

SQ SUQUASH 75(1)A
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Assessment Report
for the

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SUQUASH DRILLING PROJECT

Conducted by

BRITISH COLUMBIA HYDRO AND POWER AUTHORITY

On Coal Licence Numbers
2110
2111

NTS Area 92L/11

by

C.R. SAUNDERS, P.Eng.

25 August, 1975

00215

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CONSULTING GEOLOGICAL & MINING ENGINEERS
1000 GUINNESS TOWER
VANCOUVER 1, B.C.

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INTRODUCTION

The purpose of this report is to summarize the exploration work conducted by B.C. Hydro & Power Authority on the coal licences of Cobre Exploration Ltd. during 1974. The fieldwork took place during the period 17 September, 1974 to 19 October, 1974 (inclusive). After October 19, fieldwork continued on adjacent coal licences held by B.C. Hydro and consequently, some of the general discussion in this report may be derived, in part, from results of the exploration in the surrounding area. However, all costs applied towards the assessment work on the Cobre licences have been separated from costs for exploration on the B.C. Hydro licences.

The project was administered and supervised by Dolmage Campbell & Associates Ltd. Mr. C.R. Saunders, P.Eng. managed the project and Dr. R.K. Germundson, Ph.D. was field supervisor. Mr. W. Pelky was employed during the month of October as field assistant.

LOCATION

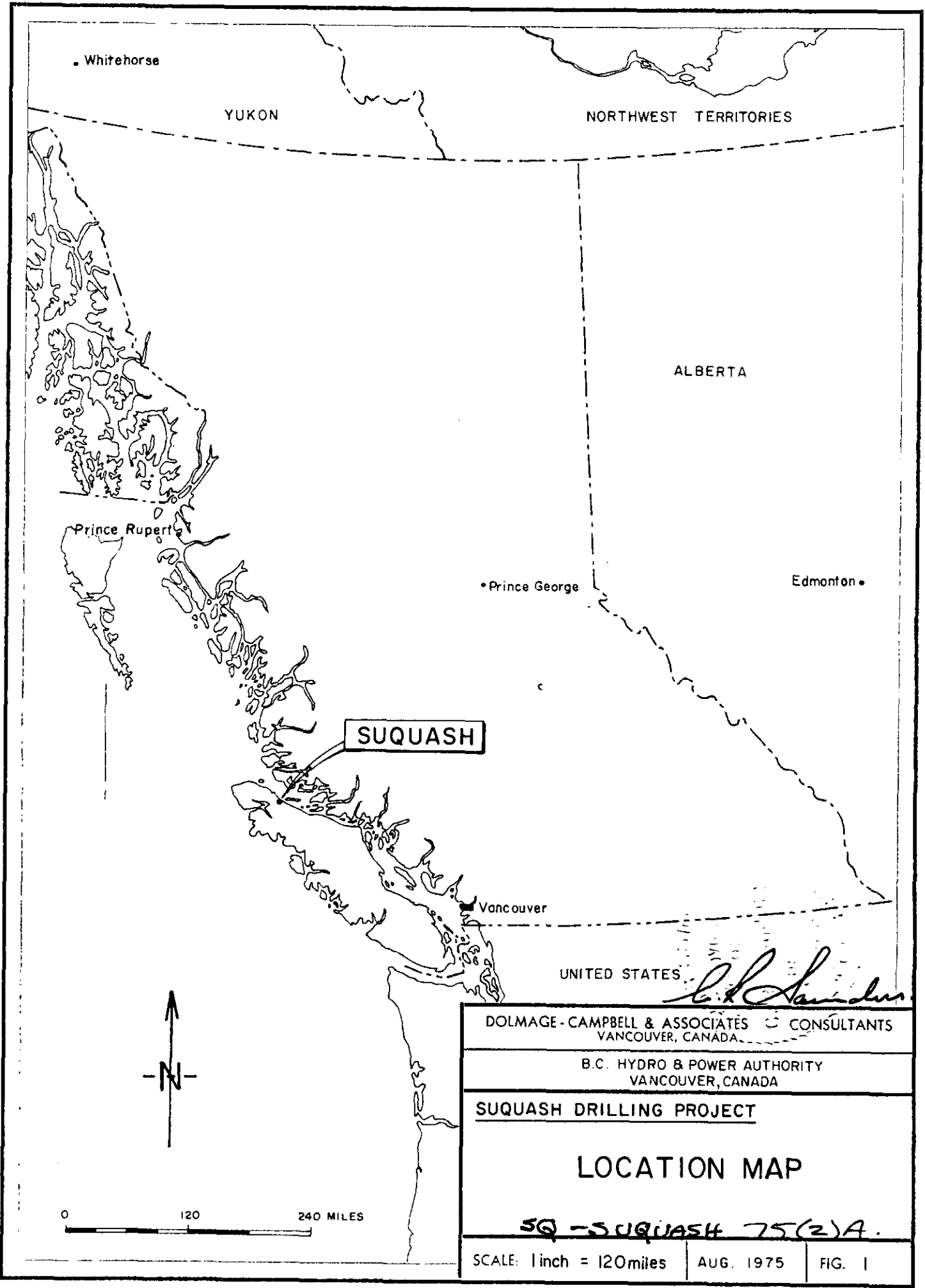
The Squash Basin, in which the coal licences are situated, is located on the northeast coast of Vancouver Island adjacent to Queen Charlotte Strait, (Fig. 1). It is an Upper Cretaceous erosional remnant approximately twenty miles long by two to three miles wide that forms a coastal plain between the towns of Port Hardy and Port McNeill, (Fig. 2). The basin encompasses an area of generally low relief and very gentle slopes in which marshy and swampy ground conditions are predominant. It is thickly forested, except for open marshes, with stunted cedar and hemlock; undergrowth is heavy.

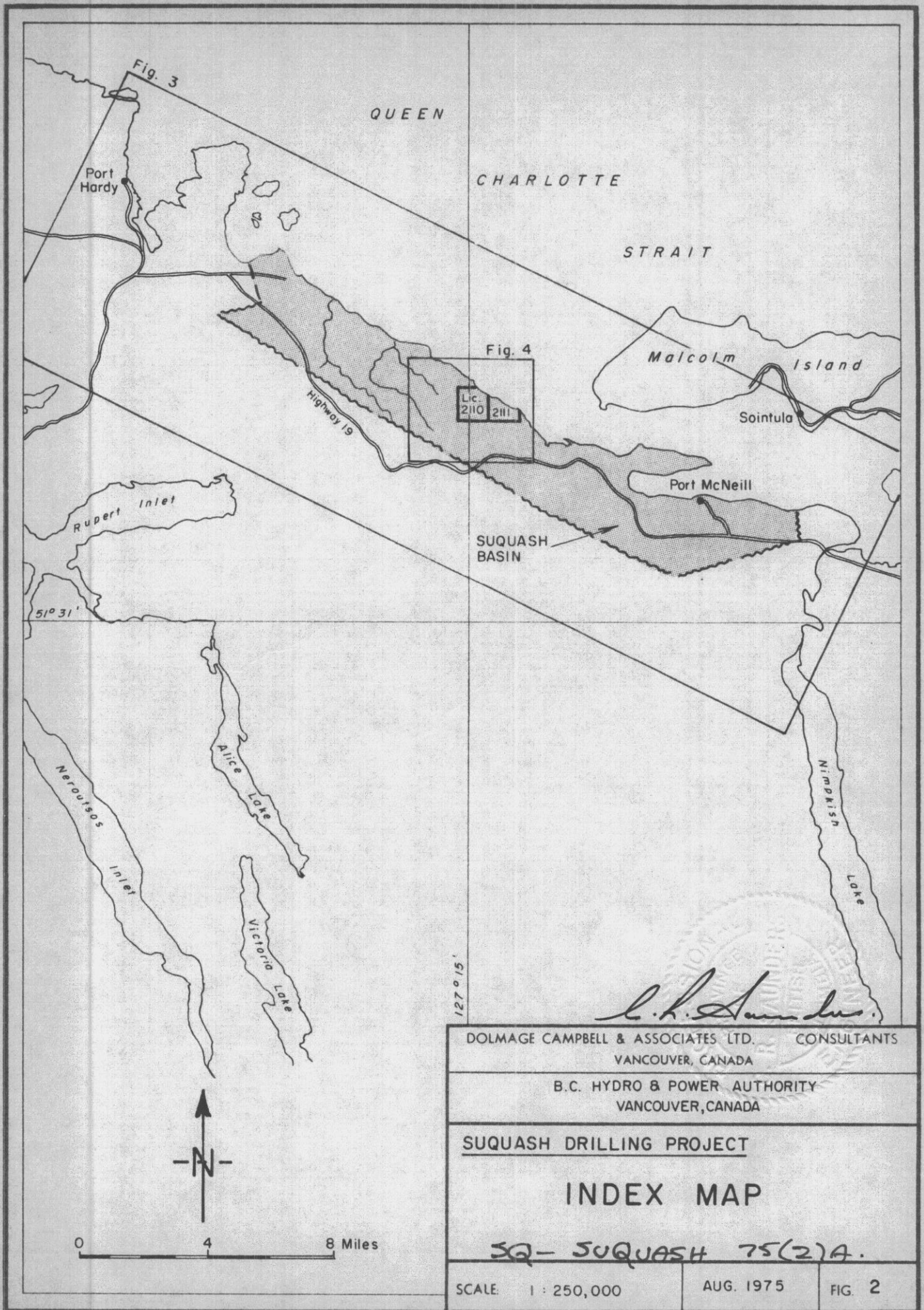
The climate is mild but wet, the average annual precipitation being about 65 inches.

COAL LICENSES (Figure 3)

<u>Licence No.</u>	<u>Location*</u>	<u>Area</u>	<u>Anniversary Date</u>
2110	Lot 15, Twp. 3	615 Acres	16 September
2111	Lot 16, Twp.	328 Acres	16 September
		<u>943 Acres</u>	

*Rupert Land District





HISTORY

The first recorded discovery of coal in what is now British Columbia was made at Suquash on Vancouver Island. Indians of the Beaver Harbour area brought specimens of coal to Dr. W.F. Tolmie of the Hudson's Bay Company at Fort McLoughlin (Bella Bella) in the year 1835. In 1847 the Hudson's Bay Company decided to open a mine in this area to supply steamships with bunker fuel. A party of miners arrived from England in 1849, and mining was carried out on a limited scale until 1852. It is believed that the workings were in outcrops at Suquash, and that about 10,000 tons of coal were mined. The workings were abandoned after the discovery of richer deposits at Nanaimo.

In 1908, Pacific Coast Coal Mines Ltd. became interested in the area. Their operations were at the mouth of Suquash Creek immediately southeast of Single Tree Point. Drill holes were put down, intersecting No. 2 seam at a depth of 173 feet where it was found to be 5 feet 5½ inches thick, but heavily interbedded with shale and inferior coal. A shaft was sunk 200 feet inland from the shore-line and, between 1909 and 1914, about 12,000 feet of lateral development work was done in the seam.

A longwall face 800 feet in length was opened up to the south of the shaft on the landward side but was only worked on a very limited scale. A start was made on the sinking of a large new shaft 1,500 feet southeast of the original one when all work was suspended on the outbreak of World War 1. Work was resumed again in 1920; the original shaft was dewatered and a considerable amount of location work was done on the surface with a view to handling a large production. However, in 1922 all operations ceased. According to reports, 12,000 to 16,000 tons of coal were mined in the period from 1909 to 1914 by Pacific Coast Mines Ltd.

In 1952 Suquash Collieries Ltd. acquired the licences and dewatered the longwall portion of the old workings and commissioned a feasibility report on the deposit by Hope Engineering Ltd. of Vancouver. However, no mining was undertaken.

Subsequently, two coal licences, which encompass the old workings, were acquired by Cobre Exploration Ltd. These licences were re-issued under the new Coal Act (1974) to Cobre Exploration Ltd.

After 1952 no further work was done on the Suquash property until that recently completed by B.C. Hydro.

GEOLOGICAL SETTING

The Suquash Basin consists of an erosional remnant of Upper Cretaceous sedimentary rocks of the Nanaimo Group. The Nanaimo Group sediments form several such remnant basins on Vancouver Island, the two most notable with regard to coal

content being the Comox and the Nanaimo basins. The sedimentary sequence comprising the Nanaimo Group has been studied in some detail in the Comox and Nanaimo basins and consequently the various rock units in these two basins can be correlated with confidence. The sediments of the Squash Basin have not been studied in the same detail as yet and thus correlation of Squash rock units with those of the Comox and Nanaimo basins is somewhat tentative at this time.

The Nanaimo Group has been subdivided into five depositional cycles. In the Comox Basin, the coal of the Cumberland and Tsable River deposits occurs in the first depositional cycle. In the Nanaimo Basin, the coal deposits occur in the second depositional cycle. In the Squash Basin, very recent work suggests that the coal seams in the Squash Mine area, and thus probably all seams encountered in the B.C. Hydro drilling project, occur in the third depositional cycle of Nanaimo Group sediments. It thus appears that the age equivalents of the economic coal deposits of Comox or Nanaimo are not present in the Squash Basin. As with the Comox and Nanaimo coal deposits, the Squash coal is of an age specific to that basin.

The Nanaimo Group rocks of the Squash Basin rest unconformably on Jurassic and Triassic volcanics, (Bonanza and Karmutsen Formations), and to a lesser extent on sediments of the Triassic age Parson Bay Formation, (Fig. 3).

Structurally, the basin appears to form a broad syncline with a north-east striking axis and gentle plunge in the same direction. In detail, the bedding is deformed by broad secondary folds and thus exhibits local anticlinal structures within the overall synclinal trend. Dips are rarely over 10° and generally less than 5° . Most of the basin is bounded by faults but the amount of internal faulting is essentially unknown due to the paucity of rock exposures and marker horizons. However, general basin configuration and results of the recent drilling suggest that faulting within the basin is not severe.

DESCRIPTION OF EXPLORATION WORK CONDUCTED

SURVEYING

McElhanney Associates, professional land surveyors, were contracted to establish Lot boundaries and provide location control for the drilling in and about the two Lots held by Cobre Exploration Ltd., (Fig. 4). A two-man crew spent approximately two weeks at this work. Because it was possible to locate old posts and boundary lines, albeit with some difficulty, only a "compass and chain" survey was undertaken. Elevations of the drill hole collars were obtained by use of a barometric altimeter. The instrument used provided an accuracy of ± 5 feet. (Elevations were determined by the field assistant.)

DRILLING SITE ACCESS

Primary access to the drilling area was via the Island Highway, (No. 19), and a main logging road, (Rupert Main), of Rayonier Canada Ltd., (Figs. 2 & 3). Access to individual drilling sites was obtained only with considerable difficulty and expense. A bulldozer (Caterpillar, model D6) with extra-wide tracks, a "swamp dozer", was employed to push tote-roads to the drilling sites. Even this equipment had considerable difficulty in working in the swampy conditions of the basin and on two occasions a second "swamp dozer" was employed to extricate the original one which had become mired in deep mud. As well, local by-pass roads had to be built when sections of the original tote-roads became impassable after only limited use. In total, 27,000 feet (20,500 ft. on the licences and 6,500 ft. to the licences) of tote-road were constructed, (Fig. 3). To transport the drill crew, drilling supplies, core, etc., a Bombardier "swamp buggy" was obtained in Vancouver and shipped to the project site. Although it was the most suitable vehicle for the conditions which prevailed, it was costly to operate and resulted in some program delays due to breakdowns brought on by the severe conditions in which it was operated.

The access and travel difficulties caused numerous delays to the primary job of diamond drilling and thereby resulted in rather slow progress for the overall project.

DIAMOND DRILLING

Diamond drilling was contracted to D.W. Coates Enterprises Ltd. of Vancouver. The Contractor provided one drill (Longyear, model 38) and two crews of two men each. The drilling was conducted on a two-shift, seven-day-per-week basis and, considering the difficult access problems encountered, productivity was good. Core size was NQWL (1.875 inches diameter; hole size 2.98 inches diameter); core recovery was excellent, averaging well over 95 percent, even in the coal zones.

The following table contains details of the four holes drilled on the Cobre property. Hole locations are shown on Figure 3.

<u>Hole Number</u>	<u>Collar Elev.</u>	<u>Length</u>			<u>Number of Samples</u>
		<u>O/B</u>	<u>Rock</u>	<u>Total</u>	
S74-1	130'	11'	627'	638'	9
S74-3	160'	16'	642'	658'	13
S74-5	185'	12'	766'	778'	7
S74-6	165'	23'	705'	728'	11
		62'	2740'	2802'	40

Descriptive and graphic logs are appended; the core is stored at B.C. Hydro's Keogh gas generating plant located a few miles from the property.

