

PD-NCB Consultants Limited



In association with

Wright Engineers Ltd & Golder Associates

DRAFT

Report No. 3

**Preliminary Report on
Hat Creek Openpit No. 2**

Volume II

to

British Columbia Hydro and Power Authority

London



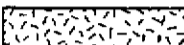
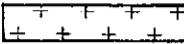

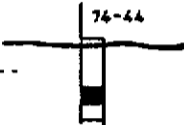

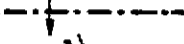




June 1976

LIST OF PLATES

- | | |
|-----------------|--|
| Plates 1 to 14 | - See Report No 2 |
| Plate 15R | - Legend of Symbols used on Geological Plans and Sections |
| Plates 16 to 46 | - See Report No 2 |
| Plate 47 | - Section 20,000 E |
| Plate 48 | - Section 22,000 E |
| Plate 49 | - Section 24,000 E |
| Plate 50 | - Section 45,000 N |
| Plate 51 | - Section 48,000 N |
| Plate 52 | - Section 51,000 N |
| Plate 53 | - Section 53,500 N |
| Plate 54 | - Section 55,000 N |
| Plate 55 | - Section 57,500 N |
| Plate 56 | - Section 60,000 N |
| Plate 57 | - Section 61,500 N |
| Plate 58 | - Section 63,000 N |
| Plate 59 | - Isopachytes of Superficial Deposits |
| Plate 60 | - Isopachytes of Total Overburden |
| Plate 61 | - Contours at Base of Superficials |
| Plate 62 | - Contours at Base of Volcanics |
| Plate 63 | - Contours at Top of Coal |
| Plate 64 | - Location of Mud Slide Areas and Road Re-Routing |
| Plate 65 | - Diagram of Mining Concepts |
| Plate 66 | - Surface Intercepts of the Stages of Pit Development to 2,000-ft Elevation |
| Plate 67 | - Cumulative Waste Volumes v Cumulative Tonnage of In-Situ Coal (Openpit No 1 and 2) |

- Plate 68 - Coal Requirements for a 3 x 750-MW Power Station, Yearly Waste Removal, Yearly Stripping Ratio (Openpit No 1 and 2)
- Plate 69 - Cumulative Coal Requirements for a 3 x 750-MW Power Station and Cumulative Waste Removal (Openpit No 1 and 2)
- Plate 70 - Mean Haulage Distances
- Plate 71 - Sequence of Superficial Removal by Bucket-Wheel Excavator
- Plate 72 - Cross-Section of Pit Superficials
- Plate 73 - Diagrammatic Layout of Scheme for Superficial Removal by Bucket-Wheel Excavator
- Plate 74 - Power Distribution System for Ultimate Pit
- Plate 75 - Washability Characteristics of Typical Hat Creek Coal
- Plate 76 - Loring Sample from Borehole No 75-74 Replotted to show Effect of Moisture
- Plate 77 - Plan of Areas Available for Superficials, Pit Waste and Ash Disposal
- Plate 78 - Plan of Superficials, Pit Waste and Ash Disposal - Pit to year 2020
- Plate 79 - Plan of Superficials, Pit Waste and Ash Disposal - 600-ft Pit
- Plate 80 - Production Cost and Uniform Selling Price

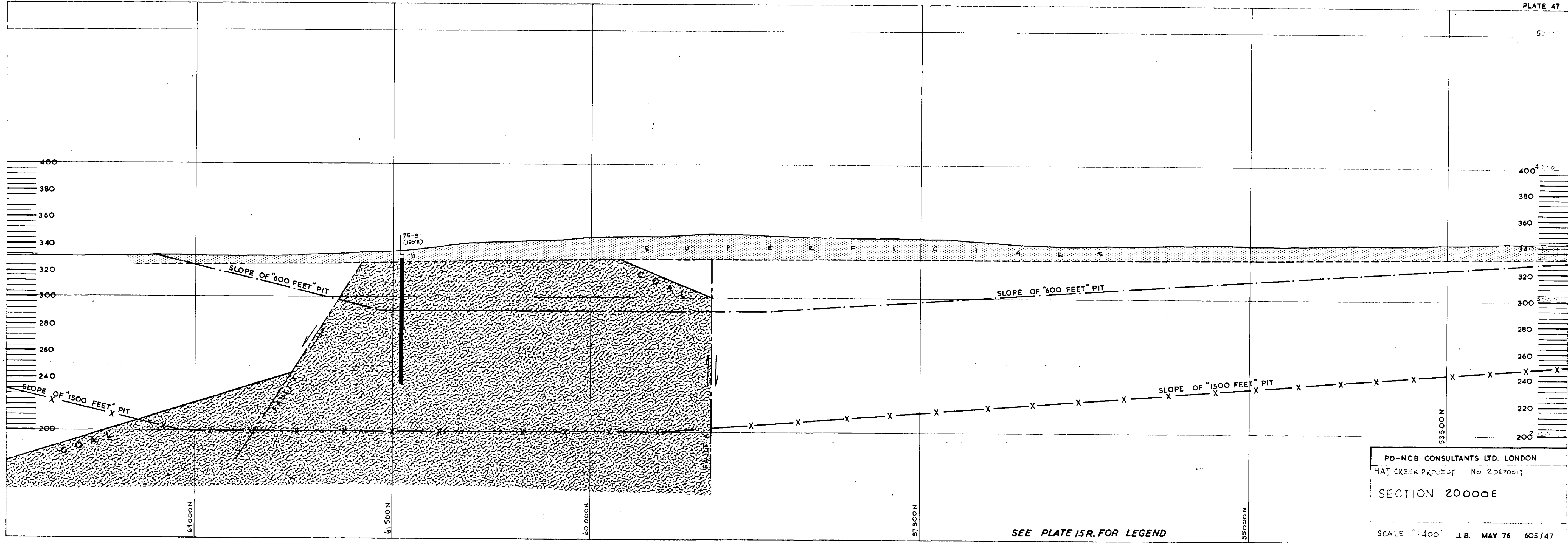
LEGEND OF SYMBOLS USED ON GEOLOGICAL PLANS AND SECTIONS

Coal.....	
Superficials.....	
Volcanics.....	
Marble.....	
Borehole on plan with reference no.....	
Borehole on section with reference no.....	
Fault on plan with direction of downthrow.....	
Fault on plan under volcanics.....	
Fault on section with direction of throw.....	
Contours within area of incrop (value in feet above datum).....	
Contours outside area of incrop (value in feet above datum).....	
Isopachytes (value in feet).....	

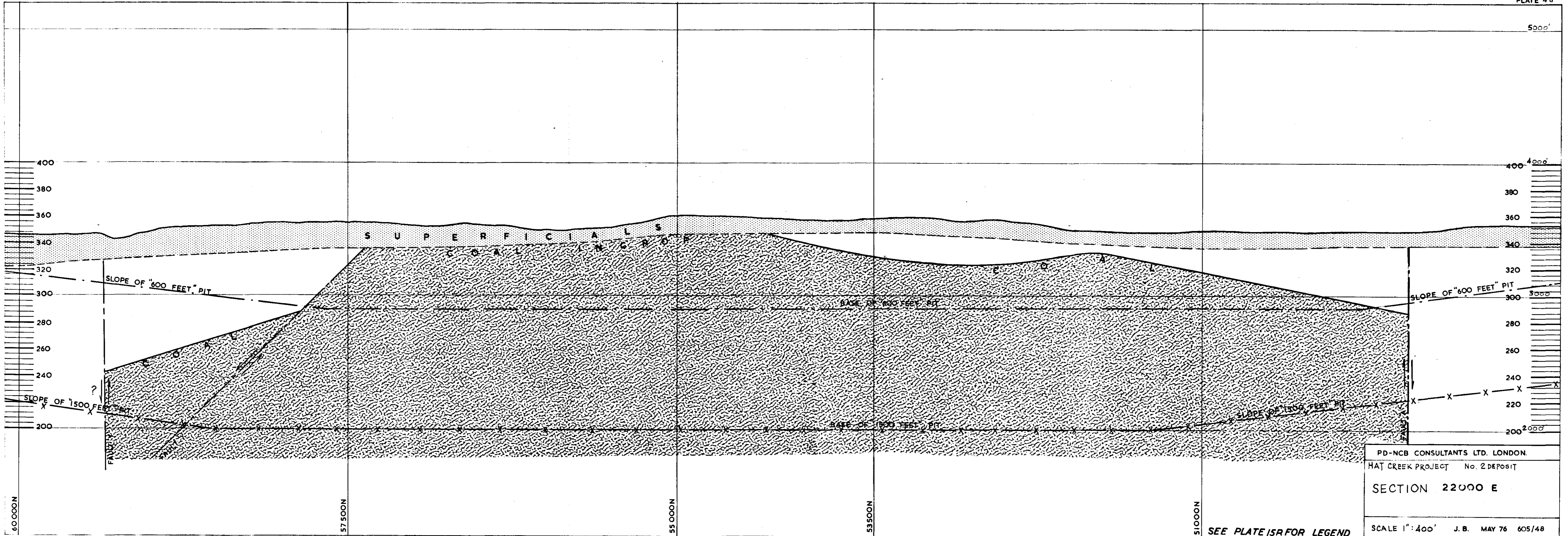
ABBREVIATIONS

Ss = Sandstone	Carb = Carbonaceous
Sh = Shale	Cl = Claystone
Si = Siltstone	Ag = Agglomerate
Cg = Conglomerate	B = Breccia
C = Coaly	Bas = Basalt

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Eng'r. J. B.	Date May 76	Drg. No. 605/15R

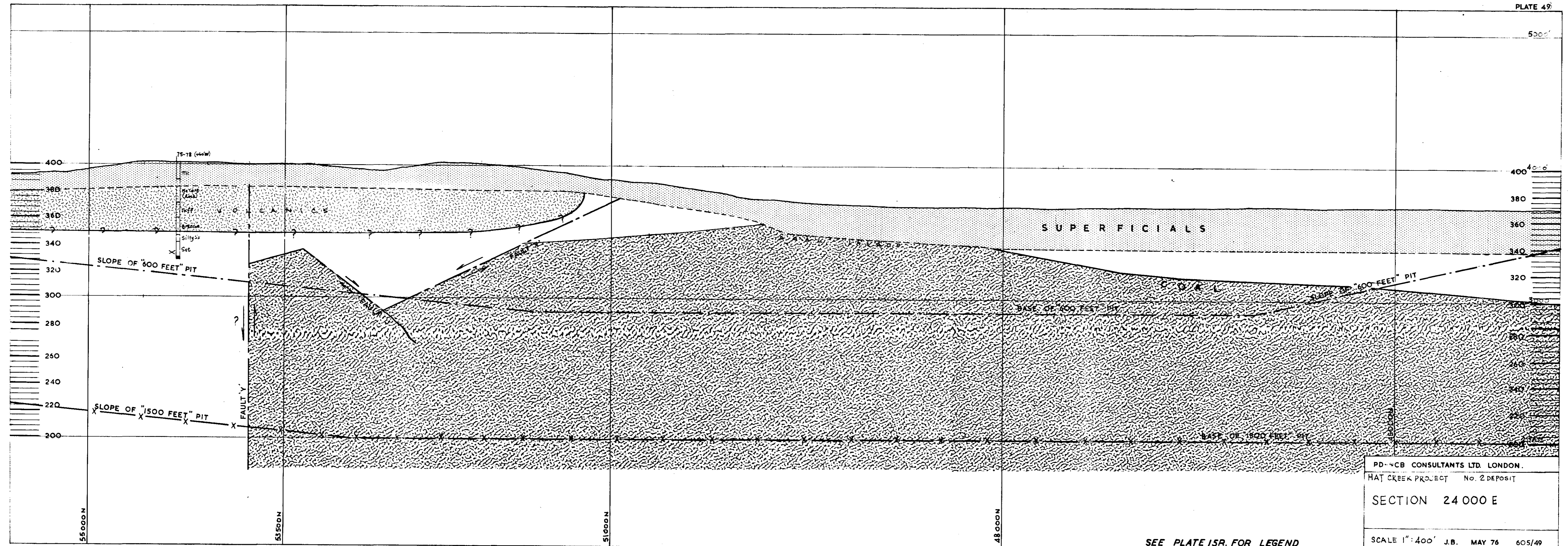


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 HAT CREEK PROJECT No. 2 DEPOSIT
 SECTION 20000E
 SCALE 1" = 400' J.B. MAY 76 605/47



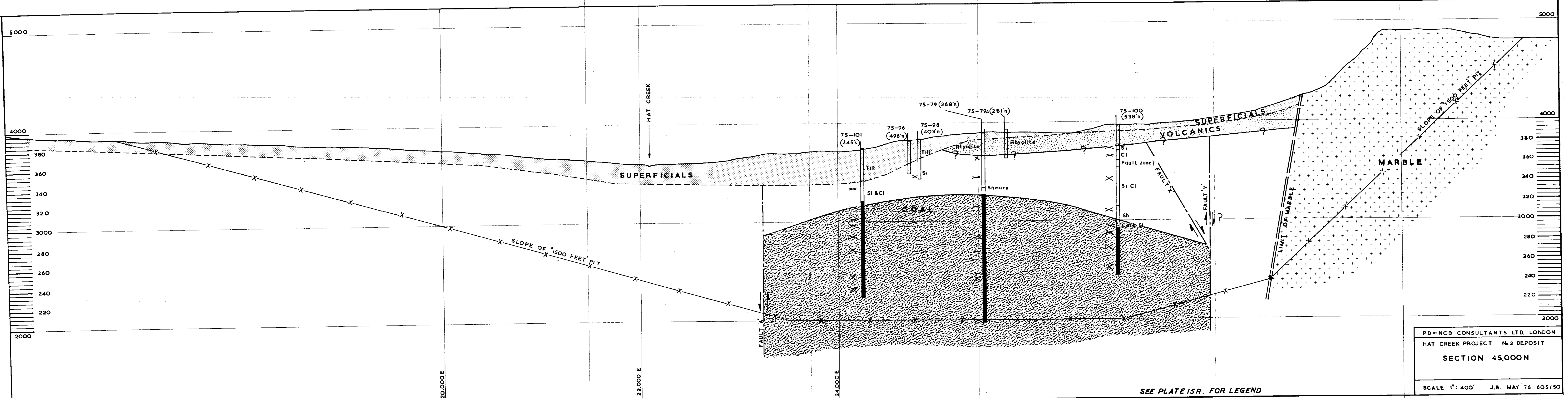
PD-NCB CONSULTANTS LTD. LONDON.
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SEE PLATE 15R FOR LEGEND



