

64-372

MICROFILMED

REPORT OF WORK COMPLETED

For

"STANLEY REWARD GEOLOGIC RECONNAISSANCE PROGRAMME

FOR 1964 - SCHEDULE 6 B"

by

I. R. Worth

1st May, 1964

Accompanying Report:

Vertical Magnetic Intensity Plan No. 119 Scale 1" = 200'

Geological & Topographical Plan No. 5118, 120, 122, 123 (Scale 1" = 100')

Survey Traverse Data (Scale 1" = 40')

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SUMMARY.

7,200 feet of baseline and 4,800 feet of traverse line has been surveyed, and 24,500 feet of picket line has been cut. True North was determined.

Two adjacent Vertical-Magnetic-Intensity anomalies have been located; one with intensities exceeding 6,000 gammas, the other with intensities exceeding 4,000 gammas. Two samples of the magnetite outcrop which occurs in the most intense anomaly were taken.

The Stanley-Reward-Mine area has been surveyed and the Rio Tinto test trenches have been cleaned out. Most of the shafts have water to within a few feet of their collars.

A tent camp established on the east bank of the Stanley River has been left in good order.

INTRODUCTION.

This report covers the work carried out in accordance with items 1 (a) and 1 (b) of the "Proposed Geologic Reconnaissance Programme for 1964 Schedule 6b of Mt. Lindsay-Stanley Reward Area" by J. L. Morton dated 11th December, 1963.

It covers the survey, magnetic-dip-needle survey, and incidental topographical and geological mapping.

SURVEY

(a) Location

The survey was carried out on the alluvial flat bounded by the Stanley River, Mt. Livingstone and the Stanley-Reward-Mine workings.

The co-ordinate system was assumed and bears no relation to the Mt. Lindsay survey. The elevations were assumed using a barometer check on the Mt. Lindsay survey stations.

Meridian Star observations for latitude and extra-meridian observations of the sun were used to establish the true bearing for S1 to S100 as $88^{\circ} 32'$. This was used to lay off an east-west line from S105 as back sight and a blaze mark on a tree (above the camp site) for a line to be cut if necessary, to join up with the Mt. Lindsay survey.

(b) Baseline

7,200 feet of baseline (Stations S1 to S18 and S100 to S105) was surveyed.

(c) Closed Traverses

A closed traverse (stations S20 to S36) to locate the Stanley-Reward-Mine workings was surveyed from S2 and closing on S3 with errors of closure for co-ordinates

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and elevations better than 1 in 4000.

A closed traverse (stations S40 to S55) to pass through the magnetic anomalies and to pick^{up} the two adits was surveyed from S9 to close on S14 with an error of closure for co-ordinates of 1/2000; for elevations of 1 in 4,000.

The total survey length of the two traverses was 4,800 feet.

(d) Picket Lines

24,500 feet of picket line was laid out from the baseline by theodite. An error of 10 degrees in azimuth occurred in the line 124E laid out from Station S11. A correct 124E picket line was laid out from Station S42.

The picket lines have N and E co-ordinates indicated at 100 foot intervals along their length.

MAGNETIC-DIP-SURVEY.

A dip needle survey at 50 foot intervals along the picket lines over the entire area was completed. In areas where the magnetic intensity was greater than 4,000 gammas the interval was reduced to 25 feet. Magnetic base was established on granite at 12050N and 14800E.

Two significant areas were defined:-

- (1) The anomaly centred at 11600N and 12600E has magnetic intensities in the order of 3,000 to 4,000 gammas.
- (2) The anomaly centred at 11800N and 11400E has magnetic intensities of over 6,000 gammas with a high of over 27,000 gammas. Negative as well as positive readings were recorded in this area. Outcrops of magnetite occur within the boundaries of this anomaly.