SAMPLING

A total of 40 samples were taken from the four drill holes and sent to Commercial Testing and Engineering Co. in Vancouver for proximate analyses. Sample lengths ranged from one to ten feet and averaged 3.0 feet. Samples were selected on the basis of coal content and lithology wherever possible, although often the lack of significant discrete coal seams in a zone resulted in a general "zone sample" being collected. Occasionally, short sections of waste (shale) within a zone were omitted from a sample (as might occur in a cleaning plant). A lithologic description, quantified where possible, was made for each sample. Sample data is listed on the first page of the descriptive logs; analyses certificates are contained in Appendix No. 2.

GEOLOGICAL MAPPING

Virtually all rock exposures within the Squash Basin were examined during the geological mapping of the basin. However, there are very few exposures because of the till cover, lack of incised streams, gentle topography and easily weathering nature of the sedimentary rocks. Where the sedimentary rocks are exposed they generally consist of the more durable sandstone portions of the sequence. The best exposures are along the shoreline of Queen Charlotte Strait, between Beaver Harbour and the Cluxewe River, (Figure 3). A few small patches of sandstone are exposed along logging roads and tote roads but these are usually so weathered (crumbly, slumped) or small that it is not possible to determine bedding attitudes. No outcrops or other exposures are present in the southeasterly end of the basin.

GEOPHYSICS

Discussions were held with members of the Department of Mines and Petroleum Resources regarding a decision to forego downhole geophysical logging. They agreed that because of the lack of significant coal intersections in the holes, geophysical logging would have been of questionable value. Furthermore, the extreme access difficulties would have made the cost of such logging extremely high. Primarily because of these two factors it was agreed that the holes not be geophysically logged.

EXPLORATION RESULTS

Descriptive and lithologic logs of the four drill holes are appended as are analysis certificates for the 40 samples taken from these holes. Sample length and location details are on the first page of each descriptive log.

ROCK TYPES

The sedimentary rocks comprising the Upper Cretaceous coal measures of the Squash Basin consist, for the most part, of sandstone, conglomerate and shale. Sandstone is the most abundant single rock type; conglomerate is the least abundant of the major rock types. Also present, but in comparatively minor amounts, are coal, fireclay and bentonite.

Conglomerate - Conglomerate units are massive and range between 2 and 37 feet in thickness. They are primarily composed of pebbles one to two inches in diameter, imbedded in a coarse sandstone matrix. The pebbles are commonly composed of chert, sandstone, argillite and basalt. The overall color is light to medium grey.

Sandstone - Sandstone, which forms the thickest units, (as much as 200 feet), ranges in texture from conglomeratic through coarse-grained to silty and shaly. The coarser sandstones are mainly light to medium grey, massive and feldspathic. They correlate, in part, with conglomerate and thus are probably an example of lateral facies changes. Thin bedding, comprised of alternating light and dark grey beds, occurs in the finer grained sandstone; turbid, fine grained sandstones, where the thin beds have been mixed and are mottled light to dark grey in color, are also common.

Shale - Shale beds form the thinnest of the three major sedimentary units, varying from fractions of an inch to rarely more than ten uninterrupted feet. They are medium to predominantly dark grey and are not uncommonly silty or even sandy in texture. Bedding is only rarely discernable. Shale beds are associated with the majority of the coal zones.

Coal - Clean coal is shiny black and has a vitreous lustre; it does not appear to have a high inherent ash content (bone coal), but fine shale partings are common. The coal is commonly pyritic, often containing over 5 percent pyrite; this is no doubt the major source of sulphur in the coal since pyrite contains slightly more than 50 percent sulphur. Quite often the coal is fragmental or crumbly.

Fireclay - The clay beds range from fractions of an inch to several feet in thickness. They are composed of a cohesive, somewhat plastic, medium to light grey mud which in the past, when presumably appropriate tests were carried out, was termed "fire-clay". These beds are usually associated with coal zones.

Bentonite - Bentonite is occasionally present in both shale and sandstone beds. It occurs in distinct seams up to one-quarter inch in thickness, or mixed with the sedimentary constituents. It has a greasy texture and is very light cream in color.

CORRELATION

Correlation of the sedimentary units from drill hole to drill hole can be done with reasonable confidence on a gross scale. However, in more detail,

correlation is generally tenuous or impossible. Correlation difficulties are due to (i) a lack, although not absence, of distinctive marker horizons, (ii) to similar rock units repeated throughout the stratigraphic sequence, (iii) to vertical gradation among the major sedimentary units, and (iv) to lateral gradation along sedimentary units. Features which contribute to the gross or broad correlation are: (i) some (incomplete) marker horizons; (ii) reasonably distinct conglomerate - conglomeratic sandstone horizons of appreciable thickness (in the order of 20 to 40 feet); (iii) generally persistent beds containing coal and/or fireclay; and (iv) an apparent absence of complicating structural feature such as faulting, severe folding and sediment slumping.

The most persistent beds are those which contain coal and fireclay, their continuity indicating that the basin of deposition stabilized for short periods of time; there were few, and then only minor, environmental disruptions, conditions favourable for swamp and peat bog formation. Coal zones No. 1 and 2, with their associated fireclay, are the best examples of this type of deposition. In some contrast to these quiescent conditions, the rapid lateral facies changes, most evident in the conglomerate-sandstone units, suggest a more active basin and multiple sedimentary sources. Probably a number of streams in close proximity to one another contributed to the basin sedimentation during such periods.

The coal zones consist of coal, shaly coal, coaly shale, carbonaceous shale, shale, fireclay and occasionally sandy shale or sandstone. The proportion of coal or coaly material can change considerably within a zone from place to place, and consequently it is often difficult to firmly correlate a particular zone in any one drill hole with that in another hole. A further complication is the presence of other, often similar, coaly and carbonaceous sections in the stratigraphic column which do not appear to correlate from hole to hole. The confidence of correlation of the coal zones in the holes as presently spaced ranges from high to low for different zones and even within a single zone. Correlation in the No. 1 zone is generally good, locally excellent, and rarely in doubt. No. 2 zone correlation is either excellent or moderate. For most other zones the confidence of correlation can be classed as moderate, to sometimes low, and only rarely high.

COAL ZONE CONFIGURATION

A lack of distinctive marker horizons in the sedimentary rocks of the Suquash Basin, combined with the wide spacing of the drill holes and the paucity of surface exposures, make it extremely difficult to determine the configuration of the sedimentary beds. There is the suggestion, from general basin features such as shape of the basin and topographic expressions, that the original concept of a very broad gentle syncline with a northeasterly-striking and plunging axis is still valid. However, results of the 1974 drilling indicate that gentle flexures occur within the syncline such that, locally, anticlinal structures are present.

COAL ANALYSES

Proximate analyses of the variety of samples collected from the drill core provide a good measure of the quality of the coal and coal zones. The ranges and averages for all proximate analyses of samples (not zones) are as follows, ("as received" basis):

<u>Item</u>	<u>High</u>	<u>Low</u>	<u>Range</u>	<u>Average</u>
Zone thickness - (ft.)	16.0 ¹⁷	1.0	15.0 ¹⁵	4.9 ¹⁹
Aggregate clean coal - (ft.)	3.0	0.0	3.0	0.5 ²¹
Sample length - (ft.)	10.0 ²	1.0	9.0 ³	3.0
Moisture - (%)	8.15	4.21	3.94	5.98
Ash - (%)	65.63	8.26	57.37	45.34
Volatile Matter - (%)	41.17	15.55	25.62	23.31
Fixed Carbon - (%)	54.00	12.51	41.49	25.38
Sulphur - (%)	6.15	0.30	5.85	2.21
Calorific Value - (Btu/lb)	11840 ⁵⁸	2815 ¹⁰⁰	9025 ⁸	5969

A number of factors are apparent upon inspection of these figures. The amount and proportion of "clean" coal in the coal zones is small and this is reflected in the analytical results. The ash content, also because of the small proportion of clean coal, is very high even though samples of probably unmineable thickness (1-3 feet) with a higher-than-average coal content have been included in the average. Calorific value is correspondingly low. Sulphur content is high. Moisture content is not high.

To determine zone averages, internal unsampled waste must be included and, to obtain possibly feasible mining conditions, a minimum three-foot thickness employed. The average calorific value becomes approximately 4500 Btu per pound and the average ash content about 60 %.

The rank of the Suquash coal is "High Volatile C Bituminous".

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CONCLUSIONS

Drilling results indicate the presence of a number of moderately continuous coal seams and zones on the Cobre property. In most instances they are at considerable depth below surface and therefore not amenable to surface mining techniques.

No coal seams greater than 3.0 ft. in thickness have been intersected and except for one 3-foot thick intersection no zones with an aggregate thickness of potentially mineable coal (three feet or greater and more than 50 % of zone thickness) have been encountered. Consequently, in these drill holes the coal zones are of lower grade, in terms of calorific value, than anticipated. Because of these rather disappointing results, no further holes were drilled and no further drilling or other exploration work is recommended.

Respectfully submitted,

DOLMAGE CAMPBELL & ASSOCIATES LTD.



C.R. Saunders, P.Eng.

CRS/dw

APPENDIX NO. 1

DESCRIPTIVE GEOLOGIC LOGS

BRITISH COLUMBIA HYDRO & POWER AUTHORITY

1974 SUQUASH DRILLING PROJECT

Vancouver Island, B.C.

HOLE NUMBER S74-1

LOCATION: At, but within the N.W. corner of Lot 15, Twp. 3, Rupert Land District.

COLLAR ELEV. 130' AZIMUTH -- DIP -90° LENGTH 638'

CORE SIZE NQ DATE DRILLED October 13 to 18, 1974 LOGGED BY Germundson

SAMPLE DATA

SAMPLE NUMBER	ANALYSIS NUMBER	LOCATION			LITHOLOGY AND REMARKS
		FROM	TO	LENGTH	
S1- 1	67-5286	67.0	68.0	1.0	Coal, shaly, pyritic, crumbly.
S1- 2	67-5287	159.5	161.3	1.8	One foot coal, pyritic, in coaly shale.
S1- 3	67-5288	278.0	279.5	1.5	0.5 feet coal, fragmental; 0.7 feet coaly shale; 0.3 feet carbonaceous shale.
S1- 4	67-5289	285.5	288.0	2.5	1.5 feet coaly shale 1.0 foot carbonaceous shale.
S1-5to9					No samples.
S1-10	67-6043	415.0	422.5	7.5	0.5 feet coal, fragmental, pyritic 1.2 feet shaly coal; 1.5 feet coaly shale 3.3 feet carbonaceous shale. 1.0 foot shale, light grey - <u>not sampled</u> .
S1-11	67-6044	427.8	429.0	1.2	0.6 feet shaly coal; 1.3 feet coaly shale 0.3 feet slightly carbonaceous sandstone.
S1-12	67-6045	481.0	485.0	4.0	2.0 feet coaly shale, pyritic 1.4 feet carbonaceous shale. 0.6 feet brown sandstone - <u>not sampled</u> .
S1-13	67-6046	541.3	543.0	1.7	0.9 feet shaly coal; 0.5 feet carbonaceous shale; 0.2 feet carbonaceous sandstone.
S1-14	67-6047	623.6	626.3	2.7	0.6 feet shaly coal; 0.1 foot coaly shale 2.0 feet carbonaceous shale.

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FOOTAGE		ROCK TYPE	DESCRIPTION	CORE LOSS		
FROM	TO			FROM	TO	LOST
0.0	11.0	Overburden	Boulder clay.			
11.0	67.0	Sandstone	Medium-grained, light to medium grey; bedded mainly at 85°-90°. (13' -) Six inches shale, dark-grey. (14' - 17') Shale, dark grey. (25' - 26') Shale, dark grey. (45' - 47') Shale, dark grey. (53' - 58') Grades down to coarse-grained with massive sections. (58' - 65') Coarse-grained, light to medium-grained; massive, feldspathic. (63' - 65') Conglomeratic. (65' - 67') Medium and coarse-grained, medium and dark grey; turbid, very minor carbonaceous material.			
67.0	72.5	Shale	Medium and dark grey; silty beds. (67' - 68') Shaly COAL (68' - 72.5') Carbonaceous.			
72.5	156.0	Sandstone	Coarse-grained, light to medium grey, massive; feldspathic; cross-bedded 75°-90°. (129' -133') Shale, dark grey, sandy. (138' -140') Fine-grained, medium and dark grey; thin-bedded 85°-90°. (140' -145') Shale, dark grey. (152' -153') Minor carbonaceous material.			
156.0	159.5	Fireclay	Medium grey, soft; minor bentonite at base.			
159.5	161.8	COAL and Shale	One foot COAL, fragmental, pyritic; between coaly shale beds. ZONE No. 1 = Hudson's Bay Company No. 1 seam at mouth of Squash Creek.			
161.8	200.0	Sandstone	Coarse-grained, light to medium grey, minor shale partings; minor carbonaceous partings at 87°. (161.8'-163') Bedded. (190' -196') Shale, dark grey, very slightly carbonaceous; minor sandstone beds to 1/4"; silty; locally turbid.			
200.0	227.0	Shale and Sandstone	(200' -206') Shale, dark grey, sandy at top. (204' -206') Soft, muddy, bentonitic.			

FOOTAGE		ROCK TYPE	DESCRIPTION	CORE LOSS		
FROM	TO			FROM	TO	LOST
			(206' -210') Sandstone, fine-grained, medium grey; and shale, dark grey; interbedded, cross-bedded, turbid.			
			(210' -213') Sandstone, coarse-grained, medium to dark grey, massive.			
			(213' -216.5') Sandstone, fine-grained, and shale, dark grey; turbid.			
			(216.5'-217.5') 0.2 feet COAL and 0.8 feet carbonaceous shale.			
			(217.5'-220') Sandstone, coarse-grained to conglomeratic, light to medium grey.			
			(220' -227') Shale, dark grey, very minor carbonaceous material. Bedding at 60°			
227.0	254.0	Sandstone	Very coarse-grained to conglomeratic, light to medium grey; broken sections; beds at 45° and 70°.			
			(231' -232') Conglomerate.			
			(235' -235.5') 0.2 feet COAL.			
			(240' -240.5') Bentonitic, soft.			
			(241' -242') Carbonaceous.			
254.0	276.0	Conglomerate	Pebble to ¼ ft; light to medium grey, sandy matrix. Pebbles composed of chert, argillite, amygdaloidal basalt, and conglomerate.			
276.0	293.0	Shale	Dark grey, sandstone sections, ZONE No. 2.			
			(276' -278') Coaly sandstone grading down to shale.			
			(278' -279.5') COAL, coaly and carbonaceous shale.			
			(279.5'-285') Sandstone, very slightly carbonaceous; shale, dark grey; shale, medium grey.			
			(285.5'-288') Coaly and carbonaceous.			
			(288' -293') Medium grey grading down to dark grey and becoming sandier. Very slightly carbonaceous; bedded at 80°-90°.			
293.0	308.0	Sandstone	Coarse-grained, medium-grey, massive; 80°-90°.			
			(297') ¼" thick bentonite partings.			
			(299' -308') Conglomeratic.			
308.0	313.0	Conglomerate	Pebble, light to medium grey; sandy matrix.			
313.0	352.0	Sandstone	Fine to coarse-grained, light, medium and dark grey; bedded, turbid, massive; 80°-90°.			

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FOOTAGE		ROCK TYPE	DESCRIPTION	CORE LOSS		
FROM	TO			FROM	TO	LOST
			(315' -316') Shale, dark grey, carbonaceous.			
			(323' -324') Shale, dark grey.			
			(326' -328') Carbonaceous.			
			(328' -331') Shale, dark grey, carbonaceous; 0.6' COAL.			
			(333' -334') Shale, dark grey.			
			(334' -343') Conglomeratic.			
			(339.5'-340') Shale, dark grey; 1/2" of bentonite; minor carbonaceous material.			
			(343' -344') Shale, dark grey, carbonaceous.			
			(350') Bedded at 70°.			
352.0	361.0	Shale	Dark grey, minor carbonaceous material, muddy.			
361.0	386.0	Sandstone	Coarse-grained, massive and medium to coarse-grained, light to dark grey. (373' -374') Bentonitic, soft, crumbly. (374' -386') Minor carbonaceous material.			
386.0	402.0	Shale	Dark grey. (386' -388') Carbonaceous. (391' -395') Sandstone, medium-grained, medium and dark grey. (394' -395') Shaly, carbonaceous. (400' -402') Sandy.			
400.0	415.0	Sandstone	Medium to coarse-grained, medium to dark grey; very minor carbonaceous material. (410') 0.5 feet bentonite and coaly shale. (410' -415') Grades down to sandstone, fine-grained.			
415.0	435.0	Shale	Dark grey. (415' -420') Carbonaceous and coaly. (425' -428') Sandstone and sandy shale. (428' -429') Carbonaceous. (432' -435') Carbonaceous; grades down to sandstone.			
435.0	443.0	Sandstone	Coarse-grained, light grey, massive grading down to fine-grained, bedded at 90°.			
443.0	452.0	Shale	Dark grey; sandy locally; grades down to sandstone.			

