you on December 14th, we had not included all of those covering the Railroad Valley area. We are, therefore, sending you herewith (by air mail special delivery) additional profiles of lines Nos. 1 through 17, 33 through 36, and base lines 2 and 3.

I believe this should give you complete aero-magnetic coverage data throughout Railroad Valley. If, however, there is something further that you require, we would appreciate your advising us at the above address.

Yours very truly,

L. Kenneth Wilson

lkW-ib  
cc-George Nicol  
cc-L. Kenneth Wilson  
cc-File

Inclosure



December 14, 1962

Mr. L. L. Nettleton  
Gravity Meter Exploration  
P.O. Box 22007  
Houston 27, Texas

Dear Mr. Nettleton:

In accordance with Mr. Kenneth Wilson's letter to you of December 12th, we are today sending you by air mail, special delivery, the magnetic records referred to, as follows:

North Railroad Valley only:

1. Profiles Nos. 18-32 inclusive and line (Base) 1.
2. Aeromagnetic data sheets
3. Altimeter charts

Yours very truly,

B. Robert Gentry  
Treasurer

brg-ib  
cc-George Nicol  
cc- L. Kenneth Wilson  
cc-File ✓

Betty: Please note shipment of  
magnetic data to be made after file  
copies I discussed by fone have been  
made.

Ken Wilson

December 12, 1962

Mr. L. L. Nettleton  
Gravity Meter Exploration  
P. O. Box 22007  
Houston 27, Texas

Dear Mr. Nettleton:

Mr. Nicol has left for Europe and he asked me  
to reply to your letter of November 26th.

We are interested in your comment that there  
appear to be numerous low relief magnetic dis-  
turbances that were not considered previously  
in depth determinations, and at shallower depths.  
This may help us if igneous sills are suggested.  
Accordingly, we are sending you the magnetic  
records referred to in the third paragraph of  
your letter, and ask that you examine them for  
indications of shallow igneous material. We are  
not sending film strips or photos but would be  
able to do so promptly if you need them.

I would call attention particularly to the anomaly  
in the southwest part of T 8 N, R 55 E. We are  
interested in the accuracy of the position plotted,  
and the depth to the structure indicated.

I believe you also knew that Shell Oil Company  
drilled into volcanics of welded tuffs, and related  
rocks, in their Coyote well at Section 28, 7N, 55E,  
at a depth of 950 feet. "Basalt" was reported at 795  
feet in Section 3 of 7N, 56E.

Very truly yours,

L. Kenneth Wilson

cc: Mr. Nicol ✓



Ken called Dec. 10, 1962

North Railroad Valley only.

Asked for copies of 1. Profiles

Nos. 18-32 inclusive

+ line (Base) 1.

2. Aeromagnetic data sheets

3. Altimeter charts

# SPRAGUE & HENWOOD, Inc.

*Contract Division*

REGIONAL OFFICE

2151 North Redwood Road (P.O. Box 2556)  
Salt Lake City 10, Utah Davis 8-4271



DIAMOND DRILLING • MINERAL EXPLORATION • SOIL SAMPLING • PRESSURE GROUTING

EXECUTIVE OFFICES & PLANT  
SCRANTON, PENNSYLVANIA

December 12, 1962

Mr. Kenneth Wilson  
Park Vu Motel  
Ely, Nevada

Dear Sir:

In accordance with your request, we herewith submit our proposal for core drilling on your properties in Nye County, Nevada, as shown our representative.

## PROPOSAL

Item 1. Mobilization and demobilization L/S - - - \$300.00

- (a) Truck mounted #142 core drill
- (b) All accessory equipment and personnel

Item 2. Operational

- (a) Two man crew - - - \$18.00/hr.
- (b) Three man crew (for hauling water) - - - 21.00/hr.

Item 3. Moving between drill site locations, standby time or delays requested by customer - - - 13.00/hr.

Item 4. Diamond Bits

Charges to be determined by Sprague & Henwood, Inc. and shall be computed on return of used bits to Sprague & Henwood, Inc. plant at Scranton, Penna. Charges are to be computed by the method normally used by Sprague & Henwood, Inc., based on current list price for diamond bits in effect at time of shipment.

Item 5. Drilling mud and additives @ Invoice cost plus 10% f.o.b. job

Item 6. Casing lost in holes or requested to be left in holes @ Current list price f.o.b. job

Cont. Page 2



-2-

Box 2556  
Salt Lake City 10, Utah

Mr. Kenneth Wilson  
PROPOSAL CONT. (Core Drilling)

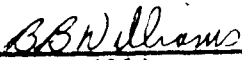
This proposal is subject to the following conditions:

1. Operational hours will be charged for all time drilling, pulling or lowering tools, and shall include normal maintenance and repairs, with the exception that all hours in excess of one hour in any normal shift for maintenance and repair, or for starting equipment, draining up or thawing, will not be charged.
2. Cores will be delivered at the drill hole locations and the preservation and transportation of cores will be the responsibility of the customer.
3. Sprague & Henwood, Inc. proposes to furnish a #142 truck mounted core drill, necessary water hauling facilities, all accessory equipment, with the exception that diamond bits will be charged as an extra item under Item 4.

We thank you for the opportunity of quoting on this work.

Very truly yours,

SPRAGUE & HENWOOD, INC.



B. B. Williams  
Gen. Sup't.  
Western Operations

BBW:vn

# SPRAGUE & HENWOOD, Inc.

*Contract Division*

REGIONAL OFFICE

2151 North Redwood Road (P.O. Box 2556)  
Salt Lake City 10, Utah DAVIS 8-4271



DIAMOND DRILLING • MINERAL EXPLORATION • SOIL SAMPLING • PRESSURE GROUTING

EXECUTIVE OFFICES & PLANT  
SCRANTON, PENNSYLVANIA

December 12, 1962

Mr. Kenneth Wilson  
Park Vu Motel  
Ely, Nevada

Dear Sir:

In accordance with your request, we herewith submit our proposal for drilling on your properties in Nye County, Nevada, as shown our representative.

## PROPOSAL

Item 1. Mobilization and demobilization L/S - - -\$500.00

- (a) Truck mounted Rotary Drill, 1,000 ft. capacity
- (b) Truck mounted I.R. 600 Gyro-Flo compressor
- (c) 800 gallon capacity water truck
- (d) All accessory equipment and personnel

Item 2. Operational

- (a) Rotary drill when using 600 compressor - - -\$31.00/hr.
- (b) Rotary drill when using self contained air - - - 21.00/hr.
- (c) Rotary drill when using water, 2 man crew - - - 21.00/hr.
- (d) Rotary drill when using water, 3 man crew - - - 24.00/hr.

Item 3. Moving between drill site locations, standby time  
or delays requested by customer - - - 16.00/hr.

Item 4. Drilling bits

- (a) Tri-cone roller type @ Invoice cost plus 10%
- (b) Diamond bits and reamers @ Charges to be determined  
by Sprague & Henwood, Inc. and shall be computed on return  
of used bits to Sprague & Henwood, Inc. plant at Scranton,  
Penna. Charges are to be computed by the method normally  
used by Sprague & Henwood, Inc., based on current list price  
for diamond bits in effect at time of shipment.

Item 5. Drilling mud and additives @ Invoice cost plus 10%, f.o.b. job

Item 6. Casing lost in holes or requested to be left in holes @ Current list  
price f.o.b. jobsite

Cont. Page 2



-2-

Box 2556  
Salt Lake City 10, UtahMr. Kenneth Wilson  
PROPOSAL CONT.

This proposal is subject to the following conditions:

1. All equipment listed under Item 1., will be mobilized to jobsite.
2. Item 2. (a) - will be charged the hourly rate specified for the hours the 600 compressor is actually used. There will be no standby charges for compressor when not in use.
3. If conditions warrant the use of water instead of air as a drilling fluid, water will be made available at no cost to Sprague & Henwood, Inc. Sprague and Henwood, Inc. will haul the available water at no extra charge to the customer, with the exception that if a third man is required to drive the water truck to supply adequate water, the 3 man operational rate will apply.
4. Operational hours will be charged for all time drilling, pulling or lowering tools, and shall include normal maintenance and repairs, with the exception that all hours in excess of one hour in any normal shift, for maintenance and repair, or for starting equipment, draining up or thawing, will not be charged.
5. Sprague & Henwood, Inc. proposes to furnish either a Mayhew 1000 Rotary drill or a comparable Winter-Weiss Portadrill, both with a 1,000 ft. capacity for rotary type drilling. It will be the normal procedure to commence operations using the self contained air unit on the drill, until conditions dictate the use of additional air or conversion to water.

*Note: Failing 1500, Mayhew 2000.*

We are prepared to commence operations within three working days after receipt of notice to proceed.

Your interest in our company is appreciated and we thank you for the opportunity to bid this work.

Very truly yours,

SPRAGUE &amp; HENWOOD, INC.

*B.B. Williams*  
B. B. Williams  
Gen. Sup't. Western Operations

BBW:vn

*(Price Nurse)*

Redwood City, Calif.  
December 10, 1962

Mr. R. P. Sheldon  
7839 Florado  
Denver 21, Colorado

Dear Mr. Sheldon:

Tom Cheney phoned and asked me to send you the inclosed  
list of wells, their location, etc.

Yours sincerely,

Iolanda Berger  
Secretary to T. M. Cheney

lb  
incl.  
Air Mail  
Special Delivery



# LIST OF WELLS IN NYE COUNTY , NEVADA

<u>Well No.</u>	<u>Field</u>	<u>Location</u>		
35-35 Eagle Springs Unit	Eagle Springs	NW NE SW	35-9N-57E	Nye A943
15-35 Unit	Eagle Springs	NW NW SW	35-9N-57E	Nye A4718-R
35-35 Eagle Springs Unit	Eagle Springs	NW NE SW	35-9N-57E	Nye A943-R
#1 Lockes Unit	Railroad Valley(W)	C NWSE	3-8N-56E	Nye A402
Unit #1	Eagle Springs(W)	SE NE NW	35-9N-57E	Nye 11141
58-26 Unit	Eagle Springs	SW SW SE	26-9N-57E	Nye A1740
15-35 Unit	Eagle Springs	NW NW SW	35-9N-57E	Nye A4718
#4 Unit	Eagle Springs (W)	C SE	22-8N-57E	Nye A5825
#1 Coyote Unit	Wildcat	C N/2 SW	28-7N-55E	Nye A4717-R
#4 Unit	Eagle Springs(W)	C SE	22-8N-57E	Nye A5825-R
#1 Coyote Unit	Wildcat	C N/2 SW	28-7N-55E	Nye A4717
#2 Unit	Eagle Springs (W)	C NE SE	2-7N-56E	Nye 13488-R
58-26 Unit	Eagle Springs	SW SW SE	26-9N-57E	Nye A1740-R
#1 Lockes Unit	Railroad Valley (W)	C NW SE	3-8N-56E	Nye A402-R
Unit #1	Eagle Springs (w)	SE NE NW	35-9N-57E	Nye 11141-R

Dec. 10, 1962

December 4, 1962

To: J. G. Huseby, T. M. Cheney, B. R. Gentry  
Betty Small, Iolanda Berger

From: L. Kenneth Wilson

Subject: Mining Locations Recorded in Nye County, Tonopah, Nevada,  
Totaling 485.

Two copies of each Notice of Mining Locations were made. The original is posted on the discovery monument of each claim; the carbon copy - the only additional copy - was delivered to the County Recorder of Tonopah, for recording. These carbon copies will be returned to the locator after the recording has been processed, and they will be addressed as follows:

Mr. Kenneth Wilson	(Claims are located in the name of
c/o George L. Nicol	George L. Nicol only as follows:
11 Michaels Way	"George L. Nicol
Atherton, California	11 Michaels Way, Atherton, Calif.")

This memo is to call attention to the fact that the County Recorder has the only copies of the Notices of Mining Locations and when they are received at Mr. Nicol's residence they may be held there until Mr. Nicol's return.

Should any occasion arise for any of us to call for these location notices before Mr. Nicol's return, I would suggest that Iolanda be contacted and that the notices be obtained from Mrs. Nicol.

L. K. Wilson

lkw-ib



**AERO SERVICE  
CORPORATION**  
A DIVISION OF LITTON INDUSTRIES

EXPLORATION DIVISION • 210 EAST COURTLAND STREET • PHILADELPHIA 20, PENNSYLVANIA

TELEPHONE: GLADSTONE 7-3000 • CABLE: AERCorp

November 29, 1962

Mr. George L. Nicol  
11 Michaels Way  
Atherton, California

Dear Mr. Nicol:

Enclosed is a brief discussion of the significance of the five reconnaissance traverses between Railroad Valley and South Railroad Valley. This completes the interpretation of the airborne magnetometer work.

On behalf of Aero Service Corporation, I wish to thank you for the opportunity of performing this survey and express our hope that your program meets with success.

Yours very truly,

**AERO SERVICE CORPORATION**



Kalman N. Isaacs  
Geophysicist

KNI:hs

Encl.

cc: Mr. L.K. Wilson

**AERO SERVICE**  
**CORPORATION**  
A DIVISION OF LITTON INDUSTRIES

EXPLORATION DIVISION • 210 EAST COURTLAND STREET • PHILADELPHIA 20, PENNSYLVANIA

TELEPHONE: GLADSTONE 7-3000 • CABLE: AERCORP

November 29, 1962

Mr. George L. Nicol  
11 Michaels Way  
Atherton, California

Dear Mr. Nicol:

Mr. Dando, our west coast representative, has sent us a note to the effect that you and Mr. Wilson are curious as to the significance and reason for negative magnetic anomalies in general, and specifically the 600y feature in the southwestern part of the South Railroad Valley survey. Inasmuch as the Director of the Exploration Division, Mr. Roger Pemberton, is out of the country at present, I am taking the liberty of answering your questions.

I find the concept of "lines of force" to be useful in discussing magnetic phenomena, and I shall use it in this instance. In Nevada, the inclination of the magnetic field is about  $63^{\circ}$  northward, so that the earth's field is as shown in Figure 1.

If a highly susceptible body (such as a magnetite ore body) is inserted in this field, it will set up an induced field of the type shown in Figure 2.

If the resultant field is measured, some distance above the body, it can be seen that maximum reinforcement of the earth's field by the induced field will occur a short distance south of the body, giving rise to a strong positive anomaly; maximum subtraction from the earth's field will occur a large distance to the north of the body, giving rise to a weak negative. Thus, even a normal, induced anomaly has a negative complement when dealing with the earth's total field, except at the magnetic poles. The strength of the negative portion of the anomaly increases toward the magnetic equator, and at the magnetic equator it is totally negative.



November 29, 1962  
Page 2

However, the negative anomaly in South Railroad Valley (and many others in the areas surveyed) is probably caused by a different phenomenon, inverse polarization. It has been noted that certain rocks (typically ilmenite or titaniferous magnetite bodies, and basic volcanics) occasionally develop permanent fields in opposition to the primary field of the earth, so that the chief expression of the resultant field is a negative anomaly. The physical and chemical reasons for this phenomenon are not known.

The negative anomaly in South Railroad Valley was singled out, as a prospect because of its intensity and isolation.

Two additional factors tend to complicate the magnetic picture; irregularities in the causative bodies and remanent magnetization. The theoretical anomalies discussed in the literature are derived from bodies of idealized geometric shapes and uniform composition. In reality, the geologic causes of magnetic anomalies are characteristically of irregular shapes and heterogeneous composition, and their anomalies, observed at a given plane of observation, reflect that complexity.

Remanent magnetization may affect the anomaly if the body has developed a permanent field of its own (instead of a purely induced field) and then has been folded, tilted, or faulted into a new attitude with respect to the earth's field.

Mr. Dando mentioned that you would like some information on my background. I studied geology at the University of California in Berkeley and received a Bachelor's degree in 1949 and a Master's degree in 1951. Following that, I taught geology at Coalinga Junior College (Coalinga, California) for one semester, and then I worked for Fairchild Aerial Surveys for a year and a half.

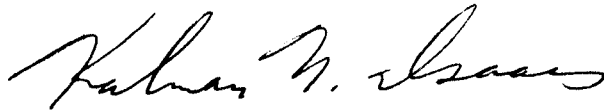
I joined Aero Service in 1952 and I have been with them since then, interpreting geophysical surveys (chiefly aeromagnetic, but occasionally ground magnetic, gravity, resistivity and others). I have co-authored and authored several papers, some of which I am enclosing. My field experience has been in Venezuela, Labrador, Surinam, Australia and Portugal; that is, besides the United States.

November 29, 1962  
Page 3

I hope I have hit the mark in answering your questions; if not, please do not hesitate in letting me know.

Sincerely yours,

AERO SERVICE CORPORATION

A handwritten signature in cursive script, appearing to read "Kalman N. Isaacs".

Kalman N. Isaacs  
Geophysicist

KNI:hs

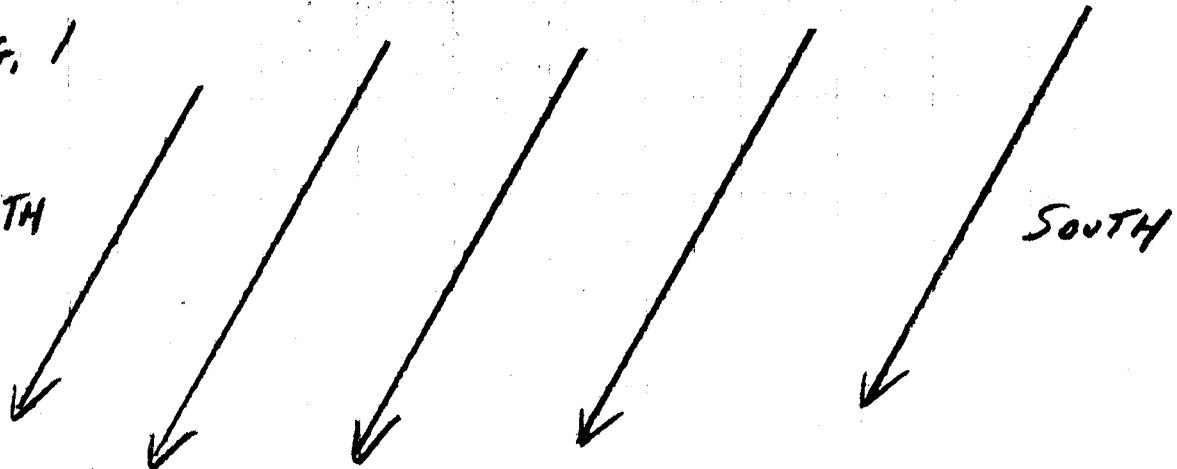
Encl.

cc: Mr. L.K. Wilson



FIG. 1

NORTH



EARTH'S FIELD AT  $63^\circ$  INCLINATION (NORTH)

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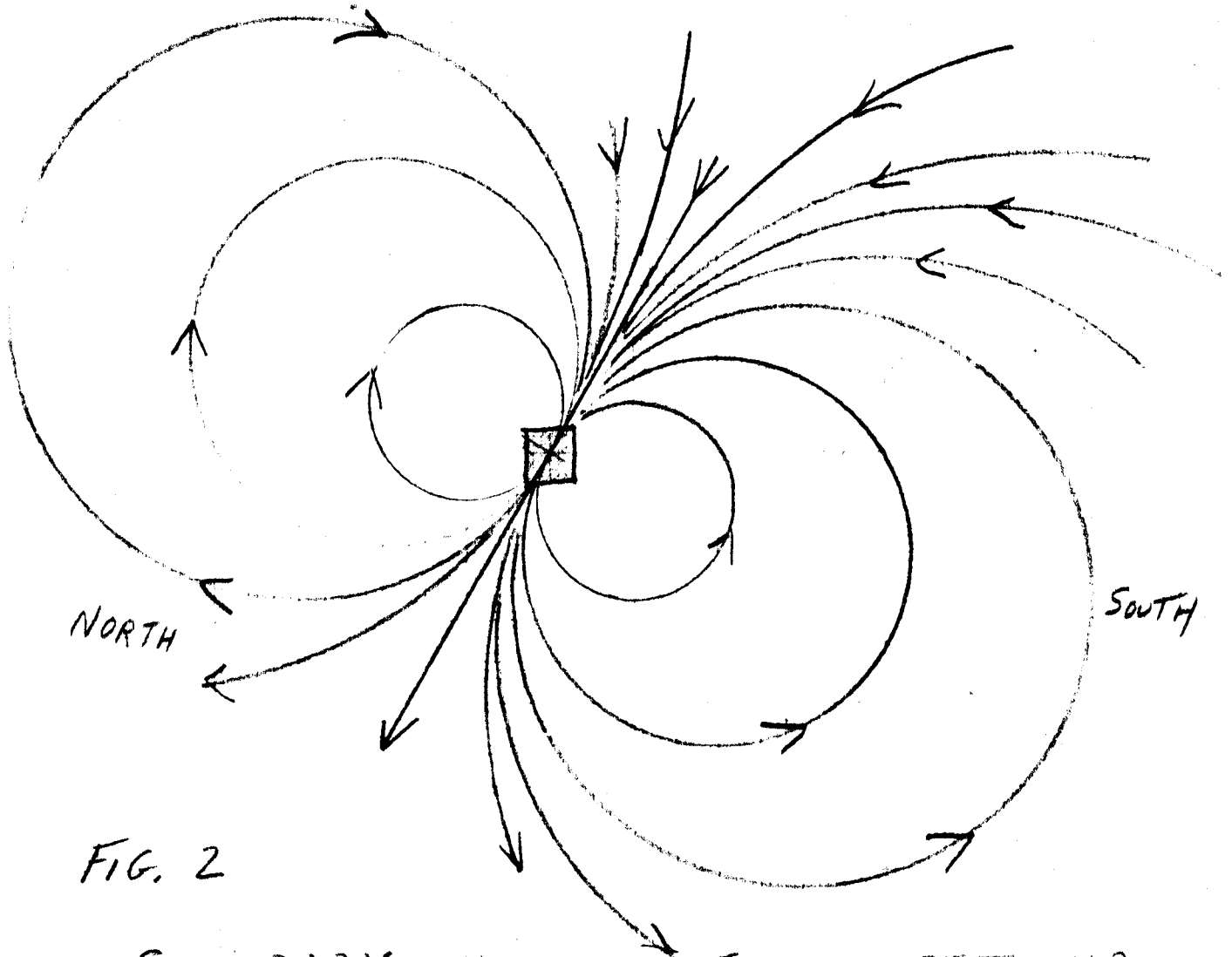


FIG. 2

SECONDARY INDUCED FIELD SET UP  
BY BODY IN EARTH'S FIELD AT  $63^\circ$  INCL.

