COAL AND PETROLEUM PRODUCTS COMMISSION
(BRITISH COLUMBIA)

Volume I.

Report of the Commissioner

The Honourable Mr. Justice M. A. Macdonald

relating to

The Petroleum Industry

(Being Paragraph 2 and part of Paragraph 3 of the Terms of the Commission)

October 21st, 1936

VICTORIA, B.C.:
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To His Honour the Lieutenant-Governor in Council:

MAY IT PLEASE YOUR HONOUR:

I, the undersigned Commissioner appointed under Your Honour's Royal Commission dated the 28th day of November, A.D. 1934, to cause inquiry to be made into and concerning the matters therein referred to, have the honour to report finally on the subjects referred to in Paragraph 2 thereof, with additional incidental references arising thereout more strictly referable to Paragraph 3.

In due course a further final Report will be submitted on the matters referred to in Paragraphs 1 and 3 respectively of Your Honour's Commission.

I have the honour to be,
Sir,
Your humble and obedient servant,

M. A. MACDONALD,
Commissioner.

Victoria, B.C., October 21st, 1936.

"PUBLIC INQUIRIES ACT."

His Honour the Lieutenant-Governor in Council has been pleased to appoint the Honourable Mr. Justice M. A. MACDONALD, one of His Majesty's Justices of Appeal of British Columbia, a sole Commissioner under the "Public Inquiries Act" to inquire into the following matters:—

1. The following matters respecting coal mined in or imported into British Columbia and used for fuel purposes in British Columbia:—

(*a.*) The cost of production:
(*b.*) The manner and cost of preparation for the wholesale and retail trades respectively:
(*c.*) The cost of transportation:
(*d.*) The cost to dealers in British Columbia:
(*e.*) The cost to consumers in British Columbia:
(*f.*) The profits made by persons or corporations owning or operating coal-mines in British Columbia:
(*g.*) The profits made by persons or corporations engaged in the business of buying and selling coal in British Columbia.

2. The following matters respecting petroleum products, that is to say, gasoline, fuel-oil, lubricating-oil, kerosene, and other petroleum products imported into or refined or produced in British Columbia and used or designed for use therein for fuel purposes, lighting purposes, or in the operation of internal-combustion engines:—

(*a.*) The cost of importation or production:
(*b.*) The cost of refining or preparation for use:
(*c.*) The cost of transportation:
(*d.*) The cost to dealers in British Columbia:
(*e.*) The cost to consumers in British Columbia:
(*f.*) The profits made by persons or corporations engaged in the importation of petroleum products into British Columbia, or in refining, producing, or supplying petroleum products for use in British Columbia.

3. Generally, all matters tending to show the comparative value of coal and petroleum products for economic use as aforesaid in British Columbia, and the value to the economic welfare of British Columbia of the development of industry based upon the production of the fuels enumerated, or tending to show whether or not the prices charged for coal and petroleum products respectively are unjust or unreasonable; and all such further matters as the Commissioner may consider to be incidental to any of the foregoing matters of inquiry.

A. W. GRAY,
Acting Provincial Secretary.

Provincial Secretary's Office,
November 29th, 1934.

PREFACE.

This volume is confined to a final report on questions outlined in Paragraph 2 of the Commission relating to oil and petroleum products, except that incidentally and for convenience as occasion arose in discussing specific topics deductions were drawn and conclusions stated more strictly referable to Paragraph 3. The Terms of the Commission will be found on the preceding page.

To me the task was assigned with expert assistance to find, *inter alia*, the cost of production of a large variety of petroleum products in use in British Columbia, naming some of them specifically in the order of their importance—viz., gasoline, fuel-oil, lubricating-oil, kerosene, and other petroleum products. It was necessary to ascertain among other things: (1) If each product is carrying its own proper load of costs without shifting it to other products and to another class of consumers; (2) if these products are manufactured and distributed at a reasonable profit or at a loss; (3) if a fair relation is maintained between cost and selling prices; and (4) if the costs of production and of wholesale and retail marketing and distribution are unreasonably high.