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Hole No. S74-1
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FOOTAGE		ROCK TYPE	DESCRIPTION	CORE LOSS		
FROM	TO			FROM	TO	LOST
452.0	474.0	Sandstone	Fine to very coarse-grained, light to dark grey, faintly bedded to massive to turbid. (461' -474') Conglomeratic. (461' -465') Minor shale and shaly sandstone.			
474.0	489.0	Shale	Dark grey. (476' -478') Carbonaceous and sandy. (478' -481') Sandstone, medium to coarse-grained, medium and dark grey; turbid at base. (481' -486') Coaly and carbonaceous shale. (483' -483.5') Sandstone, brown. (483.5'-486') Sandy, carbonaceous. (486' -489') Sandy.			
489.0	545.0	Sandstone	Fine to medium-grained, medium to dark grey; turbid; faint bedding at 88°. (502' -504') Coarse-grained, light to medium grey. (516' -521') Shale, dark grey; very minor carbonaceous material. (526' -536') Conglomeratic, light to medium grey. (541' -542') Shaly coal, sandy. (543' -544') Shale, dark grey.			
545.0	562.0	Sandstone	Very coarse-grained, light to medium grey, massive; quartz.			
562.0	572.0	Shale	Dark grey; grades down through sandy shale, to shaly sandstone to sandstone.			
572.0	638.0	Sandstone	Fine to coarse-grained, light to dark grey. Mainly turbid and massive but bedded at 85°-90°. (585' -586') Shaly. (623' -626') Shale, dark grey, carbonaceous. (630' -631') Shaly.			
	638.0		END OF HOLE.			
			Dip Test: 88° at 500'			

BRITISH COLUMBIA HYDRO & POWER AUTHORITY

1974 SUQUASH DRILLING PROJECT

Vancouver Island, B.C.

HOLE NUMBER S74-3

LOCATION: Approximate center of Lot 15, Twp. 3, Rupert Land District.

COLLAR ELEV. 160' AZIMUTH -- DIP -90° LENGTH 658'
 CORE SIZE NQ DATE DRILLED Oct. 8 to 11, 1974 LOGGED BY Germundson

SAMPLE DATA

SAMPLE NUMBER	ANALYSIS NUMBER	LOCATION			LITHOLOGY AND REMARKS
		FROM	TO	LENGTH	
S3- 1	67-5138	117.5	119.5	2.0	Coal; upper 6" and lower 4" coaly. ZONE No. 1
S3- 2	67-5139	430.0	431.3	1.3	Shaly coal
S3- 3	67-5140	262.0	266.0	4.0	0.6 feet coal; 0.5 feet shaly coal, pyritic. 1.2 feet coaly shale; 0.1 foot carbonaceous sandstone; 1.6 feet carbonaceous shale. ZONE No. 2.
S3- 4	67-5285	364.4	366.7	2.3	1.1 foot coal; carbonaceous and coaly shale
S3- 5	67-6069	612.0	614.5	2.5	Carbonaceous and coaly shale
S3- 6 to 9	--	--	--	--	No Samples
S3-10	67-6065	527.0	529.6	2.6	Coaly and carbonaceous shale
S3-11	67-6066	536.0	538.0	2.0	1.3 feet coal, a bit shaly; coaly shale. ZONE No. 3.
S3-12	67-6067	554.6	558.0	3.4	1.5 feet coaly shale; 1.3 feet carbonaceous shale; 0.6 feet bentonite <u>not sampled</u>
S3-13	67-6068	591.5	595.7	4.2	1.1 feet shaly coal; 3.1 feet coaly and carbonaceous shale. ZONE No. 4.
S3-14	67-6070	294.0	295.2	1.2	0.6 feet shaly coal; coaly shale
S3-15	67-6071	342.8	345.2	2.4	Coaly shale
S3-16	67-6072	373.0	375.5	2.5	Coaly and carbonaceous shale
S3-17	67-6073	462.0	463.8	1.8	Coaly shale, bentonite, minor coal

Project SUQUASH
 Hole No. S74-3
 Page 2

FOOTAGE		ROCK TYPE	DESCRIPTION	CORE LOSS		
FROM	TO			FROM	TO	LOST
0.0	16.0	Overburden	Boulder clay.			
16.0	30.0	Sandstone	Fine to medium-grained, medium to dark grey; turbid, thin-bedded at 87°-90°; cross-bedded. (18' - 19') Sandy shale and shale, dark grey.			
30.0	34.0	Shale	Dark grey. (31') seven inches COAL (33') two inches COAL			
34.0	58.0	Sandstone	Medium to coarse-grained, medium and dark grey; turbid and bedded (87°-90°) and cross-bedded to 70°. (35' - 36') Sandy shale. (49' - 53') Coarse-grained, light-grey with dark grey banding, massive. (53' - 58') Mainly turbid.			
58.0	94.0	Sandstone	Coarse-grained, light to medium grey, feldspathic; massive; thin, dark grey beds to 90°; cross-bedding to 50°. (58' - 63') Shale, dark grey and sandstone, fine-grained; bedded 80°-90°. (63' - 64') Medium-grained - turbid.			
94.0	115.0	Shale and Sandstone	(94' - 97') (103' -115') Shale, dark grey, sandy with sandstone, fine- grained, bedded. (95') Two inches COAL (97' -103') Sandstone, fine-grained, medium and dark grey, turbid and thin- bedded at 85°-90°.			
115	117.5	Fireclay	Light to medium grey; gritty locally.			
117.5	119.5	COAL	Upper six inches and lower six inches coaly shale. ZONE number one.			
119.5	165.0	Sandstone	Medium and coarse-grained; light to medium grey, massive; medium and dark grey, turbid to bedded at 87°-90°; minor carbonaceous partings. (123.5'~) Six inches brown shale. (141' -146') Shale, dark grey; minor sandy sections; badly broken.			

FOOTAGE		ROCK TYPE	DESCRIPTION	CORE LOSS		
FROM	TO			FROM	TO	LOST
165.0	181.0	Shale	Dark grey with sandy sections. (165' -168') Mainly fine-grained sandstone with minor shale. (168') Three inches carbonaceous shale. (178') Two inches COAL.			
181.0	222.0	Sandstone	Very coarse-grained to conglomeratic, massive; minor conglomerate pebbles to 2½ inches. (205' -207') Fine-grained at 90°; cross bedding to 60°. (212' -216') Fine-grained with some brown coloration.			
222.0	237.0	Sandstone	Coarse-grained, light to medium grey, massive; 2' shale at top.			
237.0	278.0	Sandstone and Shale	(237' -240') Shale, dark grey. (240' -245') Sandstone, fine and coarse-grained, light and dark grey, thin-bedded at 80°-90°. (245' -247') Sandstone, coarse-grained, light grey, massive. (247' -260.5') Shale, dark grey and sandstone light grey, interbedded at 84°-90°. (248' -249') Four inches COAL, and carbonaceous shale. (251.5'-253') Six inches COAL, and coaly shale. (259.0'-260.5') Six inches shaly coal, and carbonaceous shale. (260.5'-266') Shale, dark grey, ZONE number 2. (262' -266') Total 7 inches COAL, and coaly and carbonaceous shale. (266' -274') Shale and sandstone thin bedded at 90°. (274' -278') Sandstone, fine to medium grained, medium and dark grey, turbid; with shale and sandy shale.			
278.0	337.0	Sandstone	Medium to coarse-grained, medium grey, minor dark grey bedding at 87°-90°; mainly massive; locally carbonaceous to minor carbonaceous partings. (283' -288') Conglomerate, pebble to 2½ inches, sandy matrix. (294' -295') Seven inches COAL; coaly shale. (295' -301') Fine-grained, medium and dark grey; turbid and bedded at 87°. (312' -321') Fine to medium-grained and minor shale, dark grey. (326' -327') Interbedded with shale, dark grey.			
337.0	364.0	Sandstone	Coarse-grained, light and medium grey, massive.			

FOOTAGE		ROCK TYPE	DESCRIPTION	CORE LOSS		
FROM	TO			FROM	TO	LOST
			(341' -345') Shale, dark grey; coaly and carbonaceous. (357' -357.9') Coaly shale.			
364.0	368.0	Shale	Dark grey; 1.1 feet COAL; coaly and carbonaceous shale.			
368.0	388.0	Sandstone	Fine-grained, medium to dark grey, thin-bedded at 88° and massive. (373' -379') Shale, dark grey; minor coaly, and carbonaceous.			
388.0	407.0	Sandstone	Coarse-grained, light to medium to dark grey; mainly massive with some bedding at 87°-90°. Minor brown sections. (393' -395.5') Shale, dark grey, carbonaceous.			
407.0	421.0	Sandstone and Shale	Mainly fine-grained sandstone, sandy shale and shale; dark grey; turbid where sandstone. (407' -408.5') Fireclay. (411' -413') Shale; coaly and carbonaceous. (414.5'-415.1') Shaly COAL, crumbly.			
421.0	505	Sandstone	Coarse-grained, light to medium, and medium grey; mainly massive; minor carbonaceous areas and dark grey bedding at 87°-90°; with cross-bedding. (430' -431.3') Shaly COAL. (440' -442.5') Shaly coal and carbonaceous shale. (462' -463.8') Coaly shale, three inches bentonite; minor COAL.			
505.0	519.0	Shale	Dark grey, clayey. (509' -515') Sandstone, fine-grained, bedded; with 3/8" shale and clay beds. (518' -519') Fireclay.			
519.0	526.0	Sandstone	Coarse-grained, medium-grained; minor fine-grained and shale beds.			
526.0	561.0	Shale and Sandstone	(526' -531') Shale, dark grey, carbonaceous and coaly. (531' -536') Sandstone, fine-grained, light to dark grey; bedded at 87° and turbid. (536' -543') Shale, dark grey; grading down to sandy shale. (536' -538') 1.3 feet COAL, shaly and coaly shale. (543' -548') Sandstone, coarse-grained, light to medium grey, massive; scattered carbonaceous material.			

Project SUQUASH Hole No. S74-3 Page 5

FOOTAGE		ROCK TYPE	DESCRIPTION	CORE LOSS		
FROM	TO			FROM	TO	LOST
			(548' -561') Shale, dark grey, carbonaceous.			
			(551' -552.5') Fireclay.			
			(558' -560') Mainly sandstone fine-grained, dark grey.			
561.0	581.0	Sandstone	Fine to coarse-grained, light to dark grey; massive, turbid and thin-bedded.			
			(572' -575') Shale, dark grey, carbonaceous.			
581.0	598.0	Shale	Dark grey.			
			(581' -583') (591' -595') (596' -598') Carbonaceous.			
			(594' -594.5') Shaly.			
598.0	610.0	Sandstone	Coarse-grained, with fine-grained, medium to dark grey, massive to thin-bedded; minor 1/4" shale beds at 80°-90°.			
610.0	658.0	Sandstone and Shale	(610' -619') Shale, dark grey; coaly and carbonaceous sections.			
			(610' -610.5') Fireclay.			
			(619' -627') Sandstone, fine-grained, turbid, thin-bedded at 90°.			
			(627' -632') Shale, dark grey, very slightly carbonaceous.			
			(632' -637') Sandstone, coarse-grained, minor fine-grained, light to dark grey.			
			(637' -648') Shale, dark grey, 1/4" sandstone beds common.			
			(648' -658') Sandstone, fine-grained, medium and dark grey, thin-bedded and turbid.			
	658.0		END OF HOLE			
			Dip Test: 87° at 500'			

BRITISH COLUMBIA HYDRO & POWER AUTHORITY

1974 SUQUASH DRILLING PROJECT

Vancouver Island, B.C.

HOLE NUMBER S74- 5

LOCATION: 1,000 feet East of the S.W. corner of Lot 15, Twp. 3, Rupert Land District.

COLLAR ELEV. 185' AZIMUTH -- DIP -90° LENGTH 778'
 CORE SIZE NQ DATE DRILLED Sept.30-Oct.3, 1974 LOGGED BY Germundson

SAMPLE DATA

SAMPLE NUMBER	ANALYSIS NUMBER	LOCATION			LITHOLOGY AND REMARKS
		FROM	TO	LENGTH	
S5- 1	67-4952	17.0	18.0	1.0	Coal, shale partings, pyritic
S5- 2	67-4953	116.0	117.3	1.3	Coal, shale partings. ZONE No. 1.
S5- 3	67-4954	375.5	377.0	1.5	0.7 feet coal; 1.8 feet shaly coal
S5- 4	67-4955	535.0	543.0	8.0	1.3 feet coal; 5.3 feet shaly coal and coaly shale; 1.4 feet shale - not sampled. ZONE No. 3.
S5- 5	67-4956	638.0	648.0	10.0	1.2 feet coal; 8.8 feet carbonaceous and coaly shale. ZONE No. 5.
S5- 6	67-5137	582.0	587.0	5.0	0.8 feet coal; 4.2 feet carbonaceous and coaly shale. ZONE No. 4.
S5- 7to9	--	--	--	--	NOT SAMPLED
S5-10	67-6064	391.2	393.0	1.8	0.4 feet coal; 1.4 feet coaly shale

Project SUQUASH
Hole No. S74-5
Page 2

FOOTAGE		ROCK TYPE	DESCRIPTION	CORE LOSS		
FROM	TO			FROM	TO	LOST
0.0	9.0	Overburden	Boulder clay.			
9.0	107.0	Sandstone	Medium to coarse-grained, light to medium grey; thin-bedded at 86°-90° and massive, feldspathic. (9.0'- 17.0') Fine-grained, medium and dark grey, thin-bedded. (17.0'- 18.0') Shaly coal. (18.0'- 22.0') Shale, dark grey grading down to shaly sandstone. (32.0') 0.5 feet coaly sandstone. (65.0') 0.3 feet COAL. (85.0'- 86.0') Shale, dark grey. (94.0'-96.0') Fine-grained, dark grey. (96.0'-100.0') Shale, dark grey. (100.0'-107.0') Medium grey, banded; grading down to sandy shale.			
107.0	114.0	Fireclay	Medium grey; sandy sections.			
114.0	121.0	Sandstone and Shale	Sandstone, fine-grained and shale, dark grey; banded at 86°-90°. (116.0'-117.3') Shaly coal with fireclay is ZONE No. 1			
121.0	161.0	Sandstone	Medium to coarse-grained, medium grey; feldspathic; mainly massive. (138.0'-142.0') Shale, dark grey; grading down to sandy shale; very minor coaly shale. (159.0'-160.0') Coaly sandstone.			
161.0	178.0	Shale	Dark grey. (161.0'-163.0') Sandstone, fine-grained; medium and dark grey, bedded at 86°-90°, grading down to sandy shale.			
178.0	219.0	Sandstone	Medium to coarse-grained, light to medium-grained; feldspathic; mainly massive but minor 86°-90°. (197.0'-199.0') Conglomerate to 2 inches. (207.0'-212.0') Conglomeratic with 1.0 foot conglomerate. (212.0'-218.0') Carbonaceous. (218.0'-219.0') Conglomerate (3/8 inch).			
219.0	256.0	Sandstone and Shale	(219.0'-220.0') Shaly coal.			

