List of 48 maps in hanging file

✓ 1 Geology of Carmacks Coal Lease Area
R.P. Hill Feb 1977 Map 1
1" = 1/2 mi

2,3 Carmacks "SI/ Laberge 10SE OF 1101
Templeman-Kluit
1: 250,000

✓ 4 Carmacks Reconnaissance Map
Roads & Trenches, Lot 23 & 24 Tantalus Butte
1" = 400' '76

✓ 5 Carmacks Coal Project
VLF-EM Pete Walcott Jan '78
1" = 200'

✓ 6,7 Carmacks Coal Project - Carmacks N Seol open pit
RP Hill April 1978 Map 1 of 2, map 2 of 2
1" = 100'

✓ 8 Geology Carmack N
RP Hill Feb 1977 map2
1" = 800'

✓ 9 Tantalus Butte Lsgy open pit
RP Hill May 1977
1" = 100'

✓ 10 Coal leases Carmacks
Apr 1978 map2
1" = 1/2 mi

✓ 11,12 (11) Tantalus Butte Carmacks Coal Proj drilling
RP Hill Feb 1978 Fig 1 1" = 200'
(12) Trench Plans 1" = 50' Fig 2
Apr 1978

13 Carmack N Section 76+00
Jan 1978 Carmacks Coal Proj.

14 (aa) 68+00
Feb 1978

✓ 15 (a.a) 64+50
Feb 1978

16 (a.a) 60+00

17 (a a) 59+00

18 a.a. 57+00

19 a.a 54+00

20 a.a. 50+00

✓ 21 a.a. 48+50

✓ 22 Tantalus Butte Slgy
Feb 1977 RP Hill Map 4
1" = 200'

✓ 23 T Butte Roadcut slgy
Hill Feb '77 see (25)

✓ 24 T Butte slgy open pit
Hill May 77
1" = 40'

✓ 25 T-B
Hill Feb 77 Map 3
1" = 40'

✓ 26 Carmach Coal Proj
Feb 78 1" = 100'

✓ 27 (two) VLF-EM Walcott
Report Jan 78 Fig 3 / ochen.

✓ 28 VLF-EM Walcott
Jan 78

✓ 29 a.a

✓ 30 T-B surface & underground
Jan '64 Rev N'67
1" = 100'

✓ 31 T-B
Oct 73?

P-A
-B
✓ -C
-D south area) 1" = 400'
-E north "
-F

32 Carmach S Section E
1" = 50'
Hill Jan 77

33 D
✓ 34 C
35 B
36 A

37 Cormack N section D
38 C
39 B
40 Hill Feb 77 A
41 Cormack S Trench Plans
March 77 Hill
42 Cormack N Trench Plan
Hill March 77
43 Seal C South
Hill F-77 1" = 800' Map 1 (?)
44 AA. ?
45 T-B Topo w trench
Jan 77
46 Cormack S Lease.
date? scale?
47 1980 Bulldoze tracks Cormack S
trench plan & section.
48 Seal Map Sept 80
Cormack S.

LEGEND

EOCENE OR YOUNGER

eTcv — CARMACKS GROUP: Basaltic and Andesitic Volcanics

LOWER CRETACEOUS and/or UPPER JURASSIC

LKT — TANTALUS FORMATION: Quartz - and chert - pebble conglomerate, minor sandstone, siltstone and mudstone; coal seams.

LOWER AND MIDDLE JURASSIC

JL_3 — LABERGE GROUP: Coarse - grained arkose; minor mudstone; coal seams

JL_2 — LABERGE GROUP: Shale

JL_1 — LABERGE GROUP: Sandstone and conglomerate

UPPER TRIASSIC

TrLR — LEWIS RIVER GROUP: Limestone

Bedding (upright, overturned)

Contact (Approximate, Assumed)

Anticline Axial Trace (upright, overturned)

Syncline Axial Trace (upright, overturned)

Syncline Axial Trace (Projected beneath Carmacks Group)

Fault (Approximate

Lot 4 Gr. 903 FIVE FINGERS MINE

Lot 5 Gr. 903

Lot 6 Gr. 903

FIVE FINGERS

FIVE FINGER MOUNTAIN △ 2942'

C.M.L. No. 2994

C.M.L. No. 2959

C.M.L. No. 2993

C.M.L. No. 2992

Lot 24 Gr. 1903

Lot 23

TANTALUS BUTTE △ 2568'

TANTALUS BUTTE MINE

TANTALUS MINE

Lot 10

CARMACKS NORTH

CARMACKS

CARMACKS SOUTH

BERDOE MOUNTAIN △ 3540'

Yukon River

Nordenskiold River

CURRAGH RESOURCES INC.

GEOLOGY OF
CARMACKS COAL LEASE AREA
YUKON

(Modified after Bostock, 1936, Figure 1)

DATE: FEB.24, 1977
SCALE: 1" = 1/2 Mi
DRAWN BY: C. L. C.

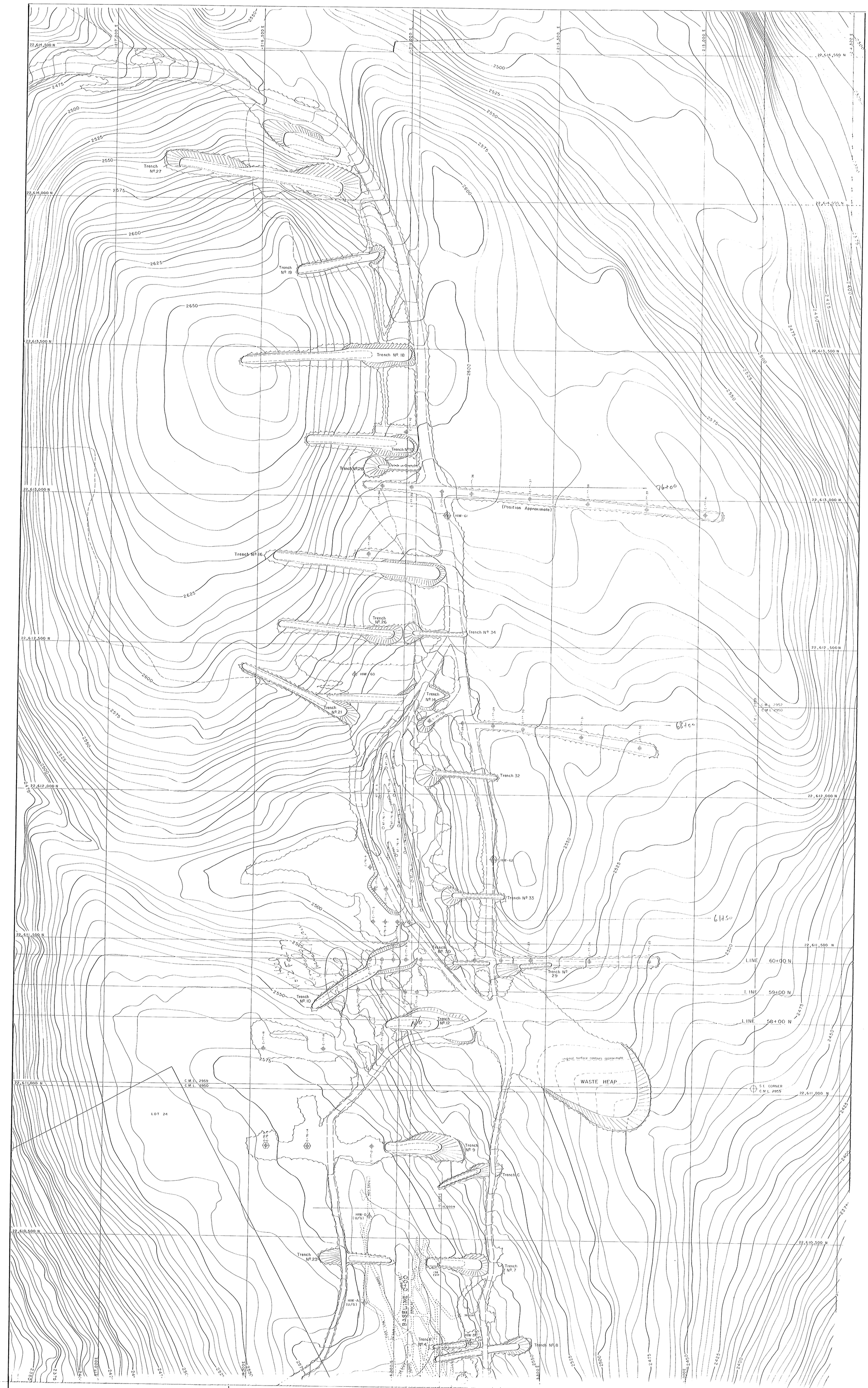
1/2 1/4 0 1/2

To accompany report by R.P. Hill, Feb. 1977 MAP No. 1

REVISED: 89-7 / H.M.

(1)

2250
2500
2750
2000
LOT 23
SCALE: 1"=400'
CONTOUR INTERVAL 50'
MAP REFERENCE
DATE OF PHOTOGRAPHY:
DATUM:
SHEET
OF
PACIFIC SURVEY CORPORATION



LEGEND

- Survey control point
- Road
- Cut line
- Trench outline with spoil
- Surface projection of main entry and working area
- Underground access
- Aerial photo target
- Cat trail
- Cleared areas
- Subsidence hole
- Airtrac drill-hole
- Diamond drill-hole
- Rotary drill-hole

True North 1° 06'
Grid North
Magnetic North 32° 22'

Approximate Magnetic Declination 1978 - 32° 22' East
Annual change decreasing 3.0'

CYPRUS ANVIL MINING CORPORATIC

CARMACKS COAL PROJECT

(26) Imperial

PHOTOGRAPHY July 1977
PROJECTION Transverse Mercator
COORDINATES Territorial Plane (feet)

SCALE IN FEET
100 0 100 200
CONTOUR INTERVAL 5 FEET
Except 10 Feet within open pit

N.T.S. 115
DRAWN B
DATE: F
REVISED

C.M.L. No. 2966

C.M.L. No. 2963

C.M.L. No. 2956

C.M.L. No. 2955

C.M.L. No. 2952

C.M.L. No. 2959

C.M.L. No. 2950

Yukon River

N

LEGEND

EOCENE OR YOUNGER

eTcv — CARMACKS GROUP Basaltic and Andesitic Volcanics

LOWER CRETACEOUS and/or UPPER JURASSIC

LKT — TANTALUS FORMATION Quartz- and chert-pebble conglomerate, minor sandstone, siltstone and mudstone; coal seams

LOWER AND MIDDLE JURASSIC

JL — LABERGE GROUP: Cobble conglomerate, sandstone, tuffaceous sandstone

Rock Outcrop

Bedding

Geological Boundary (approximate, assumed)

Anticline Axial Trace

Syncline Axial Trace

Coal Mining Lease Boundary

Lot Boundary

Trail

Location of Diamond Drill Hole ⊕ C 76-1

Geology by R.P. Hill and T.J. Adamson, 1976

CYPRUS ANVIL MINING CORPORATION

GEOLOGICAL MAP OF CARMACKS NORTH COAL LEASE AREA

DATE FEB 25, 1977
SCALE 1" = 800'
DRAWN BY: C. L. C.

800 400 0 400 800

To Accompany report by R.P. Hill, Feb. 1977
MAP No. 2

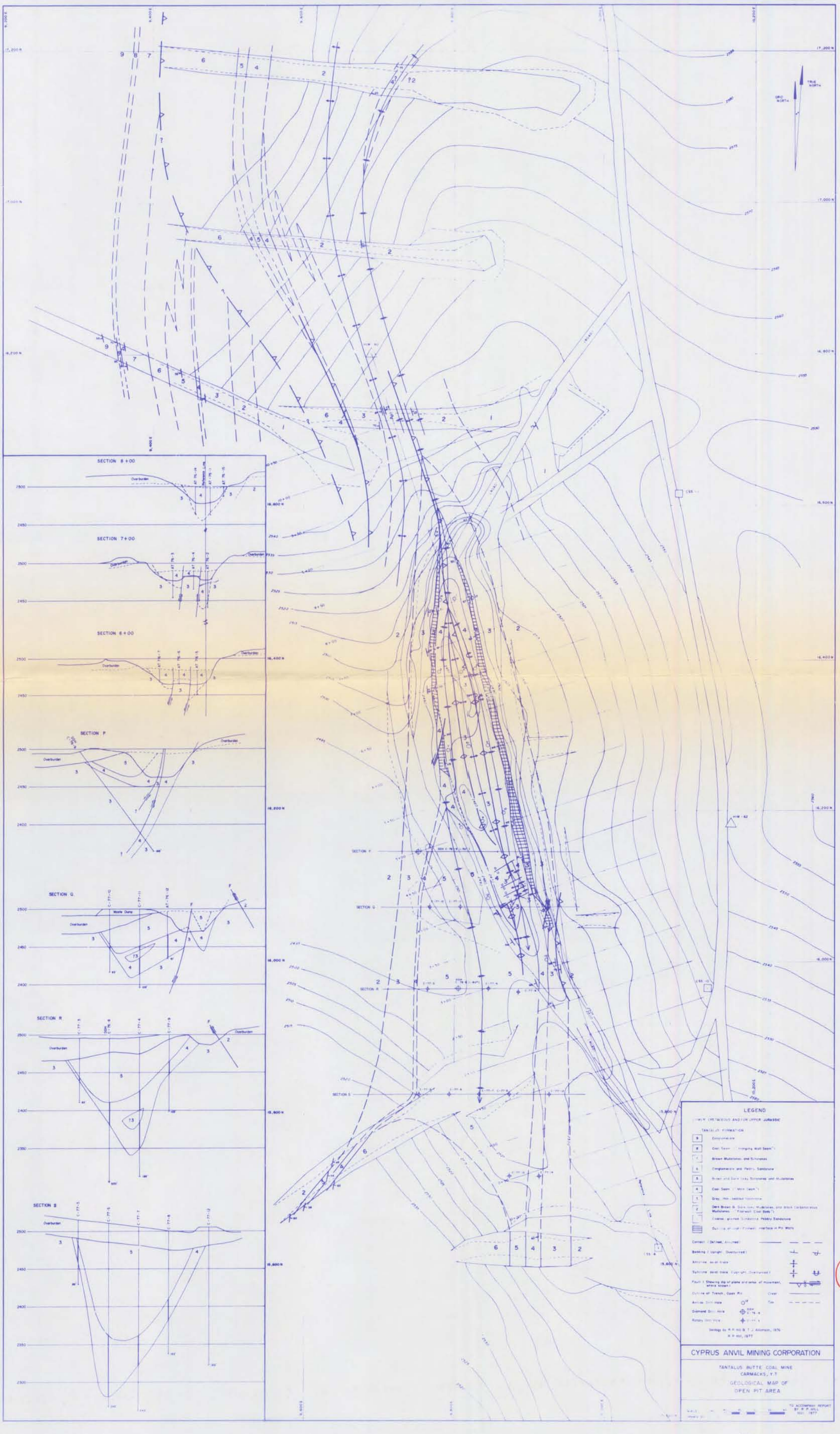
COAL PROJECT

GEOLOGICAL MAP of CARMACKS

NORTH _ COAL

LEASE AREA MAP NO. 2

FEB /77 1" = 800'

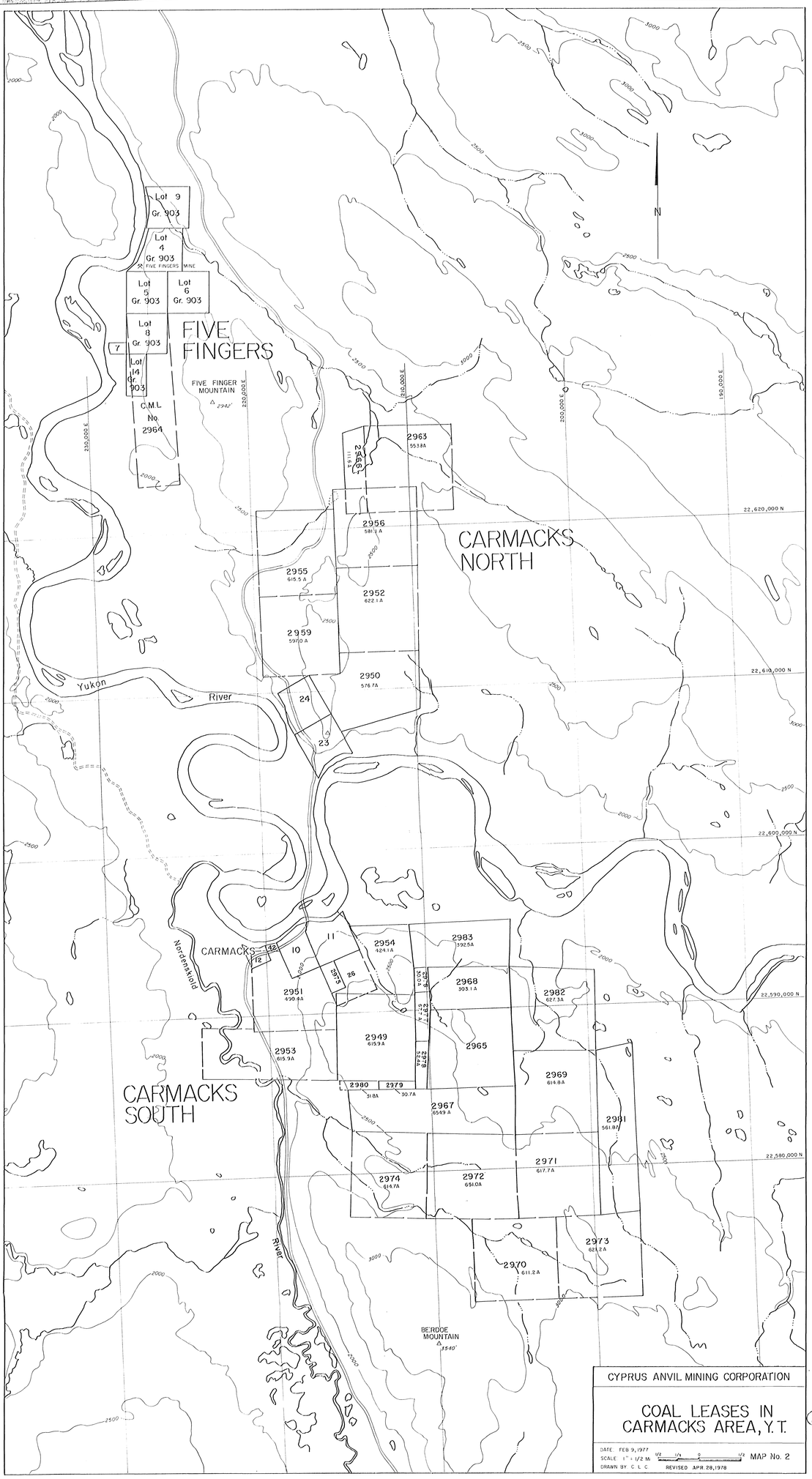


(9)

Map 1

1" = 100'

April 78

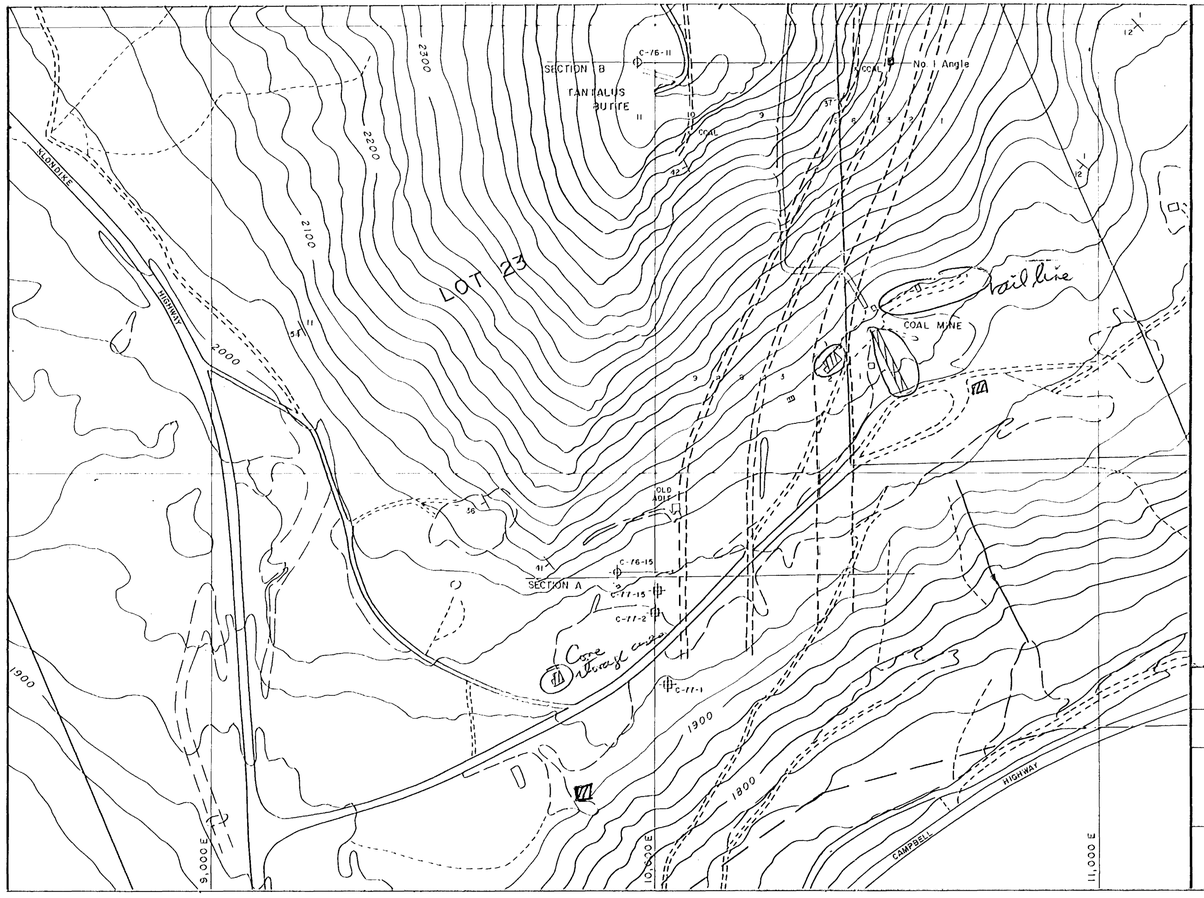


CYPRUS ANVIL MINING CORPORATION

COAL LEASES IN CARMACKS AREA, Y.T.