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(A) GEOLOGICAL (i) MAGNETIC ANOMALIES

- (a) The magnetic anomaly centred at 11600N and 12600E has no rock outcrops. A test pit in the alluvials at 11500N and 13200E has some small boulders of gossan.
- (b) The magnetic anomaly centred at 11800N and 11400E has a significant outcrop of magnetite which occurs as an irregular bank along the south side of Livingstone Creek. There are two test adits, one of which has a date of 18/10/12 at the end, in good condition which are in areas of high magnetic intensity. Adit No. 1 shows massive magnetite and Adit No. 2 shows limonitic clay with small veins of magnetite.

10 ft. samples were taken of the outcrop at 11950N 11050E (sample No. 1), and at 11800N 11560E (sample No. 2.)

(ii) Stanley-Reward-Mine Workings

All of the openings and the Rio Tinto test trenches have been surveyed. Most of the shafts have water to within a few feet of their collars. The test trenches have been cleaned out, and the adit is accessible.

(iii) Alluvial Workings.

Three general areas of alluvial workings were discovered.

1. The most important area is south of the Stanley River Camp and on both sides of the Stanley River. There is a man made pond on each side.
2. The area immediately south of the Stanley-Reward-Mine and downstream from the workings has been worked for alluvials.
3. There is some evidence that the area on Livingstone Creek near 13600E has been worked for alluvials as well

(B) TOPOGRAPHICAL

The general topographical features were mapped along the surveyed lines and the picket lines.

The water race along the south-west side of the Parson's Hood Range was investigated and found to be in general good order but with bank break throughs at the creeks. There is an extensive pipeline system which can be readily traced from its takeoff point at the water race and crossing the Mt. Lindsay track about half a mile east of the Stanley-River-Tent-Camp to the alluvial workings and the Stanley-Reward-Mine. There are other pipeline systems with take off points on Livingstone Creek and in the mine workings.

At least three old campsites occur in the vicinity of the mine and the Stanley-River-Tent-Camp.

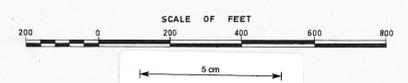
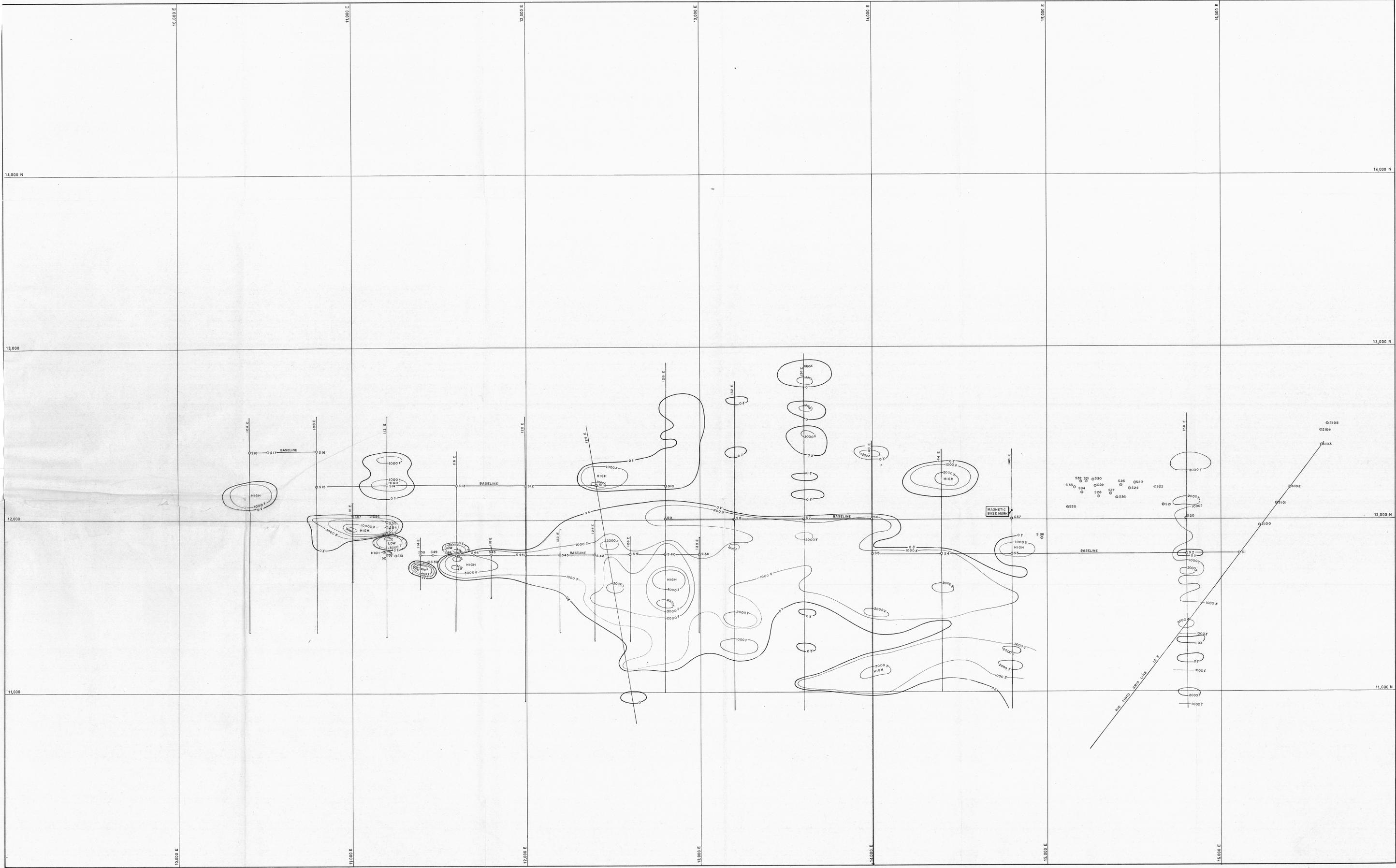
STANLEY-RIVER-TENT-CAMP.

