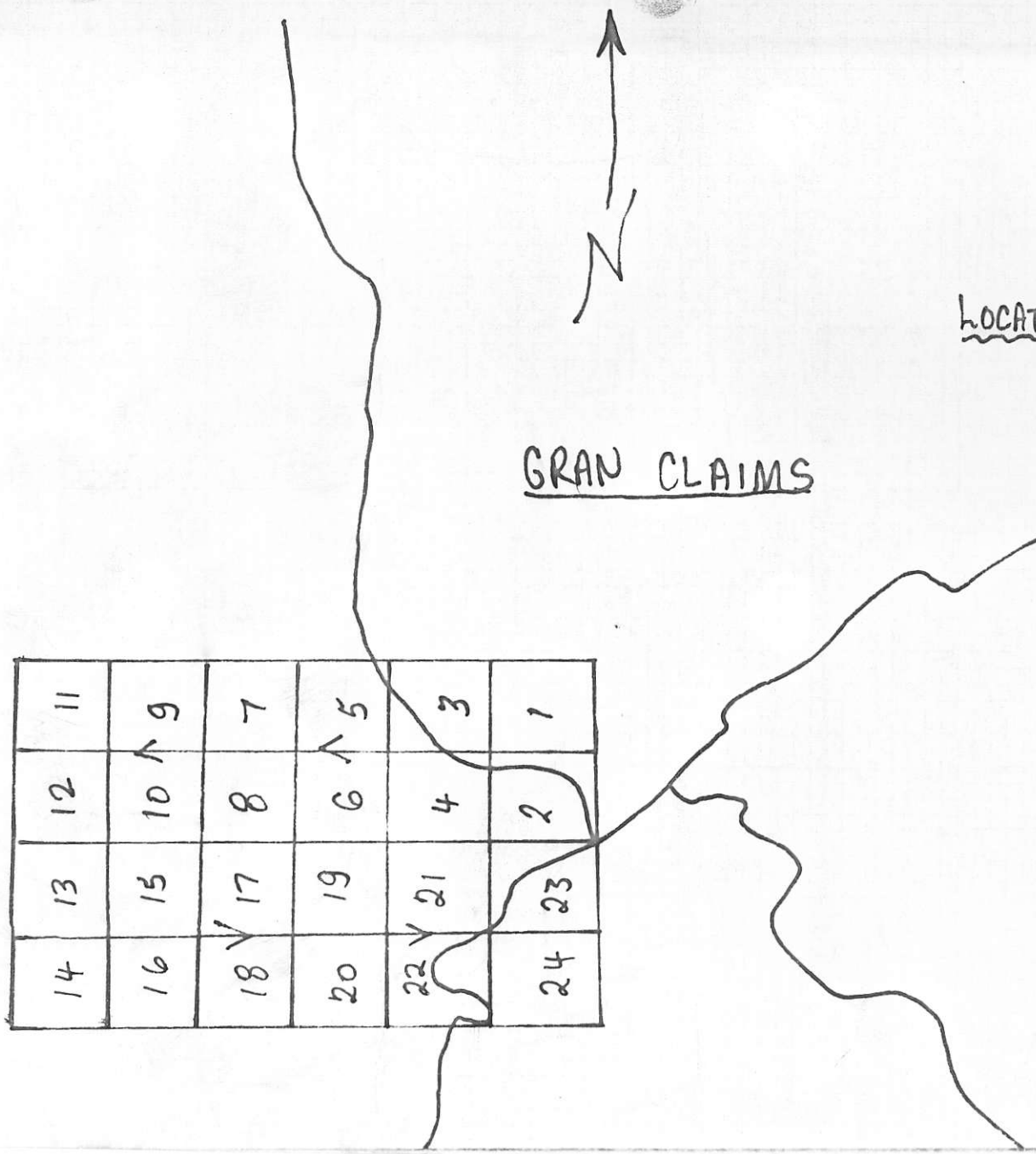
015940

GRAN CLAIMS

105 k 5




LOCATION: 133° 50'W x 62° 25'N

Anvil Creek

Sheet 105K-5

Names:

1 → 8 — A. Aho

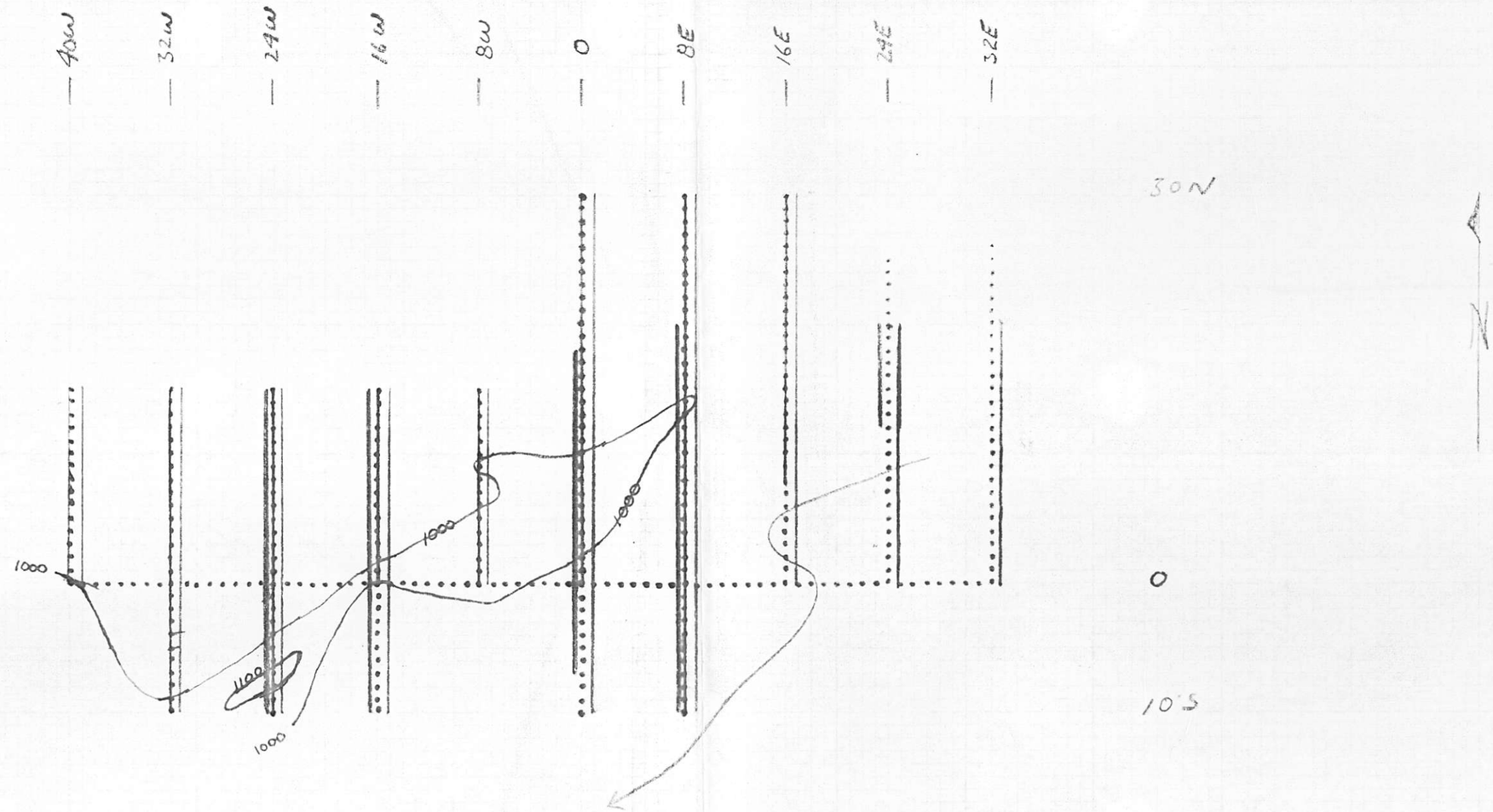
9 → 16 — T. Adamson

17 → 24 — [redacted]

