

~~CONFIDENTIAL~~
PR-BULLMOOSE 71(C)A

CONFIDENTIAL
FILE

TECK CORPORATION LIMITED
SUKUNKA PROJECT
(BULLMOOSE)
PROGRESS REPORT NO.2
JUNE 15 TO AUGUST 31, 1971.

SUMMARY

Teck Corporation Limited's exploration programme on the Sukunka Block 'B' property commenced with geological mapping on June 13, 1971.

During the early stages of mapping, several coal showings, which were located in the southeast section of the property, were later revealed by hand trenching and bulldozer stripping to be part of a thick succession of coals, shales, siltstones and sandstones totalling some 55 feet in thickness.

Only the uppermost coal seam in the exposed section appears to have an appreciable depth. However, its thickness is highly variable owing to penecontemporaneous erosion.

Diamond drilling, which began on August 10 has revealed that a definite facies change occurs on the property in the Gething formation. Diamond Drill holes T-1 and T-4 intersected between 13 and 14 feet of Chamberlain seam while D.D.H. T-2 intersected approximately 3.1'. The seam in T-3 was interbedded with up to 60% shale.

The full nature and extent of the facies change will not be known until further drilling is carried out.

As of August 31, 3,522' of the 15,000' of drilling planned for the programme had been completed,

WEATHER

The wet weather that was experienced throughout the first 2 weeks of June continued until the middle of July, with moderate to heavy rain falling on a total of 20 days during the 30 day period.

The weather from July 16 to August 31 was characterized by clear warm sunny days with only rare rainy periods occurring.

GEOLOGY

Geological mapping of the Sukunka Block 'B' property was carried out by R. E. **Hindson** and G. Keevil and was conducted mainly throughout the first two weeks of July and August. During periods when R. **Hindson** was engaged in making arrangements for the commencement of the drill programme and was absent from the property, G. **Keevil** was transferred to the Brameda-Coalition project to assist R. **Verzosa**.

Mapping to date has been confined to the properties higher elevations, Very few traverses have been run below the thick succession of sandstones that form the floor of the Chamberlain coal seam.

During the early stages of mapping, several coal showings were located along a steep escarpment which lies in the southeast section of the property (hereafter referred to as the southeast face).

Hand trenching exposed a rather clean coal seam measuring 5.8' in thickness which was sampled in detail (the results are listed under Sampling in this report). Later bulldozer stripping revealed that the seam was only the first of many in a thick succession of coals, shales, siltstones and sandstones **totalling** between 50 and 60 feet in thickness.

The uppermost coal seam is the thickest of those exposed in the one half mile stripped area. However, its thickness is variable owing to the fact that it frequently has a sandstone roof and often contains sandstone lenses which are indicative of wash-outs.

The exposed section also reveals gentle anti-clinal and **synclinal** folding at the elevation at which the coal lies. Geological mapping to the southwest of the exposure indicates that the coal horizon, which has an average dip to the southwest, may descend in elevation with

the aid of a series of steep **monoclines**,

Dips on the property in the areas thus far mapped vary between 0° and 86° with the average estimated to be between 7° and 11° . The steepest dips recorded lie in the vicinity of Mt. Chamberlain along the southwest boundary of the property which is marked by the north-east limb of a northwest striking anticline. The only other steep dips recorded in the course of mapping to date lie in a vicinity between drill sites B-1 and C-5 along the southeast face. Dips up to 36° have been noted in this area.

No evidence of faulting has yet been indicated by **surface** exposures. However, a fault in D.D.H. T-1 was located at 864.7' at the base of the first coal seam intersected upon entering the Gething Formation.

Drilling completed to the end of August indicates that a definite facies change occurs on the property in the Gething Formation. The full nature and extent of the facies change is not yet known.

For geological sections of the first four drill holes completed and a section through the stripped area see Appendix 'A'.

A final geological map is in preparation at the property and will not be available for re-print until the end of the **programme**. In the meantime, a map that was prepared at an earlier date to illustrate photo geological interpretation and proposed drilling sites, is included in this report to **show** the location of drill holes, drill **sites**, roads and stripped areas.

DRILLING

On July 14, 1971, a contract for 15,000' of drilling was let to Connors Drilling Limited of Vancouver, B.C.

Drill No. 1, a **Longyear** 44, was moved onto the property on

August 5th and drilling began on August 10th. During a period ending August 31st, drill no. 1 completed 2752' in two holes (T-1 and T-3) for an average of 125' per day.

Drill No. 2, a Longyear 38, arrived at the property on August 17th and commenced to drill on August 21st. To the end of August, drill No. 2 has completed 770' in 3 holes for an average of 77' per day.

Although the No. 2 drill has had shorter holes to contend with the crews do not appear to be very efficient and their performance to date is less than satisfactory. The No. 2 drill is scheduled to drill a deep hole in the near future and if its record does not improve, the crews are to be replaced.

Drill casing is being left in all of the deep holes and all holes are being cemented on completion.

The average direct cost per foot for the 3,522' drilled to August 31st is \$8.21.

Drill Holes completed to August 31, 1971:

<u>Hole No.</u>	<u>Site No.</u>	<u>Date Commenced</u>	<u>Date Completed</u>	<u>Total Depth of Hole</u>	<u>Drill No.</u>
T-1	A-1	Aug. 10	Aug. 17	1147'	1
T-2	A-4	Aug. 21	Aug. 22	195'	2
T-3	B-2	Aug. 20	Aug. 30	1605'	1
T-4	A-2	Aug. 24	Aug. 28	357'	2
T-5	A-3	Aug. 30	not completed	218'	2

4
3522'

Next Scheduled Drill Holes:

<u>Hole No.</u>	<u>Site No.</u>	<u>Estimated Total Depth</u>
T-6	B-3	1500'
T-7	c-5	300'

3,522

\$28,915.62

SAMPLING

The hand trench which first exposed the uppermost seam at the southeast face was sampled in detail and the results are listed below.

Coal samples from D.D.H.'s T-1 to T-4 have also been submitted for analyses. However, the tests have not yet been completed.

FOR HAND TRENCH SAMPLED ANALYSIS

REFER TO: PR - EULLMOOSE 71(A)A

CONFIDENTIAL ANALYSIS FILE

STRIPPING

Stripping has been conducted along a ½ mile section of the southeast face to expose the coal showings that were located during the course of geological mapping (for location see map). In places up to 53' of section has been exposed with the minimum exposure being 10 to 15'.

The area was a difficult one in which to work owing to the attitude of the terrain which in many places dipped between 75 and 90°. Sandstone blocks weighing up to 20 tons often spalled off at the working face as the Cats were stripping, creating hazardous working conditions. Blasting sometimes had to be carried out to move some of the larger talus blocks.

A total of 448.5 Cat hours was spent on the stripping at a cost of \$12,400.13.

It is not anticipated that any more stripping will be conducted for the duration of the programme.

ROAD CONSTRUCTION

Over 150 Cat hours were spent on road repair during the rainy period from mid June to mid July so that access to the **Teck** property could be maintained.

New road construction on the property was of a limited nature until the commencement of the drilling programme.

New road construction to August 31	9.2 miles
Roads maintained - Teck property	3.0 miles
Roads maintained-for access to Teck property	5.0 miles
Pump roads - for drill water	0.8 miles
Drill sites prepared to August 31	A1, A2, A3, A4 B2, B3, B4 c2, c3, c5

CAMP

The **Teck** base camp (Base Camp 1 - see map) is located in the north central sector of the Sukunka Block 'B' property at an elevation of 5,550'.

Up until August 2nd the camp consisted of one 14 x 16' -tent with wooden frame and floor. In order to facilitate the crews for the drill programme, the camp was expanded to include the following:

- 1 - 10 x 52 kitchen-diner storeroom trailer
- 1 - 10 x 36 washcar - office complex trailer
- 2 - 10 x 52 8 man sleepers trailers

The four trailers have been leased (with option to purchase) from

Crown Catering Ltd. of Edmonton, Alberta. The rental rate is \$75.00 per day with no minimum rental period. The total purchase price for the units is \$26,000 and **70%** of all rent paid is to be applicable at any time.

The trailers, which were in storage in Grande Prairie, were trucked to the Brameda Base Camp and from there they were moved some 11 miles to the **Teck** Camp by Cat.

All four trailers are propane fired and they are served by two 500 gal. propane tanks.

A 1000 gal. septic tank has been installed to dispose of waste.

Power to the camp is provided by a rented 11 KVA Lister generator. A 30 KVA Caterpillar generator is on standby at a cost of **\$20.00/month.**

In late September the camp is to be moved to Bullmoose Creek at an elevation of approximately 3,500'.

CATERING

Catering services at the **Teck** camp are being provided by Arctic **Services** Ltd. of Vancouver. The catering firm is supplying bedding and meals at a cost of \$7.60 per man day with a 10 man minimum. **Casual meals** and lodgings are charged out at a rate of **\$2.50** each.

TRANSPORTATION

Two Hodaka motorcycles were the sole means of transportation on the property until August 6th **when** a truck **was** rented for a **one** week period to help move supplies while the camp was being expanded. A **Teck** Land Rover was later transferred from the Coalition project to replace the rented vehicle.

PERSONNEL

June 1 - August 1 (Approx.)

Supervision - Geologist	1
Geological - Student assistant	1
cat operators	2 - 4
TOTAL	1 - 6

August 1 - August 31 (approx.)

Supervision - Geologist	1
Geological Assistant	1
Field Assistant	1
Camp Labourer - Field Assistant	1
Drill Foreman	1
Drillers	8
Cook	1
'Cat Operators	1 - 2
TOTAL	15 - 16

Respectfully submitted,



R. E. Hindson
Project Manager

Distribution:

Dr. N. B. Keevil Jr., (2)
R. E. Hallbauer
W. R. Bergey
L. S. Trenholme

TECK CORPORATION LIMITED

Statement of Expenditure & on Coal Licences

of **Brameda** Resources Limited

June 15 - August 31, 1971

Diamond Drilling (Connors Drilling Ltd.)	\$28,917.22	
Bulldozing (P. & P. Demeulemeester)		
Roads		
Trenching		
Hauling	28,553.51	
Trailer Rentals:		
Crown Caterers	2,175.00	
Board:		
Arctic Services	2,309.65	
		<hr/>
Total Cost Available August 31, 1971		\$ 61,955.38

*Main items of expenditure only.

Final statement of expenditures to September 21, 1971 will be supplied as **soon** as possible.



R. E. Hindson
Project Manager

CERTIFICATION OF ASSESSMENT WORK
SUKUNKA COAL LICENCES

I have examined the foregoing report of work performed by **Teck** Corporation on Coal **Licences** issued to **Brameda** Resources Limited, together with statement of expenditures and I am satisfied that both statements are essentially correct.



M. M. Menzies
Professional Engineer

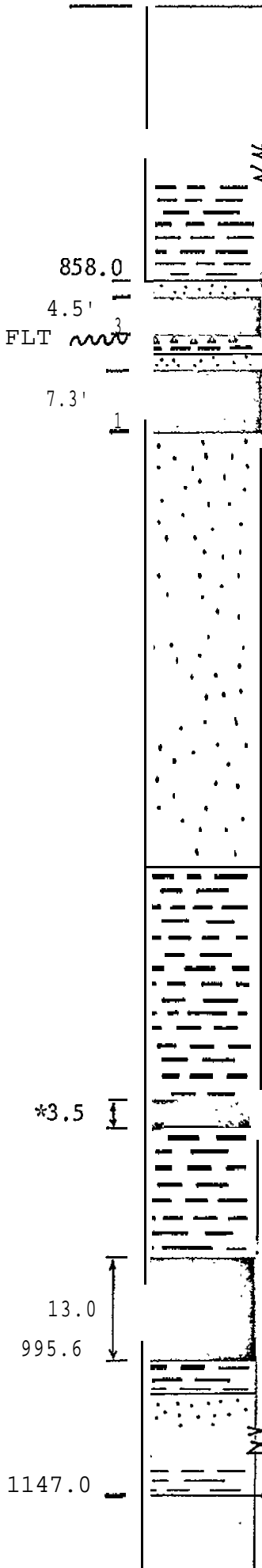
APPENDIX A

Collar 0.00

D.D.H. T-1

SITE : . & I

Scale : lin. = 20 ft.



MDSN
 SASN (GN, PY)
 COAL (PY)
 BRXX (CA)
 MDSN
 SASN (GN, PY)
 COAL (PY)

