Minister of Mines and Petroleum Resources

PROVINCE OF BRITISH COLUMBIA

ANNUAL REPORT

for the Year Ended December 31

1974

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1976

Leo T. Nimsick, *Minister*

John E. McMynn, *Deputy Minister*

To Colonel the Honourable WALTER S. OWEN, Q.C., LL.D.,
Lieutenant-Governor of British Columbia.

MAY IT PLEASE YOUR HONOUR:

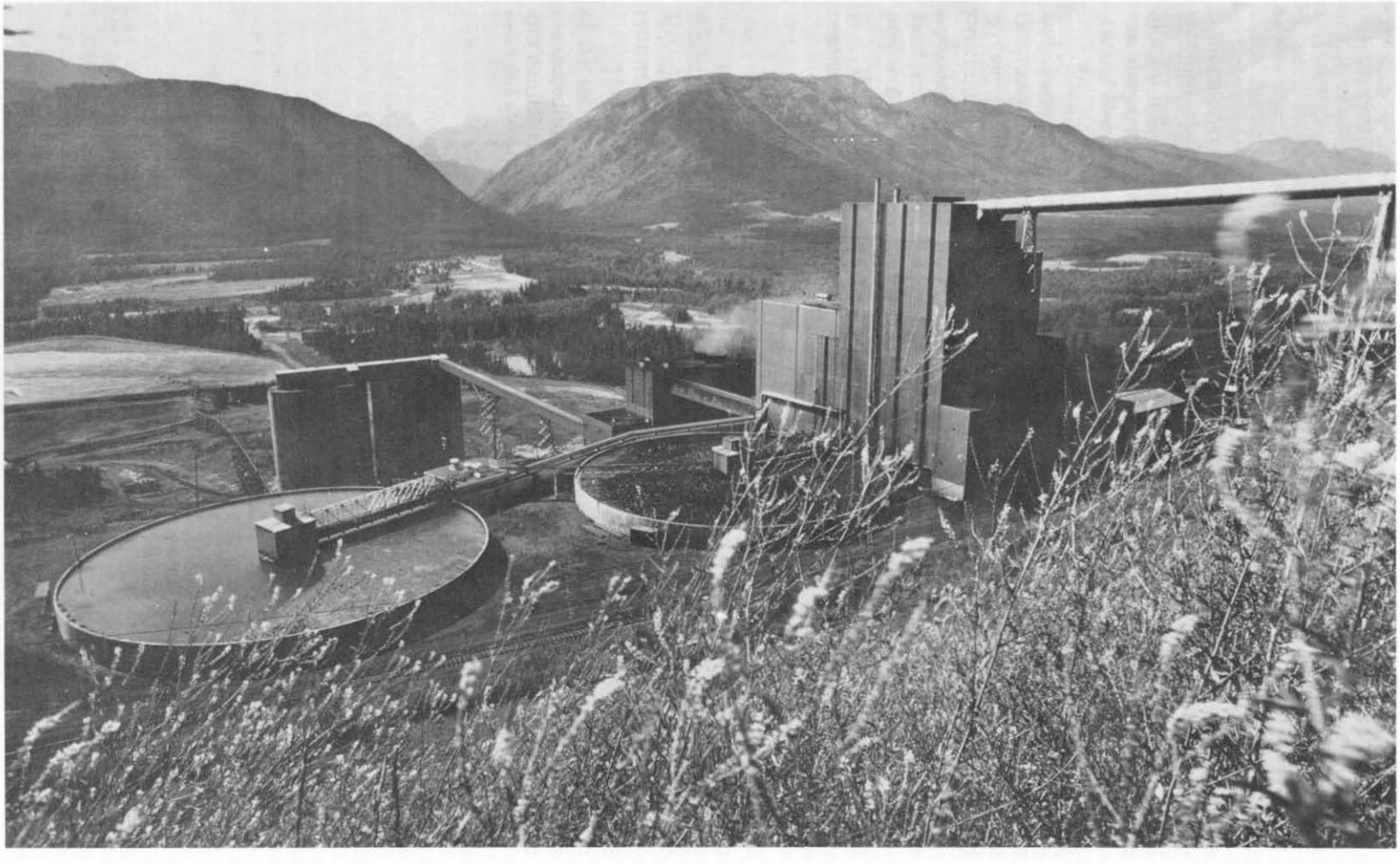
I respectfully beg to submit the Annual Report of the Department of Mines and Petroleum Resources for the year ended December 31, 1974.

LEO T. NIMSICK
Minister of Mines and Petroleum Resources

Victoria, B.C.,
August 1975.

CONTENTS

DEPARTMENTAL WORK—*Continued*



Introduction

JOHN E. MCMYNN, *Deputy Minister*

This is the first Annual Report of the Minister of Mines and Petroleum Resources in the second century of its publication. A Departmental report on the mineral industry has been published annually since 1874. From 1874 to 1959 it was the *Annual Report of the Minister of Mines* and since 1960 it has been the *Annual Report of the Minister of Mines and Petroleum Resources.*

Starting in 1969 the Annual Report contained a review of the mineral industry and chapters dealing with Statistics, Departmental Work, Petroleum and Natural Gas, and Inspection of Mines. Also commencing in 1969, technical reports on geology, mineral exploration, coal, metal mines, placer, industrial minerals and structural materials, formerly included in the Annual Report, were published separately in a volume entitled *Geology, Exploration and Mining in British Columbia.* In 1974 a new Departmental publication entitled *Geological Fieldwork* was prepared to provide an early summary of exploration activities.

This Annual Report has a new format, so as to permit proper emphasis on the relationship of its content with developments in the resource industries during 1974.

REVENUE

In 1973 the Department was divided into two branches, namely, Mineral Resources and Petroleum Resources. The purpose of this division was to give more appropriate representation to the two major resource industries. A picture of the returns from each resource follows.

The direct revenue to the Crown from petroleum resources for 1974, exclusive of the income of the British Columbia Petroleum Corporation, was $83.6 million compared to $46.5 million in 1973. This was 50 per cent of the value of petroleum and natural gas production, $166.5 million in 1974, compared to 40 per cent of the production value in 1973.

Statement of Revenue From the Mineral and Petroleum Resources

Mineral resources—	
	$
Claim recording fees, lease rentals, and free miners' certificates	1,786,457.07
Coal licences and rentals	215,269.45
Coal royalties	1,642,329.75
Mineral land taxes	2,640,022.84
Mineral royalties	9,521,285.37
Mining taxes	31,805,331.31
Rentals and royalties on industrial minerals and structural materials	583,371.93
Total	48,194,067.72

	$
Petroleum resources—	
Disposition of Crown reserves	22,955,334.00
Natural gas royalties	3,288,296.85
Penalties	649.20
Petroleum royalties	45,300,184.21
Rentals and fees	11,995,664.00
Royalties on by-products	51,181.21
Miscellaneous fees	19,104.00
Total*	83,610,413.47
Total direct revenue from mineral and petroleum resources	131,804,481.19

* Petroleum resources revenue does not include the revenue or royalty-equivalent value accrued to British Columbia Petroleum Corporation or any taxes.

The direct revenue to the Crown from minerals, including coal, was $48.2 million in 1974 compared to $8.7 million in 1973. All royalties and mineral land taxes account for $13.8 million of the revenue in 1974. Total direct revenue from minerals was approximately 5 per cent of the $1.03 billion value of production in 1974 compared to 0.9 per cent of the production value, $985.3 million, in 1973.

In comparing these resource figures, it must be kept in mind that operating costs are vastly greater in mining than in petroleum resource production. Hence, the 5-per-cent revenue contribution by the mineral industry compares well with the 50-per-cent revenue contribution by the petroleum industry.

PRODUCTION

In the 1904 Annual Report of the Minister of Mines, Gold Commissioner W. G. McMynn (relative of the present Deputy Minister) made the following comments concerning his annual report of operations:

> ". . . It is by no means complete, as it has been found very difficult to obtain from some companies and individuals operating the working properties any idea at all of what has been done during the year. . . ."

Unfortunately, the above statement is almost as relevant 70 years later. There are still obscurities in data obtained from various sources for mining operations, as well as differences due to differing methods of calculation. Attempts are presently made to provide clearer reporting criteria and standards.

	Total Value	Actual Value to the Province
	$	$
Metals	764,524,841	624,044,874
Industrial minerals	33,676,214	33,676,214
Structural materials	78,088,393	78,088,393
Coal	154,593,643	154,593,643
Subtotals, mineral resources	1,030,883,091	890,403,124
Petroleum	104,827,952	104,827,952
Natural gas to pipe-line	61,298,656	61,298,656
Butane	232,085	232,085
Propane	196,742	196,742
Subtotals, petroleum resources	166,555,435	166,555,435
Grand totals	1,197,438,526	1,056,958,559

Copper continued as the major metal and prices ranged from a high of $1.33 per pound to 57.5 cents at year-end for a total production value of $541.6 million.

Coal production was increased to 8.6 million tons valued at $154.6 million in 1974 and, while oil and gas production decreased, values were up due to higher prices.

ORGANIZATION

There was a major reorganization of the Department in early 1975 and a new Branch, Operations, was added. It is under H. Horn as Associate Deputy Minister. This Branch is responsible for Administration, Mineral Development, and Mineral Revenue. Hence, Operations covers accounts, filing, library, personnel, public information, mineral statistics and economics, mineral development and evaluation, prospectors' assistance, resource roads, freehold mineral titles, and mineral revenue.

Resident geologists have been located at Smithers, Nelson, Kamloops, and Prince George, and major additions have been made to the staff of the Inspection Division to provide better service, especially in the fields of reclamation and mine safety. Five rescue co-ordinators are now stationed around the Province to provide mine-rescue training and co-ordinate rescue efforts in the event of an emergency.

MINERAL RESOURCES

The introduction of the resource management concept in Government disturbed many members of the mineral industry. Whereas heretofore they held the privileged position of developing and promoting every and any occurrence they wished, new legislation established Governmental involvement in the control over what could or could not be exploited.

There is nothing new in the idea of resource management; forests, a renewable resource, have been managed for years. Further, the Federal Government is rapidly working to establish a "Mineral Policy for Canada." Several major "thinking" companies have already been involved in discussions with the Government on projects that entail mutual faith and understanding. The sooner others realize that the *laissez-faire* policy no longer exists, and that real progress can only be made by working together toward a common goal of maximum reasonable profits, working conditions, and environmental controls, the sooner will mining progress to new heights in British Columbia.

In its role as an active participant in resource management, the Department must ensure optimum resource utilization. To be better able to assess the options available to the Province in resource development and utilization, the Department has been involved in several studies on the economics and inventory of our resources.

A Copper Task Force was appointed jointly by the Minister of Mines and Petroleum Resources and the Minister of Economic Development to carry out a detailed study of the copper resource. Its members were drawn from Government, industry, labour, and the university faculties and were under the chairmanship of the Deputy Minister of this Department. The task force studied the economic, sociological, and environmental impact of the various strategy options concerning copper development. Although the Copper Task Force Report was not tabled in the Legislature until June 1975, the bulk of this investigation was undertaken during 1974. The professional staff of the Department provided considerable support work for this study. Changing economic and technological factors will undoubtedly necessitate intensive studies of other mineral resources in the future.

New awareness of the environment, recognized in recent legislative amendments, has led to renewed and increased efforts in the field of reclamation. Although much of this effort has to date been directed toward basic reclamation research, both in test plot trials and greenhouse experiments, there are some very encouraging examples of large-scale reclamation projects. The techniques, equipment, and manpower that are so vital to this effort have only recently been available. The rugged and varied topography of British Columbia and the climatic variation have proven to be difficult but not insurmountable problems. Experience in this relatively new field indicates that reclamation plans and techniques must be specifically developed for each minesite. With fertilization and a suitable selection of seeds and native plant stock, grasses and shrubs can be grown directly on coal waste. The Department's reclamation staff have offered advice and assistance to the industry, especially small placer and other mining operations where professional expertise is not always readily available.

In spite of a lull in mining activity there was still a shortage of employees. This will be a major problem in expansion to come and in the development of northern regions.

Industry must realize that the miner is a first-class citizen. It will require major improvements in working conditions, living accommodation, recreational facilities, and other incentives to lure and retain employees. Miners are now certified and are continuing to seek greater participation in the determination of working and living conditions. This is a right that carries with it a responsibility.

Another first for the Department during 1974 was the sponsorship of a survey of British Columbia mining communities by two graduate students from the University of Victoria. Their preliminary observations were published in January 1975 and will form the basis for a continuing appraisal of living conditions for those employed in the industry.

Since a well-trained, stable work force is essential to any industry, it is reasonable that the Department should assist in the training and eventual certification of miners. Support is now given to the B.C. Mining School at Rossland, where both open-pit and underground training courses are offered by the Department of Education. This support includes monthly grants to students and the ready availability of Departmental expertise as required. The result of this training is that the graduates from the school find immediate employment in the industry.

Other recent legislative changes have allowed women to be fully employed in the mining industry. It is hoped that many women will avail themselves of the training offered by the B.C. Mining School and thereby help to minimize employment problems in the industry while they benefit directly from a rewarding career in the mineral industry.

Regardless of what Government is in power, resource management is established and progress will only be made when that fact is accepted and management, workers, and Government co-operate.

PROSPECTORS' ASSISTANCE

The new *Prospectors Assistance Act* provides greater support for prospectors' work programs and training requirements. The previous *Prospectors' Grub-stake Act* did not provide adequate financial support or recognition of the valuable contributions prospectors are making to the discovery of the mineral resources of the Province. The revised program was initiated during 1974 when 71 prospectors received $120,000 in grants under the new Act, and 250 persons attended training courses. Departmental professionals were in close contact with prospectors to

provide information, consultation, and other professional services in property evaluation and development. Results of the new program were encouraging and expansion of this program was planned for 1975.

COAL

Interest in coal resources is intensifying. Both Kaiser Resources Ltd. and Fording Coal Limited have stabilized, and are expanding operations. The outlook for 1975 indicates that further exploration and preliminary development work will be undertaken in both the southeastern and northeastern regions. Most current production is exported as metallurgical coal to Japan but it may be necessary in future to index some metallurgical coal for eastern Canadian steel mills. A substantial test shipment of thermal coal was made to Ontario Hydro. European countries are showing considerable interest and a diversification of exports will be welcome. With current increases in oil prices, even thermal coal has, on the straight Btu basis, a value of $40 per ton. Metallurgical coal is valued considerably higher.

PETROLEUM RESOURCES

Drilling decreased 13 per cent to 760,364 feet, but revenue collected by this Department increased 79 per cent to $83,610,413, including royalties.

Major production problems decreased the flow of gas from the Beaver River field to 44,500,000 cubic feet per day compared to 160,000,000 cubic feet per day in 1973. This caused a gas export shortage. Correction is possible by extending gas-gathering systems and additional gas plant capacity. These are in progress and may help during the winter of 1975/76. Total production decreased 15 per cent to 1.1 billion cubic feet per day.

Oil production decreased 11 per cent to 51,913 barrels per day and this trend continued into 1975, partly due to real depletion of the petroleum resource.

The sale of natural gas was taken over, retroactive to November 14, 1973, by the British Columbia Petroleum Corporation, who offered substantial well-head price increases to participating producers.

While oil companies complained with some reason about their return on a barrel of oil at well-head, they have not published their net returns on the combination of production and disposition of products.

Oil and gas are used by everyone and are as much a public utility as electricity, mail service, telephone, and telegraph. Proper management of petroleum resources for the maximum benefit of all people may only be possible with full Government control. Any negotiated incentive may prove to be only temporary unless the industry responds with the necessary activity in exploration and development.

Review of the Mining Industry

This chapter summarizes the activities of the mining industry in British Columbia in the production, development, and exploration for metals, coal, industrial minerals, and structural materials during 1974. Technical details about individual mining properties may be found in the annual publication *Geology, Exploration and Mining in British Columbia,* and detailed production and other statistics are presented in Part B of this Report.

EXPLORATION

Prospecting and the acquisition of mineral title are the first steps in the discovery of a mine. In 1974, there were 16,971 mineral claims recorded throughout the Province. A total of $29,835,741 was expended by mining companies in the exploration of mineral claims away from the immediate area of producing mines. These totals are lower than in 1973 when 35,659 claims were recorded and $38,087,571 was expended. Exploration expenditures on declared or operating mines were $4,289,770.

While some exploration was carried out over much of the Province, considerable activity took place in two areas. One of these is a broad northerly trending belt extending from Tahtsa Reach through the Smithers-Babine Lake area to the Sustut River-Toodoggone River region. Within this belt, midway between Tahtsa Reach and Houston, Utah Mines Ltd. optioned a porphyry-copper prospect at Tagetochlain (Poplar) Lake. By late autumn, over 700 claims had been staked in that area. The second area of considerable exploration work was in the Cariboo district, west of Quesnel Lake.

In northwestern British Columbia, Climax Molybdenum Corporation of British Columbia Limited drilled the Adanac molybdenite deposit near Atlin; Imperial Oil Limited drilled the Rainbow Lake copper-zinc property northeast of Dease Lake; Texasgulf Inc. drilled its optioned Red copper prospect near Eddontenajon Lake. Texasgulf Inc. also completed a major drill program on the Barrier Reef Resources zinc-lead deposit near Robb Lake in northeastern British Columbia.

In the central and north-central part of the Province, major programs were completed on the Sustut copper property owned by Falconbridge Nickel Mines Limited; on a copper prospect in the Duckling Creek area by Union Miniere Explorations and Mining Corporation Limited; on the Jean copper-molybdenum prospect south of Nation Lakes by Cominco Ltd.; and on the Kennco-owned Berg copper-molybdenum deposit near Nanika Lake by Canex Placer Limited.

Significant drill programs in the southern part of the Province included those at the Carolin Mines gold prospect north of Hope; at Vestor Explorations molybdenum deposit near Carmi; and on the Expo claims adjacent to Island Copper mine on the north end of Vancouver Island by Utah Mines Ltd.

A limited amount of exploration for industrial minerals was carried out during the year. Drilling of the limestone on northern Texada Island was continued by Canada Cement Lafarge Ltd. and by Texada Lime Ltd. Silica deposits were explored at Easy Inlet, northern Vancouver Island, and in the Rocky Mountains southeast of Mackenzie. A small amount of work was done on two talc showings northwest of North Bend in the Fraser Canyon.

Exploration for coal continued in the southeastern and northeastern Cretaceous coal basins. Kaiser Resources Ltd. carried out an extensive rotary drilling program on the Hosmer-Wheeler Ridge, as well as exploration in the Michel Creek valley and on Greenhills Ridge on the upper Elk River. Fording Coal Limited undertook exploration to prepare for the development of a new underground mine. Crows Nest Industries Limited drilled and explored the southern end of Coal Mountain near Corbin and Rio Tinto Canadian Exploration Limited completed a program of sampling on their property on Cabin Creek in the Flathead Valley.

In the northeastern coalfield, Coalition Mining Limited drilled potential open-pit areas on their property on the Sukunka River and continued a limited amount of underground work. Approximately 16,000 long tons of coal was shipped to the United Kingdom for testing. To the south, Denison Mines Limited continued drilling and testing of their extensive area of coal licences in the Wolverine River and Quintette Mountain areas. Considerable drilling was done by Utah Mines Ltd. on licences on Carbon Creek near Williston reservoir.

In 1974, British Columbia Hydro and Power Authority drilled the Suquash coal area near Port Hardy. Ten holes totalling 6,266 feet were drilled to test the thermal coal potential of the Upper Cretaceous sedimentary rocks in that area. Work done between 1835 and 1922 indicated the occurrence of minor amounts of coal. The results confirmed early reports of limited coal potential.

British Columbia Hydro and Power Authority began a major program in the Hat Creek basin. This included diamond drilling and rotary drilling, geophysical surveys and logging holes, geological mapping, and preliminary environmental impact and mining studies. The objective is to determine the extent of the coal resource and to define reserves of coal for thermal power generation.

DEVELOPMENT AND NEW PRODUCTION

Although the total expenditure by the mining industry for exploration decreased by $9.8 million, approximately 22 per cent, expenditures for development of declared and operating mines more than doubled from $59,950,706 during 1973 to $125,900,973 during 1974. This record increase in development work and capital equipment investment more than offset the decrease in exploration expenditures. The abolition of the three-year Federal tax-free period for new mines was a major factor in this increased expenditure. Exploration and development expenditures received equal tax treatment during 1974; hence development work was a more attractive option to the industry.

During 1974, feasibility studies were carried out at the British Columbia Molybdenum mine at Alice Arm. This former producing mine was operated by Kennecott Copper Corporation and is now owned by Climax Molybdenum Corporation of British Columbia Limited. Three properties originally explored and owned by Kennco Explorations, (Western) Limited, south of Houston in west-central British Columbia, were further explored and developed by separate companies. They include the Sam Goosly copper-silver property developed by Equity Mining Capital Limited, the Berg copper-molybdenum deposit by Canex Placer Limited, and the Huckleberry copper-molybdenum deposit by Granby Mining Corporation.

At the Baymag Mount Brussilof magnesite deposit, northeast of Radium Hot Springs, Canex Placer Limited completed an extensive program of exploration and development. Work included detailed geological mapping, diamond drilling, metallurgical testing, and production feasibility studies.

At the syenitic porphyry copper deposit of Afton Mines Ltd., west of Kamloops, further drilling and feasibility studies were undertaken by Teck Corporation Ltd. Home Oil Limited sank a shaft and did test work on the Mosquito Creek gold deposit in the Cariboo.

A final feasibility study was made of the Northair gold-silver-lead-zinc deposit 35 miles north of Squamish. Results of the underground development work warranted a production commitment by Northair Mines Ltd. Considerable underground development work was also carried out at the OK (Alwin) copper mine in the Highland Valley by OK Syndicate and the Price copper-silver-lead-zinc mine of Western Mines Limited at the south end of Buttle Lake.

A new feature of the *Mineral Act* is the requirement in sections 59, 64, and 72 for an operator to obtain the approval of the Minister of Mines and Petroleum Resources before production can begin. In addition, limited production permits for production of a gross value of ore of less than $100,000 per year are issued under section 15.

During 1974, 10 limited production permits were approved and six approvals for production under section 72 were granted.

On Vancouver Island, approvals were given for production to Zeballos Development Ltd. for the Alice Lake zinc property, and to individuals for production from three small gold properties in the Bedwell River area. In the Kootenays, production approval was given to Blue Star Mines Ltd. for the Scranton silver-lead-zinc mine, and to five individuals and small companies for production from two old properties south of Nelson, two in the Slocan, one near Christina Lake, and another on Wildhorse River northeast of Cranbrook. Approval was given to Walter Babkirk to produce ore from the Ashloo gold mine northwest of Squamish and to Steve Homenuke and John Sargent for production from their silver-lead property northeast of Smithers.

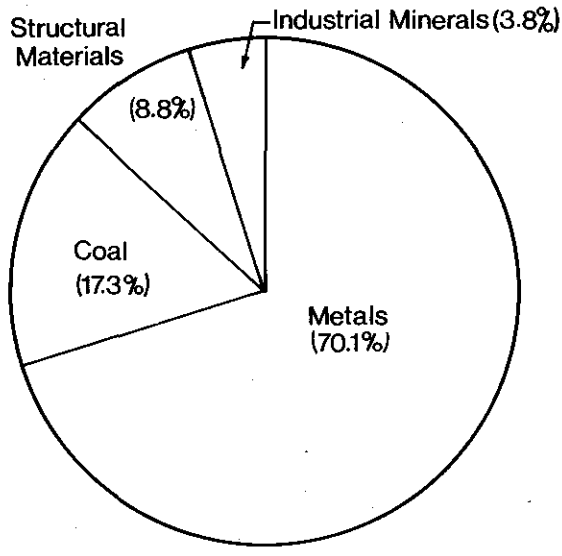
PRODUCTION

The total value of mining production in British Columbia in 1974 amounted to $1,030,883,091. This total was made up of metals, $764,524,841; coal, $154,593,643; structural materials, $78,088,393; and industrial minerals, $33,676,214. The value of metals produced in 1974 was slightly less than that value in 1973 and included the following principal metals in order of decreasing worth: Copper, $541,644,913; molybdenum, $60,716,942; zinc, $59,582,753; silver, $28,440,365; gold, $26,981,595; lead, $23,333,016; iron concentrates, $12,742,227; and nickel, $2,351,406.

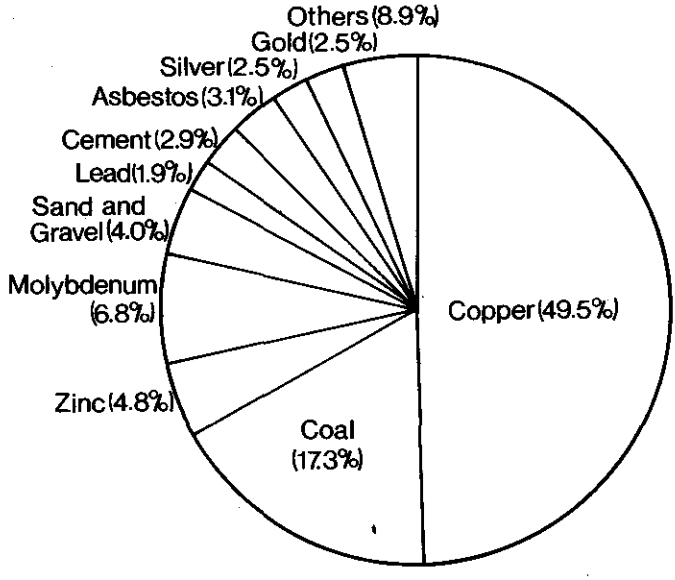
In addition, significant quantities of cadmium, tin, bismuth, antimony, and cobalt were produced as by-products. The value of asbestos production amounted to $27,398,900 f.o.b. mine. Other industrial minerals produced include sulphur, gypsum, granules, fluxes, diatomite, and jade. Of the structural materials, sand and gravel with a total value of $35,611,346 and cement with a value of $25,828,823 had the highest value. Clay products, riprap and crushed rock, lime and limestone, and small amounts of building-stone were also produced.

The stated value of metal production, $764,524,841, is calculated in accordance with guidelines established by Statistics Canada and other agencies. The total volume and total value of production include the quantities paid for to the mines, and smelter and refinery production that can be attributed to mines but is not paid for. The value paid for to the mines, excluding outward transportation costs, smelting and refining costs, penalties and deductions, was only $624,044,874. This constitutes the real value to the Province.

VALUE OF MINERAL PRODUCTION — 1974 — $890,403,124



MAJOR MINERALS PRODUCED IN 1974
(By Value)



Details of production values are shown diagrammatically on Figures 1 and 2 in Part B of this Report.

A strike at all Cominco operations at Trail, including the smelter, and at the Sullivan and HB mines, between July 1 and November 1, reduced the production of lead and zinc. Production of nickel was lower than in 1973 because the Pride of Emory (Giant Mascot) mine closed in September. The quantity of copper produced declined as a result of the closing of the Jordan River (Sunro) and Britannia mines and reduced production toward the end of the year at other mines. A strike at the Endako mine between October 11 and December 16 was a significant factor in reducing the production of molybdenum.

The demand for molybdenum remained strong during the year with the quantity of 30.4 million pounds of contained molybdenum being slightly higher than the 1973 total. Values received for the molybdenum in the sulphides, oxides, and ferromolybdenum were all higher in 1974 and totalled $60.7 million compared to $51.9 million in 1973.

The production and shipments of coal continued to increase with shipments totalling 8.6 million tons valued at $154.6 million, up from 7.6 million tons valued at $88 million in 1973. This is a 13-per-cent increase in production and the largest amount of coal ever produced in British Columbia in any given year. It is interesting to note that coal production has increased more than tenfold in the last five years. The greatest part of this production was exported to Japan. Coal contracts were renegotiated, resulting in substantial price increases.

Provincial Revenues

Direct revenue to the Province from mineral resources rose to an all-time high of $48,194,067.72. As seen in the statement of revenue (on page A 11), mining taxes accounted for $31.8 million and mineral royalties and land taxes were $13.8 million.

Commodity Prices

During the early months of the year, copper prices (London, wirebar, cash) reached an all-time high of $1.33 (Canadian) per pound in April but by December had dropped to 57.5 cents. However, the average price received by British Columbia producers was 85.44 cents per pound compared to the 1973 average of 83.23 cents. As a reflection of the world economic conditions, the quantity of copper shipped in 1974 totalled 633.9 million pounds, a reduction of 66 million pounds from 1973. The five largest copper producers (Lornex, Island Copper, Gibraltar, Granduc, and Bethlehem) account for 61 per cent of the total copper produced in the Province.

The Climax price for molybdenum in concentrates rose from $1.72 (U.S.) per pound in January to $2.43 (U.S.) in December. The Climax price for molybdenum in oxides (in cans) rose from $1.92 (U.S.) per pound in January to $2.69 (U.S.) in December.

Average prices for coal sold and used by British Columbia producers increased from $11.53 in 1973 to $18.08 per short ton f.o.b. mine.

Gold, silver, lead, and zinc all increased substantially in price. The London Final price for gold fluctuated during the year from a low of $128 (Can.) per ounce in January to a high of $181 (Can.) per ounce in December.

The U.S. Producer price for silver rose from a low of $3.60 (Can.) per ounce in January to a high of $5.21 (Can.) in February and fluctuated in the $4 to $5 range until year-end when it was $4.34 per ounce.

The U.S. Producer price for lead rose steadily from 18 cents per pound in January to 24 cents (Can.) per pound in the last half of the year.

The U.S. Prime Western price for zinc also increased gradually from 30.9 cents (Can.) per pound in January to 38.7 cents per pound in December.

Detailed price statistics are presented in Part B of this Report.

Major Producing Mines

Brief descriptions of the major producing mines are listed in alphabetical sequence. The name used is the most common name by which the mine is known. All production figures relate to ore milled or shipped in 1974 and tonnage is in short tons.

Bell—The Bell mine, owned by Noranda Mines, Limited, is at the north end of Newman Peninsula on Babine Lake. The mine is reached from the village of Granisle, about 8 miles to the south by road and ferry.

The orebody, discovered in 1962 and placed in production in 1972, consists of copper mineralization in a stock-like mass of feldspar porphyry. Open-pit mining continued throughout the year using one electric rotary drill, two electric shovels, ten 65-ton and two 85-ton trucks. More than 4 million tons of ore was mined and almost 2 million tons of waste was removed. On the average the mill treated about 12,300 tons of ore per day. Total production for the year was 4,500,998 tons of ore with gross content: 30,831 ounces of gold and 44,167,559 pounds of copper.

An average of 265 people was employed at the operation, most of them living at Granisle Village. Teams participated in the surface mine-rescue and first aid competitions and competed for both the surface and underground first aid trophies for the northern district.

Bethlehem—The Bethlehem mine, owned and operated by Bethlehem Copper Corporation, is on the north side of the Highland Valley, about 30 miles southeast of Ashcroft. Copper and molybdenum are produced from low-grade zones of mineralization within granitic rocks of the Guichon batholith. Ore mineralization which is mainly chalcopyrite with minor bornite, chalcocite, tetrahedrite, and molybdenite is localized within breccias, faults, and fractures. Four zones, the East Jersey, Jersey, Huestis, and Iona, have been mined; and production in 1974 was derived from the latter three. Production totals were 6,346,402 tons of ore with gross metal content: 58,515,975 pounds of copper, 177,807 ounces of silver, and 684 ounces of gold. The mill has a rated capacity of 16,500 tons per day.

Total ore reserves to year-end were 59 million tons, including 30 million tons grading 0.45 per cent copper in the Jersey pit extension and about 15 million tons at an estimated 0.46 per cent copper in the Iona orebody.

The average number of employees in 1974 was 408. Most employees live in Ashcroft, although a few live in Merritt and Kamloops.

Boss Mountain—This mine, owned and operated by Noranda Mines, Limited, is at Hendrix Lake, 58 miles by road east of 100 Mile House, at an elevation of approximately 5,000 feet. The orebodies consist of molybdenite in breccia pipes and quartz veins in granitic rock. The mine, which began operating in 1965, was closed in 1971 and reopened late in 1973. The ore was mined underground from a main adit level and internal shaft below the level. During 1974 the mine produced 493,904 tons of ore, with an average grade of 0.20 per cent molybdenum.

Mining was done by various methods, but mainly by blasting to a slot from rings of blast holes drilled from sublevels. Recovery was by scram drift and by mucking machine from drawpoints.

The average employment at the mine was 142 during the year. The company maintains single quarters at the minesite and a townsite at Hendrix Lake, 6 miles to the east. An active safety program was carried out in 1974. There were 16 graduates from mine-rescue classes and 15 from the St. John Ambulance first aid class. A mine-rescue team and a first aid team were entered in the northern section competition. Mine reclamation research on fertilizer trials in test plots was conducted in preparation for revegetation which is planned for 1975.

Brenda—The Brenda mine is about 20 miles west of Peachland, at an elevation of approximately 5,000 feet, and is reached by an 18-mile road from Peachland.

The deposit consists of chalcopyrite and molybdenite with quartz and feldspar in fractures in granitic rock. Conventional single-bench mining methods were employed in which 50-foot lifts were developed. The mill treated an average of 24,000 tons of ore per day having an average grade of 0.186 per cent copper and 0.051 per cent molybdenum. It is one of the lowest grade ores mined in the world.

Production was 9,549,588 tons of ore with shipments totalling 65,634 tons of copper concentrate; 4,790 tons of molybdenite concentrate and 1,614 tons of molybdic oxide, containing 7,086,707 pounds of molybdenum in total. Copper concentrate was trucked to Kelowna and transferred to railway cars for shipment via Vancouver to Japan on a contract which terminates early in 1975. Molybdenum concentrate was trucked to Vancouver and sold on the open market mainly in Europe and Japan.

The average number of employees in 1974 was 425. They live at Peachland and other communities in the Okanagan Valley. A very active safety and training program was carried out. Three mine-rescue teams, one on each shift, were maintained in 1974 and one team reached the Provincial championships in the annual competitions.

Britannia—This mine, owned and operated by Anaconda Canada Limited, is located at Britannia Beach, on the east side of Howe Sound, 40 miles north of Vancouver. The Britannia mine, which began production in 1905 and has been a leading copper producer, closed in October 1974.

The orebodies consist of more than a dozen discrete lenses of sulphides in a highly deformed linear belt of volcanic and sedimentary rocks forming a roof pendant in granitic rocks. The deformed zone trends west-northwest, dips steeply, and near the mine varies from 300 to 2,000 feet in width. The orebodies have a vertical extent of 6,000 feet and a horizontal length along the zone of almost 2 miles.

The ore was mined from extensive underground workings and relatively small, old surface workings. The main haulage is the 4100 level with portal near the mill, east of Britannia Beach at 300 feet above sea-level. Recent production came from below the 4200 level although small amounts of high-grade ore were taken from old surface workings. The No. 10 and No. 8 mines are serviced by vertical shafts below the 4200 level. Trackless equipment was used in the No. 10 mine. Blast-hole open stoping and sublevel caving were used to break the ore which was crushed underground on the 5700 level, hoisted and trammed to the mill. In 1974, 399,164 tons of ore was treated and 16,761 tons of copper concentrates and 581 tons of copper precipitates were shipped to Japan.

Mining and milling terminated at the end of October and the immediate dismantling of the installations began and continued into 1975.

A total of 250 persons was employed at the end of the year; about half lived in company accommodation at Britannia Beach and the balance in nearby communities. An active safety program, which in 1972 led to winning the John T. Ryan regional safety award, was continued throughout 1974.

Bull River (Placid Oil)—The Bull River mine is about 15 miles west of Fernie on Burntbridge Creek, north of the Bull River, between elevations of 3,000 and 3,500 feet. The property, owned and operated by Placid Oil Company of Calgary, has been mined by open-pit methods since 1971. A 750-ton-per-day plant processed the copper-silver-gold ore.

The ore consists of siderite-quartz veins containing chalcopyrite as massive pods and fracture fillings. The veins are in Upper Precambrian argillaceous and quartzitic sedimentary rocks of the Aldridge Formation at and near diorite dyke contacts and within diorite dykes.

During 1974 a total of 107,039 tons of ore was processed and yielded 9,178 tons of concentrate with gross metal content: 1,252 ounces of gold, 63,676 ounces of silver, and 4,425,588 pounds of copper.

In March 1974 the open-pit ore reserves were depleted and the mining operation was suspended. A reclamation program was initiated in 1973 by back filling, sloping, and contouring the dump areas and the perimeter of No. 1 pit. By May 1 the mined area had been completely reclaimed and seeded to grass (*see* page A9).

Significant inferred underground mineral reserves remain at the mine, but attempts to drive an exploration decline into the potential ore zone were frustrated by bad ground conditions.

The average number of employees was 25. They lived in Cranbrook or Wardner.

Byron Creek—Byron Creek Collieries Limited operates an open-pit mine on the northwest slope of Coal Mountain, near the former coal-mining town of Corbin, about 20 miles east of Fernie. The mine is between elevations of 5,500 and 6,000 feet.

Thermal coal is produced from a complexly folded seam in the Lower Kootenay Formation. The coal is mined by contract and trucked to a plant at Corbin for transshipment to the Canadian Pacific Railway spurline at the McGillivray loading area. The pit was prepared, the road from Corbin to McGillivray was rehabilitated, and the spurline laid and ballasted during the first half of the year. Mining began in June and on July 31 the first shipment was made. This shipment went eastward to Ontario Hydro and was the first trainload of coal mined at Corbin to leave the area since 1948. Total coal produced by the plant amounted to 208,670 tons in 1974.

The average number of mine employees was 10.

Cassiar Asbestos—The Cassiar Asbestos mine is on Mount McDame, between 5,870 and 7,000 feet elevation. It is 3 miles north of the town of Cassiar which is about 100 miles south of Watson Lake. Access from Watson Lake is via the Alaska Highway, the Stewart–Cassiar road, and a branch road from McDame Creek up the valley of Troutline Creek, a distance of about 5 miles. The mine is owned and operated by Cassiar Asbestos Corporation Limited, with operational headquarters in Vancouver.

The orebody consists of chrysotile asbestos veinlets in a mass of serpentine which dips steeply to the east and rakes steeply southward. The open pit is roughly 2,000 feet long and 1,200 feet wide. In 1974 a major program to flatten both the hangingwall and the footwall of the pit was started. The ore is trucked to the crusher near the pit and transported by aerial tramway and truck to the mill, near the Cassiar townsite. After concentration the fibre is shipped in bales via Fort Nelson or Whitehorse to North Vancouver for marketing. In 1974 a total of 91,936 tons of fibre was produced; 1,144,090 tons of ore and 393,991 tons of waste were mined from the pit. Construction of a new high-capacity tram-line was started in 1974.

The 440 people employed at the mine and in the mill in 1974 were housed mainly in Cassiar. The townsite was established when the mine opened in 1953 and has been enlarged over the years of operation. A major study was undertaken in 1974 to determine the steps necessary to improve living accommodation in the townsite. Modifications were made to the waste-disposal system to alleviate dust problems.

Churchill Copper—The Magnum mine, owned by Consolidated Churchill Copper Corporation Ltd., is located about 100 miles west of Fort Nelson, in the northern Rocky Mountains, at elevations between 5,100 and 6,700 feet, on Delano Creek, a tributary of the Racing River. A 35-mile-long gravel road from Mile 401 on the Alaska Highway is the access to the mine.

The mine is developed on a steeply dipping vein which trends northeast and transects folded Precambrian sedimentary rocks. The vein is composed mainly of quartz, carbonate, chalcopyrite, and pyrite.

After a two-year suspension of operations, production resumed in November 1973 and continued throughout 1974 at a rate of approximately 15,000 tons per month. Milling of 201,450 tons ore yielded 14,256 tons of copper concentrate containing 8,367,210 pounds of copper. Mining was by shrinkage stoping, and pillar recovery by longhole drilling. The ore was trucked 12 miles from the mine to the concentrator on Racing River. Copper concentrate was trucked to Fort Nelson, shipped by rail to North Vancouver, and sold by contract to Japan.

In the later part of the year, ore reserves were approaching depletion, and closure in early 1975 was anticipated. Feasibility studies were carried out to explore the viability of combining the production from this mine with new production from the Davis-Keays property at the head of Yedhe Creek, a few miles to the north. No action was taken on this proposal by the end of the year.

The average number of employees for the year was 116. They were housed in trailers and bunkhouse units at the concentrator on the Racing River and at the mine.

Endako—The Endako mine, owned by Canex Placer Limited, is 115 miles west of Prince George, 3 miles northwest of the east end of François Lake. It is the largest molybdenum mine in Canada and the second largest in the world.

The orebody is a stockwork of quartz veinlets carrying molybdenite in granitic rocks of the Topley Intrusions. The Endako orebody trends northwest and during the year more than 10,000 feet of diamond drilling was carried out to delineate the northwesterly extension of the mineralization.

This is a conventional open-pit mine using electric rotary drills, electric shovels, and 100-ton trucks. During the year, expansion and modification of the mill were completed, including the installation of a sulphur dioxide scrubbing plant. In 1974, 7,508,000 tons of ore was produced with a total content of 15,981,105 pounds of molybdenum. It was shipped from the mine as molybdenite concentrate (5,784 tons), molybdenite trioxide (8,156 tons), and ferromolybdenum (201 tons) to markets in Japan, Australia, and India.

Most of the 444 persons employed at the end of the year live in Fraser Lake. Between October 21 and December 20 the mine was closed by a strike.

Fording Coal—The Fording Coal mine is operated by Fording Coal Limited, 30 miles north of Sparwood, in the upper Fording River valley between elevations of 5,500 and 7,000 feet.