E ENGST

105 K5

JSB
AUG 22/70




COVERAGE

LINES CUT

MAGNETOMETER

GRAVITY

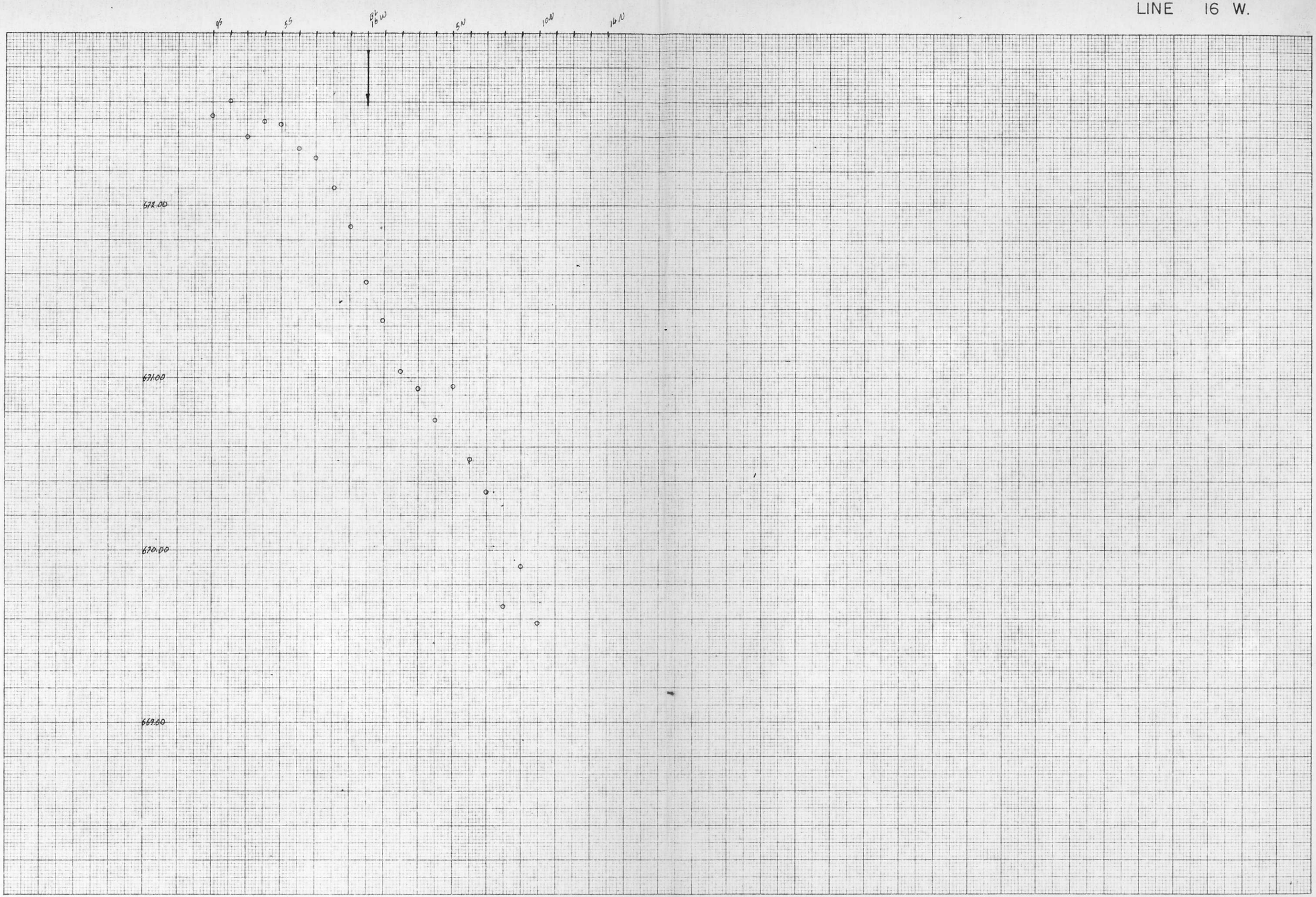
SOIL SAMPLING

LEGEND

- Ground Magnetic Contours in γ

GRAN CLAIMS
1" TO 1000'

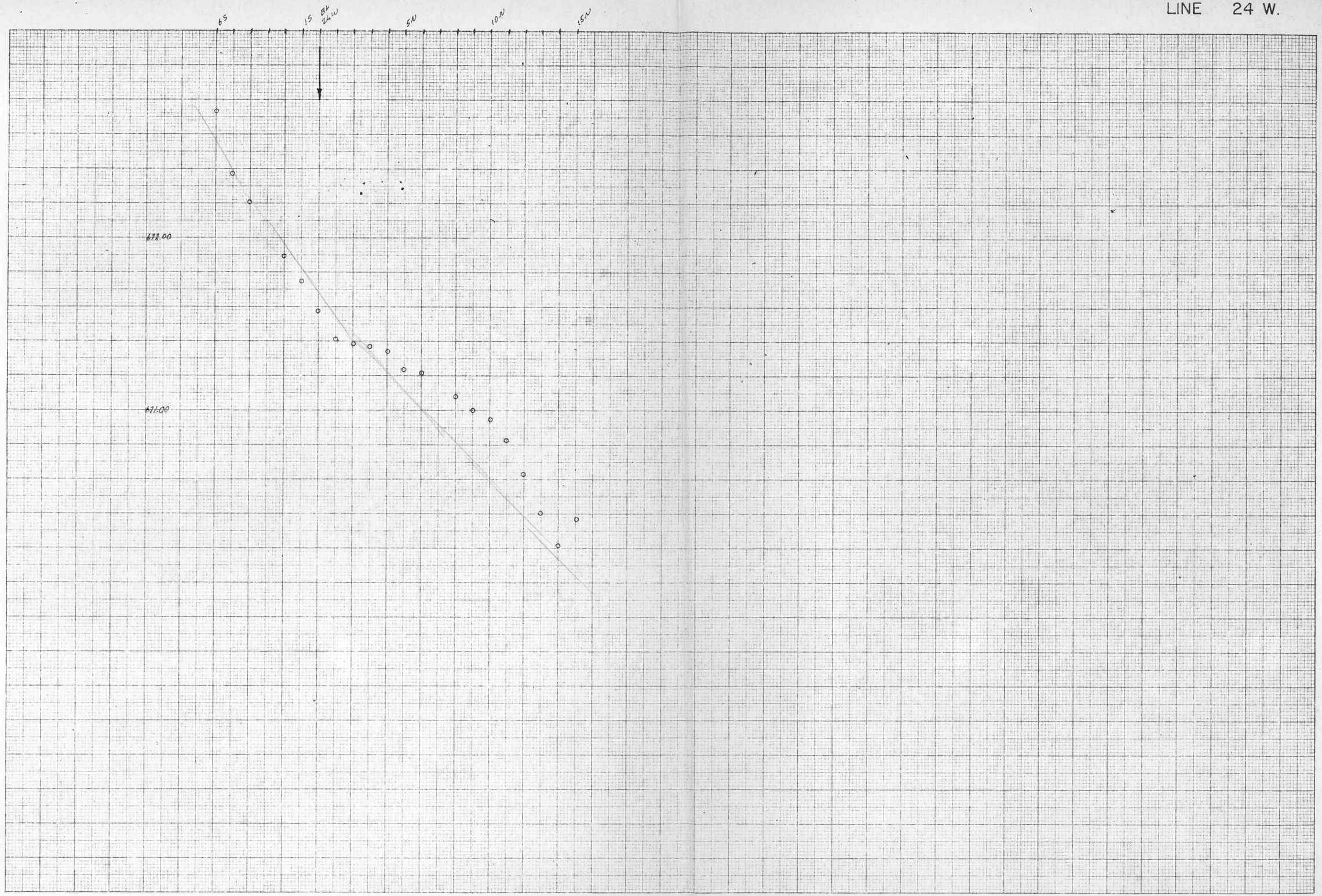
LINE 16 W.




K&E 10 X 10 TO THE CENTIMETER 47 1512
25 X 38 CM. MADE IN U.S.A.
KEUFFEL & ESSER CO.

ATLAS-GRAN

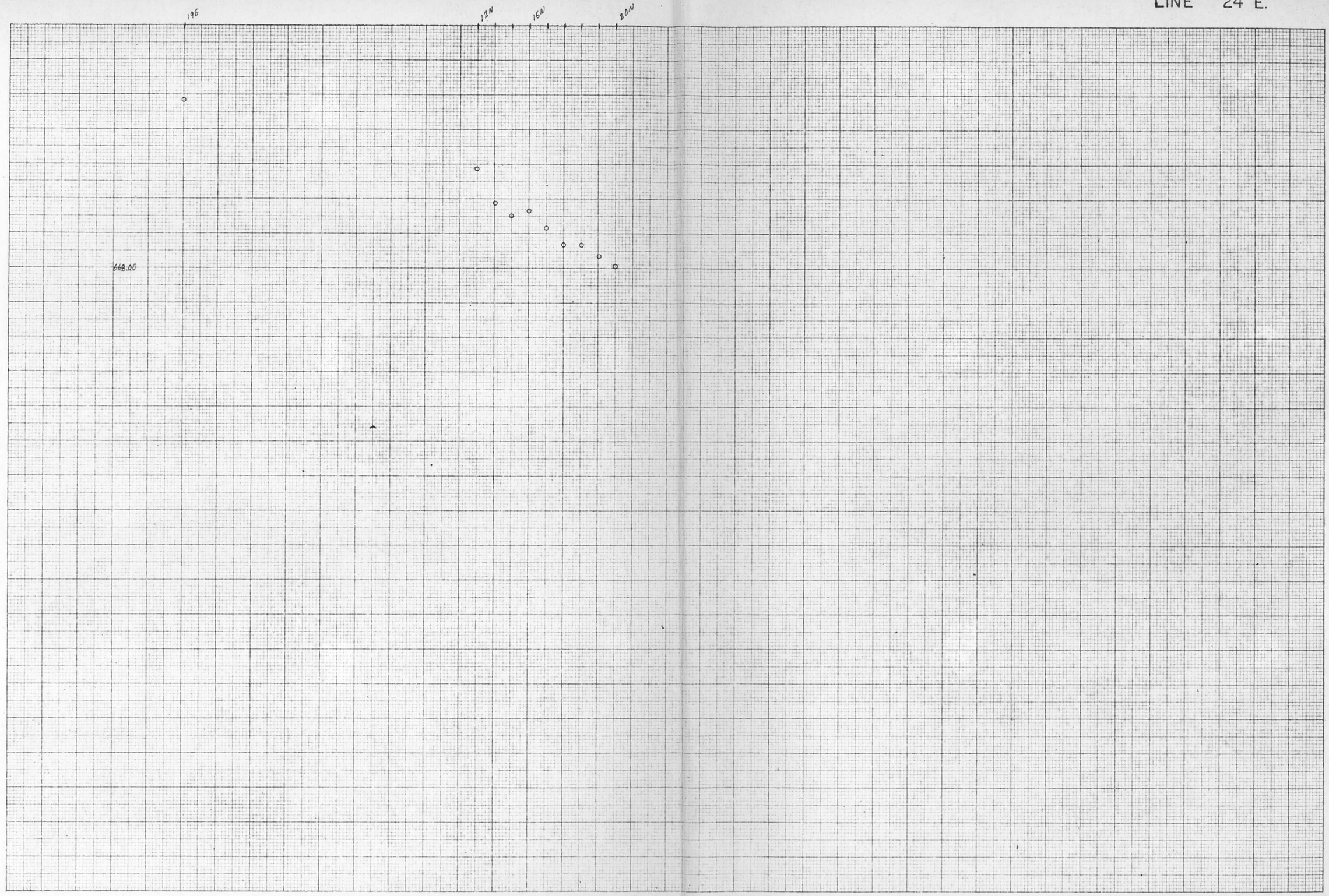
LINE 24 W.




K+E 10 X 10 TO THE CENTIMETER 47 1512
25 X 38 CM. MADE IN U.S.A.
KEUFFEL & ESSER CO.

