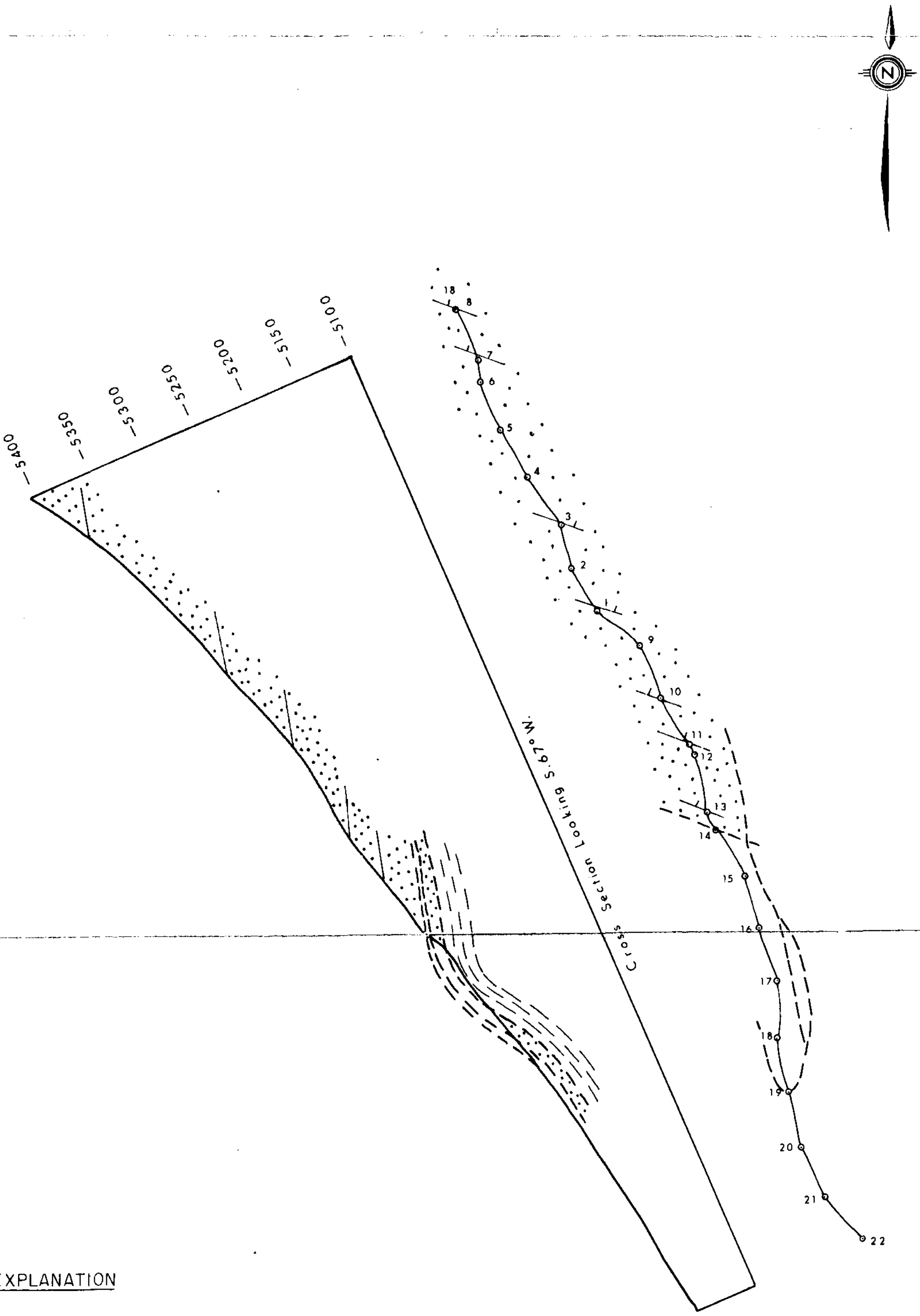
M01



99(3)

EXPLANATION

- - - - Contact assumed

—— Coal seam

Overburden

Sandstone

Black shale

10 Strike and dip of beds

10 Strike and dip of coal seams

10 Brunton survey station

GR-GROUNDHOG 70(2)A.

PLATE XVIII

CANEX AERIAL EXPLORATION LIMITED.
QUINTANA MINERALS CORPORATION
NATIONAL COAL CORPORATION LIMITED

GROUNDHOG COALFIELD PROJECT

GEOLOGICAL MAP & CROSS SECTION IN COAL SEAMS IN COAL LICENSE No. 820 CURRIER CREEK AREA

SCALE
FEET 100 0 100 200 FEET

W. D. TOMPSON Nov., 1970

Section Looking N. 54 W.

M02

EXPLANATION

Overburden

Coal seam

Sandstone

Shale

Interbedded sandstone and shale

PLATE XVI

CANEX AERIAL EXPLORATION LIMITED
QUINTANA MINERALS CORPORATION
NATIONAL COAL CORPORATION LIMITED

GROUNDHOG COALFIELD PROJECT

GEOLOGICAL CROSS SECTION THROUGH D.D.H. No. 1

SKEENA RIVER AREA, B.C.