MOOSKBAR
 GETHING
 MOOSEBAR
 GETHING

SASN

SHAL

*3.5

COAL

SHAL

13.0

COAL

995.6

SHAL

1147.0

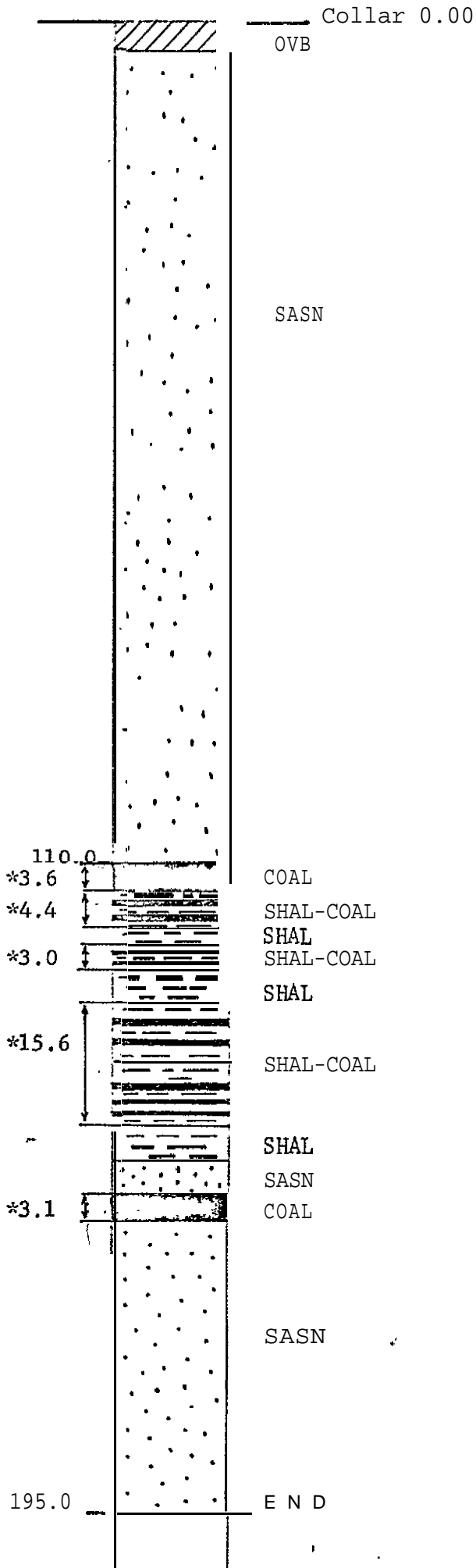
END

SASN - SANDSTONE
 SLSN - SILTSTONE
 SHAL - SHALE
 MDSN - MUDSTONE
 BRXX - BRECCIA
 GN - GLAUCONITE
 PY - PYRITE
 CA - CALCITE
 5.0 ↑ - WIDTH OF SEAM
 *3.5 - 4100% RECOVERED
 ~~~~~ - FLT. - FAULT

TECK CORPORATION LTD.

BULLMOOSE PROJECT

0



GETHING

D.D.H. T-2

SITE: A-4

Scale: lin. = 20 ft.

- SASN = SANDSTONE
- SLSN = SILTSTONE
- SHAL = SHALE
- MDSN = MUDSTONE
- BRXX = BRECCIA
- GN = GLAUCONITE
- PY = PYRITE
- CA = CALCITE
- 5.0 ↓ = WIDTH OF SEAM
- \* 3.5 = 400% RECOVERED
- ~ ~ ~ = FLT. = FAULT

TECK CORPORATION LTD.

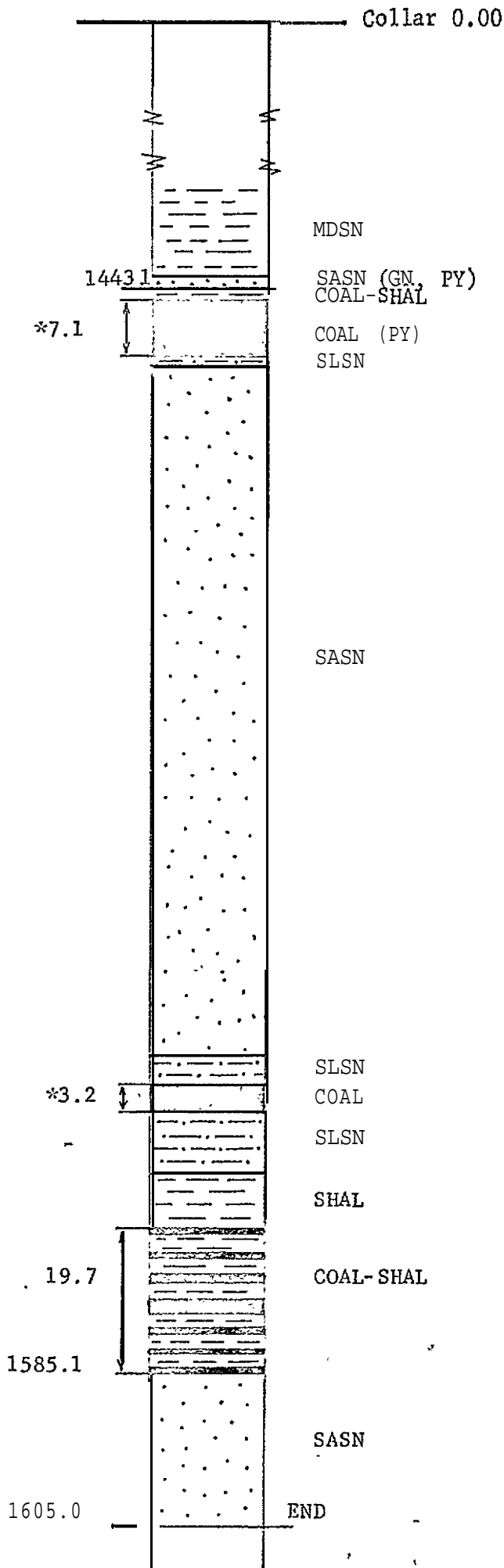
BULLMOOSE PROJECT

D.D.H. T-3

SITE: B-2

Scale: 1 in. = 20 ft.

Collar 0.00



MOOSERAR  
GETHING

- SASN - SANDSTONE
- SLSN - SILTSTONE
- SHAL - SHALE
- MDSN - MUDSTONE
- BRXX - BRECCIA
- GN - GLAUCONITE
- PY - PYRITE
- CA - CALCITE
- 5.0 ↑ - WIDTH OF SEAM
- \*3.5 - 400% RECOVERED
- ~ - FLT. - FAULT

TECM CORPORATION LTD.

BULLMOOSE PROJECT

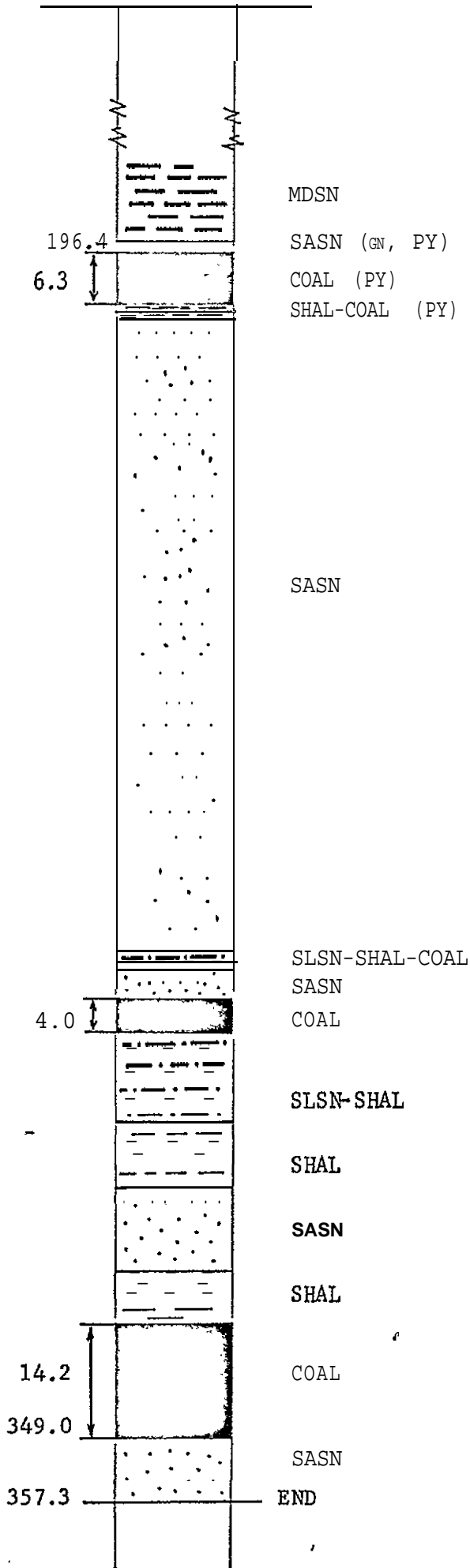


Collar 0.00

D.D.H. T- 4

SITE: A-2

Scale : lin. = 20 ft.

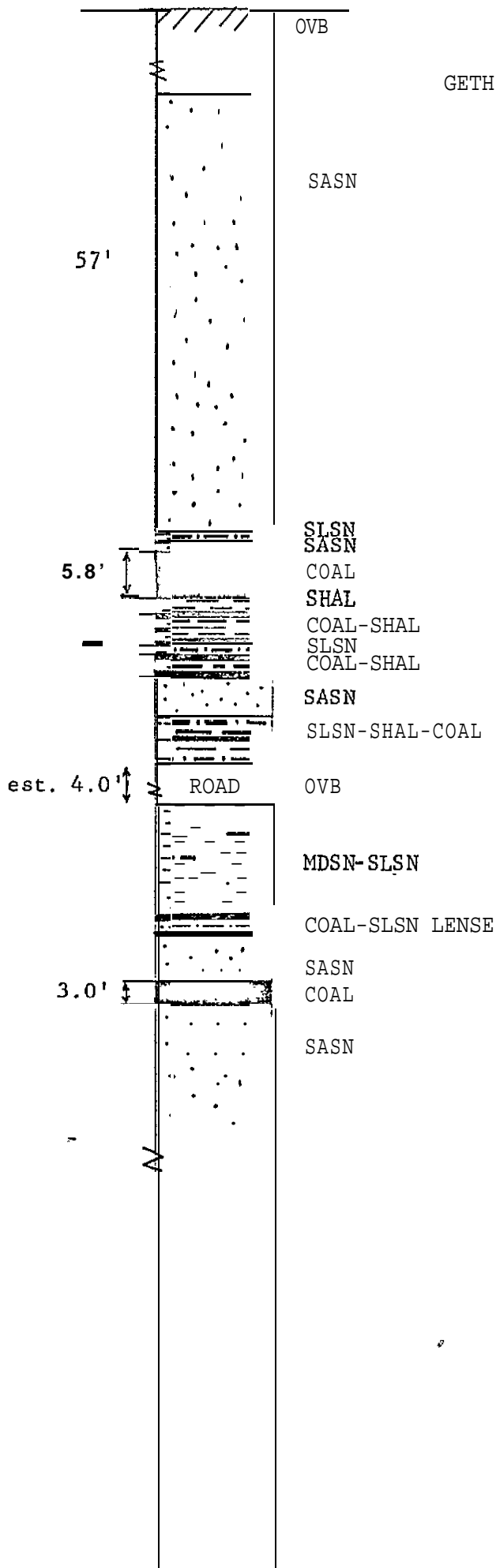


MOOSEBAR  
GETHING

- SASN = SANDSTONE
- SLSN = SILTSTONE
- SHAL = SHALE
- MDSN = MUDSTONE
- BRXX = BRECCIA
- GN = GLAUCONITE
- PY = PYRITE
- CA = CALCITE
- 5.0 ↓ = WIDTH OF SEAM
- " 3.5 = <100% RECOVERED
- ~ ~ ~ = FLT. = FAULT

TECK CORPORATION LTD.  
BULLMOOSE PROJECT

SECTION THROUGH GH  
STRIPPED AREA  
SOUTH EAST FACE  
Scale : 1in. = 20 ft.



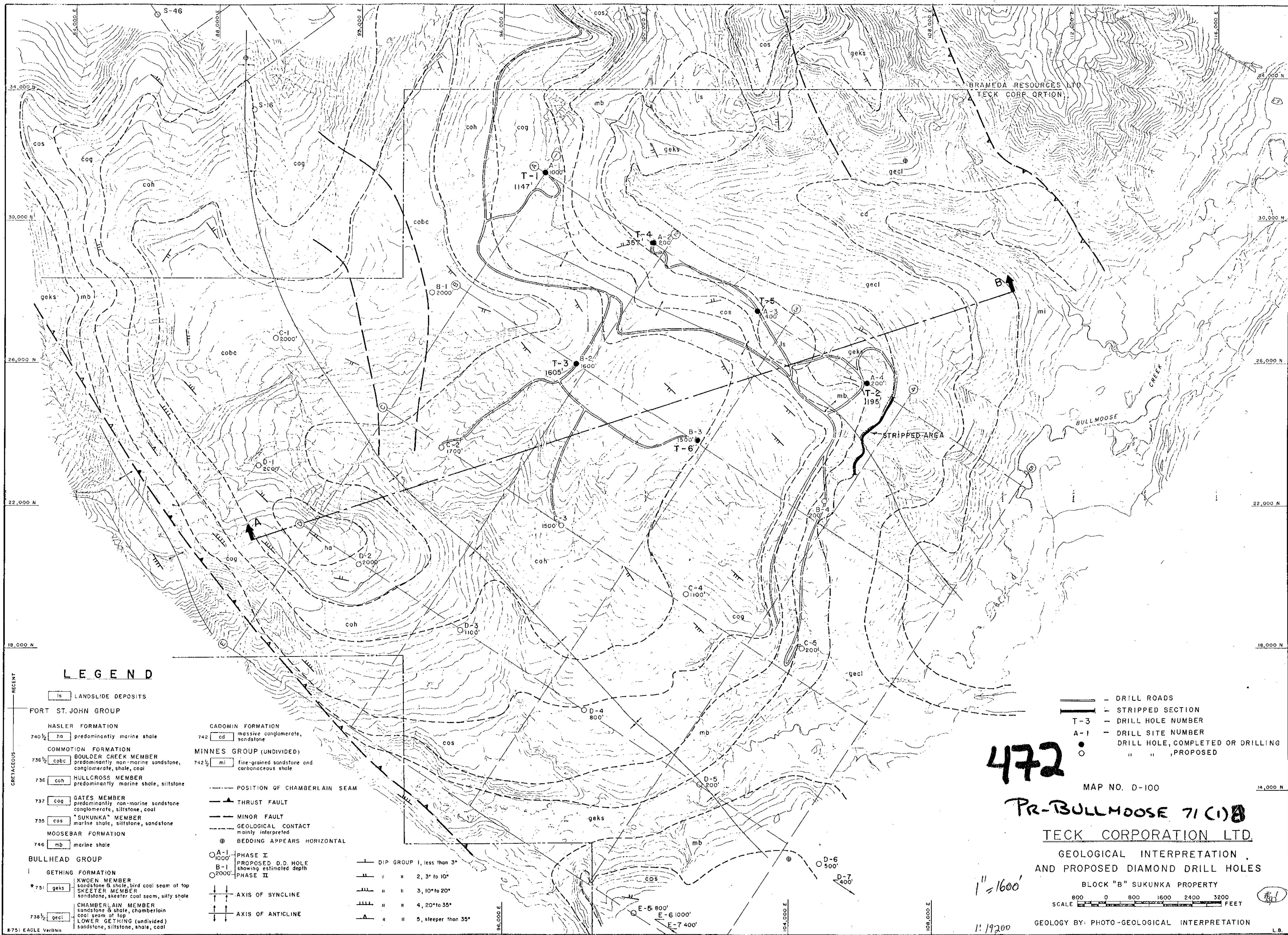
- SASN = SANDSTONE
- SLSN = SILTSTONE
- SHAL = SHALE
- MDSN = MUDSTONE
- BRXX = BRECCIA
- GN = GLAUCONITE
- PY = PYRITE
- CA = CALCITE
- 5.0' ↑ = WIDTH OF SEAM
- \*3.5' = <100% RECOVERED
- ~ ~ ~ = FLT. - FAULT

APPENDIX B

CAT WORK - BULLMOOSE PROJECT : JUNE 20 - AUGUST 31, 1971.

| <u>PERIOD</u> | <u>TYPE OF CAT</u> | <u>CONSTRUCTION</u><br>ROADS, CAMP SITES,<br>DRILL SITES |         | <u>REPAIR</u><br>ROADS, BRIDGES<br>DRAINAGE |         | <u>HAULING</u><br>DRILLING, FUELS,<br>TRAILERS, EQUIPMT. |         | <u>STRIPPING</u><br>EXPOSING<br>COST SEAMS |         | <u>TOTALS</u> |           |
|---------------|--------------------|----------------------------------------------------------|---------|---------------------------------------------|---------|----------------------------------------------------------|---------|--------------------------------------------|---------|---------------|-----------|
|               |                    | HRS.                                                     | COST    | HRS.                                        | COST    | HRS.                                                     | COST    | HRS.                                       | COST    | HRS.          | COST      |
| JUNE 20-30    | D7-E               |                                                          |         | 85.0                                        | 2380.00 | 5.0                                                      | 140.00  |                                            |         | 90.0          | 2,520.00  |
| JULY 1-15     | D6-C &<br>D7-E     | 73.0                                                     | 1801.00 | 35.5                                        | 823.00  | 13.0                                                     | 247.00  |                                            |         | 121.5         | 2,871.00  |
| JULY 20-22    | D6-C               |                                                          |         | 31.0                                        | 589.00  |                                                          |         |                                            |         | 31.0          | 589.00    |
| JULY 21-31    | D7-E               | 11.5                                                     | 318.25  | 6.0                                         | 168.00  | 6.0                                                      | 163.50  | 345.5                                      | 9547.63 | 369.0         | 10,197.30 |
| AUG. 1-5      | D7-E               | 13.0                                                     | 364.00  |                                             |         | 22.0                                                     | 616.00  | 9.0                                        | 252.00  | 44.0          | 1,232.00  |
| AUG. 1-15     | D7-E               | 28.0                                                     | 763.00  |                                             |         | 34.0                                                     | 926.50  | 55.0                                       | 1498.75 | 117.0         | 3,188.25  |
| AUG. 3-15     | D?-E               | 39.0                                                     | 1101.75 | 4.0                                         | 113.00  | 39.5                                                     | 1115.88 | 39.0                                       | 1101.75 | 121.5         | 3,432.38  |
| AUG. 16-31    | D7-E               | 106.0 <sup>s</sup>                                       | 2888.50 | 29.0                                        | 790.25  | 31.0                                                     | 844.75  |                                            |         | 166.0         | 4,523.50  |
| <u>TOTALS</u> |                    | 270.5                                                    | 7236.50 | 190.5                                       | 4863.25 | 150.5                                                    | 4053.63 | 448.5                                      | 2400.13 | 1060.0        | 28,553.51 |

Contractor: Peter & Paul Demeulemeester Ltd., Chetwynd, B.C.



BRAMEDA RESOURCES LTD.  
TECK CORP. PORTION

STRIPPED AREA

BULLMOOSE CREEK

**LEGEND**

- RECENT
- CRETACEOUS
- IS LANDSLIDE DEPOSITS
- FORT ST. JOHN GROUP
  - HASLER FORMATION
    - 740 1/2 ha predominantly marine shale
  - COMMOTION FORMATION
    - 736 1/2 cobc BOULDER CREEK MEMBER  
predominantly non-marine sandstone, conglomerate, shale, coal
    - 736 coh HULLCROSS MEMBER  
predominantly marine shale, siltstone
    - 737 cog GATES MEMBER  
predominantly non-marine sandstone conglomerate, siltstone, coal
    - 735 cos "SUKUNKA" MEMBER  
marine shale, siltstone, sandstone
  - MOOSEBAR FORMATION
    - 746 mb marine shale
- BULLHEAD GROUP
  - I GETTING FORMATION
    - \*751 geks KWOEN MEMBER  
sandstone & shale, bird coal seam at top
    - SKEETER MEMBER  
sandstone, skeeter coal seam, silty shale
    - CHAMBERLAIN MEMBER  
sandstone & shale, chamberlain coal seam at top
    - LOWER GETTING (undivided)  
sandstone, siltstone, shale, coal
- CADOMIN FORMATION
  - 742 cd massive conglomerate, sandstone
- MINNES GROUP (UNDIVIDED)
  - 742 1/2 mi fine-grained sandstone and carbonaceous shale
- POSITION OF CHAMBERLAIN SEAM
- THRUST FAULT
- MINOR FAULT
- GEOLOGICAL CONTACT  
mainly interpreted
- ⊕ BEDDING APPEARS HORIZONTAL
- A-1 PHASE I  
1000' PROPOSED D.D. HOLE  
B-1 showing estimated depth  
○ 2000' PHASE II
- DIP GROUP I, less than 3°
- " " " 2, 3° to 10°
- " " " 3, 10° to 20°
- " " " 4, 20° to 35°
- " " " 5, steeper than 35°
- AXIS OF SYNCLINE
- AXIS OF ANTICLINE

- DRILL ROADS
- STRIPPED SECTION
- T-3 - DRILL HOLE NUMBER
- A-1 - DRILL SITE NUMBER
- DRILL HOLE, COMPLETED OR DRILLING
- " " " PROPOSED

472

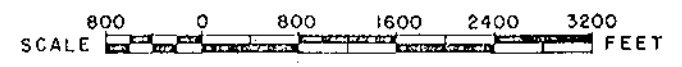
MAP NO. D-100

PR-BULLMOOSE 71(1)B

TECK CORPORATION LTD.

GEOLOGICAL INTERPRETATION AND PROPOSED DIAMOND DRILL HOLES

BLOCK "B" SUKUNKA PROPERTY



1" = 1600'

1:19200

GEOLOGY BY: PHOTO-GEOLOGICAL INTERPRETATION

L.B.

93030  
CONFIDENTIAL  
CONFIDENTIAL  
CONFIDENTIAL

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TECK CORPORATION LIMITED

SUKUNKA PROJECT  
(BULLMOOSE)

PROGRESS REPORT NO. 3

SEPTEMBER 1 TO SEPTEMBER 30, 1971.

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| APPENDIX 'A'                                                         | DIAMOND DRILL SECTIONS |
| MAP POCKET                                                           | LOCATION MAP D-102     |

SUMMARY

Although the poor weather conditions that were experienced in the last week of September hampered operations to some extent, exploration on the **Sukunka Bullmoose** Project progressed rather smoothly.

More than 9,000 feet of the total 15,000 feet of drilling planned for the programme has been completed.

The diamond drilling carried out during the month of September has indicated that the **facies** change in the Gething Formation that was revealed in the early stages of the programme, covers an extensive area on the property.

With the exception of two holes which are located in the north central section of the property no coal seams of suitable thickness and grade have been intersected to date.

Diamond drill sections and a topographic map showing the locations of all diamond drill holes, drill sites, roads and stripped areas are included in this report.



WEATHER

The weather for the first 3 weeks of September was generally good with only a few light snow showers occurring during the middle of the month.

Throughout the last week of September light snow, accompanied by 40 to 50 mph winds, fell *continuously*. Approximately 2.5 to 3 feet of snow fell on the area and drifts commonly exceeded 6 feet in depth. Temperatures ranged from 18 to **30°**.

GEOLOGY

The diamond drilling carried out during the month of September has indicated that the **facies** change in the Gething Formation that was previously indicated in holes T-2 and T-3 extends through all areas subsequently tested.

With the exception of diamond drill holes T-1 and T-4, which are located in the north central section of the property, no coal seams of suitable thickness and grade have been intersected to date.

DRILLING

To **the** end of September, 1971, a total of 9,204 feet of drilling in 10 holes has been completed on the **Sukunka Bullmoose** project.

The total direct expenditure for diamond drilling to date is **\$75,771.03** for an average of \$8.23 per foot.

During the month of September drill No. 1 completed 3,262 feet in 2 holes for an average of 109 feet per day. While drill No. 2 completed 2,420 feet in 4 holes for an average of 77 feet per day.

**Drill** No. 1's average is down for the month of September owing to the fact that it encountered severe water problems in D.D.H. T-8 and lost 9 shifts or 4.5 days to cementing. Artesian conditions were encountered in hole T-8 with water flowing at an estimated 100 gallons per minute. **Over** 115 bags of cement were required to retard the flow of water to an acceptable level.

Although the diamond drillers on drill No. 2 were changed 'in September their performance for the month is less than satisfactory and it has been requested that they be replaced.'

DRILL HOLES COMPLETED TO SEPTEMBER 30, 1971.

| <u>Hole No.</u> | <u>Site No.</u> | <u>Date Commenced</u> | <u>Date Completed</u> | <u>Total Depth of Hole</u> | <u>Drill No.</u> |
|-----------------|-----------------|-----------------------|-----------------------|----------------------------|------------------|
| T-1             | A-1             | Aug. 10               | Aug. 17               | 1147                       | 1                |
| T-2             | A-4             | Aug. 21               | Aug. 22               | 195                        | 2                |
| T-3             | B-2             | Aug. 20               | Aug. 30               | 1605                       | 1                |
| T-4             | A-2             | Aug. 24               | Aug. 28               | 357                        | 2                |
| T-5             | A-3             | Aug. 30               | Sept. 4               | 535                        | 2                |
| T-6             | B-3             | Sept. 1               | Sept. 7               | 1327                       | 1                |
| T-7             | c-5             | Sept. 6               | Sept. 8               | 317                        | 2                |
| T-8'            | c-2             | Sept. 9               | Not Completed         | 1935                       | 1                |
| T-9             | B-4             | Sept. 10              | Sept. 12              | 288                        | 2                |
| T-10            | c-3             | Sept. 14              | Not Completed         | 1498                       | 2                |

NEXT SCHEDULED DRILL HOLES

| <u>Hole No.</u> | <u>Site No.</u> | <u>Estimated Total Depth</u> |
|-----------------|-----------------|------------------------------|
| T-11            | c-4             | 1100                         |
| T - 1 2         | D-4             | 800                          |

SAMPLING

The results of the analyses carried out on samples collected from D.D.H.'s T-1 to T-4 inclusive are listed below. No further sampling has been conducted to date.

REFER TO: PR - BULLMOOSE 71(A)B  
CONFIDENTIAL ANALYSIS FILE

ROAD CONSTRUCTION

A total of 4.6 miles of new road was constructed in September to permit access to drill sites and to **Teck's** future camp site (Base Camp No. 2) on **Bullmoose** Creek.

The **heavy snowfall** which was received in the higher elevations of the property turned to rain at the lower elevations and made road construction and maintenance extremely difficult.

During the last week of September 3 Cats were required just to keep the drilling operation under way.

|                                         |           |
|-----------------------------------------|-----------|
| New road constructed in September       | 4.6 miles |
| Roads maintained - <b>Teck</b> Property | 5.7 miles |
| Pump roads - for drill water            | 0.4 miles |
| Drill sites prepared in September       | c-4, E-4. |

Cat Work    September 1 - 30

| <u>Construction</u> | <u>Repair</u> | <u>Hauling</u> | <u>Snow Ploughing</u> |
|---------------------|---------------|----------------|-----------------------|
| 205 hrs.            | 108 hrs.      | 13 hrs.        | 31 hrs.               |

TRANSPORTATION

The **Teck Land** Rover which was used on the property in August was returned to the **Beaverdell** Mine in early September and was replaced by a 4WD G.M.C. Wagon on rental from **Redhawk** of Vancouver, B.C.

The transmission in the G.M.C. failed on September 20th and on September 23 a 4 WD unit was rented from Hertz to substitute for the G.M.C. Wagon.

PERSONNEL

September 1 - September 30

|                               |         |
|-------------------------------|---------|
| Supervisor - Geologist        | 1       |
| Geologist                     | 1       |
| Field Assistant               | 0 - 1   |
| Camp Labourer-Field Assistant | 0 - 1   |
| Drill Foreman                 | 1       |
| Drillers                      | 8       |
| Cook                          | 1       |
| Cat Operators                 | 1 - 3   |
| TOTAL                         | 13 - 17 |

Respectfully submitted



R. E. Hindson  
Project Manager

Distribution:

Dr. N. B. Keevil Jr. (2)  
R. E. Hallbauer  
W. R. Bergey  
L. S. Trenholme ✓

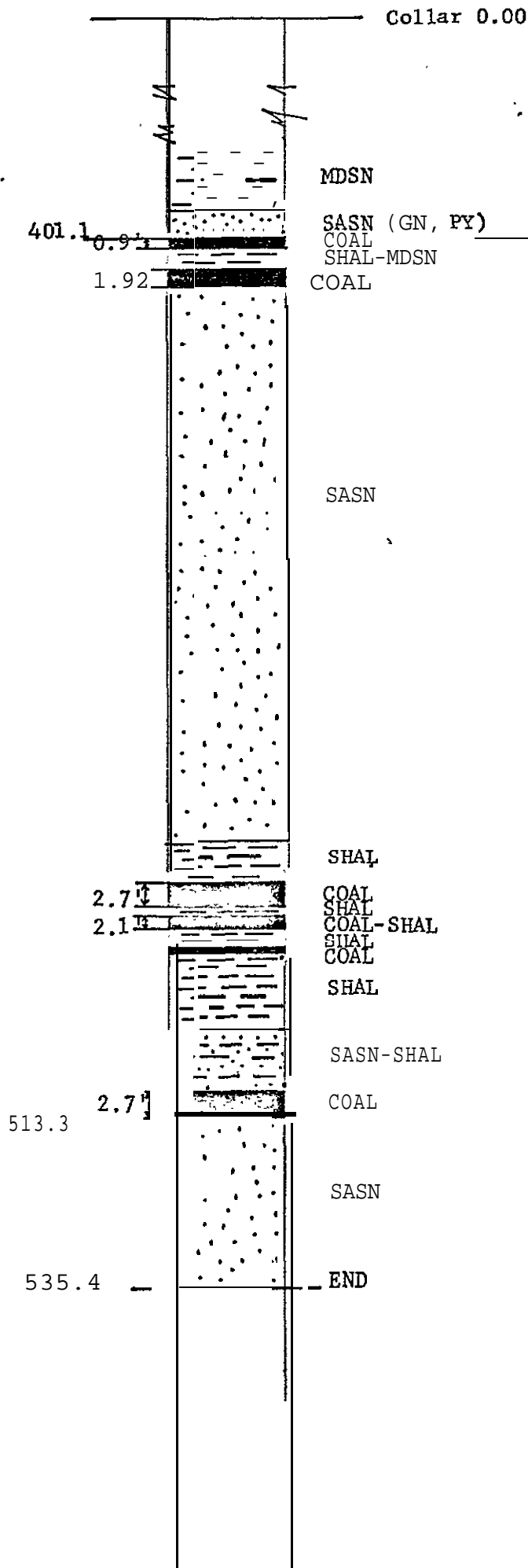
APPENDIX 'A'

D.D.H. T-5

SITE: A-3

Scale : lin. = 20 ft

0



MDSN

SASN (GN, PY)

COAL  
SHAL-MDSN  
COAL

MOOSEBAR  
GETHING

SASN

SHAL

COAL  
SHAL  
COAL-SHAL  
SHAL  
COAL

SHAL

SASN-SHAL

COAL

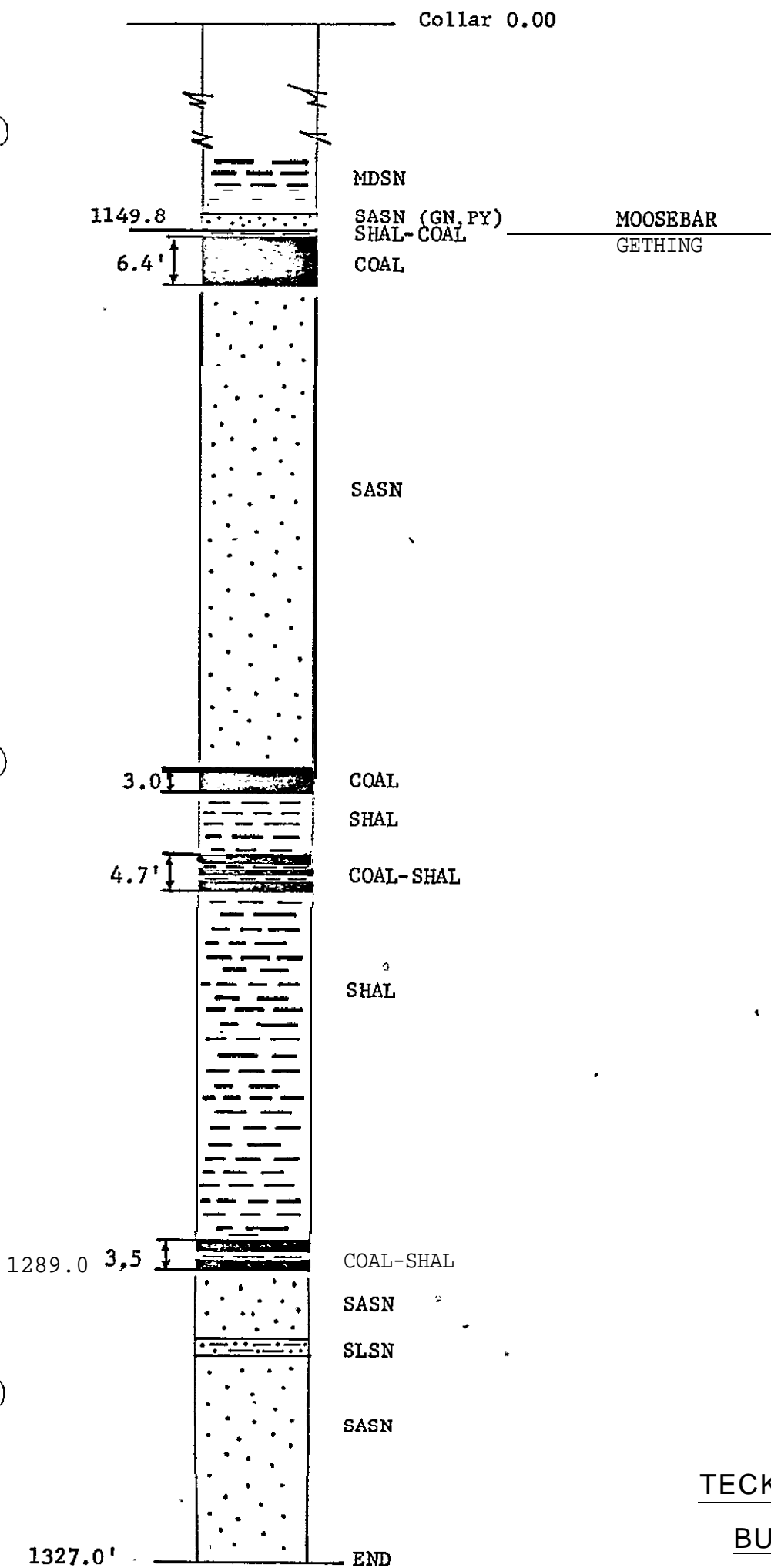
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END

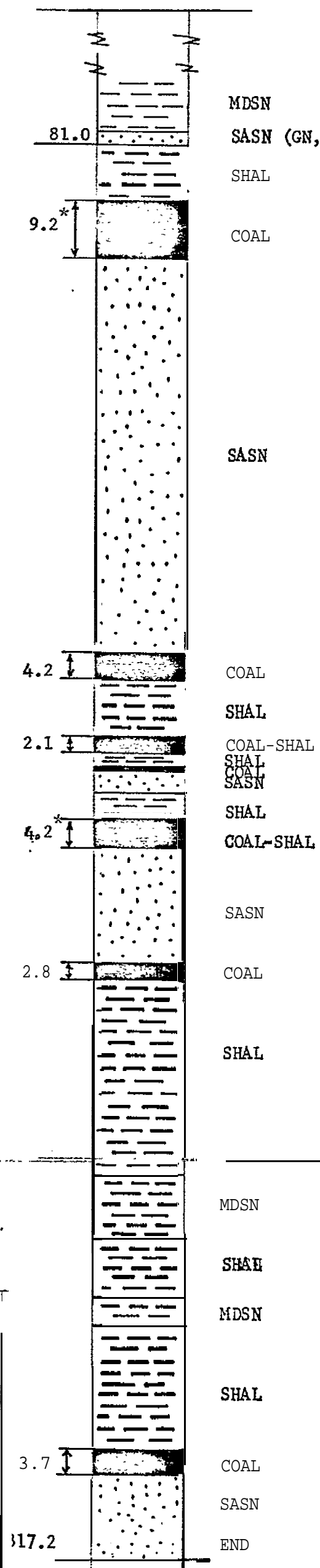
- SASN - SANDSTONE
- SLSN - SILTSTONE
- SHAL - SHALE
- MDSN - MUDSTONE
- BRXX - BRECCIA
- GN - GLAUCONITE
- PY - PYRITE
- CA - CALCITE
- 5.0 ↑ - WIDTH OF SEAM
- \* 3.5 - 400% RECOVERED
- ~ - FLT. - FAULT

TECK CORPORATION LTD.

BULLMOOSE PROJECT



- SASN - SANDSTONE
- SLSN - SILTSTONE
- SHAL - SHALE
- MDSN - MUDSTONE
- BRXX - BRECCIA
- GN - GLAUCONITE
- PY - PYRITE
- CA - CALCITE
- 5.0' ↑ - WIDTH OF SEAM
- \* 3.5 - 400% RECOVERED
- ~ - FLT. - FAULT



MDSN  
 SASN (GN, PY) MOOSEBAR  
 SHAL GETHING

COAL

SASN

COAL

SHAL

COAL-SHAL  
 SHAL  
 COAL  
 SASN

SHAL

COAL-SHAL

SASN

COAL

SHAL

MDSN

SHAL

MDSN

SHAL

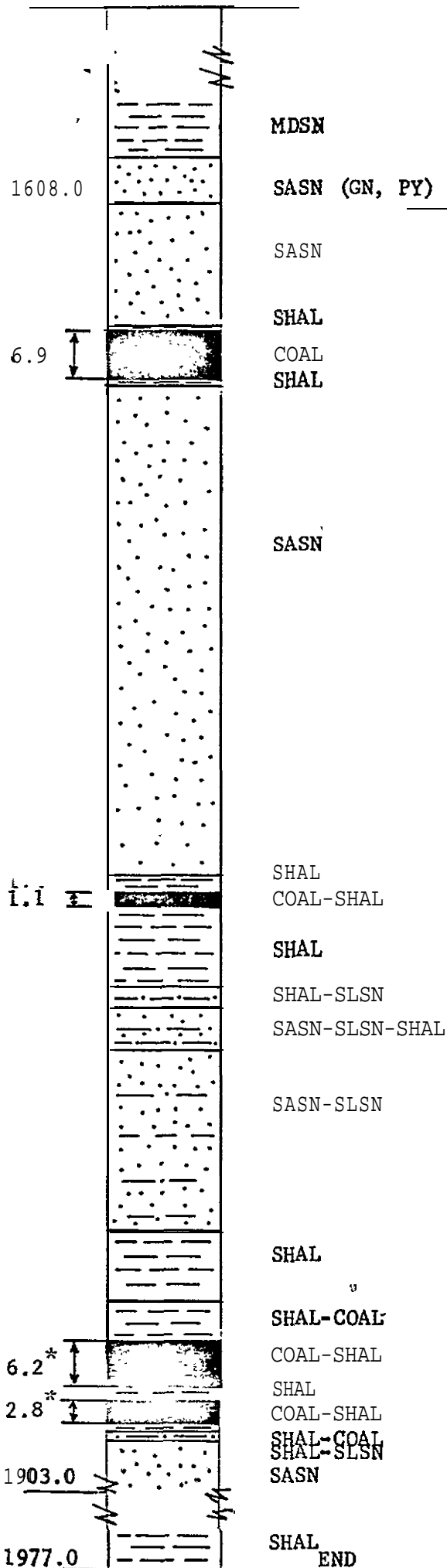
COAL

SASN

END

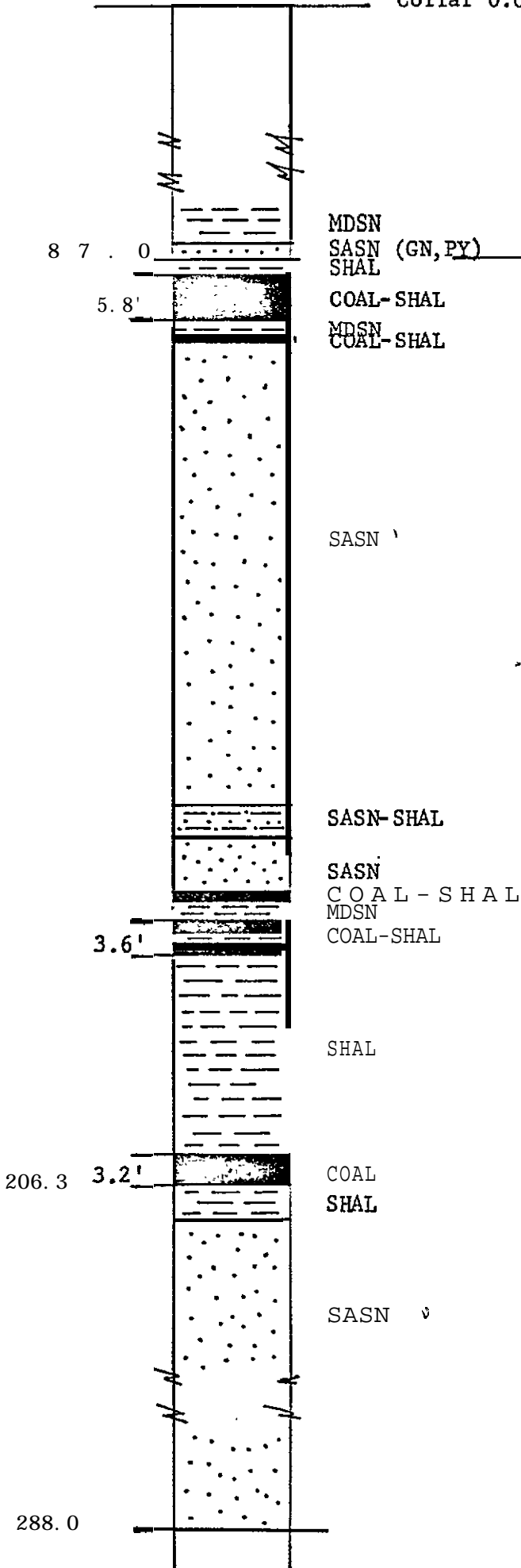
- SASN - SANDSTONE
- SLSN - SILTSTONE
- SHAL - SHALE
- MDSN - MUDSTONE
- BRXX - BRECCIA
- GN - GLAUCONITE
- PY - PYRITE
- CA - CALCITE
- 5.0 ↑ - WIDTH OF SEAM
- "3.5 - <100% RECOVERED
- - - - - FLT. - FAULT





- SASN - SANDSTONE
- SLSN - SILTSTONE
- SHAL - SHALE
- MDSN - MUDSTONE
- BRXX - BRECCIA
- GN - GLAUCDNITE
- PY - PYRITE
- CA - CALCITE
- 5.0 ↑ - WIDTH OF SEAM
- \* 3.5 - <100% RECOVERED
- ~ - FLT. - FAULT

Collar 0.00



MDSN  
 SASN (GN, PY) SHAL — MOOSEBAR  
 GETHING

COAL-SHAL  
 MDSN  
 COAL-SHAL

SASN

SASN-SHAL

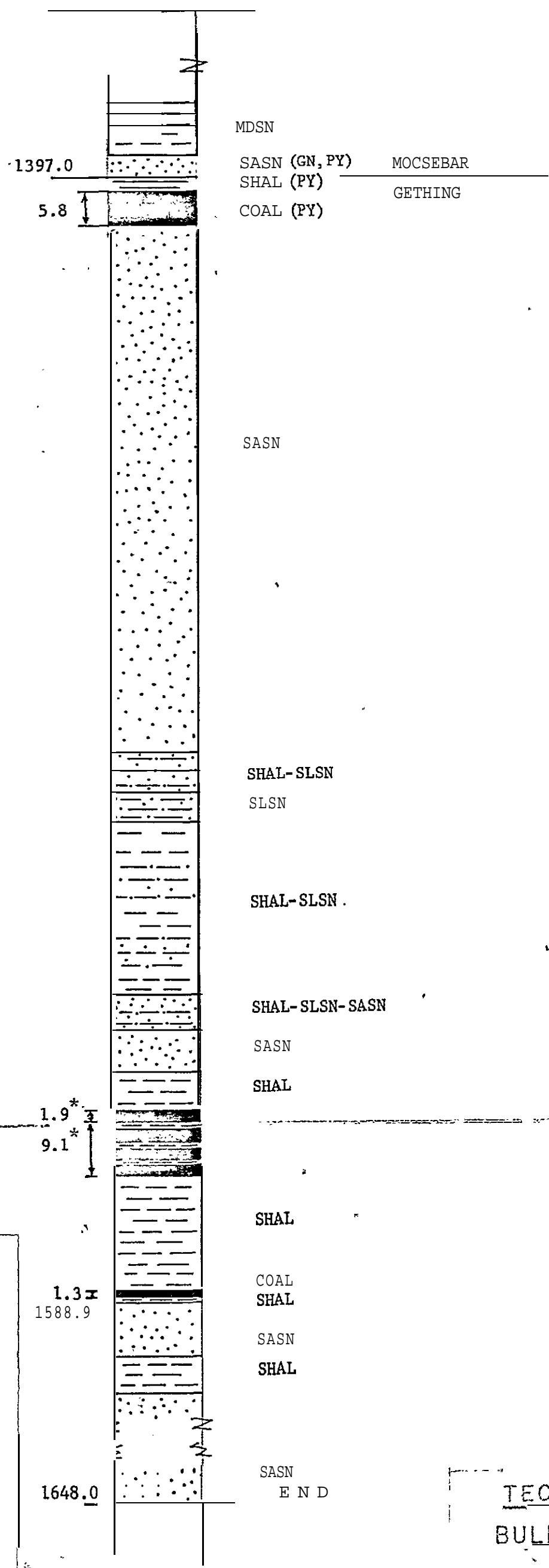
SASN  
 COAL-SHAL  
 MDSN  
 COAL-SHAL

SHAL

COAL  
 SHAL

SASN

- SASN - SANDSTONE
- SLSN - SILTSTONE
- SHAL - SHALE
- MDSN - MUDSTONE
- B R X X - BRECCIA
- GN - GLAUCONITE
- PY - PYRITE
- CA - CALCITE
- 5.0 ↓ - WIDTH OF SEAM
- \* 3.5 - <100% RECOVERED
- ~ - FLT. - FAULT

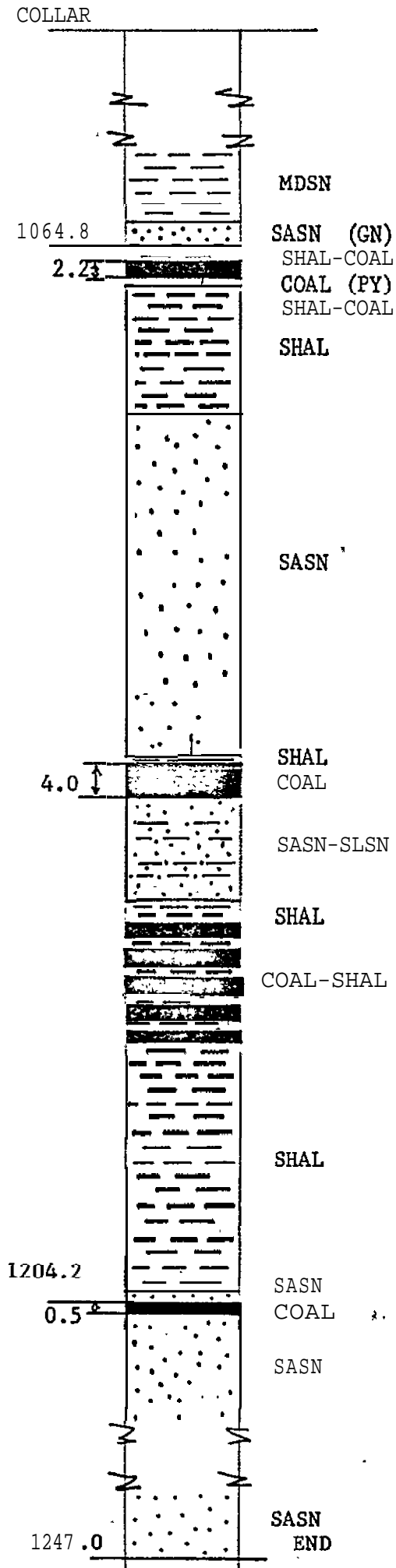


SASN - SANDSTONE  
 SLSN - SILTSTONE  
 SHAL - SHALE  
 MDSN - MUDSTONE  
 BRXX - BRECCIA  
 GN - GLAUCONITE  
 PY - PYRITE  
 CA - CALCITE  
 5.0 ↑ - WIDTH OF SEAM  
 \* 3.5 - <100% RECOVERED  
 ~~~~~ - FLT. - FAULT