FIG. 1

NORTH

SOUTH

EARTH'S FIELD AT  $63^\circ$  INCLINATION (NORTH)

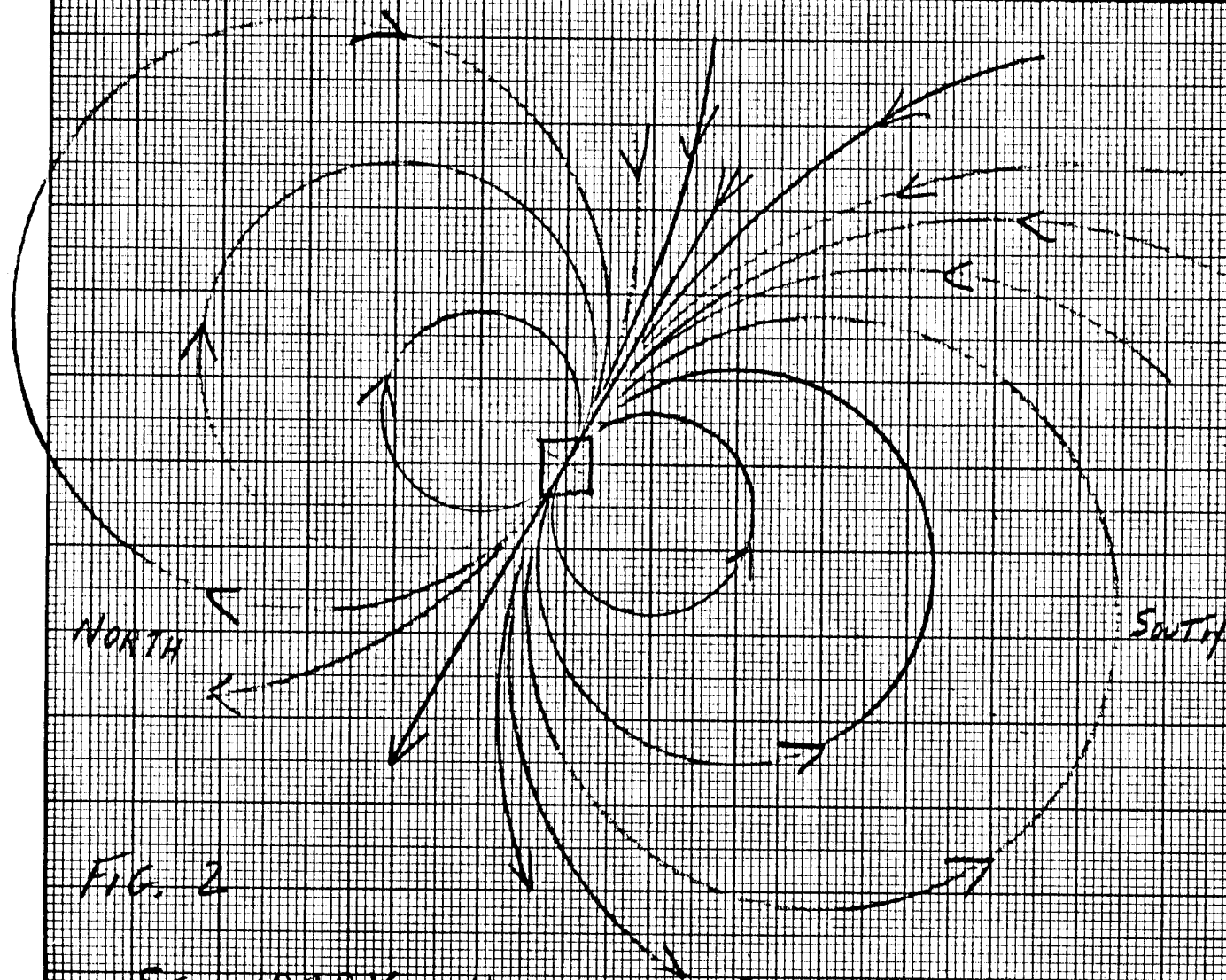


FIG. 2

SECONDARY INDUCED FIELD SET UP  
BY BODY IN EARTH'S FIELD AT  $63^\circ$  INCL.

FIG. 3

RELATIONSHIP OF  
EARTH'S FIELD AND  
INDUCED FIELD AT  
 $63^\circ$  INCL.

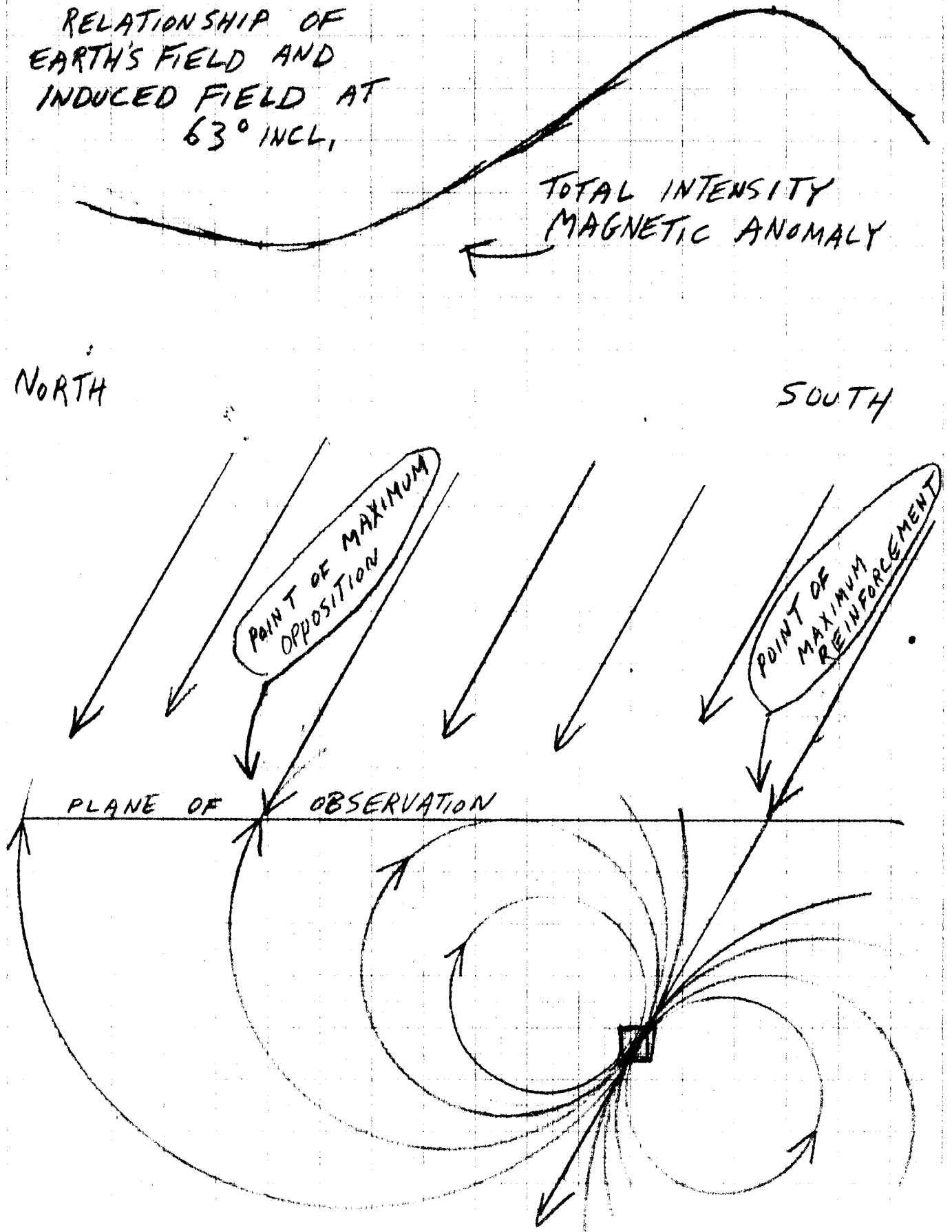




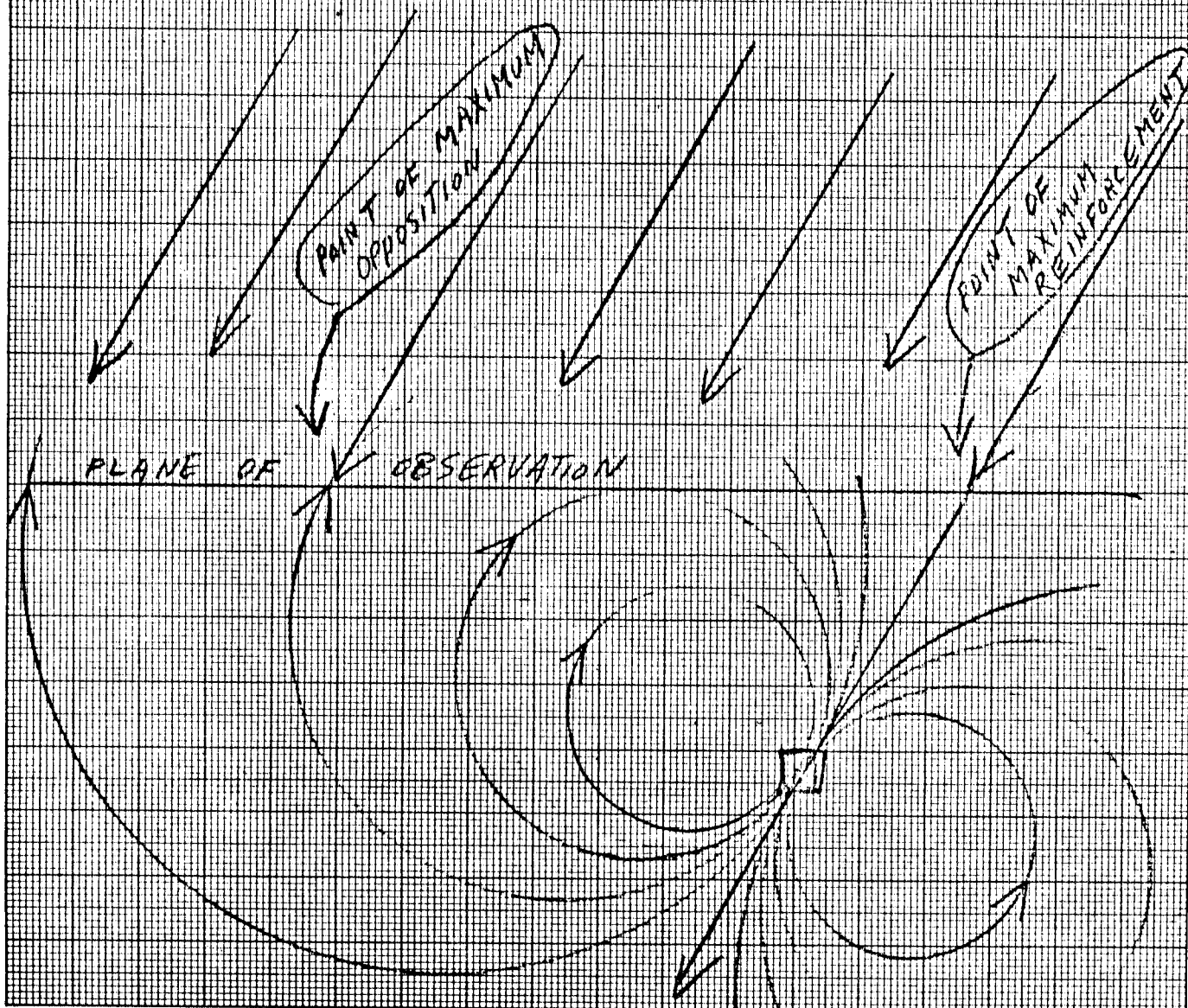
FIG. 3

RELATIONSHIP OF  
EARTH'S FIELD AND  
INDUCED FIELD AT  
 $63^\circ$  INCL.

TOTAL INTENSITY  
MAGNETIC ANOMALY

NORTH

SOUTH

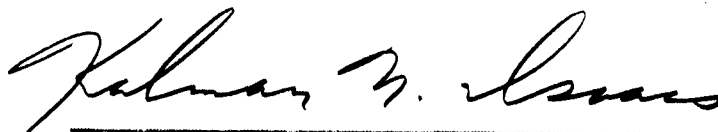


## RECONNAISSANCE TRAVERSES

Five airborne magnetometer profiles were flown between the Railroad Valley and South Railroad Valley survey areas. These five lines were flown parallel to each other, in a northeast-southwest direction. Each of the five was about eighteen miles long and the separation between them was about one-half mile.

The five traverses are each characterized by a zone of relatively intense anomalies located, approximately, in their central thirds. Their profile appearances suggest that they are caused by igneous rocks at or near the surface.

At the ends of the reconnaissance traverses, the anomalous sources are indeterminately deeper.



Kalman N. Isaacs  
Geophysicist

November 26, 1962

Philadelphia, Pennsylvania

October 26, 1962

Memorandum for Mr. Masarik:

Re: Railroad Valley contract with  
Aero Service Corporation.

The contract with Aero Service Corporation that was signed by Mr. Nicol on August 27th calls for a "total cost of program" of \$17,005.00. This amount, however, is reduced in accordance with Paragraph (c) on Page 3 of the letter agreement to \$14,722.00.

Kawich Valley amounting to 289 line miles was not ordered and was not flown. The reduction therefore amounts to \$2283 and the "Total cost of Program" is \$14,722.00.

Any other expenditures by Aero Service have not been authorized and are not approved.


This memorandum is forwarded for the files and your convenience in the event that Aero should invoice you other than provided for in the contract.

L. K. Wilson

LKW:sg

cc: Mr. Nicol ✓

Also please show Mr. Cheney.





cc: Mr. Nicol  
Tom Cheney

October 23, 1962

Mr. Thomas M. O'Malley, President  
Aero Service Corporation  
210 East Courtland Street  
Philadelphia 20, Pennsylvania

Railroad Valley, Nevada

Dear Mr. O'Malley:

Thank you for your letter of October 16 and the reprints by your staff.

I have been concerned, until recently, about an apparent absence of direct communication between ourselves and the principals of Aero in the Railroad Valley survey which we contracted last August. This seems to be clearing up at the present time but I must say that it has been somewhat annoying along-the-line to find it necessary to press Aero for information, and for direct discussion of our problems.

We have been particularly concerned in part, with an objective of delimiting a lava flow, as referred to in the copies of correspondence you will find attached to this letter. We would not feel that the survey was entirely effective, for example, if the flight altitude over the total area did not produce the data we require over the particular portion discussed. However, I feel somewhat reassured inasmuch as Mr. Ibach believed the flight pattern was adequate when I discussed the matter with him further at the time the flight was in progress.

Very truly yours,

LKW:pe

L. Kenneth Wilson

cc: Roger Pemberton  
Al Ibach

October 23, 1962

Mr. Al Ibach, Manager  
Aero Service Corporation  
1401 South Detroit Street  
Tulsa, Oklahoma.

Railroad Valley, Nevada

Dear Mr. Ibach:

Mr. Pemberton has been in touch with you and I understand that the isomagnetic data will be sent to Philadelphia within about one week. Undoubtedly, he has referred to our prime interest in Railroad Valley proper and our wish to have his interpretation of this portion as quickly as possible.

The purpose of this letter is to ask that you send me an advance copy, or preliminary print, of the isomagnetic map of Railroad Valley as soon as it becomes available. All of the necessary data is to go first of all directly to Philadelphia but I would like one or two copies of the iso-mag map, only, sent directly here at the same time.

If there is any question, please contact me.

Very truly yours,

L. Kenneth Wilson

LKW:pc

cc: George L. Nicol  
Tom M. Cheney

*Tom - we'll see what  
this request produces*

cc: George L. Nicol (2)  
Tom M. Cheney

October 22, 1962

Mr. Roger Pemberton  
Aero Service Corporation  
210 East Courtland Street  
Philadelphia 20, Pennsylvania

Railroad Valley, Nevada

Dear Mr. Pemberton:

In keeping with your telephone conversation with Mr. Cheney and me today, I am sending you under separate cover via air parcel post the following gamma-ray logs of wells situated in Railroad Valley, Nevada. Each gamma-ray log is accompanied by an electrical log for comparative purposes. These are sent to you from our files to expedite your use of the data in your analysis of Tulsa's Iso-magnetic maps. You should know that a list of these logs was given to your Mr. Dando last August with our request that you obtain them for this purpose.

1. Shell #1 Coyote Unit (Your attention is called to the deflection curves at approx. 600, 900, and 1300 feet below surface).
2. Shell Eagle Springs #2 Unit.
3. Shell Lockes Unit #1.
4. Shell Eagle Springs #4.
5. The four oil wells shown on the attached cross section.

In addition to the published cross section of Shell's oil wells (item 5 above), there is enclosed herewith a sketch map showing the location of the well logs we are sending to you.

It is our understanding now that we will have your interpretation of the Railroad Valley survey within two weeks.

If you have any further questions about our particular objective to determine the outline and depth of known lava flows, please contact me promptly. As I mentioned by telephone, this matter was discussed in detail with your Mr. Ibach on October 5th, while the survey was being flown, in order that any change of flight pattern could be made while we were at the survey site. (Although the depth to lava is less than 1000 feet in hole P5 on the attached map, the depth to basement in the oil well nearby appears to be more than 6000 feet. My discussion with Mr. Ibach had concerned the possible need for compensating for the abrupt "drop-off" of the rock units being measured.)

Very truly yours,

LKW:pc

L. Kenneth Wilson



**August 22, 1962**

**Mr. E. E. Dando, Manager  
Aero Service Corporation  
1050 University Drive  
Menlo Park, California**

**Re: Railroad Valley  
Nye County, Nevada**

**Dear Mr. Dando:**

**This letter is written to confirm our discussion during the past few days concerning a proposed aero-magnetic survey of Railroad Valley and vicinity, in Eastern Nevada.**

**At our meeting in Mr. Nicol's office yesterday, you were requested to prepare estimates of cost and letters of agreement covering specified areas. I am handing you with this letter a sketch of the areas which we wish flown. Our request is for iso-magnetic coverage of these areas flown at intervals of one-half mile. Accompanying the iso-magnetic maps, we are to receive in addition:**

- (1) Dr. Pemberton's interpretation showing depth of structures below surface; and**
- (2) Dr. Pemberton's recommendations of the areas which appear to be accessible for gravity survey and, possibly, resistivity.**

**The map which I am handing you is an overlay. This is to be superimposed upon four Army Map Service sheets named Lund, Caliente, Tonopah, and Goldfield. Please submit your estimate of cost and the proposed agreement on the basis of the areas shown here.**

**The agreements, when typed, should be addressed to Mr. Nicol for his approval and signature, but I would first appreciate going over the papers with you before handing them to Mr. Nicol. If either of us should not be available for a meeting on this as soon as the papers are ready, please mail them to me at my San Francisco office.**

**Very truly yours,**

**L. Kenneth Wilson**

**lkw-ib  
cc-George L. Nicol**

INTERPRETATION  
REPORT  
OF  
GROUND MAGNETOMETER  
SURVEY

PAN AND WEST PAN  
CLAIM GROUPS

NYE COUNTY,  
NEVADA

**AERO SERVICE**  
CORPORATION  
A DIVISION OF LITTON INDUSTRIES



**INTERPRETATION REPORT**

**OF**

**GROUND MAGNETOMETER SURVEY**

**PAN AND WEST PAN**

**CLAIM GROUPS**

**NYE COUNTY, NEVADA**



## INTRODUCTION

In January, 1963, a reconnaissance ground magnetometer survey was executed in a limited area of the Railroad Valley, Nye County, Nevada by Aero Service Corporation of Philadelphia for Mr. George L. Nicol of Atherton, California. The purpose of this survey was to locate, as closely as possible, the source of an anomaly that had been observed on an airborne magnetometer survey flown in September, 1962. One hundred seventy-six claims were filed over the area of this anomaly, and these are referred to as the Pan group of claims.

The instrument used on this survey was an Arvela "Everyman" hand magnetic variometer, which measures the vertical field with a maximum sensitivity of one hundred gammas. Six east-west traverses and one north-south traverse were made across the Pan group, with observations made at intervals of seven hundred fifty feet, at each corner stake and side-center stake. The interval was reduced to three hundred seventy-five feet along portions of two of the traverses. The station interval of the north-south profile was six hundred feet.

In addition to this, two east-west traverses and one north-south traverse were made across an adjacent prospect, the West Pan group.

The interval between observations was again seven hundred fifty feet for the two east-west profiles and six hundred feet for the north-south profiles.

At one point on the northernmost east-west traverse, the line had to be deviated to the south because of extremely rough terrain.

Observations were made with the instrument oriented north, south, east and west at all stations on both the fine and coarse sensitivities (1,000 and 5,000 gammas, respectively), so that eight observations were made at each station. The four observations on the fine sensitivity scale have been averaged and corrected to the level of the north-south traverse in constructing the contour map and the graphic profiles, in order to correct for instrument drift.

## GEOPHYSICAL INTERPRETATION

The reduced magnetic observations, contoured on an overlay of the claim map, reveal three discrete positive anomalies. The largest and most significant of these is an irregular feature having an amplitude of approximately seven thousand gammas centered on claims D14, D15, D16, D17, D18, E15, E16, E17 and E18. The north-south profile suggests that its depth subsurface is between five hundred and one thousand feet; probably about eight hundred feet. The profiles along tiers 14, 16, 17 and the north-south traverse further suggest that the source may have a southeastward dip.

Another anomaly of unknown extent is located on claims A15, A16, B15 and B16. This feature has an amplitude of approximately four thousand gammas. Its depth and dip of its source cannot be determined.

A third anomaly, with an amplitude of two thousand gammas, is located on claims F14 and F15. The attitude and depth of this feature's source cannot be determined.

The larger, central feature is considered to be the most promising and should be investigated by drilling.

The traverses across the West Pan prospect display a sharply increased magnetic level, suggesting that the western end of the area is underlain by rocks of markedly more basic composition.