ATLAS - GRAN

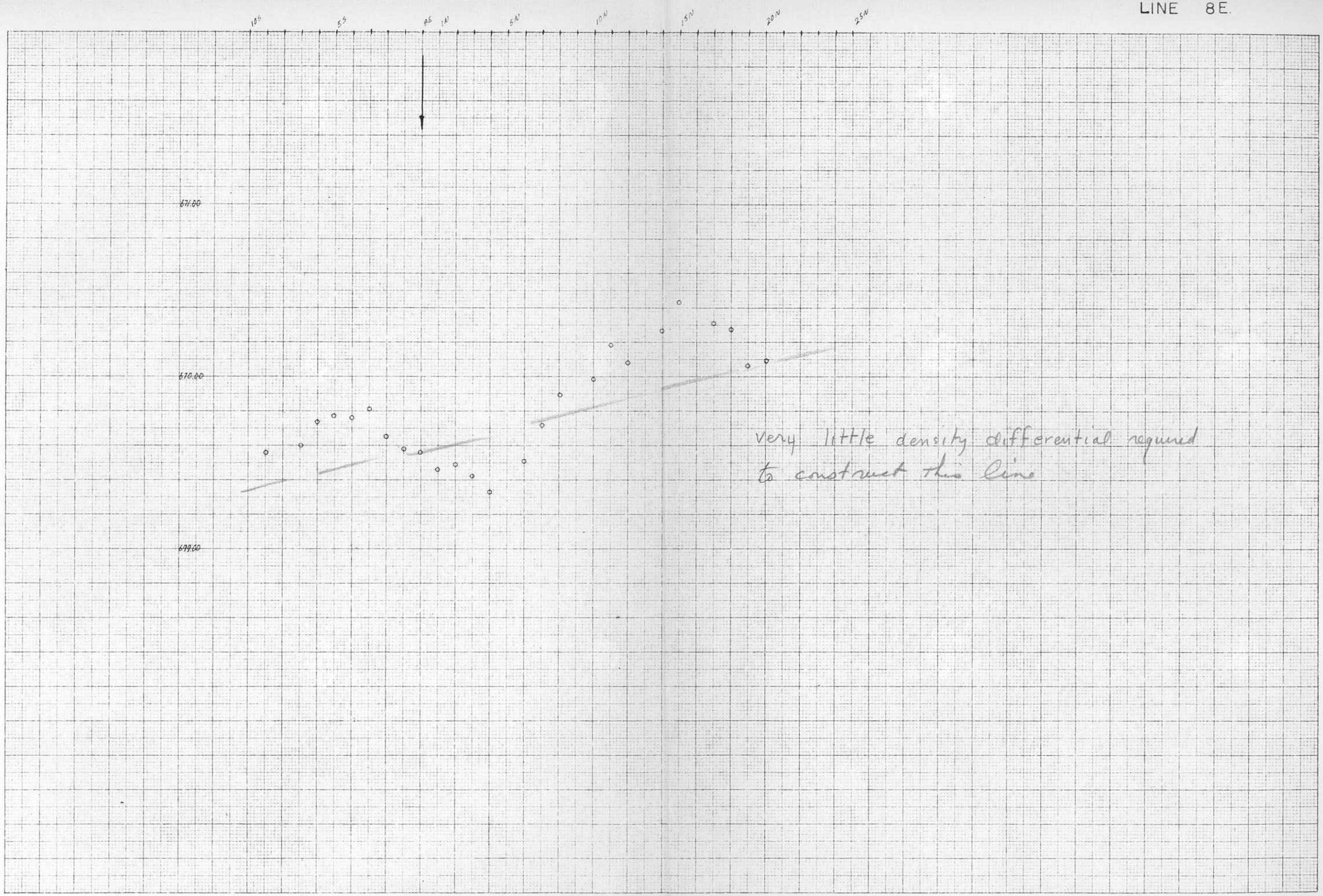
LINE 24 E.




K&E 10 X 10 TO THE CENTIMETER 47 1512
25 X 38 CM. MADE IN U.S.A.
KEUFFEL & ESSER CO.

ATLAS-GRAN

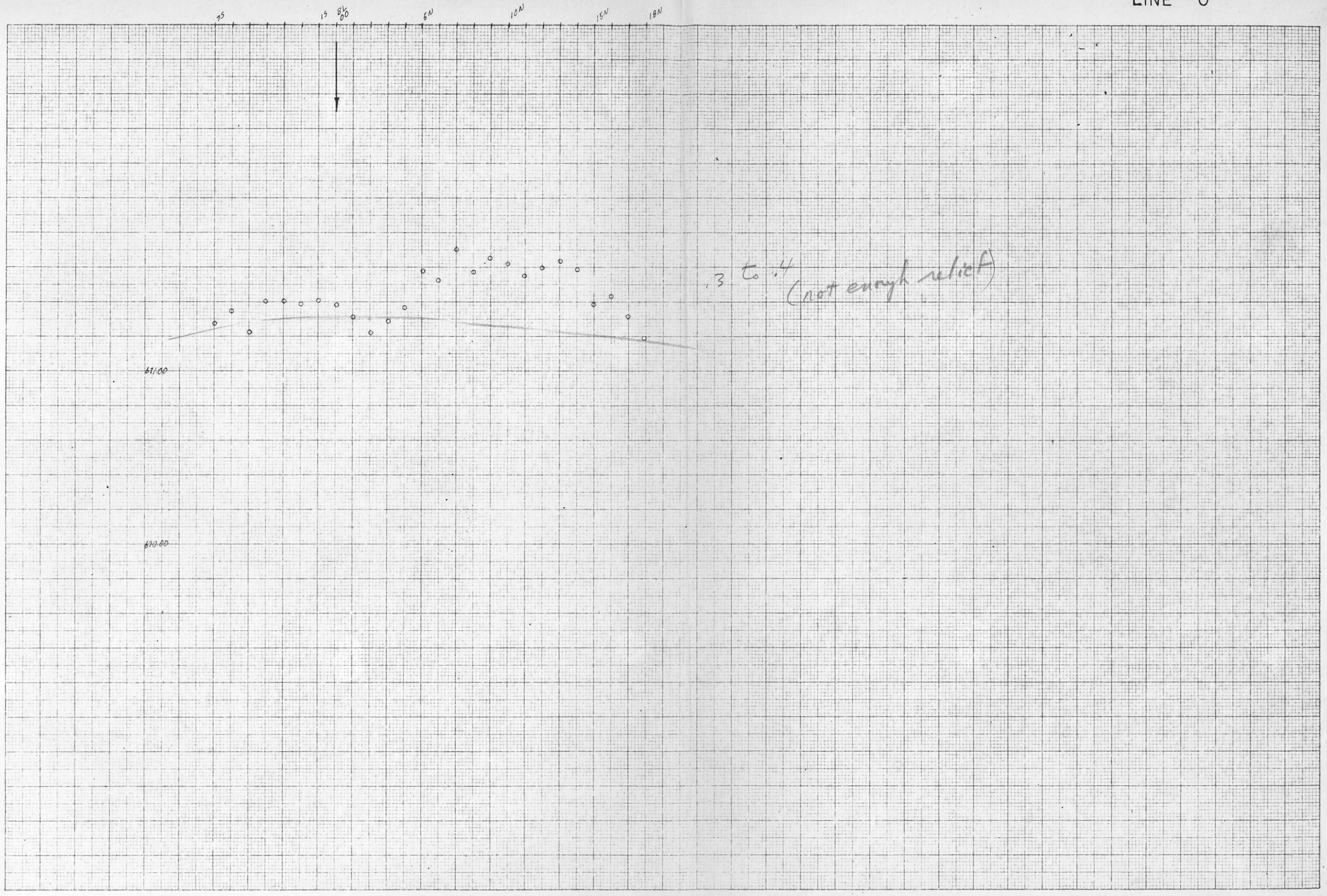
LINE 8E.




K&E 10 X 10 TO THE CENTIMETER 47 1512
25 X 25 CM. MADE IN U.S.A.
KEUFFEL & ESSER CO.

ATLAS—GRAN

LINE 0




K&E 10 X 10 TO THE CENTIMETER 47 1512
25 X 38 CM. MADE IN U.S.A.
KEUFFEL & ESSER CO.

ATLAS-GRAN

## INTRODUCTION

In August and September, 1970, Overland Exploration Services (1969) Ltd., conducted a gravity survey on various properties in the Yukon Territory for Atlas Explorations Limited. This report is a discussion of each of the properties surveyed by Overland. All of the claims surveyed were northwest of the Faro townsite and were accessible only by helicopter. Atlas Explorations supplied the line cutting and the camp, while Overland supplied surveyor, surveyor-helper, meterman, and an interpretation of data collected.

## SURVEY & FIELD PROCEDURE

The Horizontal and Vertical Survey was conducted with a T-IA Theodolite. Stations were located and elevated along each of the grid lines. The elevation where possible, was then closed across the extremities of the grid lines, all of the closures thus formed were under 2.5 feet. The gravity readings were taken with a Worden Master meter and stations were metered on a two and one-half hour run from base to base interval. The base station plots were used for graphing the diurnal gravity drift which in turn was applied to all station readings. Each gravity station run had several repeat stations from preceding runs in order to prove the repeatability of the gravity meter. The repeats were all within a 0.00 to 0.08 milligal range. All gravity readings were corrected for diurnal tidal drift, Bouguer Free-Air-Correction, latitude correction, and terrain correction. A density factor of 0.060 for a surface density of 2.65 has been used in this interpretation.

## DATA

| | | |
|---|---|---|
| Bouguer Free-Air Correction Factor | - | 0.06 |
| Latitude Correction | - | 4911.15 feet/milligal |
| Density | - | 2.65 |
| Diurnal Drift | - | Taken from Base Plots |
| Terrain Corrections | - | Taken where necessary |
| Meter Number | - | Worden No. 806 |
| Meter Constant | - | 0.08351 |
| Base Value | - | Arbritary Value of 500 milligals |

## GRAN CLAIMS

The expenditures on the Gran Claims consisted of $1,675.00. This was comprised of five working days, two stand-by days and a prorated portion of the overall expenses.