A base camp consisting of three tents and a tent-fly covered mess area was established on the east bank of the Stanley River. The tents are equiped with six canvas bunks, mess gear and some tinned food.

The camp was left in good order.



I.R. WORTH.

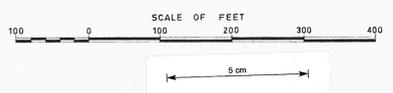
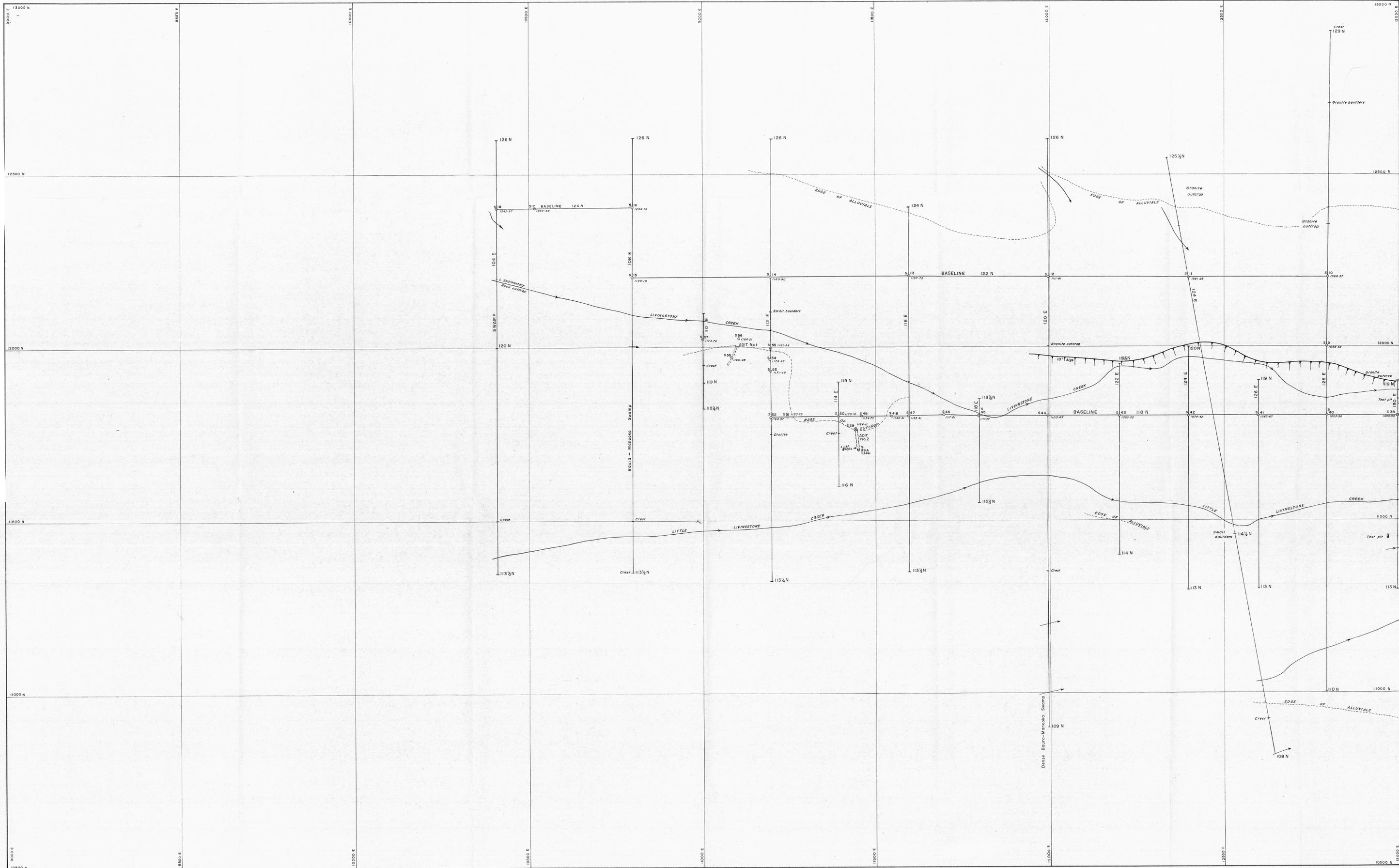


ABERFOYLE TIN DEVELOPMENT PARTNERSHIP
 MT. LINDSAY PROSPECT — STANLEY REWARD AREA
 GEOPHYSICAL PLAN OF VERTICAL MAGNETIC INTENSITY CONTOURS

