



D002952

GRAVEL RESERVES
MACKENZIE HIGHWAY - KM 553.4 TO KM 1018.0
CAMSELL BEND TO NORMAN WELLS, N.W.T.

JUNE, 1981

Proposed Gravel Reserves
Mackenzie Highway- Km 553.4 to km 1018.0
Camsell Bend to Norman Wells, N.W.T.

INTRODUCTION

In anticipation of further continuation of the Mackenzie Highway from the end of grade at Kilometre 680, seventeen Gravel Reserves have been identified in this report for the construction and surfacing of the highway section, Camsell Bend to Norman Wells, km. 553.4 (approx. M. 347) to km. 1018 (approx. M. 630).

RESERVE DESCRIPTION:

To assist in identifying the gravel reserves the site locations have been shown on Air Photo Mosaics, Topographical Maps, scale 1:50,000 and the Mackenzie Highway Route Map, scale 1:250,000.

GRAVEL RESERVES:

The Granular Reserve Site numbers refer to those investigated by the Department of Indian Affairs And Northern Development in the Mackenzie River Valley, Granular Materials Inventory, March 1975.

The estimated granular volume in some of the sites was established for a larger area than shown.

The estimated granular requirements are for use in the Mackenzie Highway construction for bridges, culvert backfill, surfacing and maintenance gravel.

A line chart has been included with the site descriptions to show the gravel distribution.

PROPOSED PIPELINE:

The proposed Interprovincial Oil Pipeline alignment is shown on the site deposit Mosaics and Maps where it is near the highway alignment. The pipelining alignment shown has been established in the field (June 15/81) and could affect the Gravel Reserve dimensions in site No's. 154,197 and 228.

QUANTITY SUMMARY

GRAVEL RESERVE AREAS

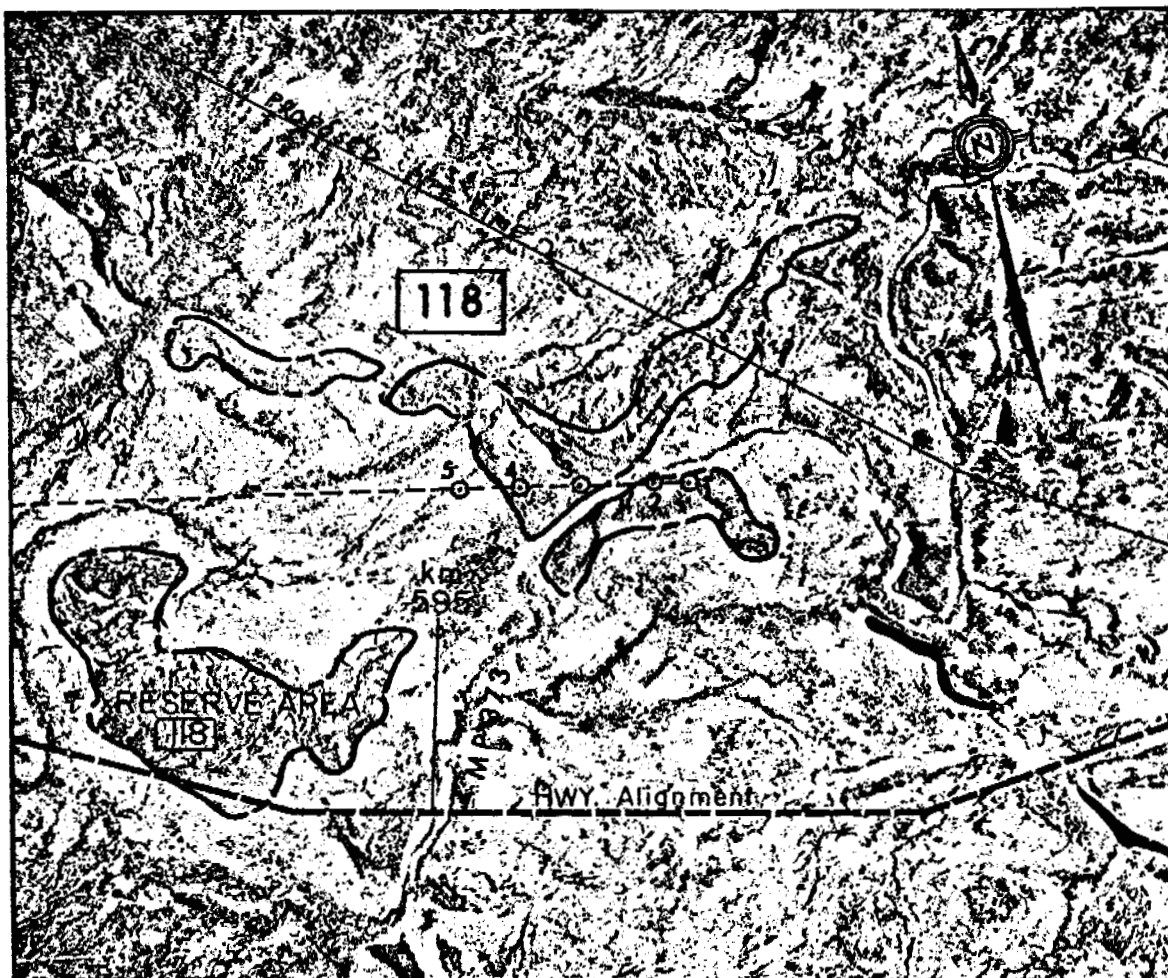
CAMSELL BEND TO NORMAN WELLS

NO.	I.A.& .N.D. INVENTORY REFERENCE NO.	KM.	MILE	ESTIMATED VOLUME CU. METRES	ESTIMATED REQUIREMENTS CU. METRES	GEOGRAPHICAL LOCATION
1.	SITE NO. 118	595	373	150,000	118,000	S. WILLOW LAKE RIVER
2.	" " 145x	656.5	411	200,000	44,000	RIVER B.T. MOUNTAINS
3.	" " 154	675	422	100,000	22,000	N. RIVER B.T. MOUNTAINS
4.	" " W-2	688	431	100,000	23,000	SMITH CREEK
5.	" " W-5	694	434	5,000,000	41,000	WRIGLEY
6.	" " 164	728	454	600,000	45,000	OCHCE RIVER
7.	" " 169	736	459	75,000	26,000	WHITESAND CREEK
8.	" " 176	751	469	38,000	20,000	S. RAINBOW CREEK
9.	" " 178	755	471	35,000	22,000	RAINBOW CREEK
10.	" " 184	772	483	500,000	27,000	S. BLACKWATER RIVER
11.	" " 185	781	488	2,000,000	28,000	S. BLACKWATER RIVER
12.	" " 197	802	501	11,000,000	82,000	N. BLACKWATER RIVER
13.	" " 228	853	533	750,000	84,000	LITTLE SMITH CREEK
14.	" " 245	873	545	305,000	165,000	BIG SMITH CREEK
15.	" " FN-29	950	591	240,000	76,000	BEAR ROCK
16.	" " 270	983	611	153,000	49,000	PROHIBITION CREEK
17.	" " 279	992	618	100,000	65,000	FRANCIS CREEK

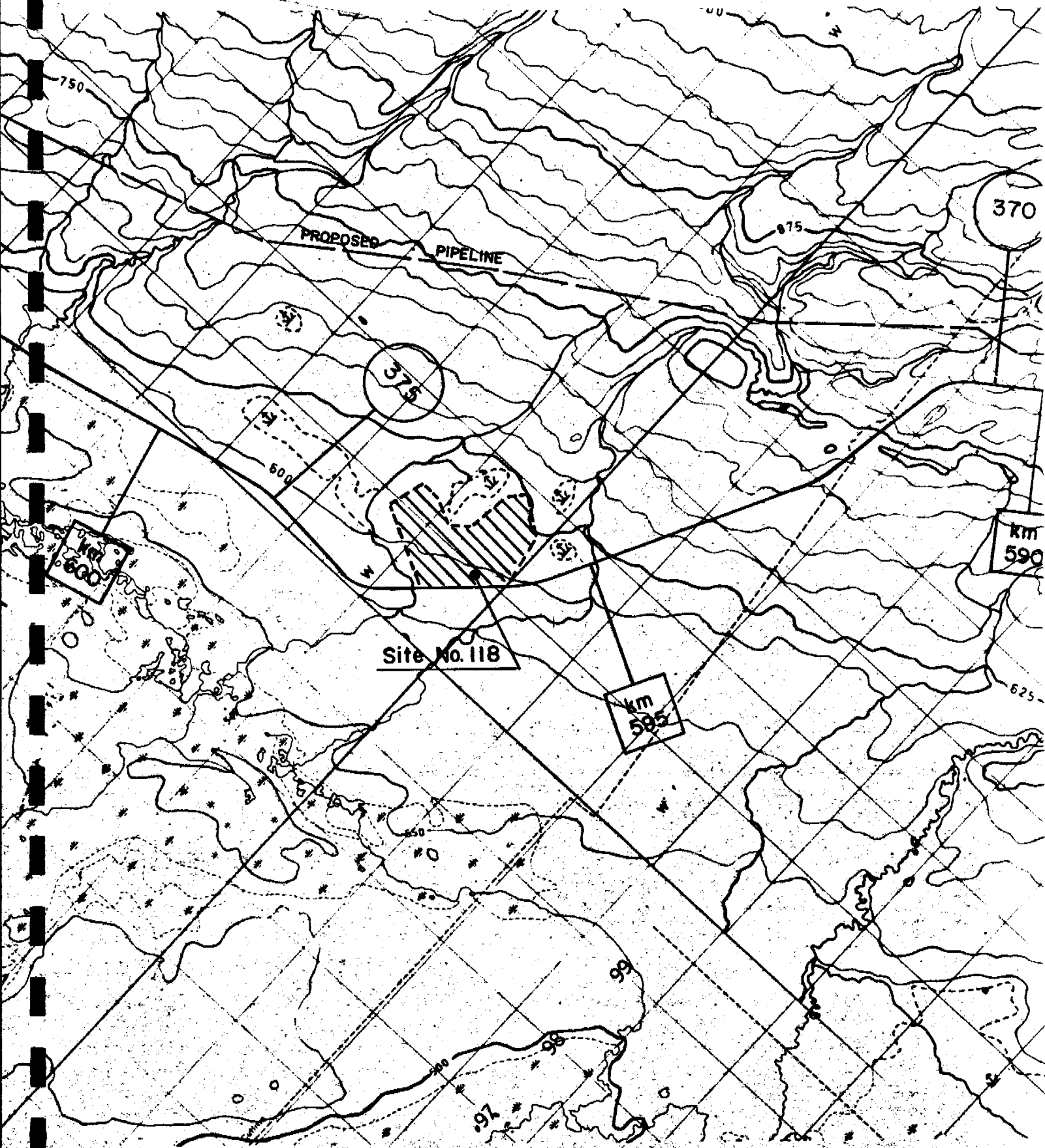
SITE NO. 118

Located approximately 34 kilometres south of the Willow Lake River and adjacent to the north side of the Mackenzie Highway grade at kilometre 596. From Site 118 approximately 160,000 cubic metres have been excavated for the highway construction.

Type of Material:	Gravel and Sand in a Esker Ridge.
Estimated Volume:	150,000 Cubic Metres.
Estimated Requirements:	118,000 Cubic Metres.
Purpose:	Highway Surfacing.



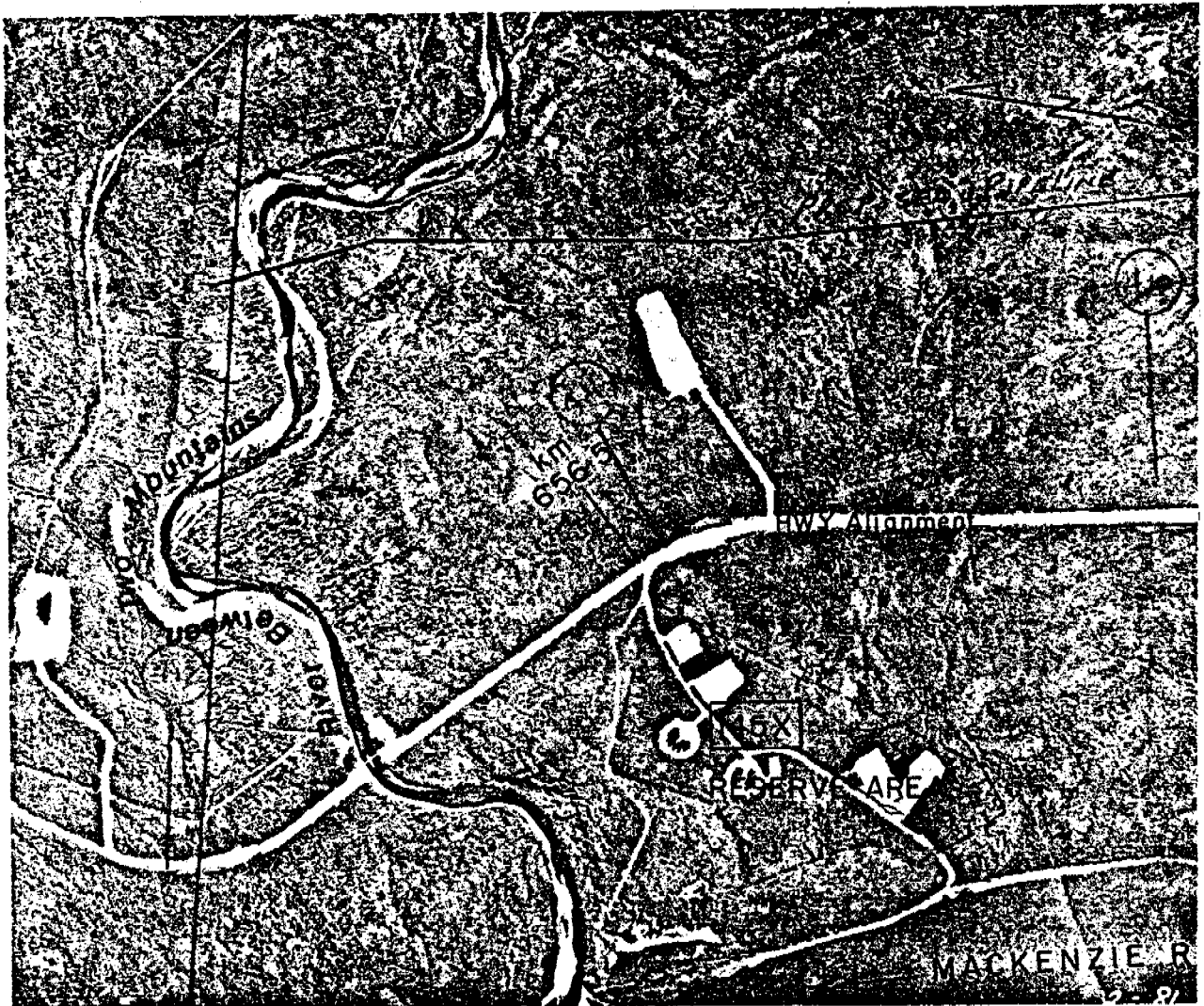
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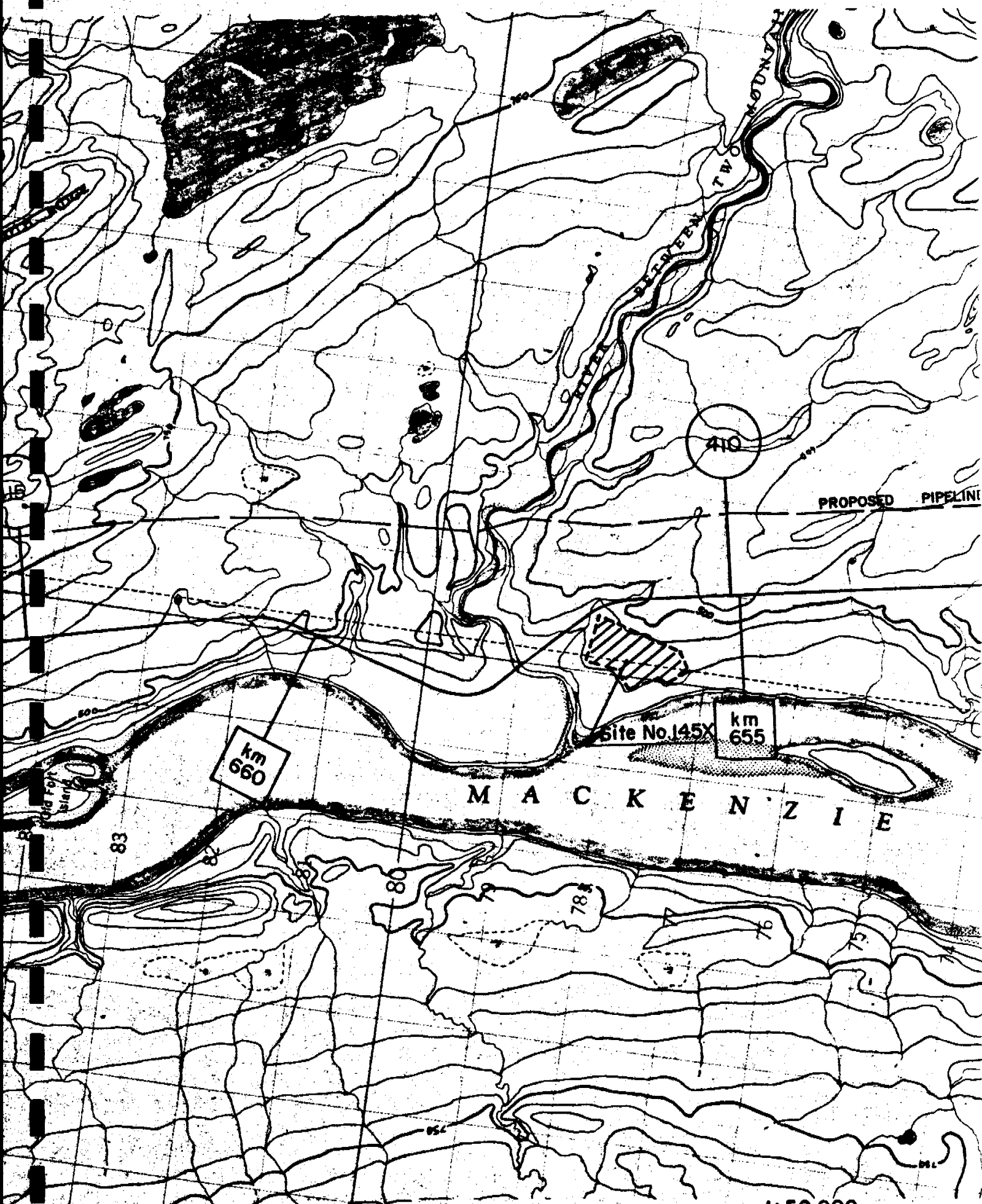
SITE NO. 145X

