

THE 1981-82 WINTER DISTRIBUTION OF  
WOODLAND CARIBOU IN THE  
MACKENZIE MTNS., N. W. T.



ENVIRONMENT YUKON  
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28 March 1982

The 1981-82 Winter Distribution of Woodland Caribou in  
the MacKenzie Mountains, N. W. T.

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INTRODUCTION:

From 11 to 15<sup>MARCH</sup> inclusive, a total of 28.1 fixed wing aircraft hours (including 4.3 hours of ferry time) were flown in the major drainage systems of the MacKenzie Mountains.

Evidence of wintering Woodland caribou generally conformed to that reported by Simmons (1970), except that several tributaries of the Mountain River were intensively used in 1981-82. Total flight coverage extends from the confluence of the Flat and South Nahanni Rivers ( $61^{\circ}30'N$ ) to the Arctic Red River ( $65^{\circ}10'N$ ); and from the Yukon border east to the limit of caribou distribution in the main drainages. Between Wrigley Lake and Dal Lake, scattered caribou sign continued eastward for an undetermined distance. Not surveyed because of logistic constraints, were the North Nahanni and Root River drainages in the southeastern portion of the MacKenzie Mountains.

RESULTS:

Wintering caribou or evidence thereof, were found in three distinct and separate parts of the range. Evidence of caribou in the tributary west of the mainstem Arctic Red River is contiguous with sign in the Upper Snake River (Yukon) and quite separate from caribou wintering in the upper tributaries

of the Mountain River. The winter distribution of this group (Bonnet Plume herd) has been consistent over the last three years and includes the large western tributary of, and the main lower mainstem Arctic Red River to the edge of the Canyon ranges westward - across the Cranswick River into the middle and lower Snake, Bonnet Plume and Wind River systems (R. Farnell, pers. comm.). Similarly, the caribou wintering almost wholly within Nahanni National Park are distinct from those wintering in drainages to the north. The evidence of caribou wintering in the central portion of the range is more or <sup>less</sup> continuous from the head of the Thundercloud River to the upper tributaries and mainstem of the Mountain River. It is speculative as to whether this distribution represents one wintering "herd" or is composed of several discreet smaller "herds".

Total and classified counts were not attempted on this survey however, notes on habitat and habitat use are included, in the flight summaries appended. A total of 868 caribou were observed, 52 of which were associated with the South Nahanni group. Further, approximately 500 caribou not accounted, but no doubt including some of the above, were observed on the Keele River from Porter Creek to the head waters on a single flight (14 March). Invariably, caribou were found in forested terrain, or travelling or resting on river ice.

Group sizes varied from one to 100 animals. Subadult bulls in association with groups of cows and juveniles still retained antlers. Groups of mature antlerless bulls were not observed.

As noted by Simmons (1970), caribou were noted to be using several mineral licks, primarily in the Mountain, Keele and Redstone drainages. Areas around mineral stained ice, often associated with springs, were virtually tramped flat from intensive use by caribou.

Incidental observations on sheep, moose and wolves were recorded. Thirty three wolves in nine distinct groups were observed as follows: 5, 6, 2, 5, 1, 4, 6, 2, 2. Smaller groups were probably members of larger but unobserved packs. Most wolves observed were associated with caribou concentrations, a few (group of 5) on an old moose kill in an alpine pass and a group of six travelling between drainages in the alpine.

The 58 observed moose were distributed principally along riparian bottomlands, but were found up to the last vestige of willow at the heads of several drainages.

DISCUSSION:

Funded by the government of N. W. T. and implemented by the government of Y. T., this brief survey augments previous work on the winter distribution of Woodland caribou in the MacKenzie Mountains. More recent ~~summer~~<sup>SUMMER</sup> work by Archibald (1974), Hayes and Mossop (1981) and Farnell and Nette (1981) in conjunction with the recent development of mineral deposits within the interjurisdictional range of these caribou - stress the need for the continuation of cooperative research and management of MacKenzie Mountain Woodland caribou.

LITERATURE CITED:

- Archibald, P. L. 1974. Some Observations of a Woodland Caribou Population in the MacKenzie Mountains, N. W. T. 21 p. Typescript. C. W. S. in-service report.
- Farnell and Nette, 1981. Moose-Caribou Investigations in the MacMillan/Howards Pass Development Area. 20 p. typescript - Interim report (Y.T.G. - D. R. R.)
- Hayes, B. and D. Mossop, 1981. Nesting Raptor Populations in the MacMillan Pass - North Canal Road Area. (Unpublished - Y.T.G. - D.R.R.).
- ~~Summers~~<sup>Simmons</sup>, N. M. 1970. Aerial Woodland Caribou Surveys in Game Management Zone 12, MacKenzie Mountains, N.W.T. February - March, 1970. 5 p. typescript.

FLIGHT NOTES

March 11, 1982

PILOT: Kirk Chambers

Clear with cloud patches

OBSERVER: G. Lortie

Occasional snow showers

AIRCRAFT: Cessna 185  
C-GTNL

3.6 hours

Upper Keele R.-Natla R. - N. Redstone & S. Redstone R.

OBSERVATION #

1. Recent tracks & cratering
2. 5 wolves - 3 greys, 2 blacks
3. caribou sign much less - 2 moose
4. 1 moose, lots of moose sign on brushy bars
5. " " " "
6. 15-20 caribou in dense spruce
7. Abundant old caribou sign - some recent
8. 2 moose, = older caribou tracks & craters abundant
9. older & scattered caribou sign
10. " " "
11. recent moose sign on brushy bars & islands
12. Abundant recent caribou trails & craters
13. Abundant recent & older trails & craters
14. " " " "
15. older & scattered trails & craters
16. 1 moose
17. recent older trails & cratering
18. 6 wolves - 2 blacks, 2 greys, 1 reddish brown, 1 blue grey
19. 4 adult moose - scattered older & recent caribou trails & craters
20. scattered recent caribou trails in spruce
21. Abundant recent & older caribou trails & craters
22. caribou in two groups: 25 & 100 moving up valley on river in file.
23. caribou: 23 travelling in file on river moving down valley
24. 1 moose - older caribou sign
25. 1 grey gyrfalcon - 1 moose

FLIGHT SUMMARY

March 11, 1982

Caribou: ± 170 caribou in 4 groups (15-20,25,100,23)  
on the upper Keele R. & N. Redstone R.

Moose: 13 moose: in riparian habitat in all drainages

Wolves: 11 wolves: in 2 groups (5 & 6)

Gyr Falcon: one in alpine - lots of ptarmigan and sign in alpine brushy areas

More caribou were probably in these drainages but the light was "flat" today, and they are difficult to see in dense spruce anyway. Most parts of the upper and middle sections of these drainages, with the possible exception of the alpine summits have been used by caribou.

FLIGHT NOTES

March 12, 1982

PILOT: Kirk Chambers

Clear, bright & cloudless

OBSERVER: G. Lortie

No winds - perfect

AIRCRAFT: Cessna 185  
C-GTNL

6.5 hours

Tsichu camp - Caribou Pass (Canol) - Keele R. (below mouth of Natla R.) - Wrigley Lake - N. Redstone R. (below mouth of Moose Horn R.) = Lower S. Redstone up to Silverberry R. - Silverberry R. to Head - Thundercloud R. to Head - over divide into Black Wolf Creek - S. Nahanni above mouth of Broken Skull R. = Tsichu camp.

OBSERVATION #

1. Abundant moose sign in alpine drainage bottoms.
2. Older caribou sign abundant in spruce (trails & craters).
3. Scattered old caribou trails & craters in spruce.
4. Abundant old & scattered recent caribou trails in spruce.
5. Very heavy & deep trails, extensive tracking & cratering, 5 caribou on the river.
6. Very abundant recent sign - caribou in groups on river & in spruce: 16, 6, 11, 2, 2, 4, 20, 9, 20, 5. Moose 3. Extensive trails continue down Keele \$.
7. Moose 2.
8. Caribou in groups in spruce: 16, 2, 2, 1.
9. Moose 4 adults.
10. Caribou: 13 on river.
11. Caribou: 4 on river moving upriver.
12. Caribou: 12 on river moving upriver.
13. Moose: 1

Caribou trails & craters (older & recent) continue down Keele R.

14. Caribou: group of 6 on river, Several young males still antlered.
15. Caribou: in groups on Keele R: 1, 8, 4, 4, 5, 17.
16. Caribou: in groups on Keele R: 5, 2, 5, 1.
17. Caribou: group of 11 on Keele R.
18. Scattered recent & older caribou sign (tracks & craters).
19. " " " " " "
20. " " " " " " in open spruce.
21. " " " " " " " "
22. " " " " " " " "
23. Scattered older caribou trails & craters.



OBSERVATION #

March 12, 1982

24. Caribou: group of six in spruce. (Wrigley Lk.).
25. Sporadic recent trails & craters in spruce.
26. " " " " "
27. Warm spring - recent caribou sign in spruce.
28. Abundant recent & older craters & trails.
29. Caribou: group of 20 on tributary creek of S. Redstone R.
30. Moose: 1 adult
31. Scattered older caribou trails & craters.
32. Caribou: 2(cow & calf) = lots of sign on east side of S. Redstone or (Silverberry R).
33. Sporadic older sign in spruce east of river.
34. Sporadic older sign in spruce north of river.
35. Abundant recent trails & craters in spruce & on S. Redstone (Silverberry R.) at junction of Thundercloud R.
36. Caribou in groups in spruce: 35, 3, 20, 6.
37. Caribou groups: 10, 5 in spruce.
38. Abundant older sign continues up Silverberry R.
39. Hotsprings - Caribou have used the Silverberry extensively & intensively this winter.
40. Moose: 2 adults on river.
41. Caribou: 10 in a group travelling up the Thundercloud R.
42. Abundant older trails & cratering - this valley has been heavily used.
43. Caribou: 2(cow & calf) in spruce - sign still abundant.
44. Scattered older sign in Black Wolf Ck.
45. Small amounts of sporadic older caribou sign.
46. Moose: 2 adults.
47. Sporadic recent caribou trails on S. Nahanni R.
48. Older & scattered recent caribou trails on S. Nahanni R. (less than 20 caribou).

No caribou sign above the mouth of the Little Nahanni R.