SCALE

FEET 100 0 100 200 FEET

DATA BY:

Willard D. Tompson, Geoffery Bird, David M. Jenkins & Michael W. Roper

GR-GROUNDHOG 70(2)A. NOV., 1970

98

PLATE XV

CANEX AERIAL EXPLORATION LIMITED
QUINTANA MINERALS CORPORATION
NATIONAL COAL CORPORATION LIMITED

GROUNDHOG COALFIELD PROJECT

LOCATION MAP, SURFACE EXPOSED COAL SEAMS & D.D.H. No. 1

SKEENA RIVER AREA, B.C.

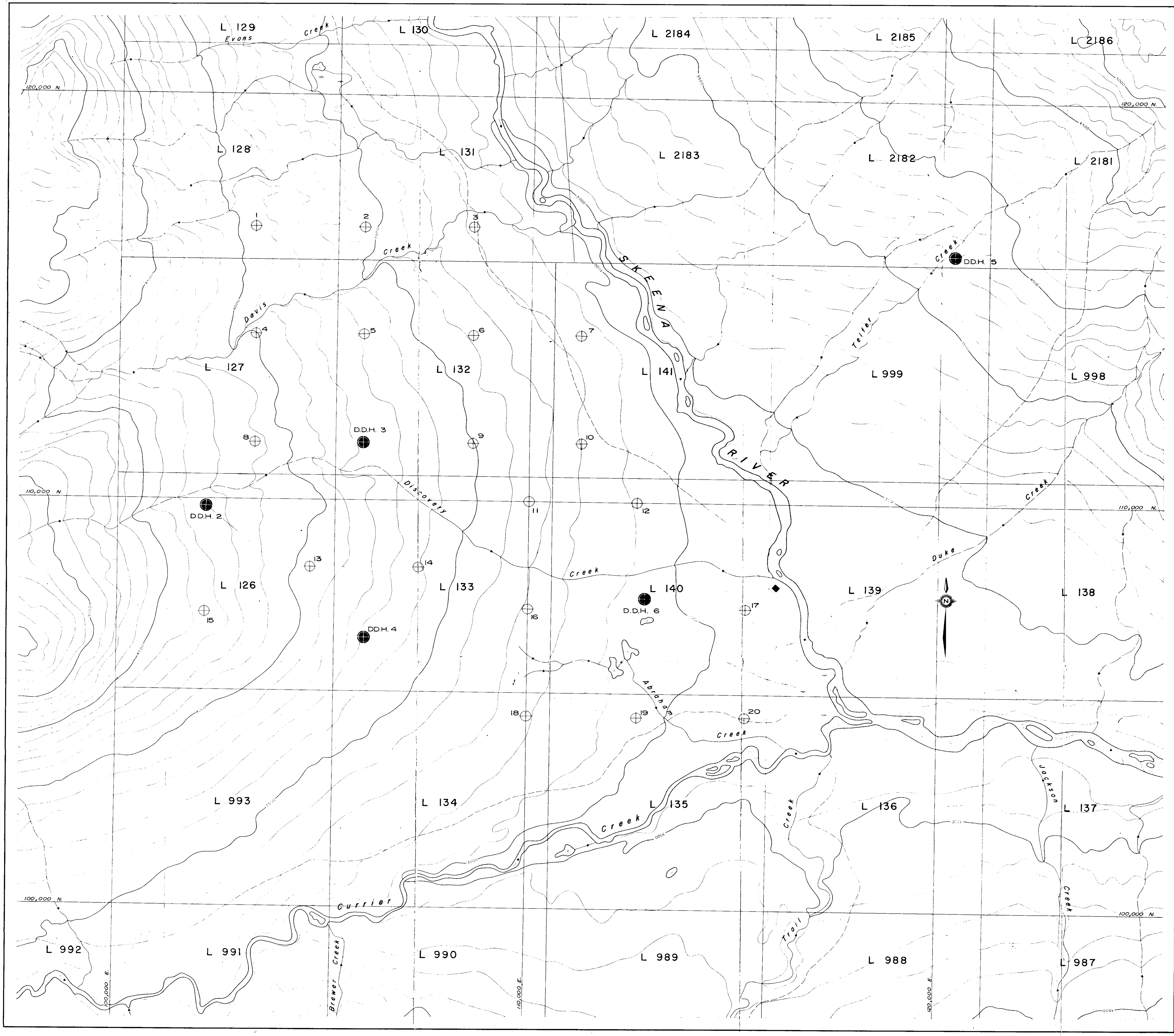
SCALE
FEET 100 0 100 200 FEET

DATA BY:
Willard D. Tompson, Geoffery Bird, David M. Jenkins & Michael W. Roper

GR-GROUNDHOG 70 (2)A. July, 1970

98

M04



EXPLANATION

D.D.H. 5 — HOLE DRILLED IN 1970

2 — PROPOSED DRILL HOLE

NOTE : This map has been reproduced from a mechanical enlargement of a National Topographic Series map - 1 : 63,360