Located adjacent to the south bank of the river between two mountains and west of the Mackenzie Highway Grade at kilometre 656.5 Site 145X encompasses the abandoned Hire North Highway Construction Campsite.

Type of Material:	Gravel in a Alluvial River Terrace.
Estimated Volume:	200,000 Cubic Metres.
Estimated Requirement:	44,000 Cubic Metres.
Purpose:	Highway Surfacing.



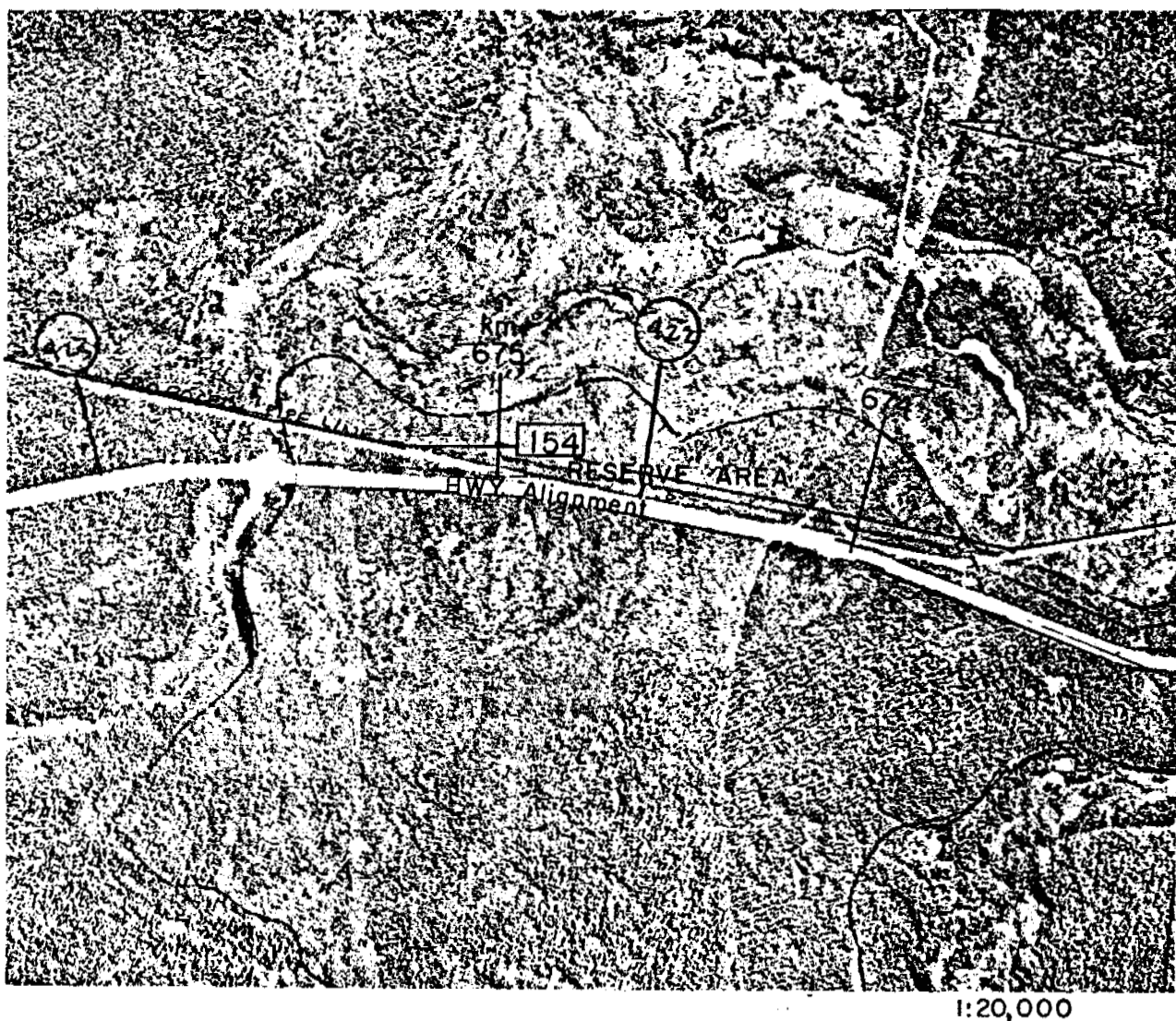
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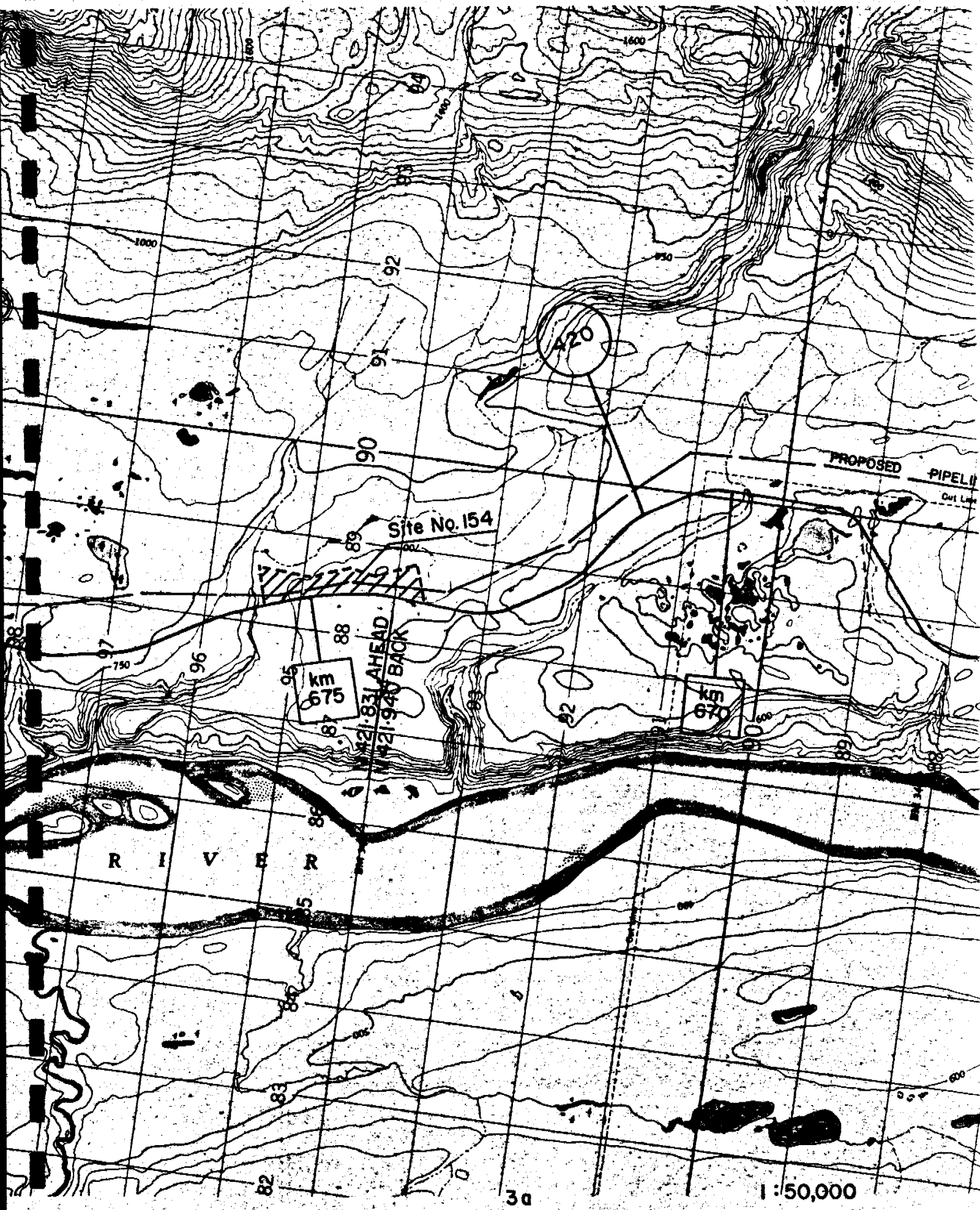


SITE NO. 154

Located along the east side of the Mackenzie Highway Grade from kilometre 674 to 675.5.

Type of Material: Gravel in a Glaciofluvial Outwash Plain.
Estimated Volume: 100,000 Cubic Metres.
Estimated Requirements: 22,000 Cubic Metres.
Purpose: Highway Surfacing.