## BOUGUER MAP

The Bouguer Map shows a high nose extending northeast-southwest across the mapped area and this high terminates at the north end of Lines O East and 8 East. This high is flanked by gravity lows to the southeast and northwest. At the termination of this high we observed a positive residual anomaly. Although this positive anomaly is coincident with an elevation high at this point, we do not feel that the gravity is related to the topographic high. The reason that we say this is that we find another elevation high to the west at the north ends of Lines 16 and 24 where there

is a gravity low. If the Bouguer-Free-Air-Correction Factor is under-compensated in one portion of the mapped area it would be hard to explain over-compensation such a short distance away.

## RESIDUAL MAP

The Residual Gravity Map under the Gran Claims shows only one feature and this is at the north end of Line O and 8 East. It is a gravity positive which attains a magnitude of 0.70 milligals. This residual feature is situated on the culmination of a nosing on the Bouguer Gravity Map. This nosing is the extension of a positive feature located in the southwest corner of the mapped area. It is possible that this entire Bouguer high trend is a reflection of a denser material underlying this portion of the survey and if this is the case, the residual high on Lines O and 8 East may be a narrow, shallower segment of this dense mass. Further, this positive residual anomaly does not attain

the magnitude which is necessary to equate it to a 1.0 density contrast with its surrounding material. It is a 1.0 contrast that we find necessary to be equivalent to a massive lead-zinc-sulphide body situated in a surrounding of average density native rock. The depth of the causative mass is less than 400 feet from surface and it would be an easy matter to test the source.

## CREW PERSONNEL

| | | |
|---|---|---|
| Lorne Michalovsky | - | 66 Wakefield Drive S.W.<br>CALGARY 5, Alta. |
| Chris Moffatt | - | 2112 Lincoln Drive S.W.<br>CALGARY 10, Alberta |
| Gerald Pikula | - | Box 52<br>AMSTERDAM, Saskatchewan |
| Larry McCorquodale | - | 2203 Lancing Avenue<br>CALGARY 10, Alberta |

## OFFICE PERSONNEL - Supervisors

| | | |
|---|---|---|
| David K.Y. Chen | - | 1347 - 12th Avenue S.W.<br>CALGARY 3, Alberta |
| W.T. Salt | - | 1347 - 12th Avenue S.W.<br>CALGARY 3, Alberta |

# CERTIFICATE OF QUALIFICATIONS

I, David K.Y. Chen, Geophysicist, of 6405 Center Street North, Calgary 47, Alberta Canada, hereby certify that:

1. I am a professional geophysicist associated with Overland Exploration Services (1969) Ltd., 1347 - 12th Avenue S.W., Calgary 3, Alberta, Canada.

2. I have no direct or indirect interest in, nor do I have or expect to receive any direct or indirect interest in any properties or securities of Atlas Explorations Limited.

3. I have attended the National Hunan University of Changsha, Hunan, China, 1947, receiving a Bachelor of Science Degree in Mining Engineering; that I hold a Master's Degree in Earth Sciences (geophysics major) from New Mexico Institute of Mining Technology at Socorro, New Mexico, U.S.A. During the period of 1964-67 I undertook part-time graduate studies in geophysics at Washington University, St. Louis, Missouri, U.S.A. I have completed all requirements of the graduate courses for my Ph. Degree work in geophysics except the thesis.

4. Since 1957, I have been intensively engaged in seismic, gravity and magnetic surveys and interpretations for oil/ore exploration in the U.S.A. and Far East with several Chinese, U.S. and Canadian oil and geophysical companies. In 1947, I was engaged as a Petroleum Engineer supervising oil well drilling and production. In 1957, I became involved in the geophysical oil/ore exploration field. I have held the following positions.

- Geophysicist
- Research Geophysicist
- Assistant Professor in Geophysics.

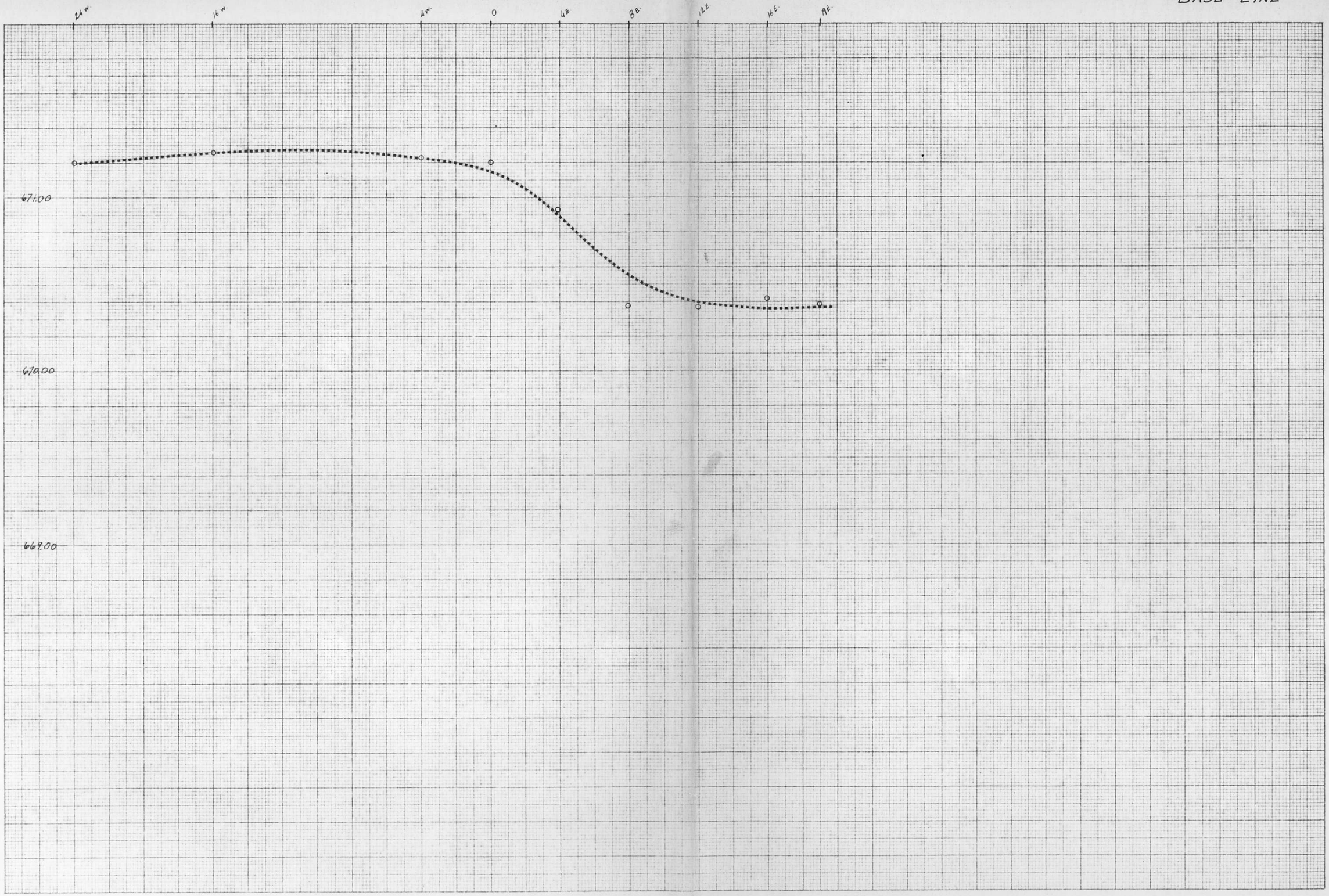
5. I am a member of the following academic and professional societies:

- Society of Exploration Geophysicists
- American Geophysical Union
- European Association of Exploration Geophysicists
- Association of Professional Engineers of Alberta
- Geological Society of Republic of China
- Chinese Petroleum Institute
- Chinese Institution of Mining and Metallurgical Engineers.