NOTE Magnetic Base is 2,500 gammas lower than
 Mt Lindsay Magnetic Base

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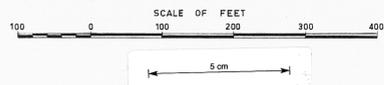
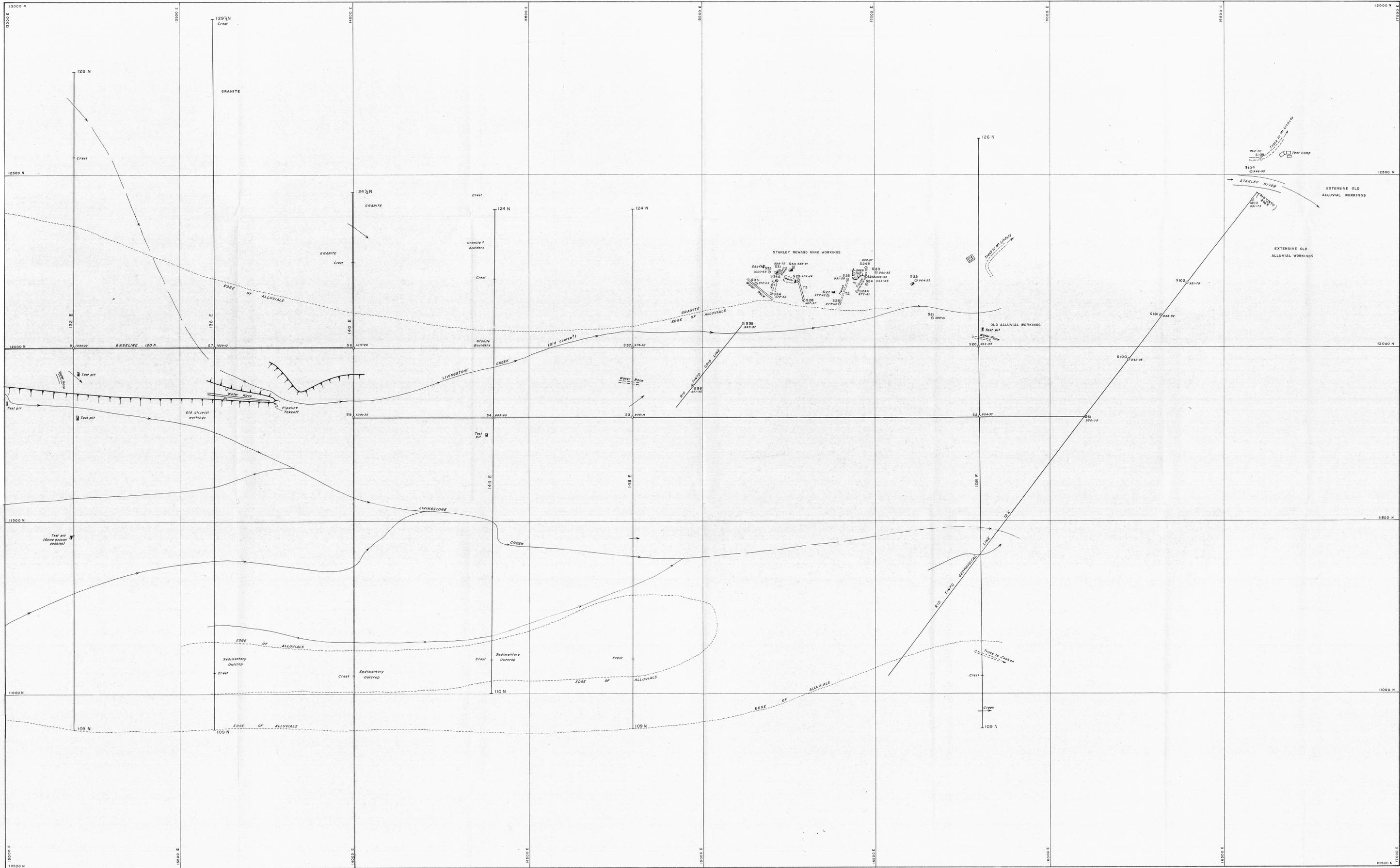
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 MT. LINDSAY PROSPECT — STANLEY REWARD AREA
 GEOLOGICAL AND TOPOGRAPHICAL MAP