FLIGHT NOTES

March 13, 1982

PILOT: Kirk Chambers

Clear & bright

OBSERVER: G. Lortie

Another perfect day

AIRCRAFT: CESSNA 185  
C-GTNL

7.1 hours

Tsichu camp - Upper Twitya R. - Upper Godlin R. - Godlin Lk. - Ekwi R. - Lower Twitya R. - Mountain River & tributaries down to Cache Ck. - Upper Arctic Red River - Head of Snake R. - Bonnet Plume Lk. - Misty Lk. - Selwyn Valley - Tsichu camp.

OBSERVATION #

1. Recent moose sign in creek bottom (head of Twitya R.).
2. 2 moose - small amount of recent caribou sign on river.
3. Some older & recent caribou tracking & craters on river & in spruce.
4. Recent caribou trails on river.
5. 2 moose - recent caribou sign sparse - some older sign.
6. Older caribou tracking on creek & on spruce slopes.
7. Godlin River - older abundant caribou trails & craters. 2 moose.
8. Older abundant trails & cratering Godlin Lks.
9. Wolves 2: 1 black, 1 grey, older caribou sign abundant (Ekwi R.).
10. Abundant older & some recent caribou trails on river  
Extensive cratering.
11. Very abundant older trails on Ekwi R. & use of spruce slopes.
12. Caribou: 15 in a group moving up Ekwi R. 2 kills on the ice.
13. Intensively used area.
14. Twitya R. upstream from Keele R. - intensively used area.
15. Caribou in groups on Twitya R: 3, 11, 3, 47, 13, 2 moving upriver  
on older trails. Moose: 1, 3.
16. Extensively used area on river bottom & timbered hills.
17. Older intensive use - scattered recent sign. Moose 4.
18. Caribou sign older & scattered. Moose: 1
19. Scattered older caribou sign 0 small trails on river. Moose: 1
20. Scattered older caribou sign in tributary of upper Mountain R.
21. Lots of old caribou sign.
22. Intensively used area - lots of older sign in spruce.

OBSERVATION #

March 13, 1982

23. Intensively used area - lots of older sign in spruce.
24. Very intensively used valley - heavy trails & craters in spruce.  
Big trails on river.
25. Caribou: in groups in off river meadow: 8, 3, 3. Intensively used area.
26. Very intensive use of valley width.
27. Caribou in groups: 4, 6, 6. Moose: 2.
28. Sheep: 13, includes 2 sickle heads.
29. Hotspring - very high volume pouring directly into Cache Creek.
30. Intensively used area.
31. Older caribou sign - thinning out.
32. Scattered older & some recent caribou trails & craters on subalpine.
33. Palmer Lake - intensive older use by caribou.
34. Caribou: in groups in spruce: 6, 15. Area intensively used.
35. Wolves: 5, 3 blacks, 2 greys on old moose kill in alpine.
36. Older & recent abundant caribou sign - extensive cratering on benches above river.
37. Intensive use with deep trails & cratering.
38. Small hotspring - used by caribou (lick).
39. = 33. Palmer Lake - refuel.
40. Intensively used section of valley. Some recent trails & cratering off river.
41. Abundant older trails & cratering in spruce.
42. Caribou: groups in spruce: 4, 5. Caribou sign thinning out fast.
43. Scattered recent caribou sign, abundant old trails & craters along river.
44. Abundant old track & craters along river & in spruce. Intensively used area.
45. Intensive old cratering & trails in spruce.
46. Arctic Red R. drainage. Sheep: 2 rams in summit.
47. Sheep: 5 includes one sicklehead & one lamb.
48. Sporadic old & a trace of fresh caribou sign.
49. Sporadic old caribou sign.
50. " " " "
51. Caribou sign more abundant in this tributary - extensive cratering on river and on spruce slopes.
52. Abundant old cratering & trails. (Upper Snake).
53. Caribou sign rapidly thinning out (animals probably downriver).
54. Wolf kill (moose). No caribou sign in this country.
55. Moose 2. Small amount of caribou sign.
56. Scattered older sign in spruce. Probably down Hess R. north of Keele Lk.

FLIGHT NOTES

March 14, 1982 A.M.

PILOT: Kirk Chambers

Generally clear with

OBSERVERS: G. Lortie, Ron

fog in valleys near the

AIRCRAFT: CESSNA 185

MacKenzie R.

C-GTNL

3.7 hrs.

Tsichu camp-Canol Road to Carcajou R. crossing - north to head of Carcajou - down tributary of Mountain R. - down mainstream Mountain R. - up tributary of Mountain R. to head of Little Keele R. - down Andy Creek - cross Carcajou R. - up Porter Creek - down connecting unnamed valley to Keele R. - follow Keele up to Tsichu Camp.

OBSERVATION #

1. Godlin R. below Godlin Lakes - abundant older caribou cratering & tracking on river & in spruce to timberline.
2. Very abundant deep trails & cratering. Wolf: 1 black.
3. Caribou: in groups in open spruce: 2, 2, 1, 15, 10, 3, 8, 5, 12, 2, 8, 1, 5, 9, 2, 5, 22, 5, 4, 8. Caribou are scattered throughout this mountain basin. Moose: 3.
4. Caribou: in groups using area of hillside hot spring: 15, 15. This spring appears to be really warm - caribou have the entire area tramped flat.
5. Area intensively used by caribou.
6. Scattered older caribou sign.
7. No caribou sign
8. " " "
9. " " "
10. " " "
11. " " "
12. Some older caribou cratering in spruce.
13. No caribou sign.
14. Scattered older & some recent caribou cratering & trails in spruce.

March 14, 1982 A.M.

Flew the Keele R. from Nainlin Break to Tsichu Camp. Saw about 500 caribou scattered in groups resting or leisurely moving upriver. Wolves in four groups: 4, 6, 2, 2 over this stretch of Keele R. 7 blacks, 7 greys.

FLIGHT NOTES

PILOT: Kirk Chambers

March 14, 1982 P.M.

OBSERVERS: G. Lortie, Muffy MacDonald

Generally clear with

AIRCRAFT: CESSNA 185

patches of local cloud

C-GTNL

good conditions

4.3 hrs.

Tsichu camp - O'Grady Lake - head of Broken Skull R. - down Broken Skull R. to South Nahanni - down south Nahanni to mouth of Flat R. - up Flat R. to head - down Little Nahanni to South Nahanni - up S. Nahanni to head - Tsichu Camp.

OBSERVATION #

1. Scattered recent caribou sign - very few animals involved.
2. No sign of caribou - a few moose tracks along the river.
3. Small amount of older caribou sign on river.
4. S. Nahanni below Broken Skull: no caribou sign 0 Wolf tracks on river - 5 moose in pine regen. burn.
5. Lots of moose sign along this section of river.
6. " " " " "
7. Small amount of caribou sign - older craters & tracking on river.
8. Older and recent caribou sign increasing in abundance. Extensive trails, tracking & cratering in off river meadows & on river bars.
9. Caribou: in groups on S. Nahanni R. 6, 8, 10, 4. Moose: 2.
10. Caribou sign abundant with deep trails on the river.
11. Caribou: groups of 5, 4 - kill on small lake.
12. Caribou sign right to the top of Virginia Falls.
13. Caribou sign on Creek ice.
14. Caribou sign on S. Nahanni below the falls with lighter continuing downriver trails.

OBSERVATION #

March 14, 1982 P.M.

15. Older, small amount of caribou sign on Flat River.
16. Older, small amount of caribou sign on Flat River at mouth of Caribou R.
17. Caribou: in groups along river moving upstream: 3, 8, 1, on well established trails.
18. Caribou: 3 resting on river.
19. Caribou sign older & thinning out above Irvine Creek. Big burn in this area.
20. No caribou sign.
21. Muffy saw a log.
22. Mouth of Pass Creek on Flat R. Trace of old caribou sign along river.
23. No caribou on Flat R. above Irvine Creek.
24. Trace of older caribou sign.
25. Trace of older caribou sign.

The Broken Skull River and Flat River above Irvine Creek are devoid of caribou and in the case of both rivers , even moose are scarce.

FLIGHT NOTES

March 15, 1982

PILOT: Kirk Chambers

Another perfect day

OBSERVER: G. Lortie

AIRCRAFT: CESSNA 185

2.9 hours

C-GTNL

(Yukon)

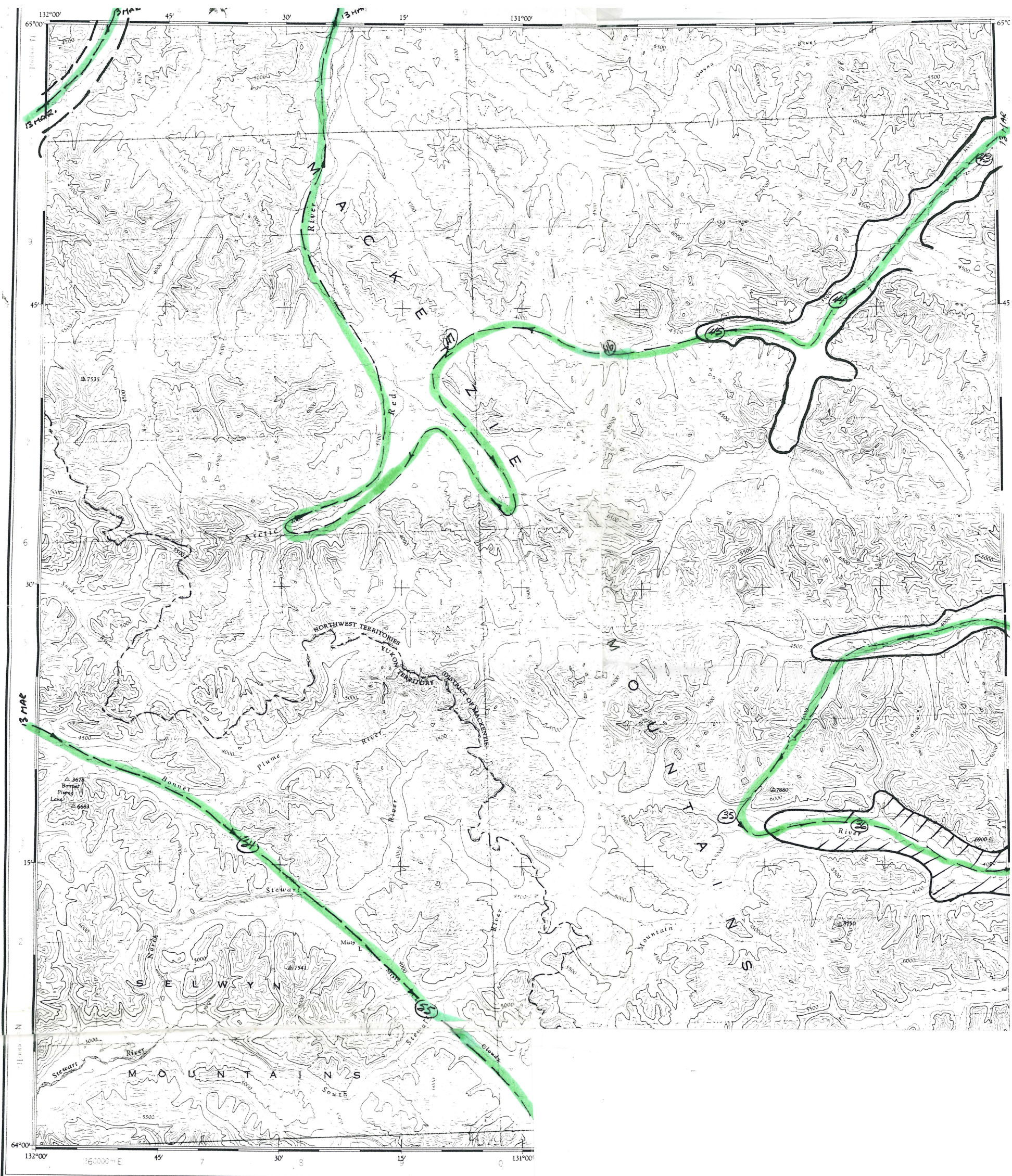
Tsichu Camp - Finlayson Lake area - Ross River