D.D.H. T-11

SITE: c-4

Scale: 1in. = 20 ft.



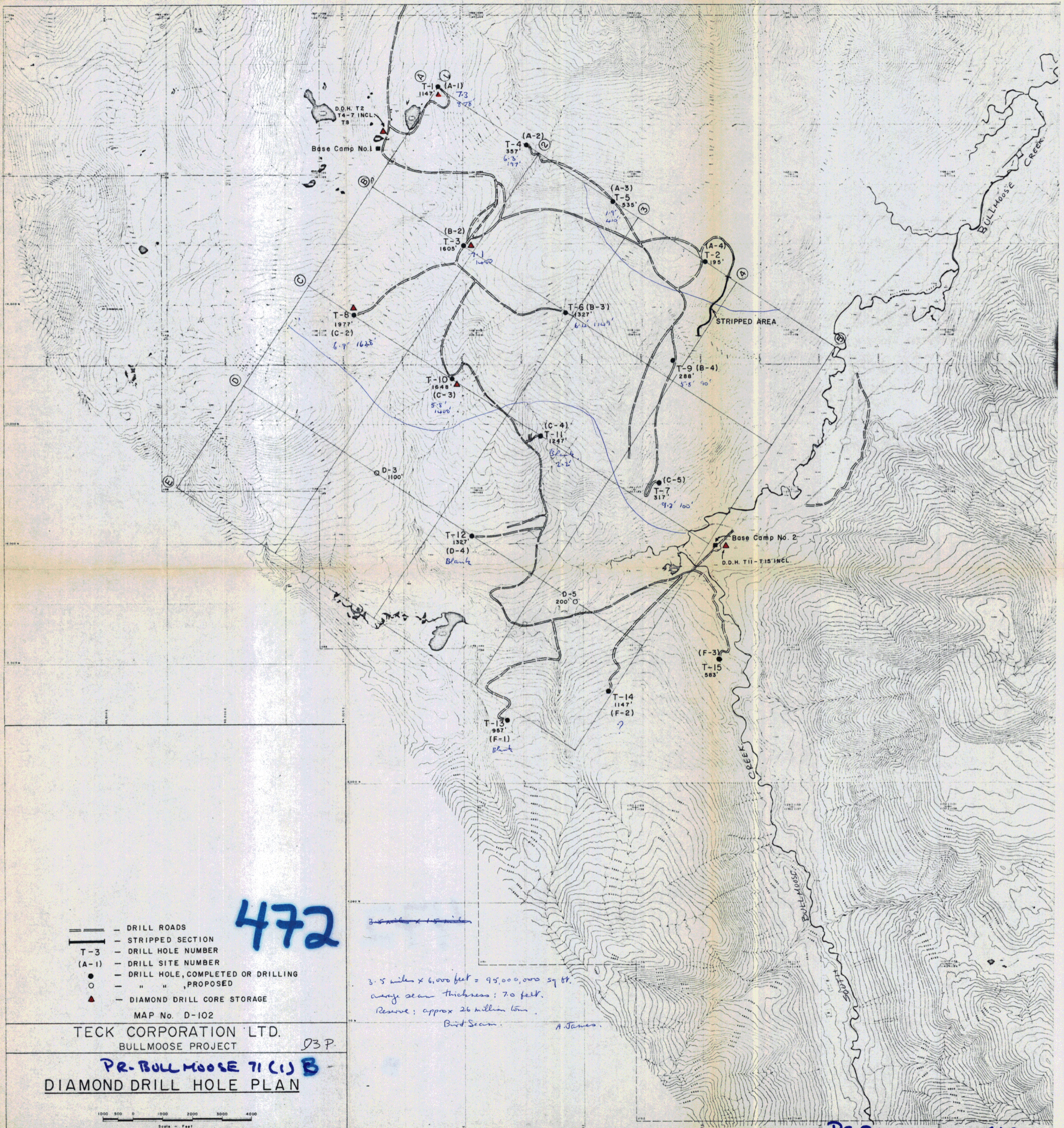
MOOSEBAR

GETHING

- SASN - SANDSTONE
- SLSN - SILTSTONE
- SHAL - SHALE
- MDSN - MUDSTONE
- BRXX - BRECCIA
- GN - GLAUCONITE
- PY - PYRITE
- CA - CALCITE
- 5.0 ↓ - WIDTH OF SEAM
- * 3.5 - 400% RECOVERED
- ~ ~ ~ - FLT. - FAULT

TECK CORPORATION LTD.

BULLMOOSE PROJECT



472

3.5 miles x 1.5 miles

3.5 miles x 6,000 feet = 95,000,000 sq ft.
 average seam thickness: 7.0 feet.
 Reserve: approx 26 million tons.
 Bird Seam. A. James.

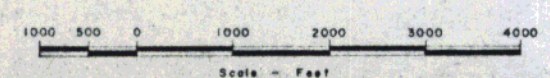
- == DRILL ROADS
- STRIPPED SECTION
- T-3 DRILL HOLE NUMBER
- (A-1) DRILL SITE NUMBER
- DRILL HOLE, COMPLETED OR DRILLING
- " " PROPOSED
- ▲ DIAMOND DRILL CORE STORAGE

MAP No. D-102

TECK CORPORATION LTD.
 BULLMOOSE PROJECT

D3 P.

PR-BULLMOOSE 71 (1) B
 DIAMOND DRILL HOLE PLAN



CONFIDENTIAL
CONFIDENTIAL

TECK CORPORATION LIMITED

SUKUNKA PROJECT
(BULLMOOSE)

PROGRESS REPORT NO. 4 (FINAL)

OCTOBER,1 to OCTOBER 31,1971

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CONTENTS

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| WEATHER | 2 | |
| GEOLOGY | 2 | |
| DRILLING | 3 | |
| SAMPLING | 4 | |
| ROAD CONSTRUCTION | 5 | REFER TO: PR - BULLMOOSE |
| CAT WORK | 6 | ?I (4)c
CONFIDENTIAL AREA - NO FLY |
| TRANSPORTATION | 6 | |
| CAMP | 6 | |
| PERSONNEL | 6 | |

| | |
|---------------------|--|
| APPENDIX 'A' | DIAMOND DRILL SECTIONS
DIAMOND DRILL HOLES 1 - 15 INCLUSIVE |
| MAP POCKET | DIAMOND DRILL HOLE PLAN
MAP D - 102 |



SUMMARY

The Teck-Bullmoose exploration programme was terminated at the end of October 1971.

At the completion of the project 14,657 feet of drilling had been carried out in 15 holes and the majority of the property had been mapped.

Diamond drilling has indicated that a major facies change in the Gething Formation takes place in the property from the northeast to the southwest with the coal seams to the southwest generally becoming thinner, more shaly, and for the most part, greater in number.

Only the north-central and northeastern sections of the property, although limited in areal extent, still remain as promising areas for outlining suitable thicknesses of good grade coking coal.

Geological maps and sections are being prepared for correlative purposes and a final report is to be submitted at a later date.

A complete set of drill sections and a drill plan are included in this report.

WEATHER

Warm weather accompanied by heavy rainfall was experienced during the first week of October. Consequently the snowfall that was received during the last week of September melted creating severe runoff conditions.

The remainder of the month was shared by equal periods of sunshine and cloud with the occasional light snow fall. Temperatures hovered around the 15^o mark.

GEOLOGY

Continued diamond drilling throughout the remainder of the exploration programme has clearly illustrated that the major direction of the facies change in the Gething Formation on the property is from the northeast to the southwest.

The Bird seam, which lies close to the Moosebar - Gething contact, was not intersected in either of the diamond drill holes T-12 or T-13 which are located in the southwest section of the property.

In hole T-13, 20 feet of conglomerate and sandstone - conglomerate was cut close to the Moosebar-Gething contact. This is indicative that the environment to the southwest was more active at the time of deposition and conditions were considerably less than ideal for the accumulation of organic debris.

What is believed to be the Chamberlain seam in the southern most areas tested by diamond drilling has been reduced to a thickness that seldom exceeds 2 feet.

No further drilling is planned for the area which lies to the south of diamond drill holes T-13 to T-15 inclusive since the results in these holes were not encouraging and the area to the south is extremely limited due to its proximity to unfavourable structure.

0 The north central and north eastern sections of the property still remain as promising areas for outlining suitable thickness of good grade coking coal.

DRILLING

At the termination of the drilling programme on October 25, 1971 a total of 14,657 feet had been completed in 15 holes.

The total direct cost of the drilling was \$125,430.57 for an average of \$8.55 per foot.

In early October the drill foreman and the No. 2 drill crew were replaced. The direct result was a vastly improved daily footage rate on the No 2 rig from an average of 77 feet per day for the months of August and September to 105 feet per day for the month of October.

During the month of October (24 day period) the No. 1 drill completed 2,829 feet in 4 holes for an average of 117 feet per day, while the No. 2 drill completed 2,624 feet in 3 holes (25 day period).

Diamond drill core is stored either at the site at which it was collected or at camp sites No. 1 or No. 2.

The location of the core from each hole is marked on the accompanying drill plan.

Owing to the results obtained in drill holes T-7, T-8, T-10, T-11, and T-12 the drilling planned for sites D-3 and D-5 was not carried out.

DRILL HOLES COMPLETED TO OCTOBER 31, 19'71

| <u>Hole No.</u> | <u>Site No.</u> | <u>Date Commenced</u> | <u>Date Completed</u> | <u>Total Depth of Hole</u> | <u>Drill No.</u> |
|-----------------|-----------------|-----------------------|-----------------------|----------------------------|------------------|
| T-1 | A-1 | Aug. 10 | Aug. 17 | 1147 | 1 |
| T-2 | A-4 | Aug. 21 | Aug. 22 | 195 | 2 |
| T-3 | B-2 | Aug. 20 | Aug. 30 | 1605 | 1 |
| T-4 | A-2 | Aug. 24 | Aug. 28 | 357 | 2 |
| T-5 | A-3 | Aug. 30 | Sept. 4 | 535 | 2 |
| T-6 | B-3 | Sept. 1 | Sept. 7 | 1327 | 1 |
| T-7 | c-5 | Sept. 6 | Sept. 8 | 317 | 2 |
| T-8 | c-2 | Sept. 9 | Oct. 1 | 1977 | 1 |
| T-9 | B-4 | Sept. 10 | Sept. 12 | 288 | 2 |
| T-10 | c-3 | Sept. 14 | Oct. 3 | 1648 | 2 |
| T-11 | c-4 | Oct. 4 | Oct. 9 | 1247 | 1 |
| T-12 | D-4 | Oct. 6 | Oct. 17 | 1327 | 2 |
| T-13 | F-1 | Oct. 13 | Oct. 18 | 957 | 1 |
| T-14 | F-2 | Oct. 19 | Oct. 25 | 1147 | 2 |
| T-15 | F-3 | Oct. 21 | Oct. 24 | <u>583</u> | 1 |
| TOTAL | | 15 holes | | 14,657' | |

SAMPLING

An 8.7 ft. coal seam was intersected in DDH T-11 in the Gates Member of the Commotion Formation some 121 feet above the Gates - Sukunka contact.

The coal seam is very bright and shiny and appears extremely clean. The seam has a siltstone - shale floor and a conglomerate roof. It is anticipated that since the roof is conglomerate that the thickness of the seam would be highly variable over any areal extent.

The seam was sampled in two parts and the results are tabled below. SEE PR - BULLMOOSE 71(4)C CONFIDENTIAL ANALYSIS FILE No further sampling was conducted in any of the remaining drill holes.

REFER TO: PR - BULLMOOSE 71(4)C CONFIDENTIAL ANALYSIS FILE

ROAD CONSTRUCTION

During the month of October 2.8 miles of road was constructed in order to gain access to drill sites F-1 - F-3 inclusive and 1.1 miles of road was constructed on the Bullmoose Creek - Chetwynd road to bypass a flooded section. The latter was located in a Canfor tree reserve and Teck has been instructed by the Department of Forestry to drag all merchantable timber, that was knocked down during road construction, to one of the Canfor loading sites. Arrangements were made with Lionel Johnson, a local contractor working in the area, to harvest the timber.

The heavy snowfall that was received in late September melted in early October when warmer temperatures and heavy rainfall was experienced. The resultant swollen creeks and streams caused numerous floods and wash-outs and 3 cats were kept operational until the 18th of October to allow exploration to continue.

| | |
|----------------------------------|---------------|
| New road construction in October | 3.9 miles |
| Roads maintained - Teck Property | 6.9 miles |
| Drill sites prepared in October | F-1, F-2, F-3 |

Cat Work - October 1-16

| <u>Construction</u>
roads, drill sites,
camp sites | <u>Road Repair</u> | <u>Hauling</u>
fuels, trailers,
trucks, transit | <u>Snow Ploughing</u> | <u>Standby</u> |
|--|--------------------|---|-----------------------|----------------|
| 3 5 5 . 0 h r s . | 168.0 hrs. | 183.5 hrs. | 11.5 hrs. | 17.0 hrs. |

TRANSPORTATION

The Redhawk G.M.C. 4WD which broke down in late September was replaced by a similar vehicle in early October. Both the G.M.C. 4WD and the Hertz 4WD, rented in September, were kept on the job until its completion at the end of October.

CAMP

On October 8, 1971 the Teok base camp was moved from site No. 1 to site No. 2 which is situated in the valley of Bullmoose Creek. (for camp locations see map) The move took less than 14 hours to complete and no drill time was lost.

The 4 trailers that were rented from Crown Caterers Co. Ltd. of Edmonton, Alberta were returned to Grande Prairie on October 2.8, 1971.

