

Open File 2008-1

Rock-Eval/TOC data for 18 wells, Peel Plateau and Plain, Yukon Territory (65° 50' to 67° 00' N; 133° 45' to 135° 15' W)

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Cover photo. Black, siliceous shale displaying unique oxidation resulting from combustion of the Devonian-Carboniferous Ford Lake Shale, Nihtal Git Creek, Peel Plateau, Yukon. GSA Rock Color Chart and hammer for scale.

Yukon Geological Survey Open File 2008-1

Rock-Eval/TOC data for 18 wells, Peel Plateau and Plain, Yukon Territory (65° 50' to 67° 00' N; 133° 45' to 135° 15' W)

by **Tammy L. Allen, Tiffani A. Fraser and Kirk G. Osadetz**

Introduction

This report is a compilation of newly obtained and previously determined Rock-Eval anhydrous pyrolysis analytical results including, total organic carbon content analysis (Rock-Eval/TOC) together with previously determined vitrinite reflectance data for the Peel Plateau and Plain region, Yukon Territory. The study is part of the “Regional Geoscience Studies and Petroleum Potential, Peel Plateau and Plain” research project which aims to provide new information on the geology of the Peel Plateau and Plain in both the Northwest Territories and the Yukon Territory, including a petroleum resource assessment of the region (see Pyle et al., 2006). The research involves the efforts of the Geological Survey of Canada (GSC), the Northwest Territories Geoscience Office (NTGO), the Yukon Geological Survey (YGS) as well as university and industry affiliates.

Background

Between 1965 and 1977, 19 oil and gas exploration wells were drilled in the Yukon Peel region ranging in depth from 1410 to 13,999 ft (430 to 4267 m) below the surface (Fig. 1). Drill cuttings from all or portions of 18 of these wells were collected at the time of drilling and are now stored at the Geological Survey of Canada, Geological Core and Sample Repository in Calgary where they are available for public viewing. Based on sampling records, it appears that limited analyses of these cuttings have been undertaken, with results available in the public realm. In response to requests for such information, the YGS undertook an extensive sampling program of all existing well cuttings for the Yukon's Peel region in spring 2007.

In spring 2007, washed cuttings from these 18 wells were sampled and analysed to characterize petroleum source rock potential and thermal maturation of strata ranging from Proterozoic to Cretaceous. Washed cuttings were not preserved for the B-06 well, however they were preserved for the 2B-06 well which was sampled in this study.

Approximately 2 grams of cuttings were sampled over a 20-40 foot (7-13 m) interval to preserve the integrity of the small weight of curated samples with each spaced approximately 100 ft (30 m) apart along the entire length of the well. Where possible, shale-rich intervals were chosen in preference to coarser clastic or limestone/dolomite horizons. These samples were then submitted to the Organic Geochemistry Lab, GSC Calgary, for Rock-Eval 6/TOC anhydrous pyrolytic analysis.

A substantial amount of previously determined Rock-Eval/TOC and vitrinite reflectance data was uncovered during this study, both published and unpublished. These data are included in this report for completeness (e.g., Feinstein et al., 1988; Snowdon, 1990; Snowdon and Williams, 1986; Geochem Laboratories Canada Ltd., 1977). Previously determined data were analysed mainly using Rock-Eval 2 pyrolysis/TOC anhydrous pyrolytic analyses, although a limited number of previously determined samples were run on the Rock-Eval 6/TOC analyzer (e.g., 2007: Rock Eval Database). The Rock-Eval 6 pyrolyzer measures the hydrocarbons (HC), carbon dioxide (CO₂) and carbon monoxide (CO) evolved during both anoxic pyrolysis and oxidative pyrolysis. Older versions of the device such as Rock-Eval 2 had only a CO₂ detector and measured only HC and CO₂. Where previously determined Rock-Eval 6/TOC data was uncovered, resampling of the cuttings was not performed to the depletion of a curated small sample.

Laboratory Methods

New analyses were conducted in spring 2007 at the Organic Geochemistry Laboratory at GSC Calgary on a Delsi Rock-Eval 6 unit equipped with a total organic carbon (TOC) content analysis module. Rock samples were pyrolyzed using Rock-Eval/TOC. This technique evaluates oil and gas shows, oil and gas generation potential, thermal maturity and identifies organic matter type (Behar et al., 2001; Espitalie et al., 1985; Peters, 1986; Tissot and Welte, 1978, p. 443-447). This analysis yields several measured parameters reported including: S1, S2, S3, T_{max} and TOC (Table 1) (Espitalie et al., 1977). Rock-Eval/TOC parameters have significance only above threshold TOC, S1 and S2 values.

Refer to Table 2 for guidelines on interpreting Rock-Eval and TOC data. Measured parameters derived from Rock-Eval pyrolysis reported in this document include: S1, which represents milligrams of hydrocarbons (HC) that can be thermally distilled from 1 gram of rock (mg HC/g rock); S2, which represents milligrams of hydrocarbons generated by pyrolytic degradation of the kerogen in 1 gram of rock (mg HC/g rock); S3, which represents milligrams of carbon dioxide generated from a gram of rock during temperature programming up to 390°C (Peters, 1986).

T_{max} corresponds to the oven temperature at which the maximum amount of S2 hydrocarbons is generated and is measured in degrees Celsius (Peters, 1986). T_{max} values can be used as a thermal maturity indicator in sedimentary rocks, however caution should be used with samples that have S2 values below 0.2 mg HC/g rock as T_{max} values are unreliably determined due to the broad nature of the S2 peak (Peters, 1986).

Total organic carbon (TOC) is a measure of the quantity of organic carbon within a rock that is expressed as weight percent of rock (Peters et al., 2005). If TOC is less than 0.3% then all parameters have questionable significance and the experiment suggests no potential.

Other parameters including hydrogen index ($HI = S2/TOC \times 100$) and oxygen index ($OI = S3/TOC \times 100$) are calculated from the measured values. HI corresponds to the quantity of pyrolyzable organic compounds from S2 relative to the TOC in the sample (mg HC/g TOC) (Peters et al., 2005). OI corresponds to the quantity of carbon dioxide from S3 relative to the TOC (mg CO_2 /g TOC) (Peters et al., 2005). Oxygen index (OI) has

questionable significance if TOC is less than 0.5%, while OI values greater than 150 mg/g TOC suggest either low TOC or a mineral matrix CO₂ contribution during pyrolysis. The production index (PI) is defined as $S1/(S1 + S2)$ and is an indication of the amount of petroleum which has been produced geologically relative to the amount of petroleum which the sample can produce and is an additional measure of thermal maturity (Barker, 1982; Nunez-Betelu and Baceta, 1994). The production index has questionable significance if S1 and S2 values are less than 0.2 HC/g rock. Results can be affected by mineral matrix effects. These either retain generated compounds, generally lowering the S1 or S2 peaks, while increasing T_{max}, or by liberating inorganic CO₂ and increasing S3 and OI. These effects are important if TOC, S1 and S2 are low, an effect not significant for this study as most petroleum source rocks have TOC values greater than 5%.

Total organic carbon is the sum of the pyrolyzable carbon (PC) and the residual carbon (RC): $TOC \text{ (weight \%)} = PC + RC$. Pyrolyzed carbon (weight %) refers to organic carbon that evolved during that part of the experiment that is heating in the absence of oxygen. It is an organic type indicator defined as $PC = ((0.83*(S1+S2))+(S3*.273)+((S3CO + (S3'CO/2))*0.4286))/10$; where the coefficients are the average weight percentage of carbon in the S1 and S2 peaks. PC is correlated with organic matter type (i.e., I, II, III). Type I kerogen will yield a PC of about 80%, type II will yield 50% and type III kerogen 10 to 30% (Nunez-Betelu and Baceta, 1994). Residual organic carbon (weight %) refers to organic carbon that evolved during that part of the experiment that is heating in the presence of oxygen. It is defined as $RC = ((S4CO*0.4286) +$

$(S4CO_2 * 0.273) / 10$. S4, is a measured parameter obtained from both the CO₂ and CO IR cell (detector) responses, like S1, S2, S3, but which is generated during oxidation parts of the experiment. RC gives an indication of residual organic richness at thermal maturities above where S2 has declined to very low values, such as in the “dry gas” catagenetic zone.

Oxygen index CO (OICO) is equal to $S3CO/TOC$, which is based on the response at the CO detector at temperatures <550°C (see Behar et al., 2001, Figure 4a). This is similar to the classic $OI = S3/TOC$, based on the response at the CO₂ detector at temperatures <400°C.

Rock-Eval results correlate to other techniques such as vitrinite reflectance (Espitalie et al., 1985; Tissot and Welte, 1978). Source rock potential is sensitive to lithology, TOC and S2 values. It is common practice to rate carbonate rocks with lower TOC comparable with richer clastic rocks. Extractable hydrocarbon (HC) yields from leaner carbonate rocks are comparable to richer clastic rocks (Tissot and Welte, 1978, p. 430; Gehman, 1962). The organic matter associated with carbonate rocks is often more hydrogen-rich and thermally labile than that in fine-grained clastic rocks. As a result, more TOC in carbonate rocks may be transformed into bitumen compared with average clastic source rocks of comparable maturity.

Rock-Eval Results

Results from this study are listed in Table 1. In Table 1, those results that have TOC < 0.3% and S2 < 0.2 are identified with either yellow highlighting (low TOC) or a red font (low S2 parameter), respectively, or both. TOC (wt. %) and T_{max} (°C) are plotted against well depth and formation intersected in Figures 2A through 2R (one figure per well).

Note that the formation depths are those reported from Fraser and Hogue (2007).

Formation depths often vary from one researcher to another, and we have employed the most recent formation depth values published for Yukon wells. In some reports included in this open file, the formation sampled may not correspond to the formation assigned in this report, however, these instances are rare and occur mainly near formation contacts.

Rock-Eval S2 versus TOC plots are useful to compare the petroleum-generative potential of source rocks (e.g., Langford and Blanc-Valleron, 1990 in Peters et al., 2006). The slope of the line radiating from the origin is directly related to the hydrogen index.

Vitrinite Reflectance Results

Vitrinite reflectance (VR) is a key thermal maturity measure in petroleum source rocks (Peters et al., 2005). Vitrinite is a maceral group type that is derived from terrigenous higher plants and is often dispersed as organic matter in sedimentary rocks. Vitrinite becomes more aromatized and reflective with increasing thermal maturity. VR values have been used to describe the beginning and end of oil generation (Peters et al., 2005).

Vitrinite reflectance data reported herein are compiled from a Geological Survey of Canada (GSC) Open File (Feinstein et al., 1988) and an industry report (Geochem Laboratories Canada Ltd., 1977). No new data were acquired for this study. The reflectance (random) values reported in the Feinstein et al. (1988) were obtained from vitrinite and pyrobitumen macerals that were translated to vitrinite reflectance equivalent values (reported in Table 3) (Feinstein et al., 1988). Values reported by Geochem Laboratories Canada Ltd. (1977) were obtained from reflectance of vitrinite and associated kerogen types extracted from the cuttings. There are inferred relationships between VR measurements and both maximum paleotemperatures and Tmax Rock-Eval parameters. In this report all VR data were converted to equivalent T_{\max} values using $((Ro+7.16)/0.018)$ (Peters et al., 2005) and are plotted on Figures 2a-2r. Proposed relationships between VR and maximum paleotemperatures (Barker and Pawlewicz, 1994; Sweeney and Burnham, 1990) are illustrated in Figure 3 (see below); Figure from Prof. Dr. Ralf Lettke's, Aachen University website <http://www.lek.rwth-aachen.de/cms/>.

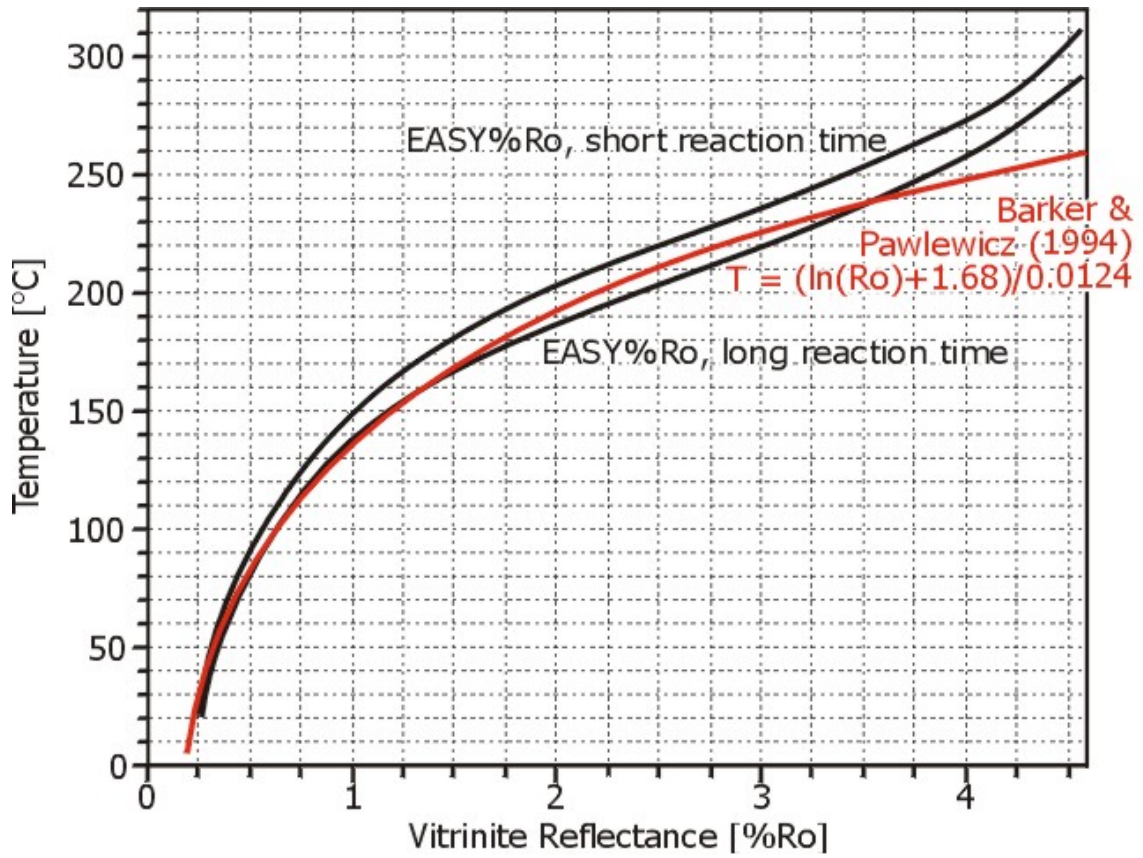


Figure 3. Proposed relationships between VR and maximum paleotemperatures (Barker and Pawlewicz, 1994; Sweeney and Burnham, 1990).

The authors encourage comments/suggestions about this open file.¹

Acknowledgements

The authors would like to acknowledge the support received from the Mackenzie Corridor Project of the GSC for sample processing. Mark Obermajer, also of the GSC, Calgary, was helpful in finding previously determined data in their databases. Finally, the authors would like to thank Grant Lowey for reviewing the document.

¹ Please submit comments/suggestions to either first or second author or to the Petroleum Assessment Geologist, Yukon Geological Survey, P.O. Box 2703 (K-10), Whitehorse, Yukon, Y1A 2C6, or by telephone 867-667-8508.

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GSC-Calgary Well File: Peel H-71 Earth Sciences Sector, Natural Resources Canada, Government of Canada.

GSC-Calgary Well File: Peel River I-21 Earth Sciences Sector, Natural Resources Canada, Government of Canada.

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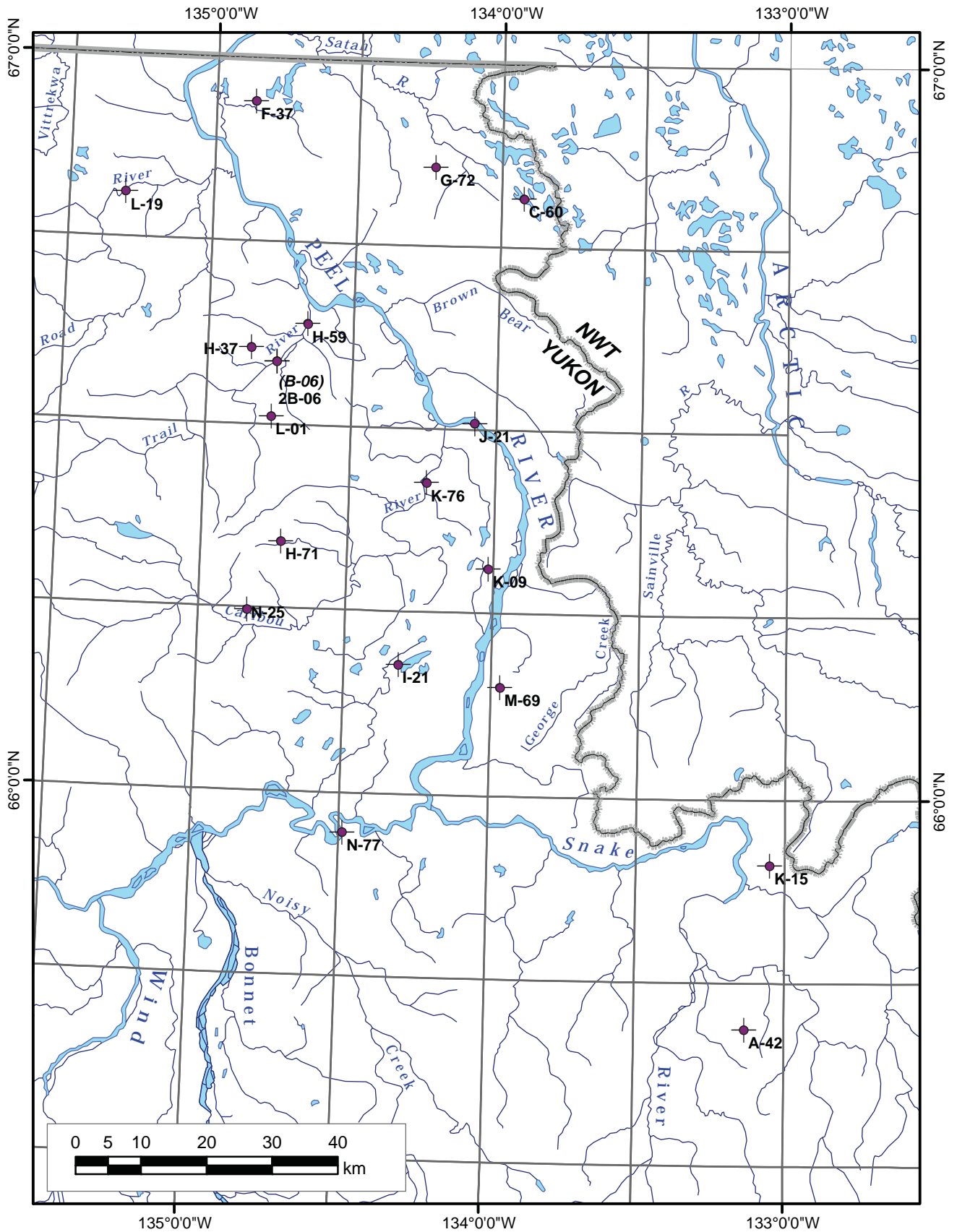
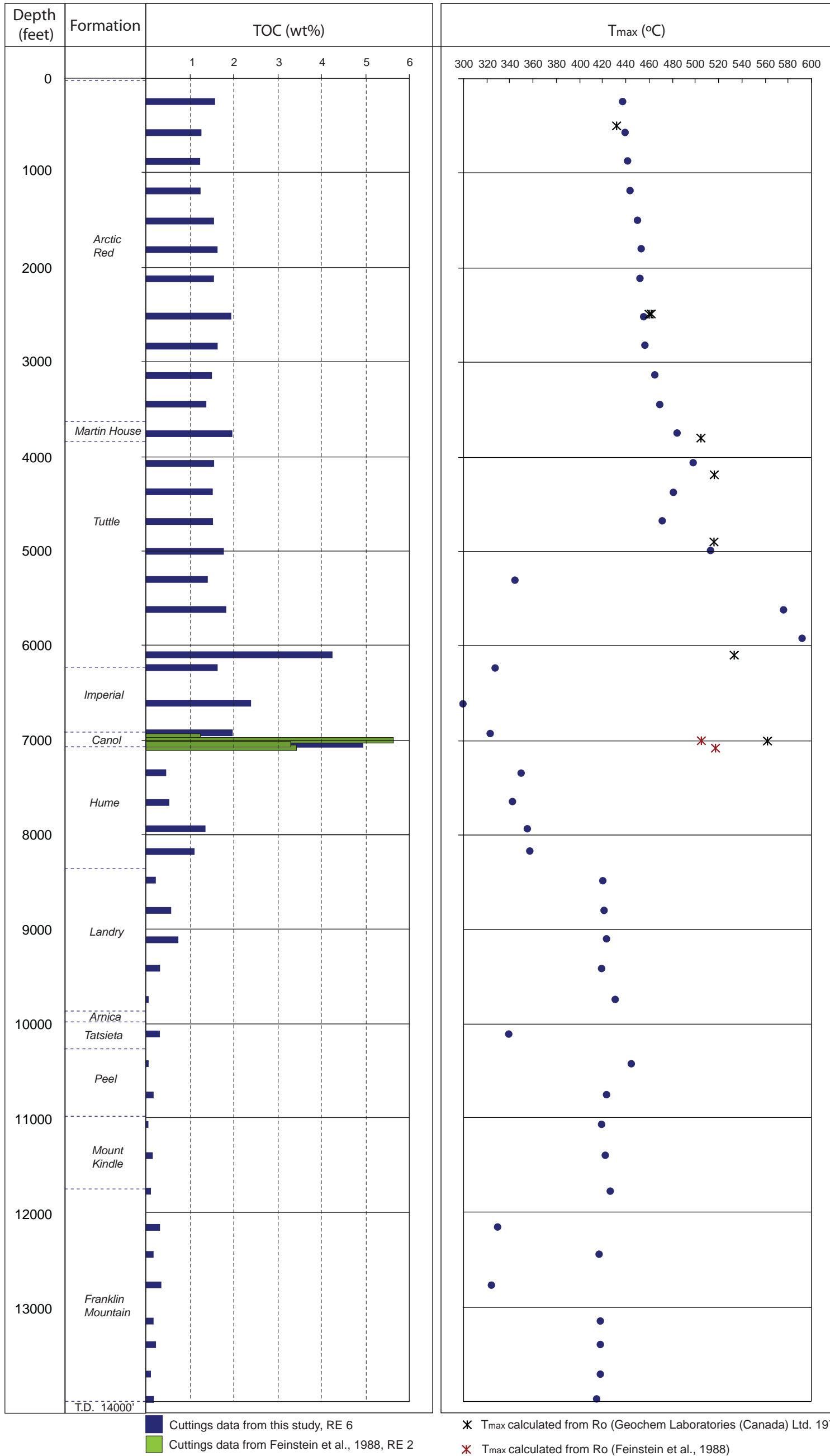


Figure 1. Map of oil and gas wells sampled for this study, Peel region, Yukon. Note that well B-06 was not sampled for this study.

Figure 2a-r. Plots for each well sampled, including formation top depths (from Fraser and Hogue, 2007), sample locations with correlating total organic carbon (TOC) and T_{\max} values. Historical data are included for completeness.