(10)

DATE FEB 9, 1977
SCALE 1" = 1/2 M
DRAWN BY C. L. C.
REVISED APR 28, 1978
MAP No. 2



Road ——— Trail = = = = = =

Surface projection of Main Entry

Location of raise or angle

Diamond Drill Hole

Rotary Drill Hole

LOWER CRETACEOUS AND/OR UPPER JURASSIC

TANTALUS FORMATION

11	Conglomerate and pebbly sandstone
10	No. 1 Coal Seam
9	Conglomerate and pebbly sandstone
8	No. 2 Coal Seam
7	Brown mudstones and siltstones
6	Conglomerate and pebbly sandstone
5	Brown and dark grey siltstones and mudstones
4	No. 3 Coal Seam
3	Thin-bedded, Light grey sandstones and siltstones
2	Dark brown and dark grey mudstones, black carbonaceous mudstones and thin coal seams
1	Conglomerate, pebbly sandstone and coarse grained sandstone

CYPRUS ANVIL MINING CORPORATION

CARMACKS COAL PROJECT

TANTALUS BUTTE COAL MINE
CARMACKS, Y.T.
DRILLING IN MINE YARD AREA

DATE: APR 28, 1978
SCALE: 1"= 200'
DRAWN BY: C. L. C.

0 100 200 300 400
SCALE IN FEET

To Accompany Report by
R.P. HILL, FEB., 1978
FIGURE 1

Remainder removed for building in the mine yard area, see Fig 3

Building
Slurry dump
Smelting pit area
Super pit area

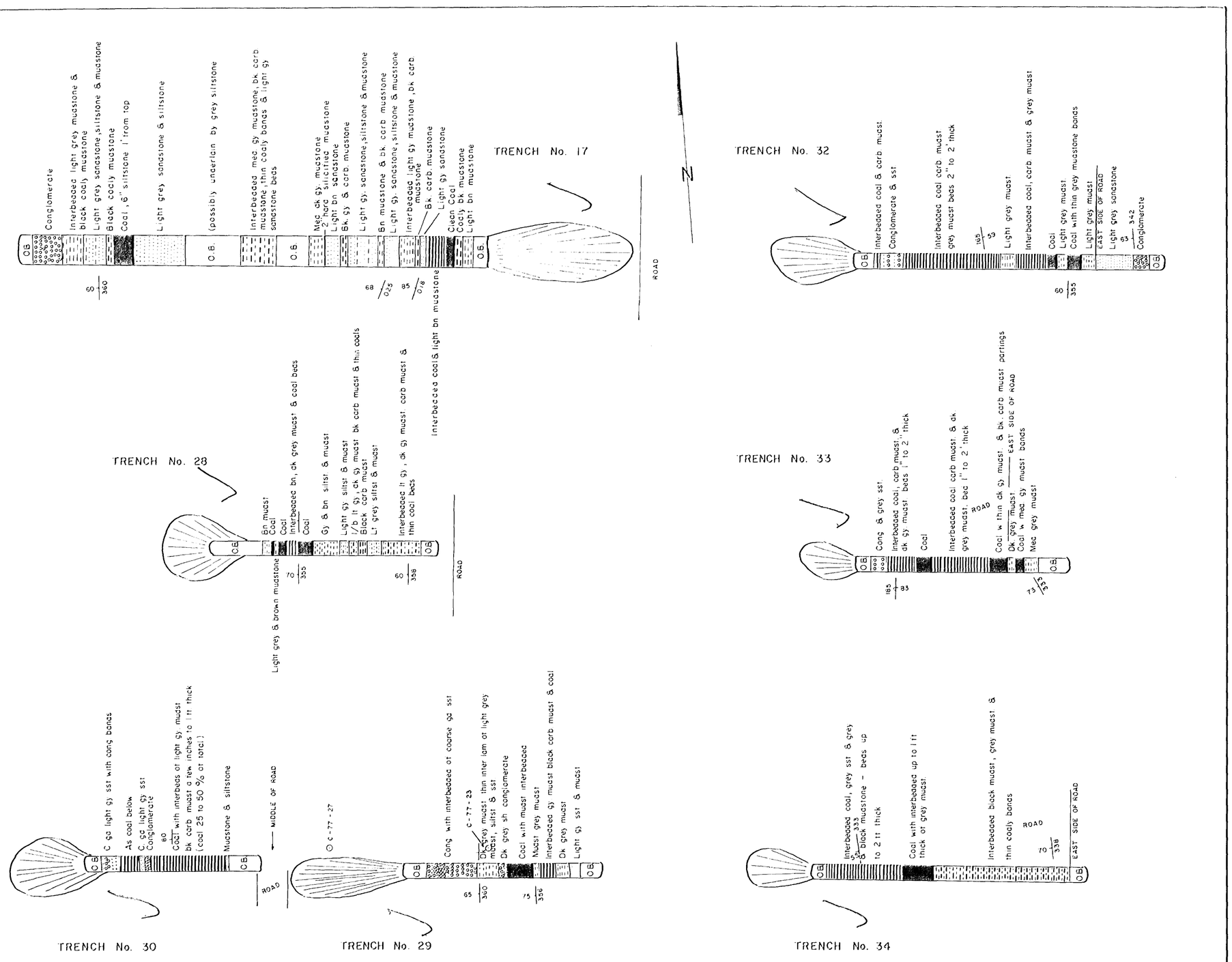
N open pit area

Stockpile area

(11) R12

CARMACKS COAL PROJECT
115-I-1
TAINT BUTTE COAL MINE - DRILLING
IN MINE
YEAR - FEB 1 TO APRIL 7/78 (1978)

CARMACKS COAL PROJECT
NORTH TRENCH
PLANS
... to APRIL 7/78



Lithological Symbols

- PEBBLE CONGLOMERATE
- PEBBLY SANDSTONE
- SANDSTONE
- SILTSTONE
- MUDSTONE
- CARBONACEOUS MUDSTONE, COALY MUDSTONE
- INTERBEDDED COAL, COALY MUDSTONE AND MUDSTONE
- COAL

CYPRUS ANVIL MINING CORPORATION

CARMACKS COAL PROJECT

CARMACKS NORTH TRENCH PLANS

MAP REF 115 - I - 1

DATE APRIL 9, 1978
REVISED

0 50 100

DRAWN BY: C. L. C.

Scale: 1" = 50 ft.

FIGURE: 2

(12)

W 1

W 01+00

W 02+00

W 03+00

W 04+00

BL 0+00

E 01+00

E 02+00

E 03+00

E 04+00

E 05+00

E 06+00

E 07+00

E 08+00

E 09+00

E 10+00

2700

2600

2500

2400

2300

2200

2100

2000

1900

1800

1700

1600

1500

1400

STRUCTURE NOT KNOWN IN THIS AREA

ROAD

OVERBURDEN

OVERBURDEN

? No 1 Seam

? No 3 Seam

? No 1 Seam

? No 2 Seam

? No 3 Seam

Inferred Approximate Position of No 1 Seam

? No 2 Seam

? No 3 Seams

? No 1 Seam

Inferred Fault

RH C-77-56

RH C-77-55

RH C-77-40

RH C-77-54

RH C-77-37

RH C-77-38

RH C-77-39

RH C-77-41

Drill Holes

AIRTRAC HOLE — AT

UNLOGGED ROTARY HOLE — RH

LOGGED ROTARY HOLE, SHOWING LITHOLOGY — RH

DIAMOND DRILL HOLE, SHOWING LITHOLOGY AND BEDDING ANGLES — DDH

Lithological Symbols

- PEBBLE CONGLOMERATE
- PEBBLY SANDSTONE
- SANDSTONE
- SILTSTONE
- MUDSTONE
- CARBONACEOUS MUDSTONE, COALY MUDSTONE
- INTERBEDDED COAL, COALY MUDSTONE AND MUDSTONE
- COAL

CYPRUS ANVIL MINING CORPORATION

CARMACKS COAL PROJECT

CARMACKS NORTH SECTION 76+00

MAP REF: 115 - I - 1

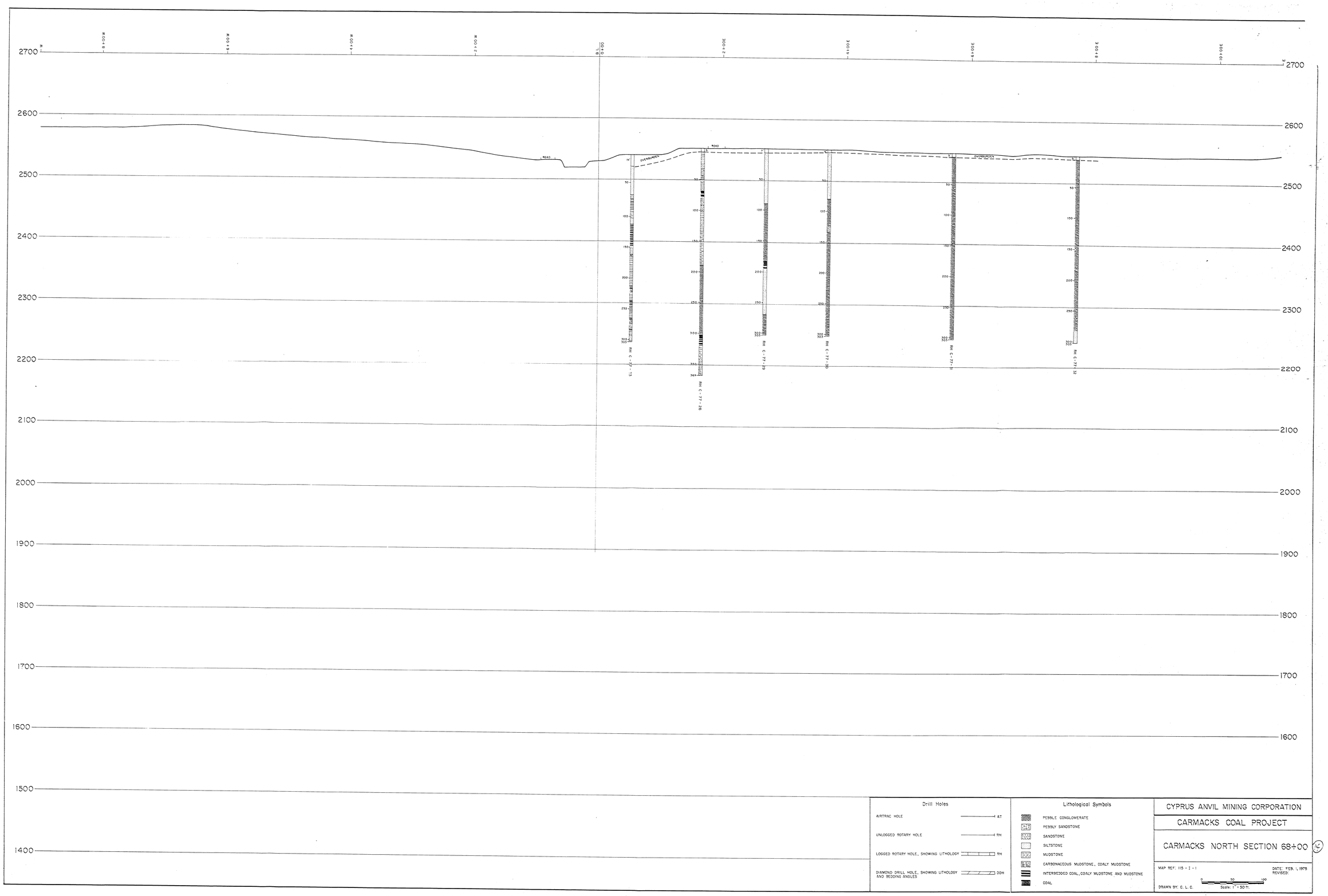
DATE: JAN. 30, 1976

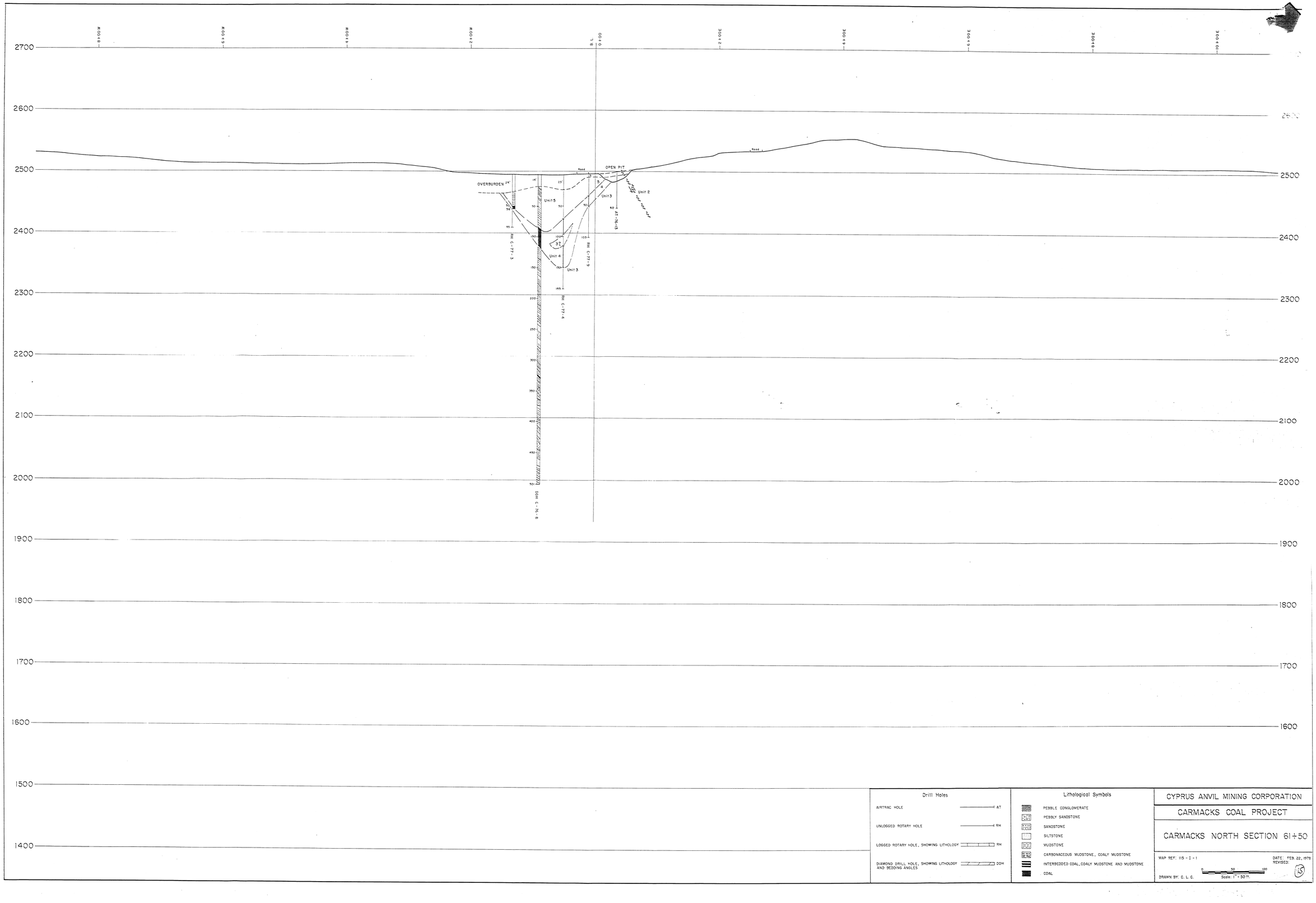
REVISED:

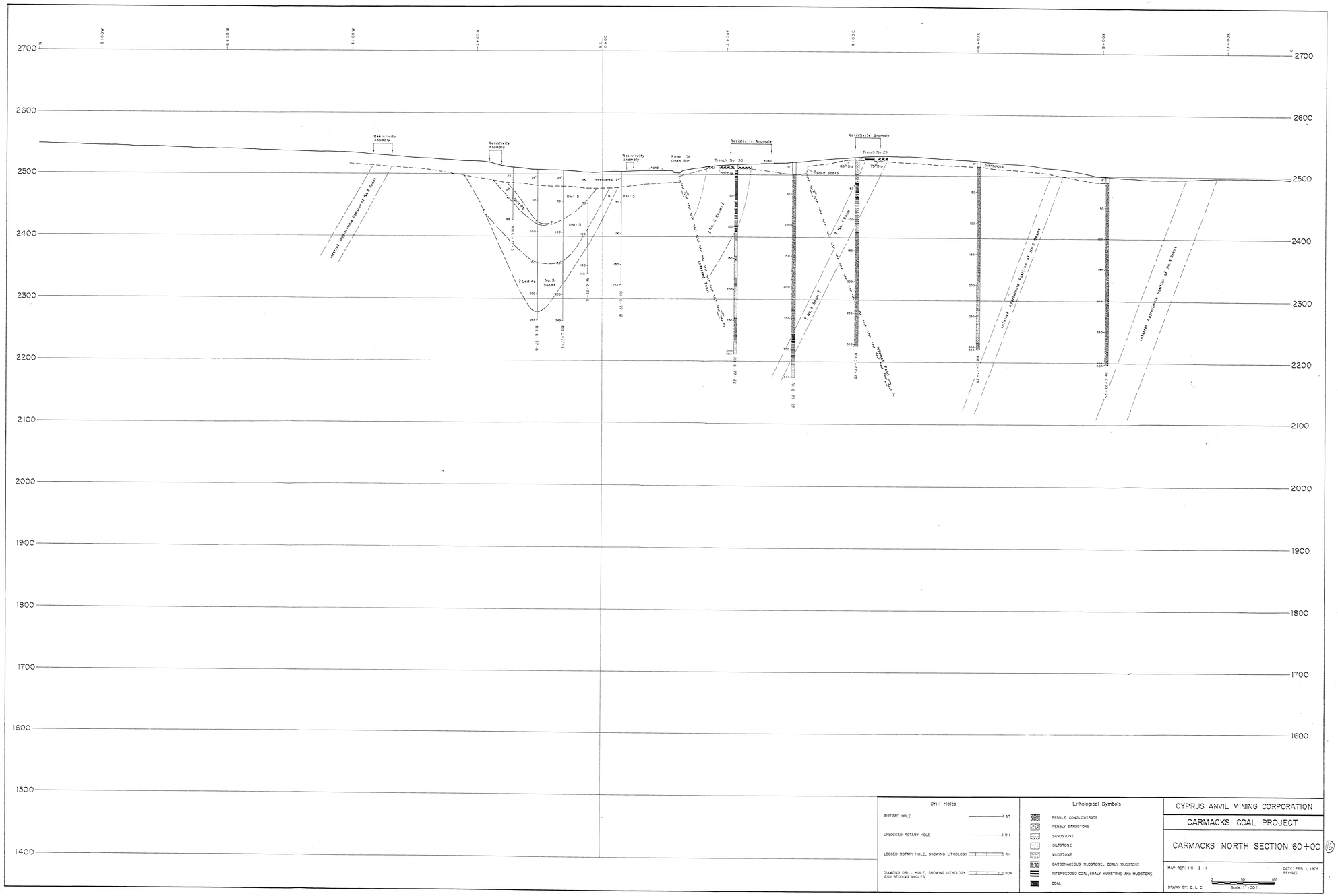
0 50 100

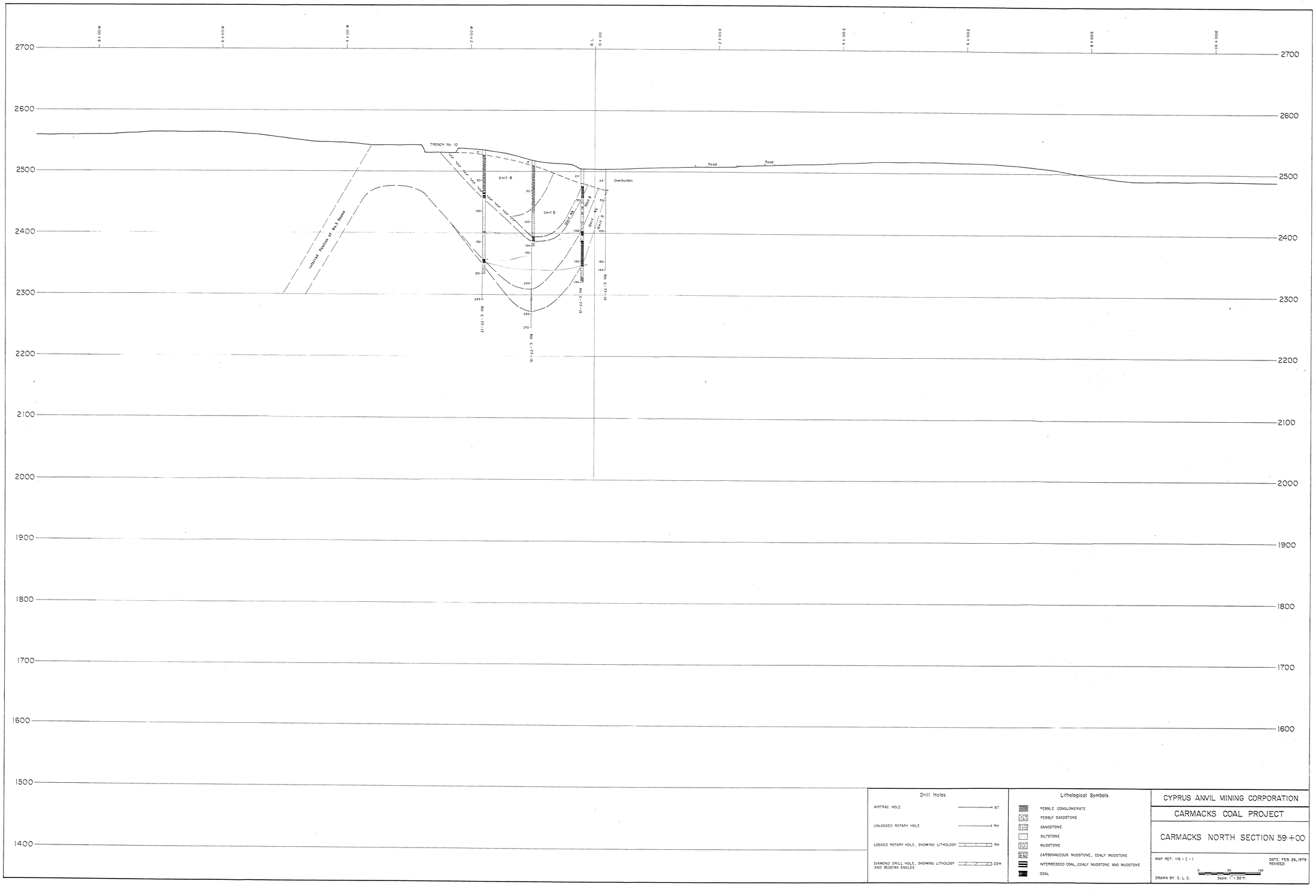
Scale: 1" = 50 ft.

DRAWN BY: C. L. C.

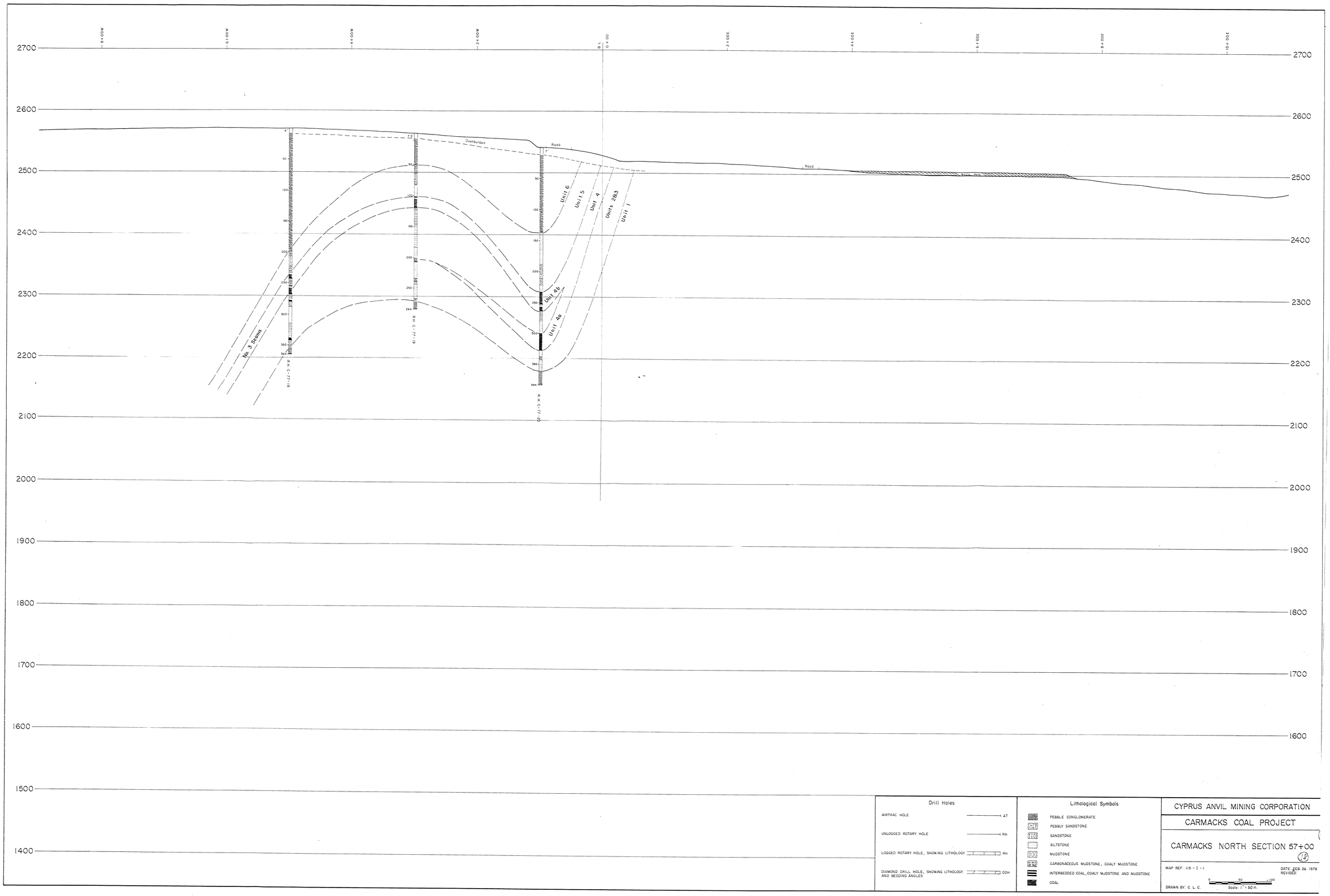

M
M 00+80
M 00+90
M 01+00
M 01+10
B.L. 00+00
3 00+10
3 00+20
3 00+30
3 00+40
3 00+50
3
2700
2600
2500
2400
2300
2200
2100
2000
1900
1800
1700
1600
1500
1400
ROAD
OVERBURDEN
RH C-77-33
RH C-77-28
RH C-77-29
RH C-77-30
RH C-77-31
RH C-77-32
Drill Holes
AIRTRAC HOLE AT
UNLOGGED ROTARY HOLE RH
LOGGED ROTARY HOLE, SHOWING LITHOLOGY RH
DIAMOND DRILL HOLE, SHOWING LITHOLOGY AND BEDDING ANGLES DDH
Lithological Symbols
PEBBLE CONGLOMERATE
PEBBLY SANDSTONE
SANDSTONE
SILTSTONE
MUDSTONE
CARBONACEOUS MUDSTONE, COALY MUDSTONE
INTERBEDDED COAL, COALY MUDSTONE AND MUDSTONE
COAL
CYPRUS ANVIL MINING CORPORATION
CARMACKS COAL PROJECT
CARMACKS NORTH SECTION 68+00
12
MAP REF. 115 - I - 1
DATE: FEB. 1, 1979
REVISED:
DRAWN BY: G. L. C.
0 50 100
Scale: 1" = 50 ft.


M00+80
M00+60
M00+40
M00+20
L.B.
0+00
3+00
3+20
3+40
3+60
3+80
4+00
2700
2600
2500
2400
2300
2200
2100
2000
1900
1800
1700
1600
1500
1400
Road
OPEN PIT
OVERBURDEN
Unit 5
Unit 4
Unit 3
Unit 2
RH C-77-3
RH C-77-9
RH C-77-4
RH C-77-6
AT-76-13
Drill Holes
AIRTRAC HOLE
AT
UNLOGGED ROTARY HOLE
RH
LOGGED ROTARY HOLE, SHOWING LITHOLOGY
RH
DIAMOND DRILL HOLE, SHOWING LITHOLOGY AND BEDDING ANGLES
DDH
Lithological Symbols
PEBBLE CONGLOMERATE
PEBBLY SANDSTONE
SANDSTONE
SILTSTONE
MUDSTONE
CARBONACEOUS MUDSTONE, COALY MUDSTONE
INTERBEDDED COAL, COALY MUDSTONE AND MUDSTONE
COAL
CYPRUS ANVIL MINING CORPORATION
CARMACKS COAL PROJECT
CARMACKS NORTH SECTION 61+50
MAP REF: 115 - I - 1
DATE: FEB. 22, 1978
REVISED:
0
50
100
Scale: 1" = 50 ft.
DRAWN BY: C. L. C.


M 60+00
M 60+40
M 60+80
M 61+20
M 61+60
60+00 N
300+40
300+80
301+20
301+60
302+00
302+40
2700
2600
2500
2400
2300
2200
2100
2000
1900
1800
1700
1600
1500
1400
Resistivity Anomaly
Resistivity Anomaly
Resistivity Anomaly
Resistivity Anomaly
Resistivity Anomaly
Road To Open Pit
Trench No. 30
Trench No. 29
ROAD
OVERBURDEN
Fault Scarp
65° Dip
75° Dip
Unit 5
Unit 4
Unit 3
Unit 5
Unit 5
Unit 4a
No. 3 Seam
No. 3 Seams?
No. 3 Seam?
No. 3 Seam
No. 3 Seam
Inferred Fault
Inferred Fault
Inferred Approximate Position of No. 3 Seam
Inferred Approximate Position of No. 3 Seam
Inferred Approximate Position of No. 3 Seam
RH C-77-5
RH C-77-6
RH C-77-7
RH C-77-8
RH C-77-10
RH C-77-22
RH C-77-23
RH C-77-27
RH C-77-24
RH C-77-25
Drill Holes
AIRTRAC HOLE
AT
UNLOGGED ROTARY HOLE
RH
LOGGED ROTARY HOLE, SHOWING LITHOLOGY
RH
DIAMOND DRILL HOLE, SHOWING LITHOLOGY AND BEDDING ANGLES
DDH
Lithological Symbols
PEBBLE CONGLOMERATE
PEBBLY SANDSTONE
SANDSTONE
SILTSTONE
MUDSTONE
CARBONACEOUS MUDSTONE, COALY MUDSTONE
INTERBEDDED COAL, COALY MUDSTONE AND MUDSTONE
COAL
CYPRUS ANVIL MINING CORPORATION
CARMACKS COAL PROJECT
CARMACKS NORTH SECTION 60+00
MAP REF: 115 - I - 1
DATE: FEB. 1, 1979
REVISED:
DRAWN BY: C. L. C.
Scale: 1" = 50 ft.


M-00+8
M-00+9
M-01+6
M-02+2
0+00
3+00+2
3+00+4
3+00+9
3+01+8
3+02+01
2700
2600
2500
2400
2300
2200
2100
2000
1900
1800
1700
1600
1500
1400
TRENCH No. 10
Road
Road
Overburden
Unit 6
Unit 5
Unit 4b
Unit 4a
Unit 3
Inferred Position of No.3 Seams
RH C-77-17
RH C-77-16
RH C-77-15
RH C-77-14
Drill Holes
AIRTRAC HOLE
AT
UNLOGGED ROTARY HOLE
RH
LOGGED ROTARY HOLE, SHOWING LITHOLOGY
RH
DIAMOND DRILL HOLE, SHOWING LITHOLOGY AND BEDDING ANGLES
DDH
Lithological Symbols
PEBBLE CONGLOMERATE
PEBBLY SANDSTONE
SANDSTONE
SILTSTONE
MUDSTONE
CARBONACEOUS MUDSTONE, COALY MUDSTONE
INTERBEDDED COAL, COALY MUDSTONE AND MUDSTONE
COAL
CYPRUS ANVIL MINING CORPORATION
CARMACKS COAL PROJECT
CARMACKS NORTH SECTION 59+00
MAP REF: 115 - I - 1
DATE: FEB. 26, 1978
REVISED:
DRAWN BY: C. L. C.
0
50
100
Scale: 1" = 50 ft.

17



Drill Holes

- AIRTRAC HOLE — AT
- UNLOGGED ROTARY HOLE — RH
- LOGGED ROTARY HOLE, SHOWING LITHOLOGY — RH
- DIAMOND DRILL HOLE, SHOWING LITHOLOGY AND BEDDING ANGLES — DDH

Lithological Symbols

- PEBBLE CONGLOMERATE
- PEBBLY SANDSTONE
- SANDSTONE
- SILTSTONE
- MUDSTONE
- CARBONACEOUS MUDSTONE, COALY MUDSTONE
- INTERBEDDED COAL, COALY MUDSTONE AND MUDSTONE
- COAL

CYPRUS ANVIL MINING CORPORATION

CARMACKS COAL PROJECT

CARMACKS NORTH SECTION 57+00

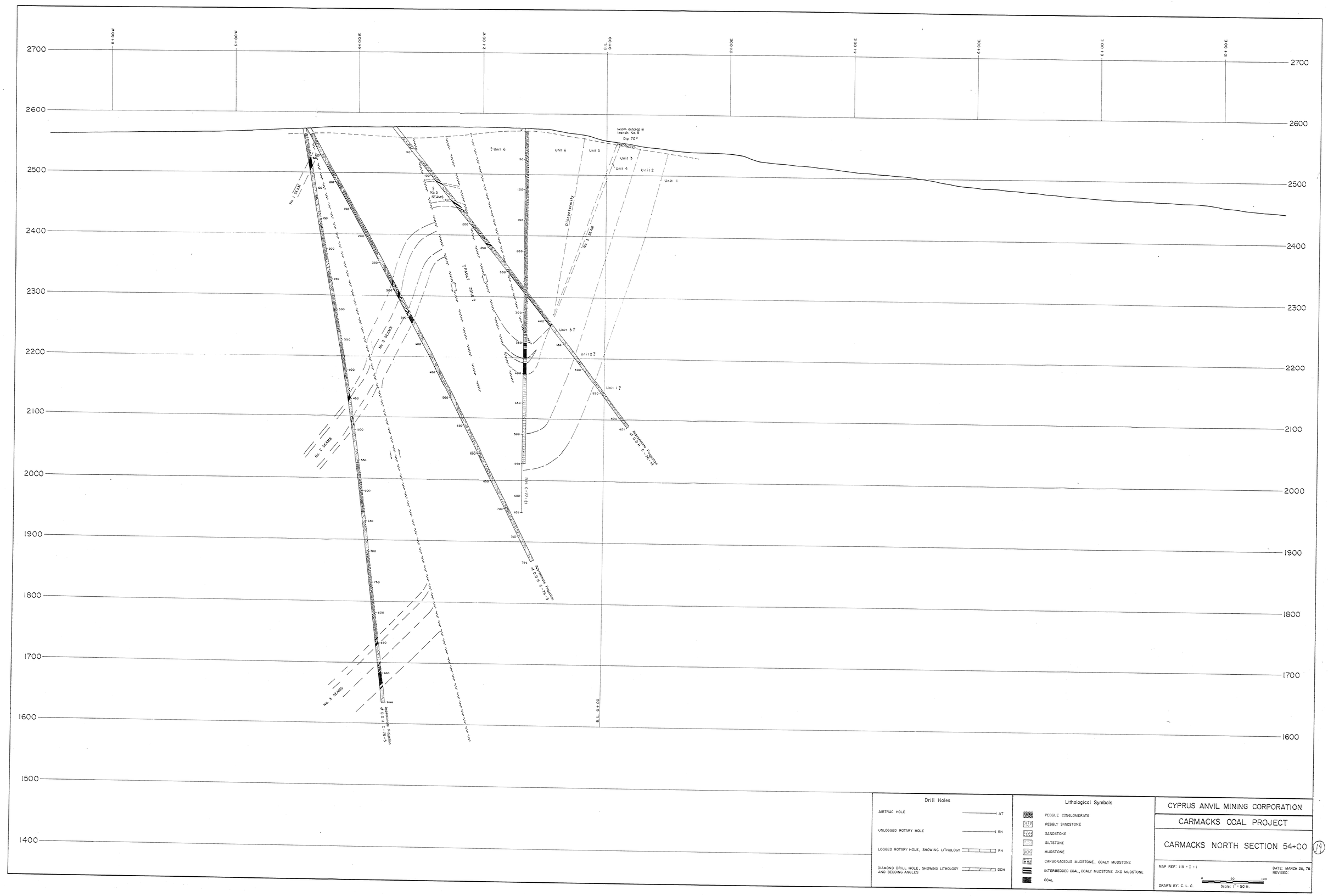
(18)