OBSERVATION #

1. Caribou tracking and cratering along Pelly River and in offriver meadows.  
Sign is scattered but appears to be recent.
2. " " " " " " " " " "
3. Scattered caribou sign increasing in abundance.
4. No caribou sign.
5. Scattered old caribou sign.
6. Scattered recent caribou sign.
7. Abundant recent sign in drainages and on open spruce slopes.
8. Wolves: 3, 1 black and 2 greys on small lake.
9. Abundant older sign.
10. No caribou sign.
11. Scattered old sign.
12. No caribou sign.
13. Abundant recent caribou sign.
14. Caribou: 5 resting on lake - sign abundant.
15. No recent sign.
16. Abundant recent sign - caribou: 6 on small lake.
17. Caribou: in small groups on lakes - travelling south on established trails.

We met Rick and Hammond in Ross River about 2:30.

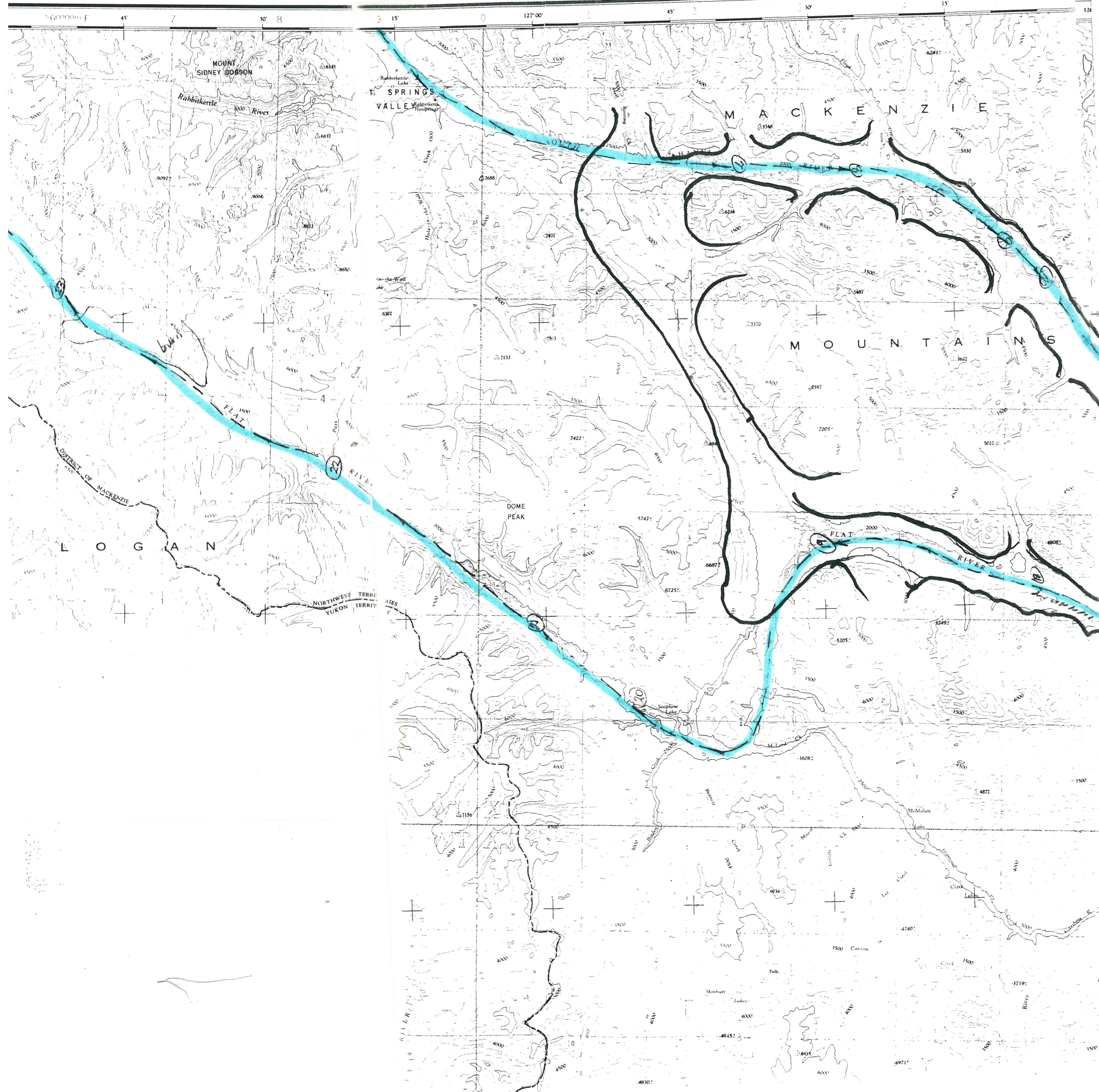


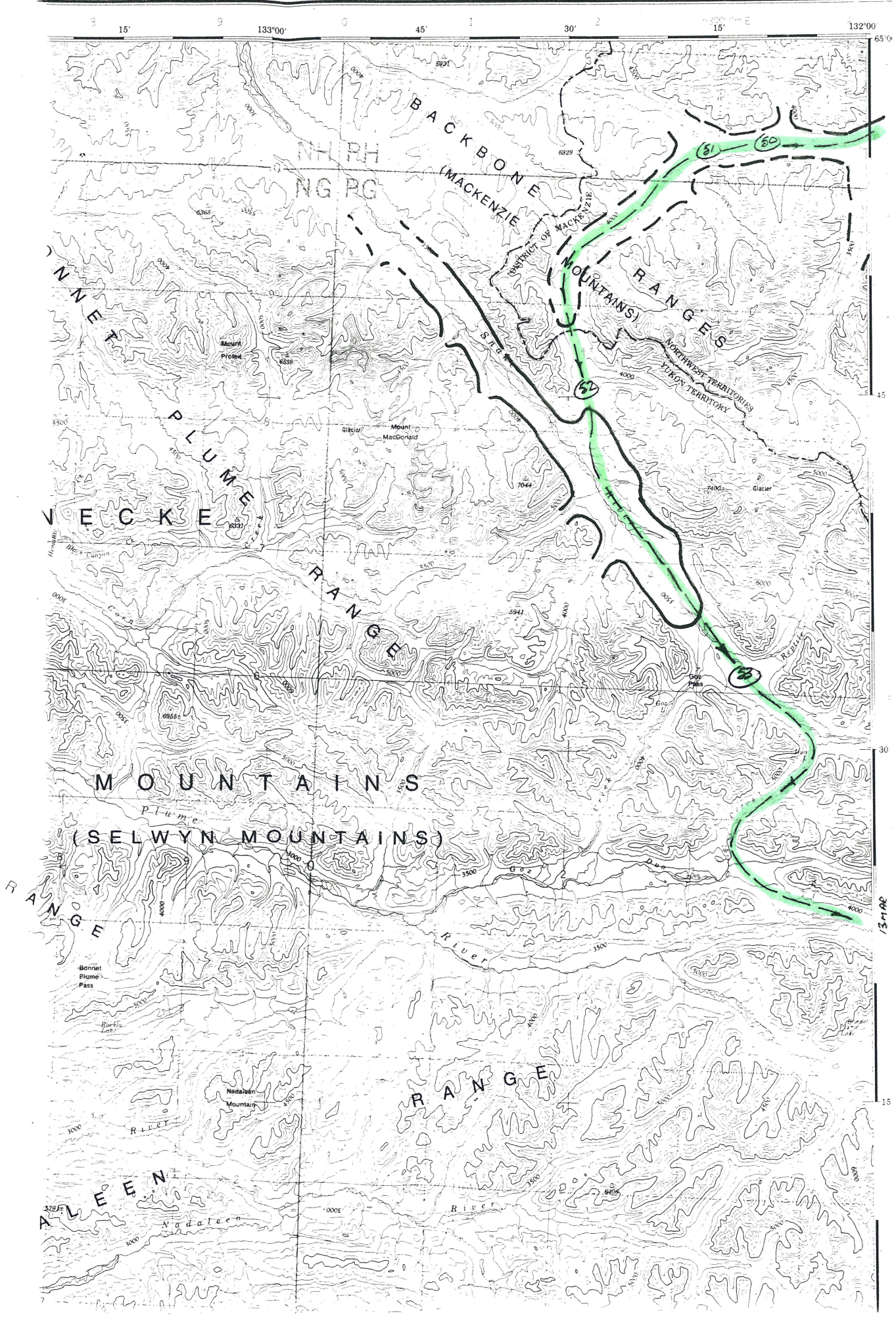


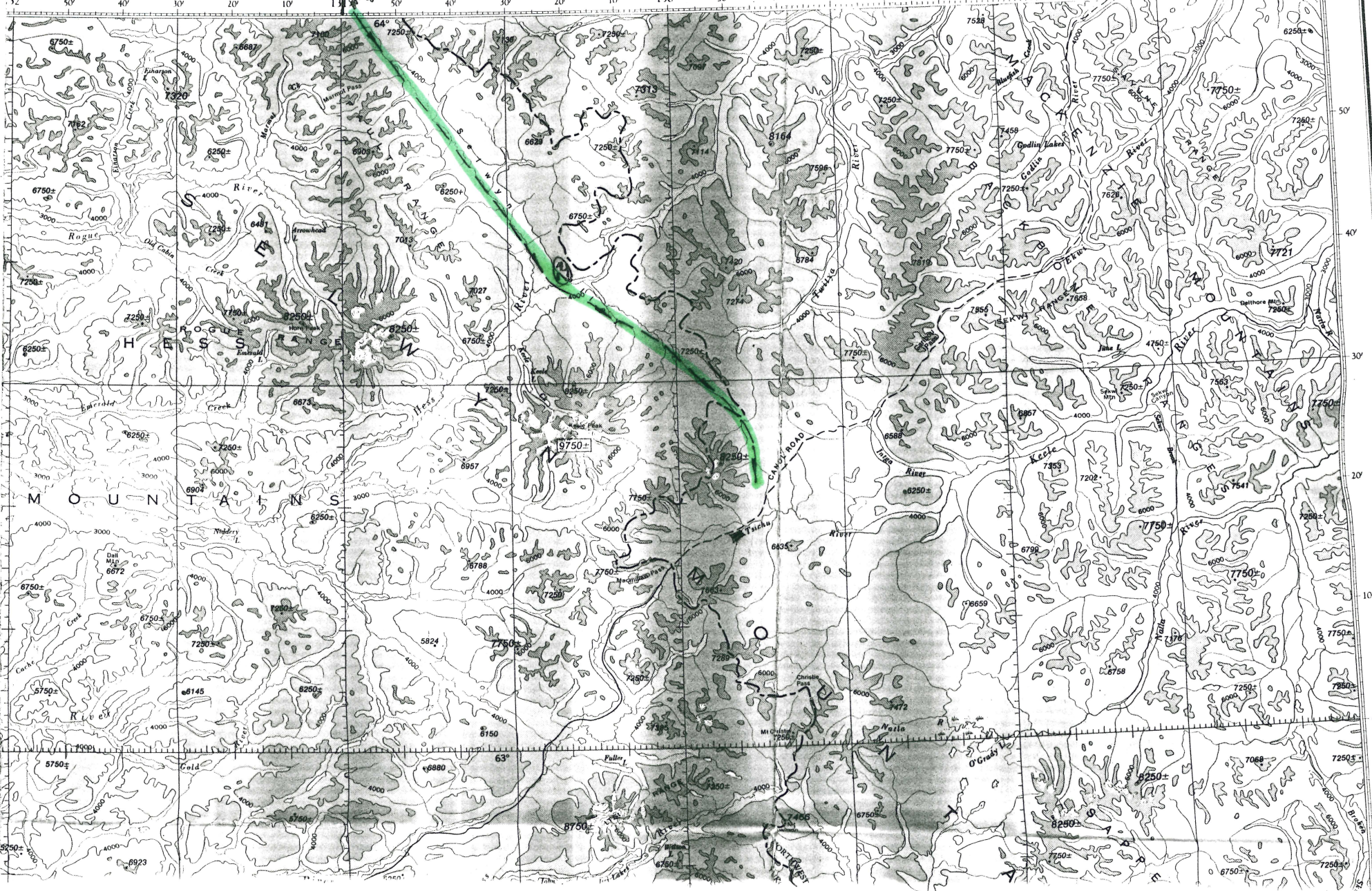
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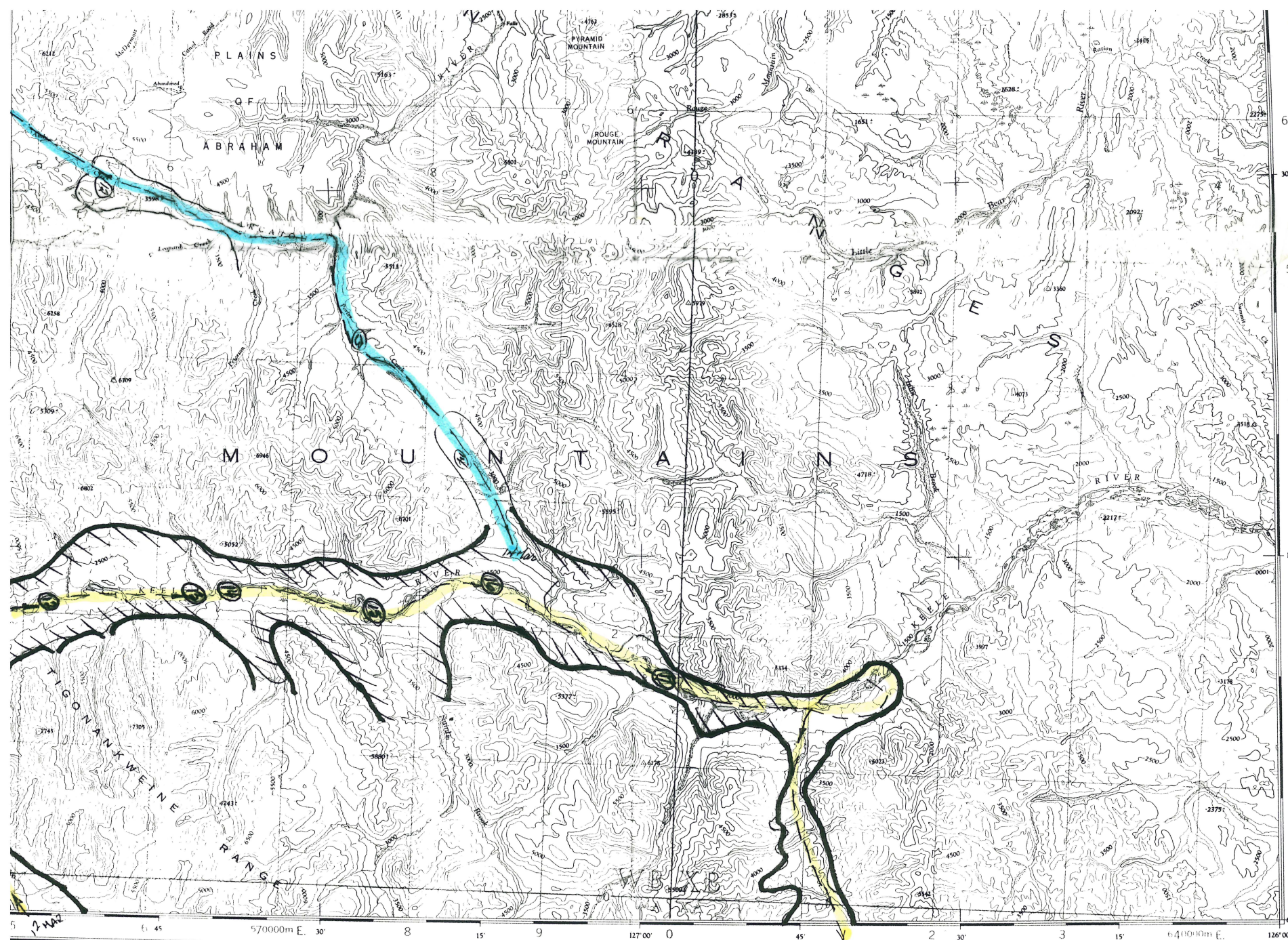
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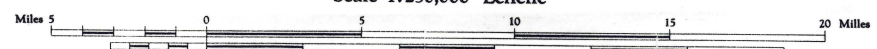
# CARCAJOU CANYON <sup>12 Miles</sup>