This is particularly true of the southernmost traverse,  
where the magnetic break is so abrupt (about nine thousand  
gammas) as to suggest a very sharp discontinuity between  
acidic and basic rocks.



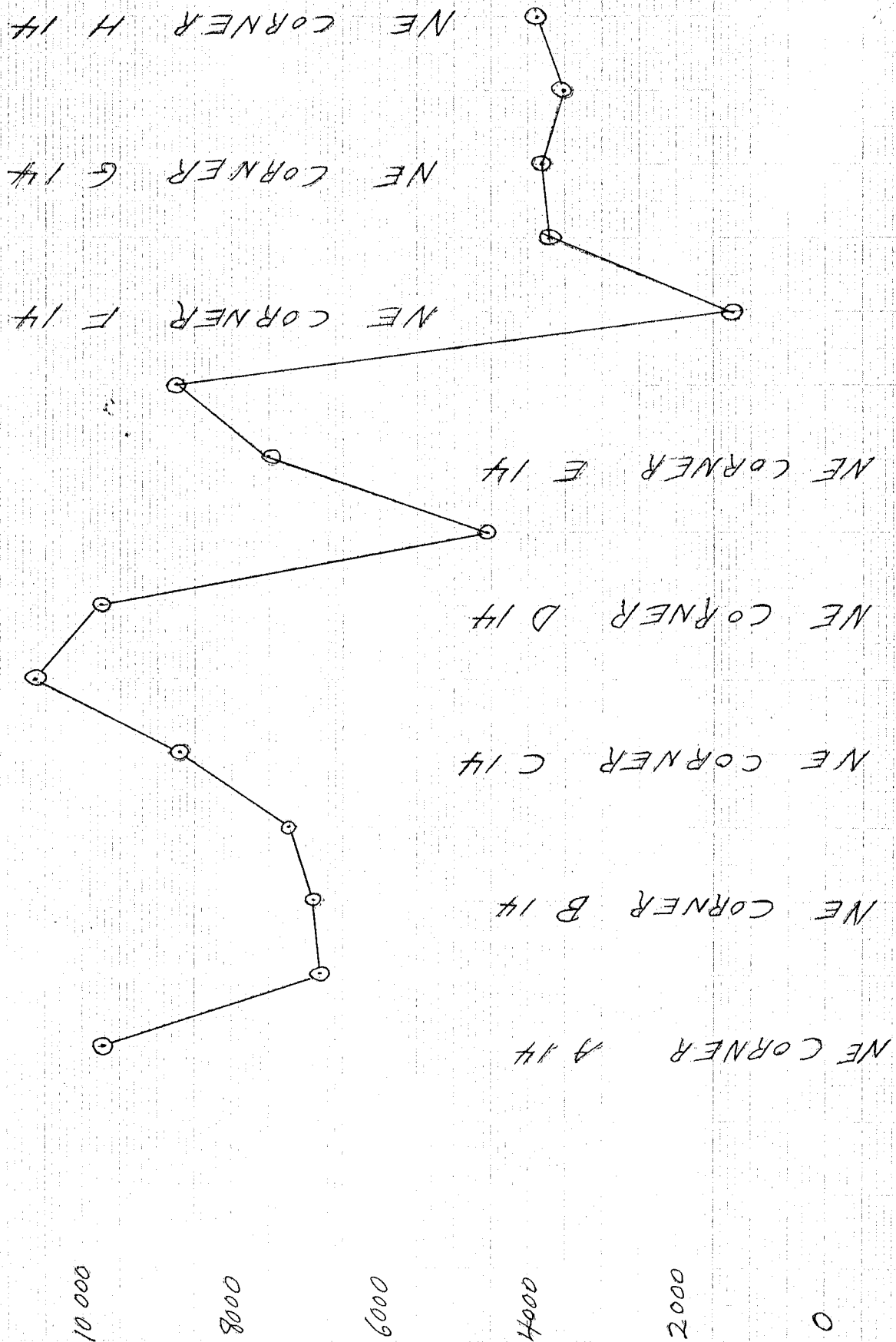
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Kalman N. Isaacs  
Geophysicist

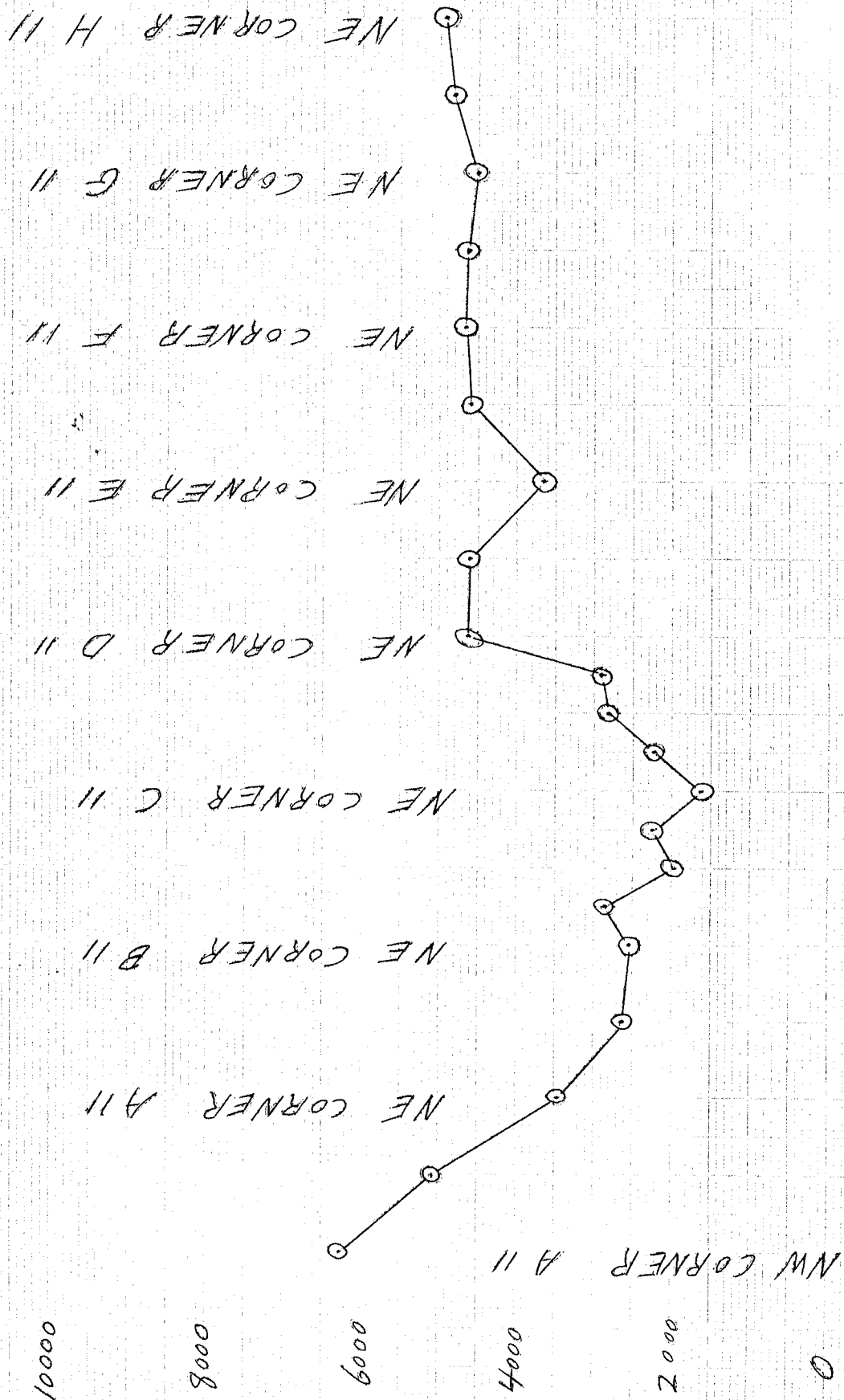
January 15, 1963

Philadelphia, Pennsylvania

# PAN AREA - TIER 14

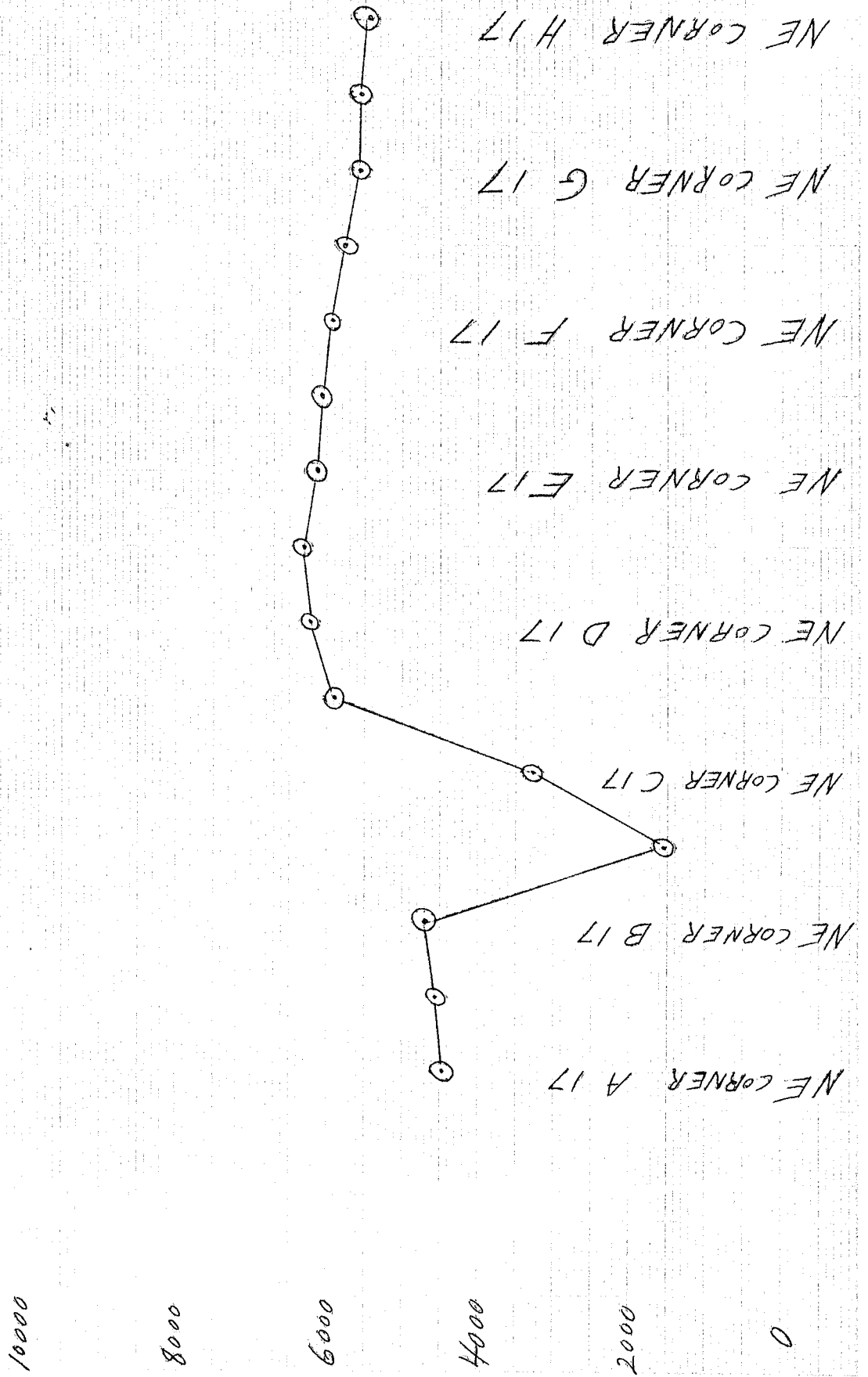


# PAN AREA - TIER II





PAN AREA - TIER 17



# PAN AREA - TIER 15

10000

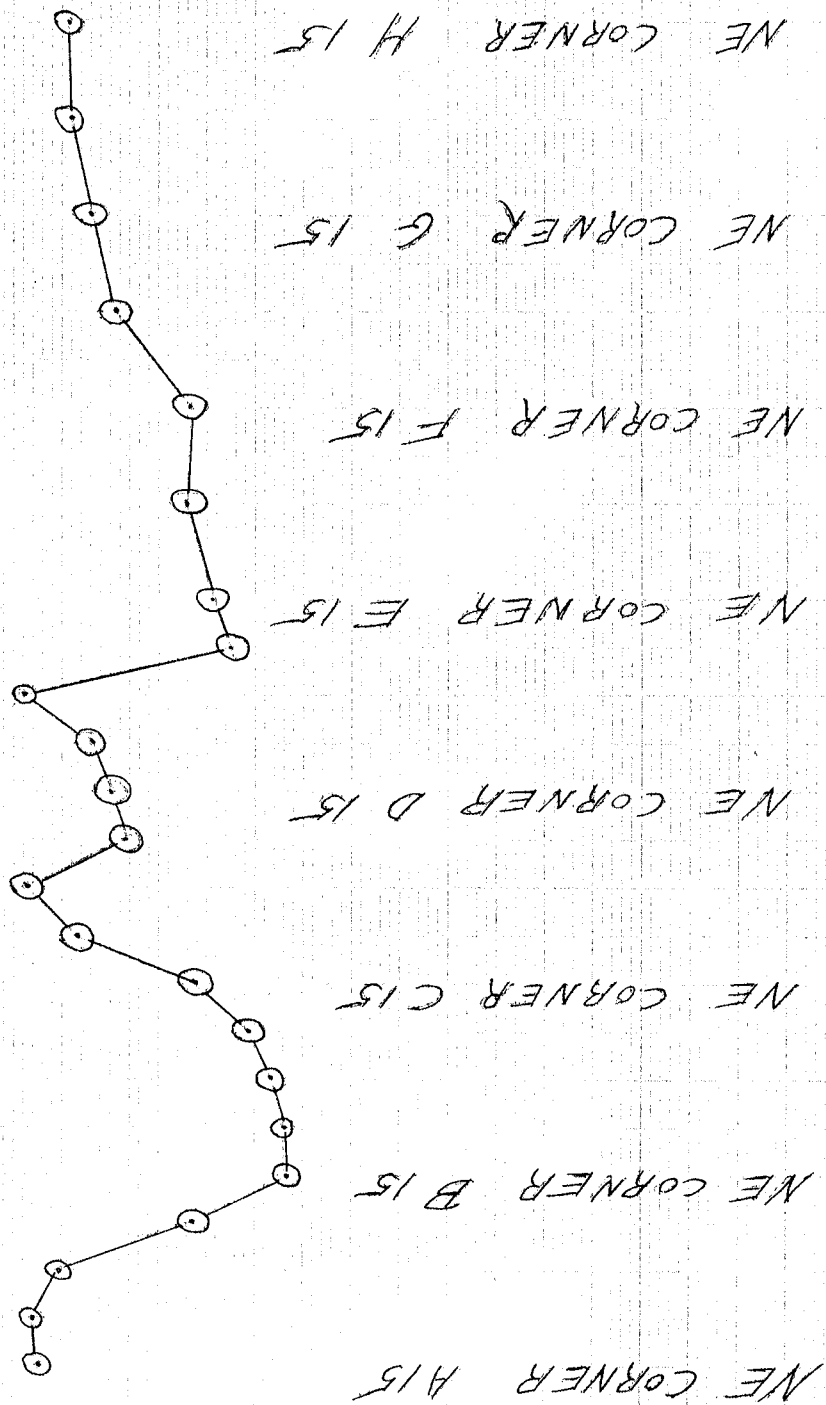
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6000

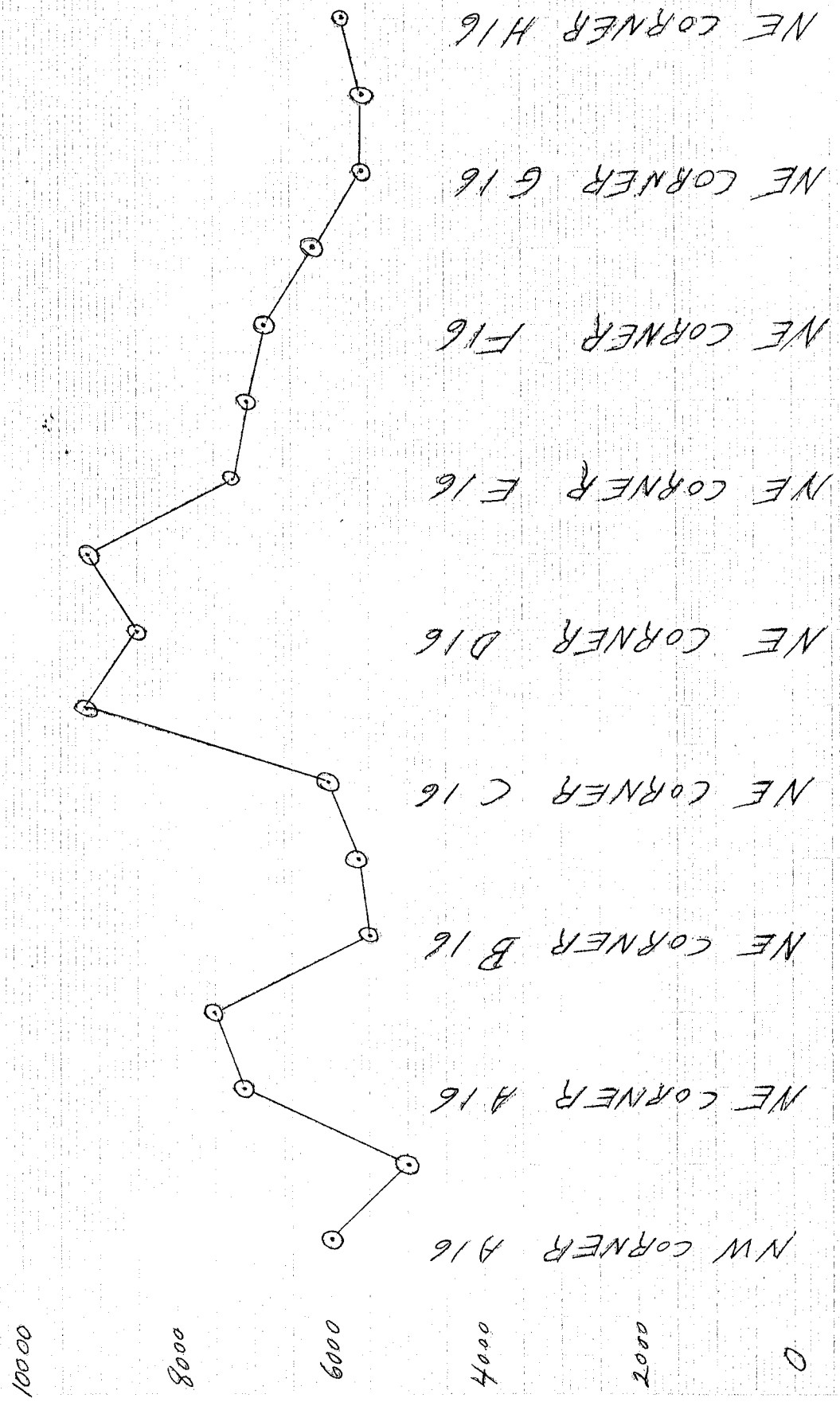
4000

2000

0



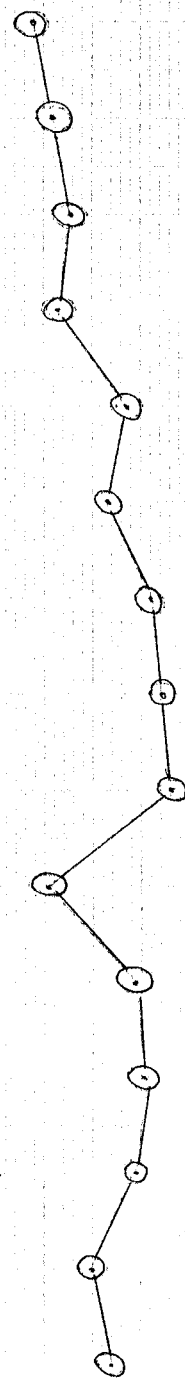
# PAN AREA - TIER 16





# PAN AREA - TIER 21

NE CORNER A 21  
 NE CORNER B 21  
 NE CORNER C 21  
 NE CORNER D 21  
 NE CORNER E 21  
 NE CORNER F 21  
 NE CORNER G 21  
 NE CORNER H 21