The coal seams are in the Lower Cretaceous Kootenay Formation which consists of sandstone and shales and, in the area of the mine, includes 10 coal seams of significant thickness. The seams lie in two synclines separated by a northerly

trending fault. West of the fault, in the Fording River valley, they are mined in the Greenhills pit; east of the fault, on Eagle Mountain, in the Clode pit. The coal preparation plant and loading facilities are located between the two pits.

In the Greenhills pit, approximately 1,000 feet wide and 8,500 feet long, coal is mined to a maximum depth of 180 feet by a 60-cubic-yard dragline. The coal is removed as it is encountered, stockpiled, and trucked to the breaker.

The Clode pit is mined by conventional truck and shovel methods and will eventually be about 1,800 feet wide by 2,000 feet long, and reach a depth of 1,200 feet. A new truck and shovel pit was started in 1974 at the base of Turnbull Mountain immediately north of the Clode pit.

Raw coal is trucked to the preparation plant which produces clean coal products as well as middlings and rejects which are retained. The coal is cleaned by using dense medium cyclones and flotation. The current yield of clean coal from raw coal is about 67 per cent. The coal product is high quality, medium volatile, heavy coking coal which is transported in unit trains to Roberts Bank for shipment in bulk carriers to Japanese steel-manufacturing companies. The year 1974 was the second of a 15-year contract. Approximately 2,241,784 tons of clean coal was shipped.

In addition to normal exploration and development, extensive drilling and trenching were done in the No. 15 seam in preparation for an underground hydraulic mining project. No. 15 seam, which lies in a relatively gentle syncline, is the highest coal seam of mineable thickness on Eagle Mountain. The seam thickness varies from 20 to 50 feet with an average thickness of 31 feet. The elevation at the proposed portal site is approximately 7,000 feet and the areal extent of the reserves is about 200 acres.

Although little physical reclamation work has been done to date at Fording, the company has undertaken laboratory research and some actual reclamation should be visible in the near future.

Most of the 736 employees live in the village of Elkford, 10 miles south of the mine. Employees are transported from Elkford to the minesite in company buses.

Gibraltar—The Gibraltar mine, owned and operated by Gibraltar Mines Ltd., a subsidiary of Canex Placer Limited, is about 35 miles north of Williams Lake, at elevations between 3,000 and 4,000 feet.

The orebodies are stockworks of narrow quartz veins containing copper and molybdenum sulphides. They form three large zones referred to as the East Gibraltar, Pollyanna, and Granite Lake ore zones.

Mining is by open-pit methods. During the year, Phase 1 mining in the East Gibraltar pit was completed and the pit was closed. Production was initiated from the Granite Lake pit and 13,397,264 tons of ore was milled to produce 151,060 tons of copper concentrate containing 82,158,095 pounds of copper and 235 tons of molybdenite concentrate containing 282,014 pounds of molybdenum.

Reclamation and testing were continued. During the year, 80 acres were aerially seeded and fertilized. Research continued on reclaiming overburden dump slopes.

First aid classes resulted in the issuance of 30 St. John Ambulance certificates. The Gibraltar surface mine-rescue team won the northern division championship and competed for the surface Provincial championships.

The average number of employees was 609; most live in Williams Lake. During the year the trailer accommodation at the mine was discontinued and the buildings were sold and removed. A dispute over driving trucks on rain-wet pit ramps caused a 13-day-long strike in May.

Granduc—This mine, owned by Granduc Mines, Limited and operated by Granduc Operating Company, is in the northern Coast Mountains at the head of Leduc River, 25 miles northwest of Stewart. The mill and mine portal are at Tide Camp, at the north end of Summit Lake and access to the mine is by means of a tunnel which is 11.6 miles long. The road from Stewart to Tide Camp is about 32 miles long and passes through Hyder, Alaska, along the valley of the Salmon River and above Salmon Glacier.

The orebodies comprise steeply dipping sulphide lenses within a several-hundred-foot-wide cataclasite zone, and lie between elevations of 1,500 feet and 4,000 feet and extend over a length of 4,000 feet. The orebodies lie within a northerly trending metamorphic zone which has been derived from the deformation of mainly sedimentary and volcanic rocks. The mineable orebodies consist of streaks, lenses, and irregular masses of sulphides. Chalcopyrite is the principal ore mineral and pyrite, pyrrhotite, magnetite, sphalerite, and galena are present.

Trackless equipment is used underground and mining is by sublevel caving. During the year an alternative waste backfill method was evaluated. Primary crushing is done underground and the product is trammed in 50-ton cars to the secondary crusher and concentrator at Tide Camp.

In 1974, 2,708,731 tons of ore was milled with gross content: 64,055,959 pounds of copper, 617,847 ounces of silver, and 10,134 ounces of gold. At the end of 1974 ore reserves were estimated at 22,322,000 tons averaging 1.71 per cent copper before dilution compared with 32,951,000 tons averaging 1.64 per cent copper at the end of 1973. This reduction includes 1974 mining and the elimination of about 8,500,000 tons of reserves below the 2,100-foot elevation.

In December 1974, Granduc Operating Company announced the reduction of the operating rate from a level of up to 8,000 tons per day to approximately 4,000 tons per day, and all exploration and development were suspended.

Total manpower on December 31, including contractors, was 672, down from 876 at the end of November. The majority of the employees live in the village of Stewart, with single bunkhouse and trailer accommodation near the Tide Lake concentrator. A daily bus service from Stewart to Tide Lake is provided by the company because the mine is located in an area where the average snowfall exceeds 1,000 inches per year. Avalanche and road control are mandatory and a staff of 28 is maintained for this purpose. A safety department consisting of six men is in charge of training, safety, and mine rescue. Mine-rescue teams practise regularly and one entered the annual competition in Prince George.

Granisle—The Granisle copper mine is on McDonald Island in Babine Lake, about 40 miles northeast of Houston. It is owned and operated by Granisle Copper Limited and has been in continuous production since development by Granby Mining Corporation in 1966.

The orebodies are associated with porphyry intrusions and granitic rocks. Chalcopyrite and bornite occur with quartz, carbonate, and pyrite in narrow, closely spaced fractures and as disseminated grains within these rocks.

Mining is by conventional open-pit methods, using two drills and six 100-ton trucks. About 5 million tons of ore and 7 million tons of waste were removed from the pit during the year. Total production was 4,373,075 tons of ore with gross content: 19,863 ounces of gold, 209,084 ounces of silver, and 40,643,225 pounds of copper. Concentrate is trucked from the mine to the railway at Topley and from there by rail to Vancouver for transshipment to Japanese smelters.

Regular water-quality and dust-emission surveys are conducted. All reclaimed areas were fertilized, additional areas of tailings ponds and exposed overburden

were reclaimed and seeded, and a nursery for the propagation of deciduous trees was established.

An average of 303 people was employed in 1974. Most employees live in Granisle and travel to the mine by bus and ferry. An effective safety program is carried out and teams were entered in the surface-rescue and first aid competitions.

HB—The HB lead and zinc mine, owned and operated by Cominco Ltd., is on the north side of Sheep Creek, 7 miles southeast of Salmo. The mill, office, and a few residences are near Sheep Creek. The orebodies consist of sphalerite and galena with pyrite in highly deformed dolomite within an Early Paleozoic limestone. In the mine the main haulage is the 2800 level, and is connected to the upper workings by an internal vertical shaft.

No. 1 orebody is a maximum of 450 feet high and 100 feet wide. The long axis plunges 20 degrees to the south. It is mined by vertical slices established by fans of holes drilled from sublevels along the sides of the orebody. Smaller tabular orebodies with low dip are mined by open stopes and slushers. One orebody exposed at surface is mined as a small open pit. During the year, 256,121 tons of ore with an average grade of 0.95 per cent lead and 3.70 per cent zinc was milled.

Concentrate is trucked to the company smelter at Trail. Gross metal content was 32,923 ounces of silver, 4,607,200 pounds of lead, 17,291,800 pounds of zinc, and 128,019 pounds of cadmium.

The average number of employees in 1974 was 90, of whom 41 were employed underground. Most employees live in the vicinity of Salmo. Operations were suspended by a strike from July 1 to November 1.

Highland Bell—The mine, owned by Teck Corporation Ltd., is at the head of Wallace Creek, 1.3 miles east of the village of Beaverdell, and has been a significant silver-lead-zinc producer. The Bell, which has operated since 1916, merged with the Highland Lass in 1930.

During 1974, ore production was mainly from old stopes, dumps, and tailings. The ore zones comprise quartz-sulphide veins and stringer lodes in granitic rock of the Westkettle batholith. Ore minerals include sphalerite, galena, tetrahedrite, polybasite, pyrargyrite, argentite, and native silver. Ore was trucked from the mine to the concentrator at Beaverdell. In 1974, ore production amounted to 37,184 tons, containing 313,278 ounces of silver, 296 ounces of gold, 278,594 pounds of lead, 287,813 pounds of zinc, and minor amounts of copper and cadmium.

Nearly all the 39 employees reside in Beaverdell. During 1974, 12 employees completed first aid and mine-rescue courses.

Island Copper—The Island Copper mine, owned and operated by Utah Mines Ltd., is on the north shore of Rupert Arm, 10 miles south of Port Hardy. Production, which began in 1971 at a designated capacity of 33,000 tons per day, was raised in 1974 to 38,000 tons per day. The deposit was officially reported to contain reserves of 280 million tons of ore with an average grade of 0.52 per cent copper and 0.027 per cent molybdenite (molybdenum sulphide). The ore consists of chalcopyrite and molybdenite as fine disseminations and as fracture fillings in both complexly altered and brecciated volcanic and porphyritic intrusive rocks.

The ore was mined by open-pit methods using four rotary drills, six electric shovels, and twenty-five 120-ton and five 170-ton trucks. The pit, axis trending west-northwest, will ultimately be about a mile long, 1,200 feet wide, and 1,000 feet deep. It is presently worked with benches at 40-foot intervals, the highest bench being about 300 feet above sea-level and the lowest 160 feet below sea-level.

Some 11,200,000 tons of ore was treated to produce 175,200 tons of copper concentrate and 1,506 tons of molybdenite concentrate containing 1,257,500 pounds of molybdenum.

Ore was trucked to the mill where copper and molybdenum concentrates were produced by flotation. The copper concentrate was shipped by bulk carriers directly to Japan. Molybdenite was shipped in 45-gallon drums by barge to Vancouver for sale on a lot basis to customers in Europe and the United States. Minor amounts of rhenium were recovered from these concentrates at the smelters.

An average of 689 persons was employed at the mine, most of whom were accommodated in a camp at the minesite. Considerable housing, mainly for company employees, has been provided by the company in Port Hardy.

Jordan River (Sunro)—The Sunro mine is 25 miles west of Victoria, about a mile north of the mouth of the Jordan River. Until September 1 the mine was operated by Jordan River Mines Ltd., under management of Pechiney Development Limited. Between that date and December 3 when the mine closed, it was operated under lease by Dison International Ltd.

The deposit consists of chalcopyrite and native copper in shear zones in basaltic rocks of Tertiary age.

The mine is developed by a main haulage known as the 5100 level, at an elevation of 100 feet above sea-level. The concentrator is underground more than a mile from the portal. Mining is by longhole stoping, and trackless equipment was used with a ramp system connecting the 5100, 5200, and 5300 levels. Track equipment is used on the main haulage level to service the concentrator. During the year a total of 241,504 tons of ore was milled, having a gross content of 1,031 ounces of gold, 12,309 ounces of silver, and 4,500,337 pounds of copper.

At the time of production termination 70 persons were employed. Prior to August, an average of 131 persons was employed but the size of the crew was reduced when development work ceased. Most employees lived in Sooke, a few in Victoria.

Kaiser Resources (Harmer Ridge, Balmer North, and Balmer South)—The mines operated by Kaiser Resources Ltd., near Sparwood in the Crowsnest Pass area, produce mainly metallurgical coal for export to Japanese steel mills. The coal occurs in the Lower Cretaceous Kootenay Formation in more than a dozen seams which vary in thickness from 5 to 50 feet. Principal production is from the Balmer or No. 10 seam which is the thickest and lowermost seam in the area. It is mined in a number of open pits on Harmer Ridge, a few miles east and northeast of Sparwood; in the Balmer North underground mine, 4 miles east of Sparwood, on the north side of Michel Creek; and in the Balmer South hydraulic mine on the southwest side of Michel Creek near Sparwood.

On Harmer Ridge the coal dips to the southwest as steeply as 20 degrees. Coal was produced from six pits, the largest quantities being removed from the Harmer 2, Adit 29, and Adit 40A pits. Mining during the year was all done by shovels, loaders, and trucks, and the dragline which had been used at the beginning of the project was removed from the property. A total of 6,247,379 tons of metallurgical coal and 492,329 tons of thermal coal was mined from the open pits on Harmer Ridge in 1974.

The Balmer North mine uses conventional underground mining equipment. The coal is mined in panels, in an area where the seam has a low dip, using continuous miners and shuttlecars delivering the coal to a conveyer-belt system. A total of 107,066 tons of raw coal was produced in 1974.

The hydraulic mine is in an area where the Balmer seam dips 25 to 50 degrees to the northeast. Entry to the mining area is by means of a tunnel about 7,500 feet long, driven at a slope of no less than 7 degrees. Coal is mined in panels from sloping sublevels by means of a hydraulic monitor which cuts and dislodges the coal by a high-pressure jet and sluices it into flumes. Coal is transported from the working-place in an open flume and is removed from the water by screens and a thickener before the water is recycled. Output in 1974 was 861,867 tons of raw coal.

The surface facilities consist of coke-ovens and screening plant at Michel and the Elkview preparation plant north of Sparwood. The coke-ovens produced 156,388 tons of coke in 1974 which was sold mainly in Canadian markets, including metallurgical smelters and similar operations.

Coal is transported from the open-pit mine to a breaker station in the pit area where it is crushed, screened, and delivered to the Elkview plant by means of a conveyer-belt system, part of which is underground. Raw coal from the underground mines is delivered to the plant by truck. In the Elkview plant the coal is cleaned by means of screening, heavy medium separation, and flotation to reduce the ash content, and dried to meet contract specifications. Clean coal is stored in silos and loaded directly into unit trains for transport to Roberts Bank. Coarse refuse from the plant is hauled by scrapers to the spoil area where it is layered and compacted. Fine tailings are fed into lagoons for dewatering. In 1974, 7,297,947 tons of raw coal was input into the plant and 5,579,278 tons of marketable coal was output.

Extensive reclamation of the mine area was carried out in 1974 as a continuation of a program which was initiated with the Kaiser project. It consisted of sloping, fertilizing, seeding, and planting in a variety of disturbed areas, including the hydraulic minesite, the Michel pile, Sparwood slide, a tailings lagoon and conveyer cut, the Erickson, 7A, Baldy, and other former minesites, former exploration roads and trenches, the Harmer haul road, and parts of the town areas of Natal and McGillivray. About 400 acres were treated, 70,000 trees were planted, and experimental work in the nursery and greenhouse continued.

A total of 1,744 persons was employed, including 1,107 in surface mining and 258 in underground mining, 180 in coal preparation, and 199 in administration. Most employees live in Sparwood or Fernie. A number of mine-rescue teams, both surface and underground, are maintained at a high standard of training.

Lornex—This large copper-molybdenum mine is on the south side of Highland Valley, 26 miles southeast of Ashcroft. It is owned and operated by Lornex Mining Corporation Ltd., whose major shareholder is Rio Algom Mines Ltd.

The orebody is within the Guichon batholith and consists of granitic rock containing chalcopyrite, bornite, molybdenite, and other minerals in closely spaced fractures. It is mined by conventional open-pit methods and more than 42 million tons of rock (ore and waste) was removed during the year. The open pit at the end of 1974 was about 300 feet below the original surface and has an area of 350 acres. Benches are at 40-foot intervals. The production equipment used includes three electric rotary drills, five electric shovels, and twenty-three 120-ton trucks and two 200-ton trucks.

Total production in 1974 amounted to 107,506,225 pounds of copper, 3,937,200 pounds of molybdenum, 435,538 ounces of silver, and 658 ounces of gold from 16,445,401 tons of ore. The concentrator milled an average of 45,056 tons per day.

The ore reserve definition program was completed and as of December 31, 1974, reserves of 432 million tons, having an average of 0.411 per cent copper and 0.014 per cent molybdenum, were delineated. This is greater than the originally delineated reserves of 293 million tons.

The average number of employees in 1974 was 731, most of whom live in the company town of Logan Lake, 11 miles southeast of the mine, or in a camp near the mine. Others reside in Ashcroft, Merritt, or Kamloops. The whole operation has an outstanding safety record and in 1974 the mine completed two years of accident-free work.

Lynx and Myra (Western Mines)—These mines are a mile west of the south end of Buttle Lake, about 35 miles southwest of Campbell River. They are owned and operated as one mine by Western Mines Limited. The Lynx mine is on the north side of Myra Creek and the Myra mine is on the south.

The orebodies are lenses of massive sulphides in a shear zone developed in andesitic flows, volcanic breccias, and in massive and thin-bedded tuffs. The zone trends southeast from the mines on Myra Creek almost to Price Creek, south of the south end of Buttle Lake, where underground exploration is being carried out. The sulphide lenses are relatively small in cross-section and persistent along strike. Both open-pit and underground mining have been carried out. In 1974 a relatively small amount of ore was derived from the Lynx open pit. Most of the underground ore was mined by cut-and-fill methods using mill tailings as backfill. Production was 297,290 tons of ore with gross content: 25,485 ounces of gold, 1,151,509 ounces of silver, 8,669,995 pounds of copper, 5,995,424 pounds of lead, 47,360,963 pounds of zinc, and 189,481 pounds of cadmium.

At the end of 1974, total ore reserves were 1,887,900 tons, an increase of 216,800 tons over the previous year. Most of this new ore was found in the Lynx G zone, which remains the most favourable area for ore potential.

The concentrator is near the portal of the Lynx mine and, with a capacity of about 900 tons per day, produced copper, lead, and zinc concentrates which were trucked to storage at a ship-loading dock in Campbell River. Copper concentrate was loaded directly into ships for delivery to Japanese smelters. Zinc concentrate was either shipped to Japan or barged to Seattle for shipment to smelters in the United States. The lead concentrate was shipped by rail through Courtenay and Vancouver to the smelter at Trail.

An average of 308 persons was employed at the mine, about half of whom live in or around Campbell River and commute daily. A camp for single persons is maintained at the minesite, which is attractively landscaped.

Phoenix—The Phoenix mine, operated by the Phoenix Copper Division of Granby Mining Corporation, is 3.5 miles east of Greenwood, at an elevation of about 4,500 feet. It is one of the oldest mines in British Columbia and produced direct smelting ore from underground workings in the first decade of the century. Open-pit mining began in 1959 and the rate was increased from an initial 900 tons per day to the present rated capacity of 2,750 tons per day in 1972.

The orebodies are irregular zones of chlorite-epidote skarn containing small lenses and disseminated grains of chalcopyrite. The shape of the orebodies is controlled partly by the easterly dip of the metamorphosed sedimentary formations, and partly by faulting; and has resulted in significant variations in the configuration of the pit as mining proceeds.

In 1974, only 13 per cent of the ore treated at Phoenix was mined from the Ironsides pit. The balance was rehandled from the low-grade stockpile. The total ore milled amounted to 1,012,427 tons with an average grade of 0.446 per cent

copper, 0.017 ounce per ton gold, and 0.134 ounce per ton silver. Concentrate is transported by truck to Vancouver for shipment to Japanese smelters. At year-end, ore reserves were 1,110,000 tons, having an average grade of 0.80 per cent copper. The ore stockpile of 3,072,000 tons averages 0.40 per cent copper.

Experimental seeding of an old tailings pond is continuing.

An average of 149 employees living in Greenwood and Grand Forks worked at the mine in 1974. Regular courses in mine rescue and first aid were held under the direction of the safety officer. The mine-rescue team participated in the Provincial competition for surface mines. This mine won a B trophy for the lowest accident frequency in the Province.

Pinchi Lake—The Pinchi Lake mercury mine, owned and operated by Cominco Ltd., is on the eastern shore of Pinchi Lake, about 24 miles by road from Fort St. James. The mine initially operated from 1940 until 1944 when it was shut down due to adverse market conditions. Production resumed in 1968 at a rate of 750 tons per day.

The orebodies consist of erratic stringers and blebs of cinnabar and stibnite in dolomite. The dolomite is tightly folded on axes which plunge steeply to the north and the mineralization forms two lenticular zones plunging with the folds.

During the year ore was mined underground although formerly it was produced from surface open pits. In the Main zone ore was obtained from two levels using cut-and-fill mining with trackless equipment. Fill is hydraulically emplaced tailings.

A total of 172,615 tons of ore was treated and refined to produce mercury.

The toxic nature of mercury necessitates special precautions, including close monitoring of emissions, particulate and vapour traps, and regular checks on the health of employees. Reclamation involved the seeding of one waste dump and continued testing and fertilization of existing plots.

An average of 58 people was employed during the year. Most employees live in Fort St. James and commute to the mine by bus. The Pinchi Lake mine-rescue team won the underground Provincial mine-rescue competition and competed in the Canadian competition in Whitehorse.

Pride of Emory (Giant Mascot)—This mine, owned by Giant Mascot Mines Limited, is 8 miles north of Hope, in the mountains west of the Fraser River, between elevations of about 2,500 and 4,500 feet. The mine has operated more or less continuously from 1958 until the end of August 1974.

The 26 orebodies are irregular, nearly vertical, pipe-like masses of copper and nickel sulphides within ultramafic rocks. The orebodies were mined underground with principal access by the 2600 level and an internal shaft inclined at 50 degrees to the levels above. Mining was done by longhole open stopes and occasionally by open shrinkage stopes. Broken ore was moved by scraping and tramming to the main ore-pass system. In recent years trackless equipment was introduced into part of the mine.

In 1974, copper and nickel concentrates were produced by flotation. Production for the year amounted to 156,733 tons of ore with gross content: 1,170,517 pounds of copper and 1,688,152 pounds of nickel. Nickel concentrate was shipped to a refinery near Edmonton, Alta., while copper concentrate was shipped to Japan.

The mine closed because the main reserves were depleted and exploration failed to produce replacements. Until closure about 170 persons, who lived in Hope or at the mine camp, were employed.

Reeves MacDonald and Annex—Reeves MacDonald Mines Limited owns and operates the Reeves MacDonald mine and the Annex mine on the Pend-d'Oreille River, 17 miles south of Salmo.

The Reeves MacDonald mine, on the north side of the river, has produced almost continuously since 1949. The Annex production began in 1970. At the Reeves MacDonald the 1900 level is the main haulage and an internal inclined shaft extends to the 240 level. At the Annex mine the 1750 level is the main haulage to the portal on the south bank of the Pend-d'Oreille River. A vertical shaft to the 800 level services the other levels of the mine.

The orebodies are lenses of sphalerite, galena, and pyrite in dolomite in a highly folded and faulted limestone of Early Cambrian age. The rocks dip 50 to 60 degrees to the south and the longest dimension of the orebodies plunges steeply to the southwest. Northerly trending faults have displaced the orebodies so that the same ore zones are repeated several times throughout the two mines. The orebodies are developed by slashed-out sublevels at vertical intervals of about 25 feet. The resultant pillars are broken by longhole methods. Ore is scraped to ore passes in scram drifts and transported by train to ore pockets near the shafts.

In 1974 the Reeves MacDonald and Annex mines were connected. Most (183,104 tons) of the ore milled in 1974 came from the Annex mine. Diamond drilling and test holing were carried out on the 800 level which had been extended westward during 1973 into the adjoining property held by Hecla Operating Company. The results of this exploration and the known reserves were not sufficiently encouraging to continue the operation and at the end of 1974 a decision was made to close the mine. Milling continued throughout the year and a total of 197,627 tons of ore was produced with gross content of 84,236 ounces of silver, 3,986,597 pounds of lead, 13,639,870 pounds of zinc, and 131,754 pounds of cadmium.

The average number of employees in 1974 was 104. Limited housing was available at Remac near the mine, but most employees lived in the vicinity of Salmo.

Similkameen—The Similkameen open-pit copper mine lies 10 miles south of Princeton, adjacent to Highway 3. It is a wholly owned subsidiary of the Newmont Mining Corporation of Canada Limited. Most of the known copper mineralization occurs in altered Nicola Group volcanic breccia near the contact with intrusive rocks of the Lost Horse plutonic complex.

During 1974, ore and waste mined totalled 23,247,000 tons of which 5,086,088 tons was milled. The ore grade averaged 0.48 per cent copper, giving a concentrate with gross metal content of 41,226,398 pounds of copper, 28,006 ounces of gold, and 115,110 ounces of silver. Work continued on the concentrator to permit the milling of an additional 7,000 tons per day of mined and stockpiled low-grade ore.

Since September 1974, concentrates from Similkameen have been diverted to United States smelters due to curtailment of smelting and refining capacity in Japan. Waste removal was also curtailed and at year-end 60 of the 394 employees were laid off to reduce costs. At year-end, ore reserves at Similkameen were estimated at 61,452,000 tons averaging 0.53 per cent copper compared to 60,454,000 at 0.53 per cent copper to the end of 1973.

Mine reclamation continued during 1974. Final waste-dump slopes were covered with alluvial materials and seeded with grasses. Further planting was done around the mine buildings. An extensive pumping system was installed below the east tailings dam to return seepage to the impoundment area and prevent possible stream pollution.

Sullivan—The Sullivan mine and concentrator, owned and operated by Cominco Ltd., are in the city of Kimberley. The mine, on Mark Creek, is 2 miles north of the centre of the city, and the concentrator is 2 miles south of the centre

of the city at Chapman Camp. The mine is one of the largest lead-zinc-silver mines in the world. The orebody consists of stratiform layers of galena, sphalerite, and pyrrhotite in argillaceous Proterozoic sedimentary rocks. The orebody forms a gently convex, eastward-dipping lens. It is approximately 7,000 feet in diameter and a maximum of 300 feet thick and lies approximately 1,000 feet below the surface.

The ore is mined underground from a series of level workings of which the 3900 level is the main adit. Shafts both above and below this level service the other workings. A long history of mining has resulted in a network of stopes filled with gravel or mill rejects.

Almost all the production in 1974 was from mining of the large pillars between the filled stopes. Mining of the pillars has been in progress for several years and is a complex process. After longhole drilling and blasting, large tonnages of ore are drawn off by gravity through a series of drawholes and by scraping into raises and chutes. The ore is crushed underground on the 3700 level and transported by train to the concentrator, where it is initially upgraded by the removal of waste rock in the sink-float recovery section. The concentrator produces lead, zinc, iron, and tin concentrates. The lead and zinc concentrates are shipped to the Cominco smelter at Trail. The tin concentrate, derived from a very small amount of cassiterite in the ore, is accumulated and shipped to custom smelters. The iron concentrate, mainly pyrrhotite, is used for the production of sulphuric acid and fertilizer at the Kimberley plant.

In 1974, total production was 1,416,489 tons of ore which yielded 77,678 tons of lead concentrate, 120,937 tons of zinc concentrate, and 145 tons of tin concentrate containing 165,582 pounds of tin. Gross metal content was 92 ounces of gold, 1,807,597 ounces of silver, 361,600 pounds of copper, 113,010,000 pounds of lead, 124,088,000 pounds of zinc, and 346,199 pounds of cadmium.

Handling of "hot muck" and the control of sulphur dioxide emissions were continuing problems during the year. Under certain conditions the broken ore, which is high in sulphide minerals, especially pyrrhotite, oxidizes rapidly in an exothermic reaction and melts, thereby producing sulphur dioxide. Adequate ventilation, special safety precautions in hot muck areas, and methods for controlling oxidation are necessary. Emissions of sulphur dioxide from the mine are monitored and new mining methods to prevent the oxidation are being devised.

First aid and mine-rescue training courses are given regularly and four mine-rescue teams are maintained. An average of 613 people was employed at the mine and in the concentrator. Operations were suspended by a strike from July 1 to November 1.

Tasu (Wesfrob)—This mine, on the west coast of Moresby Island, is on the south side of Tasu Inlet and is reached by pontoon-equipped aircraft or boat from Sandspit. It is owned and operated by Wesfrob Mines Limited, a wholly owned subsidiary of Falconbridge Nickel Mines Limited.

The mine produces iron and copper concentrates from orebodies containing magnetite and chalcopyrite. The orebodies are of the contact metasomatic type. They are associated with a folded and tilted panel of limestones and basaltic volcanic rocks intruded by feldspar porphyries and lying at the north end of a large granitic batholith.

The orebodies form three zones which are mined in three open pits extending from near sea-level to an elevation of 3,000 feet. Ore from the open pits is transferred by underground transfer systems to the primary crusher, which is also underground, and from there by conveyer to the secondary crushing plant and concentrator.

The average rate of production was 8,000 tons per day. Treatment of 1,559,960 tons of ore produced 1,043,196 tons of iron concentrate and 9,248 tons of copper concentrate. These were sold under contract to Mitsubishi of Japan and shipped directly from the mine by ore carriers.

Underground exploration and development started in 1973 and was extended in 1974 to prepare for underground mining in 1975.

The mine has an active safety program using the Neil George system. Both surface and underground mine-rescue training and St. John Ambulance first aid training are part of the operation.

At the end of 1974, 175 people were employed. The company maintains the townsite of Tasu on Gowing Island, which is connected by causeway to the mine and plant. Tasu provides a full range of housing and services for both single and married personnel.

Texada—This mine, operated by Texada Mines Ltd., is an iron and copper mine on the west side of Texada Island, 3.5 miles south of Vananda, at Welcome Bay. The mine has produced intermittently since 1885 and probably has the longest history of lode-mining in the Province. It has been in continuous production since 1952. Open-pit mining which commenced in 1952 was phased out in 1966 after initiation of underground stopes in 1964.

The mineral deposits are mainly massive magnetite with minor chalcopyrite. They are found at the contact between basalt, limestone, and intrusive quartz diorite, and are characteristic of other such deposits found in the coastal region of British Columbia.

Selective mining and unique milling methods produce iron and copper concentrates. Mill capacity for treating iron ore is approximately 4,300 tons per day while the capacity for treating copper ore is about 2,000 tons per day. Because of inadequate fresh and reclaimed water supplies, salt water has also been used in the entire milling process.

Underground production is by longhole stoping and trackless mining. Monthly production is about 100,000 tons. In 1974 the mine produced 926,646 tons of ore from which 346,500 tons of iron concentrate and 6,874 tons of copper concentrate were produced and shipped to Japan.

The high safety standards set in the past were continued. In 1974 the Texada mine was the winner of the John T. Ryan Canada Metalliferous Mine Trophy for the lowest accident rate of any mine in Canada.

An average of 184 employees work at the mine and live in various communities on Texada Island and at Powell River.

Minor Mines, Pits, and Quarries

Many small metal mines and large pits and quarries operated in the Province in 1974. A few of these are described by product category.

Metal mines—Cronin mine is on the east slope of Mount Cronin, 17 miles northeast of Smithers. It is a small underground mine operated on a seasonal basis by Hallmark Resources Ltd. Production in 1974 was 600 tons of zinc-lead-silver-gold ore which was treated in a mill on the property. The zinc concentrate and lead concentrate were shipped by rail and truck to the Cominco smelter at Trail. Gross metal content was 3,651 ounces of silver, 2,107 pounds of copper, 51,174 pounds of lead, 86,673 pounds of zinc, and 680 pounds of cadmium. An average of seven persons was employed and they were accommodated at the mine camp during the summer operating season.

The Horn Silver mine is on the north side of the Keremeos–Osoyoos Highway, about 10 miles west of Osoyoos. Silver ore was mined underground from a quartz vein system which cuts a syenitic-dioritic host rock. The average daily production in 1974 was about 125 tons for a total of 24,351 tons during the year. Milling produced 912 tons of silver concentrate, which was shipped to the smelter at Trail. The 38 employees commute to the mine from Keremeos and Osoyoos.

Colt Resources Ltd. produced 726 tons of crude ore underground from the Denero Grande claim near Jewel Lake, about 7 miles east of Greenwood. The gross metal content of the ore was 223 ounces of gold, 1,437 ounces of silver, 4,450 pounds of lead, and 1,584 pounds of zinc. At the end of the year six persons were employed.

The Mineral King mine was reopened for a short period in 1974 by Purcell Development Co. Ltd., under agreement with the owner, Mountain Minerals Limited. The mine is 26 miles by road southwest of Invermere in the valley of Toby Creek. Production of silver-lead-zinc ore was 4,600 tons. Twenty-nine people were employed.

The Susie mine is 3 miles northwest of Oliver. In 1974, this underground mine produced 3,107 tons of silica-rich gold ore from quartz veins in granitic rock. Gross metal content was 340 ounces of gold, 6,616 ounces of silver, 834 pounds of copper, 16,313 pounds of lead, and 6,793 pounds of zinc.

Industrial minerals—Barite was produced at the Silver Giant mine, on Jubilee Mountain, approximately 5 miles northwest of Spillimacheen; and at the Brisco barite mine operated by Mountain Minerals Limited. The barite concentrate was shipped to Alberta.

The gypsum quarry and primary crushing plant, operated by Western Gypsum Limited, is 8 miles east of Windermere. A total of 441,299 tons of gypsum was shipped to Calgary and Vancouver.

In 1974, jade production was reported by Cassiar Lapidary at Cassiar; Ben Seywerd on Seywerd Creek, Dease Lake; Continental Jade Ltd. on Mount Ogden; and Comaplex Resources International Ltd., Marshall Creek.

Structural materials—Clay is quarried at the quarry of Haney Brick and Tile Limited, on the north bank of the Fraser River at Haney. Clay drain tile, brick, and other clay products are manufactured in a plant adjacent to the quarry.

Clayburn Industries Ltd. operates a quarry and an underground mine at Kilgard and a plant for the production of brick and clay products at Abbotsford. Five men produced about 17,000 tons of fireclay using room and pillar extraction methods in the underground mine. In the quarry, 10 men produced 78,460 tons of brick clay.

The Watts Point quarry, owned and operated by C.R. Aggregates Sales Ltd., is west of Highway 99, 3 miles by road south of Squamish. Twelve men produced 750,000 tons of crushed and sized volcanic rock for construction purposes during the year.

The Pitt River quarry on the east bank of Pitt River, 4 miles north of Pitt Meadows, is owned and operated by Dillingham Corporation of Canada Ltd. During 1974, 25 men quarried, crushed, and screened 546,405 tons of diorite for crushed rock, riprap, and armour rock.

The Gilley quarry, owned and operated by Construction Aggregates Ltd., is on the west bank of Pitt River, 7.5 miles by road from Coquitlam. Forty-three men produced 523,581 tons of quartz diorite for crushed rock, riprap, and armour rock.

On Texada Island four quarries again produced major quantities of limestone in 1974. They are the Imperial Limestone quarry at Spratt Bay on the north coast,

2 miles southeast of Vananda; Ideal Cement quarry, 2.5 miles south of Vananda; Vananda quarry, formerly the Beale quarry, a mile southeast of Vananda; and the Domtar quarry, a mile from Blubber Bay. An average total of 122 persons was employed in these quarries and approximately 3.2 million tons of limestone was quarried. Limestone is used for cement and in the pulp and paper industry, but some is used for stucco dash, glass grit for the manufacture of glass, fine sand, and whiting.

Development of a limestone quarry and lime plant on Pavilion Lake Indian Reserves 3 and 3A by Steel Brothers Canada Limited continued in 1974. The plant and quarry are on Highway 12 about 25 miles west of Cache Creek. The operation began production in 1974 and 18 people were employed.

The Harper Ranch limestone quarry is north of the South Thompson River, 11 miles east of Kamloops. It is operated by a contractor, Plateau Construction Limited, of Kamloops, for the production of limestone for the nearby cement plant of Canada Cement Lafarge Ltd. An average of six persons was employed and approximately 288,000 tons of rock was shipped. The Buse Lake quarry, 2 miles south of the South Thompson River and 14 miles east of Kamloops, was operated by the same contractor to supply silica to the Kamloops Lafarge cement plant. In 1974, approximately 28,000 tons was shipped.

The Cobble Hill quarry, owned by British Columbia Cement Company Limited, is 2 miles southwest of Cobble Hill station. Limestone is produced for the company cement plant at Bamberton. An average of 24 employees produced approximately 840,000 tons of limestone, which was trucked by private road about 10 miles to the plant.

The Saturna Island quarry and plant on the north end of Saturna Island, between Lyall Harbour and Winter Cove, is owned by British Columbia Lightweight Aggregates Ltd. Since 1959 the quarry has produced shale from the Upper Cretaceous Nanaimo Group, which has been treated to produce expanded shale for use as a lightweight construction aggregate. Production terminated in November 1974 and the plant was dismantled. Twenty men mined 31,656 tons of shale and produced 48,265 tons of aggregate.

PROCESSING

Most mines in British Columbia produce concentrates by a flotation process designed to handle the specific types of ore produced. In 1974, 31 concentrators processed ores as follows: Ten treated copper, three copper-iron, four copper-molybdenum, two molybdenum, one nickel-copper, nine silver-lead-zinc, one silver-lead-zinc-copper, and one treated mercury ore.

The only base-metal smelter in operation in the Province is owned and operated by Cominco Ltd. at Trail. From mines in British Columbia it received 89,479 tons of lead concentrates, 137,053 tons of zinc concentrates, and 7,732 tons of crude ore. The company's own mines (Sullivan and HB) contributed 82,101 tons of lead concentrates and 136,745 tons of zinc concentrates. In addition the smelter also treated a large tonnage of ore, concentrate, and scrap iron from sources outside the Province. The company's own Pine Point mine on Great Slave Lake shipped a large amount of lead and zinc concentrates to Trail.

Products exported to American smelters were copper concentrates, 60,561 tons; iron concentrates, 276,370 tons; zinc concentrates, 35,757 tons; and lead concentrates, 3,371 tons. The value of these products was $42.4 million. This represents about 5.5 per cent of the value of the 1974 metal production of the Province.

Products exported to Japanese smelters were copper concentrates, 1,013,510 tons; zinc concentrates, 18,359 tons; and iron concentrates, 1,097,162 tons. The value of these products was $534.5 million, a decrease of $69.2 million from 1973 and represents about 69.9 per cent of the 1974 metal production of the Province. Copper concentrates shipped to Germany and Korea totalled 12,144 and 4,772 tons respectively.

SAFETY

In 1974, active mine safety programs were continued at all mines in the Province. Authority for the control of safety conditions in mines is given in the *Mines Regulation Act* and *Coal Mines Regulation Act* and covers the whole field of mining from exploration, through mine development and production, to reclamation after mining. Thus the Department plays a major role in promoting mine safety. Through the work of the Inspection Division and the co-operation of the industry, British Columbia has been and continues to be a leader in the development of mine safety practices and is attaining high standards for safety.

Previous amendments to the *Mines Regulation Act* and the *Coal Mines Regulation Act* came into effect in 1974. Through them greater emphasis was placed on the work of the safety committee at each mine and the responsibility for safety was given more directly to individual workers as well as to supervisors. Certification of miners was introduced in recognition of the high qualifications required of skilled underground miners. A number of amendments were introduced related to hoisting and hoist equipment, and the operation of vehicular and other mobile equipment.

Extensive on-site testing of the brakes of the very large trucks in general use in open pits was continued in 1974 and the results were published by the Society of Automotive Engineers. Studies were made to improve traffic control in open pits. Roll-over protection structures are now required on all mobile equipment. In response to an exploration-related accident involving live electrical wires, guidelines were drawn up to minimize this hazard. Surveys of dust and ventilation at mines were continued. Recommended improvements were undertaken by several mines. There was a significant reduction in dust concentrations in assay grinding rooms. Noise surveys are carried out regularly and the Department is contributing to a concerted effort being made in Canada and the United States to effect significant reductions in noise levels. Extensive surveys indicate that 96.6 per cent of workers were wearing ear protection where required, 100 per cent of drills in use were muffled, and 79 per cent of operations surveyed were performing audiometric tests on the workers.

Departmental mine-rescue stations, fully supplied with up-to-date equipment, are maintained at Fernie, Kamloops, Nanaimo, Nelson, and Prince George. A sixth station was established at Smithers and is being equipped to the same standard as the others. Each station is staffed with mine-rescue co-ordinators who are fully qualified instructors in first aid and mine-rescue training. With the exception of Fernie, each station is established as a mobile unit to transport equipment anywhere in that area and to be available for either rescue or training purposes. The district mine-rescue co-ordinators make periodic visits to the mines to give rescue training to open-pit and underground employees and to check the local rescue equipment for satisfactory maintenance. A *Survival-Mine Rescue Instructor's Manual,* compiled by the Department, was issued this year. This manual was prepared to assist operators of underground mines and to instruct all underground personnel in self-preservation should a fire or similar disaster occur while they are underground. Courses in both underground and surface mine-rescue training as well as first aid are presented by the district co-ordinators on an ongoing basis.

Four mine-safety associations operate in different areas in the Province. They are sponsored by the Department of Mines and Petroleum Resources and the Workers' Compensation Board and are aided by mining company officials, safety supervisors, inspectors of mines, mine-rescue co-ordinators, and, in some cases, local industry. These organizations promote mine-rescue and first aid training as well as safety education at their various districts, and hold annual competitions at various centres during late May and June. The Provincial (Underground) Mine Rescue Competition was held at Nanaimo on June 15. The Pinchi Lake (Cominco Ltd.) team, captained by P. R. Jones, won the trophy and went on to compete in the eighth Canadian finals held in Whitehorse, Yukon Territory, on June 22. Surface mine-rescue competitions were held at two centres and, at a Provincial competition at the Craigmont mine near Merritt, the Brenda Mines team, captained by D. Miller, won the trophy.