DISTRICT OF MACKENZIE  
 NORTHWEST TERRITORIES

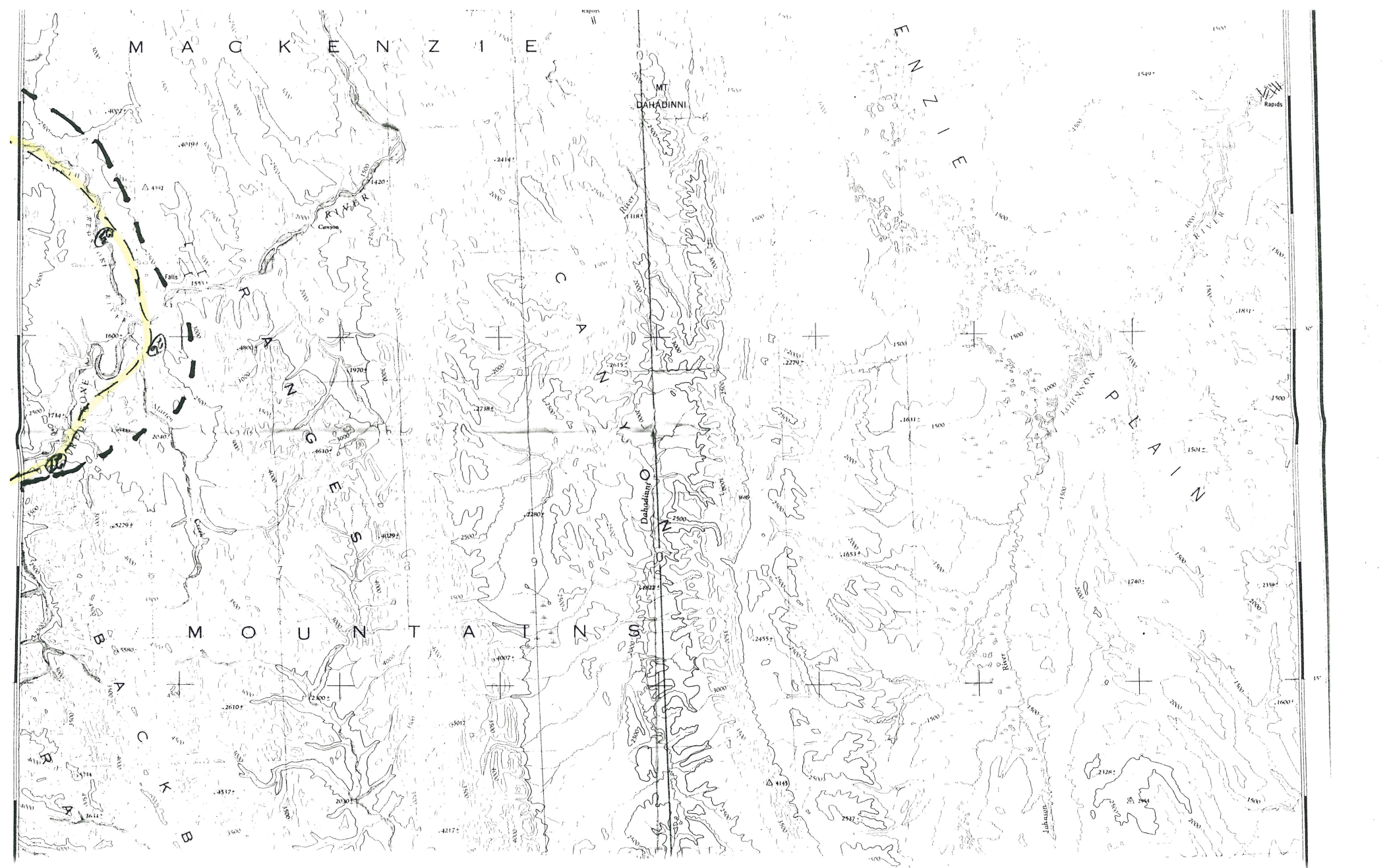
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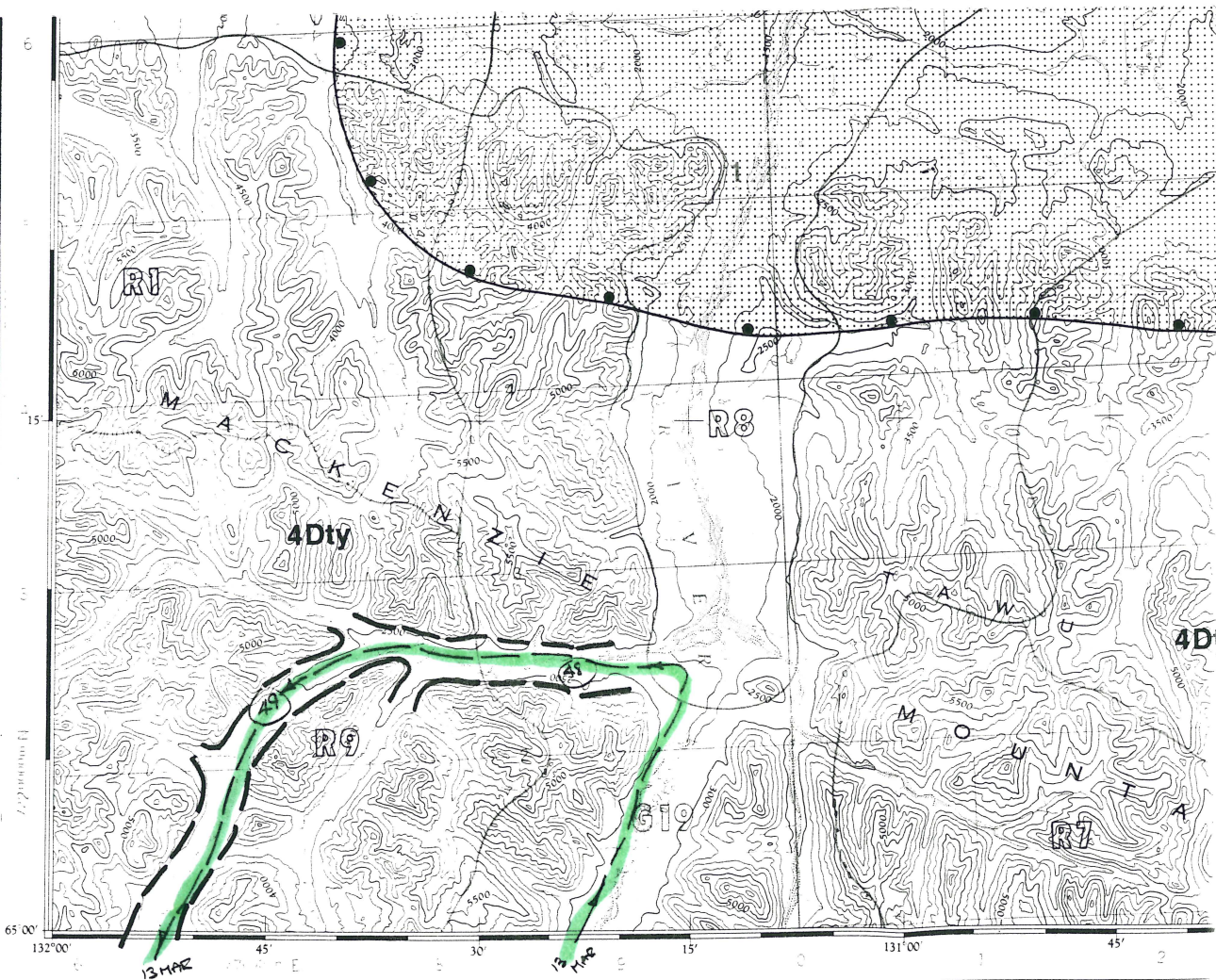
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 (G.R.C.) 1959-61. Photographie aérienne 1949.  
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Routes:  
 the surface, all weather... de gravier toute saison...  
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 dry weather... période sèche...  
 ft track, trail... chemin de terre, sentier...



Building... Bâtiment... Intermittent stream, Cours d'eau intermittent...  
 Post office... Bureau de poste... P Intermittent lake... Lac intermittent...





DECLINATION OF THE COMPASS NEEDLE 1957 Produced and printed by the SURVEYS AND MAPPING BRANCH, DEPARTMENT OF MINES AND TECHNICAL SURVEYS, 1957, from air photographs taken in 1947.

# UPPER RAMPARTS RIVER

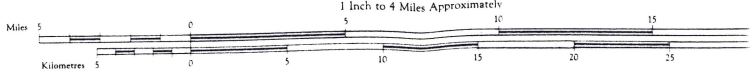
## NORTHWEST TERRITORIES

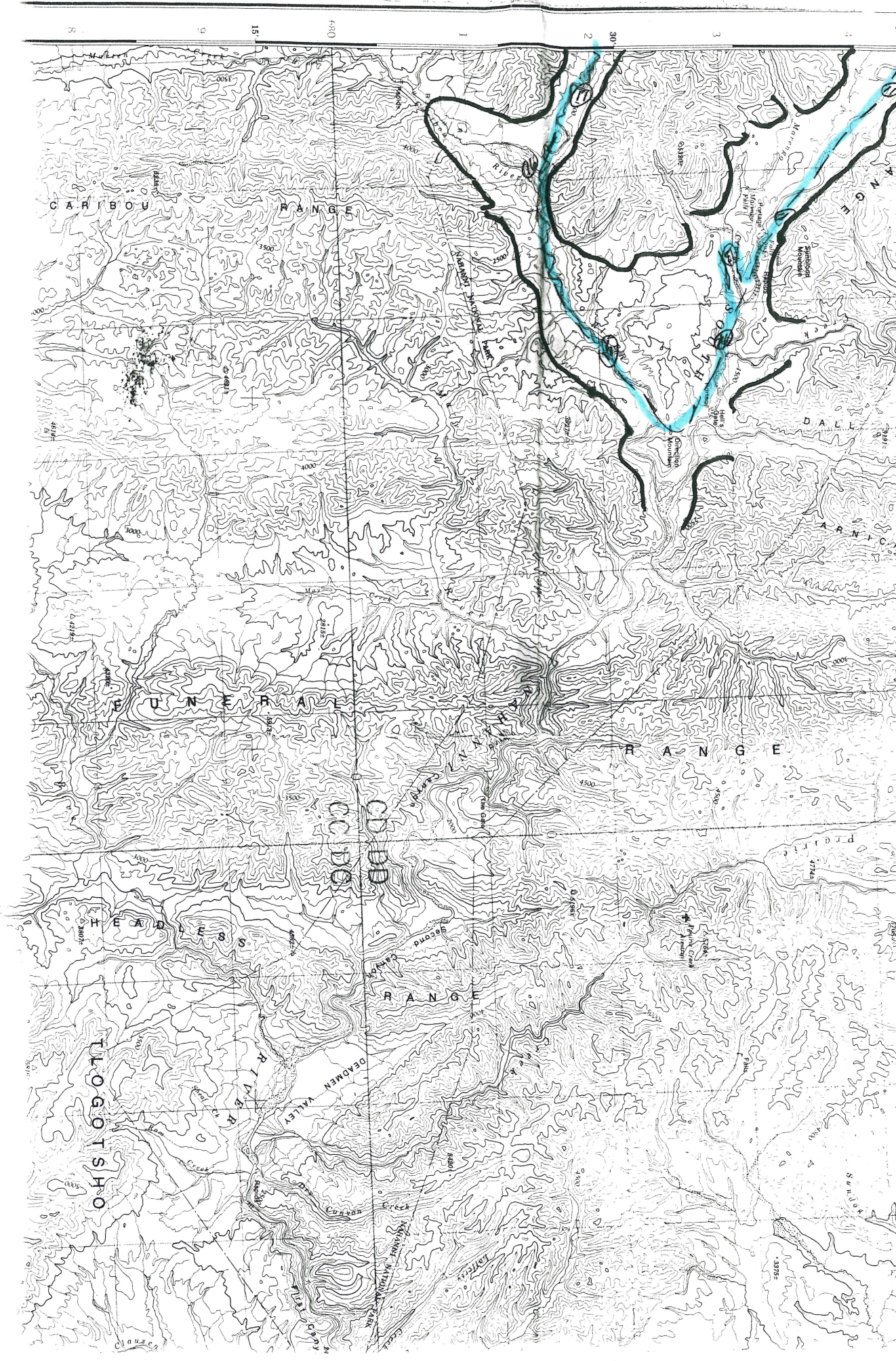
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Scale 1:250,000  
1 inch to 4 Miles Approximately