DAVID K.Y. CHEN
Professional Geophysicist

DKYC/jp

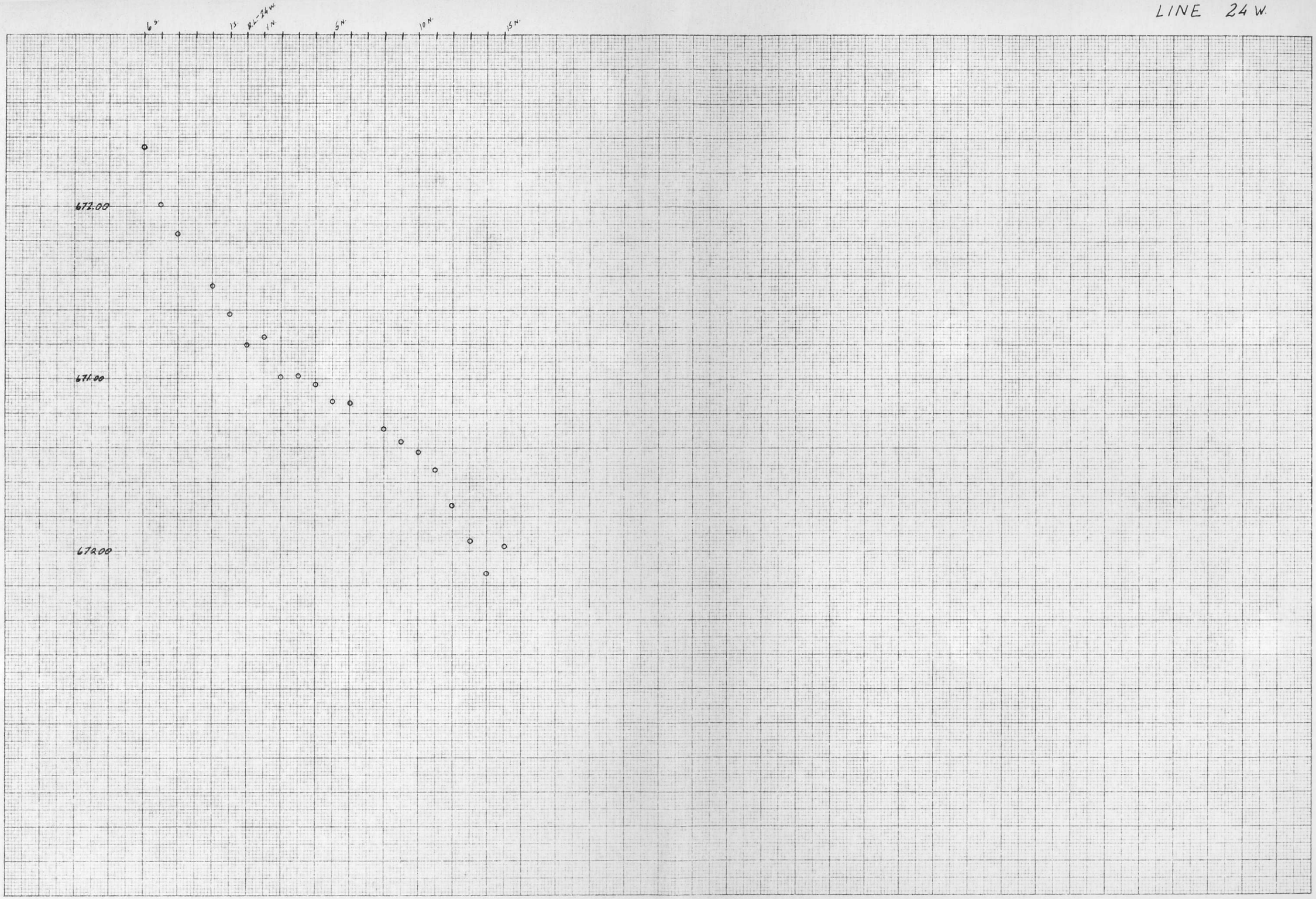
BASE LINE




K&E 10 X 10 TO THE CENTIMETER 47 1512
25 X 38 CM. MADE IN U.S.A.
KEUFFEL & ESSER CO.

ATLAS - GRAN

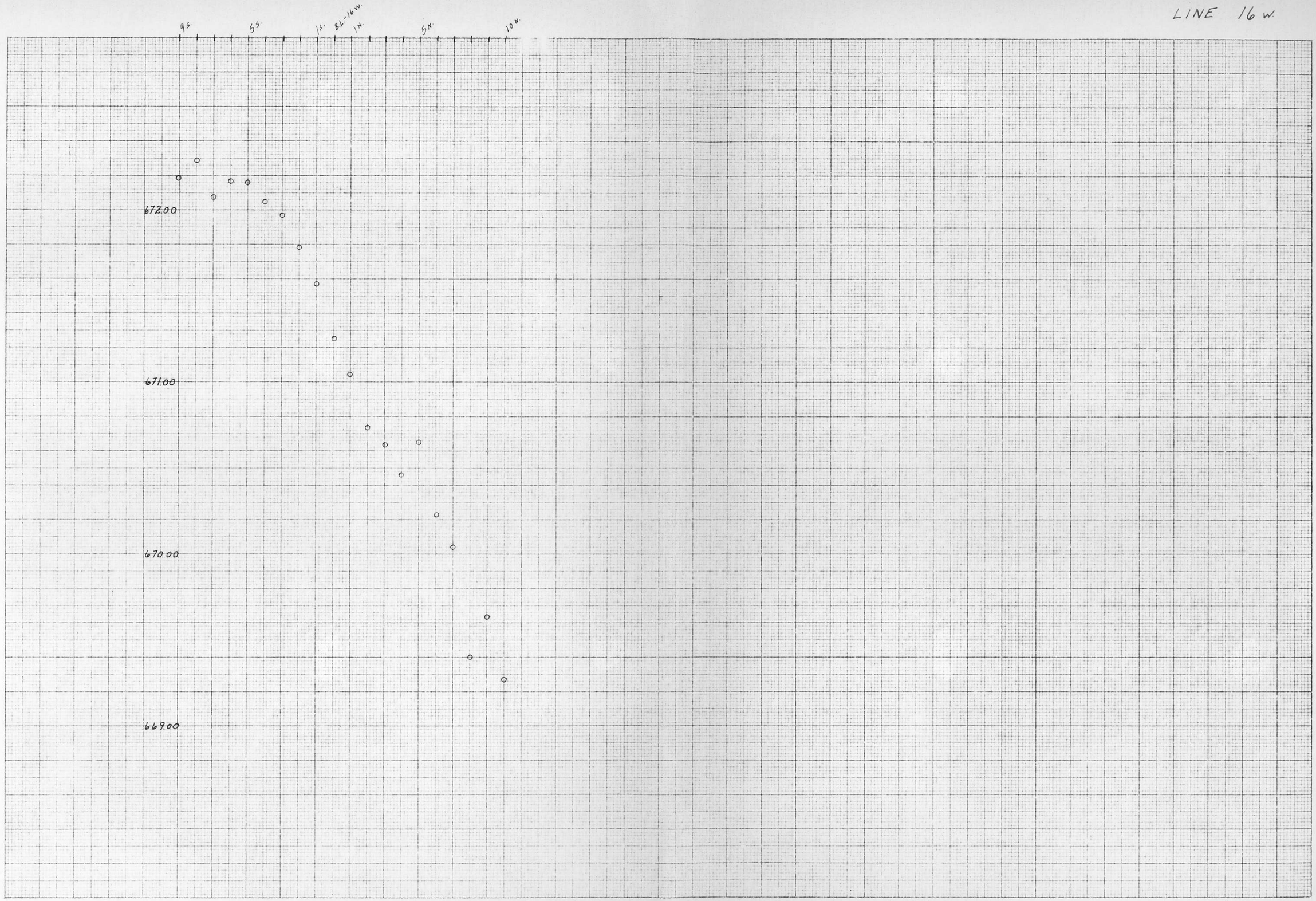
LINE 24 W.




K+E 10 X 10 TO THE CENTIMETER 47 1512
25 X 35 CM. MADE IN U.S.A.
KEUFFEL & ESSER CO.

ATLAS - GRAN

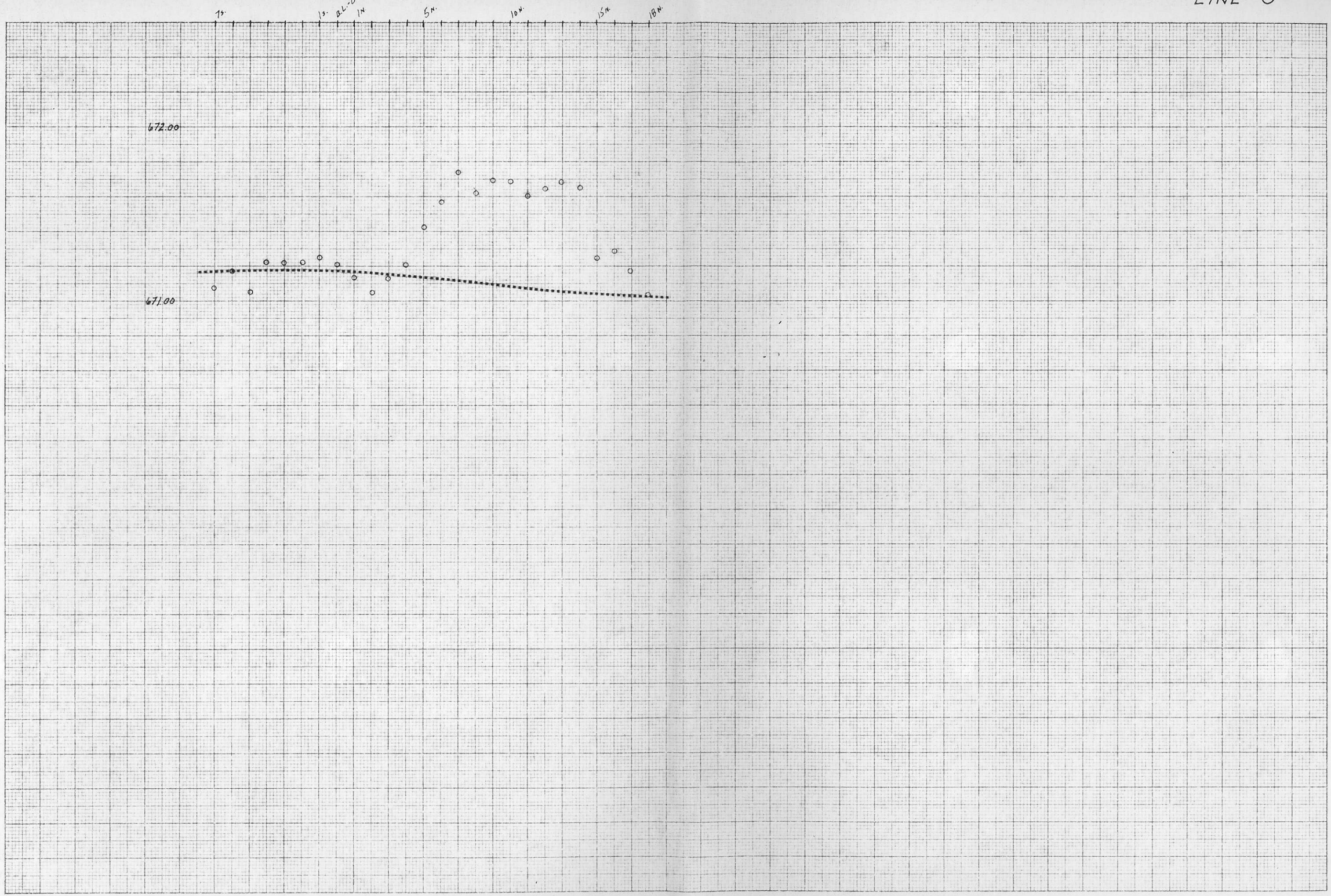
LINE 16 W.




ATLAS - GRAN

K+E 10 X 10 TO THE CENTIMETER 47 1512
25 X 40 CM.
KEUFFEL & ESSER CO.