Several awards and trophies are issued by various organizations in recognition of bravery, safety, and rescue work in mines. In 1974, Mark Cawston, foreman, and Harry Skoglund, superintendent, received bravery awards from the Workers' Compensation Board for the recovery of a miner who had fallen down a raise at the Pride of Emory mine of Giant Mascot Mines Limited. John T. Ryan safety trophies were established in 1941 by the Mine Safety Appliances Company of Canada Limited to promote safety in coal and metal mines in Canada. Three Canadian and six regional John T. Ryan trophies were established and their administration was given to the Canadian Institute of Mining and Metallurgy. In 1974 the Michel Colliery of Kaiser Resources Ltd. won the Canada trophy for coal mines. The Texada mine of Texada Mines Ltd. won the Canada trophy for metalliferous mines. For Michel Colliery it was the third win since 1968 and Texada had won the regional award in 1969 and 1972.

A trophy was donated by the West Kootenay Mine Safety Association in 1951 to promote safety in small mines and, in 1974, it was won by the Pinchi Lake mine of Cominco Ltd. In 1961 the Department of Mines and Petroleum Resources organized a safety competition for the open-pit and quarry industry, instituted awards, and donated a trophy for annual competition to be won by the mine having the least number of accidents. In 1974, awards were won by the Britannia pit of Construction Aggregates Ltd., the Texada Island quarry of Canada Cement Lafarge Ltd., the Cobble Hill quarry of British Columbia Cement Company Limited, and the Prince George gravel pit of Ocean Construction Supplies Northern Limited.

RECLAMATION

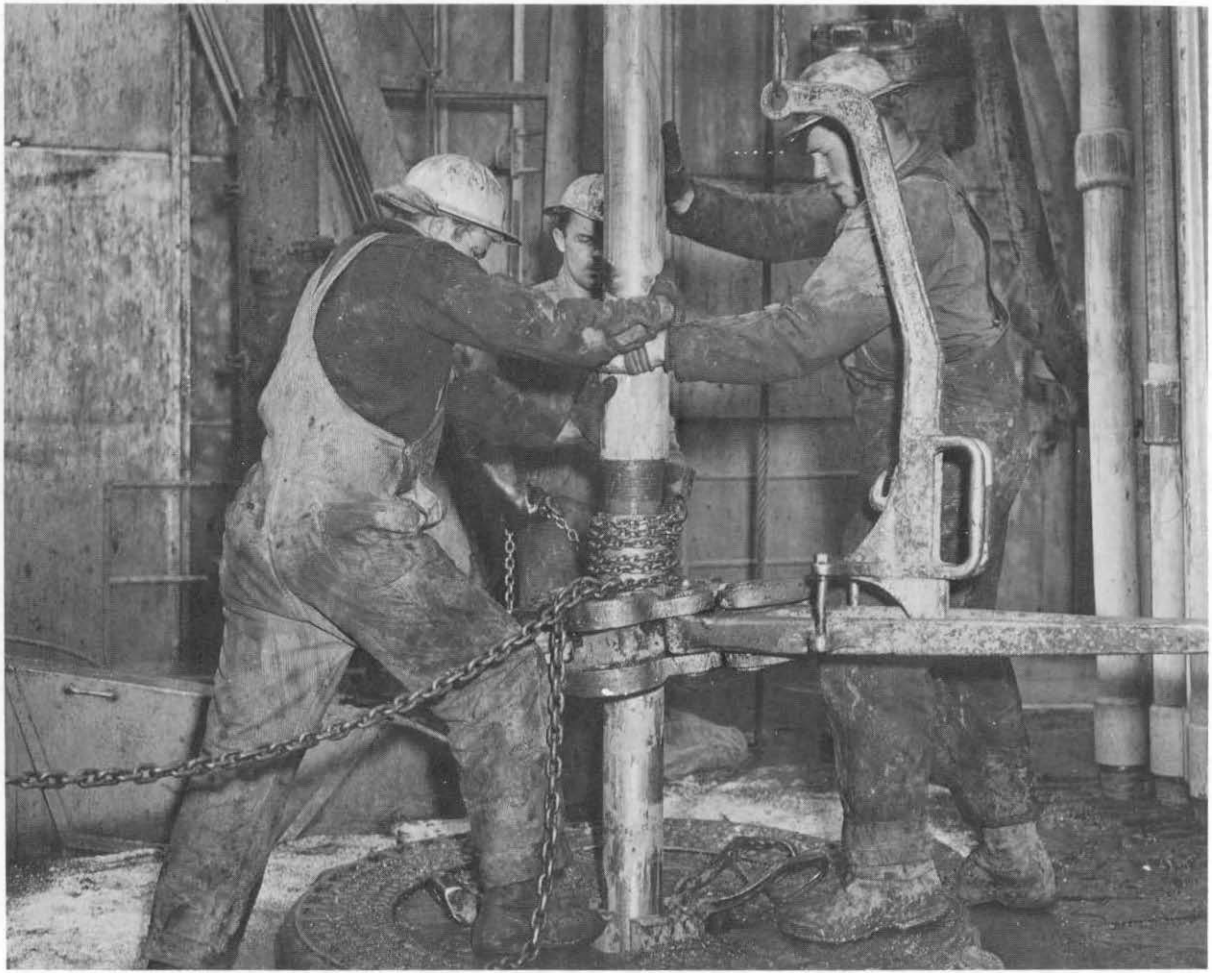
Reclamation plans assuring that land disturbed by mining will be restored must be approved before exploration and mining can begin. Reclamation is administered by the Inspection Division of the Department of Mines and Petroleum Resources and permits are issued under the authority of the *Mines Regulation Act* and *Coal Mines Regulation Act*. The Chief Inspector is Chairman of the Reclamation Committee, which includes representatives of the Ministers of Lands, Forests, and Water Resources; Recreation and Conservation; and Agriculture. The Committee reviews all reclamation plans before permits are approved by Cabinet and the permits are issued only after a performance bond has been posted. In 1974, 104 reclamation permits were issued to cover a total area of 30,420 acres, with a total bonding of just over $3 million.

Amendments to section 11 of the *Mines Regulation Act* gave authority to the Chief Inspector to require reclamation plans and bonding for mineral exploration,

thus giving legal status to an administrative practice introduced in 1973. Permits or approvals are now required for all types of mining and exploration.

The objective of mine reclamation is to restore waste-disposal areas and disturbed land surfaces to useful purposes compatible with the surrounding countryside. Baseline studies are made before mining begins and, from these, reclamation plans are prepared. In 1973, guidelines for reclamation were established for the first time. In 1974, they were in general use and will be modified as experience in this field increases. At the larger mines a continuing program of testing, seeding or planting, and fertilization is carried out. Cominco Ltd. and Kaiser Resources Ltd. maintain nurseries, greenhouses, and facilities for testing the growth and survival of plant species on residual materials available at the minesite (that is, crushed rock, coal waste, chipped slash).

Seeding and planting cannot be carried out in active mining areas although many companies have revegetated disturbed areas adjacent to their mines. The Bull River mine, 15 miles east of Cranbrook, is the first to have completed the cycle of exploration, mining, and reclamation since requirements of the *Mines Regulation Act* came into effect in 1969. Early in 1974, backfilling, sloping, and contouring of the pit area were carried out and by May it had been seeded to grass. The results are excellent and the area has been returned to its former use of grazing by wild animals. Additional seeding and fertilization will continue in 1975.



Review of the Petroleum Industry

Exploration and drilling activity decreased considerably during 1974 as compared to 1973. The total number of wells completed decreased 13 per cent to 147, of which six were completed as oil wells, 51 as gas wells, 84 were abandoned, the status of three was undetermined at the end of the year, and three were service wells.

Total footage drilled decreased 13 per cent to 760,364 feet, including 140,163 feet of successful exploratory drilling, 159,091 feet of successful development drilling, 424,209 feet abandoned, 16,298 feet as yet unclassified, and 20,603 feet for service wells. A total of 49 drilling rigs was operated, a decrease of 12 from 1973.

Well authorizations issued numbered 144, 17 less than last year. Of these, three were cancelled together with six others issued previously. The cancellations were presumably related to the unstable economic climate that prevailed during the year.

The number of wells spudded decreased by 26 to 139.

Geophysical exploration decreased considerably as did also the production of oil, gas, and by-products. Gas exports decreased by 11 per cent to 232,935,935 MSCF, a daily average of approximately 638 million cubic feet.

The total acreage held by companies under permits, leases, natural gas licences, and drilling reservations decreased slightly to 23,490,564 acres from the 24,528,742 acres in good standing at the end of 1973.

Total revenue collected from the petroleum industry by this Department, including royalties, amounted to $83,610,413, a significant increase over the $46,554,423 collected in 1973. Revenue to British Columbia Petroleum Corporation and taxes are not included in these figures. Four dispositions of Crown-reserve petroleum and natural gas rights were held during 1974. Tender bonus amounted to $22,955,335, an increase of $5,178,894 from the previous year. The average price per acre of all rights sold was $11.32, an increase of $1.33 per acre over 1973.

The Petitot, Louise, Cabin, East Kotcho, and South Sierra gasfields were tied in to the Fort Nelson gas-gathering system, and some connections of small fields and individual wells were made to the Fort St. John system.

Production from the Beaver River field decreased drastically from 58,151,696 MSCF in 1973 to 16,203,477 MSCF. This decrease, together with gas-gathering pipe-line problems, represented the major cause of the gas-export shortfall during the year. Production in 1975 could increase significantly if the gas-gathering systems are extended to the Helmet field northeast of Fort Nelson and to other known, but unconnected, fields south of Fort Nelson and north of Fort St. John. Additional gas-plant facilities would also stimulate gas production.

EXPLORATION

A significant decrease in the level of exploratory activity occurred during 1974, as compared to 1973, in both the number of exploratory wells and the footage drilled. The number of exploratory wells drilled decreased 18 per cent during 1974 to 85 wells. Total exploratory footage drilled was 455,157 feet, a decrease of 19 per cent from that drilled in 1973. The 85 exploratory wells drilled included two oil wells, 24 gas wells, one service well, and 58 abandonments.

Geophysical exploration slackened but considerable work was done in the regions north and east of Fort Nelson, and south of Dawson Creek in the Grizzly-Sukunka area.

Expenditures in 1974 by companies involved in the exploration and production of petroleum and natural gas were:

	$
Exploration, land acquisition, and drilling	88,180,000
Development drilling	13,316,000
Capital expenditures	18,673,000
Natural gas plant operations	6,836,000
Field, well, and pipe-line operations	19,091,000
General (excluding income tax)	56,380,000
Total	202,476,000

DEVELOPMENT

During 1974, 305,207 feet were drilled at the 60 locations classified as "development" wells. Development drilling expenditures by the industry were $13,316,000. Results of this development drilling activity were:

Number of Development Wells Completed

Area	Gas	Oil	Finished Drilling	Service	Abandoned	Total	Success Ratio (Per Cent)
Fort Nelson	9	—	—	2	6	17	60
Fort St. John	17	4	3	—	18	42	54
Foothills	1	—	—	—	2	3	33
Totals	27	4	3	2	26	62	54

Although only 60 development locations were drilled during the year, the above table shows 62 completions, since two of the gas wells were completed in two separate zones. Such dual completions are counted as two wells for completed well-count purposes.

Development drilling activity for gas was most active in the Laprise Creek (four wells), Clarke Lake (three wells), Gundy Creek (two wells), and Yoyo (two wells) gasfields.

Single completions for gas production were also made in 12 other fields or areas. However, reserves developed as a result of this drilling activity were not significant. Development oil-well completions were made in the Cecil, Inga, Oak, and Weasel fields. As a result, the reserves in the Weasel field were increased somewhat, and the existence of an oil reservoir in the Oak field was confirmed, resulting in a substantial reserve addition. Several of the development wells that were abandoned during the year were follow-up wells to previous discoveries. These disappointments include wells drilled in the Crush, Fireweed, Jeans West, and Mike areas.

PRODUCTION

Crude oil and field condensate production decreased 11 per cent to 18,948,064 barrels. Average daily production in 1974 was 51,913 barrels as compared to 58,401 barrels in 1973. The average for December was 49,005 barrels.

Net gas production, including nonassociated gas and associated gas, less gas injected, was 412,607,272 MSCF, down 14 per cent from the 477,512,862 MSCF produced in 1973. Average daily production decreased to 1,100,000 MSCF from 1,300,000 MSCF last year. The average for December was 1,260,000 MSCF.

Gas plant production of butane and propane amounted to 663,099 barrels and 562,121 barrels respectively, as compared to 685,936 barrels and 623,866 barrels last year.

Sulphur production decreased approximately 20 per cent to 58,412 long tons.

The history of oil, gas, natural gas liquids, and sulphur production in the Province is shown on Figures 17 to 19, Part B, and exports of British Columbia gas are shown on Figure 21. It is apparent that the decline in oil production evident since 1970 continued during 1974. No significant change in this trend is anticipated in the near future. Gas production rate was lower in 1974 than in 1973, the first such annual decrease. This was due primarily to water production problems in the Beaver River field. As a result, gas production from this field in 1974 was only 28 per cent of the production obtained in 1973. No solution to these problems was evident by year-end, and consequently the required gas was not available during the period of high winter demand.

The most significant activities in the production phase of the industry during 1974 were concerned with connecting several gasfields to transmission systems. Efforts were made to decrease the shortfall between peak demand and supply by tying presently known but unconnected reserves into the gas transmission system. However, due to the long lead-times required for this work, sufficient gas had not been tied in by year-end to meet total demand. This is the reason for the downturn on Figure 21, showing gas exports from British Columbia. It is anticipated that gas production rates from the Province will increase over the next few years as additional known reserves (and future discoveries) are connected to the transmission system.

By April a line had been built connecting the Louise, Cabin, and Petitot River fields to the Fort Nelson gas plant via the Yoyo to Clarke Lake line. In addition, a line was built to tie in one well in the Kotcho Lake East field. These operations resulted in an additional 30 to 35 MMSCF/D potential supply becoming available to the transmission system. By November a line had been built to tie to an additional well in the south of the Sierra field. This, together with enlargement of the dehydration plant in Sierra, made available a further 50 MMSCF/D. Only one significant oil pool was placed on production during the year. This was the Halfway B pool in the Oak field. At year-end it was producing some 300 STB/D. The oil well completed in the North Pine B pool of the Cecil Lake field during 1974 was also placed on production. However, its rate was only 30 STB/D at year-end. The Gething oil discovery in d-53-H/94-H-3 had been tested by year-end, and equipment was being installed in preparation for placing the well on production. Construction of a sulphur recovery facility at the Fort Nelson gas plant was under way at year-end and completion is anticipated during 1975.

HYDROCARBON AND BY-PRODUCTS RESERVES

The reserves, estimated by the Branch, at the end of 1974 were as follows:

Proved crude oil	118.8 million barrels
Residue gas	8.1 trillion cubic feet
Natural gas liquids	44.5 million barrels
Sulphur	3,952 thousand long tons

It is apparent that both oil and gas reserves declined during 1974, due partly to lack of discoveries and partly to the fact that the reserves discoveries, together with revisions to previous estimates, were insufficient to offset production during the year. Oil discoveries during 1974 amounted to some 63 per cent of the average reserves discovery rates during the last several years, while for gas the figure was slightly better at 75 per cent.

TITLE HOLDINGS

	December 31, 1974		December 31, 1973	
	No.	Acres	No.	Acres
Permits	462	16,227,862	452	17,410,475
Petroleum and natural gas leases	3,578	6,405,086	3,525	6,196,570
Natural gas leases	117	479,960	115	479,754
Petroleum leases	2	1,284	2	1,284
Natural gas licences	1	15,565	2	20,781
Drilling reservations	37	360,807	37	419,878
Totals	4,197	23,490,564	4,133	24,528,742

MEDIATION AND ARBITRATION BOARD

Chairman: Patrick D. Walsh.

Vice-Chairman: Douglas Pomeroy.

Member: Cecil Ruddell.

The Mediation and Arbitration Board, established under the authority of the 1974 amendments to the *Petroleum and Natural Gas Act, 1965,* grants right of entry to oil and gas companies upon alienated lands, and determines conditions of entry and compensation therefore. The amendments provide for a process of mediation by the Chairman of the Board, and failing satisfactory agreement between the parties upon mediation, it provides for final disposition by the Board of entry conditions and compensation. The Board also is charged with responsibility to review and set compensation on leases and previous Board orders of more than five years' duration, and to terminate rights of entry when a company has ceased to use occupied lands of more than five years' duration.

Since the appointment of the Board effective July 1, 1974, six field inspections have been carried out, four hearings have been concluded, two pending cases have been settled, and four hearings are pending. In addition, three entry orders have been granted and three hearing dates have been set for early determination.


S108/274½-293
S108/293-$300 F.O.H.
S110
S107/294½-302 F.O.H.
S109/56-80
S109/331½-353
S108/87-93
S109/80-100
S109/353-372
S108/93-110½
S109/100-119
S109/372-390½
S108/110½-129
S109/119-137½
S109/390½-410
S108/129-147½
S110/186

Highlights of Departmental Activities

LEGISLATION

The start of the Department's second century of operations was marked by an extensive legislative program, including both new legislation and important amendments to existing legislation.

NEW LEGISLATION

The *Coal Act* (1974), introduced in the Spring Session of the Legislature, came into effect August 1, 1974. It provides for the reissue of coal licences and the introduction of production leases. Licence rentals are $1 per acre, and there is a work requirement of $3, $4, and $5 per acre for the first, second, and subsequent years of holding. Royalties are to be determined by the Lieutenant-Governor in Council, with a minimum of 50 cents per ton of thermal coal and $1 per ton of metallurgical coal.

The *Mineral Royalties Act,* introduced in the Spring Session of the Legislature, came into effect in October 1974, retroactive to January 1. It provides for the payment of royalties on the production of minerals which are designated for this purpose by the Lieutenant-Governor in Council. Royalties are payable according to two rates, a basic rate and an incremental rate.

The calculation of royalty involves the basic value, the gross value, and the net value of a designated mineral. Basic value is determined by Order in Council and, once established, is adjusted each year by half of any change in the Wholesale Price Index of Canada. Basic values were established in 1974 for the following minerals: Asbestos, cadmium, cobalt, copper, gypsum, iron, lead, lode gold, mercury, molybdenum, nickel, silver, and zinc. For most purposes gross value is the net smelter return paid to the producer of a designated mineral. Net value is calculated by substracting transportation costs from gross value.

Royalty is payable at a combined rate of 2.5 per cent (5 per cent from 1975) of the weighted average net value of minerals produced and sold or used during a year, plus, at high prices, one-half of the difference between 120 per cent of the basic value and the weighted average gross value during the year. For new mines the basic value of any mineral produced is inflated during the first three years of commercial production to 115 per cent, 110 per cent, and 105 per cent of the basic value otherwise in force.

Where the weighted gross value of a designated mineral ranges between 120 per cent and 90 per cent of the prevailing basic value, the basic rate of 2.5 per cent (5 per cent from 1975) applies. If the weighted gross value is less than 90 per cent of the basic value, the basic rate is reduced to 2 per cent or 1.5 per cent (4.5 per cent or 4 per cent from 1975). Regardless of gross value, however, the basic rate is reduced by one percentage point if a mineral is smelted or refined in the Province.

The Act provides for monthly estimates and royalty payments, with an annual reconciliation in the year following the year of estimates and payments. In cases of financial hardships the payment of royalty may be deferred by renewable periods of up to one year.

The *Placer Mining Act,* introduced in the Fall Session of the Legislature, was proclaimed on June 2, 1975. Replacing the *Placer-mining Act* (1960), it provides

for the designation of placer-mining areas in which leases may be issued upon staking. A free miner may apply for two placer leases during any year.

Placer leases are issued for a renewable term of not more than 10 years. The holder is liable for the payment of an annual rental of $50, and for the performance of development work in the amount of $250 per year for each lease. Excess work may be credited for no more than three years, and leases may be grouped for work purposes according to regulations.

The *Prospectors Assistance Act,* introduced during the Spring Session of the Legislature, came into effect on July 25, 1974. Replacing the old *Prospectors' Grub-stake Act,* it provides for the grant of assistance up to $4,000 per year for training or prospecting. Additional funds may be granted for the exploration or development of a mineral property. A grant of assistance gives the Crown the right of first refusal on the purchase or option concerning a property in respect of which a grant is issued. The Crown also has the first right to negotiate an agreement with a prospector to develop or bring into production such property.

LEGISLATIVE AMENDMENTS

Several amendments to the *Mineral Act* were introduced in 1974. An important change is found in the introduction of a new claim-staking procedure effective March 1, 1975. The new procedure calls for the locating of claims according to a Modified Grid System. New claims must be in the shape of a square or rectangle and may contain a maximum of 20 units of 25 hectares (61.78 acres) each.

A further significant amendment was introduced to provide for the updating of the Department's data base. Effective January 1, 1974, all producers of minerals were to provide pertinent information on their production operations and facilities. This allows the Department to make a more meaningful contribution to resource management in British Columbia.

In keeping with world-wide changes in the field of energy supply and demand the *Petroleum and Natural Gas Act, 1965* underwent significant amendments in 1974. These amendments came into effect July 1, 1974.

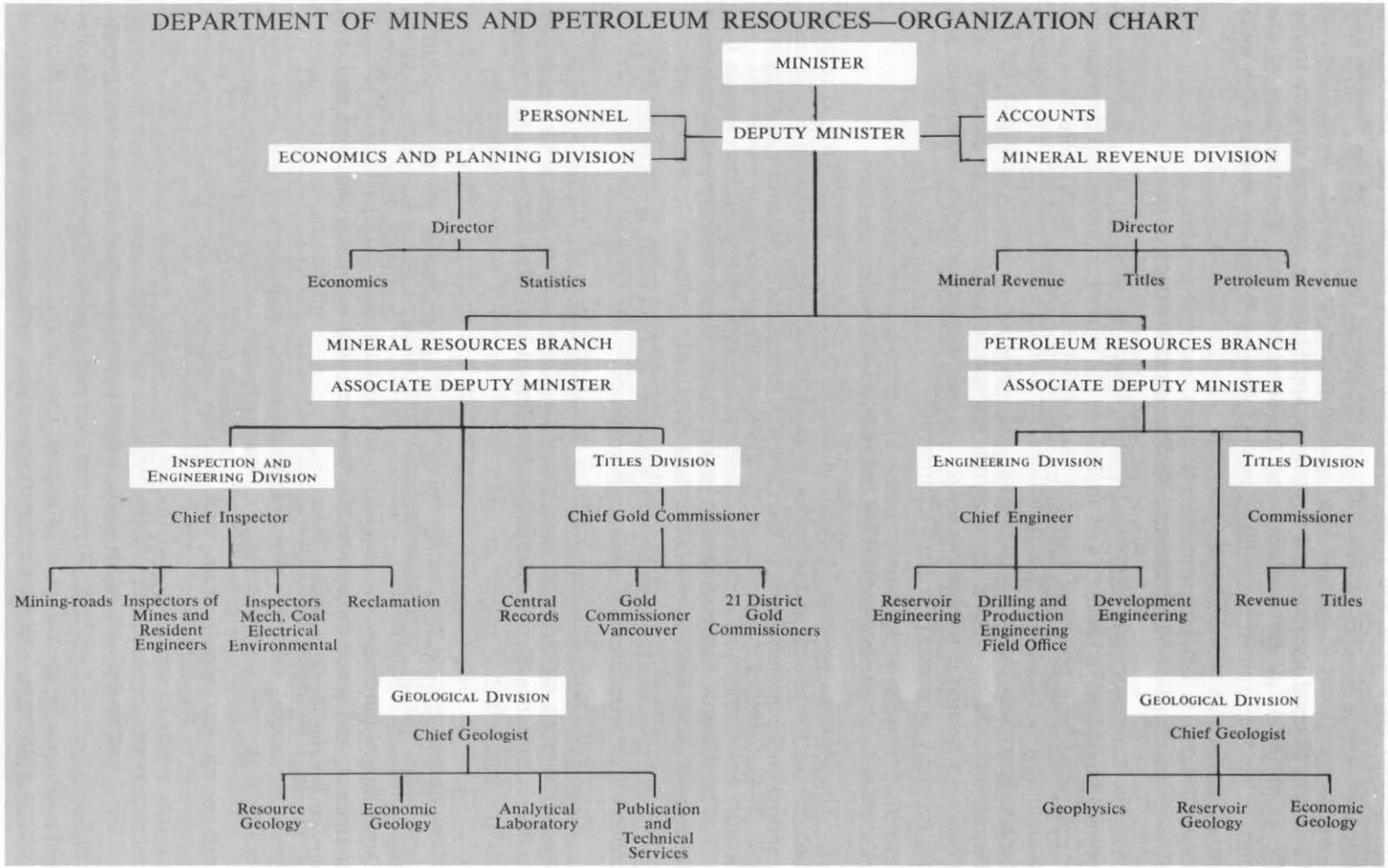
Amendments provided for the renegotiation of rentals payable to surface owners. The Mediation and Arbitration Board was established to settle disputes resulting from entry on land. Permit rentals, work requirements, and lease rentals were doubled while natural gas licence rentals, all fees, and penalties were also increased.

A new section was added to provide the Minister with authority to require the holder of a lease to submit a development plan. If the plan is deemed inadequate, the Minister may order the holder of a lease to drill a well or require the surrender of all of the location of the lease except those spacing areas on which there is a well capable of producing petroleum or natural gas.

Provisions for "pooling" and royalties were amended and the authority for pooling was changed from the Chief Commissioner to the Minister.

ORGANIZATION

The structure of the Department was on the threshold of major changes at the end of 1974, but the organization during the year was largely that as established in 1973 and shown on the organization chart on page A 53. The Department in 1974 had a symmetrical organization consisting of two Branches, the Mineral Resources Branch and the Petroleum Resources Branch, with an Associate Deputy Minister in charge of each. Each Branch consisted of three Divisions, Engineering


DEPARTMENT OF MINES AND PETROLEUM RESOURCES—ORGANIZATION CHART
MINISTER
PERSONNEL
DEPUTY MINISTER
ACCOUNTS
ECONOMICS AND PLANNING DIVISION
MINERAL REVENUE DIVISION
Director
Economics
Statistics
Director
Mineral Revenue
Titles
Petroleum Revenue
MINERAL RESOURCES BRANCH
ASSOCIATE DEPUTY MINISTER
PETROLEUM RESOURCES BRANCH
ASSOCIATE DEPUTY MINISTER
INSPECTION AND ENGINEERING DIVISION
Chief Inspector
Mining-roads
Inspectors of Mines and Resident Engineers
Inspectors Mech. Coal Electrical Environmental
Reclamation
TITLES DIVISION
Chief Gold Commissioner
Central Records
Gold Commissioner Vancouver
21 District Gold Commissioners
ENGINEERING DIVISION
Chief Engineer
Reservoir Engineering
Drilling and Production Engineering Field Office
Development Engineering
TITLES DIVISION
Commissioner
Revenue
Titles
GEOLOGICAL DIVISION
Chief Geologist
Resource Geology
Economic Geology
Analytical Laboratory
Publication and Technical Services
GEOLOGICAL DIVISION
Chief Geologist
Geophysics
Reservoir Geology
Economic Geology

(Inspection), Geological, and Titles, directed by a Chief Engineer, etc. The Sections within the Divisions vary in title, reflecting the special functions of the Branch, and are mostly in charge of a Senior Geologist, Inspector, or Engineer. In addition two Divisions, Mineral Revenue and Economics and Planning, reported directly to the Deputy Minister as did Accounts and Personnel Sections. The functions of the units of the Department are outlined in the following discussion, starting with units reporting directly to the Deputy Minister.

Economics and Planning Division

The Economics and Planning Division, under the direction of J. S. Poyen, is primarily involved in research and analysis of the mineral industry and the ongoing maintenance of a statistical base for the Department. As such there is a staff complement of 12 persons in two sections, Economics and Statistics. The Statistics Section is responsible for the collection and tabulation of mineral statistics for the Department and to support the research projects of the Economics Section. The Economics Section is responsible for studies on questions of policy, legislation, and the economy in general for the Department.

Mineral Revenue Division

The Mineral Revenue Division, under the direction of Hart Horn, is responsible for the assessment and collection of mineral and petroleum royalties and taxes imposed under the provisions of the *Coal Act, Mineral Act, Mineral Land Tax Act, Mineral Royalties Act,* and *Petroleum and Natural Gas Act, 1965.*

The *Mineral Revenue Section,* under B. A. Garrison, is responsible for the assessment and collection of mineral land taxes and royalties.

The *Petroleum Revenue Section,* under A. R. Lockwood, is responsible for the collection of petroleum and natural gas royalties.

The *Titles Section* is responsible for the establishment of a Province-wide inventory of privately owned mineral rights. Part of the work of this group is directed to the maintenance of land records for the Mineral Land Tax Roll.

Accounts

The *Accounts Section,* under S. G. Bone, is responsible for the preparation and control of Departmental estimates, payroll, the costing and facilitation of Departmental purchases, the acquisition and maintenance of Departmental vehicles, equipment, and space throughout the Province, and maintains the filing and mail service for the Department.

Personnel

The *Personnel Section,* under R. E. Moss, handles all matters pertaining to staff recruitment, classification, staff training, and labour relations.

Mineral Resources Branch

The Mineral Resources Branch, under the supervision of Associate Deputy Minister James T. Fyles, administers the laws and regulations pertaining to the mineral resource with the exception of mineral revenue and development. The Branch is divided into three divisions whose function and organization are as follows:

Geological Division

The Geological Division was directed by Chief Geologist Stuart S. Holland. Its function is to provide information on the quantity, quality, and distribution of the coal and mineral resources of the Province and to assist in the orderly discovery, exploration, development, and use of these resources. To achieve these objectives the Division conducts the following major programs:

(1) Conducts field mapping and requisite laboratory and office studies of areas of high and moderate mineral potential at detailed scales commensurate with the identification of geological parameters with which mineral deposits are associated.
(2) Examines and studies mineral and coal deposits.
(3) Collects, collates, stores, and disseminates geological and statistical data recording the activities of the industry in exploration and production.
(4) Makes mineral evaluation assessments of land and produces maps showing these evaluations for land use and planning purposes.
(5) Provides chemical analyses for Departmental studies and for bona fide prospectors.
(6) Supplies both general and specific information regarding mineral deposits, mineral resources, and the mineral industry to Government, the general public, and to the industry.

Information produced or gathered by the Division is made available through a series of publications and also through public access to open files.

The *Resource Geology Section,* under N. C. Carter, undertakes office and field studies concerned with resource appraisal, including an inventory of mineral resources, monitoring its activity, and appraising its potential.

The *Economic Geology Section,* under E. W. Grove, undertakes geological mapping and related office and laboratory studies of areas of moderate and high mineral potential to provide maps and ideas for successful exploration and prospecting.

The *Analytical Laboratory,* under W. M. Johnson, provides chemical analyses and assays of a wide variety of samples for prospectors and for detailed Departmental studies related to genesis and distribution of ore deposits.

The *Publication and Technical Services Section,* under A. Sutherland Brown, produced and published maps and reports prepared by geologists of the Division and assisted in the same process for the Department. The section also provided technical services for the Division and Department such as library, equipment, photographic, and lapidary.

Inspection Division

The Inspection Division, under the direction of Chief Inspector J. W. Peck, is separated into four sections, the largest of which is the *Mine Inspection,* which is assisted and advised by specialized personnel in *Mechanical-Electrical, Environmental Control,* and *Reclamation* Sections.

Mine Inspection by resident engineers is a continuing program to ensure the health and safety of miners and the safe and efficient operation of mines and the equipment used in them. Inspectors also may examine prospects, mining properties, roads and trails, and carry out special investigations under the *Mineral Act.*

Mechanical and Electrical Inspection, under V. E. Dawson, and *Environmental Inspection,* under S. Elias, is conducted by specialists in these fields with the assistance of engineering technicians. The environmental control inspectors conduct

dust, ventilation, and noise surveys at all mines and quarries and, where necessary, make recommendations to improve environmental conditions.

Reclamation Inspection, under J. D. McDonald, is increasing both in scope and responsibility. All operations related to mining, including exploration activities, must have an approved reclamation plan. The inspectors ensure that approved plans are strictly adhered to, give assistance and advice to the industry concerning improvements in this field, and make recommendations to the Chief Inspector as required. All mining sites are visited by the reclamation staff as often as possible.

Titles Division

The Titles Division of the Mineral Resources Branch is under the direction of Chief Gold Commissioner E. J. Bowles and Deputy Chief Gold Commissioner R. Rutherford. It is responsible for the administration of the Provincial laws relating to the acquisition and holding of mineral rights, including coal.

Gold Commissioners, Mining Recorders, and Sub-Mining Recorders are appointed for the 24 mining divisions throughout the Province and their duties are laid down in the *Mineral Act* and *Placer Mining Act.* They also administer other Acts relating to mining. The recording of locations and of work on mineral claims as required pursuant to the provisions of the *Mineral Act,* and upon placer mining leases as required by the *Placer Mining Act,* is made at the office of the Mining Recorder for the mining division in which the claim or lease is located.

The Vancouver Mining Recorder's office is under the direction of Gold Commissioner J. Egdell, who reports to the Chief Gold Commissioner in Victoria.

The routine operation of the Central Records office in Victoria is supervised by T. Mitchell.

The Claims Inspectors at Smithers and Kamloops report directly to the Chief Gold Commissioner. They are responsible for checking the location and proper staking of mineral claims, and investigate any disputes concerning title or use of claims.

The Administrator for coal, A. Corner, receives and reviews applications for coal licences and leases and applications for extensions to the terms of licences. He also co-ordinates the evaluation of all reports of exploration and development work pertaining to coal.

Petroleum Resources Branch

The Petroleum Resources Branch, under the general direction of Associate Deputy Minister J. D. Lineham, administers the *Petroleum and Natural Gas Act, 1965* and the regulations made thereunder, including the Drilling and Production Regulations, the Geophysical Regulations, the Drilling Reservation Regulations, and the Development Road Regulations. It also administers the *Underground Storage Act, 1964.* Therefore, the Branch is responsible for all matters related to the disposition of Crown-owned petroleum and natural gas rights as well as the regulation of the exploration, development, and production phases of the oil and gas industry.

The Branch is divided for administrative purposes into three main divisions, namely, the Engineering Division, the Geological Division, and the Titles Division.

Engineering Division

The Engineering Division, under the direction of Chief Engineer A. J. Dingley, is responsible for all engineering activities of the Petroleum Resources Branch. There are three main functions:

(1) Enforcement of the Drilling and Production Regulations under the *Petroleum and Natural Gas Act, 1965,* together with provision of advice to the Minister with respect to applications made by industry under the Act.

(2) Collection, filing for Branch and public use, and publication of drilling and production statistics, production and disposition data, reservoir and pool performance data.

(3) Reservoir analysis of all oil and gas pools in the Province, including maintenance of current production rate forecasts together with data concerning reserves discovered to date and estimates of potential reserves growth.

The *Reservoir Engineering Section,* under the Senior Reservoir Engineer B. T. Barber, is concerned with all reservoir engineering aspects of the Division's activities. The section is responsible for determination of reservoir and production characteristics of oil and gas pools in the Province. This involves interpretation of reservoir pressure, rock and fluid properties, and production data. These parameters are used to forecast ultimate recoveries obtainable from oil and gas accumulations in the Province, and the rates at which these volumes will be produced. The section maintains files of reservoir data, obtained from both industry and Branch sources, and reviews such data for quality. Oil and gas allowable rates are set by the section, and recommendations concerning proposed improved recovery and produced fluid disposition schemes are made. The section is concerned with technical aspects of matters affecting conservation and correlative rights.

The *Drilling and Production Engineering Section,* under the supervision of District Engineer D. L. Johnson, is located at the Field Office at Charlie Lake and is primarily responsible for enforcement of the Drilling and Production Regulations in the field. It also collects reservoir and other data as required, acts in a liaison capacity with industry at the field level, and maintains core and drill sample storage and examination facilities.

The *Development Engineering Section,* under the supervision of Senior Development Engineer W. L. Ingram, licenses drilling and service rigs, issues well authorizations, and maintains detailed records pertaining to all drilling and production operations.

Geological Division

The Geological Division, under the direction of Chief Geologist W. M. Young, consists of three sections and is responsible for all geological and geophysical activities of the Petroleum Resources Branch.

Data resulting from the drilling of wells, geophysical surveys, and other related sources in the Province in the search for and development of accumulations of oil and gas are supplied to the Branch. These data are used by staff geologists and geophysicists as a basis for reports on, and maps and cross-sections of, the economically important sedimentary rocks of the Province. The Division is responsible for providing data and opinion to attract, assist, and encourage the exploration and development of the petroleum resources of the Province. The Division directs and provides all draughting services required by the Geological and Engineering Divisions and also directs, through the District Engineer, the work of the Core and Sample Laboratory, located at Charlie Lake.

The *Economic Geology Section,* under G. R. Morgan, is primarily concerned with those matters related to exploration and economic geology.

The *Reservoir Geology Section,* under R. Stewart, is primarily concerned with the detailed knowledge of the geology of oil and gas reservoirs. Other divisions and departments frequently make use of the knowledge possessed by the section geological staff to assist in the framing of development procedures that ensure the best returns from these reservoirs.

The *Geophysical Section,* under a senior geophysicist yet to be appointed, is concerned with exploration and geophysical investigations related to the search for and development of oil and gas reserves.

Titles Division

The Titles Division consists of two sections, under the direction of Commissioner R. E. Moss, and is responsible for administering those parts of the *Petroleum and Natural Gas Act, 1965* relating to and affecting title to Crown petroleum and natural gas rights.

The Division administers the disposition of Crown petroleum and natural gas rights and, in consultation with the Engineering and Geological Divisions, approves and selects parcels for posting, and accepts or rejects the tenders received.

The *Titles Section* is responsible for all transactions involving petroleum and natural gas permits, all leases, natural gas licences, drilling reservations, geophysical licences, notices of commencement of exploratory work, affidavits of work, unit agreements, and miscellaneous recordings.

The *Revenue Section,* under W. J. Quinn, is responsible for the collection of all petroleum and natural gas revenue, except royalty, payable to the Crown under the provisions of the Act.

Appointments and Retirements

John S. Poyen (Jr.) was appointed Director of the newly established Economics and Planning Division on January 7, 1974. He came to British Columbia from Calgary, Alta., where he had been employed by a major petroleum company during the previous 10 years. His position at that time was that of Marketing Economist. He graduated with a B.A. degree from the University of Colorado in 1964. His major subject was economics and minor subjects were geology and history.

Dr. Stuart S. Holland retired as Chief of the Geological Division, Mineral Resources Branch, on December 31, 1974, after 35 years of service. He was born in Vancouver where he received his early schooling. He attended the University of British Columbia and graduated in 1930 with a B.A.Sc. in geological engineering. He spent three years at Princeton University and was awarded an A.M. in 1932 and a Ph.D. in geology in 1933. He worked five summers with the Geological Survey of Canada as an undergraduate and as a graduate. He was employed as a field geologist by the late Col. H. H. Yuill, Dr. Victor Dolmage, and R. H. Stewart, chiefly on lode gold properties and gold placers in the Bridge River, Cariboo, and Omineca areas. He joined the Department of Mines as an Associate Mining Engineer on January 1, 1939, and was appointed Mining Engineer in 1943 and Geologist in 1950. In December 1966 he became Deputy Chief of the Mineralogical Branch and in 1970 became Chief of the Branch. While with the Department he devoted his time to reconnaissance geological mapping and detailed geological work in mining areas with considerable emphasis on lode gold properties and gold placers. At times he gave special attention to tungsten, uranium, and beryllium occurrences. Incidental work included special geological studies for the Pacific Great Eastern Railway on unstable ground; for the Fraser River Board on the Moran damsites; and for the British Columbia Power Commission on diversion tunnels in the Chilko-

Homathko area. The list of his publications includes geological studies relating to lode and placer properties, a bulletin on landforms of British Columbia, and a mineral appraisal of northern British Columbia. He is a member of the Association of Professional Engineers of British Columbia and the Canadian Institute of Mining and Metallurgy.

HARRY BAPTY retired as Senior Inspector on September 30, 1974. Mr. Bapty was born in Victoria. He received his early education in Victoria and later attended the Idaho College of Mines, the University of Colorado, and the University of British Columbia. He received both a B.Sc. degree and a B.A.Sc. degree, the latter being in mining engineering. His employment varied from being a seaman with a whaling fleet, a powder worker at an explosives plant, a surveyor's assistant, and eventually being Chief Surveyor for The Granby Consolidated Mining, Smelting and Power Company Limited at Copper Mountain mine and at the Bromley Vale coal mine. He then spent four years in the Canadian Army in Canada and Europe during World War II, retiring as a captain. Subsequent to that and prior to joining the Department of Mines and Petroleum Resources in 1963, he was employed as a mining engineer in placer-mining in the Yukon Territory, with Torbrit Silver Mines, Ltd. at Alice Arm, with Cowichan Copper Co. Ltd. at Jordan River, and again at Torbrit silver mine as manager.

His first Departmental appointment was as Inspector of Mines and Resident Engineer in Prince Rupert, from whence he was transferred to Victoria in 1970 to become Senior Inspector in charge of the *Prospectors' Grub-stake Act* and the Department's mine road program. He is a member of the Association of Professional Engineers and of the Canadian Institute of Mining and Metallurgy, which organization he served as secretary of the Victoria branch for several years.

DEPARTMENTAL WORK

Administrative Services

An extensive review of Departmental accounting and filing procedures was undertaken with the assistance of G. Currie of the Department of Transport and Communications. This has resulted in a reorganization of the Accounts Section. Likewise, Departmental publications and library services were scrutinized with a view to improving the dissemination of information.