PERSONNEL

October 1 - October 31

| | |
|------------------------|-----|
| Supervisor - Geologist | 1 |
| Geologist | 1 |
| Drill Foreman | 1 |
| Drillers | 8 |
| Cook | 1 |
| Cat Operators | 1-3 |
| Slashers | 0-3 |
| Labourers | 0-1 |

Respectfully submitted



R. E. Hindson
Project Manager

Distribution:
Dr. N. B. Keevil, Jr. (2)
R. E. Hallbauer

W. R. Bergey
L. S. Trenholme

0

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APPENDIX 'A'

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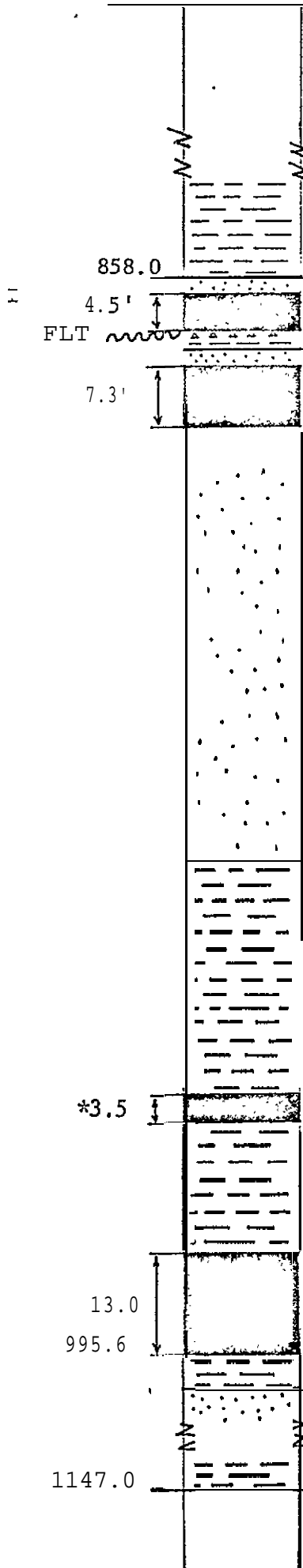
Collar 0.00

D.D.H. T-1

SITE: A-1

Scale: 1 in. = 20 ft

0



MDSN
 SASN (GN, PY)
 COAL (PY)
 BRXX (CA)
 MDSN
 SASN (GN, PY)
 COAL (PY)

MOOSEBAR
 GETHING
 MOOSEBAR
 GETHWG

SASN

SHAL

COAL

SHAL

COAL

SHAL

END

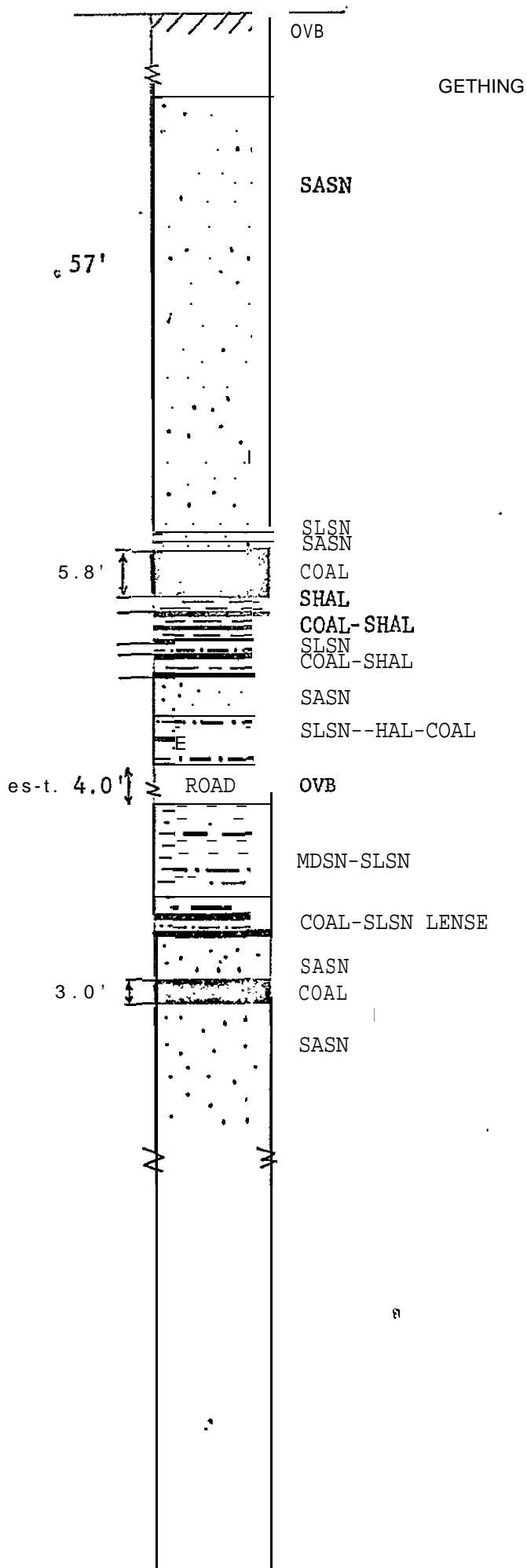
SASN - SANDSTONE
 SLSN - SILTSTONE
 SHAL - SHALE
 MDSN - MUDSTONE
 BRXX - BRECCIA
 GN - GLAUCONITE
 PY - PYRITE
 CA - CALCITE
 5.0 ↑ - WIDTH OF SEAM
 +*3.5 - <100% RECOVERED
 ~~~~~ - FLT. - FAULT

TECK CORPORATION LTD..

BULLMOOSE PROJECT

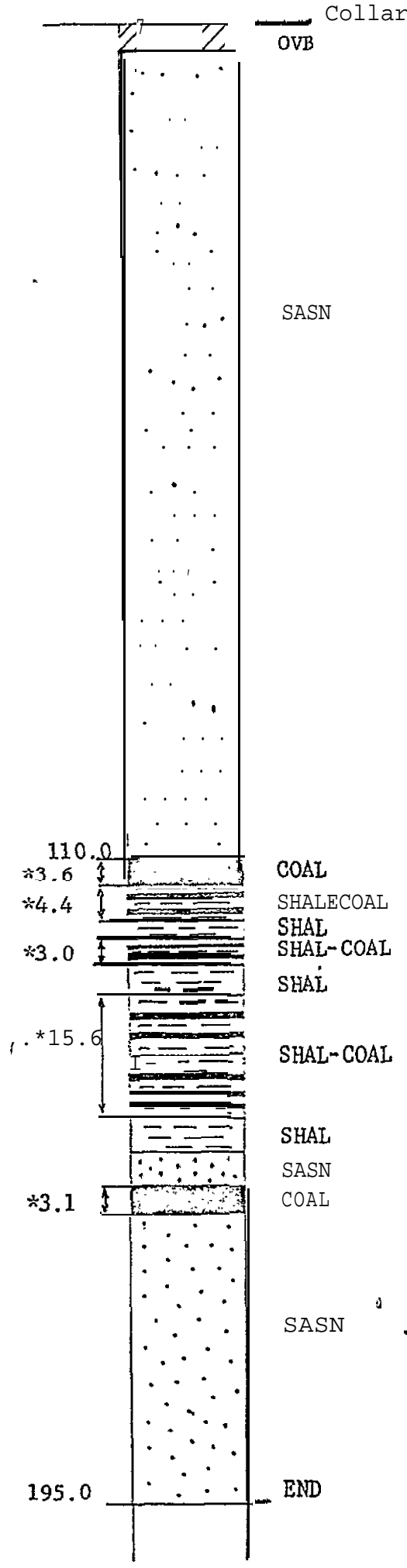
SECTION THRU G4  
STRIPPED AREA  
SOUTH EAST FACE

Scale : lin. = 20 ft



- SASN - SANDSTONE
- SLSN - SILTSTONE
- SHAL - SHALE
- MDSN - MUDSTONE
- BRXX - BRECCIA
- GN - GLAUCONITE
- PY - PYRITE
- CA - CALCITE
- 5.0' ↑ - WIDTH OF SEAM
- \*3.5 - 400% RECOVERED
- ~ - FLT. - FAULT



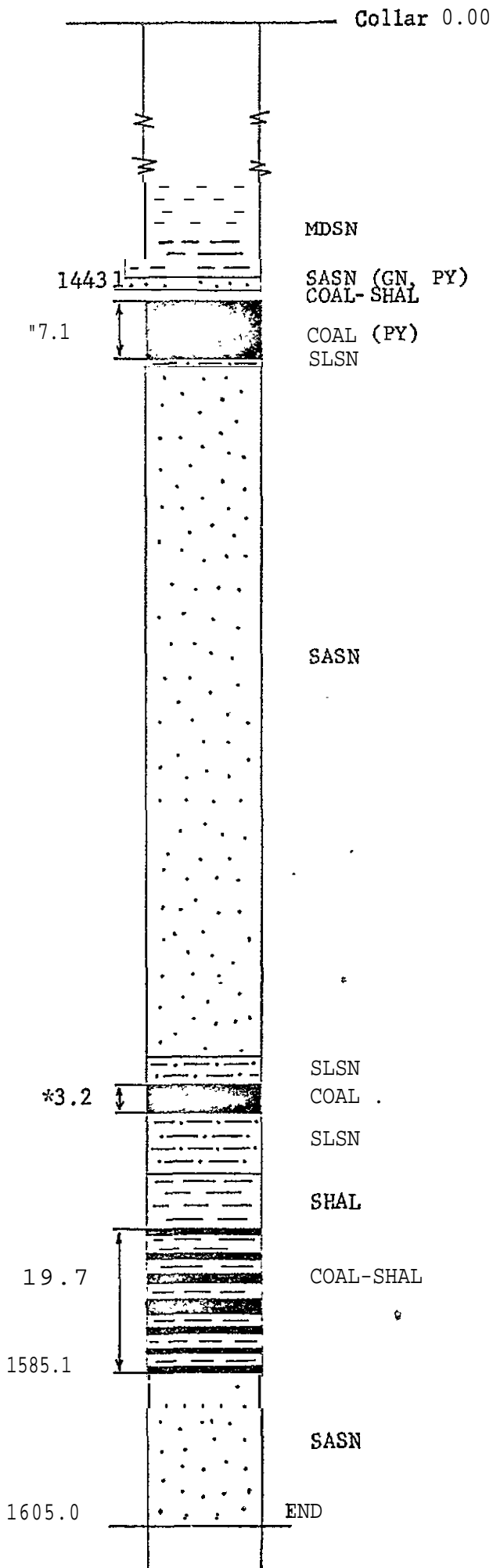


- SASN - SANDSTONE
- SLSN - SILTSTONE
- SHAL - SHALE
- MDSN - MUDSTONE
- BRXX - BRECCIA
- GN - GLAUCONITE.
- PY - PYRITE
- CA - CALCITE
- 5.04 - WIDTH OF SEAM
- \* 3.5 - <100% RECOVERED
- ~ ~ ~ - FLT. - FAULT

D.D.H. T-3

SITE: B-2

Scale : lin. = 20 ft.



MOOSEBAR  
GETHING

- SASN - SANDSTONE
- SLSN - SILTSTONE
- SHAL - SHALE
- MDSN - MUDSTONE
- BRXX - BRECCIA
- GN - GLAUCONITE
- PY - PYRITE
- CA - CALCITE
- 5.0 ↑ - WIDTH OF SEAM
- \*3.5 - 400% RECOVERED
- ~ - FLT. - FAULT

Collar 0.00

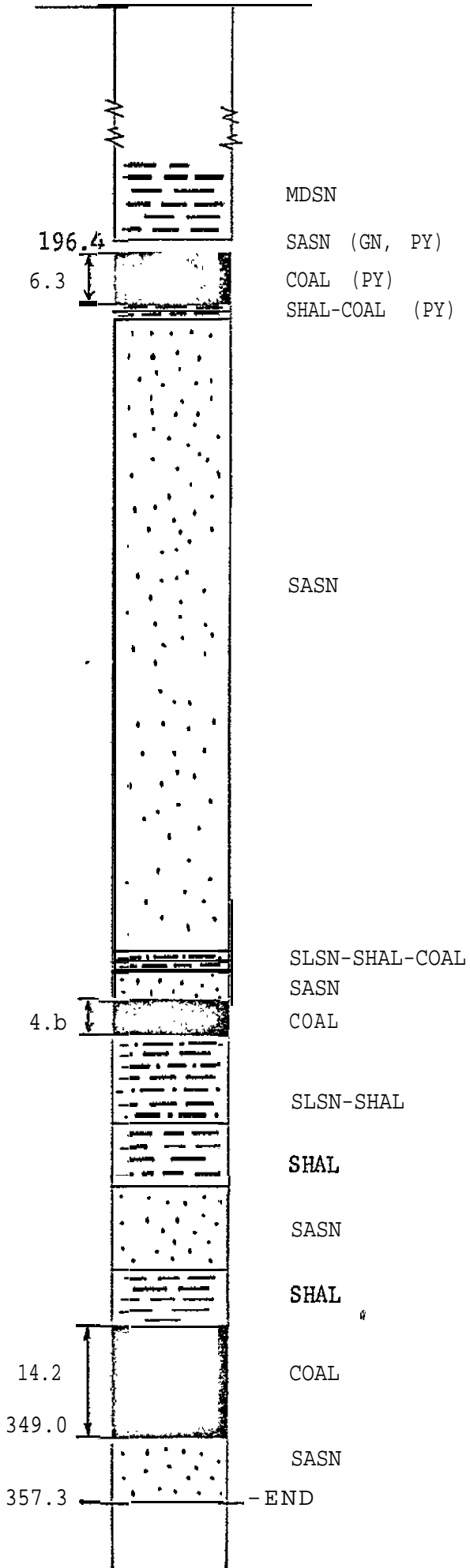
D.D. H. T- 4

SITE: a-2

Scale: lin. = 20 ft.

0

0



MOOSEBAR  
GETHING

- SASN - SANDSTONE
- SLSN - SILTSTONE
- SHAL - SHALE.
- MDSN - MUDSTONE
- BRXX - BRECCIA
- GN - GLAUCONITE
- PY - PYRITE
- CA - CALCITE
- 5.05 - WIDTH OF SEAM
- \*3.5 - <100% RECOVERED
- ~ - FLT. - FAULT

TECK CORPORATION LTD.

BULLMOOSE PROJECT

D.D.H.T-5

SITE: A-3

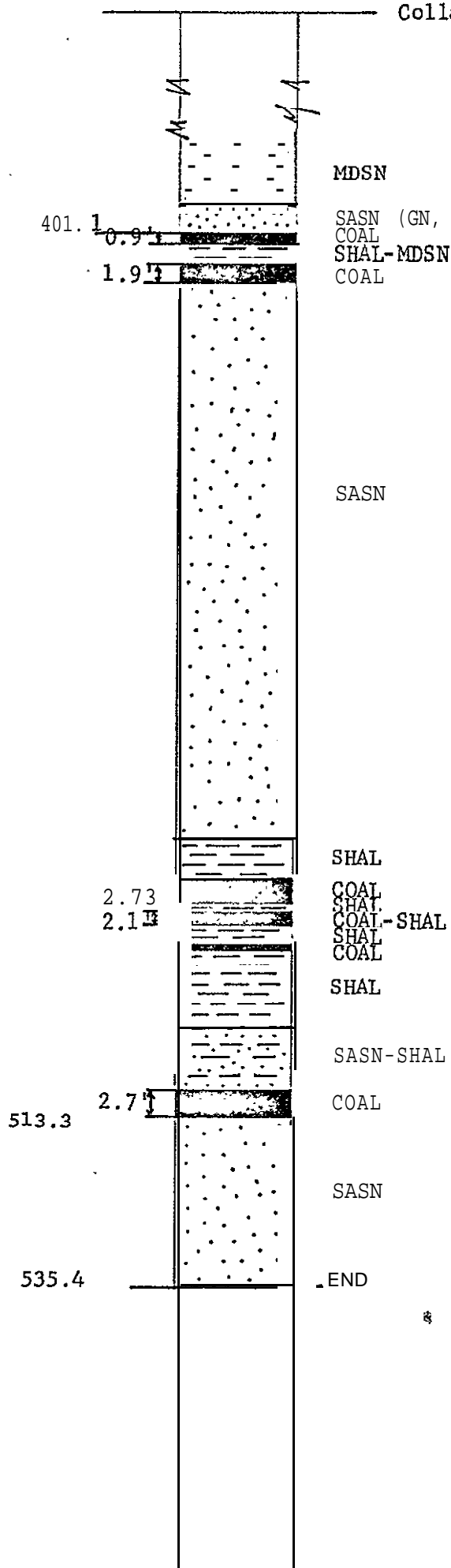
Scale: 1 in. = 20 ft.

0

0

0

Collar 0.00



MDSN

SASN (GN, PY)  
COAL  
SHAL-MDSN  
COAL

MOOSEBAR  
GETHING

SASN

SHAL

COAL  
SHAL  
COAL-SHAL  
SHAL  
COAL

SHAL

SASN-SHAL

COAL

SASN

END

- SASN = SANDSTONE
- SLSN = SILTSTONE
- SHAL = SHALE
- MDSN = MUOSTONE
- BRXX = BRECCIA
- GN = GLAUCONITE
- PY = PYRITE
- CA = CALCITE
- 5.0' ↓ = WIDTH OF SEAM
- \* 3.5 = 400% RECOVERED
- ~ = FLT. - FAULT

TECK CORPORATION LTD.

BULLMOOSE PROJECT

D.D.H. T-6

SITE: B-3

Scale: 1 in. = 20 ft.

Collar 0.00

1149.8

6.4'

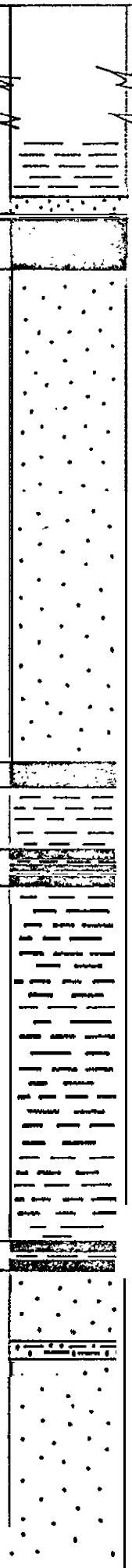
3.0'

4.7'

1289.0

3.5'

1327.0'



MDSN

SASN (GN, PY)  
SHAL-COAL

COAL

SASN

COAL

SHAL

COAL-SHAL

SHAL

COAL-SHAL

SASN

SLSN

SASN

MOOSEBAR  
GETHING

SASN - SANDSTONE

SLSN - SILTSTONE

SHAL - SHALE

MDSN - MUDSTONE

BRXX - BRECCIA

GN - GLAUCONITE

PY - PYRITE

CA - CALCITE

5.03 - WIDTH OF SEAM

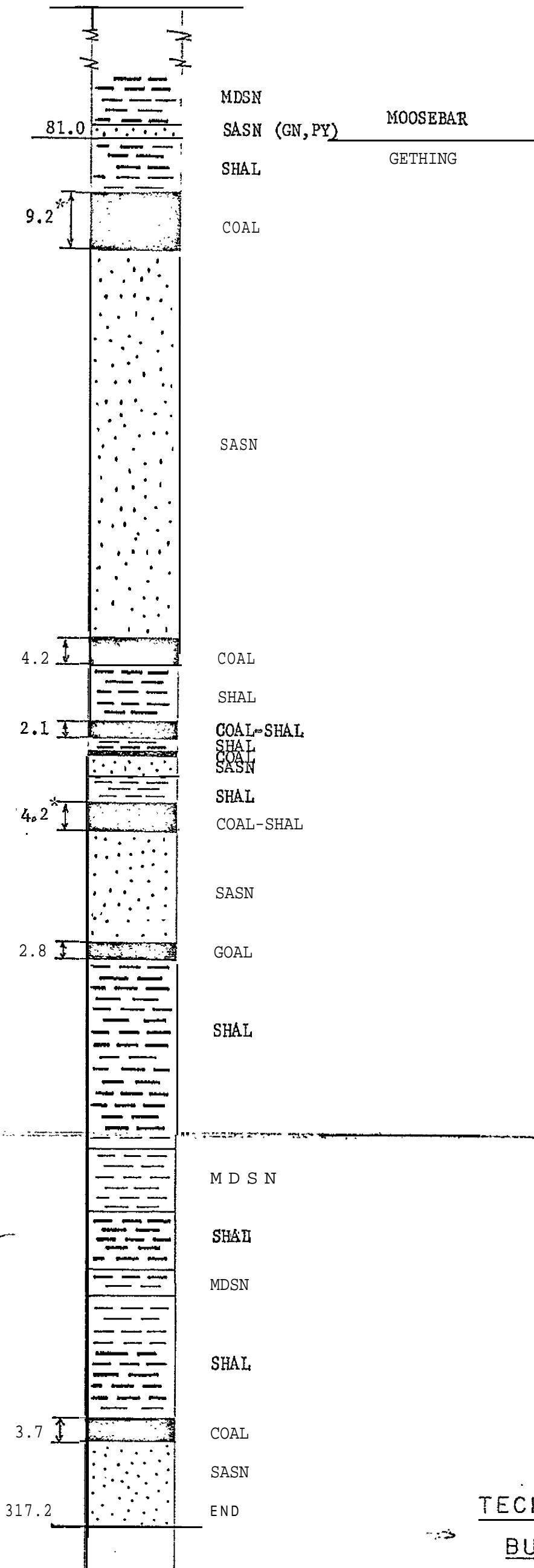
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~ - FLT. - FAULT

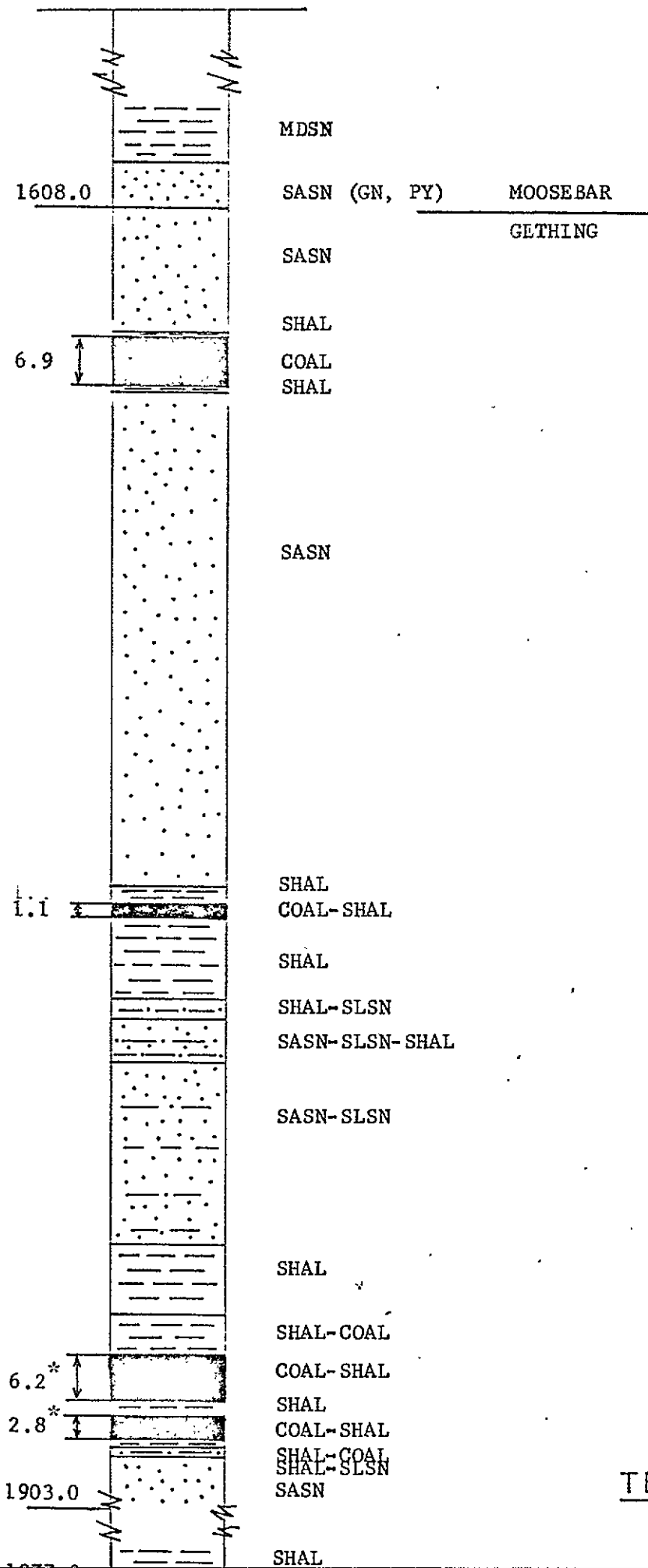
TECK CORPORATION LTD.

BULLMOOSE PROJECT

- END

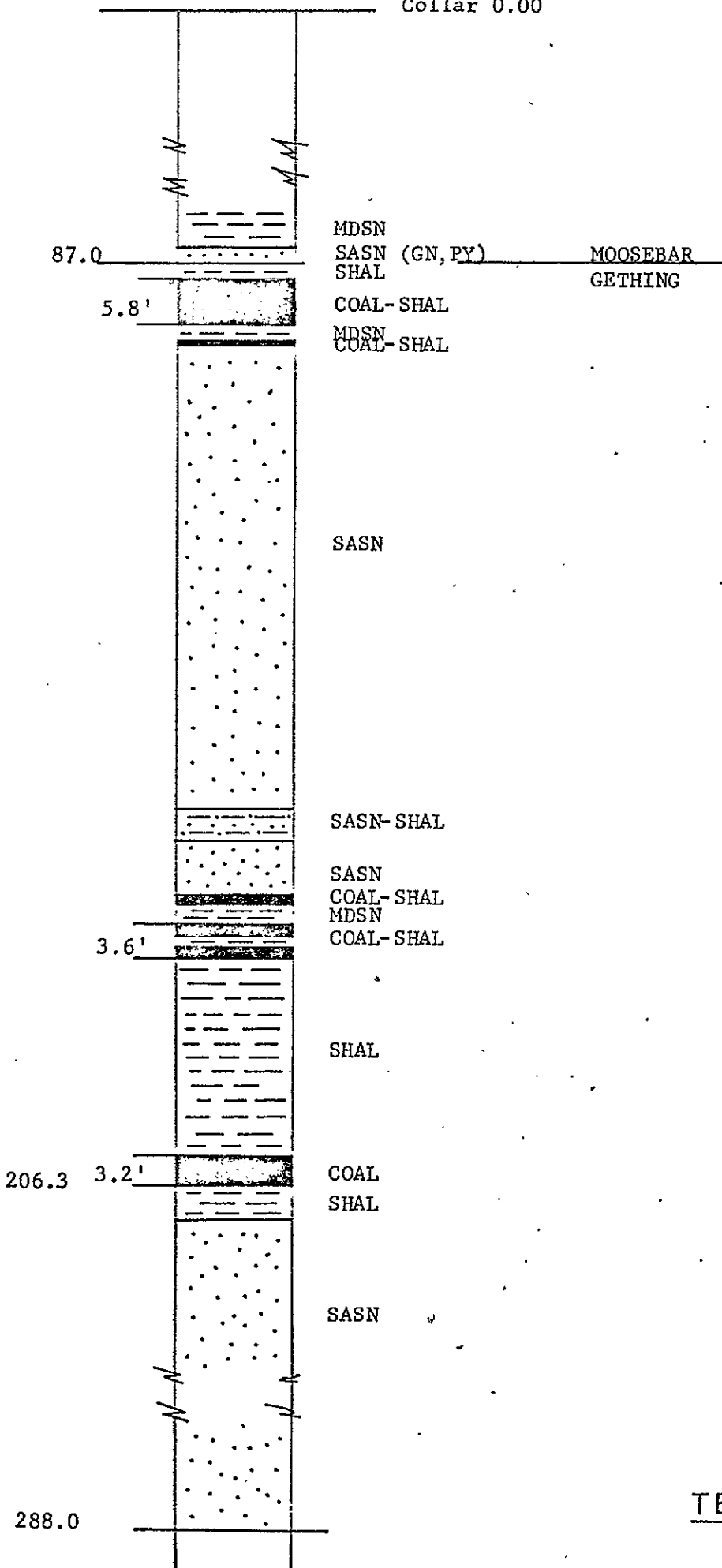


- SASN - SANDSTONE
- SLSN - SILTSTONE
- SHAL - SHALE
- MDSN - MUDSTONE
- BRXX - BRECCIA
- GN - GLAUCONITE
- PY - PYRITE
- CA - CALCITE
- 5.0 ↑ - WIDTH OF SEAM
- \*3.5 - <100% RECOVERED
- ~ - FLT. - FAULT



- SASN - SANDSTONE
- SLSN - SILTSTONE
- SHAL - SHALE
- MDSN - MUDSTONE
- BRXX - BRECCIA
- GN - GLAUCONITE
- PY - PYRITE
- CA - CALCITE
- 5.0 ↑ - WIDTH OF SEAM
- \* 3.5 - <100% RECOVERED
- ~ - FLT. - FAULT

Collar 0.00



- SASN - SANDSTONE
- SLSN - SILTSTONE
- SHAL - SHALE
- MDSN - MUDSTONE
- BRXX - BRECCIA
- GN - GLAUCONITE
- PY - PYRITE
- CA - CALCITE
- 5.0 ↑ - WIDTH OF SEAM
- \* 3.5 - <100% RECOVERED
- ~~~~~ - FLT. - FAULT