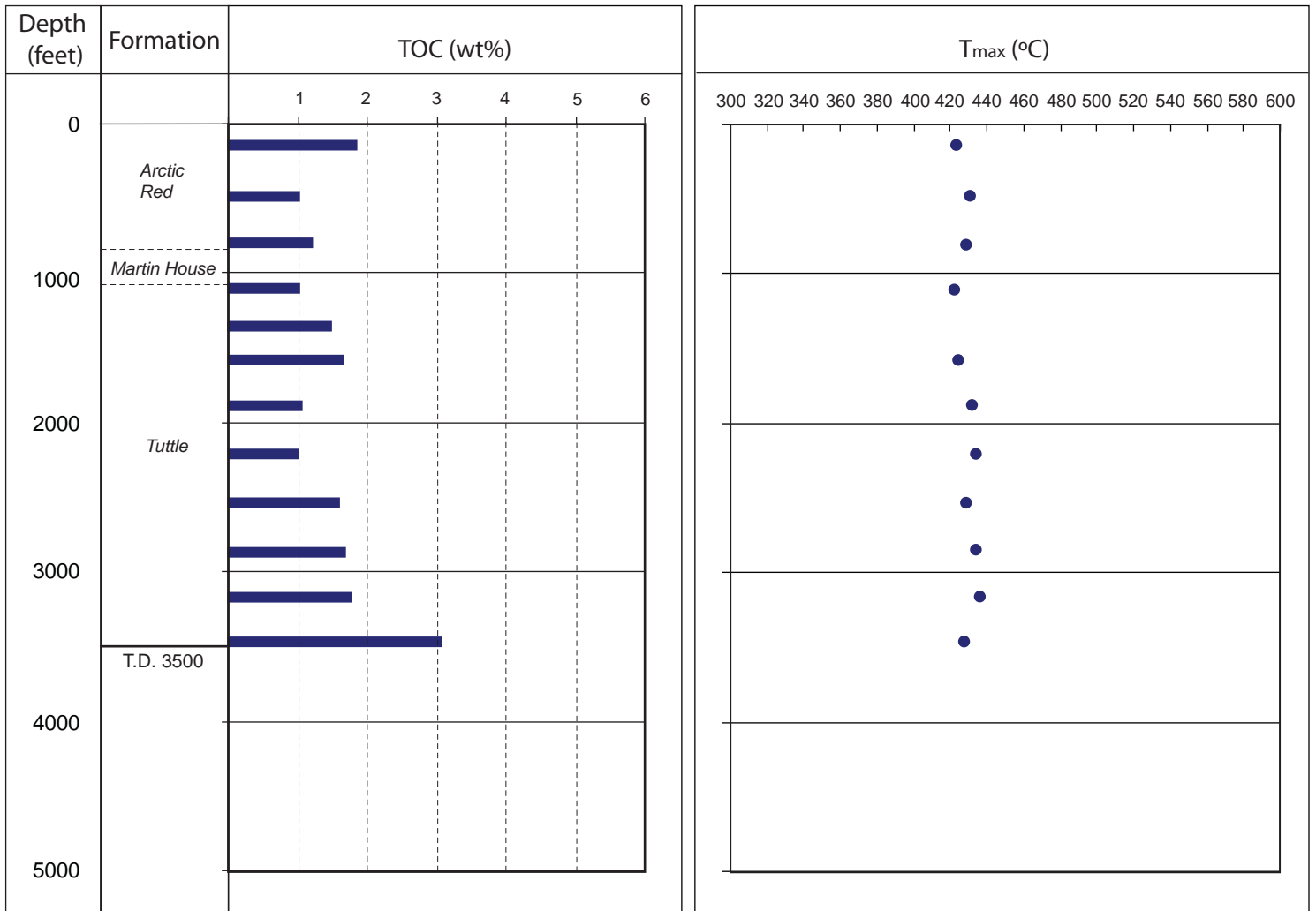


■ Cuttings data from this study, RE 6
■ Cuttings data from Feinstein et al., 1988, RE 2

✱ T_{max} calculated from Ro (Geochem Laboratories (Canada) Ltd. 1977)
✱ T_{max} calculated from Ro (Feinstein et al., 1988)

Peel River Y.T. 2B-06

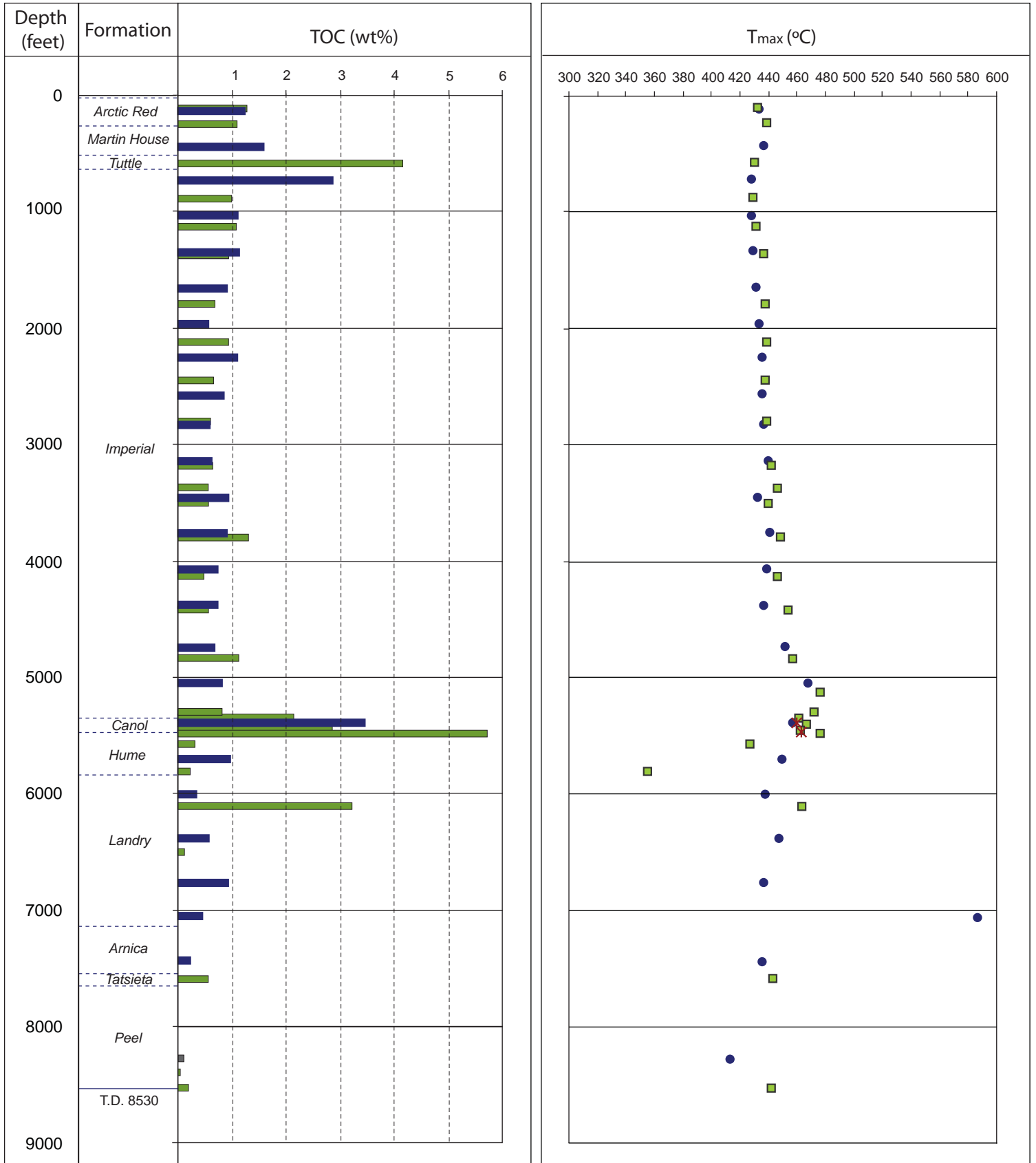
Figure 2-B



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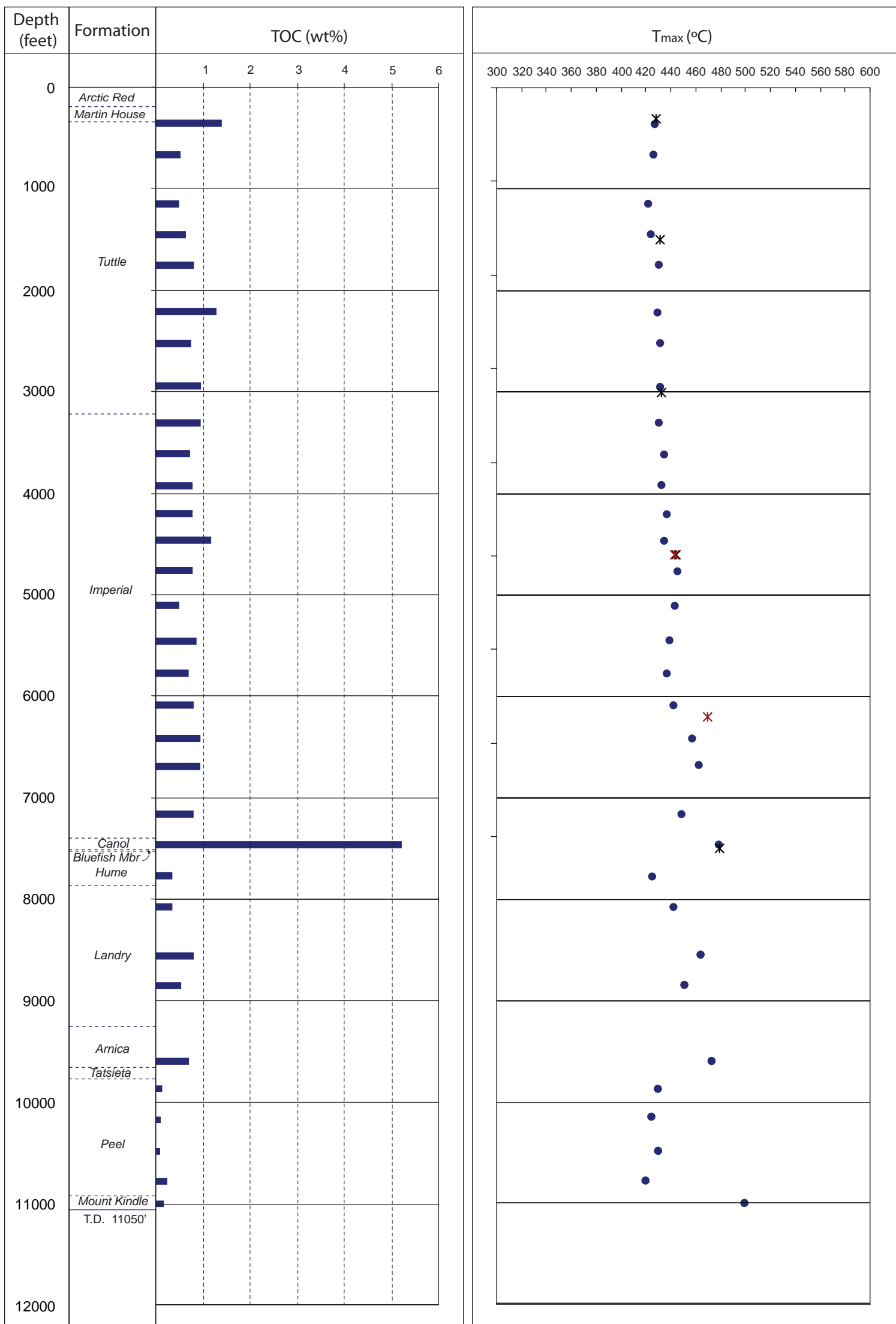
Arctic Red Y.T. C-60

Figure 2-C



■ Cuttings data from this study, RE 6
■ Cuttings data from Feinstein et al., 1988, RE 2

✗ Tmax calculated from Ro (Feinstein et al., 1988)



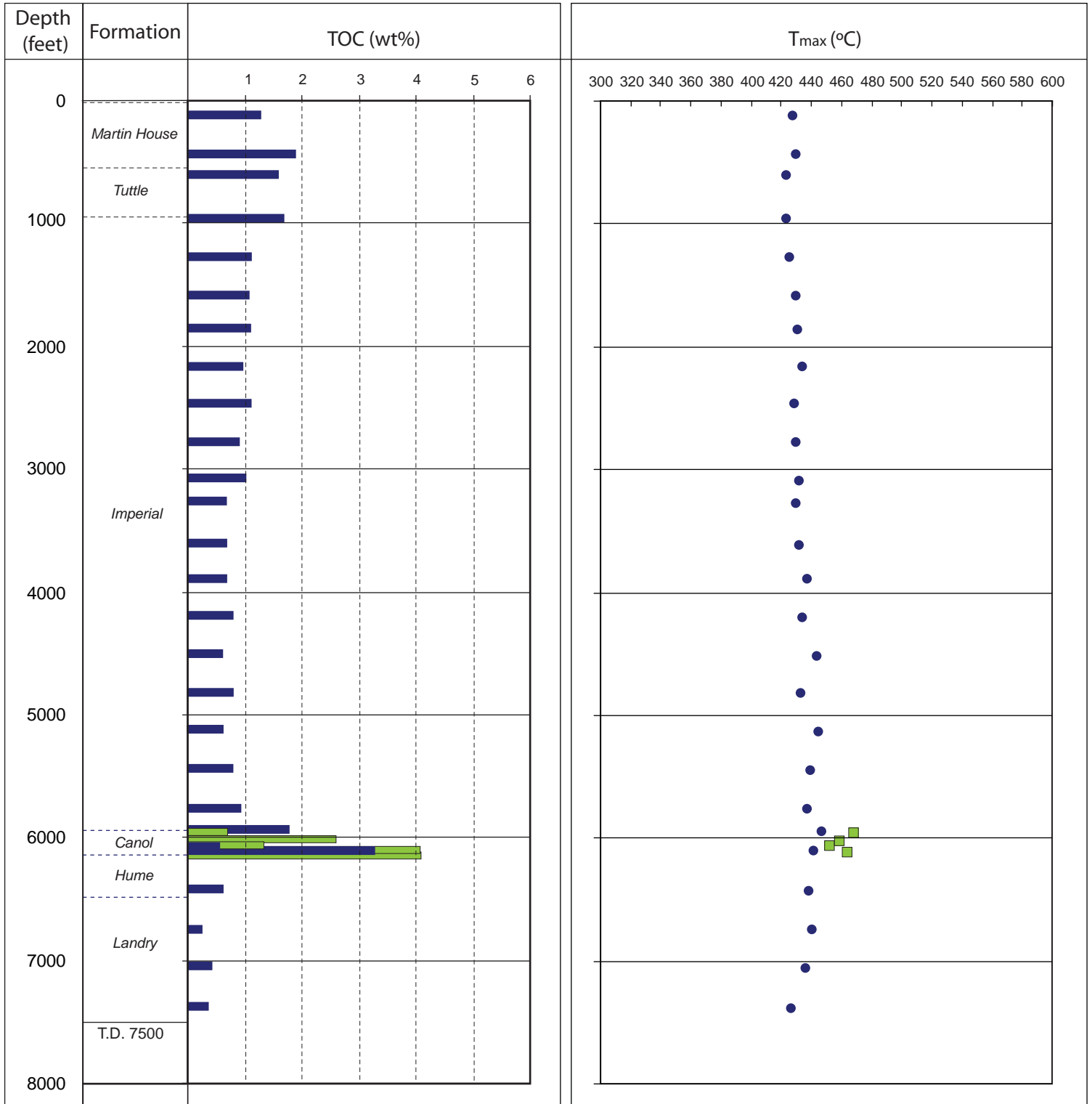
■ Cuttings data from this study, RE 6

✕ T_{max} calculated from Ro (Geochem Laboratories (Canada) Limited 1977)

✕ T_{max} calculated from Ro (Feinstein et al., 1988)

Satah River G-72

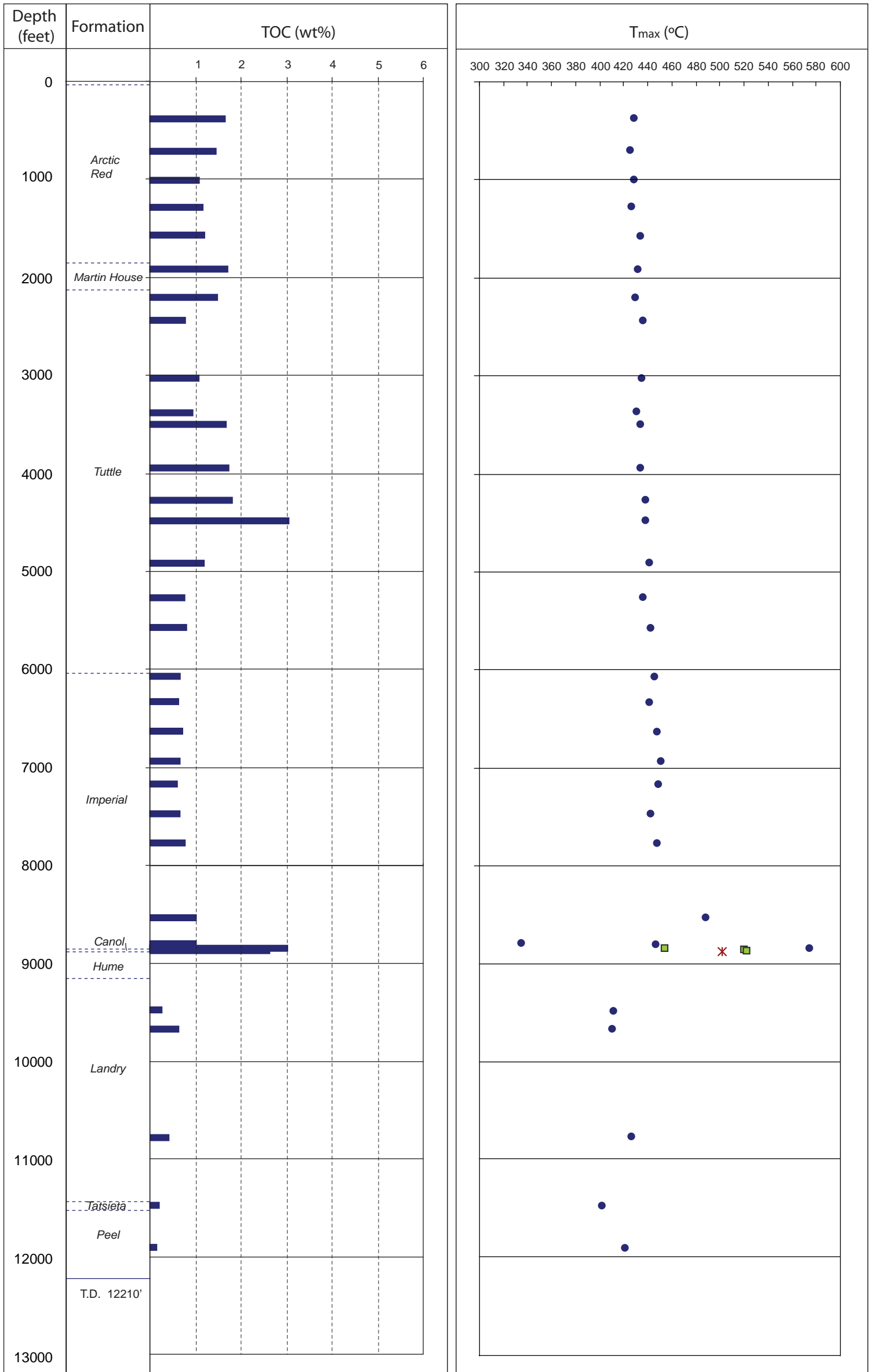
Figure 2-E



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Trail River Y.T. H-37

Figure 2-F

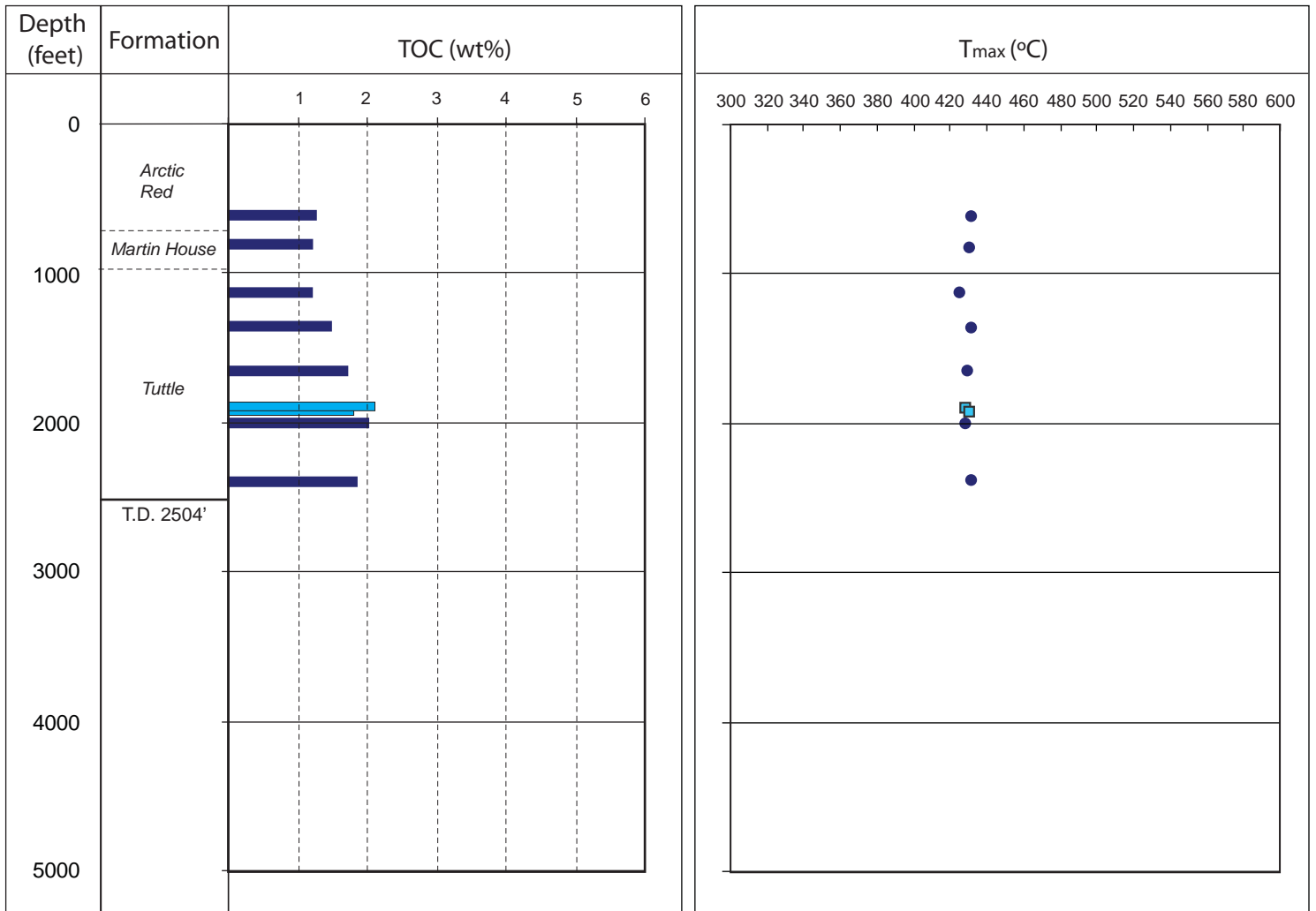


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■ Cuttings data from Feinstein et al., 1988, RE 2

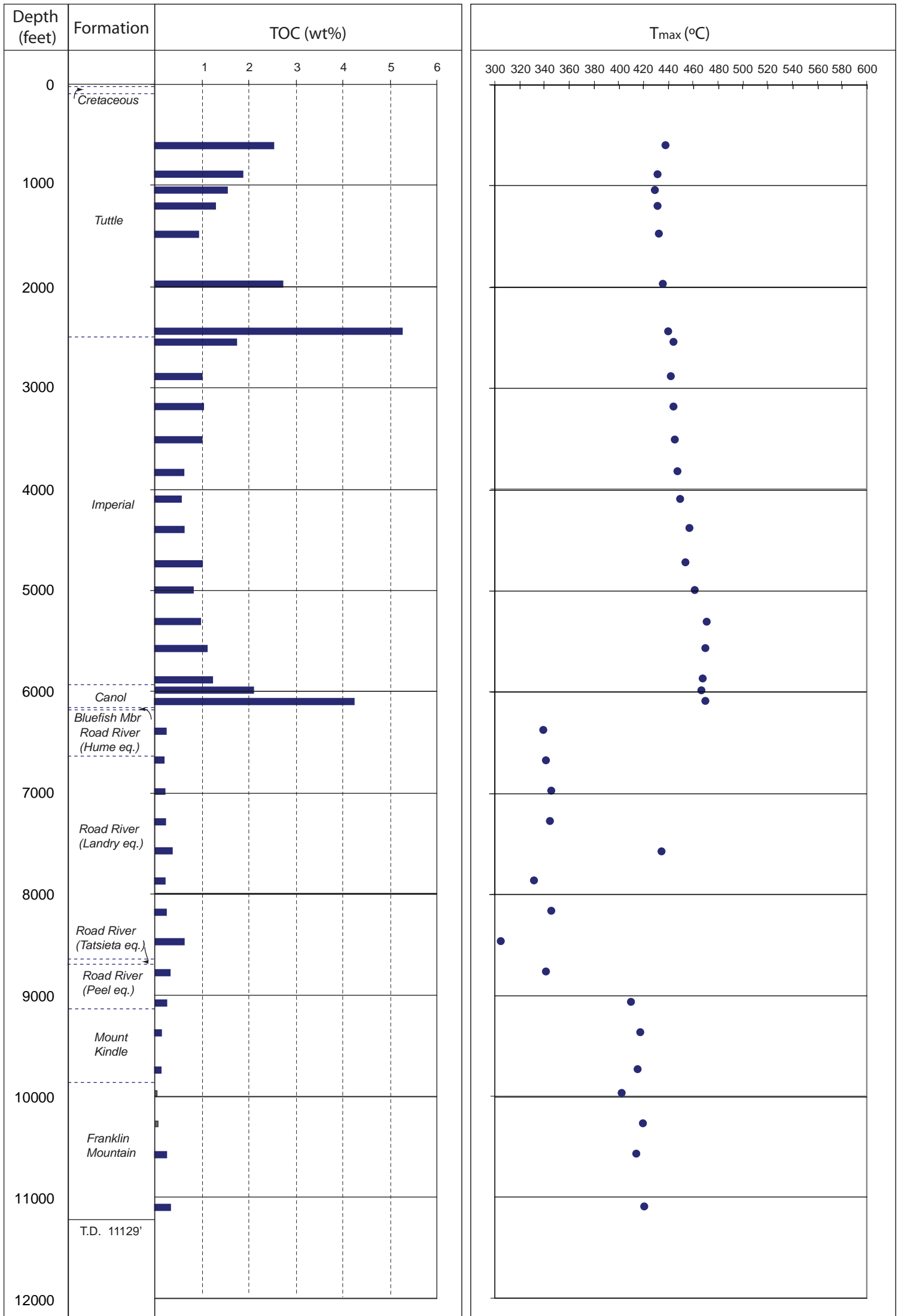
✗ T_{max} calculated from Ro (Feinstein et al., 1988)

Peel River Y.T. H-59

Figure 2-G



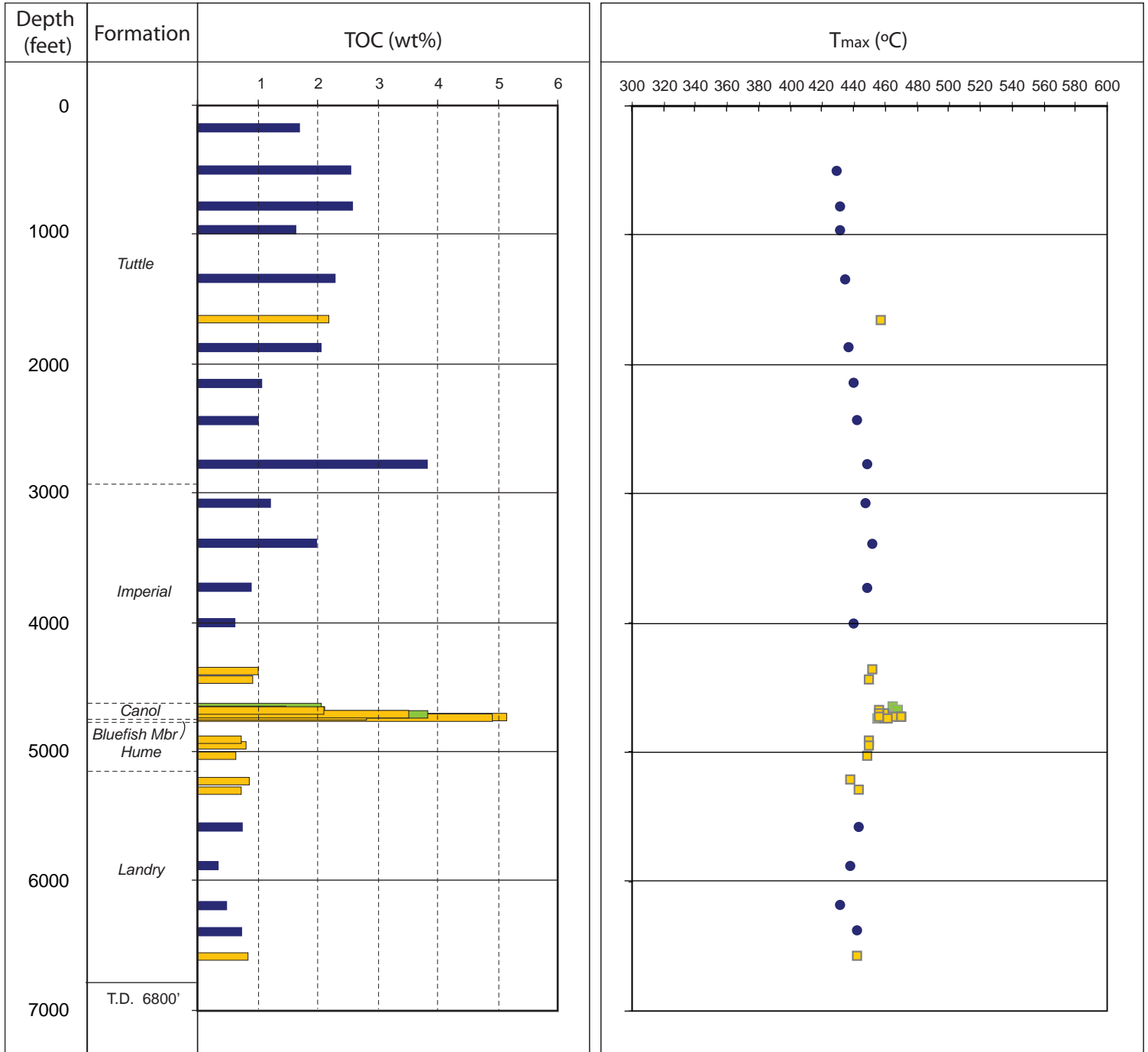
- Cuttings data from this study, RE 6
- Core data from this study, RE 6