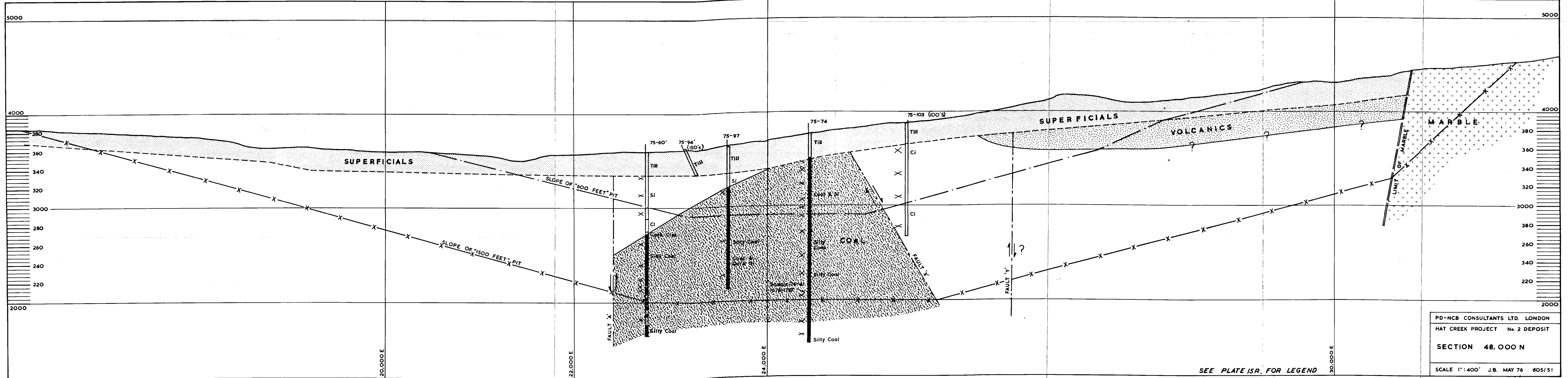
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SEE PLATE 15R. FOR LEGEND



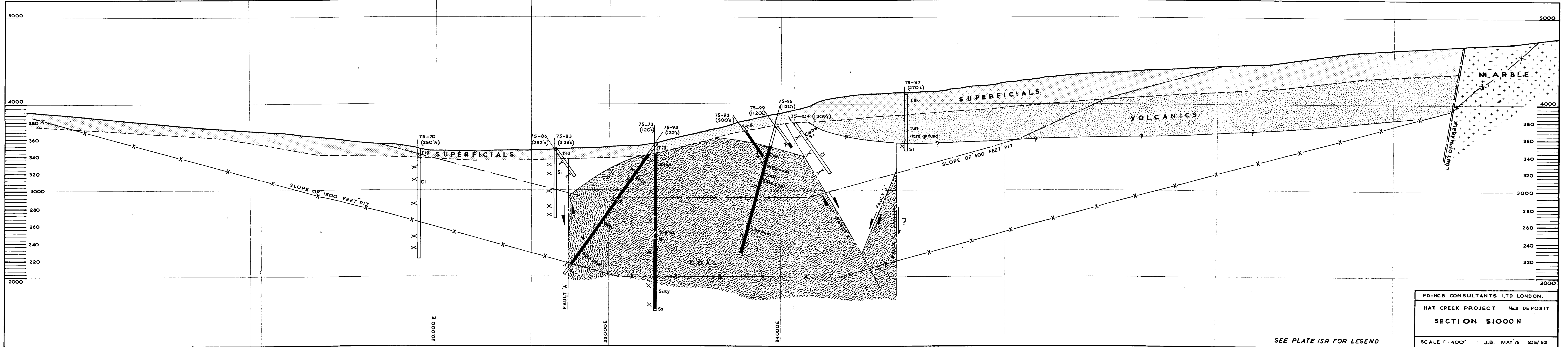
SEE PLATE 15R. FOR LEGEND

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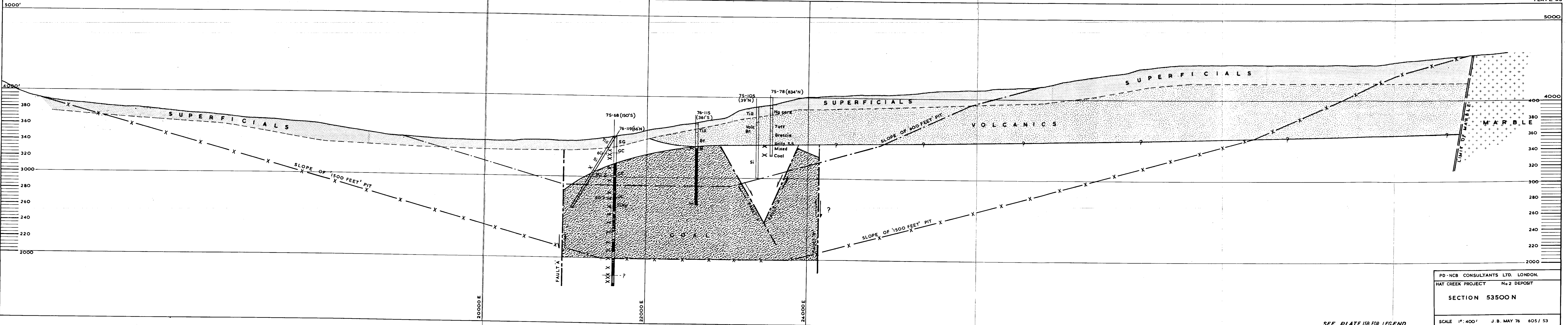
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SECTION 48,000 N
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SEE PLATE 15R FOR LEGEND



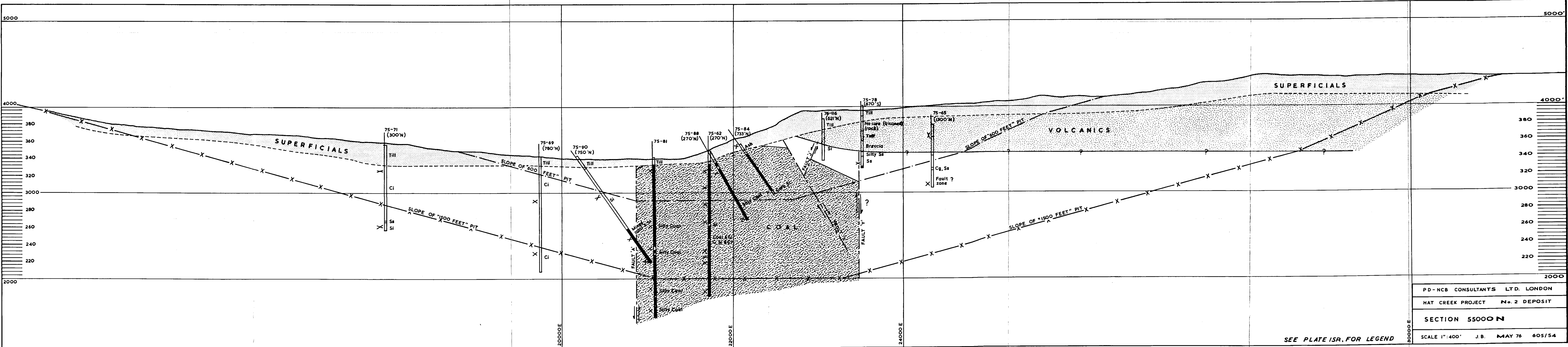
PD-NCB CONSULTANTS LTD. LONDON.
 HAT CREEK PROJECT No.2 DEPOSIT
SECTION 51000 N
 SCALE 1" = 400' J.B. MAY 76 605/52

SEE PLATE 15R FOR LEGEND



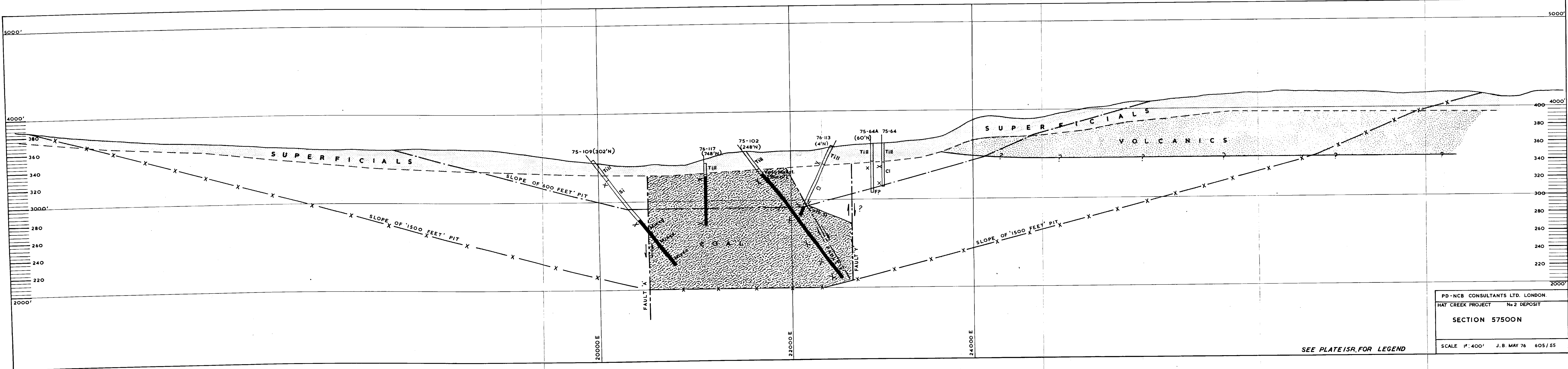
SEE PLATE 15R FOR LEGEND

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HAT CREEK PROJECT	No 2 DEPOSIT
SECTION 53500 N	
SCALE 1" = 400'	J. B. MAY 76 605 / 53



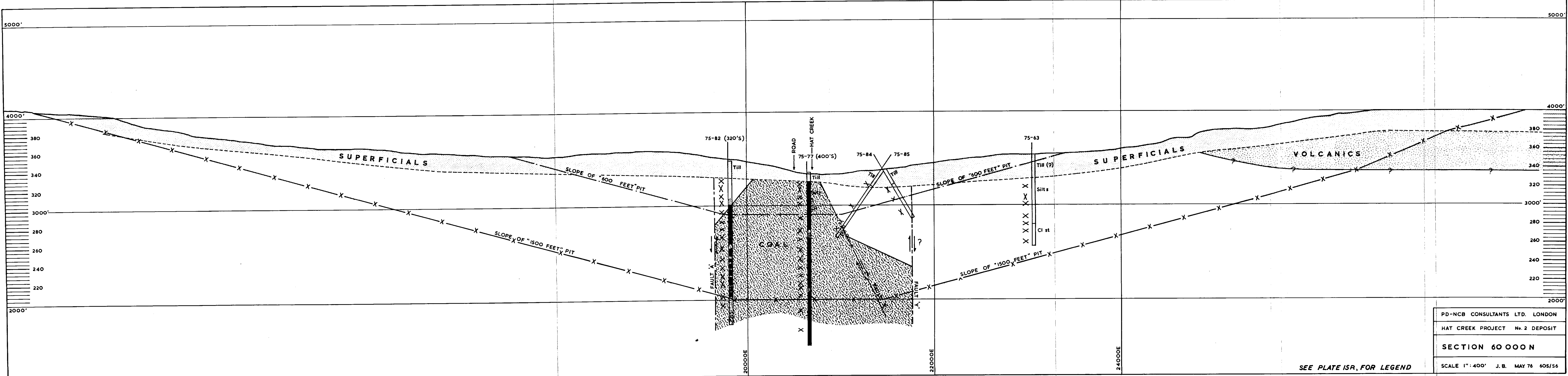
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 SECTION 55000 N
 SCALE 1" : 400' J.B. MAY 76 605/54

SEE PLATE 15R FOR LEGEND



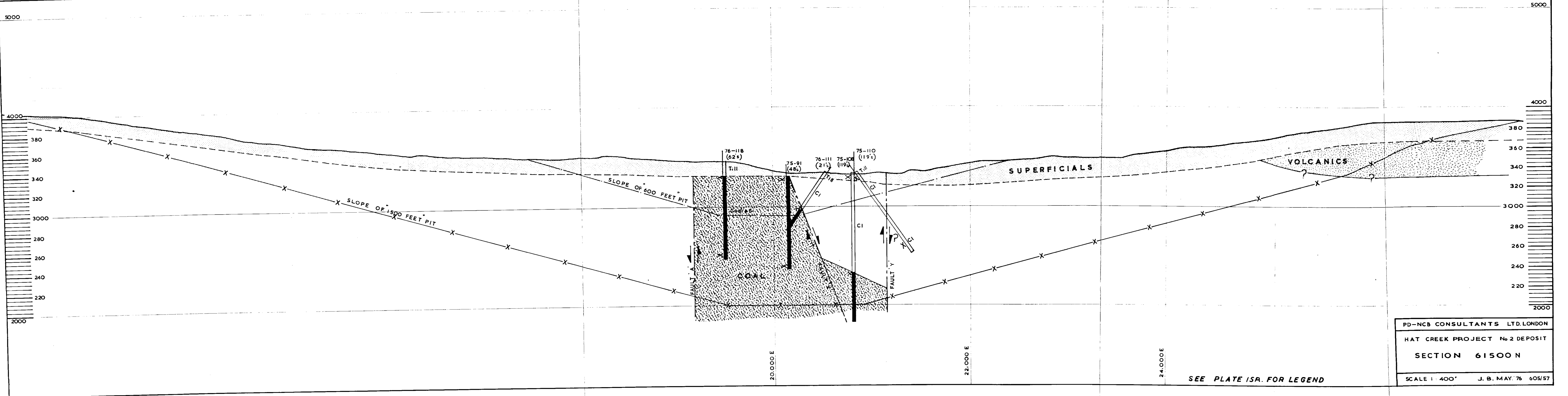
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 HAT CREEK PROJECT No 2 DEPOSIT
SECTION 57500N
 SCALE 1" : 400' J.B. MAY 76 605 / 55

SEE PLATE 15R FOR LEGEND



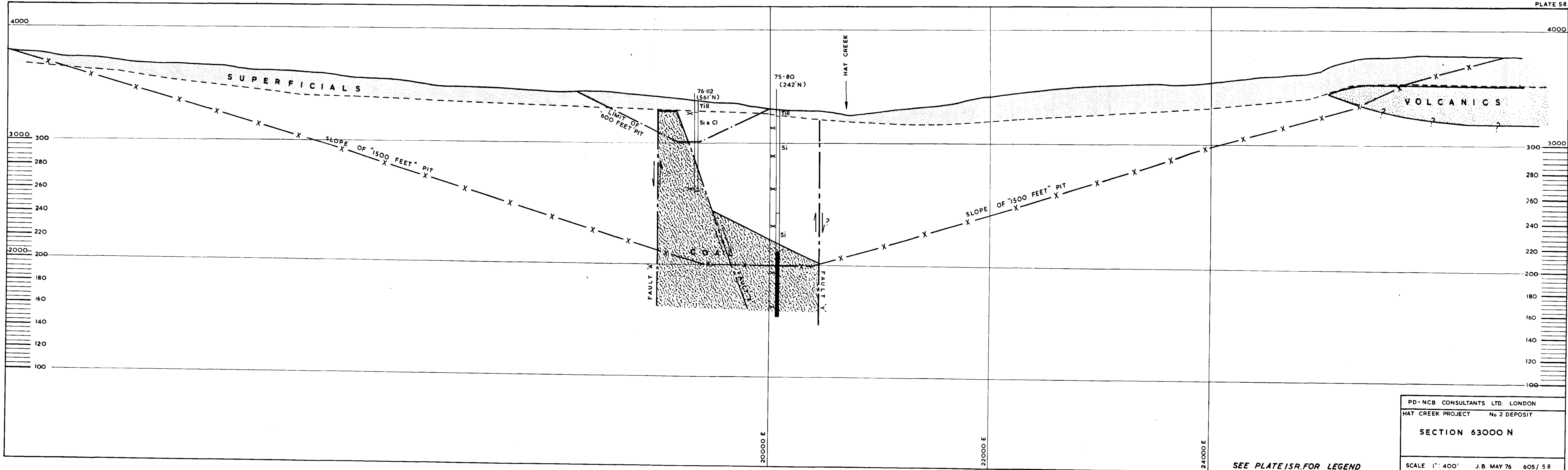
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SECTION 60 000 N
SCALE 1" : 400' J.B. MAY 76 605/56