10000

8000

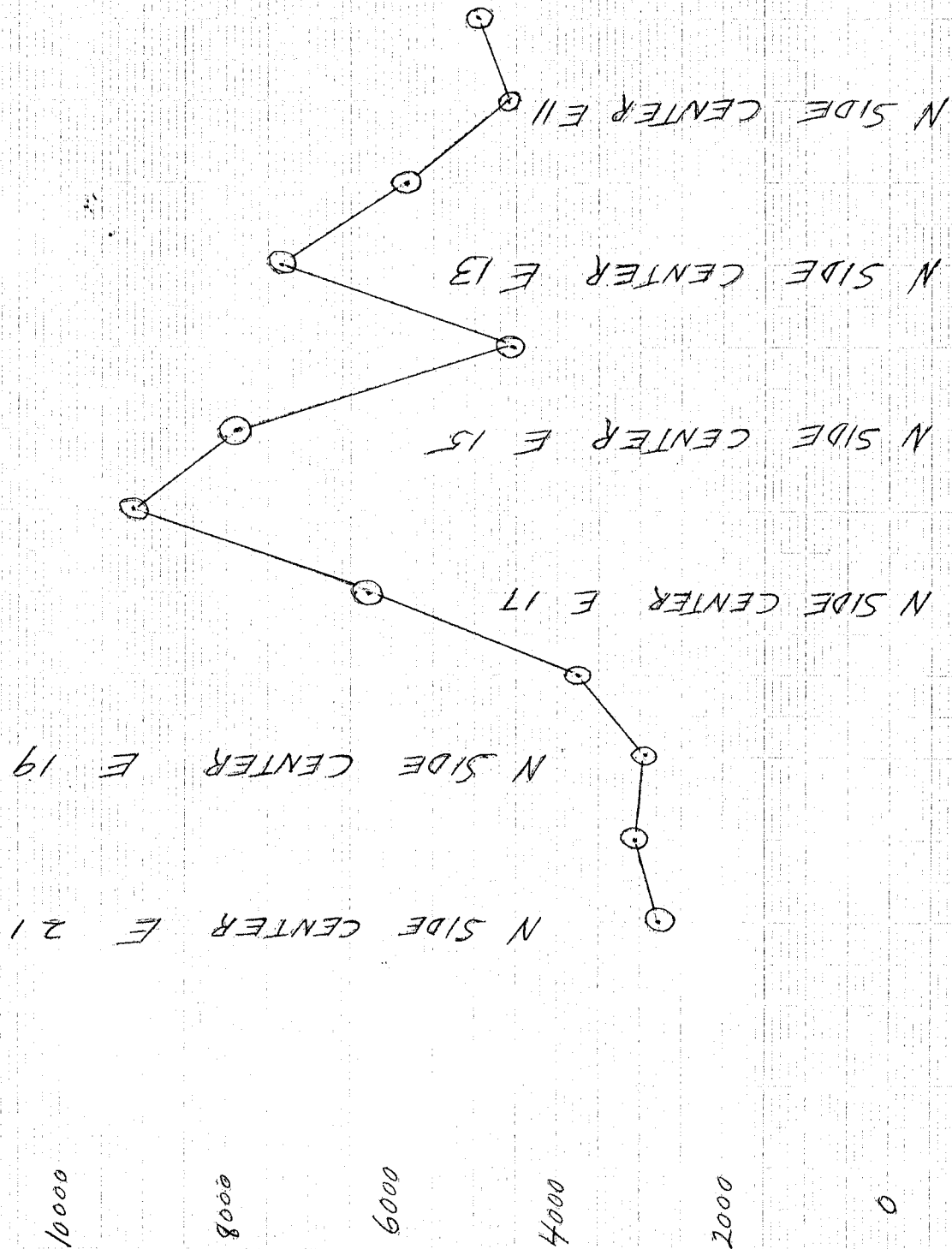
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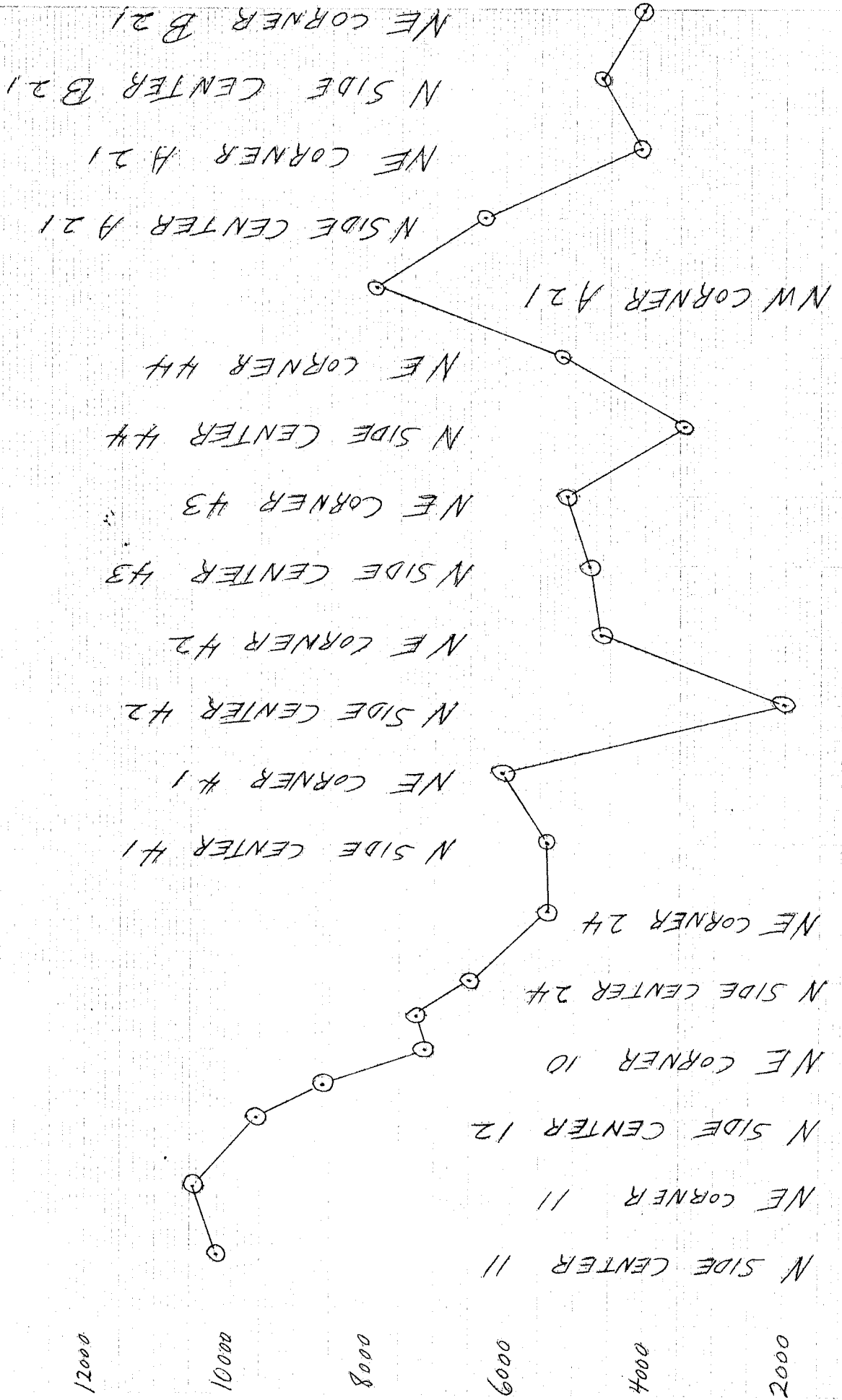
2000

0

PAN AREA - TIER N CENTER E



# WEST PAN AREA - TIER BETWEEN N W AND NE B 21

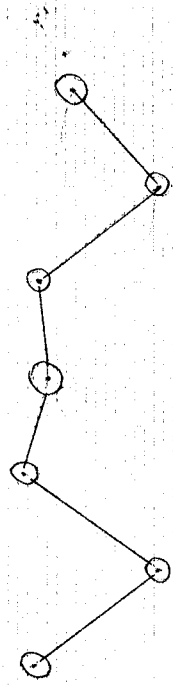




WEST PAN AREA - TIER BETWEEN NE 13 AND NE 1

00071

00001



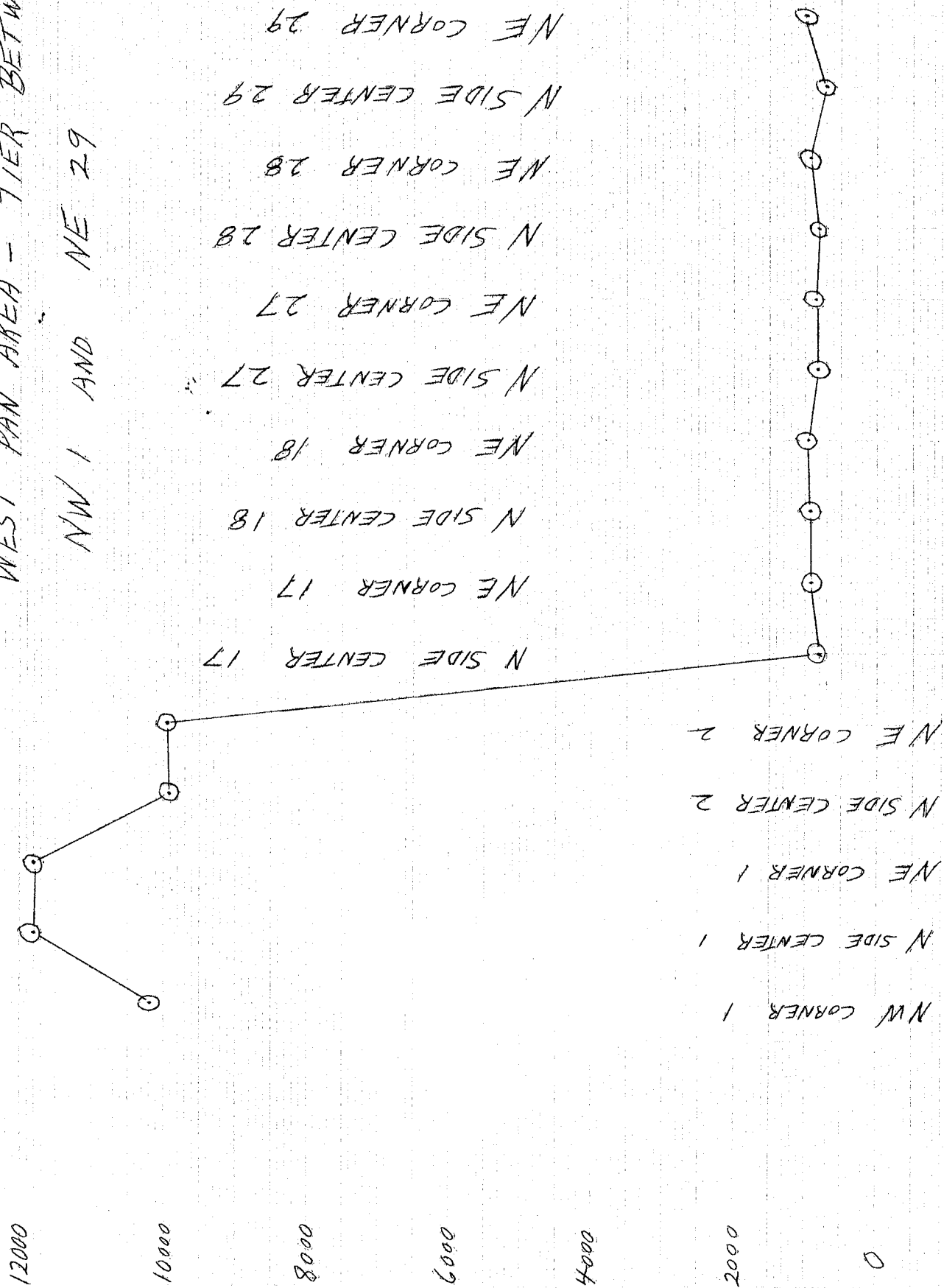
00008

00009

- NE CORNER 1
- NE CORNER 3
- NE CORNER 5
- NE CORNER 7
- NE CORNER 9
- NE CORNER 11
- NE CORNER 13

WEST PAN AREA - TIER BETWEEN

NW 1 AND NE 29



STANDARD FORM 135 JULY 1961 EDITION GENERAL SERVICES ADMIN. 3-IV-302.00		<b>RECORDS TRANSMITTAL AND RECEIPT</b>		<b>TO BE COMPLETED AT FEDERAL RECORDS CENTER</b>			
				ACCESSION NO. <i>65-A-628</i>		RECORD GROUP NO. <i>57</i>	
<b>INSTRUCTIONS</b> Send original and two copies to appropriate Federal Records Center. <b>EXCEPTION</b> —Send original and three copies to the Alexandria, Virginia, Center		SIGNATURE <i>H. E. Wright</i>		DATE RECORDS RECEIVED <i>2/15/65</i>			
		TITLE <i>HARVEY E. WRIGHT, Assistant Chief</i> <b>Accession &amp; Disposal Branch</b>					
FROM: (Name and address of Agency transferring records) <b>U.S. Geological Survey</b> <b>345 Middlefield Road</b> <b>Menlo Park, California</b>				TO: <b>Federal Records Center, GSA</b>			
1. CITE SECURITY CLASSIFICATION AND/OR RESTRICTION ON USE OF RECORDS, IF ANY <b>Use restricted to those authorized by the U. S. Geological Survey.</b>							
2. SQUARE FEET OF SPACE CLEARED <b>NA</b>		3. <b>NA</b>		FILING EQUIPMENT EMPTIED		4. CUBIC FEET OF RECORDS TRANSFERRED <i>47 44</i>	
A. OFFICE		B. STORAGE		A. FILE CABINETS (No.)		B. TRANS. FILES (No.)	
				C. SHELVING (Lin. Ft.)			
5. NAME OF AGENCY CUSTODIAN OF RECORDS <b>Frank J. Kleinhamper</b>				6. BUILDING AND ROOM NO. <b>Building II, Room 2021</b>		7. TELEPHONE NO. <b>325-6761 Ext. 295</b>	
8. MAY THE RECORDS BE DESTROYED AS SCHEDULED WITHOUT FURTHER AGENCY CONCURRENCE? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO							
9. AGENCY OFFICIAL (Signature) <b>Avery W. Rogers</b>				10. TITLE <b>Management Officer</b>		11. DATE <b>February 15, 1965</b>	
12. <b>68</b> BOX NUMBERS <b>FRC ONLY</b>		13. DESCRIPTION OF RECORDS WITH INCLUSIVE DATES (Show organizational component creating records)		14. DISPOSAL AUTHORITY (Schedule and Item No.)			
		<b>Drill core and cuttings from Nye County, Nevada (Railroad Valley)</b>					
<div style="font-size: 2em; transform: rotate(-90deg); position: absolute; left: -100px; top: 50%;">           BOXES            1-29 on            pallet #77         </div> <div style="font-size: 2em; transform: rotate(-90deg); position: absolute; left: -100px; top: 75%;">           BOXES            30-68 on            pallet #73         </div>		30 <b>W. Pan #1</b> 10'-160' ) Miscell. core run for remanent magnetism) 10       160'-164'					
		31 <b>Pan. #2</b> 10'-101'					
		Pan. D-14 22       70'-320' 23       330'-590' 24       600'-830' 25       840'-1070' 26       1080'-1310' 27       1320'-1550' 28       1560'-1790' 29       1800'-1920' bottom(?) 11       871'-875'? [1925-1929]					
		Pan. #18 28       86'-91' 29       10'-86'					
		<b>Rev. #1 [Railroad Valley, Nye County]</b> 64       110'-300' 63       310'-530' 62       540'-800' 61       810'-1040' 16       981'-998' 60       1050'-1280'					



# RECORDS SHELF LIST

PAGE 2 OF 3 PAGES

FROM (Name and address of agency)

U.S. Geological Survey  
345 Middlefield Road  
Menlo Park, California

RECORD GROUP NO.

FRC ACCESSION NO.

AGENCY WHICH CREATED RECORDS

U.S. Geological Survey

TOTAL NUMBER OF CONTAINERS

68

DATE PREPARED

February 15, 1965

AGENCY CONTAINER NO.	FRC CONTAINER NO.	Rev. #1 (continued)	DESCRIPTION AND DATE
17		1290'-1295'	
66		1290'-1400'	
65		1410'-1640'	
21		1650'-1890'	
18		1705'-1714'	
20		1900'-2000'	
19		2000'-2005'	
59	Boxes 1-29 on pallet #72	Rev. #2 [Railroad Valley and Reveille Range, Nye Co., Nev.]	
58		110'-270'	
		280'-530'	
1		180'-183')	
3		430'-433')	
2		633'-643'	
57		670'-675'	
56		540'-770'	
4		780'-1,000'	
55		1000'-1004'	
		--- -1005' [bottom(?)]	
51	Boxes 30-68 on pallet #73	Rev. #3 [Reveille Range and Railroad Valley]	
52		50'-290'	
32		300'-530'	
33		711'-716'	
34		717'-721'	
35		721'-731'	
36		731'-737'	
37		736'-741'	
38		741'-744.5'	
39		747'-753'	
39A		753'-763'	
40		767' (bottom)	
41		767'-773'	
42		773'-780'	
43		780'-784'	
44		784'-789'	
45		789'-799.5'	
46		799'-813'	
47		813'-827'	
48		827'-838'	
49		838'-847'	
50		847'-856'	
		856'-862'	

## RECORDS SHELF LIST

PAGE 3 OF 3 PAGES

FROM (Name and address of agency)

U.S. Geological Survey  
345 Middlefield Road  
Menlo Park, California

RECORD GROUP NO.

FRC ACCESSION NO.

AGENCY WHICH CREATED RECORDS

U.S. Geological Survey

TOTAL NUMBER OF CONTAINERS

68

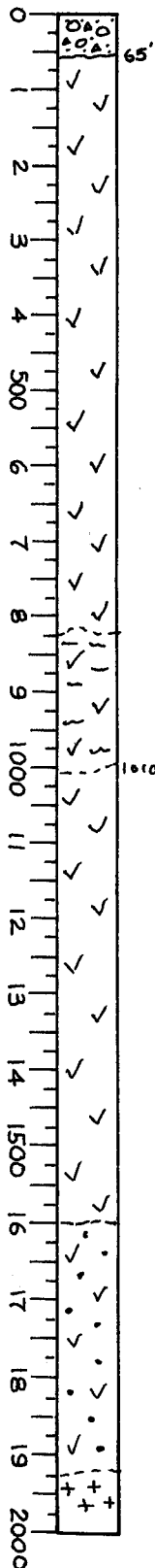
DATE PREPARED

February 15, 1965

AGENCY CONTAINER NO.	FRC CONTAINER NO.	DESCRIPTION AND DATE
31	Boxes 1-29 on pallet #72	Rev. #4 [Railroad Valley and Reveille Range, Nye Co., Nev.]
20		540'-660'
15		540'-660'
5		670'-910'
6		730'-736'
53		767'-770'
54		50'-280'
		290'-530'
67	Boxes 30-68 on pallet #73	Rev. #5
68		40'-370'
12		130'-500'
13		510'-750'
		760'-990'
7	Boxes 30-68 on pallet #73	Rev. #6
8		60'-240'
9		300'-530'
		540'-740'
14		Rev. #7
		50'-280'

DRILL HOLE PAN D-14 STARTED \_\_\_\_\_  
 LOCATION \_\_\_\_\_ FINISHED \_\_\_\_\_  
 LENGTH \_\_\_\_\_

FROM	TO	MAG K	DESCRIPTION
0	65		Colluvium
	150	.0013	
	250	.0013	
	350	.0013	
	450	.0018	
	550	.0026	
	700	.0013	
	800	.0020	
65	850		Pink rhyodacite crystal tuff.
	900	.0018	feldspar & quartz phenocrysts. Biotite
	950	.0014	with magnetite; amphiboles, altered.
	1000	.0014	glassy groundmass with finely
	1050	.0017	disseminated magnetite altering to
	1100	.0015	hematite.
850	1010		Same rock, but altered.
	1200	.0013	Rhyodacite. plagioclase & biotite
	1250	.0011	in glassy matrix; some small grains
	1300	.0014	orthoclase. Occasional magnetite.
	1350	.0014	plagioclase superficially altered
	1400	.0014	to clay. Biotite in part altered
	1450	.0015	to limonite & chlorite. Pink cast
	1500	.0016	to rock due to hematite in
			glass.
1010	1600		Same rock as 65-850
1600	1925		Same rock with the addition of
			aquamarine-colored glass &
			increased amount of magnetite
	1750	.0029	
	1800	.0030	
	1850	.0031	
	1900	.0028	
1925	1929		CORED- Andesite porphyry





January 9, 1963

(251)  
Item 3

Mr. George L. Nicol  
11 Michaels Way  
Atherton, California

Re: West Pan Area

Dear Mr. Nicol:

Herewith is Mr. Paul Eimon's summary report on the West Pan area of alteration, accompanied by his reconnaissance geologic map. The report includes a sample location map on the same scale, showing the points at which 52 numbered specimens of different rock types were collected.

Also included in this report is the original aerial photograph flown for you by Aero Service on December 6th. This is the base on which the reconnaissance geology was mapped, and the photograph can be used for direct same-scale comparison with Mr. Eimon's report map. Two enlargements of this photo at approximately the same scale as your claim maps, 1 inch equals 600 feet, are now on file at your Bay Road office.

The objective of this investigation, as you know, was to determine the exploration possibilities of West Pan alteration. If geologic evidence justified a drill test, then we would determine further whether or not the area claimed in your name was adequate. I have examined all of the West Pan alteration, and the field evidence does not show any need for additional claims northerly at this time.

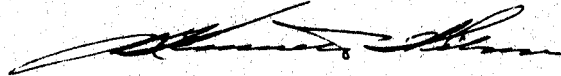
The altered area remains of interest on the possibility it may be related to structures in the Pan anomaly. In itself, however, within the West Pan claims, I find little encouragement in surface expression of mineralization in the altered rocks. Evidence of leaching through boxwork and remnant oxides is rare, and limited in extent. Oxides of copper are not present at surface. To the east of the intense alteration (in the covered area of the easternmost claims of this West Pan group) there are sparse outcrops of dolomite and a monzonitic (?) igneous rock which show no alteration. An attractive exploration target on this evidence alone does not appear to exist on West Pan.

I believe that further expenditure for geologic study in the field is not necessary at this time. If geophysical work suggests a particular area of interest, then a more detailed study of that area would be warranted. Meanwhile, I would concentrate on the test of the Pan anomaly itself and would set aside the West Pan for the time being. If drilling indicates that



a long-term exploration is warranted in the Pan claims, and claims are therefore worth validation, then I would consider that the West Pan warranted validation also.

Very truly yours,

A handwritten signature in dark ink, appearing to read 'L. Kenneth Wilson', written in a cursive style.

L. Kenneth Wilson

lkw-ib  
enc. Report

West Pan Area - Nye County, Nevada

Report for Mr. George L. Nicol

by

Paul Eimon

January 9, 1963

## West Pan Area - Nye County, Nevada

The following is a report on field reconnaissance investigations of the West Pan Area, Nye County, Nevada, during the period January 1-6, 1963, and earlier in November 1962. This investigation was done for George L. Nicol to evaluate the general alteration, the exposed mineralization in outcrops, and commercial exploration potential of this particular area.

The area investigated included all of the "West Pan" Group of claims plus a surrounding one to two mile wide border area. Attached to this report is a general reconnaissance geologic map, an overlay showing location of samples taken, and some terrestrial photographs. Marked samples with a sheet showing field designations are delivered with this report.

The limited amount of time available for this investigation prevented detailed field mapping. Therefore, the accompanying maps should be used for general evaluation only.

### General Geology

Large massive limestones dipping eastward occur immediately north of the West Pan claims. To the east the alluvium of Railroad Valley covers outcrop. To the south a basalt flow covers the area along Highway 6 and an altered volcanic complex further south of Highway 6. To the west is a smaller valley marked by many recent volcanic flows, cones, and craters.