LEGEND
 546
 Station and elevation

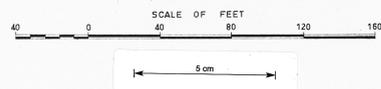
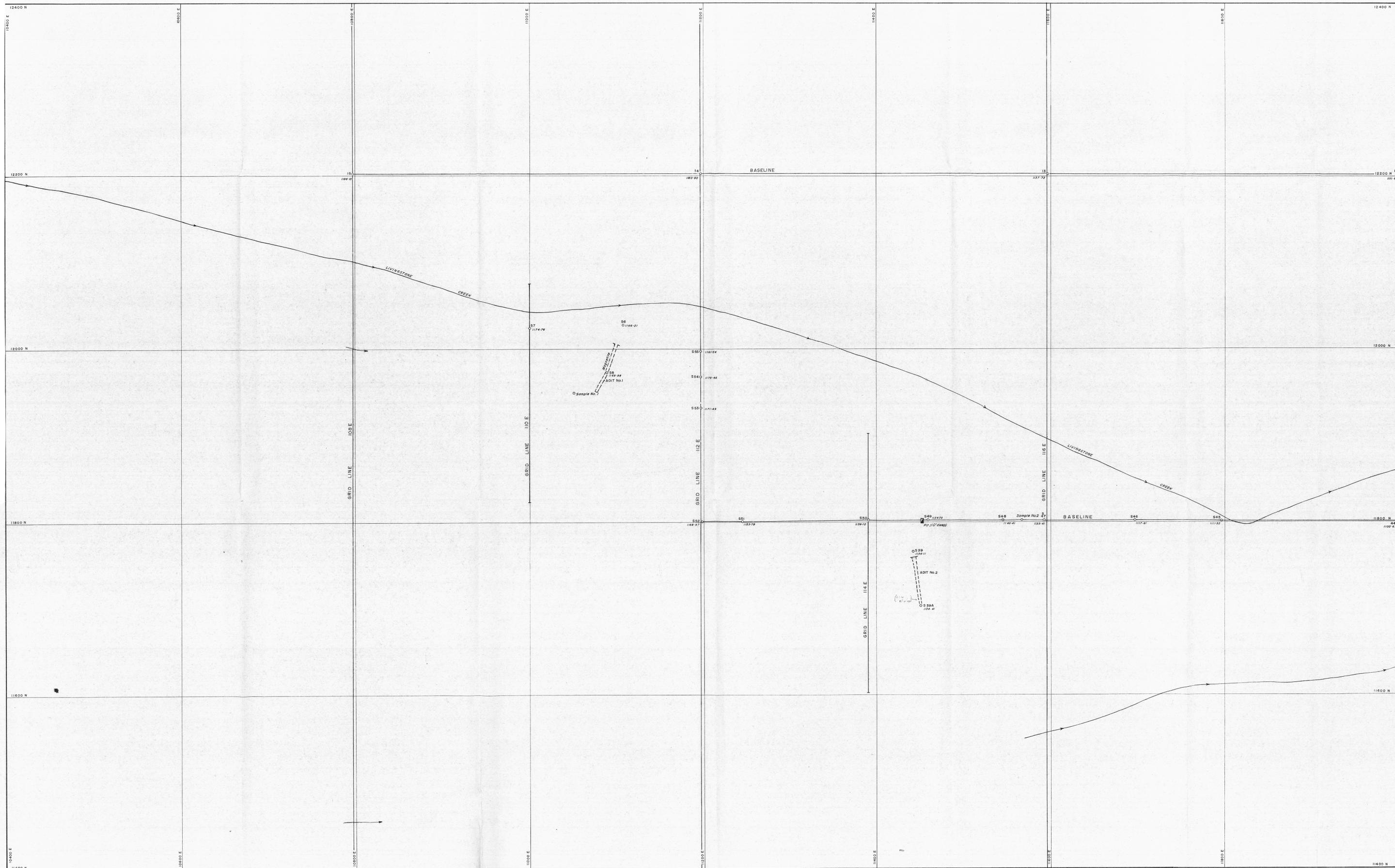
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 MT. LINDSAY PROSPECT - STANLEY REWARD AREA
 GEOLOGICAL AND TOPOGRAPHICAL MAP