MAP REF. 115 - I - 1

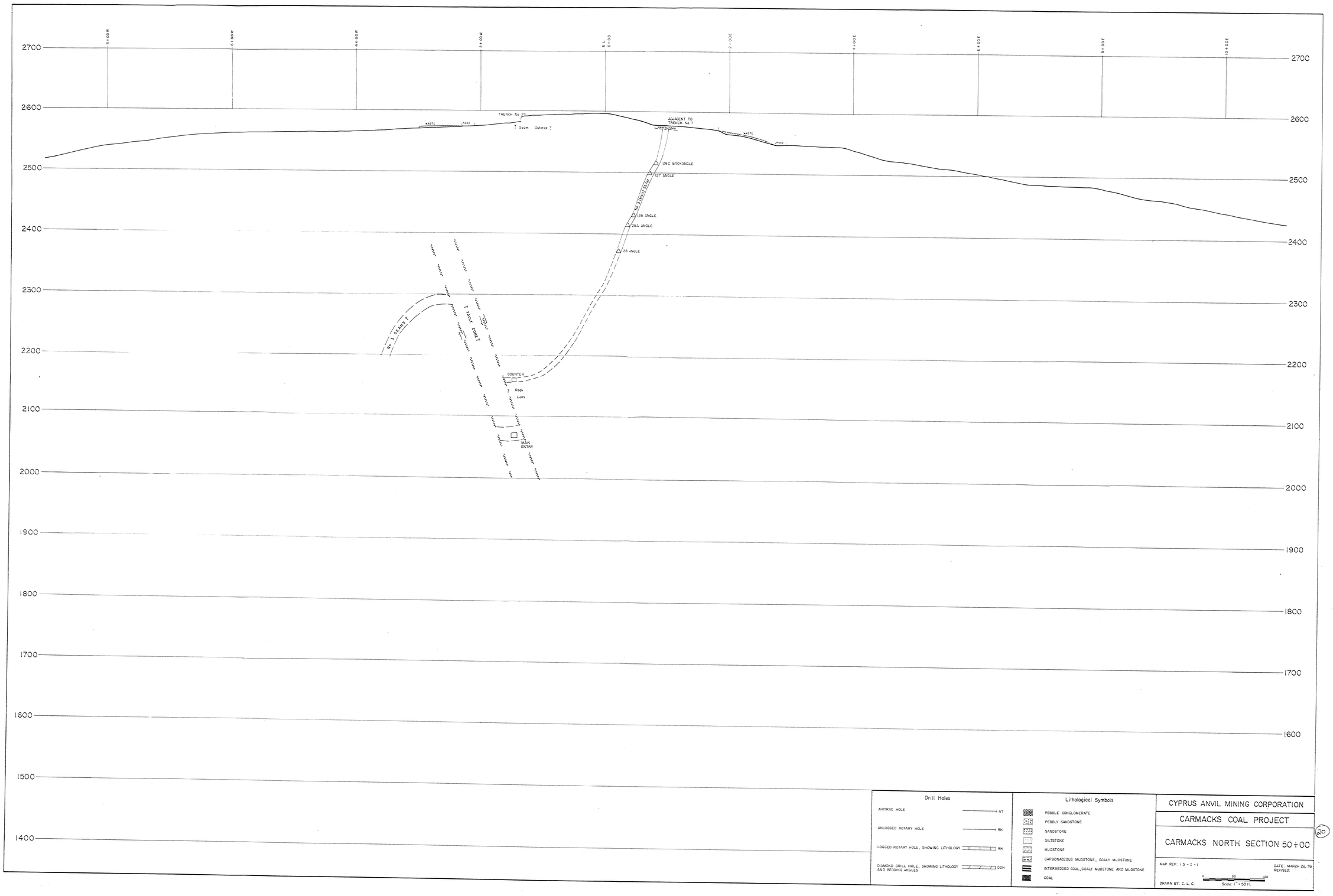
DATE: FEB 26, 1976
REVISED:

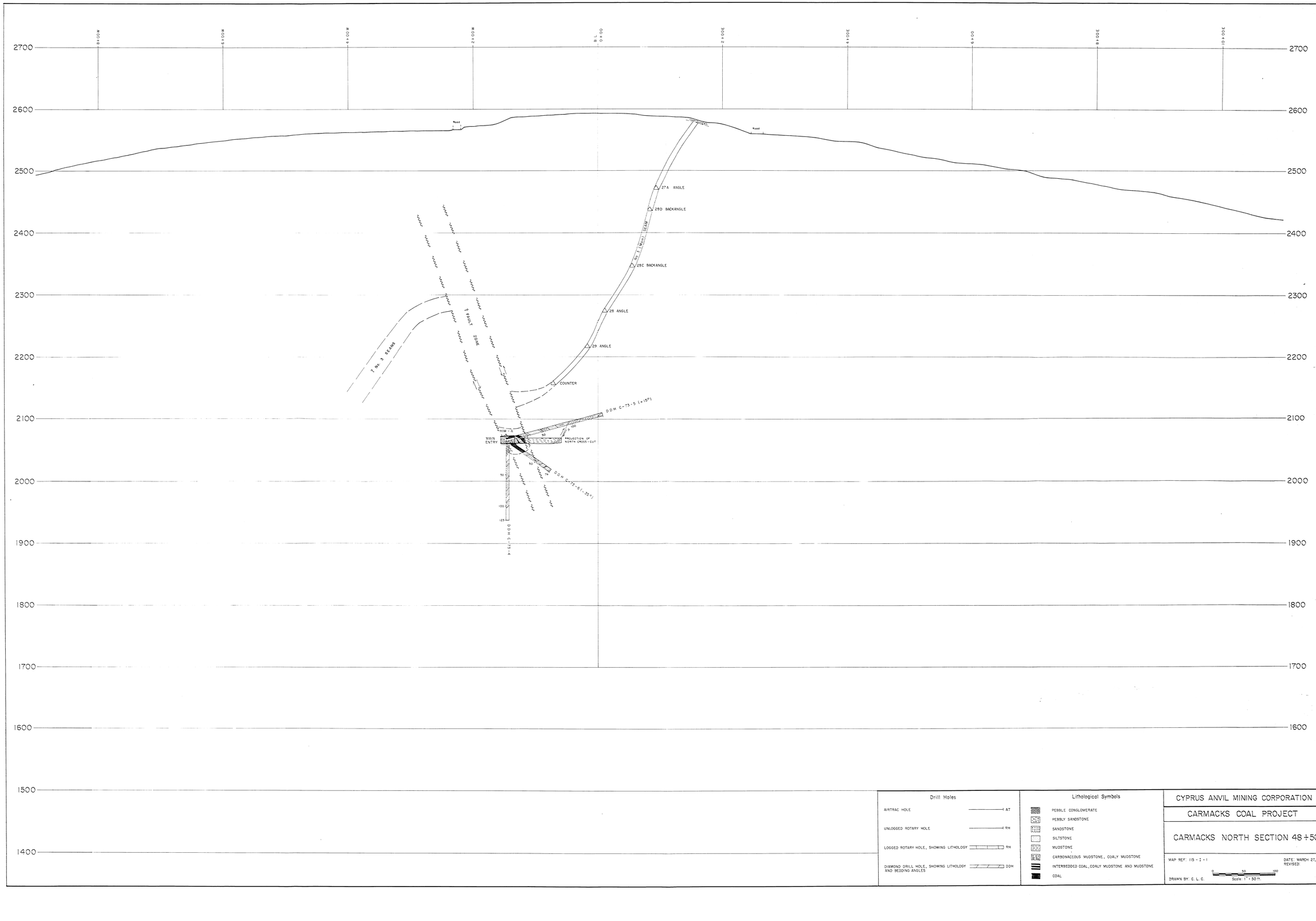
0 50 100
Scale: 1" = 50 ft.

DRAWN BY: C. L. C.



Drill Holes	Lithological Symbols	CYPRUS ANVIL MINING CORPORATION
AIRTRAC HOLE — AT	PEBBLE CONGLOMERATE	CARMACKS COAL PROJECT
UNLOGGED ROTARY HOLE — RH	PEBBLY SANDSTONE	CARMACKS NORTH SECTION 54+00 (14)
LOGGED ROTARY HOLE, SHOWING LITHOLOGY — RH	SANDSTONE	MAP REF: 115 - I - 1
DIAMOND DRILL HOLE, SHOWING LITHOLOGY AND BEDDING ANGLES — DDH	SILTSTONE	DATE: MARCH 26, 78
	MUDSTONE	REVISED:
	CARBONACEOUS MUDSTONE, COALY MUDSTONE	DRAWN BY: C. L. C.
	INTERBEDDED COAL, COALY MUDSTONE AND MUDSTONE	Scale: 1" = 50 ft.
	COAL	0 50 100


61+00W
61+00W
41+00W
21+00W
B.L. 01+00
21+00E
41+00E
61+00E
81+00E
101+00E
2700
2600
2500
2400
2300
2200
2100
2000
1900
1800
1700
1600
1500
1400
TRENCH No 23
waste
Seam Outcrop ?
ADJACENT TO TRENCH No 7
waste
128C BACKANGLE
127 ANGLE
No 3 Seam ?
128 ANGLE
128A ANGLE
28 ANGLE
No 3 SEAM ?
? FAULT ZONE ?
COUNTER
? Rock Lens
MAIN ENTRY
Drill Holes
AIRTRAC HOLE
AT
UNLOGGED ROTARY HOLE
RH
LOGGED ROTARY HOLE, SHOWING LITHOLOGY
RH
DIAMOND DRILL HOLE, SHOWING LITHOLOGY AND BEDDING ANGLES
DDH
Lithological Symbols
PEBBLE CONGLOMERATE
PEBBLY SANDSTONE
SANDSTONE
SILTSTONE
MUDSTONE
CARBONACEOUS MUDSTONE, COALY MUDSTONE
INTERBEDDED COAL, COALY MUDSTONE AND MUDSTONE
COAL
CYPRUS ANVIL MINING CORPORATION
CARMACKS COAL PROJECT
CARMACKS NORTH SECTION 50+00
MAP REF: 115 - I - 1
DATE: MARCH 26, 78
REVISED:
DRAWN BY: C. L. C.
0 50 100
Scale: 1" = 50 ft.



Drill Holes

- AIRTRAC HOLE — AT
- UNLOGGED ROTARY HOLE — RH
- LOGGED ROTARY HOLE, SHOWING LITHOLOGY — RH
- DIAMOND DRILL HOLE, SHOWING LITHOLOGY AND BEDDING ANGLES — DDH

Lithological Symbols

- PEBBLE CONGLOMERATE
- PEBBLY SANDSTONE
- SANDSTONE
- SILTSTONE
- MUDSTONE
- CARBONACEOUS MUDSTONE, COALY MUDSTONE
- INTERBEDDED COAL, COALY MUDSTONE AND MUDSTONE
- COAL

CYPRUS ANVIL MINING CORPORATION

CARMACKS COAL PROJECT

CARMACKS NORTH SECTION 48+50

(27)

MAP REF: 115 - I - 1

DATE: MARCH 27, 79

REVISED:

DRAWN BY: C. L. C.

0 50 100

Scale: 1" = 50 ft.

SECTION 8+00

SECTION 7+00

SECTION 6+00

SECTION 5+00

SECTION 4+00

SECTION 3+00

311 - 313 Carb Mudst

324 - 325 COAL

335 - 348 Carb Mudst with coal partings

348 - 362 Carb Mudst with coal partings and inter beds of sandst

362 - 363 COAL

363 - 406 Carb Mudst with coal partings and interbeds of sandstone

T.D. 500'

KEY TO DIAMOND DRILL HOLES

- Sandstone
- Siltstone
- Mudstone
- Carbonaceous Mudstone
- Coal

LEGEND

LOWER CRETACEOUS AND/OR UPPER JURASSIC

TANTALUS FORMATION

- 9 Conglomerate
- 8 Coal Seam 5 (Hanging Wall Seam)
- 7 Brown Mudstones and Siltstones
- 6 Conglomerate and Pebbly Sandstone
- 5 Brown and Dark Grey Siltstones and Mudstones
- 4 Coal Seam 1 (Main Seam)
- 3 Grey, Thin Bedded Sandstone
- 2 Dark Brow and Dark Grey, Mudstones and Black Carbonaceous Mudstones (Footwall Coal Bed)
- 1 Coarse grained Sandstone Pebbly Sandstone

Outcrop of coal, Footwall contact in Pit Wall

Contact (Defined, Assumed)

Bedding (Upright, Overturned)

Anticline (axial trace)

Syncline (axial trace) (Upright, Overturned)

Fault (Showing dip of plane and sense of movement, where known)

Outline of Trench, Open Pit (Crest, Toe)

Vertical Drill Hole

Diamond Drill Hole

Geology by R.P. Hill & T.O. Adamson, 1976

CYPRUS ANVIL MINING CORPORATION

TANTALUS BUTTE COAL MINE
CARMACKS, Y.T.

GEOLOGICAL MAP OF
OPEN PIT AREA

DATE JAN. 22, 1977
SCALE 1" = 40'
DRAWN BY C.L.C.

TO ACCOMPANY REPORT BY R.P. Hill
FEB 1977
MAP No. 1

23

3

CARMACKS
Geolog
TANTALUS
OPEN PIT

SECTION 8 + 00

SECTION 7 + 00

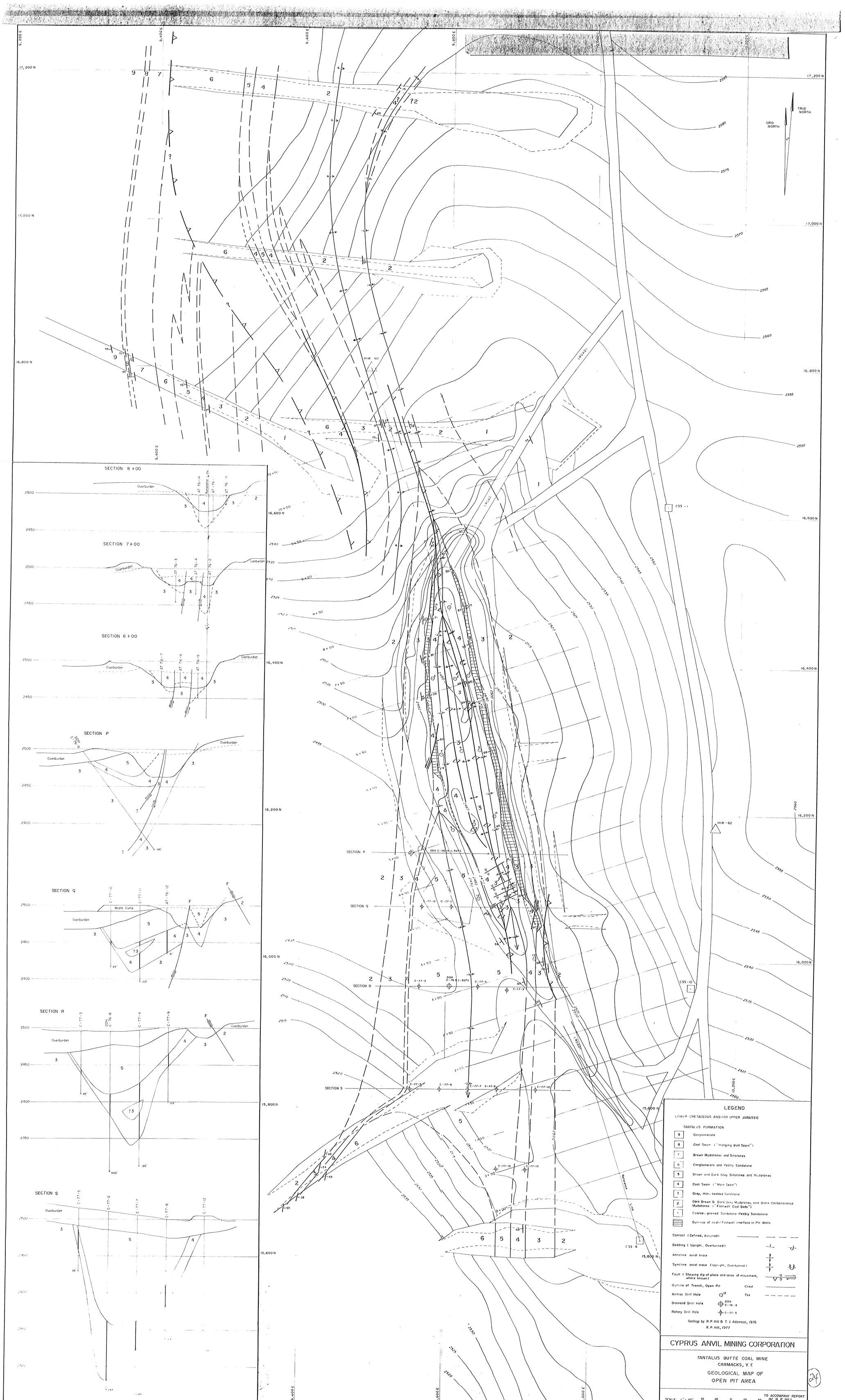
SECTION 6 + 00

SECTION P

SECTION Q

SECTION R

SECTION S



LEGEND

LOWER CRETACEOUS AND/OR UPPER JURASSIC

TANTALUS FORMATION

- 9 Conglomerate
- 8 Coal Seam ("Hanging Wall Seam")
- 7 Brown Mudstones and Siltstones
- 6 Conglomerate and Pebbly Sandstone
- 5 Brown and Dark Grey Siltstones and Mudstones
- 4 Coal Seam ("Main Seam")
- 3 Grey, thin-bedded Sandstone
- 2 Dark Brown & Dark Grey Mudstones, and Black Carbonaceous Mudstones ("Footwall Coal Beds")
- 1 Coarse-grained Sandstone Pebbly Sandstone
- Outcrop of coal/Footwall interface in Pit Walls

Contact (Defined, Assumed)

Bedding (Upright, Overturned)

Anticline axial trace

Syncline axial trace (Upright, Overturned)

Fault (Showing dip of plane and sense of movement, where known)

Outline of Trench, Open Pit — Crest / Toe

Airtrac Drill Hole

Diamond Drill Hole

Rotary Drill Hole

Geology by R.P. Hill & T. J. Addinson, 1976
R.P. Hill, 1977

CYPRUS ANVIL MINING CORPORATION

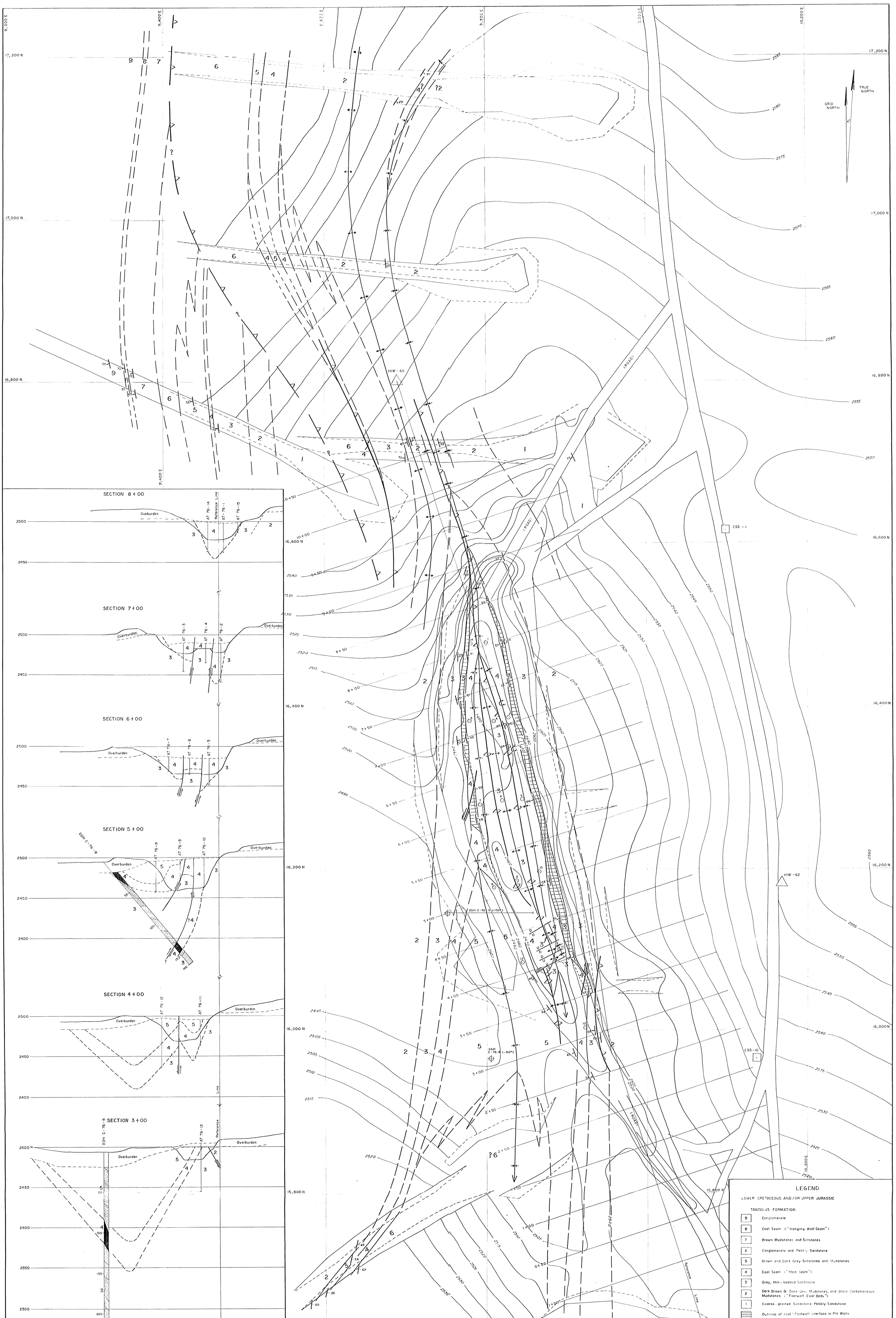
TANTALUS BUTTE COAL MINE
CARMACKS, Y.T.