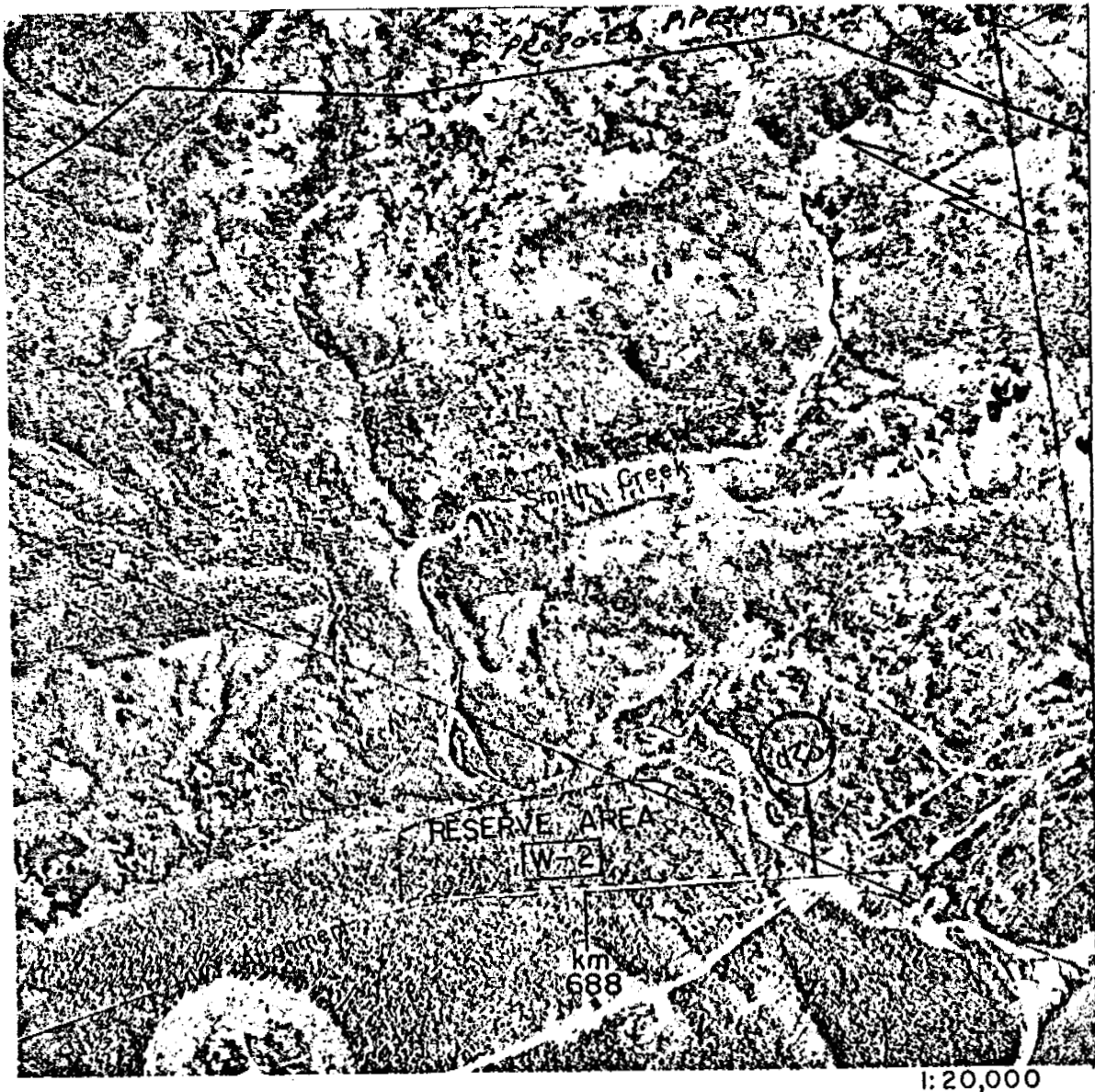




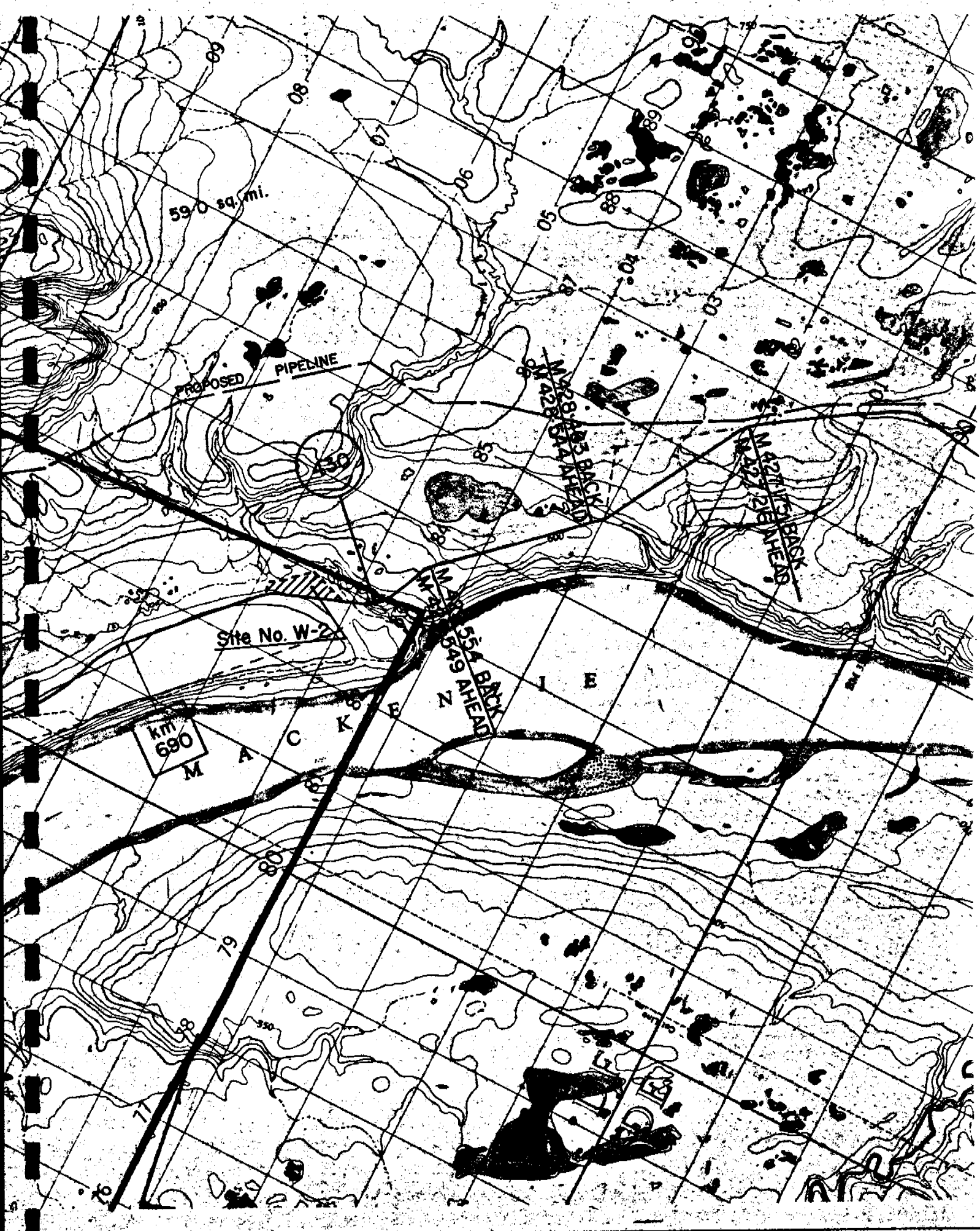
SITE NO. W-2

Located approximately 9 kilometres southeast of Wrigley and adjacent to the north side of the Mackenzie Highway Right-Of-Way at kilometre 688.

Type of Material:	Gravel in a Large River Terrace.
Estimated Volume:	100,000 Cubic Metres.
Estimated Requirements:	23,000 Cubic Metres.
Purpose:	Highway Construction.



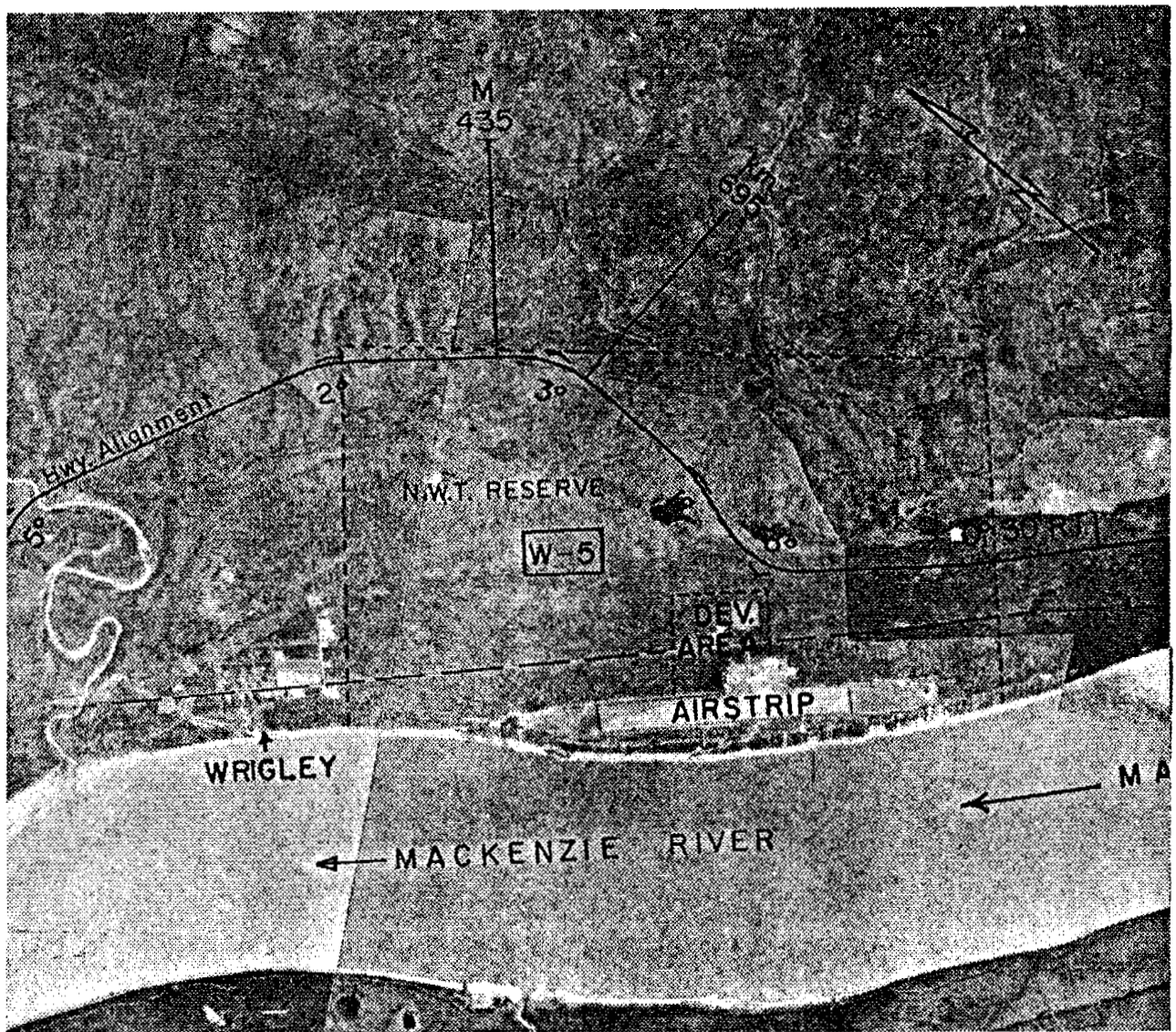
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SITE NO. W-5

Located in the vicinity of Wrigley Airstrip and adjacent to the Mackenzie Highway Right-Of-Way at kilometre 694 where there is existing Borrow Pits.

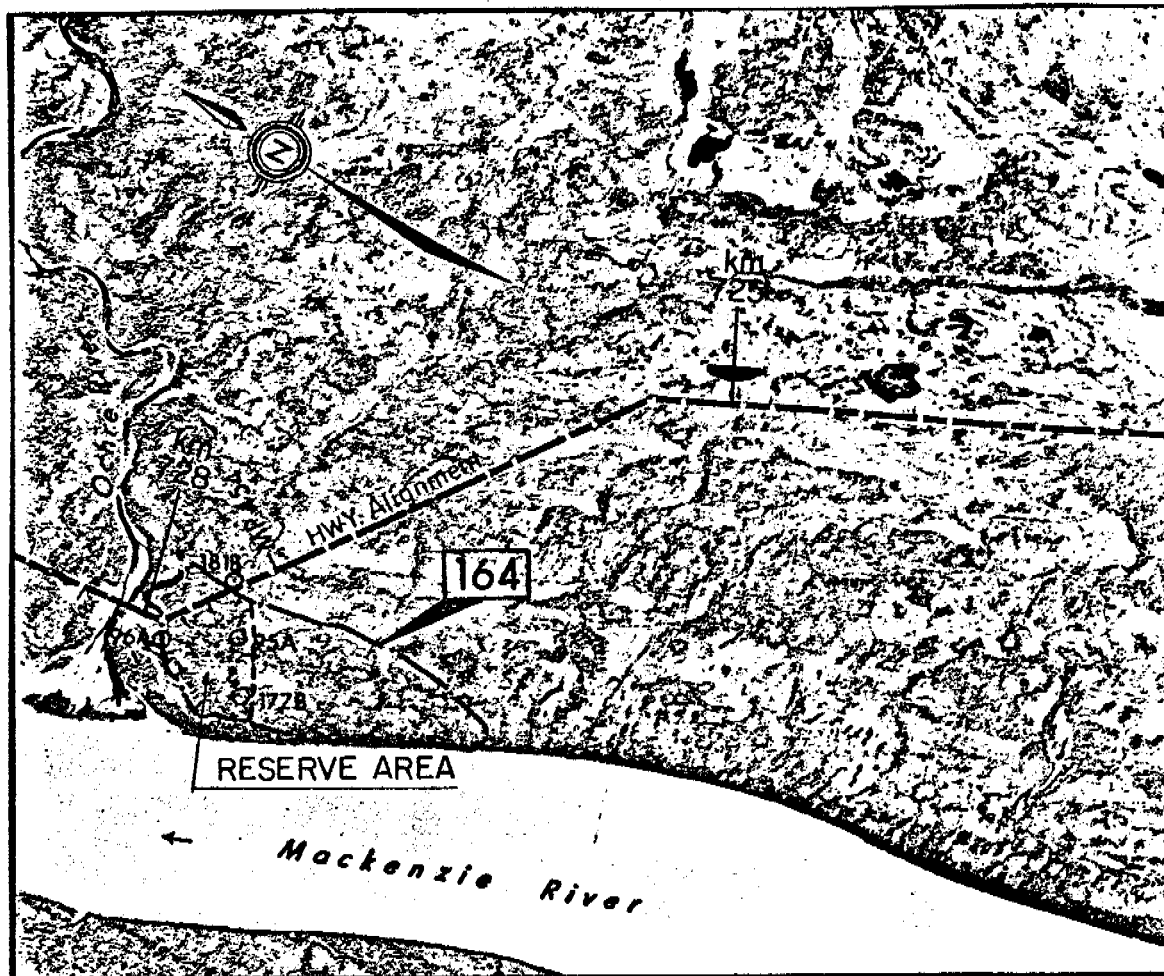
Type of Material:	Gravel in a Large High River Terrace.
Estimated Volume:	5,000,000 Cubic Metres (N.W.T. Reserve).
Estimated Requirements:	41,000 Cubic Metres.
Purpose:	Highway Construction.



SITE NO. 164

Located at the outlet of the Ochre River and adjacent to the west side of the Mackenzie Highway Right-Of-Way at kilometre 728.

Type of Material: Gravel and Sand in a Alluvial River Terrace.
Estimated Volume: 600,000 Cubic Metres.
Estimated Requirements: 45,000 Cubic Metres.
Purpose: Highway Construction.



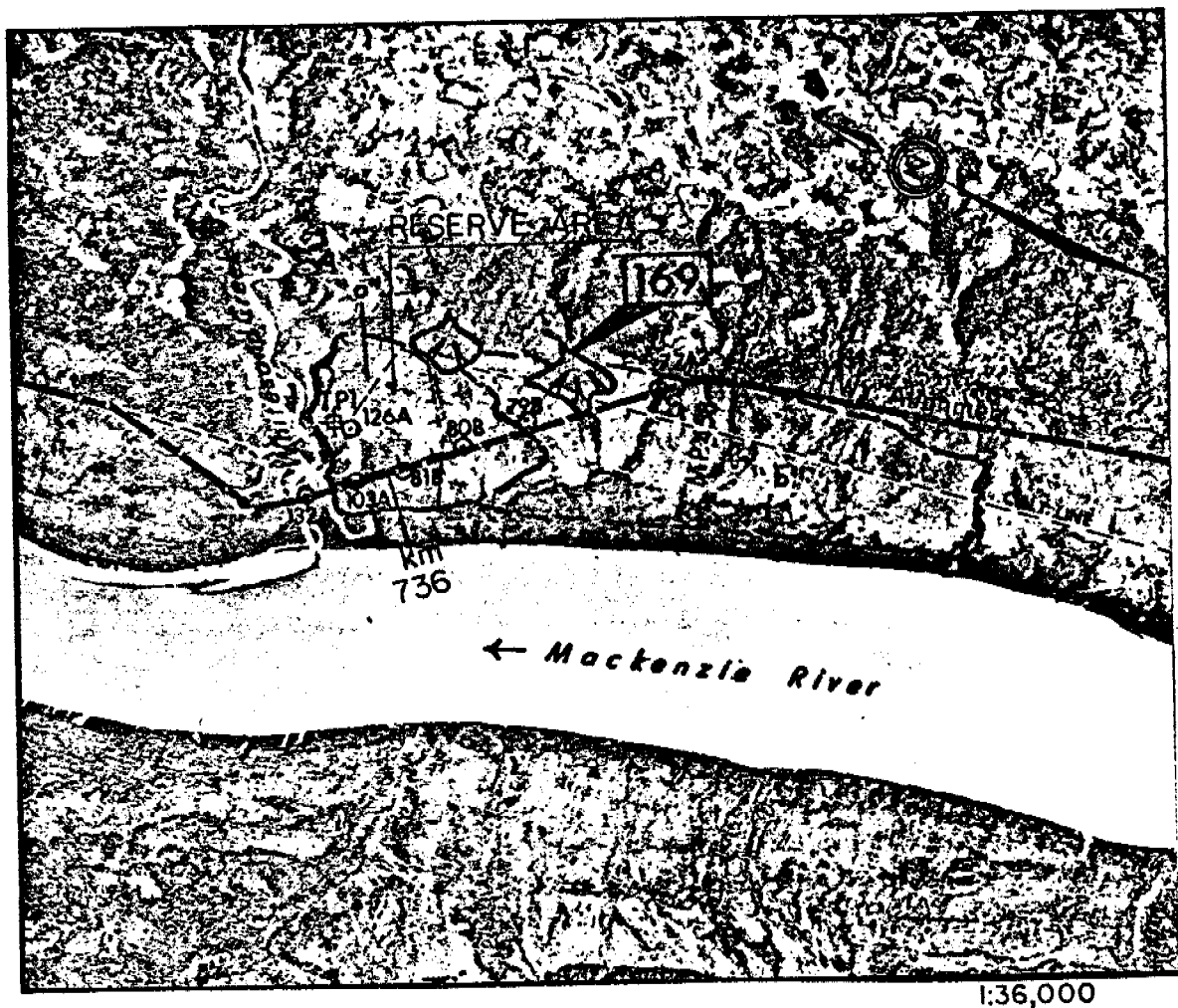
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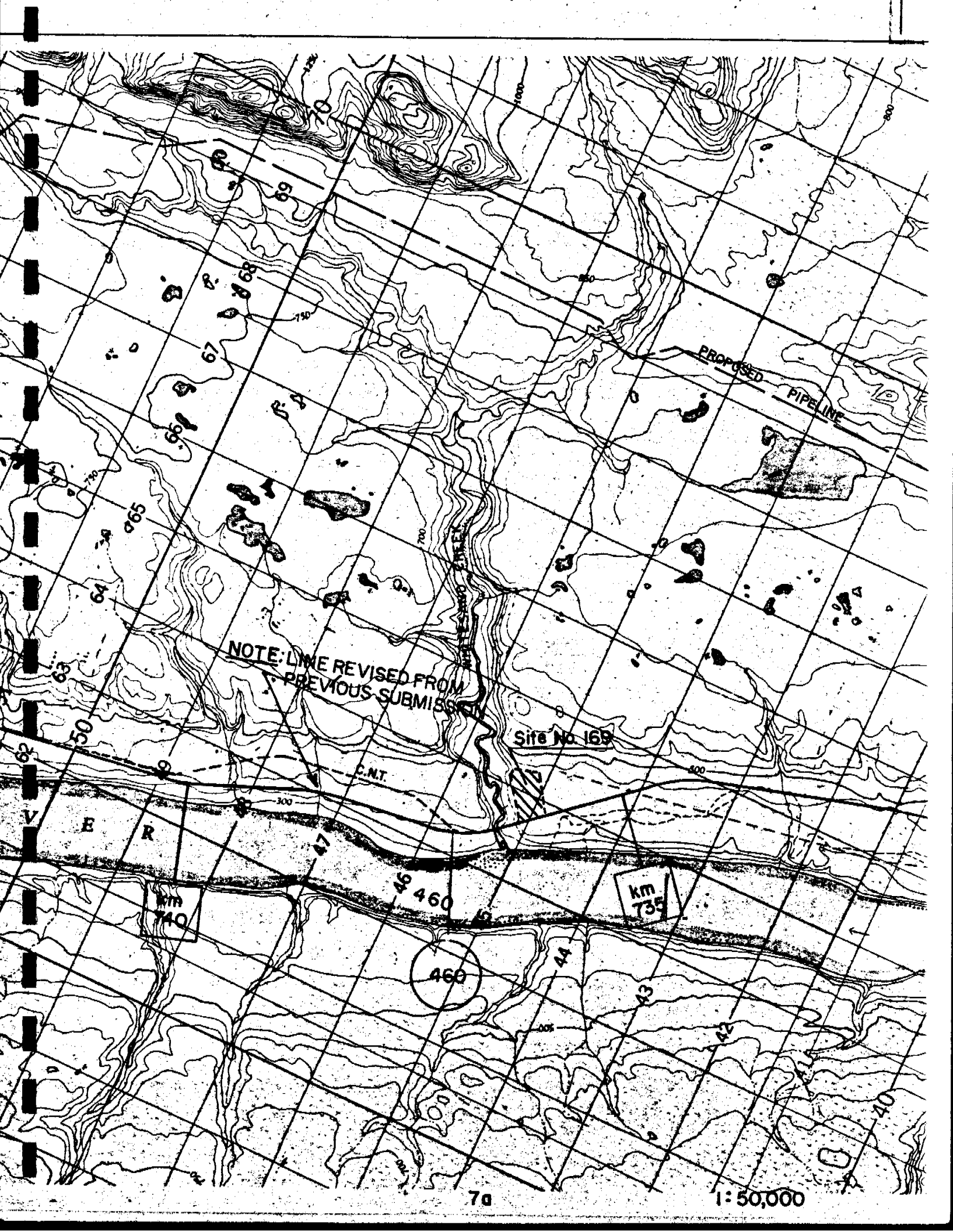