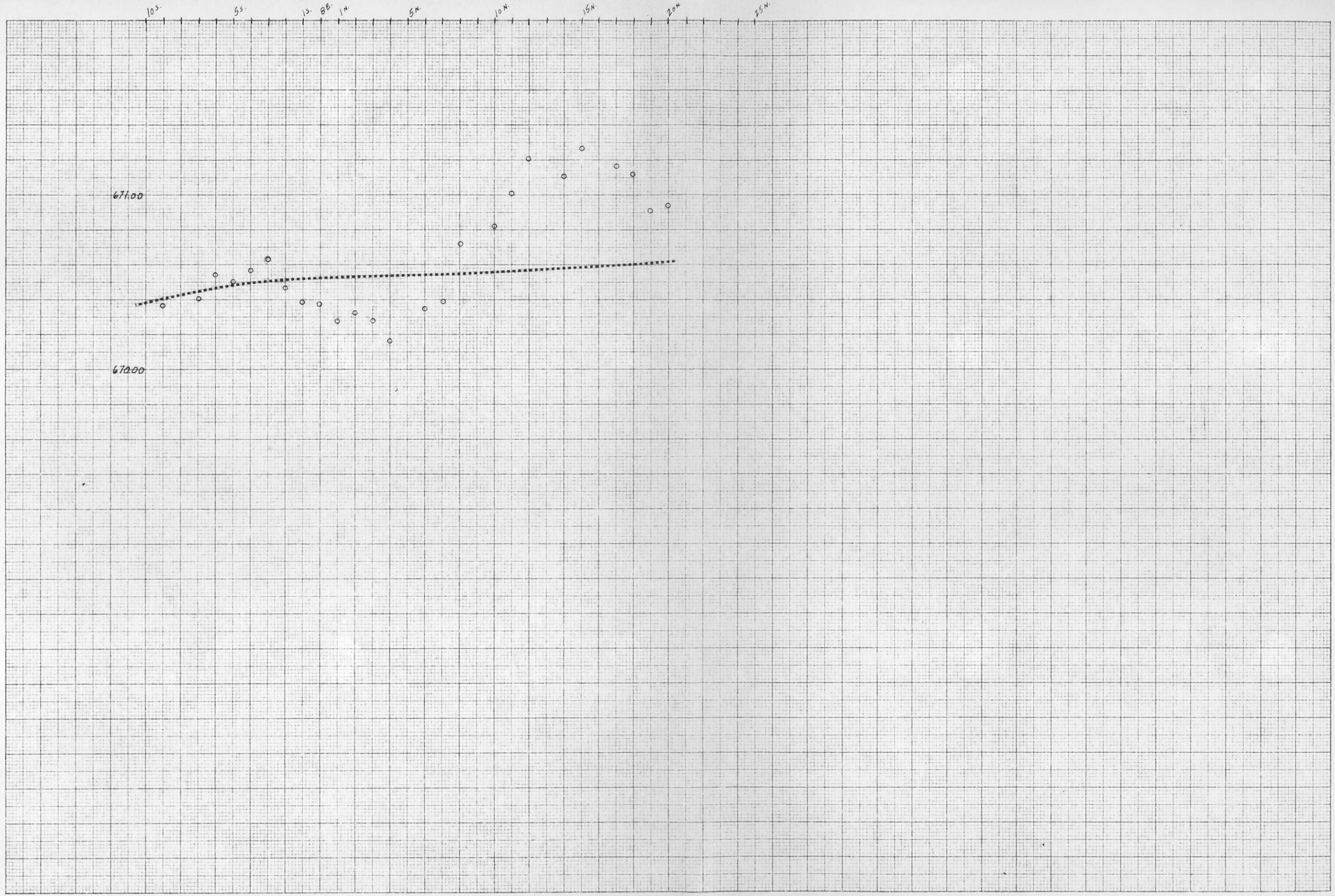
LINE O




ATLAS - GRAN

K+E 10 X 10 TO THE CENTIMETER 47 1512
25 X 38 CM. MADE IN U.S.A.
KEUFFEL & ESSER CO.

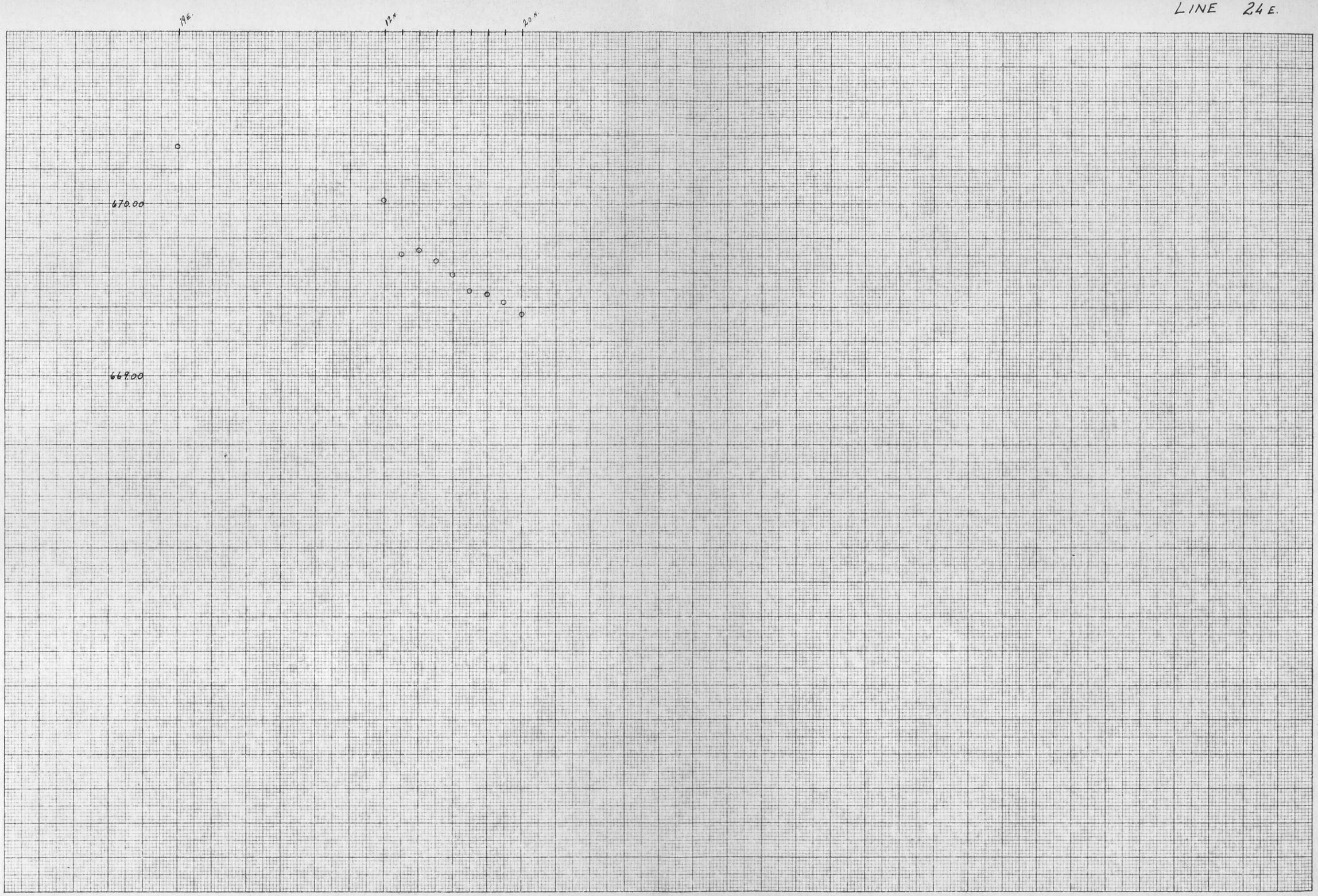
LINE 8E.




K+E 10 X 10 TO THE CENTIMETER 47 1512
25 X 38 CM. MADE IN U.S.A.
KEUFFEL & ESSER CO.

ATLAS - GRAN

LINE 24 E.




K+E 10 X 10 TO THE CENTIMETER 47 1512
25 X 38 CM MADE IN U.S.A.
KEUFFEL & ESSER CO.

