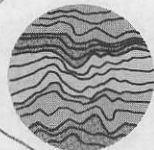


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896351
Highland
Valley



KLOHN LEONOFF
CONSULTING ENGINEERS

10180 Shellbridge Way, Richmond, B.C., Canada V6X 2W7
Telephone (604) 273-0311 • Telex: 04-355520

TO: <i>Manager Mineral Deposits & Regional Mapping Geological Survey Branch Ministry of Energy, Mines and Petroleum Resources Parliament Buildings, Victoria, B.C. V8V 1X4</i> ATTENTION: <i>Dr. W. J. McMillan</i>	DATE	<i>Apr. 21, 1987</i>
	OUR FILE	<i>PB 234108</i>
	YOUR FILE	
	PAGE	<i>1</i> OF <i>1</i>

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NO. COPIES	ITEM	REV.	DATED	REMARKS
<i>1</i>	<p><i>L-L Dam Site Investigation Plan</i></p> <p><i>Dear Bill:</i></p> <p><i>Enclosed is a copy of the plan requested by you. Please note that the locations of 86-2000's series drill holes are approximate and subject to revisions. However, Holes 2010 & 2011 are reasonably accurate. Also, the plan's coordinates are in metric unit. Looking forward to seeing you soon. Regards, Robert</i></p>			<i>✓</i>

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BY: *Robert C. Lo*

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KLOHN LEONOFF
CONSULTING ENGINEERS

10180 Shellbridge Way, Richmond, B.C., Canada V6X 2W7
Telephone (604) 273-0311 • Telex: 04-355520

TO: <i>Ministry of Energy, Mines & Petroleum Resources</i> 300 - 756 Fort Street Parliament Buildings Victoria, B.C. V8V 1X4 ATTENTION: <i>Dr. William J. McMillan</i>	DATE	<i>Apr. 1, 1987</i>
	OUR FILE	<i>PB23410801</i>
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	PAGE	<i>1 OF 1</i>

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NO. COPIES	ITEM	REV.	DATED	REMARKS
<i>1</i>	<p><i>Letter report by G. E. Rouse dated Mar. 2, 1987</i></p> <p><i>Dear Bill:</i></p> <p><i>Enclosed please find a copy of Dr. Rouse's letter for your information. We are storing the cores from the deep hole for your inspection next time when you are in Vancouver.</i></p> <p style="text-align: right;"><i>Best Regards,</i> <i>Robert</i></p>		<i>Mar. 2/87</i>	

THESE DOCUMENTS WERE ALSO TRANSMITTED TO:

BY: *Robert C. Lo*

RECEIVED BY: _____ DATE _____

GLENN E. ROUSE, PH.D.

PALYNOLOGICAL CONSULTANT

2134 WEST 53RD AVENUE, VANCOUVER, B.C. V6P 1L6

TELEPHONE 263-9088

Mr. Steve Ahlfield
Kloen-Leonoff Ltd.
10180 Shellbridge Way
RICHMOND, B.C.

March 2, 1987

Dear Steve: re: the 2 core samples from Highland Valley

As I indicated on the 'phone today, I've finished the palyno-analysis on the 2 samples: HV-1 from the interval 272-290 ft., and HV-2 from 417-424 ft., both from core HV 2001. The recovery from both samples was reasonably good, and the most diagnostic palynomorphs are listed on Tables 1 and 2 appended.

From the palynospecies in the 2 assemblages, there is no doubt that HV-1 correlates with assemblages from the Fraser Bend Formation described by Rouse and Mathews (1979) from the Quesnel region, and again by Mathews and Rouse (1984) from the Gang Ranch-Big Bar area along the Fraser River. It is also apparent that the lower sample correlates with middle Eocene assemblages from the Kamloops Group, (Mathews and Rouse (1984) the nearest being those that Bill McMillan mapped around Barnes Lake. Hence the mid Miocene-mid Eocene package in HV 2001 is essentially the same as we described (1984) for the Gang Ranch-Big Bar region.

The climate estimated for the Fraser Bend assemblage was warm temperate, with annual precipitation between 1000 and 1300mm, and the Mean Annual Temperature about 12-16°C. The climate during mid Eocene was close to subtropical, at least in lowland locales, with a Mean Annual Temperature over 20°C, and annual precipitation of 1800-2000 mm.

I'm also enclosing an invoice for the analyses as per our agreement.

If appropriate, would you send a copy of this report to Bill McMillan?

Please contact me if you need more.

Regards

Glenn

Glenn E. Rouse

GER/cr
Encls.

2011?

Middle
Miocene
middle
Eocene

Report:
S. Ahlfield
p.2

REFERENCES:

Rouse, G. E. & Mathews, W.H. 1979. Tertiary geology and palynology of the Quesnel area, British Columbia.
Bull. Canadian Petroleum Geology, 27: 418-445.

Mathews, W. H., & Rouse, G.E. 1984. The Gang Ranch-Big Bar area, south central British Columbia: stratigraphy, geochronology, and palynology of the Tertiary beds and their relationship to the Fraser Fault.
Can. J. Earth Sciences, 21, no. 10: 1132-1144.

Report:
S. Ahlfield
p.3.

Table 1

Most diagnostic palynomorphs from DH-HV 2001, 272-290 ft.

Fern spores

Laevigatosporites ovatus

Conifer pollen

Tsuga heterophyllites
Cedrus perialata
Picea grandivescipites
P. - 1 (KMP)
P. - 2 (KMP)
Pinus - 3 (KMP)
P. - 4 (KMP)
Keteleeria -
Pseudotsuga sp.

Angiosperm pollen

Fagus granulata
Quercus shiabensis
Graminidites sp.

Algal cyst

Schizosporis striatus

Age and correlation: Middle Miocene, 17-13.5Ma, Fraser Bend
Formation.

Report:
S. Ahlfield
p.4

Table 2.

Most diagnostic palynomorphs from DH-HV 2001, 417-424 ft.

Fern spores

Osmundasporites irregulites
O. cinnamomites
Deltoidospora diaphana
Triplanosporites sp.
Cicatricosisporites intersectus

Conifer pollen

Pinus - 3 (KMP)
Pinus - 4
Taxodiaceapollenites hiatus
Picea grandivescipites
Cedrus perialata

Angiosperm pollen

Myricipites dubius
Carya veripites
Alnus verus
Juglans nigripites
Ericipites ericius
Pistillipollenites mcregorii

Fungal spores

Diporicellaesporites laevigataeformis
Pluricellaesporites laevigatus
Multicellaesporites suboblongatus
M. ellipticus

Age and correlation: Middle Eocene, 45-50Ma, Kamloops Group.