Resolutions passed by public bodies (and filed as exhibits) disclosed the view, without definite data to support it, that users of gasoline in British Columbia were paying too much for that product. It was also felt that fuel-oil produced from imported crude in competition with coal produced at home was sold at uneconomic prices, with losses, if any, recouped by higher selling prices for gasoline. The Oil Companies have two major products—namely, gasoline and heavy fuel-oil for sale, the latter competing with or displacing coal. They might, therefore, by charging excessive prices for gasoline, sell fuel-oil either at a loss or at such a price as to constitute unfair competition with coal. It would follow, too, that if sold at a loss, or at an uneconomic price, the large body of consumers of gasoline throughout the Province would, if excessive prices for that commodity were exacted, be virtually paying a bonus to industries using heavy fuel-oil.

It was therefore important, if the inquiry was to be of any value, to obtain the actual costs of production of the different petroleum products, more particularly the two major products—gasoline and heavy fuel-oil. It was not expected that these costs would be secured with minute scientific accuracy, but rather with reasonable certainty. Although it is not possible to say with exactitude what percentage, for example, of executive overhead, to take one illustration only, should be assigned to the separate products produced from crude, yet substantially accurate costs can be obtained and ought to have been produced.

It was found that real costs were not presented. The financial statements produced were at first thought to contain actual costs, but it was found on further study that they could not be accepted as such. A bookkeeping system is followed by the Oil Companies known as the Sales Realization method, wherein *the selling price of products* is taken as the basic factor in ascertaining the costs of each individual product. It seemed to me—and I so stated at the outset when this method was first advanced—that it appeared to be an illusory system of cost accounting, but I preserved an open mind on the subject. After further consideration, however, that view was adhered to. The Tariff Board of Canada, in an inquiry conducted this year of similar import in so far as the need of obtaining basic costs were concerned, and in which they had for their consideration as part of its record the evidence taken in this Inquiry (Mr. O'Halloran, Chief Counsel, acting on behalf of the Provincial Government before the Board), refused for their purposes to accept this method of ascertaining costs of individual products.

If we had accepted the Sales Realization method it would have been better to close the inquiry at that point and to report accordingly, because under such a system high prices could be justified irrespective of the real costs. By this method costs fluctuate with changing realized prices. If, for example, the retail price of gasoline to the consumer should be increased, the cost of its production would also be increased (in the books only), keeping the selling price virtually in the same relation to costs as before the advance. And yet the real costs of production might not be changed at all. A House of Commons Committee in 1932, inquiring into gasoline prices and accepting their auditor's report, which was based on Sales Realization, reported to Parliament that "the price of gasoline to the Canadian consumer is not unreasonably high." In my opinion, if I may say so with the greatest respect, that

conclusion was erroneous because their auditor's report was based on the method of bookkeeping referred to.

This Sales Realization method was rejected, therefore, for reasons fully disclosed in Chapter I. as useless for the purpose of this inquiry. It was then necessary to resort to other methods to ascertain indirectly and with reasonable accuracy costs not revealed directly by the company methods. In doing so the expenditure of a large amount of time and labour (and, I fear, expense) was unavoidable. A reason, it was said, accurate costs of separate products could not otherwise be obtained (and that therefore the Sales Realization method had to be used) was because of multiplicity of products produced from crude oil. The fact is that with the Imperial Oil Company, and to a greater degree with the Shell, the two main products from British Columbia refineries—namely, gasoline and fuel-oils—comprise 97.07 per cent. of the whole output volume.

Having, therefore (because of this impasse), resorted to other methods to find production and other costs with reasonable accuracy, it was felt to be fair, instead of contenting ourselves with stating conclusions without supporting data, to fully set out each successive step taken with detailed evidence and full reasons for conclusions, as the basis for, and a background to, the compilation of tables of costs finally prepared and found in Chapter XII. In this way, one who cares to study in detail (and intensive study is necessary) the facts presented in this report will be in a position to criticize or support it wholly or in part. It was also felt that, in addition to stating clearly the basis for conclusions, the amount of research undertaken with the help of many advisers might be useful in the future if fully recorded. For this and other reasons complete references in the greatest details will be found in the evidence and the exhibits filed upon which conclusions are founded.