GEOLOGICAL MAP OF
OPEN PIT AREA

SCALE 1" = 40'
DRAWN BY C. L. C.

TO ACCOMPANY REPORT
BY R. P. HILL
MAY 1977

24


9,200 E
9,400 E
9,600 E
9,800 E
10,000 E
10,200 E
17,200 N
17,000 N
16,800 N
16,600 N
16,400 N
16,200 N
16,000 N
15,800 N
15,600 N
15,400 N
TRUE NORTH
GRID NORTH
4°
(ROAD)
HIW - 60
HIW - 62
CSS - 1
CSS - 10
CSS - 6
DDH C-76-9 (-50°)
DDH C-76-8 (-90°)
SECTION 8+00
SECTION 7+00
SECTION 6+00
SECTION 5+00
SECTION 4+00
SECTION 3+00
Overburden
Reference Line
AT 76-14
AT 76-1
AT 76-15
AT 76-3
AT 76-4
AT 76-2
AT 76-7
AT 75-6
AT 76-5
DDH C-76-9
AT 76-9
AT 76-8
AT 76-10
AT 76-12
AT 76-11
DDH C-76-8
AT 76-13
311 - 313 Carb. Mudst.
324 - 325 COAL
335 - 348 Carb. Mudst. with coal partings
348 - 362 Carb. Mudst with coal partings and inter beds of sandst.
362 - 363 COAL
363 - 406 Carb. Mudst. with coal partings and interbeds of sandstone
T.D. 500'
KEY TO DIAMOND DRILL HOLES
Sandstone
Siltstone
Mudstone
Carbonaceous Mudstone
Coal
LEGEND
LOWER CRETACEOUS AND/OR UPPER JURASSIC
TANTALUS FORMATION
9 Conglomerate
8 Coal Seam ("Hanging Wall Seam")
7 Brown Mudstones and Siltstones
6 Conglomerate and Pebbly Sandstone
5 Brown and Dark Grey Siltstones and Mudstones
4 Coal Seam ("Main Seam")
3 Grey, thin-bedded Sandstone
2 Dark Brown & Dark Grey Mudstones, and Black Carbonaceous Mudstones ("Footwall Coal Beds")
1 Coarse-grained Sandstone Pebbly Sandstone
Outcrop of coal / Footwall interface in Pit Walls
Contact (Defined, Assumed)
Bedding (Upright, Overturned)
Anticline axial trace
Syncline axial trace (Upright, Overturned)
Fault (Showing dip of plane and sense of movement, where known)
Outline of Trench, Open Pit
Crest
Toe
Airtrac Drill Hole
Diamond Drill Hole
Geology by R.P. Hill & T.J. Adamson, 1976
CYPRUS ANVIL MINING CORPORATION
TANTALUS BUTTE COAL MINE
CARMACKS, Y.T.
GEOLOGICAL MAP OF
OPEN PIT AREA
DATE: JAN 22, 1977
SCALE: 1" = 40'
DRAWN BY: C.L.C.
TO ACCOMPANY REPORT
BY R.P. HILL
FEB 1977
MAP No. 3
25

LOT 24

LOT 23

LEASE 2941

INTERSECTION OF THE COAL SEAM WITH THE SURFACE

MAIN GUNNWAY

ENTRY

Mine Portal

M2 TEM. CAP HOUSE

#15 TEMP. MAGAZINE

M1 POWDER MAGAZINE

M3 CAP HOUSE

ROAD TO MINE

WATERFRONT LEASES

Highway to Rossriver

WHARF (Elev 1711 ft.)

RIVER

JKON

1L23 2L23 3L23 4L23 5L23 6L23

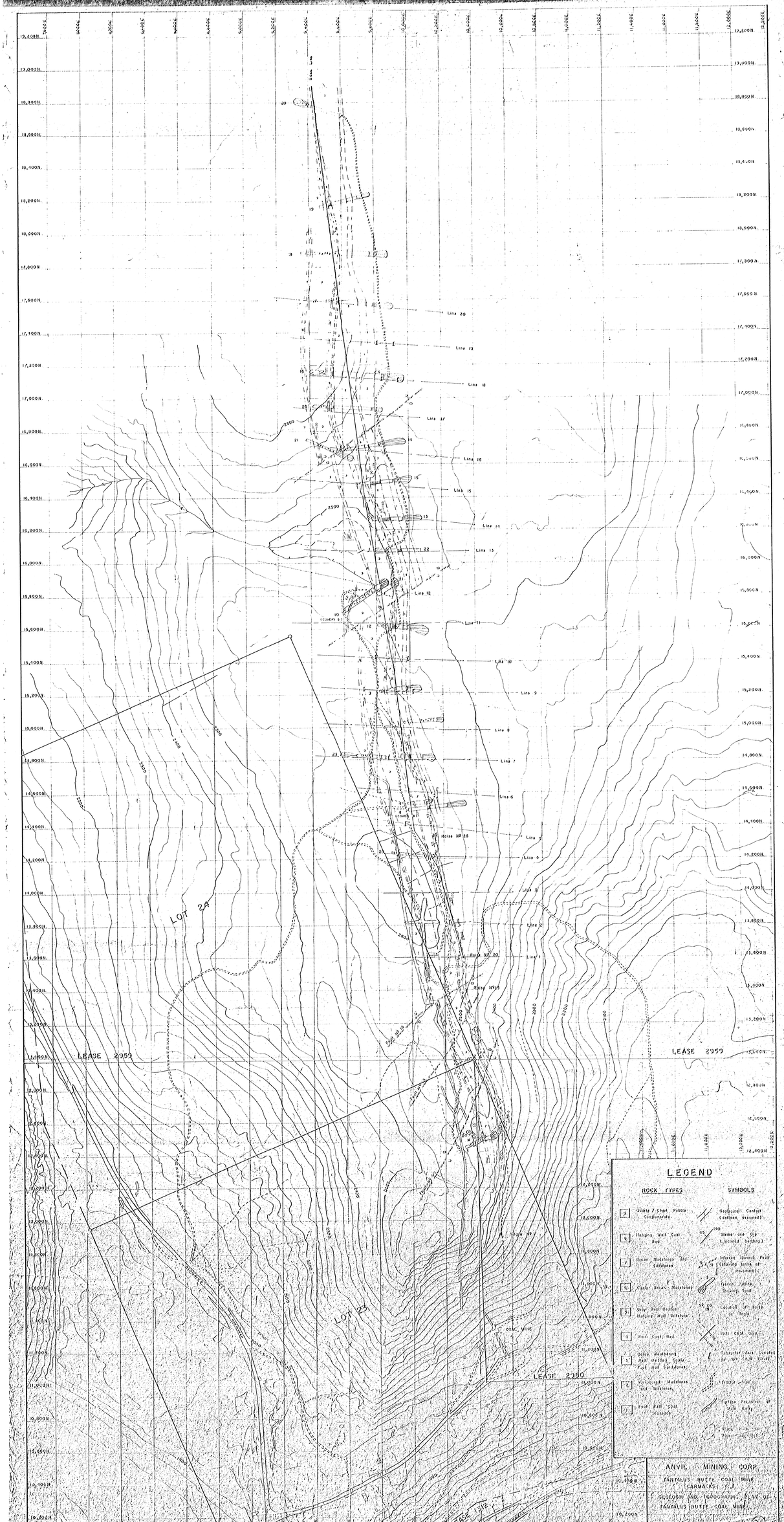
DIRECTORY

1 Residence (Employee)
2 Superintendents Office & Residence (Employee)
3 Greenhouse & Lighting Plant
4 Gasoline Pump
5 Garage
6 Warehouse
7
8
9 Tipple
10 Storage Shed
11 Compressor House
12 Dry Change-House
13 Residence (Staff)
14 Heating Plant
15 Temp. Magazine

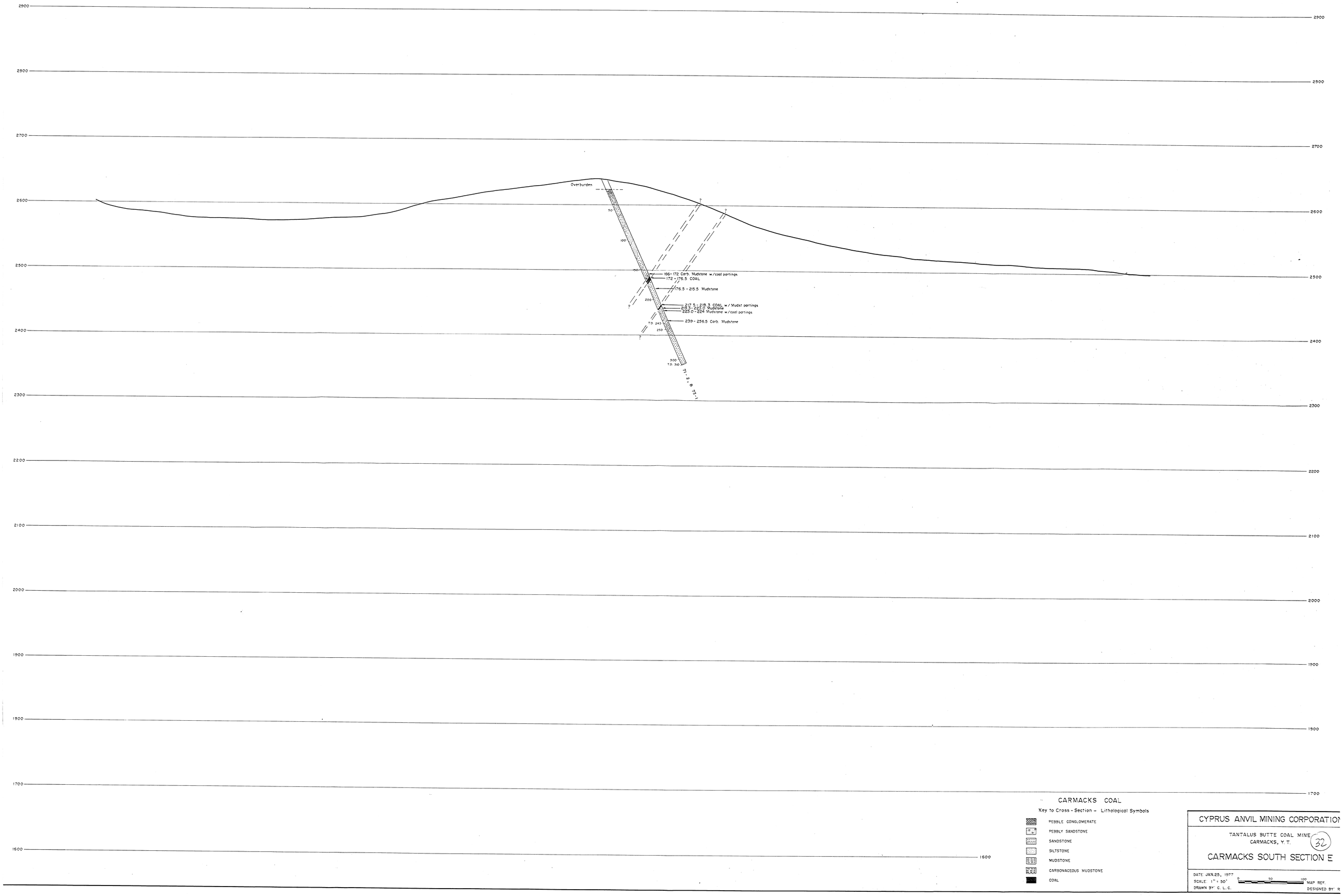
TANTALUS BUTTE MINE
PLAN SHOWING SURFACE & UNDERGROUND

YUKON COAL CO. LTD CARMACKS

	BY	DATE	SCALE
DRAWN	AR	JAN 1964	1" = 100'
CHECKED			DWG. NO.


Base Line
Line 20
Line 19
Line 18
Line 17
Line 16
Line 15
Line 14
Line 13
Line 12
Line 11
Line 10
Line 9
Line 8
Line 7
Line 6
Line 5
Line 4
Line 3
Line 2
Line 1
Horiz. No 28
Horiz. No 20
Horiz. No 16
LOT 24
LOT 23
LEASE 2959
LEASE 2959
LEASE 2990
LEASE 2990
COAL MINE
LEGEND
ROCK TYPES
SYMBOLS
Geological Contact (defined, assumed)
Hanging Wall Coal Bed
Strike and Dip (inclined bedding)
Brown Mudstones and Siltstones
Inferred Normal Fault (showing throw of movement)
Dark Brown Mudstones
Bench Mark Showing Spot
Grey and Bedded Hanging Wall Siltstone
Located Diamond Drill Hole
Main Coal Bed
Iron - Cem. Bed
Yellow Weathering Ash bedded Coal, Coal and Sandstones
Carbonaceous Limestone Located by Diamond Drill Hole
Variegated Mudstones and Sandstones
Trench Pit
Four Foot Coal Seam
Surface Projection of Vein Edge
ANVIL MINING CORP.
TANTALUS BUTTE COAL MINE
CARMACKS
GEOLOGICAL AND TOPOGRAPHIC PLAN OF TANTALUS BUTTE COAL MINE
Plate 21

CARMACKS SOUTH SECTION E



CARMACKS COAL

Key to Cross - Section - Lithological Symbols

- PEBBLE CONGLOMERATE
- PEBBLY SANDSTONE
- SANDSTONE
- SILTSTONE
- MUDSTONE
- CARBONACEOUS MUDSTONE
- COAL

CYPRUS ANVIL MINING CORPORATION

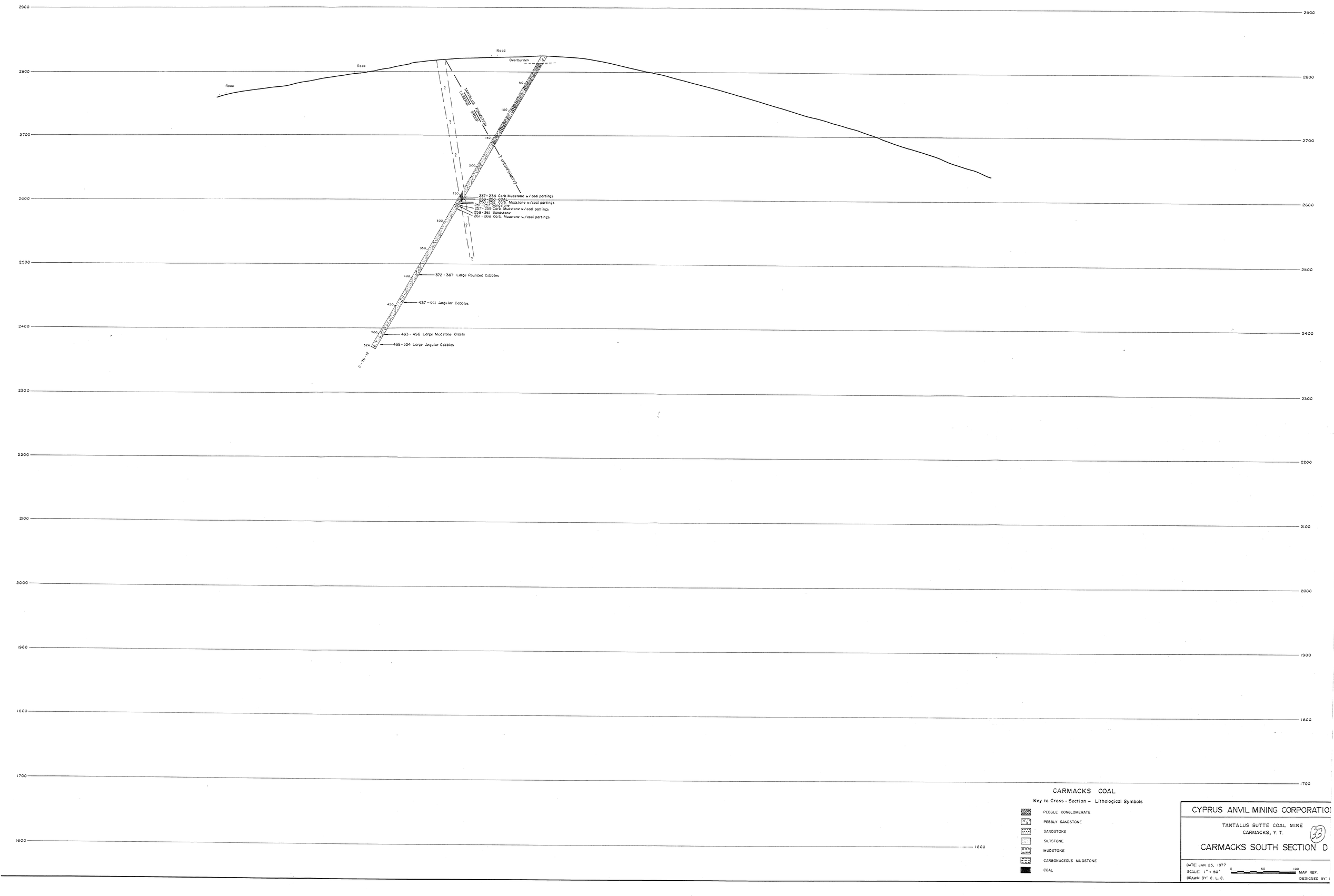
TANTALUS BUTTE COAL MINE
CARMACKS, Y. T.

