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CB-QUESNEL - 30 (10) D.

NOTES ON ORIGINAL REPORTS  
PROPERTY OF

CARIBOO COAL + CLAY CO.,  
LIMITED.

GEOLOGICAL BRANCH  
ASSESSMENT REPORT

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NOTES on "ORIGINAL REPORTS, PROPERTY of

CARIBOO COAL and CLAY CO. LTD.

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Property consists of Lots 6045, 6046, 9473 and 9702 containing 569.9 acres and Lots 8669 and 9119 containing 527 acres in the Cariboo District in the vicinity of Australian station on the P.G.E. Railway.

The reports deal with the possibilities of the production of coal, petroleum and natural gas.

I. PRELIMINARY REPORT BY ARTHUR LAKE, Feb. 14, 1930

Deals chiefly with possibilities of coal production from two sub-bituminous seams; recommends development of these seams for Vancouver market. Also recommends investigation of commercial possibilities of clay deposits. Gives three analyses of weathered coal and logs of three drill holes of depths 628 feet, 639 feet, 620 feet. Rock chiefly "sand" and "clay" with minor "sandstone".

II. REPORT ON THE GOAL, by JEAN DE SOUZA COSTA, I.E.C.

December 19, 1929

Results of chemical and physical tests under the following headings:

- A. Mineralogiste Analysis
- B. Chemical Analysis
- C. Physical Analysis
- D. Chemical Analysis of the Condensed Volatiles
- E. Note on the Distilled Fractions
- F. Uses of the Products of Distillation
- G. Quantitative Analysis of the Chemical Composing the Condensed Volatiles.

H. Chemical Analysis of the Non-Condensable Volatiles.

I. Quantitative Results of the Individual Chemical Compounds Contained in the Coal of the Mine of the "Cariboo Coal and Clay Syndicate".

J. Comparative Tests of Several Coal Fuels Compared with the Coal of the Mine of the "Cariboo Coal and Clay Syndicate."

K. Conclusions.

These tests appear to have been exhaustive; the author's apparent occasional difficulty with English renders a few passages uncertain as to exact meaning.

### III. GEOLOGICAL REPORT BY W. S. BACON

Confirms presence of several exposures of coal; no correlations, analyses or other pertinent data. Note outcrops of "fireclay". Appended "Excerpt from 'Powdered Coal in American Industry' "; purpose of appendix unstated.

### IV. REPORT ON STRUCTURE AND STRATIGRAPHY BY S. J. SCHOFIELD

Detailed descriptions of formations and of the field evidence of structure.

Carboniferous - limestone - marble, mica schist, volcanic breccia; Tertiary, Fraser River sediments, clays, sandstones, conglomerates, coal beds, Basalts; amygdaloidal. Fraser River unconformable on Carboniferous, Basalts unconformable on Fraser River.

Structural data meagre; ten outcrops in 20 miles. Structure apparently anticlinal with southern end definitely closed about at Australian Ranch, northern end may be closed in vicinity of Quesnel.

The possible oil-bearing strata are considered to be those of the Fraser River formation which contains porous sands and conglomerates; the Carboniferous is too highly altered to offer hope of oil. Although Dr. Schofield

states in his "Summary and Conclusions" that "from the fossils I judge the sediments are marine" no details of the fossil evidence is offered nor is any distinction made in his description of the Formation between marine and the coal-bearing and so non-marine horizons. The question of the presence of marine strata then, must be left open. (So far as I am aware no recognized palaeontologist has described any marine Tertiary fossils from the Interior of B.C. - N.D.M.)

V. REPORT OF THE OIL POSSIBILITIES, Etc. by A.W. BAXTER

July 26, 1930

The thesis is that the presence of marine formations of basalt and coal seams, laid down "under unusual conditions" is indicative of the existence of "a huge oilfield". Several "oil seeps" are described. The presence of "cretaceous" strata is assumed upon extremely flimsy evidence and the existence of the Devonian apparently is assumed upon no evidence at all. This report were better left out of the collection.

VI. REPORT ON THE OIL POSSIBILITIES, etc. by B. W. DUNN.

June 5, 1930

States that definite evidence was found of a closure one mile north of Quesnel where the possibility of a closure was noted by Schofield. The remainder of the report is a compilation of localities in the world from which oil production is obtained from Tertiary strata and has no special bearing on the property in question.

The conclusions and recommendations are not based to any appreciable extent on observed facts.

This report belongs in the same category as V.

VII. REPORT ON THE POSSIBILITIES OF OIL, Etc.

by A. J. Arland. June 11, 1930.

This report closely follows that of Dr. Schofield, whose investigation Mr. Arland assisted, but gives greater detail as to location of outcrops and also states definitely that the structure is closed at both ends. (This seems to be the same evidence which Dr. Schofield considered inconclusive at the northern end and also the same evidence as that to which Mr. Dunn refers with confidence). The existence of marine fossils in the Tertiary Fraser River formation is claimed but without supporting evidence.

The possibility of the existence of Mesozoic strata below the Fraser River formation is noted but only weak negative evidence is given.

Possibility of oil is claimed for the Carboniferous strata -- this can not be regarded seriously.

This report adds only minor detail to that of Dr. Schofield.

VIII. REPORT ON THE CLAYS OF THE CARIBOO COAL AND CLAY

SYNDICATE by JEAN DE SOUZA COSTA, I.E.C. January 22, 1930

This is the report of a detailed chemical and physical investigation of clay samples from the property. It appears to contain a great deal of information.

SUMMARY The reports of Messrs. Lake and Costa on the coal occurrences and that of Dr. Schofield on the oil possibilities contain all the information of the whole set of reports. Copies of these are attached.

*Arland*