GR-GROUNDHOG 70(2)A

98

PLATE XXIII

CANEX AERIAL EXPLORATION LIMITED
QUINTANA MINERALS CORPORATION
NATIONAL COAL CORPORATION LIMITED

GROUNDHOG COALFIELD PROJECT

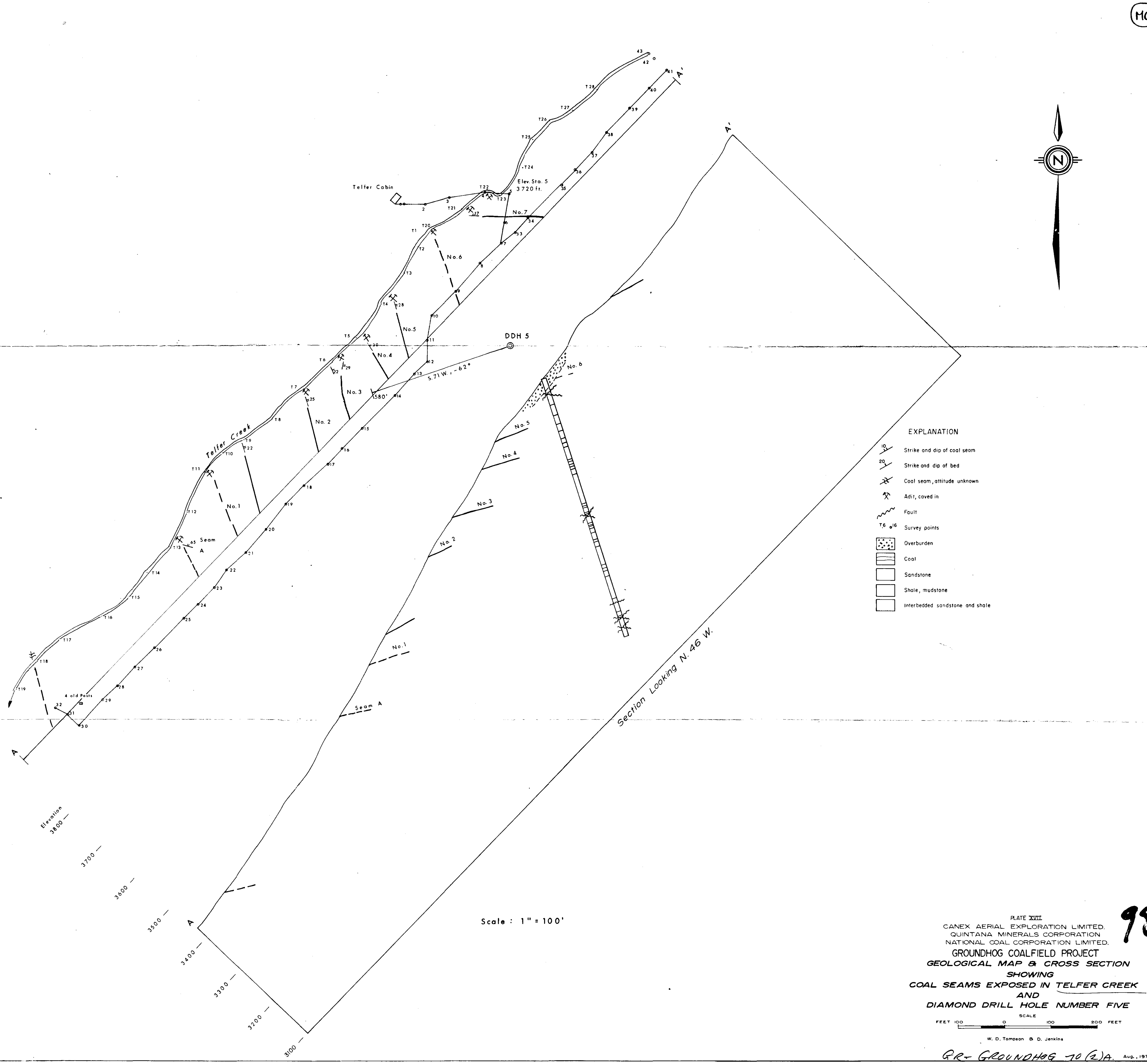
MAP SHOWING ARRAY OF PROPOSED DIAMOND DRILL HOLES IN THE DISCOVERY CREEK-ABRAHAM CREEK AREA

SCALE
FEET 1000 0 1000 2000 FEET

W. D. Tompson

Nov., 1970

M05



98

PLATE XVII
CANEX AERIAL EXPLORATION LIMITED.
QUINTANA MINERALS CORPORATION
NATIONAL COAL CORPORATION LIMITED.

GROUNDHOG COALFIELD PROJECT

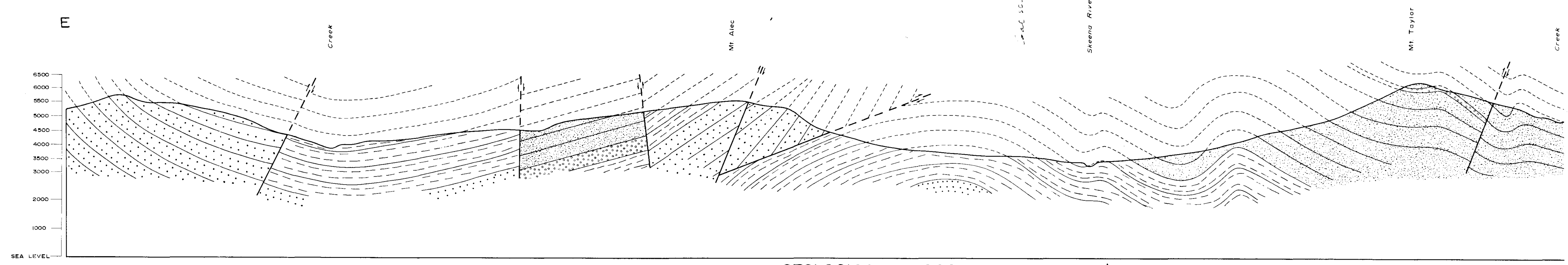
GEOLOGICAL MAP & CROSS SECTION SHOWING COAL SEAMS EXPOSED IN TELFER CREEK AND DIAMOND DRILL HOLE NUMBER FIVE