Because of the facts stated—namely, absence of actual costs and the necessity of resorting to indirect methods—this branch of the inquiry was necessarily greatly prolonged and involved the expenditure of a considerable sum of public money. It was essential in an investigation of this nature, with ramifications that could not be foreseen, but which when disclosed had to be followed, that I should have the assistance not only of competent counsel (and I was most fortunate in that respect), but also of chartered accountants, chemical, combustion and other engineers, as well as others technically qualified throughout the whole course of the inquiry. It was necessary to have this technical assistance at hand constantly and to employ others for special work. I also thought it necessary and advisable to have chartered accountants carefully scan and check all the figures and the numerous tables set out in this report. This work occupied many weeks. These figures and tables, therefore, have been authenticated by chartered accountants and appear in the form now submitted with their approval. I would not take the responsibility of signing a report without this close scrutiny of tables of basic value in reaching conclusions upon which the chief value of the report depends. With their assistance, coupled with the advice and direction of chemical engineers, not on a few problems but on all relevant points, and with the invaluable assistance of Mr. O'Halloran, to whom I am greatly indebted for painstaking care and detailed assistance of the highest value, I feel that I may commend the report with confidence; without it I would not do so. I do not suggest that it is wholly free from error. Error is possible where so wide a range of inquiry is undertaken in respect to highly technical subjects. There was difficulty, persisting throughout, in defining terms with precision to assure that the same meaning was given to the subject-matter under discussion by the witness and the questioner. I am convinced, however, that on all fundamental questions of a basic nature from which conclusions are drawn and findings made the report is as free from error as close study and attention to details could make it, aided as we were by technical advisers on each conclusion arrived at. I do not say that the views of advisers were accepted in all cases. I thought it necessary, where differences of opinion arose among technical advisers, to call in other professional assistance, and having secured their views formed my own final conclusion.

All these features necessarily added to the cost, already considerable, from the ordinary and usual outlay for stenographic, legal, and chartered accountants' assistance. It was my duty to control the scope of the inquiry and also to see that the investigation was thorough and exhaustive having in view the terms of the Commission. Any inquiry less thorough would be useless and misleading. The report discloses that consumers have been paying excessive prices for gasoline notwithstanding that by reason of water transportation and proximity to

crude-oil resources it should be cheaper in British Columbia than elsewhere in Canada. These prices ought to be reduced to the point outlined in the Report, and if so, based on the 1934 consumption and the 29 cent per gallon price prevailing when this Commission was issued a saving of $4,672,816.00 annually would be effected. Handicaps suffered by fruit-growers and fishermen as revealed in the report in the payment of excessive gasoline prices in relation to their competitors should be removed. Large fuel-oil gallonage differences referred to in the report reveal, certainly the possibility, if not (as it would appear) the actual fact, of serious losses of Provincial revenue in the collection of the fuel-oil tax and substantial loss of Federal revenue in Customs duties. By exempting legislation passed in 1932 (chapter 51, B.C. Statutes) railways do not pay the ½ cent fuel-oil tax on consumption in locomotives within the Province. This involves an apparent loss of revenue of $194,295.79. Benefits should also accrue to the coal industry and to consumers of gasoline if heavy fuel-oil is made to carry its own burden of costs. Every tub should stand on its own bottom. In these and other directions savings may be effected, local industries assisted, further revenues obtained, and additional purchasing power left in the hands of consumers of gasoline.

A great mass of material filed as exhibits in the form of contracts and statements was submitted and tentatively received as confidential. I stated on several occasions that, if it became necessary to refer in the report to these documents and exhibits to properly carry out the Terms of the Commission, I would do so. With the rejection of the Sales Realization method, no alternative remained except to use all the evidence before us, including the exhibits referred to. However, wherever practicable, statements and contracts are used as data, not in their entirety but in such a form (i.e., taking extracts therefrom) that the full tenor thereof is not necessarily exposed to the scrutiny of others. It must, of course, be remembered that this and similar investigations are carried on under a "Public Inquiries Act," not a Private Inquiries Act. However, due to the methods of cost accounting by the companies (Sales Realization) and the paramount necessity of carrying out the Terms of the Commission, it was impossible to avoid use of this material to the extent disclosed in the report. It does not follow that these exhibits deposited with the Government will be open to the inspection of all who may wish to examine them.