(32)

CARMACKS SOUTH SECTION E

DATE: JAN.25, 1977
SCALE: 1" = 50'
DRAWN BY: C. L. C.
MAP REF.
DESIGNED BY: R

CARMACKS SOUTH SECTION D



CARMACKS COAL

Key to Cross - Section – Lithological Symbols

- PEBBLE CONGLOMERATE
- PEBBLY SANDSTONE
- SANDSTONE
- SILTSTONE
- MUDSTONE
- CARBONACEOUS MUDSTONE
- COAL

CYPRUS ANVIL MINING CORPORATIO

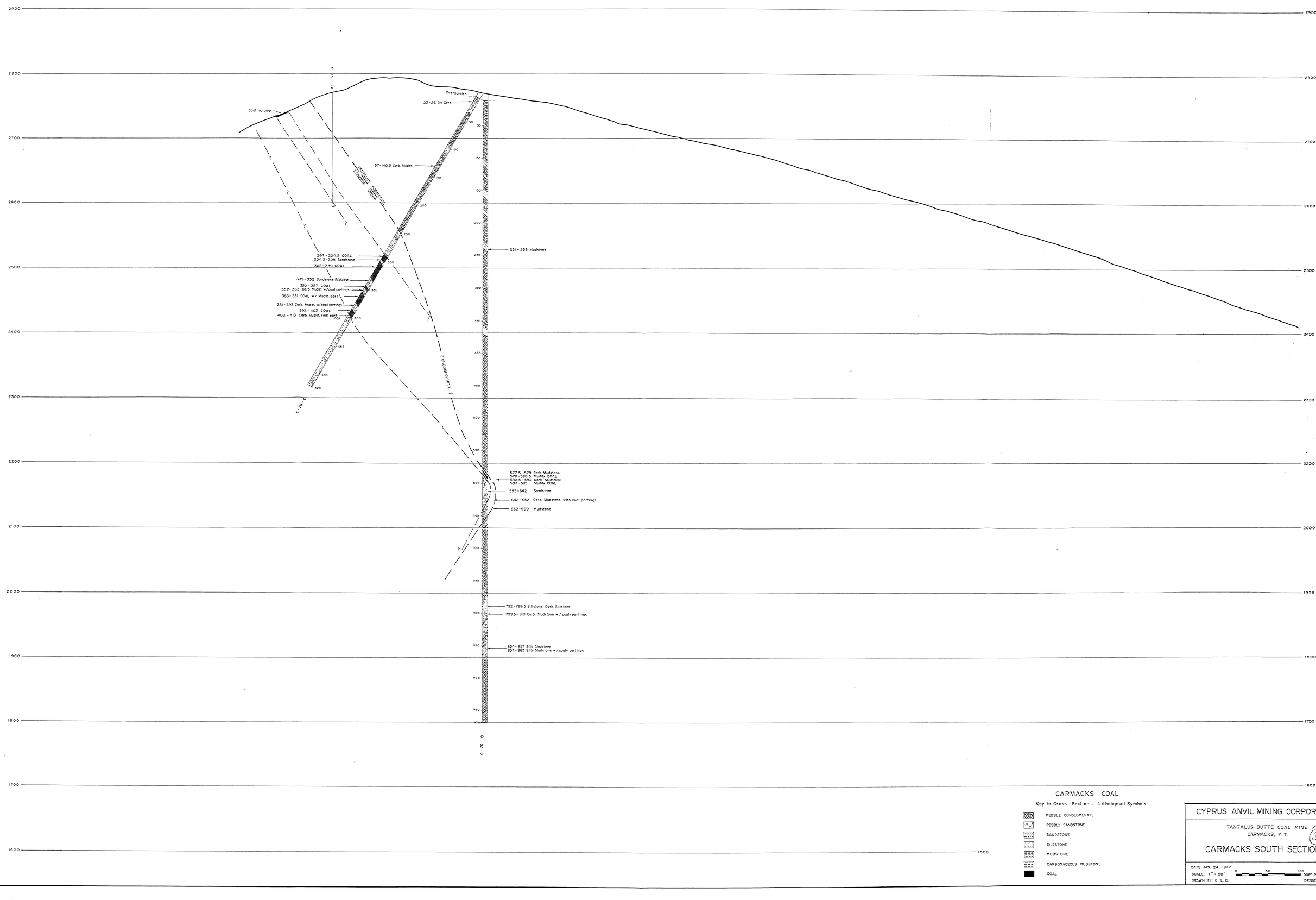
TANTALUS BUTTE COAL MINE
CARMACKS, Y. T.

(33)

CARMACKS SOUTH SECTION D

DATE JAN 25, 1977
SCALE 1" = 50'
0 50 100
MAP REF.
DRAWN BY C. L. C.
DESIGNED BY

CARMACKS SOUTH SECTION C



CARMACKS COAL

Key to Cross - Section - Lithological Symbols

- PEBBLE CONGLOMERATE
- PEBBLY SANDSTONE
- SANDSTONE
- SILTSTONE
- MUDSTONE
- CARBONACEOUS MUDSTONE
- COAL

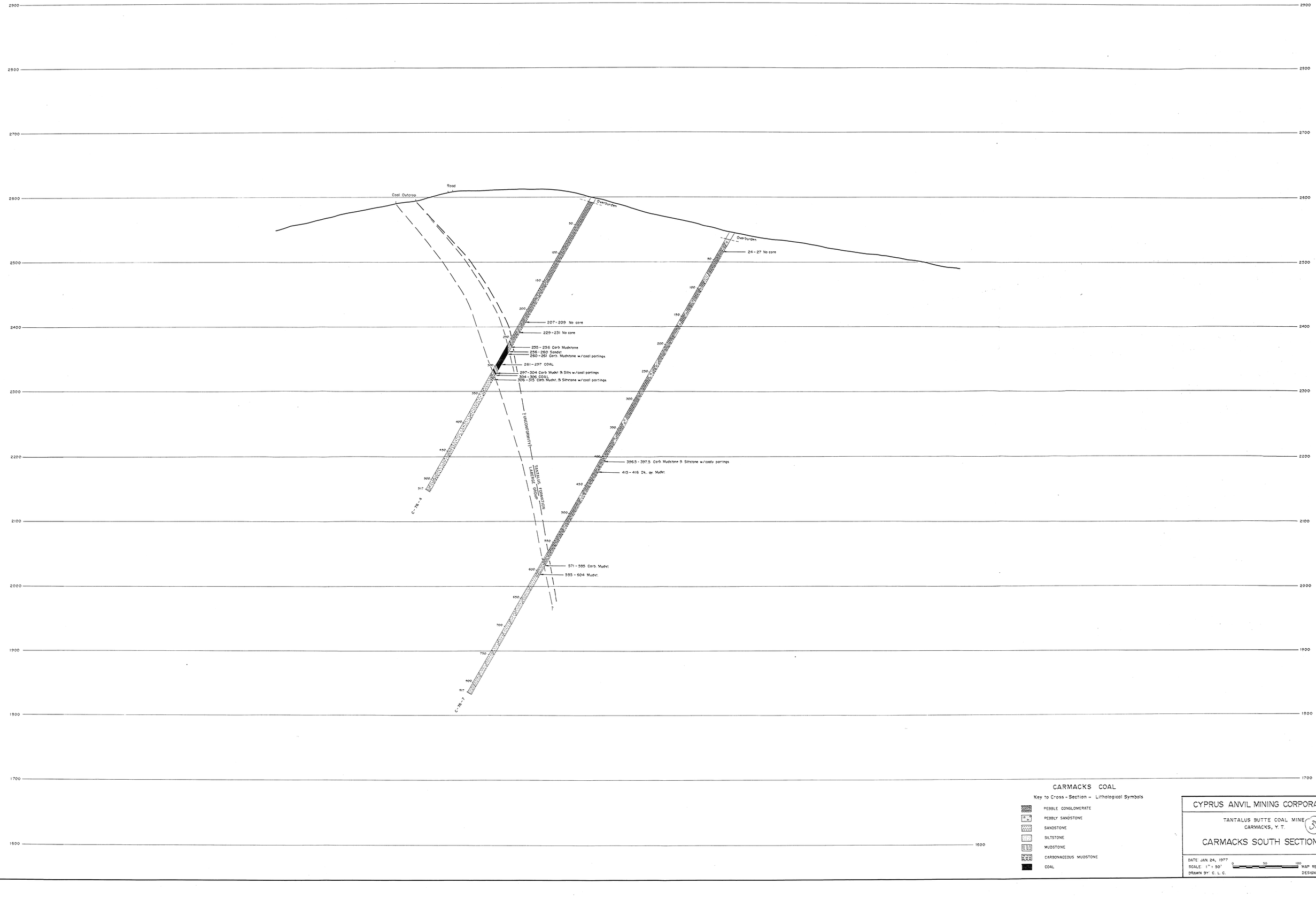
CYPRUS ANVIL MINING CORPORATION

TANTALUS BUTTE COAL MINE
CARMACKS, Y. T.

CARMACKS SOUTH SECTION C

DATE: JAN. 24, 1977
SCALE: 1" = 50'
DRAWN BY: C. L. C.
MAP REF.
DESIGNED BY: R.P.

CARMACKS SOUTH SECTION B



CARMACKS COAL

Key to Cross - Section - Lithological Symbols

- PEBBLE CONGLOMERATE
- PEBBLY SANDSTONE
- SANDSTONE
- SILTSTONE
- MUDSTONE
- CARBONACEOUS MUDSTONE
- COAL

CYPRUS ANVIL MINING CORPORATION

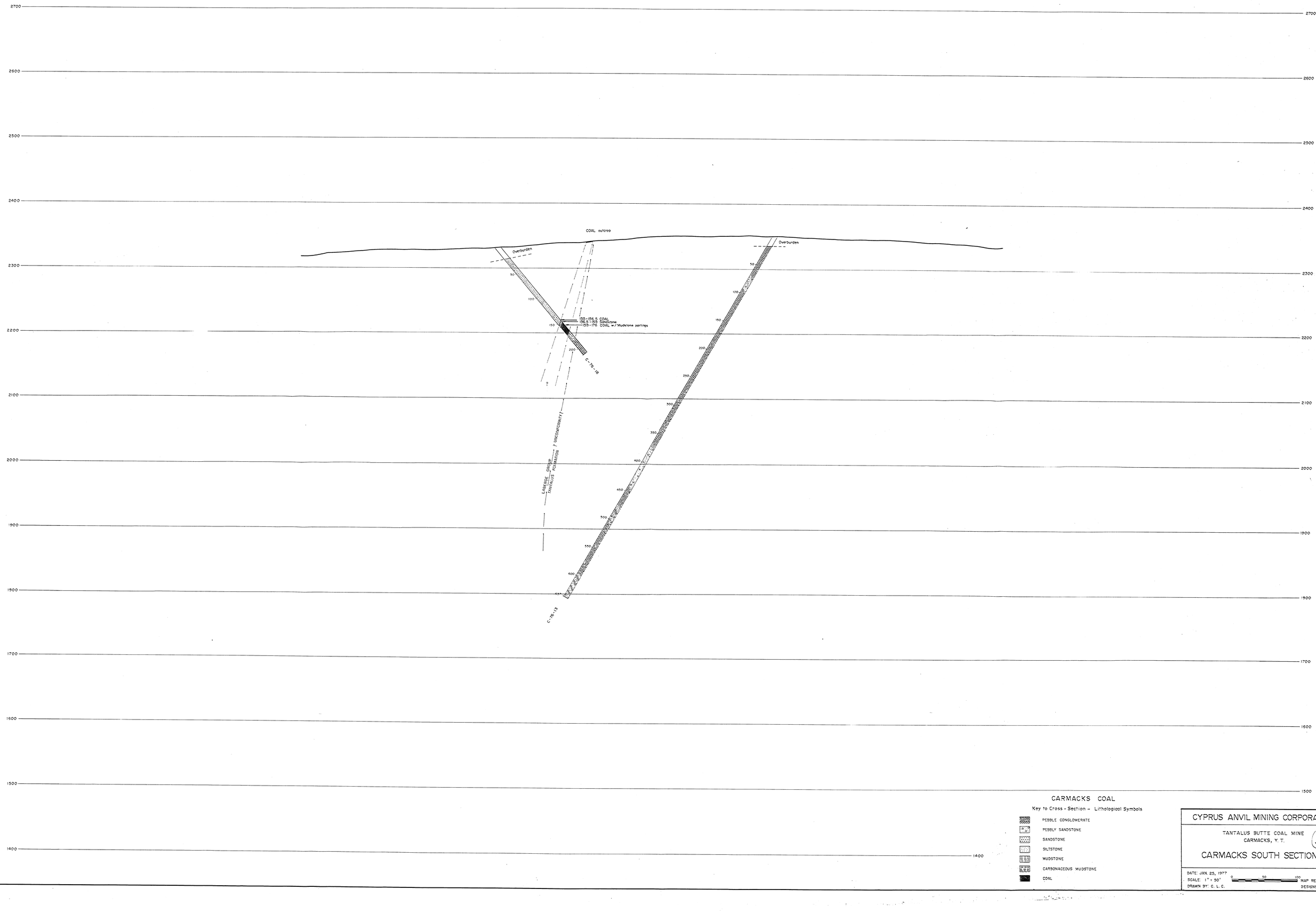
TANTALUS BUTTE COAL MINE
CARMACKS, Y. T.

35

CARMACKS SOUTH SECTION B

DATE JAN. 24, 1977
SCALE 1" = 50'
DRAWN BY: C. L. C.
0 50 100
MAP REF.
DESIGNED BY: R.P.H.

CARMACKS SOUTH SECTION A



CARMACKS COAL

Key to Cross - Section - Lithological Symbols

- PEBBLE CONGLOMERATE
- PEBBLY SANDSTONE
- SANDSTONE
- SILTSTONE
- MUDSTONE
- CARBONACEOUS MUDSTONE
- COAL

CYPRUS ANVIL MINING CORPORATION

TANTALUS BUTTE COAL MINE
CARMACKS, Y. T.

(36)

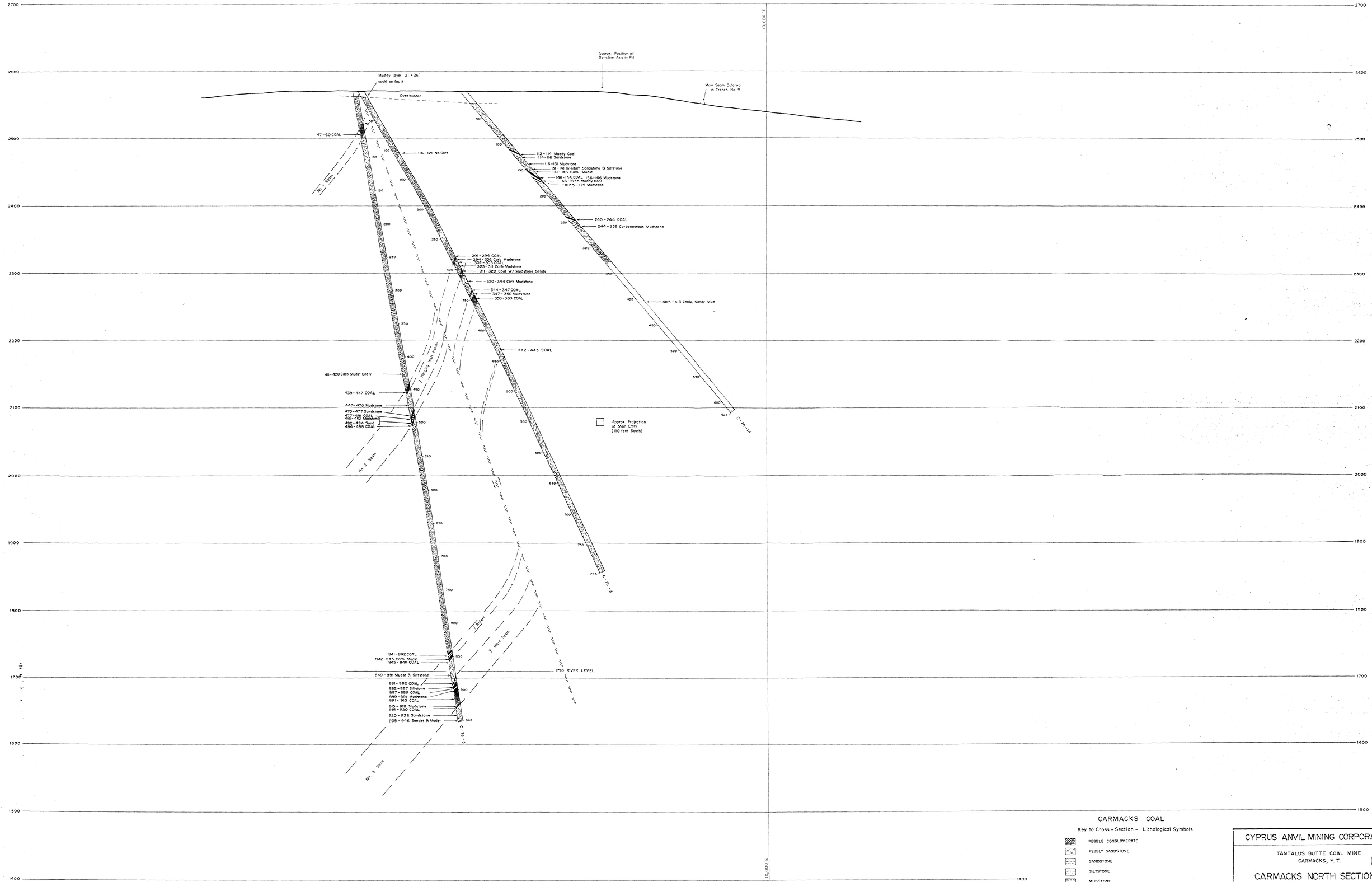
CARMACKS SOUTH SECTION A

DATE: JAN. 25, 1977
SCALE 1" = 50'
DRAWN BY: C. L. C.

0 50 100
MAP REF.

DESIGNED BY: R.P.M.

CARMACKS NORTH SECTION D



CARMACKS COAL

Key to Cross - Section - Lithological Symbols

- PEBBLE CONGLOMERATE
- PEBBLY SANDSTONE
- SANDSTONE
- SILTSTONE
- MUDSTONE
- CARBONACEOUS MUDSTONE
- COAL

CYPRUS ANVIL MINING CORPORATION

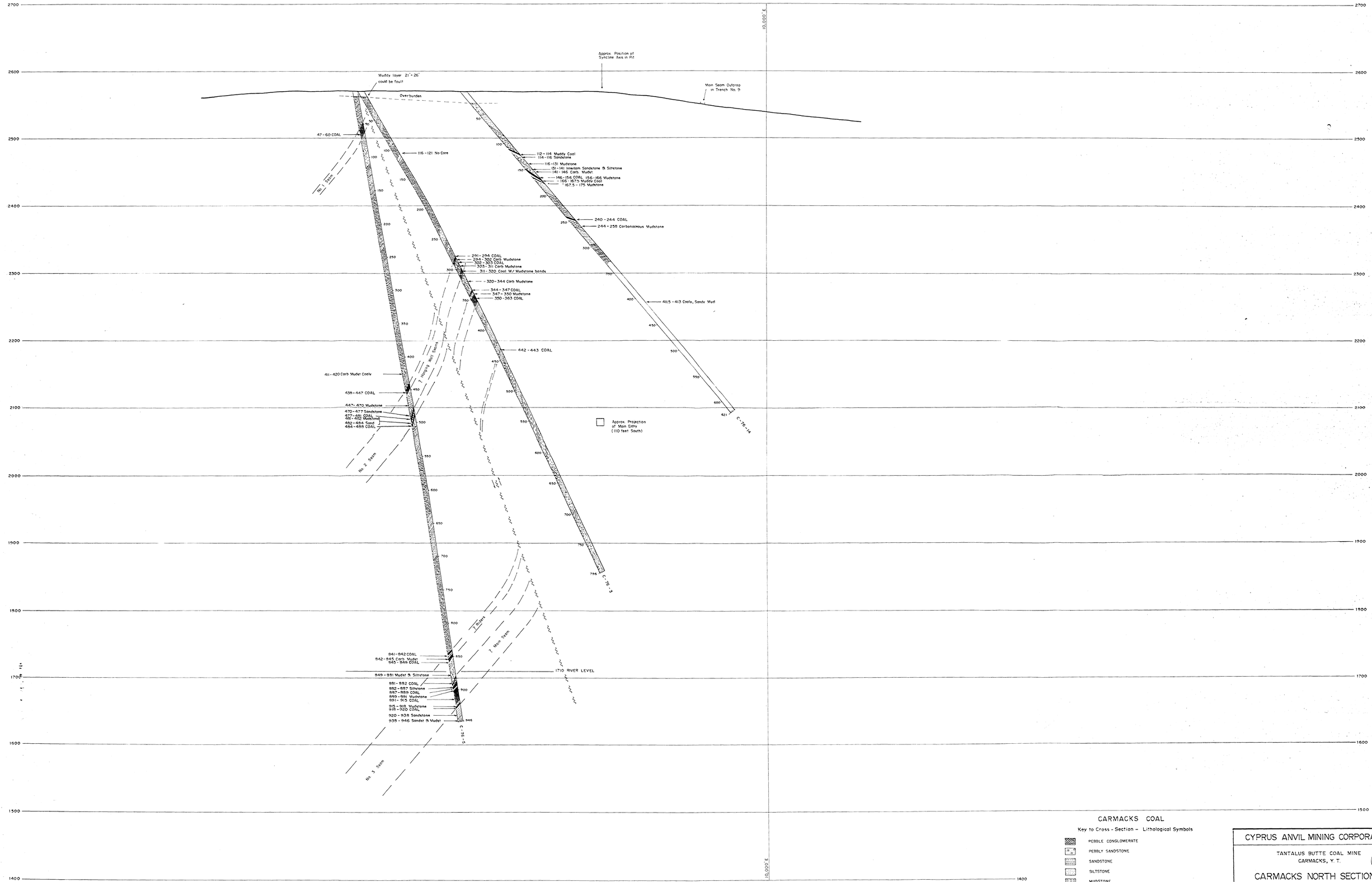
TANTALUS BUTTE COAL MINE
CARMACKS, Y. T.