SCALE
FEET 100 0 100 200 FEET

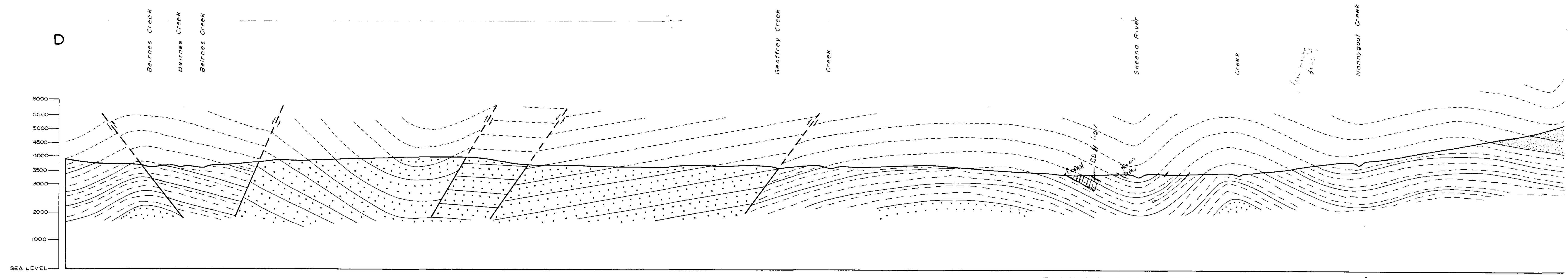
W. D. Tompson & D. Jenkins

GR- GROUNDHOG 70 (2) A. Aug., 1970

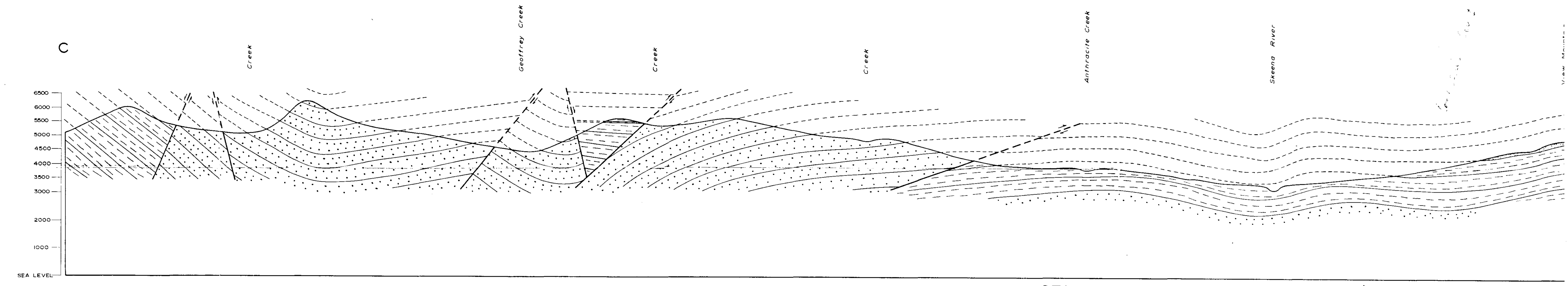
M06a



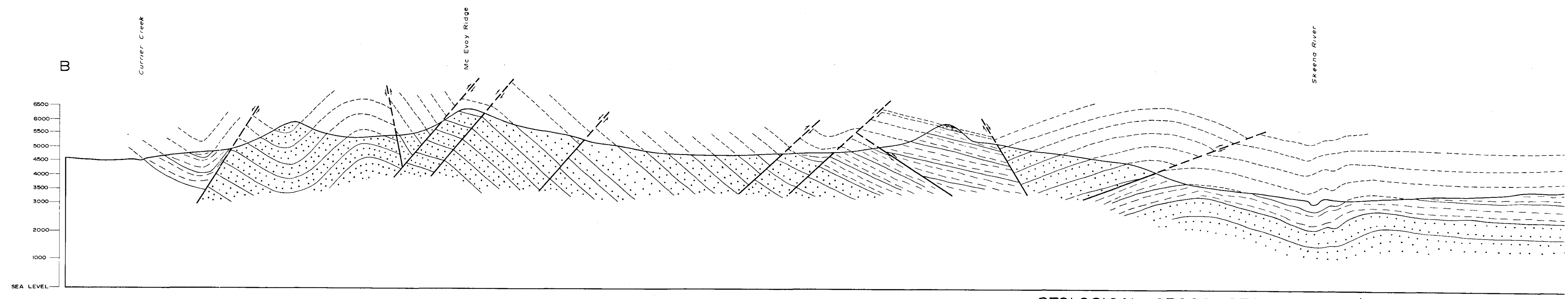
GEOLOGICAL CROSS SECTION E-E'
SECTION LOOKING NNW, PLANE OF SECTION STRIKES N.61°E.