SITE NO. 169

Located near the south bank of Whitesand Creek and extending to the east and west side of the Mackenzie Highway Right-Of-Way at kilometre 736.

Type of Material:	Sand and Gravel in a Alluvial River Terrace.
Estimated Volume:	75,000 Cubic Metres.
Estimated Requirements:	26,000 Cubic Metres.
Purpose:	Highway Construction.





NOTE: LINE REVISED FROM
PREVIOUS SUBMISSION

PROPOSED
PIPELINE

Site No. 169

C.N.T.

km
740

km
735

460

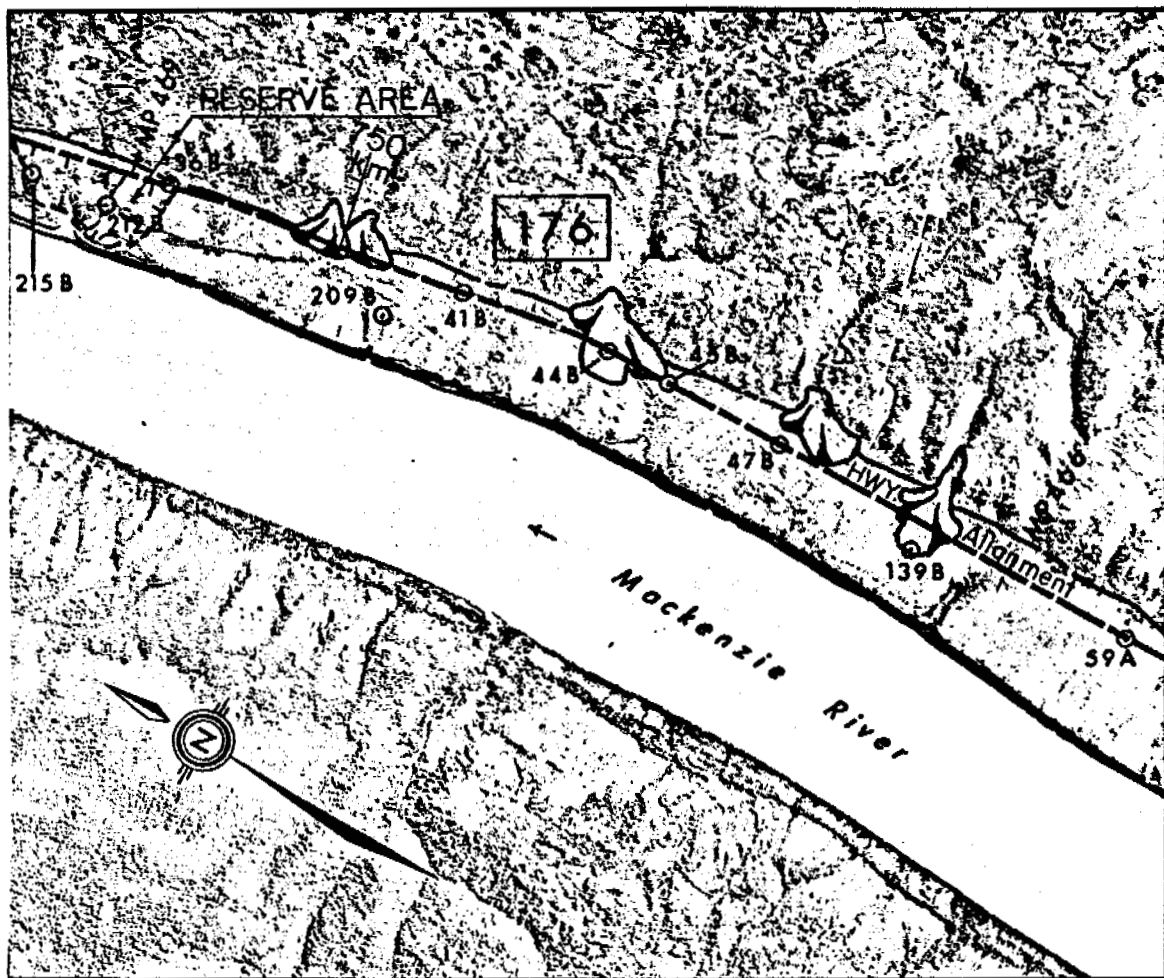
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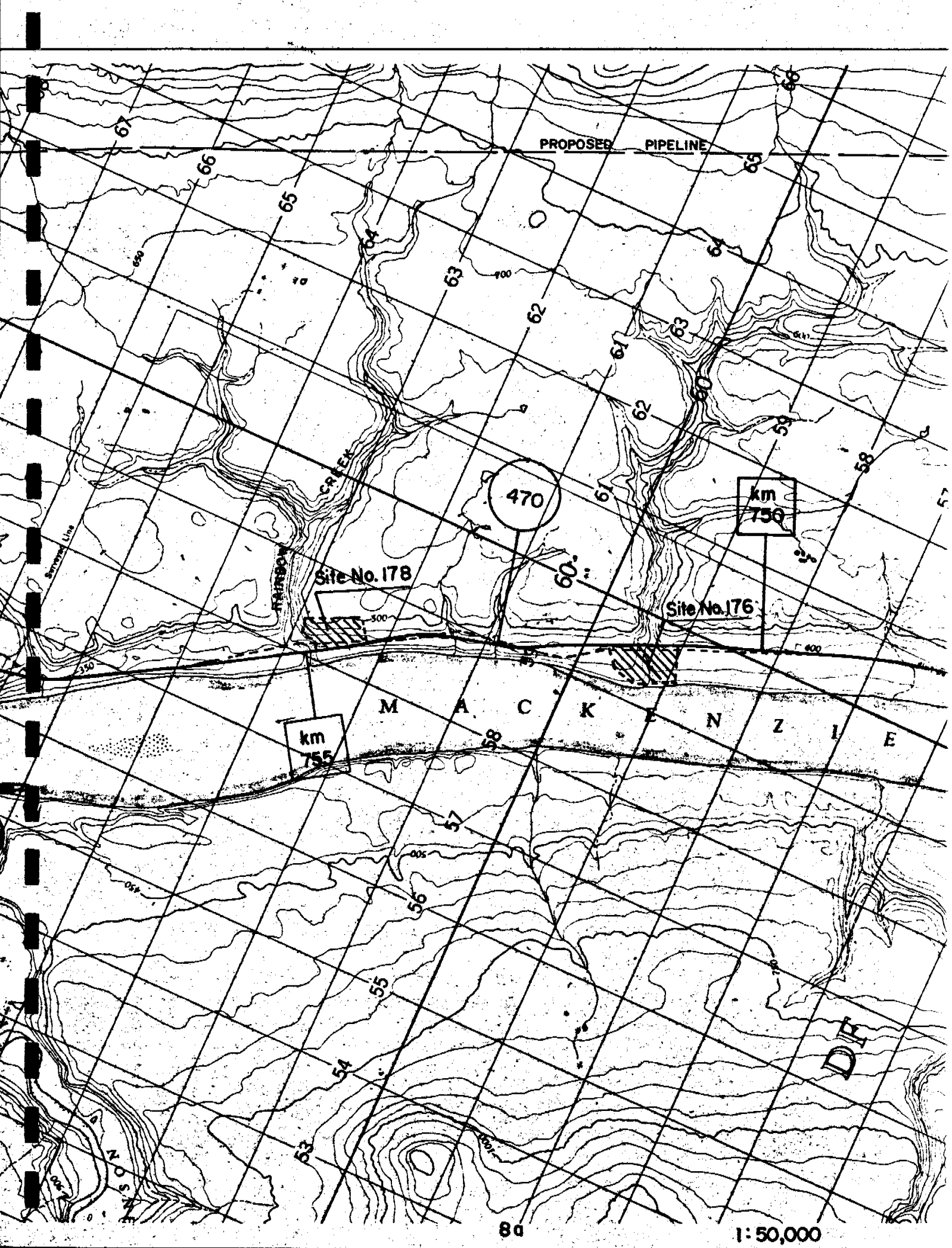
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SITE NO. 176

Located approximately 23 kilometres north of the Ochre River and adjacent to the west side of the Mackenzie Highway Right-Of-Way at kilometre 751.

Type of Material:	Sand and Gravel in a Alluvial River Terrace.
Estimated Volume:	38,000 Cubic Metres.
Estimated Requirements:	20,000 Cubic Metres.
Purpose:	Highway Construction.