Project SUQUASH
 Hole No. S74-5
 Page 3

FOOTAGE		ROCK TYPE	DESCRIPTION	CORE LOSS		
FROM	TO			FROM	TO	LOST
			(220.0'-228.0') Medium and dark grey, interbedded at 85°-90°; shaly sandstone.			
			(228.0'-242.0') Sandstone, coarse-grained, medium grey; minor bedding and shale beds.			
			(238.0'-242.0') Carbonaceous seams to ¼ inch.			
			(245.0'-246.0') Shaly coal.			
			(246.0'-249.0') Shale, dark grey; slightly carbonaceous.			
			(249.0'-252.0') Sandstone, coarse-grained grading down to medium grained, banded at 86°-90°.			
			(252.0'-256.0') Shale, dark grey, slightly carbonaceous.			
256.0	276.0	Sandstone	Coarse-grained, light to medium grey, minor banding and carbonaceous material.			
276.0	320.0	Shale	Dark grey, bedding at 86°-90°.			
			(276.0'-278.0') Sandy; 8 inches coaly.			
			(278.0'-279.5') Fireclay.			
			(279.5'-281.0') Sandstone.			
			(281.0'-285.0') Sandy, slightly carbonaceous.			
			(288.0'-296.0') Sandstone, very slightly carbonaceous.			
320.0	405.0	Sandstone	Medium and coarse-grained, light and medium grey; feldspathic; minor carbonaceous sections and shale bands; mainly massive with 85°-90° bedding.			
			(320.0'-326.0') Turbid and conglomeratic.			
			(331.0') Conglomeratic to 3/8 inch.			
			(376.0'-377.0') Shaly coal and minor COAL.			
			(377.0'-380.0') Shale, dark grey; minor shaly coal.			
			(391.0'-393.0') Coaly shale.			
			(404.0'-405.0') Shale, dark grey; bentonite beds to 2 inches.			
405.0	472.0	Sandstone	Fine to medium grained, medium to dark grey, bedded at 85°-90°, turbid; sandy shale sections.			
			(419.0'-420.0') Carbonaceous.			
			(424.0'-431.0') Medium to coarse-grained, massive.			
			(435.0'-438.0') Carbonaceous shale.			
			(438.0'-446.0') Medium to coarse-grained, massive.			
			(469.0'-472.0') Coaly and carbonaceous shale.			

Project SQUASH
Hole No. S74-5 Page 4

FOOTAGE		ROCK TYPE	DESCRIPTION	CORE LOSS		
FROM	TO			FROM	TO	LOST
472.0	514.0	Sandstone	Medium to coarse-grained, light to medium grey, feldspathic; mainly massive; minor carbonaceous streaks throughout.			
514.0	535.0	Sandstone	Fine to medium-grained, medium and dark grey, turbid; thin banded at 86°. (514.0'-517.0') Shale and shaly sandstone.			
535.0	548.0	Shale	Dark grey; ZONE No. 3 (535.0'-540.0') Shaly coal and 1.3 feet of COAL. (540.0'-543.0') Coaly shale. (545.0'-548.0') Shaly coal and carbonaceous shale.			
548.0	582.0	Sandstone	Fine to coarse-grained, light to dark grey; turbid, bedded and cross-bedded at 70° to 90°. (578.0'-579.0') Coaly.			
582.0	588.0	Shale	Dark grey, coaly and carbonaceous; 0.8 feet of COAL. ZONE No. 4.			
588.0	637.0	Sandstone	Coarse-grained, light to medium grey, feldspathic; mainly massive; minor carbonaceous streaks and bedding at 87°-90°; gradational upper contact. (624.0'-625.0') COAL, fragmental. (626.0'-629.0') Shale, sandy.			
637.0	653.0	Shale	Dark grey; coaly and carbonaceous; 0.8 feet COAL. ZONE No. 5. (645.0'-645.5') Fireclay.			
653.0	718.0	Sandstone	Fine-grained, light to dark grey, bedded at 86°-90°. Sandy shale and shale sandstone sections. (665.0'-667.0') (670.0'-678.0') (696.0'-701.0') Shale, dark grey. (706.0'-709.0') Shale, dark grey; shaly coal and carbonaceous.			
718.0	778.0	Sandstone	Medium to coarse-grained, light to medium and dark grey; mainly massive. Shaly sections.			
	778.0		END OF HOLE			
			No Dip Test			

BRITISH COLUMBIA HYDRO & POWER AUTHORITY

1974 SUQUASH DRILLING PROJECT

Vancouver Island, B.C.

HOLE NUMBER S74- 6

LOCATION: 50 feet North of S.W. corner of Lot 16, Twp. 3, Rupert Land District.

COLLAR ELEV. 165' AZIMUTH -- DIP -90° LENGTH 728'CORE SIZE NQ DATE DRILLED Sept. 17 to 20, 1974 LOGGED BY GermundsonSAMPLE DATA

SAMPLE NUMBER	ANALYSIS NUMBER	LOCATION			LITHOLOGY AND REMARKS
		FROM	TO	LENGTH	
S6- 1	64-4867	320.0	321.8	1.8	0.8 feet coal, and carbonaceous shale
S6- 2	64-4868	347.2	353.1	5.9	0.5 feet coal; 1.5 feet shaly coal; 2.9 feet coaly and carbonaceous shale; 1.0 feet not sampled. ZONE No. 2.
S6- 3	64-4869	356.0	359.3	3.3	0.8 feet coal; 2.5 feet coaly and carbonaceous shale and sandstone. ZONE No. 2.
S6- 4	64-4870	466.0	472.5	6.5	0.6 feet coal; 0.9 feet shaly coal; 3.0 feet carbonaceous shale and sandstone. 2.0 feet not sampled.
S6- 5	64-4871	707.0	710.0	3.0	Coal. ZONE No. 5.
S6- 6 to 9	--	--	--	--	Not Sampled
S6-10	67-6048	723.0	728.0	5.0	Coaly and carbonaceous shale.
S6-11	67-6049	704.5	707.0	2.5	Carbonaceous shale. ZONE No. 5.
S6-12	67-6050	683.0	685.0	2.0	0.5 feet coal; 1.5 feet carbonaceous shale
S6-13	67-6051	671.5	673.0	1.5	Coaly and carbonaceous shale
S6-14	67-6052	515.8	517.7	1.9	1.0 feet coal; 0.9 feet carbonaceous shale
S6-15	67-6053	449.1	451.3	2.2	0.4 feet coal; 1.8 feet coaly and some carbonaceous shale.

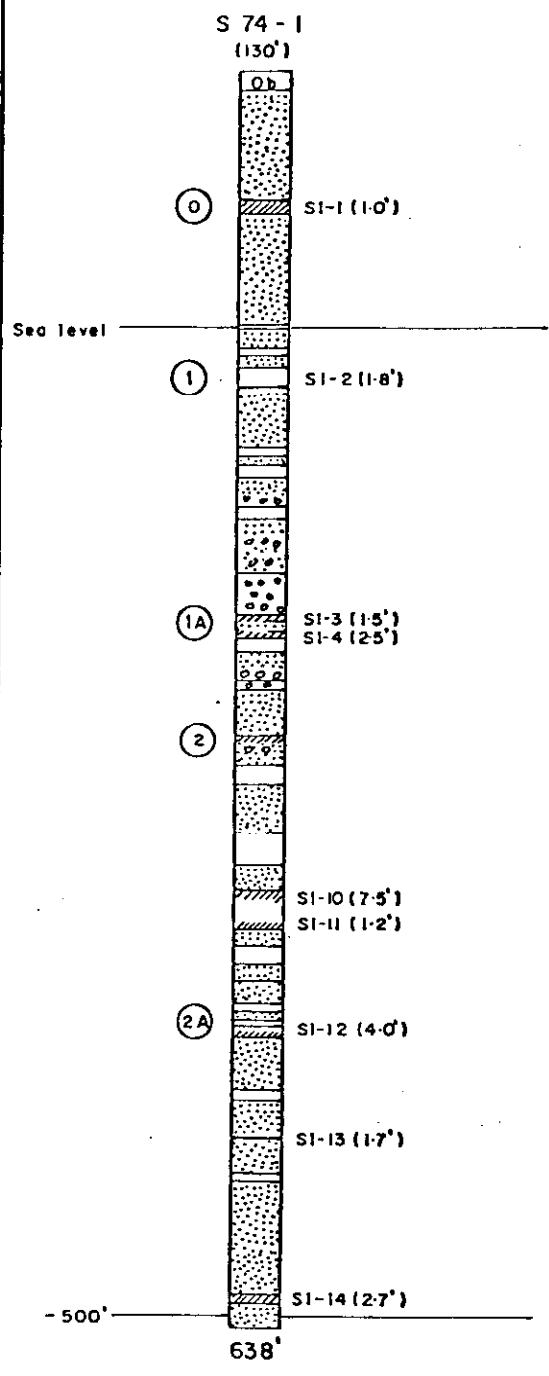
Project SUQUASH
Hole No. S74-6
Page 2

FOOTAGE		ROCK TYPE	DESCRIPTION	CORE LOSS		
FROM	TO			FROM	TO	LOST
0.0	23.0	Overburden	Swamp mud. (22.0'- 23.0') Sand.			
23.0	123.0	Sandstone (with shale)	Medium to coarse-grained, light to medium and dark grey, feldspathic; massive and minor bedding at 85°-90°; minor shale and carbonaceous partings. (29.5'- 38.0') (43.0'- 58.0') (62.5'- 71.0') (118.0'-123.0') Includes shale and sandy shale. (38.0'- 43.0') (58.0'- 62.5') (114.5'-118.0') Shale, dark grey. (38.0') (58.0'- 59.0') (114.5'-116.0') Minor coal and coaly shale.			
123.0	167.0	Sandstone	Coarse-grained, light to medium grey, feldspathic; mainly massive with minor bedding at 85°-90°. (147.0'-147.1') Sandy coal.			
167.0	202.0	Sandstone (with shale)	Medium to coarse-grained, medium to dark grey; minor shale, minor bedding at 85°-90°; minor coal to 1 inch. (172.0'-174.0') (176.0'-178.0') (180' -184.5') (198.0'-201.0') Shale, dark grey. (182.0'-184.5') Carbonaceous; ZONE No. 1 (?)			
202.0	224.0	Sandstone	Coarse-grained, light to medium grey, feldspathic, massive.			
224.0	241.0	Sandstone and Shale	Interbedded, medium and dark grey. (229.0'-229.7') Bentonitic mud. (229.7') (240.0'-241.0') Coaly shale and sandstone.			
241.0	275.0	Sandstone	Coarse to very coarse-grained, light to medium grey, massive. (250.0'-253.0') (273.0'-275.0') Conglomerate, sandy matrix			
275.0	322.0	Sandstone (with shale)	Medium to coarse-grained, medium to dark grey; bedded at 85°-90°; sandy shale and shaly sandstone (275.0'-278.0') Carbonaceous and coaly. (286.5'-288.0') Coaly and carbonaceous shale. (288.0'-289.0') Shale, medium grey. (320.0'-322.0') 1.0 foot COAL and coaly shale.			











FOOTAGE		ROCK TYPE	DESCRIPTION	CORE LOSS		
FROM	TO			FROM	TO	LOST
322.0	347.0	Sandstone	Coarse-grained, light to medium grey, massive. (346.0'-348.0') Medium-grained, slightly carbonaceous. Minor bedding at 85°-90°.			
347.0	359.0	Shale	Dark grey, with COAL, shaly coal, and coaly and carbonaceous shale and sandstone ZONE No. 2.			
359.0	365.0	Sandstone	Coarse-grained, light to medium grey, massive.			
365.0	393.0	Sandstone (with shale)	Interbedded, medium to dark grey. (365.0'-368.0') Coaly and carbonaceous shale.	381.0	388.0	100%
393.0	446.0	Sandstone	Coarse-grained to very coarse-grained, light to medium grey, massive; rare bedding at 86°; conglomeratic sections - pebbles to 2½ inches. (403.0'-409.0') Conglomerate.			
446.0	518.0	Sandstone (with shale)	Medium and coarse-grained, light to medium grey, mainly massive, minor bedding at 87°. (466.0'-472.5') (480.0'-485.0') (508.0'-518.0') Shale dark grey, with coal beds; coaly and carbonaceous. (496.0'-500.0') Shale dark grey, slightly carbonaceous.			
518.0	666.0	Sandstone	Medium to coarse-grained with fine-grained sections; light to dark grey; massive and bedded at 85°-90°; minor shale. (557.0'-559.0') Carbonaceous shale, dark grey. (579.0'-585.0') Coaly and carbonaceous. (628.0'-640.0') Interbedded shale and coaly shale. (640.0'-645.0') Bentonitic shale. (651.0'-657.0') Shale, dark grey with shaly coal and carbonaceous shale. (657.0'-666.0') Carbonaceous partings to ¼ inch.			
666.0	711.0	Shale	Dark grey; mainly carbonaceous and coaly with barren and sandy sections. (707.0'-710.0') COAL (677' -681.0') (691.0'-697.0') (701.0'-703.0') Sandstone.			
711.0	723.0	Sandstone	Fine to coarse-grained, medium to dark grey.			

APPENDIX NO. 2

GRAPHIC GEOLOGIC LOGS

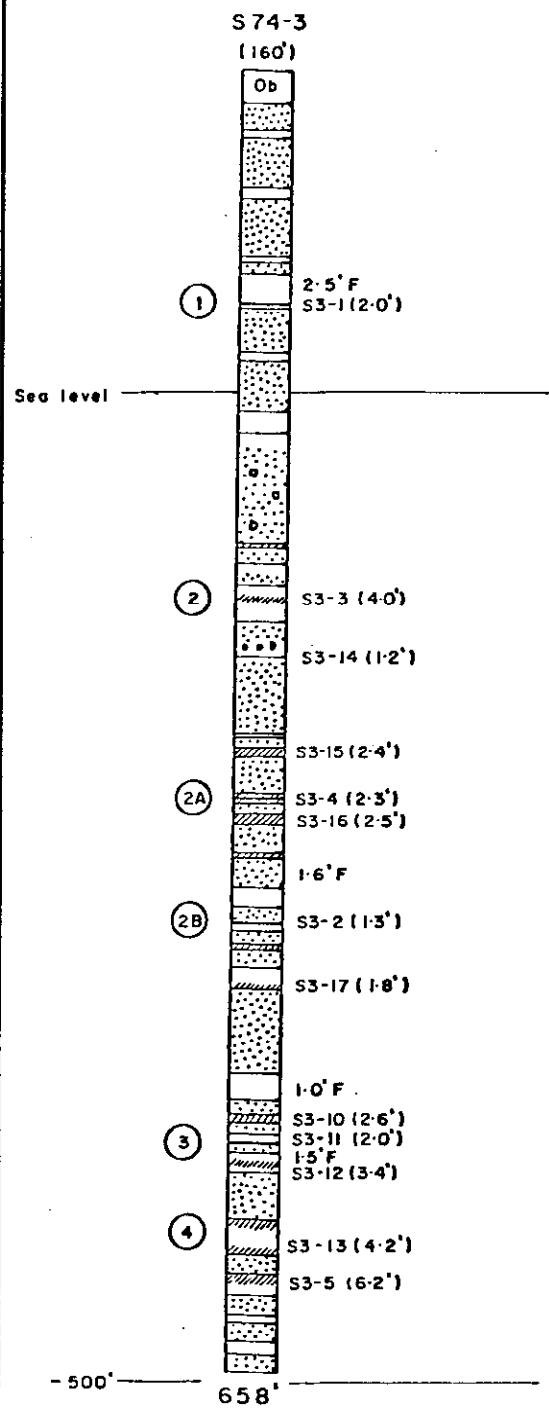


LEGEND











-  CONGLOMERATE
-  SANDSTONE
-  SHALE
-  1.6' COAL SEAM
-  CARBONACEOUS SHALE TO SHALY COAL
-  7.6' F THICKNESS OF INCLUDED FIRE CLAY
-  BASIC VOLCANICS
-  S6-1 (1.5) SAMPLE NO. (LENGTH)
-  ② COAL ZONE NUMBER
-  Ob OVERBURDEN

SQ - SUQUASH 75(2)A

DOLMAGE CAMPBELL & ASSOCIATES LTD. CONSULTANTS VANCOUVER, CANADA	
B.C. HYDRO & POWER AUTHORITY VANCOUVER, CANADA	
SUQUASH DRILLING PROJECT	
GRAPHIC CORE LOG S 74 - 1	
(1974 CORE HOLES)	
SCALE VERT. 1"=100'	AUG. 1975