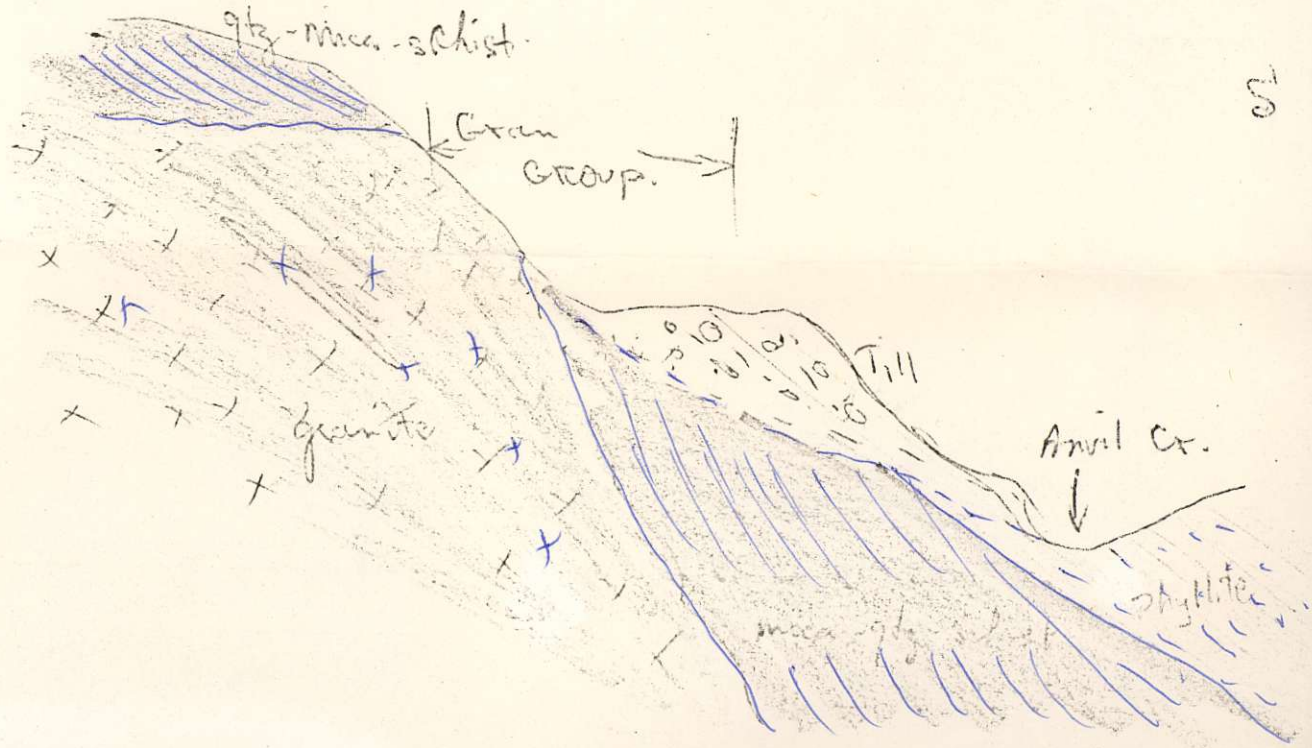
ATLAS- GRAN

17 Sept '70

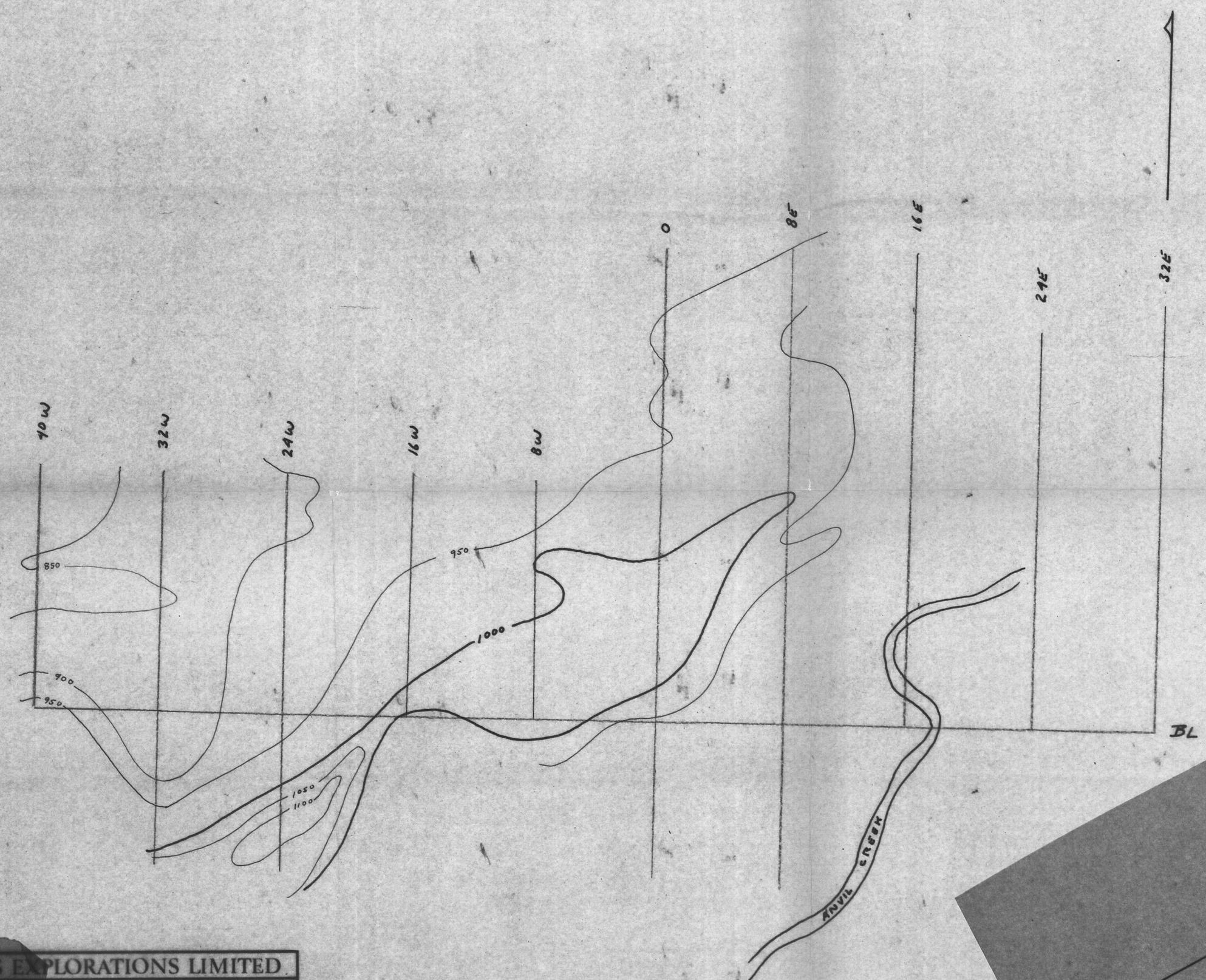
- John,

This map contains a minimum of geophysical interpretation & no air photo interp. Final map will be revised to account for these interpretations and also GSC mapping will be used to 'fill-in' blanks.

Area around 'Gran Group' is a blank due to no exposure. I feel that a wedge of mica-qtz-schist (yellow) lies between the granite & phyllites - in x-section as:




Bill Kerr




# ATLAS EXPLORATIONS LIMITED

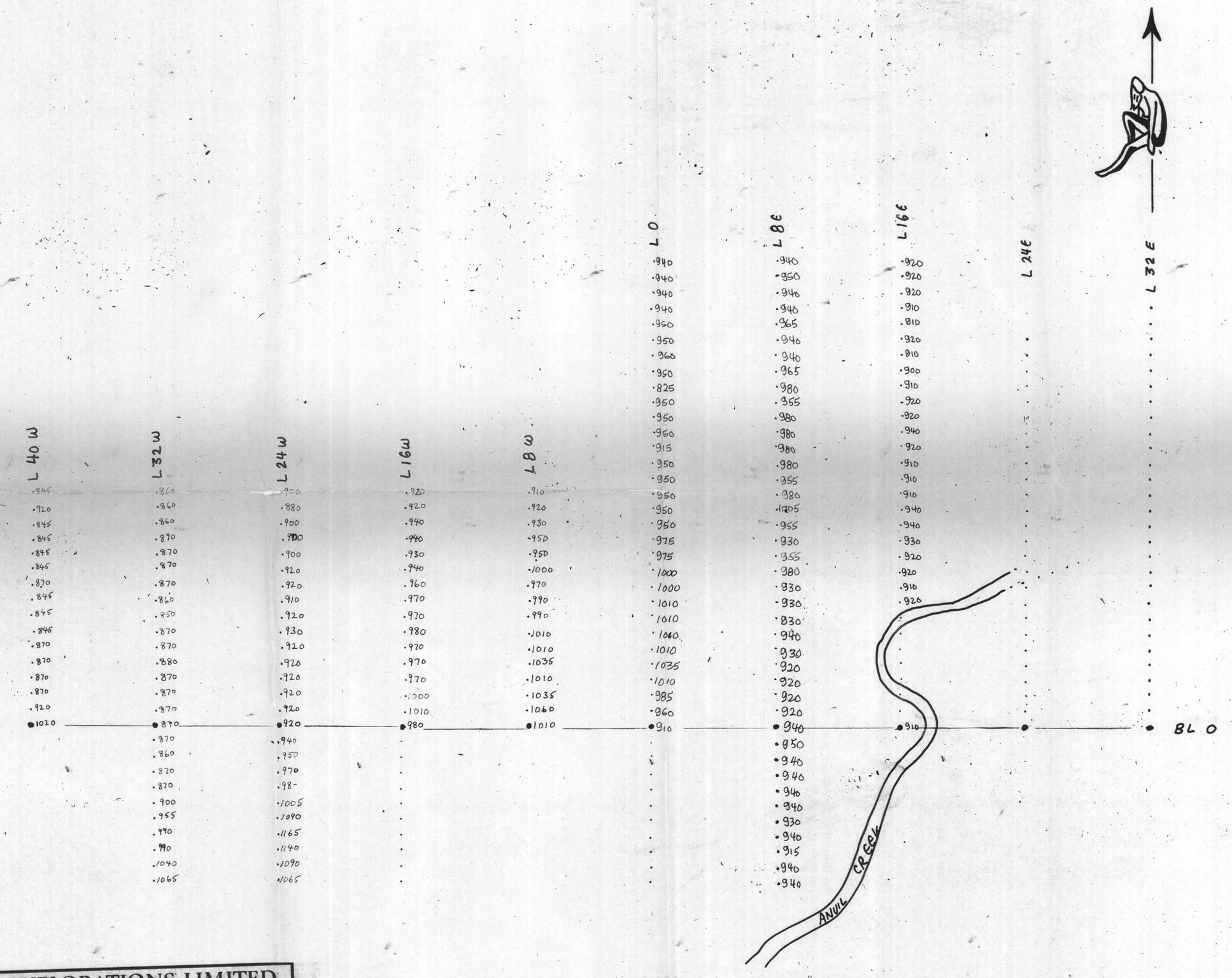
## GRAN CLAIMS
## MAGNETOMETER SURVEY
## CONTOUR MAP

| | | |
|---|---|---|
| N. T. S.: 105 K 5 | | SCALE: 1" TO 400' |
| DATE OF SURVEY: Aug / 70 | PARTY CHIEF: DEAN | |
| DATE DRAFTED: | DRAFTED BY: | |
| DATE REVISED: | REVISED BY: | |
| CHECKED BY: | FIGURE No.: | |

inches 0 1
0 1 2 centimetres

This reference scale bar has been added to the original image. It will scale at the same rate as the image, therefore it can be used as a reference for the original size.