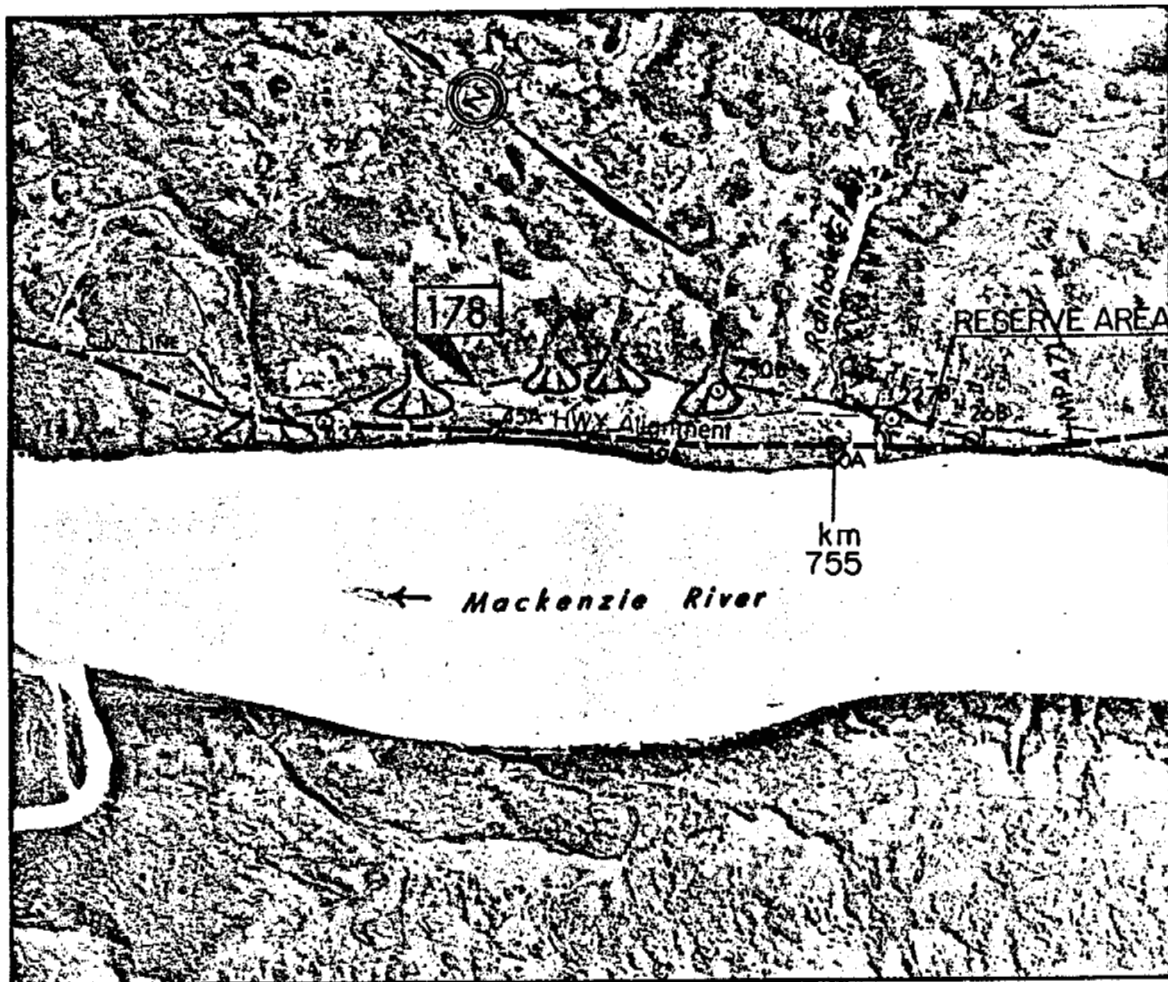


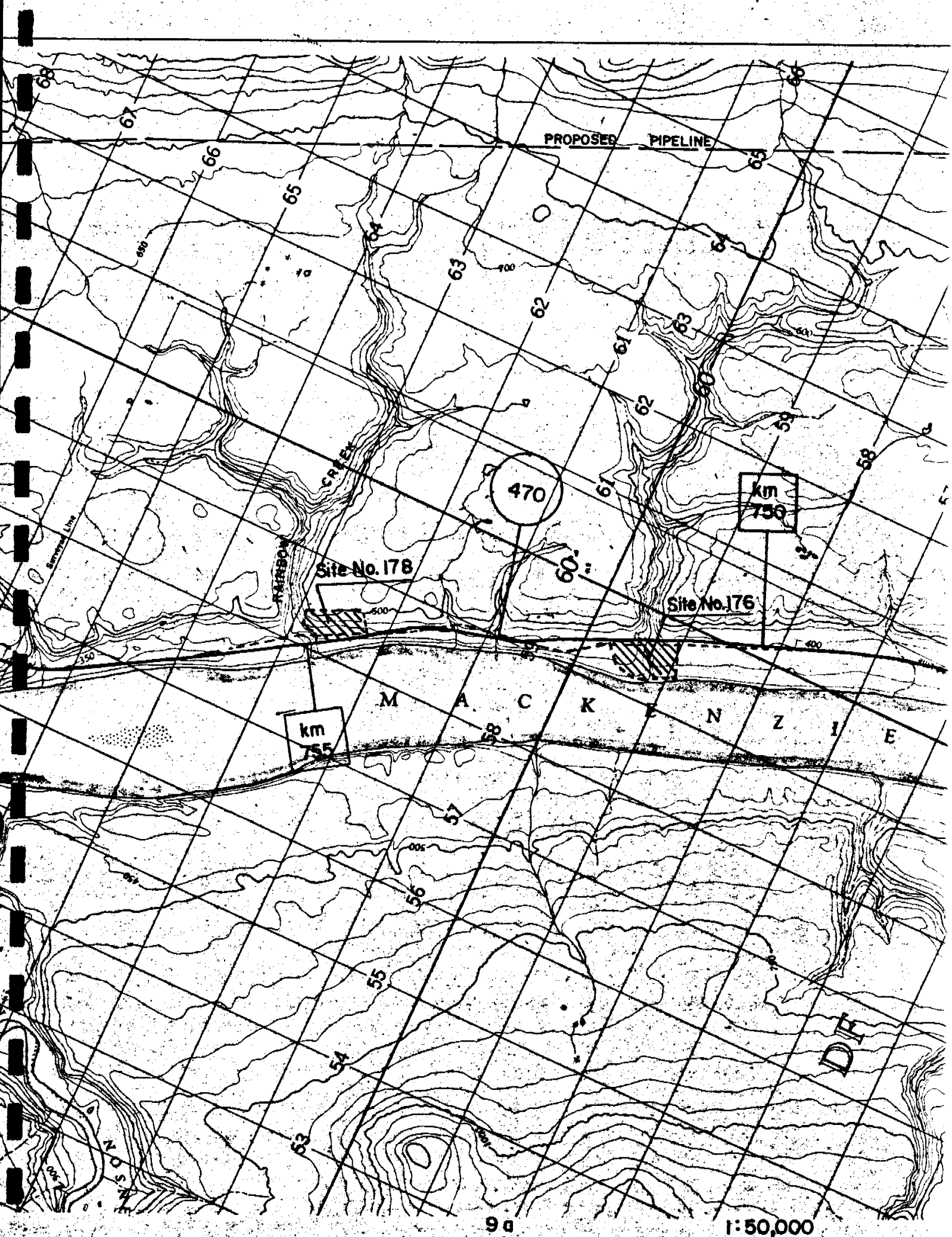


SITE NO. 178

Located adjacent to the south bank of Rainbow Creek and on the north side of the Mackenzie Highway Right-Of-Way at kilometre 755.

Type of Material: Sand and Gravel in a Alluvial River Terrace.
Estimated Volume: 35,000 Cubic Metres.
Estimated Requirements: 22,000 Cubic Metres.
Purpose: Highway Construction.

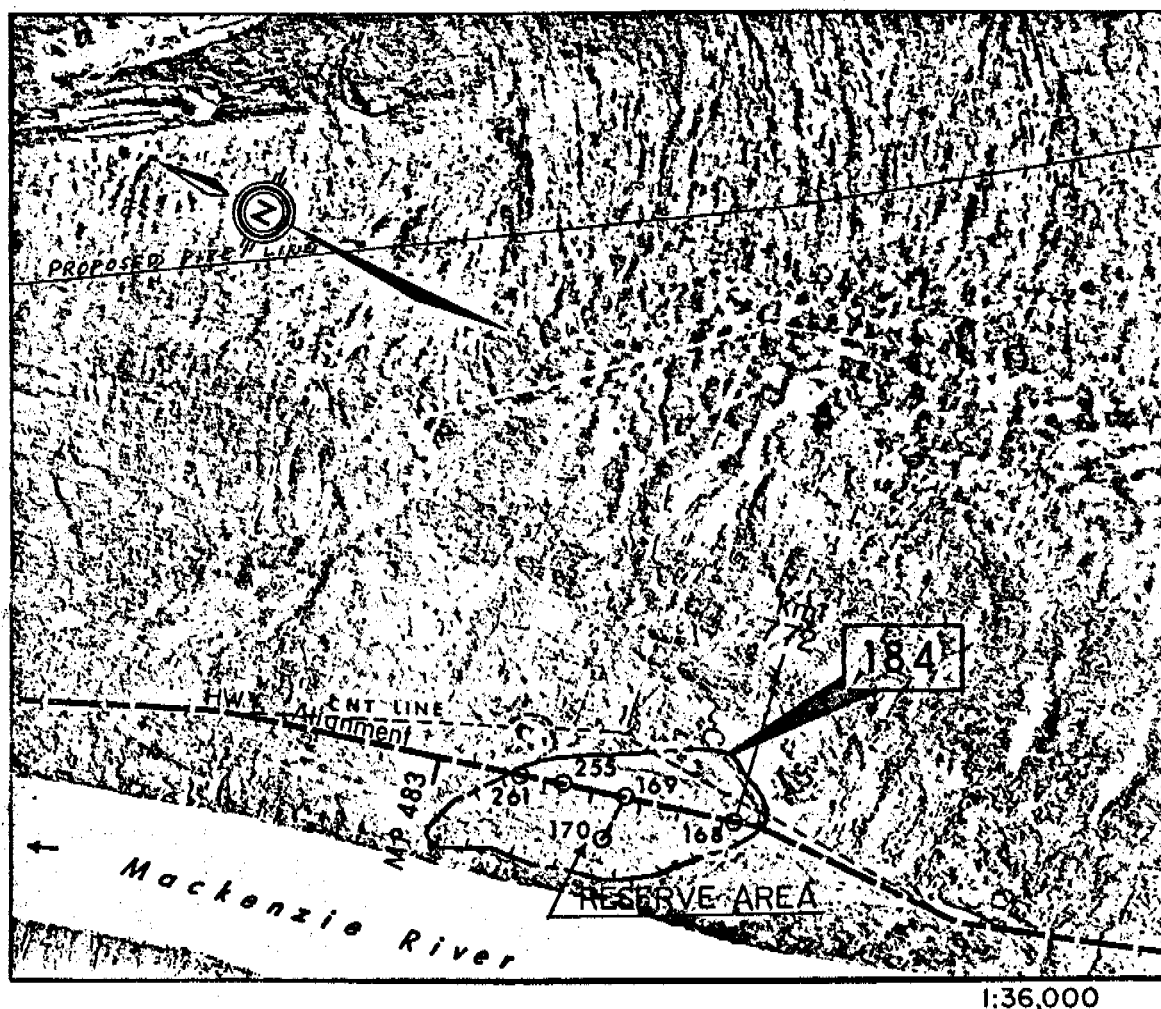


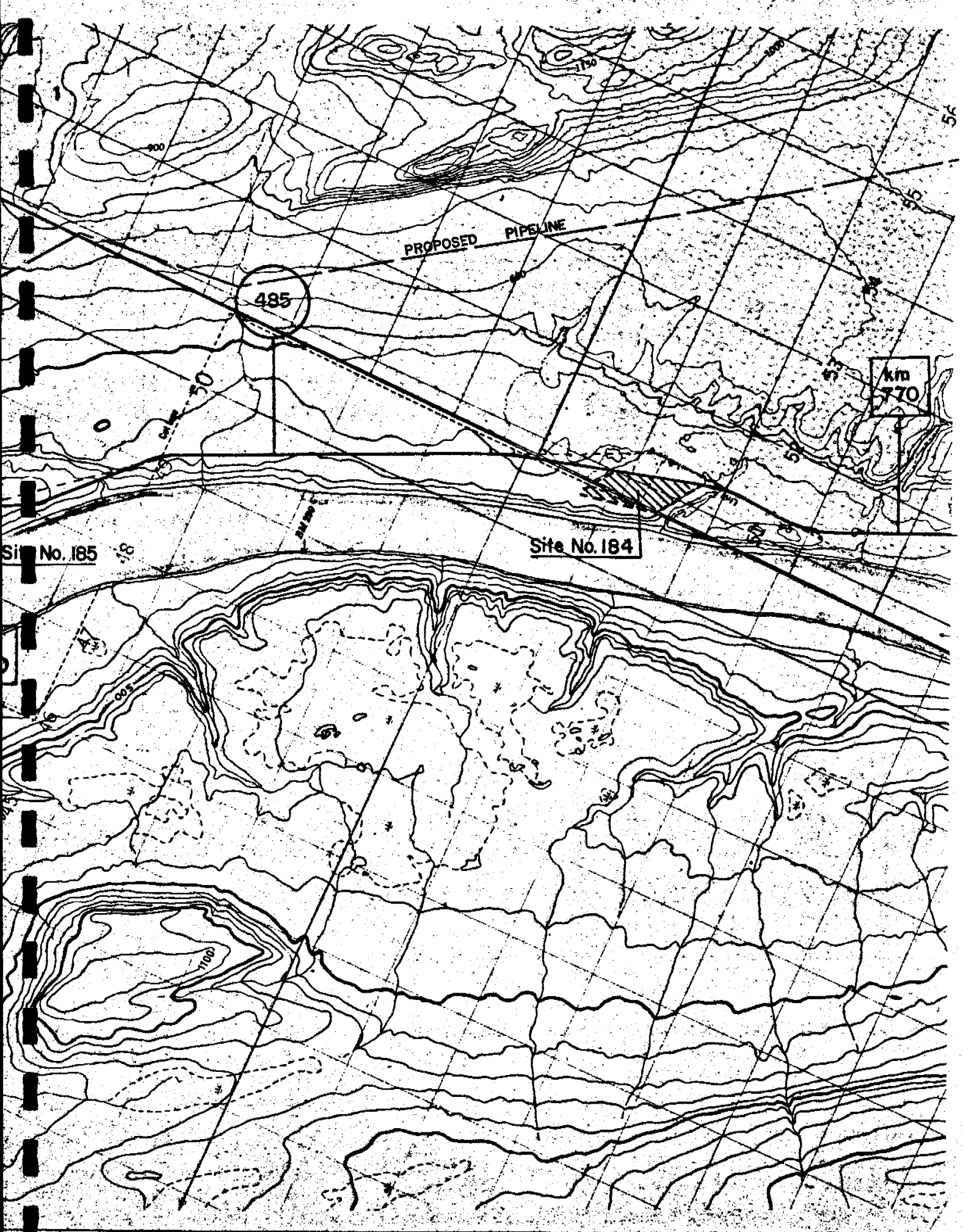


SITE NO. 184

Located approximately 16 kilometres south of the Blackwater River and adjacent to the west side of the Mackenzie Highway Right-Of-Way at kilometre 772.

Type of Material: Gravel in a small Alluvial Terrace.
Estimated Volume: 500,000 Cubic Metres.
Estimated Requirements: 27,000 Cubic Metres.
Purpose: Highway Construction.





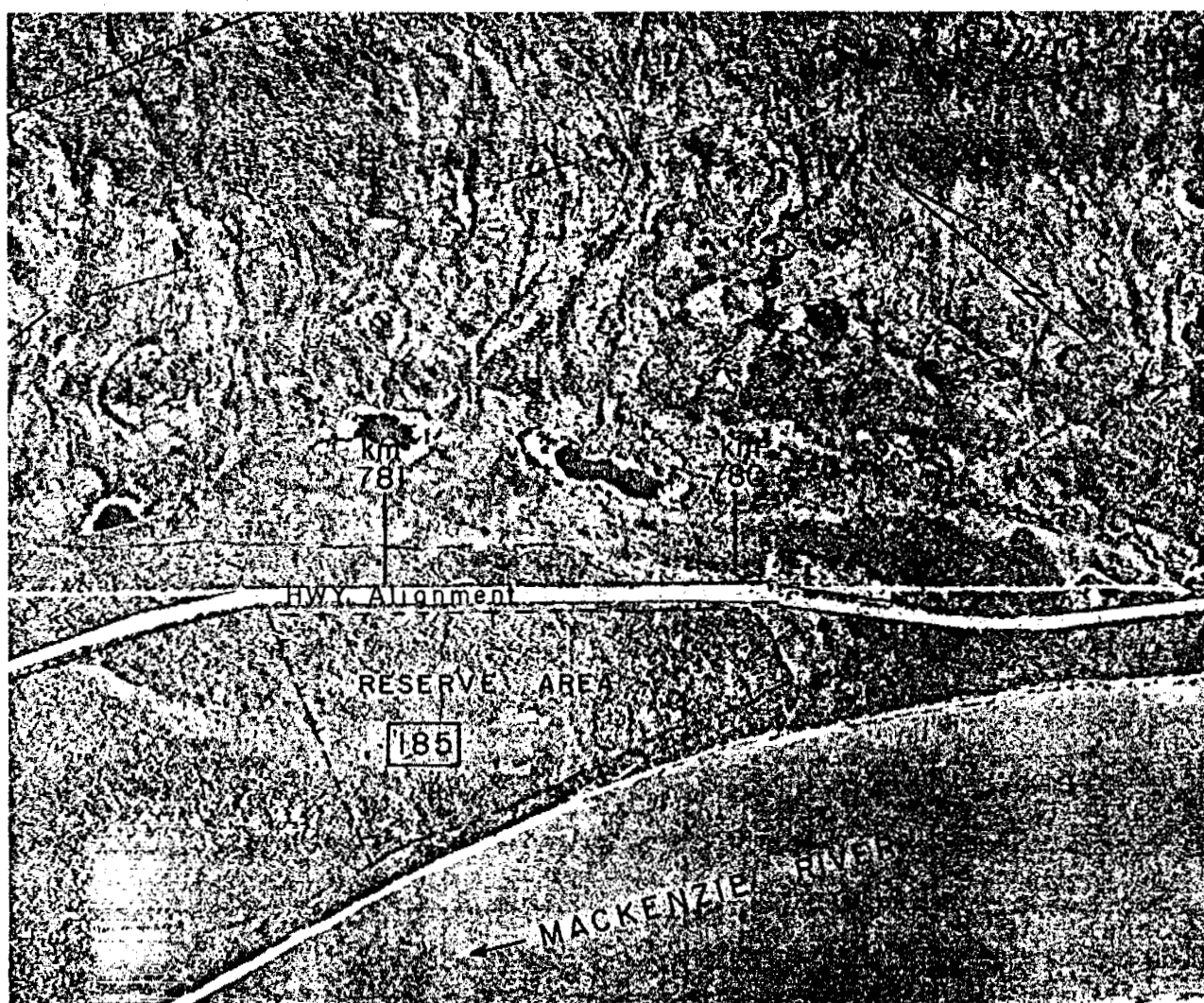
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SITE NO. 185

Located approximately 5 kilometres south of the Blackwater River and adjacent to the west side of the Mackenzie Highway Right-Of-Way between kilometre 780 and 781.

Type of Material:	Gravel in a Alluvial Terrace.
Estimated Volume:	2,000,000 Cubic Metres.
Estimated Requirements:	28,000 Cubic Metres.
Purpose:	Highway Construction.