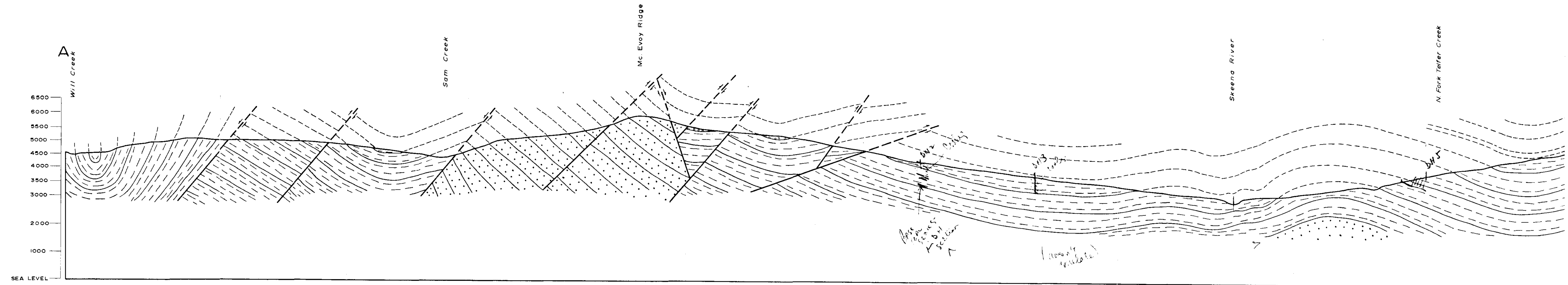
GEOLOGICAL CROSS SECTION D-D'
SECTION LOOKING NNW, PLANE OF SECTION STRIKES N.70°E.



GEOLOGICAL CROSS SECTION C-C'
SECTION LOOKING NNW, PLANE OF SECTION STRIKES N.70°E.



GEOLOGICAL CROSS SECTION B-B'
SECTION LOOKING NNW, PLANE OF SECTION STRIKES N.70°E.



GEOLOGICAL CROSS SECTION A-A'
SECTION LOOKING NNW, PLANE OF SECTION STRIKES N.70°E.

LEGEND

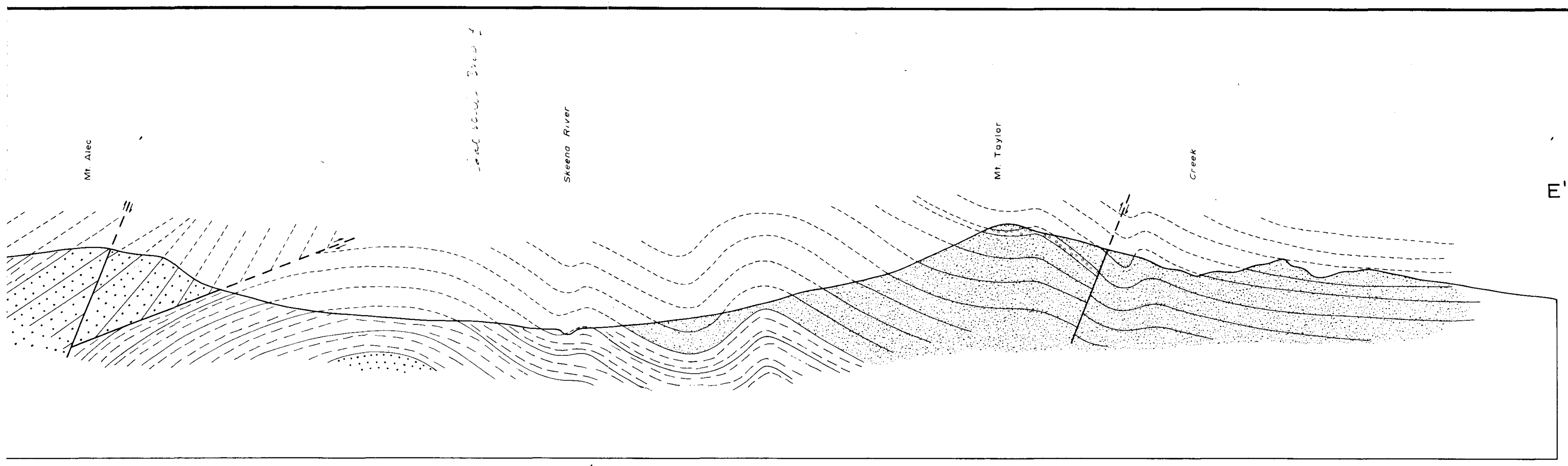
LONESOME MOUNTAIN LTHOSOME
Sombre brown coloured, wel indurated, sparsely fossiliferous, conglomeratic sandstones, sandstones, mudstones and thin, rare, discontinuous coal beds.

COAL BEARING LITHOSOME
Soft, medium to thick bedded mudstones (70-75%), carbonaceous units (15-20%), and grey sandstones (10%) which typically weather brown to orange.