SEE PLATE 15R, FOR LEGEND



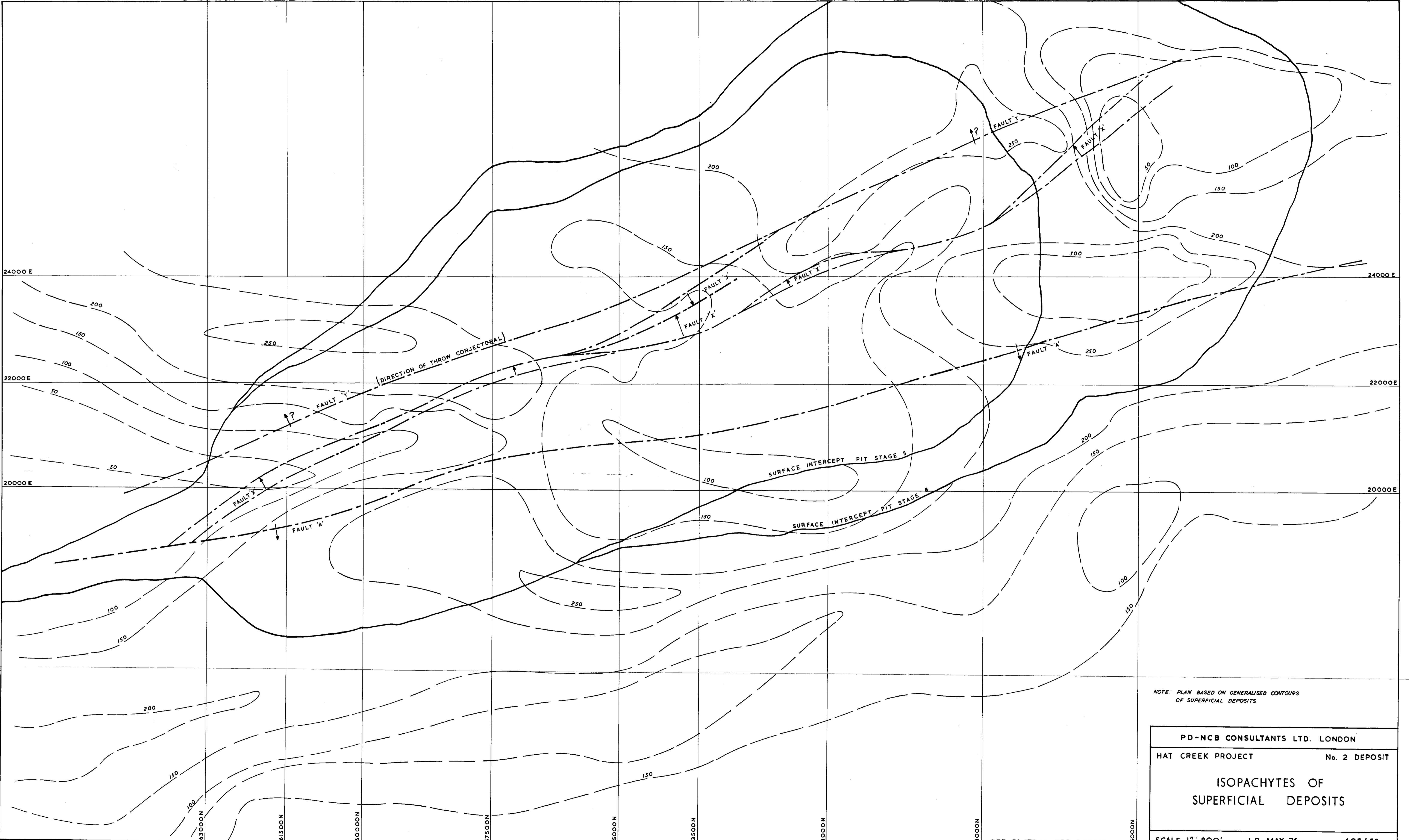
PD-NCB CONSULTANTS LTD. LONDON
 HAT CREEK PROJECT No 2 DEPOSIT
 SECTION 61500 N
 SCALE 1" = 400' J. B. MAY '76 605/57

SEE PLATE 15A FOR LEGEND



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HAT CREEK PROJECT No 2 DEPOSIT
SECTION 63000 N
SCALE 1" = 400' J.B. MAY 76 605/58

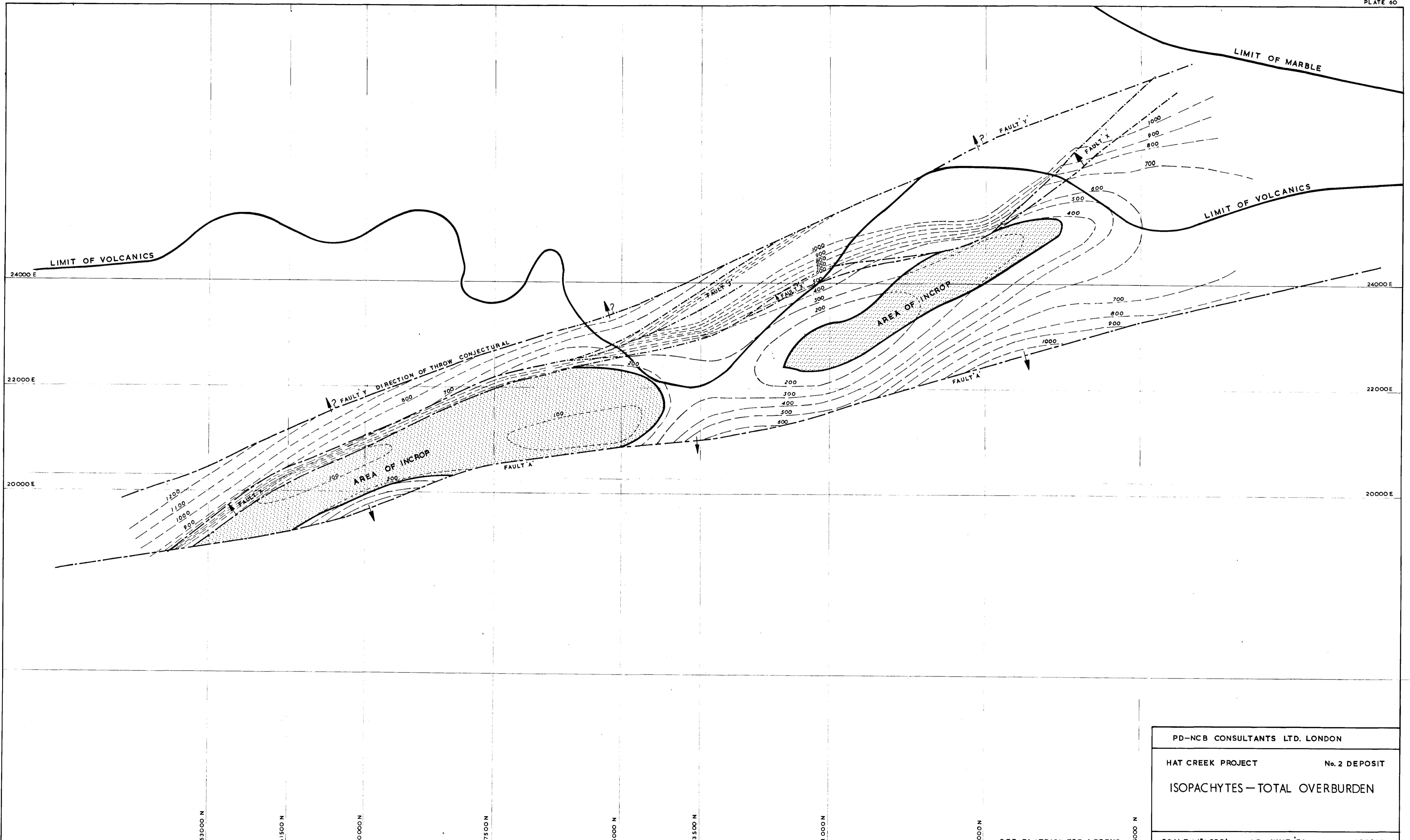
SEE PLATE 15R FOR LEGEND



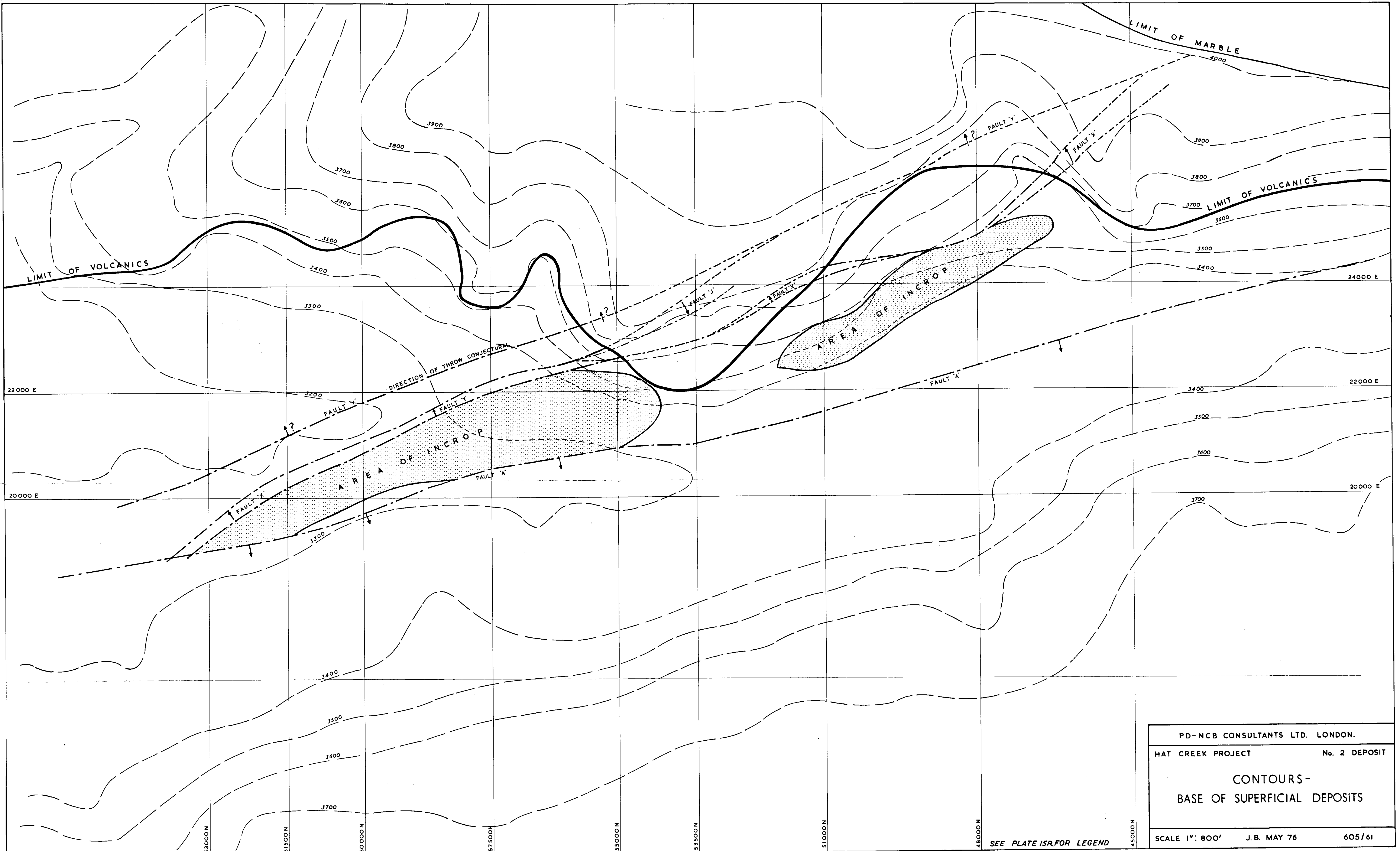
NOTE: PLAN BASED ON GENERALISED CONTOURS OF SUPERFICIAL DEPOSITS

PD-NCB CONSULTANTS LTD. LONDON	
HAT CREEK PROJECT	No. 2 DEPOSIT
ISOPACHYTES OF SUPERFICIAL DEPOSITS	
SCALE 1" : 800'	J.B. MAY 76 605 / 59

SEE PLATE 15R FOR LEGEND

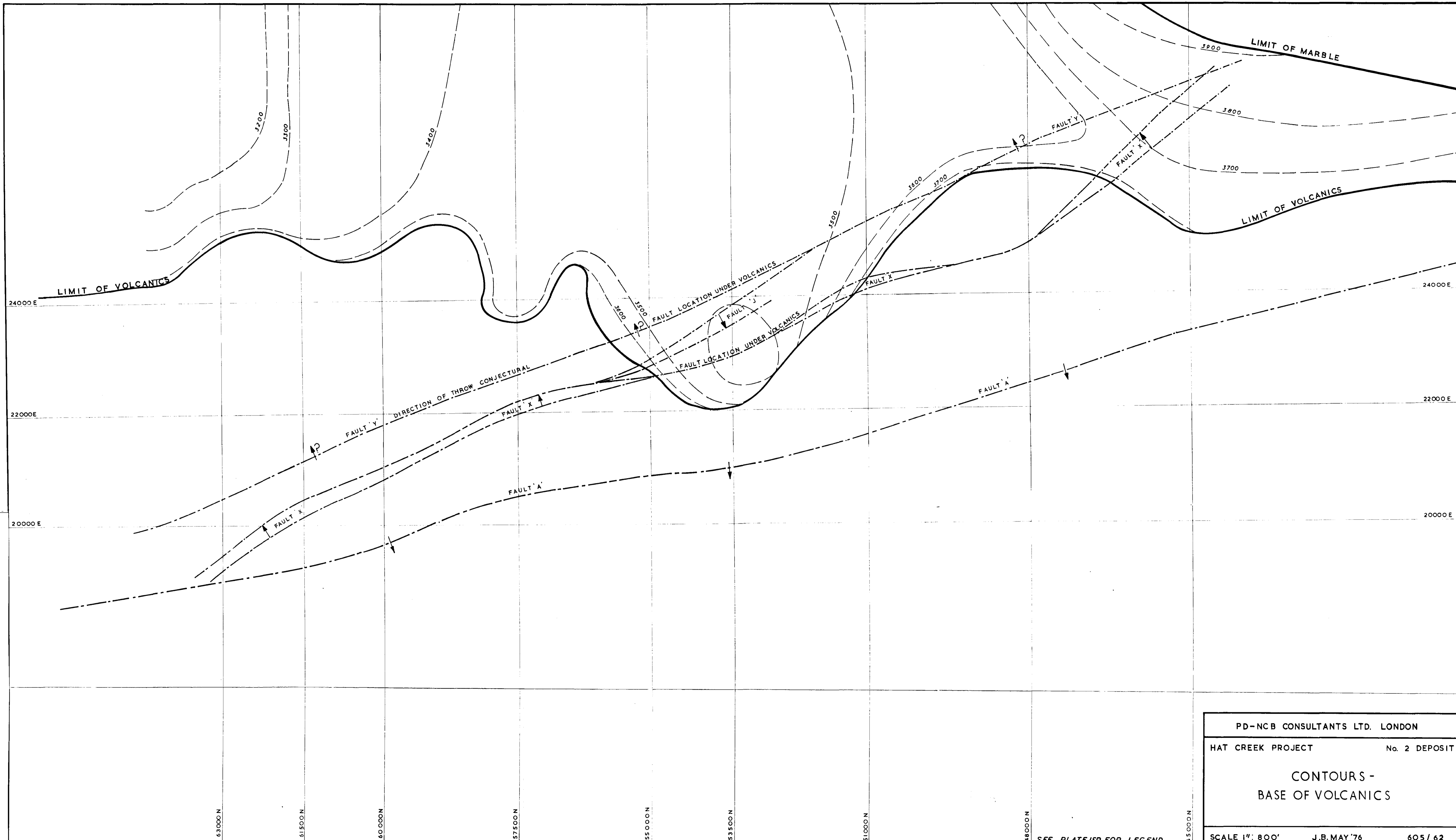


PD-NCB CONSULTANTS LTD. LONDON		
HAT CREEK PROJECT		No. 2 DEPOSIT
ISOPACHYTES — TOTAL OVERBURDEN		
SCALE 1" = 800'	J.B. JUNE '76	605/60