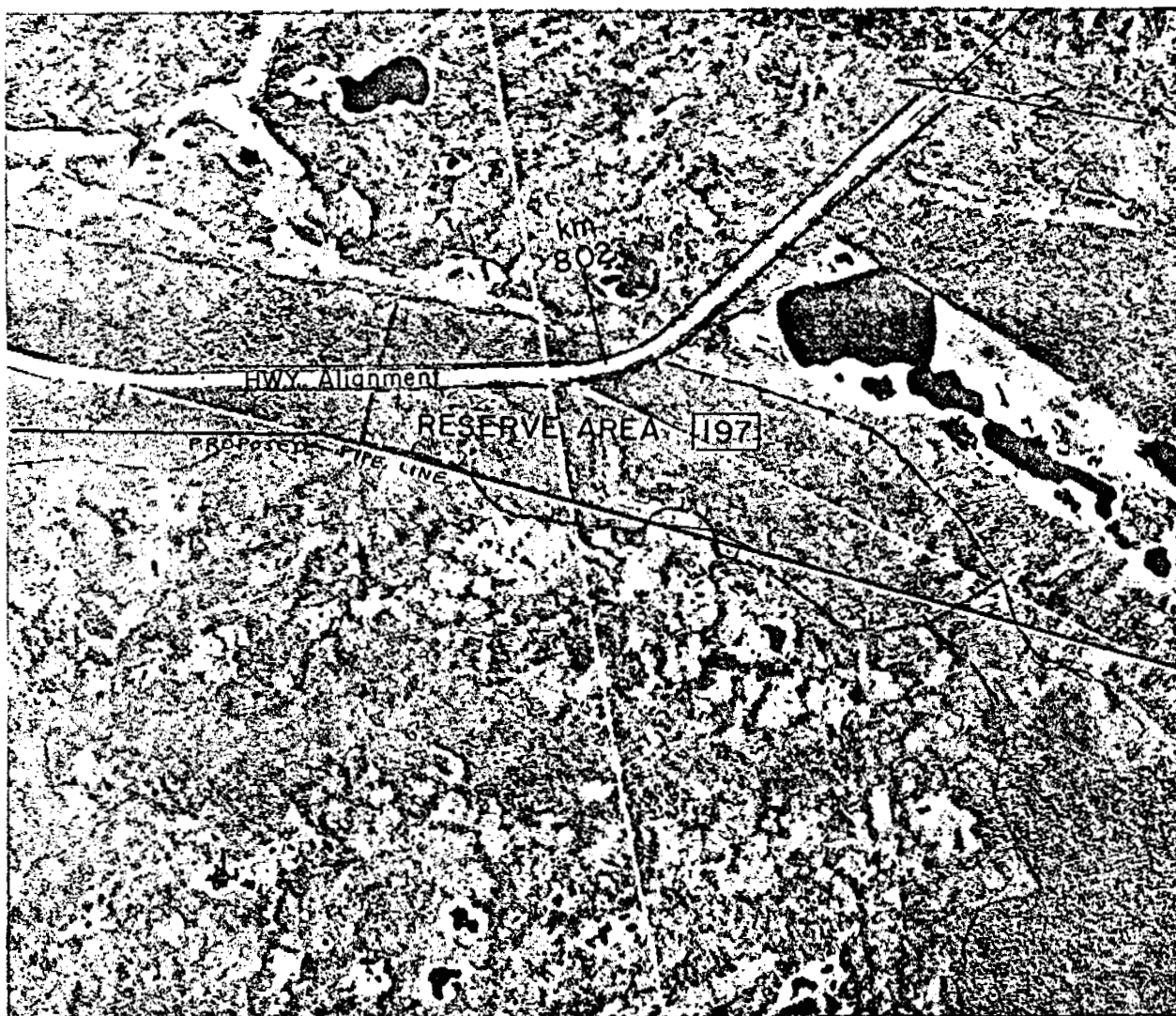


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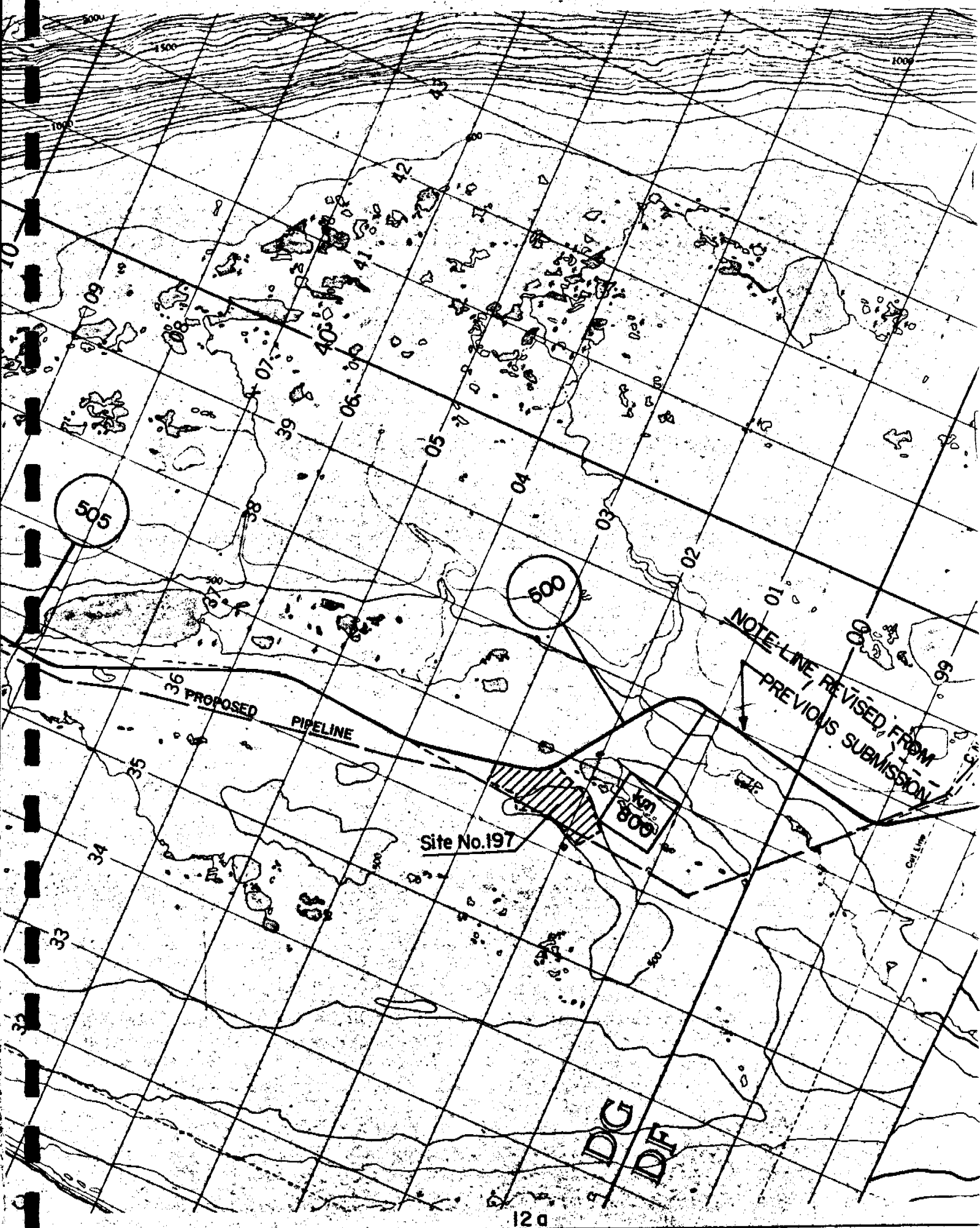
SITE NO. 197

Located approximately 13 kilometres north of the Blackwater River, Site 197 Reserve Area is adjacent to the west side of the Mackenzie Highway at kilometre 802.

Type of Material:	Gravel in a large Slacio-Fluvial Plain.
Estimated Volume:	11,000,000 Cubic Metres.
Estimated Requirements:	82,000 Cubic Metres.
Purpose:	Highway Construction.



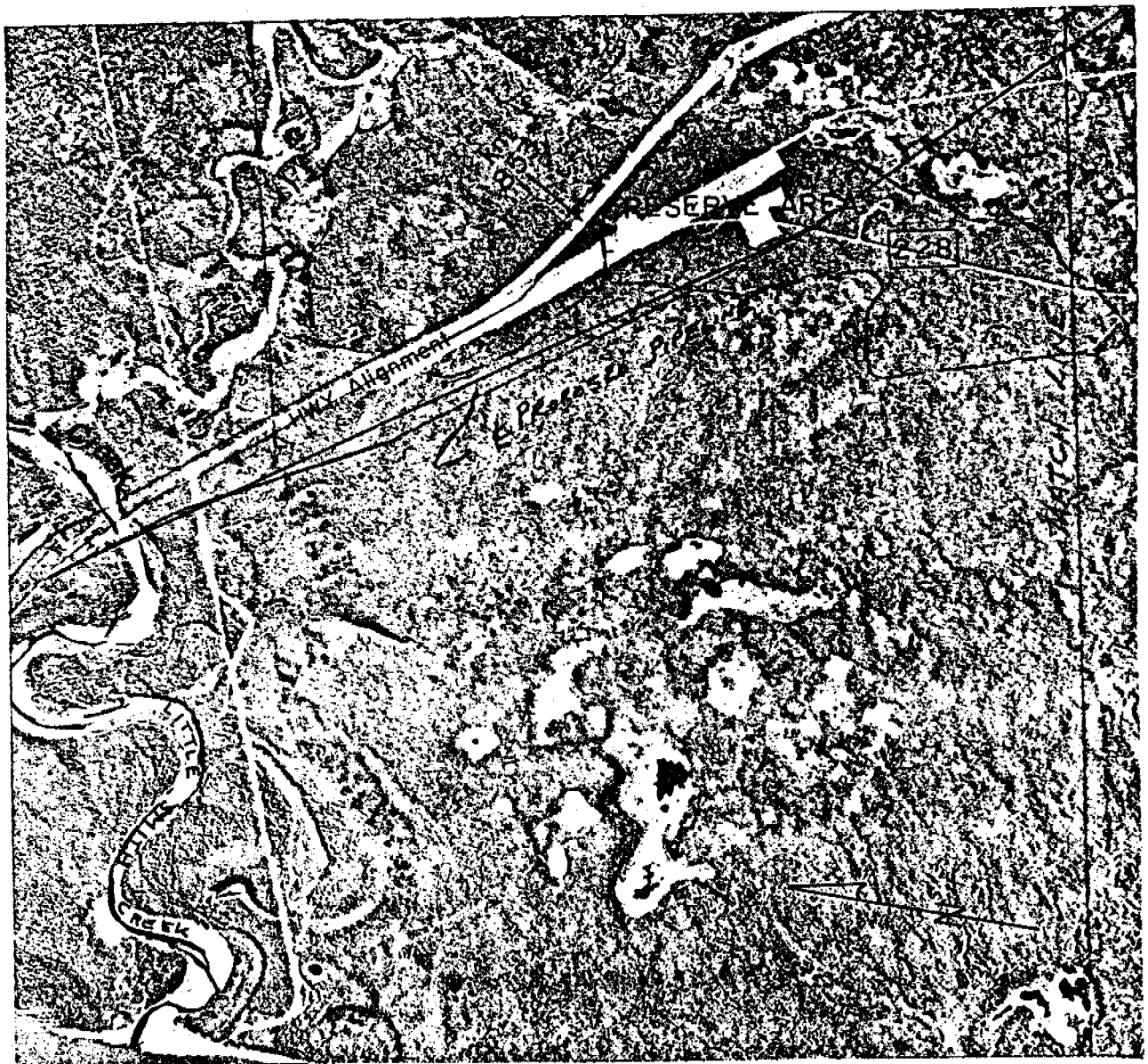
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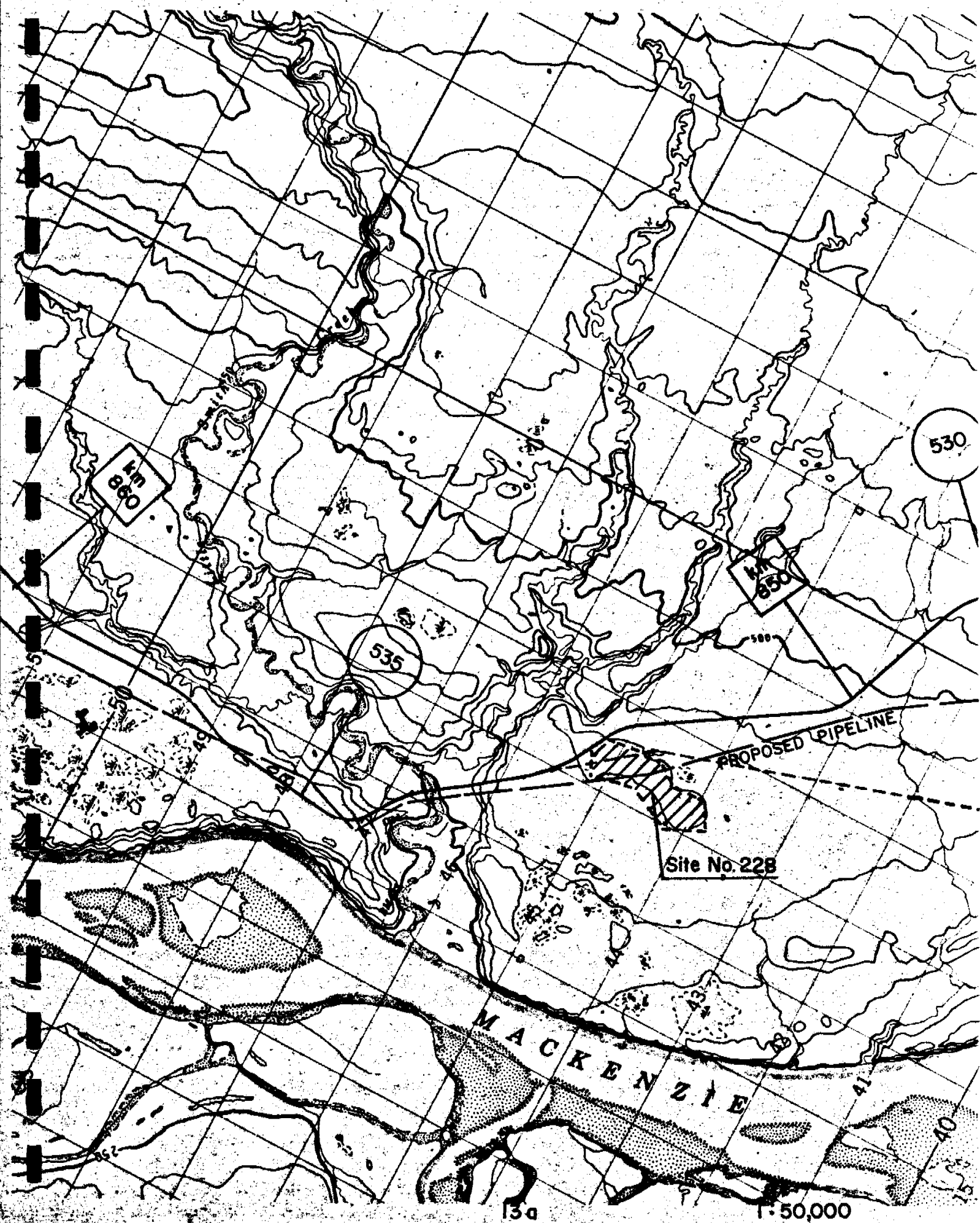
SITE NO. 228

Located adjacent to the southeast bank of Little Smith Creek and south side of the Mackenzie Highway Right-Of-Way at kilometre 853.

Type of Material: Gravel in a Glacio-Fluvial Outwash Plain.
Estimated Volume: 750,000 Cubic Metres.
Estimated Requirements: 84,000 Cubic Metres.
Purpose: Highway Construction.