(37)

CARMACKS NORTH SECTION D

DATE FEB 10, 1977
SCALE: 1" = 50' 0 50 100 MAP REF.
DRAWN BY: C. L. C. DESIGNED BY: R.P.H.

CARMACKS NORTH SECTION D



CARMACKS COAL

Key to Cross - Section - Lithological Symbols

- PEBBLE CONGLOMERATE
- PEBBLY SANDSTONE
- SANDSTONE
- SILTSTONE
- MUDSTONE
- CARBONACEOUS MUDSTONE
- COAL

CYPRUS ANVIL MINING CORPORATION

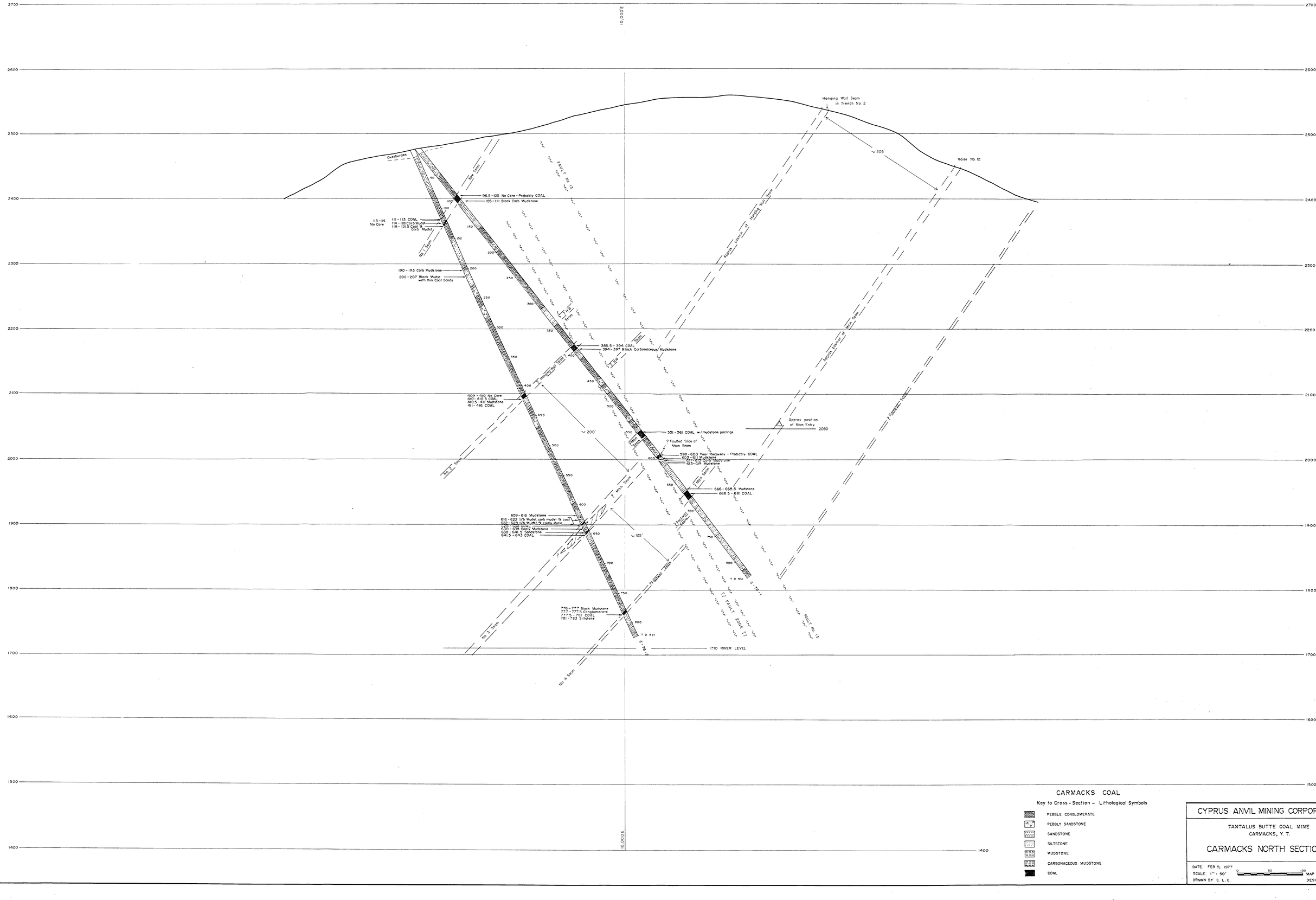
TANTALUS BUTTE COAL MINE
CARMACKS, Y. T.

(37)

CARMACKS NORTH SECTION D

DATE FEB 10, 1977
SCALE: 1" = 50' 0 50 100 MAP REF.
DRAWN BY: C. L. C. DESIGNED BY: R.P.H.

CARMACKS NORTH SECTION C



CARMACKS COAL

Key to Cross - Section - Lithological Symbols

- PEBBLE CONGLOMERATE
- PEBBLY SANDSTONE
- SANDSTONE
- SILTSTONE
- MUDSTONE
- CARBONACEOUS MUDSTONE
- COAL

CYPRUS ANVIL MINING CORPORATION

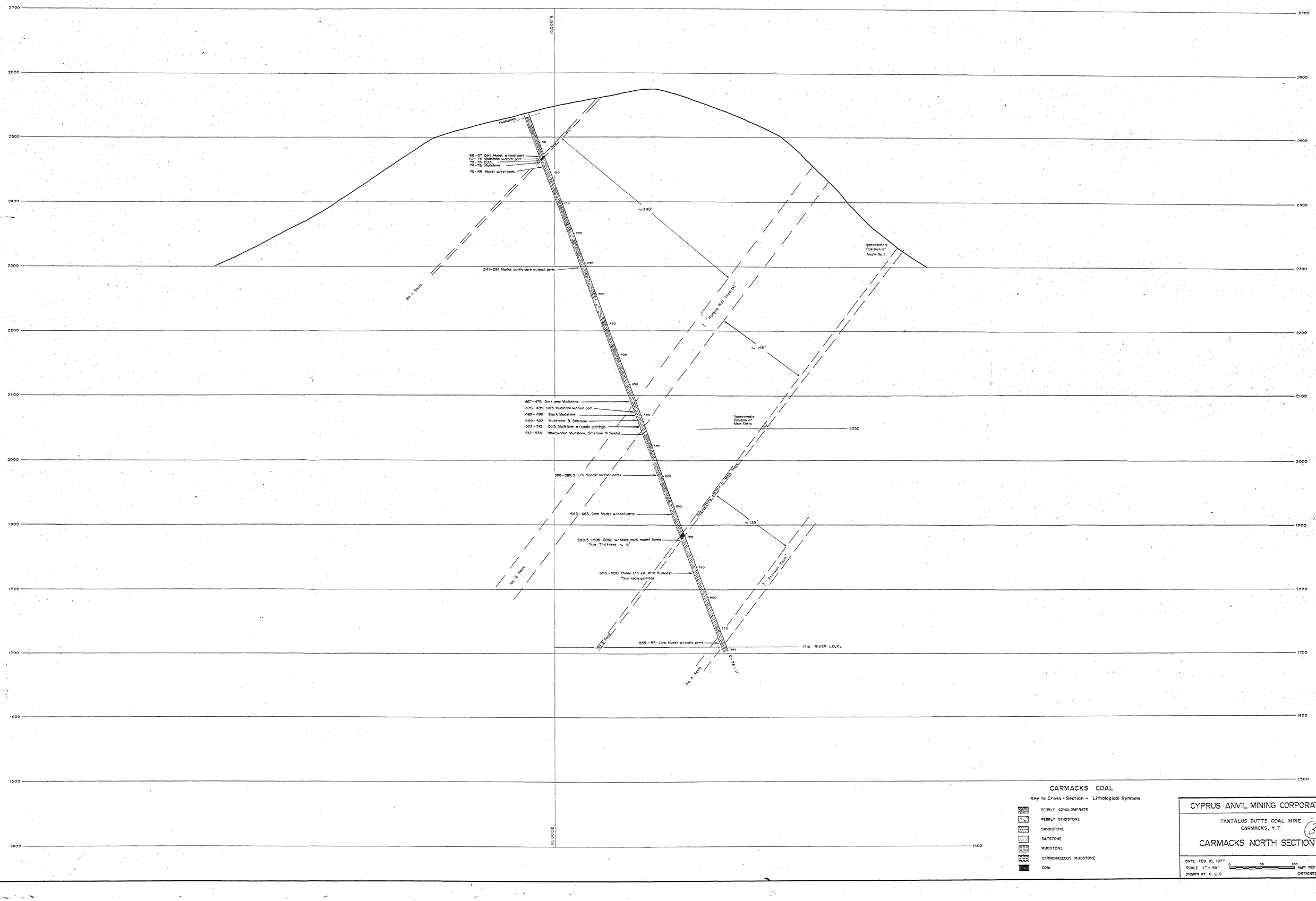
TANTALUS BUTTE COAL MINE
CARMACKS, Y. T.

(38)

CARMACKS NORTH SECTION C

DATE: FEB 9, 1977
SCALE: 1" = 50'
0 50 100
MAP REF.
DRAWN BY: C. L. C.
DESIGNED BY: R.P.H.

CARMACKS NORTH SECTION B



CARMACKS COAL

Key to Cross-Section – Lithological Symbols

- PEBBLE CONGLOMERATE
- PEBBLY SANDSTONE
- SANDSTONE
- SILTSTONE
- MUDSTONE
- CARBONACEOUS MUDSTONE
- COAL

CYPRUS ANVIL MINING CORPORATION

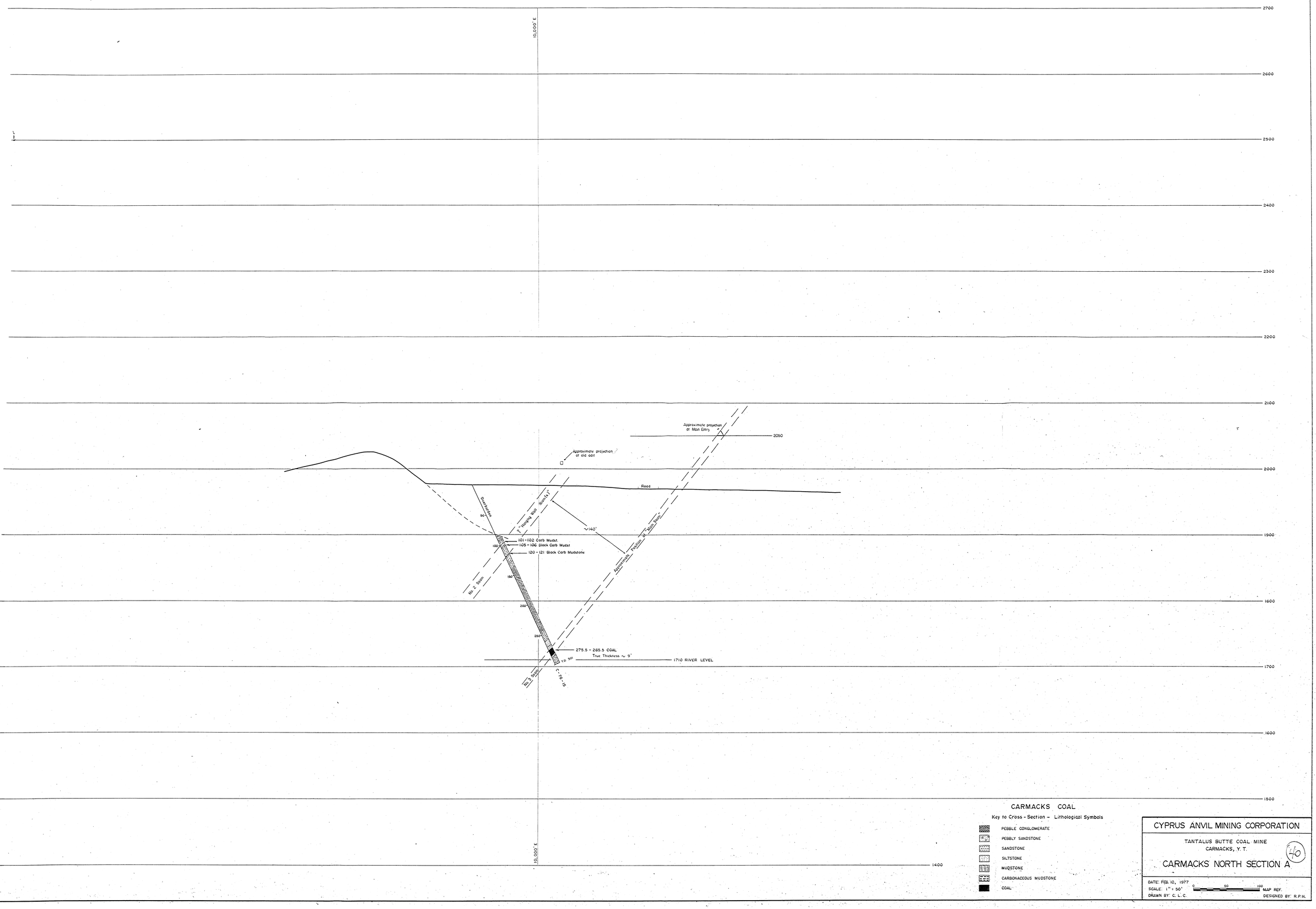
TANTALUS BUTTE COAL MINE
CARMACKS, Y. T.

39

CARMACKS NORTH SECTION B

DATE: FEB. 10, 1977
SCALE: 1" = 50'
DRAWN BY: C. L. C.
0 50 100
MAP REF.
DESIGNED BY: R.P.

CARMACKS NORTH SECTION A



CARMACKS COAL

Key to Cross - Section - Lithological Symbols

- PEBBLE CONGLOMERATE
- PEBBLY SANDSTONE
- SANDSTONE
- SILTSTONE
- MUDSTONE
- CARBONACEOUS MUDSTONE
- COAL

CYPRUS ANVIL MINING CORPORATION

TANTALUS BUTTE COAL MINE
CARMACKS, Y. T.

40

CARMACKS NORTH SECTION A

DATE: FEB. 10, 1977
SCALE: 1" = 50'
DRAWN BY: C. L. C.

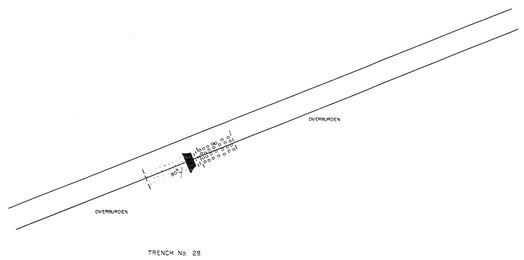
0 50 100

MAP REF.

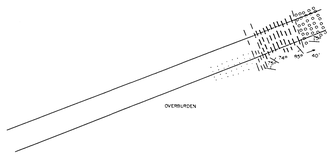
DESIGNED BY: R.P.H.

115-E-1 CARMACKS COAL Project

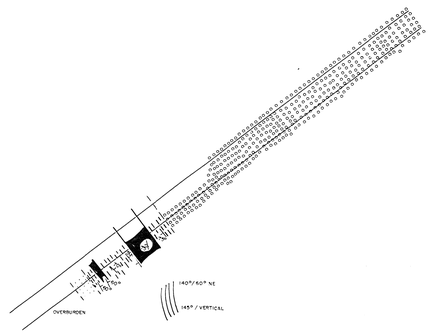
CARMACKS SOUTH - TRENCH PLANS



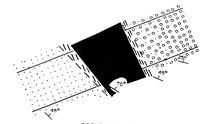
TRENCH No. 28



TRENCH No. 29

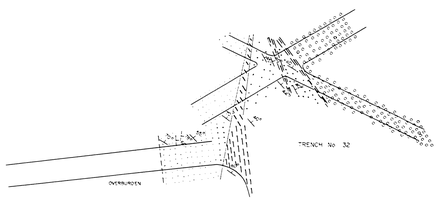


TRENCH No. 30



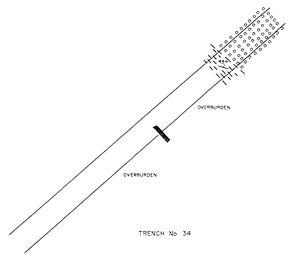
TRENCH No. 31

N

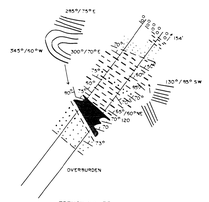


TRENCH No. 33

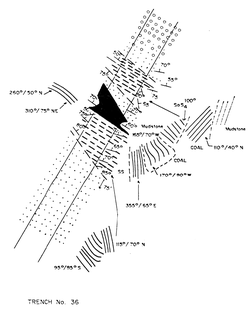
TRENCH No. 32



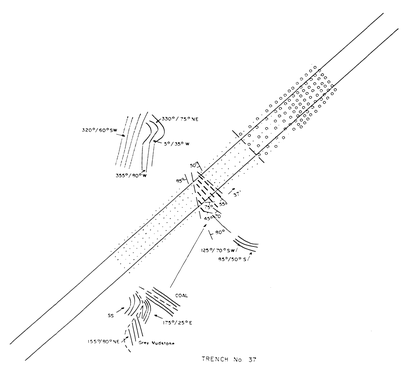
TRENCH No. 34



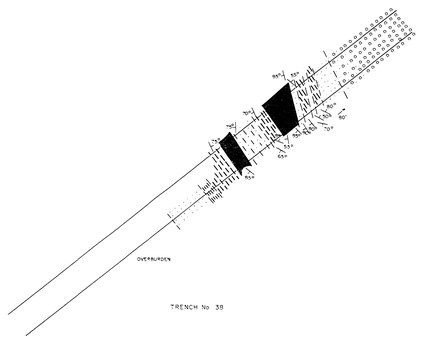
TRENCH No. 35



TRENCH No. 36



TRENCH No. 37



TRENCH No. 38

CARMACKS COAL

Key to Trenches - Lithological Symbols

- PEBBLE CONGLOMERATE
- PEBBLY SANDSTONE
- SANDSTONE
- SILTSTONE
- MUDSTONE
- CARBONACEOUS MUDSTONE
- COAL

CYPRUS ANVIL MINING CORPORATION

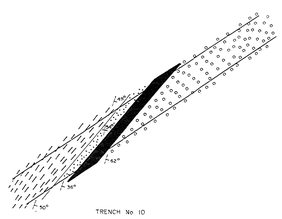
CARMACKS SOUTH
TRENCH PLANS

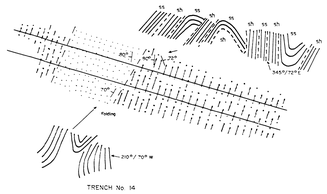
DATE MARCH 31, 1977
SCALE 1" = 40'
DRAWN BY C L C

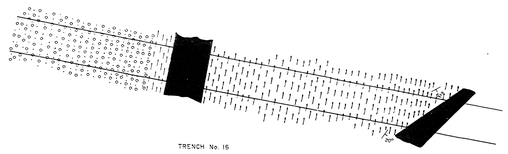
0 40 80 MAP REF

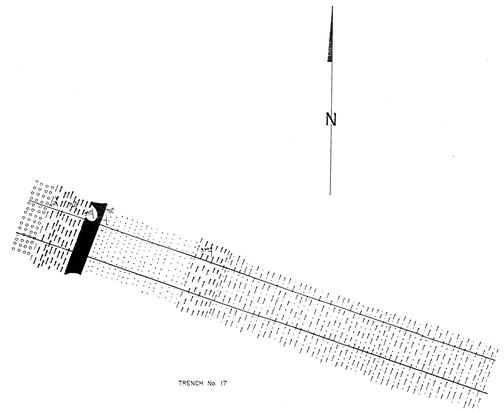
DESIGNED BY R P H

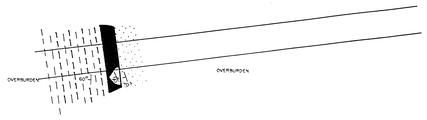
115-E-1 CARMACKS
COAL PROJ
CARMACKS NORTH
TRENCH PLANS

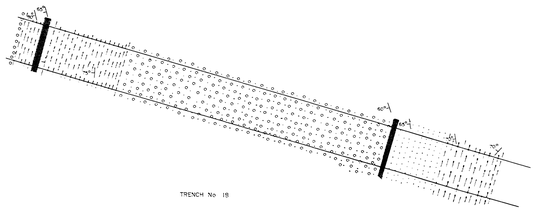


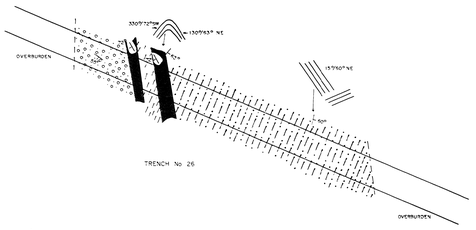


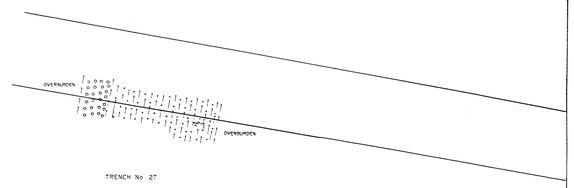


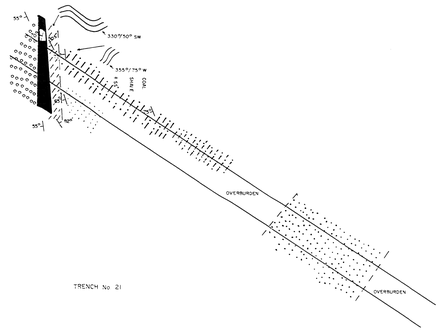












CARMACKS COAL

Key to Trenches - Lithological Symbols

- PEBBLE CONGLOMERATE
- PEBBLY SANDSTONE
- SANDSTONE
- SILTSTONE
- MUDSTONE
- CARBONACEOUS MUDSTONE
- COAL

CYPRUS ANVIL MINING CORPORATION

CARMACKS NORTH
TRENCH PLANS

DATE: MARCH 27, 1977
SCALE: 1" = 40'
0 40 60 80
MAP REF.
DRAWN BY: C. L. C.
DESIGNED BY: R.P.H.