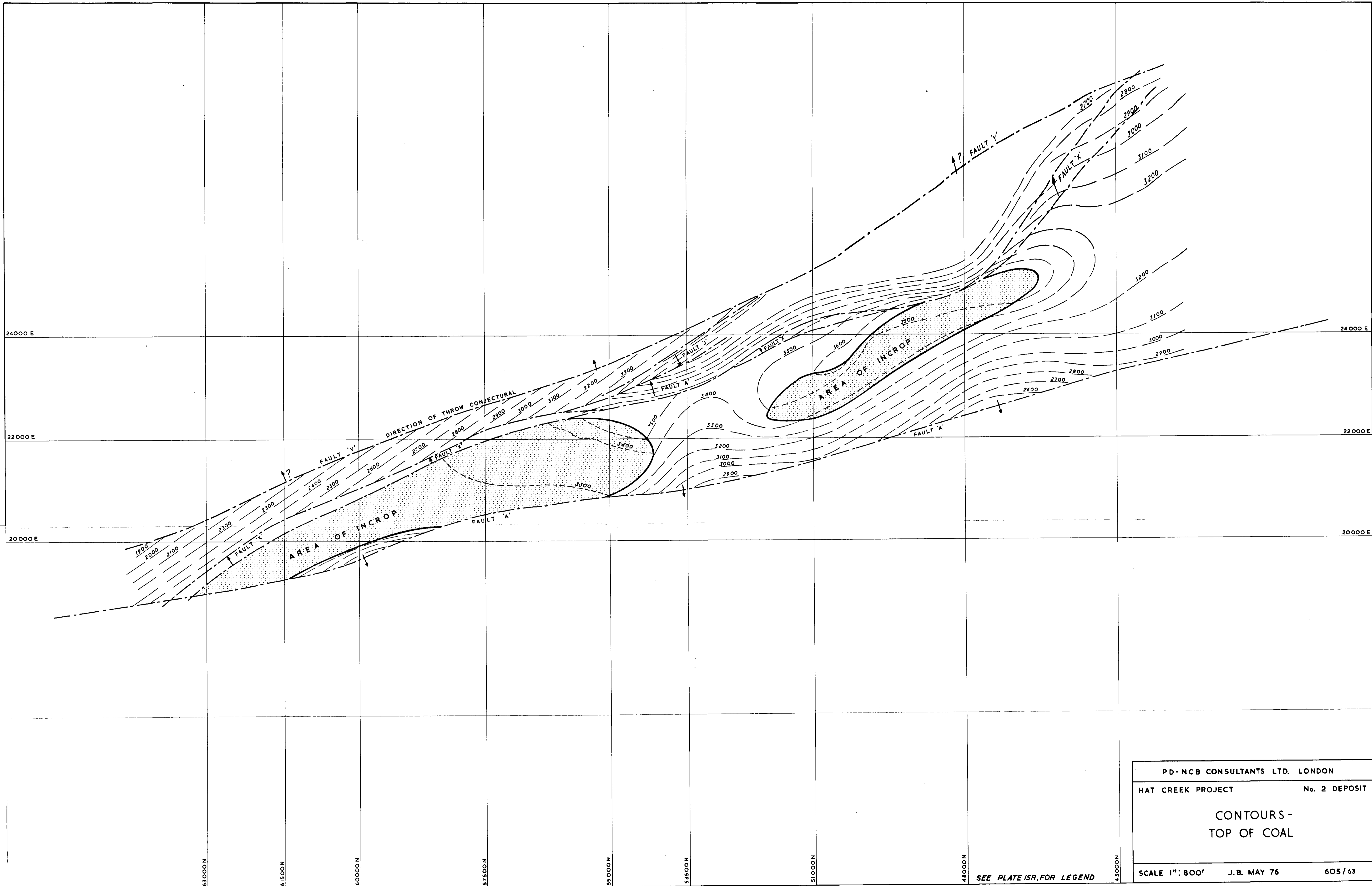
PD-NCB CONSULTANTS LTD. LONDON.	
HAT CREEK PROJECT	No. 2 DEPOSIT
CONTOURS - BASE OF SUPERFICIAL DEPOSITS	
SCALE 1" : 800'	J. B. MAY 76 605/61

SEE PLATE 15R FOR LEGEND



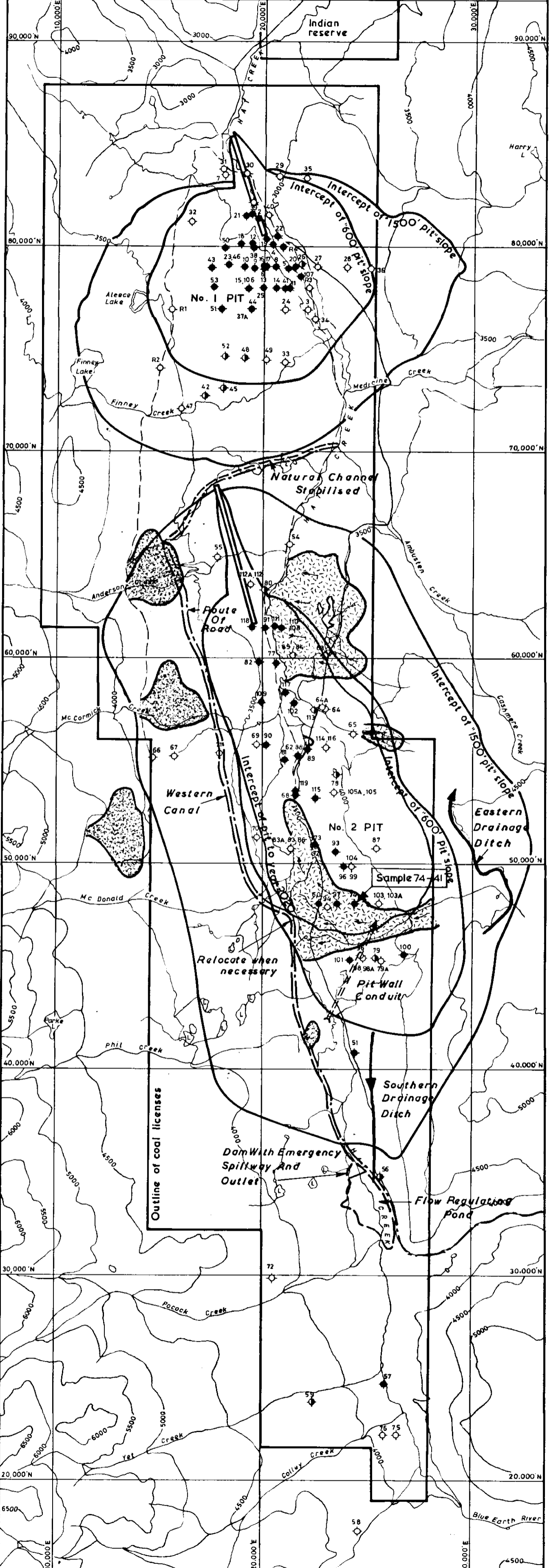
PD-NCB CONSULTANTS LTD. LONDON
 HAT CREEK PROJECT No. 2 DEPOSIT
 CONTOURS -
 BASE OF VOLCANICS
 SCALE 1" : 800' J.B. MAY '76 605 / 62



SEE PLATE 15R, FOR LEGEND



PD-NCB CONSULTANTS LTD. LONDON	
HAT CREEK PROJECT	No. 2 DEPOSIT
CONTOURS - TOP OF COAL	
SCALE 1" : 800'	J. B. MAY 76 605/63

LOCATION OF MUDSLIDE AREAS
 HAT CREEK DIVERSION
 AND ROAD RE-ROUTING
 Scale: 1" = 4000 Feet

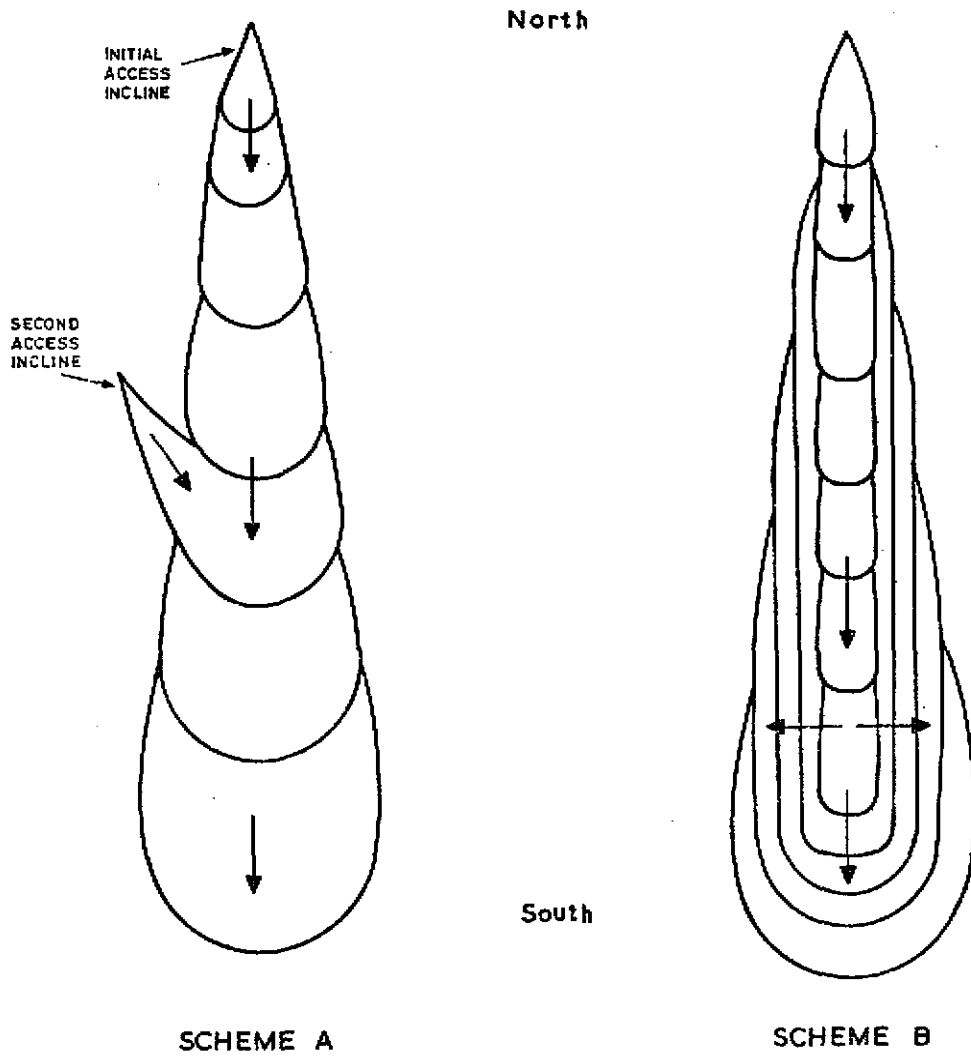


Colluvial soil - active or inactive mudflow or mudslide shown thus 
 Alluvial soil - fan of inactive sand and gravel shown thus 

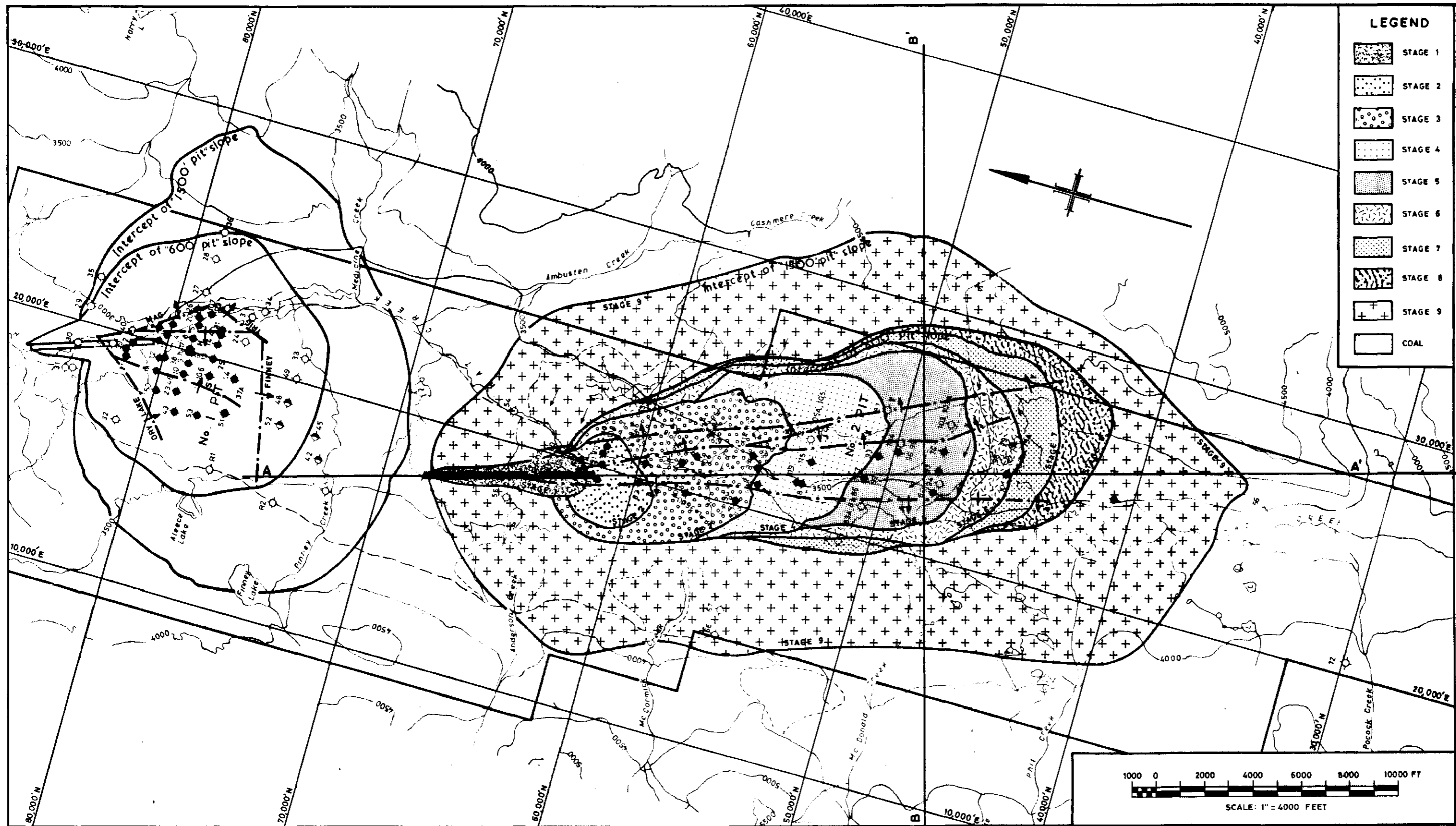
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 ENG'R J. B. DATE MAY 76 DRG. No. 605/64