Cuttings data from this study, RE 6

Peel River Y.T. I-21

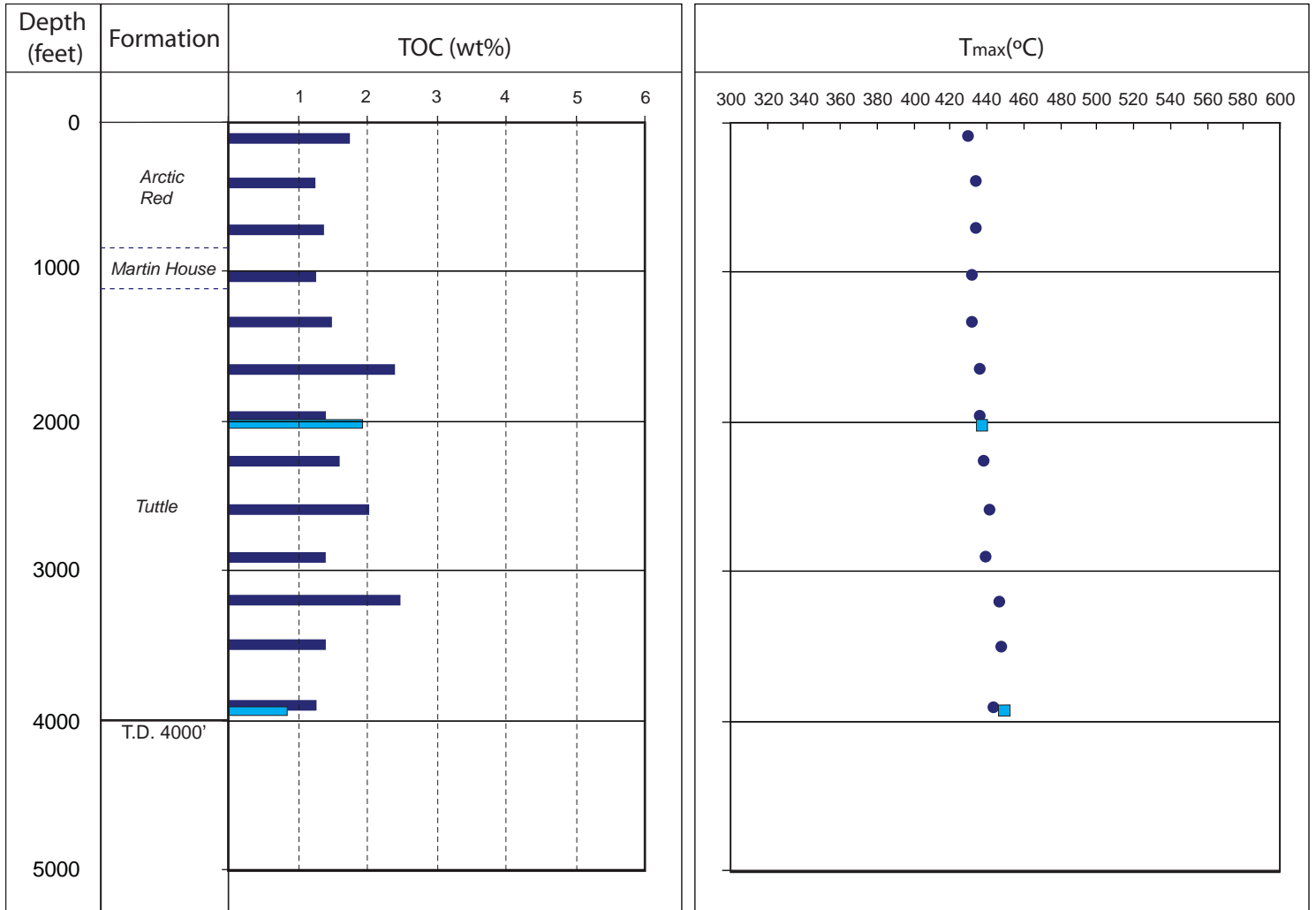
Figure 2-I



- Cuttings data from this study, RE 6
- Cuttings data from 2007: Rock Eval Database, RE 6
- Cuttings data from Feinstein et al., 1988, RE 2

Peel River Y.T. J-21

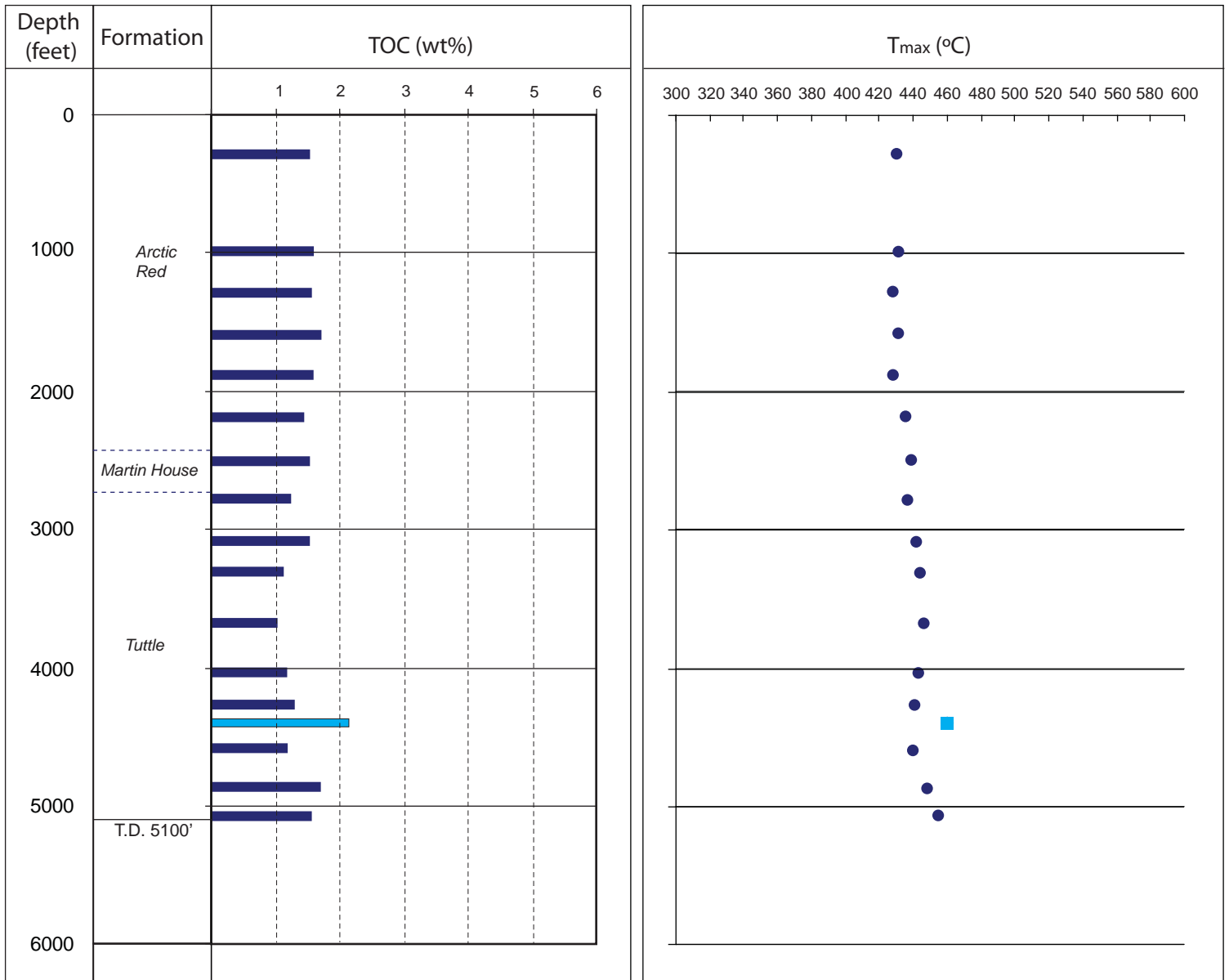
Figure 2-J



■ Cuttings data from this study, RE 6
■ Core data from this study, RE 6

Peel River Y.T. K-09

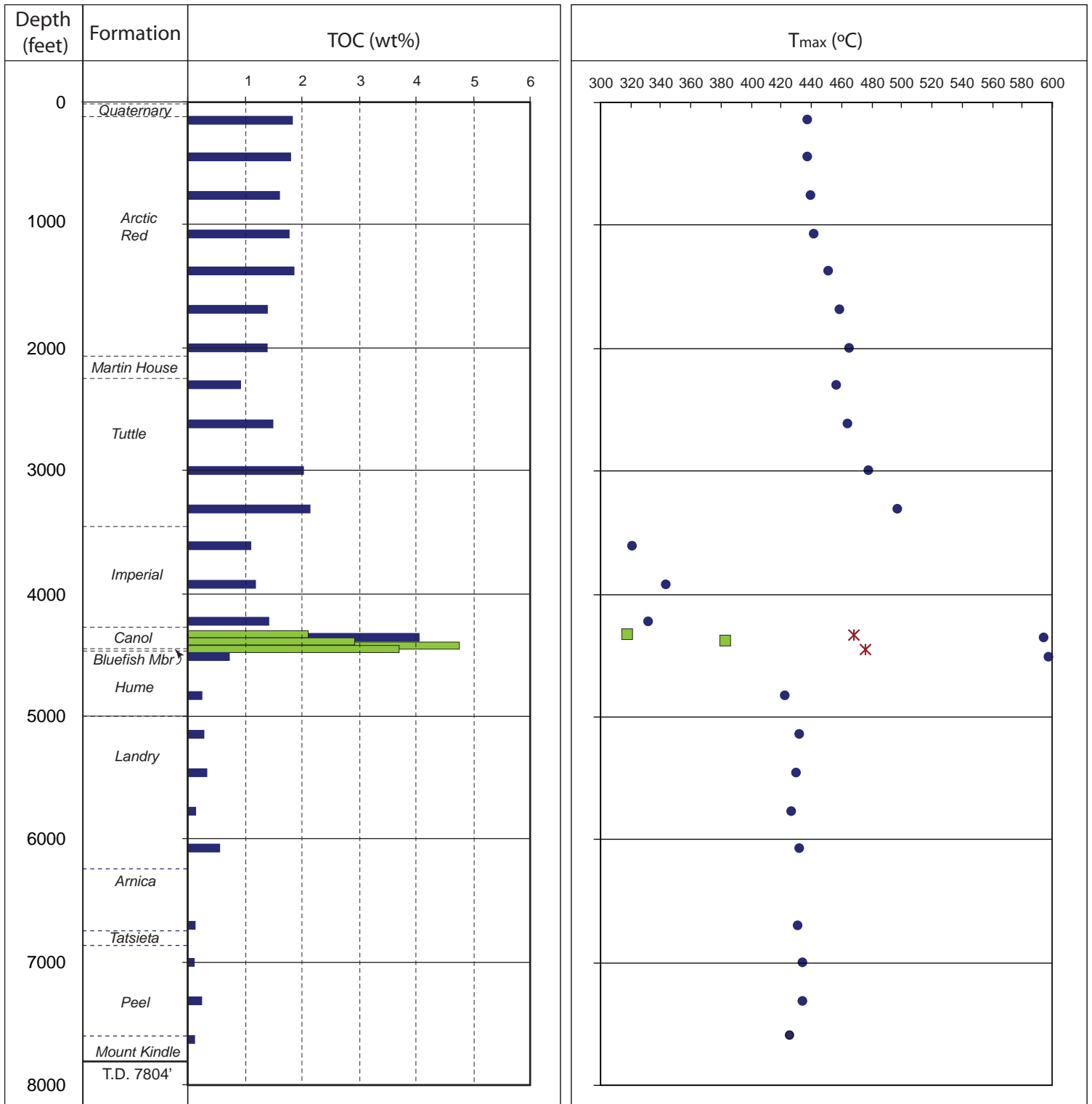
Figure 2-K



Cuttings data from this study, RE 6
 Core data from this study, RE 6

Taylor Lake Y.T. K-15

Figure 2-L

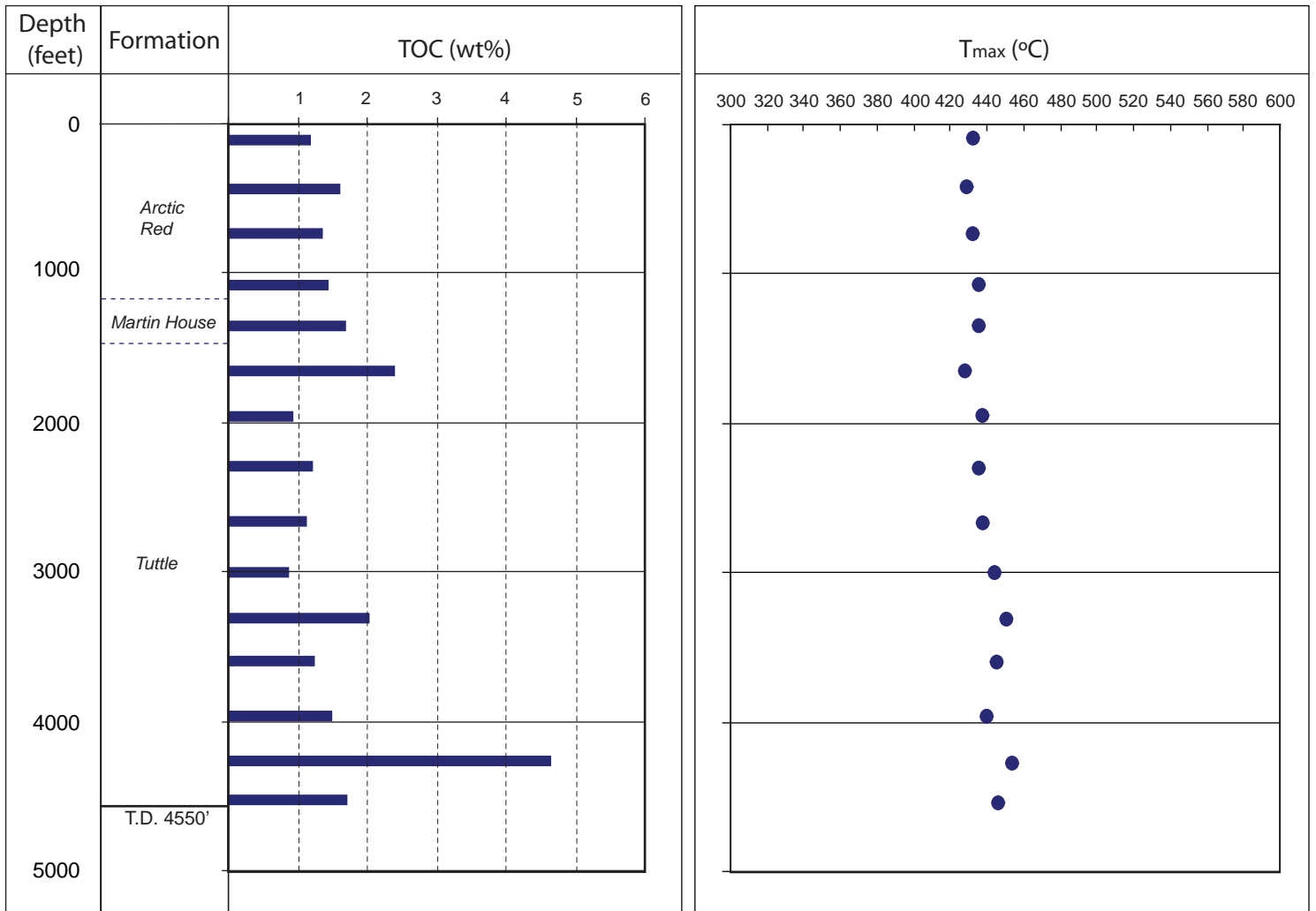


■ Cuttings data from this study, RE 6
■ Cuttings data from Feinstein et al., 1988, RE 2

✖ T_{max} calculated from Ro (Feinstein et al., 1988)

Peel River Y.T. K-76

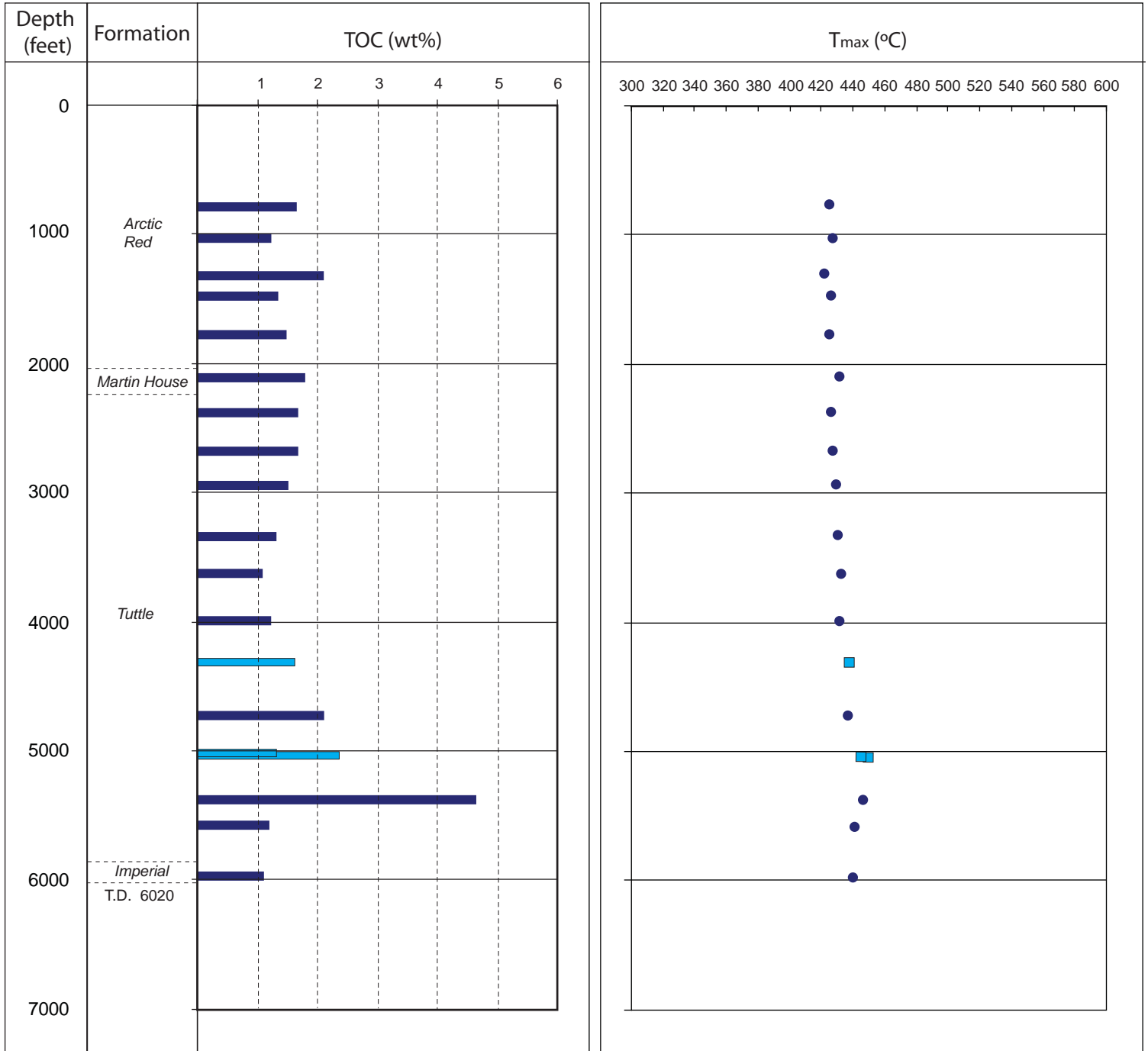
Figure 2-M



Cuttings data from this study, RE 6

Peel River Y.T. L-01

Figure 2-N

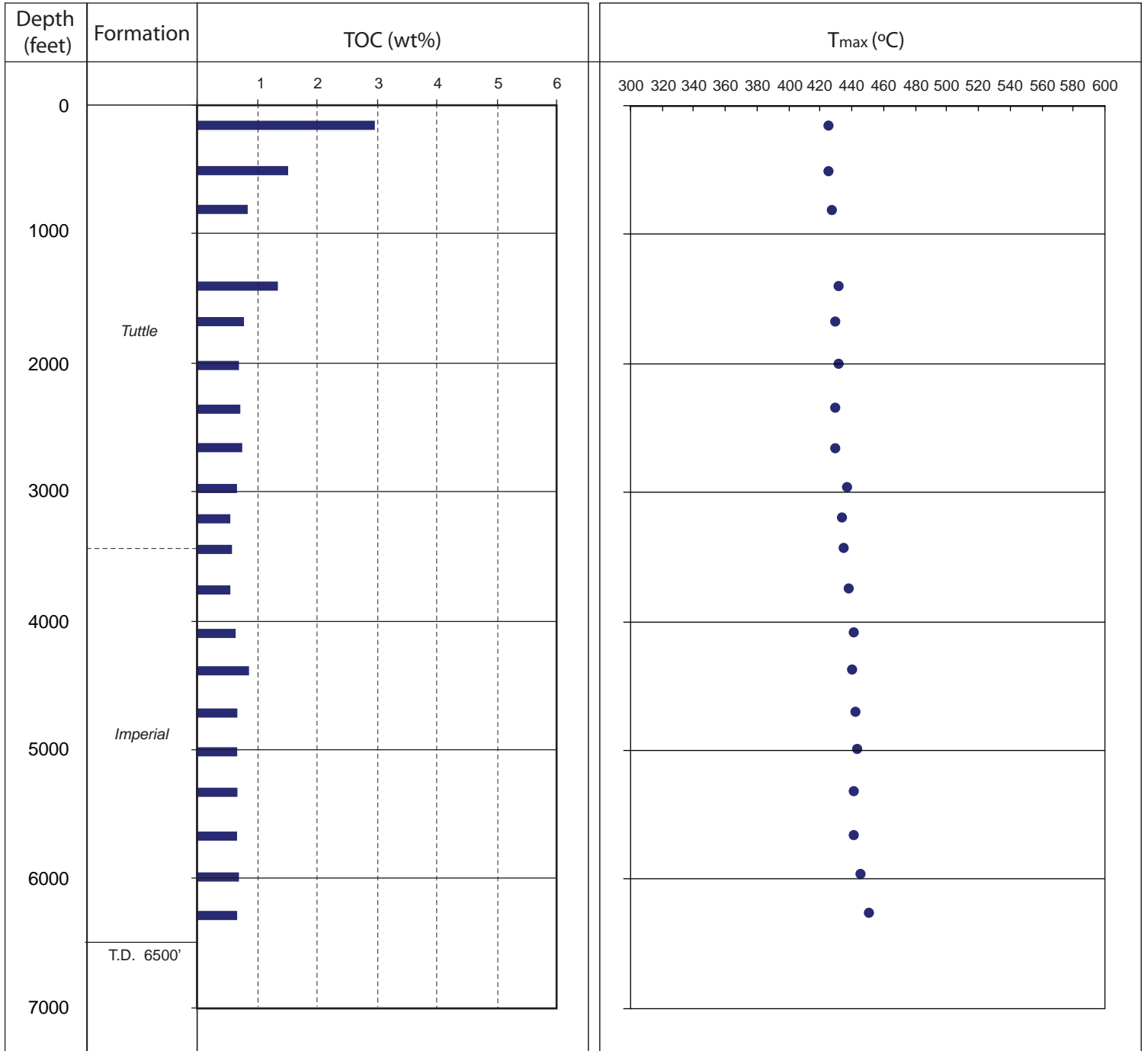


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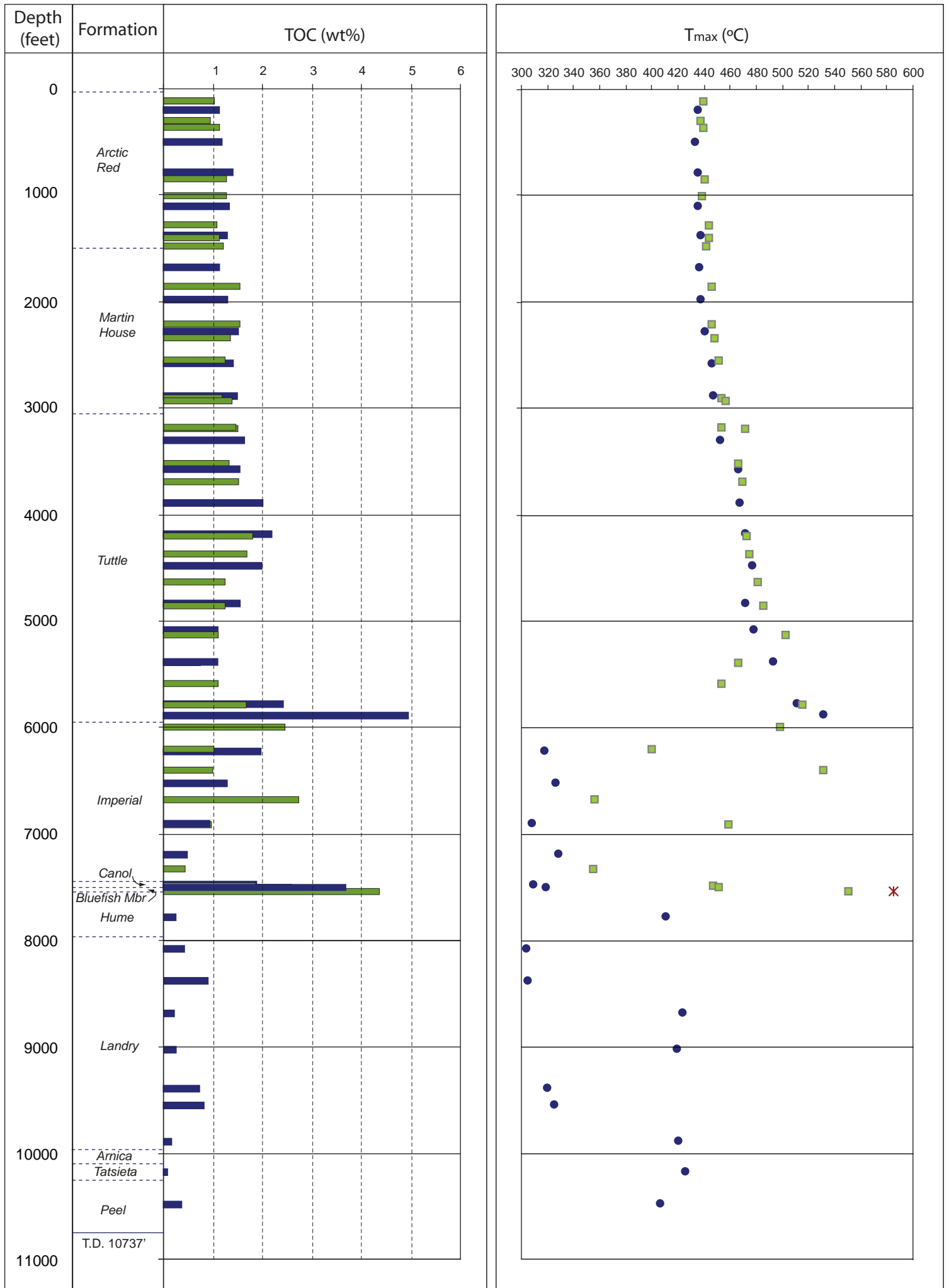
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Peel River Y.T. L-19