The personnel statistics for the Department for 1974 are:

Number of permanent employees	218
Number of temporary employees (continuous)	20
Number of appointments	90
Number of resignations	28
Number of retirements	4
Number of in-service transfers	5
Number of promotions and reclassifications	54
Temporary employees under "Careers '74"	41
Temporary employees	16

The most significant change during 1974 was the signing of a first Master Agreement with the British Columbia Government Employees' Union and subsequent signing of 13 component agreements. This Department is involved in five component agreements, namely:

Administrative Support—clerks, clerk-typists, and clerk-stenographers.

Administrative, Fiscal and Regulatory—administrative officers, and audit accountants.

Environment, Resource, and Conservation—laboratory technicians.
Educational and Scientific Services—laboratory scientists, economists, and research officers.
Engineering, Technical, and Inspectional—draughtsmen, mapping assistants, technicians, engineering aides, engineering assistants, and co-ordinators (rescue training).

Economics and Planning Division

The Economics and Planning Division came into being in January 1974 with the appointment of the Director, J. S. Poyen (Jr.), and the Assistant Director, L. Sivertson. The priorities established at that time were staffing and organization, development of a data system, and commencement of mineral studies.

All positions were filled by May 31, 1974. The Division was organized in two sections. The Statistics Section was responsible for the collection and tabulation of mineral statistics for the Department. The Economics Section undertook specific economic research projects as support for management decisions on policy, legislation, and the economy in general.

Data system—The second priority was the establishment of a data system that would be accessible for economic reviews and analyses. The holdings of the Departmental library were expanded to include over 900 publications pertaining to mineral studies, and statistics and economics. These publications are on extended loan to this Division for the convenience of the research staff.

The Division acquired a mini-computer to supplement the information system and provide computing capability for programs in the fields of statistics, engineering, economics, and finance. Division personnel revised several regression analysis programs for economic forecasting. In addition the Division developed programs for data management (series generation and storage programs for annual and weekly data, updating programs, and plotting programs) and financial Discounted Cash Flow series.

In the area of statistics, emphasis has been on the collection and tabulation of pertinent information and assembly of that data into an easily accessed retrieval system.

Mineral studies—During 1974 the Division completed two major mineral studies. One project involved considerable support work for the Copper Task Force. Another project was a survey of the sand and gravel industry. Both projects have set the basis for ongoing work in the general area of resource management and planning.

Interdepartmental studies during the year included a study of mining claims in parks, and cost-benefit studies in co-operation with the Environment and Land Use Secretariat. Work was completed with the Department of Economic Development on higher value added studies as well as regional studies with the Department of Regional Economic Expansion.

The Division provided short- and medium-term economic reviews and forecasts to other divisions in the Department to assist in the decision-making process concerning mineral development. Feasibility studies and surveys for mineral development were examined and recommendations made.

Mineral Revenue Division

The Mineral Revenue Division completed its initial year of operation in 1974. This first year was a trying period marked by extreme work pressures caused by recruitment and training of new staff, preparation of new regulations, and the over-

all logistics required when starting up a new division and co-ordinating its activities. Considering the difficulties and pressures encountered, the results of the past year have been quite satisfactory. Administration of the royalty and tax provisions of these statutes during the year is summarized below.

Coal royalty—In July 1974 the administration of coal royalties was transferred from the Surveyor of Taxes of the Department of Finance to the Director of Mineral Revenue. The *Coal Act* was proclaimed August 1, 1974, and new Coal Royalty Regulations were approved effective August 1, 1974. Under the new regulations, metallurgical coal was subject to a royalty of $1 per long ton, while thermal coal was subject to a royalty of 50 cents per long ton during the 1974 calendar year. Details of coal royalty collection for the calendar year are as follows:

	Producers	Tons of Coal	Royalty Paid
			$
Surveyor of Taxes	2	993,019.00	281,248.50
Director of Mineral Revenue	3	799,613.25	1,361,081.25
Totals	3	1,792,632.25	1,642,329.75

Mineral Act royalty—Royalty assessed under the *Mineral Act* is for iron ore, and the details of this collection are summarized as follows: Producers, 2; tons of iron concentrates, 311,850.03; royalty paid, $155,925.04.

Mineral land taxes—On May 1, 1974, the first assessments were made under the provisions of this Act. Records of Crown-granted mineral claims formerly taxed under the *Taxation Act,* together with considerable freehold acreage acquired through railway land grants, formed the basis for the initial tax roll. A new computer program and files were required within a two and one-half-month period, and credit for the development of these instruments is due to B. Garrison and his staff, and to P. Hayles and his associates from the Department of Transport and Communications. During 1974, coal was the only mineral to be designated, and two production tracts were established. Details of assessments and tax collections for the year are as follows:

Classification of Mineral Land	Number of Folios	Acreage	Tax Assessed	Tax Collected
			$	$
Nondesignated mineral land	6,333	1,008,368.51	481,262.36	270,665.99
Production areas	23	30,071.48	60,142.96	60,039.66
Production tracts	2	6,085.00	2,309,317.19	2,309,317.19
Totals	6,358	1,044,524.99	2,850,722.51	2,640,022.84

In lieu of paying the tax assessed against his mineral land, an owner may surrender his mineral rights unto the Crown, or allow his mineral lands to be forfeited to the Crown. During 1974, eight companies indicated intention to surrender mineral rights. Six of these surrenders involve mineral lands granted under former railway land grants covering extensive land holdings on Vancouver Island and in the Kootenay Land District. Due to complexities in title and Land Registry Office requirements, only one of these major surrenders was completed during the year. The difficulties with the remaining five should be resolved during 1975 and, when

registered, several million acres will be available for exploration. Details of mineral lands formally surrendered during the year are as follows:

Company	Acreage
Attwood Copper Mines Limited	47.01
Canadian Pacific Railway	5,161,269.00
Canex Placer Limited	1,111.95
Total	5,162,427.96

The five surrenders pending completion are as follows:

Company	Approximate Acreage
CanPac Minerals Limited	135,639
Crows Nest Industries Limited	245,300
Esquimalt and Nanaimo Railway Company	30,346
Pan Canadian Petroleum Limited	2,200,000
Weldwood of Canada Limited	32,639
Total	2,643,924

During the summer the Titles Section commenced a program to establish an inventory of mineral land, and to identify those freehold mineral lands which are subject to taxation under the Act. For this purpose district titles offices were located in New Westminster, Kamloops, Nelson, Prince Rupert, and Prince George. The permanent staff was assisted by the employment of 17 casual employees under the Department of Labour's "Career '74" program. A total of 4,869 searches was completed with 3,854 designated for inclusion on the mineral land tax roll; however, only 703 parcels were actually added to the rolls. New control procedures and the practical experience gained by staff during the past year will further improve the utility of title searches performed.

Due to nonpayment of taxes, 314 parcels of mineral land covering 11,357.84 acres were forfeited to the Crown.

Mineral royalties—The *Mineral Royalties Act* was proclaimed on October 1, 1974, and provides for the assessment of royalty on designated minerals produced, retroactive to January 1, 1974, from title held under the provisions of the *Mineral Act, Placer Mining Act,* or *Coal Act.* Royalty was collected on the following designated minerals: Copper, lode gold, molybdenum, silver, and zinc. Eleven major producers were subject to the provisions of the Act in the initial year, and the results of the royalty assessment during this period are as follows:

Designated Mineral	Production Subject to Royalty	Gross Value	Royalty Collected
		$	$
Copper (lb.)	260,363,858	234,343,235.28	8,246,674.07
Lode gold (oz.)	48,847.47	7,545,683.87	653,423.03
Molybdenum (lb.)	10,495,023.80	21,288,361.56	348,551.69
Silver (oz.)	797,490.61	3,601,648.68	116,705.50
Zinc (lb.)	1,728	387.30	6.04
Overpayments			3,613,738.19
Totals		266,779,316.69	12,979,098.52

Because of the significant decline in the price of copper, initial copper royalty assessments were determined with a substantial surcharge, but, by the end of the year, the average gross value had declined to such an extent that the surcharge was reduced significantly, or was no longer applicable. This resulted in large overpayments of copper royalties. Also an overstatement of gross values and royalties resulted when several producers failed to report production and values in conformance with the royalty regulations.

Petroleum and natural gas royalties—The administration of petroleum and natural gas royalties was transferred from the office of the Chief Commissioner of Petroleum and Natural Gas to the Division in January of 1974.

The price of oil was increased effective April 1, 1974, by $2.70 per barrel from the previous month's well-head price of $3.53 per barrel. This increase was a result of the First Minister's Conference in the spring of 1974.

The sale of most of the natural gas within the Province was contracted to the British Columbia Petroleum Corporation retroactive to November 14, 1973. In these contracts the Corporation undertakes to satisfy all royalty owing to the Crown in right of the Province. These contracts increased the average net value of natural gas sales by producers from 10.58 cents to 17.88 cents in the first months of the contracts.

New Petroleum and Natural Gas Royalty Regulations were approved effective July 1, 1974, with provision for retroactivity to April 1, 1974, for royalties on crude petroleum. These regulations provided for increased royalty rates on crude petroleum and field condensate production, and increased royalty rates on natural gas and by-products not sold to the British Columbia Petroleum Corporation. Sales to the Corporation, under contract, were exempted from the payment of royalty.

The economics of several individual operating units were studied by the Petroleum Revenue Section. Some of these studies indicated a reasonable profitability with prevailing Provincial and Federal royalty and tax rates; some studies indicated unfavourable economic results, and some showed that by decreasing production rates the operators could improve economic returns.

The actual royalty collections under the Act for the 1974 year were as follows:

	$
Gas	3,288,296.85
Oil	45,300,184.21
Products	51,181.21
Penalties	649.20
Total	48,640,311.47

Additional statistics concerning production, disposition, value, and royalties are in Part B.

Mineral Resources Branch

Geological Division

Summaries of the work and special projects undertaken by the Division follow. The work of the Division results in publications, maps, and reports which are also listed.

Geological fieldwork—The geologists worked on the following major projects:

G. L. Bell studied all active coal properties in the Province.

P. A. Christopher started work on a project related to ultramafic intrusions and magmatic ore deposits at the Giant Mascot (Pride of Emory) mine.

B. N. Church completed mapping the volcanic rocks and the stratiform copper deposits of the Sustut area.

G. E. P. Eastwood investigated several prospects and properties on Vancouver Island.

E. W. Grove carried out detailed studies of the Liard Copper deposit and mapping of the Schaft Creek area. Underground mapping of the Granduc copper mine was also completed.

J. A. Garnett completed mapping of the southern Omineca intrusions and their copper and molybdenum deposits and carried out other duties for the Department.

T. Höy started work in regard to lead and zinc deposits of southeastern British Columbia.

W. J. McMillan completed mapping the Guichon Creek batholith and the porphyry copper and molybdenum deposits of the Highland Valley.

J. W. McCammon completed an appraisal of all sand and gravel pits on the Lower Mainland.

K. E. Northcote mapped the northern half of the Iron Mask batholith.

A. Panteleyev continued mapping the volcanic rocks, syenitic intrusions, and copper deposits of the Stikine area.

D. E. Pearson started a mapping program related to precious metals in the Bridge River area.

V. A. Preto continued mapping volcanic and intrusive rocks that are noted for their abundant copper prospects in the area between Princeton and Merritt.

In addition, E. W. Grove and N. C. Carter carried out supervisory tasks and property visits. A. F. Bowman was engaged in initiating computer programs as an aid to the field projects.

G. G. Addie and G. H. Klein were appointed District Geologists in Nelson and Prince George late in the year, adding to the program initiated with the appointments of T. G. Schroeter in Smithers and G. P. E. White in Kamloops.

Mineral inventory—The Mineral Inventory group of geologists, with temporary help from the Careers '74 program and the Incentives program of the Department of Human Resources, contributed to the Departmental mineral inventory file of maps and data cards which now contains data on 7,800 mineral deposits. They assisted in the compilation of the annual publication *Geology, Exploration and Mining in British Columbia* from assessment reports and exploration forms.

Special projects included a study of copper production and reserves and similar studies of other metals were initiated. Data on 25,000 surveyed mineral claims were filed on computer.

Evaluations of the mineral potential of selected areas, mainly those to be set aside for park, recreation, or forest yield studies were made. An additional number of properties were evaluated for purposes of the *Mineral Act*.

Analytical laboratory—During 1974 the laboratory made significant progress in developing rapid analytical methods and statistical data-handling techniques for both trace and major element analyses. As a consequence, the output of the laboratory increased substantially over that of previous years.

Renovations began in October and will be continued well into the new year. These include installation of new fume hoods, bench tops, storage area, comminution machinery, and dust-control equipment.

The wet laboratory reported 23,473 results on 1,763 samples to Departmental geologists, 319 results on 113 samples to prospectors, and 213 results on 93 samples to grubstaked prospectors. In addition, five samples were analysed for the Honourable Gordon Dowding, Speaker of the House, and 407 results were reported on five samples as a part of our participation in the Standard Reference Material Project. This represents a total of 24,417 results on 1,979 samples.

The emission spectographic laboratory reported 601 semiquantitative results on 601 samples and 2,689 quantitative results on 352.

The X-ray diffraction laboratory reported on 260 mineral identifications, 433 quartz determinations, and a 321-sample clay mineral alteration study.

In addition, 292 refractive index determinations were made and 23 mineral separations were performed.

Publications and special reports—The following publications and maps were produced in 1974: *Geology, Exploration and Mining in British Columbia, 1973; Geological Fieldwork, 1974*—a new publication to bring the preliminary results of the field season to the interested public as quickly as possible; Preliminary Map No. 14—*Petrochemical Overlays, Copper Mountain Area* (two sheets); Preliminary Map No. 15—*Geological Map of Aspen Grove Area* (five sheets plus descriptive notes); Preliminary Map No. 16—*Geological Map of the Riondel Area;* 35 Mineral Deposit-Land Use maps.

Special reports on mines, copper reserves, policy proposals, and ecological reserves were prepared for Departmental use. A large number of reports were prepared for the Environment and Land Use Secretariat as well as a number of reports on mining claims in parks.

Inspection Division

One of the principal functions of the Inspection Division is the investigation of all fatalities and dangerous and (or) unusual occurrences in the mining industry. In 1974, there were 12 fatalities. Of these, one occurred in an underground coal mine, one in a shaft at a placer mine, one at a granite quarry, and the remainder were at metal mines. Of the nine fatalities at the metal mines, six occurred underground, two in concentrators, and one at an open pit.

Fatal and compensable (more than one working-day lost) injuries were as follows in comparison to 1973 and 1972:

	1972		1973		1974	
	Fatal	Compensable	Fatal	Compensable	Fatal	Compensable
Coal mines	6	227	1	294	1	306
Mines other than coal	16	771	6	817	11	1,225
Totals	22	998	7	1,111	12	1,531

Details of the above fatalities and dangerous occurrences will be published in the Report of the Chief Inspector.

Certificates—All persons working underground and in open-pit workings must be under the supervision of a person qualified as per the *Mines Regulation Act* or the *Coal Mines Regulation Act*. In 1974 the Board of Examiners issued 54 permanent underground shiftboss certificates, 70 open-pit shiftboss certificates, and eight gravel pit shiftboss certificates. The total number of all these permanent and provisional certificates at the end of 1974 was 1,336.

Four first-class and two second-class certificates of competency in coal-mining were issued. It became evident by the end of 1974 that there would be a shortage of men holding third-class certificates for the proposed underground coal mines. Therefore, arrangements were made between this Department and the Department of Education, together with Canada Manpower, for training courses for these certificates.

In August 1974, Rule 316 of the *Mines Regulation Act* was put into effect, making it mandatory for miners to have a miner's certificate before they could be

employed at a working-place in an underground mine. Rule 316 provides for three types of certificates—provisional, conditional, and permanent. The conditional certificate is issued to miners who were employed in underground mines for at least six months prior to August 1974. The permanent certificate is issued to underground miners who have first aid, mine-rescue, and blasting certificates, as well as three years' experience, and who have passed a test. Provisional certificates are issued to miners for a limited time until they acquire a permanent certificate.

By issuing a miner's certificate, the Department of Mines and Petroleum Resources recognizes that a miner has acquired training and skills that will make him a better and safer miner. Approximately 500 provisional certificates and around 700 conditional certificates were issued in 1974.

Prosecutions and suspensions—There were four successful prosecutions in 1974 under the *Mines Regulation Act*. Three companies held as a corporate group were fined a total of $3,000 covering a series of charges—failure to dispose of explosives on shutdown; failure to dispose of cyanide on shutdown; storage of explosives without permit; failure to notify District Inspector on closure; failure to file reclamation report. A placer operator was fined $50 each on two charges—failure to notify an Inspector on opening of a placer mine, and use of a gasoline engine underground. One prosecution was pending against the operator of an underground locomotive for driving without due care and attention.

There were five suspensions of blasting certificates ranging from one week to an indefinite period. These involved such instances as carrying a lit fuse with explosive; inadequate examining of face of previous blast; failure to guard a blast; and drilling within 3 inches of a hole containing explosives.

Mine rescue and first aid—There are six rescue co-ordinators stationed at Fernie, Kamloops, Prince George, Smithers, Nelson, and Nanaimo. They give courses in mine rescue and first aid at various mines as well as at the University of British Columbia and the British Columbia Institute of Technology. The number of rescue certificates issued in 1974 totalled 203 for underground, 305 in open-pit rescue, and 31 in gravel-pit rescue. A total of 242 also received training in first aid.

All mines are required to have a certain number of trained men on site to handle emergencies. It has been found that the best way to stimulate interest in mine rescue and first aid is by having competitions and for this the Department provided $24,000 in grants to mine safety associations. It is estimated this amount was more than matched by the mining companies in payment of wages and other support. The competitions were held in May and June at Nanaimo, Nelson, Kimberley, Kamloops, Prince George, and Fernie.

A highlight of the Department's training program was the printing of a manual on Survival-Mine Rescue compiled by the rescue co-ordinators and inspectors.

Reclamation—By year-end, 51 metal mines, 69 quarries, 4 coal mines, 24 coal exploration properties, and 68 mineral exploration properties were under permit. All permits require bonding to be posted and the total amount on hand by the end of 1974 was about $3,000,000. The highest bond is $300,000 (Kaiser Resources Ltd.) and the lowest is a few hundred dollars on a gravel pit. By year-end, more than 30,000 acres of mineral land had been approved for mining and exploration activity which was covered by reclamation permits.

All mines are required to do testing and research to determine the best use of mined land. Results are variable and the Department hopes to help in this program in 1975 by co-ordinating research.

One example of successful reclamation is the Bull River copper mine of Placid Oil Company, east of Cranbrook. It operated from 1969 to 1973. The ground has now been resloped and seeded to the satisfaction of all departments.

Aid to brokers' office—Since February 1969, A. R. C. James has been assigned as Mining Engineer Adviser to the Superintendent of Brokers' office. His duties are mainly to advise the Superintendent and his staff in regard to engineering reports submitted in support of prospectuses by mining companies as required by Regulation 17 of the *Securities Act*. Engineering advice is also required from time to time by the Superintendent in connection with programs financed by rights offerings; on the assessment of reports on work done on mining properties; on prices paid for mining properties; conditions of option agreements; and in approval of company press releases.

In 1974, 131 reports submitted by 102 companies were examined.

Environmental control—This section of the Inspection Division conducts ventilation and dust surveys throughout the mines to determine if any environmental hazard from dust, noise, or gas exists or might develop.

There is evidence that the incidence of silicosis can be controlled if mining operations do not produce dust in excess of 300 particles per cubic centimetre of air. Departmental surveys indicate this objective was achieved in most instances and where not, corrective action was taken.

The Department has stressed that all workmen exposed to undue noise be given audiometric tests. Surveys show this was done in 1974 at most operations. All drilling machines have been muffled for several years and hearing protection by ear muffs is also standard practice.

Mechanical-Electrical—Mining in the last decade has become increasingly machinery oriented. Huge trucks and shovels are used in open pits; and underground, trackless diesel equipment is in common use. The hazards are thus changing. The Department held an electrical seminar at Utah Mines Ltd. in September, a meeting on use of nonflammable hydraulic fluid in November in Victoria, and a meeting on the dangers of induced polarization prospecting in October. All were well attended. V. Dawson represents this Department on a committee which includes representatives from the Workers' Compensation Board, Department of Transport and Communications, and Motor-vehicle Branch to study the use of off-highway vehicles.

The administration of programs concerned with the B.C. Mining School, mining-roads, and prospectors' assistance were largely the responsibility of the Inspection Division.

B.C. Mining School—In the 1974/75 fiscal year, 19 students were granted $155 per month living allowance. Twelve were in the open-pit and seven in the underground course. Four were female and 15 male.

This program, run on a test basis in 1974/75, was highly successful and is being continued in 1975/76.

Mining-roads—A bridge was constructed across the Omineca River at Germansen Landing to replace the old Omineca bridge, built in 1952, which was dangerous and beyond repair. The Omineca road was repaired and extended northward to facilitate access to an area currently under fairly intense exploration. The road will be useful for future exploration in this area and could provide access to the British Columbia Railway via the Sustut Valley (40 miles).

In addition, several small grants were also made to build and maintain mining-roads around the Province.

In 1974, bridge construction and maintenance costs totalled $708,000; road construction and maintenance costs totalled $332,027.

Prospectors' assistance—In August of 1974 the *Prospectors Assistance Act* was proclaimed and the *Prospectors' Grub-stake Act* was repealed. The response

to this change was immediate and gratifying with moneys allotted to the new Act being applied for very quickly. As a result, 71 prospectors were in the field by late 1974 compared to 22 prospectors in the previous year. The new Act also provides for training assistance to train as well as upgrade prospectors. Around 250 persons were trained under this program at a cost of around $20,000. Most of these people are expected to apply for grants to prospect in 1975.

A review of activities by prospectors in 1974 shows that several new discoveries were made and many old prospects were re-examined. These mineral deposits will be assessed by Departmental geologists in 1975. A review of activities of prospectors in 1974 also shows that new prospecting methods and expertise were used to explore many parts of the Province. It is expected that this program will be expanded in the 1975/76 fiscal year, thus demonstrating the willingness of the Provincial Government to play an expanding role in mineral exploration.

Titles Division

In 1974, there were 16,971 mineral claims staked throughout the Province. In addition, four investigations resulted from complaints pursuant to section 80 of the *Mineral Act*.

Claim records—Amendments to the *Mineral Act* in 1974 gave legislative authority to the introduction of a new system called the Modified Grid System of staking mineral claims. It is to come into effect on March 1, 1975. Regulations governing the Modified Grid System were prepared and in these regulations the metric system of measurement is used. In addition, a booklet was drawn up for the information and use of prospectors dealing with the procedure to be followed in the staking of mineral claims under the new system. Public lectures to describe the new system were held at a number of places throughout the Province and copies of the regulations and booklet were mailed to all holders of Free Miners' Certificates.

An extensive ongoing program of redrawing maps has been continued and during the year 623 new mineral titles reference maps were completed. In addition, five new placer titles reference maps and 34 new coal maps were also completed. Approximately two-thirds of the Province is now covered by new mineral maps.

New regulations pertaining to the acquisition of placer leases under the new *Placer Mining Act* have been prepared and they also reflect the metric system of measurement. More than 300 maps showing placer leases are being redrawn at a scale of 1 inch equals one-half mile.

Claims inspection—Mineral Claims Inspectors were based at Kamloops and Smithers during 1974. Their duties include checking the locations of mineral claims to correlate them with the plotted position of claims, determining the validity of the staking under the *Mineral Act* and the *Placer Mining Act* and regulations, investigations of the use of mineral claims and investigations of disputes. The activities of the inspectors will increase in order to fulfil the objective of providing claim holders with firm title, and maintaining accurate and up-to-date records.

Production permits—A new feature of the *Mineral Act* is the requirement in sections 59, 64, and 72 for production approval. In addition, limited production permits are issued under section 15. In 1974, 21 applications for production permits were received and, after appraisal by the professional staff of the Branch, 10 were approved. Four were rejected on the grounds that the property was in the exploration stage and seven were pending.

Petroleum Resources Branch

Engineering Division

The Division was formally recognized during 1974, following approval of the Branch reorganization by the Public Service Commission. All engineering activities of the Branch are the responsibility of this Division. Principal areas of interest are enforcement of the Drilling and Production Regulations, collection and dissemination of technical information and reservoir analysis of all oil and gas pools in the Province.

Major projects undertaken during 1974 included preparation of a report entitled *Petroleum Resources Supply From British Columbia, Review and Forecast Through 1995*, compiled at the request of the British Columbia Energy Commission. In addition, a report of forecasted future natural gas supply from British Columbia was prepared. This was filed as a supplement to the submission of the British Columbia Attorney-General at hearings held by the National Energy Board into the supply and demand situation with respect to Canadian natural gas. A report detailing estimated pool by pool petroleum resource reserves in the Province was also prepared for publication.

Development engineering—During 1974, well authorizations were issued for the drilling of 144 locations.

The Development Engineering Section was involved in several projects during 1974. Revisions to the Drilling and Production Regulations were drafted. The most significant change involves conversion to the Lahee System of well classification. In addition, a first draft of regulations under the *Geothermal Resources Act* was prepared.

Present plans call for the petroleum industry to be operating with metric measurements by the end of 1978. Conversion to the metric system for all British Columbia legislation pertaining to the exploration and production phase of the industry is under review and discussion with other regulatory bodies. This is being done through representation on Metric Commission Sector Committee 4.2 and this committee's legislative subcommittee. The objective is to provide standardization within the Canadian petroleum industry when the change to metric is realized.

Toward the end of 1974 an investigation was started into the appropriate method to be used to compile industry exploration and production expenditures in British Columbia. Contacts were made with Statistics Canada and with industry organizations, and the work was still in progress at year-end.

During 1974 a new comprehensive Petroleum Resources Branch filing system was designed, with the object of improving retrieval efficiency and to provide greater security for the various documents retained. This is expected to be implemented during 1975.

Drilling and production engineering—During 1974, in excess of 200,000 miles was driven by staff members in the course of fulfilling the Section's primary responsibility, which is enforcement of the Drilling and Production Regulations in the field. Oil production facilities were inspected on 564 occasions and 3,593 routine inspections were made at producing, potential, or abandoned well locations. A total of 519 inspections of active drilling sites was made. During the course of the year, one oil well was tested and 64 gas well absolute open-flow potential tests were witnessed. A total of 947 calibration checks on production and sales gas-meters was made, and 734 bottom-hole pressure bomb elements were calibrated. Measurements were made of the down-hole pressure in 102 wells during the year, and, in addition, 27 well-bore segregation tests were witnessed. Some 71 man-days were

spent ensuring that seismic exploration activities were being carried out in compliance with the Geophysical Regulations.

An important aspect in the enforcement of the Drilling and Production Regulations is the investigation of any spillages of petroleum products that occur. The British Columbia Oil Spill Contingency Plan was initiated by the petroleum industry in 1971. Under this plan, equipment is located at strategic places in the producing area of the Province to assist personnel in the containment and rapid clean-up of any spillages. The Section co-operates with this organization by providing liaison and communication with various Government agencies that become involved. During 1974, no major spillages occurred, and only two man-days were spent inspecting oil-spills.

Inspection of salt-water disposal systems required five man-days of effort during 1974. At the end of the year an investigation was under way to ensure that segregation between the tubing and casing was being maintained in all water disposal and injection wells.

One major blowout occurred during the year at the well located in a-85-G/93-I-15. This well had been completed as a Halfway gas well and the blowout occurred while operations were under way to repair down-hole equipment. The original gas blow was estimated at between 10 and 25 MMSCF/D, but this rapidly diminished to an estimated 1 MMSCF/D during the first day. It took 10 days to completely stop the gas flow and developments at the site were continuously monitored by the Section during this period.

Reservoir engineering—This Section is concerned with all reservoir engineering aspects of the Division's activities, including the estimation of Provincial petroleum resource reserves, the rates at which these reserves will be produced, and such regulatory items as approving production schemes and setting allowable rates of production for oil and gas.

Several requests were approved during 1974 for modification to existing production schemes. These included modifications to the waterflood schemes in Crush Unit No. 1, Inga Unit No. 5, Peejay Unit No. 2, and Weasel Unit No. 2. Other production schemes approved during 1974 were a good engineering practices project for most of the gas wells in the Kotcho Lake field, and a similar project for one well in the Yoyo field.

A concurrent production scheme has been operating in the Inga field since April 1971. Gas-cap gas is produced by Inga Unit No. 3 under strictly controlled conditions with partial replacement of withdrawals by water injection along the gas-oil contact in Inga Unit No. 1. On the basis of mathematical model study results, approval in principle was granted in 1974 to cease the partial replacement of gas-cap withdrawals and to increase the off-take rate from 10 to 15 MMSCF/D. Pending a decision by the operators concerned to either enlarge the unit or to produce the allowable rate under competitive conditions, the increased rate had not been put into effect as of year-end.

Early in 1974 an application was received for assignment of the full waterflood MPR to Inga Unit No. 4. This was denied initially, on the basis that water injection capacity appeared insufficient to permit the balancing of reservoir withdrawals. Following further application, the operator's proposal to base the withdrawal rate on the previous period's injection rate was approved, with a maximum limit equivalent to the waterflood MPR.

Applications to produce an oil well in the Cecil Lake Halfway B pool without MPR and without gas-oil ratio penalties, and to produce the Fort St. John Pingel Unit No. 1 without gas-oil ratio penalty, were rejected. However, approval was

granted for the well in Cecil Lake to be assessed under Schedule 2000 for gas-oil ratio penalty purposes. Fort St. John Unit No. 1 was already operating under this schedule. Approval in principle was granted for a concurrent production scheme from the Halfway pool, Peejay West field. Implementation was awaiting unitization of the pool at year-end. During the course of 1974, seven applications were approved to flare gas while testing gas wells, and seven water-disposal schemes were approved.

Detailed reservoir analyses were made for 12 pools. These ranged in scope from investigation of the optimum production scheme for Cecil Lake Halfway A pool to attempts to determine the reasons for the adverse performance of the Nahanni pool Beaver River field to determination of the interconnection of wells and the producing mechanism in the Halfway pools in the Oak field. During the course of the year, production rate forecasts were prepared for all known oil and gas accumulations. In addition, forecasts were made of the production rates that might be anticipated from future discoveries.

Several requests for advice were received from the British Columbia Petroleum Corporation. These were generally concerned with requests for estimates of the gas supply potential for various unconnected fields and the additional supply potential from presently producing fields. At the request of the Department of Transport and Communications, a review was made of the oil supply forecasts included in an application seeking tariff rate increases on the pipe-line from Taylor to Kamloops. During the course of the year the Titles Division was advised concerning the disposition of 57 lease renewal and extension applications, the proposed unitization parameters in two fields, and the evaluation of bids for lease rights at the various Crown reserves dispositions held during the year.

Geological Division

Economic geology—The Economic Geology Section was responsible for initiating, organizing, and carrying through to publication regional mapping projects within the Western Canadian Sedimentary Basin. To this end, a comprehensive regional mapping project was established which resulted in the completion to publication of a total of 20 subsurface structure, isopach, and formation test maps on several key horizons. In addition to and concurrently with the latter work, a number of special studies were made of the reserve potential of certain horizons utilizing geological trends.

Regional Subsurface Mapping Projects Completed

Geologic Horizon	Map Type	Area (NTS)	Scale
1. Middle Devonian Slave Point	Structure	94-I, J, O, P	1:125,000
2. Fort Simpson-Middle Devonian	Isopach	94-I, J, O, P	1:125,000
3. Triassic	Structure	94-A, B, G, H	1:125,000
4. Cretaceous Bullhead	Structure	94-A, B, G, H	1:125,000
5. All penetrated horizons	Formation test	94-I, J, O, P	1:125,000

Special mapping and related projects were as follows:

Mississippian Project Study—Foothills Belt—The area of study lies within the Foothills Belt to the northwest of Fort St. John between Prophet River on the north and Peace River on the south. Primary objective of the project was the evaluation of the hydrocarbon potential within an area known for its complex variations in stratigraphy and structure.

Mississippian Subcrop and Cretaceous Bluesky Project—Thetlaandoa-Kotcho area—Area of interest is approximately 60 miles to the northeast of Fort Nelson. A number of shallow gas pools associated with the Mississippian Subcrop and overlying Cretaceous sand developments were expanded through a fairly extensive shallow drilling program. Resulting subsurface data were evaluated and subsequent mapping has more or less defined the over-all areal extent of the discovered reserve. The reserve data have been made available to British Columbia Petroleum Corporation in substantiating the construction of transmission facilities to tie in established gas reserves at Helmet, situated to the east of Thetlaandoa.

Permo-Carboniferous Project — Windflower-Tattoo area — The Windflower-Tattoo area, situated approximately 60 miles to the northwest of Fort Nelson, is a Permo-Carboniferous shallow gas play. The integration of available geological and geophysical data has resulted in the preparation of composite maps of the over-all gas trend. It is noted that the structure of the area is very complex and that a considerable amount of additional drilling will be required to evaluate the full potential.

Triassic-Jurassic Project—Sukunka Grizzly area—The area, situated approximately 100 miles to the south of Fort St. John, has generated a considerable amount of interest in potential gas recovery from deep-drilling plays in the Foothills Belt. Maps resulting from the integration of available surface and subsurface data will provide the basis for a realistic appraisal of the area's potential.

Prospect evaluation of the Quasar Petroleum participation proposal to British Columbia Hydro and Power Authority—The Quasar proposal covered land, geological, drilling, and economic considerations on nine exploratory and semiexploratory prospects in which a multimillion dollar joint venture participation was offered to British Columbia Hydro and Power Authority. Participation by British Columbia Hydro and Power Authority on the package deal was not recommended on the basis of high risk, high cost, and lack of factual prospect definition on proposed drilling plays.

Reservoir geology—The Reservoir Geology Section was primarily directed to evaluating the oil and gas potential of wells completed during the year. The results of this work, including supporting subsurface mapping, were utilized by the Reservoir Engineering Section in order to determine reserves in place and recoverable reserves. In addition, the Section handled certain economic evaluations of Crown reserve lands posted during the year as well as a number of special study projects.

Pool subsurface mapping and related projects were:

Net oil and gas pay evaluations—A total of 57 oil and gas pay intervals penetrated by the drill in 1974 was evaluated for their hydrocarbon potential. Net oil and gas pay maps constructed on the basis of the latter information were used by the Engineering Division for reserve determinations.

Underground gas storage project—Lower Mainland area—An appraisal of the underground gas storage potential within the general Lower Mainland Fraser Valley area was completed for British Columbia Hydro and Power Authority. Existing data in the form of drilled well information and geophysical surveys were used to delineate subsurface reservoir areas favourable for gas storage. A report with supporting documentation and recommendations was finalized and presented to British Columbia Hydro and Power Authority and British Columbia Petroleum Corporation.

Oak field—Fort St. John area—Information resulting from extension-type development drilling resulted in the revision of the previously known Oak field single-pool gas accumulation into two separate pools, one of which is oil bearing.

Pingle oil pool—Fort St. John field—Defined limits of gas cap and oil leg were extended on the basis of production history which inferred a larger reservoir areal extent than previously mapped.

Thetlaandoa producing zone characteristics—Core data recovered from completed Mississippian gas wells in the Thetlaandoa area were used in conjunction with Sonic and Density Log calculations to determine reservoir porosity.

Paddy-Cadotte gas pool—Sunrise field—An operator of the field reported live-oil staining within the established gas-bearing reservoir. However, the indicated well samples were checked with negative results.

West Peejay Halfway oil pool—Subsurface geologic data submitted to the Branch in an application recommending concurrent production from the West Peejay Halfway pool were evaluated upon request by the Reservoir Engineering Section.

Peejay Halfway oil pool project—A comprehensive geologic subsurface study on the Halfway reservoir of the Peejay field was initiated in November and will be finalized in 1975. The purpose of the project is to ascertain the feasibility of the secondary or enhanced recovery scheme currently in partial operation.

Titles Division

Dispositions—There were four dispositions of Crown reserve petroleum and natural gas rights held during 1974. These resulted in tender bonus bids amounting to $22,955,335, an increase of $5,178,894 from the previous year. A total of 366 parcels was offered, with bids acceptable on 226 parcels covering 2,028,212 acres. The average price per acre was $11.32, which is an increase of $1.33 per acre over 1973. The average bonus price per acre was respectively, permits $8.84, leases $63.87, and drilling reservations $13.30.

Transactions—During the year, 17 geophysical licences were issued or renewed, an increase of seven over 1973. One unit agreement was approved.

A total of 83 notices of commencement of exploratory work was recorded, a decrease of 35 from the previous year. These notices are required prior to the commencement of any geological or geophysical exploration for petroleum and natural gas.

As of December 31, 1974, 23,490,564 acres or approximately 36,704 square miles, a decrease of 1,038,178 acres under the 1973 total of Crown petroleum and natural gas rights issued under the *Petroleum and Natural Gas Act, 1965,* were held in good standing by operators ranging from small independent companies to major international ones. The form of title held, total number issued, and acreage of each case were as follows:

Form of Title	Number	Acreage
Permits	462	16,227,862
Natural gas licences	1	15,565
Drilling reservations	37	360,807
Leases (all types)	3,697	6,886,330
Total	4,197	23,490,564

During 1974 the following transactions were completed:

Permits—	
Issued	64
Renewed	350
Converted to lease	32
Cancelled	65
Placed in default	61
Transferred (assigned)	56

Drilling reservations—	
Issued	25
Renewed	15
Converted to lease	14
Cancelled	25
Transferred (assigned)	9
Leases—	
Issued	392
Annual rental paid	3,081
Renewed for 10-year term	50
Extended under penalty	291
Extended *not* under penalty	102
Cancelled	351
Placed in default	356
Transferred (assigned)	423
Natural gas licences—	
Issued	*nil*
Renewed	1
Converted to lease	1
Cancelled	1
Transferred (assigned)	*nil*

Crown sales—	Number Advertised	Number Sold
Permits	83	62
Drilling reservations	34	25
Leases	249	139
Totals	366	226

Geophysical licences (issued)	17
Notices of Commencement of Exploratory Work (approved)	83
Affidavits of Work (approved)—	
Permits	103
Leases	19
Miscellaneous recordings (mergers, grouping notices, etc.) (approved)	54
Certificates prepared for Inspection Division, Mineral Resources Branch	250
Unit agreements (approved)	1

Title Transaction Statistics, 1974

	Permits		Leases		Drilling Reservations		Natural Gas Licences	
	No.	Acres	No.	Acres	No.	Acres	No.	Acres
Issued	64	1,837,256	392	935,568	25	200,727	...	...
Cancelled or surrendered	65	3,028,736	351	627,683	25	259,798	1	5,216
Renewed or extended	350	...	3,524	...	15	...	1	...
Assigned	56	...	423	...	9	...	...	...
Acreage amendments	5	154,081	41	84,451	...	...	...	...
Crown reserve disposition	62	1,751,521	139	75,964	25	200,727	...	...

Part B—Mineral and Petroleum Statistics

CONTENTS

CONTENTS—*Continued*

LIST OF ILLUSTRATIONS

DRAWINGS

LIST OF ILLUSTRATIONS—*Continued*

DRAWINGS—*Continued*

LIST OF ILLUSTRATIONS—*Continued*

DRAWINGS—*Continued*

INTRODUCTION

The statistics of the mineral industry are collected, compiled, and tabulated for this Report by the Economics and Statistics Section of the Mineral Development Division.

In the interests of uniformity and to avoid duplication of effort, beginning with the statistics for 1925, Statistics Canada and the Provincial departments have co-operated in collecting and processing mineral statistics.

Producers of metals, industrial minerals, structural materials, coal, and petroleum and natural gas are requested to submit returns in duplicate on forms prepared for use by the Province and by Statistics Canada.

As far as possible, both organizations follow the same practice in processing the data. The final compilation by Statistics Canada is usually published considerably later than the *Annual Report of the Minister of Mines and Petroleum Resources* for British Columbia. Differences between the values of production published by the two organizations arise mainly because Statistics Canada uses average prices considered applicable to the total Canadian production, whereas the British Columbia mining statistician uses prices considered applicable to British Columbia production.

Peat, classified as a fuel by Statistics Canada, is not included in the British Columbia statistics of mineral production, being regarded as neither a fuel nor a mineral.

The statistics of the petroleum industry are collected, compiled, and tabulated for this Report by the Petroleum Resources Branch.

METHODS OF COMPUTING PRODUCTION

The tabulated statistics are arranged so as to facilitate comparison of the production records for the various mining divisions, and from year to year. From time to time, revisions have been made to figures published in earlier reports as additional data became available or errors become known.

Data are obtained from the certified returns made by producers of metals, industrial minerals and structural materials, and coal, and are augmented by data obtained from custom smelters. For petroleum, natural gas, and liquid by-products, production figures supplied by the Petroleum Resources Branch of the Department of Mines and Petroleum Resources are compiled from the monthly disposition reports and the Crown royalty statement filed with the Department by the producers.

Values are in Canadian funds. Weights are avoirdupois pounds and short tons (2,000 pounds), and troy ounces. Barrels are 35 imperial gallons.

METALS

Average Prices

The prices used in the valuation of current and past production of gold, silver, copper, lead, and zinc are shown in the table on page A 92.

Prior to 1974 the price of gold used was the average Canadian Mint buying-price for fine gold.

The price used for placer gold originally was established arbitrarily at $17 per ounce, when the price of fine gold was $20.67 per ounce. Between 1931 and 1962 the price was proportionately increased with the continuously changing price of fine gold. Since 1962, Canadian Mint reports giving the fine-gold content have been

available for all but a very small part of the placer gold produced, and until 1973 the average price listed is derived by dividing ounces of placer gold into total amount received. Starting in 1974 the price used for the valuation of gold, lode and placer, is the amount received by the producer.