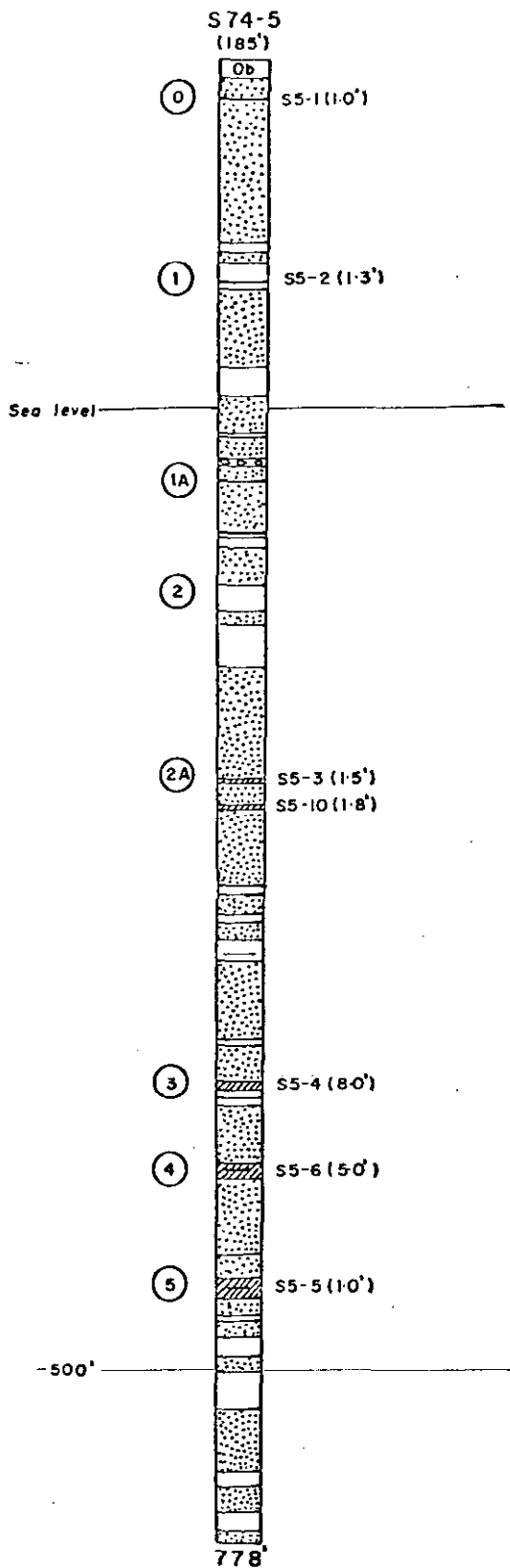


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






-  CONGLOMERATE
-  SANDSTONE
-  SHALE
-  1-6' COAL SEAM
-  CARBONACEOUS SHALE TO SHALY COAL
-  7-6' F THICKNESS OF INCLUDED FIRE CLAY
-  BASIC VOLCANICS
-  S6-1 (1-5') SAMPLE NO., (LENGTH)
-  2 COAL ZONE NUMBER
-  Ob OVERBURDEN

SG-SUQUASH 75(2)A.

DOLMAGE CAMPBELL & ASSOCIATES LTD. CONSULTANTS VANCOUVER, CANADA	
B.C. HYDRO & POWER AUTHORITY VANCOUVER, CANADA	
SUQUASH DRILLING PROJECT	
GRAPHIC CORE LOG S74 - 3	
(1974 CORE HOLES)	
SCALE VERT. 1"=100'	AUG. 1975



LEGEND

-  CONGLOMERATE
-  SANDSTONE
-  SHALE
-  1-6" COAL SEAM
-  CARBONACEOUS SHALE TO SHALY COAL
-  7-6" F THICKNESS OF INCLUDED FIRE CLAY
-  BASIC VOLCANICS

S6-1 (1-5') SAMPLE NO. (LENGTH)

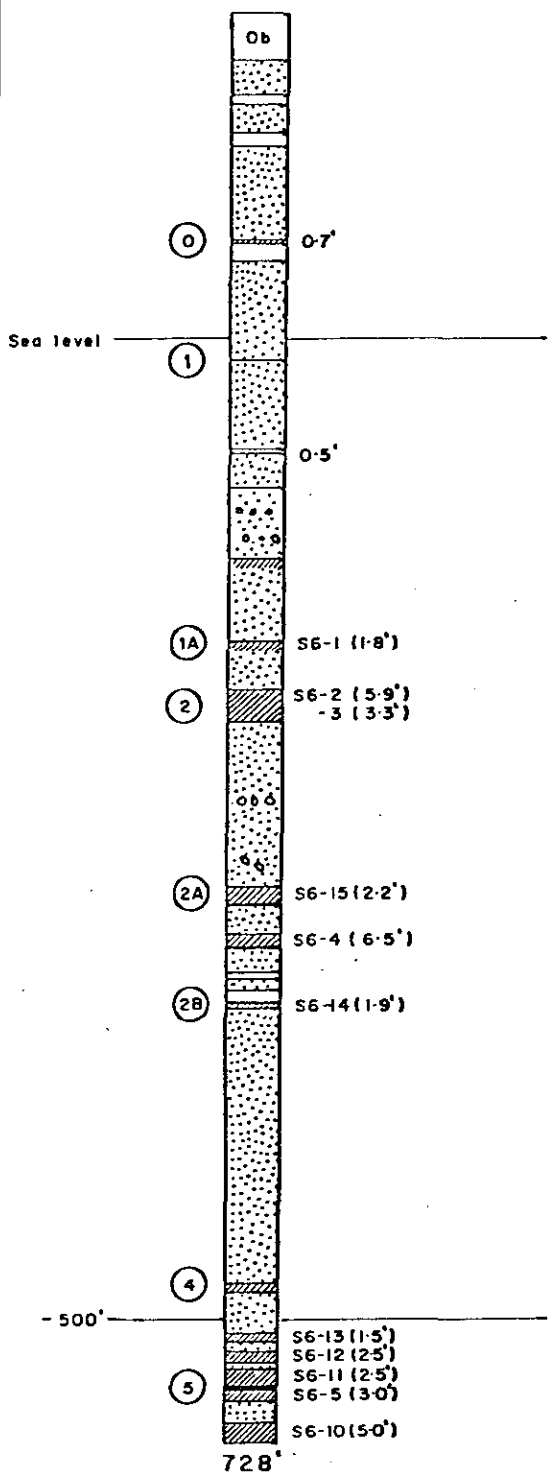
② COAL ZONE NUMBER

Ob OVERBURDEN

SQ - SUQUASH 75(2)A.

DOLMAGE CAMPBELL & ASSOCIATES LTD. CONSULTANTS VANCOUVER, CANADA	
B.C. HYDRO & POWER AUTHORITY VANCOUVER, CANADA	
SUQUASH DRILLING PROJECT	
GRAPHIC CORE LOG S74 - 5	
(1974 CORE HOLES)	
SCALE VERT. 1"=100'	AUG. 1975

S 74 - 6
(165')



LEGEND



CONGLOMERATE



SANDSTONE



SHALE



16' COAL SEAM



CARBONACEOUS SHALE TO SHALY COAL

7-6' F

THICKNESS OF INCLUDED FIRE CLAY



BASIC VOLCANICS

S6-1 (1-5') SAMPLE NO., (LENGTH)



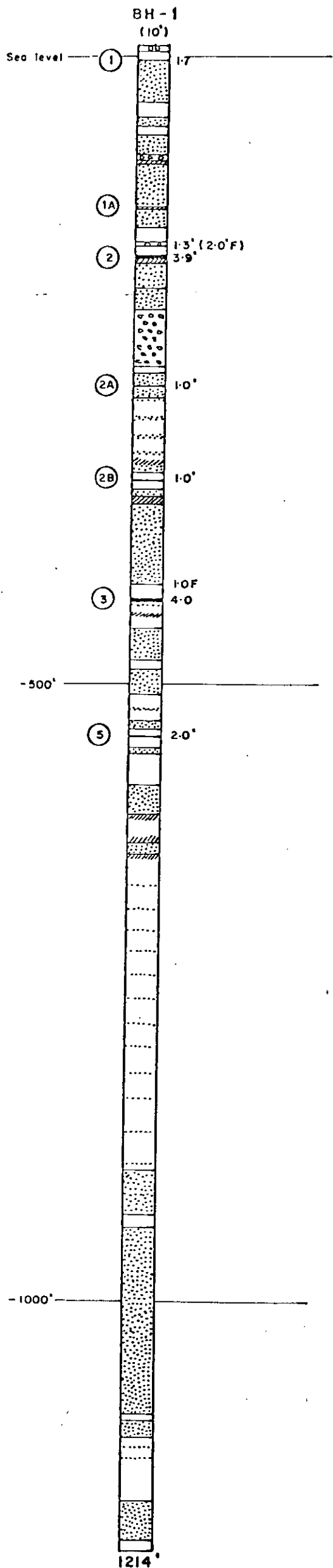
COAL ZONE NUMBER

Ob








OVERBURDEN

SQ - SUQUASH 75(2)A.

DOLMAGE CAMPBELL & ASSOCIATES LTD. CONSULTANTS	
VANCOUVER, CANADA	
B.C. HYDRO & POWER AUTHORITY	
VANCOUVER, CANADA	
SUQUASH DRILLING PROJECT	
<h1>GRAPHIC CORE LOG</h1> <h2>S 74 - 6</h2>	
(1974 CORE HOLES)	
SCALE VERT. 1"=100'	AUG. 1975

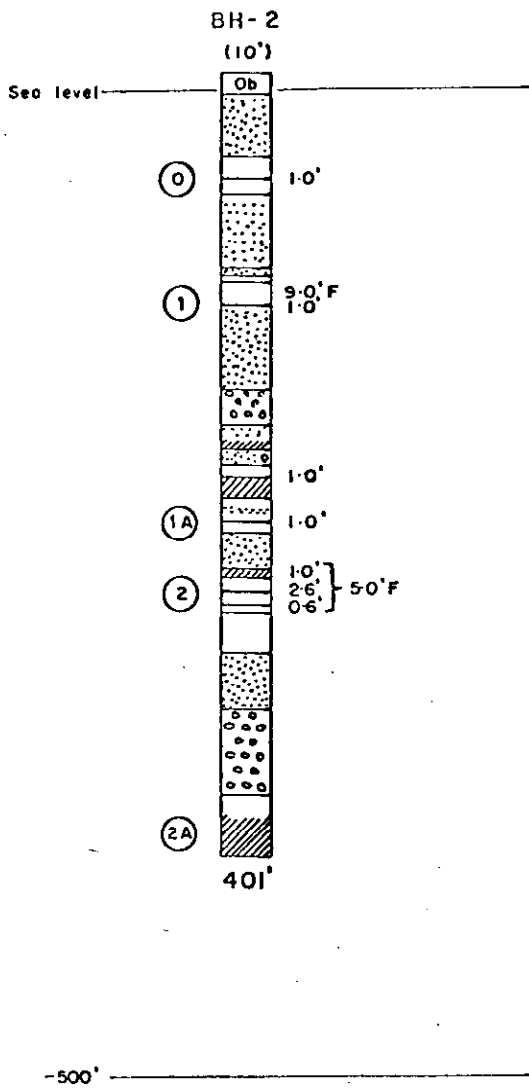


LEGEND

-  CONGLOMERATE
-  SANDSTONE
-  SHALE
-  1.6' COAL SEAM
-  CARBONACEOUS SHALE TO SHALY COAL
-  7.6' F THICKNESS OF INCLUDED FIRE CLAY
-  BASIC VOLCANICS
- 56-1 (1.5') SAMPLE NO. (LENGTH)
- (2) COAL ZONE NUMBER
- Ob OVERBURDEN

SQ-SUQUASH 75(2)A

DOLMAGE CAMPBELL & ASSOCIATES LTD. CONSULTANTS VANCOUVER, CANADA	
B.C. HYDRO & POWER AUTHORITY VANCOUVER, CANADA	
SUQUASH DRILLING PROJECT	
GRAPHIC CORE LOG BH - 1	
(1908 BOREHOLES)	
SCALE VERT. 1"=100'	AUG. 1975



LEGEND



CONGLOMERATE



SANDSTONE



SHALE



1.6' COAL SEAM



CARBONACEOUS SHALE TO SHALY COAL

7.6' F

THICKNESS OF INCLUDED FIRE CLAY



BASIC VOLCANICS

S6-1 (1.5') SAMPLE NO. (LENGTH)

②

COAL ZONE NUMBER

Ob

OVERBURDEN

59 - SUQUASH 7572A

DOLMAGE CAMPBELL & ASSOCIATES LTD. CONSULTANTS
VANCOUVER, CANADA

B.C. HYDRO & POWER AUTHORITY
VANCOUVER, CANADA

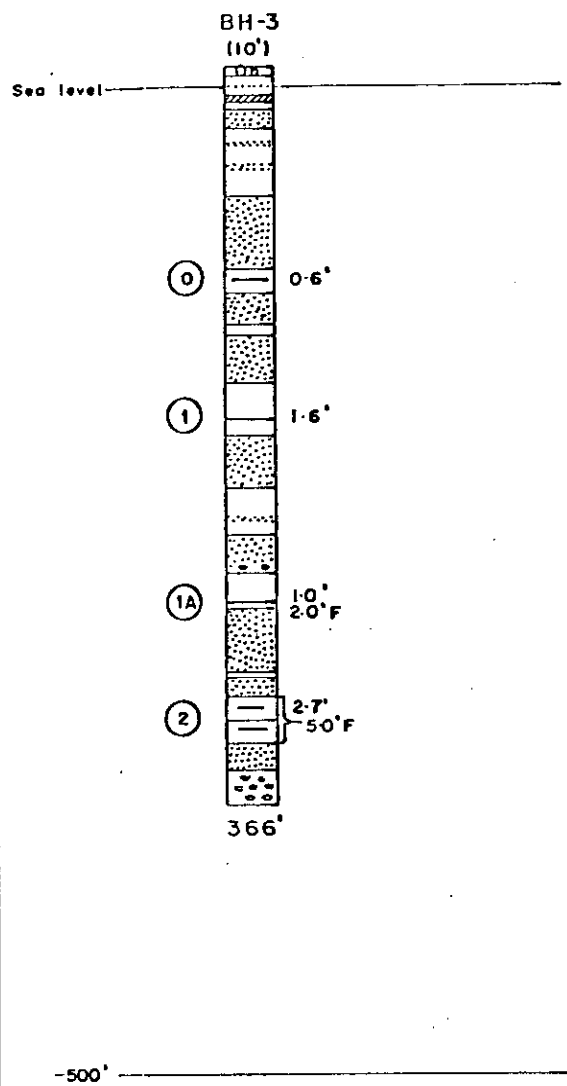
SUQUASH DRILLING PROJECT

GRAPHIC CORE LOG
BH - 2







(1908 BOREHOLES)

SCALE VERT. 1"=100'

AUG. 1975

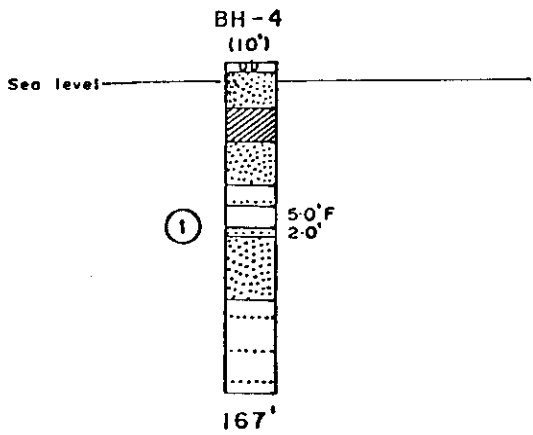


LEGEND








-  CONGLOMERATE
-  SANDSTONE
-  SHALE
-  1-6' COAL SEAM
-  CARBONACEOUS SHALE TO SHALY COAL
- 7-6' F THICKNESS OF INCLUDED FIRE CLAY
-  BASIC VOLCANICS
- S6-1 (1-5') SAMPLE NO. (LENGTH)
- ② COAL ZONE NUMBER
- Ob OVERBURDEN

59-SUQUASH 75(2)A

DOLMAGE CAMPBELL & ASSOCIATES LTD. CONSULTANTS VANCOUVER, CANADA	
B.C. HYDRO & POWER AUTHORITY VANCOUVER, CANADA	
<u>SUQUASH DRILLING PROJECT</u>	
GRAPHIC CORE LOG BH - 3	
(1908 BOREHOLES)	
SCALE VERT. 1"=100'	AUG. 1975



LEGEND

-  CONGLOMERATE
-  SANDSTONE
-  SHALE
-  1.6' COAL SEAM
-  CARBONACEOUS SHALE TO SHALY COAL
-  7.6' F THICKNESS OF INCLUDED FIRE CLAY
-  BASIC VOLCANICS

s6-1 (1.5') SAMPLE NO. (LENGTH)

② COAL ZONE NUMBER

o b OVERBURDEN

-500'

SQ-SUQUASH 75(2)A.