Figure 2-O

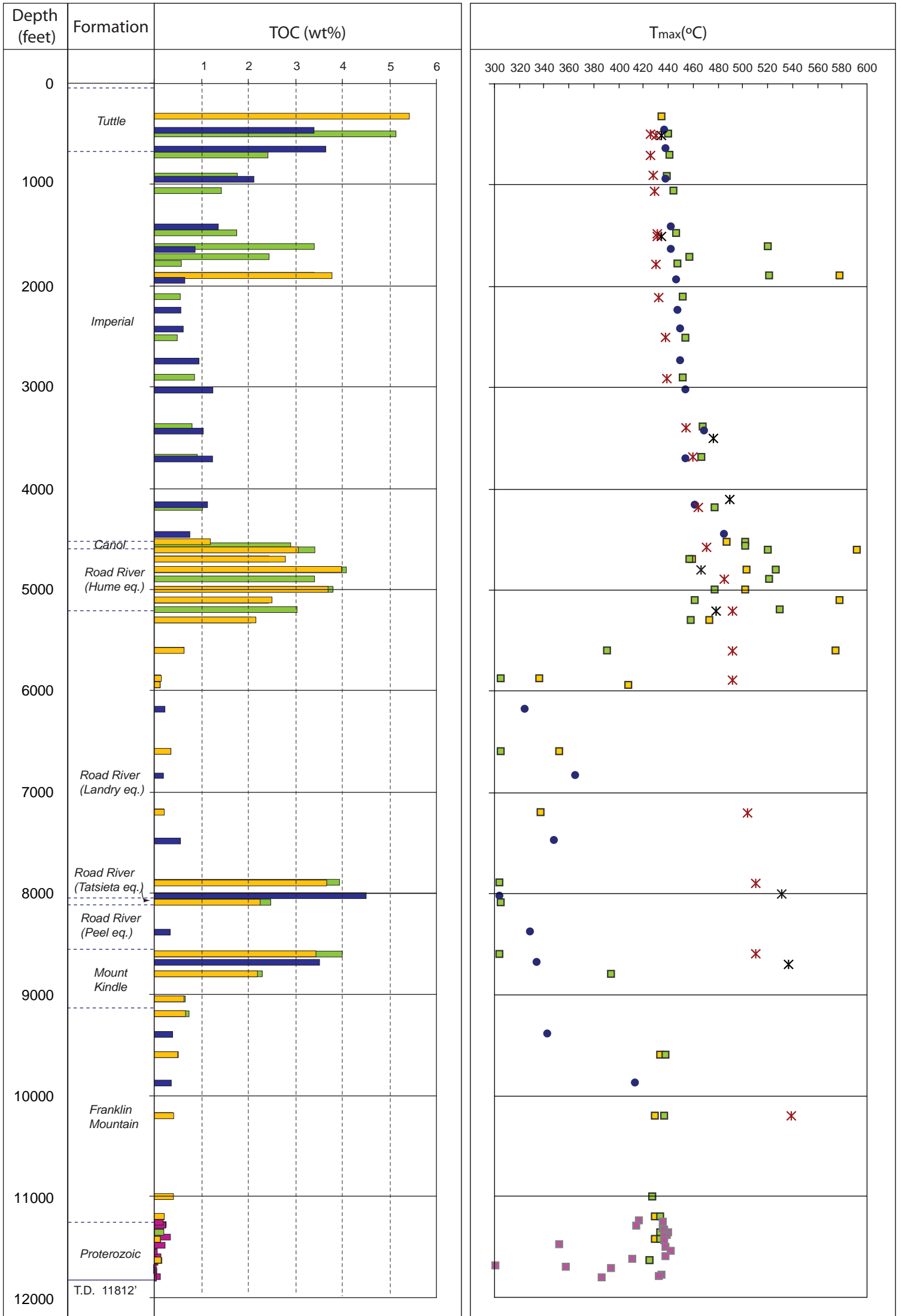


■ Cuttings data from this study, RE 6



■ Cuttings data from this study, RE 6
■ Cuttings data from Feinstein et al., 1988, RE 2

✖ T_{max} calculated from R_o (Feinstein et al., 1988)

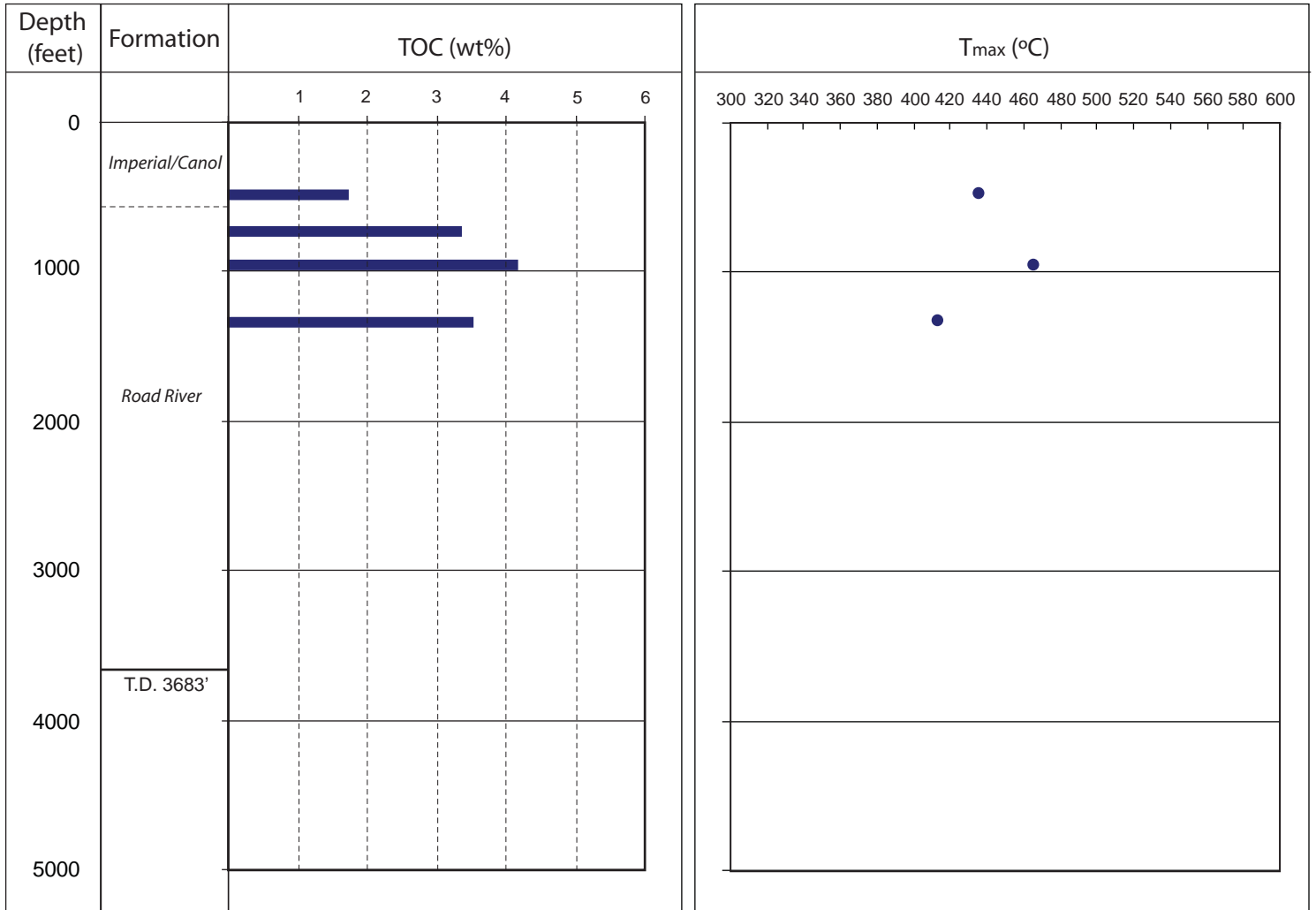


- Cuttings data from this study, RE 6
- Cuttings data from Snowdon, 1990, RE 2
- Cuttings data from 2007: Rock Eval Database, RE 6
- Cuttings data from Feinstein et al., 1988, RE 2

- ✱ T_{max} calculated from R_o (Geochem Laboratories (Canada) Ltd. 1977)
- ✱ T_{max} calculated from R_o (Feinstein et al., 1988)

Peel River Y.T. N-77

Figure 2-R



■ Cuttings data from this study, RE 6

Note: washed cuttings in this well exist between 450 and 1470 feet.

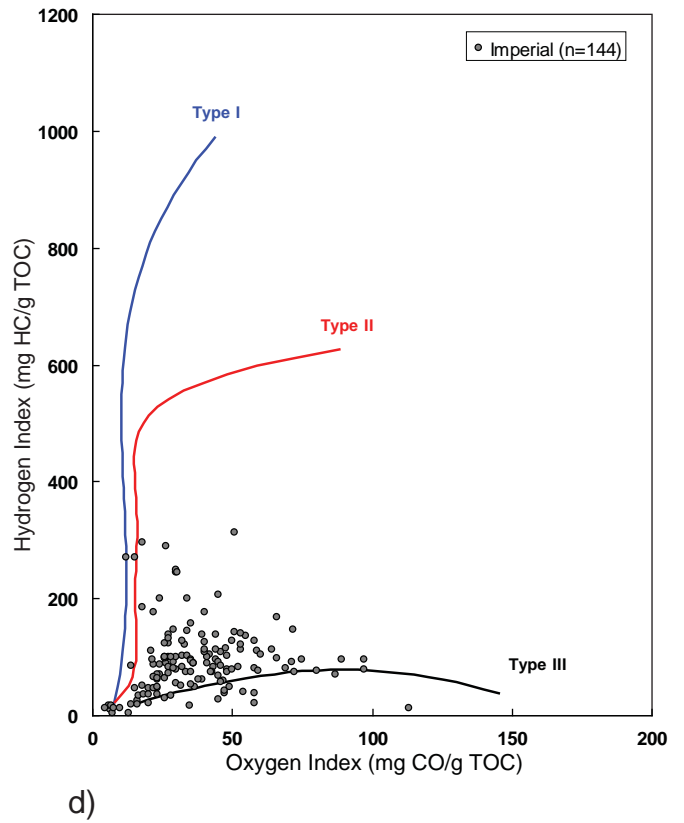
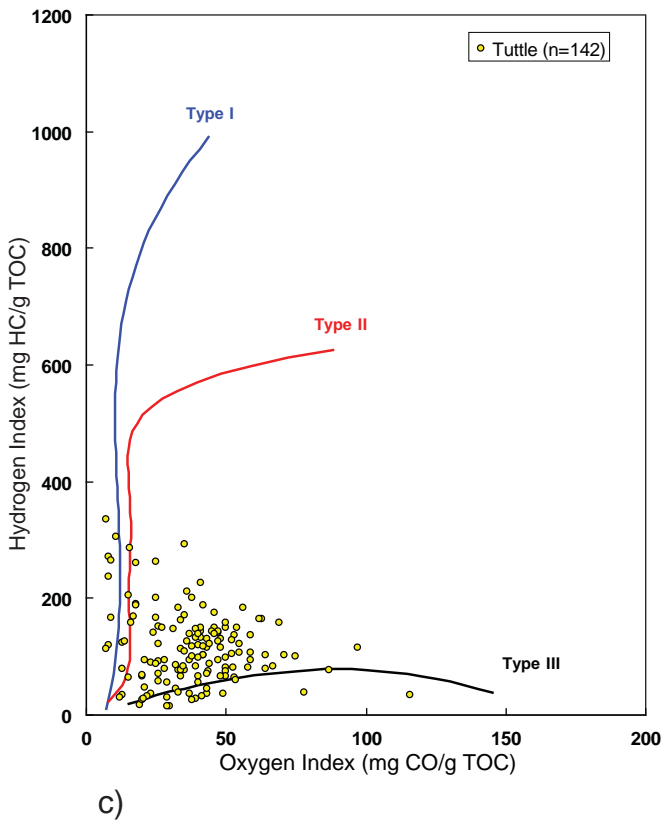
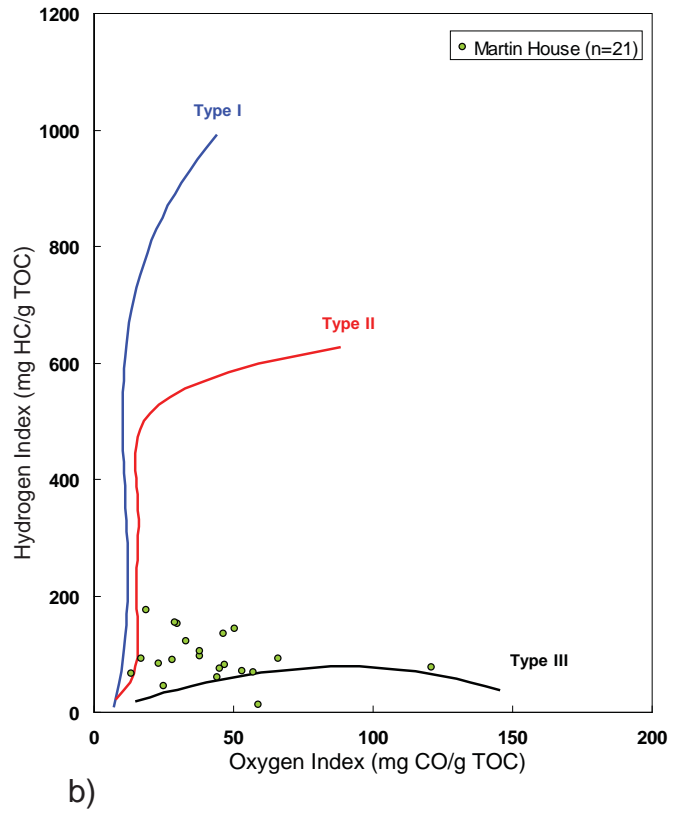
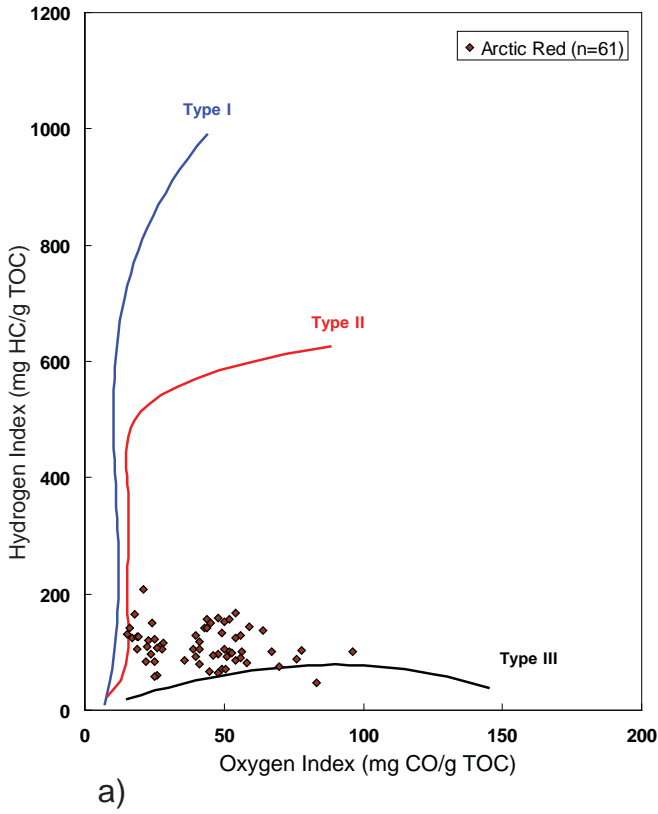


Figure 3. Hydrogen index (HI) versus oxygen index (OI) plots for the Arctic Red (3a), Martin House (3b), Tuttle (3c) and Imperial (3d) formations. See Table 1 for data.

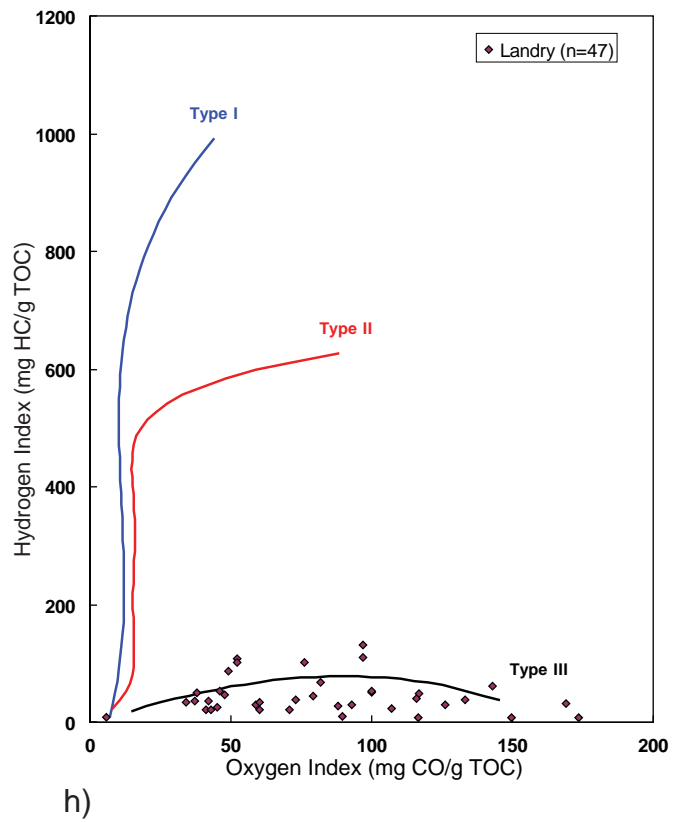
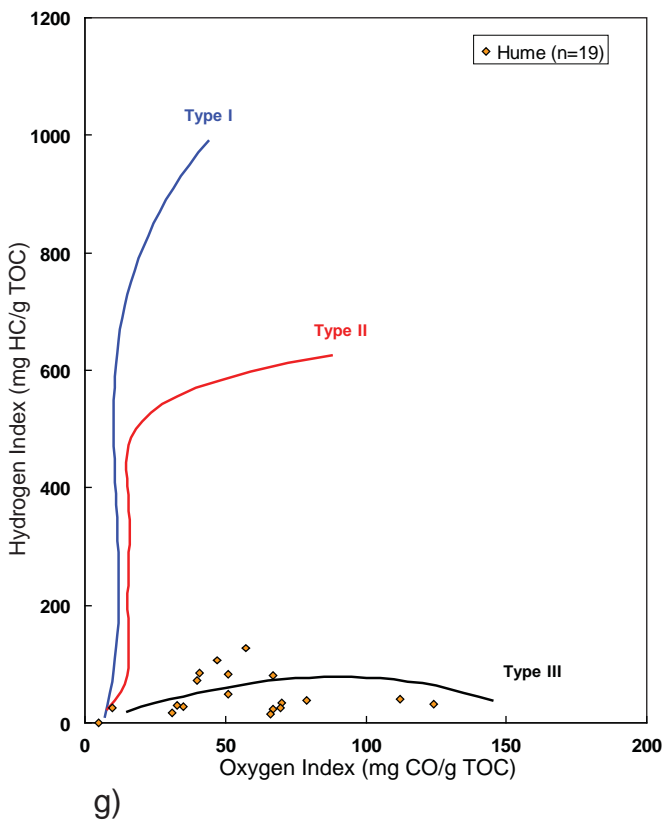
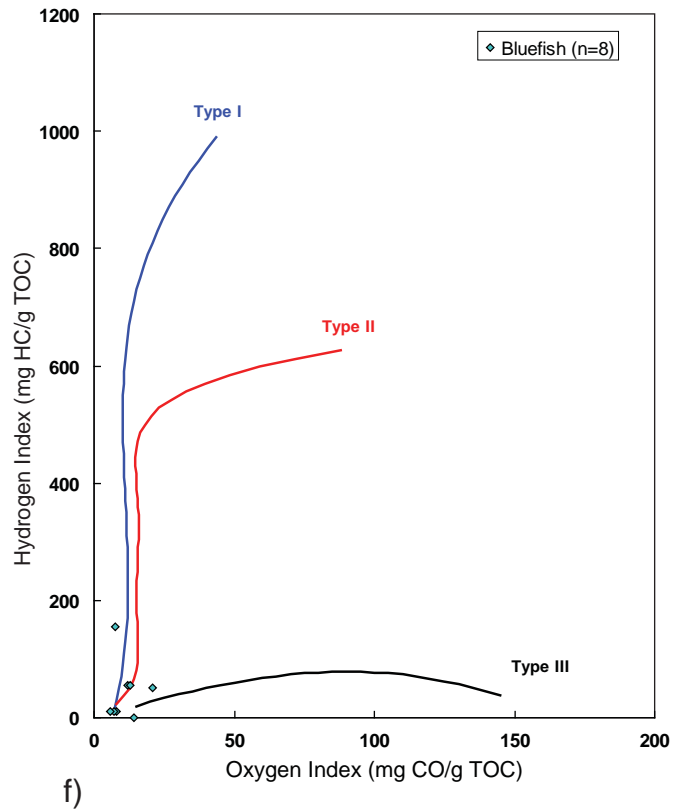
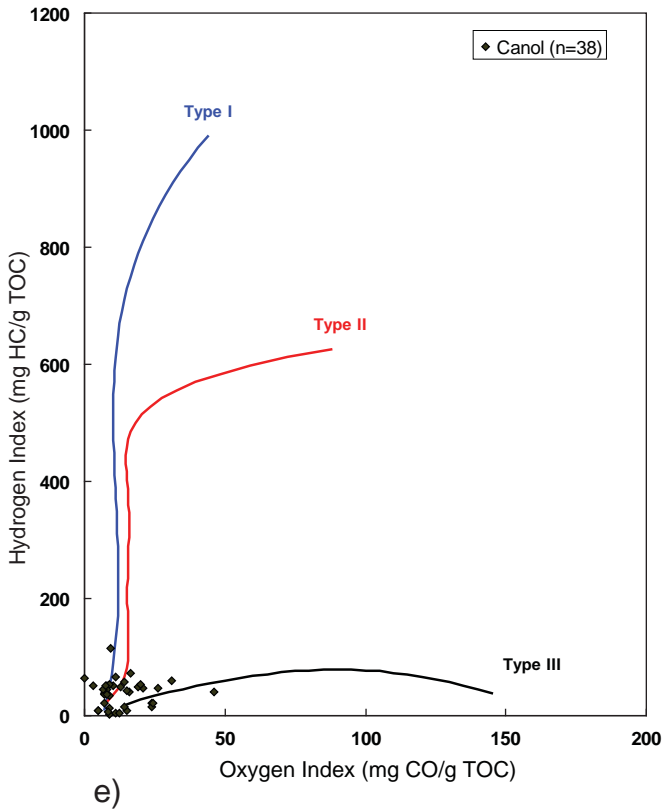
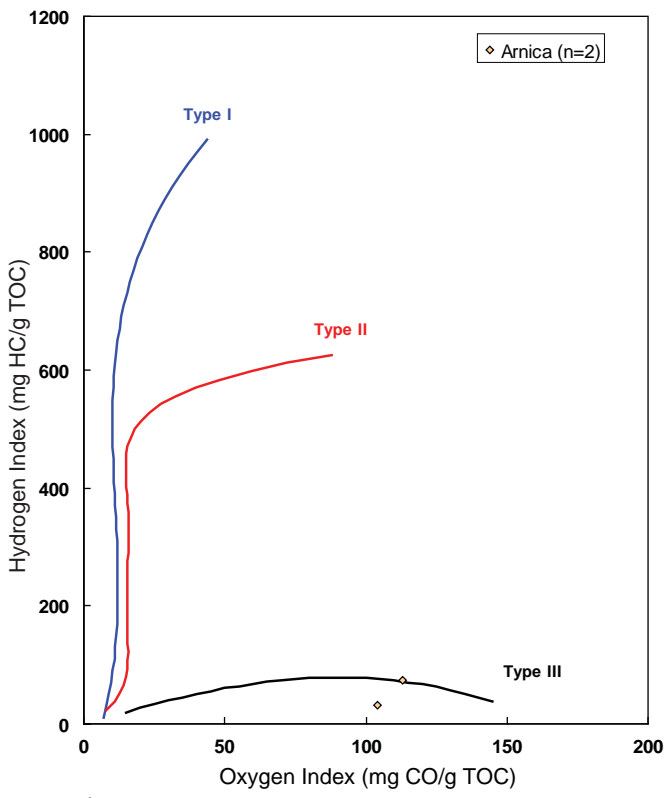
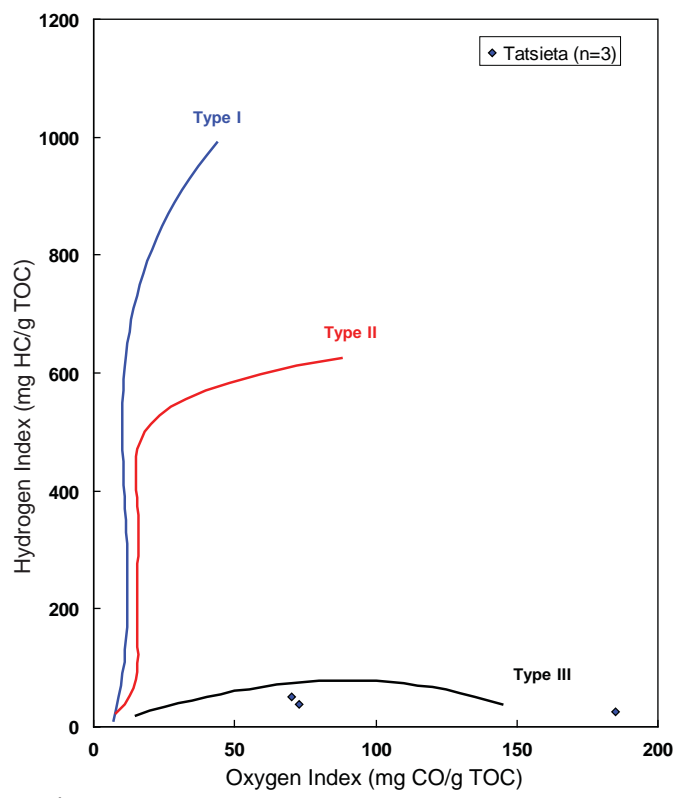


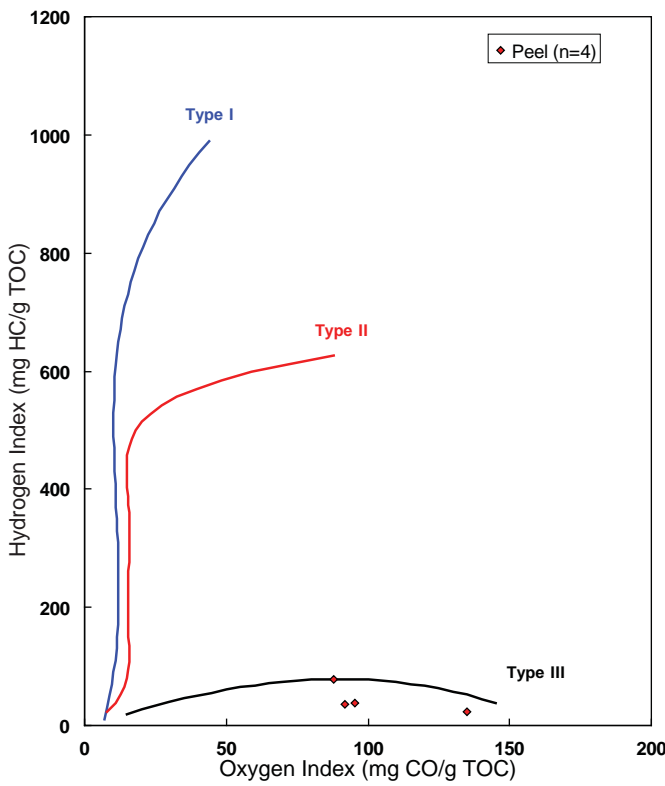
Figure 3. Hydrogen index (HI) versus oxygen index (OI) plots for the Canol (3e), Bluefish (3f), Hume (3g) and Landry (3h) formations. See Table 1 for data.