Prior to 1949 the prices used for silver, copper, lead, and zinc were the average prices at the markets indicated in the table on page A 92, converted into Canadian funds. The abbreviations in the table are Mont.=Montreal; N.Y.=New York; Lond.=London; E. St. L.=East St. Louis; and U.S.=United States.

Latterly the prices of silver, copper, lead, and zinc are average United States prices converted into Canadian funds. Average monthly prices are supplied by Statistics Canada from figures published in the Metal Markets section of *Metals Week*. Specifically, for silver it is the New York price; for lead it is the New York price; for zinc it is the price at East St. Louis of Prime Western; for copper it is the United States export refinery price. However, commencing in 1970 the copper price is the average of prices received by the various British Columbia shippers.

For antimony the average price for the year and for cadmium, the New York producers' price to consumers are used. For nickel the price used is the Canadian price set by the International Nickel Company of Canada Ltd. The value per ton of the iron ore used in making pig iron at Kimberley is an arbitrary figure, being the average of several ores of comparable grade at their points of export from British Columbia.

Gross and Net Content

The gross content of a metal in ore, concentrate, or bullion is the amount of the metal calculated from an assay of the material, and the gross metal contents are the sum of individual metal assay contents. The net contents are the gross contents less smelter and refinery losses.

In past years there have been different methods used in calculating net contents, particularly in the case of one metal contained in the concentrate of another. The present method was established in 1963 and is outlined in the following table. For example, the net content of silver in copper concentrates is 98 per cent of the gross content, of cadmium in zinc concentrates is 70 per cent of the gross content, etc. Commencing in 1974 the quantities represent the actual net quantities or metals paid for.

	Lead Concentrates	Zinc Concentrates	Copper Concentrates	Copper-Nickel Concentrates	Copper Matte
	Per Cent	Per Cent	Per Cent	Per Cent	Per Cent
Silver	98	98	98	....	98
Copper	*Less* 26 lb./ton		*Less* 10 lb./ton	85	*Less* 10 lb./ton
Lead	98	50	....	....	50
Zinc	50	90	....	....	....
Cadmium	....	70	....	....	....
Nickel	....	....	....	88	....

Value of Production

For indium, iron concentrate, mercury, molybdenum, rhenium, and tin the value of production is the amount received by the shippers.

For gold, silver, copper, lead, zinc, antimony, bismuth, cadmium, some iron concentrate, and nickel the value of production was calculated from the assay content of the ore, concentrate, or bullion less appropriate smelter losses, and an

average price per unit of weight. The 1974 values represent the settlement values received by the producers for the respective metals.

Prior to 1925 the value of gold and copper produced was calculated by using their true average prices and, in addition, for copper the smelter loss was taken into account.

The value of other metals was calculated from the gross metal content of ores or concentrates by using a metal price which was an arbitrary percentage of the average price, as follows: Silver, 95 per cent; lead, 90 per cent; and zinc, 85 per cent.

It is these percentages of the average price that are listed in the table on page A 92.

For 1925 to 1973 the values had been calculated by using the true average price (*see* page A 92) and the net metal contents in accordance with the procedures adopted by Statistics Canada and the Department of Mines and Petroleum Resources.

For 1974 the total volume and value of metal production include the quantities paid for to the mines, and the smelter and refinery production that can be attributed to the mines but is not paid for. The volume and value paid for to the mines, excluding outward transportation costs, smelting and refining costs, penalties and deductions, are shown separately for comparative purposes.

Industrial Minerals and Structural Materials

The values of production of industrial minerals and structural materials are approximately the amounts received at the point of origin.

Fuel

The value of production of coal is calculated using a price per ton which is the weighted average of the f.o.b. prices at the mine for the coal sold.

The values of production of natural gas, natural gas liquid by-products, and petroleum including condensate/pentanes plus are the amounts received for the products at the well-head.

NOTES ON PRODUCTS LISTED IN THE TABLES

Antimony—Antimony metal was produced at the Trail smelter from 1939 to 1944; since 1944 it has been marketed alloyed with lead. The antimony is a by-product of silver-lead ores. In 1907 the first recorded antimonial ore mined in British Columbia was shipped from the Slocan area to England. Since then other out-of-Province shipments have originated in the Bridge River, North Lardeau, Slocan, Spillimacheen, and Stuart Lake areas. In Table 7C the antimony assigned to individual mining divisions is the reported content of ore exported to foreign smelters; the antimony "not assigned" is that recovered at the Trail smelter from various ores received there. *See* Tables 1, 3, and 7C.

Arsenious oxide—Arsenious oxide was recovered at foreign smelters from arsenical gold ores from Hedley between 1917 and 1931, and in 1942, and from the Victoria property on Rocher Déboulé Mountain in 1928. No production has been recorded since 1942. *See* Tables 1 and 7D.

Asbestos—British Columbia has produced asbestos since 1952 when the Cassiar mine was opened. All British Columbia production consists of chrysotile from the Cassiar mine near the Yukon boundary. This deposit is noted for its high percentage of valuable long fibre and for the low iron content of the fibre. The original claims were located at Cassiar in 1950, and the first fibre was shipped

two years later. The fibre is milled from the ore at Cassiar, shipped by truck to Whitehorse, and then moved by rail to tidewater at Skagway. From 1953 to 1961 the fibre was valued at the shipping point in North Vancouver, but beginning in 1962 it has been valued at the mine, and values for the preceding years have been recalculated on that basis. *See* Tables 1, 3, and 7D.

Barite—Barite production began in 1940 and has been continuous since then, coming from several operations in the upper Columbia River valley. Some barite is mined from lode deposits and the rest is recovered from the mill-tailings ponds of the former Silver Giant and Mineral King silver-lead-zinc mines. *See* Table 7D.

Bentonite—Small amounts of bentonite were produced between 1926 and 1944 from deposits in the coal measures near Princeton. There has been no production since 1944. *See* Tables 1 and 7D.

Bismuth—Since 1929 the Trail smelter has produced bismuth. It is a by-product of lead refining and thus the production cannot be assigned to specific properties or mining divisions. *See* Tables 1, 3, and 7C.

Brick—*See* Clay and shale products.

Building-stone—Dimensional stone for building purposes is quarried when required from a granite deposit on Nelson Island and an andesite deposit on Haddington Island. Other stone close to local markets is quarried periodically or as needed for special building projects. *See* Tables 1, 3, and 7E.

Butane—Butane is recovered as a by-product at the gas-processing plant at Taylor and at oil refineries. *See* Table 25.

Cadmium—Cadmium has been recovered as a by-product at the Trail zinc refinery since 1928. It occurs in variable amounts in the sphalerite of most British Columbia silver-lead-zinc ores. In Table 7C the cadmium assigned to individual mining divisions is the reported content of custom shipments to the Trail and foreign smelters; that "not assigned" is the remainder of the reported estimated recovery at the Trail smelter from British Columbia concentrates. *See* Tables 1, 3, and 7C.

Cement—Cement is manufactured from carefully proportioned mixtures of limestone, gypsum, and other mineral materials. It has been produced in British Columbia since 1905. Present producers are British Columbia Cement Company Limited, with a 540,000-tons-per-year plant at Bamberton, and Canada Cement Lafarge Ltd., with a 525,000-tons-per-year plant on Lulu Island and a 210,000-tons-per-year plant at Kamloops. *See* Tables 1, 3, and 7E.

Chromite—Two shipments of chromite are on record, 670 tons from Cascade in 1918 and 126 tons from Scottie Creek in 1929. *See* Tables 1 and 7C.

Clay and shale products—These include brick, blocks, tile, pipe, pottery, lightweight aggregate, and pozzolan manufactured from British Columbia clays and shales. Common red-burning clays and shales are widespread in the Province, but better grade clays are rare. The first recorded production was of bricks at Craigflower in 1853 and since then plants have operated in most towns and cities for short periods. Local surface clay is used at Haney to make common red brick, tile, and flower pots. Shale and fireclay from Abbotsford Mountain are used to make firebrick, facebrick, sewer pipe, flue lining, and special fireclay shapes in plants at Kilgard, Abbotsford, and South Vancouver. A plant at Quesnel makes pozzolan from burnt shale quarried south of Quesnel. Several hobby and art potteries and a sanitary-ware plant are in operation, but these use mainly imported raw materials and their production is not included in the tables. *See* Tables 1, 3, and 7E.

Coal—Coal is almost as closely associated with British Columbia's earliest history as is placer gold. Coal was discovered at Suquash on Vancouver Island in 1835 and at Nanaimo in 1850. The yearly value of coal production passed that of placer gold in 1883 and contributed a major part of the total mineral wealth for the next 30 years.

First production, by mining divisions: Cariboo, 1942; Fort Steele, 1898; Kamloops, 1893; Liard, 1923; Nanaimo, 1836; Nicola, 1907; Omineca, 1918; Osoyoos, 1926; Similkameen, 1909; and Skeena, 1912.

The Nanaimo and Comox fields produced virtually all of the coal until production started from the Crowsnest field in 1898. The Crowsnest field contains coking-coal and prospered in the early years of smelting and railroad-building. Mining started in the Nicola-Princeton coalfield in 1907, at Telkwa in 1918, and on the Peace River in 1923. The Nanaimo field was exhausted in 1953 when the last large mines closed, and only small operations on remnants were left. The colliery at Merritt closed in 1945 and at Coalmont in 1940. The closing of the last large mine at Tsable River in 1966, and of the last small one, near Wellington in 1968, marked the end of production from the once important Vancouver Island deposits.

Undeveloped fields include basins in the foothills of the Rocky Mountains north and south of the Peace River, the Groundhog basin in north central British Columbia, the Hat Creek basin west of Ashcroft, basins on Graham Island, and Sage Creek basin southeast of Fernie.

The enormous requirements for coking-coal in Japan created great activity in coal-prospecting in various areas of British Columbia since 1968. The signing of large contracts with the Japanese resulted in preparations for production at several deposits in the East Kootenays. First shipments to Japan via special port facilities at North Vancouver and Roberts Bank began in 1970.

All the coal produced, including that used in making coke, is shown as primary mine production. Quantity from 1836 to 1909 is gross mine output and includes material lost in picking and washing. From 1910 the quantity is the amount sold and used, which includes sales to retail and wholesale dealers, industrial users, and company employees; coal used under company boilers, including steam locomotives; and coal used in making coke. *See* Tables 1, 3, 7A, 8A, and 8B.

Cobalt—In 1928 a recovery of 1,730 pounds of cobalt was made from a shipment of arsenical gold ore from the Victoria mine on Rocher Déboulé Mountain. From 1971 to 1973, cobalt was shipped from the Pride of Emory mine at Hope. *See* Tables 1 and 7C.

Coke—Coke is made from special types of coal. It has been produced in British Columbia since 1895. Being a manufactured product, its value does not contribute to the total mineral production as shown in Table 1. Up to 1966, coke statistics had been included in the Annual Report as Table 9, but this table has been discontinued. The coal used in making coke is still recorded in Table 8B.

Condensate—(*a*) *Field*—Field condensate is the liquid hydrocarbons separated and recovered from natural gas in the field before gas processing. (*b*) *Plant*—Plant condensate is the hydrocarbon liquid extracted from natural gas at gas-processing plants. *See* Table 23.

Copper—Most of the copper concentrates are shipped to Japanese, Eastern Canadian, and American smelters because no copper smelter has operated in British Columbia since 1935. Small amounts of gold and silver are commonly present

and add value to the ore, but some ores contain important amounts of gold (as at Rossland), silver (Silver King mine), lead and zinc (Tulsequah), or zinc (Britannia mine). Most of the smelting in British Columbia in early years was done on ore shipped direct from the mines without concentration, but modern practice is to concentrate the ore first.

Ore was smelted in British Columbia first in 1896 at Nelson (from Silver King mine) and at Trail (from Rossland mines), and four and five years later at Grand Forks (from Phoenix mine) and Greenwood (from Mother Lode mine). Later, small smelters were built in the Boundary district and on Vancouver and Texada Islands, and in 1914 the Anyox smelter was blown in. Copper-smelting ceased in the Boundary district in 1919, at Trail in 1929, and at Anyox in 1935. British Columbia copper concentrates were then smelted mainly at Tacoma, and since 1961 have gone chiefly to Japan.

Most of the production has come from southern British Columbia—from Britannia, Copper Mountain, Greenwood, Highland Valley, Merritt, Nelson, Rossland, Texada Island, and Vancouver Island, although a sizeable amount came from Anyox and some from Tulsequah. During recent years, exploration for copper has been intense, interest being especially directed toward finding very large, low-grade deposits suitable for open-pit mining. This activity has resulted in the establishment of operating mines at Merritt (Craigmont) in 1961, in Highland Valley (Bethlehem) in 1962, on Babine Lake (Granisle) in 1966, near Peachland (Brenda) in 1970, Stewart (Granduc) and near Port Hardy (Island Copper) in 1971, near Babine Lake (Bell), McLeese Lake (Gibraltar), Highland Valley (Lornex), and Princeton (Ingerbelle) in 1972. *See* Table 12 for a complete list of copper producers.

After a lapse of many years, copper has been produced comparatively recently on Vancouver Island at Jordan River, Courtenay, Benson Lake, Quatsino, and also at Buttle Lake, together with zinc and silver. At Tasu Harbour on Moresby Island and at Texada Island copper is produced as a by-product of iron-mining.

Copper is now the most valuable single commodity of the industry. Production in 1974 was 633.9 million pounds. *See* Tables 1, 3, 6, and 7B.

Crude oil—Production of crude oil in British Columbia began in 1955 from the Fort St. John field, but was not significant until late in 1961, when the 12-inch oil pipe-line was built to connect the oil-gathering terminal at Taylor to the Trans Mountain Oil Pipe Line Company pipe-line near Kamloops. In 1974, oil was produced from 31 separate fields, of which the Boundary Lake, Peejay, Milligan Creek, and Inga fields were the most productive.

In Tables 1, 3, and 7A, quantities given prior to 1962 under "petroleum, crude" are total sales, and from 1962 to 1965 include field and plant condensate listed separately.

Diatomite—Relatively large deposits of diatomite are found near the Fraser River in the Quesnel area, and small deposits are widespread throughout the Province. Small amounts of diatomite have been shipped from Quesnel periodically since 1928. A plant to process the material is located in Quesnel. *See* Table 7D.

Fluorite (fluorspar)—Between 1918 and 1929, fluorite was mined at the Rock Candy mine north of Grand Forks for use in the Trail lead refinery. From 1958 to 1968, small quantities were produced as a by-product at the Oliver silica quarry. *See* Table 7D.

Flux—Silica and limestone are added to smelter furnaces as flux to combine with impurities in the ore and form a slag which separates from the valuable metal. In the past, silica was shipped from Grand Forks, Oliver, and the Sheep Creek area. Today, silica from near Oliver and Sheep Creek and limestone, chiefly from Texada Island, are produced for flux. Quantities have been recorded since 1911. *See* Tables 1, 3, and 7D.

Gold, lode—Gold has played an important part in mining in the Province. The first discovery of lode gold was on Moresby Island in 1852, when some gold was recovered from a small quartz vein. The first stamp mill was built in the Cariboo in 1876, and it seems certain that some arrastras (primitive grinding-mills) were built even earlier. These and other early attempts were short-lived, and the successful milling of gold ores began about 1890 in the southern part of the Province. By 1900 the value of gold production was second only to that of coal. At the start of World War II, gold-mining attained a peak yearly value of more than $22 million, but since the war it has dwindled.

In the early years, lode gold came mostly from the camps of Rossland, Nelson, McKinney, Fairview, Hedley, and also from the copper and other ores of the Boundary district. A somewhat later major producer was the Premier mine at Stewart. In the 1930's the price of gold increased and the value of production soared, new discoveries were made and old mines were revived. The principal gold camps, in order of output of gold, have been Bridge River, Rossland, Portland Canal, Hedley, Wells, and Sheep Creek. In 1971 the Bralorne mine in Bridge River closed.

With the closing of the Bralorne mine, most of the lode gold is produced as a by-product of copper, copper-zinc-silver, and other base-metal mining. *See* Tables 1, 3, 6, and 7B. *See* Table 12 for a complete list of current producers.

Gold, placer—The early explorations and settlement of the Province followed rapidly on the discovery of gold-bearing placer creeks throughout the country. The first placer-miners came in 1858 to mine the lower Fraser River bars upstream from Yale.

The year of greatest placer-gold production was 1863, shortly after the discovery of the placer in the Cariboo. Another peak year in 1875 marked the discovery of placer on creeks in the Cassiar. A minor peak year was occasioned by the discovery of placer gold in the Granite Creek in the Tulameen in 1885. A high level of production ensued after 1899, when the Atlin placers reached their peak output. Other important placer-gold camps were established at Goldstream, Fort Steele, Rock Creek, Omineca River, and Quesnel River. The last important strike was made on Cedar Creek in 1921, and coarse gold was found on Squaw Creek in 1927 and on Wheaton Creek in 1932.

Mining in the old placer camps revived during the 1930's under the stimulus of an increase in the price of fine gold from $20.67 per ounce to $35 per ounce in United States funds. Since World War II, placer-mining declined under conditions of steadily rising costs and a fixed price for gold but is showing signs of revival in response to a freely floating gold price since 1972. Since 1858, more than 5.2 million ounces valued at almost $97 million has been recovered.

A substantial part of the production, including much of the gold recovered from the Fraser River upstream from Yale (in the present New Westminster, Kamloops, and Lillooet Mining Divisions) and much of the early Cariboo production, was mined before the original organization of the Department of Mines in 1874.

Consequently, the amounts recorded are based on early estimates and cannot be accurately assigned to individual mining divisions.

The first year of production for major placer-producing mining divisions was Atlin, 1898; Cariboo, 1859; Liard, 1873; Lillooet, 1858; Omineca, 1869.

In 1965, changes were made in the allocation of placer gold in the New Westminster and Similkameen Mining Divisions and "not assigned," to reconcile those figures with data incorporated in Bulletin 28, *Placer Gold Production of British Columbia.* *See* Tables 1, 3, 6, and 7A.

Granules—Rock chips used for bird grits, exposed aggregate, roofing, stucco dash, terrazzo, etc., have been produced in constantly increasing quantities since 1930. Plants operate in Burnaby and near Grand Forks, Sirdar, Vananda, and Armstrong. *See* Tables 1, 3, and 7D.

Gypsum and gypsite—Production of gypsum and gypsite has been recorded since 1911. Between 1925 and 1956, more than 1,000,000 tons were shipped from Falkland and some was quarried near Cranbrook and Windermere. Since 1956, all production has come from Windermere. *See* Tables 1, 3, and 7D.

Hydromagnesite—Small shipments of hydromagnesite were made from Atlin between 1904 and 1916 and from Clinton in 1921. *See* Tables 1 and 7D.

Indium—Production of indium as a by-product of zinc-refining at the Trail smelter began in 1942. Production figures have not been disclosed since 1958.

Iron—Iron ore was produced in small quantities as early as 1885, commonly under special circumstances or as test shipment. Steady production started in 1951 with shipments of magnetite concentrates to Japan from Vancouver and Texada Islands.

Most of the known iron-ore deposits are magnetite, and occur in the coastal area. On the average they are low in grade and need to be concentrated. Producing mines have operated on Texada Island, at Benson Lake and Zeballos on Vancouver Island, and at Tasu and Jedway on Moresby Island. At Texada Island copper is a by-product of iron-mining, and in the Coast Copper mine at Benson Lake iron was a by-product of copper-mining. The latest operation, and to date the largest, is that of Wesfrob Mines Limited at Tasu, begun at the end of 1967; copper is produced as a by-product.

From January 1961 to August 1972, calcined iron sulphide from the tailings of the Sullivan mine was used for making pig iron at Kimberley. This was the first manufacture of pig iron in British Columbia. The iron occurs as pyrrhotite and pyrite in the lead-zinc ore of the Sullivan mine. In the process of milling, the lead and zinc minerals are separated for shipment to the Trail smelter, and the iron sulphides are separated from the waste rock. Over the years a stockpile has been built containing a reserve of about 20 million tons of iron ore.

The sulphur was removed in making pig iron and was converted to sulphuric acid, which was used in making fertilizer. A plant built at Kimberley converted the pig iron to steel, and a fabricating plant was acquired in Vancouver. The iron smelter at Kimberley closed in August 1972. The entire production, credited to the Fort Steele Mining Division in Table 7C, is of calcine. *See* Tables 1, 3, 6, and 7C.

Iron oxide—Iron oxide, ochre, and bog iron were mined as early as 1918 from several occurrences, but mainly from limonite deposits north of Squamish. None has been produced since 1950. *See* Tables 1 and 7D.

Jade (nephrite)—Production of jade (nephrite) has been recorded only since 1959 despite there being several years of significant production prior to that date.

The jade is recovered from bedrock occurrences on Mount Ogden and near Dease Lake and as alluvial boulders from the Fraser River; the Bridge River and its tributaries, Marshall, Hell, and Cadwallader Creeks; O'Ne-ell, Ogden, Kwanika, and Wheaton Creeks. *See* Tables 1, 3, and 7D.

Lead—Lead was the most valuable single commodity for many years, but it was surpassed in value of annual production by zinc in 1950, by copper in 1966, and in total production by zinc in 1966. Lead and zinc usually occur together in nature although not necessarily in equal amounts in a single deposit. Zinc is the more abundant metal, but lead ore usually is more valuable than zinc ore because it contains more silver as a by-product. For a long time British Columbia produced almost all of Canada's lead, but now produces about 18 per cent of the total. Most of the concentrated ore is smelted and the metal refined at Trail, but some concentrate is shipped to American and Japanese smelters.

Almost all of British Columbia's lead comes from the southeastern part of the Province. The Sullivan mine at Kimberley is now producing about 93 per cent of the Province's lead and has produced about 89 per cent of the grand total. This is one of the largest mines in the world and supports the great metallurgical works at Trail. Other mines are at Pend-d'Oreille River, North Kootenay Lake, Slocan, and southwest of Golden. In northwestern British Columbia less important parts of the total output have come from Tulsequah, the Premier mine, and several small mines in the general region of Hazelton. *See* Table 12 for the current lead producers.

A small amount of high-grade lead ore is shipped directly to the smelter, but most of the ore is concentrated by flotation and the zinc content is separated from the lead. All output from the Sullivan and other mines in British Columbia owned by Cominco Ltd. goes to the Trail smelter, but part of the output of other mines goes to American smelters. Lead was first produced in 1887, and the total production amounts to approximately 8.3 million tons.

In 1958, revisions were made in some yearly totals for lead to adjust them for recovery of lead from slag treated at the Trail smelter. *See* Tables 1, 3, 6, and 7B.

Limestone—Besides being used for flux and granules (where it is recorded separately), limestone is used in agriculture, cement manufacture, the pulp and paper industry, and for making lime. It has been produced since 1886. Quarries now operate at Cobble Hill, near Prince George, at Kamloops, and on the north end of Texada Island. *See* Tables 1, 3, and 7E.

Magnesium—In 1941 and 1942, Cominco Ltd. produced magnesium from magnesite mined from a large deposit at Marysville. *See* Tables 1 and 7C.

Magnesium sulphate—Magnesium sulphate was recovered in minor amounts at various times between 1915 and 1942 from small alkali lakes near Basque, Clinton, and Osoyoos. *See* Tables 1 and 7D.

Manganese—From 1918 to 1920, manganese ore was shipped from a bog deposit near Kaslo and from Hill 60 near Cowichan Lake, and in 1956 a test shipment was made from Olalla. *See* Tables 1 and 7C.

Mercury—Mercury was first produced near Savona in 1895. Since then small amounts have been recovered from the same area and from the Bridge River district. The main production to date was between 1940 and 1944 from the Pinchi Lake and Takla mines near Fort St. James. In 1968 the Pinchi Lake mine reopened and continues in operation. *See* Tables 1 and 7C.

Mica—No sheet mica has been produced commercially in British Columbia. Between 1932 and 1961, small amounts of mica schist for grinding were mined

near Albreda, Armstrong, Oliver, Prince Rupert, and Sicamous. *See* Tables 1 and 7D.

Molybdenum—Molybdenum ore in small amounts was produced from high-grade deposits between 1914 and 1918. Recently, mining of large low-grade molybdenum and copper-molybdenum deposits has increased production to the point that molybdenum now ranks second in importance in annual value of metals produced in British Columbia. The upswing began when the Bethlehem mine recovered by-product molybdenum from 1964 and 1966. In 1965 the Endako and Boss Mountain mines, followed by the Coxey in 1966, and British Columbia Molybdenum mine in 1967, all began operations as straight molybdenum producers. The Boss Mountain mine closed in 1971 and reopened late in 1973. In 1970 the Brenda mine, a combined copper-molybdenum producer, started operating, and Island Copper in 1971. Large-scale combined metal deposits at Lornex and Gibraltar mines were brought into production in 1972. *See* Tables 1, 3, 6, and 7C.

Natro-alunite—In 1912 and 1913, 400 tons of natro-alunite was mined from a small low-grade deposit at Kyuquot Sound. There has been no subsequent production. *See* Tables 1 and 7D.

Natural gas—Commercial production of natural gas began in 1954 to supply the community of Fort St. John. Since the completion in 1957 of the gas plant at Taylor and the 30-inch pipe-line to serve British Columbia and the northwestern United States, the daily average volume of production in 1974 was 1.14 billion cubic feet. In 1974, there were 58 producing gas-fields producing both associated and nonassociated gas, of which the Clarke Lake, Yoyo, and Laprise Creek were the most productive. *See* Table 21.

The production shown in Tables 1, 3, and 7A is the total amount sold of residential gas from processing plants plus dry and associated gas from the gas-gathering system; that is, the quantity delivered to the main transmission-line. The quantity is net after deducting gas used on leases, metering difference, and gas used or lost in the cleaning plant. The quantity is reported as thousands of cubic feet at standard conditions (14.4 pounds per square inch pressure, 60°F temperature, up to and including the year 1960, and thereafter 14.65 pounds per square inch pressure, 60°F temperature).

Full details of gross well output, other production, delivery, and sales are given in the tables.

Nickel—One mine, the Pride of Emory near Hope, shipped nickel ore in 1936 and 1937 and began continuous production in 1958. From 1960 to 1974, bulk copper and nickel concentrates have been shipped to Japan and Alberta respectively for smelting. The mine closed in August 1974. *See* Tables 1, 3, and 7C.

Palladium—Palladium was recovered in 1928, 1929, and 1930 as a by-product of the Trail refinery and is presumed to have originated in copper concentrates shipped to the smelter from the Copper Mountain mine. *See* Tables 1 and 7C.

Perlite—In 1953 a test shipment of 1,112 tons was made from a quarry on François Lake. There has been no further production. *See* Tables 1 and 7D.

Petroleum, crude—*See* Crude oil.

Phosphate rock—Between 1927 and 1933, Cominco Ltd. produced 3,842 tons of phosphate rock for test purposes, but the grade proved to be too low for commercial use. More test shipments were made in 1964, but there has been no commercial production. *See* Tables 1 and 7D.

Platinum—Platinum has been produced intermittently from placer streams in small amounts since 1887, mostly from the Tulameen and Similkameen Rivers. Placer platinum also has been recovered from Pine, Thibert, McConnell, Rainbow, Tranquille, Rock, and Government Creeks; from Quesnel, Fraser, Cottonwood, Peace, and Coquihalla Rivers; and from beach placers on Graham Island. Some platinum recovered between 1928 and 1930 as a by-product at the Trail refinery is presumed to have originated in copper concentrates shipped to the smelter from the Copper Mountain mine. *See* Tables 1, 3, and 7C.

Propane—Propane is recovered from gas-processing plants at Taylor and Boundary Lake, and at oil refineries. *See* Table 25.

Rhenium—Rhenium occurs in significant quantities only with molybdenite associated with porphyry copper deposits. It was first produced in 1972 by the Island Copper mine and is extracted as rhenium oxide from fumes produced during roasting of the molybdenite concentrate.

Rock—Production of rubble, riprap, and crushed rock has been recorded since 1909. *See* Tables 1, 3, and 7E.

Sand and gravel—Sand and gravel are used as aggregate in concrete work. The output varies from year to year according to the level of activity in the construction industry. *See* Tables 1, 3, and 7E.

Selenium—The only recorded production of selenium, 731 pounds, was in 1931 from the refining of blister copper from the Anyox smelter. *See* Tables 1 and 7C.

Silver—Silver is recovered from silver ores or as a by-product of other ores. Most of it is refined in Trail, and some is exported in concentrated ores of copper, lead, and zinc to American and Japanese smelters. Silver bullion was produced by the Torbrit mine from 1949 to 1959.

Invariably some silver is associated with galena, so that even low-grade lead ores, if mined in quantity, produce a significant amount of silver. Some silver is recovered from gold ores and some from copper ores, and although the silver in such ores is usually no more than a fraction of an ounce per ton, even that amount is important in a large-tonnage operation.

Production of silver began in 1887 from silver-copper and silver-lead ores in the Kootenays and has continued in this area to the present. Now, most of the silver is a by-product of lead-zinc ores and nearly all is refined at Trail, although some is exported with concentrates to American and Japanese smelters. Today the greatest single source of silver is the Sullivan mine, which has been in production since 1900. By 1974 the Sullivan mine has accounted for 47 per cent of the total silver production of the Province. A significant total amount is contributed by the Lynx, Silmonac, Phoenix, Bethlehem, Granisle, Brenda, and Granduc mines. Table 12 details the current silver producers. The only steady producer that is strictly a silver mine is the Highland Bell mine at Beaverdell, in operation since 1922. A former important mine, the Premier near Stewart, produced more than 41 million ounces of silver between 1918 and 1968. *See* Tables 1, 3, 6, and 7B.

Sodium carbonate—Sodium carbonate was recovered between 1921 and 1949 from alkali lakes in the Clinton area and around Kamloops. There has been no further production. *See* Tables 1 and 7D.

Stone (*see* Building-stone)—Cut stone for building purposes is prepared from rock produced at quarries in various parts of the Province when required. Two of

the most productive quarries have operated on Haddington and Nelson Islands. *See* Tables 1, 3, 7E.

Structural materials—In Table 7E the value of $5,972,171 for unclassified materials is the total for structural materials in the period 1886–1919 that cannot be allotted to particular classes of structural materials or assigned to mining divisions, and includes $726,323 shown against 1896 in Table 2 that includes unclassified structural materials in that and previous years not assignable to particular years. The figure $3,180,828 in Table 7E under "Other Clay Products" is the value in the period 1886–1910 that cannot be allotted to particular clay products or assigned to mining divisions. *See* Tables 1, 2, 3, 7A, and 7E.

Sulphur—The production of sulphur has been recorded since 1916. From 1916 to 1927 the amounts include the sulphur content of pyrite shipped. From 1928 the amounts include the estimated sulphur content of pyrite shipped, plus the sulphur contained in sulphuric acid made from waste smelter gases. The sulphur content of pyrrhotite roasted at the Kimberley fertilizer plant is included since 1953. Since 1958, elemental sulphur recovered from the Canadian Occidental Petroleum Ltd. plant at Taylor has been included. *See* Table 25.

Talc—Between 1916 and 1936, talc was quarried at Leech River and at Anderson Lake to make dust for asphalt roofing. There has been no production since 1936. *See* Tables 1 and 7D.

Tin—Tin, as cassiterite, is a by-product of the Sullivan mine, where it has been produced since 1941. Tin is also produced in a lead-tin alloy at the Trail smelter. *See* Tables 1, 3, and 7C.

Tungsten—Tungsten, very largely as scheelite concentrates, was produced from 1937 to 1958, first from the Columbia Tungstens (Hardscrabble) mine in the Cariboo in 1937 and during World War II from the Red Rose mine near Hazelton and the Emerald mine near Salmo. The Red Rose closed in 1954 and the Emerald in 1958. Small amounts of scheelite have been produced from the Bridge River, Revelstoke, and other areas where demand was high. In 1970, production began from the Invincible mine near Salmo, which closed in 1973.

A very small amount of wolframite came from Boulder Creek near Atlin. *See* Tables 1, 3, and 7C.

Volcanic ash—The only recorded production of volcanic ash is 30 tons from the Cariboo Mining Division in 1954. *See* Table 7D.

Zinc—Zinc was first produced in 1905. For many years lead was the most valuable single metal, but in 1950 the annual value of production of zinc surpassed that of lead and in 1966 the total value of zinc production exceeded that of lead. In 1972 the annual production of zinc is exceeded by that of copper, coal, and crude oil. Zinc is invariably associated with lead, and most ores are mined for their combined values in zinc, lead, and silver, and rarely for their zinc content alone. Some zinc ores contain a valuable amount of gold, and zinc is associated with copper at the Lynx mine. Modern practice is to concentrate and separate the zinc mineral (sphalerite) from the lead mineral (galena). Most of the zinc concentrates go to the zinc-recovery plant at Trail, are roasted, and are converted electrolytically to refined metal. Some concentrates are shipped to American or Japanese smelters.

About 86 per cent of the zinc that has been mined in British Columbia has originated in southeastern British Columbia, at the Sullivan mine, and at mines near Ainsworth, Invermere, Moyie Lake, Riondel, Salmo, Slocan, and Spillimacheen.

Other production has come from mines at Portland Canal and Tulsequah and is coming from Buttle Lake. The greatest zinc mine is the Sullivan, which has contributed about 73 per cent of the total zinc production of the Province. *See* Table 12 for details of current zinc producers.

Records for the period 1905 to 1908 show shipments totalling 18,845 tons of zinc ore and zinc concentrates of unstated zinc content. In 1918, revisions were made to some yearly totals for zinc to adjust them for recovery of zinc from slag treated at the Trail smelter. *See* Tables 1, 3, 6, and 7B.

Prices[1] Used in Valuing Production of Gold, Silver, Copper, Lead, Zinc, and Coal

Year	Gold, Placer, Oz.	Gold, Fine, Oz.	Silver, Fine, Oz.	Copper, Lb.	Lead, Lb.	Zinc, Lb.	Coal, Short Ton
	$	$	Cents	Cents	Cents	Cents	$
1901	17.00	20.67	56.002 N.Y.	16.11 N.Y.	2.577 N.Y.	———	2.65
1902	———	———	49.55 „	11.70 „	3.66 „	———	2.63
1903	———	———	50.78 „	13.24 „	3.81 „	———	2.67
1904	———	———	53.36 „	12.82 „	3.88 „	———	2.62
1905	———	———	51.33 „	15.59 „	4.24 „	———	2.70
1906	———	———	63.45 „	19.28 „	4.81 „	———	2.61
1907	———	———	62.06 „	20.00 „	4.80 „	———	3.07
1908	———	———	50.22 „	13.20 „	3.78 „	———	3.11
1909	———	———	48.93 „	12.98 „	3.85 „	———	3.19
1910	———	———	50.812 „	12.738 „	4.00 „	4.60 E. St. L.	3.35
1911	———	———	50.64 „	12.38 „	3.98 „	4.90 „	3.18
1912	———	———	57.79 „	16.341 „	4.024 „	5.90 „	3.36
1913	———	———	56.80 „	15.27 „	3.93 „	4.80 „	3.39
1914	———	———	52.10 „	13.60 „	3.50 „	4.40 „	3.46
1915	———	———	47.20 „	17.28 „	4.17 „	11.25 „	3.43
1916	———	———	62.38 „	27.202 „	6.172 „	10.88 „	3.45
1917	———	———	77.35 „	27.18 „	7.91 „	7.566 „	3.48
1918	———	———	91.93 „	24.63 „	6.67 „	6.94 „	4.99
1919	———	———	105.57 „	18.70 „	5.19 „	6.24 „	4.92
1920	———	———	95.80 „	17.45 „	7.16 „	6.52 „	4.72
1921	———	———	59.52 „	12.50 „	4.09 „	3.95 „	4.81
1922	———	———	64.14 „	13.38 „	5.16 „	4.86 „	4.72
1923	———	———	61.63 „	14.42 „	6.54 „	5.62 „	4.81
1924	———	———	63.442 „	13.02 „	7.287 „	5.39 „	4.89
1925	———	———	69.065 „	14.042 „	7.848 Lond.	7.892 Lond.	4.79
1926	———	———	62.107 „	13.795 „	6.751 „	7.409 „	4.84
1927	———	———	56.370 „	12.920 „	5.256 „	6.194 „	4.81
1928	———	———	58.176 „	14.570 „	4.575 „	5.493 „	4.71
1929	———	———	52.993 „	18.107 „	5.050 „	5.385 „	4.74
1930	———	———	38.154 „	12.982 „	3.927 „	3.599 „	4.73
1931	———	———	28.700 „	8.116 „	2.710 „	2.554 „	4.35
1932	19.30	23.47	31.671 „	6.380 Lond.	2.113 „	2.405 „	4.04
1933	23.02	28.60	37.832 „	7.454 „	2.391 „	3.210 „	3.90
1934	28.37	34.50	47.461 „	7.419 „	2.436 „	3.044 „	4.00
1935	28.94	35.19	64.790 „	7.795 „	3.133 „	3.099 „	3.95
1936	28.81	35.03	45.127 „	9.477 „	3.913 „	3.315 „	4.23
1937	28.77	34.99	44.881 „	13.078 „	5.110 „	4.902 „	4.25
1938	28.93	35.18	43.477 „	9.972 „	3.344 „	3.073 „	4.01
1939	29.72	36.14	40.488 „	10.092 „	3.169 „	3.069 „	4.02
1940	31.66	38.50	38.249 „	10.086 „	3.362 „	3.411 „	4.26
1941	31.66	38.50	38.261 „	10.086 „	3.362 „	3.411 „	4.15
1942	31.66	38.50	41.166 „	10.086 „	3.362 „	3.411 „	4.13
1943	31.66	38.50	45.254 „	11.750 „	3.754 „	4.000 „	4.17
1944	31.66	38.50	43.000 „	12.000 „	4.500 „	4.300 „	4.25
1945	31.66	38.50	47.000 „	12.550 „	5.000 „	6.440 „	4.24
1946	30.22	36.75	83.650 „	12.800 „	6.750 „	7.810 „	4.68
1947	28.78	35.00	72.000 „	20.390 „	13.670 „	11.230 „	5.12
1948	28.78	35.00	75.000 Mont.	22.350 U.S.	18.040 „	13.930 „	6.09
1949	29.60	36.00	74.250 U.S.	19.973 „	15.800 U.S.	13.247 U.S.	6.51
1950	31.29	38.05	80.635 „	23.428 „	14.454 „	15.075 „	6.43
1951	30.30	36.85	94.550 „	27.700 „	18.400 „	19.900 „	6.46
1952	28.18	34.27	83.157 „	31.079 „	16.121 „	15.874 „	6.94
1953	28.31	34.42	83.774 „	30.333 „	13.265 „	10.675 „	6.88
1954	27.52	34.07	82.982 „	29.112 „	13.680 „	10.417 „	7.00
1955	28.39	34.52	87.851 „	38.276 „	14.926 „	12.127 „	6.74
1956	28.32	34.44	89.373 „	39.787 „	15.756 „	13.278 „	6.59
1957	27.59	33.55	87.057 „	26.031 „	14.051 „	11.175 „	6.76
1958	27.94	33.98	86.448 „	23.419 „	11.755 „	10.009 „	7.45
1959	27.61	33.57	87.469 „	27.708 „	11.670 „	10.978 „	7.93
1960	27.92	33.95	88.633 „	28.985 „	11.589 „	12.557 „	6.64
1961	29.24	35.46	93.696 „	28.288 „	11.011 „	11.695 „	7.40
1962	29.25	37.41	116.029 „	30.473 „	10.301 „	12.422 „	7.43
1963	29.31	37.75	137.965 „	30.646 „	12.012 „	13.173 „	7.33
1964	29.96	37.75	139.458 „	33.412 „	14.662 „	14.633 „	6.94
1965	28.93	37.73	139.374 „	38.377 „	17.247 „	15.636 „	7.03
1966	29.08	37.71	139.300 „	53.344 „	16.283 „	15.622 „	7.28
1967	28.77	37.76	167.111 „	51.022 „	15.102 „	14.933 „	7.75
1968	29.21	37.71	231.049 „	54.216 „	14.546 „	14.153 „	7.91
1969	29.37	37.69	192.699 „	66.656 „	16.039 „	15.721 „	8.00
1970	28.89	36.56	184.927 „	58.698[2] „	16.336 „	16.006 „	7.40
1971	26.25	35.34	155.965 „	46.696[2] „	13.950 „	16.286 „	10.03
1972	38.94	57.52	166.324 „	44.839[2] „	14.876 „	17.579 „	10.96
1973	81.32	97.41	256.620 „	83.234[2] „	16.285 „	20.657 „	11.53
1974	*160.13*[2]	*166.36*[2]	*486.847*[2] „	*85.442*[2] „	*19.155*[2] „	*34.768*[2] „	*18.08*

[1] *See* page A 79 for detailed explanation.
[2] *See* page A 80 for explanation.