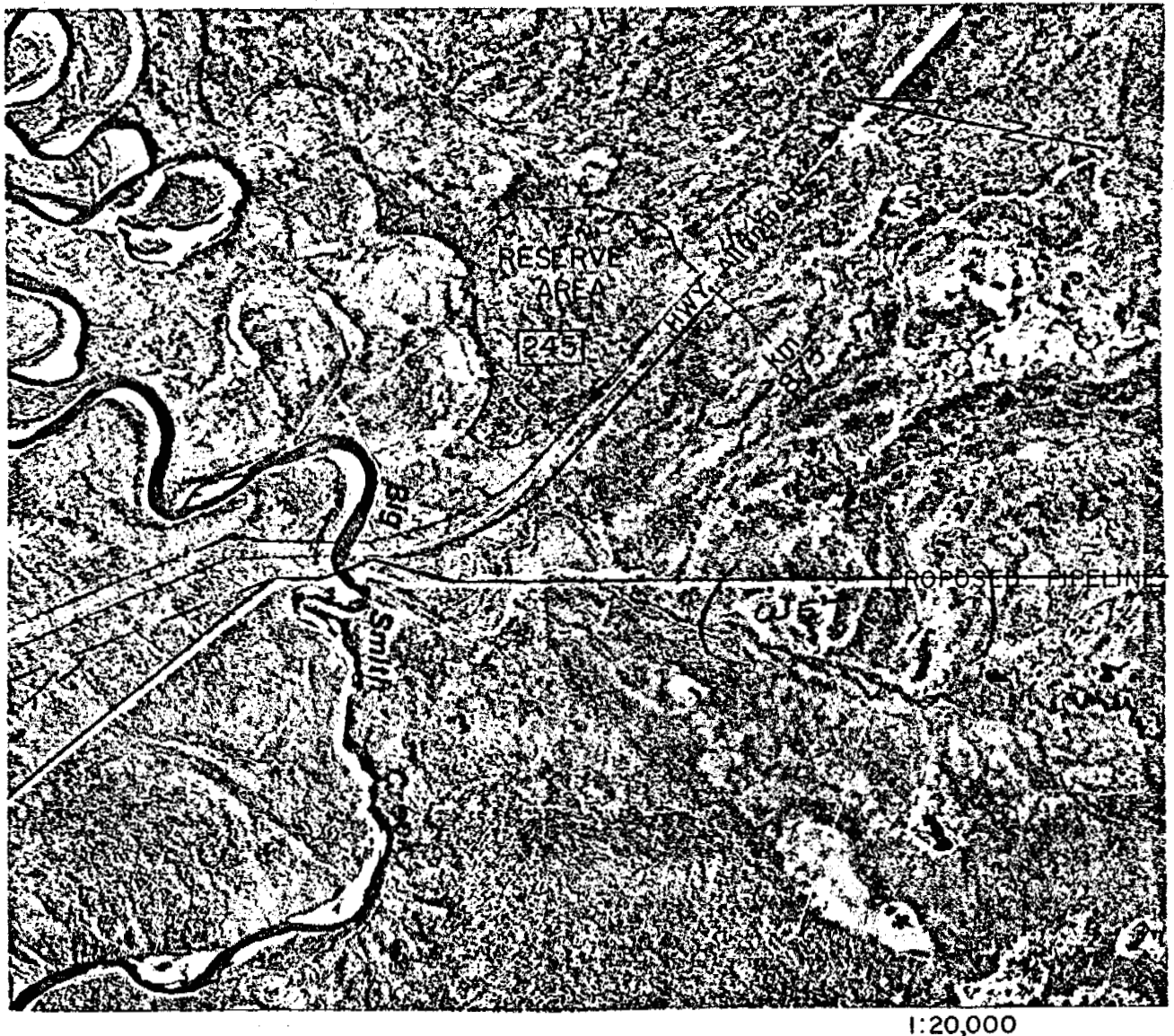
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SITE NO. 245

Located near the south bank of Big Smith Creek and adjacent to the east side of the Mackenzie Highway Right-Of-Way at kilometre 873.

Type of Material: Gravel in a Alluvial Flood Plain.
Estimated Volume: 305,000 Cubic Metres.
Estimated Requirements: 165,000 Cubic Metres.
Purpose: Highway Construction.



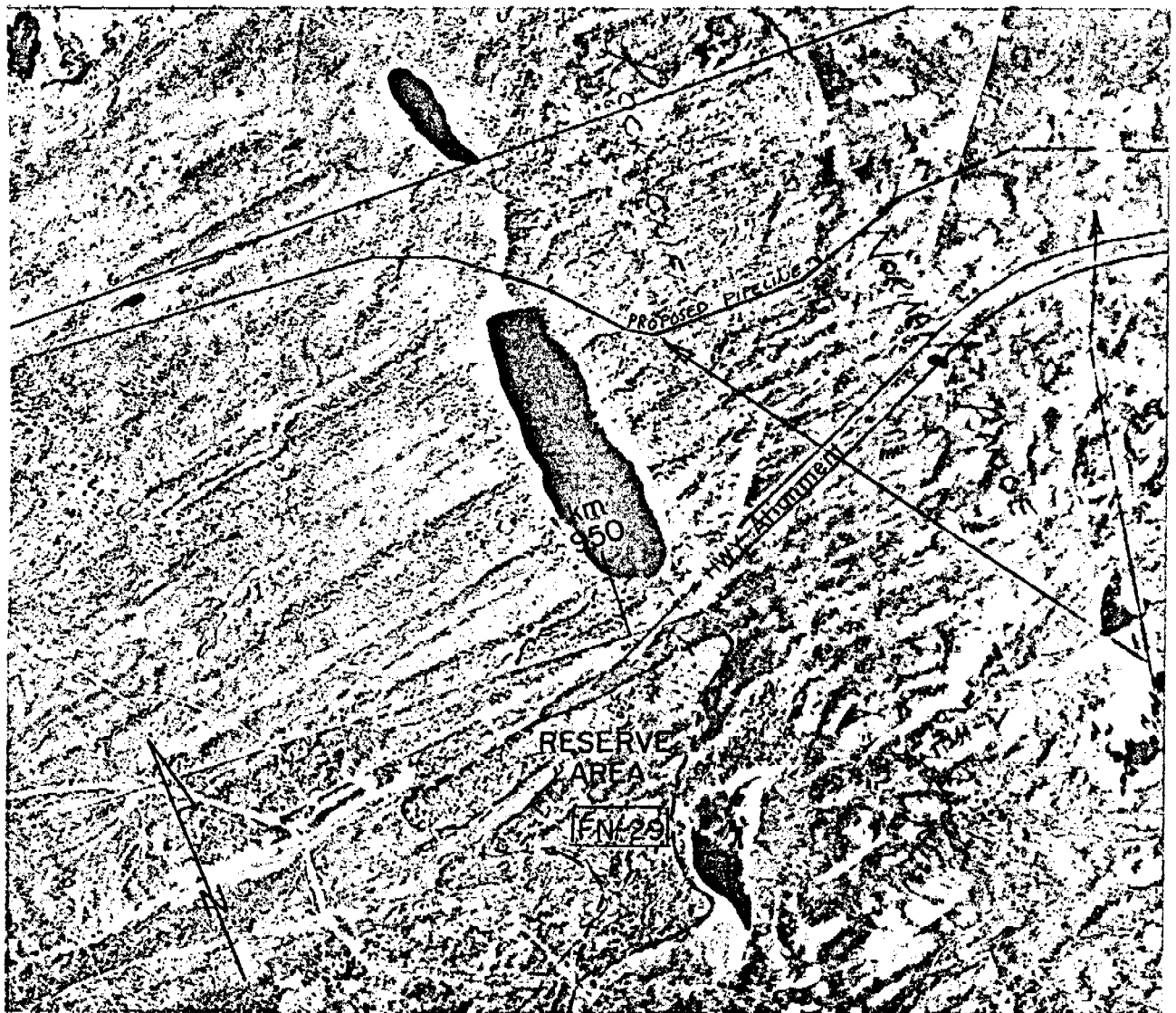
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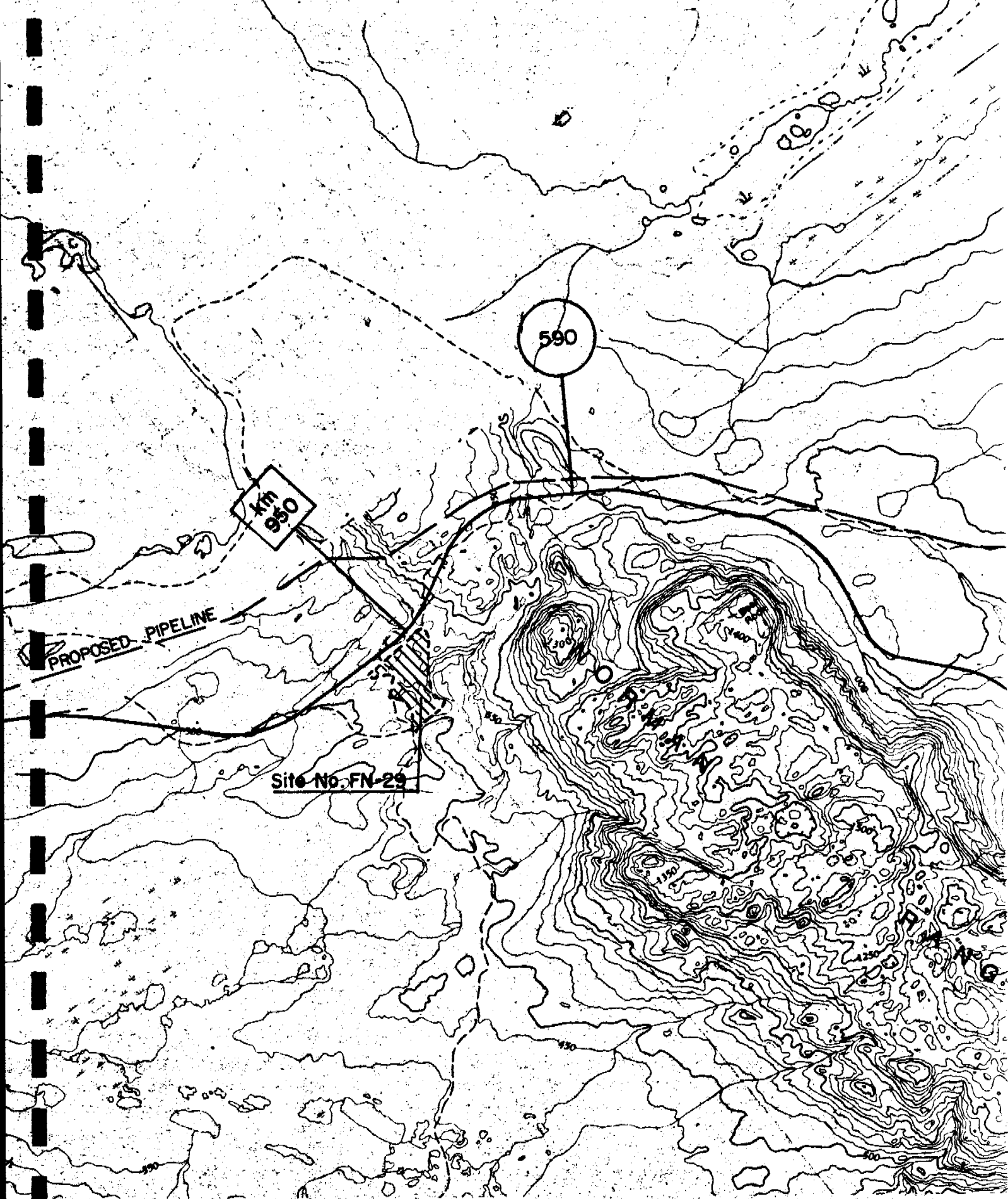
SITE NO. FN-29

Located at the base of the western flank of the Norman Range (Bear Rock) and adjacent to south side of the Mackenzie Highway alignment at kilometre 950.

Type of Material: Gravel in a Glacial Outwash Deposit.
Estimated Volume: 240,000 Cubic Metres.
Estimated Requirements: 76,000 Cubic Metres.
Purpose: Highway Construction.



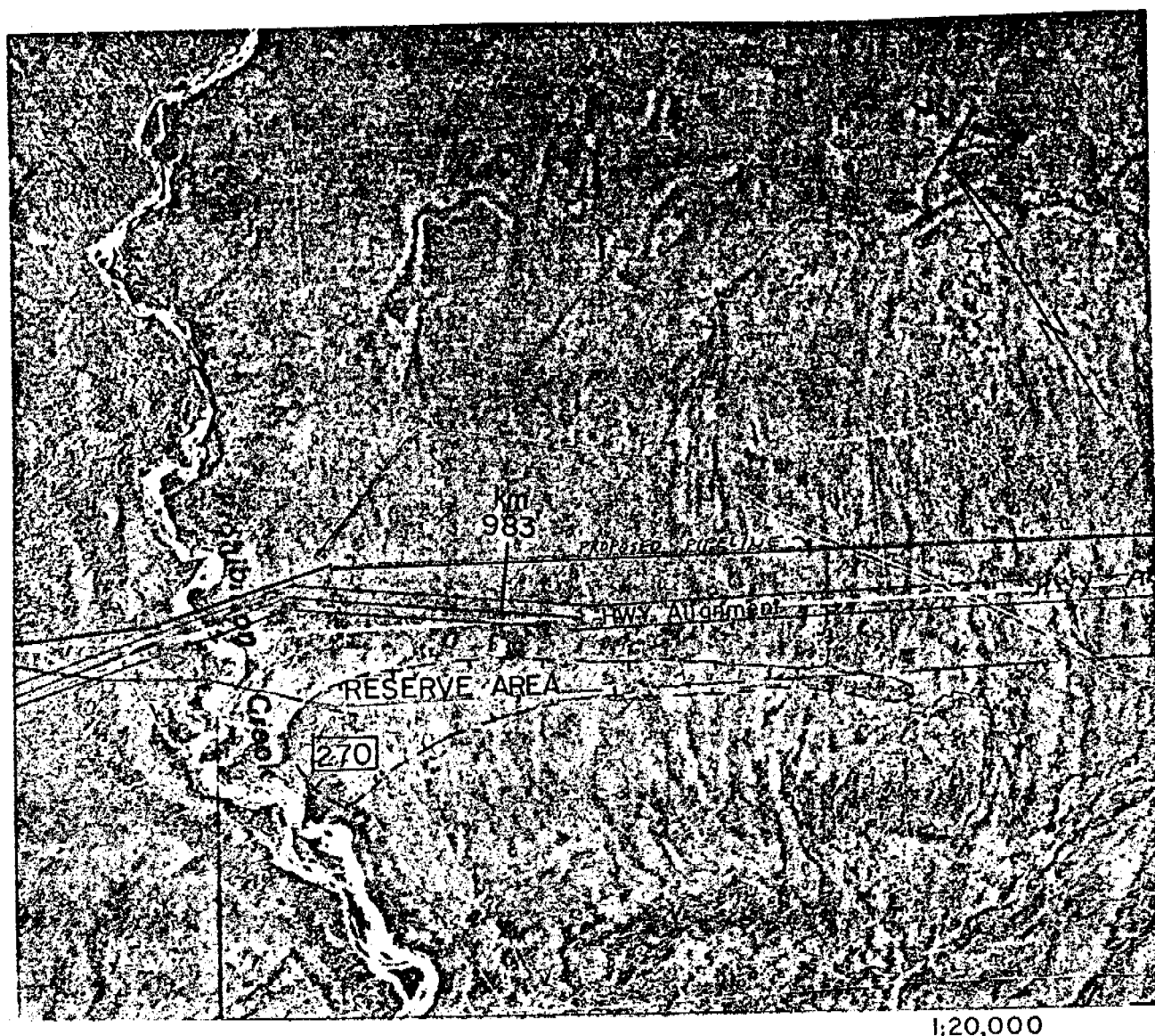
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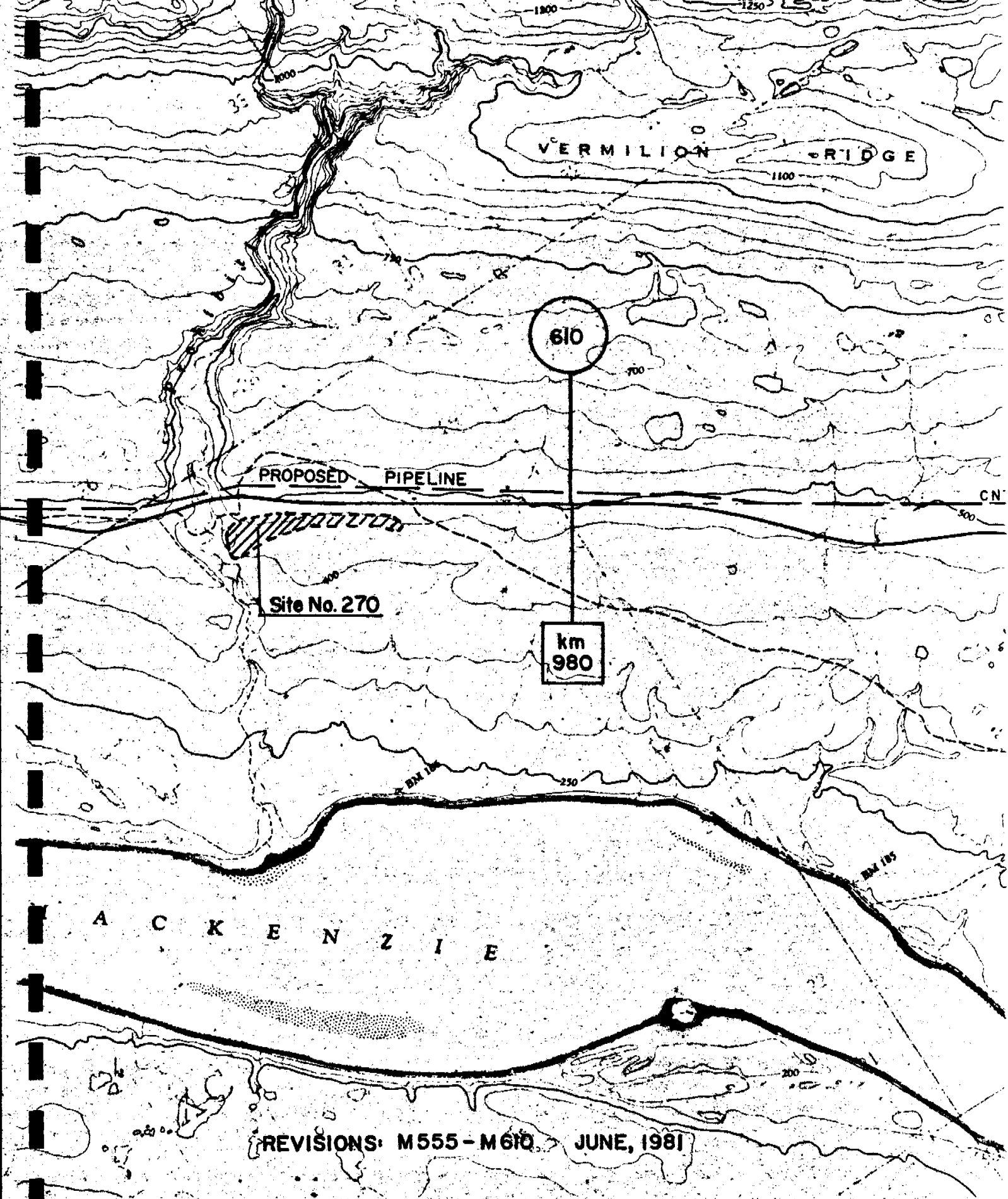