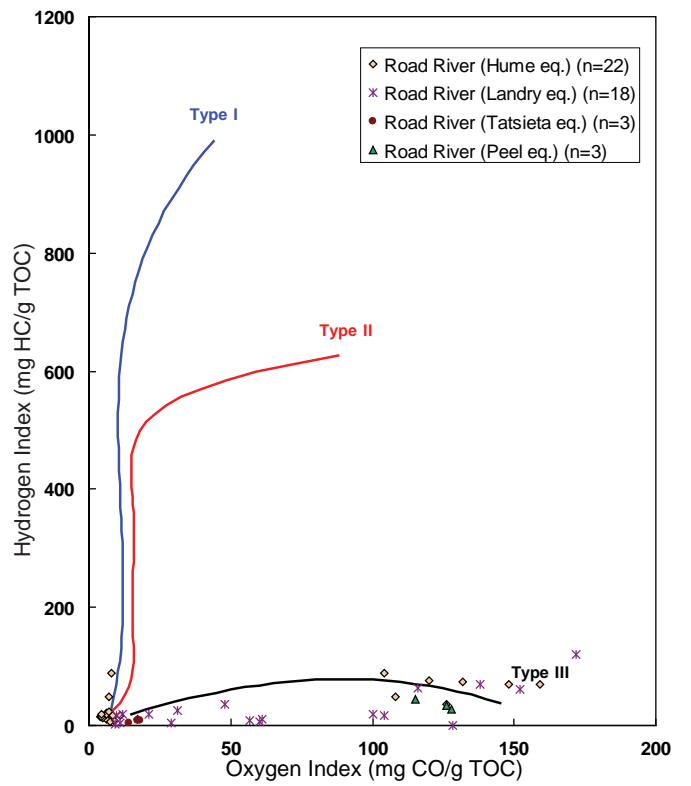
i)



j)

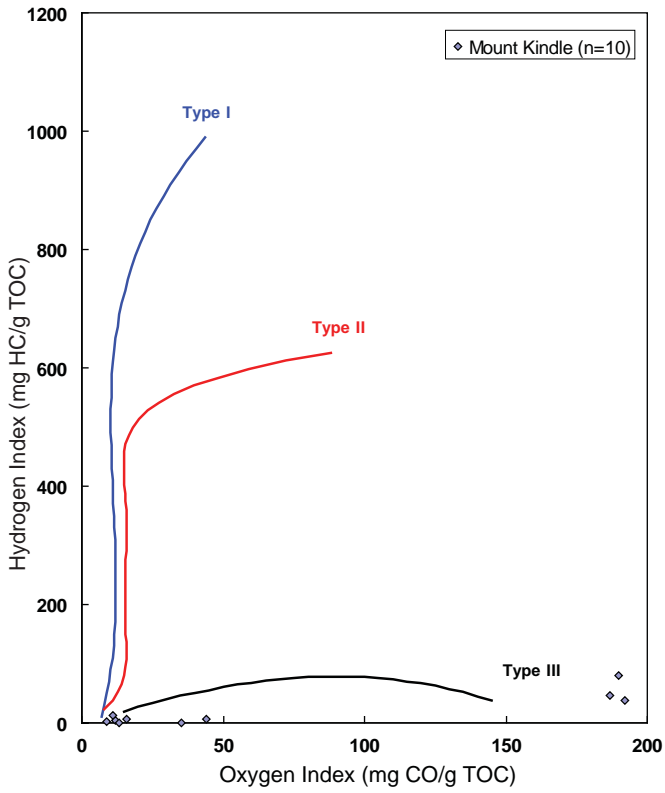


k)

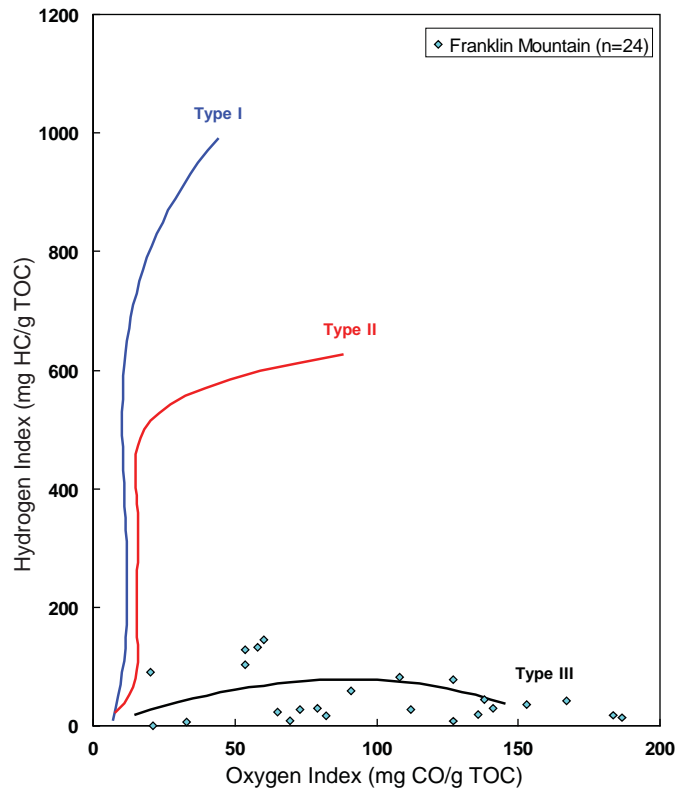


l)

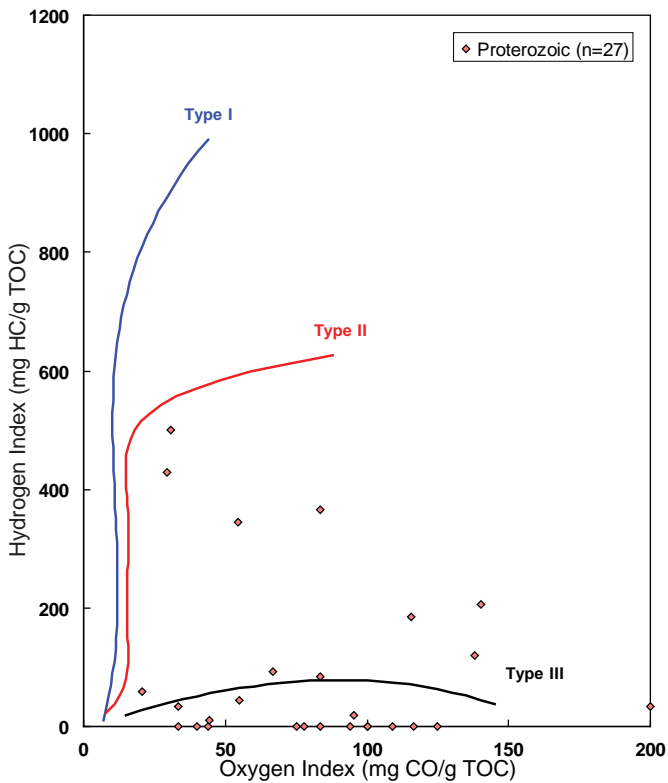
Figure 3. Hydrogen index (HI) versus oxygen index (OI) plots for the Arnica (3i), Tatsieta (3j), Peel (3k) and Road River (3l) formations. See Table 1 for data.



m)

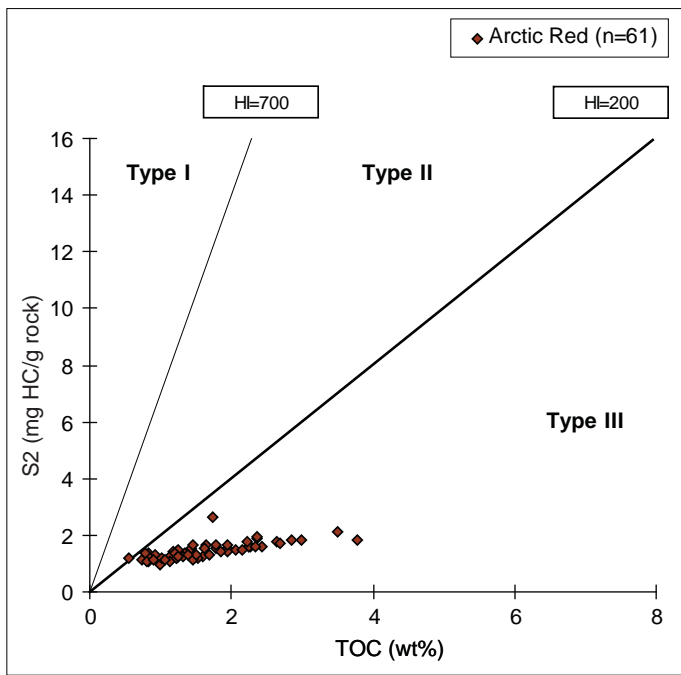


n)

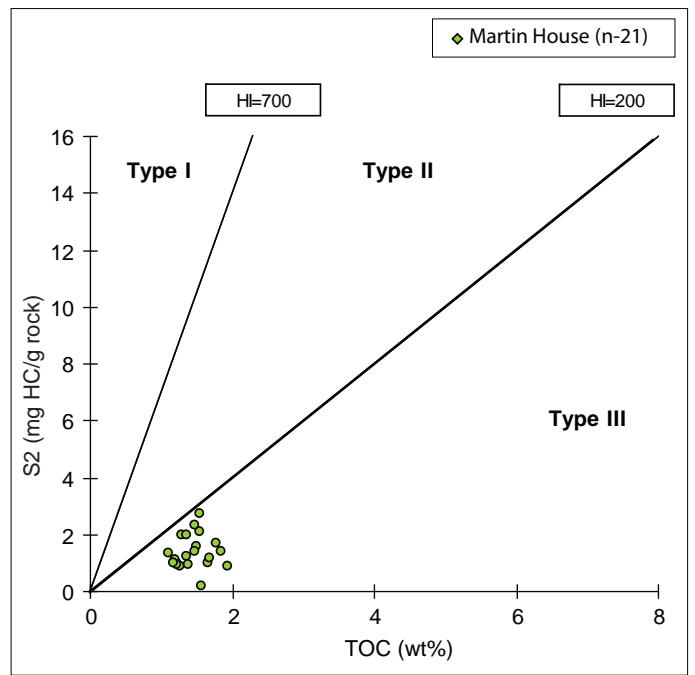


o)

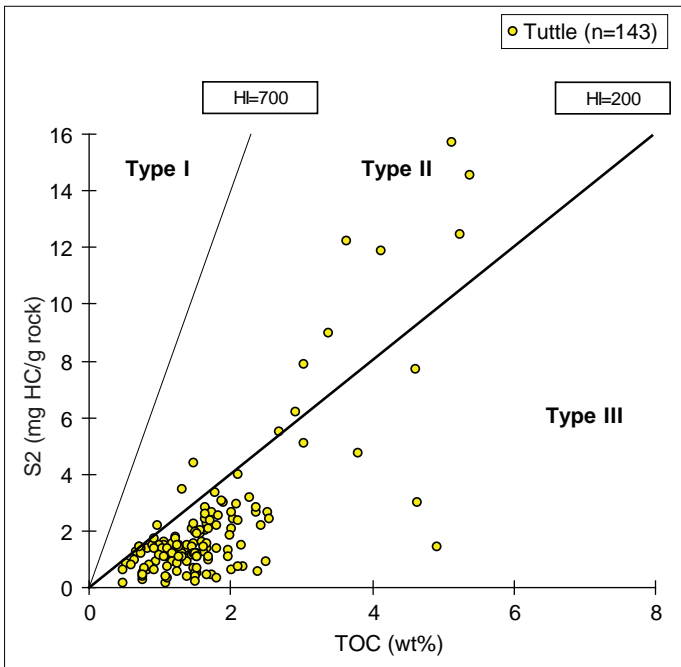
Figure 3. Hydrogen index (HI) versus oxygen index (OI) plots for Mount Kindle (3m), Franklin Mountain (3n) and Proterozoic (3o). See Table 1 for data.



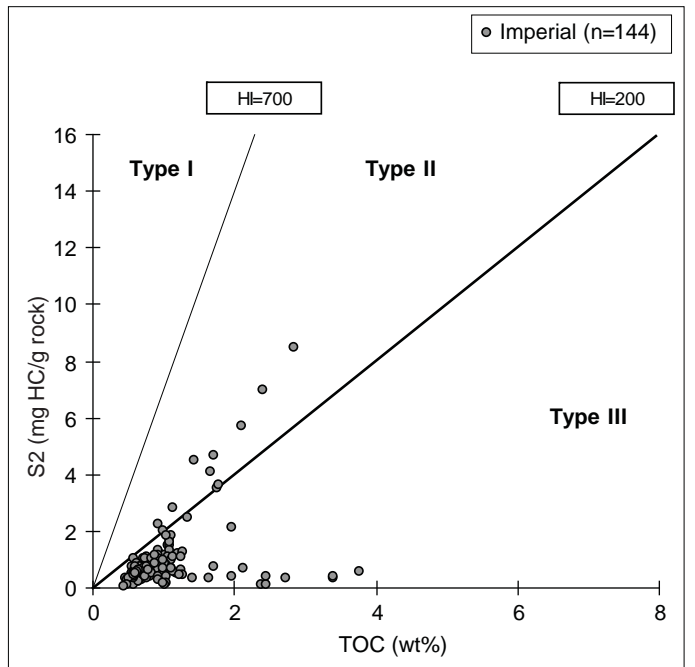
a)



b)

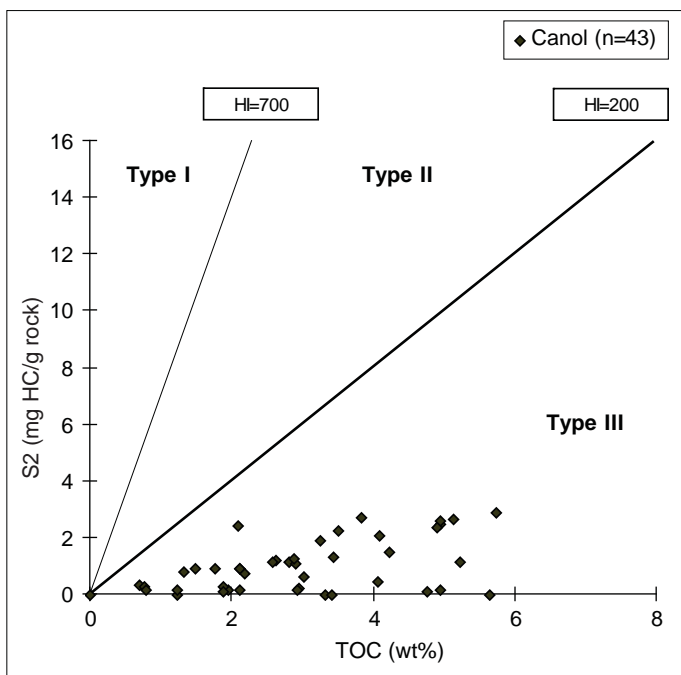


c)

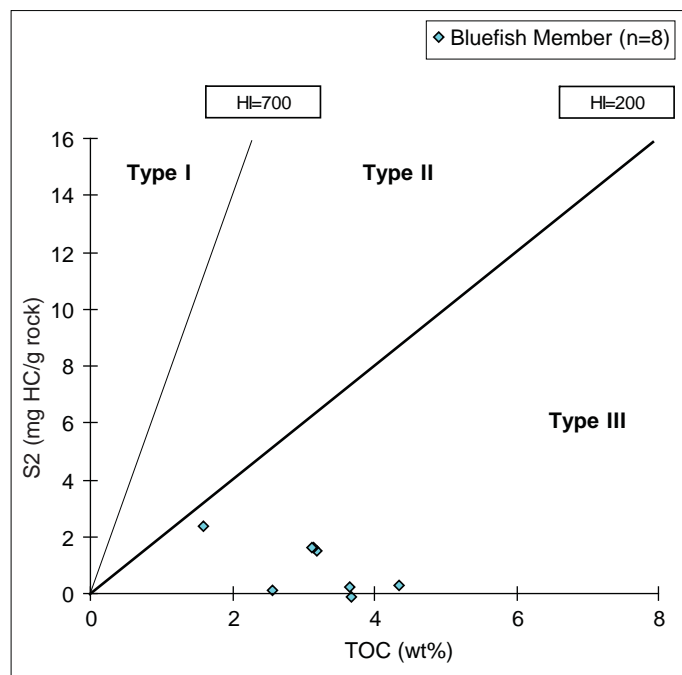


d)

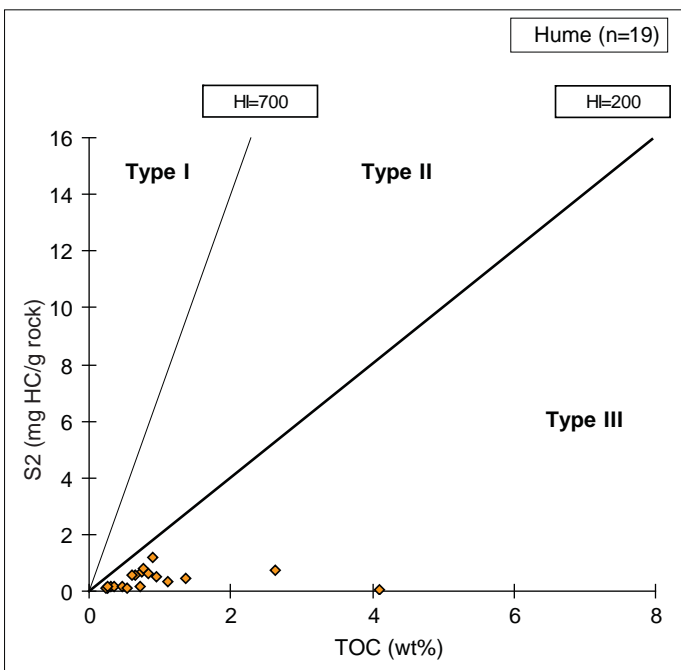
Figure 4. TOC versus Rock-Eval pyrolysis S2 plots for the Arctic Red (4a), Martin House (4b), Tuttle (4c) and Imperial (4d) formations. See Table 1 for data.



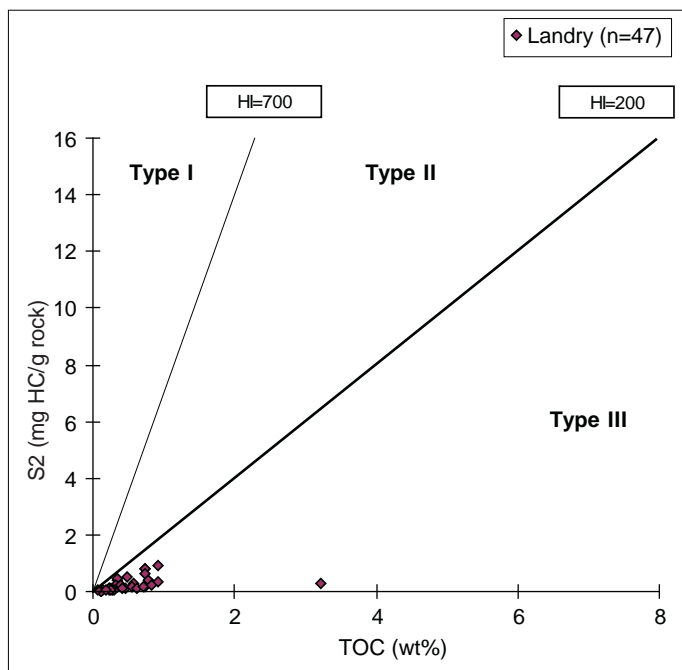
e)



f)

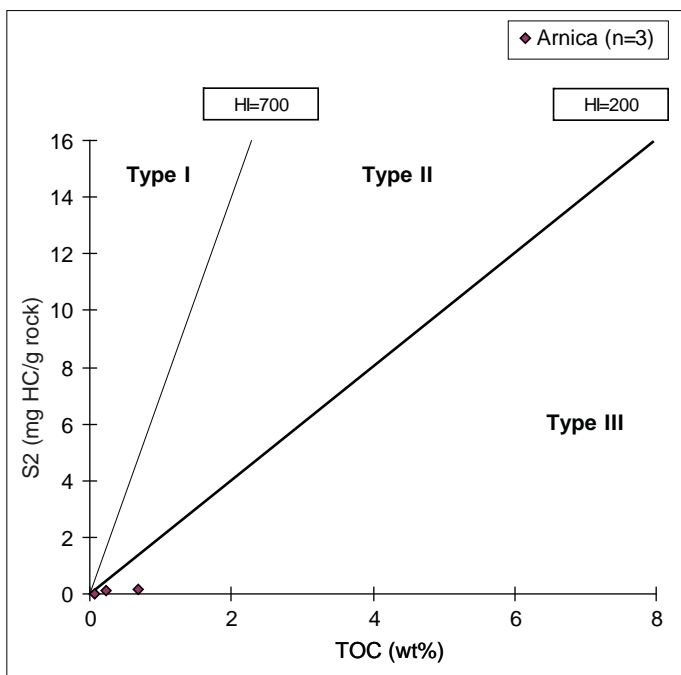


g)

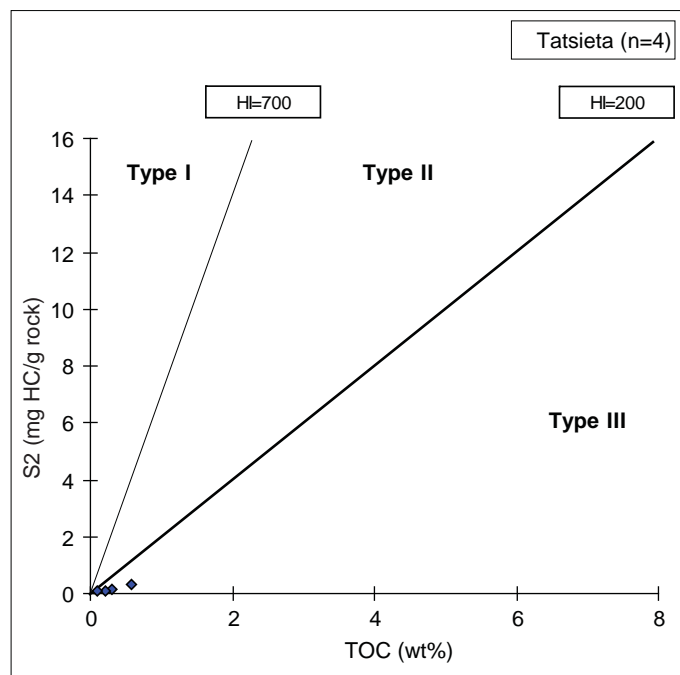


h)

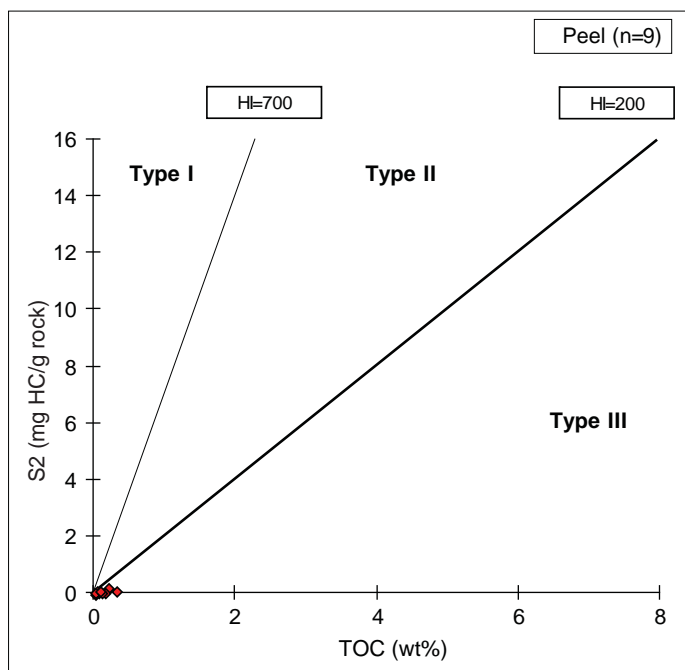
Figure 4. TOC versus Rock-Eval pyrolysis S2 plots for the Canol (4e), Bluefish (4f), Hume (4g) and Landry (4h) formations. See Table 1 for data.