DIAGRAM OF MINING CONCEPTS

Not to scale

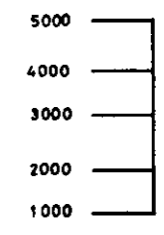
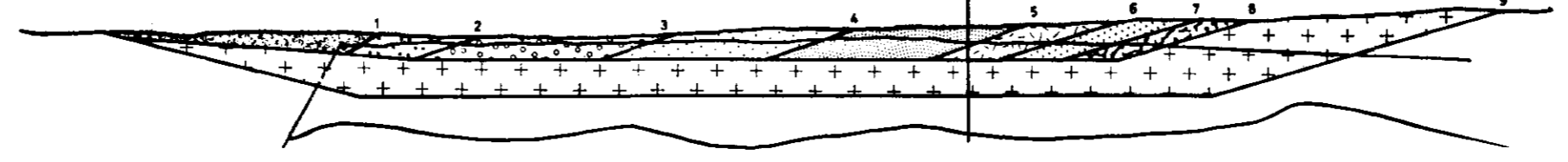
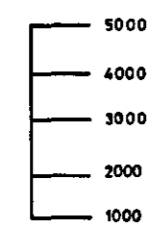
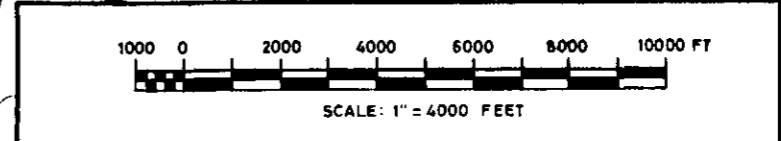
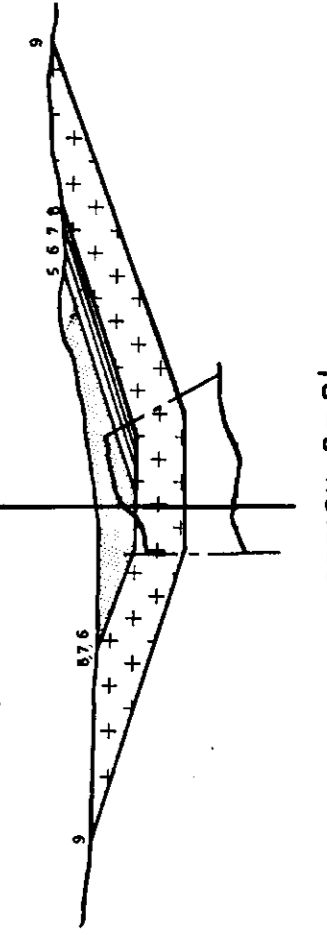
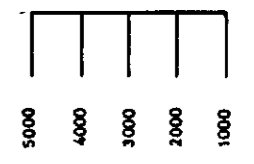


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Eng'r J. B	Date June 76	Drg. No. 605/65



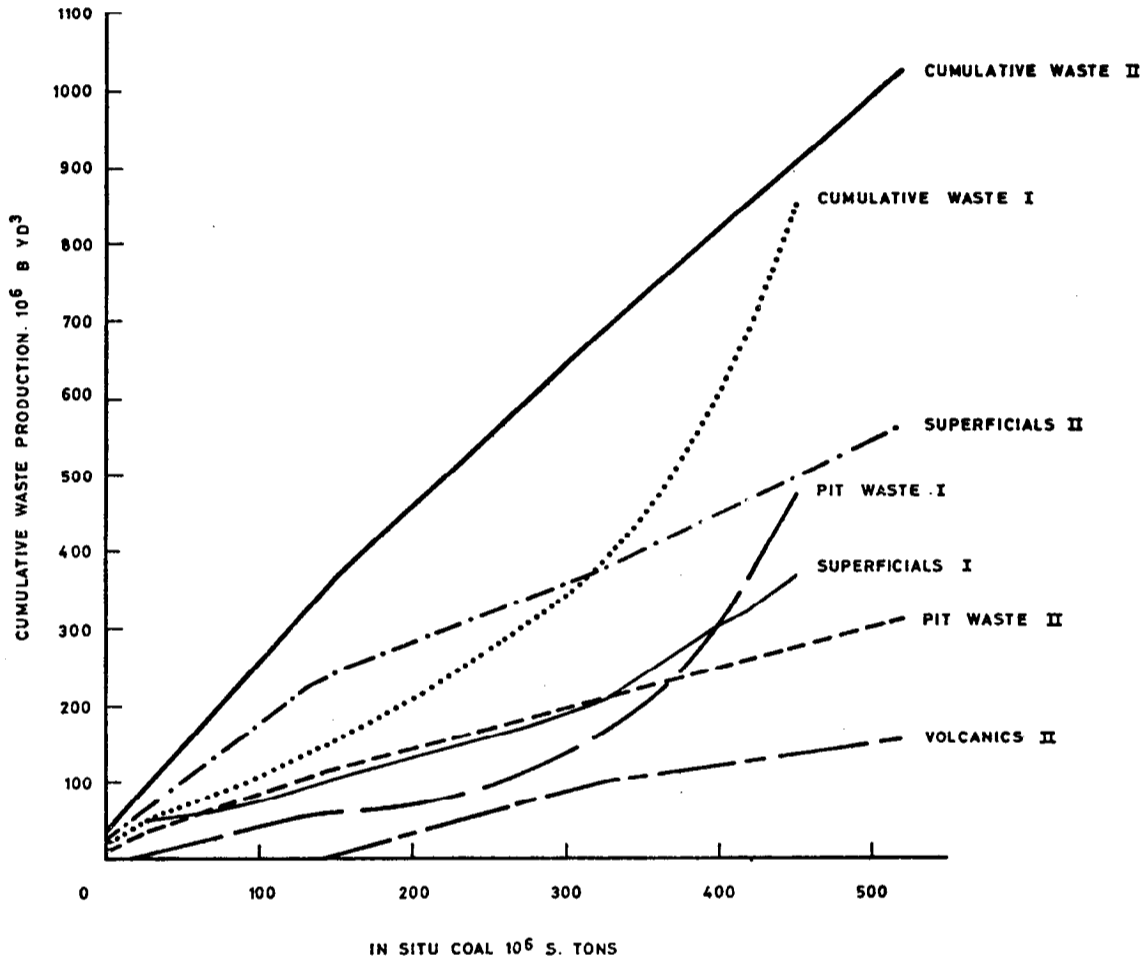
LEGEND

- STAGE 1
- STAGE 2
- STAGE 3
- STAGE 4
- STAGE 5
- STAGE 6
- STAGE 7
- STAGE 8
- STAGE 9
- COAL



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HAT CREEK No. 2 DEPOSIT SURFACE INTERCEPTS OF THE STAGES OF PIT DEVELOPMENT TO 2000 FT. ELEVATION		
Eng'r J. B	Date June 76	Drg No. 605 / 66

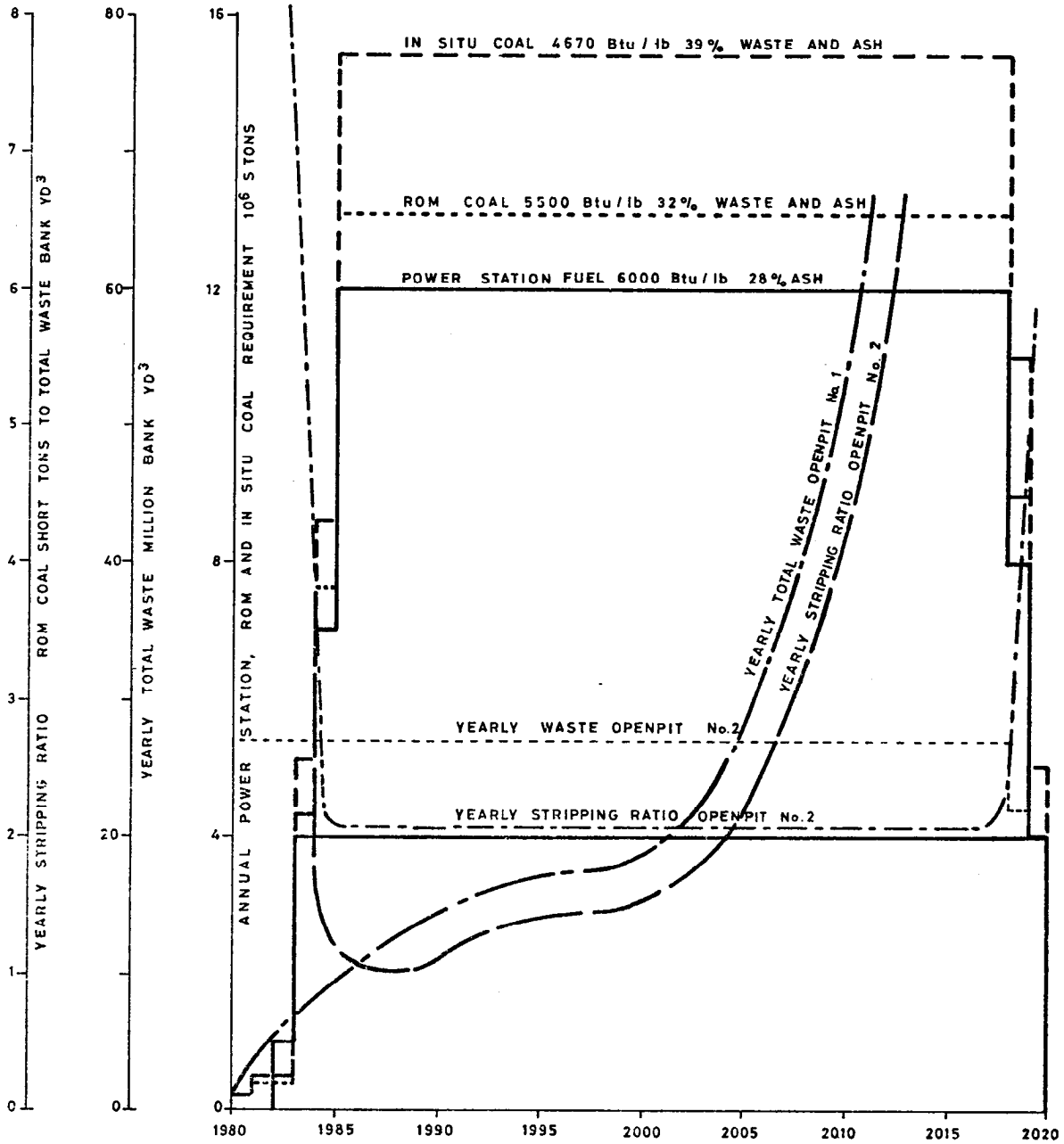
CUMULATIVE WASTE VOLUMES V. CUMULATIVE TONNAGE OF INSITU COAL
(OPENPIT Nos. 1 & 2)



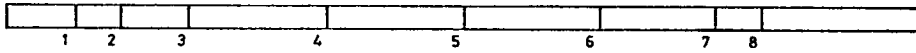
Openpit No. 1 shown to stage B, "600 ft pit"
Openpit No. 2 shown to year 2020, 35years life

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Eng'r. M. A.	Date June 76	Drg. No. 605/67

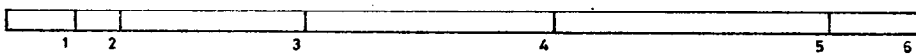
COAL REQUIREMENTS FOR A 3 x 750 MW POWER STATION
 YEARLY WASTE REMOVAL
 YEARLY STRIPPING RATIO
 (OPENPIT Nos. 1 & 2)



OPENPIT No.1
PIT STAGE

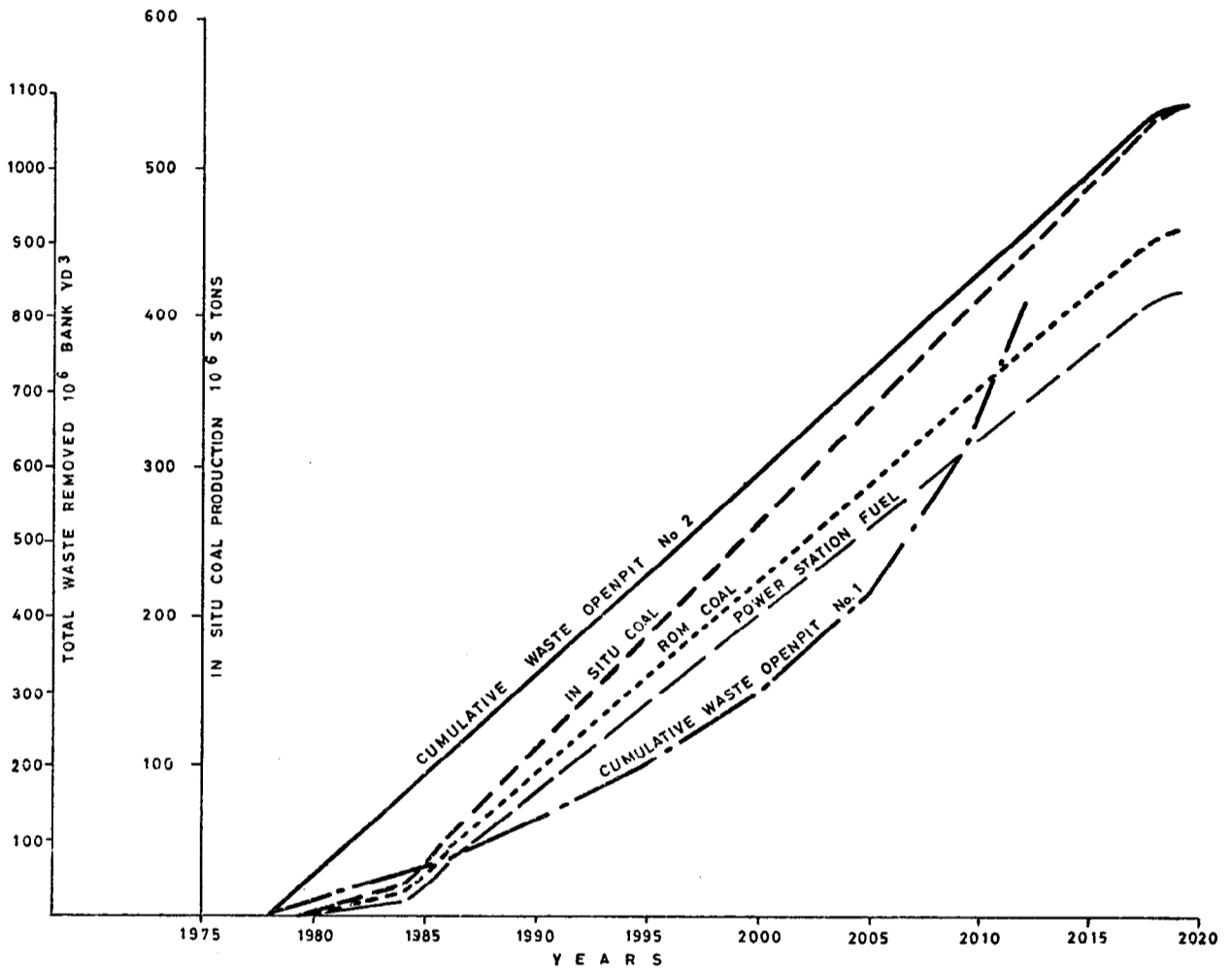


OPENPIT No.2
PIT STAGE

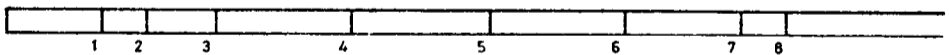


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Eng'r. J. B.	Date June 76	Drg. No. 605/68