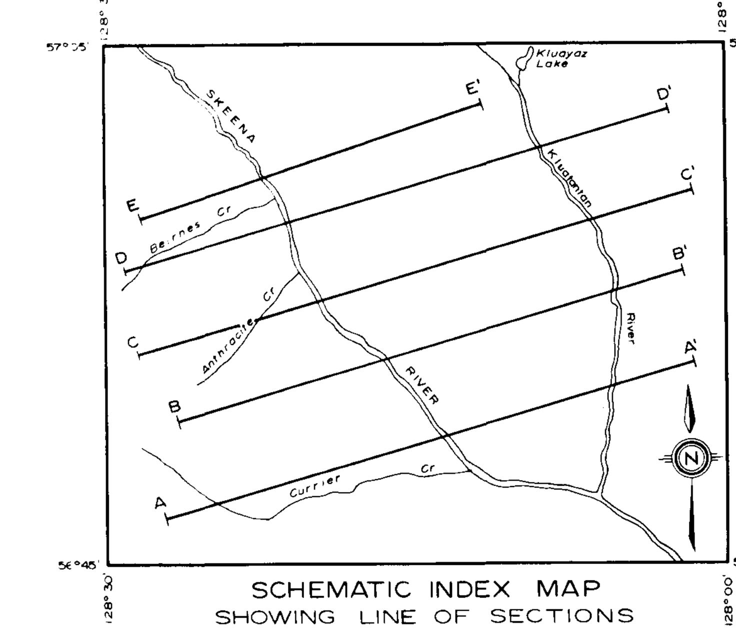
DEVIL'S CLAW CONGLOMERATE LITHOSOME
Thick bedded, coarse grained, chert pebble conglomerate interbedded with mudstone, sandstone, and minor coal.

McEVOY RIDGE LITHOSOME
Dark coloured, well indurated mudstones predominate, with some fine grained sandstones and some carbonaceous matter. Evenly bedded, 1-5 feet thick.

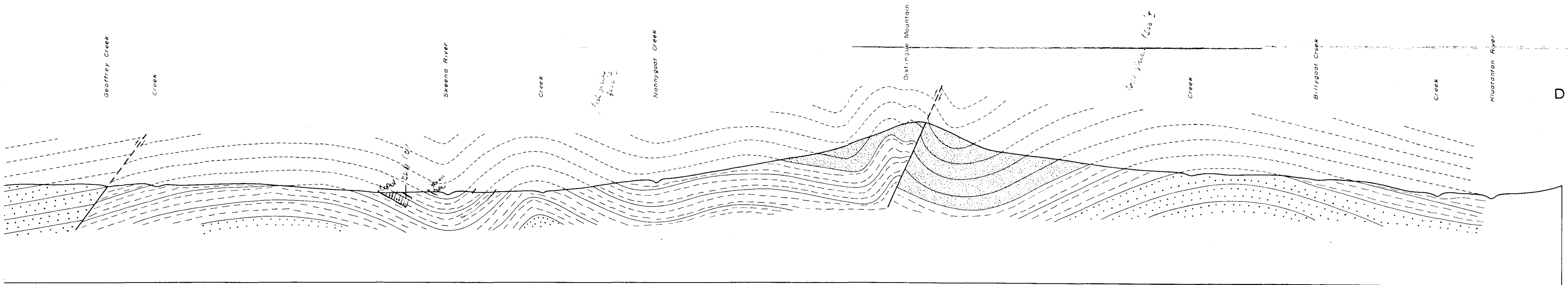
M06b



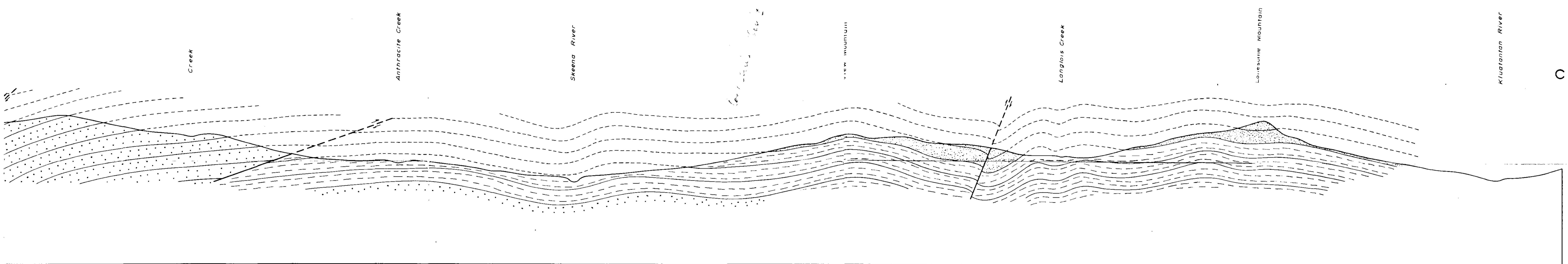
GEOLOGICAL CROSS SECTION E-E'
SECTION LOOKING NNW, PLANE OF SECTION STRIKES N.61°E.