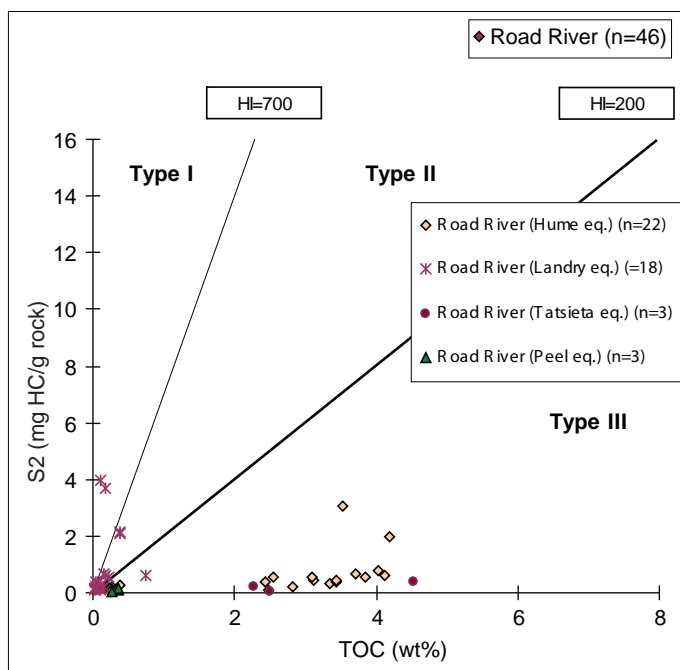
i)



j)

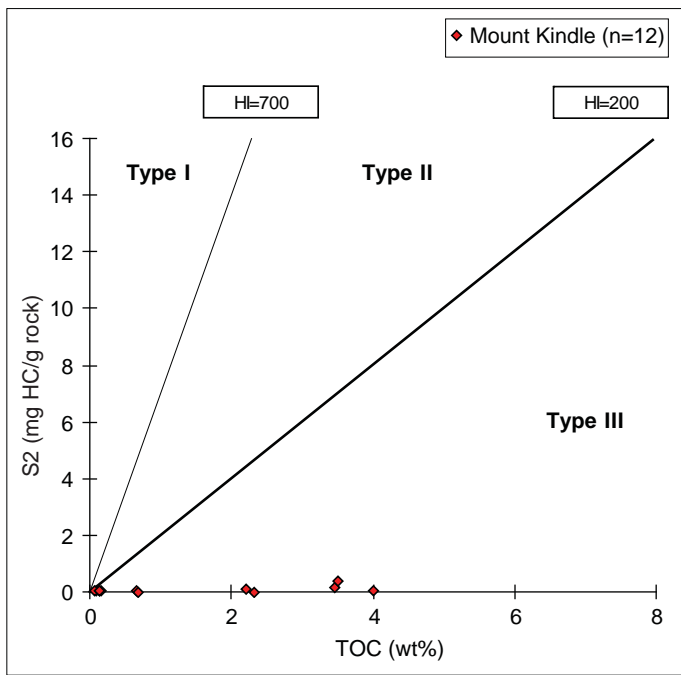


k)

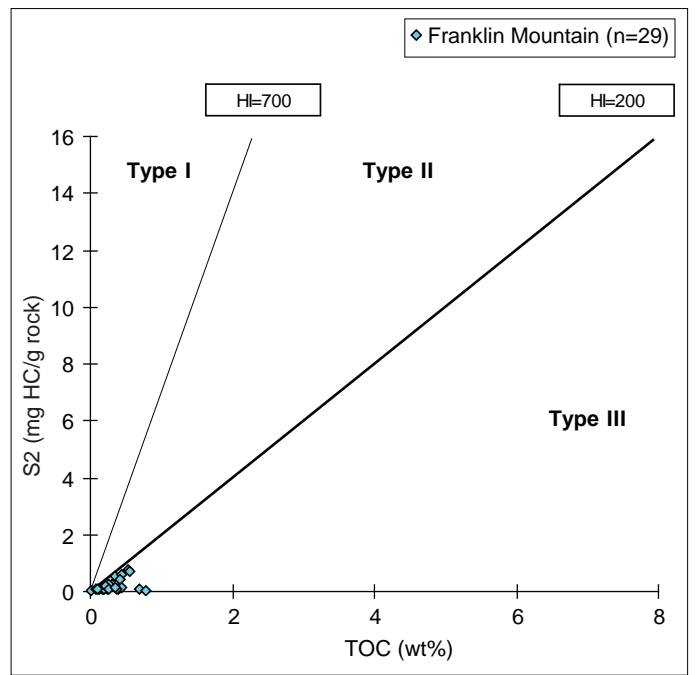


l)

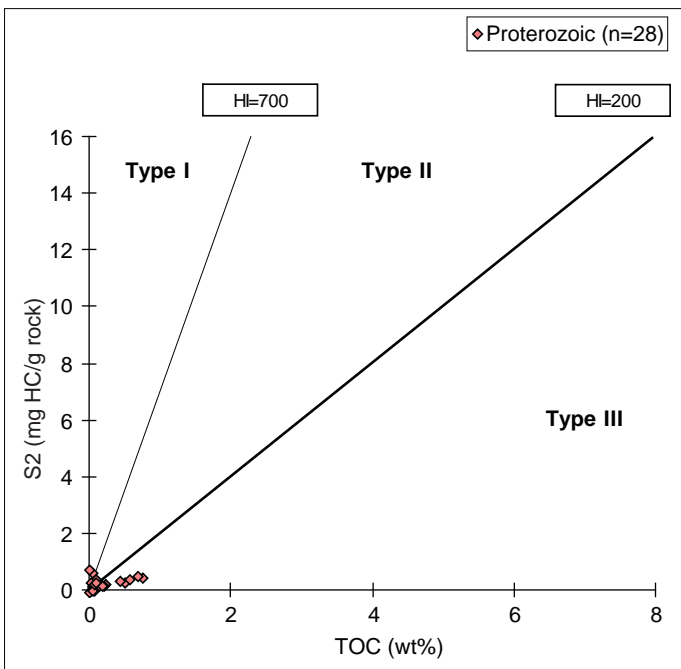
Figure 4. TOC versus Rock-Eval pyrolysis S2 plots for the Arnica (4i), Tatsieta (4j), Peel (4k) and Road River (4l) formations. See Table 1 for data.



m)



n)



o)

Figure 4. TOC versus Rock-Eval pyrolysis S2 plots for Mount Kindle (4m), Franklin Mountain (4n) and Proterozoic (4o). See Table 1 for data.

Table 1. Summary of previously determined and new Rock-Eval /TOC results for all 18 wells sampled in the Peel region of the Yukon. Sample formation is based on formation tops identified in Fraser and Hogue, 2007. Parameters are described in the Laboratory Methods Section. Those results that have TOC < 0.3% and S2 < 0.2 are identified with either yellow highlighting (low TOC) or a red font (low S2 parameter), respectively, or both.

Unique Well Identifier (UWI)	Well Name	UTM Easting (NAD 83)	UTM Northing (NAD 83)	Sample Depth From (F)	Sample Depth To (F)	Equipment Type	Qty (g)	S1 (mg/g rock)	S2 (mg/g rock)	Production Index (S1/(S1+S2))	S3 (mg CO2/g rock)	Tmax (°C)	TOC (wt. %)	PC (wt. %)	RC (wt. %)	Hydrogen Index (mg HC/g TOC)	Oxygen Index CO	Oxygen Index (mg CO2/g TOC)	Formation	GSC OFR 1944 Formation	NTS	Reference	Completed	Sample Type	Yukon WID
Cranswick YT A-42																									
300A426550133000	Cranswick Y.T. A-42	585010	7286314	250	280	RE 6	70.5	0.44	2.35	0.16	0.38	438	1.56	0.26	1.30	151	18	24	Arctic Red		106F/11	This report	Jul-07	cuttings	859
300A426550133000	Cranswick Y.T. A-42	585010	7286314	570	600	RE 6	71.0	0.30	1.32	0.18	0.49	440	1.25	0.17	1.08	106	21	39	Arctic Red		106F/11	This report	Jul-07	cuttings	859
300A426550133000	Cranswick Y.T. A-42	585010	7286314	880	910	RE 6	71.1	0.21	1.15	0.15	0.63	442	1.23	0.19	1.04	93	102	51	Arctic Red		106F/11	This report	Jul-07	cuttings	859
300A426550133000	Cranswick Y.T. A-42	585010	7286314	1190	1220	RE 6	70.6	0.24	1.13	0.18	0.49	444	1.23	0.17	1.06	92	59	40	Arctic Red		106F/11	This report	Jul-07	cuttings	859
300A426550133000	Cranswick Y.T. A-42	585010	7286314	1500	1530	RE 6	70.7	0.43	1.62	0.21	0.63	451	1.55	0.23	1.32	105	55	41	Arctic Red		106F/11	This report	Jul-07	cuttings	859
300A426550133000	Cranswick Y.T. A-42	585010	7286314	1810	1840	RE 6	70.9	0.47	1.95	0.19	0.38	454	1.63	0.24	1.39	120	34	23	Arctic Red		106F/11	This report	Jul-07	cuttings	859
300A426550133000	Cranswick Y.T. A-42	585010	7286314	2120	2150	RE 6	70.7	0.52	1.79	0.23	0.43	453	1.55	0.26	1.29	115	52	28	Arctic Red		106F/11	This report	Jul-07	cuttings	859
300A426550133000	Cranswick Y.T. A-42	585010	7286314	2520	2550	RE 6	70.5	0.60	2.37	0.20	0.49	456	1.94	0.27	1.67	122	1	25	Arctic Red		106F/11	This report	Jul-07	cuttings	859
300A426550133000	Cranswick Y.T. A-42	585010	7286314	2830	2860	RE 6	70.8	0.57	1.79	0.24	0.44	457	1.62	0.24	1.38	110	28	27	Arctic Red		106F/11	This report	Jul-07	cuttings	859
300A426550133000	Cranswick Y.T. A-42	585010	7286314	3140	3170	RE 6	70.5	0.40	1.25	0.25	0.37	465	1.48	0.17	1.31	84	23	25	Arctic Red		106F/11	This report	Jul-07	cuttings	859
300A426550133000	Cranswick Y.T. A-42	585010	7286314	3450	3480	RE 6	70.3	0.27	0.77	0.26	0.34	470	1.36	0.11	1.25	57	9	25	Arctic Red		106F/11	This report	Jul-07	cuttings	859
300A426550133000	Cranswick Y.T. A-42	585010	7286314	3760	3790	RE 6	70.5	0.24	0.86	0.22	0.49	485	1.96	0.14	1.82	44	32	25	Tuttle		106F/11	This report	Jul-07	cuttings	859
300A426550133000	Cranswick Y.T. A-42	585010	7286314	4070	4100	RE 6	70.4	0.13	0.55	0.19	0.56	499	1.53	0.15	1.38	36	103	37	Tuttle		106F/11	This report	Jul-07	cuttings	859
300A426550133000	Cranswick Y.T. A-42	585010	7286314	4380	4410	RE 6	70.3	0.17	0.54	0.24	0.65	481	1.52	0.12	1.40	36	66	43	Tuttle		106F/11	This report	Jul-07	cuttings	859
300A426550133000	Cranswick Y.T. A-42	585010	7286314	4690	4720	RE 6	70.2	0.17	0.42	0.29	0.59	472	1.51	0.11	1.40	28	66	39	Tuttle		106F/11	This report	Jul-07	cuttings	859
300A426550133000	Cranswick Y.T. A-42	585010	7286314	5000	5030	RE 6	70.4	0.15	0.45	0.25	0.67	514	1.76	0.14	1.62	26	91	38	Tuttle		106F/11	This report	Jul-07	cuttings	859
300A426550133000	Cranswick Y.T. A-42	585010	7286314	5310	5340	RE 6	70.7	0.20	0.40	0.33	0.40	345	1.40	0.07	1.33	29	16	29	Tuttle		106F/11	This report	Jul-07	cuttings	859
300A426550133000	Cranswick Y.T. A-42	585010	7286314	5620	5650	RE 6	70.2	0.12	0.33	0.27	0.35	576	1.82	0.06	1.76	18	20	19	Tuttle		106F/11	This report	Jul-07	cuttings	859
300A426550133000	Cranswick Y.T. A-42	585010	7286314	5930	5960	RE 6	70.6	0.10	0.22	0.32	0.45	593	1.52	0.06	1.46	14	36	30	Tuttle		106F/11	This report	Jul-07	cuttings	859
300A426550133000	Cranswick Y.T. A-42	585010	7286314	6240	6270	RE 6	71.0	0.15	0.35	0.30	0.33	328	1.64	0.06	1.58	21	13	20	Imperial		106F/11	This report	Jul-07	cuttings	859
300A426550133000	Cranswick Y.T. A-42	585010	7286314	6620	6650	RE 6	70.6	0.12	0.10	0.54	0.32	300	2.39	0.04	2.35	4	4	13	Imperial		106F/11	This report	Jul-07	cuttings	859
300A426550133000	Cranswick Y.T. A-42	585010	7286314	6930	6960	RE 6	70.4	0.19	0.18	0.51	0.30	323	1.95	0.04	1.91	9	1	15	Canol		106F/11	This report	Jul-07	cuttings	859
300A426550133000	Cranswick Y.T. A-42	585010	7286314	6950		RE 2		0.16	0		0.06	0	1.22			0		4	Canol	Canol	106F/11	Feinstein et al., 1988		cuttings	859
300A426550133000	Cranswick Y.T. A-42	585010	7286314	7000		RE 2		0.15	0		0.15	0	5.63			0		2	Canol	Canol	106F/11	Feinstein et al., 1988		cuttings	859
300A426550133000	Cranswick Y.T. A-42	585010	7286314	7040	7070	RE 6	50.7	0.24	0.18	0.57	0.56	294	4.94	0.08	4.86	4	10	11	Canol		106F/11	This report	Jul-07	cuttings	859
300A426550133000	Cranswick Y.T. A-42	585010	7286314	7050		RE 2		0.16	0		0	0	3.32			0		0	Canol	Canol	106F/11	Feinstein et al., 1988		cuttings	859
300A426550133000	Cranswick Y.T. A-42	585010	7286314	7080		RE 2		0.13	0		0	0	3.41			0		0	Canol	Canol	106F/11	Feinstein et al., 1988		cuttings	859
300A426550133000	Cranswick Y.T. A-42	585010	7286314	7350	7380	RE 6	70.3	0.10	0.11	0.47	0.31	350	0.46	0.03	0.43	24	2	67	Hume		106F/11	This report	Jul-07	cuttings	859
300A426550133000	Cranswick Y.T. A-42	585010	7286314	7660	7690	RE 6	70.2	0.09	0.08	0.51	0.35	343	0.53	0.03	0.50	15	30	66	Hume		106F/11	This report	Jul-07	cuttings	859
300A426550133000	Cranswick Y.T. A-42	585010	7286314	7940	7970	RE 6	70.6	0.35	0.41	0.46	0.44	356	1.35	0.08	1.27	30	4	33	Hume		106F/11	This report	Jul-07	cuttings	859
300A426550133000	Cranswick Y.T. A-42	585010	7286314	8180	8210	RE 6	70.1	0.27	0.30	0.47	0.39	358	1.10	0.08	1.02	27	28	35	Hume		106F/11	This report	Jul-07	cuttings	859
300A426550133000	Cranswick Y.T. A-42	585010	7286314	8490	8520	RE 6	70.7	0.06	0.07	0.45	0.29	421	0.23	0.02	0.21	30	30	126	Hume		106F/11	This report	Jul-07	cuttings	859
300A426550133000	Cranswick Y.T. A-42	585010	7286314	8800	8830	RE 6	70.8	0.15	0.17	0.47	0.33	422	0.56	0.04	0.52	30	14	59	Hume		106F/11	This report	Jul-07	cuttings	859
300A426550133000	Cranswick Y.T. A-42	585010	7286314	9110	9140	RE 6	70.7	0.17	0.16	0.51	0.30	424	0.73	0.05	0.68	22	10	41	Hume		106F/11	This report	Jul-07	cuttings	859
300A426550133000	Cranswick Y.T. A-42	585010	7286314	9420	9450	RE 6	71.2	0.05	0.07	0.45	0.32	420	0.30	0.03	0.27	23	87	107	Hume		106F/11	This report	Jul-07	cuttings	859
300A426550133000	Cranswick Y.T. A-42	585010	7286314	9750	9780	RE 6	70.4	0.01	0.04	0.22	0.21	431	0.07	0.01	0.06	57	0	300	Hume		106F/11	This report	Jul-07	cuttings	859
300A426550133000	Cranswick Y.T. A-42	585010	7286314	10110	10140	RE 6	70.6	0.07	0.11	0.41	0.22	339	0.30	0.03	0.27	37	53	73	Tatsiela		106F/11	This report	Jul-07	cuttings	859
300A426550133000	Cranswick Y.T. A-42	585010	7286314	10430	10460	RE 6	71.1	0.01	0.04	0.21	0.22	445	0.07	0.01	0.06	57	0	314	Peel		106F/11	This report	Jul-07	cuttings	859
300A426550133000	Cranswick Y.T. A-42	585010	7286314	10750	10780	RE 6	70.4	0.02	0.04	0.37	0.23	424	0.17	0.02	0.15	24	129	135	Peel		106F/11	This report	Jul-07	cuttings	859
300A426550133000	Cranswick Y.T. A-42	585010	7286314	11070	11100	RE 6	70.5	0.01	0.05	0.20	0.19	420	0.06	0.01	0.05	83	17	317	Mount Kindle		106F/11	This report	Jul-07	cuttings	859
300A426550133000	Cranswick Y.T. A-42	585010	7286314	11390	11420	RE 6	71.2	0.02	0.05	0.27	0.25	423	0.13	0.02	0.11	38	115	192	Mount Kindle		106F/11	This report	Jul-07	cuttings	859
300A426550133000	Cranswick Y.T. A-42	585010	7286314	11780	11810	RE 6	70.9	0.02	0.05	0.28	0.26	427	0.12	0.01	0.11	42	25	217	Franklin Mountain		106F/11	This report	Jul-07	cuttings	859
300A426550133000	Cranswick Y.T. A-42	585010	7286314	12150	12180	RE 6	70.9	0.11	0.23	0.32	0.38	330	0.30	0.05	0.25	77	57	127	Franklin Mountain		106F/11	This report	Jul-07	cuttings	859
300A426550133000	Cranswick Y.T. A-42	585010	7286314	12440	12470	RE 6	70.1	0.02	0.07	0.26	0.22	417	0.16	0.01	0.15	44	0	138	Franklin Mountain		106F/11	This report	Jul-07	cuttings	859
300A426550133000	Cranswick Y.T. A-42	585010	7286314	12770	12800	RE 6	70.7	0.09	0.49	0.15	0.77	325	0.33	0.08	0.25	148	39	233	Franklin Mountain		106F/11	This report	Jul-07	cuttings	859
300A426550133000	Cranswick Y.T. A-42	585010	7286314	13150	13180	RE 6	71.1	0.01	0.05	0.17	0.24	419	0.17	0.02	0.15	29	41	141	Franklin Mountain		106F/11	This report	Jul-07	cuttings	859
300A426550133000	Cranswick Y.T. A-42	585010	7286314	13400	13430	RE 6	70.5	0.01	0.04	0.17	0.30	418	0.22	0.02	0.20	18	41	136	Franklin Mountain		106F/11	This report	Jul-07	cuttings	859
300A426550133000	Cranswick Y.T. A-42	585010	7286314	13710	13740	RE 6	70.0	0.02	0.05	0.30	0.20	419	0.12	0.01	0.11	42	8	167	Franklin Mountain		106F/11	This report	Jul-07	cuttings	859
300A426550133000	Cranswick Y.T. A-42	585010	7286314	13970	14000	RE 6	70.3	0.02	0.06	0.27	0.26	415	0.17	0.02	0.15	35	59	153	Franklin Mountain		106F/11	This report	Jul-07	cuttings	

Table 1. Summary of previously determined and new Rock-Eval /TOC results for all 18 wells sampled in the Peel region of the Yukon. Sample formation is based on formation tops identified in Fraser and Hogue, 2007. Parameters are described in the Laboratory Methods Section. Those results that have TOC < 0.3% and S2 < 0.2 are identified with either yellow highlighting (low TOC) or a red font (low S2 parameter), respectively, or both.

Unique Well Identifier (UWI)	Well Name	UTM Easting (NAD 83)	UTM Northing (NAD 83)	Sample Depth From (F)	Sample Depth To (F)	Equipment Type	Qty (g)	S1 (mg/g rock)	S2 (mg/g rock)	Production Index (S1/(S1+S2))	S3 (mg CO2/g rock)	Tmax (°C)	TOC (wt. %)	PC (wt. %)	RC (%)	Hydrogen Index (mg HC/g TOC)	Oxygen Index CO	Oxygen Index (mg CO2/g TOC)	Formation	GSC OFR 1944 Formation	NTS	Reference	Completed	Sample Type	Yukon WID	
300I216620134150	Peel R Y.T. I-21	531244	7339738	5600				0.78	0.36				0.35						102	Landry			106L/1	GSC Well File	907	
300I216620134150	Peel R Y.T. I-21	531244	7339738	5650				0.52	0.22				0.3						73	Landry			106L/1	GSC Well File	907	
300I216620134150	Peel R Y.T. I-21	531244	7339738	5700				0.46	0.25				0.3						83	Landry			106L/1	GSC Well File	907	
300I216620134150	Peel R Y.T. I-21	531244	7339738	5750				0.3	0.22				0.23						95	Landry			106L/1	GSC Well File	907	
300I216620134150	Peel R Y.T. I-21	531244	7339738	5800				0.65	0.48				0.44						109	Landry			106L/1	GSC Well File	907	
300I216620134150	Peel R Y.T. I-21	531244	7339738	5850				0.51	0.39				0.37						105	Landry			106L/1	GSC Well File	907	
300I216620134150	Peel R Y.T. I-21	531244	7339738	5851		RE 6	100.6	0.01	0.02	0.23	0.45	522	0.16	0	0.16	13	19	281	Landry			106L/1	GSC-Calgary Well File: Peel River I-21	Nov-00	core	907
300I216620134150	Peel R Y.T. I-21	531244	7339738	5863		RE 6	100.8	0.01	0.04	0.14	0.45	443	0.16	0.01	0.16	24	12	265	Landry			106L/1	GSC-Calgary Well File: Peel River I-21	Nov-00	core	907
300I216620134150	Peel R Y.T. I-21	531244	7339738	5880	5910	RE 6	70.7	0.11	0.38	0.22	0.34	438	0.35	0.05	0.30	109	9	97	Landry			106L/1	This report	Jul-07	cuttings	907
300I216620134150	Peel R Y.T. I-21	531244	7339738	5884		RE 6	100.8	0.01	0.03	0.27	0.50	420	0.17	0.01	0.16	18	29	294	Landry			106L/1	GSC-Calgary Well File: Peel River I-21	Nov-00	core	907
300I216620134150	Peel R Y.T. I-21	531244	7339738	5900				0.28	0.12				0.22						54	Landry			106L/1	GSC Well File	907	
300I216620134150	Peel R Y.T. I-21	531244	7339738	6000				0.53	0.37				0.37						100	Landry			106L/1	GSC Well File	907	
300I216620134150	Peel R Y.T. I-21	531244	7339738	6050				0.43	0.25				0.3						83	Landry			106L/1	GSC Well File	907	
300I216620134150	Peel R Y.T. I-21	531244	7339738	6100				0.32	0.22				0.24						91	Landry			106L/1	GSC Well File	907	
300I216620134150	Peel R Y.T. I-21	531244	7339738	6190	6220	RE 6	70.4	0.19	0.50	0.28	0.37	432	0.49	0.07	0.42	102	12	76	Landry			106L/1	This report	Jul-07	cuttings	907
300I216620134150	Peel R Y.T. I-21	531244	7339738	6197		RE 6	100.2	0.03	0.08	0.27	0.37	331	0.31	0.01	0.30	26	32	119	Landry			106L/1	GSC-Calgary Well File: Peel River I-21	Nov-00	core	907
300I216620134150	Peel R Y.T. I-21	531244	7339738	6200				0.29	0.21				0.28						75	Landry			106L/1	GSC Well File	907	
300I216620134150	Peel R Y.T. I-21	531244	7339738	6207		RE 6	101	0.01	0.02	0.24	0.47	429	0.27	0.01	0.26	7	22	174	Landry			106L/1	GSC-Calgary Well File: Peel River I-21	Nov-00	core	907
300I216620134150	Peel R Y.T. I-21	531244	7339738	6221		RE 6	101	0.01	0.02	0.24	0.48	571	0.32	0.01	0.31	6	28	150	Landry			106L/1	GSC-Calgary Well File: Peel River I-21	Nov-00	core	907
300I216620134150	Peel R Y.T. I-21	531244	7339738	6300				0.22	0.17				0.19						89	Landry			106L/1	GSC Well File	907	
300I216620134150	Peel R Y.T. I-21	531244	7339738	6380	6410	RE 6	70.0	0.21	0.64	0.25	0.36	442	0.74	0.10	0.64	86	42	49	Landry			106L/1	This report	Jul-07	cuttings	907
300I216620134150	Peel R Y.T. I-21	531244	7339738	6400				0.68	0.35				0.53						66	Landry			106L/1	GSC Well File	907	
300I216620134150	Peel R Y.T. I-21	531244	7339738	6473		RE 6	100.4	0.01	0.05	0.14	0.53	599	0.59	0.01	0.58	8	10	90	Landry			106L/1	GSC-Calgary Well File: Peel River I-21	Nov-00	core	907
300I216620134150	Peel R Y.T. I-21	531244	7339738	6483		RE 6	100.3	0.01	0.02	0.34	0.41	596	0.35	0	0.35	6	6	117	Landry			106L/1	GSC-Calgary Well File: Peel River I-21	Nov-00	core	907
300I216620134150	Peel R Y.T. I-21	531244	7339738	6497		RE 6	100.8	0.01	0.04	0.17	0.47	599	0.38	0.01	0.37	11	11	124	Landry			106L/1	GSC-Calgary Well File: Peel River I-21	Nov-00	core	907
300I216620134150	Peel R Y.T. I-21	531244	7339738	6500				0.48	0.18				0.38						47	Landry			106L/1	GSC Well File	907	
300I216620134150	Peel R Y.T. I-21	531244	7339738	6580	6710	RE 6	71	0.12	0.27	0.28	0.28	443	0.82	0.04	0.78	33	11	34	Landry			106L/1	2007: Rock Eval DB	01/17/2005		907
300I216620134150	Peel R Y.T. I-21	531244	7339738	6600				0.88	0.3				0.53						56	Landry			106L/1	GSC Well File	907	
300I216620134150	Peel R Y.T. I-21	531244	7339738	6700				0.54	0.23				0.71						32	Landry			106L/1	GSC Well File	907	
300I216620134150	Peel R Y.T. I-21	531244	7339738	6790				0.29	0.11				0.22						50	Landry			106L/1	GSC Well File	907	
300I216620134150	Peel R Y.T. I-21	531244	7339738	6792		RE 6	100	0.01	0.01	0.39	0.23	331	0.07	0	0.07	14	29	329	Landry			106L/1	GSC-Calgary Well File: Peel River I-21	Nov-00	core	907
300I216620134150	Peel R Y.T. I-21	531244	7339738	6795		RE 6	101	0.01	0.02	0.33	0.25	565	0.16	0.01	0.15	13	44	156	Landry			106L/1	GSC-Calgary Well File: Peel River I-21	Nov-00	core	907
		Peel River J-21																								
300J216640134000	Peel R Y.T. J-21	541013	7376918	100	130	RE 6	70.3	0.21	2.64	0.07	0.87	430	1.73	0.29	1.44	153	29	50	Arctic Red			106L/9	This report	Jul-07	cuttings	905
300J216640134000	Peel R Y.T. J-21	541013	7376918	410	440	RE 6	70.8	0.14	1.60	0.08	0.50	434	1.25	0.17	1.08	128	7	40	Arctic Red			106L/9	This report	Jul-07	cuttings	905
300J216640134000	Peel R Y.T. J-21	541013	7376918	720	750	RE 6	70.8	0.19	1.42	0.12	0.68	435	1.36	0.19	1.17	104	40	50	Arctic Red			106L/9	This report	Jul-07	cuttings	905
300J216640134000	Peel R Y.T. J-21	541013	7376918	1030	1060	RE 6	70.2	0.19	1.02	0.16	0.58	432	1.24	0.15	1.09	82	40	47	Martin House			106L/9	This report	Jul-07	cuttings	905
300J216640134000	Peel R Y.T. J-21	541013	7376918	1340	1370	RE 6	70.6	0.27	2.09	0.12	0.60	432	1.47	0.25	1.22	142	48	41	Tuttle			106L/9	This report	Jul-07	cuttings	905
300J216640134000	Peel R Y.T. J-21	541013	7376918	1650	1680	RE 6	70.5	0.23	2.68	0.08	0.80	437	2.38	0.33	2.05	113	44	34	Tuttle			106L/9	This report	Jul-07	cuttings	905
300J216640134000	Peel R Y.T. J-21	541013	7376918	1960	1990	RE 6	70.4	0.19	1.41	0.12	0.89	437	1.38	0.20	1.18	102	58	64	Tuttle			106L/9	This report	Jul-07	cuttings	905
300J216640134000	Peel R Y.T. J-21	541013	7376918	2017.5		RE 6	70.5	0.26	3.02		0.31	438	1.92	0.30	1.62	157	11	16	Tuttle			106L/9	This report	Nov-06	core	905
300J216640134000	Peel R Y.T. J-21	541013	7376918	2270	2300	RE 6	70.6	0.18	1.65	0.10	0.67	439	1.60	0.20	1.40	103	34	42	Tuttle			106L/9	This report	Jul-07	cuttings	905
300J216640134000	Peel R Y.T. J-21	541013	7376918	2590	2630	RE 6	70.6	0.29	2.08	0.12	0.84	442	2.02	0.29	1.73	103	67	42	Tuttle			106L/9	This report	Jul-07	cuttings	905
300J216640134000	Peel R Y.T. J-21	541013	7376918	2900	2930	RE 6	70.4	0.22	1.50	0.13	0.49	440	1.39	0.18	1.21	108	30	35	Tuttle			106L/9	This report	Jul-07	cuttings	905
300J216640134000	Peel R Y.T. J-21	541013	7376918	3200	3230	RE 6	70.2	0.53	2.19	0.20	0.57	447	2.46	0.28	2.18	89	25	23	Tuttle			106L/9	This report	Jul-07	cuttings	905
300J216640134000	Peel R Y.T. J-21	541013	7376918	3500	3530	RE 6	70.6	0.26	1.05	0.20	0.48	448	1.38	0.15	1.23	76	32	35	Tuttle			106L/9	This report	Jul-07	cuttings	905
300J216640134000	Peel R Y.T. J-21	541013	7376918	3900	3930	RE 6	70.0	0.28	1.09	0.20	0.56	444	1.26	0.16	1.10	87	30	44	Tuttle			106L/9	This report	Jul-07	cuttings	905
300J216640134000	Peel R Y.T. J-21	541013	7376918	3936		RE 6	70.6	0.18	0.66		0.11	449	0.84	0.08	0.76	79	8	13	Tuttle			106L/9	This report	Nov-06	core	905
		Peel River K-09																								
300K096620134000	Peel River Y.T. K-09	544199	7354599	280	310	RE 6	70.5	0.28	1.44	0.16	0.69	430	1.51	0.20	1.31	95	47	46	Arctic Red			106L/8	This report	Jul-07	cuttings	910
300K096620134000	Peel River Y.T. K-09	544199	7354599	980	1010	RE 6	70.1	0.28	2.45	0.10	0.69	431	1.57	0.27	1.30	156	31	44	Arctic Red			106L/8	This report	Jul-07	cuttings	910
300K096620134000	Peel River Y.T. K-09	544199	7354599	1280	1310	RE 6	70.4	0.30	1.94	0.14	0.84	428	1.55	0.25	1.30	125	26	54	Arctic Red							