Table 1—Mineral Production: Total to Date, Past Year, and Latest Year

Products[1]	Total Quantity To Date	Total Value To Date	Quantity 1973	Value 1973	Quantity 1974	Value 1974
Metals		$		$		$
Antimony ..... lb.	55,717,587	19,615,884	1,660,331	1,192,118	487,748	879,897
Bismuth ..... lb.	6,999,967	15,157,228	2,851	13,058	74,320	680,771
Cadmium ..... lb.	42,396,715	80,582,019	810,779	2,951,236	432,062	1,532,096
Chromite ..... tons	796	32,295	.....	.....	.....	.....
Cobalt ..... lb.	311,921	376,661	40,907	117,403	.....	.....
Copper ..... lb.	6,341,444,556	2,576,997,431	700,198,538	582,803,251	633,936,038	541,644,913
Gold—placer ..... oz.	5,241,559	97,532,985	3,831	311,524	1,452	232,512
lode, fine ..... oz.	17,580,663	558,709,132	185,968	18,117,268	160,791	26,749,083
Iron concentrates ..... tons	32,498,214	294,212,245	1,565,467	12,906,063	1,440,651	12,742,227
Lead ..... lb.	16,580,358,119	1,465,359,402	187,153,430	30,477,936	121,811,971	23,333,016
Magnesium ..... lb.	204,632	88,184	.....	.....	.....	.....
Manganese ..... tons	1,724	32,668	.....	.....	.....	.....
Mercury[2] ..... lb.	4,171,110	10,447,358	.....	.....	.....	.....
Molybdenum ..... lb.	230,378,921	397,185,336	30,391,463	51,851,509	30,426,216	60,716,942
Nickel ..... lb.	51,451,273	51,698,754	2,467,472	3,775,232	1,518,234	2,351,406
Palladium ..... oz.	749	30,462	.....	.....	.....	.....
Platinum ..... oz.	1,407	135,008	.....	.....	.....	.....
Selenium ..... lb.	731	1,389	.....	.....	.....	.....
Silver ..... oz.	513,322,987	424,655,815	7,619,436	19,552,997	5,841,750	28,440,365
Tin ..... lb.	19,476,813	18,842,214	304,727	597,265	317,061	1,150,722
Tungsten (WO_3) ..... lb.	20,040,128	48,068,016	1,411,800	4,224,062	.....	.....
Zinc ..... lb.	15,469,106,879	1,608,950,938	302,874,331	62,564,751	171,374,439	59,582,753
Others	.....	51,511,420	.....	4,161,923	.....	4,488,138
Totals	.....	7,720,222,844	.....	795,617,596	.....	764,524,841
Industrial Minerals						
Arsenious oxide ..... lb.	22,019,420	273,201	.....	.....	.....	.....
Asbestos ..... tons	1,319,034	266,604,484	108,966	21,102,892	91,936	27,398,900
Bentonite ..... tons	791	16,858	.....	.....	.....	.....
Fluxes ..... tons	4,226,875	8,045,996	46,228	106,371	37,976	206,049
Granules ..... tons	525,109	9,169,499	34,321	857,643	34,774	1,025,615
Gypsum and gypsite ..... tons	5,624,949	18,969,614	365,249	1,114,009	441,299	1,412,157
Hydromagnesite ..... tons	2,253	27,536	.....	.....	.....	.....
Iron oxide and ochre . tons	18,108	155,050	.....	.....	.....	.....
Jade ..... lb.	1,169,868	1,288,641	154,251	306,808	7,738	18,613
Magnesium sulphate ..... tons	13,894	254,352	.....	.....	.....	.....
Mica ..... lb.	12,822,050	185,818	.....	.....	.....	.....
Natro-alunite ..... tons	522	9,398	.....	.....	.....	.....
Perlite ..... tons	1,112	11,120	.....	.....	.....	.....
Phosphate rock ..... tons	3,842	16,894	.....	.....	.....	.....
Sodium carbonate ..... tons	10,492	118,983	.....	.....	.....	.....
Sulphur ..... tons	8,425,458	107,243,924	316,035	4,187,387	227,789	3,068,507
Talc ..... tons	1,085	34,871	.....	.....	.....	.....
Others	.....	6,423,192	.....	294,554	.....	546,373
Totals	.....	418,849,431	.....	27,969,664	.....	33,676,214
Structural Materials						
Cement ..... tons	16,683,697	307,216,257	950,772	24,935,624	981,472	25,828,823
Clay products	.....	101,142,535	.....	5,590,290	.....	6,615,128
Lime and limestone ..... tons	.....	68,032,876	2,153,936	3,633,870	2,312,561	4,297,547
Rubble, riprap, crushed rock ..... tons	.....	67,489,661	2,843,010	4,160,009	2,966,857	5,715,219
Sand and gravel ..... tons	.....	383,095,134	33,963,934	35,379,590	34,657,850	35,611,346
Building-stone ..... tons	1,165,217	9,258,709	804	21,448	498	20,330
Not assigned	.....	5,972,171	.....	.....	.....	.....
Totals	.....	942,207,343	.....	73,720,831	.....	78,088,393
Coal						
Coal—sold and used ..... tons	171,864,952	990,685,439	7,633,251	87,976,105	8,551,159	154,593,643
Petroleum and Natural Gas						
Crude oil ..... bbl.	248,384,580	651,860,681	21,189,758	68,306,032	18,948,064	103,335,328
Field condensate ..... bbl.	845,518	2,476,929	126,509	407,807	104,165	568,075
Plant condensate ..... bbl.	15,191,474	7,432,161	1,132,701	222,463	1,122,925	924,549
Natural gas to pipeline ..... MSCF	3,359,110,663	374,119,274	427,586,208	46,688,912	368,125,947	61,298,656
Butane ..... bbl.	6,991,081	2,247,622	685,936	212,640	663,099	232,085
Propane ..... bbl.	5,510,838	1,770,489	623,866	193,398	562,121	196,742
Totals	.....	1,039,907,156	.....	116,031,252	.....	166,555,435
Grand totals	.....	11,111,872,213	.....	1,101,315,448	.....	1,197,438,526

[1] *See* notes on individual products listed alphabetically on pages A 81 to A 91.
[2] From 1968, excludes production which is confidential.

Table 2—Total Value of Mineral Production, 1836–1974

Year	Metals	Industrial Minerals	Structural Materials	Coal	Petroleum and Natural Gas	Total
	$	$	$	$	$	$
1836–86	52,808,750	.....	43,650	10,758,565	.....	63,610,965
1887	729,381	.....	22,168	1,240,080	.....	1,991,629
1888	745,794	.....	46,432	1,467,903	.....	2,260,129
1889	685,512	.....	77,517	1,739,490	.....	2,502,519
1890	572,884	.....	75,201	2,034,420	.....	2,682,505
1891	447,136	.....	79,475	3,087,291	.....	3,613,902
1892	511,075	.....	129,234	2,479,005	.....	3,119,314
1893	659,969	.....	.....	2,934,882	.....	3,594,851
1894	1,191,728	.....	.....	3,038,859	.....	4,230,587
1895	2,834,629	.....	.....	2,824,687	.....	5,659,316
1896	4,973,769	.....	726,323	2,693,961	.....	8,394,053
1897	7,575,262	.....	150,000	2,734,522	.....	10,459,784
1898	7,176,870	.....	150,000	3,582,595	.....	10,909,465
1899	8,107,509	.....	200,000	4,126,803	.....	12,434,312
1900	11,360,546	.....	250,000	4,744,530	.....	16,355,076
1901	14,258,455	.....	400,000	5,016,398	.....	19,674,853
1902	12,163,561	.....	450,000	4,832,257	.....	17,445,818
1903	12,640,083	.....	525,000	4,332,297	.....	17,497,380
1904	13,424,755	2,400	575,000	4,953,024	.....	18,955,179
1905	16,289,165	.....	660,800	5,511,861	.....	22,461,826
1906	18,449,602	.....	982,900	5,548,044	.....	24,980,546
1907	17,101,305	.....	1,149,400	7,637,713	.....	25,888,418
1908	15,227,991	.....	1,200,000	7,356,866	.....	23,784,857
1909	14,668,141	.....	1,270,559	8,574,884	.....	24,513,584
1910	13,768,731	.....	1,500,000	11,108,335	.....	26,377,066
1911	11,880,062	46,345	3,500,917	8,071,747	.....	23,499,071
1912	18,218,266	17,500	3,436,222	10,786,812	.....	32,458,800
1913	17,701,432	46,446	3,249,605	9,197,460	.....	30,194,943
1914	15,790,727	51,810	2,794,107	7,745,847	.....	26,382,491
1915	20,765,212	133,114	1,509,235	7,114,178	.....	29,521,739
1916	32,092,648	150,718	1,247,912	8,900,675	.....	42,391,953
1917	27,299,934	174,107	1,097,900	8,484,343	.....	37,056,284
1918	27,957,302	281,131	783,280	12,833,994	.....	41,855,707
1919	20,058,217	289,426	980,790	11,975,671	.....	33,304,104
1920	19,687,532	508,601	1,962,824	13,450,169	.....	35,609,126
1921	13,160,417	330,503	1,808,392	12,836,013	.....	28,135,325
1922	19,605,401	251,922	2,469,967	12,880,060	.....	35,207,350
1923	25,769,215	140,409	2,742,388	12,678,548	.....	41,330,560
1924	35,959,566	116,932	2,764,013	9,911,935	.....	48,752,446
1925	46,480,742	101,319	2,766,838	12,168,905	.....	61,517,804
1926	51,867,792	223,748	3,335,885	11,650,180	.....	67,077,605
1927	45,134,289	437,729	2,879,160	12,269,135	.....	60,720,313
1928	48,640,158	544,192	3,409,142	12,633,510	.....	65,227,002
1929	52,805,345	807,502	3,820,732	11,256,260	.....	68,689,839
1930	41,785,380	457,225	4,085,105	9,435,650	.....	55,763,360
1931	23,530,469	480,319	3,538,519	7,684,155	.....	35,233,462
1932	20,129,869	447,495	1,705,708	6,523,644	.....	28,806,716
1933	25,777,723	460,683	1,025,586	5,375,171	.....	32,639,163
1934	35,177,224	486,554	1,018,719	5,725,133	.....	42,407,630
1935	42,006,618	543,583	1,238,718	5,048.864	.....	48,837,783
1936	45,889,944	724,362	1,796,677	5,722,502	.....	54,133,485
1937	65,224,245	976,171	2,098,339	6,139.920	.....	74,438,675
1938	55,959,713	916,841	1,974,976	5,565.069	.....	64,416,599
1939	56,216,049	1,381,720	1,832,464	6,280,956	.....	65,711,189
1940	64,332,166	1,073,023	2,534,840	7,088,265	.....	75,028,294
1941	65,807,630	1,253,561	2,845,262	7,660,000	.....	77,566,453
1942	63,626,140	1,434,382	3,173,635	8,237,172	.....	76,471,329
1943	55,005,394	1,378,337	3,025,255	7,742,030	.....	67,151,016
1944	42,095,013	1,419,248	3,010,088	8,217,966	.....	54,742,315
1945	50,673,592	1,497,720	3,401,229	6,454,360	.....	62,026,901
1946	58,834,747	1,783,010	5,199,563	6,732,470	.....	72,549,790
1947	95,729,867	2,275,972	5,896,803	8,680,440	.....	112,583,082
1948	124,091,753	2,358,877	8,968.222	9,765,395	.....	145,184,247
1949	110,219,917	2,500,799	9,955,790	10,549,924	.....	133,226,430
1950	117,166,836	2,462,340	10,246.939	10,119,303	.....	139,995,418

Table 2—Total Value of Mineral Production, 1836–1974—Continued

Year	Metals	Industrial Minerals	Structural Materials	Coal	Petroleum and Natural Gas	Total
	$	$	$	$	$	$
1951	153,598,411	2,493,840	10,606,048	10,169,617	----------	176,867,916
1952	147,857,523	2,181,464	11,596,961	9,729,739	----------	171,365,687
1953	126,755,705	3,002,673	13,555,038	9,528,279	----------	**152,841,695**
1954	123,834,286	5,504,114	14,395,174	9,154,544	6,545	152,894,663
1955	142,609,505	6,939,490	15,299,254	8,986,501	18,610	173,853,360
1956	149,441,246	9,172,792	20,573,631	9,346,518	319,465	188,853,652
1957	125,353,920	11,474,050	25,626,939	7,340,339	1,197,581	170,992,829
1958	104,251,112	9,958,768	19,999,576	5,937,860	4,806,233	144,953,549
1959	105,076,530	12,110,286	19,025,209	5,472,064	5,967,128	147,651,217
1960	130,304,373	13,762,102	18,829,989	5,242,223	9,226,646	177,365,333
1961	128,565,774	12,948,308	19,878,921	6,802,134	11,612,184	179,807,321
1962	159,627,293	14,304,214	21,366,265	6,133,986	27,939,726	229,371,484
1963	172,852,866	16,510,898	23,882,190	6,237,997	36,379,636	255,863,587
1964	180,926,329	16,989,469	26,428,939	6,327,678	36,466,753	267,139,168
1965	177,101,733	20,409,649	32,325,714	6,713,590	44,101,662	280,652,348
1966	208,664,003	22,865,324	43,780,272	6,196,219	54,274,187	335,780,005
1967	235,865,318	29,364,065	44,011,488	7,045,341	67,096,286	383,382,498
1968	250,912,026	26,056,782	45,189,476	7,588,989	75,281,215	405,028,488
1969	294,881,114	20,492,943	55,441,528	6,817,155	86,756,009	464,388,749
1970	309,981,470	22,020,359	46,104,071	19,559,669	90,974,467	488,640,036
1971	301,059,951	21,909,767	59,940,333	45,801,936	99,251,158	527,963,145
1972	372,032,770	25,764,120	66,745,698	66,030,210	105,644,978	636,217,776
1973	795,617,596	27,969,664	73,720,831	87,976,105	116,031,252	1,101,315,448
1974	764,524,841	33,676,214	78,088,393	154,593,643	166,555,435	1,197,438,526
Totals	7,720,222,844	418,849,431	942,207,343	990,685,439	1,039,907,156	11,111,872,213

Table 3—Mineral Production for the 10 Years, 1965–74

Description	1965		1966		1967		1968		1969	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Metals		$		$		$		$		$
Antimony ..... lb.	1,301,787	689,947	1,405,681	745,011	1,267,686	671,874	1,159,960	614,779	820,122	508,476
Bismuth ..... lb.	144,630	446,907	47,435	198,848	142,507	572,878	207,783	868,533	62,488	288,070
Cadmium ..... lb.	466,586	1,297,110	1,169,570	3,017,491	994,365	2,784,222	1,341,437	3,823,095	1,141,133	4,016,788
Cobalt ..... lb.										
Copper ..... lb.	85,197,073	32,696,081	105,800,568	56,438,255	172,739,548	88,135,172	160,993,338	87,284,148	167,415,411	111,592,416
Gold—placer ..... oz.	866	25,053	1,535	44,632	891	25,632	670	19,571	399	11,720
lode, fine ..... oz.	117,124	4,419,089	119,508	4,506,646	126,157	4,763,688	123,896	4,672,242	117,481	4,427,506
Iron concentrates ..... tons	2,165,403	21,498,581	2,151,804	20,778,934	2,154,443	20,820,765	2,094,745	21,437,569	2,074,854	19,787,845
Lead ..... lb.	250,183,633	43,149,171	211,490,107	34,436,934	208,131,894	31,432,079	231,627,618	32,782,257	210,072,565	33,693,539
Molybdenum ..... lb.	7,289,125	12,405,344	17,094,927	27,606,061	17,517,543	31,183,064	19,799,793	32,552,722	26,597,477	47,999,442
Nickel ..... lb.	3,322,000	2,790,480	3,187,712	2,731,869	4,180,842	3,946,715	3,317,160	3,372,225	2,979,130	3,396,208
Silver ..... oz.	4,972,084	6,929,793	5,549,131	7,729,939	6,180,739	10,328,695	7,130,866	16,475,795	5,760,534	11,100,491
Tin ..... lb.	377,207	735,554	710,752	1,130,096	437,804	621,682	358,191	497,885	288,427	470,136
Tungsten (WO_3) ..... lb.										
Zinc ..... lb.	311,249,250	48,666,933	305,124,440	47,666,540	262,830,908	39,248,539	299,396,264	43,550,181	296,667,033	46,639,024
Others		1,351,690		1,632,747		1,330,313		2,961,024		10,949,453
Totals		177,101,733		208,664,003		235,865,318		250,912,026		294,881,114
Industrial Minerals										
Asbestos ..... tons	85,851	14,491,195	88,771	15,718,741	92,192	18,273,220	74,667	14,833,891	80,388	14,871,334
Fluxes (quartz, limestone) ..... tons	59,231	240,076	23,913	112,314	48,052	221,212	42,259	157,679	22,342	81,917
Granules (quartz, limestone, granite) ..... tons	29,033	447,954	23,956	424,667	31,283	305,655	30,237	436,928	34,746	654,701
Gypsum and gypsite ..... tons	207,858	602,788	206,026	576,873	230,044	691,592	246,374	689,847	280,894	764,032
Jade ..... lb.	7,129	9,249	11,633	13,225	20,160	24,341	49,015	105,670	26,332	42,635
Sulphur ..... tons	341,873	4,478,617	342,478	5,834,523	314,490	9,654,603	320,521	9,650,285	349,122	3,824,593
Others		189,770		184,981		193,442		182,482		253,731
Totals		20,409,649		22,865,324		29,364,065		26,056,782		20,492,943
Structural Materials										
Cement ..... tons	601,878	11,199,607	707,519	12,918,301	709,977	13,581,850	656,363	13,634,166	795,591	16,604,688
Clay products		3,899,634		4,100,192		3,945,207		4,388,505		4,550,546
Lime and limestone ..... tons	1,420,085	2,482,451	1,483,949	2,696,011	1,645,253	2,822,138	2,016,892	3,337,277	1,911,881	3,237,032
Rubble, riprap, and crushed rock ..... tons	2,715,411	1,938,088	1,590,189	1,890,992	2,287,407	2,967,195	3,385,712	3,524,439	3,756,559	4,456,211
Sand and gravel ..... tons	20,936,994	12,686,959	24,320,013	21,959,733	23,210,746	20,643,673	22,665,961	20,271,723	29,132,560	26,553,699
Building-stone ..... tons	2,252	118,975	76,720	215,043	3,577	51,425	1,654	33,366	2,177	39,352
Totals		32,325,714		43,780,272		44,011,488		45,189,476		55,441,528
Coal										
Sold and used ..... tons	950,763	6,713,590	850,821	6,196,219	908,790	7,045,341	959,214	7,588,989	852,340	6,817,155
Petroleum and Natural Gas										
Crude oil ..... bbl.	13,470,757	28,693,662	16,638,181	36,268,683	19,656,799	44,748,477	22,151,353	50,082,837	25,309,036	58,176,213
Field condensate ..... bbl.	31,782	70,874	39,571	86,265	40,570	92,357	54,163	122,408	78,147	180,520
Plant condensate ..... bbl.	947,429	576,107	974,564	312,360	1,016,045	267,941	960,252	247,455	944,111	263,278
Natural gas delivered to pipe-line ..... MSCF	138,814,144	14,493,255	161,264,334	17,339,587	198,626,177	21,667,136	224,233,203	24,531,445	256,223,244	27,897,585
Butane ..... bbl.	477,990	152,956	500,973	160,312	588,118	188,197	527,546	168,814	417,540	133,613
Propane ..... bbl.	358,776	114,808	334,315	106,980	413,058	132,178	400,800	128,256	327,501	104,800
Totals		44,101,662		54,274,187		67,096,286		75,281,215		86,756,009
Grand totals		280,652,348		335,780,005		383,382,498		405,028,488		464,388,749

Description	1970		1971		1972		1973		1974	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Metals		$		$		$		$		$
Antimony lb.	726,474	1,104,040	323.525	243,614	679,601	419,042	1,660,331	1,192,118	487,748	879,897
Bismuth lb.	132,135	828,486	82,521	388,674	93,820	324,617	2,851	13,058	74,320	680,771
Cadmium lb.	939,310	3,343,944	1,036,713	2,011,223	695,650	1,759,995	810,779	2,951,236	432,062	1,532,096
Cobalt lb.			113,545	103,099	155,739	155,739	40,907	117,403		
Copper lb.	212,371,731	124,657,958	280,619,150	131,037,918	467,012,694	209,403,822	700,198,538	582,803,251	633,936,038	541,644,913
Gold—placer oz.	491	14,185	177	4,647	691	26,905	3,831	311,524	1,452	232,512
lode, fine oz.	100,809	3,685,476	85,781	3,031,844	121,624	6,995,448	185,986	18,117,268	160,791	26,749,083
Iron concentrates tons	1,879,065	17,391,883	1,929,868	18,153,612	1,256,308	11,642,379	1,565,467	12,906,063	1,440,651	12,742,227
Lead lb.	214,838,525	35,096,021	248,827,301	34,711,408	194,249,571	28,896,566	187,153,430	30,477,936	121,811,971	23,333,016
Molybdenum lb.	31,276,497	52,561,796	21,884,729	36,954,846	28,041,603	43,260,349	30,391,463	51,851,509	30,426,216	60,716,942
Nickel lb.	3,408,203	4,703,320	2,543,578	3,497,420	3,240,483	4,601,486	2,467,472	3,775,232	1,518,234	2,351,406
Silver oz.	6,511,316	12,041,181	7,673,546	11,968,046	6,926,036	11,519,660	7,619,436	19,552,997	5,841,750	28,440,365
Tin lb.	263,716	421,946	318,999	421,079	351,043	473,908	304,727	597,265	317,061	1,150,722
Tungsten (WO_3) lb.			1,335,808	3,012,540	1,273,196	2,167,663	1,411,800	4,224,062		
Zinc lb.	275,590,749	44,111,055	305,451,243	49,745,789	268,347,996	47,172,894	302,874,331	62,564,751	171,374,439	59,582,753
Others		10,020,179		5,774,192		3,212,297		4,161,923		4,488,138
Totals		309,981,470		301,059,951		372,032,770		795,617,596		764,524,841
Industrial Minerals										
Asbestos tons	86,730	16,033,827	87,118	17,800,406	105,807	20,870,241	108,966	21,102,892	91,936	27,398,900
Fluxes (quartz, limestone) tons	31,626	106,533	26,740	98,426	31,600	59,246	46,228	106,371	37,976	206,049
Granules (quartz, limestone, granite) tons	22,349	526,491	29,238	519,192	37,158	757,924	34,321	857,643	34,774	1,025,615
Gypsum and gypsite tons	270,266	736,635	344,795	930,348	388,315	1,087,196	365,249	1,114,009	441,299	1,412,157
Jade lb.	262,602	250,256	167,760	196,332	243,725	235,218	154,251	306,808	7,738	18,613
Sulphur tons	336,420	3,957,542	288,467	2,147,778	297,707	2,306,933	316,035	4,187,387	227,789	3,068,507
Others		409,075		217,285		447,362		294,554		546,373
Totals		22,020,359		21,909,767		25,764,120		27,969,664		33,676,214
Structural Materials										
Cement tons	601,893	13,485,549	906,467	21,629,385	890,926	21,014,112	950,772	24,935,624	981,472	25,828,823
Clay products		4,714,368		5,981,785		5,263,749		5,590,290		6,615,128
Lime and limestone tons	1,867,586	3,204,076	1,819,549	3,037,222	2,026,309	3,357,927	2,153,936	3,633,870	2,312,561	4,297,547
Rubble, riprap, and crushed rock tons	2,692,282	3,018,242	3,668,244	3,670,583	3,321,764	4,032,548	2,843,010	4,160,009	2,966,857	5,715,219
Sand and gravel tons	23,155,989	21,679,387	29,320,104	25,612,396	34,826,518	33,076,196	33,963,934	35,379,590	34,657,850	35,611,346
Building-stone tons	175	2,449	2,267	8,962	194	1,166	804	21,448	498	20,330
Totals		46,104,071		59,940,333		66,745,698		73,720,831		78,088,393
Coal										
Sold and used tons	2,644,056	19,559,669	4,565,242	45,801,936	6,026,198	66,030,210	7,633,251	87,976,105	8,551,159	154,593,643
Petroleum and Natural Gas										
Crude oil bbl.	25,333,550	60,405,941	25,154.122	66,471,856	23,831,144	63,166,717	21,189,758	68,306,032	18,948,064	103,335,328
Field condensate bbl.	107,254	277 879	109,008	287.781	104,531	277,069	126,509	407.807	104,165	568,075
Plant condensate bbl.	1,003.138	253,009	1,144,139	293,287	1.018,012	327,820	1,132,701	222,463	1,122,925	924,549
Natural gas delivered to pipe-line MSCF	272,554,221	29,804.411	291,188,481	31,946,372	379,969,499	41,616,824	427,586,208	46,688.912	368,125,947	61,298,656
Butane bbl.	308,664	98.772	318.195	101,822	340.904	106.533	685.936	212.640	663.099	232,085
Propane bbl.	420,327	134.505	468,876	150,040	480,047	150,015	623,866	193,398	562,121	196,742
Totals		90,974,467		99.251,158		105,644.978		116,031,252		166,555,435
Grand totals		488,640,036		527,963,145		636,217,776		1,101,315,448		1,197,438,526

Table 4—Comparison of Total Volume and Value of Production, and Volume and Value of Production Paid for to Mines

Metals		1974 Total Production		1974 Production Paid for to Mines	
		Quantity	Value	Quantity	Value
			$		$
Antimony	lb.	487,748	879,897		
Bismuth	lb.	74,320	680,771		
Cadmium	lb.	432,062	1,532,096	204,542	525,983
Copper	lb.	633,936,038	541,644,913	633,852,204	440,490,965
Gold—placer	oz.	1,452	232,512	1,452	232,512
lode, fine	oz.	160,791	26,749,083	158,748	22,027,877
Iron concentrates	tons	1,440,651	12,742,227	1,431,831	12,661,965
Lead	lb.	121,811,971	23,333,016	120,606,766	17,144,823
Molybdenum	lb.	30,426,216	60,716,942	30,426,216	60,716,942
Nickel	lb.	1,518,234	2,351,406	1,518,234	1,994,439
Silver	oz.	5,841,750	28,440,365	5,479,959	21,839,235
Tin	lb.	317,061	1,150,722	165,582	264,565
Zinc	lb.	171,374,439	59,582,753	164,160,930	42,289,883
Others			4,488,138		3,855,685
Totals			764,524,841		624,044,874

NOTE—For metals, the total volume and value of production include the quantities paid for to the mines, and the smelter and refinery production that can be attributed to the mines but is not paid for. The volume and value paid for to the mines, excluding outward transportation costs, smelting and refining costs, penalties and deductions, are shown separately for comparative purposes.

Table 5—Exploration and Development Expenditures, 1973 and 1974

	Physical Work and Surveys	Administration, Overhead, Land Costs, Etc.	Construction, Machinery and Equipment, Other Capital Costs	Totals
A. Exploration on Undeclared Mines				
Metal mines—	$	$	$	$
1973	27,664,885	7,613,314	2,059,273	37,337,472
1974	18,773,326	6,525,878	128,144	25,427,348
Coal mines—				
1973	406,497	179,315	———	585,812
1974	3,450,746	884,849	18,958	4,354,553
Others—				
1973	124,164	40,123	———	164,287
1974	42,706	11,134	———	53,840
Totals—				
1973	28,195,546	7,832,752	2,059,273	38,087,571
1974	22,266,778	7,421,861	147,102	29,835,741
B. Exploration on Declared or Operating Mines				
Metal mines—				
1973	2,436,436	854,885	338,854	3,630,175
1974	2,652,243	762,224	278,500	3,692,967
Coal mines—				
1973	1,749,497	491,327	———	2,240,824
1974	488,308	104,259	———	592,567
Others—				
1973	———	———	———	———
1974	4,236	———	———	4,236
Totals—				
1973	4,185,933	1,346,212	338,854	5,870,999
1974	3,144,787	866,483	278,500	4,289,770
C. Development on Declared Mines				
Metal mines—				
1973	———	———	———	———
1974	1,280,513	1,028,199	1,985,000	4,293,712
Coal mines—				
1973	———	———	———	———
1974	320,098	256,055	111,500	687,653
Others—				
1973	———	———	665,000	665,000
1974	23,242	37,988	2,883,584	2,944,814
Totals—				
1973	———	———	665,000	665,000
1974	1,623,853	1,322,242	4,980,084	7,926,179
D. Development on Operating Mines				
Metal mines—				
1973	7,835,776	1,412,760	29,614,419	38,862,955
1974	20,933,501	1,722,680	46,732,326	69,388,507
Coal mines—				
1973	1,303,000	———	10,068,568	11,371,568
1974	9,027,818	———	16,607,506	25,635,324
Others—				
1973	4,553,036	24,490	4,473,657	9,051,183
1974	6,198,552	146,182	16,606,229	22,950,963
Totals—				
1973	13,691,812	1,437,250	44,156,644	59,285,706
1974	36,159,871	1,868,862	79,946,061	117,974,794

Table 6—Production of Gold, Silver, Copper, Lead, Zinc, Molybdenum, and Iron Concentrates, 1858–1974

Year	Gold (Placer)		Gold (Fine)		Silver		Copper	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
	Oz.	$	Oz.	$	Oz.	$	Lb.	$
1858–90	3,246,585	55,192,163			221,089	214,152		
1891–1900	376,290	6,397,183	632,806	12,858,353	22,537,306	13,561,194	35,416,069	4,365,210
1901–10	507,580	8,628,660	2,322,118	47,998,179	31,222,548	16,973,507	379,957,091	56,384,783
1911	25,060	426,000	228,617	4,725,512	1,892,364	958,293	36,927,656	4,571,644
1912	32,680	555,500	257,496	5,322,442	3,132,108	1,810,045	51,456,537	8,408,513
1913	30,000	510,000	272,254	5,627,595	3,465,856	1,968,606	46,460,305	7,094,489
1914	33,240	565,000	247,170	5,109,008	3,602,180	1,876,736	45,009,699	6,121,319
1915	45,290	770,000	250,021	5,167,934	3,366,506	1,588,991	56,918,405	9,835,500
1916	34,150	580,500	221,932	4,587,333	3,301,923	2,059,739	65,379,364	17,784,494
1917	29,180	496,000	114,523	2,367,191	2,929,216	2,265,749	59,007,565	16,038,256
1918	18,820	320,000	164,674	3,403,811	3,498,172	3,215,870	61,483,754	15,143,449
1919	16,850	286,500	152,426	3,150,644	3,403,119	3,592,673	42,459,339	7,939,896
1920	13,040	221,600	120,048	2,481,392	3,377,849	3,235,980	44,887,676	7,832,899
1921	13,720	233,200	135,765	2,804,197	2,673,389	1,591,201	39,036,993	4,879,624
1922	21,690	368,800	197,856	4,089,684	7,101,311	4,554,781	32,359,896	4,329,754
1923	24,710	420,000	179,245	3,704,994	6,032,986	3,718,129	57,720,290	8,323,266
1924	24,750	420,750	247,716	5,120,535	8,341,768	5,292,184	64,845,393	8,442,870
1925	16,476	280,092	209,719	4,335,069	7,654,844	5,286,818	72,306,432	10,153,269
1926	20,912	355,503	201,427	4,163,859	10,748,556	6,675,606	89,339,768	12,324,421
1927	9,191	156,247	178,001	3,679,601	10,470,185	5,902,043	89,202,871	11,525,011
1928	8,424	143,208	180,662	3,734,609	10,627,167	6,182,461	97,908,316	14,265,242
1929	6,983	118,711	145,223	3,002,020	9,960,172	5,278,194	102,793,669	18,612,850
1930	8,955	152,235	160,836	3,324,975	11,328,263	4,322,185	92,362,240	11,990,466
1931	17,176	291,992	146,133	3,020,837	7,550,331	2,254,979	64,134,746	5,365,690
1932	20,400	395,542	181,651	4,263,389	7,150,655	2,264,729	50,608,036	3,228,892
1933	23,928	562,787	223,589	6,394,645	7,021,754	2,656,526	43,149,460	3,216,701
1934	25,181	714,431	297,216	10,253,952	8,613,977	4,088,280	49,651,733	3,683,662
1935	30,929	895,058	365,343	12,856,419	9,269,944	6,005,996	39,428,208	3,073,428
1936	43,389	1,249,940	404,578	14,172,367	9,547,124	4,308,330	21,671,711	2,053,828
1937	54,153	1,558,245	460,781	16,122,767	11,305,367	5,073,962	46,057,584	6,023,411
1938	57,759	1,671,015	557,522	19,613,624	10,861,578	4,722,288	65,769,906	6,558,575
1939	49,746	1,478,492	587,336	21,226,957	10,821,393	4,381,365	73,254,679	7,392,862
1940	39,067	1,236,928	583,524	22,461,516	12,327,944	4,715,315	77,980,223	7,865,085
1941	43,775	1,385,962	571,026	21,984,501	12,175,700	4,658,545	66,435,583	6,700,693
1942	32,904	1,041,772	444,518	17,113,943	9,677,881	4,080,775	50,097,716	5,052,856
1943	14,600	462,270	224,403	8,639,516	8,526,310	3,858,496	42,307,510	4,971,132
1944	11,433	361,977	186,632	7,185,332	5,705,334	2,453,293	36,300,589	4,356,070
1945	12,589	398,591	175,373	6,751,860	6,157,307	2,893,934	25,852,366	3,244,472
1946	15,729	475,361	117,612	4,322,241	6,365,761	5,324,959	17,500,538	2,240,070
1947	6,969	200,585	243,282	8,514,870	5,708,461	4,110,092	41,783,921	8,519,741
1948	20,332	585,200	286,230	10,018,050	6,720,134	5,040,101	43,025,388	9,616,174
1949	17,886	529,524	288,396	10,382,256	7,637,822	5,671,082	54,856,808	10,956,550
1950	19,134	598,717	283,983	10,805,553	9,509,456	7,667,950	42,212,133	9,889,458
1951	23,691	717,911	261,274	9,627,947	8,218,914	7,770,983	43,249,658	11,980,155
1952	17,554	494,756	255,789	8,765,889	8,810,807	7,326,803	42,005,512	13,054,893
1953	14,245	403,230	253,552	8,727,294	8,378,819	7,019,272	49,021,013	14,869,544
1954	8,684	238,967	258,388	8,803,279	9,826,403	8,154,145	50,150,087	14,599,693
1955	7,666	217,614	242,477	8,370,306	7,903,149	6,942,995	44,238,031	16,932,549
1956	3,865	109,450	191,743	6,603,628	8,405,074	7,511,866	43,360,575	17,251,872
1957	2,936	80,990	223,403	7,495,170	8,129,348	7,077,166	31,387,441	8,170,465
1958	5,650	157,871	194,354	6,604,149	7,041,058	6,086,854	12,658,649	2,964,529
1959	7,570	208,973	173,146	5,812,511	6,198,101	5,421,417	16,233,546	4,497,991
1960	3,847	107,418	205,580	6,979,441	7,446,643	6,600,183	33,064,429	9,583,724
1961	3,416	99,884	159,821	5,667,253	7,373,997	6,909,140	31,692,412	8,965,149
1962	3,315	96,697	158,850	5,942,101	6,189,804	7,181,907	108,979,144	33,209,215
1963	4,620	135,411	154,979	5,850,458	6,422,680	8,861,050	118,247,104	36,238,007
1964	1,842	55,191	138,487	5,227,884	5,269,642	7,348,938	115,554,700	38,609,136
1965	866	25,053	117,124	4,419,089	4,972,084	6,929,793	85,197,073	32,696,081
1966	1,535	44,632	119,508	4,506,646	5,549,131	7,729,939	105,800,568	56,438,255
1967	891	25,632	126,157	4,763,688	6,180,739	10,328,695	172,739,548	88,135,172
1968	670	19,571	123,896	4,672,242	7,130,866	16,475,795	160,993,338	87,284,148
1969	399	11,720	117,481	4,427,506	5,760,534	11,100,491	167,415,411	111,592,416
1970	491	14,185	100,809	3,685,476	6,511,316	12,041,181	212,371,731	124,657,958
1971	177	4,647	85,781	3,031,844	7,673,546	11,968,046	280,619,150	131,037,918
1972	691	26,905	121,624	6,995,448	6,926,036	11,519,660	467,012,694	209,403,822
1973	3,831	311,524	185,986	18,117,268	7,619,436	19,552,997	700,198,538	582,803,251
1974	1,452	232,512	160,791	26,749,083	5,841,750	28,440,365	633,936,038	541,644,913
Totals	5,241,559	97,532,985	17,580,663	558,709,132	513,322,987	424,655,815	6,341,444,556	2,576,997,431

Table 6—Production of Gold, Silver, Copper, Lead, Zinc, Molybdenum, and Iron Concentrates, 1858–1974—Continued

Year	Lead		Zinc		Molybdenum		Iron Concentrates	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
	Lb.	$	Lb.	$	Lb.	$	Tons	$
1858–90	1,044,400	45,527					29,869	70,879
1891–1900	205,037,158	7,581,619					13,029	45,602
1901–10	407,833,262	17,033,102	12,684,192	894,169			19,553	68,436
1911	26,872,397	1,069,521	2,634,544	129,092				
1912	44,871,454	1,805,627	5,358,280	316,139				
1913	55,364,677	2,175,832	6,758,768	324,421				
1914	50,625,048	1,771,877	7,866,467	346,125	1,987	662		
1915	46,503,590	1,939,200	12,982,440	1,460,524	3,618	2,000		
1916	48,727,516	3,007,462	37,168,980	4,043,985	12,342	20,560		
1917	37,307,465	2,951,020	41,848,513	3,166,259	6,982	11,636		
1918	43,899,661	2,928,107	41,772,916	2,899,040	960	1,840	1,000	5,000
1919	29,475,968	1,526,855	56,737,651	3,540,429			1,230	6,150
1920	39,331,218	2,816,115	47,208,268	3,077,979			1,472	7,360
1921	41,402,288	1,693,354	49,419,372	1,952,065			1,010	5,050
1922	67,447,985	3,480,306	57,146,548	2,777,322			1,200	3,600
1923	96,663,152	6,321,770	58,344,462	3,278,903			243	1,337
1924	170,384,481	12,415,917	79,130,970	4,266,741				
1925	237,899,199	18,670,329	98,257,099	7,754,450				
1926	263,023,936	17,757,535	142,876,947	10,586,610				
1927	282,996,423	14,874,292	145,225,443	8,996,135				
1928	305,140,792	13,961,412	181,763,147	9,984,613			20	
1929	307,999,153	15,555,189	172,096,841	9,268,792				
1930	321,803,725	12,638,198	250,479,310	9,017,005				
1931	261,902,228	7,097,812	202,071,702	5,160,911				
1932	252,007,574	5,326,432	192,120,091	4,621,641				
1933	271,689,217	6,497,719	195,963,751	6,291,416				
1934	347,366,967	8,461,859	249,152,403	7,584,199				
1935	344,268,444	10,785,930	256,239,446	7,940,860				
1936	377,971,618	14,790,028	254,581,393	8,439,373				
1937	419,118,371	21,417,049	291,192,278	14,274,245				
1938	412,979,182	13,810,024	298,497,295	9,172,822				
1939	378,743,663	12,002,390	278,409,102	8,544,375				
1940	466,849,112	15,695,467	312,020,671	10,643,026				
1941	456,840,454	15,358,976	367,869,579	12,548,031				
1942	507,199,704	17,052,054	387,236,469	13,208,636				
1943	439,155,635	16,485,902	336,150,455	13,446,018				
1944	292,922,888	13,181,530	278,063,373	11,956,725				
1945	336,976,468	16,848,823	294,791,635	18,984,581				
1946	345,862,680	23,345,731	274,269,956	21,420,484				
1947	313,733,089	42,887,313	253,006,168	28,412,593				
1948	320,037,525	57,734,770	270,310,195	37,654,211			679	3,735
1949	265,378,899	41,929,866	288,225,368	38,181,214			5,472	27,579
1950	284,024,522	41,052,905	290,344,227	43,769,392				
1951	273,456,604	50,316,015	337,511,324	67,164,754			113,535	790,000
1952	284,949,396	45,936,692	372,871,717	59,189,656			900,481	5,474,924
1953	297,634,712	39,481,244	382,300,862	40,810,618			991,248	6,763,105
1954	332,474,456	45,482,505	334,124,560	34,805,755			535,746	3,733,891
1955	302,567,640	45,161,245	429,198,565	52,048,909			610,930	3,228,756
1956	283,718,073	44,702,619	443,853,004	58,934,801			369,955	2,190,847
1957	281,603,346	39,568,086	449,276,797	50,206,681			357,342	2,200,637
1958	294,573,159	34,627,075	432,002,790	43,234,839			630,271	4,193,442
1959	287,423,357	33,542,306	402,342,850	44,169,198			849,248	6,363,848
1960	333,608,699	38,661,912	403,399,319	50,656,726	5,414	9,500	1,160,355	10,292,847
1961	384,284,524	42,313,569	387,951,190	45,370,891			1,335,068	12,082,540
1962	335,282,537	34,537,454	413,430,817	51,356,376			1,793,847	18,326,911
1963	314,974,310	37,834,714	402,863,154	53,069,163			2,060,241	20,746,424
1964	268,737,503	39,402,293	400,796,562	58,648,561	28,245	47,063	2,002,562	20,419,487
1965	250,183,633	43,149,171	311,249,250	48,666,933	7,289,125	12,405,344	2,165,403	21,498,581
1966	211,490,107	34,436,934	305,124,440	47,666,540	17,094,927	27,606,061	2,151,804	20,778,934
1967	208,131,894	31,432,079	262,830,908	39,248,539	17,517,543	31,183,064	2,154,443	20,820,765
1968	231,627,618	32,782,257	299,396,264	43,550,181	19,799,793	32,552,722	2,094,745	21,437,569
1969	210,072,565	33,693,539	296,667,033	46,639,024	26,597,477	47,999,442	2,074,854	19,787,845
1970	214,838,525	35,096,021	275,590,749	44,111,055	31,276,497	52,561,796	1,879,065	17,391,883
1971	248,827,301	34,711,408	305,451,243	49,745,789	21,884,729	36,954,846	1,929,868	18,153,612
1972	194,249,571	28,896,566	268,347,996	47,172,894	28,041,603	43,260,349	1,256,308	11,642,379
1973	187,153,430	30,477,936	302,874,331	62,564,751	30,391,463	51,851,509	1,565,467	12,906,063
1974	121,811,971	23,333,016	171,374,439	59,582,753	30,426,216	60,716,942	1,440,651	12,742,227
Totals	16,580,358,119	1,465,359,402	15,469,106,879	1,608,950,938	230,378,921	397,185,336	32,498,214	294,212,245