The specific area of the West Pan claims is a complex of volcanics, some intrusives, and limestones. Evidently, intrusive igneous activity has occurred at depth, doming the area with following collapse of certain rock masses. Thrusting and slumping after intrusion is suggested. The almost-white



rhyolites must have been related to the intrusive igneous activity as they often show intrusive relationships with overlying rocks. Recent talus covers part of the outcrops.

A late stage of silicification has produced silicified ribs in the altered rhyolites - these ribs show spotty iron staining along fracturing. The limestone areas show brecciated areas and confined gossans at or near contacts with igneous formations and volcanics.

✓ Detailed field mapping and petrographic study would be necessary to develop the relationships between the many different formations.

### Conclusions

1. The central area of the West Pan group of claims overlies a center of igneous intrusive action. This has altered areas of volcanics, introduced secondary silica and some mineralization. Two intrusive igneous outcrops areas are shown - a more acidic type in the east end, and a more basic type on the west end.
2. The most significant faulting appears to be a NS fault near the west end of the claims. Prospecting and reported silver production is most intense where this fault intersects some minor E W faulting in the southwest corner of west Pan claims.
3. Northeast -trending structure is conspicuous and shows up most specifically as silicified ribs in the altered rhyolite areas.
4. Mineralization occurs along contacts, in breccia bodies, fractures, and associated with alteration, but nowhere do outcrop areas show significant mining exploration targets.

The alteration and minor gossan areas of the West Pan area are typical of much of the Basin and Range Province. I would not recommend any drilling on the basis of the exposed geology in the West Pan area, unless a specific target results from geophysical work. This recommendation is based on these points:

- A. The limestones near the intrusive activity do not show heavy alteration or significant large gossan areas.
- B. The intrusive rocks I was able to observe are not of the acid igneous type nature most commonly associated with ore deposits.
- C. Little vein mineralization commonly associated with mining districts is evident.
- D. There is a lack of observable transgressive structural features, or intersections, that could have served as ore channels.
- E. The typical porphyry copper alteration halos and fracture patterns are missing in the outcrop area. The most intense alteration occurs in the whitish rhyolites and much of this alteration may have occurred simultaneously with the deposition of the rock itself.

Respectfully submitted,

---

Paul Eimon

January 9, 1963.

Representative Samples of West Pan Area, Nye County, Nevada

Collected by Paul Eimon, January 1-6, 1963.

Location of samples is shown on the maps accompanying this report.

<u>Sample No.</u>	<u>Comments</u>
1	Andesite ? Lineation dipping to East. Could be intrusive. Strong biotite.
2.	Altered rhyolite. Questionable outcrop. Note glassy quartz.
3.	Typical dolomitized limestone
4.	Limestone breccia
5.	Altered silicified volcanics
6.	Mineralization near contact of #5 and #3. Note hematite and heavy silica. Mineralized breccia.
7.	Limestone breccia, silicified
8.	Limestone, dolomitized
9.	Altered pyroclastics
10.	Silicified zone, note fresh quartz
11.	Limonite in silicified zone
12. and 13.	Altered rhyolite
14.	Volcanics - welded tuff?
15.	Recent basalt flow
17.	Altered volcanics
18.	Altered pyroclastics
19.	Altered volcanics
20.	Altered silicified volcanics (Forms large resistant masses)
21.	Hard silicified breccia or agglomerate
22.	Altered zone between limestone and silicified breccia



Sample No.Comments

- |     |   |
|-----|---|
| 22A | Mineralization at contact   |
| 23. | Mineralized contact zone. Foliated bluish cast, hematitic                               |
| 24. | Altered volcanics (pyroclastics?)   |
| 25. | Silicified limestone breccia iron stained with slight gossan                            |
| 26. | Silicified limestone breccia  |
| 27. | Massive altered intrusive (?)   |
| 28. | Limestone breccia   |
| 29. | Strong hematite mineralization. (Mineralized breccia)                                   |
| 30. | Volcanics showing iron staining and hematite float from same area.                      |
| 31. | Altered rhyolite (surrounded by sample #30)   |
| 32. | Sandstone block in pyroclastics.  |
| 33. | Altered mineralized volcanics   |
| 34. | White tuffaceous rhyolite altered   |
| 35. | Gossan from adit. Mineralization along N-S fracturing in limestone.                     |
| 39. | Altered rhyolite  |
| 40. | Limestone - brecciated  |
| 41. | Diorite (?) Intrusive into altered volcanics.   |
| 42. | Contact mineralization in limestone near #41.   |
| 43. | Volcanics - andesite (?)  |
| 44. | Welded tuff   |
| 45. | Welded tuff   |
| 47. | Contact alteration around small porphyry intrusive                                      |
| 48. | Mineralized breccia area showing heavy hematite. Size limited to 30'x60' in limestones. |
| 49. | Intrusive outcrop in dry creek bed. East end of W. P. area. Monzonite (?)               |

Sample No.Comments

50

Remnant "limonite" (iron oxides) in brecciated limestone. Live tone not accompanied by visible carbonates. LKW.

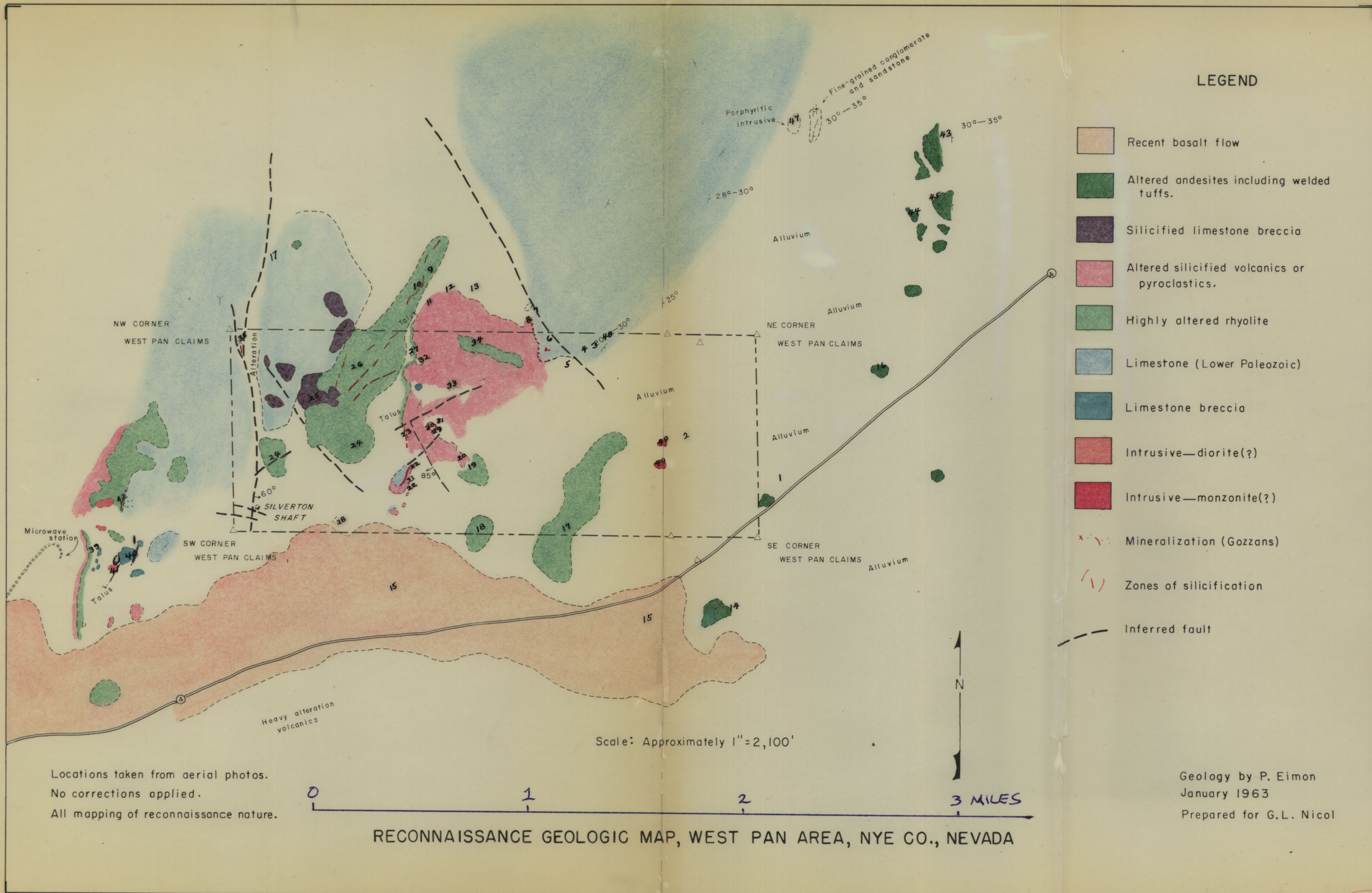
51

Rare boxwork in lime breccia. Shows leached material non-mineral. LKW.

52

Alteration accompanying silver mineralization, Silverton Shaft. LKW.

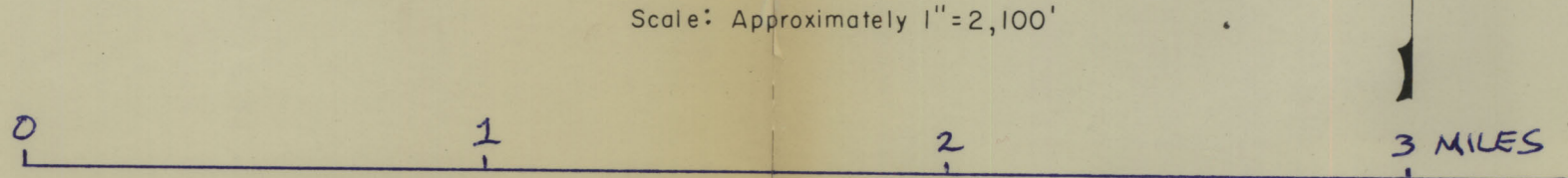




LEGEND

- Recent basalt flow
- Altered andesites including welded tuffs.
- Silicified limestone breccia
- Altered silicified volcanics or pyroclastics.
- Highly altered rhyolite
- Limestone (Lower Paleozoic)
- Limestone breccia
- Intrusive—diorite(?)
- Intrusive—monzonite(?)
- Mineralization (Gozzans)
- Zones of silicification
- Inferred fault

Locations taken from aerial photos.  
No corrections applied.  
All mapping of reconnaissance nature.

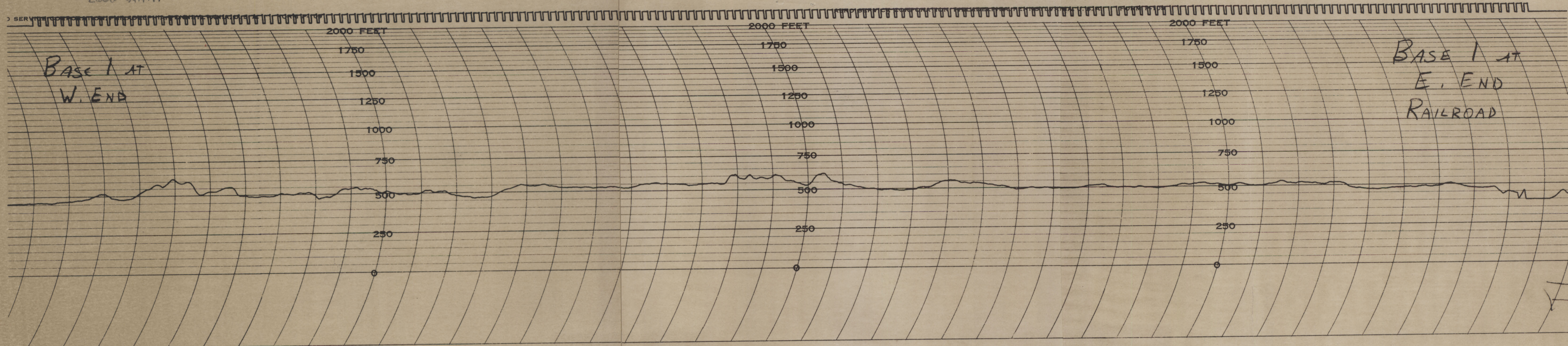


RECONNAISSANCE GEOLOGIC MAP, WEST PAN AREA, NYE CO., NEVADA

Geology by P. Eimon  
January 1963  
Prepared for G.L. Nicol



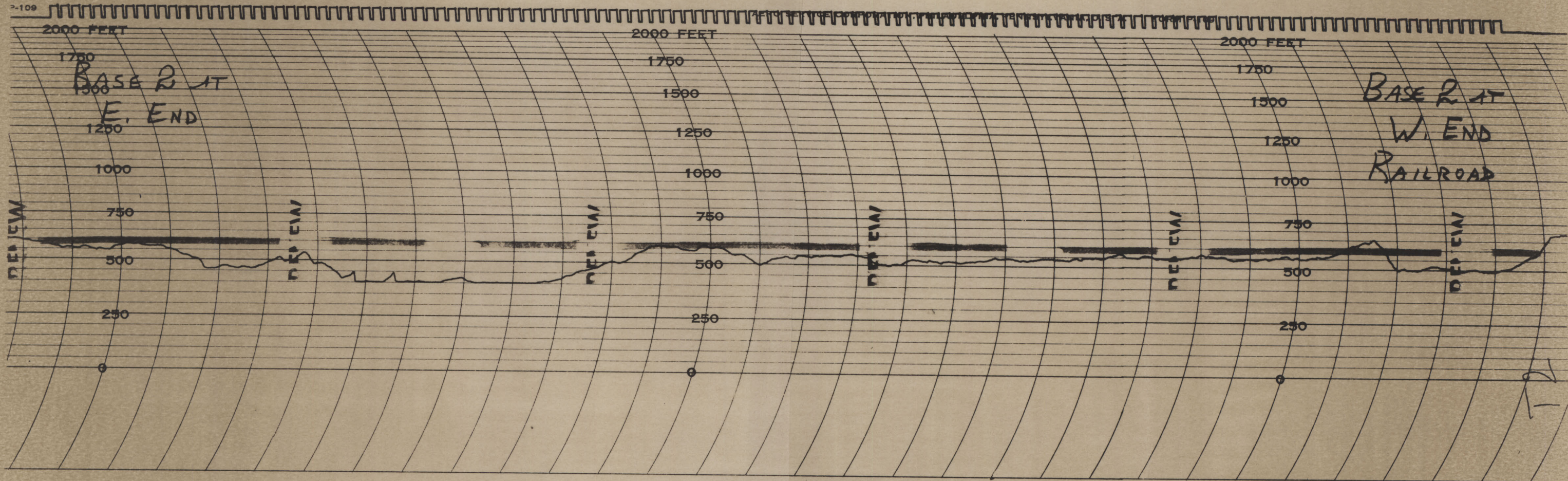
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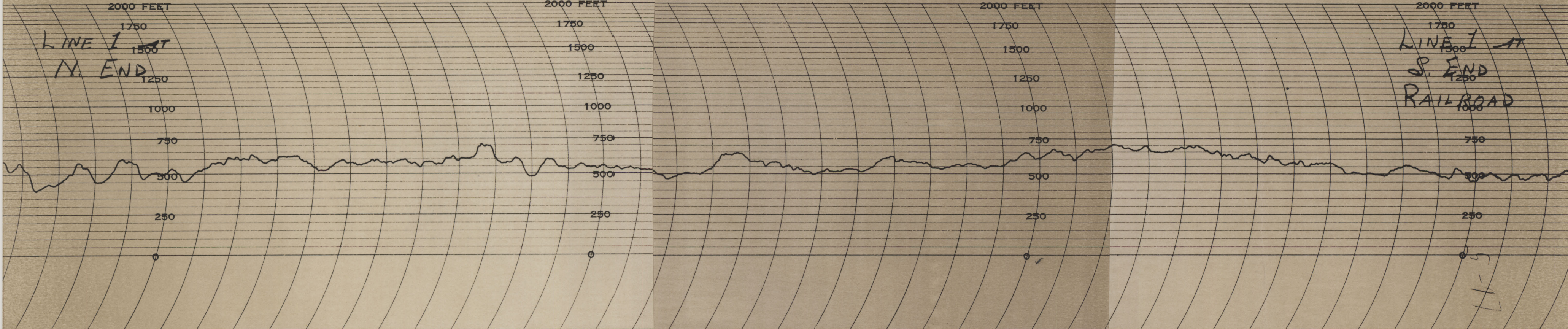
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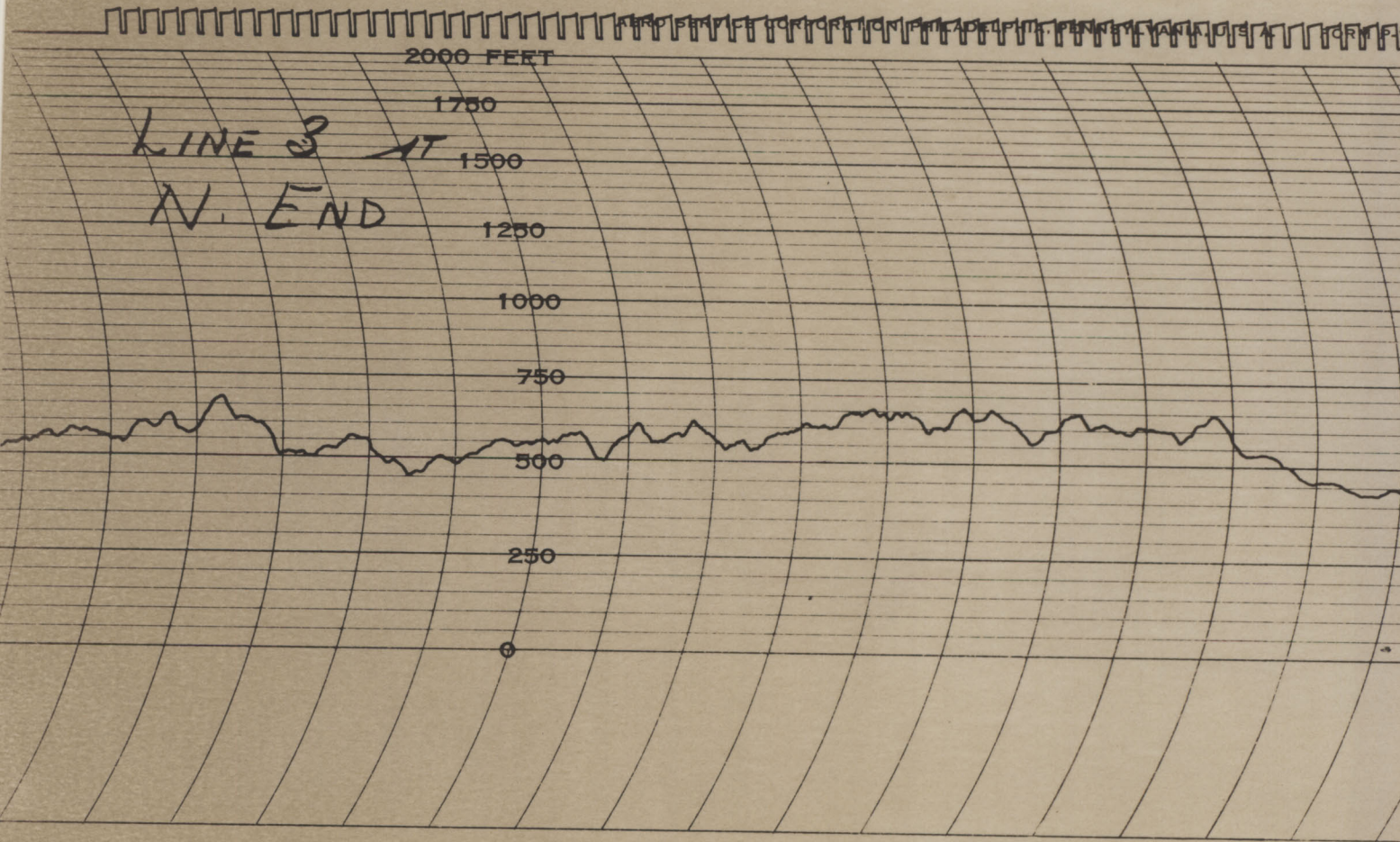