Table 1. Summary of previously determined and new Rock-Eval /TOC results for all 18 wells sampled in the Peel region of the Yukon. Sample formation is based on formation tops identified in Fraser and Hogue, 2007. Parameters are described in the Laboratory Methods Section. Those results that have TOC < 0.3% and S2 < 0.2 are identified with either yellow highlighting (low TOC) or a red font (low S2 parameter), respectively, or both.

Unique Well Identifier (UWI)	Well Name	UTM Easting (NAD 83)	UTM Northing (NAD 83)	Sample Depth From (F)	Sample Depth To (F)	Equipment Type	Qty (g)	S1 (mg/g rock)	S2 (mg/g rock)	Production Index (S1/(S1+S2))	S3 (mg CO2/g rock)	Tmax (°C)	TOC (wt. %)	PC (wt. %)	RC (%)	Hydrogen Index (mg HC/g TOC)	Oxygen Index CO	Oxygen Index (mg CO2/g TOC)	Formation	GSC OFR 1944 Formation	NTS	Reference	Completed	Sample Type	Yukon WID		
300K156600133000	Taylor Lake Y.T. K-15	588702	7311333	3310	3340	RE 6	70.8	0.25	0.75	0.25	0.28	497	2.13	0.11	2.02	35	13	13	Tuttle		106F/14	This report	Jul-07	cuttings	902		
300K156600133000	Taylor Lake Y.T. K-15	588702	7311333	3620	3650	RE 6	71.0	0.44	0.68	0.39	0.25	321	1.11	0.11	1.00	61	13	23	Imperial		106F/14	This report	Jul-07	cuttings	902		
300K156600133000	Taylor Lake Y.T. K-15	588702	7311333	3930	3960	RE 6	70.4	0.34	0.54	0.39	0.27	344	1.18	0.09	1.09	46	14	23	Imperial		106F/14	This report	Jul-07	cuttings	902		
300K156600133000	Taylor Lake Y.T. K-15	588702	7311333	4230	4260	RE 6	70.9	0.29	0.35	0.45	0.23	332	1.42	0.06	1.36	25	1	16	Imperial		106F/14	This report	Jul-07	cuttings	902		
300K156600133000	Taylor Lake Y.T. K-15	588702	7311333	4330		RE 2		0.56	0.2		0.1	318	2.11			9		5	Canol	Canol	106F/14	Feinstein et al., 1988	Jul-07	cuttings	902		
300K156600133000	Taylor Lake Y.T. K-15	588702	7311333	4360	4390	RE 6	50.9	0.29	0.47	0.39	0.35	595	4.05	0.09	3.96	12	4	9	Canol		106F/14	This report	Jul-07	cuttings	902		
300K156600133000	Taylor Lake Y.T. K-15	588702	7311333	4380		RE 2		0.65	0.23		0.16	383	2.94			7		5	Canol	Canol	106F/14	Feinstein et al., 1988	Jul-07	cuttings	902		
300K156600133000	Taylor Lake Y.T. K-15	588702	7311333	4430		RE 2		0.29	0.14		0.44	0	4.76			2		9	Canol	Canol	106F/14	Feinstein et al., 1988	Jul-07	cuttings	902		
300K156600133000	Taylor Lake Y.T. K-15	588702	7311333	4450		RE 2		0.4	0		0.53	0	3.71			0		14	Bluefish	Canol	106F/14	Feinstein et al., 1988	Jul-07	cuttings	902		
300K156600133000	Taylor Lake Y.T. K-15	588702	7311333	4520	4550	RE 6	70.1	0.07	0.13	0.33	0.22	598	0.72	0.03	0.69	18	14	31	Hume		106F/14	This report	Jul-07	cuttings	902		
300K156600133000	Taylor Lake Y.T. K-15	588702	7311333	4830	4860	RE 6	70.3	0.03	0.08	0.24	0.31	423	0.25	0.03	0.22	32	68	124	Hume		106F/14	This report	Jul-07	cuttings	902		
300K156600133000	Taylor Lake Y.T. K-15	588702	7311333	5140	5170	RE 6	70.9	0.05	0.08	0.37	0.25	432	0.27	0.02	0.25	30	22	93	Landry		106F/14	This report	Jul-07	cuttings	902		
300K156600133000	Taylor Lake Y.T. K-15	588702	7311333	5460	5490	RE 6	70.9	0.08	0.15	0.35	0.27	430	0.34	0.03	0.31	44	18	79	Landry		106F/14	This report	Jul-07	cuttings	902		
300K156600133000	Taylor Lake Y.T. K-15	588702	7311333	5770	5800	RE 6	70.0	0.02	0.04	0.30	0.22	427	0.13	0.02	0.11	31	46	169	Landry		106F/14	This report	Jul-07	cuttings	902		
300K156600133000	Taylor Lake Y.T. K-15	588702	7311333	6080	6110	RE 6	70.6	0.11	0.20	0.36	0.23	432	0.55	0.04	0.51	36	20	42	Landry		106F/14	This report	Jul-07	cuttings	902		
300K156600133000	Taylor Lake Y.T. K-15	588702	7311333	6700	6730	RE 6	70.8	0.02	0.06	0.25	0.23	431	0.08	0.02	0.06	75	125	288	Arnica		106F/14	This report	Jul-07	cuttings	902		
300K156600133000	Taylor Lake Y.T. K-15	588702	7311333	7010	7040	RE 6	70.8	0.02	0.10	0.19	0.22	435	0.10	0.02	0.08	100	20	220	Peel		106F/14	This report	Jul-07	cuttings	902		
300K156600133000	Taylor Lake Y.T. K-15	588702	7311333	7320	7350	RE 6	70.8	0.09	0.20	0.32	0.23	434	0.26	0.03	0.23	77	0	88	Peel		106F/14	This report	Jul-07	cuttings	902		
300K156600133000	Taylor Lake Y.T. K-15	588702	7311333	7630	7660	RE 6	70.3	0.03	0.08	0.27	0.19	426	0.10	0.02	0.08	80	40	190	Mount Kindle		106F/14	This report	Jul-07	cuttings	902		
Peel River K-76																											
300K766630134000	Peel R.Y.T. K-76	534014	7367642	110	140	RE 6	70.4	0.11	0.84	0.12	0.58	432	1.18	0.12	1.06	71	31	49	Tuttle		106L/8	This report	Jul-07	cuttings	906		
300K766630134000	Peel R.Y.T. K-76	534014	7367642	430	460	RE 6	70.6	0.14	2.26	0.06	0.68	429	1.60	0.25	1.35	141	26	43	Tuttle		106L/8	This report	Jul-07	cuttings	906		
300K766630134000	Peel R.Y.T. K-76	534014	7367642	740	800	RE 6	70.2	0.14	1.35	0.09	0.90	432	1.34	0.18	1.16	101	47	67	Tuttle		106L/8	This report	Jul-07	cuttings	906		
300K766630134000	Peel R.Y.T. K-76	534014	7367642	1080	1120	RE 6	70.3	0.19	1.22	0.13	0.77	436	1.42	0.17	1.25	86	42	54	Tuttle		106L/8	This report	Jul-07	cuttings	906		
300K766630134000	Peel R.Y.T. K-76	534014	7367642	1350	1380	RE 6	70.8	0.20	1.00	0.17	0.74	435	1.68	0.15	1.53	60	33	44	Tuttle		106L/8	This report	Jul-07	cuttings	906		
300K766630134000	Peel R.Y.T. K-76	534014	7367642	1660	1690	RE 6	70.5	0.17	0.94	0.15	0.48	428	0.96	0.14	0.82	98	79	50	Tuttle		106L/8	This report	Jul-07	cuttings	906		
300K766630134000	Peel R.Y.T. K-76	534014	7367642	1950	1980	RE 6	70.1	0.10	0.70	0.12	0.79	438	0.91	0.14	0.77	77	109	87	Tuttle		106L/8	This report	Jul-07	cuttings	906		
300K766630134000	Peel R.Y.T. K-76	534014	7367642	2300	2330	RE 6	70.9	0.13	1.25	0.10	0.62	436	1.20	0.18	1.02	104	88	52	Tuttle		106L/8	This report	Jul-07	cuttings	906		
300K766630134000	Peel R.Y.T. K-76	534014	7367642	2670	2700	RE 6	70.2	0.14	1.11	0.11	0.45	438	1.12	0.16	0.96	99	79	40	Tuttle		106L/8	This report	Jul-07	cuttings	906		
300K766630134000	Peel R.Y.T. K-76	534014	7367642	3000	3030	RE 6	70.3	0.12	0.82	0.13	0.32	444	0.86	0.11	0.75	95	41	37	Imperial		106L/8	This report	Jul-07	cuttings	906		
300K766630134000	Peel R.Y.T. K-76	534014	7367642	3310	3340	RE 6	70.5	0.30	1.84	0.14	0.53	451	2.01	0.30	1.71	92	106	26	Imperial		106L/8	This report	Jul-07	cuttings	906		
300K766630134000	Peel R.Y.T. K-76	534014	7367642	3600	3630	RE 6	70.4	0.19	1.01	0.16	0.71	445	1.23	0.17	1.06	82	89	58	Imperial		106L/8	This report	Jul-07	cuttings	906		
300K766630134000	Peel R.Y.T. K-76	534014	7367642	3960	3990	RE 6	71.0	0.20	1.14	0.15	0.49	440	1.48	0.16	1.32	77	38	33	Imperial		106L/8	This report	Jul-07	cuttings	906		
300K766630134000	Peel R.Y.T. K-76	534014	7367642	4270	4300	RE 6	70.5	0.59	3.00	0.17	0.72	454	4.67	0.37	4.30	64	16	15	Imperial		106L/8	This report	Jul-07	cuttings	906		
300K766630134000	Peel R.Y.T. K-76	534014	7367642	4530	4550	RE 6	70.5	0.39	0.97	0.29	0.44	446	1.70	0.16	1.54	57	34	26	Imperial		106L/8	This report	Jul-07	cuttings	906		
Peel River L-01																											
300L016640134450	Peel R.Y.T. L-01	510101	7376857	780	820	RE 6	70.7	0.16	1.65	0.09	0.86	426	1.64	0.22	1.42	101	34	52	Arctic Red		106L/10	This report	Jul-07	cuttings	914		
300L016640134450	Peel R.Y.T. L-01	510101	7376857	1040	1080	RE 6	70.5	0.15	1.17	0.11	0.59	428	1.22	0.15	1.07	96	39	48	Arctic Red		106L/10	This report	Jul-07	cuttings	914		
300L016640134450	Peel R.Y.T. L-01	510101	7376857	1320	1360	RE 6	71.0	0.19	3.52	0.05	1.13	422	2.10	0.38	1.72	168	31	54	Arctic Red		106L/10	This report	Jul-07	cuttings	914		
300L016640134450	Peel R.Y.T. L-01	510101	7376857	1480	1520	RE 6	70.3	0.12	1.33	0.08	1.28	427	1.33	0.21	1.12	100	74	96	Arctic Red		106L/10	This report	Jul-07	cuttings	914		
300L016640134450	Peel R.Y.T. L-01	510101	7376857	1780	1820	RE 6	70.6	0.61	2.07	0.23	0.65	426	1.47	0.27	1.20	141	23	44	Arctic Red		106L/10	This report	Jul-07	cuttings	914		
300L016640134450	Peel R.Y.T. L-01	510101	7376857	2110	2140	RE 6	70.5	0.22	1.72	0.11	0.68	432	1.79	0.21	1.58	96	28	38	Martin House		106L/10	This report	Jul-07	cuttings	914		
300L016640134450	Peel R.Y.T. L-01	510101	7376857	2380	2410	RE 6	70.8	0.26	2.28	0.10	0.99	427	1.67	0.30	1.37	137	72	59	Tuttle		106L/10	This report	Jul-07	cuttings	914		
300L016640134450	Peel R.Y.T. L-01	510101	7376857	2680	2710	RE 6	70.1	0.31	2.74	0.10	1.05	428	1.67	0.34	1.33	164	75	63	Tuttle		106L/10	This report	Jul-07	cuttings	914		
300L016640134450	Peel R.Y.T. L-01	510101	7376857	2940	2970	RE 6	70.5	0.23	2.24	0.09	0.69	430	1.50	0.27	1.23	149	51	46	Tuttle		106L/10	This report	Jul-07	cuttings	914		
300L016640134450	Peel R.Y.T. L-01	510101	7376857	3330	3360	RE 6	70.8	0.19	1.54	0.11	0.52	431	1.29	0.18	1.11	119	26	40	Tuttle		106L/10	This report	Jul-07	cuttings	914		
300L016640134450	Peel R.Y.T. L-01	510101	7376857	3630	3660	RE 6	70.3	0.18	1.62	0.10	0.54	433	1.08	0.20	0.88	150	68	50	Tuttle		106L/10	This report	Jul-07	cuttings	914		
300L016640134450	Peel R.Y.T. L-01	510101	7376857	3990	4020	RE 6	70.2	0.23	1.83	0.11	0.66	432	1.23	0.26	0.97	149	118	54	Tuttle		106L/10	This report	Jul-07	cuttings	914		
300L016640134450	Peel R.Y.T. L-01	510101	7376857	4324		RE 6	70.3	0.16	2.05		0.21	439	1.65	0.22	1.43	124	28	13	Tuttle		106L/10	This report	Nov-06	core	914		
300L016640134450	Peel R.Y.T. L-01	510101	7376857	4720	4750	RE 6	70.1	0.42	2.96	0.12	0.50	437	2.10	0.35	1.75	141	47	24	Tuttle		106L/10	This report	Jul-07	cuttings	914		
300L016640134450	Peel R.Y.T. L-01	510101	7376857	5030		RE 6	70.8	0.18	1.24		0.28	446	1.33	0.15	1.18	93	24	21	Tuttle		106L/10	This report	Nov-06	core	914		
300L016640134450																											

Table 1. Summary of previously determined and new Rock-Eval /TOC results for all 18 wells sampled in the Peel region of the Yukon. Sample formation is based on formation tops identified in Fraser and Hogue, 2007. Parameters are described in the Laboratory Methods Section. Those results that have TOC < 0.3% and S2 < 0.2 are identified with either yellow highlighting (low TOC) or a red font (low S2 parameter), respectively, or both.

Unique Well Identifier (UWI)	Well Name	UTM Easting (NAD 83)	UTM Northing (NAD 83)	Sample Depth From (F)	Sample Depth To (F)	Equipment Type	Qty (g)	S1 (mg/g rock)	S2 (mg/g rock)	Production Index (S1+S2)	S3 (mg CO2/g rock)	Tmax (°C)	TOC (wt. %)	PC (wt. %)	RC (%)	Hydrogen Index (mg HC/g TOC)	Oxygen Index CO	Oxygen Index (mg CO2/g TOC)	Formation	GSC OFR 1944 Formation	NTS	Reference	Completed	Sample Type	Yukon WID		
								Peel River M-69																			
300M696610133450	Peel River Y.T. M-69	546663	7336990	120		RE 2		0.21	1.12		0.23	440	1.03						22	Arctic Red	Arctic Red	106K/4	Feinstein et al., 1988		cuttings	911	
300M696610133450	Peel River Y.T. M-69	546663	7336990	200	240	RE 6	70.7	0.07	0.88	0.07	0.45	436	1.11	0.11	1.00				41	Arctic Red	Arctic Red	106K/4	This report	Jul-07	cuttings	911	
300M696610133450	Peel River Y.T. M-69	546663	7336990	300		RE 2		0.18	0.98		0.26	438	0.94						27	Arctic Red	Arctic Red	106K/4	Feinstein et al., 1988		cuttings	911	
300M696610133450	Peel River Y.T. M-69	546663	7336990	370		RE 2		0.18	1.45		0.22	440	1.14						19	Arctic Red	Arctic Red	106K/4	Feinstein et al., 1988		cuttings	911	
300M696610133450	Peel River Y.T. M-69	546663	7336990	500	540	RE 6	70.0	0.19	1.00	0.16	0.42	434	1.17	0.12	1.05				36	Arctic Red	Arctic Red	106K/4	This report	Jul-07	cuttings	911	
300M696610133450	Peel River Y.T. M-69	546663	7336990	790	820	RE 6	71.1	0.24	1.86	0.11	0.69	436	1.40	0.21	1.19				49	Arctic Red	Arctic Red	106K/4	This report	Jul-07	cuttings	911	
300M696610133450	Peel River Y.T. M-69	546663	7336990	850		RE 2		0.26	1.51		0.53	441	1.29						41	Arctic Red	Arctic Red	106K/4	Feinstein et al., 1988		cuttings	911	
300M696610133450	Peel River Y.T. M-69	546663	7336990	1010		RE 2		0.23	1.7		0.2	439	1.3						15	Arctic Red	Arctic Red	106K/4	Feinstein et al., 1988		cuttings	911	
300M696610133450	Peel River Y.T. M-69	546663	7336990	1100	1130	RE 6	70.2	0.15	1.19	0.11	0.74	436	1.32	0.15	1.17				56	Arctic Red	Arctic Red	106K/4	This report	Jul-07	cuttings	911	
300M696610133450	Peel River Y.T. M-69	546663	7336990	1290		RE 2		0.2	1.06		0.26	445	1.1						23	Arctic Red	Arctic Red	106K/4	Feinstein et al., 1988		cuttings	911	
300M696610133450	Peel River Y.T. M-69	546663	7336990	1380	1410	RE 6	70.3	0.17	1.38	0.11	0.34	438	1.29	0.15	1.14				26	Arctic Red	Arctic Red	106K/4	This report	Jul-07	cuttings	911	
300M696610133450	Peel River Y.T. M-69	546663	7336990	1400		RE 2		0.24	1.21		0.22	445	1.16						18	Arctic Red	Arctic Red	106K/4	Feinstein et al., 1988		cuttings	911	
300M696610133450	Peel River Y.T. M-69	546663	7336990	1480		RE 2		0.3	1.24		0.7	442	1.24						56	Arctic Red	Arctic Red	106K/4	Feinstein et al., 1988		cuttings	911	
300M696610133450	Peel River Y.T. M-69	546663	7336990	1680	1720	RE 6	70.5	0.32	1.37	0.19	0.37	437	1.13	0.16	0.97				33	Martin House	Arctic Red	106K/4	This report	Jul-07	cuttings	911	
300M696610133450	Peel River Y.T. M-69	546663	7336990	1860		RE 2		0.68	2.75		0.29	447	1.56						18	Martin House	Arctic Red	106K/4	Feinstein et al., 1988		cuttings	911	
300M696610133450	Peel River Y.T. M-69	546663	7336990	1980	2010	RE 6	70.5	0.36	1.98	0.15	0.39	438	1.30	0.23	1.07				30	Martin House	Arctic Red	106K/4	This report	Jul-07	cuttings	911	
300M696610133450	Peel River Y.T. M-69	546663	7336990	2220		RE 2		0.71	2.11		0.73	447	1.57						46	Martin House	Arctic Red	106K/4	Feinstein et al., 1988		cuttings	911	
300M696610133450	Peel River Y.T. M-69	546663	7336990	2280	2310	RE 6	70.8	0.43	2.33	0.15	0.44	441	1.50	0.26	1.24				29	Martin House	Arctic Red	106K/4	This report	Jul-07	cuttings	911	
300M696610133450	Peel River Y.T. M-69	546663	7336990	2350		RE 2		0.54	1.96		0.69	449	1.37						50	Martin House	Arctic Red	106K/4	Feinstein et al., 1988		cuttings	911	
300M696610133450	Peel River Y.T. M-69	546663	7336990	2560		RE 2		0.38	0.95		1.51	452	1.25						120	Martin House	Arctic Red	106K/4	Feinstein et al., 1988		cuttings	911	
300M696610133450	Peel River Y.T. M-69	546663	7336990	2580	2610	RE 6	70.6	0.24	1.25	0.16	0.39	447	1.39	0.15	1.24				28	Martin House	Arctic Red	106K/4	This report	Jul-07	cuttings	911	
300M696610133450	Peel River Y.T. M-69	546663	7336990	2880	2910	RE 6	70.8	0.34	1.38	0.20	0.26	448	1.49	0.16	1.33				17	Martin House	Arctic Red	106K/4	This report	Jul-07	cuttings	911	
300M696610133450	Peel River Y.T. M-69	546663	7336990	2910		RE 2		0.33	1.01		0.28	454	1.2						23	Martin House	Martin House	106K/4	Feinstein et al., 1988		cuttings	911	
300M696610133450	Peel River Y.T. M-69	546663	7336990	2940		RE 2		0.36	0.94		0.19	458	1.41						13	Martin House	Martin House	106K/4	Feinstein et al., 1988		cuttings	911	
300M696610133450	Peel River Y.T. M-69	546663	7336990	3180		RE 2		0.41	1.2		0.78	454	1.49						52	Tuttle	Imperial	106K/4	Feinstein et al., 1988		cuttings	911	
300M696610133450	Peel River Y.T. M-69	546663	7336990	3190		RE 2		0.63	1.25		0.53	472	1.52						34	Tuttle	Imperial	106K/4	Feinstein et al., 1988		cuttings	911	
300M696610133450	Peel River Y.T. M-69	546663	7336990	3300	3330	RE 6	70.3	0.38	1.43	0.21	0.40	453	1.63	0.20	1.43				25	Tuttle	Imperial	106K/4	This report	Jul-07	cuttings	911	
300M696610133450	Peel River Y.T. M-69	546663	7336990	3520		RE 2		0.5	1.08		0.67	467	1.34						50	Tuttle	Imperial	106K/4	Feinstein et al., 1988		cuttings	911	
300M696610133450	Peel River Y.T. M-69	546663	7336990	3580	3610	RE 6	70.3	0.32	1.09	0.23	0.40	467	1.55	0.18	1.37				26	Tuttle	Imperial	106K/4	This report	Jul-07	cuttings	911	
300M696610133450	Peel River Y.T. M-69	546663	7336990	3700		RE 2		0.6	1.13		0.67	470	1.53						43	Tuttle	Imperial	106K/4	Feinstein et al., 1988		cuttings	911	
300M696610133450	Peel River Y.T. M-69	546663	7336990	3890	3920	RE 6	70.7	0.34	1.31	0.21	0.40	468	1.99	0.19	1.80				20	Tuttle	Imperial	106K/4	This report	Jul-07	cuttings	911	
300M696610133450	Peel River Y.T. M-69	546663	7336990	4180	4210	RE 6	70.9	0.42	1.50	0.22	0.44	472	2.18	0.21	1.97				20	Tuttle	Imperial	106K/4	This report	Jul-07	cuttings	911	
300M696610133450	Peel River Y.T. M-69	546663	7336990	4200		RE 2		0.68	1.37		0.91	474	1.83						49	Tuttle	Imperial	106K/4	Feinstein et al., 1988		cuttings	911	
300M696610133450	Peel River Y.T. M-69	546663	7336990	4380		RE 2		0.57	1.12		0.85	476	1.71						49	Tuttle	Imperial	106K/4	Feinstein et al., 1988		cuttings	911	
300M696610133450	Peel River Y.T. M-69	546663	7336990	4480	4510	RE 6	70.5	0.37	1.09	0.26	0.57	478	1.99	0.25	1.74				29	Tuttle	Imperial	106K/4	This report	Jul-07	cuttings	911	
300M696610133450	Peel River Y.T. M-69	546663	7336990	4640		RE 2		0.49	0.9		0.55	482	1.27						43	Tuttle	Imperial	106K/4	Feinstein et al., 1988		cuttings	911	
300M696610133450	Peel River Y.T. M-69	546663	7336990	4840	4870	RE 6	70.7	0.27	0.67	0.29	0.49	472	1.53	0.14	1.39				32	Tuttle	Imperial	106K/4	This report	Jul-07	cuttings	911	
300M696610133450	Peel River Y.T. M-69	546663	7336990	4860		RE 2		0.39	0.57		0.54	486	1.25						45	Tuttle	Imperial	106K/4	Feinstein et al., 1988		cuttings	911	
300M696610133450	Peel River Y.T. M-69	546663	7336990	5080	5110	RE 6	70.5	0.14	0.17	0.46	0.32	479	1.09	0.06	1.03	0.17	0.38	0.29	29	Imperial	Imperial	106K/4	This report	Jul-07	cuttings	911	
300M696610133450	Peel River Y.T. M-69	546663	7336990	5140		RE 2		0.25	0.37		0.47	504	1.13						41	Tuttle	Imperial	106K/4	Feinstein et al., 1988		cuttings	911	
300M696610133450	Peel River Y.T. M-69	546663	7336990	5390	5420	RE 6	70.5	0.15	0.42	0.27	0.36	494	1.10	0.08	1.02				38	45	Tuttle	Imperial	106K/4	This report	Jul-07	cuttings	911
300M696610133450	Peel River Y.T. M-69	546663	7336990	5400		RE 2		0.26	0.46		0.41	467	0.77						53	Tuttle	Imperial	106K/4	Feinstein et al., 1988		cuttings	911	
300M696610133450	Peel River Y.T. M-69	546663	7336990	5600		RE 2		0.32	0.75		0.54	454	1.12						48	Tuttle	Imperial	106K/4	Feinstein et al., 1988		cuttings	911	
300M696610133450	Peel River Y.T. M-69	546663	7336990	5780	5810	RE 6	70.2	0.30	0.61	0.33	0.48	512	2.40	0.12	2.28				25	27	Tuttle	Imperial	106K/4	This report	Jul-07	cuttings	911
300M696610133450	Peel River Y.T. M-69	546663	7336990	5790		RE 2		0.36	0.48		0.34	516															