Table 7A—Mineral Production by Mining

Division	Period	Placer Gold		Metals	Industrial Minerals	Structural Materials
		Quantity	Value			
		Oz.	$	$	$	$
Alberni	1973			21,420,321		269,777
	1974			**25,132,336**		**426,416**
	To date	1,617	33,253	191,057,879	9,398	4,984,899
Atlin	1973					
	1974	**1,210**	**194,162**	**7,437**		
	To date	737,090	17,585,122	38,054,644	20,325	338,241
Cariboo	1973			102,763,548	9,526	3,257,752
	1974	**231**	**36,598**	**75,446,970**	**32,600**	**3,166,865**
	To date	2,611,237	54,224,090	284,194,415	477,401	30,135,681
Clinton	1973					265,564
	1974					**137,548**
	To date	10,171	243,069	848,377	162,427	3,978,598
Fort Steele	1973			81,813,892	1,335,105	549,098
	1974			**69,625,441**	**836,022**	**510,688**
	To date	20,531	468,450	2,442,044,516	21,649,811	10,226,769
Golden	1973			694,430	1,114,009	144,956
	1974			**146,196**	**1,412,157**	**172,470**
	To date	469	11,268	64,313,305	16,832,741	3,881,712
Greenwood	1973			11,485,998		153,914
	1974			**8,578,568**		**310,246**
	To date	5,074	115,662	214,977,935	2,327,897	2,650,818
Kamloops	1973			138,215,893		5,879,052
	1974			**147,508,550**		**7,306,243**
	To date	27,595	604,785	499,226,739	6,540,538	41,760,070
Liard	1973				21,464,462	1,356,571
	1974			**7,920,059**	**28,237,794**	**1,553,474**
	To date	50,296	1,251,883	19,156,498	283,757,110	14,674,241
Lillooet	1973				7,200	87,709
	1974	**11**	**1,752**			**78,446**
	To date	92,957	1,927,440	148,167,256	473,095	3,415,018
Nanaimo	1973			102,993,184	137,379	5,072,086
	1974			**94,725,693**	**208,364**	**5,457,971**
	To date	866	19,300	453,193,022	2,161,095	79,038,131
Nelson	1973			15,104,842	719,592	723,622
	1974			**11,119,941**	**947,024**	**715,164**
	To date	3,586	89,026	380,559,295	3,885,044	8,915,203
New Westminster	1973			5,222,754		18,729,144
	1974			**3,073,121**		**18,909,769**
	To date	31,355	595,910	63,751,805	1,611,625	212,579,325
Nicola	1973			32,086,041		130,386
	1974			**36,834,594**		**183,784**
	To date	234	4,764	293,880,137	10,050	2,228,584
Omineca	1973			96,317,741	295,101	811,027
	1974			**106,967,919**	**17,812**	**330,029**
	To date	56,431	1,503,680	491,331,232	761,820	14,463,024
Osoyoos	1973			48,486,539	73,678	402,232
	1974			**42,451,307**	**73,581**	**253,290**
	To date	240	5,466	232,107,684	6,660,241	4,474,120
Revelstoke	1973			489,380		308,698
	1974			**39,181**		**357,663**
	To date	7,582	164,477	15,489,918		3,574,678
Similkameen	1973			37,326,864		90,986
	1974			**39,345,102**		**26,936**
	To date	45,507	878,204	206,845,817	18,558	4,349,840
Skeena	1973			74,483,155		1,801,043
	1974			**69,165,909**		**1,801,043**
	To date	4,603	105,569	537,982,045	1,240,215	20,603,496
Slocan	1973			1,063,873		238,592
	1974			**1,318,389**		**138,283**
	To date	366	9,397	277,173,539		2,396,293
Trail Creek	1973			61,209		53,506
	1974			**125,627**		**38,018**
	To date	851	24,260	90,472,693		3,687,145
Vancouver	1973			12,495,830		11,918,387
	1974			**8,565,798**		**13,664,969**
	To date	182	5,306	297,516,291	7,066,964	159,366,162
Vernon	1973			4,046	32,584	955,658
	1974					**1,359,344**
	To date	2,752	72,885	339,159	88,062	10,175,987
Victoria	1973			3,701,997	495	17,184,268
	1974			**3,955,255**	**285**	**18,035,302**
	To date	628	15,680	24,726,778	190,651	249,805,369
Not assigned	1973	3,831	311,524	9,074,535	2,780,533	3,336,803
	1974			**12,235,936**	**1,910,575**	**2,654,432**
	To date	1,529,359	17,574,039	355,278,880	62,904,363	50,503,939
Totals	1973	3,831	311,524	795,306,072	27,969,664	73,720,831
	1974	**1,452**	**232,512**	**764,292,329**	**33,676,214**	**78,088,393**
	To date	5,241,559	97,532,985	7,622,689,859	418,849,431	942,207,343

Divisions, 1973 and 1974, and Total to Date

Coal		Petroleum and Natural Gas						Division Total
		Crude Oil and Condensates		Natural Gas Delivered to Pipe-line		Butane and Propane		
Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	
Tons	$	Bbl.	$	MSCF	$	Bbl.	$	$
								21,690,098
								25,558,752
								196,085,429
								201,599
								55,998,332
								106,030,826
								78,683,033
290	1,100							369,032,687
								265,564
								137,548
								5,232,471
7,632,983	87,972,889							171,670,984
8,533,081	**154,279,961**							**225,252,112**
89,345,518	654,290,348							3,128,679,894
								1,953,395
								1,730,823
								85,039,026
								11,639,912
								8,888,814
								220,072,312
								144,094,945
								154,814,793
15,087	59,765							548,191,897
		22,448,968	68,936,302	427,586,208	46,688,912	1,309,802	406,038	138,852,285
17,700	**309,000**	**20,175,154**	**104,827,952**	**368,125,947**	**61,298,656**	**1,225,220**	**428,827**	**204,575,762**
128,820	1,125,391	264,421,572	661,769,771	3,359,110,663	374,119,274	12,501,919	4,018,111	1,359,872,279
								94,909
								80,198
								153,982,809
								108,202,649
								100,395,028
74,324,471	301,144,744							835,556,292
								16,548,056
								12,782,129
								393,448,568
								23,951,898
								21,982,890
								278,538,665
								32,216,427
								37,018,378
2,929,584	11,080,836							307,204,371
268	3,216							97,427,085
378	**4,682**							**107,820,442**
502,582	3,424,406							511,484,162
								48,962,449
								42,778,178
1,122	5,008							243,252,519
								798,078
								396,844
								19,229,078
								37,417,850
								39,372,038
4,617,442	19,553,725							231,646,144
								76,284,198
								70,966,952
36	116							559,931,441
								1,302,465
								1,456,672
								279,579,229
								114,715
								163,645
								94,184,098
								24,414,217
								22,230,767
								463,954,723
								992,288
								1,359,344
								10,676,093
								20,886,760
								21,990,842
								274,738,478
								15,503,395
								16,800,943
								486,261,221
7,633,251	87,976,105	22,448,968	68,936,302	427,586,208	46,688,912	1,309,802	406,038	1,101,315,448
8,551,159	**154,593,643**	**20,175,154**	**104,827,952**	**368,125,947**	**61,298,656**	**1,225,220**	**428,827**	**1,197,438,526**
171,864,952	990,685,439	264,421,572	661,769,771	3,359,110,663	374,119,274	12,501,919	4,018,111	11,111,872,213

Table 7B—Production of Lode Gold, Silver, Copper, Lead, and Zinc by Mining Divisions, 1973 and 1974, and Total to Date

Division	Period	Lode Gold		Silver		Copper		Lead		Zinc		Division Total
		Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	
		Oz.	$	Oz.	$	Lb.	$	Lb.	$	Lb.	$	$
Alberni	1973	22,826	2,174,820	1,803,361	3,344,685	5,294,044	4,406,445	7,074,269	1,152,045	47,235,160	9,757,367	20,835,362
	1974	**15,483**	**2,913,676**	**748,173**	**3,991,418**	**5,047,249**	**4,473,530**	**3,208,921**	**847,435**	**34,501,625**	**12,676,388**	**24,902,447**
	To date	417,220	19,504,819	5,002,911	12,536,813	81,296,395	46,057,889	19,440,517	3,348,223	299,768,913	56,871,921	138,319,665
Atlin	1973	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	1974	**1**	**154**	**1,575**	**6,837**	.....	.....	**2,177**	**446**	.....	.....	**7,437**
	To date	344,198	12,126,886	3,378,711	2,902,520	24,777,661	8,160,266	23,767,388	3,438,353	91,067,749	10,864,497	37,492,522
Cariboo	1973	.....	.....	139	357	122,519,440	101,977,831	1,358	221	3	1	101,978,410
	1974	.....	.....	**127,435**	**644,217**	**79,136,895**	**70,432,540**	.....	.....	.....	.....	**71,076,757**
	To date	1,202,251	43,347,296	274,549	753,943	274,843,247	205,226,516	26,213	3,993	508	20	249,331,768
Clinton	1973	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	1974	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	To date	23,390	827,328	31,586	14,237	57,548	5,905	193	7	.....	.....	847,477
Fort Steele	1973	2,270	221,125	3,175,239	8,148,298	7,069,838	5,884,509	173,174,162	28,201,413	181,498,373	37,492,118	79,947,463
	1974	**1,359**	**212,685**	**1,705,442**	**8,382,914**	**4,425,588**	**4,728,974**	**108,361,761**	**20,483,922**	**102,765,623**	**35,135,831**	**68,944,326**
	To date	12,530	744,471	248,238,097	193,756,501	15,793,679	12,534,149	13,924,471,535	1,192,000,222	10,529,054,161	1,000,651,630	2,399,686,973
Golden	1973	49	4,773	94,183	241,692	.....	.....	1,819,922	214,950	1,028,619	212,482	673,897
	1974	.....	.....	**10,863**	**42,706**	.....	.....	**289,872**	**57,439**	**160,324**	**45,371**	**145,516**
	To date	360	14,698	4,429,755	4,151,501	1,171,455	367,261	257,711,088	25,885,637	333,010,535	32,712,180	63,181,277
Greenwood	1973	18,267	1,779,425	549,917	1,411,197	9,787,477	8,146,509	442,851	72,118	347,858	71,857	11,481,106
	1974	**10,387**	**1,652,385**	**392,052**	**1,769,043**	**7,413,370**	**4,984,600**	**303,647**	**55,695**	**331,650**	**112,349**	**8,574,072**
	To date	1,366,391	35,678,075	43,251,066	37,193,537	577,656,581	136,899,542	24,943,350	2,572,594	24,517,966	2,434,045	214,777,793
Kamloops	1973	763	74,325	533,493	1,369,050	158,543,043	131,961,716	17,104	2,785	10,908	2,253	133,410,129
	1974	**1,208**	**213,741**	**552,007**	**2,989,771**	**160,737,148**	**138,508,467**	.....	.....	.....	.....	**141,711,979**
	To date	68,472	2,631,939	2,926,820	7,170,082	742,575,933	478,501,659	558,169	48,257	449,667	32,208	488,384,145
Liard	1973	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	1974	.....	.....	.....	.....	**8,082,090**	**7,920,059**	.....	.....	.....	.....	**7,920,059**
	To date	114	4,120	1,087	1,416	29,917,749	19,147,861	16,375	2,736	1,773	286	19,156,419
Lillooet	1973	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	1974	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	To date	4,185,568	147,358,931	987,967	719,635	400	41	62,513	2,548	15	2	148,081,157
Nanaimo	1973	52,652	5,128,937	328,804	844,034	110,619,575	92,073,097	.....	.....	.....	.....	98,046,068
	1974	**41,110**	**6,786,414**	**235,142**	**1,081,227**	**83,578,198**	**81,997,244**	.....	.....	.....	.....	**89,864,885**
	To date	372,394	22,005,727	2,621,041	4,588,702	435,765,532	278,508,196	.....	.....	.....	.....	305,102,625
Nelson	1973	238	23,184	198,121	508,418	.....	.....	10,478,335	1,706,397	37,269,679	7,698,798	9,936,797
	1974	**112**	**19,641**	**74,301**	**404,283**	.....	.....	**7,456,985**	**1,424,570**	**25,499,443**	**5,784,167**	**10,632,661**
	To date	1,341,632	42,041,952	10,372,143	8,898,844	14,915,405	1,689,196	517,793,371	66,711,102	1,429,187,117	198,849,504	318,190,598
New Westminster	1973	.....	.....	.....	.....	1,598,048	1,330,119	.....	.....	.....	.....	1,330,119
	1974	.....	.....	.....	.....	**1,110,635**	**721,715**	.....	.....	.....	.....	**721,715**
	To date	4,472	114,376	15,119	7,729	24,985,434	11,553,105	28,425	1,119	12,755	481	11,676,810
Nicola	1973	.....	.....	.....	.....	37,748,532	31,419,613	.....	.....	.....	.....	31,419,613
	1974	**294**	**47,020**	.....	.....	**51,549,283**	**35,995,108**	.....	.....	.....	.....	**36,042,128**
	To date	10,225	332,411	276,453	135,632	599,064,418	290,585,564	2,241,499	91,282	323,889	10,977	291,155,866
Omineca	1973	43,500	4,237,422	483,293	1,240,227	76,801,735	63,925,156	629,460	102,507	7,854,926	1,622,592	71,127,904
	1974	**46,609**	**7,676,747**	**195,446**	**852,247**	**81,886,225**	**64,532,119**	**55,620**	**10,090**	**94,226**	**25,545**	**73,146,748**
	To date	197,661	16,099,980	11,309,068	11,596,414	314,310,366	209,436,401	30,389,434	3,919,608	43,184,029	6,170,495	247,222,898

		Oz.	$	Oz.	$	Lb.	$	Lb.	$	Lb.	$	$
Osoyoos	1973	3,791	369,289	260,073	667,399	33,466,245	27,855,294	14,181	2,309	3,799	785	28,895,076
	1974	**3,876**	**626,474**	**415,947**	**1,988,376**	**29,507,632**	**24,827,059**	**8,478**	**1,580**	**15,496**	**3,905**	**27,447,394**
	To date	1,681,042	52,043,573	4,221,216	8,806,809	160,061,693	99,536,282	562,470	70,995	258,265	39,487	160,497,146
Revelstoke	1973	69	6,721	9,533	24,464	.....	.....	28,647	4,665	12,987	2,683	38,533
	1974	**40**	**6,000**	**4,714**	**18,856**	.....	.....	**60,391**	**12,682**	**4,694**	**1,643**	**39,181**
	To date	37,409	1,081,981	4,123,544	2,812,483	153,686	51,037	36,166,640	3,875,379	27,144,757	3,316,221	11,137,101
Similkameen	1973	29,055	2,830,306	131,925	338,546	41,038,168	34,157,709	1,538	250	257	53	37,326,864
	1974	**25,232**	**4,561,581**	**109,645**	**526,722**	**39,674,278**	**34,256,799**	.....	.....	.....	.....	**39,345,102**
	To date	252,786	14,552,296	4,525,953	3,555,662	702,061,709	188,588,278	393,637	15,137	80,455	5,258	206,716,631
Skeena	1973	14,014	1,365,132	746,841	1,916,543	75,609,249	62,932,602	2,342	381	619	128	66,214,786
	1974	**11,247**	**1,438,620**	**660,376**	**2,678,190**	**67,403,289**	**56,316,754**	**234**	**48**	**589**	**206**	**60,433,818**
	To date	2,488,852	65,791,320	72,086,155	51,878,321	979,828,138	291,579,962	60,003,824	5,438,782	17,199,528	2,541,987	417,230,372
Slocan	1973	18	1,758	209,018	536,382	.....	.....	1,537,493	250,381	1,215,407	251,067	1,039,583
	1974	**4**	**601**	**147,201**	**767,278**	.....	.....	**813,530**	**200,707**	**735,404**	**326,322**	**1,294,908**
	To date	17,220	510,622	78,245,737	57,117,237	13,662	1,861	1,129,332,315	107,398,242	952,554,762	106,356,487	271,384,449
Trail Creek	1973	290	28,249	7,428	19,062	.....	.....	21,283	3,466	50,502	10,432	61,209
	1974	**163**	**26,268**	**17,746**	**79,959**	.....	.....	**45,050**	**7,346**	**50,128**	**11,554**	**125,627**
	To date	2,985,409	63,409,646	3,699,243	2,203,344	122,561,732	18,245,404	218,002	24,369	243,674	39,867	83,922,630
Vancouver	1973	.....	.....	100,855	258,814	14,701,944	12,237,016	.....	.....	.....	.....	12,495,830
	1974	**592**	**89,651**	**69,831**	**399,712**	**9,881,507**	**8,076,048**	.....	.....	**1,728**	**387**	**8,565,798**
	To date	500,074	16,285,146	5,614,821	4,566,816	1,117,188,863	242,604,017	18,570,027	1,883,516	238,342,088	30,973,473	296,312,968
Vernon	1973	21	2,046	673	1,727	.....	.....	1,304	212	293	61	4,046
	1974	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	To date	5,304	180,309	65,011	114,727	654	100	164,186	24,557	66,421	9,434	329,127
Victoria	1973	943	91,860	10,015	25,700	4,306,458	3,584,437	.....	.....	.....	.....	3,701,997
	1974	**1,031**	**154,650**	**12,063**	**48,252**	**4,418,877**	**3,752,353**	.....	.....	.....	.....	**3,955,255**
	To date	44,186	1,232,335	947,460	653,134	65,523,930	22,502,101	210,097	19,848	8,568,709	283,923	24,691,341
Not assigned[1]	1973	(2,280)	(222,099)	(523,575)	(1,343,598)	1,094,742	911,198	(7,590,819)	(1,286,164)	26,344,941	5,442,074	3,551,411
	1974	**2,043**	**322,775**	**361,791**	**1,768,357**	**83,834**	**71,544**	**1,205,205**	**230,556**	**7,213,509**	**2,459,085**	**4,852,317**
	To date	21,503	788,895	6,677,974	8,519,776	56,918,686	15,214,838	533,286,851	48,582,896	1,479,069,143	156,786,555	229,892,960
Totals	1973	185,986	18,117,268	7,619,436	19,552,997	700,198,538	582,803,251	187,153,430	30,477,936	302,874,331	62,564,751	718,516,203
	1974	**160,791**	**26,749,083**	**5,841,750**	**28,440,365**	**633,936,038**	**541,644,913**	**121,811,971**	**23,333,016**	**171,374,439**	**59,582,753**	**679,750,130**
	To date	17,580,663	558,709,132	513,322,987	424,655,815	6,341,444,556	2,576,997,431	16,580,358,119	1,465,359,402	15,469,106,879	1,608,950,938	6,634,672,718

[1] Metals recovered from operations at the Trail smelter but not assigned to individual mines. The minus quantities of gold, silver, and lead are bookkeeping adjustments between the Trail smelter input and output.

Table 7C—Production of Miscellaneous Metals by Mining Divisions, 1973 and 1974, and Total to Date

Division	Period	Antimony		Bismuth		Cadmium		Chromite		Iron Concentrates		Manganese		Mercury[1]	
		Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
		Lb.	$	Lb.	$	Lb.	$	Tons	$	Tons	$	Tons	$	Lb.	$
Alberni	1973					160,708	584,959								
	1974					59,995	229,889								
	To date					1,004,889	3,103,503			4,732,817	49,634,711				
Atlin	1973														
	1974														
	To date					319,212	561,762								
Cariboo	1973														
	1974														
	To date														
Clinton	1973														
	1974														
	To date							126	900						
Fort Steele	1973					386,023	1,405,124			14,397	106,970				
	1974									8,820	80,262				
	To date					3,399,595	10,064,486			1,374,100	14,155,458				
Golden	1973					5,641	20,538								
	1974					644	680								
	To date	40,062	14,906			562,120	1,167,122								
Greenwood	1973					1,344	4,892								
	1974					1,223	4,496								
	To date					77,715	168,747	670	31,395						
Kamloops	1973					65	287								
	1974														
	To date					118	371			21,167	95,851			10,987	5,795
Liard	1973														
	1974														
	To date														
Lillooet	1973														
	1974														
	To date	13,466	4,321											9,231	41,304
Nanaimo	1973									516,577	3,864,296				
	1974									346,505	3,137,408				
	To date									16,764,386	144,899,128				
Nelson	1973					259,336	943,983								
	1974					137,427	487,280								
	To date					8,628,430	19,045,743								
New Westminster	1973														
	1974														
	To date														
Nicola	1973									38,799	666,428				
	1974									42,130	792,466				
	To date									161,870	2,724,271				
Omineca	1973					14,869	54,123								
	1974					442	1,826								
	To date	118,382	21,882			298,166	628,342							4,150,892	10,400,259

Osoyoos	1973														
	1974														
	To date											16			
Revelstoke	1973														
	1974														
	To date	9,894	3,455			103,612	176,102								
Similkameen	1973														
	1974														
	To date														
Skeena	1973									995,694	8,268,869				
	1974									1,043,196	8,732,091				
	To date					141,890	316,764			9,443,824	82,700,901				
Slocan	1973					6,673	24,290								
	1974					4,811	23,481								
	To date	31,865	8,133			2,699,751	5,772,797					541	8,160		
Trail Creek	1973														
	1974														
	To date					115	210			550	1,925				
Vancouver	1973														
	1974														
	To date					566,006	1,203,823								
Vernon	1973														
	1974														
	To date					190	532								
Victoria	1973														
	1974														
	To date					7,000	10,929					1,167	24,508		
Not assigned	1973	1,660,331	1,192,118	2,851	13,058	(23,875)	(86,905)								
	1974	487,748	879,897	74,320	680,771	227,520	784,944								
	To date	55,504,418	19,563,187	6,999,967	15,157,228	24,592,906	38,361,286								
Totals	1973	1,660,331	1,192,118	2,851	13,058	810,779	2,951,236			1,565,467	12,906,063				
	1974	487,748	879,897	74,320	680,771	432,062	1,532,096			1,440,651	12,742,227				
	To date	55,717,587	19,615,884	6,999,967	15,157,228	42,396,715	80,582,019	796	82,295	32,498,214	294,212,245	1,724	32,668	4,171,110	10,447,358

[1] From 1968, excludes production which is confidential.

[2] Metals recovered from operations at Trail smelter but not assigned to individual mines. The minus quantities for cadmium are bookkeeping adjustments between the Trail smelter input and output.

Table 7C—Production of Miscellaneous Metals by Mining Divisions, 1973 and 1974, and Total to Date—Continued

Division	Period	Molybdenum		Nickel		Palladium		Platinum		Tin		Tungsten (WO_3)		Other, Value	Division Total
		Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value		
		Lb.	$	Lb.	$	Oz.	$	Oz.	$	Lb.	$	Lb.	$	$	$
Alberni	1973														584,959
	1974														**229,889**
	To date														52,738,214
Atlin	1973														
	1974														
	To date											292	360		562,122
Cariboo	1973	493,535	785,138												785,138
	1974	**2,129,006**	**4,370,213**												**4,370,213**
	To date	20,155,531	34,838,917					59	2,299			27,698	21,431		34,862,647
Clinton	1973														
	1974														
	To date														900
Fort Steele	1973									180,783	354,335				1,866,429
	1974									**165,582**	**600,853**				**681,115**
	To date									19,201,390	18,049,415			88,1841	42,357,543
Golden	1973														20,583
	1974														**680**
	To date														1,182,028
Greenwood	1973														4,892
	1974														**4,496**
	To date														200,142
Kamloops	1973	3,385,535	4,805,527												4,805,764
	1974	**3,937,202**	**5,796,571**												**5,796,571**
	To date	7,416,732	10,740,577												10,842,594
Liard	1973														
	1974														
	To date							2	79						79
Lillooet	1973														
	1974														
	To date	1,469	2,440					3	113			32,353	37,921		86,099
Nanaimo	1973	970,500	1,082,820												4,947,116
	1974	**1,267,500**	**1,726,400**												**4,863,308**
	To date	2,583,334	3,191,269												148,090,397
Nelson	1973											1,411,800	4,224,062		5,168,045
	1974														**487,280**
	To date	15,035	18,378									17,760,748	43,304,576		62,368,697
New Westminster	1973			2,467,472	3,775,232									117,4032	3,892,635
	1974			**1,518,234**	**2,351,406**										**2,351,406**
	To date			51,451,273	51,698,754									376,2412	52,074,995
Nicola	1973														666,428
	1974														**792,466**
	To date														2,724,271
Omineca	1973	14,134,510	25,135,714												25,189,837
	1974	**16,005,801**	**33,319,845**												**33,321,171**
	To date	128,053,423	228,359,567					3	154			2,210,892	4,697,710	4202	244,108,334

Osoyoos	1973	11,105,912	19,591,463												19,591,463
	1974	7,086,707	15,003,913												15,003,913
	To date	42,794,121	71,610,538												71,610,538
Revelstoke	1973	301,471	450,847												450,847
	1974														
	To date	2,625,088	4,167,573									7,784	5,687		4,352,817
Similkameen	1973														
	1974														
	To date							1,287	129,186						129,186
Skeena	1973														8,268,369
	1974														8,732,091
	To date	23,084,581	37,732,288									366	331	1,389[3]	120,751,673
Slocan	1973														24,290
	1974														23,481
	To date														5,789,090
Trail Creek	1973														
	1974														
	To date	3,644,193	6,514,289			749	30,462	53	3,177						6,550,063
Vancouver	1973														
	1974														
	To date														1,203,323
Vernon	1973														
	1974														
	To date	5,414	9,500												10,032
Victoria	1973														
	1974														
	To date														35,437
Not assigned	1973									123,944	242,930			4,161,923	5,523,124
	1974									151,479	549,869			4,488,138	7,383,619
	To date									275,423	792,799			51,511,420	125,385,920
Totals	1973	30,391,463	51,851,509	2,467,472	3,775,282					304,727	597,265	1,411,800	4,224,062	4,279,326	81,789,869
	1974	30,426,216	60,716,942	1,518,234	2,351,406					317,061	1,150,722			4,488,138	84,542,199
	To date	230,378,921	397,185,336	51,451,273	51,698,754	749	30,462	1,407	135,008	19,476,813	18,842,214	20,040,128	48,068,016	51,977,654	988,017,141

[1] Magnesium page A 87.
[2] Cobalt, page A 83.
[3] Selenium, page A 89.

Table 7D—Production of Industrial Minerals by

Division	Period	Asbestos		Barite[1]		Diatomite		Fluxes (Quartz and Limestone)		Granules (Quartz, Limestone, and Granite)	
		Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
		Tons	$	Tons	$	Tons	$	Tons	$	Tons	$
Alberni	1973										
	1974										
	To date										
Atlin	1973										
	1974										
	To date										
Cariboo	1973					565	9,526				
	1974					**1,756**	**32,600**				
	To date					14,064	333,921			48	168
Clinton	1973										
	1974										
	To date										
Fort Steele	1973										
	1974										
	To date			8	80						
Golden	1973										
	1974										
	To date			439,150	4,489,227			3,259	12,612		
Greenwood	1973										
	1974										
	To date							1,790,502	1,540,819	200	4,000
Kamloops	1973										
	1974										
	To date									625	12,230
Liard	1973	108,966	21,102,892								
	1974	**91,936**	**27,898,900**								
	To date	1,319,034	266,604,484								
Lillooet	1973										
	1974										
	To date										
Nanaimo	1973							42,986	75,476	3,068	61,903
	1974							**37,958**	**205,764**	**129**	**2,600**
	To date							1,018,394	1,701,393	26,006	459,702
Nelson	1973									26,799	719,592
	1974									**30,061**	**947,024**
	To date							7,601	8,174	139,496	3,820,969
New Westminster	1973										
	1974										
	To date									109,669	1,611,625
Nicola	1973										
	1974										
	To date										
Omineca	1973									3	286
	1974									**36**	**2,410**
	To date									39	2,696
Osoyoos	1973									4,283	73,678
	1974									**4,548**	**73,581**
	To date							802,611	3,699,031	207,929	2,628,739
Similkameen	1973										
	1974										
	To date										
Skeena	1973										
	1974										
	To date							601,019	1,050,722		
Vancouver	1973										
	1974										
	To date									29,692	418,606
Vernon	1973							3,200	30,400	168	2,184
	1974										
	To date							3,200	30,400	1,800	53,684
Victoria	1973							**42**	**495**		
	1974							**18**	**285**		
	To date							289	3,345	9,605	157,080
Not assigned	1973										
	1974										
	To date										
Totals	1973	108,966	21,102,892			565	9,526	46,228	106,371	34,321	857,643
	1974	**91,936**	**27,898,900**			**1,756**	**32,600**	**37,976**	**206,049**	**34,774**	**1,025,615**
	To date	1,319,034	266,604,484	439,158	4,489,307	14,064	333,921	4,226,875	8,045,996	525,109	9,169,499

[1] From 1972, excludes production which is confidential.
Other: *See* notes of individual minerals listed alphabetically on pages A 81 to A 91.

[2] Natro-alunite.
[3] Hydromagnesite.
[4] Volcanic ash.
[5] Magnesium sulphate.
[6] Sodium carbonate.
[7] Phosphate rock.

Mining Divisions, 1973 and 1974, and Total to Date

Gypsum and Gypsite		Jade		Mica		Sulphur		Other, Value	Division Total
Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value		
Tons	$	Lb.	$	Lb.	$	Tons	$	$	$
								9,3982	9,398
								20,3253	20,325
									9,526
									32,600
				10,013,800	143,012			3004	477,401
873	6,236							156,1913 5 6	162,427
						89,007	1,335,105		1,335,105
						63,096	**836,022**		**836,022**
112,878	298,824					1,301,235	21,334,013	16,8947	21,649,811
365,249	1,114,009								1,114,009
441,299	**1,412,157**								**1,412,157**
4,261,623	12,329,626							1,2768 9	16,832,741
								783,57810	2,327,897
1,246,918	6,323,178			424,700	2,075			203,0555 6	6,540,538
		3,444	4,793			60,661	356,777		21,464,462
		1,838	**3,211**			**59,274**	**835,683**		**28,237,794**
		50,579	73,011			932,042	17,079,615		283,757,110
		28,050	7,200						7,200
		558,634	467,966					5,1299	473,095
									137,379
									208,364
									2,161,095
									719,592
									947,024
								55,9018	3,885,044
									1,611,625
2,407	10,050								10,050
		122,757	294,815						295,101
		5,900	**15,402**						**17,812**
		560,655	747,664					11,46011 12	761,820
									73,678
									73,581
				1,588,800	25,938			306,5335 10 11	6,660,241
250	1,700							16,85813	18,558
				634,250	10,815	41,624	178,678		1,240,215
						687,596	6,550,969	97,3898	7,066,964
									32,584
				160,500	3,978				88,062
									495
									285
								30,2269	190,651
						166,367	2,495,505	285,028	2,780,533
						105,419	**1,396,802**	**513,773**	**1,910,575**
						5,462,961	62,100,649	803,714	62,904,363
365,249	1,114,009	154,251	306,808			316,035	4,187,387	285,028	27,969,664
441,299	**1,412,157**	**7,738**	**18,613**			**227,789**	**3,068,507**	**513,773**	**33,676,214**
5,624,949	18,969,614	1,169,868	1,288,641	12,822,050	185,818	8,425,458	107,243,924	2,518,227	418,849,481

8 Iron oxide and ochre.
9 Talc.
10 Fluorspar.
11 Arsenious oxide.
12 Perlite.
13 Bentonite.

Table 7E—Production of Structural Materials by Mining Divisions, 1973 and 1974, and Total to Date

Division	Period	Cement	Lime and Limestone	Building-stone	Rubble, Riprap, and Crushed Rock	Sand and Gravel	Clay Products	Unclassified Material	Division Total
		$	$	$	$	$	$	$	$
Alberni	1973				6,136	263,641			269,777
	1974				**867**	**425,549**			**426,416**
	To date				346,513	4,638,386			4,984,899
Atlin	1973								
	1974								
	To date		1,108		102,453	234,680			338,241
Cariboo	1973		235,229		350,433	2,672,090			3,257,752
	1974		**489,237**		**607,890**	**2,069,738**			**3,166,865**
	To date		1,738,260		3,914,718	24,150,246	332,457		30,135,681
Clinton	1973				70,124	195,440			265,564
	1974				**5,247**	**132,301**			**137,548**
	To date				1,859,156	2,119,442			3,978,598
Fort Steele	1973				49,260	499,838			549,098
	1974				**144,503**	**366,185**			**510,688**
	To date		43,873	71,941	2,770,692	7,324,345	15,918		10,226,769
Golden	1973				36,723	100,648	7,585		144,956
	1974					**172,470**			**172,470**
	To date		1,000	50,840	245,663	3,456,050	128,159		3,881,712
Greenwood	1973			13,800		140,114			153,914
	1974			**8,884**		**301,362**			**310,246**
	To date		42,560	161,020	278,474	2,047,481	121,283		2,650,818
Kamloops	1973	3,823,520			602,509	1,453,023			5,879,052
	1974	**4,915,944**			**1,241,695**	**1,148,604**			**7,306,243**
	To date	14,737,968	25,067	19,800	11,233,853	15,671,003	72,379		41,760,070
Liard	1973				256,097	1,100,474			1,356,571
	1974				**89,558**	**1,463,916**			**1,553,474**
	To date				1,801,159	12,873,082			14,674,241
Lillooet	1973				33,495	54,214			87,709
	1974					**78,446**			**78,446**
	To date		100	2,000	1,100,403	2,312,515			3,415,018
Nanaimo	1973		2,976,915		397,390	1,697,781			5,072,086
	1974		**3,359,771**		**649,211**	**1,448,989**			**5,457,971**
	To date		58,249,240	3,450,735	3,706,899	12,452,265	1,178,992		79,038,131
Nelson	1973		293,802	2,448	3,172	424,200			723,622
	1974		**345,546**	**2,926**	**28,680**	**338,012**			**715,164**
	To date		1,367,185	436,938	577,971	6,511,135	21,974		8,915,203
New Westminster	1973		102,523		1,515,500	11,921,903	5,189,218		18,729,144
	1974		**76,000**		**2,318,484**	**10,470,813**	**6,044,472**		**18,909,769**
	To date		3,394,910	20,974	20,302,781	104,906,975	83,953,685		212,579,325
Nicola	1973					130,386			130,386
	1974				**240**	**183,544**			**183,784**
	To date			8,000	187,994	2,032,590			2,228,584
Omineca	1973		3,575		119,450	688,002			811,027
	1974		**4,706**		**121,738**	**703,585**			**830,029**
	To date		20,748		2,532,012	11,904,990	5,274		14,463,024
Osoyoos	1973				17,685	384,547			402,232
	1974				**16,592**	**236,698**			**253,290**
	To date		43,774	33,018	355,349	4,041,979			4,474,120
Revelstoke	1973			5,200	66,644	236,854			308,698
	1974			**8,520**	**176,807**	**172,336**			**357,663**
	To date		1,000	19,295	757,028	2,797,355			3,574,678
Similkameen	1973					90,986			90,986
	1974				**450**	**26,486**			**26,936**
	To date	10,500	11,571	24,000	657,297	3,633,117	13,355		4,349,840
Skeena	1973				59,615	1,741,428			1,801,043
	1974				**277,032**	**1,524,011**			**1,801,043**
	To date		1,645,300	144,000	3,595,758	15,205,189	13,249		20,603,496
Slocan	1973				20,457	218,135			238,592
	1974				**5,263**	**133,020**			**138,283**
	To date		1,000	115,143	157,323	2,122,827			2,396,293
Trail Creek	1973				2,400	51,106			53,506
	1974					**38,018**			**38,018**
	To date		32,500	85,520	381,393	3,187,732			3,687,145
Vancouver	1973	6,619,264			466,271	4,832,852			11,918,387
	1974	**7,162,302**			**19,522**	**6,483,145**			**13,664,969**
	To date	86,809,184	40,885	4,012,560	8,679,115	58,735,826	1,088,592		159,366,162
Vernon	1973					955,658			955,658
	1974				**9,245**	**1,350,099**			**1,359,344**
	To date		46,499	97,852	403,649	9,466,733	161,254		10,175,987
Victoria	1973	14,492,840	21,826		8,200	2,267,915	393,487		17,184,268
	1974	**13,750,577**	**22,287**		**2,195**	**3,689,587**	**570,656**		**18,035,302**
	To date	205,658,605	1,010,798	55	530,438	31,750,337	10,855,136		249,805,369
Not assigned	1973				78,448	3,258,355			3,336,803
	1974					**2,654,432**			**2,654,432**
	To date		315,498	505,018	1,011,570	39,518,854	3,180,828	5,972,171	50,503,939
Totals	1973	24,935,624	3,633,870	21,448	4,160,009	35,379,590	5,590,290		73,720,831
	1974	**25,828,823**	**4,287,547**	**20,330**	**5,715,219**	**35,611,346**	**6,615,128**		**78,088,393**
	To date	307,216,257	68,032,876	9,258,709	67,489,661	383,095,134	101,142,535	5,972,171	942,207,342

Table 8A—Production of Coal, 1836–1974

Year	Quantity[1] (Short Tons)	Value	Year	Quantity[1] (Short Tons)	Value
		$			$
1836–59	41,871	149,548	1918	2,575,275	12,833,994
1860	15,956	56,988	1919	2,433,540	11,975,671
1861	15,427	55,096	1920	2,852,535	13,450,169
1862	20,292	72,472	1921	2,670,314	12,836,013
1863	23,906	85,380	1922	2,726,793	12,880,060
1864	32,068	115,528	1923	2,636,740	12,678,548
1865	36,757	131,276	1924	2,027,843	9,911,935
1866	28,129	100,460	1925	2,541,212	12,168,905
1867	34,988	124,956	1926	2,406,094	11,650,180
1868	49,286	176,020	1927	2,553,416	12,269,135
1869	40,098	143,208	1928	2,680,608	12,633,510
1870	33,424	119,372	1929	2,375,060	11,256,260
1871	55,458	164,612	1930	1,994,493	9,435,650
1872	55,458	164,612	1931	1,765,471	7,684,155
1873	55,459	164,612	1932	1,614,629	6,523,644
1874	91,334	244,641	1933	1,377,177	5,375,171
1875	123,362	330,435	1934	1,430,042	5,725,133
1876	155,895	417,576	1935	1,278,380	5,048,864
1877	172,540	462,156	1936	1,352,301	5,722,502
1878	191,348	522,538	1937	1,446,243	6,139,920
1879	270,257	723,903	1938	1,388,507	5,565,069
1880	299,708	802,785	1939	1,561,084	6,280,956
1881	255,760	685,171	1940	1,662,027	7,088,265
1882	315,997	846,417	1941	1,844,745	7,660,000
1883	238,895	639,897	1942	1,996,000	8,237,172
1884	441,358	1,182,210	1943	1,854,749	7,742,030
1885	409,468	1,096,788	1944	1,931,950	8,217,966
1886	365,832	979,908	1945	1,523,021	6,454,360
1887	462,964	1,240,080	1946	1,439,092	6,732,470
1888	548,017	1,467,903	1947	1,696,350	8,680,440
1889	649,411	1,739,490	1948	1,604,480	9,765,395
1890	759,518	2,034,420	1949	1,621,268	10,549,924
1891	1,152,590	3,087,291	1950	1,574,006	10,119,303
1892	925,495	2,479,005	1951	1,573,572	10,169,617
1893	1,095,690	2,934,882	1952	1,402,313	9,729,739
1894	1,134,509	3,038,859	1953	1,384,138	9,528,279
1895	1,052,412	2,824,687	1954	1,308,284	9,154,544
1896	1,002,268	2,693,961	1955	1,332,874	8,986,501
1897	999,372	2,734,522	1956	1,417,209	9,346,518
1898	1,263,272	3,582,595	1957	1,085,657	7,340,339
1899	1,435,314	4,126,803	1958	796,413	5,937,860
1900	1,781,000	4,744,530	1959	690,011	5,472,064
1901	1,894,544	5,016,398	1960	788,658	5,242,223
1902	1,838,621	4,832,257	1961	919,142	6,802,134
1903	1,624,742	4,332,297	1962	825,339	6,133,986
1904	1,887,981	4,953,024	1963	850,541	6,237,997
1905	2,044,931	5,511,861	1964	911,326	6,327,678
1906	2,126,965	5,548,044	1965	950,763	6,713,590
1907	2,485,961	7,637,713	1966	850.821	6,196,219
1908	2,362,514	7,356,866	1967	908,790	7,045,341
1909	2,688,672	8,574,884	1968	959,214	7,588,989
1910	3,314,749	11,108,335	1969	852,340	6,817,155
1911	2,541,698	8,071,747	1970	2,644,056	19,559,669
1912	3,211,907	10,786,812	1971	4,565,242	45,801,936
1913	2,713,535	9,197,460	1972	6,026,198	66,030,210
1914	2,237,042	7,745,847	1973	7,633,251	87,976,105
1915	2,076,601	7,114,178	1974	8,551,159	154,593,643
1916	2,583,469	8,900,675			
1917	2,436,101	8,484,343	Totals	171,864,952	990,685,439

[1] Quantity from 1836 to 1909 is gross mine output and includes material lost in picking and washing. For 1910 and subsequent years the quantity is that sold and used.