DOLMAGE CAMPBELL & ASSOCIATES LTD. CONSULTANTS VANCOUVER, CANADA	
B.C. HYDRO & POWER AUTHORITY VANCOUVER, CANADA	
SUQUASH DRILLING PROJECT	
GRAPHIC CORE LOG BH - 4	
(1908 BOREHOLES)	
SCALE VERT. 1"=100'	AUG. 1975

APPENDIX NO. 3

ANALYSES CERTIFICATES

COMMERCIAL TESTING & ENGINEERING CO.

GENERAL OFFICES: 228 NORTH LA SALLE STREET, CHICAGO, ILLINOIS 60601 • AREA CODE 312 726-8434

Please address all correspondence to:
147 Riverside Dr., North Vancouver, B.C. V7H 1T6Office: Tel. (604) 929-2228
Roberts Bank Tel. (604) 946-7021
16 October 1974DOLMAGE CAMPBELL & ASSOCIATES LTD.
Vancouver, British Columbia
Canada

CLIENT: B.C. Hydro & Power Authority

REPORT NO. 64-4867

PROJECT: Suquash Coal

Kind of Sample - Core
Sample No. S6-1
Core Hole No. S74-6
Footage from 320' to 321' 9"PROXIMATE ANALYSIS

	<u>As Received</u>	<u>Dry Basis</u>
% Moisture	6.41	xxxxx
% Ash	25.39	27.13
% Volatile	24.14	25.79
% Fixed Carbon	44.06	47.08
	<u>100.00</u>	<u>100.00</u>
Btu	9100	9723
% Sulfur	0.68	0.73
% Equilibrium Moisture		7.67

Respectfully submitted,

COMMERCIAL TESTING & ENGINEERING CO.

R. A. Houser,
District Manager

RAH/cs

COMMERCIAL TESTING & ENGINEERING CO.

GENERAL OFFICES: 228 NORTH LA SALLE STREET, CHICAGO, ILLINOIS 60601 • AREA CODE 312 726-8434

Please address all correspondence to:
147 Riverside Dr., North Vancouver, B.C. V7H 1T6Office: Tel. (604) 929-2228
Roberts Bank Tel. (604) 946-7021
16 October 1974DOLMAGE CAMPBELL & ASSOCIATES LTD.
Vancouver, British Columbia
Canada

CLIENT: B.C. Hydro & Power Authority

REPORT NO. 64-4868


PROJECT: Suquash Coal

Kind of Sample - Core
Sample No. S6-2
Core Hole No. S74-6
Footage from 347'2" to 353'1"PROXIMATE ANALYSIS

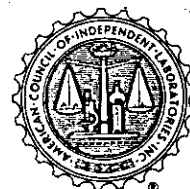
	<u>As Received</u>	<u>Dry Basis</u>
% Moisture	6.15	XXXXX
% Ash	47.70	50.82
% Volatile	22.56	24.04
% Fixed Carbon	23.59	25.14
	<u>100.00</u>	<u>100.00</u>
Btu	5605	5972
% Sulfur	2.25	2.40
% Equilibrium Moisture		8.84

Respectfully submitted,

COMMERCIAL TESTING & ENGINEERING CO.


 R. A. Houser,
 District Manager

RAH/cs



COMMERCIAL TESTING & ENGINEERING CO.

GENERAL OFFICES: 228 NORTH LA SALLE STREET, CHICAGO, ILLINOIS 60601 • AREA CODE 312 728-8434

Please address all correspondence to:
147 Riverside Dr., North Vancouver, B.C. V7H 1T6Office: Tel. (604) 929-2228
Roberts Bank Tel. (604) 946-7021

16 October 1974

DOLMAGE CAMPBELL & ASSOCIATES LTD.
Vancouver, British Columbia
Canada

CLIENT: B.C. Hydro & Power Authority

REPORT NO. 64-4869

PROJECT: Suquash Coal

Kind of Sample - Core
Sample No. S6-3
Core Hole No. S74-5
Footage from 356'0" to 359'4"PROXIMATE ANALYSIS

	<u>As Received</u>	<u>Dry Basis</u>
% Moisture	6.31	xxxxxx
% Ash	65.63	70.05
% Volatile	15.55	16.60
% Fixed Carbon	<u>12.51</u>	<u>13.35</u>
	100.00	100.00
Btu	2815	3005
% Sulfur	0.56	0.60
% Equilibrium Moisture		7.02

Respectfully submitted,

COMMERCIAL TESTING & ENGINEERING CO.

R. A. Houser,
District Manager

RAH/cs

COMMERCIAL TESTING & ENGINEERING CO.

GENERAL OFFICES: 228 NORTH LA SALLE STREET, CHICAGO, ILLINOIS 60601 - AREA CODE 312 726-8434

Please address all correspondence to:
147 Riverside Dr., North Vancouver, B.C. V7H 1T6Office: Tel. (604) 929-2228
Roberts Bank Tel. (604) 946-7021
16 October 1974DOLMAGE CAMPBELL & ASSOCIATES LTD.
Vancouver, British Columbia
Canada

CLIENT: B.C. Hydro & Power Authority

REPORT NO. 64-4870

PROJECT: Suquash Coal

Kind of Sample - Core
Sample No. S6-4
Core Hole No. S74-6
Footage from 466' to 472'6"PROXIMATE ANALYSIS

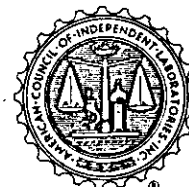
	<u>As Received</u>	<u>Dry Basis</u>
% Moisture	5.63	xxxxx
% Ash	34.06	36.09
% Volatile	23.96	25.39
% Fixed Carbon	36.35	38.52
	<u>100.00</u>	<u>100.00</u>
Btu	7962	8437
% Sulfur	3.47	3.68
% Equilibrium Moisture	6.82	

Respectfully submitted,

COMMERCIAL TESTING & ENGINEERING CO.

R. A. Houser,
District Manager

RAH/cs



COMMERCIAL TESTING & ENGINEERING CO.

GENERAL OFFICES: 228 NORTH LA SALLE STREET, CHICAGO, ILLINOIS 60601 · AREA CODE 312 726-8434



Please address all correspondence to:
147 Riverside Dr., North Vancouver, B.C. V7H 1T6

Office: Tel. (604) 929-2228
Roberts Bank Tel. (604) 946-7021

16 October 1974

DOLMAGE CAMPBELL & ASSOCIATES LTD.
Vancouver, British Columbia
Canada

CLIENT: B.C. Hydro & Power Authority

REPORT NO. 64-4871

PROJECT: Suquash Coal

Kind of Sample - Core
Sample No. S6-5
Core Hole No. S74-6
Footage from 707' to 710'

PROXIMATE ANALYSIS

	<u>As Received</u>	<u>Dry Basis</u>
% Moisture	5.70	xxxxxx
% Ash	8.26	8.76
% Volatile	32.04	33.98
% Fixed Carbon	54.00	57.26
	<u>100.00</u>	<u>100.00</u>
Btu	11840	12556
% Sulfur	1.09	1.16
% Equilibrium Moisture		6.97

Respectfully submitted,

COMMERCIAL TESTING & ENGINEERING CO.

R. A. Houser,
District Manager



RAH/cs

COMMERCIAL TESTING & ENGINEERING CO.

GENERAL OFFICES: 228 NORTH LA SALLE STREET, CHICAGO, ILLINOIS 60601 • AREA CODE 312 726-8434



Please address all correspondence to:
147 Riverside Dr., North Vancouver, B.C. V7H 1T6

Office: Tel. (604) 929-2228
Roberts Bank Tel. (604) 946-7021

16 October 1974

DOLMAGE CAMPBELL & ASSOCIATES LTD.
Vancouver, British Columbia
Canada

CLIENT: B.C. Hydro & Power Authority **REPORT NO. 67-4952**

PROJECT: Suquash Coal

Kind of Sample - Core
Sample No. S5-1
Core Hole No. S74-5
Footage from 17' to 18'

PROXIMATE ANALYSIS

	<u>As Received</u>	<u>Dry Basis</u>
% Moisture	6.24	xxxxx
% Ash	21.56	23.00
% Volatile	35.23	37.57
% Fixed Carbon	36.97	39.43
	<u>100.00</u>	<u>100.00</u>
Btu	9885	10543
% Sulfur	4.67	4.98
Specific Gravity		1.485

Respectfully submitted,

COMMERCIAL TESTING & ENGINEERING CO.

R. A. Houser,
District Manager

RAH/cs



COMMERCIAL TESTING & ENGINEERING CO.

GENERAL OFFICES: 228 NORTH LA SALLE STREET, CHICAGO, ILLINOIS 60601 • AREA CODE 312 726-8434

Please address all correspondence to:
147 Riverside Dr., North Vancouver, B.C. V7H 1T6Office: Tel. (604) 929-2228
Roberts Bank Tel. (604) 946-7021

16 October 1974

DOLMAGE CAMPBELL & ASSOCIATES LTD.
Vancouver, British Columbia
Canada

CLIENT: B.C. Hydro & Power Authority

REPORT NO. 67-4953

PROJECT: Squash Coal

Kind of Sample - Core
Sample No. S5-2
Core Hole No. S74-5
Footage from 116' to 117'4"PROXIMATE ANALYSIS

	<u>As Received</u>	<u>Dry Basis</u>
% Moisture	7.02	xxxxx
% Ash	20.43	21.97
% Volatile	34.03	36.60
% Fixed Carbon	38.52	41.43
	<u>100.00</u>	<u>100.00</u>
Btu	9893	10640
% Sulfur	1.66	1.79
Specific Gravity	1.459	

Respectfully submitted,

COMMERCIAL TESTING & ENGINEERING CO.

R. A. Houser,
District Manager

RAH/cs



COMMERCIAL TESTING & ENGINEERING CO.

GENERAL OFFICES: 228 NORTH LA SALLE STREET, CHICAGO, ILLINOIS 60601 • AREA CODE 312 726-8434

Please address all correspondence to:
147 Riverside Dr., North Vancouver, B.C. V7H 1T6Office: Tel. (604) 929-2228
Roberts Bank Tel. (604) 946-7021
16 October 1974DOLMAGE CAMPBELL & ASSOCIATES LTD.
Vancouver, British Columbia
Canada

CLIENT: B.C. Hydro & Power Authority

REPORT NO. 67-4954

PROJECT: Suquash Coal

Kind of Sample - Core
Sample No. S5-3
Core Hole No. S74-5
Footage from 375'6" to 377'PROXIMATE ANALYSIS

	<u>As Received</u>	<u>Dry Basis</u>
% Moisture	5.80	xxxxx
% Ash	45.91	48.74
% Volatile	26.58	28.22
% Fixed Carbon	<u>21.71</u>	<u>23.04</u>
	100.00	100.00
Btu	6243	6627
% Sulfur	3.09	3.28
Specific Gravity	1.765	

Respectfully submitted,

COMMERCIAL TESTING & ENGINEERING CO.

R. A. Houser,
District Manager

RAH/cs



COMMERCIAL TESTING & ENGINEERING CO.

GENERAL OFFICES: 228 NORTH LA SALLE STREET, CHICAGO, ILLINOIS 60601 • AREA CODE 312 726-8434

Please address all correspondence to:
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Roberts Bank Tel. (604) 946-7021

16 October 1974

DOLMAGE CAMPBELL & ASSOCIATES LTD.
Vancouver, British Columbia
Canada

CLIENT: B.C. Hydro & Power Authority REPORT NO. 67-4955

PROJECT: Suquash Coal

Kind of Sample - Core
Sample No. S5-4
Core Hole No. S74-5
Footage from 535' to 543'PROXIMATE ANALYSIS

	<u>As Received</u>	<u>Dry Basis</u>
% Moisture	6.94	xxxxx
% Ash	32.97	35.43
% Volatile	27.34	29.38
% Fixed Carbon	<u>32.75</u>	<u>35.19</u>
	100.00	100.00
Btu	7931	8522
% Sulfur	1.89	2.03
Specific Gravity		1.572

Respectfully submitted,

COMMERCIAL TESTING & ENGINEERING CO.

R. A. Houser,
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16 October 1974

DOLMAGE CAMPBELL & ASSOCIATES LTD.
Vancouver, British Columbia
Canada

CLIENT: B.C. Hydro & Power Authority REPORT NO. 67-4956

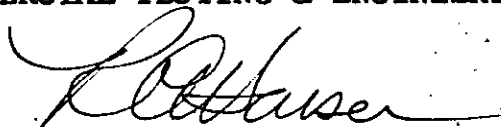
PROJECT: Suquash Coal

Kind of Sample - Core
Sample No. S5-5
Core Hole No. S74-5
Footage from 638' to 648'PROXIMATE ANALYSIS

	<u>As Received</u>	<u>Dry Basis</u>
% Moisture	6.74	xxxxx
% Ash	59.40	63.69
% Volatile	20.67	22.16
% Fixed Carbon	13.19	14.15
	<u>100.00</u>	<u>100.00</u>
Btu	3403	3649
% Sulfur	1.47	1.58
Specific Gravity		1.908

Respectfully submitted,

COMMERCIAL TESTING & ENGINEERING CO.


 R. A. Houser,
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7 November 1974

DOLMAGE CAMPBELL & ASSOCIATES LTD.
Vancouver, British Columbia
Canada

CLIENT: B.C. Hydro & Power Authority

REPORT NO. 67-5289

PROJECT: Suquash Coal

Kind of Sample - Core
Sample No. 74-1-4
Core Hole No. S-74-1
Footage from 285'6" to 288'PROXIMATE ANALYSIS

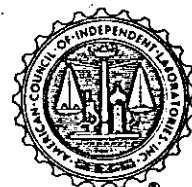
	<u>As Received</u>	<u>Dry Basis</u>
% Moisture	4.89	xxxxx
% Ash	53.65	56.41
% Volatile	21.85	22.97
% Fixed Carbon	<u>19.61</u>	<u>20.62</u>
	100.00	100.00
Btu	4610	4847
% Sulfur	2.76	2.90

Respectfully submitted,

COMMERCIAL TESTING & ENGINEERING CO.

R. A. Houser,
District Manager

RAH/cs



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7 November 1974

DOLMAGE CAMPBELL & ASSOCIATES LTD.
Vancouver, British Columbia
Canada

CLIENT: B.C. Hydro & Power Authority

REPORT NO. 67-5288

PROJECT: Suquash Coal

Kind of Sample - Core
Sample No. 74-1-3
Core Hole No. S-74-1
Footage from 278' to 279'6"

PROXIMATE ANALYSIS

	<u>As Received</u>	<u>Dry Basis</u>
% Moisture	8.15	xxxxxx
% Ash	12.61	13.73
% Volatile	36.29	39.51
% Fixed Carbon	<u>42.95</u>	<u>46.76</u>
	100.00	100.00
Btu	10814	11773
% Sulfur	1.51	1.64

Respectfully submitted,

COMMERCIAL TESTING & ENGINEERING CO.

R. A. Houser,
District Manager

RAH/cs



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7 November 1974

DOLMAGE CAMPBELL & ASSOCIATES LTD.
Vancouver, British Columbia
Canada

CLIENT: B.C. Hydro & Power Authority

REPORT NO. 67-5287

PROJECT: Squash Coal

Kind of Sample - Core
Sample No. 74-1-2
Core Hole No. S-74-1
Footage from 159'6" to 161'4"PROXIMATE ANALYSIS

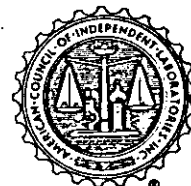
	<u>As Received</u>	<u>Dry Basis</u>
% Moisture	6.33	xxxxx
% Ash	21.41	22.85
% Volatile	36.79	39.28
% Fixed Carbon	35.47	37.87
	<u>100.00</u>	<u>100.00</u>
Btu	9795	10457
% Sulfur	3.61	3.85

Respectfully submitted,

COMMERCIAL TESTING & ENGINEERING CO.


R. A. Houser,
District Manager

RAH/cs



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7 November 1974

DOLMAGE CAMPBELL & ASSOCIATES LTD.
Vancouver, British Columbia
Canada

CLIENT: B.C. Hydro & Power Authority REPORT NO. 67-5286

PROJECT: Suquash Coal

Kind of Sample -Core
Sample No. 74-1-1
Core Hole No. S-74-1
Footage from 67' to 68'PROXIMATE ANALYSIS

	<u>As Received</u>	<u>Dry Basis</u>
% Moisture	7.07	xxxxxx
% Ash	12.61	13.57
% Volatile	41.17	44.30
% Fixed Carbon	39.15	42.13
	<u>100.00</u>	<u>100.00</u>
Btu	10962	11796
% Sulfur	3.51	3.78

Respectfully submitted,

COMMERCIAL TESTING & ENGINEERING CO.