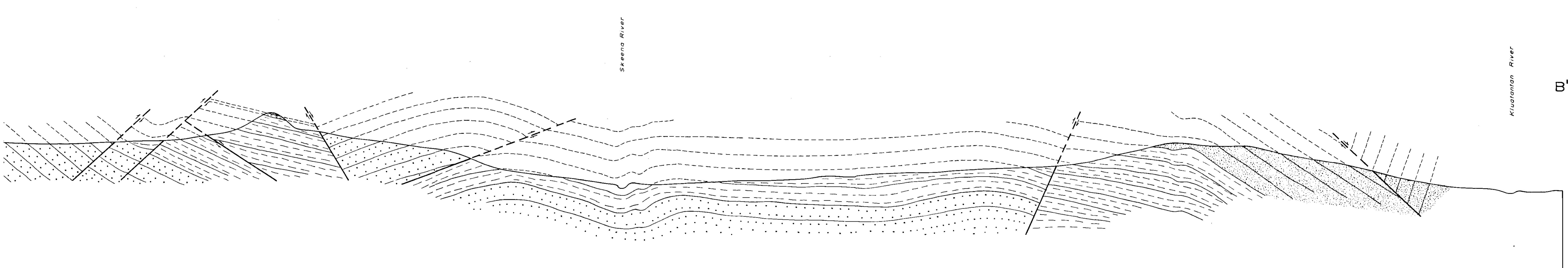
SCHEMATIC INDEX MAP
SHOWING LINE OF SECTIONS



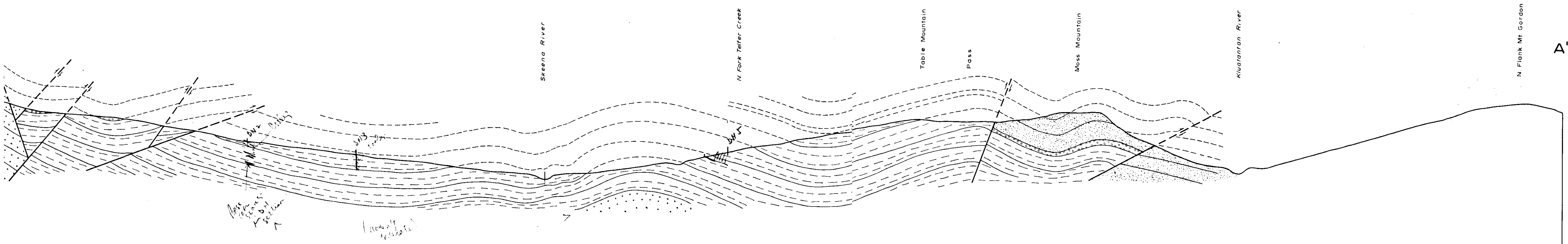
GEOLOGICAL CROSS SECTION D-D'
SECTION LOOKING NNW, PLANE OF SECTION STRIKES N.70°E.



GEOLOGICAL CROSS SECTION C-C'
SECTION LOOKING NNW, PLANE OF SECTION STRIKES N.70°E.



GEOLOGICAL CROSS SECTION B-B'
SECTION LOOKING NNW, PLANE OF SECTION STRIKES N.70°E.



GEOLOGICAL CROSS SECTION A-A'
SECTION LOOKING NNW, PLANE OF SECTION STRIKES N.70°E.

E
d mudstones (70-75%), carbonaceous units (15-20%),
which typically weather brown to orange.

ME
d mudstones predominate,
dstones and some carbonaceous matter.
ick.

CANEX-AERIAL EXPLORATION LIMITED
QUINTANA MINERALS CORPORATION
NATIONAL COAL CORPORATION LIMITED
GROUNDHOG COALFIELD PROJECT

GEOLOGICAL CROSS SECTIONS

98

SCALE
Feet 2000 0 2000 4000 6000 Feet

GEOLOGY BY
WILLARD D. TOMPSON, DAVID M. JENKINS
GEOFFREY BIRD, MICHAEL W. ROPER

GR-GROUNDHOG 70 (2) A. PLATE XIII


M074
LINE 1
LINE 4
MT. TAYLOR
DISTINGUE MTN
MT. ALEC
VIEW MTN
LONESOME MTN
MT LAIDLAW
MOSS MTN
TABLE MTN
MT GORDON
DEVILSCLAW MTN
OPERATOR MTN
PYRAMID BLUFF
Tp. 34
Tp. 24
S K E E N A
C A S S I A R
RIVER
Beirnes Creek
Lonesome Creek
Evans Cr
Davis Creek
Grizzly

MT. ALEC
VIEW MTN.
LONESOME MTN.
DEVILSCLAW MTN.
TABLE MTN.
MOSS MTN.
MT. GORDON
OPERATOR MTN.
PYRAMID BLUFF
McEvoy Flats
Jackson Flats
Beirnes Creek
Lonesome Creek
Langlois Creek
Evans Cr.
Grizzly Gulch
Currier
Klappan River
Tp. 34
Tp. 24
C A S S I A R
EXPLANATION
DDH-6
Diamond drill hole drilled during 1970
29509
Location of coal sample taken at surface
C.L.694
Coal licence and number
Areas to be staked
Photo points
M076
GROUNDHOG 70(2)A
98
PLATE VIII
CANEX AERIAL EXPLORATION LIMITED
QUINTANA MINERALS CORPORATION
NATIONAL COAL CORPORATION LIMITED
GROUNDHOG COALFIELD PROJECT
TOPOGRAPHIC MAP SHOWING
COAL LICENCES, LOCATION OF SURFACE SAMPLES
& LOCATIONS OF DIAMOND DRILL HOLES
SCALE
FEET 2000 0 2000 4000 FEET