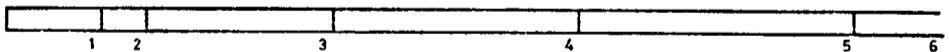
CUMULATIVE COAL REQUIREMENTS FOR A 3x 750 MW POWER STATION
AND CUMULATIVE WASTE MATERIAL
(OPENPIT Nos. 1 & 2)



OPENPIT No 1
PIT STAGE

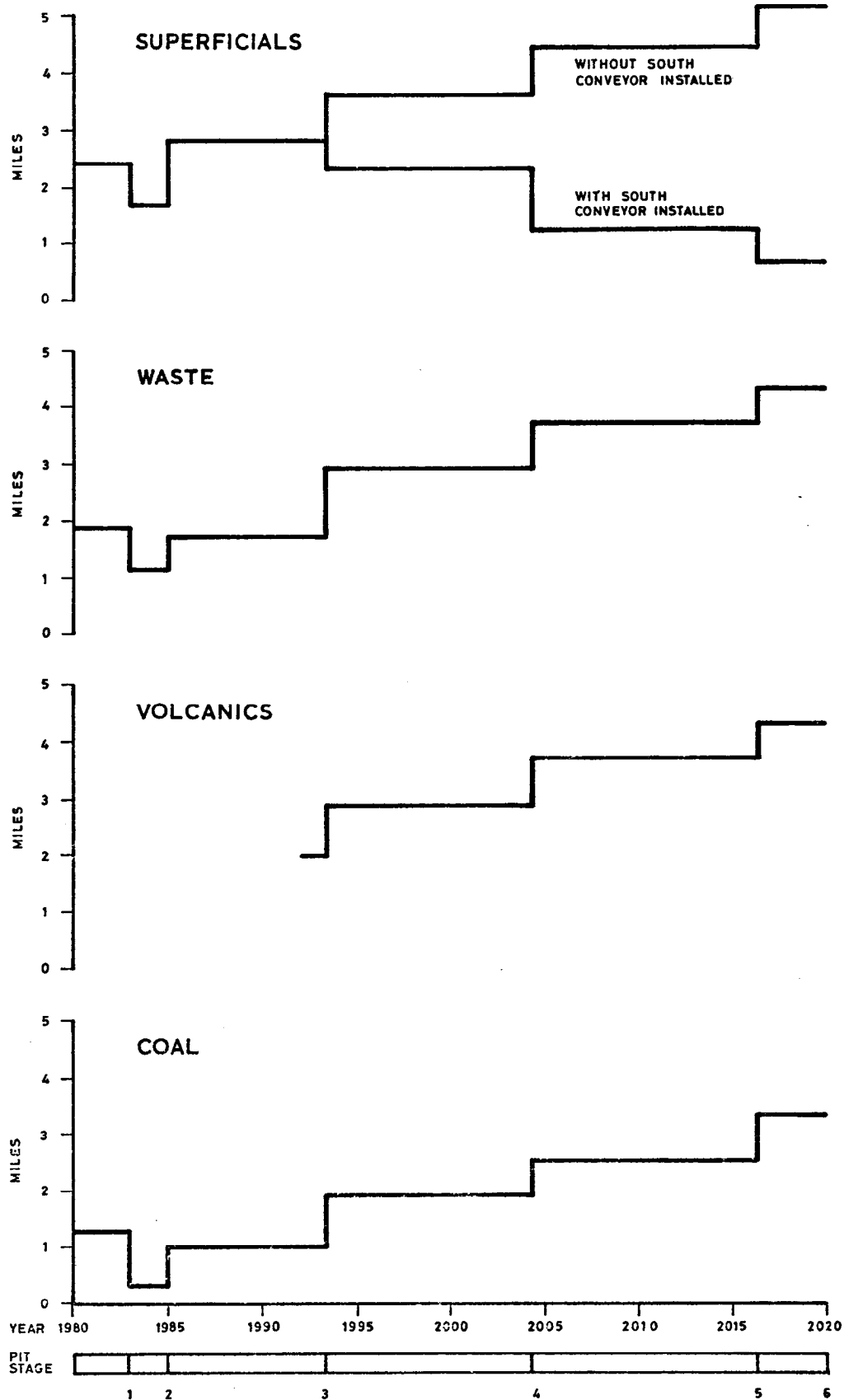


OPENPIT No 2
PIT STAGE



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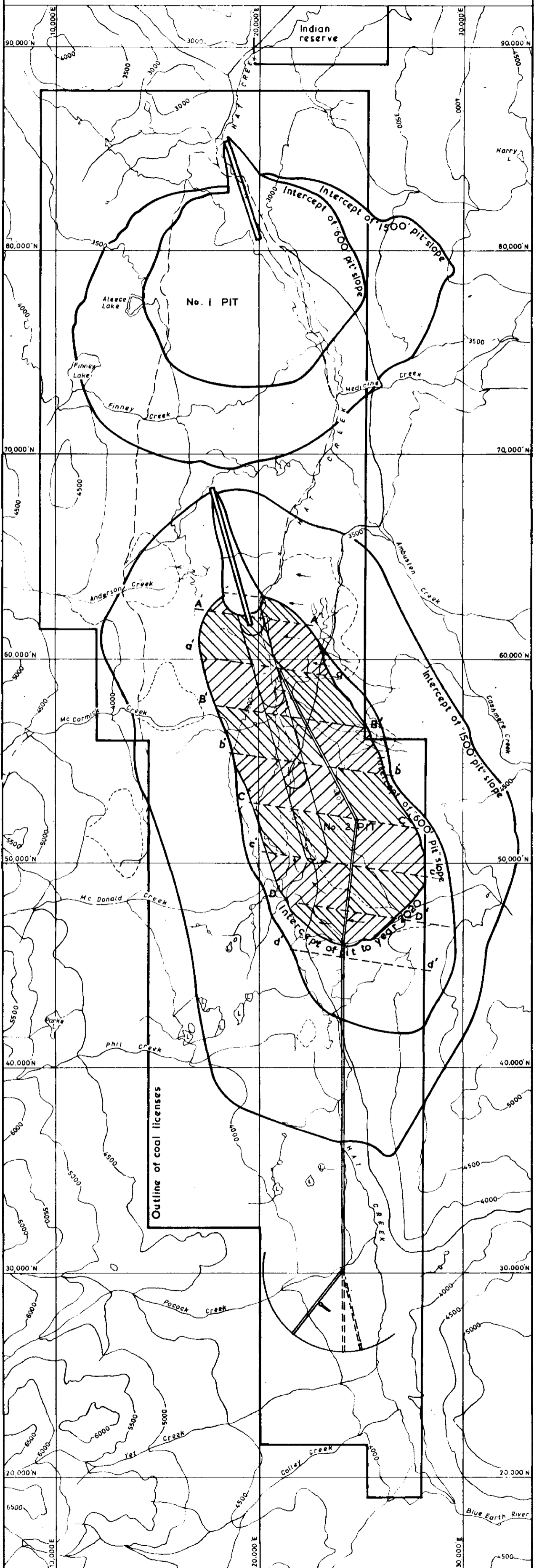
MEAN HAULAGE DISTANCES



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Eng'r. J. B.	Date June 76	Dwg. No. 605/70

SEQUENCE OF SUPERFICIAL REMOVAL
BY BUCKET WHEEL EXCAVATOR

Scale - 1" = 4000 Feet



Indian reserve

Harry L

No. 1 PIT

No. 2 PIT

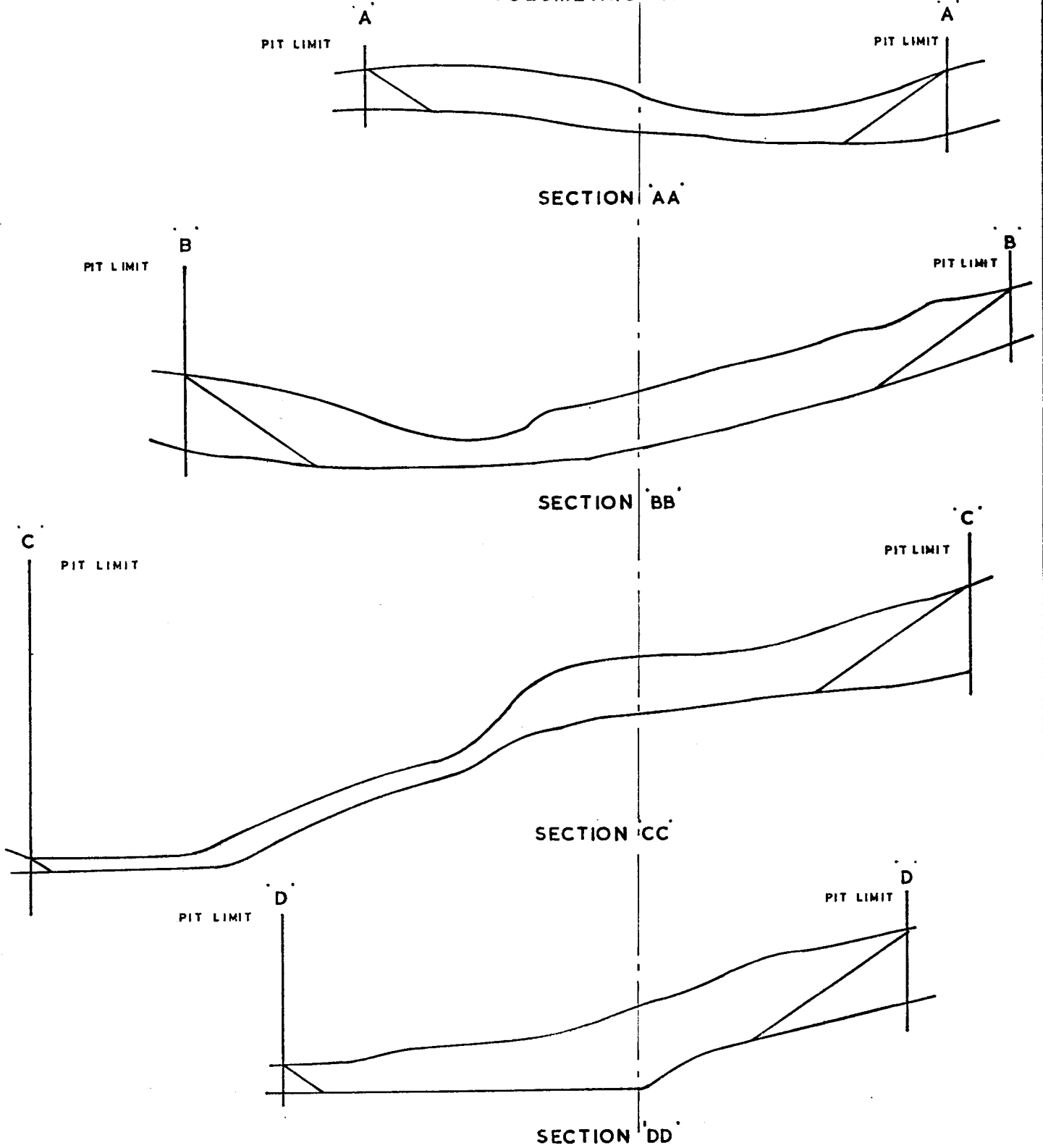
Outline of coal licenses



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K. J. W.	MAY 76	605/71

CROSS SECTION OF PIT SUPERFICIALS PIT No. 2

VOLUMETRIC CENTRE



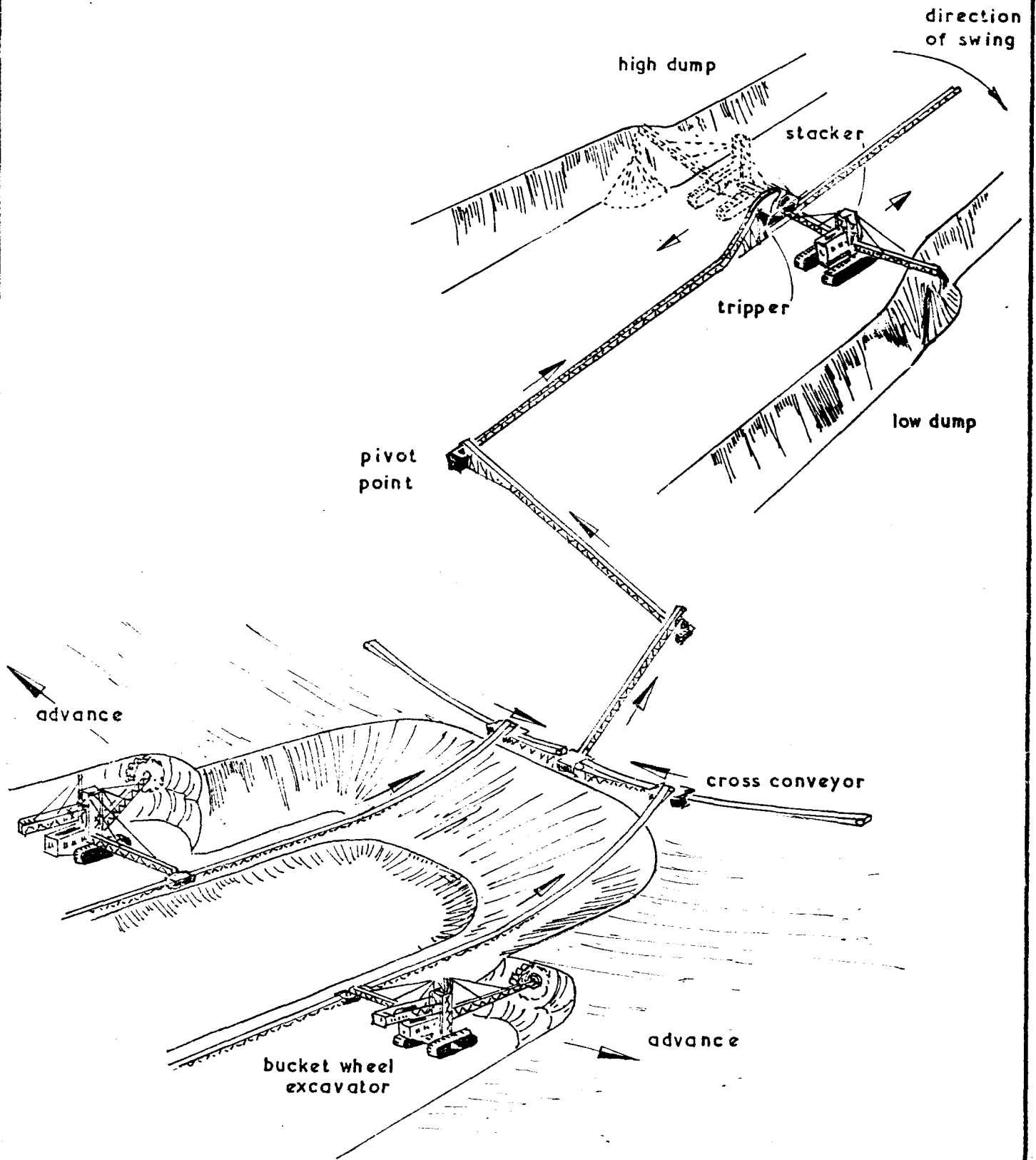
FOR SECTION IDENTIFICATION
SEE PLATE 71

HORIZONTAL SCALE 1" = 1200'
VERTICAL SCALE 1" = 500'