LEGEND
 S2 Station and elevation

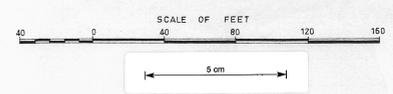
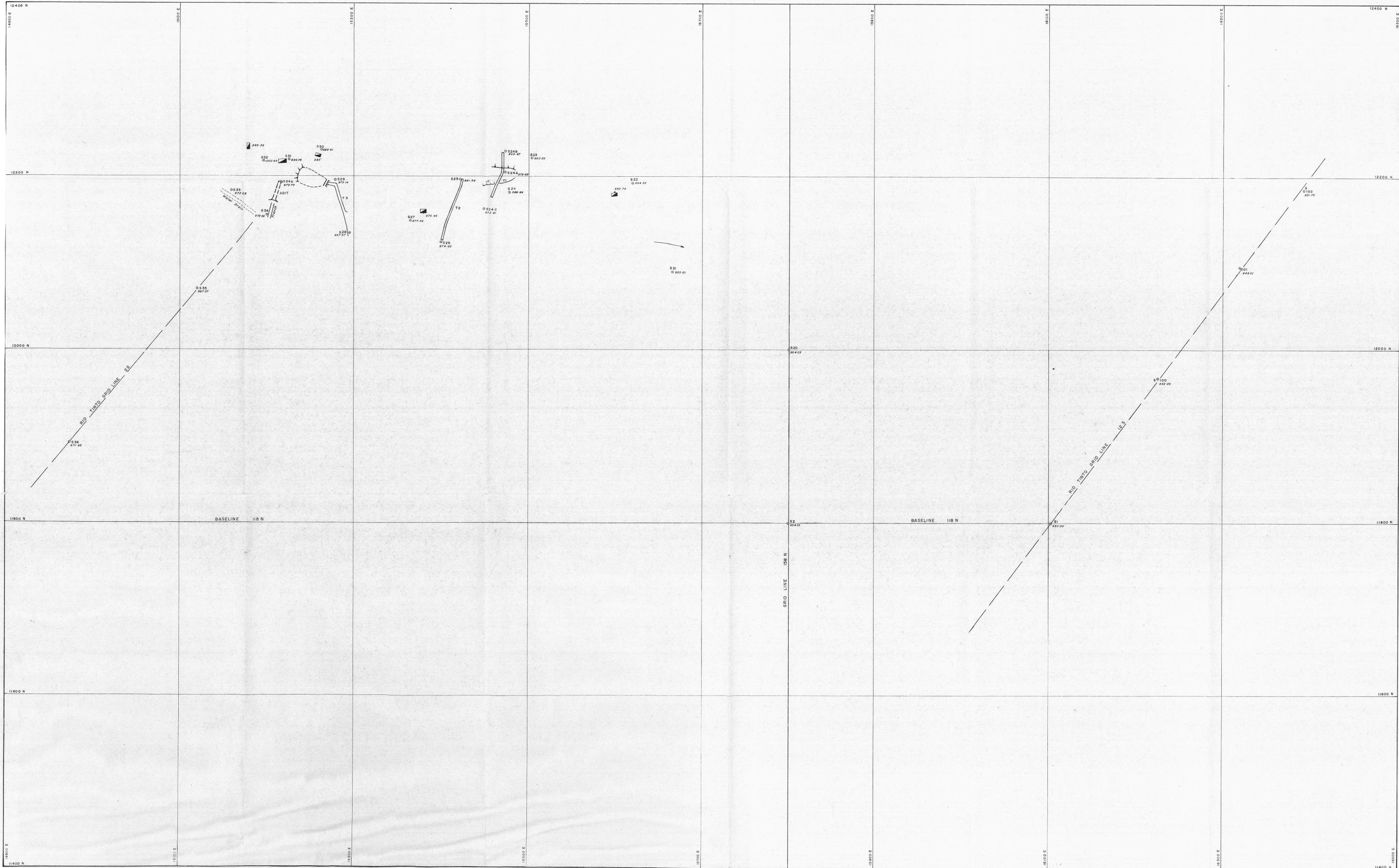
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 MT. LINDSAY PROSPECT — STANLEY REWARD AREA
 GEOLOGICAL AND TOPOGRAPHICAL MAP

LEGEND
 547
 © 1988-91 Station and elevation

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 MT. LINDSAY PROSPECT — STANLEY REWARD AREA
 GEOLOGICAL AND TOPOGRAPHICAL MAP

LEGEND
 S1
 @ 9900 Station and elevation

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