1397.0

5.8

1.9\*

9.1\*

1.3  
1588.9

1648.0

MDSN

SASN (GN, PY)  
SHAL (PY)

COAL (PY)

MOOSEBAR

GETHING

SASN

SHAL-SLSN

SLSN

SHAL-SLSN

SHAL-SLSN-SASN

SASN

SHAL

SHAL

COAL

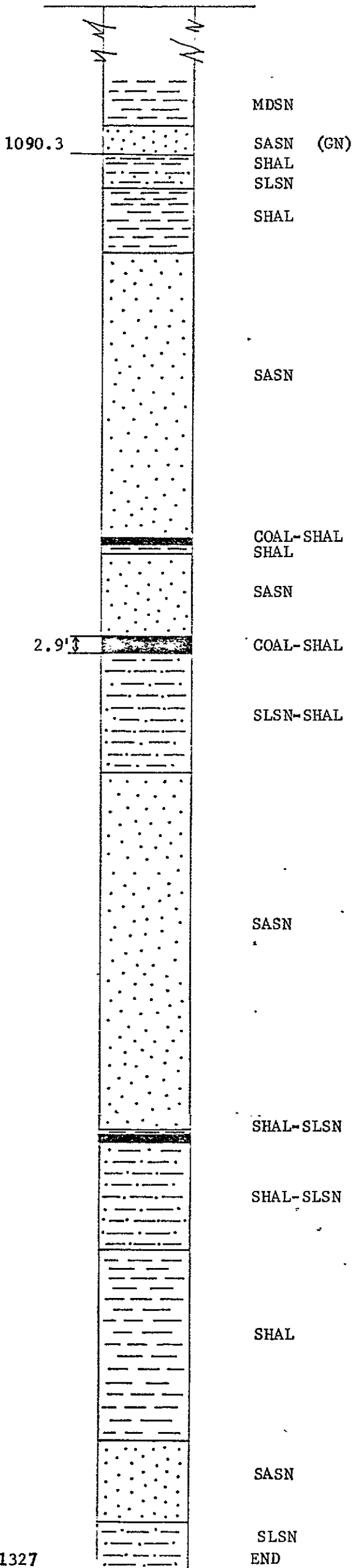
SHAL

SASN

SHAL

SASN  
END

- SASN - SANDSTONE
- SLSN - SILTSTONE
- SHAL - SHALE
- MDSN - MUDSTONE
- BRXX - BRECCIA
- GN - GLAUCONITE
- PY - PYRITE
- CA - CALCITE
- 5.0 ↑ - WIDTH OF SEAM
- \* 3.5 - <100% RECOVERED
- ~ - FLT. - FAULT



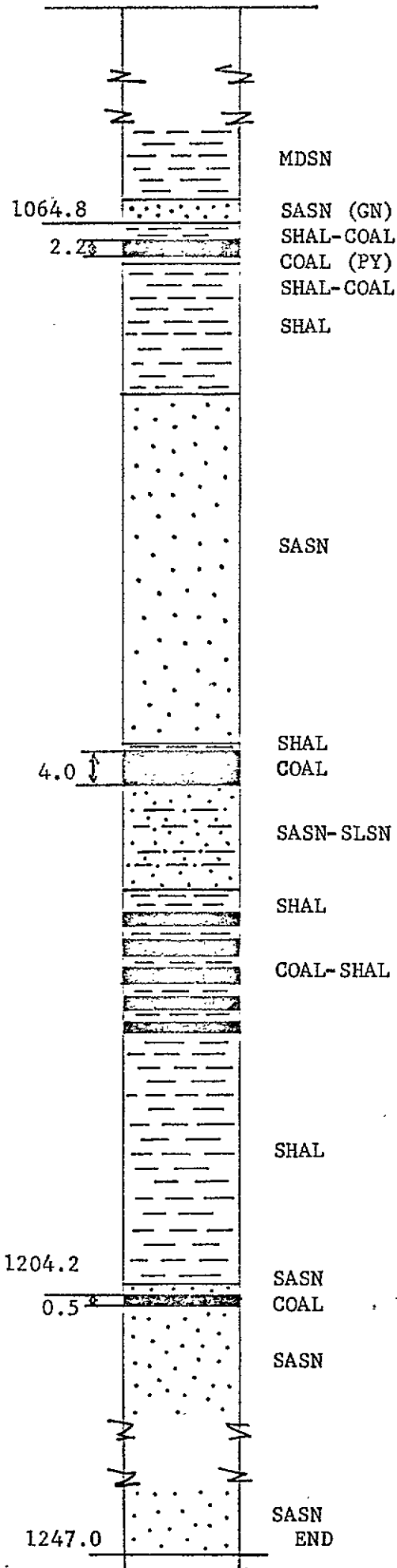
- SASN - SANDSTONE
- SLSN - SILTSTONE
- SHAL - SHALE
- MDSN - MUDSTONE
- BRXX - BRECCIA
- GN - GLAUCONITE
- PY - PYRITE
- CA - CALCITE
- 5.0 ↓ - WIDTH OF SEAM
- \* 3.5 - <100% RECOVERED
- ~ - FLT. - FAULT

COLLAR

D.D.H. T-11

SITE: C-4

Scale : lin. = 20 ft.



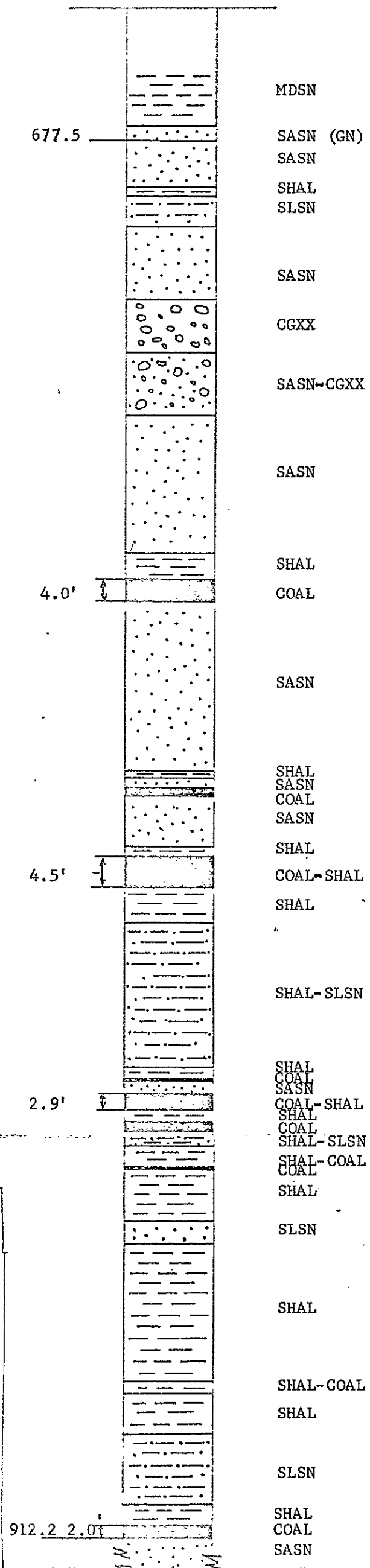
MOOSEBAR

GETHING

- SASN - SANDSTONE
- SLSN - SILTSTONE
- SHAL - SHALE
- MDSN - MUDSTONE
- BRXX - BRECCIA
- GN - GLAUCONITE
- PY - PYRITE
- CA - CALCITE
- 5.0 ↑ - WIDTH OF SEAM
- \* 3.5 - <100% RECOVERED
- ~ - FLT. - FAULT

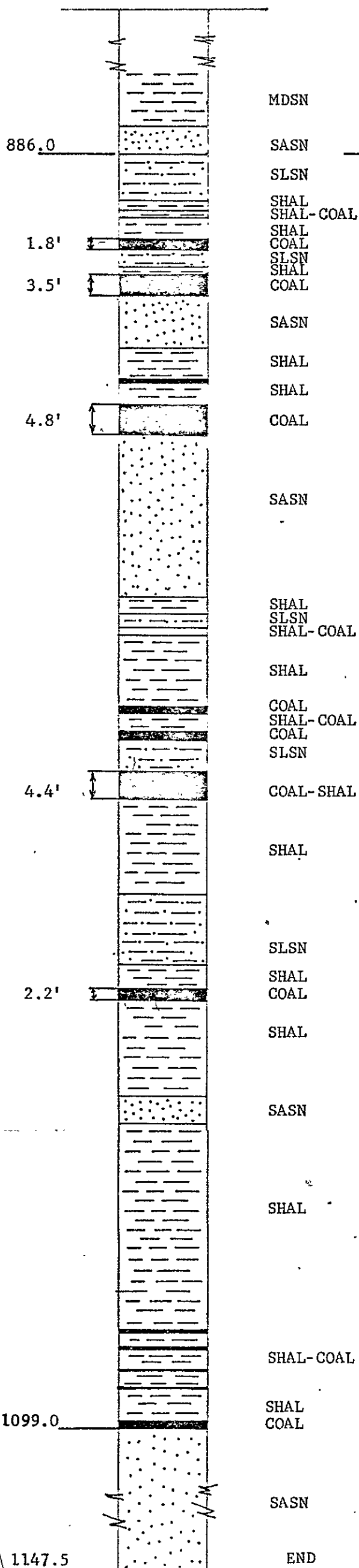
TECK CORPORATION LTD.

BULLMOOSE PROJECT

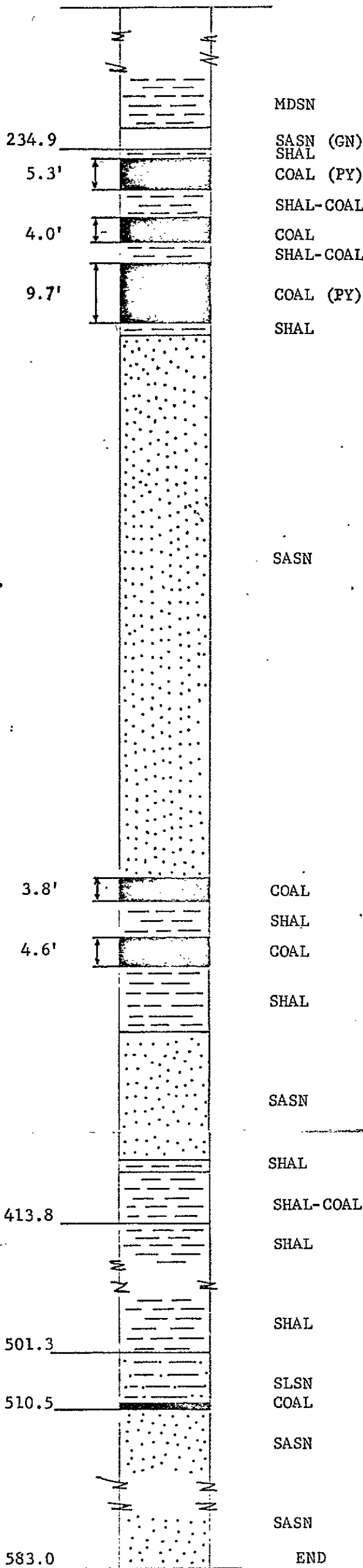


MOOSEBAR  
GETHING

- SASN - SANDSTONE
- SLSN - SILTSTONE
- SHAL - SHALE
- MDSN - MUDSTONE
- BRXX - BRECCIA
- GN - GLAUCONITE
- PY - PYRITE
- CA - CALCITE
- 5.0 ↑ - WIDTH OF SEAM
- \* 3.5 - <100% RECOVERED
- ~ - FLT. - FAULT

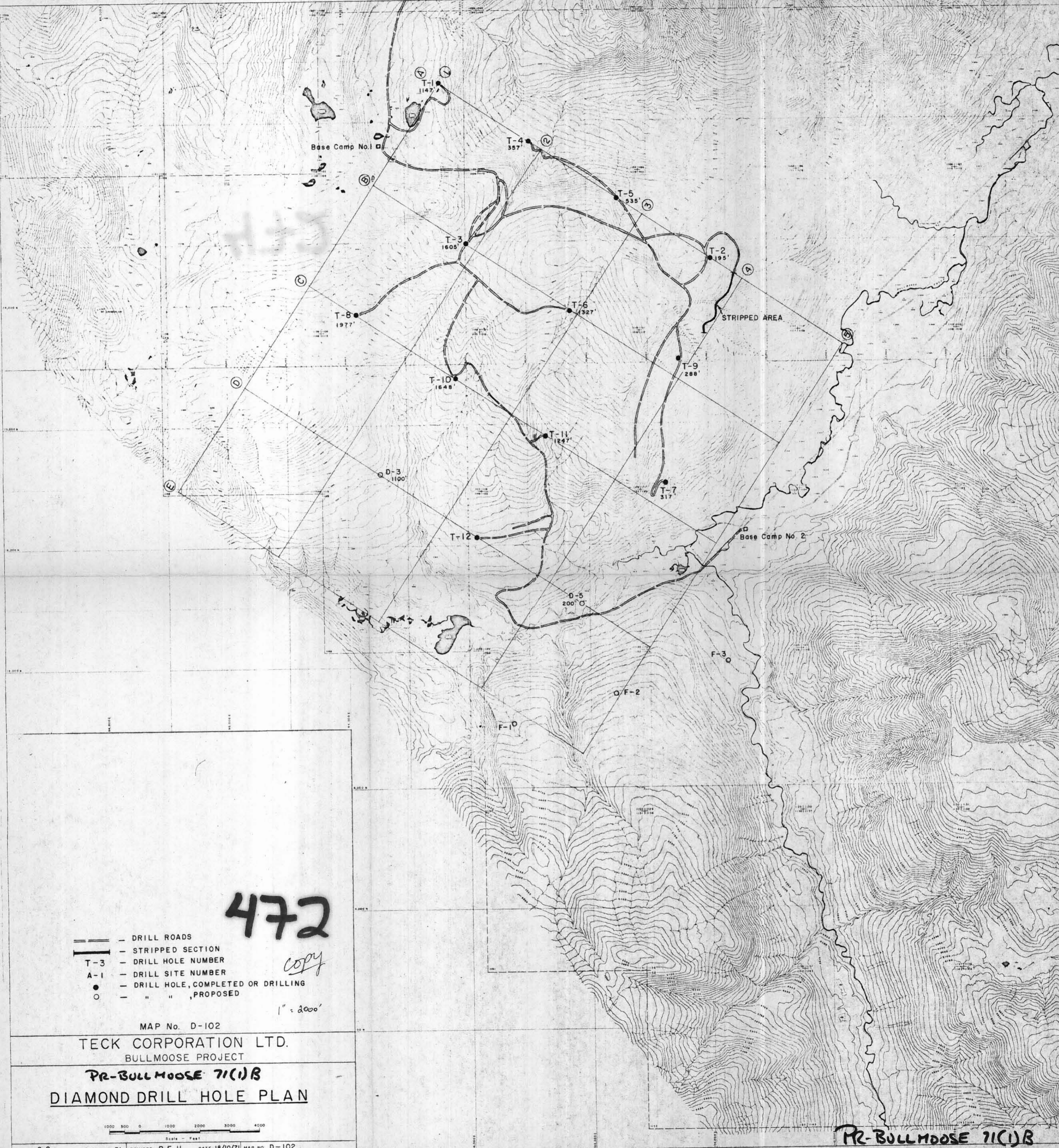


- SASN - SANDSTONE
- SLSN - SILTSTONE
- SHAL - SHALE
- MDSN - MUDSTONE
- BRXX - BRECCIA
- GN - GLAUCONITE
- PY - PYRITE
- CA - CALCITE
- 5.0' ↑ - WIDTH OF SEAM
- \* 3.5 - <100% RECOVERED
- ~ - FLT. - FAULT



MOOSEBAR  
GETHING

- SASN - SANDSTONE
- SLSN - SILTSTONE
- SHAL - SHALE
- MDSN - MUDSTONE
- BRXX - BRECCIA
- GN - GLAUCONITE
- PY - PYRITE
- CA - CALCITE
- 5.0' ↕ - WIDTH OF SEAM
- \*3.5 - <100% RECOVERED
- ~ - FLT. - FAULT



472

copy

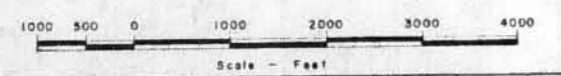
1" = 2000'

- == DRILL ROADS
- STRIPPED SECTION
- T-3 DRILL HOLE NUMBER
- A-1 DRILL SITE NUMBER
- DRILL HOLE, COMPLETED OR DRILLING
- " " PROPOSED

MAP No. D-102

TECK CORPORATION LTD.  
BULLMOOSE PROJECT

**PR-BULLMOOSE 71(1)B**  
**DIAMOND DRILL HOLE PLAN**



PR-BULLMOOSE 71(1)B

# TECK CORPORATION LIMITED

## STRATIGRAPHIC LOG OF DDH T-2

# 472

VERTICAL SCALE 1" = 50'

PR-BULLMOOSE 71(3)C.

PROJECT Bullmoose  
 HOLE NO. T-2 CORE SIZE NQ  
 CO-ORDINATES 25437.4 N 106325.4 E  
 COLLAR ELEVATION 5376'  
 HOLE ANGLE -90° TOTAL DEPTH 195'

LOCATION Sukunka River  
 DATUM Collar  
 DATE STARTED Aug. 21, 1971  
 DATE FINISHED Aug 22, 1971  
 LOGGED BY R. E. Hindson

| SERIES           | FORMATION | MEMBER        | DISTANCE FROM DATUM | COLUMNAR SECTION | LITHOLOGIC DESCRIPTION                                          |
|------------------|-----------|---------------|---------------------|------------------|-----------------------------------------------------------------|
| LOWER CRETACEOUS | GETHING   | UPPER GETHING | 0                   | 0-10             | SCREE OF COAL MIXED WITH OVERBURDEN                             |
|                  |           |               | 100                 | 100-110          | SANDSTONE, MEDIUM TO COARSE GRAINED COALY WISPS AT BASE         |
|                  |           |               | 110                 | 110-116          | COAL                                                            |
|                  |           |               | 152                 | 116-152          | SHALE, THIN BEDDED, VERY CARBONACEOUS BECOMING SANDY DOWNWARDS. |
|                  |           |               | 154.5               | 152-154.5        | COAL                                                            |
|                  |           | LOWER GETHING | 154.5               | 154.5-200        | SANDSTONE, MEDIUM TO COARSE GRAINED CARBONACEOUS AT TOP         |
|                  |           |               | 200                 |                  | END OF HOLE                                                     |



# TECK CORPORATION LIMITED

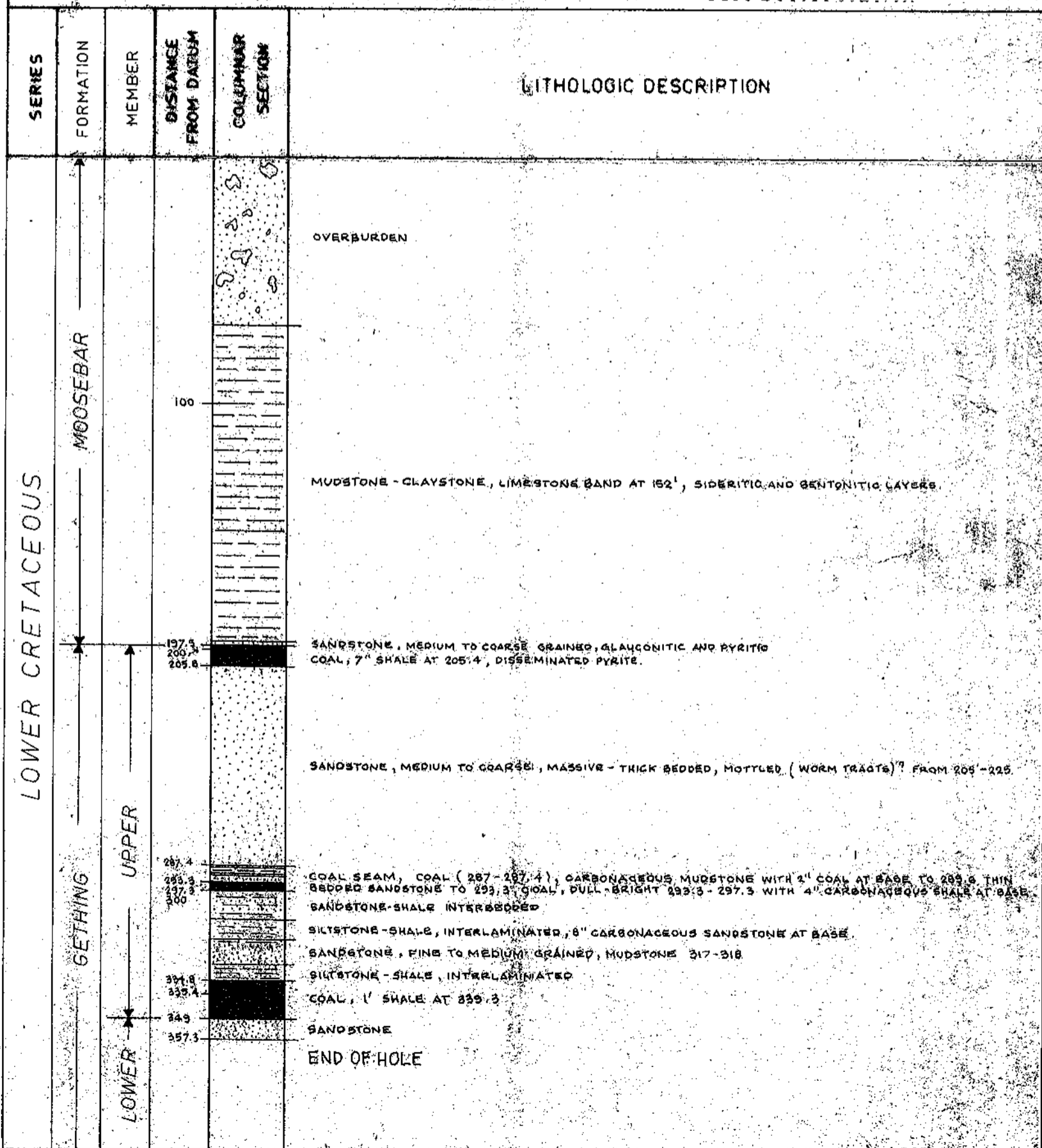
## STRATIGRAPHIC LOG OF DDH T-4

VERTICAL SCALE 1" = 50'

PR. BULLMOOSE 71 (3) C.

472

|                                               |                                    |
|-----------------------------------------------|------------------------------------|
| PROJECT <u>Bullmoose</u>                      | LOCATION: <u>Sukunka River</u>     |
| HOLE NO: <u>T-4</u> CORE SIZE <u>NQ</u>       | DATUM: <u>Collar</u>               |
| CO-ORDINATES <u>29079.6 N 100240.1 E</u>      | DATE STARTED <u>Aug. 24, 1971</u>  |
| COLLAR ELEVATION: <u>4879</u>                 | DATE FINISHED <u>Aug. 28, 1971</u> |
| HOLE ANGLE <u>-9°</u> TOTAL DEPTH <u>357'</u> | LOGGED BY: <u>R. E. Hindson</u>    |



# TECK CORPORATION LIMITED

## STRATIGRAPHIC LOG OF DDH T-7

VERTICAL SCALE 1"=50'

PR-BULLMOOSE 71(3) C.