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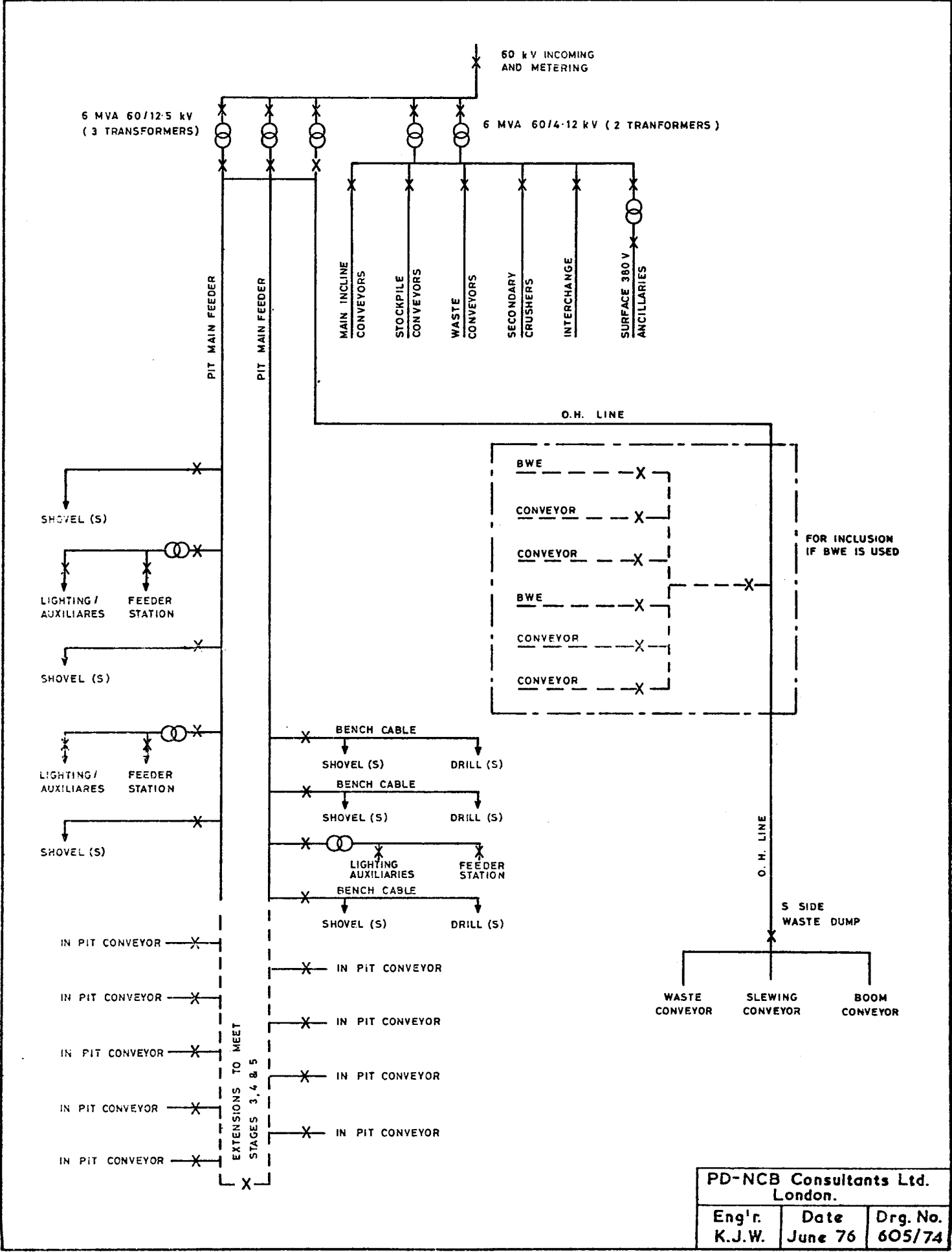
OPENPIT No. 2

DIAGRAMMATIC LAYOUT OF SCHEME FOR SUPERFICIAL REMOVAL
BY BUCKET WHEEL EXCAVATOR



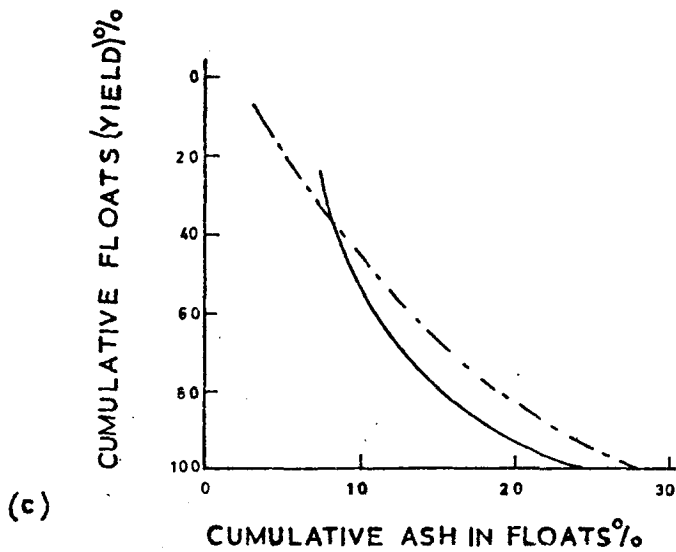
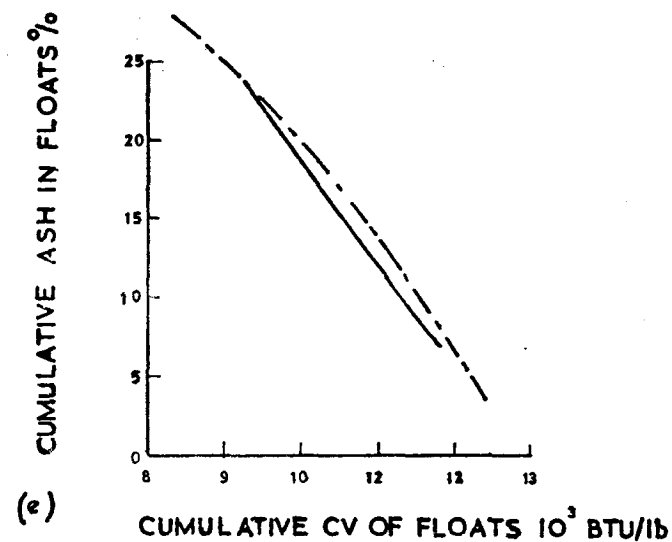
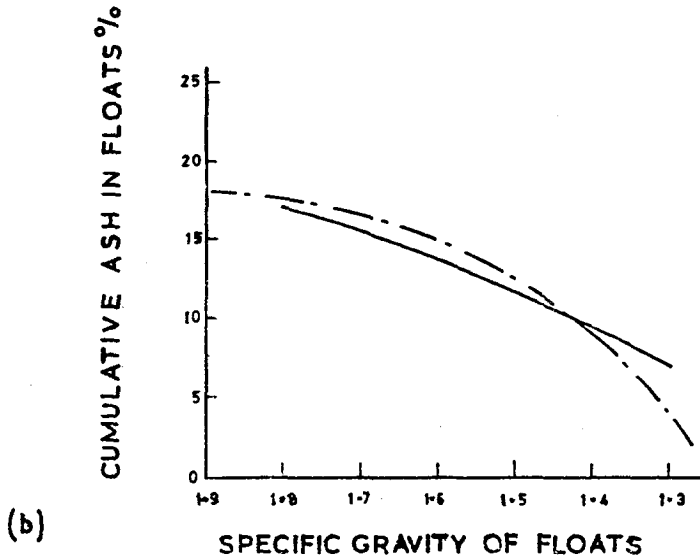
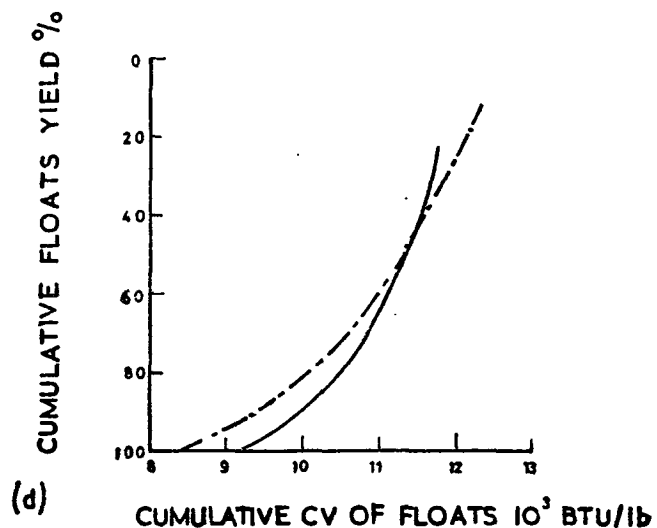
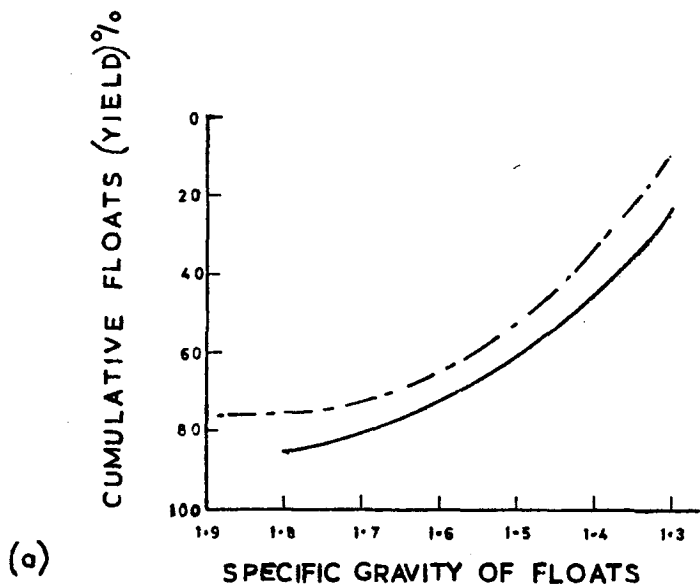
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POWER DISTRIBUTION SYSTEM FOR ULTIMATE PIT



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WASHABILITY CHARACTERISTICS OF A TYPICAL HAT CREEK COAL
BOREHOLE N° 75-74

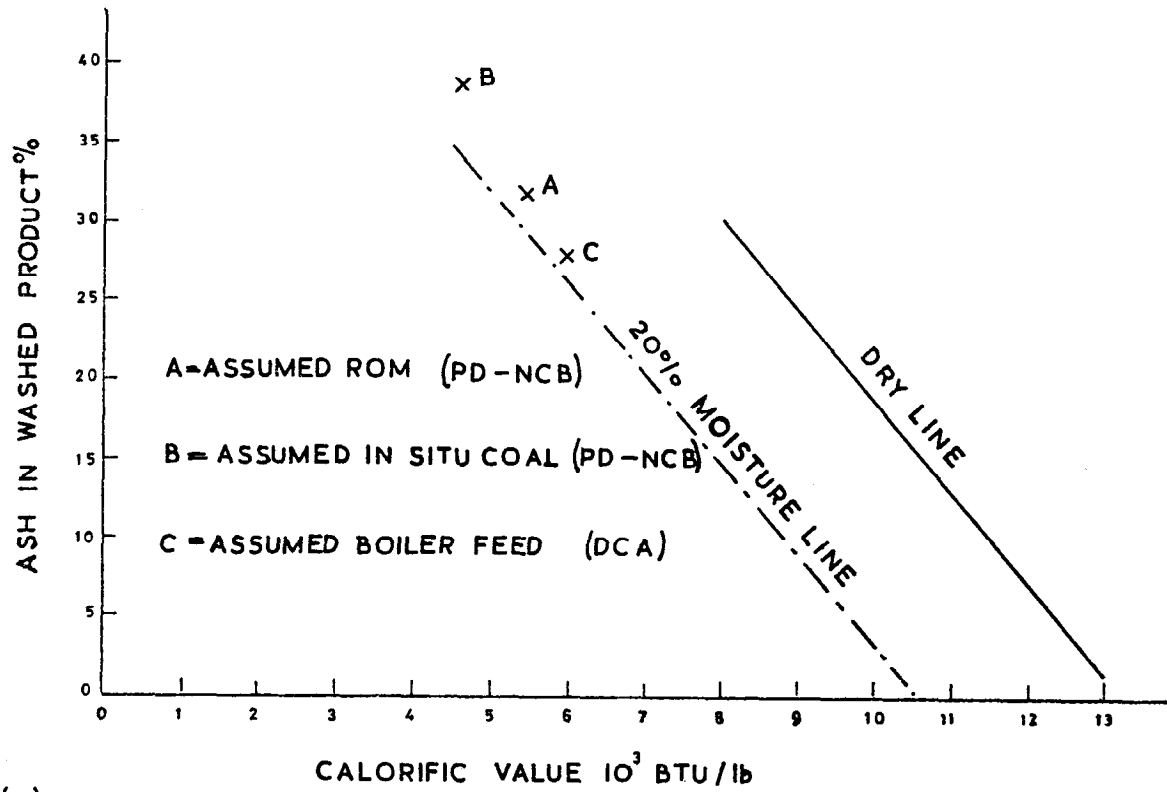


— N.C.B. SAMPLE MINUS 1/4 in
- - - LORING SAMPLE MINUS 1/2 in

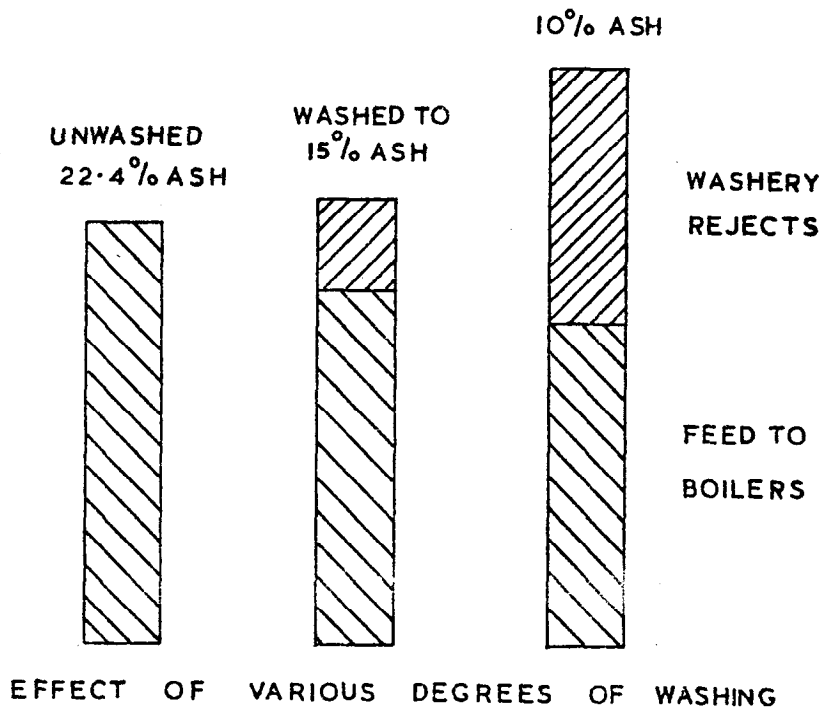
NOTE: ALL FIGURES ARE ON A DRY BASIS

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Eng'r A.J.K.G.	Date MAY 76	Dwg. No. 605/75