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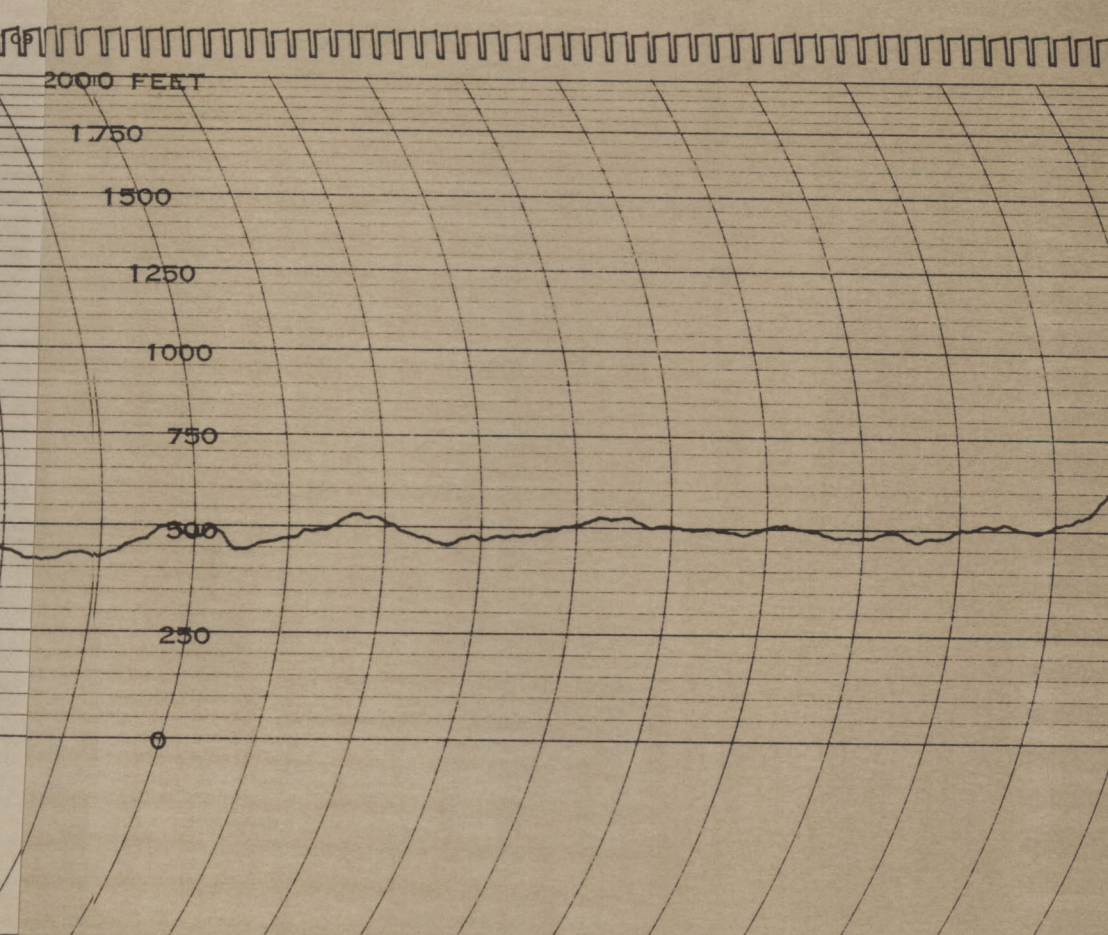
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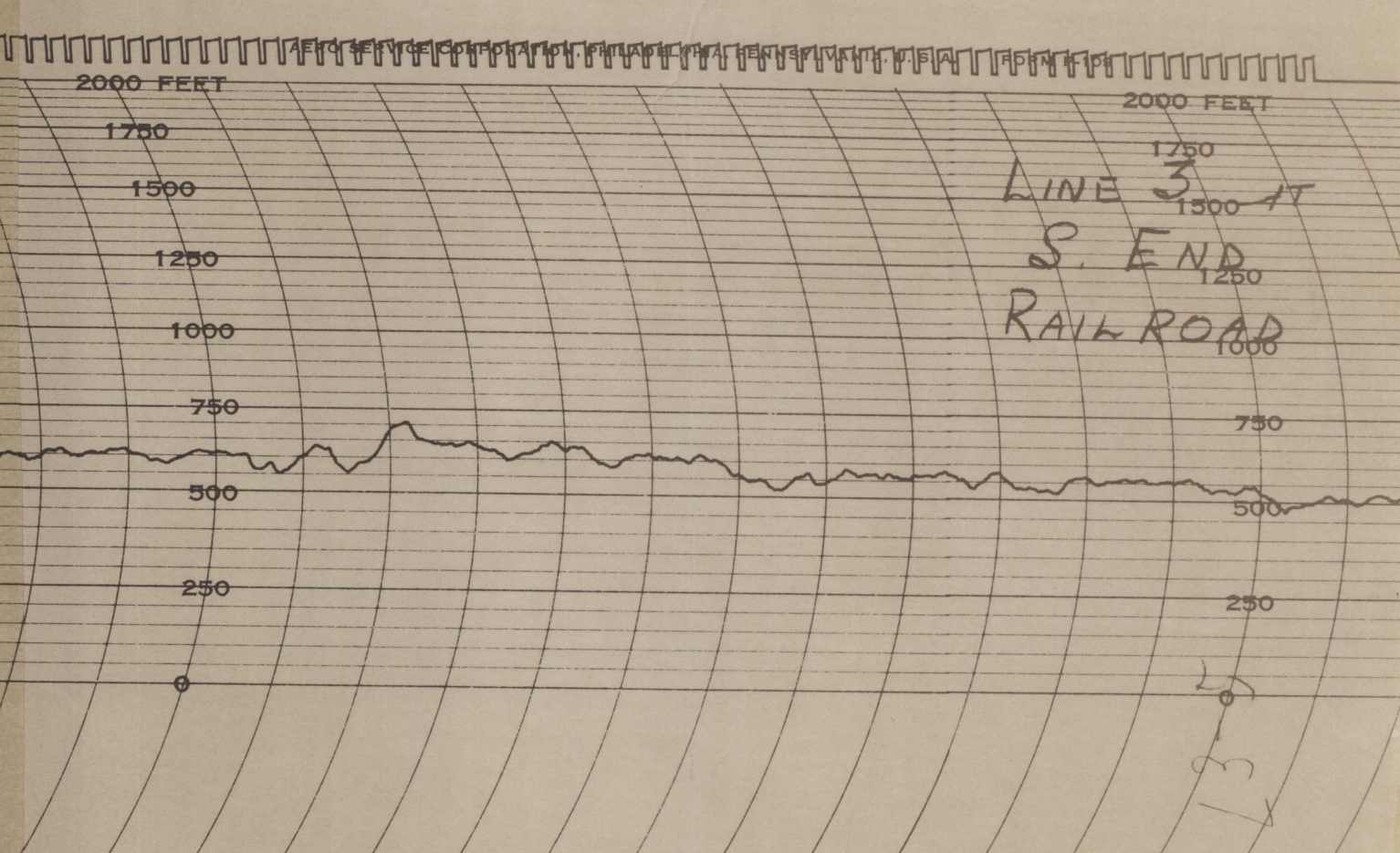


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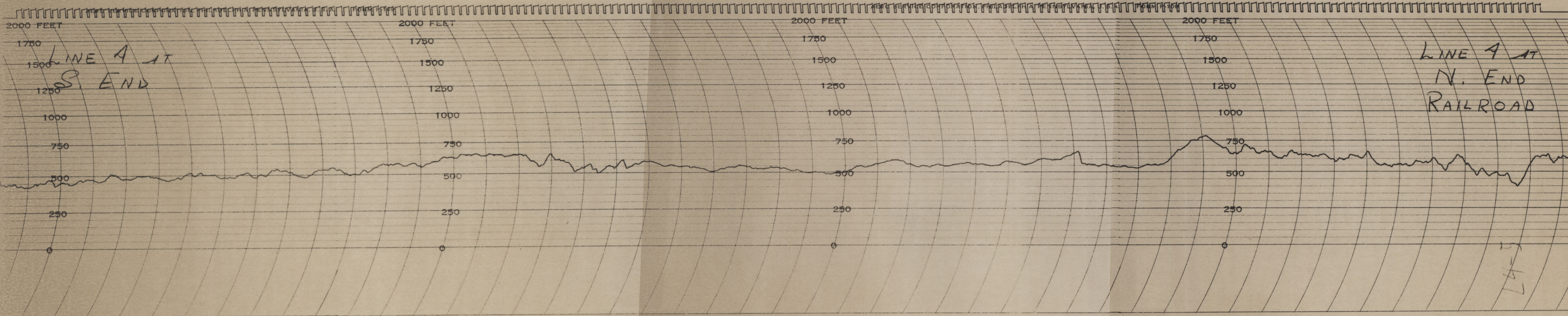


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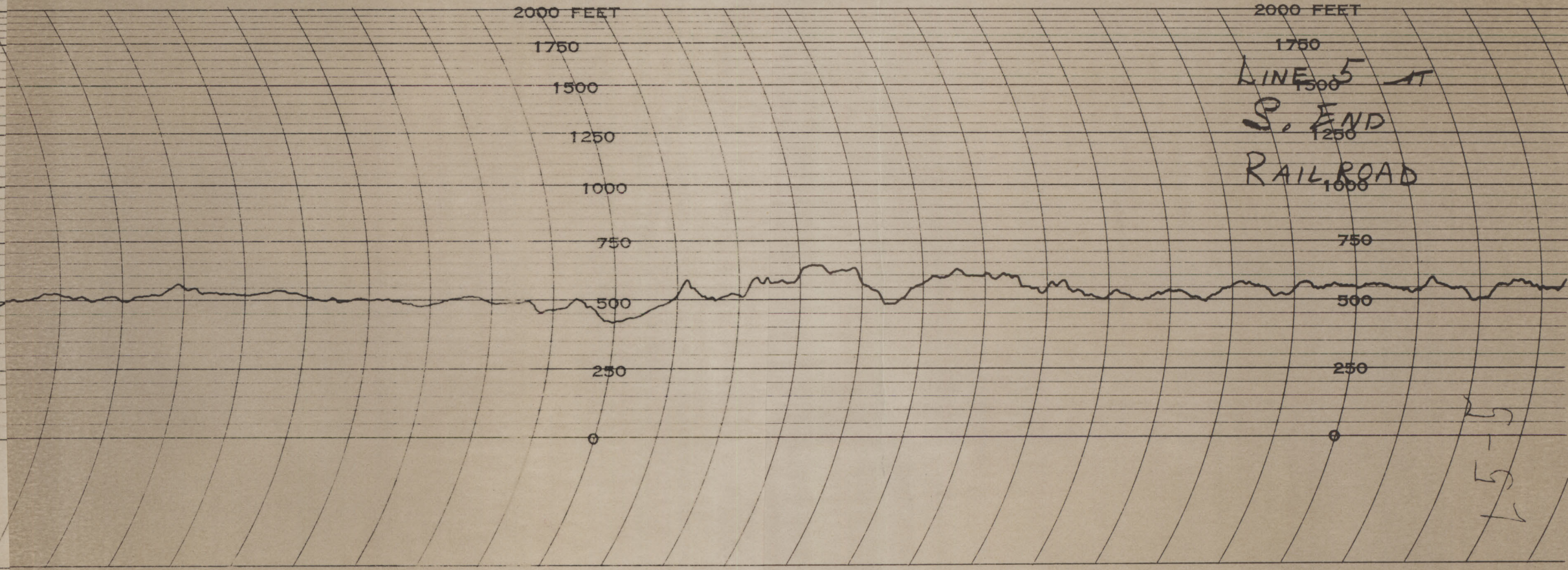
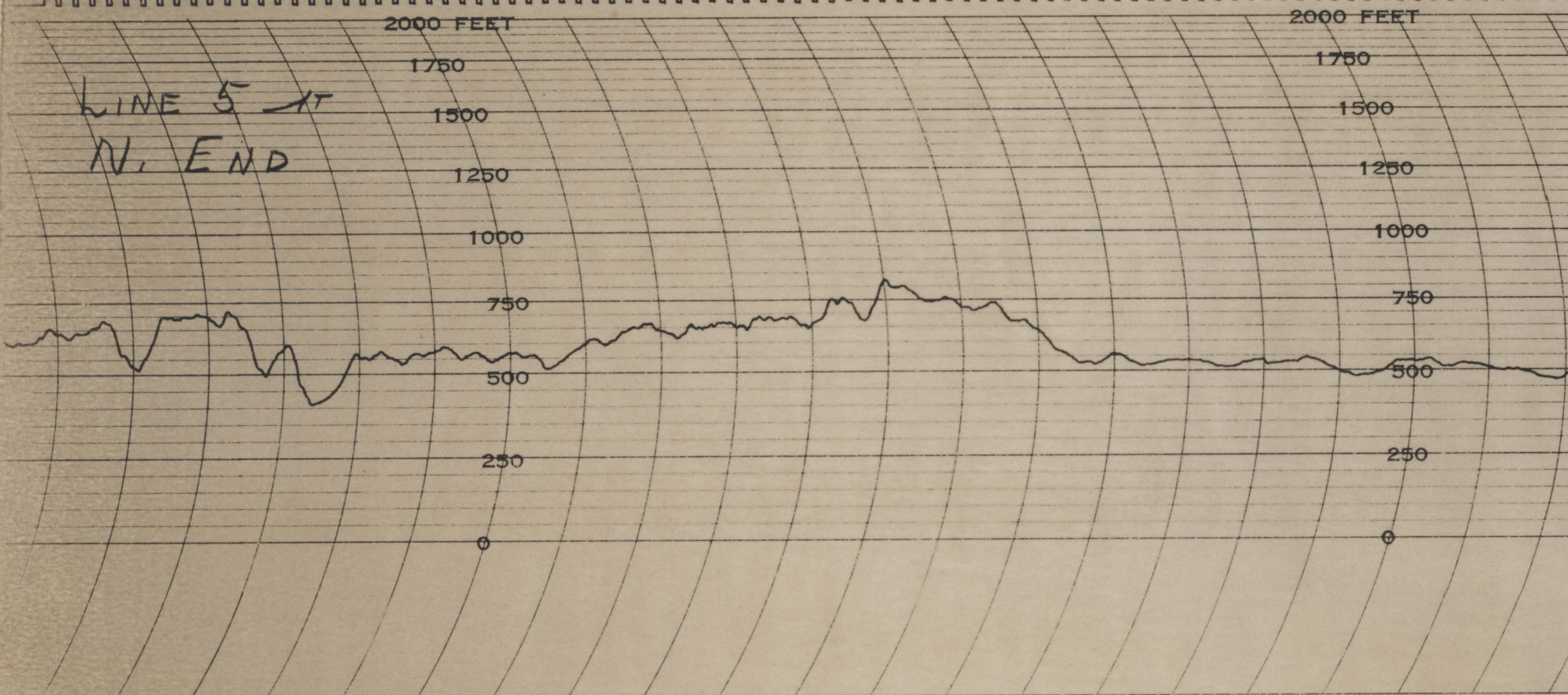
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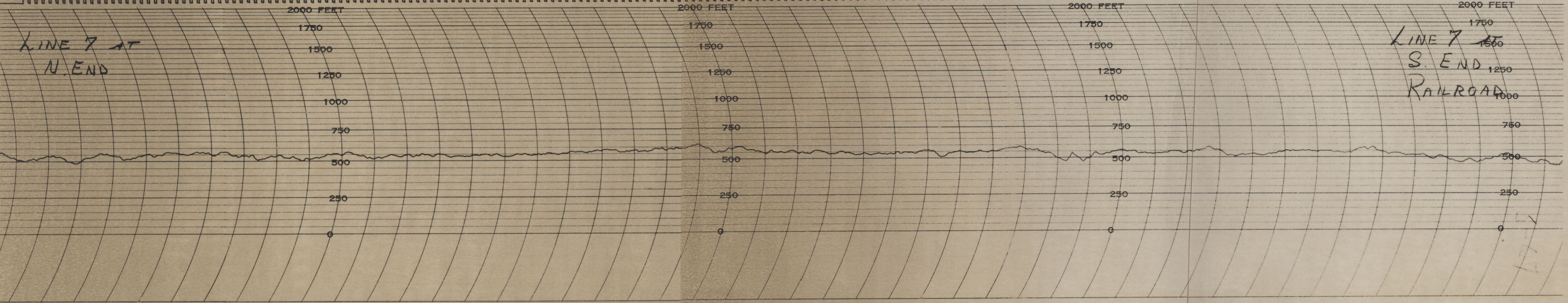
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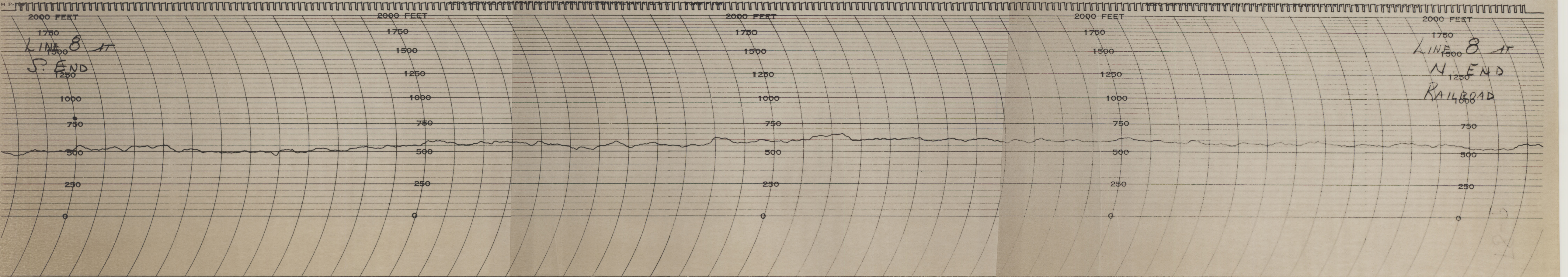
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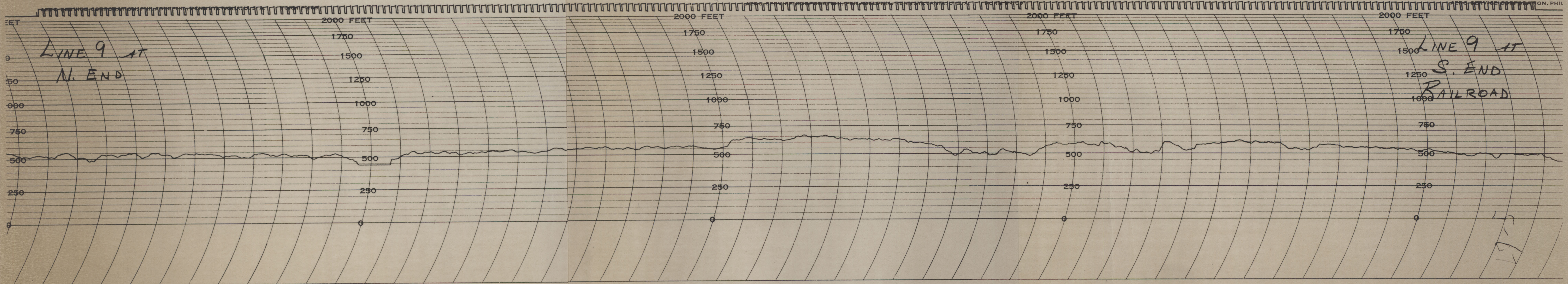