472

PROJECT Bullmoose  
 HOLE NO: T-7 CORE SIZE NQ  
 CO-ORDINATES 18000.0 N 104550.0 E  
 COLLAR ELEVATION 4100.0  
 HOLE ANGLE -90° TOTAL DEPTH 317'

LOCATION Sukunka River  
 DATUM Collar  
 DATE STARTED Sept 6, 1971  
 DATE FINISHED Sept 8, 1971  
 LOGGED BY R.E. Hindson

| SERIES           | FORMATION | MEMBER                                                                                                           | DISTANCE FROM DATUM | COLUMNAR SECTION | LITHOLOGIC DESCRIPTION                                                                                                      |
|------------------|-----------|------------------------------------------------------------------------------------------------------------------|---------------------|------------------|-----------------------------------------------------------------------------------------------------------------------------|
| LOWER CRETACEOUS | MOOSEBAR  |                                                                                                                  |                     |                  | OVERBURDEN                                                                                                                  |
|                  |           |                                                                                                                  |                     |                  | MUDSTONE                                                                                                                    |
|                  |           |                                                                                                                  |                     |                  | MUDSTONE, SANDY, GLAUCONITIC, PYRITIC                                                                                       |
|                  |           |                                                                                                                  |                     |                  | MUDSTONE, BLACK, CARBONACEOUS, PYRITIC                                                                                      |
|                  |           |                                                                                                                  | 100                 |                  | BIRD SEAM, HIGH CORE LOSS, 4" VERY CARBONACEOUS SHALE AT BASE, RECOVERED 2.5'                                               |
|                  |           |                                                                                                                  |                     |                  | SANDSTONE, LIGHT GREY, MEDIUM TO COARSE GRAINED, CARBONACEOUS TO COALY PARTINGS. CALCITE VEINLETS + PROBABLE FAULT AT BASE. |
|                  |           |                                                                                                                  | 168                 |                  | COAL, HARD AND BRIGHT, SHEARED AT TOP                                                                                       |
|                  |           |                                                                                                                  | 169                 |                  | SILTSTONE - MUDSTONE, INTERBEDDED TO INTERLAMINATED, FAULT AT 176'                                                          |
|                  |           |                                                                                                                  | 177                 |                  | COAL, SANDSTONE, SILTSTONE BAND FROM 181-183, SHEAR AT 183'                                                                 |
|                  |           |                                                                                                                  | 183                 |                  | SANDSTONE - SILTSTONE, INTERBEDDED                                                                                          |
|                  |           |                                                                                                                  | 197                 |                  | MUDSTONE, COALY-CARBONACEOUS                                                                                                |
|                  |           |                                                                                                                  | 200                 |                  | COAL, SHEARED                                                                                                               |
|                  |           |                                                                                                                  |                     |                  | SANDSTONE, COARSE, CALCITE NEAR TOP                                                                                         |
|                  |           |                                                                                                                  | 218                 |                  | COAL, HARD AND BRIGHT                                                                                                       |
|                  |           |                                                                                                                  | 221                 |                  | SANDSTONE, SILTSTONE, SHALE - INTERLAMINATED, 6" COAL AT BASE WHERE SHEARED + CALCITE VEINED AT BASE.                       |
|                  |           | CARBONACEOUS SANDSTONE AND SHALE - INTERBEDDED                                                                   |                     |                  |                                                                                                                             |
|                  |           | SANDSTONE AND LAMINATED SILTSTONE - SHALE, VERY CARBONACEOUS - COALY 235'-237'                                   |                     |                  |                                                                                                                             |
|                  |           | BLACK CARBONACEOUS, COALY SHALE.                                                                                 |                     |                  |                                                                                                                             |
|                  |           | SANDSTONE, SHALY AND LAMINATED NEAR BASE.                                                                        |                     |                  |                                                                                                                             |
|                  |           | SHALE, VERY CARBONACEOUS WITH COALY WISPS AND PARTINGS NEAR BASE.                                                |                     |                  |                                                                                                                             |
|                  |           | SHALE - SILTSTONE, INTERLAMINATED.                                                                               |                     |                  |                                                                                                                             |
|                  |           | SHALE, BLACK AND CARBONACEOUS                                                                                    |                     |                  |                                                                                                                             |
|                  |           | SANDSTONE - SILTSTONE, INTERBEDDED CARBONACEOUS WITH COAL PARTINGS TO 283', COAL PARTINGS AND 1/2" BANDS AT 282' |                     |                  |                                                                                                                             |
|                  |           | COAL - CHAMBERLAIN, HARD AND BRIGHT, SHALY PARTINGS AT BASE.                                                     |                     |                  |                                                                                                                             |
|                  |           | SANDSTONE, COARSE, CARBONACEOUS, PARTINGS AND WISPS AT 308'-312'                                                 |                     |                  |                                                                                                                             |
|                  |           | END OF HOLE                                                                                                      |                     |                  |                                                                                                                             |

LOWER CRETACEOUS

MOOSEBAR

UPPER GETTING

GETTING

LOWER GETTING

# TECK CORPORATION LIMITED

## STRATIGRAPHIC LOG

OF

DDH T-9

VERTICAL SCALE 1" = 50'

PR-BULLMOOSE 71 (3) R.

472

PROJECT Bullmoose  
 HOLE NO: T-9 CORE SIZE NA  
 CO-ORDINATES 22100 N 10500.0 E  
 COLLAR ELEVATION 5200.0  
 HOLE ANGLE -90° TOTAL DEPTH 288'

LOCATION: Sukunka River  
 DATUM Collar  
 DATE STARTED Sept. 10, 1971  
 DATE FINISHED Sept. 12, 1971  
 LOGGED BY: R. E. Hindson

| SERIES           | FORMATION     | MEMBER        | DISTANCE FROM DATUM | COLUMNAR SECTION | LITHOLOGIC DESCRIPTION |                                                                                   |
|------------------|---------------|---------------|---------------------|------------------|------------------------|-----------------------------------------------------------------------------------|
| LOWER CRETACEOUS | MOOSEBAR      |               |                     | 0-8              | OVERBURDEN             |                                                                                   |
|                  |               |               |                     |                  | MUDSTONE               |                                                                                   |
|                  | GETHING       | UPPER GETHING |                     | 89               |                        | SANDSTONE, GLAUCONITIC AND PYRITIC LOST                                           |
|                  |               |               |                     | 97.7             |                        | COAL, 1' INTERBEDDED MUDSTONE.                                                    |
|                  | GETHING       | UPPER GETHING |                     |                  |                        | SANDSTONE, MEDIUM-COARSE GRAINED, SHALE INTERBEDS                                 |
|                  |               |               |                     | 168              |                        | COALY SEAM, 30% COAL INTERBEDDED WITH SHALE AND MUDSTONE.                         |
|                  | GETHING       | UPPER GETHING |                     | 174.6            |                        | SHALE - SILTSTONE, VERY CARBONACEOUS WITH COALY PARTINGS                          |
|                  |               |               |                     | 200              |                        | COAL                                                                              |
|                  | GETHING       | UPPER GETHING |                     | 206.1            |                        | 8" PEBBLE BAND                                                                    |
|                  |               |               |                     |                  |                        | SANDSTONE, MEDIUM TO COARSE GRAINED, THIN BEDDED IN PARTS CARBONACEOUS AND SHALY. |
|                  | LOWER GETHING |               | 288                 |                  | END OF HOLE            |                                                                                   |
|                  | LOWER GETHING |               | 300                 |                  |                        |                                                                                   |

# TECK CORPORATION LIMITED

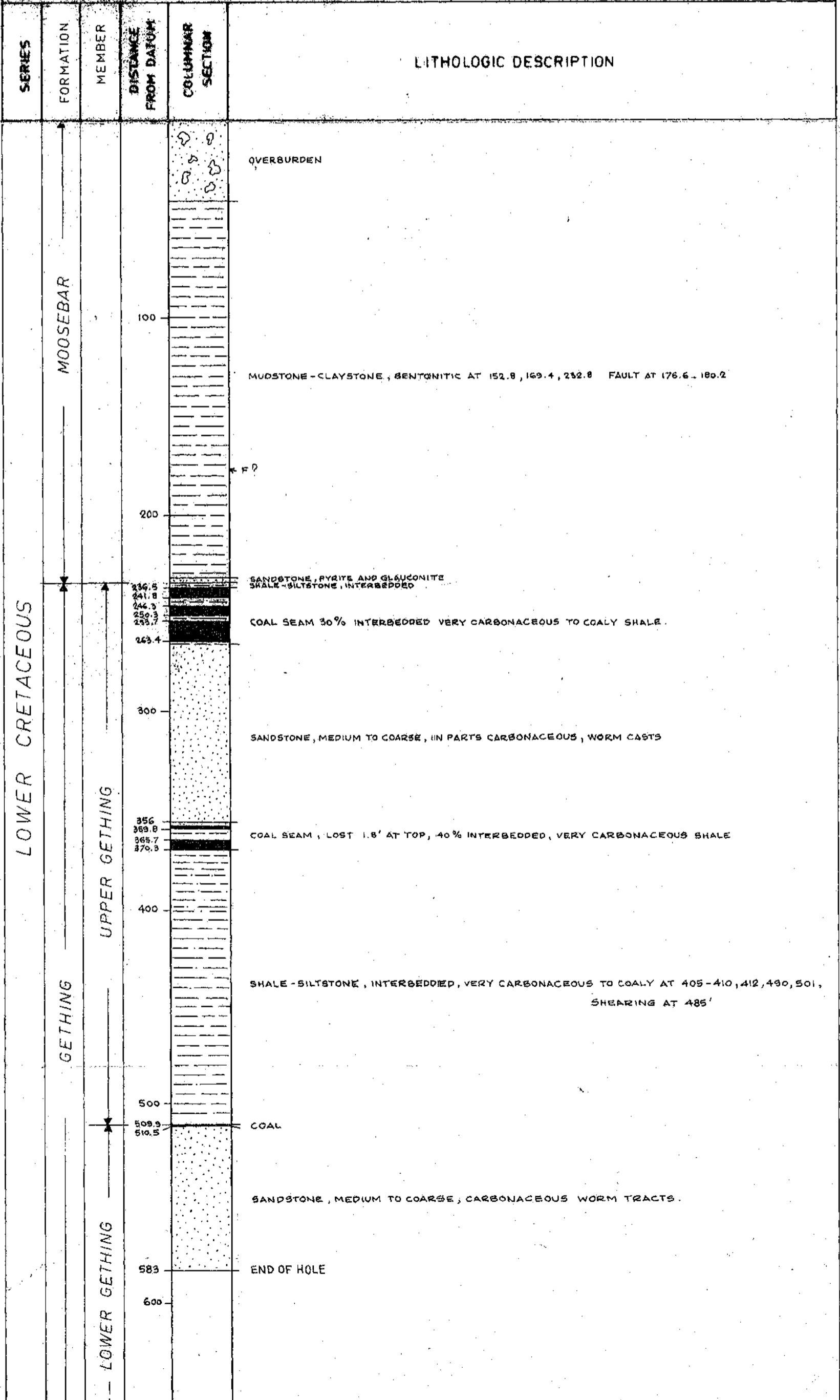
## STRATIGRAPHIC LOG OF ODH T-15

VERTICAL SCALE 1" = 50'

*PR-BULLMOOSE 71(3)C.*

# 472

|                                                 |                                     |
|-------------------------------------------------|-------------------------------------|
| PROJECT: <u>Bullmoose</u>                       | LOCATION: <u>Sukunka River</u>      |
| HOLE NO: <u>T-15</u> CORE SIZE: <u>NQ</u>       | DATUM: <u>Collar</u>                |
| COORDINATES: <u>12100.0 N / 065500.0</u>        | DATE STARTED: <u>Oct. 21, 1971</u>  |
| COLLAR ELEVATION: <u>3800'</u>                  | DATE FINISHED: <u>Oct. 24, 1971</u> |
| HOLE ANGLE: <u>-9°</u> TOTAL DEPTH: <u>583'</u> | LOGGED BY: <u>R. E. Hindson</u>     |



P/C

# GEOLOG

COAL ENVIRONMENT VERSION

T-1

PR-BULLMOUSE 71 (3) C

COMPANY: TECK CORPORATION PROPERTY SUKUNKA BLOCK 13 LOGGED BY: REFA DATE: 27/8/71 PAGE: 1 OF 9

| DEPTH FROM COLLAR OR DISTANCE FROM TOP OF INTERVAL DESCRIBED | RECOVERY | ROCK I AND CHARACTERISTICS |                                   |                                   |                 |                   |            |            |             |                         |               |       | ROCK II FILTERBLOS     |           |                             |             | STRUCTURE WITHIN INTERVAL                       |             |             |             |             |             |             | LITHOLOGIC UNITS |             |             |             | ACCESSORY MINERALS OR MINERALIZATION |             |             |             | UNITS COLLECTED |             |             |             |             |  |  |  |  |
|--------------------------------------------------------------|----------|----------------------------|-----------------------------------|-----------------------------------|-----------------|-------------------|------------|------------|-------------|-------------------------|---------------|-------|------------------------|-----------|-----------------------------|-------------|-------------------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|-------------|-------------|-------------|--------------------------------------|-------------|-------------|-------------|-----------------|-------------|-------------|-------------|-------------|--|--|--|--|
|                                                              |          | ROCK NAME                  | Major Quality Mineral of Interval | Minor Quality Mineral of Interval | SLIDE THICKNESS | DEGREE OF SORTING | GRAIN SIZE | SPHERICITY | ROUNDEDNESS | Porosity & Permeability | Major Texture | Minor | COLOUR MUNSSELL SYSTEM | Rock Name | Quality Mineral of Interval | FRAC-TURING | Fold axes, faulting, etc. (See Faulting Legend) | FRAC-TURING | FRAC-TURING | FRAC-TURING | FRAC-TURING | FRAC-TURING | FRAC-TURING | FRAC-TURING      | FRAC-TURING | FRAC-TURING | FRAC-TURING | FRAC-TURING                          | FRAC-TURING | FRAC-TURING | FRAC-TURING | FRAC-TURING     | FRAC-TURING | FRAC-TURING | FRAC-TURING | FRAC-TURING |  |  |  |  |
| 1117.4                                                       | AI       | AI                         |                                   |                                   |                 |                   |            |            |             |                         |               |       |                        |           |                             |             |                                                 |             |             |             |             |             |             |                  |             |             |             |                                      |             |             |             |                 |             |             |             |             |  |  |  |  |
| 000                                                          |          |                            |                                   |                                   |                 |                   |            |            |             |                         |               |       |                        |           |                             |             |                                                 |             |             |             |             |             |             |                  |             |             |             |                                      |             |             |             |                 |             |             |             |             |  |  |  |  |
| 100                                                          |          |                            |                                   |                                   |                 |                   |            |            |             |                         |               |       |                        |           |                             |             |                                                 |             |             |             |             |             |             |                  |             |             |             |                                      |             |             |             |                 |             |             |             |             |  |  |  |  |
| 226                                                          | 126      | SASN                       | SA7                               |                                   |                 |                   |            |            |             |                         |               |       |                        |           |                             |             |                                                 |             |             |             |             |             |             |                  |             |             |             |                                      |             |             |             |                 |             |             |             |             |  |  |  |  |
| 354                                                          | 128      | CGXX                       | SA7CB                             |                                   |                 |                   |            |            |             |                         |               |       |                        |           |                             |             |                                                 |             |             |             |             |             |             |                  |             |             |             |                                      |             |             |             |                 |             |             |             |             |  |  |  |  |
| 484                                                          | 1309     | SASN                       | SA7                               |                                   |                 |                   |            |            |             |                         |               |       |                        |           |                             |             |                                                 |             |             |             |             |             |             |                  |             |             |             |                                      |             |             |             |                 |             |             |             |             |  |  |  |  |
| 986                                                          | 502      | SASN                       | SA7CLT                            |                                   |                 |                   |            |            |             |                         |               |       |                        |           |                             |             |                                                 |             |             |             |             |             |             |                  |             |             |             |                                      |             |             |             |                 |             |             |             |             |  |  |  |  |
| 1109                                                         | 1235     | SHAL                       | AI                                |                                   |                 |                   |            |            |             |                         |               |       |                        |           |                             |             |                                                 |             |             |             |             |             |             |                  |             |             |             |                                      |             |             |             |                 |             |             |             |             |  |  |  |  |
|                                                              |          | 3                          | SASN                              | SA6C12                            |                 |                   |            |            |             |                         |               |       |                        |           |                             |             |                                                 |             |             |             |             |             |             |                  |             |             |             |                                      |             |             |             |                 |             |             |             |             |  |  |  |  |

**COPIED FROM ORIGINAL**

472



| CORRECTION<br>Y<br>L<br>OR<br>Z<br>O | DEPTH FROM COLLAR OR DISTANCE FROM POINT OF INTERVAL DESIGNATED | RECOVERY |                      | ROCK I AND CHARACTERISTICS |                          |    |                          |     |            |           |                         |            |         |       |                          | ROCK II ALTERATIONS |                                |                    |            | STRUCTURE |           |                |          |            |            |            |    |    |    |    | LITHOLOGIC UNITS |   |   |   | ACCESSORY MINERALS OR MINERALIZATION |  |  |  | UNDESIRABLE<br>SANDS<br>FELSIC<br>MATERIALS | FACIES<br>CORRECTION | FOSSILS<br>CORRECTION |  |  |  |
|--------------------------------------|-----------------------------------------------------------------|----------|----------------------|----------------------------|--------------------------|----|--------------------------|-----|------------|-----------|-------------------------|------------|---------|-------|--------------------------|---------------------|--------------------------------|--------------------|------------|-----------|-----------|----------------|----------|------------|------------|------------|----|----|----|----|------------------|---|---|---|--------------------------------------|--|--|--|---------------------------------------------|----------------------|-----------------------|--|--|--|
|                                      |                                                                 | UNITS    | ROCK I % OF INTERVAL | ROCK NAME                  | Major Qualifying Mineral |    | Minor Qualifying Mineral |     | SPHERICITY | ROUNDNESS | Porosity & Permeability |            | TEXTURE |       | COLOUR<br>MUNSELL SYSTEM | Rock Name           | Qualifying Mineral or Material |                    | FRACTURING |           |           | FOLD STRUCTURE |          |            |            |            | GP | FM | MM | SN | MINERALIZATION   |   |   |   |                                      |  |  |  |                                             |                      |                       |  |  |  |
|                                      |                                                                 |          |                      |                            | MAZ                      | MA | MI2                      | MI3 |            |           | PERCENTAGE              | PERCENTAGE | MAJOR   | MINOR |                          |                     | WASH TEST                      | RELATIVE INTENSITY | PLUNGE     | DIP       | DIRECTION | OF             | YOUNGING | PERCENTAGE | PERCENTAGE | PERCENTAGE |    |    |    |    | PERCENTAGE       | % | % | % | %                                    |  |  |  |                                             |                      |                       |  |  |  |
|                                      |                                                                 |          |                      |                            |                          |    |                          |     |            |           |                         |            |         |       |                          |                     |                                |                    |            |           |           |                |          |            |            |            |    |    |    |    |                  |   |   |   |                                      |  |  |  |                                             |                      |                       |  |  |  |
|                                      |                                                                 |          |                      |                            |                          |    |                          |     |            |           |                         |            |         |       |                          |                     |                                |                    |            |           |           |                |          |            |            |            |    |    |    |    |                  |   |   |   |                                      |  |  |  |                                             |                      |                       |  |  |  |
|                                      |                                                                 |          |                      |                            |                          |    |                          |     |            |           |                         |            |         |       |                          |                     |                                |                    |            |           |           |                |          |            |            |            |    |    |    |    |                  |   |   |   |                                      |  |  |  |                                             |                      |                       |  |  |  |
|                                      |                                                                 |          |                      |                            |                          |    |                          |     |            |           |                         |            |         |       |                          |                     |                                |                    |            |           |           |                |          |            |            |            |    |    |    |    |                  |   |   |   |                                      |  |  |  |                                             |                      |                       |  |  |  |
|                                      |                                                                 |          |                      |                            |                          |    |                          |     |            |           |                         |            |         |       |                          |                     |                                |                    |            |           |           |                |          |            |            |            |    |    |    |    |                  |   |   |   |                                      |  |  |  |                                             |                      |                       |  |  |  |
|                                      |                                                                 |          |                      |                            |                          |    |                          |     |            |           |                         |            |         |       |                          |                     |                                |                    |            |           |           |                |          |            |            |            |    |    |    |    |                  |   |   |   |                                      |  |  |  |                                             |                      |                       |  |  |  |
|                                      |                                                                 |          |                      |                            |                          |    |                          |     |            |           |                         |            |         |       |                          |                     |                                |                    |            |           |           |                |          |            |            |            |    |    |    |    |                  |   |   |   |                                      |  |  |  |                                             |                      |                       |  |  |  |
|                                      |                                                                 |          |                      |                            |                          |    |                          |     |            |           |                         |            |         |       |                          |                     |                                |                    |            |           |           |                |          |            |            |            |    |    |    |    |                  |   |   |   |                                      |  |  |  |                                             |                      |                       |  |  |  |
|                                      |                                                                 |          |                      |                            |                          |    |                          |     |            |           |                         |            |         |       |                          |                     |                                |                    |            |           |           |                |          |            |            |            |    |    |    |    |                  |   |   |   |                                      |  |  |  |                                             |                      |                       |  |  |  |
|                                      |                                                                 |          |                      |                            |                          |    |                          |     |            |           |                         |            |         |       |                          |                     |                                |                    |            |           |           |                |          |            |            |            |    |    |    |    |                  |   |   |   |                                      |  |  |  |                                             |                      |                       |  |  |  |
| CCC                                  |                                                                 |          |                      |                            |                          |    |                          |     |            |           |                         |            |         |       |                          |                     |                                |                    |            |           |           |                |          |            |            |            |    |    |    |    |                  |   |   |   |                                      |  |  |  |                                             |                      |                       |  |  |  |
| CCC                                  | 1410                                                            | 569      |                      | SASN                       | CI                       |    | 63                       | 83  | 55         |           |                         |            |         | JE    |                          | 0060                |                                |                    |            |           |           |                |          |            |            |            |    |    |    |    |                  |   |   |   |                                      |  |  |  |                                             |                      |                       |  |  |  |
|                                      | 1445                                                            | 352      |                      | MASN                       | AI                       | CI |                          | K   | 1          |           |                         |            |         | KI    |                          | 0040                |                                |                    |            |           |           |                |          |            |            |            |    |    |    |    |                  |   |   |   |                                      |  |  |  |                                             |                      |                       |  |  |  |
|                                      |                                                                 |          |                      | SLSN                       | SA                       | CI |                          | K   | 2          |           |                         |            |         | K     |                          | 0040                |                                |                    |            |           |           |                |          |            |            |            |    |    |    |    |                  |   |   |   |                                      |  |  |  |                                             |                      |                       |  |  |  |
|                                      |                                                                 |          |                      | SASN                       | SA                       | CI |                          | X   | 83         | 55        |                         |            |         | X     |                          | 0070                |                                |                    |            |           |           |                |          |            |            |            |    |    |    |    |                  |   |   |   |                                      |  |  |  |                                             |                      |                       |  |  |  |
| CCC                                  | 1450                                                            | 15       |                      | SASN                       | CI                       | SA |                          | 63  | 83         | 51        |                         |            |         |       |                          | 0060                |                                |                    |            |           |           |                |          |            |            |            |    |    |    |    |                  |   |   |   |                                      |  |  |  |                                             |                      |                       |  |  |  |
|                                      | 1512                                                            | 527      |                      | SLSN                       | SA                       | CI |                          | K   | 2          |           |                         |            |         | 02    |                          | 0030                |                                |                    |            |           |           |                |          |            |            |            |    |    |    |    |                  |   |   |   |                                      |  |  |  |                                             |                      |                       |  |  |  |
| CCC                                  |                                                                 |          |                      | SASN                       | SA                       | CI |                          | 63  | 83         | 51        |                         |            |         | D     |                          | 0065                |                                |                    |            |           |           |                |          |            |            |            |    |    |    |    |                  |   |   |   |                                      |  |  |  |                                             |                      |                       |  |  |  |

CONTAINS SMALL SHALE FRAGMENTS

| ROCK I AND CHARACTERISTICS |     |     |                                        |       |                                      | ROCK II |                                      |                       | ROCK III              |                                |                        | STRUCTURE  |       |                                                                    |                                                                    |       |       |       |       | LITHOLOGIC UNITS                 |       |                  |    | ACCESSORY MINERALS OR MINERALIZATION |       |                                      |    |       |       |       |       |    |       |       |       |       |       |       |       |       |    |    |  |  |  |  |  |
|----------------------------|-----|-----|----------------------------------------|-------|--------------------------------------|---------|--------------------------------------|-----------------------|-----------------------|--------------------------------|------------------------|------------|-------|--------------------------------------------------------------------|--------------------------------------------------------------------|-------|-------|-------|-------|----------------------------------|-------|------------------|----|--------------------------------------|-------|--------------------------------------|----|-------|-------|-------|-------|----|-------|-------|-------|-------|-------|-------|-------|-------|----|----|--|--|--|--|--|
| RECOVERY                   |     |     | ROCK NAME                              |       | Major Qualifying Mineral of Material |         | Minor Qualifying Mineral of Material | MUNSELL COLOUR SYSTEM | ROCK NAME             | Qualifying Mineral or Material |                        | FRACTURING |       |                                                                    | Fold Axes, Folding, Dip, Control & Fault Abundance, Unconformities |       |       |       |       | DIRECTION OF TOPS OR OF YOUNGING | GP    | FM               | MM | SM                                   | Name  | Name                                 |    |       |       |       |       |    |       |       |       |       |       |       |       |       |    |    |  |  |  |  |  |
| 1-3                        | 4-6 | 7-8 | 9-10                                   | 11-12 | 13-14                                | 15-16   | 17-18                                | 19-20                 | 21                    | 22-23                          | 24                     | 25         | 26-27 | 28-29                                                              | 30-31                                                              | 32-33 | 34-35 | 36-37 | 38-39 | 40-41                            | 42-43 | 44-45            | 46 | 47-48                                | 49-50 | 51                                   | 52 | 53-54 | 55-56 | 57-58 | 59-60 | 61 | 62-63 | 64-65 | 66-67 | 68-69 | 70-71 | 72-73 | 74-75 | 76-77 | 78 | 79 |  |  |  |  |  |
| CORRECTION                 |     |     | DISTANCE FROM COLLAR OR POINT TO POINT |       | RECOVERY UNITS                       |         | ROCK I % OF INTEREST                 |                       | ROCK II % OF INTEREST |                                | ROCK III % OF INTEREST |            |       | FOLD AXES, FOLDING, DIP, CONTROL & FAULT ABUNDANCE, UNCONFORMITIES |                                                                    |       |       |       |       |                                  |       | LITHOLOGIC UNITS |    |                                      |       | ACCESSORY MINERALS OR MINERALIZATION |    |       |       |       |       |    |       |       |       |       |       |       |       |       |    |    |  |  |  |  |  |
|                            | 159 | C   | 7.8                                    |       | SASN                                 | S4A     | CI                                   | 4W                    | 83                    | 75                             | Z                      | 0065       |       |                                                                    |                                                                    |       |       |       |       |                                  |       |                  |    |                                      |       |                                      |    |       |       |       |       |    |       |       |       |       |       |       |       |       |    |    |  |  |  |  |  |
| CCC                        | 160 | S   | 1.84                                   |       | SASN                                 | SA      | CI                                   | K                     | 3                     |                                | J                      | 0055       |       |                                                                    |                                                                    |       |       |       |       |                                  |       |                  |    |                                      |       |                                      |    |       |       |       |       |    |       |       |       |       |       |       |       |       |    |    |  |  |  |  |  |
|                            |     |     |                                        | 4     | SLSN                                 | AI      | CI                                   | K                     | 2                     |                                | J                      | 0040       |       |                                                                    |                                                                    |       |       |       |       |                                  |       |                  |    |                                      |       |                                      |    |       |       |       |       |    |       |       |       |       |       |       |       |       |    |    |  |  |  |  |  |
|                            |     |     |                                        | 2     | SHAL                                 | AI      |                                      | K                     | 1                     |                                | J                      | 0030       |       |                                                                    |                                                                    |       |       |       |       |                                  |       |                  |    |                                      |       |                                      |    |       |       |       |       |    |       |       |       |       |       |       |       |       |    |    |  |  |  |  |  |
|                            | 167 | 4   | 66                                     |       | SASN                                 | S4A     | CI                                   | 4K                    | 83                    | 57                             | Z                      | 0065       |       |                                                                    |                                                                    |       |       |       |       |                                  |       |                  |    |                                      |       |                                      |    |       |       |       |       |    |       |       |       |       |       |       |       |       |    |    |  |  |  |  |  |
|                            | 249 | 3   | 81.9                                   | 6     | SLSN                                 | AI      | CI                                   | 1K                    | 2                     |                                | J                      | 0065       |       |                                                                    |                                                                    |       |       |       |       |                                  |       |                  |    |                                      |       |                                      |    |       |       |       |       |    |       |       |       |       |       |       |       |       |    |    |  |  |  |  |  |
| CCC                        |     |     |                                        | 2     | SHAL                                 | AI      |                                      | K                     | 1                     |                                | J                      | 0040       |       |                                                                    |                                                                    |       |       |       |       |                                  |       |                  |    |                                      |       |                                      |    |       |       |       |       |    |       |       |       |       |       |       |       |       |    |    |  |  |  |  |  |
| CCC                        | 273 | 3   | 240                                    | 9     | MDSN                                 | AI      |                                      | K                     | 1                     |                                | J                      | 0035       |       |                                                                    |                                                                    |       |       |       |       |                                  |       |                  |    |                                      |       |                                      |    |       |       |       |       |    |       |       |       |       |       |       |       |       |    |    |  |  |  |  |  |
|                            |     |     |                                        |       |                                      |         |                                      |                       |                       |                                |                        |            |       |                                                                    |                                                                    |       |       |       |       |                                  |       |                  |    |                                      |       |                                      |    |       |       |       |       |    |       |       |       |       |       |       |       |       |    |    |  |  |  |  |  |
|                            |     |     |                                        |       |                                      |         |                                      |                       |                       |                                |                        |            |       |                                                                    |                                                                    |       |       |       |       |                                  |       |                  |    |                                      |       |                                      |    |       |       |       |       |    |       |       |       |       |       |       |       |       |    |    |  |  |  |  |  |
|                            |     |     |                                        |       |                                      |         |                                      |                       |                       |                                |                        |            |       |                                                                    |                                                                    |       |       |       |       |                                  |       |                  |    |                                      |       |                                      |    |       |       |       |       |    |       |       |       |       |       |       |       |       |    |    |  |  |  |  |  |