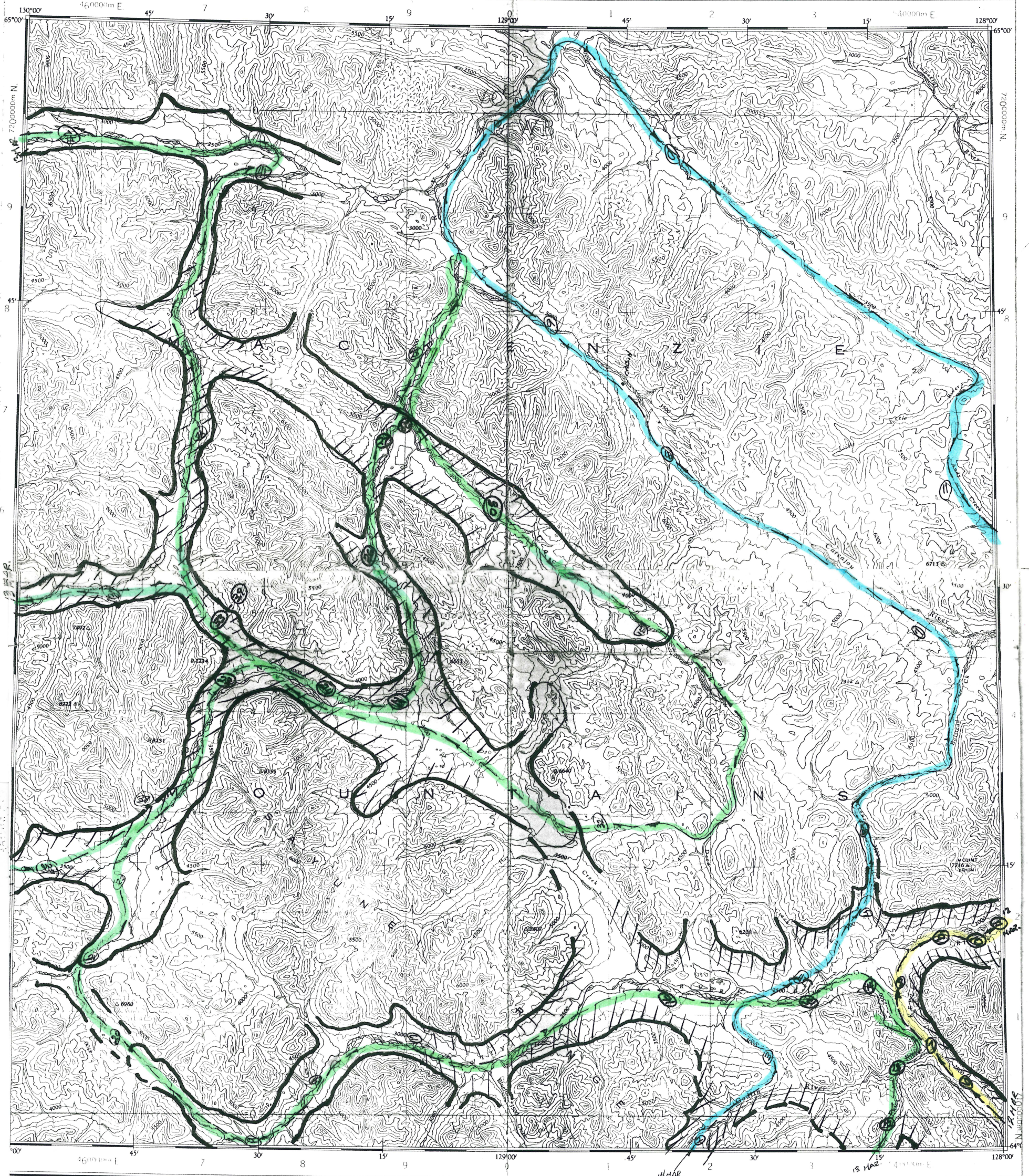
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- Transverse Mercator Projection
- REFERENCE
- Wagon or winter road -----
  - Trail or portage -----
  - Village or settlement O
  - Post office P
  - Building or cabin +
  - R.C.M.P. post ■
  - Horizontal control point ▲
  - Spot elevation (in feet) 2905
  - Sand, gravel or mud ...









SPASS NEEDLE 1959  
 Produced and printed by the SURVEYS AND MAPPING  
 BRANCH, DEPARTMENT OF MINES AND TECHNICAL  
 SURVEYS, 1959, from air photographs taken between 1949  
 and 1955.

Transverse Mercator Projection

Contour Interval 500 Feet  
 Elevations in Feet above Mean Sea Level  
 North American Datum 1927.

Copies may be obtained from the Map Distribution  
 Office, Department of Mines and Technical Surveys,  
 Ottawa.

REFERENCE

- Wagon or winter road
- Trail or portage
- Village or settlement

**MOUNT EDUNI**  
 NORTHWEST TERRITORIES  
 DISTRICT OF MACKENZIE

REFERENCE

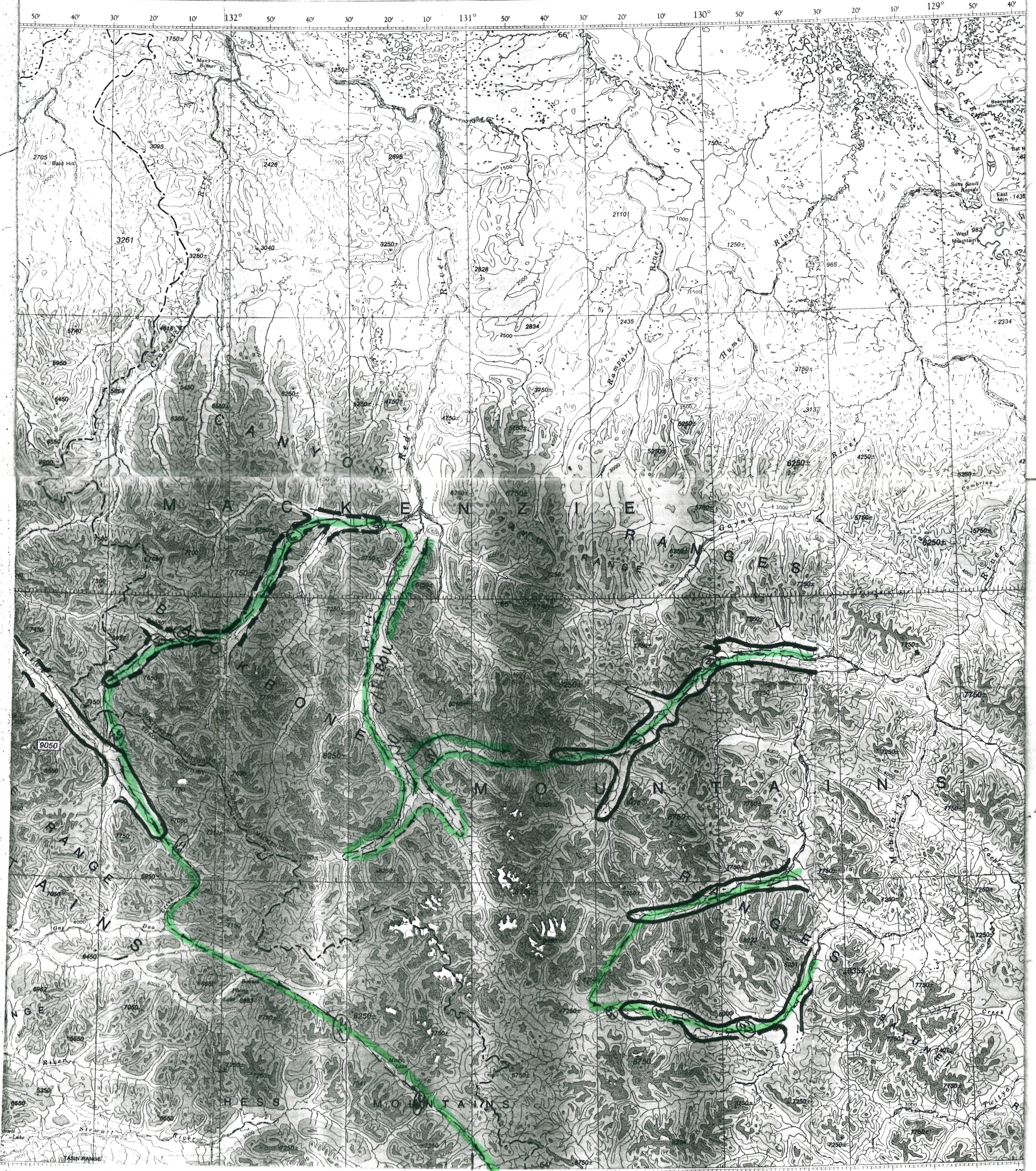
- Streams:
- Intermittent or dry
- In dry river bed
- Result: false