SITE NO. 270

Located near the east bank of Prohibition Creek and adjacent to the south side of the Mackenzie Highway alignment at kilometre 983.

Type of Material:	Gravel in a localized Glacio-Fluvial Outwash Plain.
Estimated Volume:	153,000 Cubic Metres.
Estimated Requirements:	49,000 Cubic Metres.
Purpose:	Highway Construction.



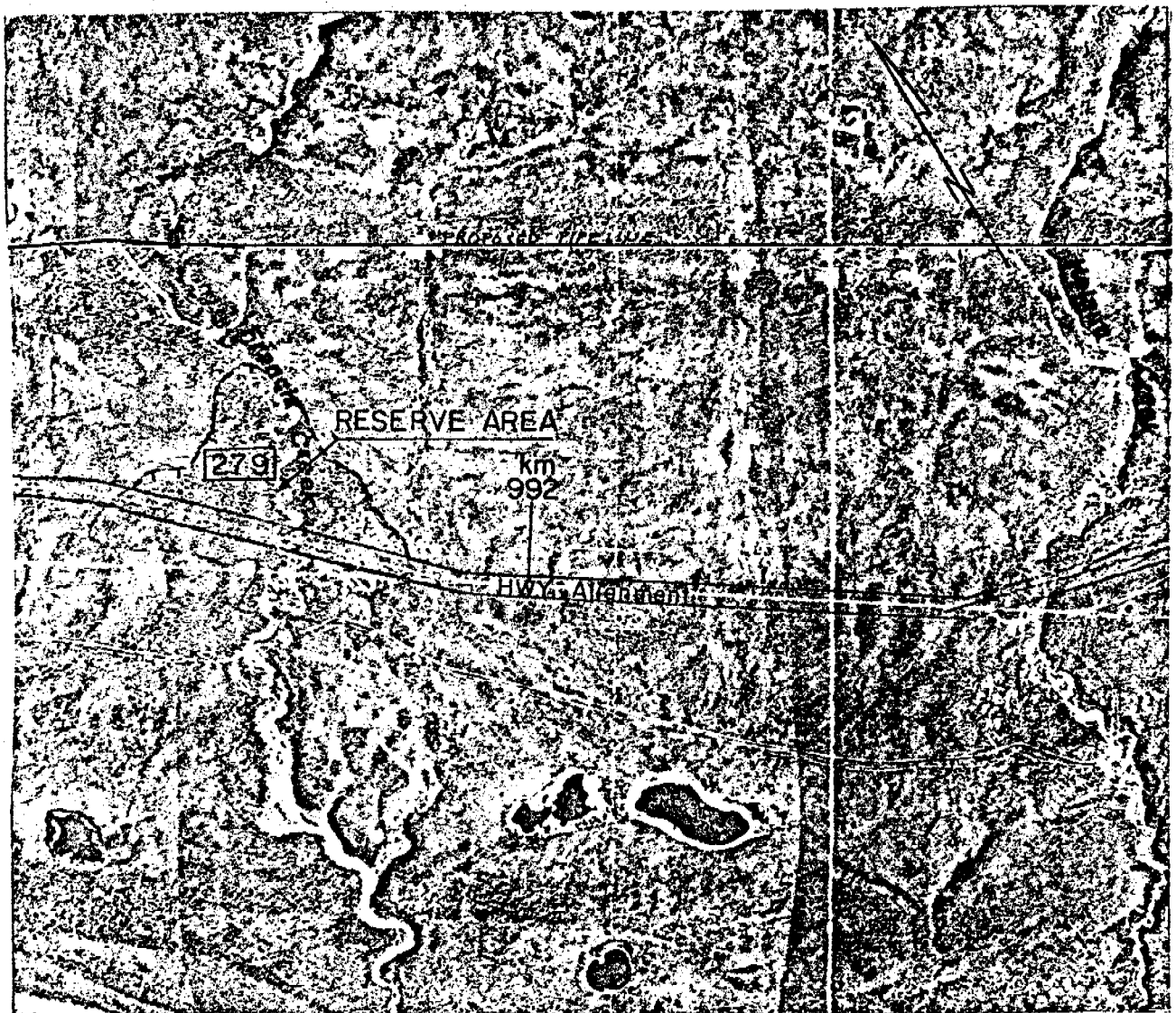


REVISIONS: M555 - M610, JUNE, 1981

SITE NO. 279

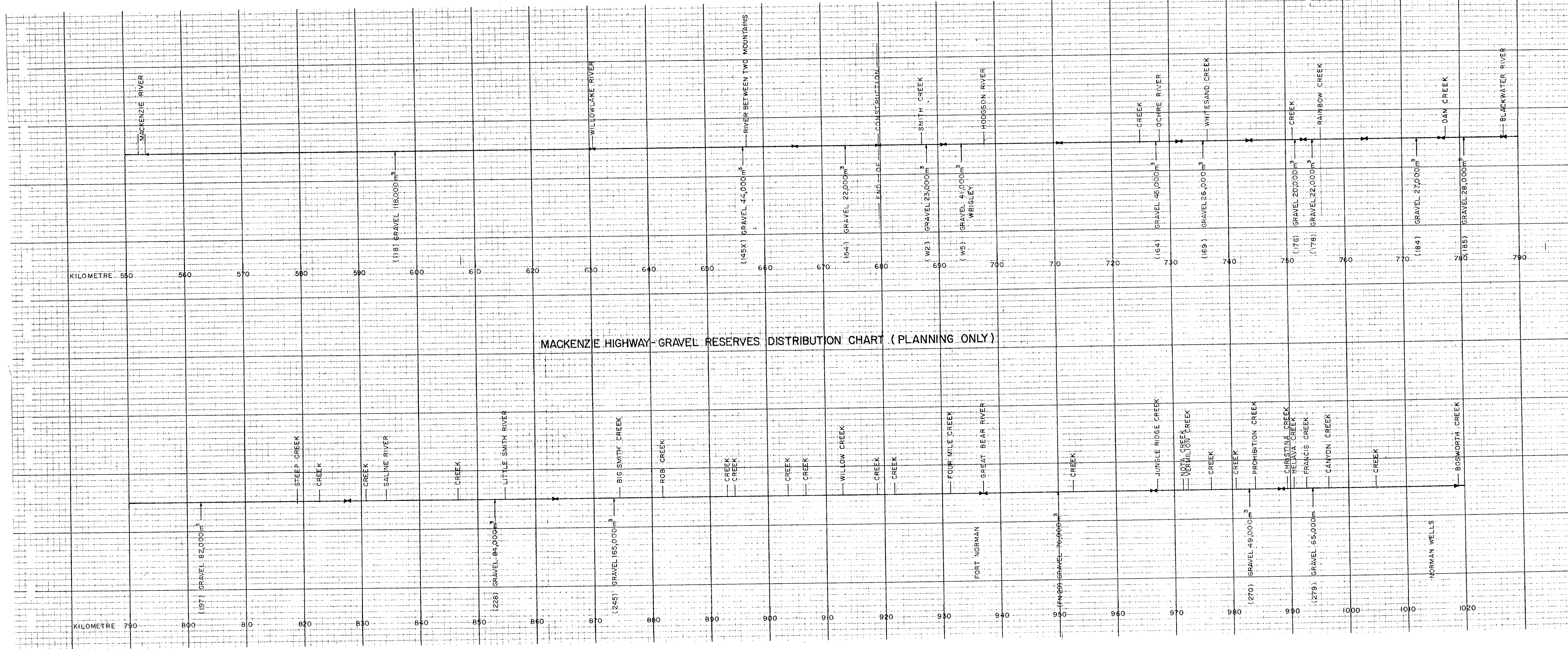
Located along Francis Creek Banks and the proposed Mackenzie Highway alignment at kilometre 992.5.

Type of Material: Gravel in a Alluvial Fan Deposit.
Estimated Volume: 100,000 Cubic Metres.
Estimated Requirements: 65,000 Cubic Metres.
Purpose: Highway Construction.




1:20,000









PUBLIC WORKS CANADA
WESTERN REGION

Legend

- Highway (constructed)
- Highway (under construction)
- Highway (proposed)
- Gravel reserve
- Highway mile post
- Highway kilometre post
- Telecommunications line (C N T)
- Ferry crossing (existing)
- Ferry crossing (proposed)
- Air strip
- Marina
- Proposed Pipeline

Revision / date

REVISED SEPT. 1978
JUNE, 1981

mackenzie highway n w t

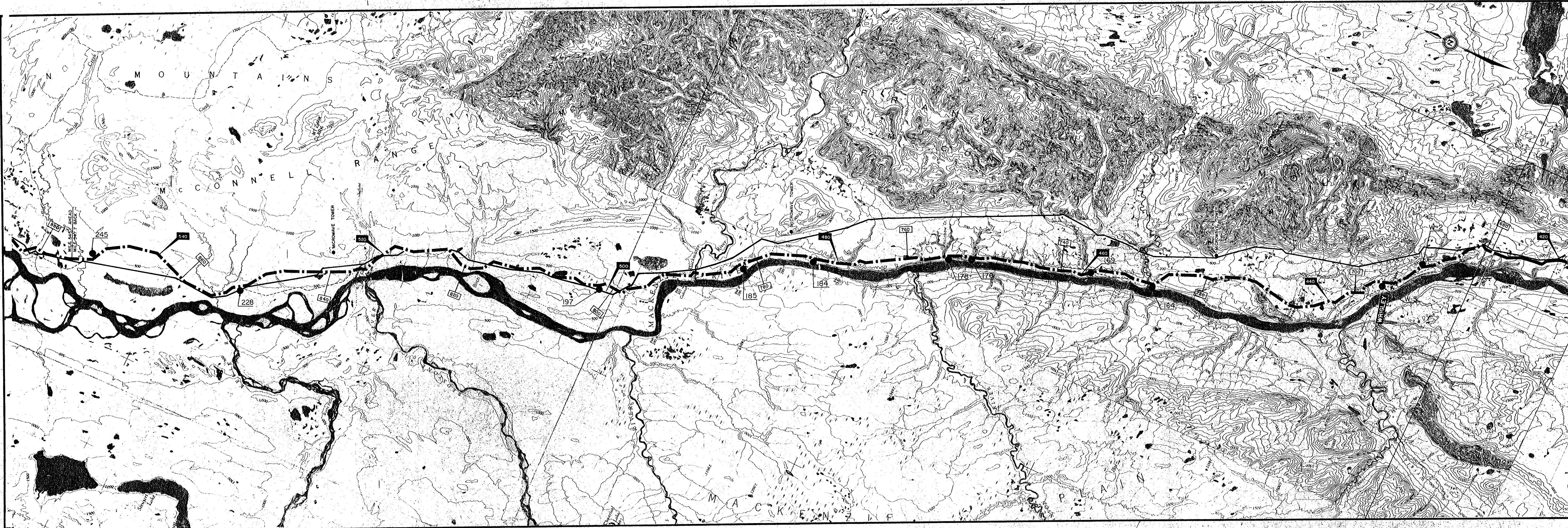
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Miles 0 4 8

Kilometres 0 4 8

DATE JUNE 1974


SHEET 4 of 9








PUBLIC WORKS CANADA
WESTERN REGION


Legend


 Highway (constructed)


 Highway (under construction)


 Highway (proposed)


 Gravel reserve


 Highway mile post


 Highway kilometre post


 Telecommunications line (C.N.T.)

 Ferry crossing (existing)

 Ferry crossing (proposed)

 Air strip


 Marina


 Proposed pipeline

Revision / date
JUNE, 1981

mackenzie
highway
n w t

Scale 1:250,000







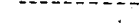





 Miles

 Kilometres

DATE JUNE 1974

SHEET 5 of 9

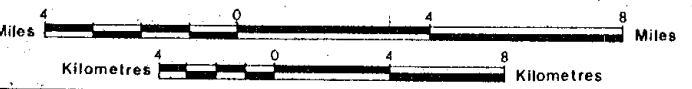
Legend

-  Highway (constructed)
-  Highway (under construction)
-  Highway (proposed)
-  Gravel reserve
-  Highway mile post
-  Highway kilometre post
-  Telecommunications line (C.N.T.)
-  Ferry crossing (existing)
-  Ferry crossing (proposed)
-  Air strip
-  Marina
-  Proposed pipeline

Revision/date
JUNE, 1981

mackenzie highway n w t

Scale 1:250,000



DATE JUNE 1974

SHEET 6 of 9