I am greatly indebted to the following for assistance in this inquiry:—

Dr. W. A. Carrothers, Chairman, Economic Council, as Economic Adviser; Kenneth Moodie, Combustion Engineer, Provincial Department of Public Works; W. F. Seyer, Associate Professor of Chemistry, University of British Columbia; R. R. West, Lecturer in Mechanical Engineering, University of British Columbia; J. P. Hogg, Associate Counsel to the Commission; G. F. Gyles, C.A., of Messrs. Price, Waterhouse & Company, and staff; J. H. Young, C.A.; H. G. Hinton, C.A.; H. B. Pratt; G. U. Clark, C.A.; L. S. V. York, of George A. Touche & Company; and Smith, Emery & Company, Engineers-Chemists, San Francisco, California.

I also wish to testify to the invaluable aid given by Mr. R. W. Hartley, Victoria barrister, as Secretary to the Commission. Apart from his purely secretarial duties, he became conversant with all branches of the inquiry and proved to be of the greatest assistance on a variety of questions constantly arising. His work throughout and in the preparation of this report was most efficient.

For convenience, a general summary to the report will be found in Chapter XV. A further synopsis in skeleton form based on the more detailed summary in Chapter XV. will be found at the first of the report.

M. A. MACDONALD,
Commissioner.

Victoria, B.C., October 21st, 1936.

SYNOPSIS OF THE MAIN FEATURES CONTAINED IN THE SUMMARY FOUND IN CHAPTER XV.

1. No crude-oil hitherto has been produced in British Columbia. We are therefore dependent upon foreign sources of supply which might conceivably in emergencies be withheld.

2. That type of crude-oil is imported by the refineries into this Province having a heavy fuel-oil content and a light gasoline content; that is, a crude that will produce comparatively much of the former and little of the latter.

3. There are four refineries in British Columbia—Imperial, Shell, Home and Standard—with a capacity of 12,000, 3,500, 1,000 and 2,000 barrels of crude per day, respectively.

4. Union Oil refinery is only used to compound and blend lubricating-oils. Its gasoline and fuel-oil is largely processed by the Imperial and sold to the Union, after which the Union sells it to the public.

5. There is no substantial difference in the quality of gasoline sold under different names and labels, and costly advertising is not based upon real differences in quality.

6. Heavy fuel-oil is the main objective of refineries in this Province, with gasoline secondary. As fuel-oil is the rival of coal, and we have abundant coal resources, it would appear that gasoline should be the primary requirement and fuel-oil the secondary.

7. Heavy fuel-oil is sold in British Columbia at uneconomic prices and does not carry its own fair load of costs. These costs are unjustifiably shifted to gasoline, with, however, a net profit on the crude oil.

8. Consumers of gasoline have for many years been paying excessive prices for gasoline to enable oil companies to sell heavy fuel-oil at a loss. Gasoline users have therefore been paying in effect a bonus to heavy fuel-oil users, not to benefit, but to impair the local coal industry.

9. On the other hand, furnace and lighter fuel-oils are sold at a profit.

10. The oil companies have two major products, heavy fuel-oil and gasoline. They may and do sell heavy fuel-oil at a loss. The Tariff Board recently, in confirmation, with the evidence in this inquiry before it, said in its Report that the contention of British Columbia that refineries in this Province sell fuel-oil in competition with coal at cost or less than cost and that as a result gasoline carries the load was not successfully refuted by the oil companies.

11. Gasoline is sold and distributed by wasteful and extravagant methods to a marked degree.

12. Gasoline should be reduced in price to not more than 18 cents a gallon in Vancouver, inclusive of the 7 cent Provincial tax. It should be cheaper in British Columbia than elsewhere in Canada, because of geographic position and water transportation.

13. Even with present wasteful methods of distribution, the retail price of gasoline should be reduced at once to not more than 23 cents per gallon in Vancouver, based upon 1934 conditions (evidence as to 1935 conditions was not complete until too late in 1936 to be of use). Speaking generally, 1935 conditions were not materially different.

14. In all other points in the Province only freight should be added to the Vancouver price.

15. When this Commission was issued the retail price of gasoline in Vancouver was 29 cents. A reduction to 18 cents on the 1934 sales would mean a saving of at least $4,672,816.06 annually.

16. The Canadian Tariff Board, having before it as part of its record the evidence taken in this inquiry, said that the Vancouver retail price of gasoline (then 29 cents) was wholly out of line with prices on the Pacific Coast, and that there was no reason why the price of gasoline should be higher than in Seattle.