132°	130°
66'	106B
	UPPER
	RAMPARTS
	RIVER
	SANS
	RAF
65'	106B
	BONNET
	LAKE
	MOUNT
	EDUNI

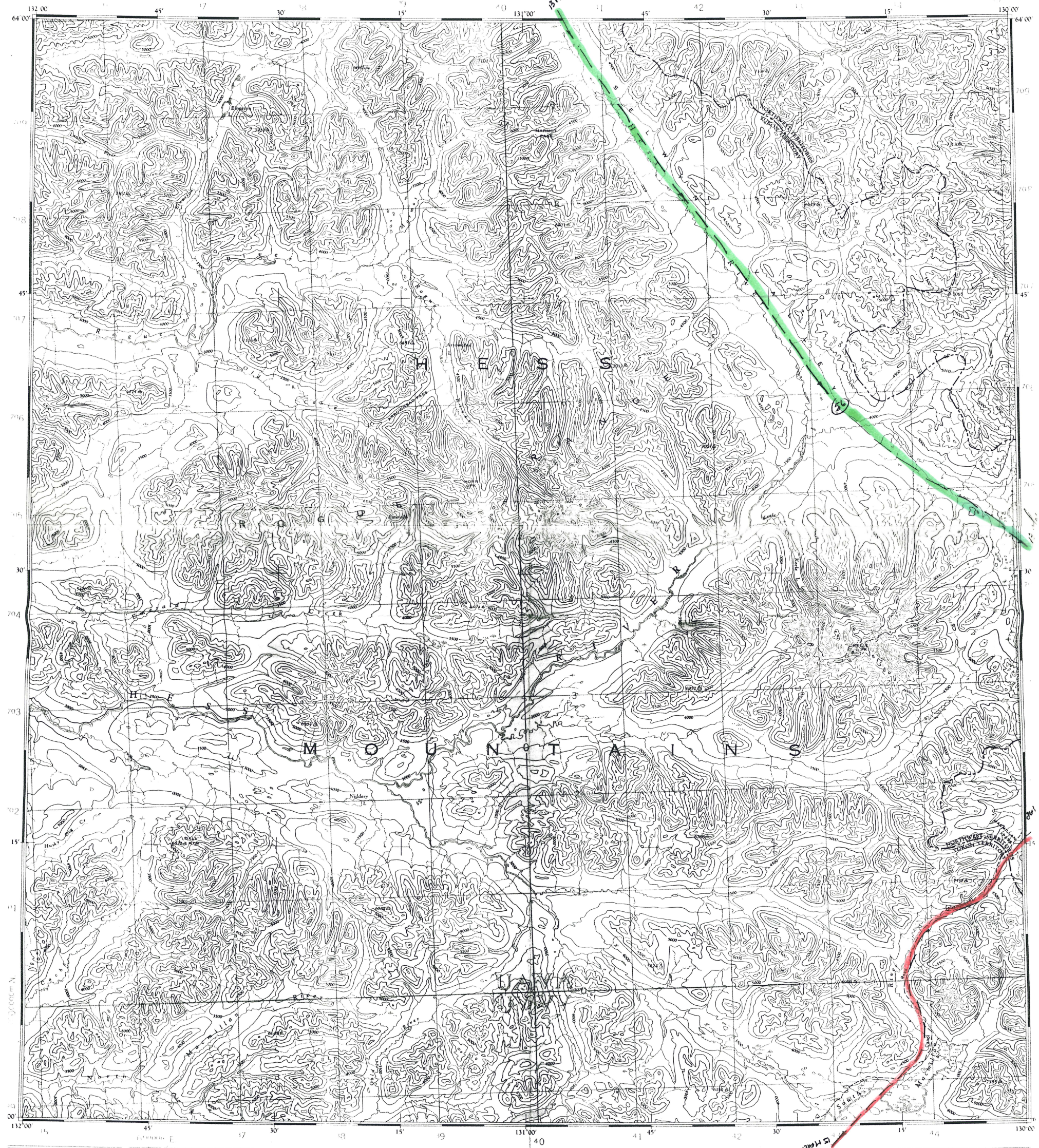
CANADA  
DEPARTMENT OF  
ENERGY, MINES AND RESOURCES  
SURVEYS AND MAPPING BRANCH  
(Joins Arctic Red River 106 N.W. and 106 N.E.)

ELEVATIONS IN FEET

Transverse Mercator Projection



130° 129° 50'



ADJUSTMENT OF THE COMPASS NEEDLE 1957

Produced and printed by the SURVEYS AND MAPPING BRANCH, DEPARTMENT OF MINES AND TECHNICAL SURVEYS, 1958, from air photographs taken in 1949 and 1954.

Universal Transverse Mercator Projection

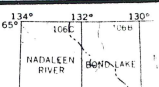
Contour interval 500 Feet  
Elevations in Feet above Mean Sea Level  
North American Datum 1927

Copies may be obtained from the Map Distribution Office, Department of Mines and Technical Surveys, Ottawa.

REFERENCE

# NIDDERY LAKE

REFERENCE



1:250,000



Produced by the ARMY SURVEY ESTABLISHMENT  
 R.C.E. 1959 61 Aerial photography 1949  
 Copies may be obtained from the Map Distribution Office,  
 Department of Mines and Technical Surveys, Ottawa

# GLACIER LAKE

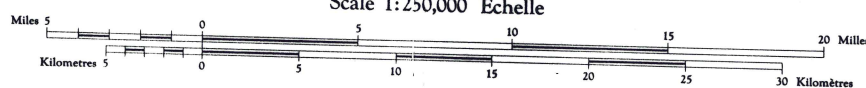
DISTRICT OF MACKENZIE

NORTHWEST TERRITORIES

Scale 1:250,000 Échelle

Préparé par le SERVICE TOPOGRAPHIQUE DE L'ARMÉE,  
 (G.R.C.) 1959 61. Photographie aérienne 1949  
 Ces cartes sont en vente au Bureau de distribution des cartes,  
 ministère des Mines et des Relevés techniques, Ottawa

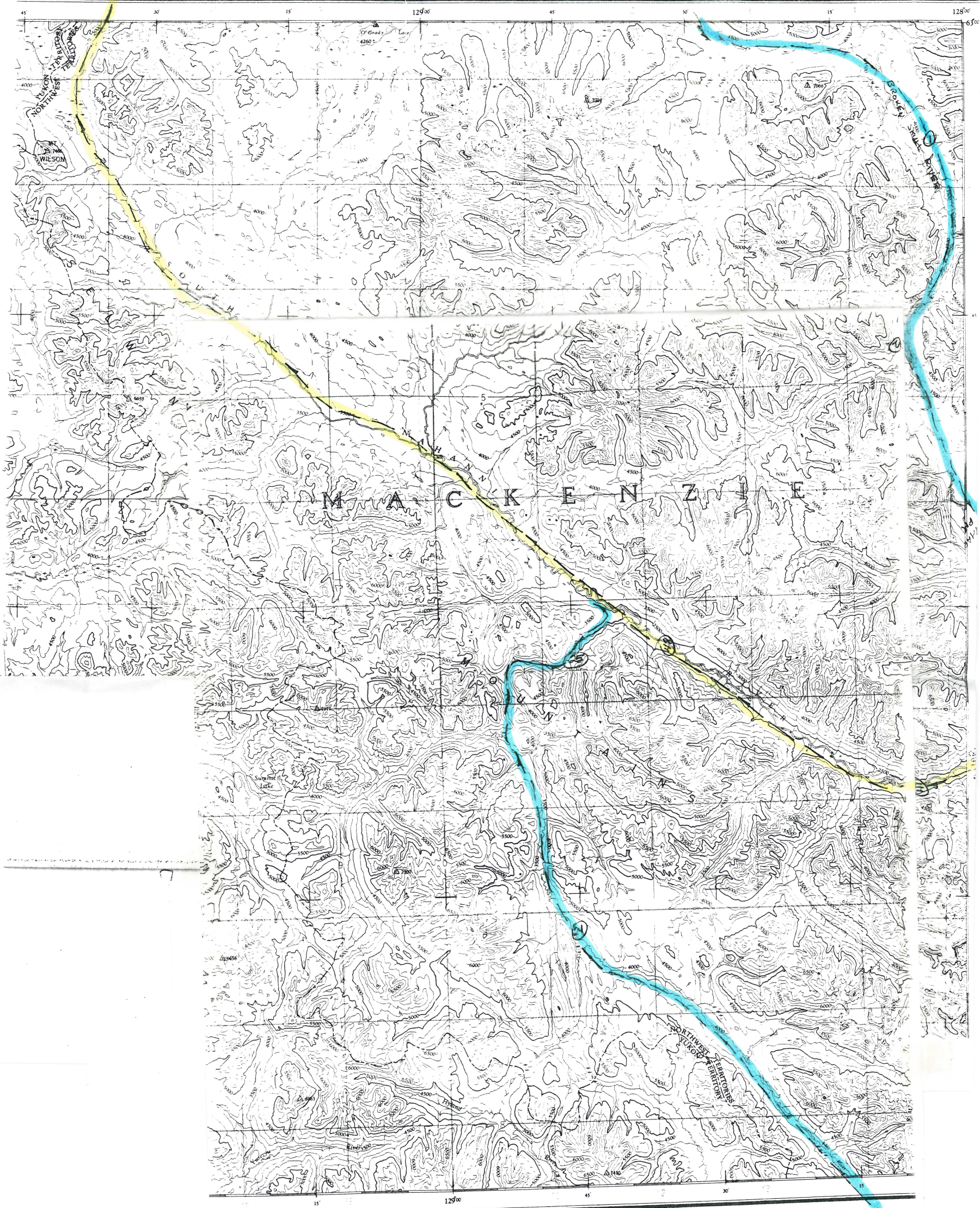
- Roads: loose surface, all weather... de gravier toute saison... cart track, trail... chemin de terre, sentier... Spot elevation, precise, approximate... Point coté, précis, approximatif... Boundary monument... Bonne frontière... Pingo... Buttes de terre... Depression contour...



- Building... Bâtiment... Post office... Bureau de poste... Church... Église... School... École... Astronom... Marsh or swamp... Marais ou marécage... Intermittent stream... Cours d'eau intermittent... Intermittent lake... Lac intermittent... Rapids; falls... Rapides; chutes...

95.L

12 Mile.  
14 Mile.  
PK



ESTABLISHMENT R.C.E., 1049-54

Contour Interval 500 Feet  
All Elevations in Feet above Mean Sea Level.