Table 1. Summary of previously determined and new Rock-Eval /TOC results for all 18 wells sampled in the Peel region of the Yukon. Sample formation is based on formation tops identified in Fraser and Hogue, 2007. Parameters are described in the Laboratory Methods Section. Those results that have TOC < 0.3% and S2 < 0.2 are identified with either yellow highlighting (low TOC) or a red font (low S2 parameter), respectively, or both.

Unique Well Identifier (UWI)	Well Name	UTM Easting (NAD 83)	UTM Northing (NAD 83)	Sample Depth From (F)	Sample Depth To (F)	Equipment Type	Qty (g)	S1 (mg/g rock)	S2 (mg/g rock)	Production Index (S1+S2)	S3 (mg CO2/g rock)	Tmax (°C)	TOC (wt. %)	PC (wt. %)	RC (%)	Hydrogen Index (mg HC/g TOC)	Oxygen Index CO	Oxygen Index (mg CO2/g TOC)	Formation	GSC OFR 1944 Formation	NTS	Reference	Completed	Sample Type	Yukon WID	
300N256620134450	Caribou Y.T. N-25	507812	7347570	1050		RE 2		0.91	4.51		0.73	445	1.44				313	50	Imperial	Imperial	106L/2	Feinstein et al., 1988		cuttings	884	
300N256620134450	Caribou Y.T. N-25	507812	7347570	1410	1430	RE 6	71.1	0.53	2.51	0.18	0.24	442	1.35	0.28	1.07		186	18	Imperial	Imperial	106L/2	This report	Jul-07	cuttings	884	
300N256620134450	Caribou Y.T. N-25	507812	7347570	1470		RE 2		1.12	3.67		0.8	447	1.78				206	44	Imperial	Imperial	106L/2	Feinstein et al., 1988		cuttings	884	
300N256620134450	Caribou Y.T. N-25	507812	7347570	1600		RE 2		0.61	0.37		0.21	521	3.42				10	6	Imperial	Imperial	106L/2	Feinstein et al., 1988		cuttings	884	
300N256620134450	Caribou Y.T. N-25	507812	7347570	1630	1660	RE 6	70.7	0.33	1.16	0.22	0.24	443	0.88	0.14	0.74		132	17	Imperial	Imperial	106L/2	This report	Jul-07	cuttings	884	
300N256620134450	Caribou Y.T. N-25	507812	7347570	1700		RE 2		0.44	0.13		0.18	458	2.46				5	7	Imperial	Imperial	106L/2	Feinstein et al., 1988		cuttings	884	
300N256620134450	Caribou Y.T. N-25	507812	7347570	1770		RE 2		0.17	0.34		0.27	448	0.59				57	45	Imperial	Imperial	106L/2	Feinstein et al., 1988		cuttings	884	
300N256620134450	Caribou Y.T. N-25	507812	7347570	1890		RE 2		0.56	0.43		0.16	522	3.43				12	4	Imperial	Imperial	106L/2	Feinstein et al., 1988		cuttings	884	
300N256620134450	Caribou Y.T. N-25	507812	7347570	1890		RE 6	69.8	0.71	0.6		0.22	579	3.78	0.12	3.66		17	5	Imperial	Imperial	106L/2	2007: Rock Eval DB	01/06/2005	cuttings	884	
300N256620134450	Caribou Y.T. N-25	507812	7347570	1930	1960	RE 6	70.3	0.23	0.65	0.26	0.17	447	0.66	0.08	0.58		98	11	Imperial	Imperial	106L/2	This report	Jul-07	cuttings	884	
300N256620134450	Caribou Y.T. N-25	507812	7347570	2100		RE 2		0.25	0.43		0.24	452	0.57				75	42	Imperial	Imperial	106L/2	Feinstein et al., 1988		cuttings	884	
300N256620134450	Caribou Y.T. N-25	507812	7347570	2230	2260	RE 6	70.2	0.24	0.53	0.31	0.26	448	0.58	0.08	0.50		91	3	Imperial	Imperial	106L/2	This report	Jul-07	cuttings	884	
300N256620134450	Caribou Y.T. N-25	507812	7347570	2410	2440	RE 6	70.8	0.23	0.53	0.30	0.33	450	0.63	0.11	0.52		84	106	Imperial	Imperial	106L/2	This report	Jul-07	cuttings	884	
300N256620134450	Caribou Y.T. N-25	507812	7347570	2500		RE 2		0.18	0.37		0.36	454	0.5				74	72	Imperial	Imperial	106L/2	Feinstein et al., 1988		cuttings	884	
300N256620134450	Caribou Y.T. N-25	507812	7347570	2730	2750	RE 6	70.1	0.27	0.85	0.24	0.21	450	0.97	0.11	0.86		88	12	Imperial	Imperial	106L/2	This report	Jul-07	cuttings	884	
300N256620134450	Caribou Y.T. N-25	507812	7347570	2900		RE 2		0.43	0.85		0.19	452	0.89				95	21	Imperial	Imperial	106L/2	Feinstein et al., 1988		cuttings	884	
300N256620134450	Caribou Y.T. N-25	507812	7347570	3020	3050	RE 6	70.6	0.36	1.08	0.25	0.17	454	1.25	0.13	1.12		86	2	Imperial	Imperial	106L/2	This report	Jul-07	cuttings	884	
300N256620134450	Caribou Y.T. N-25	507812	7347570	3390		RE 2		0.25	0.55		0.18	468	0.83				66	21	Imperial	Imperial	106L/2	Feinstein et al., 1988		cuttings	884	
300N256620134450	Caribou Y.T. N-25	507812	7347570	3430	3460	RE 6	70.5	0.27	0.82	0.25	0.52	469	1.05	0.17	0.88		78	131	Imperial	Imperial	106L/2	This report	Jul-07	cuttings	884	
300N256620134450	Caribou Y.T. N-25	507812	7347570	3680		RE 2		0.22	0.43		0.14	467	0.93				46	15	Imperial	Imperial	106L/2	Feinstein et al., 1988		cuttings	884	
300N256620134450	Caribou Y.T. N-25	507812	7347570	3700	3720	RE 6	70.7	0.27	0.64	0.29	0.23	454	1.25	0.09	1.16		51	8	Imperial	Imperial	106L/2	This report	Jul-07	cuttings	884	
300N256620134450	Caribou Y.T. N-25	507812	7347570	4160	4190	RE 6	70.3	0.26	0.57	0.31	0.26	462	1.13	0.09	1.04		50	28	Imperial	Imperial	106L/2	This report	Jul-07	cuttings	884	
300N256620134450	Caribou Y.T. N-25	507812	7347570	4180		RE 2		0.32	0.39		0.19	478	1.05				37	18	Imperial	Imperial	106L/2	Feinstein et al., 1988		cuttings	884	
300N256620134450	Caribou Y.T. N-25	507812	7347570	4450	4480	RE 6	70.0	0.14	0.40	0.26	0.26	485	0.75	0.07	0.68		53	44	Imperial	Imperial	106L/2	This report	Jul-07	cuttings	884	
300N256620134450	Caribou Y.T. N-25	507812	7347570	4530		RE 2		0.14	0.16		0.19	503	0.78				20	24	Canol	Canol	106L/2	Feinstein et al., 1988		cuttings	884	
300N256620134450	Caribou Y.T. N-25	507812	7347570	4530		RE 6	69.9	0.21	0.18		0.3	487	1.23	0.03	1.2		15	2	Canol	Canol	106L/2	2007: Rock Eval DB	01/06/2005	cuttings	884	
300N256620134450	Caribou Y.T. N-25	507812	7347570	4570		RE 2		0.45	0.16		0.25	502	2.92				5	8	Canol	Canol	106L/2	Feinstein et al., 1988		cuttings	884	
300N256620134450	Caribou Y.T. N-25	507812	7347570	4600		RE 2		0.61	0.37		0.21	521	3.42				10	6	Canol	Canol	106L/2	Feinstein et al., 1988		cuttings	884	
300N256620134450	Caribou Y.T. N-25	507812	7347570	4600		RE 6	70.6	0.62	0.45		0.33	592	3.09	0.1	2.99		16	10	Prongs Creek	Canol	106L/2	2007: Rock Eval DB	01/06/2005	cuttings	884	
300N256620134450	Caribou Y.T. N-25	507812	7347570	4700		RE 2		0.44	0.13		0.18	458	2.46				5	7	Canol	Canol	106L/2	Feinstein et al., 1988		cuttings	884	
300N256620134450	Caribou Y.T. N-25	507812	7347570	4700		RE 6	71.2	0.56	0.25		0.25	460	2.8	0.07	2.73		9	5	Prongs Creek	Canol	106L/2	2007: Rock Eval DB	01/06/2005	cuttings	884	
300N256620134450	Caribou Y.T. N-25	507812	7347570	4800		RE 2		0.76	0.64		0.17	527	4.11				15	4	Canol	Canol	106L/2	Feinstein et al., 1988		cuttings	884	
300N256620134450	Caribou Y.T. N-25	507812	7347570	4800		RE 6	70	0.91	0.79		0.24	504	4	0.15	3.85		21	3	Prongs Creek	Canol	106L/2	2007: Rock Eval DB	01/06/2005	cuttings	884	
300N256620134450	Caribou Y.T. N-25	507812	7347570	4890		RE 2		0.56	0.43		0.16	522	3.43				12	4	Canol	Canol	106L/2	Feinstein et al., 1988		cuttings	884	
300N256620134450	Caribou Y.T. N-25	507812	7347570	5000		RE 2		0.44	0.54		0.16	478	3.82				14	4	Canol	Canol	106L/2	Feinstein et al., 1988		cuttings	884	
300N256620134450	Caribou Y.T. N-25	507812	7347570	5000		RE 6	70.1	1.03	0.7	0.22	0.503	3.7	0.15	3.55		20	2	6	Prongs Creek	Canol	106L/2	2007: Rock Eval DB	01/06/2005	cuttings	884	
300N256620134450	Caribou Y.T. N-25	507812	7347570	5100		RE 2		0.51	0.42		0.2	462	2.42				17	8	Canol	Canol	106L/2	Feinstein et al., 1988		cuttings	884	
300N256620134450	Caribou Y.T. N-25	507812	7347570	5100		RE 6	70.3	0.53	0.55		0.17	579	2.52	0.1	2.42		23	6	7	Prongs Creek	Canol	106L/2	2007: Rock Eval DB	01/06/2005	cuttings	884
300N256620134450	Caribou Y.T. N-25	507812	7347570	5200		RE 2		0.57	0.56		0.13	530	3.07				18	4	Road River	Canol	106L/2	Feinstein et al., 1988		cuttings	884	
300N256620134450	Caribou Y.T. N-25	507812	7347570	5300		RE 2		0.37	0.36		0.2	459	2.07				17	9	Road River	Road River	106L/2	Feinstein et al., 1988		cuttings	884	
300N256620134450	Caribou Y.T. N-25	507812	7347570	5300		RE 6	70.8	0.49	0.36		0.26	474	2.17	0.08	2.09		18	4	12	Road River	Road River	106L/2	2007: Rock Eval DB	01/06/2005	cuttings	884
300N256620134450	Caribou Y.T. N-25	507812	7347570	5600		RE 2		0.15	0.13		0.14	391	0.66				19	21	Road River	Road River	106L/2	Feinstein et al., 1988		cuttings	884	
300N256620134450	Caribou Y.T. N-25	507812	7347570	5600		RE 6	70.5	0.17	0.16		0.2	575	0.65	0.03	0.62		26	2	31	Road River	Road River	106L/2	2007: Rock Eval DB	01/06/2005	cuttings	884
300N256620134450	Caribou Y.T. N-25	507812	7347570	5883		RE 2		0.03	0.01		0.09	305	0.15				6	60	Road River	Road River	106L/2	Feinstein et al., 1988		cuttings	884	
300N256620134450	Caribou Y.T. N-25	507812	7347570	5883		RE 6	70.1	0.03	0.03		0.16	336	0.16	0.01	0.15		19	69	100	Road River	Road River	106L/2	2007: Rock Eval DB	01/06/2005	cuttings	884
300N256620134450	Caribou Y.T. N-25	507812	7347570	5940		RE 2		0.01	0		0.18	0	0.14				0	128	Road River							

Table 2. Rock-Eval/TOC interpretative guidelines (modified from Peters et al., 2005).
For details on parameters see Laboratory Methods section.

Source rock generative potential			
Quality	Total Organic Carbon (wt.%)	S1 (mg HC/g rock)	S2 (mg HC/g rock)
poor	<0.5	<0.5	<2.5
fair	0.5-1	0.5-1	2.5-5
good	1-2	1-2	5-10
very good	2-4	2-4	10-20
excellent	>4	>4	>20
Type of hydrocarbon generated			
Kerogen	Hydrogen Index (mg HC/g TOC)	S2/S3	Main product at peak maturity
I	>600	>15	oil
II	300-600	10-15	oil
II/III	200-300	5-10	oil/gas
III	50-200	1-5	gas
IV	<50	<1	none
Level of thermal maturation			
Maturation	Tmax (°C)	Ro(%)	
Immature	<435	0.20-0.60	
top of oil window	~435-445*	0.60-0.65	
bottom of oil window	~470	1.35	
Postmature	>470	>1.35	
*varies with type of organic matter			

Table 3. Summary of previously determined vitrinite reflectance data. See Table 2 for well locations. Sample formation is based on formation tops identified in Fraser and Hogue, 2007. Geochem Labs Canada Ltd., 1977 = Geochem Laboratories Canada Ltd. and Applied Geoscience and Technology (AGAT) Consultants Ltd. 1977. Lower Mackenzie Energy Corridor Study. Canadian Oil and Gas Lands Administration File Number 051-04-06-001.

Unique Well Identifier (UWI)	Well Name	Depth (F)	VRo%	Mean Reflectance (%)	VRo% Equivalent	Formation	Source Type	Reference	Tmax (°C) Calculated
300A426550133000	Cranswick Y.T. A-42	500	0.61			Arctic Red	cuttings	Geochem Labs Canada Ltd., 1977; Feinstein et al., 1988	432
300A426550133000	Cranswick Y.T. A-42	2500	1.15			Arctic Red	cuttings	Geochem Labs Canada Ltd., 1977	462
300A426550133000	Cranswick Y.T. A-42	2500	1.12			Martin House	cuttings	Feinstein et al., 1988	460
300A426550133000	Cranswick Y.T. A-42	3800	1.92			Tuttle	cuttings	Geochem Labs Canada Ltd., 1977	504
300A426550133000	Cranswick Y.T. A-42	4200	2.14			Tuttle	cuttings	Geochem Labs Canada Ltd., 1977	517
300A426550133000	Cranswick Y.T. A-42	4900	2.13			Tuttle	cuttings	Geochem Labs Canada Ltd., 1977	516
300A426550133000	Cranswick Y.T. A-42	6100	2.45			Tuttle	cuttings	Geochem Labs Canada Ltd., 1977	534
300A426550133000	Cranswick Y.T. A-42	7000	2.97			Canol	cuttings	Geochem Labs Canada Ltd., 1977	563
300A426550133000	Cranswick Y.T. A-42	7000	1.92			Canol	cuttings	Feinstein et al., 1988	504
300A426550133000	Cranswick Y.T. A-42	7080	2.15			Canol	cuttings	Feinstein et al., 1988	517
300N256620134450	Caribou Y.T. N-25	480	0.49			Tuttle	cuttings	Feinstein et al., 1988	425
300N256620134450	Caribou Y.T. N-25	500	0.66			Tuttle	cuttings	Geochem Labs Canada Ltd., 1977	434
300N256620134450	Caribou Y.T. N-25	500	0.57			Tuttle	cuttings	Feinstein et al., 1988	429
300N256620134450	Caribou Y.T. N-25	700	0.50			Imperial	cuttings	Feinstein et al., 1988	426
300N256620134450	Caribou Y.T. N-25	900	0.53			Imperial	cuttings	Feinstein et al., 1988	427
300N256620134450	Caribou Y.T. N-25	1050	0.56			Imperial	cuttings	Feinstein et al., 1988	429
300N256620134450	Caribou Y.T. N-25	1470	0.59			Imperial	cuttings	Feinstein et al., 1988	431
300N256620134450	Caribou Y.T. N-25	1500	0.65			Imperial	cuttings	Geochem Labs Canada Ltd., 1977	434
300N256620134450	Caribou Y.T. N-25	1500	0.60			Imperial	cuttings	Feinstein et al., 1988	431
300N256620134450	Caribou Y.T. N-25	1770	0.58			Imperial	cuttings	Feinstein et al., 1988	430
300N256620134450	Caribou Y.T. N-25	2100	0.61			Imperial	cuttings	Feinstein et al., 1988	432
300N256620134450	Caribou Y.T. N-25	2500	0.72			Imperial	cuttings	Feinstein et al., 1988	438
300N256620134450	Caribou Y.T. N-25	2900	0.73			Imperial	cuttings	Feinstein et al., 1988	438
300N256620134450	Caribou Y.T. N-25	3390	1.00	1.26	1.18	Imperial	cuttings	Feinstein et al., 1988	453
300N256620134450	Caribou Y.T. N-25	3500	1.40			Imperial	cuttings	Geochem Labs Canada Ltd., 1977; Feinstein et al., 1988	476
300N256620134450	Caribou Y.T. N-25	3680	1.10	1.31	1.21	Imperial	cuttings	Feinstein et al., 1988	459
300N256620134450	Caribou Y.T. N-25	4100	1.65			Imperial	cuttings	Geochem Labs Canada Ltd., 1977; Feinstein et al., 1988	489
300N256620134450	Caribou Y.T. N-25	4180	1.19	1.35	1.23	Imperial	cuttings	Feinstein et al., 1988	464
300N256620134450	Caribou Y.T. N-25	4570	1.30			Imperial	cuttings	Feinstein et al., 1988	470
300N256620134450	Caribou Y.T. N-25	4800	1.22			Imperial	cuttings	Geochem Labs Canada Ltd., 1977	466
300N256620134450	Caribou Y.T. N-25	4890	1.56			Road River (Hume eq.)	cuttings	Feinstein et al., 1988	484
300N256620134450	Caribou Y.T. N-25	5200	1.45			Road River (Hume eq.)	cuttings	Geochem Labs Canada Ltd., 1977	478
300N256620134450	Caribou Y.T. N-25	5200	1.69			Road River (Hume eq.)	cuttings	Feinstein et al., 1988	492
300N256620134450	Caribou Y.T. N-25	5600	1.69			Road River (Landry eq.)	cuttings	Feinstein et al., 1988	492
300N256620134450	Caribou Y.T. N-25	5883	1.68			Road River (Landry eq.)	cuttings	Feinstein et al., 1988	491
300N256620134450	Caribou Y.T. N-25	6600		1.13	1.00	Road River (Landry eq.)	cuttings	Feinstein et al., 1988	
300N256620134450	Caribou Y.T. N-25	7200	1.91			Road River (Landry eq.)	cuttings	Feinstein et al., 1988	504

Table 3. Summary of previously determined vitrinite reflectance data. See Table 2 for well locations. Sample formation is based on formation tops identified in Fraser and Hogue, 2007. Geochem Labs Canada Ltd., 1977 = Geochem Laboratories Canada Ltd. and Applied Geoscience and Technology (AGAT) Consultants Ltd. 1977. Lower Mackenzie Energy Corridor Study. Canadian Oil and Gas Lands Administration File Number 051-04-06-001.

Unique Well Identifier (UWI)	Well Name	Depth (F)	VRo%	Mean Reflectance (%)	VRo% Equivalent	Formation	Source Type	Reference	Tmax (°C) Calculated
300N256620134450	Caribou Y.T. N-25	7900	2.03	2.38	1.87	Road River (Landry eq.)	cuttings	Feinstein et al., 1988	511
300N256620134450	Caribou Y.T. N-25	8000	2.41			Road River (Landry eq.)	cuttings	Geochem Labs Canada Ltd., 1977	532
300N256620134450	Caribou Y.T. N-25	8600	2.02	2.52	1.96	Mount Kindle	cuttings	Feinstein et al., 1988	510
300N256620134450	Caribou Y.T. N-25	8700	2.50			Mount Kindle	cuttings	Geochem Labs Canada Ltd., 1977	537
300N256620134450	Caribou Y.T. N-25	9200		2.85	2.16	Franklin Mountain	cuttings	Feinstein et al., 1988	
300N256620134450	Caribou Y.T. N-25	9600		2.94	2.22	Franklin Mountain	cuttings	Feinstein et al., 1988	
300N256620134450	Caribou Y.T. N-25	10200	2.54			Franklin Mountain	cuttings	Geochem Labs Canada Ltd., 1977	539
300N256620134450	Caribou Y.T. N-25	11000		3.63	2.64	Franklin Mountain	cuttings	Feinstein et al., 1988	
300N256620134450	Caribou Y.T. N-25	11000		3.01	2.26	Franklin Mountain	cuttings	Feinstein et al., 1988	
300K156600133000	Taylor Lake Y.T. K-15	4330	1.27			Canol	cuttings	Feinstein et al., 1988	468
300K156600133000	Taylor Lake Y.T. K-15	4450	1.42			Canol	cuttings	Feinstein et al., 1988	477
300F376700134450	Peel Y.T. F-37	300	0.55			Cretaceous	cuttings	Geochem Labs Canada Ltd., 1977; Feinstein et al., 1988	428
300F376700134450	Peel Y.T. F-37	1500	0.61			Tuttle	cuttings	Geochem Labs Canada Ltd., 1977; Feinstein et al., 1988	432
300F376700134450	Peel Y.T. F-37	3000	0.63			Tuttle	cuttings	Geochem Labs Canada Ltd., 1977; Feinstein et al., 1988	433
300F376700134450	Peel Y.T. F-37	4600	0.84			Imperial	cuttings	Geochem Labs Canada Ltd., 1977; Feinstein et al., 1988	444
300F376700134450	Peel Y.T. F-37	4600	0.82			Imperial	cuttings	Feinstein et al., 1988	443
300F376700134450	Peel Y.T. F-37	6200	1.31			Imperial	cuttings	Geochem Labs Canada Ltd., 1977; Feinstein et al., 1988	471
300F376700134450	Peel Y.T. F-37	7500	1.48			Canol	cuttings	Geochem Labs Canada Ltd., 1977	480
300M696610133450	Peel River Y.T. M-69	7540	3.37			Canol	cuttings	Feinstein et al., 1988	585
300H376640134450	Trail River Y.T. H-37	8880	1.87			Hume	cuttings	Feinstein et al., 1988	502
300C606650133450	Arctic Red Y.T. C-60	5400	1.12			Canol	cuttings	Feinstein et al., 1988	460
300C606650133450	Arctic Red Y.T. C-60	5480	1.18			Canol	cuttings	Feinstein et al., 1988	463