LORING SAMPLE FROM BOREHOLES N° 75-74
 REPLOTTED TO SHOW EFFECT OF MOISTURE



(a)

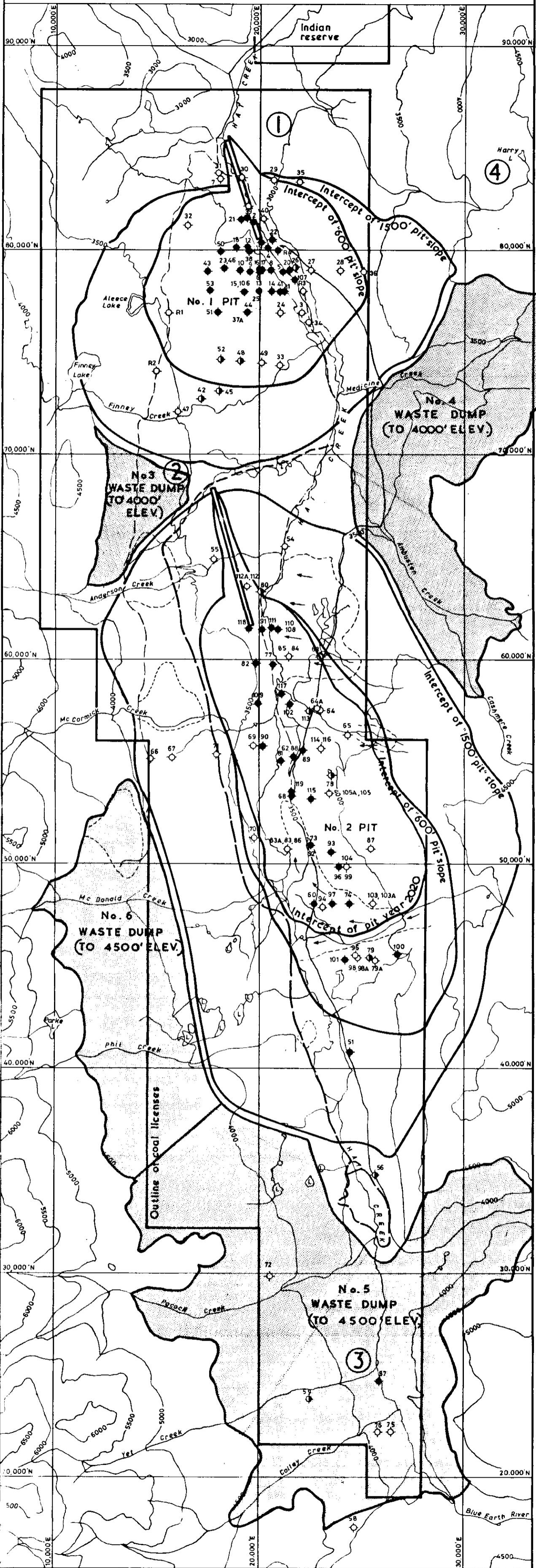


(b)

PD-NCB Consultants Ltd. London		
Eng'r A.J.K.G.	Date MAY 76	Drg. No. 605/76

PLAN OF AREAS AVAILABLE FOR SUPERFICIALS,
PIT WASTE AND ASH DISPOSAL

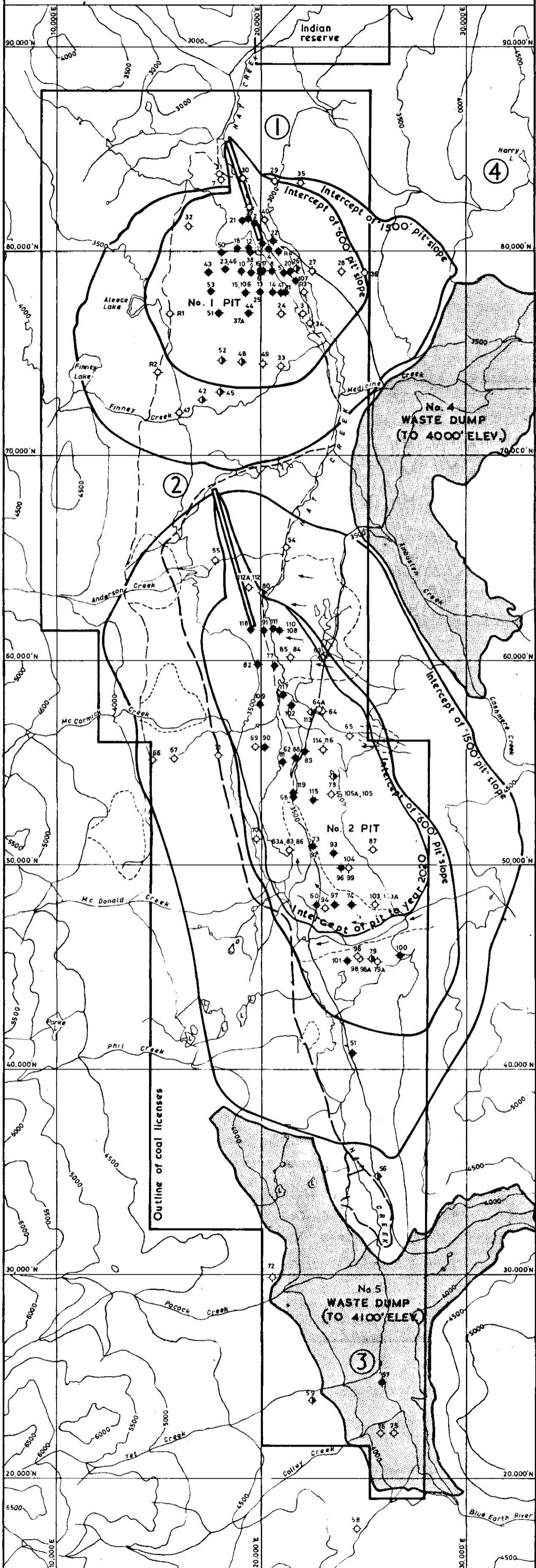
Scale 1" : 4000 Feet



Possible power station sites shown thus (3) Volumes of dumps are summarized in table

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 J. B. MAY 76 605/77

PLAN OF SUPERFICIALS, PIT WASTE
AND ASH DISPOSAL — PIT TO
YEAR 2020 Scale 1" = 4000 Feet



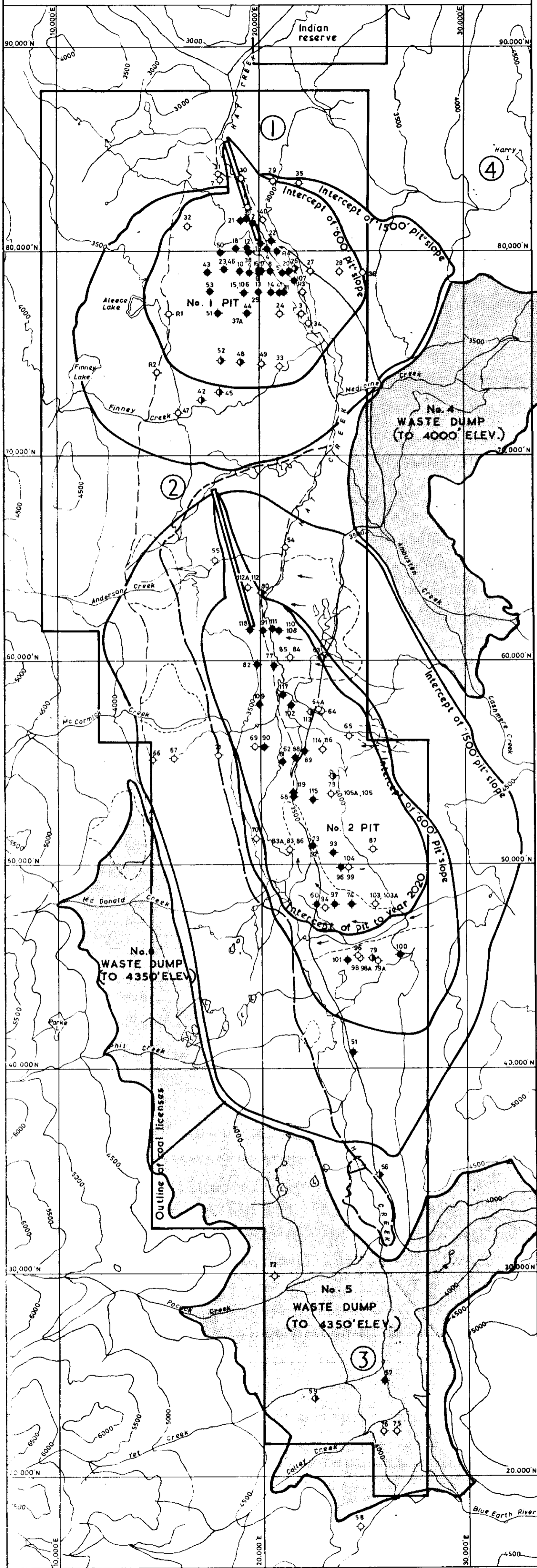
Possible power station sites shown thus: Volumes of dumps are summarised in table.

3

PD-NCB CONSULTANTS LTD. LONDON

ENG'R J. B.	DATE MAY 76	DRG. No. 605/78
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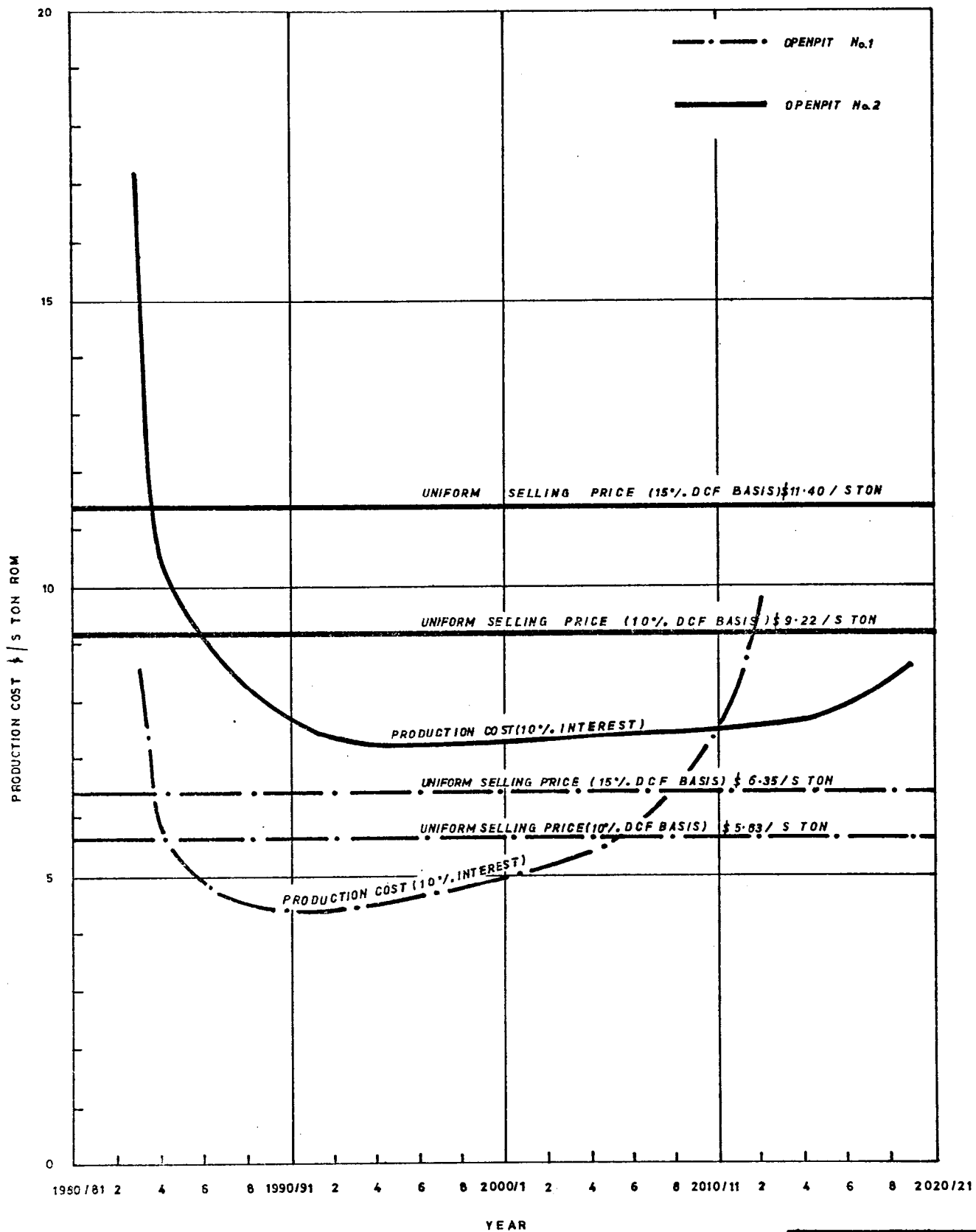
PLAN OF SUPERFICIALS, PIT WASTE
AND ASH DISPOSAL — 600 FT. PIT
Scale 1" = 4000 Feet



Possible power station sites shown thus 3
 Volumes of dumps are summarised in table

PD-NCB CONSULTANTS LTD. LONDON		
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PRODUCTION COST AND UNIFORM SELLING PRICE
(Uninflated 1975 prices)



PD NCB Consultants Ltd. London		
Eng'r.	Date	Drg.No.
S.C.B.	JUNE '76	605/80