YUKON GEOLOGICAL SURVEY




| L 40 W | L 32 W | L 24 W | L 16 W | L 8 W | L 0 | L 8 E | L 16 E |
|---|---|---|---|---|---|---|---|
| .845 | .860 | .900 | .920 | .910 | .940 | .940 | .920 |
| .920 | .860 | .880 | .920 | .920 | .940 | .950 | .920 |
| .845 | .860 | .900 | .940 | .930 | .940 | .940 | .920 |
| .845 | .870 | .900 | .940 | .950 | .940 | .940 | .910 |
| .845 | .870 | .900 | .930 | .950 | .950 | .965 | .810 |
| .845 | .870 | .920 | .940 | .1000 | .950 | .940 | .920 |
| .870 | .870 | .920 | .960 | .970 | .960 | .940 | .910 |
| .845 | .860 | .910 | .970 | .990 | .950 | .965 | .900 |
| .845 | .850 | .920 | .970 | .990 | .825 | .980 | .910 |
| .846 | .870 | .930 | .980 | .1010 | .950 | .955 | .920 |
| .870 | .870 | .920 | .970 | .1010 | .950 | .980 | .920 |
| .870 | .880 | .920 | .970 | .1035 | .950 | .980 | .940 |
| .870 | .870 | .920 | .970 | .1010 | .915 | .980 | .920 |
| .870 | .870 | .920 | .1000 | .1035 | .950 | .980 | .910 |
| .920 | .870 | .920 | .1010 | .1060 | .950 | .955 | .910 |
| 1020 | 870 | 920 | 980 | 1010 | 910 | 940 | 910 |
| | .870 | .940 | | | | .950 | |
| | .860 | .950 | | | | .940 | |
| | .870 | .970 | | | | .940 | |
| | .870 | .98- | | | | .940 | |
| | .900 | .1005 | | | | .940 | |
| | .955 | .1090 | | | | .930 | |
| | .990 | .1165 | | | | .940 | |
| | .990 | .1140 | | | | .915 | |
| | .1040 | .1090 | | | | .940 | |
| | .1065 | .1065 | | | | .940 | |

| L 8 E | L 16 E | L 24 E | L 32 E |
|---|---|---|---|
| .940 | .920 | | |
| .940 | .910 | | |
| .940 | .910 | | |
| .940 | .940 | | |
| .940 | .930 | | |
| .940 | .930 | | |
| .940 | .920 | | |
| .940 | .910 | | |
| .940 | .920 | | |
| .940 | .910 | | |
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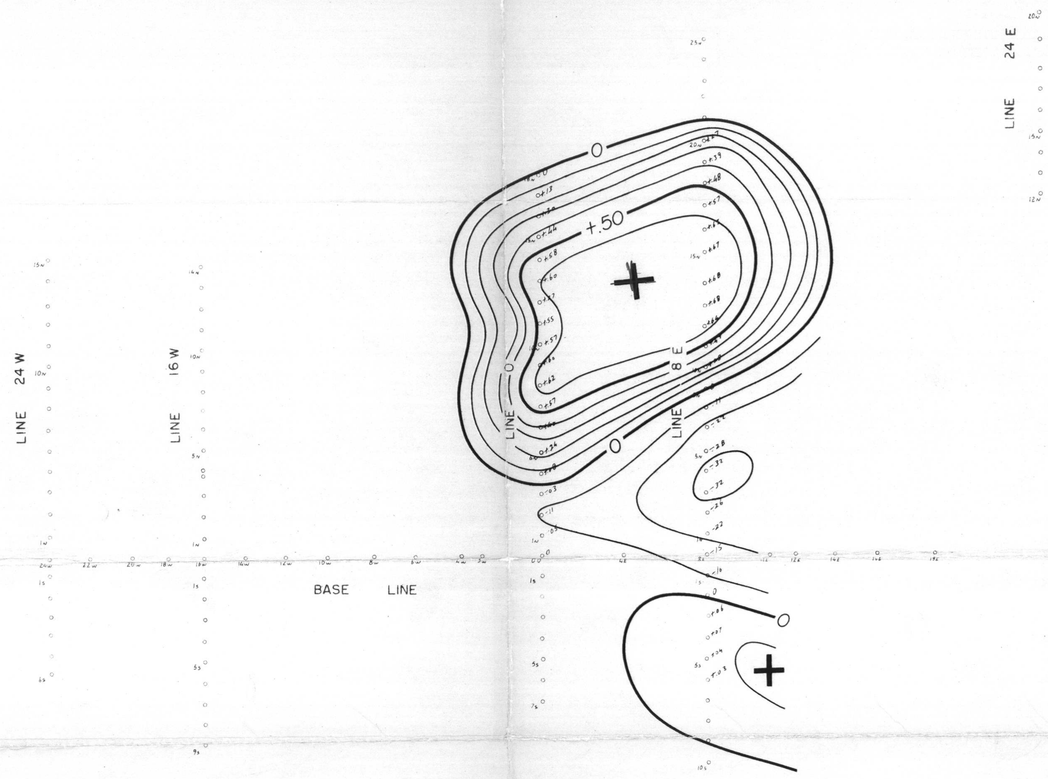
| .940 | .910




OES

OVERLAND

EXPLORATION SERVICES LTD.

FOR

ATLAS EXPLORATIONS LIMITED

GRAN CLAIM BLOCK

# RESIDUAL GRAVITY MAP

Scale : 1" = 400'

C.I. : 0.10 MGLS.

inches

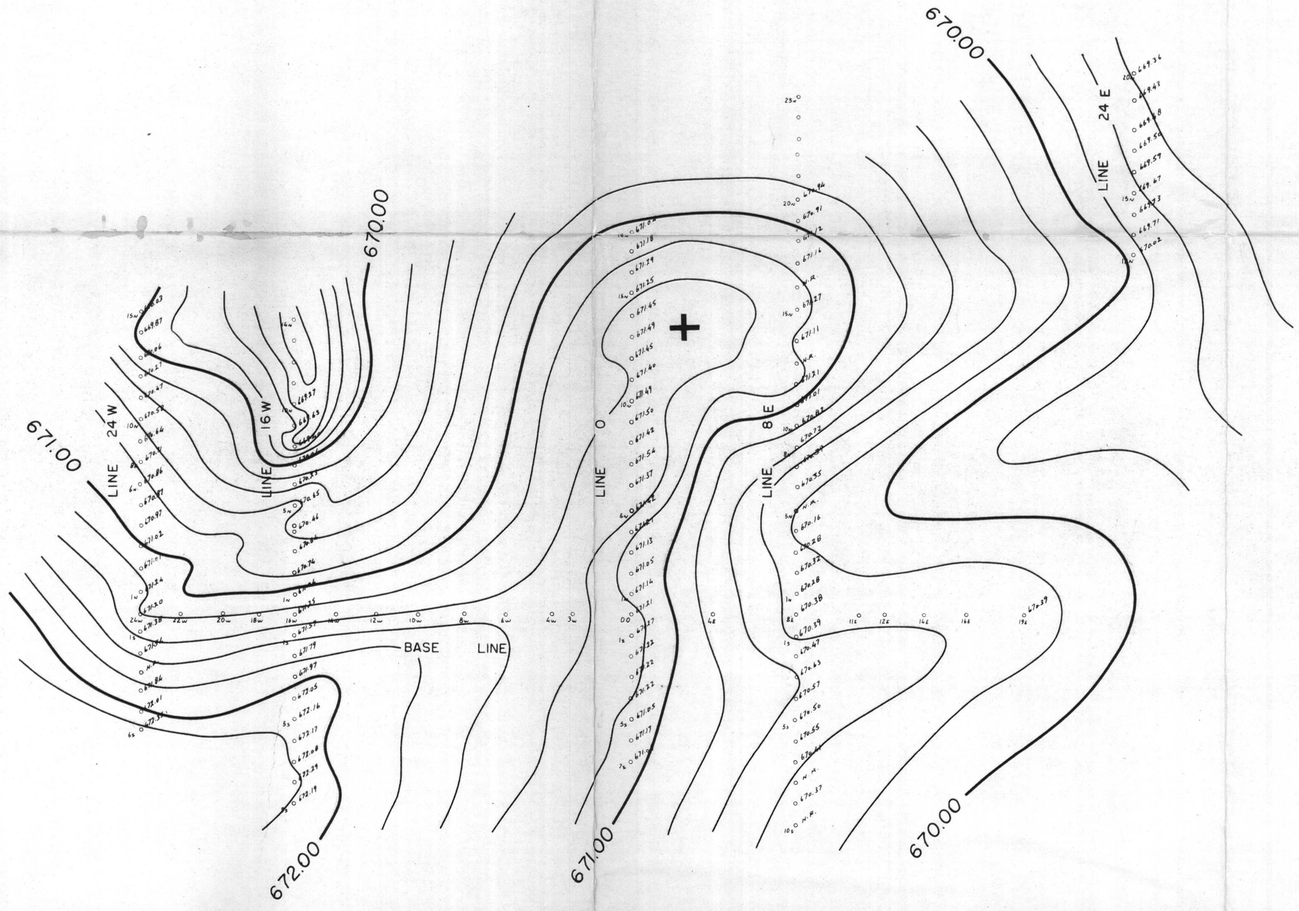
0 1 2

0 1 2 3 4 5

centimetres

YUKON GEOLOGICAL SURVEY

This reference scale bar has been added to the original image. It will scale at the same rate as the image, therefore it can be used as a reference for the original size.




N

OES

OVERLAND
EXPLORATION SERVICES (1969) LTD.

FOR

ATLAS EXPLORATIONS LIMITED

GRAN CLAIM BLOCK

# BOUGUER GRAVITY MAP

Scale 1" = 400'

C.I. 0.20 mgl.

inches
0 1 2
0 1 2 3 4 5
centimetres

This reference scale bar has been added to the original image. It will scale at the same rate as the image, therefore it can be used as a reference for the original size.

YUKON GEOLOGICAL SURVEY

# ATLAS EXPLORATIONS LIMITED

## GRAN CLAIMS
## GEOCHEMICAL VALUES

| | | |
|---|---|---|
| N. T. S.: 105K5 | | SCALE: 1" : 400' |
| DATE OF SURVEY: SEPT/70 | PARTY CHIEF: DEAN | |
| DATE DRAFTED: | DRAFTED BY: | |
| DATE REVISED | REVISED BY: | |
| CHECKED BY: | FIGURE No.: | |

inches 0 1
0 1 2 centimetres

This reference scale bar has been added to the original image. It will scale at the same rate as the image, therefore it can be used as a reference for the original size.

ORION GEOLOGICAL SURVEY

L 40W

L 32W

L 24W

L 16W

L 8W

L 0

L 8E

L 16E

L 24E

L 32E

BL 0

26, 12, 50
35, 6, 46
18, 8, 49
14, 8, 44
36, 12, 86
80, 16, 69
54, 8, 62
18, 5, 46

18, 6, 59
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20, 19, 70
45, 9, 91

ANVIL CREEK