R. A. Houser,
District Manager

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7 November 1974DOLMAGE CAMPBELL & ASSOCIATES LTD.
Vancouver, British Columbia
Canada

CLIENT: B.C. Hydro & Power Authority

REPORT NO. 67-5285

PROJECT: Squash Coal

Kind of Sample - Core
Sample No. 74-3-4
Core Hole No. S-74-3
Footage from 364'5" to 366'8"PROXIMATE ANALYSIS

	<u>As Received</u>	<u>Dry Basis</u>
% Moisture	7.24	xxxxxx
% Ash	23.19	25.00
% Volatile	34.22	36.89
% Fixed Carbon	35.35	38.11
	<u>100.00</u>	<u>100.00</u>
Btu	9413	10148
% Sulfur	1.98	2.13

Respectfully submitted,

COMMERCIAL TESTING & ENGINEERING CO.

R. A. Houser,
District Manager

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7 November 1974

DOLMAGE CAMPBELL & ASSOCIATES LTD.
Vancouver, British Columbia
Canada

CLIENT: B.C. Hydro & Power Authority

REPORT NO. 67-5140

PROJECT: Suquash Coal

Kind of Sample - Core
Sample No. 74-3-3
Core Hole No. S-74-3
Footage from 262' to 266'PROXIMATE ANALYSIS

	<u>As Received</u>	<u>Dry Basis</u>
% Moisture	7.87	xxxxx
% Ash	42.46	46.09
% Volatile	23.78	25.81
% Fixed Carbon	25.89	28.10
	<u>100.00</u>	<u>100.00</u>
Btu	5726	6215
% Sulfur	2.99	3.24

Respectfully submitted,

COMMERCIAL TESTING & ENGINEERING CO.


 R. A. Houser,
 District Manager

RAH/cs



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7 November 1974

DOLMAGE CAMPBELL & ASSOCIATES LTD.
Vancouver, British Columbia
CanadaCLIENT: B.C. Hydro & Power Authority REPORT NO. 67-5139
PROJECT: Suquash CoalKind of Sample - Core
Sample No. 74-3-2
Core Hole No. S-74-3
Footage from 430' to 431'4"PROXIMATE ANALYSIS

	<u>As Received</u>	<u>Dry Basis</u>
% Moisture	7.32	xxxxxx
% Ash	27.79	29.98
% Volatile	31.74	34.25
% Fixed Carbon	<u>33.15</u>	<u>35.77</u>
	100.00	100.00
Btu	8797	9492
% Sulfur	3.35	3.61

Respectfully submitted,

COMMERCIAL TESTING & ENGINEERING CO.


R. A. Houser,
District Manager

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7 November 1974

DOLMAGE CAMPBELL & ASSOCIATES LTD.
Vancouver, British Columbia
Canada

CLIENT: B.C. Hydro & Power Authority REPORT NO. 67-5138

PROJECT: Suquash Coal

Kind of Sample - Core
Sample No. 74-3-1
Core Hole No. S-74-3
Footage from 117'6" to 119'6"PROXIMATE ANALYSIS

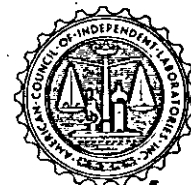
	<u>As Received</u>	<u>Dry Basis</u>
% Moisture	7.46	xxxxxx
% Ash	16.30	17.61
% Volatile	36.83	39.80
% Fixed Carbon	<u>39.41</u>	<u>42.59</u>
	100.00	100.00
Btu	10401	11240
% Sulfur	2.21	2.39

Respectfully submitted,

COMMERCIAL TESTING & ENGINEERING CO.

R. A. Houser,
District Manager

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7 November 1974

DOLMAGE CAMPBELL & ASSOCIATES LTD.
Vancouver, British Columbia
Canada

CLIENT: B.C. Hydro & Power Authority REPORT NO. 67-5137

PROJECT: Suquash Coal

Kind of Sample - Core
Sample No. 74-5-6
Core Hole No. S-74-5
Footage from 582' to 587'PROXIMATE ANALYSIS

	<u>As Received</u>	<u>Dry Basis</u>
% Moisture	5.96	xxxxx
% Ash	53.25	56.63
% Volatile	21.30	22.65
% Fixed Carbon	19.49	20.72
	<u>100.00</u>	<u>100.00</u>
Btu	4626	4919
% Sulfur	4.57	4.86

Respectfully submitted,

COMMERCIAL TESTING & ENGINEERING CO.

R. A. Houser,
District Manager

RAH/cs



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26 November 1974

DOLMAGE CAMPBELL & ASSOCIATES LTD.
Vancouver, British Columbia
Canada

CLIENT: B.C. Hydro & Power Authority

REPORT NO. 67-6043

PROJECT: Suquash Coal

Kind of Sample - Core
Sample No. S-1-10
Footage from 415' to 422'6"

S-74-1

PROXIMATE ANALYSIS

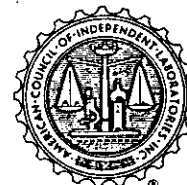
	<u>As Received</u>	<u>Dry Basis</u>
% Moisture	5.80	xxxxxx
% Ash	58.53	62.14
% Volatile	17.11	18.16
% Fixed Carbon	<u>18.56</u>	<u>19.70</u>
	100.00	100.00
Btu	3925	4167
% Sulfur	1.36	1.44

Respectfully submitted,

COMMERCIAL TESTING & ENGINEERING CO.


 R. A. Houser,
 District Manager

RAH/cs



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27 November 1974DOLMAGE CAMPBELL & ASSOCIATES LTD.
Vancouver, British Columbia
Canada

CLIENT: B.C. Hydro & Power Authority

REPORT NO. 67-6044

PROJECT: Suquash Coal

Kind of Sample - Core
Sample No. S-1-11
Footage from 427'10" to 429'

S-74-1

PROXIMATE ANALYSIS

	<u>As Received</u>	<u>Dry Basis</u>
% Moisture	4.70	xxxxx
% Ash	61.89	64.94
% Volatile	16.48	17.29
% Fixed Carbon	16.93	17.77
	<u>100.00</u>	<u>100.00</u>
Btu	3588	3765
% Sulfur	1.57	1.65

Respectfully submitted,

COMMERCIAL TESTING & ENGINEERING CO.

R. A. Houser,
District Manager

RAH/cs



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27 November 1974

DOLMAGE CAMPBELL & ASSOCIATES LTD.
Vancouver, British Columbia
Canada

CLIENT: B.C. Hydro & Power Authority

REPORT NO. 67-6045

PROJECT: Suquash Coal

Kind of Sample - Core
Sample No. S-1-12
Footage from 474'3" to 478'3"

S-74-1

PROXIMATE ANALYSIS

	<u>As Received</u>	<u>Dry Basis</u>
% Moisture	5.30	xxxxxx
% Ash	58.81	62.10
% Volatile	18.06	19.07
% Fixed Carbon	<u>17.83</u>	<u>18.83</u>
	100.00	100.00
Btu	3783	3995
% Sulfur	0.53	0.57

Respectfully submitted,

COMMERCIAL TESTING & ENGINEERING CO.

R. A. Houser,
District Manager

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27 November 1974

DOLMAGE CAMPBELL & ASSOCIATES LTD.
Vancouver, British Columbia
Canada

CLIENT: B.C. Hydro & Power Authority

REPORT NO. 67-6046

PROJECT: Suquash Coal

Kind of Sample - Core
Sample No. S-1-13
Footage from 531'4" to 533'

574-1

PROXIMATE ANALYSIS

	<u>As Received</u>	<u>Dry Basis</u>
% Moisture	7.06	xxxxx
% Ash	41.55	44.71
% Volatile	23.86	25.67
% Fixed Carbon	<u>27.53</u>	<u>29.62</u>
	100.00	100.00
Btu	6311	6790
% Sulfur	0.39	0.42

Respectfully submitted,

COMMERCIAL TESTING & ENGINEERING CO.

R. A. Houser,
District Manager

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27 November 1974

DOLMAGE CAMPBELL & ASSOCIATES LTD.
Vancouver, British Columbia
Canada

CLIENT: B.C. Hydro & Power Authority

REPORT NO. 67-6047

PROJECT: Suquash Coal

Kind of Sample - Core
Sample No. S-1-14
Footage from 623'7" to 626'4"

S-74-1

PROXIMATE ANALYSIS

	<u>As Received</u>	<u>Dry Basis</u>
% Moisture	4.86	xxxxxx
% Ash	64.83	68.14
% Volatile	16.29	17.12
% Fixed Carbon	<u>14.02</u>	<u>14.74</u>
	100.00	100.00
Btu	3151	3312
% Sulfur	0.30	0.32

Respectfully submitted,

COMMERCIAL TESTING & ENGINEERING CO.

R. A. Houser,
District Manager

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27 November 1974DOLMAGE CAMPBELL & ASSOCIATES LTD.
Vancouver, British Columbia
Canada

CLIENT: B.C. Hydro & Power Authority

REPORT NO. 67-6048

PROJECT: Squash Coal

Kind of Sample - Core
Sample No. S-6-10
Footage from 723' to 728'

S-74-6

PROXIMATE ANALYSIS

	<u>As Received</u>	<u>Dry Basis</u>
% Moisture	5.34	xxxxx
% Ash	65.33	69.02
% Volatile	16.23	17.14
% Fixed Carbon	13.10	13.84
	<u>100.00</u>	<u>100.00</u>
Btu	3093	3267
% Sulfur	2.18	2.30

Respectfully submitted,

COMMERCIAL TESTING & ENGINEERING CO.

R. A. Houser,
District Manager

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28 November 1974

DOLMAGE CAMPBELL & ASSOCIATES LTD.
Vancouver, British Columbia
Canada

CLIENT: B.C. Hydro & Power Authority

REPORT NO. 67-6049

PROJECT: Suquash Coal

Kind of Sample - Core
Sample No. S-6-11
Footage from 705'6" to 708'

S-74-b

PROXIMATE ANALYSIS

	<u>As Received</u>	<u>Dry Basis</u>
% Moisture	4.71	xxxxxx
% Ash	63.60	66.74
% Volatile	17.39	18.25
% Fixed Carbon	14.30	15.01
	<u>100.00</u>	<u>100.00</u>
Btu	3522	3696
% Sulfur	3.48	3.65

Respectfully submitted,

COMMERCIAL TESTING & ENGINEERING CO.

R. A. Houser,
District Manager

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26 November 1974

DOLMAGE CAMPBELL & ASSOCIATES LTD.
Vancouver, British Columbia
Canada

CLIENT: B.C. Hydro & Power Authority

REPORT NO. 67-6050

PROJECT: Suquash Coal

Kind of Sample - Core
Sample No. S-6-12
Footage from 683' to 685'

S-74-6

PROXIMATE ANALYSIS

	<u>As Received</u>	<u>Dry Basis</u>
% Moisture	7.35	xxxxxx
% Ash	26.90	29.03
% Volatile	28.00	30.22
% Fixed Carbon	<u>37.75</u>	<u>40.75</u>
	100.00	100.00
Btu	8837	9538
% Sulfur	0.32	0.35

Respectfully submitted,

COMMERCIAL TESTING & ENGINEERING CO.

R. A. Houser,
District Manager

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28 November 1974

DOLMAGE CAMPBELL & ASSOCIATES LTD.
Vancouver, British Columbia
Canada

CLIENT: B.C. Hydro & Power Authority

REPORT NO. 67-6051

PROJECT: Suquash Coal

Kind of Sample - Core S-74-6
Sample No. S-6-13
Footage from 671'6" to 673'

PROXIMATE ANALYSIS

	<u>As Received</u>	<u>Dry Basis</u>
% Moisture	6.67	xxxxx
% Ash	40.32	43.20
% Volatile	23.43	25.10
% Fixed Carbon	29.58	31.70
	<u>100.00</u>	<u>100.00</u>
Btu	6710	7190
% Sulfur	1.02	1.09

Respectfully submitted,

COMMERCIAL TESTING & ENGINEERING CO.

R. A. Houser,
District Manager

RAH/cs



COMMERCIAL TESTING & ENGINEERING CO.

GENERAL OFFICES: 228 NORTH LA SALLE STREET, CHICAGO, ILLINOIS 60601 · AREA CODE 312 726-8434



Please address all correspondence to:
147 Riverside Dr., North Vancouver, B.C. V7H 1T6

Office: Tel. (604) 929-2228
Roberts Bank Tel. (604) 946-7021

28 November 1974

DOLMAGE CAMPBELL & ASSOCIATES LTD.
Vancouver, British Columbia
Canada

CLIENT: B.C. Hydro & Power Authority

REPORT NO. 67-6052

PROJECT: Suquash Coal

Kind of Sample - Core
Sample No. S-6-14
Footage from 515'10" to 517'8"

S-74-b

PROXIMATE ANALYSIS

	<u>As Received</u>	<u>Dry Basis</u>
% Moisture	6.53	xxxxxx
% Ash	46.69	49.95
% Volatile	20.02	21.42
% Fixed Carbon	<u>26.76</u>	<u>28.63</u>
	100.00	100.00
Btu	5511	5896
% Sulfur	0.97	1.04

Respectfully submitted,

COMMERCIAL TESTING & ENGINEERING CO.

R. A. Houser
R. A. Houser,
District Manager

RAH/cs



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28 November 1974

DOLMAGE CAMPBELL & ASSOCIATES LTD.
Vancouver, British Columbia
Canada

CLIENT: B.C. Hydro & Power Authority

REPORT NO. 67-6053

PROJECT: Suquash Coal

Kind of Sample - Core
Sample No. S-6-15
Footage from 449'1" to 451'4"

S-74-6

PROXIMATE ANALYSIS

	<u>As Received</u>	<u>Dry Basis</u>
% Moisture	7.24	xxxxx
% Ash	28.84	31.09
% Volatile	27.08	29.19
% Fixed Carbon	36.84	39.72
	<u>100.00</u>	<u>100.00</u>
Btu	8604	9276
% Sulfur	1.71	1.84

Respectfully submitted,

COMMERCIAL TESTING & ENGINEERING CO.

R. A. Houser
R. A. Houser,
District Manager

RAH/cs



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28 November 1974

DOLMAGE CAMPBELL & ASSOCIATES LTD.
Vancouver, British Columbia
Canada

CLIENT: B.C. Hydro & Power Authority

REPORT NO. 67-6064

PROJECT: Suquash Coal

Kind of Sample - Core
Sample No. S-5-10
Footage from 391'3" to 393'

S-74-5

PROXIMATE ANALYSIS

	<u>As Received</u>	<u>Dry Basis</u>
% Moisture	4.55	xxxxx
% Ash	52.89	55.41
% Volatile	19.32	20.24
% Fixed Carbon	23.24	24.35
	<u>100.00</u>	<u>100.00</u>
Btu	5028	5268
% Sulfur	0.47	0.49

Respectfully submitted,

COMMERCIAL TESTING & ENGINEERING CO.

R. A. Houser,
District Manager

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28 November 1974

DOLMAGE CAMPBELL & ASSOCIATES LTD.
Vancouver, British Columbia
Canada

CLIENT: B.C. Hydro & Power Authority

REPORT NO. 67-6065

PROJECT: Squash Coal

Kind of Sample - Core
Sample No. S-3-10
Footage from 527' to 529'7"

S-74-3

PROXIMATE ANALYSIS

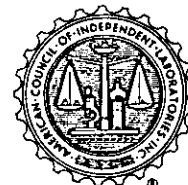
	<u>As Received</u>	<u>Dry Basis</u>
% Moisture	4.92	xxxxx
% Ash	52.92	55.66
% Volatile	20.01	21.04
% Fixed Carbon	22.15	23.30
	<u>100.00</u>	<u>100.00</u>
Btu	4869	5121
% Sulfur	2.97	3.12

Respectfully submitted,

COMMERCIAL TESTING & ENGINEERING CO.