CONTAINS SMALL FRAGMENTS OF BLACK SHALE













P/C

# GEOLOG

COAL ENVIRONMENT VERSION

T-2

PR-BULLMOOSE 71(3)C

COMPANY: PEAK CORPORATION PROPERTY: SUKUNIA BLTIC P. LOGGED BY: RCH DATE: 20/1/87 PAGE: 1 OF 3

75-01

| DEPTH FROM COLLAR OR DISTANCE FROM POINT OF DRILL | RECOVERY | ROCK I AND CHARACTERISTICS |                          |      |                          |       |                     |                      |            |            |             |                                  |           |           |                        |                       |           |                                | ROCK II INTERFACED |              |                                                                                    |              | STRUCTURE WITHIN INTERVAL        |    |    |    | LITHOLOGIC UNITS |      |      |  | ACCESSORY MINERALS OR MINERALIZATION |  |
|---------------------------------------------------|----------|----------------------------|--------------------------|------|--------------------------|-------|---------------------|----------------------|------------|------------|-------------|----------------------------------|-----------|-----------|------------------------|-----------------------|-----------|--------------------------------|--------------------|--------------|------------------------------------------------------------------------------------|--------------|----------------------------------|----|----|----|------------------|------|------|--|--------------------------------------|--|
|                                                   |          | ROCK NAME                  | Major Qualifying Mineral |      | Minor Qualifying Mineral |       | FOLIATION THICKNESS | DEGREE OF FOLIOATION | GRAIN SIZE | SPHERICITY | ROUNDEDNESS | FRACTURE FACILITY & PERMEABILITY | TEXTURE   |           | COLOUR MUNSSELL SYSTEM | ROCK II % OF INTERVAL | ROCK NAME | Qualifying Mineral or Material |                    | FRAC. TURING | Fold Axes, Folding Direction, Fault Dip, Fault Strike, Strike-Slip Characteristics |              | DIRECTION OF TENS OR OF YOUNGING | GP | FM | MM | SM               | Name | Name |  |                                      |  |
| P1DZ                                              | P1SD     |                            | P2DZ                     | P2SD | Major                    | Minor |                     |                      |            |            |             |                                  | Intensity | Frequency |                        |                       |           | Plunge of Fault                | Dip of Fault       |              | Plunge of Fault                                                                    | Dip of Fault |                                  |    |    |    |                  |      |      |  |                                      |  |
| 10.5                                              | 100      |                            |                          |      |                          |       |                     |                      |            |            |             |                                  |           |           |                        |                       |           |                                |                    |              |                                                                                    |              |                                  |    |    |    |                  |      |      |  |                                      |  |
| 12.3                                              | 100      |                            |                          |      |                          |       |                     |                      |            |            |             |                                  |           |           |                        |                       |           |                                |                    |              |                                                                                    |              |                                  |    |    |    |                  |      |      |  |                                      |  |

| CCC | ELEVATION | IS APPROX. ALL ROCKS DESCRIBED UNDER THE SAME FOOTAGE INTERVAL ARE INTERBEDDED |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|-----|-----------|--------------------------------------------------------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| CCC | 13.3      | * LESS THAN 100% CORE RECOVERY                                                 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CCC | 19.4      | FREQUENT MUSTY BEAMS (WEATHERED)                                               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CCC | 37.7      | SASN C15 W83 S1 U 0.060                                                        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CCC | 69.5      | SASN C2.1 C1.3 K83 S1 N 0050                                                   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CCC | 110.0     | SASN C15 C2 TW83 S1 U 0050 CARBONACEOUS FOSSILS IN PART 0.5'                   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CCC | 110.6     | COAL BLuish TINGE 0020                                                         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

# 472

# GEOLOG

COAL ENVIRONMENT VERSION

COMPANY: TECK CORPORATION PROPERTY: MINUKA BLK B LOGGED BY: CTH DATE: 2/7/71 PAGE 2 OF 3

| VERTICAL ZONE | DEPTH FROM COLLAR OR DISTANCE FROM CONTROL POINT<br>MIN TO MAX<br>FEET<br>DESCRIBED | RECOVERY | ROCK I AND CHARACTERISTICS |                                             |                                             |                                             |            |            |             |                                     |               |       |                          |                                          |           | ROCK II INTERBLOS                     |         |            |                                                           | STRUCTURE WITHIN INTERBLOS       |            |            |            |              | LITHOLOGIC UNITS |   |                |   | ACCESSORY MINERALS OR MINERALIZATION |   |                  | UNUSUAL FEATURES |  | REMARKS |  |  |  |  |  |  |  |  |
|---------------|-------------------------------------------------------------------------------------|----------|----------------------------|---------------------------------------------|---------------------------------------------|---------------------------------------------|------------|------------|-------------|-------------------------------------|---------------|-------|--------------------------|------------------------------------------|-----------|---------------------------------------|---------|------------|-----------------------------------------------------------|----------------------------------|------------|------------|------------|--------------|------------------|---|----------------|---|--------------------------------------|---|------------------|------------------|--|---------|--|--|--|--|--|--|--|--|
|               |                                                                                     |          | ROCK NAME                  | Major Qualifying Mineral or Material<br>MIZ | Minor Qualifying Mineral or Material<br>MIZ | MINOR QUALIFYING MINERAL OR MATERIAL<br>MIZ | GRAIN SIZE | SPHERICITY | ROUNDEDNESS | Appearance, Porosity & Permeability | Major Texture | Minor | COLOUR<br>MUNSELL SYSTEM | Rock II % of Interblos<br>% of Interblos | Rock Name | Qualifying Mineral or Material<br>MIZ | Texture | FRACTURING | Fold Axes, Folding Dip, Contol. & Faulting Unconformities | Direction of Taps or of Younging | GP<br>% GP | FM<br>% FM | MM<br>% MM | MIN<br>% MIN | S                | M | Name<br>% Name | % | %                                    | % | UNUSUAL FEATURES | REMARKS          |  |         |  |  |  |  |  |  |  |  |
| CCC * 1120    | 9                                                                                   |          | COAL                       |                                             |                                             |                                             |            |            |             |                                     |               |       |                          |                                          |           |                                       |         |            |                                                           |                                  |            |            |            |              |                  |   |                |   |                                      |   |                  |                  |  |         |  |  |  |  |  |  |  |  |
| CCC           | 1136                                                                                | 1.6      | COAL                       |                                             |                                             |                                             |            |            |             |                                     |               |       |                          |                                          |           |                                       |         |            |                                                           |                                  |            |            |            |              |                  |   |                |   |                                      |   |                  |                  |  |         |  |  |  |  |  |  |  |  |
| CCC *         | 1160                                                                                | 5        | SHAL C2                    |                                             |                                             |                                             |            |            |             |                                     |               |       |                          |                                          |           |                                       |         |            |                                                           |                                  |            |            |            |              |                  |   |                |   |                                      |   |                  |                  |  |         |  |  |  |  |  |  |  |  |
| CCC *         | 1180                                                                                | 15       | SHAL C2                    |                                             |                                             |                                             |            |            |             |                                     |               |       |                          |                                          |           |                                       |         |            |                                                           |                                  |            |            |            |              |                  |   |                |   |                                      |   |                  |                  |  |         |  |  |  |  |  |  |  |  |
|               | 1200                                                                                | 20.8     | SHAL C2                    |                                             |                                             |                                             |            |            |             |                                     |               |       |                          |                                          |           |                                       |         |            |                                                           |                                  |            |            |            |              |                  |   |                |   |                                      |   |                  |                  |  |         |  |  |  |  |  |  |  |  |
| CCC *         | 1230                                                                                | 1.6      | SHAL C2                    |                                             |                                             |                                             |            |            |             |                                     |               |       |                          |                                          |           |                                       |         |            |                                                           |                                  |            |            |            |              |                  |   |                |   |                                      |   |                  |                  |  |         |  |  |  |  |  |  |  |  |
| CCC *         | 1274                                                                                | 4.0      | SHAL C2                    |                                             |                                             |                                             |            |            |             |                                     |               |       |                          |                                          |           |                                       |         |            |                                                           |                                  |            |            |            |              |                  |   |                |   |                                      |   |                  |                  |  |         |  |  |  |  |  |  |  |  |
| CCC *         | 1314                                                                                | 5.8      | SHAL C2                    |                                             |                                             |                                             |            |            |             |                                     |               |       |                          |                                          |           |                                       |         |            |                                                           |                                  |            |            |            |              |                  |   |                |   |                                      |   |                  |                  |  |         |  |  |  |  |  |  |  |  |

| MOISTURE | % | ASH | % | Volatiles | % | Fixed Carbon | % |
|----------|---|-----|---|-----------|---|--------------|---|
|          |   |     |   |           |   |              |   |

|   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 |
|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|





T-3 P/C

COMPANY: TECK CORPORATION PROPERTY: SUKUNKA BLOCK B LOGGED BY: RPH DATE 29/8/90 PAGE 1 OF 7

| LITHOZON | DEPTH FROM COLLAR OR DISTANCE FROM CONTROL POINT TO TOP OF UNIT OR DESCRIBED | RECOVERY | ROCK I AND CHARACTERISTICS |           |                                      |                                      |            |             |            |              |               |               |                       |                         |           |                                | ROCK II INTERFACIOS |                                          |                 |              |               |            | STRUCTURE WITHIN INTERFACIOS |              |                 |              |    |    |    | LITHOLOGIC UNITS |      |      |    | ACCESSORY MINERALS OR MINERALIZATION |    | UNITS | UNITS | UNITS | UNITS | UNITS |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|----------|------------------------------------------------------------------------------|----------|----------------------------|-----------|--------------------------------------|--------------------------------------|------------|-------------|------------|--------------|---------------|---------------|-----------------------|-------------------------|-----------|--------------------------------|---------------------|------------------------------------------|-----------------|--------------|---------------|------------|------------------------------|--------------|-----------------|--------------|----|----|----|------------------|------|------|----|--------------------------------------|----|-------|-------|-------|-------|-------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
|          |                                                                              |          | ROCK I % OF INTERFACIOS    | ROCK NAME | Major Qualifying Mineral or Material | Minor Qualifying Mineral or Material | SPHERICITY | ROUNDEDNESS | Porosity % | Permeability | Major Texture | Minor Texture | COLOUR MUNSELL SYSTEM | Rock I % of Interfacios | Rock Name | Qualifying Mineral or Material | FRAC-TURING         | Fold Axes, Faults, Cleavages, & Faulting | Plunge of Fault | Dip of Fault | Plunge of Dip | Dip of Dip | Plunge of Fault              | Dip of Fault | Plunge of Fault | Dip of Fault | GP | FM | MM | SM               | Name | Name |    |                                      |    |       |       |       |       |       |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 1        | 2                                                                            | 3        | 4                          | 5         | 6                                    | 7                                    | 8          | 9           | 10         | 11           | 12            | 13            | 14                    | 15                      | 16        | 17                             | 18                  | 19                                       | 20              | 21           | 22            | 23         | 24                           | 25           | 26              | 27           | 28 | 29 | 30 | 31               | 32   | 33   | 34 | 35                                   | 36 | 37    | 38    | 39    | 40    | 41    | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 |

ELEVATION IS APPROX

ALL ROCKS DESCRIBED UNDER THE SAME FOOTAGE ARE INTERBEDDED

\* = RECOVERY LESS THAN 100%

TRACERY TESTS - @ 500' - SS (N 27° E), @ 1000' - S1 (N 12° W), @ 1500' (N 6° 30' W)

70

RUSSY WEATHERING TO 23.0

S11 4413 SLGN S46 K 2 ZL 0045 B SHAL A1 B 80 FTCMHL

SASW S16 K 83 53 ZL 0045

SASW BECOMES INCREASINGLY COARSE TOWARDS BASE OF UNIT

S13 415 SHAL S47 K 1 0045 S SASW

CGXX S47 CI T9 2X 59 ± 0020 0045 DEBBLES UP TO 2.5 CM ACROSS

543 235 SLGN C15 K 2 ZL 0050 FTCMGS

AMT OF SHAL INCREASES TOWARDS BASE OF UNIT

SHAL A1T K 1 0030

THIN COAL PARTINGS FROM 54.3 to 55.5 ABS AT 66.8 (.25" wide)

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# GEOLOG

COAL ENVIRONMENT VERSION

COMPANY: TECK CORPORATION PROPERTY: SUKUNIKIA

PLANT: B

LOGGED BY: PEH DATE: 29/1/71 PAGE 2 OF 17

| ZONATION | DEPTH FROM COLLAR OR DISTANCE FROM CONTROL POINT OR INTERVAL DESCRIBED | RECOVERY | ROCK I AND CHARACTERISTICS |                                   |                                   |          |                |          |            |            |             |                                     |               |               | ROCK II INTERBEDS     |                    |           |                             |            |                    | STRUCTURE WITHIN INTERVAL                  |                                  |    |    |    |   |                               |      |      |  | LITHOLOGIC UNITS |  |  |  |  | ACCESSORY MINERALS OR MINERALIZATION |  | UNRELIABLE | FOR GRADING OF CORE | FOR GRADE OF SAMPLE | FOR GRADE OF SAMPLE |
|----------|------------------------------------------------------------------------|----------|----------------------------|-----------------------------------|-----------------------------------|----------|----------------|----------|------------|------------|-------------|-------------------------------------|---------------|---------------|-----------------------|--------------------|-----------|-----------------------------|------------|--------------------|--------------------------------------------|----------------------------------|----|----|----|---|-------------------------------|------|------|--|------------------|--|--|--|--|--------------------------------------|--|------------|---------------------|---------------------|---------------------|
|          |                                                                        |          | ROCK NAME                  | Major Quality Mineral or Material | Minor Quality Mineral or Material | FOLDINGS | MUDE THICKNESS | CRACKING | GRAIN SIZE | SPHERICITY | ROUNDEDNESS | Approximate Porosity & Permeability | Major Texture | Minor Texture | COLOUR Munsell SYSTEM | Rock % of interval | Rock Name | Quality Mineral or Material | FRACTURING | Relative Intensity | Fold Axis, Inclination, Dip, Cont. & Fault | Direction of Tens or of Younging | GP | FT | MM | S | M                             | Name | Name |  |                  |  |  |  |  |                                      |  |            |                     |                     |                     |
| CCC      | 65.2                                                                   | 12       | COAL                       |                                   |                                   |          |                |          |            |            | CLEAN       | DULL                                |               |               |                       |                    |           |                             |            |                    |                                            |                                  |    |    |    |   |                               |      |      |  |                  |  |  |  |  |                                      |  |            |                     |                     |                     |
|          | 66.3                                                                   | 5        | SHAL                       | C2                                | A1                                | K 1      |                |          |            |            |             |                                     |               |               |                       |                    |           |                             |            |                    |                                            |                                  |    |    |    |   |                               |      |      |  |                  |  |  |  |  |                                      |  |            |                     |                     |                     |
| CCC      | 72.0                                                                   | 10.7     | SASN                       | C2                                | C1                                | SK7351   |                |          |            |            |             |                                     |               |               |                       |                    |           |                             |            |                    |                                            |                                  |    |    |    |   | DIP OF BEDS MAY BE UNRELIABLE |      |      |  |                  |  |  |  |  |                                      |  |            |                     |                     |                     |
| CCC      | 81.0                                                                   | 40.9     | SHAL                       | C2                                | A1                                | K 1      |                |          |            |            |             |                                     |               |               |                       |                    |           |                             |            |                    |                                            |                                  |    |    |    |   |                               |      |      |  |                  |  |  |  |  |                                      |  |            |                     |                     |                     |
| CCC      | 81.5                                                                   | 5        | COAL                       |                                   |                                   |          |                |          |            |            | BRIGHT      | CLEAN                               |               |               |                       |                    |           |                             |            |                    |                                            |                                  |    |    |    |   |                               |      |      |  |                  |  |  |  |  |                                      |  |            |                     |                     |                     |
|          | 82.3                                                                   | 57       | MASN                       | C2                                |                                   | K 1      |                |          |            |            |             |                                     |               |               |                       |                    |           |                             |            |                    |                                            |                                  |    |    |    |   |                               |      |      |  |                  |  |  |  |  |                                      |  |            |                     |                     |                     |
| CCC      | 87.3                                                                   | 53       | SLSN                       | C2                                | F3                                | K 2      |                |          |            |            |             |                                     |               |               |                       |                    |           |                             |            |                    |                                            |                                  |    |    |    |   |                               |      |      |  |                  |  |  |  |  |                                      |  |            |                     |                     |                     |
| CCC      | 92.7                                                                   | 104      | SASN                       | C1A                               |                                   | K 3      | 53             |          |            |            |             |                                     |               |               |                       |                    |           |                             |            |                    |                                            |                                  |    |    |    |   |                               |      |      |  |                  |  |  |  |  |                                      |  |            |                     |                     |                     |

CONTAINING FOSSILS OF CARBON

COURSE WITH DEPTH

UNRELIABLY CARBONIFEROUS AT DEPTH









# GEOLOG

COAL ENVIRONMENT VERSION

COMPANY: **TECK CORPORATION** PROPERTY: **SISKIYUNKA** PLAT: **B**
LOGGED BY: **REN** DATE: **29/5/77** PAGE: **7** OF **17**

| LITHO ZONE | DEPTH FROM COLLAR OR DISTANCE FROM CONTROL | RECOVERY UNITS | ROCK I AND CHARACTERISTICS |         |                                      |                                      |            |             |                                        |               |               |        |                |           |                                |            |     | ROCK II INTERBEDS                          |     |         |          |     | STRUCTURE WITHIN INTERVAL |     |     |      |     |     |     |     |     |     | LITHOLOGIC UNITS |     |  |  | ACCESSORY MINERALS OR MINERALIZATION |  |  |  |
|------------|--------------------------------------------|----------------|----------------------------|---------|--------------------------------------|--------------------------------------|------------|-------------|----------------------------------------|---------------|---------------|--------|----------------|-----------|--------------------------------|------------|-----|--------------------------------------------|-----|---------|----------|-----|---------------------------|-----|-----|------|-----|-----|-----|-----|-----|-----|------------------|-----|--|--|--------------------------------------|--|--|--|
|            |                                            |                | ROCK NAME                  |         | Major Qualifying Mineral or Material | Minor Qualifying Mineral or Material | SPHERICITY | ROUNDEDNESS | PERCENTAGE PARASITICITY & PERMEABILITY | MAJOR TEXTURE | MINOR TEXTURE | COLOUR | MUNSELL SYSTEM | Rock Name | Qualifying Mineral or Material | FRACTURING |     | Fold Axes, Kinking, Dyke, Control, & Fault |     | PCOR GP | ZONATION | MM  | MM                        | SM  | SM  | Name |     | No. |     |     |     |     |                  |     |  |  |                                      |  |  |  |
|            |                                            |                | 15Z                        | 17Z     | 19Z                                  | 21Z                                  | 23Z        | 25Z         | 27Z                                    | 29Z           | 31Z           | 33Z    | 35Z            | 37Z       | 39Z                            | 41Z        | 43Z | 45Z                                        | 47Z | 49Z     | 51Z      | 53Z | 55Z                       | 57Z | 59Z | 61Z  | 63Z | 65Z | 67Z | 69Z | 71Z | 73Z | 75Z              | 77Z |  |  |                                      |  |  |  |
| CCC        | 338.7                                      | 13.7           | SHAL                       | C2.1    | K                                    | 1                                    |            |             |                                        |               |               |        |                |           |                                |            |     |                                            |     |         |          |     |                           |     |     |      |     |     |     |     |     |     |                  |     |  |  |                                      |  |  |  |
| CCC        | 347.7                                      | 9.7            | COAL                       | COAL    |                                      |                                      |            |             |                                        |               |               |        |                |           |                                |            |     |                                            |     |         |          |     |                           |     |     |      |     |     |     |     |     |     |                  |     |  |  |                                      |  |  |  |
| CCC        | 349.2                                      | 1.5            | SHAL                       | C2.1    | K                                    | 1                                    |            |             |                                        |               |               |        |                |           |                                |            |     |                                            |     |         |          |     |                           |     |     |      |     |     |     |     |     |     |                  |     |  |  |                                      |  |  |  |
| CCC        | 351.0                                      | 1.88           | COAL                       |         |                                      |                                      |            |             |                                        |               |               |        |                |           |                                |            |     |                                            |     |         |          |     |                           |     |     |      |     |     |     |     |     |     |                  |     |  |  |                                      |  |  |  |
| CCC        | 352.6                                      | 1.68           | SHAL                       | C2.2    | K                                    | 1                                    |            |             |                                        |               |               |        |                |           |                                |            |     |                                            |     |         |          |     |                           |     |     |      |     |     |     |     |     |     |                  |     |  |  |                                      |  |  |  |
| CCC        | 369.8                                      | 17.26          | SASN                       | C1.3    | K                                    | 2                                    |            |             |                                        |               |               |        |                |           |                                |            |     |                                            |     |         |          |     |                           |     |     |      |     |     |     |     |     |     |                  |     |  |  |                                      |  |  |  |
| CCC        | 377.0                                      | 7.29           | SHAL                       | C2.1F3  | K                                    | 1                                    |            |             |                                        |               |               |        |                |           |                                |            |     |                                            |     |         |          |     |                           |     |     |      |     |     |     |     |     |     |                  |     |  |  |                                      |  |  |  |
| CCC        | 380.0                                      | 3.0            | SASN                       | C17C2.1 | K                                    | 8                                    |            |             |                                        |               |               |        |                |           |                                |            |     |                                            |     |         |          |     |                           |     |     |      |     |     |     |     |     |     |                  |     |  |  |                                      |  |  |  |