YUKON RIVER

site of old Tantalus Mine Road

CARMACKS

LOT 11

LOT 25

LOT 10

LOT 26

C.M.L. No. 2954

C.M.L. No. 2955

C.M.L. No. 2956

C.M.L. No. 2957

C.M.L. No. 2958

C.M.L. No. 2959

C.M.L. No. 2960

C.M.L. No. 2961

C.M.L. No. 2962

C.M.L. No. 2963

C.M.L. No. 2964

C.M.L. No. 2965

C.M.L. No. 2966

C.M.L. No. 2967

C.M.L. No. 2968

C.M.L. No. 2969

C.M.L. No. 2970

C.M.L. No. 2971

C.M.L. No. 2972

C.M.L. No. 2973

C.M.L. No. 2974

C.M.L. No. 2975

C.M.L. No. 2976

C.M.L. No. 2977

C.M.L. No. 2978

C.M.L. No. 2979

C.M.L. No. 2980

No Outcrop

? LKT No Outcrop

? JL1 No Outcrop

2,000 S

4,000 S

6,000 S

8,000 S

10,000 S

12,000 S

14,000 S

16,000 S

18,000 S

20,000 S

22,000 S

24,000 S

26,000 S

LEGEND

EOCENE OR YOUNGER

eTcv — CARMACKS GROUP Basaltic and andesitic volcanics

LOWER CRETACEOUS AND / OR UPPER JURASSIC

LKT — TANTALUS FORMATION Quartz - and chert - pebble conglomerate, minor sandstone, siltstone and mudstone

LOWER AND MIDDLE JURASSIC

JL2 — LABERGE GROUP Mudstone, carbonaceous mudstone, coal seams

JL1 — LABERGE GROUP Cobble conglomerate, arkose, tuffaceous arkose

Rock Outcrop

Bedding (upright, vertical, overturned)

Contact (approximate, assumed)

Anticline Axial Trace (upright, overturned)

Syncline Axial Trace (upright, overturned)

Fault (assumed)

Coal Mining Lease Boundary

Lot Boundary

Trail

Location of Diamond Drill Hole

Geology by R.D. Hoffman, T. Ostensoe, 1976

CYPRUS ANVIL MINING CORPORATION

GEOLOGICAL MAP OF CARMACKS SOUTH COAL LEASE AREA

(3)

115 I-1

Carmacks Coal

Geology

Carmacks South Coal Lease Area

FINAL PLAN – LAND USE PERMIT YA9C509
LAND USE PERMIT YA0C782

PRE EXISTING ACCESS ROAD

NEW ACCESS ROAD

015 ROTARY DRILL HOLE SITE

NEW BULLDOZER TRENCH

I T. J. Adamson, agent for Cyprus Anvil Mining Corporation do hereby certify, that to the best of my knowledge and belief, the land use operations carried out under land use permit YA9C509, in the period Aug. 31/79 - Sept 30/80, and land use permit YA0C782, in the period Oct 1 - Oct 31/80, are accurately and fully represented on this plan.

T. J. ADAMSON

62° 04'

YUKON RIVER

CARMACKS

site of old Tantalus Mine Coal

BASELINE

C.M.L. No. 2966
C.M.L. No. 2967
C.M.L. No. 2968
C.M.L. No. 2969
C.M.L. No. 2970
C.M.L. No. 2971
C.M.L. No. 2972
C.M.L. No. 2973
C.M.L. No. 2974
C.M.L. No. 2975
C.M.L. No. 2976
C.M.L. No. 2977
C.M.L. No. 2978
C.M.L. No. 2979
C.M.L. No. 2980
C.M.L. No. 2981
C.M.L. No. 2982
C.M.L. No. 2983
C.M.L. No. 2984
C.M.L. No. 2985

LEGEND

EOCENE OR YOUNGER

eTcv — CARMACKS GROUP: Subalkalic and alkalinic volcanics

LOWER CRETACEOUS AND / OR UPPER JURASSIC

LKT — TANTALUS FORMATION: Quartz - and chert - pebble conglomerate; minor sandstone, siltstone and mudstone

LOWER AND MIDDLE JURASSIC

Jl2 — LABERGE GROUP: Mudstone, carbonaceous mudstone, coal seams

Jl1 — LABERGE GROUP: Cobble conglomerate, arkose; tuffaceous arkose

Rock Outcrop

Bedding (upright, vertical, overturned)

Contact (approximate, assumed)

Anticline Axial Trace (upright, overturned)

Syncline Axial Trace (upright, overturned)

Fault (assumed)

Coal Mining Lease Boundary

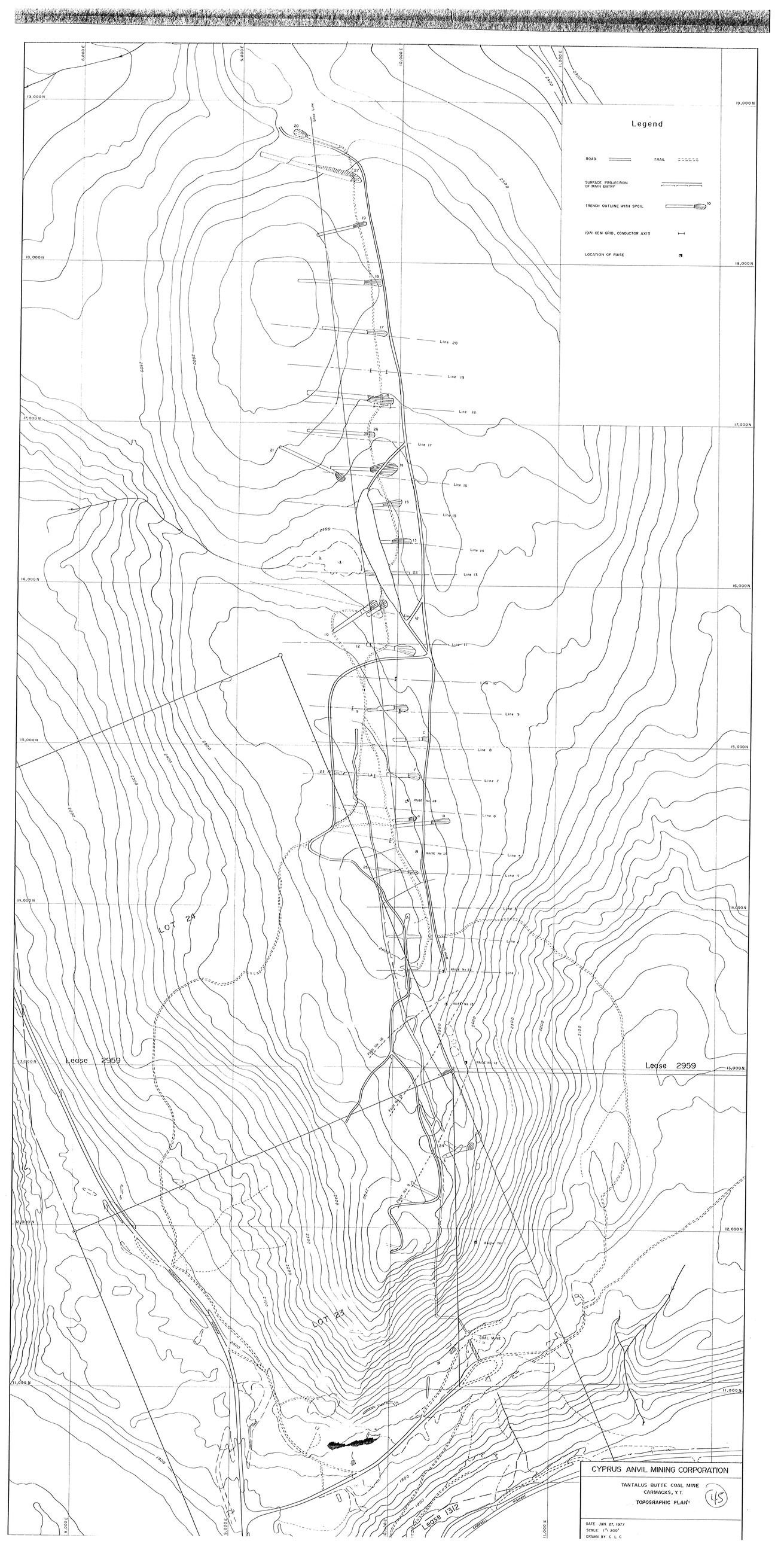
Lot Boundary

Trail

Location of Diamond Drill Hole

CYPRUS ANVIL MINING CORPORATION

GEOLOGICAL MAP OF CARMACKS SOUTH COAL LEASES



CYPRUS ANVIL MINING CORPORATION

TANTALUS BUTTE COAL MINE
CARMACKS, Y.T.

TOPOGRAPHIC PLAN

45

DATE JAN 27, 1977
SCALE 1" = 200'
DRAWN BY C. L. C

YUKON RIVER

CARMACKS

C.M.L. No 2954

C.M.L. No 2966

C.M.L. No 2976

C.M.L. No 2949

C.M.L. No 2965

C.M.L. No 2951

C.M.L. No 2953

C.M.L. No 2977

C.M.L. No 2969

C.M.L. No 2960

C.M.L. No 2975

C.M.L. No 2978

C.M.L. No 2967

C.M.L. No 2974

C.M.L. No 2972

C.M.L. No 2971

C.M.L. No 2970

C.M.L. 2973

00 N

5,000 S

10,000 S

15,000 S

20,000 S

25,000 S

5,000 E

10,000 E

15,000 E

20,000 E

25,000 E

30,000 E

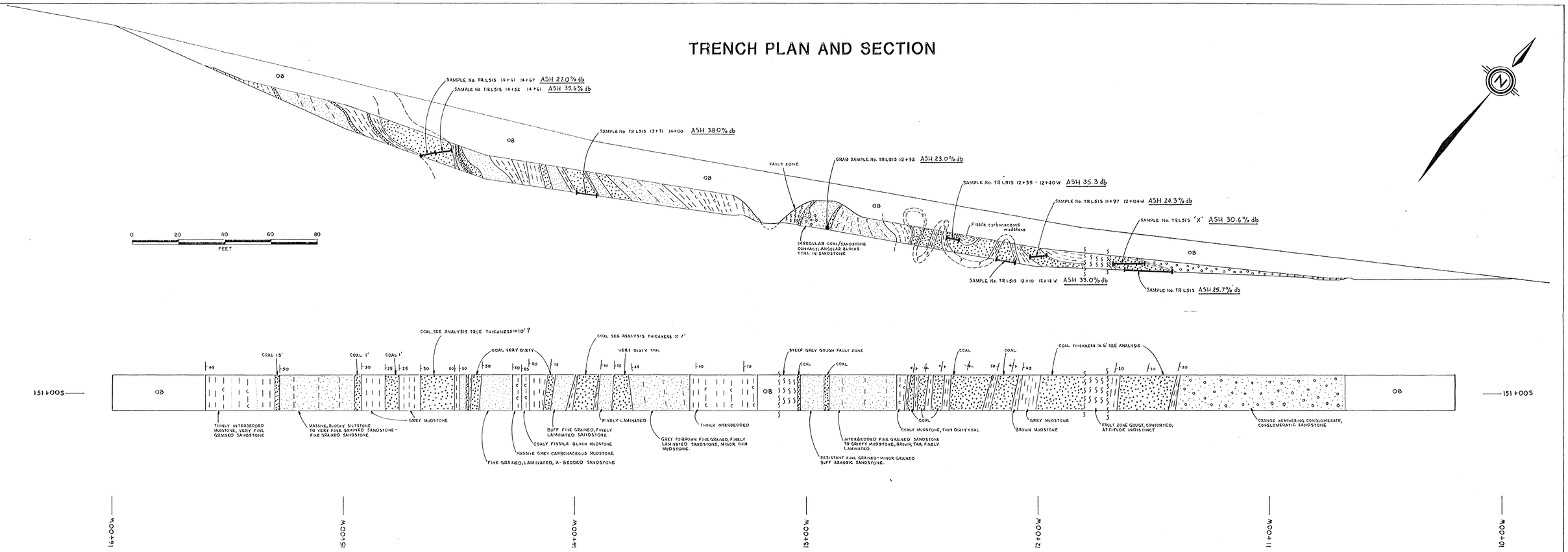
63°04'

136°12'

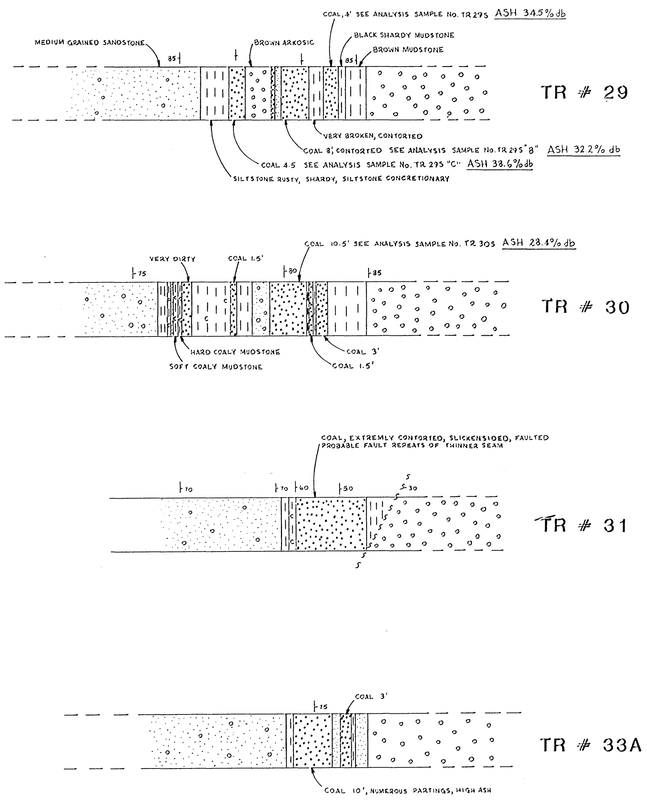
CYPRUS ANVIL MINING CORPORATION

CARMACKS SOUTH COAL LEASE AREA

TRENCH PLAN AND SECTION



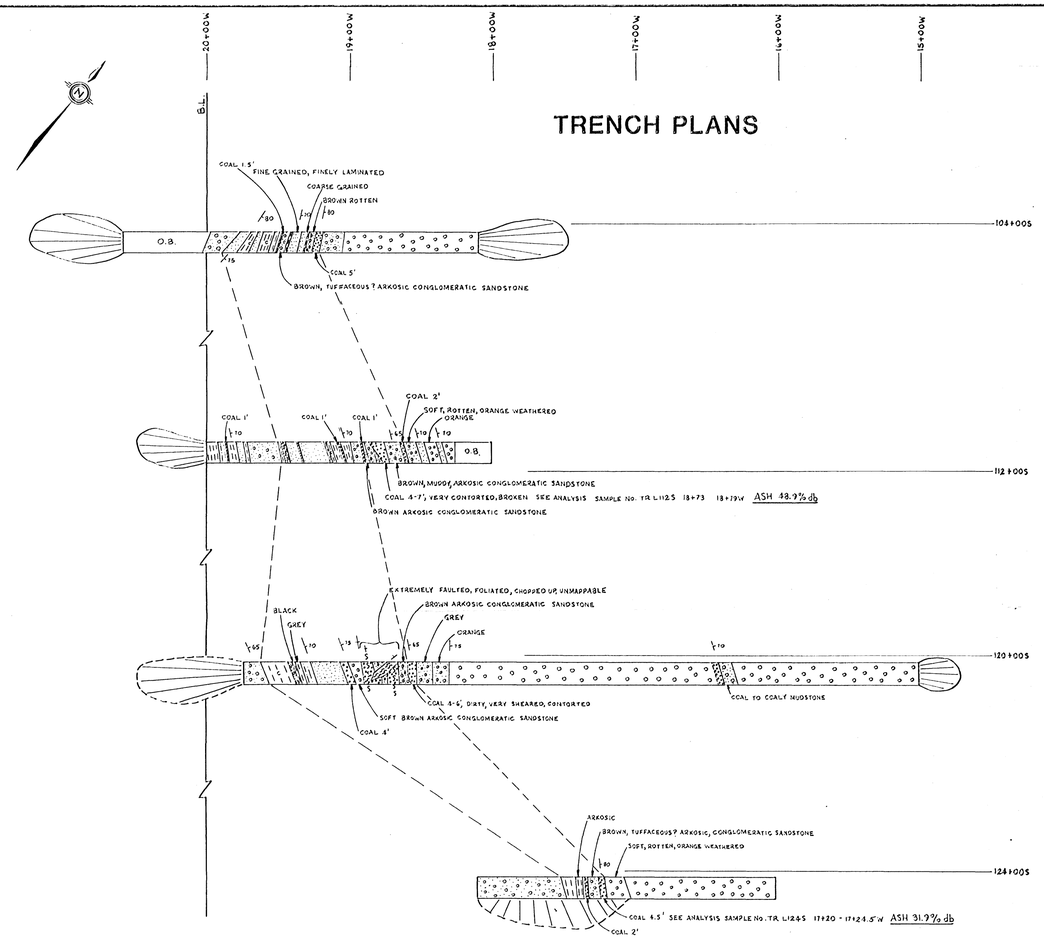
1976 TRENCH PLANS



DEEPENING, REMAPPING OF COAL SECTION EXPOSED IN SOME 1976 TRENCHES

0 20 40
FEET

TRENCH PLANS



SURFACE FOLLOW-UP OF COAL INTERSECTED IN DRILL HOLE CS-79-24

0 50 100
FEET

LEGEND

- OVERBURDEN
- COAL
- CARBONACEOUS MUDSTONE
- MUDSTONE AND SILTSTONE
- GRITTY MUDSTONE
- SANDSTONE
- CONGLOMERATIC SANDSTONE
- CONGLOMERATE
- COAL SAMPLE

CYPRUS ANVIL MINING CORPORATION

CARMACKS SOUTH

YUKON TERRITORY

1980 BULLDOZER TRENCHES

(42)

N.T.S. 115-I-1
SURVEY BY: T.A.
DRAWN BY: V.F.

DATE: Sept 1980