17. The retailing of gasoline should be conducted independently of the oil companies. At present this branch is a medium for advertising and part of a costly price structure.

18. The method of cost accounting followed by the oil companies (Sales Realization) did not reveal true costs of the various petroleum products and other methods had to be pursued.

19. The major oil companies control all branches of the industry from the oil well to the service station, thus narrowing the field of competition. This is known as the integrated system. It enables them to fix, control and maintain prices in all branches of the industry.

20. The retail price of gasoline is set from time to time by the Imperial Oil (controlled by the Standard of New Jersey) and these prices are followed by the other companies.

21. The oil companies own, control, or hold, under 100 per cent. agreement, approximately 93 per cent. of the gasoline retail outlets in the Province. In the main, service station operators conduct their business, including sales of accessories, as the oil companies dictate.

22. The cost of gasoline is increased by special contracts between oil companies and jobbers and large purchasers and between oil companies.

23. Extravagant wholesale and retail costs are mainly due to company ownership and control of service stations and to the integrated structure of the oil companies.

24. There are about five times too many service stations and retail outlets in the Province of British Columbia.

25. Reductions in the number of service-stations made to promote economy and business efficiency, leaving more purchasing power in the hands of the people, while involving temporary re-adjustments, would result in economic gain.

26. With exceptions mentioned in the Report, the sale of gasoline should be confined to garages as incidental to that general business; and to *bona fide* independent service-stations equipped with competent motor mechanics, and which are in effect small garages.

27. In the State of Iowa, through State legislation, there has been a gradual diminution of company-owned and controlled service-stations, and features of it have been adopted by the oil companies elsewhere.

28. The service-station as now conducted is an uneconomic and wasteful method of marketing and distribution, and is in effect a means of price regulation and advertising for which the consumer should not have to pay.

29. In country districts gasoline pumps operated in conjunction with some other main business are a necessity, but the number should be reduced.

30. In Nova Scotia, through legislation, the number of pumps up to date were reduced from 4,000 to 2,000.

31. The differences in the retail price of gasoline between Vancouver and up country and up Vancouver Island points are not justified. These differences are much larger than those prevailing between Seattle and other equi-distant points in the State of Washington. For example, Kelowna prices (September 15th, 1935) were 11 cents higher than at Oroville, Washington, immediately south. The margin between Vancouver and Kelowna should be no greater than between Seattle and Oroville except for small freight differences. Excessive and unwarranted prices exist at outlying points.

32. The price of gasoline to fishermen and to Okanagan fruit-growers is excessive and unwarranted. It is wholly out of line with that paid by competitors elsewhere, and a serious handicap in competition in world markets because of increased costs of production.

33. A fisherman's gasoline costs him 9.30 cents more per gallon in Vancouver than in Seattle; 8.50 cents more in Prince Rupert than in Ketchikan, Alaska; and 8.60 cents more in Port Alberni than in Neah Bay, Washington.

34. The Okanagan fruit-grower pays 8 cents per gallon more than the Annapolis, Nova Scotia, fruit-grower; 10.30 cents more than the Wenatchee, Washington, fruit-grower; and 11 cents more than the Niagara, Ontario, fruit-grower.

35. British Columbia, despite its small population and its great coal resources, consumes a much greater volume of heavy fuel-oil than any other Province in Canada. Canadian railways, for example, for various uses consumed (1934) 79,758,043 gallons in British Columbia, compared with a total of 36,867,427 in all the other Provinces of Canada combined.

36. Of 41,815,587 gallons (1934 figures) used by Canadian railways as fuel for locomotives in all of Canada, 38,859,159 gallons or 92.9 per cent. thereof were used by railways in British Columbia. In Quebec railways used only 6,475 gallons and Ontario 230,201 gallons.

37. In 1934 this Province alone consumed 3½ times as much fuel-oil as Belgium, twice as much as Holland, and 1⅔ times as much as Australia; Japan and Italy, with respective populations of 68,194,900 and 42,217,000, consume respectively only 3⅓ and 1⅘ times as much fuel-oil as this Province. In fact, in 1934 there were only twelve countries in the world which consumed more fuel-oil than this single Province.