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# GEOLOG

COAL ENVIRONMENT VERSION

COMPANY: **TECK CORPORATION** PROPERTY: **SUKUNKIA** BLOCK: **6** LOGGED BY: **REH** DATE: **29/6/71** PAGE **8** OF **17**

| DEPTH<br>FROM<br>COLLAR OR<br>CONTROL<br>POINT<br>DESCRIBED | RECOVERY<br>UNITS | ROCK I AND CHARACTERISTICS |                          |     |                          |     |                                            |            |             |                         |         |     |                        |           |                            | ROCK II INTERBLOS |     |                    |              |                                                                    |              | STRUCTURE WITHIN INTERRIALS |                                  |        |        |        |      |         |   | LITHOLOGIC UNITS |  |  |  |  | ACCESSORY MINERALS OR MINERALIZATION |  |
|-------------------------------------------------------------|-------------------|----------------------------|--------------------------|-----|--------------------------|-----|--------------------------------------------|------------|-------------|-------------------------|---------|-----|------------------------|-----------|----------------------------|-------------------|-----|--------------------|--------------|--------------------------------------------------------------------|--------------|-----------------------------|----------------------------------|--------|--------|--------|------|---------|---|------------------|--|--|--|--|--------------------------------------|--|
|                                                             |                   | ROCK NAME                  | Major Qualifying Mineral |     | Minor Qualifying Mineral |     | FOLDS INCLUDE THICKNESS DESCRIBING SEGMENT | SPHERICITY | ROUNDEDNESS | Porosity & Permeability | TEXTURE |     | COLOUR MUNSSELL SYSTEM | Rock Name | Quality Mineral or Natural | FRACTURING        |     |                    |              | Fold Axes, Cleaving, Dip Control, & Fault Attitude, Unconformities |              |                             |                                  | GP     | FM     | MM     | S.M. | Name    |   |                  |  |  |  |  |                                      |  |
|                                                             |                   |                            | M1Z                      | M1A | M2Z                      | M2A |                                            |            |             |                         | M3Z     | M3A |                        |           |                            | M4Z               | M4A | RELATIVE INTENSITY | PLANAR FOLDS | PLANAR FOLDS                                                       | PLANAR FOLDS | PLANAR FOLDS                | DIRECTION OF TIPS OR OF YOUNGING | 20-150 | 50-100 | 50-100 |      | 100-200 | % | Name             |  |  |  |  |                                      |  |

| AZ | SCL | DISTANCE | MOISTURE |   | % ASH | % VOLATILES | % FIXED CARBON |
|----|-----|----------|----------|---|-------|-------------|----------------|
|    |     |          | %        | % |       |             |                |

|     |     |      |     |      |          |     |     |              |      |          |      |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|-----|-----|------|-----|------|----------|-----|-----|--------------|------|----------|------|------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
|     |     | 3852 | 52  | SHAL | C1F3     | K   | 1   | F1           | 0030 |          |      |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CCC |     | 3903 | 518 | COAL |          | UCC |     | BRIGHT SHINY |      | SECTIONS |      |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|     |     | 3944 | 411 | SAND | S47      | C21 | W83 | S1           | F    | 0050     |      |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CCC | CCC | 3980 | 36  | SHAL | C22      | K   | 1   | N            | 0035 | COAL     |      |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CCC | CCC | 4004 | 245 | COAL | PARTINGS | S1  |     | UP TO        | 1CM  | WIDE     |      |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|     |     | 4004 | 245 | SAND | C2       | S4  | K   | 2            |      | 00405    | SHAL |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CCC |     | 4033 | 298 | SHAL | C2       | K   | 1   | N            | 0030 | 2        | COAL |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CCC |     | 4094 | 6   | SAND | C2       | C1  | K   | UP           |      | 0050     | 4    | SLSN |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|     |     | 1266 | 172 | SHAL | C2       | A1  | K   | 1            | F    | 0030     |      |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

T-2-60  
UNITS FACIES  
MINERALS OR MINERALIZATION  
SANDSTONE  
UNCONFORMITIES  
SANDSTONE  
FAULTS  
CARBONATE  
CLAY MINERALS  
GEOLOG











# GEOLOG

COAL ENVIRONMENT VERSION

COMPANY: TELK CORPORATION PROPERTY: SURINKA BLOCK: B3 LOGGED BY: KSH DATE: 29/8/71 PAGE 13 OF 17

| ZONED      | DEPTH FROM COLLAR OR DISTANCE FROM CONTROL POINT | RECOVERY UNITS | ROCK I AND CHARACTERISTICS   |                       |     |                       |     |            |             |              |            |             |                        |                     |           |                                |            |                           |       |                    |     |                                  |      |                               |      |      |        | ROCK II INTERBLOS |      |      |      | STRUCTURE WITHIN INTERVAL |     |     |        |        |        |        |        | LITHOLOGIC UNITS |    |    |    |    | ACCESSORY MINERALS OR MINERALIZATION |    |    |    | SAMPLE COLLECTED |    | UNITS |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------------|--------------------------------------------------|----------------|------------------------------|-----------------------|-----|-----------------------|-----|------------|-------------|--------------|------------|-------------|------------------------|---------------------|-----------|--------------------------------|------------|---------------------------|-------|--------------------|-----|----------------------------------|------|-------------------------------|------|------|--------|-------------------|------|------|------|---------------------------|-----|-----|--------|--------|--------|--------|--------|------------------|----|----|----|----|--------------------------------------|----|----|----|------------------|----|-------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
|            |                                                  |                | ROCK NAME                    | Major Quality Mineral |     | Minor Quality Mineral |     | SPHERICITY | ROUNDEDNESS | PERMEABILITY | TEXTURE    |             | COLOUR MUNSSELL SYSTEM | Rock % of Interblos | Rock Name | Quality Mineral or Material    | FRACTURING | Fold Axes, Pivoting, etc. |       |                    |     | DIRECTION OF TOPS OR OF YOUNGING | G.P. | F.M.                          | M.M. | S.M. | I.M.U. | Name              | Name | Name | Name |                           |     |     |        |        |        |        |        |                  |    |    |    |    |                                      |    |    |    |                  |    |       |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|            |                                                  |                |                              | M3Z                   | M3A | M3Z                   | M3A |            |             |              | SPHERICITY | ROUNDEDNESS |                        |                     |           |                                |            | MAJOR                     | MINOR | RELATIVE INTENSITY | DIP |                                  |      |                               |      |      |        |                   |      |      |      | DIP                       | DIP | DIP | PLUNGE | PLUNGE | PLUNGE | PLUNGE | PLUNGE |                  |    |    |    |    |                                      |    |    |    |                  |    |       |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|            |                                                  |                | 1                            | 2                     | 3   | 4                     | 5   | 6          | 7           | 8            | 9          | 10          | 11                     | 12                  | 13        | 14                             | 15         | 16                        | 17    | 18                 | 19  | 20                               | 21   | 22                            | 23   | 24   | 25     | 26                | 27   | 28   | 29   | 30                        | 31  | 32  | 33     | 34     | 35     | 36     | 37     | 38               | 39 | 40 | 41 | 42 | 43                                   | 44 | 45 | 46 | 47               | 48 | 49    | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 |
| CCC        | 842.0                                            | 210            | SILTY SHALE                  |                       |     |                       |     |            |             |              |            |             |                        | NOT ABANDONED       |           | COMMON                         |            |                           |       |                    |     |                                  |      | SMALL ANGULAR SHALE FRAGMENTS |      |      |        |                   |      |      |      |                           |     |     |        |        |        |        |        |                  |    |    |    |    |                                      |    |    |    |                  |    |       |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| CCC        | 949.2                                            | 70.5           | SASN CI.3                    |                       |     |                       |     |            |             |              |            |             |                        | K 83 51             |           | PERACID FOSILS ?               |            |                           |       |                    |     |                                  |      |                               |      |      |        |                   |      |      |      |                           |     |     |        |        |        |        |        |                  |    |    |    |    |                                      |    |    |    |                  |    |       |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| CCC        |                                                  |                | SLSN AI                      |                       |     |                       |     |            |             |              |            |             |                        | K 83 51             |           | PERACID FOSILS ?               |            |                           |       |                    |     |                                  |      |                               |      |      |        |                   |      |      |      |                           |     |     |        |        |        |        |        |                  |    |    |    |    |                                      |    |    |    |                  |    |       |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| CCC        | 916.9                                            | 20.68          | SASN C24                     |                       |     |                       |     |            |             |              |            |             |                        | K 83 51             |           | SASN REWORKED FOR 1ST 20'      |            |                           |       |                    |     |                                  |      |                               |      |      |        |                   |      |      |      |                           |     |     |        |        |        |        |        |                  |    |    |    |    |                                      |    |    |    |                  |    |       |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| CCC<br>CNT | 1169.5                                           | 195.05         | SHAL AI                      |                       |     |                       |     |            |             |              |            |             |                        | K 1                 |           | CONTAINS SMALL SHALE FRAGMENTS |            |                           |       |                    |     |                                  |      |                               |      |      |        |                   |      |      |      |                           |     |     |        |        |        |        |        |                  |    |    |    |    |                                      |    |    |    |                  |    |       |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| CCC        | 1443.1                                           | 278.3          | LT SILTY (SILTIC?) MD. SN AI |                       |     |                       |     |            |             |              |            |             |                        | K 1                 |           | AVG. 13.50, 13.68, 13.71, 13.0 |            |                           |       |                    |     |                                  |      | COMMONLY FRACTURED            |      |      |        |                   |      |      |      |                           |     |     |        |        |        |        |        |                  |    |    |    |    |                                      |    |    |    |                  |    |       |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| CCC<br>CNT | 1444.4                                           | 13             | SASN SA                      |                       |     |                       |     |            |             |              |            |             |                        | W 73                |           | INCREASES TOWARDS BASE OF UNIT |            |                           |       |                    |     |                                  |      | BY EN                         |      |      |        |                   |      |      |      |                           |     |     |        |        |        |        |        |                  |    |    |    |    |                                      |    |    |    |                  |    |       |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| CCC        | 1444.8                                           | 4              | COAL                         |                       |     |                       |     |            |             |              |            |             |                        | BRIGHT, SHINY       |           | CLEAN CONTACT WITH SASN ABOVE  |            |                           |       |                    |     |                                  |      | BLGT                          |      |      |        |                   |      |      |      |                           |     |     |        |        |        |        |        |                  |    |    |    |    |                                      |    |    |    |                  |    |       |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

| CORNO | DEPTH FROM COLLAR OR DISTANCE FROM POINT OF INTEREST DESCRIBED | RECOVERY UNITS | ROCK I AND CHARACTERISTICS |                                  |     |                                  |     |                        |            |             |              |         |                        |           |                            | ROCK II: INTERFOLIOS |     |      |     | STRUCTURE WITHIN INTERFOLIOS |                                  |    |    |    |    | LITHOLOGIC UNITS |      |      |     | ACCESSORY MINERALS OR MINERALIZATION |     | UNIFORMITY | FOR COMPARISON | FRAGMENT | CINCHOL |      |     |
|-------|----------------------------------------------------------------|----------------|----------------------------|----------------------------------|-----|----------------------------------|-----|------------------------|------------|-------------|--------------|---------|------------------------|-----------|----------------------------|----------------------|-----|------|-----|------------------------------|----------------------------------|----|----|----|----|------------------|------|------|-----|--------------------------------------|-----|------------|----------------|----------|---------|------|-----|
|       |                                                                |                | ROCK NAME                  | Major Quality Mineral of Natural |     | Minor Quality Mineral of Natural |     | SHARPNESS OF SPLITTING | SPHERICITY | ROUNDEDNESS | PERMEABILITY | TEXTURE | COLOUR MUNSSELL SYSTEM | Rock Name | Quality Mineral of Natural | TRACING              |     | Fold | Dip | Dip Azimuth                  | Direction of Taps or of Younging | GP | FM | MM | SM | Name             | Name |      |     |                                      |     |            |                |          |         |      |     |
|       |                                                                |                |                            | MITZ                             | ITS | MITZ                             | ITS |                        |            |             |              |         |                        |           |                            | MITZ                 | ITS |      |     |                              |                                  |    |    |    |    |                  |      | MITZ | ITS | MITZ                                 | ITS |            |                |          |         | MITZ | ITS |
| 1445  | 1                                                              | 3.5            | COAL                       |                                  |     |                                  |     |                        |            |             | 0010         | S       | SHAL                   |           |                            |                      |     |      |     |                              |                                  |    |    |    |    |                  |      |      |     |                                      |     |            |                |          |         |      |     |
| 1448  | 5                                                              | 2.0            | COAL                       | BRIGHT                           |     | SHINY                            |     |                        |            |             | 0010         |         |                        |           |                            |                      |     |      |     |                              |                                  |    |    |    |    |                  |      |      |     |                                      |     |            |                |          |         |      |     |
| 1452  | 2                                                              | 3.7            | COAL                       | BRIGHT                           |     | SHINY                            |     |                        |            |             | 0010         |         |                        |           |                            |                      |     |      |     |                              |                                  |    |    |    |    |                  |      |      |     |                                      |     |            |                |          |         |      |     |
| 1453  | 2                                                              | 10.8           | SASN                       | C2                               |     |                                  |     |                        |            |             |              |         | SASN                   |           |                            |                      |     |      |     |                              |                                  |    |    |    |    |                  |      |      |     |                                      |     |            |                |          |         |      |     |
| 1472  | 0                                                              | 180            | SASN                       | SAS                              |     |                                  |     |                        |            |             |              |         | SASN                   |           |                            |                      |     |      |     |                              |                                  |    |    |    |    |                  |      |      |     |                                      |     |            |                |          |         |      |     |
| 1487  | 0                                                              | 150            | SASN                       | C1A                              | C2  |                                  |     |                        |            |             |              |         | SASN                   |           |                            |                      |     |      |     |                              |                                  |    |    |    |    |                  |      |      |     |                                      |     |            |                |          |         |      |     |
| 1504  | 0                                                              | 170            | SASN                       | C13                              |     |                                  |     |                        |            |             |              |         | SASN                   |           |                            |                      |     |      |     |                              |                                  |    |    |    |    |                  |      |      |     |                                      |     |            |                |          |         |      |     |
| 1504  | 5                                                              | 5              | BRXX                       | C13                              |     |                                  |     |                        |            |             |              |         | SASN                   |           |                            |                      |     |      |     |                              |                                  |    |    |    |    |                  |      |      |     |                                      |     |            |                |          |         |      |     |
| 1591  | 0                                                              | 30.5           | SASN                       | C13                              |     |                                  |     |                        |            |             |              |         | SASN                   |           |                            |                      |     |      |     |                              |                                  |    |    |    |    |                  |      |      |     |                                      |     |            |                |          |         |      |     |

BY 19

CA 31

CARB AT TOP OF UNIT (part 193)

10% OF UNIT CONTAINS REPLACED MATERIAL









J-4 P/C

# GEOLOG

COAL ENVIRONMENT VERSION

T-4

PR-BULLMOOSE 71(S)C

COMPANY: TECK CORP. LTD. PROPERTY: SUKUNKA BLOCK "B" LOGGED BY: RLH/AB. DATE: 1/9/71 PAGE: 1 OF 5

| NO | I-R-C | DEPTH FROM COLLAR OR DISTANCE FROM TOP OF HOLE | RECOVERY | ROCK I AND CHARACTERISTICS                                                                |                          |             |                          |       |        |            |             |                         |                    |             |                        |                       |           |                             |             |      |                           | ROCK II INTERBLOS |                      |        |      |      |      | STRUCTURE WITHIN INTERVAL |  |                            |            |      |  | LITHOLOGIC UNITS |  |  |  | ACCESSORY MINERALS OR MINERALIZATION |  | UNIVERSITY |  | FORN |  |
|----|-------|------------------------------------------------|----------|-------------------------------------------------------------------------------------------|--------------------------|-------------|--------------------------|-------|--------|------------|-------------|-------------------------|--------------------|-------------|------------------------|-----------------------|-----------|-----------------------------|-------------|------|---------------------------|-------------------|----------------------|--------|------|------|------|---------------------------|--|----------------------------|------------|------|--|------------------|--|--|--|--------------------------------------|--|------------|--|------|--|
|    |       |                                                |          | ROCK NAME                                                                                 | Major Qualifying Mineral |             | Minor Qualifying Mineral |       | FACIES | SPHERICITY | ROUNDEDNESS | Porosity & Permeability | Major Texture      |             | COLOUR MUNSSELL SYSTEM | Rock II % of Interval | Rock Name | Quality Mineral or Material | FRAC-TURING |      | Fold Axis, Building, etc. | DIPAZING          | FOLDS OR OF YOUNGING | G.P.P. | F.M. | M.M. | S.M. | Name                      |  | SAMPLER COLLECTED AND TYPE | UNIVERSITY | FORN |  |                  |  |  |  |                                      |  |            |  |      |  |
|    |       |                                                |          |                                                                                           | SPHERICITY               | ROUNDEDNESS | Major                    | Minor |        |            |             |                         | RELATIVE INTENSITY | FRAC-TURING |                        |                       |           |                             | NAME        | NAME |                           |                   |                      |        |      |      |      |                           |  |                            |            |      |  |                  |  |  |  |                                      |  |            |  |      |  |
| 1  |       | 0.0                                            |          | O.S. BRXX SECTIONS AT 129.0, 132.8, AND 144.1, MEDIUM GRADE WITH CALCITE CEMENT           |                          |             |                          |       |        |            |             |                         |                    |             |                        |                       |           |                             |             |      |                           |                   |                      |        |      |      |      | CA                        |  |                            |            |      |  |                  |  |  |  |                                      |  |            |  |      |  |
|    |       | 1517                                           | 837      | MDSNAI K I I 0020                                                                         |                          |             |                          |       |        |            |             |                         |                    |             |                        |                       |           |                             |             |      |                           |                   |                      |        |      |      |      | PTCM MS                   |  |                            |            |      |  |                  |  |  |  |                                      |  |            |  |      |  |
|    |       | 1525                                           | 8        | CORNCI 0075                                                                               |                          |             |                          |       |        |            |             |                         |                    |             |                        |                       |           |                             |             |      |                           |                   |                      |        |      |      |      |                           |  |                            |            |      |  |                  |  |  |  |                                      |  |            |  |      |  |
|    |       | 1964                                           | 439      | THIN LIGHT COLOURED SILTY BANDS NEAR BASE<br>O.S. BENTONITE LAYERS AT 194.9, 195.3, 196.4 |                          |             |                          |       |        |            |             |                         |                    |             |                        |                       |           |                             |             |      |                           |                   |                      |        |      |      |      |                           |  |                            |            |      |  |                  |  |  |  |                                      |  |            |  |      |  |
|    |       | 1975                                           | 11       | PYRITE INCREASES TOWARDS BASE, CLEAN CONTACT WITH CAL BELOW                               |                          |             |                          |       |        |            |             |                         |                    |             |                        |                       |           |                             |             |      |                           |                   |                      |        |      |      |      |                           |  |                            |            |      |  |                  |  |  |  |                                      |  |            |  |      |  |
|    |       | 1980                                           | 5        | RELATIVELY CLEAN, <1% PYRITE CLOSE TO SAND ABOVE                                          |                          |             |                          |       |        |            |             |                         |                    |             |                        |                       |           |                             |             |      |                           |                   |                      |        |      |      |      |                           |  |                            |            |      |  |                  |  |  |  |                                      |  |            |  |      |  |
|    |       | 1998                                           | 18       | RELATIVELY CLEAN, PYRITIC AT 199.0                                                        |                          |             |                          |       |        |            |             |                         |                    |             |                        |                       |           |                             |             |      |                           |                   |                      |        |      |      |      |                           |  |                            |            |      |  |                  |  |  |  |                                      |  |            |  |      |  |

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NOTE: CORAL ANALYSIS DATA WAS TAKEN FROM  
PR - BULLMOOSE 71(1)A OPEN FILE

TECK CORPORATION LIMITED  
SUKUNKA PROJECT  
(BULLMOOSE)

PROGRESS REPORT NO.2

JUNE 15 TO AUGUST 31, 1971.

**CONFIDENTIAL**

SAMPLING

The hand trench which first exposed the uppermost seam at the southeast face was sampled in detail and the results are listed below.

Coal samples from D.D.H.'s T-1 to T-4 have also been submitted for analyses. However, the tests have not yet been completed.

| <u>Sample No.</u> | <u>Interval Sampled</u> | <u>% Moisture</u>                               | <u>% Ash</u> | <u>% Volatile</u> | <u>% Fixed Carbon</u> | <u>% Sulphur</u> | <u>F.S.I.</u> |
|-------------------|-------------------------|-------------------------------------------------|--------------|-------------------|-----------------------|------------------|---------------|
| T-1               | 0 - 0.5'                | 3.31                                            | 32.00        | 18.69             | 49.31                 | 0.50             | 0             |
| T-2               | 0.5 - 1.5'              | 3.28                                            | 6.68         | 22.85             | 70.47                 | 0.35             | ½             |
| T-3               | 1.5 - 2.5'              | 3.11                                            | 5.64         | 23.30             | 71.06                 | 0.56             | ½             |
| T-4               | 2.5 - 3.5'              | (No sample material - combined with T-3 or T-4) |              |                   |                       |                  |               |
| T-5               | 3.5 - 4.5'              | 4.35                                            | 20.24        | 20.40             | 59.36                 | 0.41             | ½             |
| T-6               | 4.5 - 5.5'              | 3.64                                            | 6.47         | 24.57             | 68.96                 | 0.57             | ½             |
| T-7               | 5.5 - 5.8'              | 3.57                                            | 5.15         | 24.24             | 70.61                 | 0.55             | ½             |
| Bottom of Seam    |                         |                                                 |              |                   |                       |                  |               |

STRIPPING

Stripping has been conducted along a ½ mile section of the southeast face to expose the coal showings that were located during the course of geological mapping (for location see map). In places up to 53' of section has been exposed with the minimum exposure being 10 to 15'.

The area was a difficult one in which to work owing to the attitude of the terrain which in many places dipped between 75 and 90°. Sandstone blocks weighing up to 20 tons often spalled off at the working face as the Cats were stripping, creating hazardous working conditions. Blasting sometimes had to be carried out to move some of the larger talus blocks.



NOTE: ANALYSIS WAS TAKEN FROM OPEN  
FILE - 71(1)B

TECK CORPORATION LIMITED  
SUKUNKA PROJECT  
(BULLMOOSE)

PROGRESS REPORT NO. 3  
SEPTEMBER 1 TO SEPTEMBER 30, 1971.

**CONFIDENTIAL**

SUMMARY

Although the poor weather conditions that were experienced in the last week of September hampered operations to some extent, exploration on the Sukunka Bullmoose Project progressed rather smoothly.

More than 9,000 feet of the total 15,000 feet of drilling planned for the programme has been completed.

The diamond drilling carried out during the month of September has indicated that the facies change in the Gething Formation that was revealed in the early stages of the programme, covers an extensive area on the property.

With the exception of two holes which are located in the north central section of the property no coal seams of suitable thickness and grade have been intersected to date.

Diamond drill sections and a topographic map showing the locations of all diamond drill holes, drill sites, roads and stripped areas are included in this report.

\* SAMPLING

The results of the analyses carried out on samples collected from D.D.H.'s T-1 to T-4 inclusive are listed below. No further sampling has been conducted to date.

| <u>Sample No.</u> | <u>Interval Sampled</u> | <u>% Moisture</u> | <u>% Ash</u> | <u>% Volatile</u> | <u>% Fixed Carbon</u> | <u>% Sulphur</u> | <u>F.S.I.</u> |
|-------------------|-------------------------|-------------------|--------------|-------------------|-----------------------|------------------|---------------|
| <u>D.D.H. T-4</u> |                         |                   |              |                   |                       |                  |               |
| T-8               | 197.6-203.8             | 0.36              | 7.53         | 22.82             | 71.58                 | 2.60             | 8.5           |
| T-9               | 334.8-339.4             | 0.77              | 11.62        | 20.98             | 72.86                 | 0.36             | 7.0           |
| T-10              | 339.4-349.0             | 0.73              | 7.69         | 20.84             | 73.16                 | 0.32             | 7.0           |
| <u>D.D.H. T-1</u> |                         |                   |              |                   |                       |                  |               |
| T-11              | 869.2-876.0             | 0.46              | 15.97        | 23.52             | 69.93                 | 3.98             | 9.0           |
| T-12              | 982.6-987.0             | 0.69              | 9.72         | 21.16             | 73.02                 | 0.25             | 6.5           |
| T-13              | 987.0-995.6             | 0.71              | 8.30         | 22.86             | 71.08                 | 0.51             | 7.5           |
| <u>D.D.H. T-3</u> |                         |                   |              |                   |                       |                  |               |
| T-14              | 1445.1-1452.2           | 0.51              | 10.87        | 22.84             | 68.67                 | 2.44             | 8.0           |
| <u>D.D.H. T-2</u> |                         |                   |              |                   |                       |                  |               |
| T-15              | 110.0-113.6             | 0.74              | 4.80         | 22.33             | 73.59                 | 1.43             | 8.5           |

\* DATA TAKEN FROM PR-BULLMOOSE 71(1)B

NOTE: COAL ANALYSIS DATA HAS BEEN TAKEN  
FROM THE OPEN FILE 71(1)C

TECK CORPORATION LIMITED  
SUKUNKA PROJECT  
(BULLMOOSE)

PROGRESS REPORT NO. 4 (FINAL)

OCTOBER 1 TO OCTOBER 31, 1971

**CONFIDENTIAL**

The seam was sampled in two parts and the results are tabled below.

No further sampling was conducted in any of the remaining drill holes.

| <u>Sample No.</u> | <u>Interval Sampled</u> | <u>% Moisture</u> | <u>% Ash</u> | <u>% Volatile</u> | <u>% Fixed Carbon</u> | <u>% Sulphur</u> | <u>F.S.I.</u> |
|-------------------|-------------------------|-------------------|--------------|-------------------|-----------------------|------------------|---------------|
| <u>DDH T-11</u>   |                         |                   |              |                   |                       |                  |               |
| T-16              | 210.1-214.0             | 0.89              | 20.46        | 26.97             | 65.96                 | 0.33             | 6             |
| T-17              | 214.0-218.8             | 0.91              | 5.35         | 28.15             | 66.90                 | 0.38             | 6             |

### ROAD CONSTRUCTION

During the month of October 2.8 miles of road was constructed in order to gain access to drill sites F-1 - F-3 inclusive and 1.1 miles of road was constructed on the Bullmoose Creek - Chetwynd road to bypass a flooded section. The latter was located in a Canfor tree reserve and Teck has been instructed by the Department of Forestry to drag all merchantable timber, that was knocked down during road construction, to one of the Canfor loading sites. Arrangements were made with Lionel Johnson, a local contractor working in the area, to harvest the timber.

The heavy snowfall that was received in late September melted in early October when warmer temperatures and heavy rainfall was experienced. The resultant swollen creeks and streams caused numerous floods and wash-outs and 3 cats were kept operational until the 18th of October to allow exploration to continue.

|                                  |               |
|----------------------------------|---------------|
| New road construction in October | 3.9 miles     |
| Roads maintained - Teck Property | 6.9 miles     |
| Drill sites prepared in October  | F-1, F-2, F-3 |