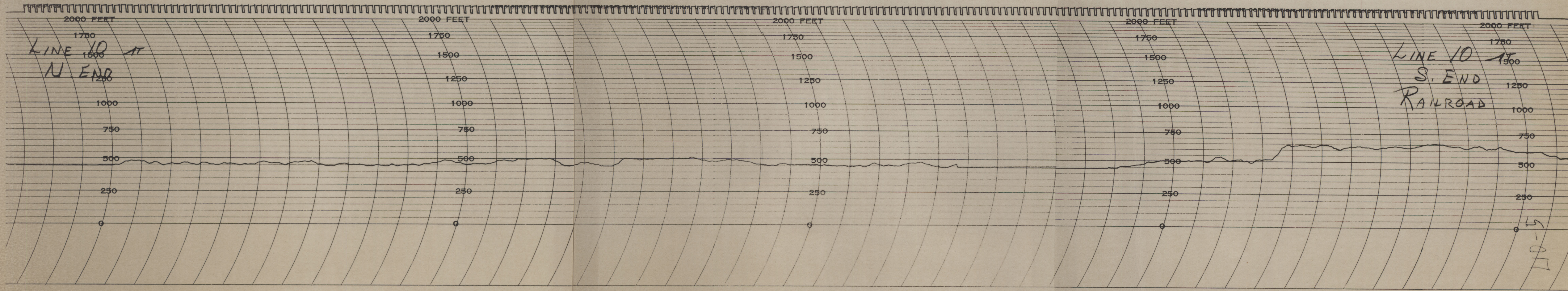




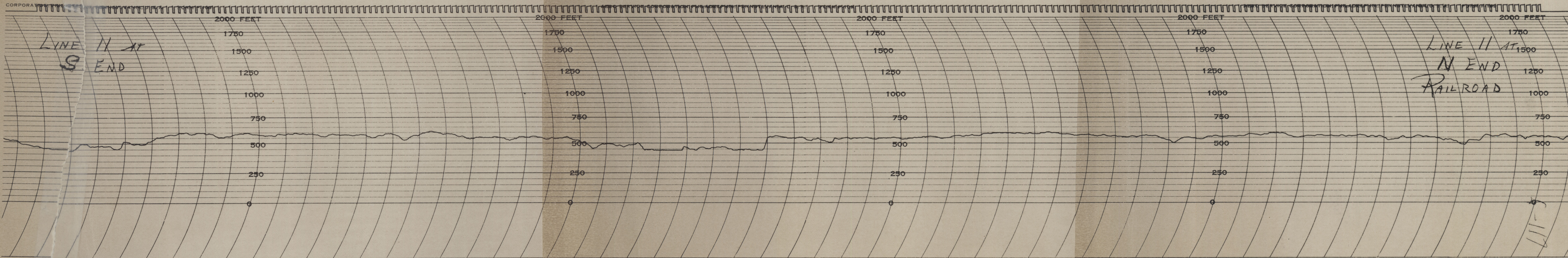




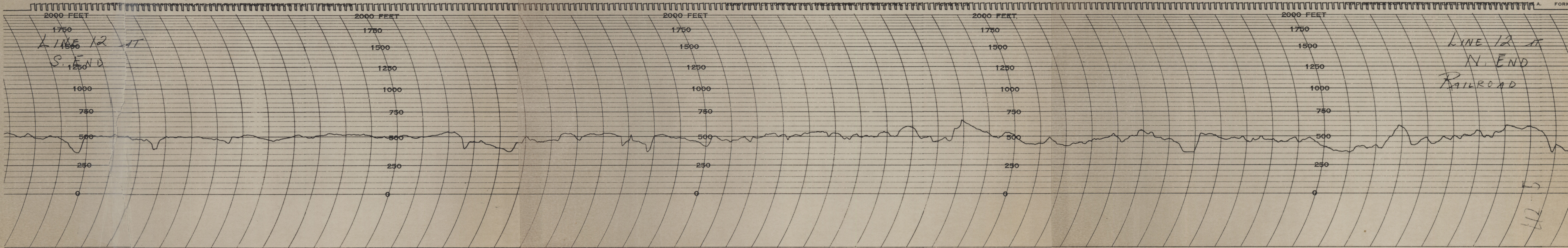




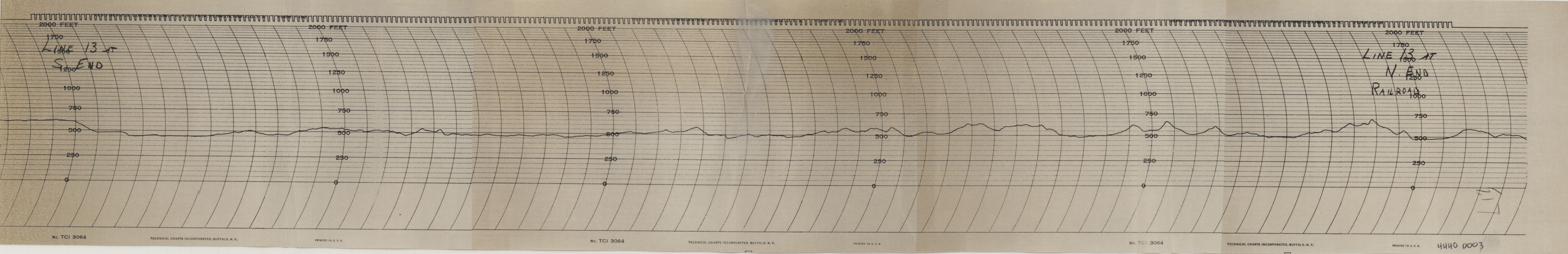




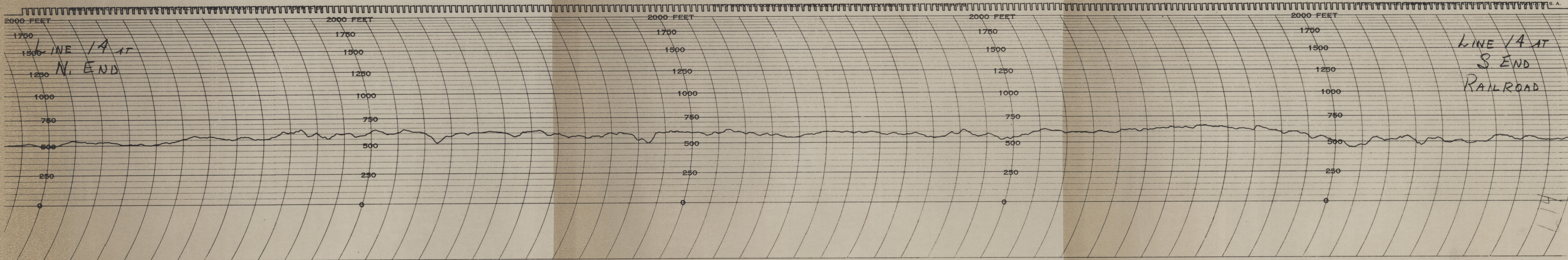














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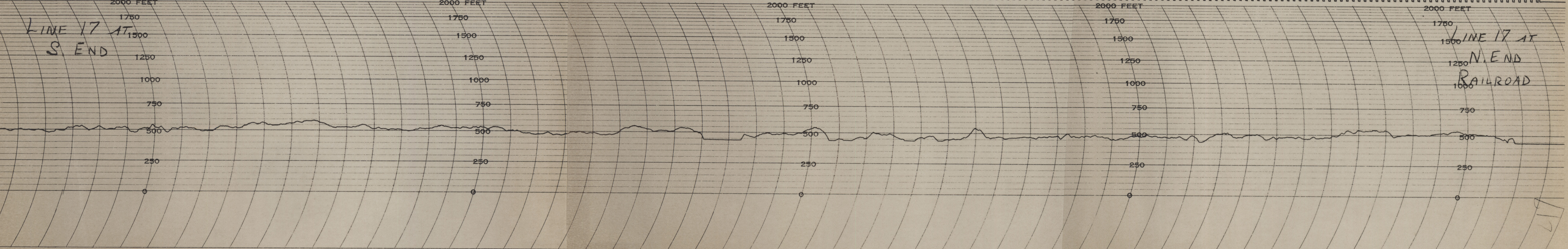
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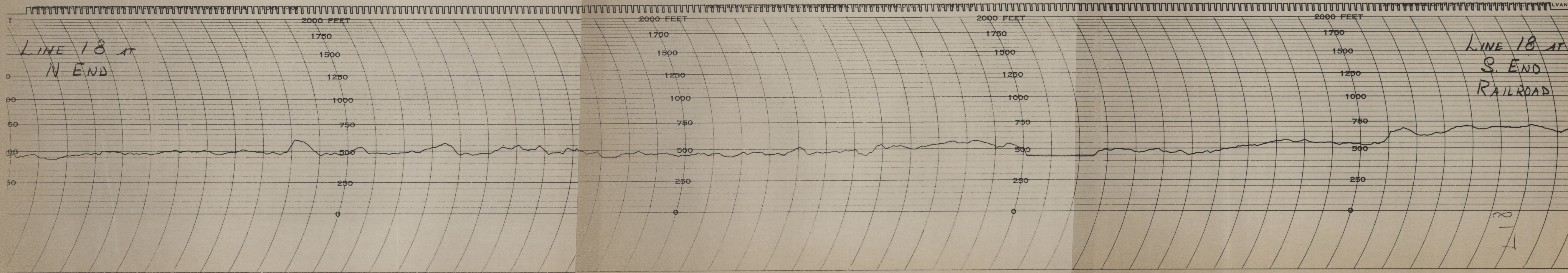
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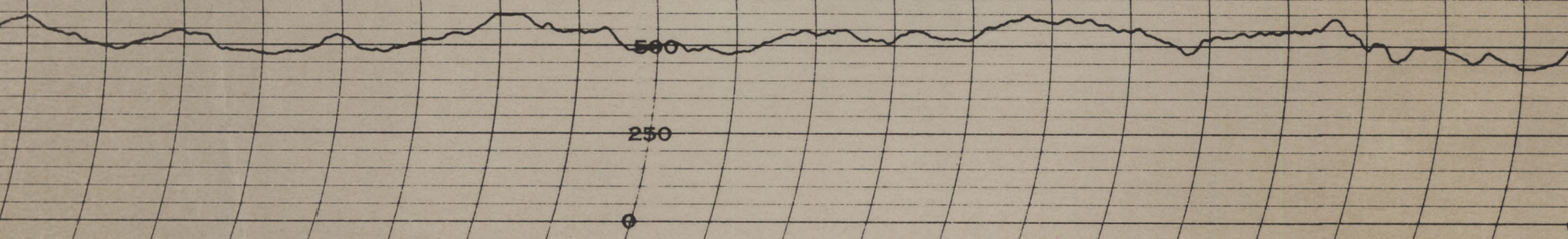








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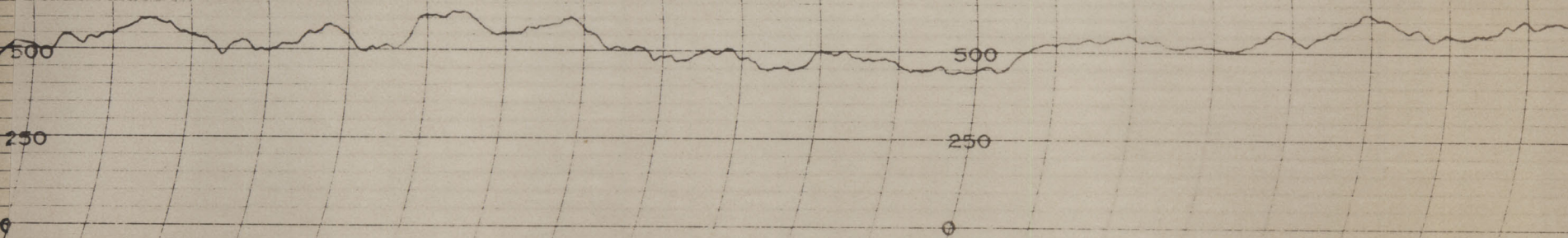


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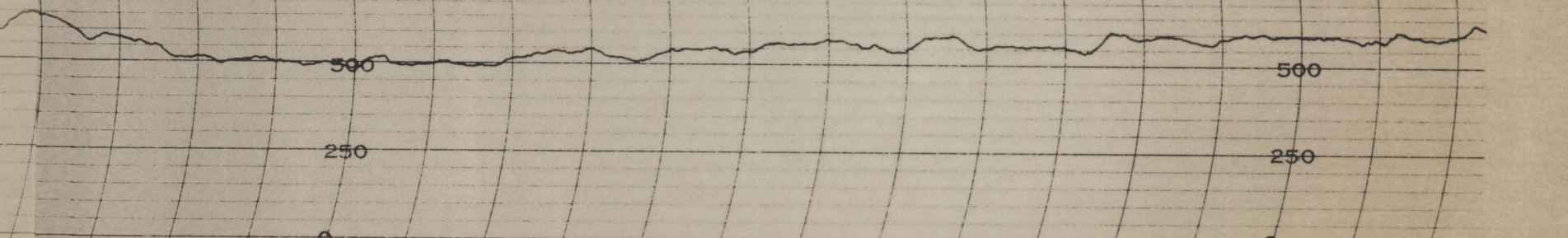


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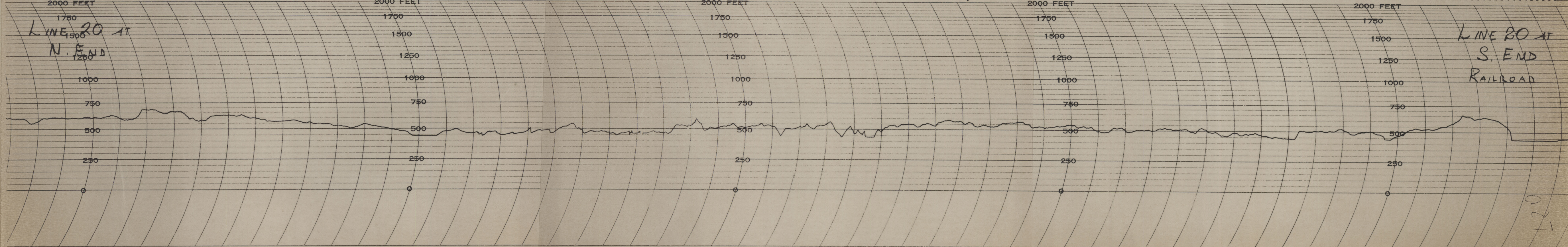
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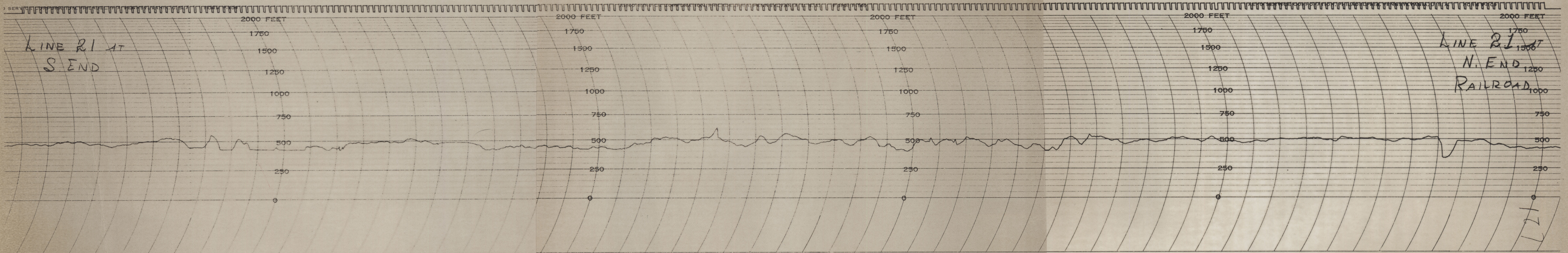
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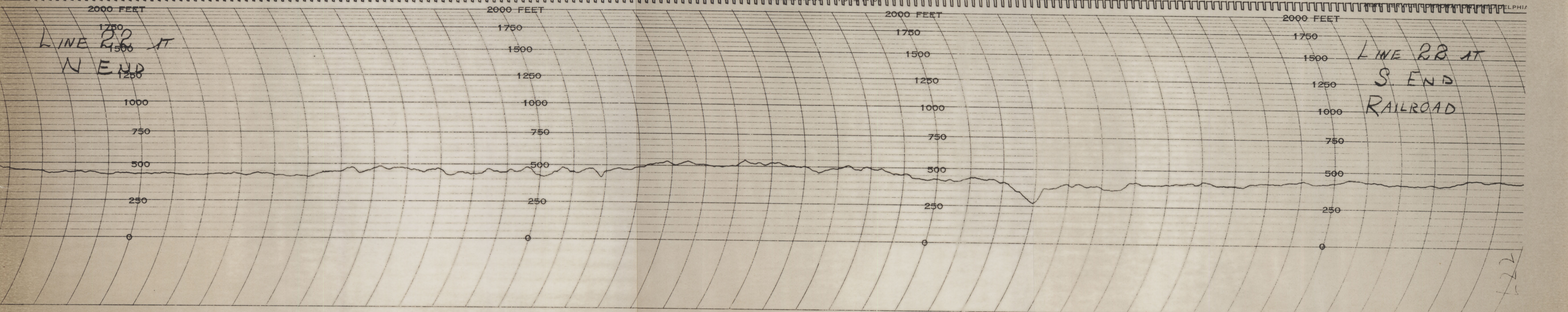


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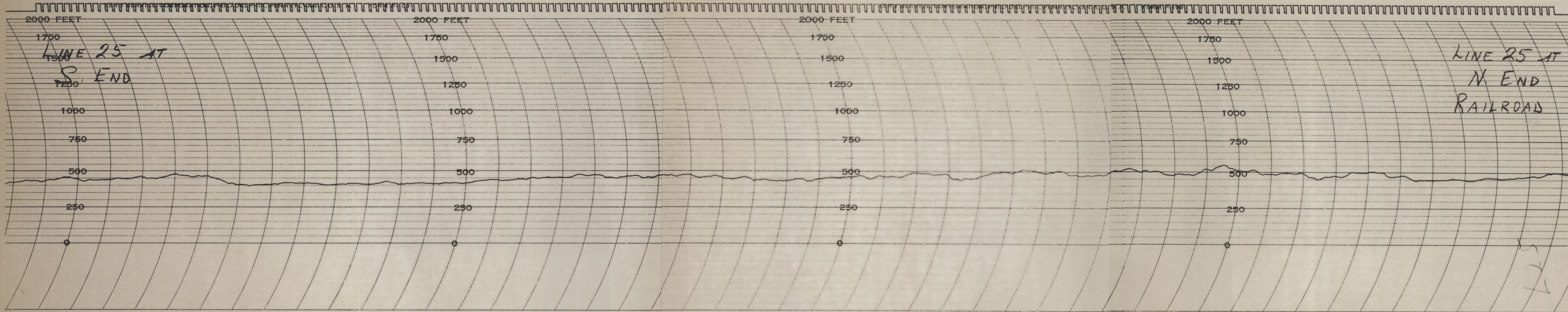
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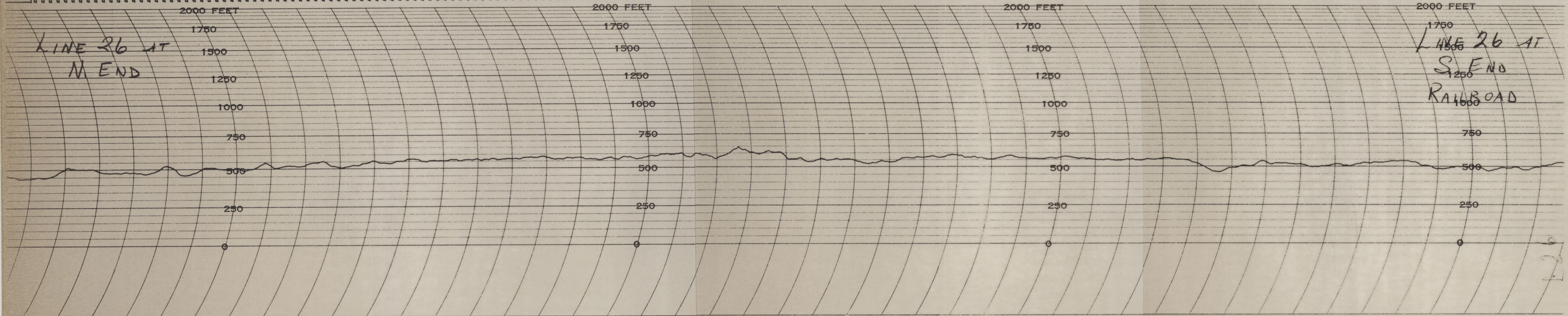
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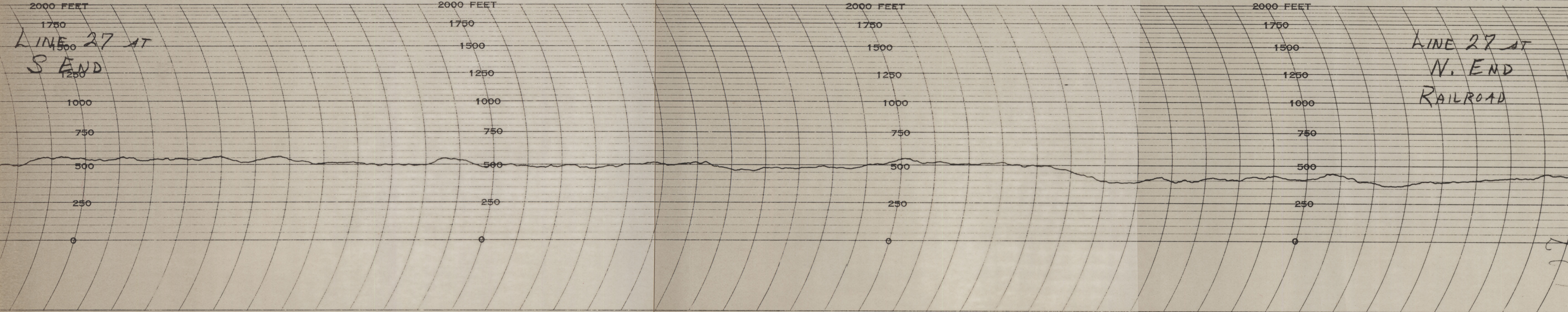
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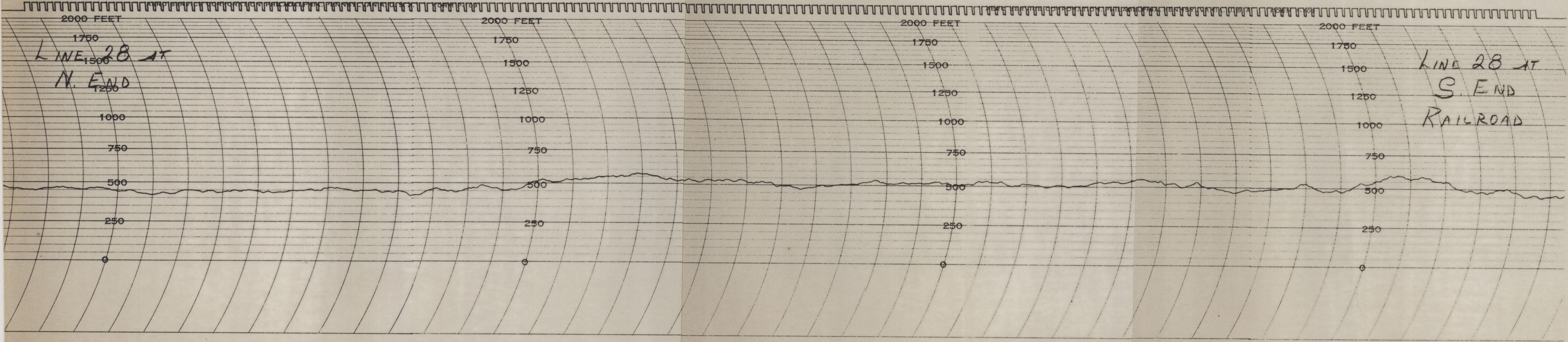


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RAILROAD

No. TCI 3064

TECHNICAL CHARTS INCORPORATED, BUFFALO, N. Y.

PRINTED IN U. S. A.

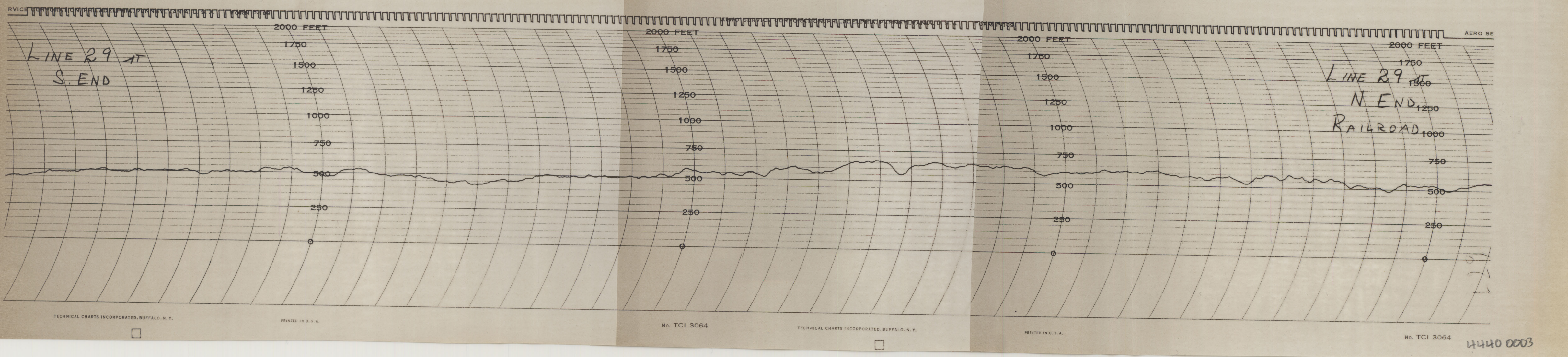
No. TCI 3064

TECHNICAL CHARTS INCORPORATED, BUFFALO, N. Y.