38. The Union Oil, wholly owned subsidiary of Union Oil of California, although it does not manufacture any fuel-oil or gasoline itself (purchases principally from Imperial and also fuel-oil from Shell), sells 59.12 per cent. of the total heavy fuel-oil sales. The Imperial, which produces 78.37 per cent. of the total of heavy fuel-oil produced in the Province, sells 34.68 per cent. after deducting inter oil company sales.

39. The contract between the Union Oil of California and the Imperial enables the former to act as a fuel-oil and gasoline broker. It is as if these two companies, who sell 93.79 per cent. of the total heavy fuel-oil in the Province, were branches of one large organization. This is one of the reasons why heavy fuel-oil is sold at an uneconomic price.

40. Low priced fuel-oil is encouraged by the waiver and rebate clause in the "Fuel-oil Tax Act" (sec. 3, chap. 51, 1932), whereby in respect to fuel-oil used in railway locomotives the ½ cent a gallon tax thereon is not paid. For 1934 the gallonage was 38,859,159, involving a loss of revenue of $194,295.79.

41. There is a ½ cent a gallon Customs duty on the importation of fuel-oil as such. On 1934 figures there were some 86,385,328 gallons of heavy fuel-oil produced from imported fuel-oil crudes, which involved an apparent loss of $431,926.64 annually in Customs duty.

42. A grand total of 164,061,123 gallons of light and heavy fuel-oil was produced and imported into the Province in 1934, compared with sales of 126,775,719 gallons. After making all allowances it appears that 20,379,523 gallons are unaccounted for. In the absence of explanation it would appear that in 1934, great as was the fuel-oil consumption, some 20,379,523 gallons of fuel-oil were consumed in excess of what the records available to the Commission disclose, involving a possible loss of revenue of at least $101,897.61. (*See* paragraph 28, Chapter XV.)

43. The importation of gasoline in the past has been discouraged by the application of a dumping duty applied in a manner not warranted by the Statute. Had that not been done it could have been imported and sold for a price much less than that prevailing in this Province. On the other hand, with respect to fuel-oil, as to which the dumping duty ought to have been applied, it has not been applied. It has been imported into the Province in large volume for years at an unfair market value price within the precise terms of the Statute.

44. The practical working out of the tariff situation in this Province appears to be that, on the one hand, the 1 cent a gallon duty on imported gasoline, ostensibly for the protection of gasoline refining in Canada, is taken advantage of by the oil refineries to import, in effect free of duty, some 36.69 per cent. as much gasoline fractions as they distill from imported crude. On the other hand, the ½ cent a gallon duty on imported fuel-oil ostensibly for the protection of coal is taken advantage of by the oil-refineries to import in effect a large volume of fuel-oil free of duty in the form of crude oil; in short, the tariff provisions appear to have been used to accomplish the direct opposite to that intended. (For fuller details *see* paragraphs 45 and 46, Chapter XV.)

45. All petroleum products, particularly gasolines, diesel-oils, furnace-oils, stove-oils, lubricating-oils and heavy fuel-oils, should be tested and graded according to the purpose of use and priced and sold by such grades accordingly.

46. The capital structures of the oil companies give an indication of profits in many forms and reserves accumulated throughout the years. Comparing subscribed capital with their present investments, the oil companies have made huge profits in the past twenty years. The dividend ratio over a period of years is not an indication of the profits actually made.

47. The huge outlay in refineries and in wholesale and marketing facilities are in excess of market requirements. Depreciation and other reserves arising thereout, coupled with incidental maintenance and operation costs, adds greatly to the price of products.

48. The fact that oil companies have recently erected refineries in this Province where they can only hope to get a share of an existing market indicates the opportunities for profit under the integrated system.

49. The major oil companies, with probably some slight exceptions, do not function as purely British Columbia companies. They are in effect sales agencies of California corporations. The Imperial's operations in British Columbia are governed to a considerable extent by its contract with the Union Oil of California.

50. British Columbia's supply of and prices of petroleum products depend largely on the type of crude-oil imported and the manner in which it is processed here. Under the integrated system these matters are controlled principally in California by the major oil companies operating there. As constituted, the oil industry by its integrated nature lends itself to monopoly, with control of crude petroleum, products thereof and prices. Profits resulting from British Columbia operations may have no relation to profits or losses shown in British Columbia. It is not in the public interest that products of vital necessity should be controlled as to price and supply in this manner.

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