# NAHANNI

YUKON TERRITORY - NORTHWEST TERRITORIES

Scale 1 : 250,000  
1 Inch to 4 Miles Approximately

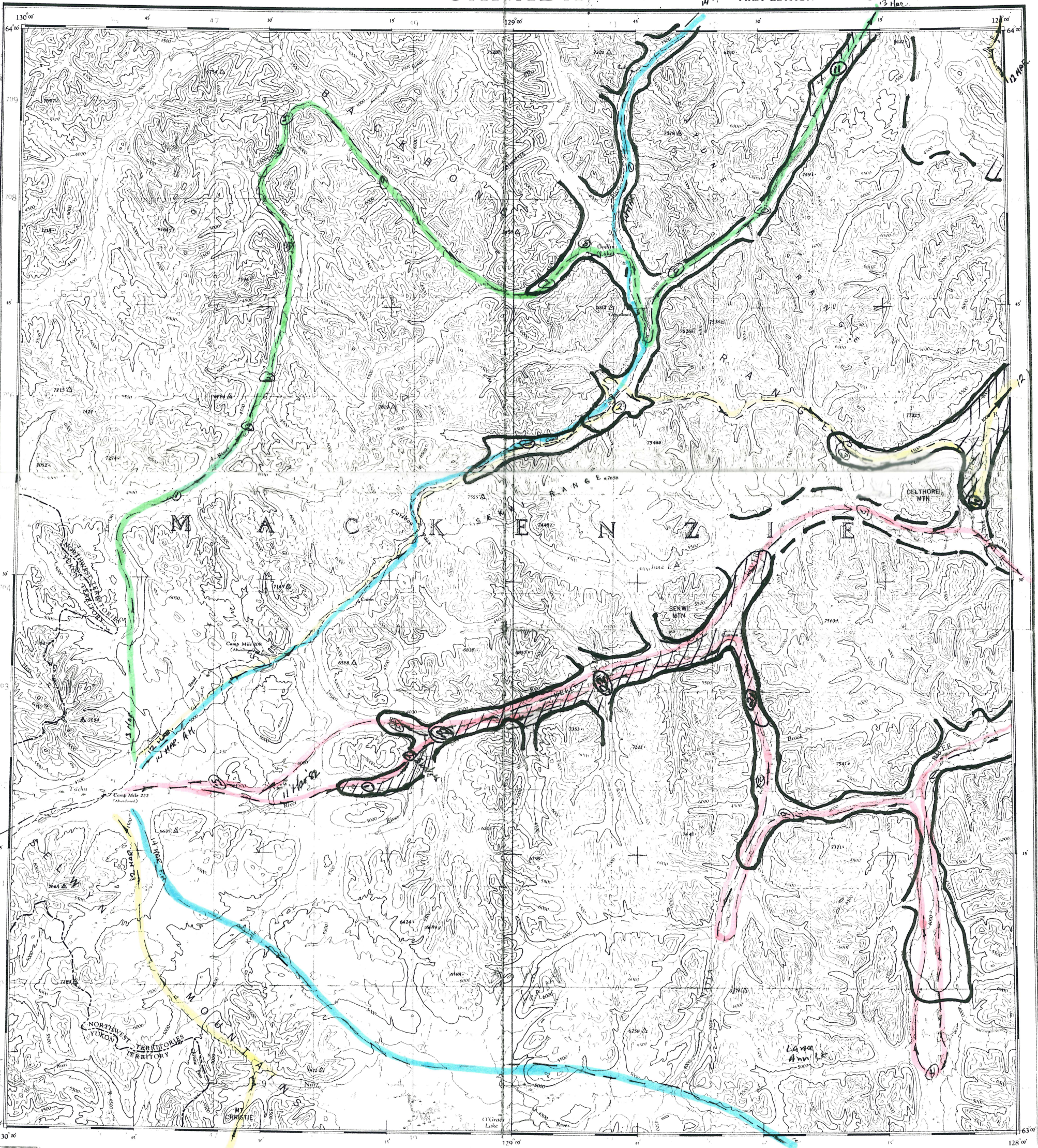


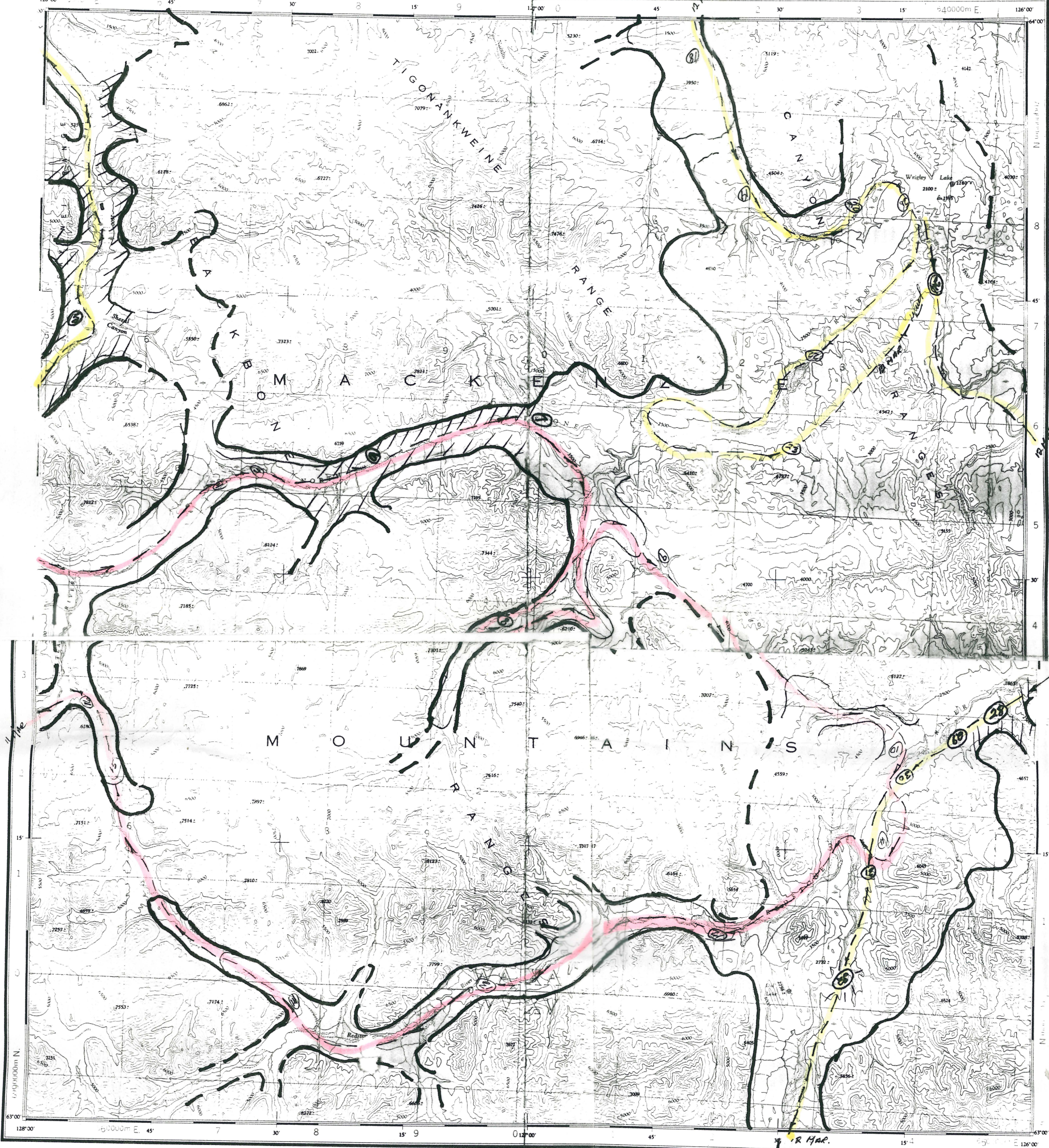
Copies may be obtained from  
The Map Distribution Office,  
Dept. of Mines and Technical Surveys,  
Ottawa.

### REFERENCE

Horizontal Control Point	Spot Elevation, in feet	124
Contours, Elevation	Washed Area	
" " Depression	Swamp or Marsh	
" " Approximate		
Glacier or Snowfield		
Stream, Interment	Ferry	
Dam	Lighthouse	
Falls	Mud	
Airfield on Land	Water	
Power Transmission Line	Landing Ground	
	Anchorage	

NOTE C





Produced by the ARMY SURVEY ESTABLISHMENT  
R.C.E. 1959-61. Aerial photography 1949.  
Copies may be obtained from the Map Distribution Office,  
Department of Mines and Technical Surveys, Ottawa.

# WRIGLEY LAKE

DISTRICT OF MACKENZIE  
NORTHWEST TERRITORIES

Scale 1:250,000 Échelle

Préparé par le SERVICE TOPOGRAPHIQUE DE L'ARMÉE,  
(G.R.C.) 1959-61. Photographie aérienne 1949.  
Ces cartes sont en vente au Bureau de distribution des cartes,  
ministère des Mines et des Relevés techniques, Ottawa.

SS NEEDLE 1961  
EN 1961

- |        |                                      |                                  |                   |                  |             |               |
|--------|--------------------------------------|----------------------------------|-------------------|------------------|-------------|---------------|
| Roads: | loose surface, all weather           | de graver, toute saison          | less than 2 lanes | moins de 2 voies | dry weather | periode sèche |
|        | cart track, trail                    | de terre, sentier                |                   |                  |             |               |
|        | Spot elevation, precise, approximate | Point coté, précis, approximatif | 950 - 950         |                  |             |               |
|        | Boundary monument                    | Borne frontière                  |                   |                  |             |               |
|        | Pingo                                | Buttes de terre                  |                   |                  |             |               |
|        | Depression contours                  | Courbes de cuvette               |                   |                  |             |               |
|        | Cliff or low relief                  | Falaise ou relief peu accentué   |                   |                  |             |               |
|        | Esker                                | Esker                            |                   |                  |             |               |



Transverse Mercator Projection  
North American Datum 1927  
Contour Interval 500 feet  
Elevations in feet above Mean Sea Level

Projection Transverse de Mercator  
Réseau géodésique américain unifié 1927  
Équidistance de courbes: 500 pieds  
Élévations en pieds au-dessus du niveau moyen de la mer

- |                          |                      |                     |                           |
|--------------------------|----------------------|---------------------|---------------------------|
| Building                 | Bâtiment             | Intermittent stream | Cours d'eau intermittent  |
| Post office              | Bureau de poste      | Intermittent lake   | Lac intermittent          |
| Church                   | Église               | Rapids; falls       | Rapides; chute            |
| School                   | École                | Marsh or swamp      | Marais ou marécage        |
| Astronomical monument    | Repère astronomique  | String bogs         | Marais en chapelet        |
| R.C.M.P. Detachment      | Poste de la G.R.C.   | Icefield or Glacier | Champ de glace ou glacier |
| Horizontal control point | Point géodésique     | Tundra Polygons     | Soils polygonaux          |
| Landing ground           | Piste d'atterrissage | Tundra Ponds        | Étangs de toundra         |

WRIGLEY 95M