M08a
D.D.H. No. 3
Vertical 588'
LOWER DISCOVERY
CREEK PROSPECT.
No outcrop, Tunnel caved
111,000 N.
DISCOVERY CREEK
UPPER DISCOVERY CREEK
PROSPECT
Profile
101,000 E.
102,000 E.
4200
D.D.H. No. 2
Vertical 565'
Elevation 4240'
Cross Section Reference Line N 76° 30' E
A
A'
Elevation A
COAL OUTCROP IN CREEK BED.
UPPER DISCOVERY CR. SEAM
COAL OUTCROP IN CREEK BANK,
5.5 FEET THICK.
COAL SEAM INFERRED FROM FLOAT
D.D.H. No. 2
LOWER DISCOVERY CR. SEAM
COAL OUTCROP
D.D.H. No. 3
4600
4500
4400
4300
4200
4100
3700
3600
3500
3400
3300
3200
3100

FIGURE XXII

CANEX AERIAL EXPLORATION LIMITED.
QUINTANA MINERALS CORPORATION.
NATIONAL COAL CORPORATION LIMITED.

GROUNDHOG COAL PROJECT

GEOLOGICAL MAP AND CROSS SECTION OF DIAMOND DRILL HOLES 2 AND 3

DISCOVERY CREEK AREA

SCALE

FEET 100 0 100 200 300 400 500 FEET

DATA MAPPED & COMPILED BY:
Willard D. Tompson, Geoffrey Bird, David M. Jenkins & Michael W. Roper

M08b

78

GR-GROUNDHOG 70(2)A.


1109a
Mt.
Taylor
Distingue
Mtn.
View
Mtn.
Mt. Alec
SKEENA
RIVER
KLUATANTAN
RIVER
Lonesome Mtn.
Moss Mtn.
Rocks are tightly folded in this area.
Rocks are tightly folded in this area
CAMP SITE
During 1969 and 1970
Kluayaz
Lake
Syncline
Cr.
Beirnes
Lonesome Cr.
Pleasant
Creek
E'
D'
C'
B
A'
E
D

EXPLANATION

Lonesome Mountain Lithosome – Sombre brown colored, well indurated, sparsely fossiliferous, conglomeratic sandstones, sandstones, mudstones, and thin, rare, discontinuous coal beds.

Devils Claw Conglomerate Lithosome – Thick bedded, coarse grained, chert pebble conglomerate interbedded with mudstone, sandstone and minor coal.

Coal Bearing Lithosome – Soft, medium to thick bedded mudstones (70 -75 percent), carbonaceous units (15 - 20 percent), and grey sandstones (10 percent) weathering brown to orange.

Mc Evoy Ridge Lithosome – Dark colored, well indurated mudstones predominate, with fine grained sandstones and some carbonaceous matter. Evenly bedded, 1 to 5 feet thick.

10 Strike and dip of coal seam.

Coal in place, attitude unknown.

60 Strike and dip of bedding; inclined, horizontal, vertical and overturned.

40 Strike and dip of joints.

Rock contact, dashed where covered or inferred.

Thrust fault, "T" on upper plate.

Fault, dashed where inferred or obscured.

10 Strike and plunge of axis of anticline,
10 dashed where inferred.

10 Strike and plunge of axis of syncline,
dashed where inferred.

Overturned anticline and syncline respectively.

M096

P/C

PLATE IV

CANEX AERIAL EXPLORATION LIMITED
QUINTANA MINERALS CORPORATION
NATIONAL COAL CORPORATION LIMITED

GROUNDHOG COALFIELD PROJECT

GEOLOGICAL MAP

SKEENA RIVER AREA, B.C.

SCALE

FEET 2000 0 2000 4000 FEET

DATA BY:

Willard D. Tompson, Geoffery Bird, David M. Jenkins & Michael W. Roper

GR-GROUNDHOG 70 (2) A


M10
BRITISH COLUMBIA
HIGHWAYS— ARTERIAL
SECONDARY
PACIFIC GREAT EASTERN RAILWAY
MAIN TRACK
UNDER CONSTRUCTION
UNDER SURVEY
BRITISH COLUMBIA FERRIES
Ferry
DAMS
1 W. A. C. Bennett
2 Hugh Keenleyside
3 Duncan
4 Mica
93
PLATE 1
Map Of British Columbia Showing
Location of Groundhog Coalfield
And Rail And Highway Routes
Scale of miles
40 30 20 10 0 40 80 120 160
GR-GROUNDHOG 70(2)A.
Drawn and Produced by Geographic Division, Surveys and Mapping Branch, Dept. of Lands, Forests, and Water Resources, Victoria, B.C.
GROUNDHOG
COALFIELD
Under Construction
YUKON
N.W.T.
ALASKA
ALBERTA
U.S.A.
PACIFIC OCEAN
QUEEN CHARLOTTE SOUND
HECATE STRAIT
DIXON ENTRANCE
WILLISTON LAKE
PRINCE RUPERT
PRINCE GEORGE
KITIMAT
TERRACE
Smithers
Stewart
Fort St. John
Fort Nelson
Dawson Creek
Quesnel
Williams Lake
Clinton
KAMLOOPS
VERNON
KELOWNA
PENTICTON
NELSON
CRANBROOK
FERNIE
REVELSTOKE
Golden
VANCOUVER
VICTORIA
NANAIMO
CHILLIWACK
BELLINGHAM
PORT ALBERNI
PORT HARDY
Bella Coola
Atlin