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4440 0003







LINE 30 AT  
N END

2000 FEET

1750

1500

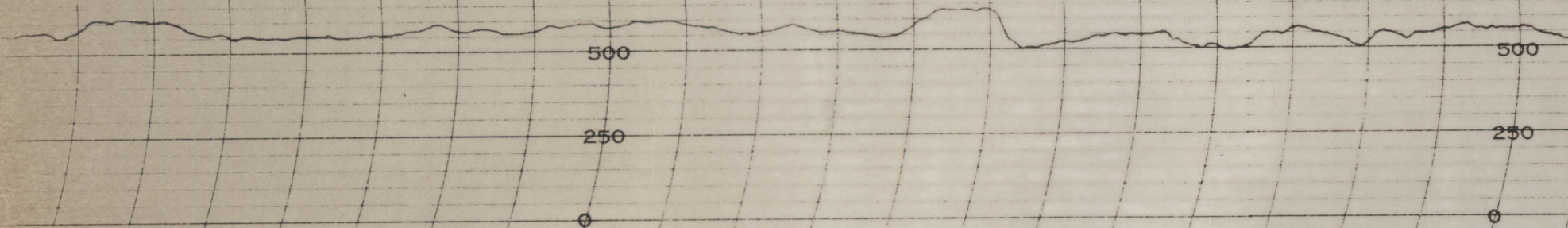
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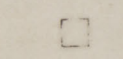
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No. TCI 3064

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LINE 30 AT  
S. END  
RAILROAD

2000 FEET

1750

1500

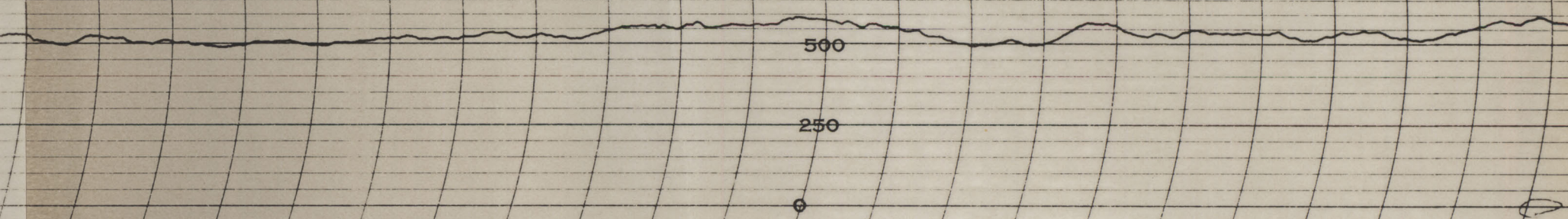
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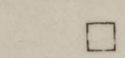
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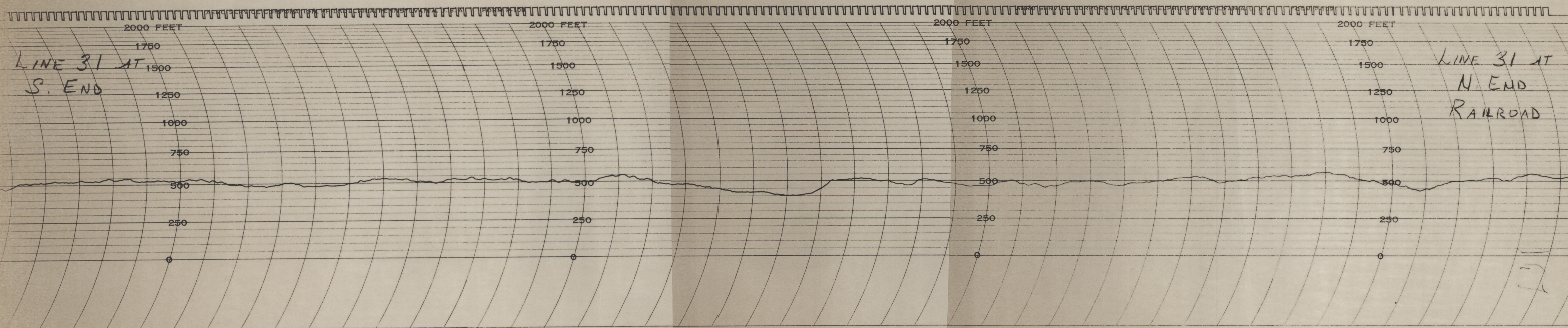
TECHNICAL CHARTS INCORPORATED, BUFFALO, N. Y.



4440 0003

130





No. TCI 3064

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No. TCI 3064

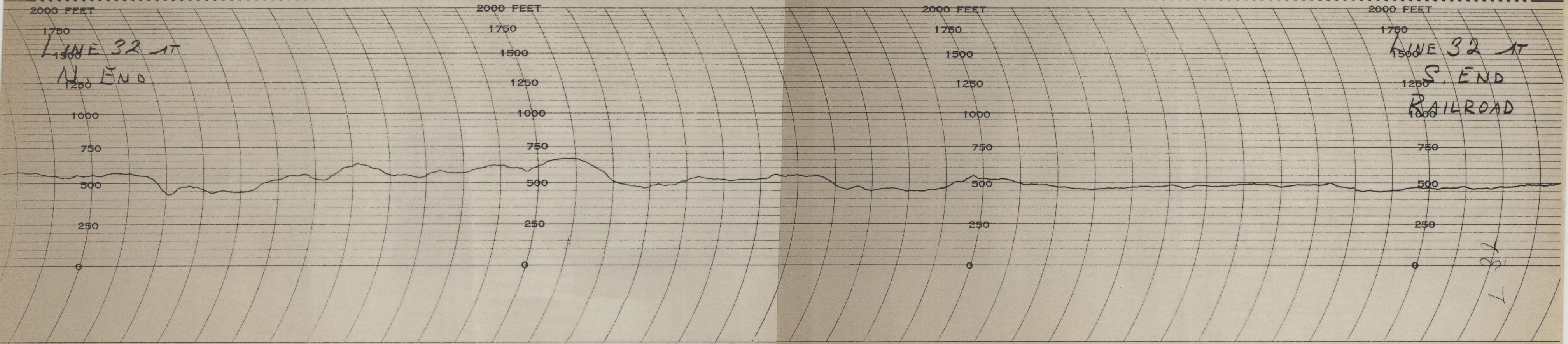
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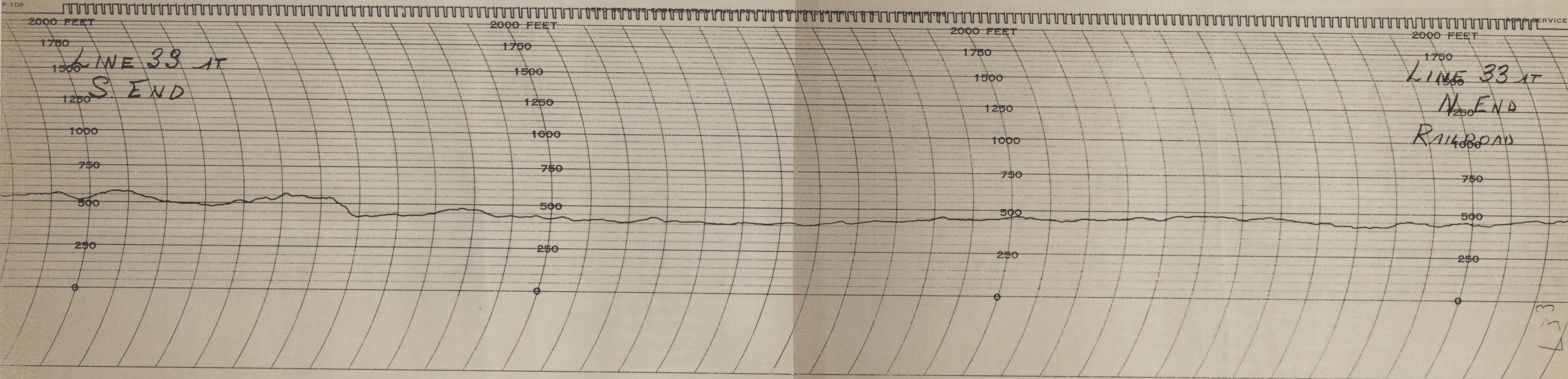


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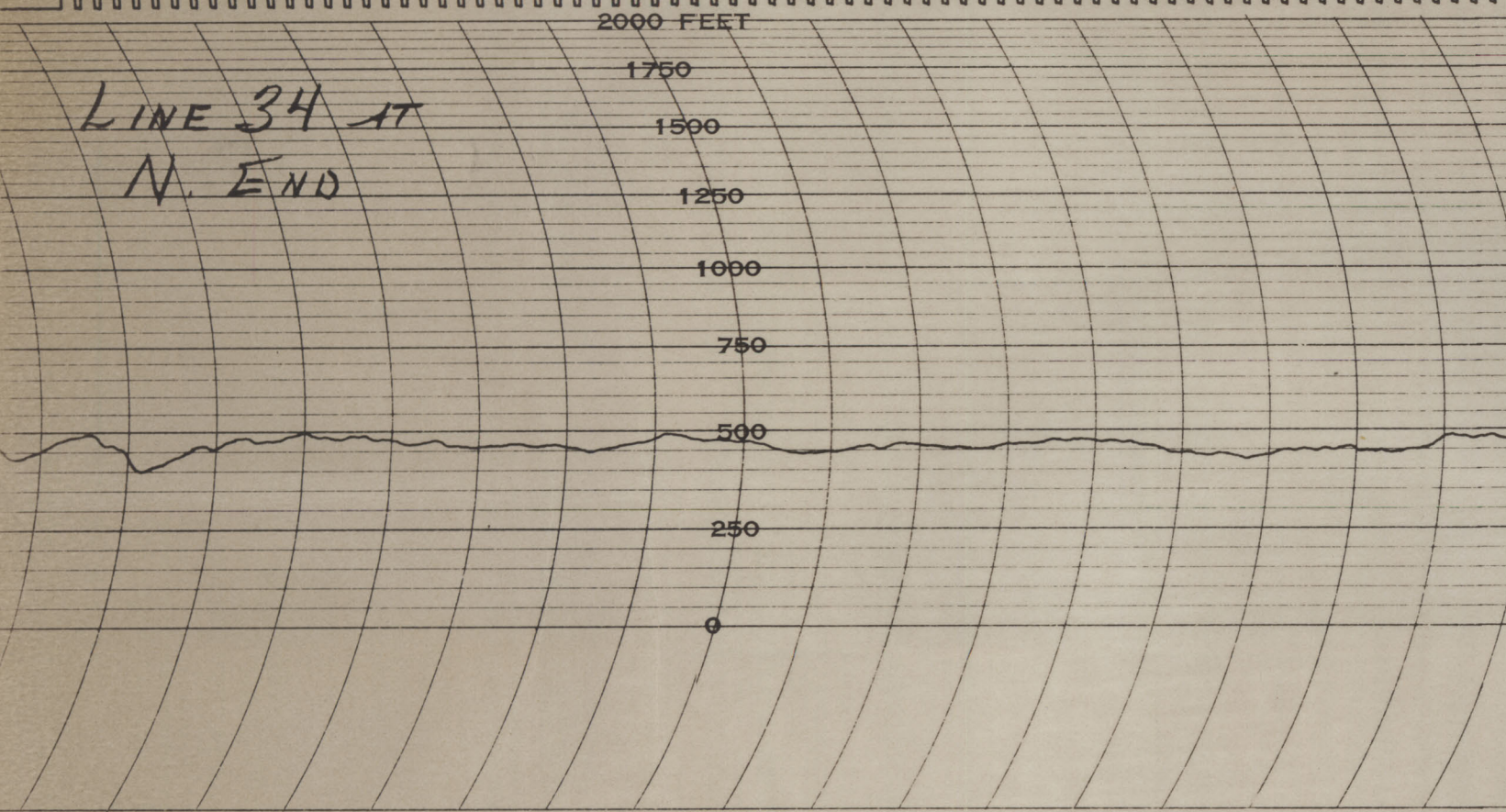
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No. TCI 3064

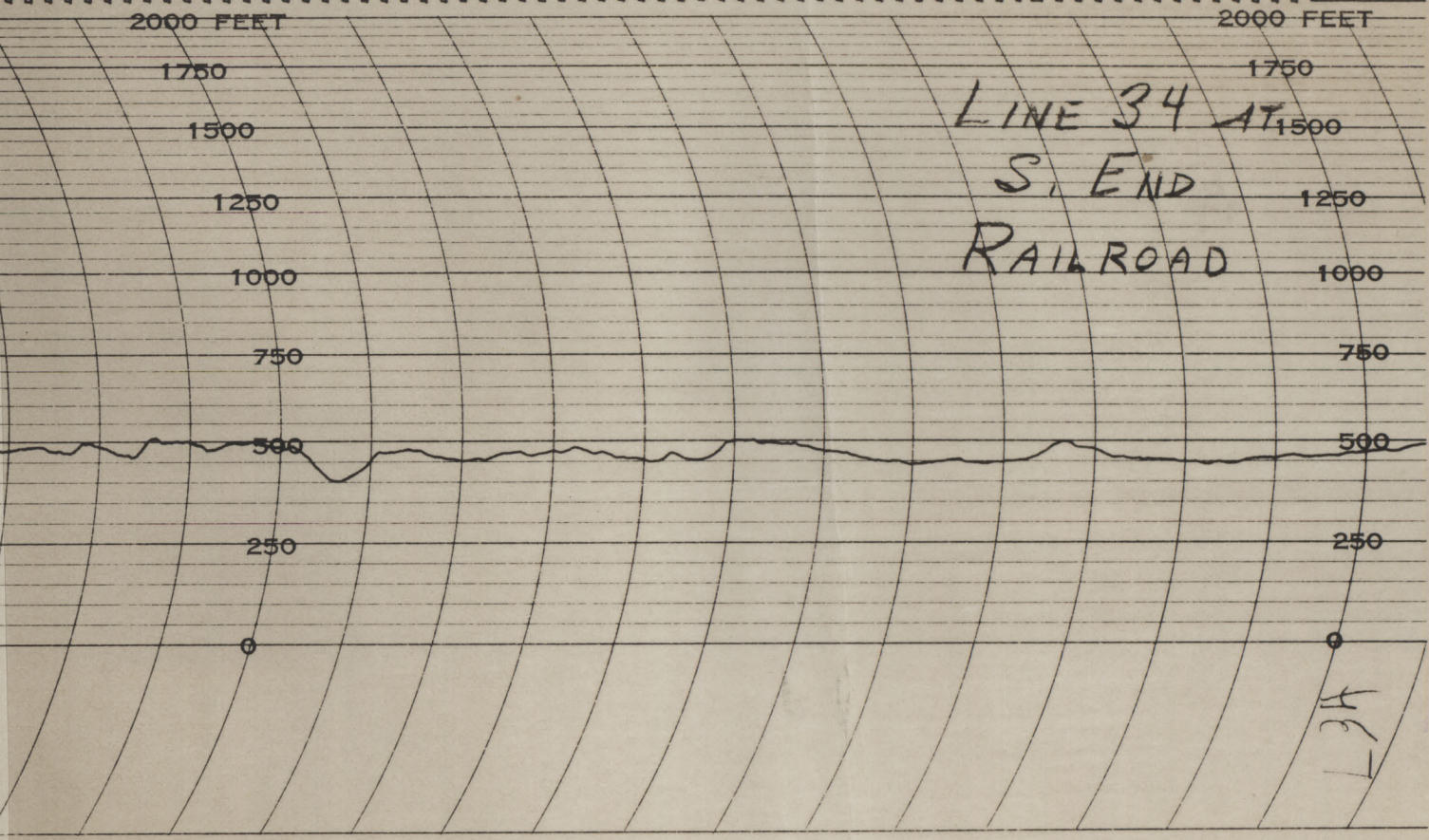
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LINE 34 AT  
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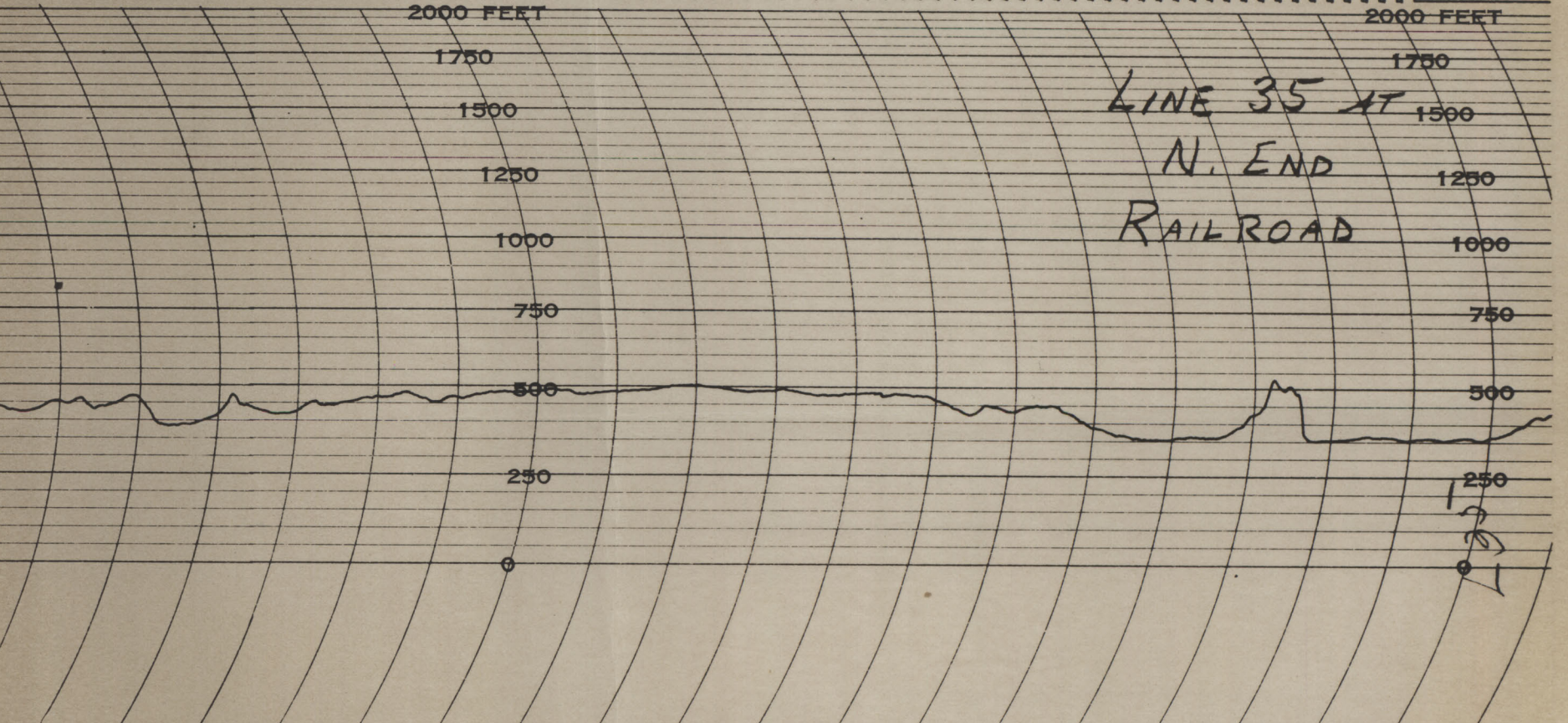
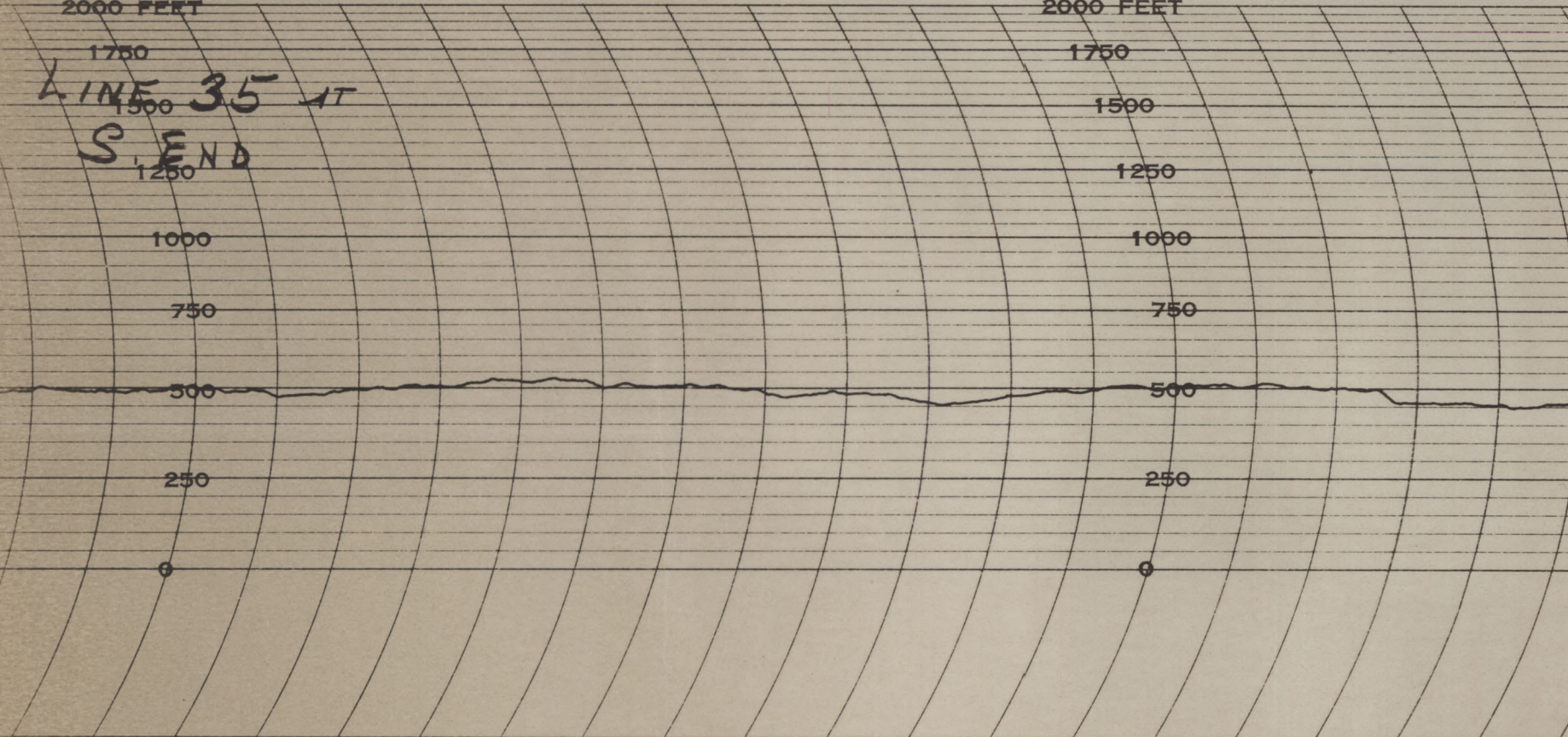


LINE 34 AT  
S. END  
RAILROAD



46-1





4440 0003