R. A. Houser,
District Manager

RAH/cs



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28 November 1974

DOLMAGE CAMPBELL & ASSOCIATES LTD.
Vancouver, British Columbia
Canada

CLIENT: B.C. Hydro & Power Authority

REPORT NO. 67-6066

PROJECT: Suquash Coal

Kind of Sample - Core
Sample No. S-3-11
Footage from 536' to 538'

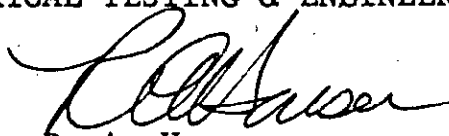
S-74-3

PROXIMATE ANALYSIS

	<u>As Received</u>	<u>Dry Basis</u>
% Moisture	5.71	xxxxx
% Ash	26.99	28.62
% Volatile	28.50	30.23
% Fixed Carbon	38.80	41.15
	<u>100.00</u>	<u>100.00</u>
Btu	9025	9572
% Sulfur	3.27	3.47

Respectfully submitted,

COMMERCIAL TESTING & ENGINEERING CO.


R. A. Houser,
District Manager

RAH/cs



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28 November 1974

DOLMAGE CAMPBELL & ASSOCIATES LTD.
Vancouver, British Columbia
Canada

CLIENT: B.C. Hydro & Power Authority

REPORT NO. 67-6067

PROJECT: Suquash Coal

Kind of Sample - Core
Sample No. S-3-12
Footage from 554'7" to 558'

S-74-3

PROXIMATE ANALYSIS

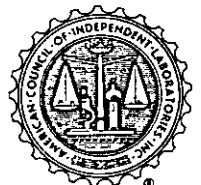
	<u>As Received</u>	<u>Dry Basis</u>
% Moisture	5.02	xxxxx
% Ash	57.88	60.94
% Volatile	17.39	18.31
% Fixed Carbon	19.71	20.75
	<u>100.00</u>	<u>100.00</u>
Btu	4380	4611
% Sulfur	2.72	2.86

Respectfully submitted,

COMMERCIAL TESTING & ENGINEERING CO.

R. A. Houser,
District Manager

RAH/cs



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28 November 1974

DOLMAGE CAMPBELL & ASSOCIATES LTD.
Vancouver, British Columbia
Canada

CLIENT: B.C. Hydro & Power Authority REPORT NO. 67-6068

PROJECT: Suquash Coal

Kind of Sample - Core
Sample No. S-3-13
Footage from 591'6" to 595'8"

S-74-3

PROXIMATE ANALYSIS

	<u>As Received</u>	<u>Dry Basis</u>
% Moisture	4.30	xxxxx
% Ash	44.88	46.90
% Volatile	25.37	26.51
% Fixed Carbon	25.45	26.59
	<u>100.00</u>	<u>100.00</u>
Btu	6235	6515
% Sulfur	2.41	2.52

Respectfully submitted,

COMMERCIAL TESTING & ENGINEERING CO.

R. A. Houser
R. A. Houser,
District Manager

RAH/cs



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28 November 1974

DOLMAGE CAMPBELL & ASSOCIATES LTD.
Vancouver, British Columbia
Canada

CLIENT: B.C. Hydro & Power Authority REPORT NO. 67-6069

PROJECT: Suquash Coal

Kind of Sample - Core S-74-3
Sample No. S-3-#5
Footage from 612' to 614'6"

PROXIMATE ANALYSIS

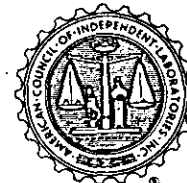
	<u>As Received</u>	<u>Dry Basis</u>
% Moisture	4.92	xxxxxx
% Ash	46.68	49.10
% Volatile	22.03	23.17
% Fixed Carbon	26.37	27.73
	<u>100.00</u>	<u>100.00</u>
Btu	5806	6106
% Sulfur	2.32	2.44

Respectfully submitted,

COMMERCIAL TESTING & ENGINEERING CO.

R. A. Houser
R. A. Houser,
District Manager

RAH/cs



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28 November 1974

DOLMAGE CAMPBELL & ASSOCIATES LTD.
Vancouver, British Columbia
Canada

CLIENT: B.C. Hydro & Power Authority

REPORT NO. 67-6070

PROJECT: Suquash Coal

Kind of Sample - Core
Sample No. S-3-14
Footage from 293' to 294'3"

S-74-3

PROXIMATE ANALYSIS

	<u>As Received</u>	<u>Dry Basis</u>
% Moisture	4.20	xxxxxx
% Ash	40.56	42.34
% Volatile	26.21	27.36
% Fixed Carbon	29.03	30.30
	<u>100.00</u>	<u>100.00</u>
Btu	6841	7141
% Sulfur	4.57	4.77

Respectfully submitted,

COMMERCIAL TESTING & ENGINEERING CO.

R. A. Houser,
District Manager

RAH/cs



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28 November 1974

DOLMAGE CAMPBELL & ASSOCIATES LTD.
Vancouver, British Columbia
Canada

CLIENT: B.C. Hydro & Power Authority

REPORT NO. 67-6071

PROJECT: Suquash Coal

Kind of Sample - Core S-74-3
Sample No. S-3-15
Footage from 352'9" to 355'2"

PROXIMATE ANALYSIS

	<u>As Received</u>	<u>Dry Basis</u>
% Moisture	5.11	xxxxx
% Ash	50.75	53.48
% Volatile	22.67	23.89
% Fixed Carbon	21.47	22.63
	<u>100.00</u>	<u>100.00</u>
Btu	5054	5326
% Sulfur	2.93	3.09

Respectfully submitted,

COMMERCIAL TESTING & ENGINEERING CO.

R. A. Houser,
District Manager

RAH/cs



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28 November 1974

DOLMAGE CAMPBELL & ASSOCIATES LTD.
Vancouver, British Columbia
Canada

CLIENT: B.C. Hydro & Power Authority

REPORT NO. 67-6072

PROJECT: Suquash Coal

Kind of Sample - Core
Sample No. S-3-16
Footage from 334' to 335'6"

S-74-3

PROXIMATE ANALYSIS

	<u>As Received</u>	<u>Dry Basis</u>
% Moisture	5.00	xxxxxx
% Ash	55.11	58.01
% Volatile	18.93	19.93
% Fixed Carbon	20.96	22.06
	<u>100.00</u>	<u>100.00</u>
Btu	4585	4826
% Sulfur	3.18	3.35

Respectfully submitted,

COMMERCIAL TESTING & ENGINEERING CO.

R. A. Houser
R. A. Houser,
District Manager

RAH/cs



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28 November 1974

DOLMAGE CAMPBELL & ASSOCIATES LTD.
Vancouver, British Columbia
Canada

CLIENT: B.C. Hydro & Power Authority REPORT NO. 67-6073

PROJECT: Suquash Coal

Kind of Sample - Core S-74-3
Sample No. S-3-17
Footage from 462' to 463'9"

PROXIMATE ANALYSIS

	<u>As Received</u>	<u>Dry Basis</u>
% Moisture	4.21	xxxxxx
% Ash	41.61	43.44
% Volatile	25.15	26.25
% Fixed Carbon	<u>29.03</u>	<u>30.31</u>
	100.00	100.00
Btu	6428	6710
% Sulfur	6.15	6.42

Respectfully submitted,

COMMERCIAL TESTING & ENGINEERING CO.

R. A. Houser
R. A. Houser,
District Manager

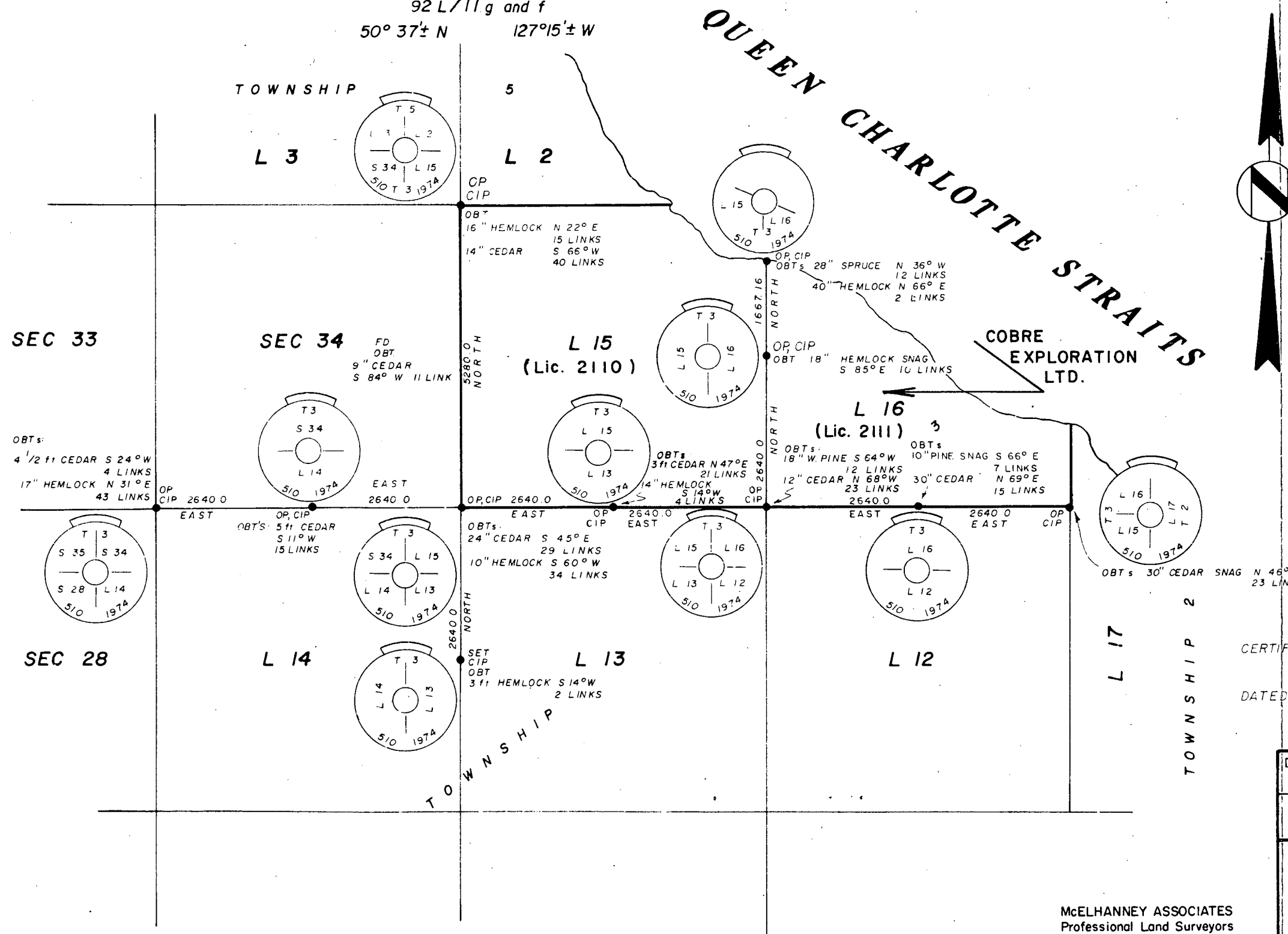
RAH/cs



PLAN SHOWING OLD WOOD POSTS REPLACED BY CAPPED IRON POSTS
 IN SEC. 28, 33 AND 34, LOTS 12, 13, 14, 15 AND 16 TOWNSHIP 3, RUPERT DISTRICT.

SCALE: 1 INCH = 2000 FEET

92 L/11 g and f
 50° 37'± N 127° 15'± W



NOTE: BEARINGS AND DISTANCES ARE SHOWN FROM THE ORIGINAL SURVEY BY W. RALPH IN JULY 1887.

0 2000 4000 feet

CERTIFIED CORRECT *Robert G. Ryan*

DATED THIS 7th DAY OF OCTOBER 1974.

L. R. Saunders

DOLMAGE CAMPBELL & ASSOCIATES LTD. CONSULTANTS
 VANCOUVER, CANADA

B.C. HYDRO & POWER AUTHORITY
 VANCOUVER, CANADA

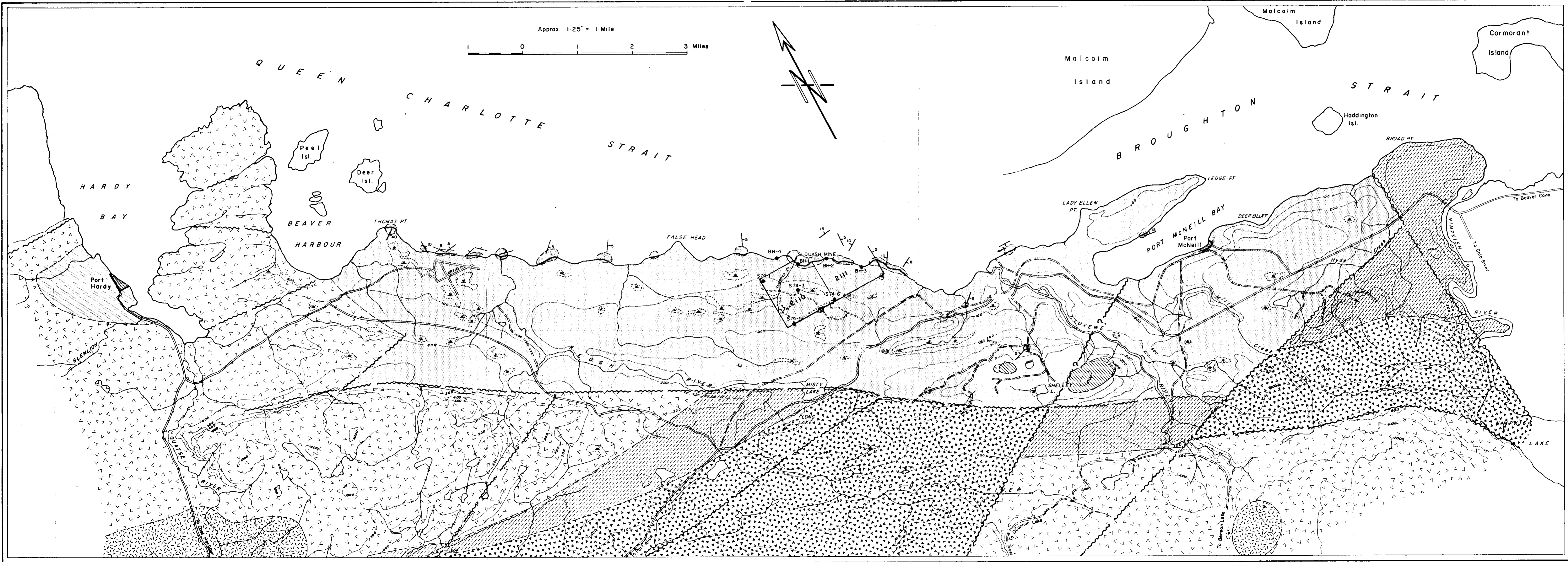
SQUASH DRILLING PROJECT

SURVEY PLAN
 (LOTS 15 & 16)
 SQ-SQUASH 75(2)A.

McELHANNEY ASSOCIATES
 Professional Land Surveyors
 1200 West Pender Street
 Vancouver 1, B.C.
 Job No. 13067-0

SCALE 1" = 2000' AUG. 1975 FIG. 4

THIS PLAN LIES IN WITHIN THE MOUNT WADDINGTON REGIONAL DISTRICT.



LEGEND

TERTIARY

- VOLCANICS: Basalt, Dacite

UPPER CRETACEOUS

- NANAIMO GROUP: Shale, Siltstone, Sandstone, Conglomerate, Coal.

JURASSIC

- ISLAND INTRUSIONS: Quartz diorite, Granodiorite.
- BONANZA FORMATION: Andesite, Tuff, Breccia.

TRIASSIC

- PARSON BAY FORMATION: Calcareous siltstone, Shale, Limestone, Greywacke, Conglomerate, Breccia. (Includes Quatsino limestone)
- KARMUTSEN FORMATION: Andesite and basalt.

UPPER CRETACEOUS EXPOSURES

- ATTITUDE OF BEDDING.
- GEOLOGIC CONTACT (Approximate).
- FAULT OR LINEAMENT
- ELEVATION CONTOUR
- OPEN SWAMP
- S74-3 DIAMOND DRILL HOLE (1974)
- BH-2 BORE HOLE (1908)
- PAVED HIGHWAY
- GRAVELLED LOGGING ROAD
- ACCESS TRAIL (DOZER)
- 2110, 2111 COAL LICENCES

215 *l. p. Lamb*

DOLMAGE CAMPBELL & ASSOCIATES LTD. CONSULTANTS
VANCOUVER, CANADA

B.C. HYDRO & POWER AUTHORITY
VANCOUVER, CANADA

SQUASH DRILLING PROJECT

GEOLOGICAL COMPILATION

20-SQUASH 75 (2) 4.

SCALE 1:50,000 AUG. 1975 FIG. 3

G.E.K.