Table 8B—Coal Production and Distribution by Collieries and by Mining Divisions, 1974

Mine	Raw Coal Production	Clean Coal Production	Coal Used		Sales						Total Coal Sold and Used	
			Under Companies' Boilers, Etc.	Making Coke	Canada		United States	Japan	Others	Total Sales	Amount	Value
					British Columbia	Other Provinces						
Fort Steele Mining Division	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	$
Byron Creek Collieries Ltd.	219,186	208,670	.....	.....	.....	49,356	.....	.....	128,108	177,464	177,464	2,579,456
Coleman Collieries Ltd.	154,235	107,965	.....	.....	.....	.....	.....	68,373	39,592	107,965	107,965	3,056,380
Fording Coal Ltd.	3,105,356	2,115,819	.....	.....	.....	15,253	.....	2,226,531	.....	2,241,784	2,241,784	48,718,774
Kaiser Resources Ltd.	7,722,781	6,099,487	4,156	233,546	46,771	83,040	10,514	5,335,755	292,086	5,768,166	6,005,868	99,925,351
Liard Mining Division												
Coalition Mining Ltd.[1]	.....	.....	.....	.....	.....	.....	.....	.....	17,700	17,700	17,700	309,000
Omineca Mining Division												
Bulkley Valley coal sales	433	378	5	.....	373	.....	.....	.....	.....	373	378	4,682
Totals	11,201,991	8,532,319	4,161	233,546	47,144	147,649	10,514	7,630,659	477,486	8,313,452	8,551,159	154,593,643

[1] Sales from stockpile.

Table 9—Principal Items of Expenditure, Reported for Operations of All Classes

Class	Salaries and Wages	Fuel and Electricity	Process Supplies
	$	$	$
Metal-mining	143,693,349	27,116,651	119,720,332
Exploration and development	63,459,902		
Coal	35,118,277	5,703,689	9,662,982
Petroleum and natural gas (exploration and production)	7,025,278		
Industrial minerals	9,700,616	2,437,466	3,621,290
Structural-materials industry	13,947,656	7,123,452	6,998,081
Totals, 1974	272,945,078	42,381,258	140,002,685
Totals, 1973	221,877,595	36,750,711	103,840,649
1972	199,351,449	31,115,621	77,092,955
1971	179,175,692	23,166,904	68,314,944
1970	172,958,282	19,116,672	59,846,370
1969	123,450,327	14,554,123	43,089,559
1968	113,459,219	13,818,326	38,760,203
1967	94,523,495	13,590,759	34,368,856
1966	93,409,528	12,283,477	28,120,179
1965	74,938,736	11,504,343	30,590,631
1964	63,624,559	10,205,861	27,629,953
1963	57,939,294	10,546,806	12,923,325
1962	55,522,171	9,505,559	14,024,799
1961	50,887,275	8,907,034	17,787,127
1960	52,694,818	7,834,728	21,496,912
1959	49,961,996	7,677,321	17,371,638
1958	48,933,560	8,080,989	15,053,036
1957	56,409,056	8,937,567	24,257,177
1956	57,266,026	9,762,777	22,036,839
1955	51,890,246	9,144,034	21,131,572
1954	48,702,746	7,128,669	19,654,724
1953	55,543,490	8,668,099	20,979,411
1952	62,256,631	8,557,845	27,024,500
1951	52,607,171	7,283,051	24,724,101
1950	42,738,035	6,775,998	17,500,663
1949	41,023,786	7,206,637	17,884,408
1948	38,813,506	6,139,470	11,532,121
1947	32,160,338	5,319,470	13,068,948
1946	26,190,200	5,427,458	8,367,705
1945	22,620,975	7,239,726	5,756,628
1944	23,131,874	5,788,671	6,138,084
1943	26,051,467	7,432,585	6,572,317
1942	26,913,160	7,066,109	6,863,398
1941	26,050,491	3,776,747	7,260,441
1940	23,391,330	3,474,721	6,962,162
1939	22,357,035	3,266,000	6,714,347
1938	22,765,711	3,396,106	6,544,500
1937	21,349,690	3,066,311	6,845,330
1936	17,887,619	2,724,144	4,434,501
1935	16,753,367	2,619,639	4,552,730

NOTE—This table has changed somewhat through the years, so that the items are not everywhere directly comparable. Prior to 1962 lode-mining referred only to gold, silver, copper, lead, and zinc. Prior to 1964 some expenditures for fuel and electricity were included with process supplies. Process supplies (except fuel) were broadened in 1964 to include "process, operating, maintenance, and repair supplies . . . used in the mine/mill operations; that is, explosives, chemicals, drill steel, bits, lubricants, electrical, etc. . . . not charged to Fixed Assets Account . . . provisions and supplies sold in any company operated cafeteria or commissary." Exploration and development other than in the field of petroleum and natural gas is given, starting in 1966.

Table 10—Employment in the Mineral Industry, 1901–74

Year	Metals							Coal Mines			Structural Materials		Industrial Materials	Petroleum and Natural Gas Exploration and Development	Total
	Placer	Mines: Under	Mines: Above	Exploration and Development	Concentrators	Smelters	Total	Under	Above[1]	Total	Quarries and Pits	Plants			
1901	.....	2,736	1,212	.....	.....	.....	3,948	3,041	933	3,974	.....	.....	.....	.....	7,922
1902	.....	2,219	1,126	.....	.....	.....	3,345	3,101	910	4,011	.....	.....	.....	.....	7,356
1903	.....	1,662	1,088	.....	.....	.....	2,750	3,137	1,127	4,264	.....	.....	.....	.....	7,014
1904	.....	2,143	1,163	.....	.....	.....	3,306	3,278	1,175	4,453	.....	.....	.....	.....	7,759
1905	.....	2,470	1,240	.....	.....	.....	3,710	3,127	1,280	4,407	.....	.....	.....	.....	8,117
1906	.....	2,680	1,303	.....	.....	.....	3,983	3,415	1,390	4,805	.....	.....	.....	.....	8,788
1907	.....	2,704	1,239	.....	.....	.....	3,943	2,862	907	3,769	.....	.....	.....	.....	7,712
1908	.....	2,567	1,127	.....	.....	.....	3,694	4,432	1,641	6,073	.....	.....	.....	.....	9,767
1909	.....	2,184	1,070	.....	.....	.....	3,254	4,713	1,705	6,418	.....	.....	.....	.....	9,672
1910	.....	2,472	1,237	.....	.....	.....	3,709	5,903	1,855	7,758	.....	.....	.....	.....	11,467
1911	.....	2,435	1,159	.....	.....	.....	3,594	5,212	1,661	6,873	.....	.....	.....	.....	10,467
1912	.....	2,472	1,364	.....	.....	.....	3,836	5,275	1,855	7,130	.....	.....	.....	.....	10,966
1913	.....	2,773	1,505	.....	.....	.....	4,278	4,950	1,721	6,671	.....	.....	.....	.....	10,949
1914	.....	2,741	1,433	.....	.....	.....	4,174	4,267	1,465	5,732	.....	.....	.....	.....	9,906
1915	.....	2,709	1,435	.....	.....	.....	4,144	3,708	1,283	4,991	.....	.....	.....	.....	9,135
1916	.....	3,357	2,036	.....	.....	.....	5,393	3,694	1,366	5,060	.....	.....	.....	.....	10,453
1917	.....	3,290	2,198	.....	.....	.....	5,488	3,760	1,410	5,170	.....	.....	.....	.....	10,658
1918	.....	2,626	1,764	.....	.....	.....	4,390	3,658	1,769	5,427	.....	.....	.....	.....	9,817
1919	.....	2,513	1,746	.....	.....	.....	4,259	4,145	1,821	5,966	.....	.....	.....	.....	10,225
1920	.....	2,074	1,605	.....	.....	.....	3,679	4,191	2,158	6,349	.....	.....	.....	.....	10,028
1921	.....	1,355	975	.....	.....	.....	2,330	4,722	2,163	6,885	.....	.....	.....	.....	9,215
1922	.....	1,510	1,239	.....	.....	.....	2,749	4,712	1,932	6,644	.....	.....	.....	.....	9,393
1923	.....	2,102	1,516	.....	.....	.....	3,618	4,342	1,807	6,149	.....	.....	.....	.....	9,767
1924	.....	2,353	1,680	.....	.....	.....	4,033	3,894	1,524	5,418	.....	.....	.....	.....	9,451
1925	.....	2,298	2,840	.....	.....	.....	5,138	3,828	1,615	5,443	.....	.....	.....	.....	10,581
1926	299	2,606	1,735	.....	808	2,461	7,610	3,757	1,565	5,322	493	324	124	.....	14,172
1927	415	2,671	1,916	.....	854	2,842	8,283	3,646	1,579	5,225	647	138	122	.....	14,830
1928	355	2,707	2,469	.....	911	2,748	8,835	3,814	1,520	5,334	412	368	120	.....	15,424
1929	341	2,926	2,052	.....	966	2,948	8,892	3,675	1,353	5,028	492	544	268	.....	15,565
1930	425	2,316	1,260	.....	832	3,197	7,605	3,389	1,256	4,645	843	344	170	.....	14,032
1931	688	1,463	884	.....	581	3,157	6,035	2,957	1,125	4,082	460	526	380	.....	12,171
1932	874	1,355	900	.....	542	2,036	4,833	2,628	980	3,608	536	329	344	.....	10,524
1933	1,134	1,786	1,335	.....	531	2,436	6,088	2,241	853	3,094	376	269	408	.....	11,369
1934	1,122	2,796	1,729	.....	631	2,890	8,046	2,050	843	2,803	377	187	360	.....	12,985
1935	1,291	2,740	1,497	.....	907	2,771	7,915	2,145	826	2,971	536	270	754	.....	13,737
1936	1,124	2,959	1,840	.....	720	2,678	8,197	2,015	799	2,814	931	288	825	.....	14,179
1937	1,371	3,603	1,818	.....	1,168	3,027	9,616	2,286	867	3,153	724	327	938	.....	16,129
1938	1,303	3,849	2,266	.....	919	3,158	10,192	2,088	874	2,962	900	295	369	.....	16,021
1939	1,252	3,905	2,050	.....	996	3,187	10,138	2,167	809	2,976	652	311	561	.....	15,890
1940	1,004	3,923	2,104	.....	1,048	2,944	10,019	2,175	699	2,874	827	334	647	.....	15,705
1941	939	3,901	1,823	.....	1,025	3,072	9,821	2,229	494	2,723	766	413	422	.....	15,084
1942	489	2,920	1,504	.....	960	3,555	8,939	1,892	468	2,360	842	378	262	.....	13,270
1943	212	2,394	1,699	.....	891	2,835	7,819	2,240	611	2,851	673	326	567	.....	12,448
1944	255	1,896	1,825	.....	849	2,981	7,551	2,150	689	2,839	690	351	628	.....	12,314
1945	209	1,933	1,750	.....	822	2,834	7,339	1,927	503	2,430	921	335	586	.....	11,820
1946	347	1,918	1,817	.....	672	2,813	7,220	1,773	532	2,305	827	555	679	.....	11,933
1947	360	3,024	2,238	.....	960	3,461	9,683	1,694	731	2,425	977	585	869	.....	14,899
1948	348	3,143	2,429	.....	1,126	3,884	10,582	1,594	872	2,466	1,591	656	754	.....	16,397
1949	303	3,034	2,724	.....	1,208	3,763	10,724	1,761	545	2,306	2,120	542	626	.....	16,621
1950	327	3,399	2,415	.....	1,259	3,759	10,832	1,745	516	2,261	1,916	616	660	.....	16,612
1951	205	3,785	3,695	.....	1,307	4,044	12,831	1,462	463	1,925	1,783	628	491	.....	17,863
1952	230	4,171	3,923	.....	1,516	4,120	13,730	1,280	401	1,681	1,530	557	529	.....	18,257
1953	132	3,145	2,589	.....	1,371	3,901	11,006	1,154	396	1,550	1,909	559	634	.....	15,790
1954	199	2,644	2,520	.....	1,129	3,119	9,412	1,076	358	1,434	1,861	638	584	.....	14,128
1955	103	2,564	2,553	.....	1,091	3,304	9,512	1,100	378	1,478	1,646	641	722	.....	14,102
1956	105	2,637	2,827	.....	1,043	3,339	9,846	968	398	1,366	1,598	770	854	.....	14,539
1957	67	2,393	2,447	.....	838	3,328	9,006	1,020	360	1,380	1,705	625	474	.....	13,257
1958	75	1,919	1,809	.....	625	3,081	7,434	826	260	1,086	1,483	677	446	.....	11,201
1959	99	1,937	1,761	.....	618	3,008	7,324	765	291	1,056	1,357	484	459	.....	10,779
1960	86	1,782	1,959	.....	648	3,034	7,423	894	288	1,182	1,704	557	589	.....	11,541
1961	74	1,785	1,582	.....	626	3,113	7,111	705	237	942	1,828	508	571	.....	11,084
1962	35	1,677	1,976	270	949	3,356	8,228	548	228	776	1,523	481	517	.....	11,560
1963	43	1,713	2,012	450	850	3,239	8,264	501	247	748	909	460	528	.....	10,952
1964	5	1,839	1,967	772	822	3,281	8,681	446	267	713	1,293	444	509	.....	11,645
1965	2	1,752	2,019	786	965	3,529	9,051	405	244	649	1,079	422	639	441	12,283
1966	2	2,006	2,296	1,894	1,014	3,654	10,864	347	267	614	1,269	393	582	478	14,202
1967	.....	1,928	2,532	1,264	992	3,435	10,151	260	197	457	1,309	372	584	507	13,380
1968	.....	1,823	2,369	3,990	1,072	3,283	12,537	195	358	553	1,207	380	582	400	15,659
1969	7	1,794	2,470	4,270	1,099	3,468	13,101	245	455	700	1,097	549	567	416	16,437
1970	.....	2,160	3,167	4,964	1,331	3,738	15,360	242	1,033	1,275	740	647	627	437	19,086
1971	.....	2,073	3,058	4,040	1,513	3,481	14,165	444	1,013	1,457	846	794	666	495	18,423
1972	.....	1,833	3,463	4,201	1,734	3,353	14,584	214	1,771	1,985	1,116	800	527	458	19,470
1973	.....	1,704	4,005	3,392	2,394	3,390	14,885	265	1,951	2,216	898	802	667	454	19,922
1974	.....	1,508	4,239	2,848	2,352	2,767	13,715	267	2,255	2,522	895	782	646	509	19,069

[1] Commencing with 1967, does not include employment in by-product plants.

NOTE—These figures refer only to company employees and do not include the many employees of contracting firms.

Table 11—Employment at Major Metal Mines and Coal Mines, 1974

	Tons		Days Operating Mill	Average Number Employed[1]					
					Mine				
	Mined	Milled		Administrative, Etc.	Surface	Underground	Mill	Others	Total
Metal Mines									
Anaconda Canada Ltd. (Britannia)	398,498	399,164	204	71	.....	119	21	39	250
Bethlehem Copper Corp. Ltd. (Bethlehem)	6,458,740	6,346,402	365	60	206	.....	142	.....	408
Brenda Mines Ltd. (Brenda)	9,770,000	9,549,588	365	106	140	.....	179	.....	425
Canex Placer Ltd. (Endako)	8,763,000	7,508,000	296	125	86	.....	233	.....	444
Colt Resources Ltd. (Denero Grande, Jewel)	1,600	.....	.....	2	2	6	.....	.....	10
Cominco Ltd. (HB)	256,121	256,121	242	25	16	41	8	.....	90
Cominco Ltd. (Sullivan)	1,416,489	1,416,489	179	157	51	279	126	.....	613
Consolidated Churchill Copper Corp. (Magnum)	187,979	201,450	365	25	15	67	9	.....	116
Craigmont Mines Ltd. (Craigmont)	1,752,120	1,796,692	343	5	133	233	57	2	430
Dankoe Mines Ltd. (Horn Silver)	24,599	24,351	192	11	.....	19	5	3	38
Giant Mascot Mines Ltd. (Pride of Emory)	156,733	156,733	169	35	20	40	14	.....	109
Gibraltar Mines Ltd. (Gibraltar)	18,348,000	13,264,599	365	137	183	.....	289	.....	609
Granby Mining Corp. (Phoenix)	188,661	1,012,427	365	25	71	.....	51	2	149
Granduc Operating Co. Ltd. (Granduc)	2,708,731	2,708,731	365	207	261	238	51	.....	757
Granisle Copper Ltd. (Granisle)	4,860,651	4,373,075	365	69	85	.....	149	.....	303
Hallmark Resources Ltd. (Cronin)	600	600	25	4	1	2	.....	.....	7
Jordan River Mines Ltd. (Sunro)	241,504	241,504	301	21	.....	73	37	.....	131
Kam-Kotia—Burkam Joint Venture (Silmonac)	8,927[2]	8,927[2]	365	2	6	13	8	6	35
Lornex Mining Corp. Ltd. (Lornex)	16,147,589	16,445,461	365	118	300	.....	310	3	731
Noranda Mines Ltd. (Bell)	4,587,042	4,500,998	365	84	44	.....	137	.....	265
Noranda Mines Ltd. (Boss Mountain)	467,883	493,904	345	30	38	51	23	.....	142
Placid Oil Co. (Bull River)	43,410	107,039	138	13	7	.....	5	.....	25
Purcell Development Co. Ltd. (Paradise and Mineral King)	5,000	4,600	45	1	.....	7	8	.....	16
Reeves MacDonald Mines Ltd. (Annex)	197,627	197,627	256	18	17	57	10	2	104
Similkameen Mining Co. Ltd. (Similkameen)	5,086,088	5,086,088	365	89	231	.....	74	.....	394
Teck Corporation Ltd. (Highland Bell)	39,142	37,184	358	7	.....	18	8	6	39
Texada Mines Ltd. (Texada)	925,859	926,646	338	24	70	62	28	.....	184
Utah Mines Ltd. (Island Copper)	11,071,000	11,200,000	295	53	417	.....	219	.....	689
Wesfrob Mines Ltd. (Tasu)	2,050,225	1,559,960	365	91	20	2	106	.....	219
Western Mines Ltd. (Lynx and Myra)	340,421	297,290	336	64	43	163	38	.....	308
Other mines	.....	.....	.....	21	13	19	7	.....	60
Total metal mines	.....	.....	.....	1,700	2,476	1,509	2,352	63	8,100
Total last period—December 31, 1974	.....	.....	.....	.....	2,529	1,438	2,456	35	.....
Coal Mines									
Byron Creek Collieries	219,186	.....	74	5	4	.....	1	.....	10
Coalition Mining Ltd.	.....	.....	.....	6	9	9	.....	.....	24
Coleman Collieries Ltd.	154,235	.....	.....	.....	8	.....	.....	.....	8
Fording Coal Ltd.	3,105,356	.....	318	153	457	.....	126	.....	736
Kaiser Resources Ltd.	7,722,781	.....	364	199	1,107	258	180	.....	1,744
Total coal mines	.....	.....	.....	363	1,585	267	307	.....	2,522
Total last period—December 31, 1974	.....	.....	.....	.....	1,734	283	315	.....	.....

[1] The average number of employed includes wage-earners and salaried employees. The average is obtained by adding the monthly figures and dividing by 12, irrespective of the number of months worked.

[2] Estimated.

Table 12—Metal Production, 1974

Property or Mine	Location of Mine	Owner or Agent	Ore Shipped or Treated	Product Shipped	Gross Metal Content					
					Gold	Silver	Copper	Lead	Zinc	Cadmium
			Tons		Oz.	Oz.	Lb.	Lb.	Lb.	Lb.
Alberni Mining Division										
Lynx and Myra	Buttle Lake	Western Mines Ltd.	297,290	Copper concentrates, 13,589 tons; lead concentrates, 5,796 tons; zinc concentrates, 40,665 tons	25,485	1,151,509	8,669,995	5,995,424	47,360,963	189,481
Musketeer	Tofino	New Musketeer Gold Mine Ltd.	55	High grade ore	96	69	121	4,954		
Atlin Mining Division										
Atlin-Ruffner	Atlin	Atlin Silver Corp.	36	Crude ore	2	1,695	36	4,354		
Cariboo Mining Division										
Boss Mountain mine	Big Timothy Mountain	Noranda Mines Ltd. (Boss Mountain Div.)	493,904	Molybdenite concentrates, 1,646 tons, containing 1,846,992 lb. of molybdenum						
Gibraltar mine	McLeese Lake	Gibraltar Mines Ltd.	13,397,264[1]	Copper concentrates, 151,060 tons; molybdenite concentrates, 235 tons, containing 282,014 lb. of molybdenum		141,594	82,158,095			
Clinton Mining Division										
Nil										
Fort Steele Mining Division										
Bull River mine	Wardner	Placid Oil Co.	107,039	Copper concentrates, 9,178 tons	1,252	63,676	4,425,588			
Dardenelle, Mother Lode	Wild Horse River	David O. Fredlund, Cranbrook	48	Crude ore	10	82		4,254		
Rice (Quartz Mountain)	Sawmill Creek	Norex Mining and Development Ltd.	259	Crude ore	114	156	519	1,506	519	
Sullivan mine	Kimberley	Cominco Ltd.	1,416,489	Lead concentrates, 77,678 tons; zinc concentrates, 120,937 tons; tin concentrates, 145 tons, containing 165,582 lb. of tin	92	1,807,597	361,600	113,010,000	124,088,000	346,199
Golden Mining Division										
Paradise and Mineral King	Spring and Toby Creeks	Purcell Development Co. Ltd.	5,200	Lead concentrates, 212 tons; zinc concentrates, 128 tons		11,680[2]		319,574[2]	401,418[2]	920[2]

Greenwood Mining Division										
Burnt Basin Era Gold	Paulson	Alvija Mines Ltd.	302	Lead concentrates, 13 tons; zinc concentrates, 21 tons		1,211		25,053	43,837	329
Denero Grande, Jewel	Greenwood	Colt Resources Ltd.	726	Crude ore	223	1,437		4,450	1,584	
Highland Bell mine	Beaverdell	Teck Corp. Ltd.	37,184	Lead concentrates, 1,037 tons; zinc concentrates, 287 tons; jig concentrates, 90 tons	296	313,278	566	278,594	287,813	894
Phoenix mine	Greenwood	The Granby Mining Co. Ltd., Phoenix Copper Division	1,012,427	Copper concentrates, 14,395 tons	10,203	85,572	7,700,711			
Kamloops Mining Division										
Bethlehem	Highland Valley	Bethlehem Copper Corp. Ltd.	6,346,402	Copper concentrates, 89,555 tons	684	177,807	58,515,975			
Lornex mine	Highland Valley	Lornex Mining Corp. Ltd.	16,445,401	Copper concentrates; 167,888 tons; molybdenite concentrates, 3,544 tons, containing 3,937,200 lb. of molybdenum	658	435,538	107,506,225			
Liard Mining Division										
Magnum mine	Delano Creek	Consolidated Churchill Copper Corp. Ltd.	201,450	Copper concentrates, 14,256 tons			8,367,210			
Lillooet Mining Division										
Nil										
Nanaimo Mining Division										
Island Copper mine	Port Hardy	Utah Mines Ltd.	11,200,000	Copper concentrates, 175,200 tons; molybdenite concentrates, 1,506 tons, containing 1,257,500 lb. of molybdenum; rhenium shipments are confidential	42,100	218,900	84,191,000			
Texada mine	Texada Island	Texada Mines Ltd.	926,646	Iron concentrates, 346,500 tons; copper concentrates, 6,874 tons	1,137	46,700	2,967,458			
Nelson Mining Division										
Annex	Nelway	Reeves MacDonald Mines Ltd.	197,627	Lead concentrates, 2,926 tons; zinc concentrates, 12,526 tons		84,236		3,986,597	13,639,870	131,754
H.B.	Salmo	Cominco Ltd.	256,121	Lead concentrates, 4,423 tons; zinc concentrates, 15,808 tons	16	32,923		4,607,200	17,291,800	128,019
Mother Lode (Independence)	Salmo	Nugget Mines Ltd.	467	Crude ore, dump clean-up	126	126	241	2,411	933	
Red Rock (Michaely)	Salmo	A. Matovich, Trail	22	Crude ore		52	35	1,885	5,393	

[1] Includes 132,705 tons from Cuisson Lake Mines Ltd.
[2] Estimated.

Table 12—Metal Production, 1974—Continued

Property or Mine	Location of Mine	Owner or Agent	Ore Shipped or Treated	Product Shipped	Gross Metal Content					
					Gold	Silver	Copper	Lead	Zinc	Cadmium
			Tons		Oz.	Oz.	Lb.	Lb.	Lb.	Lb.
New Westminster Mining Division										
Pride of Emory mine	Hope	Giant Mascot Mines Ltd.	156,733	Copper concentrates, 1,638 tons; nickel-copper concentrates, 7,404 tons, containing 1,688,152 lb. of nickel			1,170,517			
Nicola Mining Division										
Craigmont mine	Merritt	Craigmont Mines Ltd.	1,796,692	Copper concentrates, 91,587 tons; iron concentrates, 42,130 tons			53,486,430			
Omineca Mining Division										
Bell mine (Newman)	Babine Lake	Noranda Mines Ltd. (Bell Copper Division)	4,500,998	Copper concentrates, 84,636 tons	30,831		44,167,559			
Cronin mine	Smithers	Hallmark Resources Ltd.	600	Lead concentrates, 40 tons; zinc concentrates, 71 tons	3	3,651	2,107	51,174	86,673	680
Endako mine	Endako	Canex Placer Ltd. (Endako Mines Division)	7,508,000	Molybdenite concentrates, 5,784 tons; molybdenum trioxide, 8,156 tons; ferro-molybdenum, 201 tons; total content, 15,981,105 lb. of molybdenum						
Granisle mine	Babine Lake	Granisle Copper Ltd.	4,373,075	Copper concentrates, 61,596 tons	19,863	209,084	40,643,225			
Pinchi Lake mine	Pinchi Lake	Cominco Ltd.	(8)	Mercury						
Rio	French Peak	John H. Sargent, New Hazelton	28	Crude ore	2	3,423	2,755	8,010	1,023	
Silver Standard mine	Hazelton	George Braun, New Hazelton	230	Crude ore	20	9,879		9,150	22,168	
Osoyoos Mining Division										
Brenda mine	Brenda Lake	Brenda Mines Ltd.	9,549,588	Copper concentrates, 65,634 tons; molybdenite concentrates, 4,790 tons; molybdic oxide, 1,614 tons, containing 7,086,707 lb. of molybdenum	4,447	289,915	39,021,320			
Horn Silver mine	Keremeos	Dankoe Mines Ltd.	24,351	Silver concentrates, 912 tons; crude ore, 4 tons	440	218,939	9,432	35,229	24,464	
Susie	Oliver	Hem Mines Ltd.	3,107	Crude ore	340	6,616	834	16,313	6,793	

Revelstoke Mining Division										
Silver Cup, Towser	Ferguson	Chandler, Murphy Resources and Development Inc.	107	Crude ore	44	5,238	1,070	67,101	9,388	
Similkameen Mining Division										
Goldrop	Whipsaw Creek	C. Amyotte, Oliver	124	Crude ore	30	353	25	496	247	
Similkameen mine (Ingerbelle)	Princeton	Similkameen Mining Co. Ltd.	5,086,088	Copper concentrates, 77,606 tons	28,006	115,110	41,226,398			
Skeena Mining Division										
Granduc mine	Stewart	Granduc Operating Co.	2,708,731	Copper concentrates, 115,123 tons	10,134	617,847	64,055,959			
Tasu mine	Tasu Harbour	Wesfrob Mines Ltd.	1,559,960	Iron concentrates, 1,043,196 tons; copper concentrates, 9,248 tons	1,632	68,179	4,009,634			
View Fraction	Stewart	N. Benkovich, Stewart	23	Crude ore	37	852	69	731	1,279	
Slocan Mining Division										
Bluebell	Riondell	D. Pearce, Nelson		Lead concentrates, 9 tons		95	122	7,358	933	
Bosun	New Denver	A. E. Avison, Kamloops	16	Crude ore		759	81	2,895	7,127	
Enterprise	Slocan City	L. M. Freid, New Denver, O. Swenrude and T. Mazure, Calgary, Alta.	99	Crude ore		3,217	209	16,717	21,540	
Silmonac (Minniehaha)	Sandon	Kam-Kotia and Burkam Joint Venture	8,927[2]	Lead concentrates, 726 tons; zinc concentrates, 747 tons		152,803		796,095	895,445	5,914
Silver Glance, Panama	New Denver	United Hearne Resources	81	Crude ore	1	4,614	243	971	810	
Victor (Violamac)	Sandon	E. Peterson, New Denver	15	Crude ore	4	1,778	77	19,500	525	
Washington	Retallack, Three Forks	J. O. H. Nesbitt, Silverton	29	Crude ore		3,571	58	43,157	1,556	
Trail Creek Mining Division										
Blue Bird	Rossland	Standonray Mines Ltd.	1,164	Crude ore; lead concentrates, 3 tons	57	19,262	1,904	69,426	77,230	
I.X.L.	Rossland	J. A. Ruelle, Rossland	47	High grade ore	63	48	199	95	95	
Midnight	Rossland	Consolidated Cinola Mines Ltd.	327	Crude ore	99	145	137	1,330	654	
Vancouver Mining Division										
Britannia mine	Howe Sound	Anaconda Canada Ltd.	399,164	Copper concentrates, 16,761 tons; copper precipitates, 581 tons	649	86,571	10,332,643			
Warman (Northair)	Callaghan Creek	Northair Mines Ltd.	141	High grade ore	91	43			3,647	

[3] Confidential.

Table 12—Metal Production, 1974—Continued

Property or Mine	Location of Mine	Owner or Agent	Ore Shipped or Treated	Product Shipped	Gross Metal Content					
					Gold	Silver	Copper	Lead	Zinc	Cadmium
Vernon Mining Division			Tons		Oz.	Oz.	Lb.	Lb.	Lb.	Lb.
Nil										
Victoria Mining Division										
Sunro mine	River Jordan	Jordan River Mines Ltd.	241,504	Copper concentrates, 8,146 tons	1,031	12,309	4,500,337			

Table 13—Destination of British Columbia Concentrates in 1974

	Lead	Zinc	Copper	Nickel-copper	Iron
	Tons	Tons	Tons	Tons	Tons
Trail	89,479	137,053			
Other Canadian			69,181	7,404	54,070
United States	3,371	35,757	60,561		276,370
Japan		18,359	1,013,510		1,097,162
Other foreign			16,916		13,049
Totals	92,850	191,169	1,160,168	7,404	1,440,651

Table 14—Hydrocarbon and By-products Reserves, December 31, 1974

	Crude Oil, MSTB		Raw Gas, BSCF		Established			
	Proved	Probable	Proved	Probable	Residue Gas, BSCF	Residue Gas, BSCF (Basis 1,000 Btu/SCF)	Natural Gas Liquids, MSTB	Sulphur, MLT
Original hydrocarbon in place	1,255,883	87,556	15,913.1	1,311.6	(1)	(1)	(1)	(1)
			Established					
Ultimate recovery, current estimate	367,138.0	150,067.4	13,332.3		11,625.0	12,068.6	79,482.0	5,297.4
Cumulative production to December 31, 1973	229,499.1	.....	3,516		3,117.5	3,289.4	32,401.0	1,179.0
Reserves estimated at December 31, 1973	131,227.5	153,171.3	10,259.9		8,928.9	9,147.7	46,083.5	3,639.1
Drilling in 1974	+676.6	.....	+145.6		+129.1	+131.8	+247.4	+59.7
Revisions in 1974	+5,715.1	−3,154.2	−586.0		−548.0	−499.2	+732.1	+389.3
Production in 1974	−18,846.3	.....	−411.7		−355.2[2]	−370.0[2]	−2,486.4[3]	−166.2[3]
Change due to computer	+19.2	+50.3	−4.1		−1.9	−1.1	+18.0	+30.3
Production adjustment[4]	.....	.....	−5.1		−4.6	−5.3	−45.7	−0.3
Reserves at December 31, 1974	118,792.1	150,067.4	9,398.6		8,147.7	8,403.9	44,548.9	3,951.9
	268,859.5							

NOTES—

MSTB=Thousand stock tank barrels, where one barrel contains 34.9723 Canadian gallons.

BSCF—Billion standard cubic feet at 14.65 psi and 60°F.

MLT=Thousand long tons.

[1] Not available.

[2] Based on raw gas production and estimated shrinkage from gas analyses.

[3] Based on estimated plant recovery. Actually extracted quantities of propane, butanes, pentanes plus, and sulphur were 562.1 MSTB, 663.1 MSTB, 1,120.4 MSTB, and 58.4 MLT respectively. In addition, 104.2 MSTB of pentanes plus were removed at the well-head for a total of 2,449.8 MSTB of natural gas liquids. However, these totals of propane, butanes, and pentanes plus include liquids extracted from Alberta gas. The sulphur production in the table includes estimated production from the Fort Nelson plant.

[4] Adjustment to cumulative production carried on 1973 reserves report. This adjustment is for gas flared or used as lease fuel up to December 31, 1973, from what are now established reserves.

Table 15—Exploratory and Development Wells Completed, January to December 1974

	Oil		Gas		Total Producers		Abandonments		Status Undetermined		Service Wells		Total	
	No.	Footage	No.	Footage	No.	Footage	No.	Footage	No.	Footage	No.	Footage	No.	Footage
New field wildcats	---	-------	1	11,960	1	11,960	7	70,719	3	16,298	---	----------	11	98,977
New pool wildcats	2	8,092	11	60,437	13	68,529	22	98,240	---	----------	---	----------	33	166,769
Deep-pool tests	---	-------	---	-------	---	-------	3	7,489	---	----------	---	----------	3	7,489
Outposts	---	-------	10	59,674	10	59,674	28	112,890	---	----------	1	6,855	39	179,419
Total exploratory wells	2	8,092	22	132,071	24	140,163	57	289,338	3	16,298	1	6,855	86	452,654
Total development wells	4	18,215	27	140,876	31	159,091	27	134,871	---	----------	2	13,748	59	307,710
Subtotals	6	26,307	49	272,947	55	299,254	84	424,209	3	16,298	3	20,603	145	760,364
Totals	6	26,307	49	272,947	55	299,254	84	424,209	3	16,298	3	20,603	145	760,364

Three deep-pool tests are not included in the well total as they are counted under "Development." There were two dual gas wells which were counted as single wells.

Table 16—Project and Individual Well MPR Data at December 31, 1974

Field	Pool	Well or Project	Well Authorization No.	MPR STB/D	Project Data							
					Reference Map	Area (Acres)	Cumulative Injection		Number of Wells			
							MBW	MMSCF	Producers		Injectors	
									Oil	Gas	Water	Gas
Aitken Creek	Gething	Union project	----	1,125	1	1,009	----	31,183	6	4	----	1
Balsam	Halfway	Ipex Cox Hamilton Balsam d-47-H/94-H-2	1840	Suspended.								
Bear Flat	North Pine	Monsanto project	----	286	2	1,362	----	860	2	----	----	1
Beatton River	Halfway	POR Ashland Beatton d-9-J/94-H-2	2909	184	----	----	----	----	----	----	----	----
		CIGOL et al Beatton d-11-K/94-H-2	2915	184	----	----	----	----	----	----	----	----
		CIGOL et al Beatton d-21-K/94-H-2	3002	78	----	----	----	----	----	----	----	----
		Triad et al Beatton d-41-K/94-H-2	869	Suspended.								
		BPOG project	----	2,270	3	1,849	----	16,163	10	1	5	----
		Pool total	----	2,716	----	----	----	----	----	----	----	----
Beatton River West	Bluesky	BPOG Unit 1	----	1,236	4	2,659	----	2,887	12	----	6	----
Beaverdam	Halfway	Tenn Beaverdam d-38-L/94-A-16	1653	Suspended.								
Blueberry	Debolt	Mesa et al Blueberry b-18-K/94-A-12	2420	145	----	----	----	----	----	----	----	----
		Decalta Blueberry d-57-D/94-A-13	1333	53	----	----	----	----	----	----	----	----
		Pacific project	----	4,600	8	5,192	----	837	17	----	----	1
		Pool total	----	4,798	----	----	----	----	----	----	----	----
Boundary Lake	Dunlevy	Pacific Boundary 8-15-85-14	270	79	----	----	----	----	----	----	----	----
	Cecil	Imp et al Boundary 5-26-84-14	2977	58	----	----	----	----	----	----	----	----
		Texaco et al Boundary A8-30-85-13	2931	86	----	----	----	----	----	----	----	----
		Pool total	----	144	----	----	----	----	----	----	----	----
	Boundary Lake	Imp Pac Boundary 8-32-84-13	991	Suspended.								
		Texaco et al Boundary 6-32-85-13	2930	155	----	----	----	----	----	----	----	----
		Texaco NFA Boundary 6-29-86-13	1720	Suspended.								
		Texaco NFA Boundary 16-30-86-13	1482	20	----	----	----	----	----	----	----	----
		Dome project 1	----	4,919	9	3,352	13,984	----	25	----	7	----
		Dome project 2	----	1,484	9	650	4,880	----	6	----	2	----
		Imperial Unit 1	----	38,657	9	26,743	75,289	----	154	----	37	----
		Texaco Unit 2	----	22,723	9	14,025	60,097	----	120	----	22	----
		Pool total	----	67,958	----	----	----	----	----	----	----	----
	Halfway	Texaco NFA Boundary 8-30-85-13	1097	83	----	----	----	----	----	----	----	----
		Pacific Boundary Lake 11-14-85-14	667	101	----	----	----	----	----	----	----	----
		Sun Boundary Lake 6-23-85-14	646	83	----	----	----	----	----	----	----	----
		Amerada Boundary A6-24-85-14	1454	99	----	----	----	----	----	----	----	----
		AmMin Boundary A16-24-85-14	3219	48	----	----	----	----	----	----	----	----
		Texaco NFA Boundary 16-25-85-14	1144	Suspended.								
		Pool total	----	414	----	----	----	----	----	----	----	----
Buick Creek	Dunlevy	Texaco NFA Buick c-32-A/94-A-14	1500	144	----	----	----	----	----	----	----	----
Bulrush	Halfway	Union project	----	389	11	1,173	----	4,622	4	----	----	2
Bulrush East	Halfway	Dome Provo Co-op Bulrush d-5-K/94-A-16	1843	Suspended.								
Cecil Lake	North Pine	Scurry CAEL Cecil 4-24-84-18	3140	136	----	----	----	----	----	----	----	----
		Scurry ML CAEL Cecil 10-24-84-18	3045	174	----	----	----	----	----	----	----	----
		Scurry Ballinderry 6-12-84-18	3462	25	----	----	----	----	----	----	----	----
		Pool total	----	335	----	----	----	----	----	----	----	----

Table 16—Project and Individual Well MPR Data at December 31, 1974—Continued

Field	Pool	Well or Project	Well Authorization No.	MPR STB/D	Project Data							
					Reference Map	Area (Acres)	Cumulative Injection		Number of Wells			
							MBW	MMSCF	Producers		Injectors	
									Oil	Gas	Water	Gas
Charlie Lake	Gething	Imp Pac Charlie 13-5-84-18	269	Suspended.								
Crush	Halfway	Union Unit 1	----	1,383	13	1,474	3,186	----	8	----	2	----
Currant	Halfway	Union HB Currant d-28-C/94-A-16	1768	Suspended.								
		Pacific Unit 1	----	627	14	696	2,870	----	4	----	3	----
Eagle	Belloy	Scurry CanPlac Eagle 6-22-84-18	3364	54	---	----	----	----	----	----	----	----
		Scurry CanPlac Eagle 6-27-84-18	3239	403	---	----	----	----	----	----	----	----
		Raines Eagle 8-29-84-18	2543	49	---	----	----	----	----	----	----	----
		Raines Eagle 11-29-84-18	2502	257	---	----	----	----	----	----	----	----
		Scurry CanPlac Eagle 6-34-84-18	3370	338	---	----	----	----	----	----	----	----
		Pool total	----	1,101	---	----	----	----	----	----	----	----
Elm	Halfway	Bracell et al Elm b-62-C/94-H-7	2856	Suspended.								
Flatrock	Boundary Lake	Ballinderry Flatrock 10-19-84-16	2852	153	---	----	----	----	----	----	----	----
Fort St. John	Pingel	Pacific Unit 1	----	334	15	1,260	----	----	4	----	----	----
	Belloy	Imp Pac Fort St. John 9-19-83-18	171	Suspended.								
Halfway	Blueberry	West Nat et al Halfway 14-11-87-25	1986	Suspended.								
Inga	Baldonnel	Hunt Sands Pac Imp Inga 7-16-80-23	933	Suspended.								
	Inga	Canadian Superior Unit 1	----	7,246	16	11,057	26,136	----	26	1	14	----
		Amoco Unit 2	----	7,489	16	12,703	5,422	----	34	----	11	----
		Texaco Unit 4	----	740	16	1,510	358	----	3	----	1	----
		Pacific Unit 5	----	630	16	2,913	310	----	6	----	6	----
		Pool total	----	16,105	---	----	----	----	----	----	----	----
Milligan Creek	Halfway	Union Unit 1	----	10,000	22	3,370	54,583	3,418	19	----	14	1
		Union Unit 2	----	780	22	810	----	----	6	1	----	----
		Pool total	----	10,780	---	----	----	----	----	----	----	----
Moberly Lake	Pingel	JBA Moberly 10-15-82-22	2019	61	---	----	----	----	----	----	----	----
		JBA Moberly 4-23-82-22	2463	38	---	----	----	----	----	----	----	----
		Pool total	----	99	---	----	----	----	----	----	----	----
Nettle	Gething	Union KCL ROC Nettle d-67-A/94-H-7	1321	Suspended.								
		Union KCL ROC Nettle d-68-A/94-H-7	1879	74	---	----	----	----	----	----	----	----
		Union HCL ARCo Nettle d-69-A/94-H-7	2018	Suspended.								
Nig Creek	Baldonnel	Texaco NFA Nig d-87-A/94-H-4	2152	165	---	----	----	----	----	----	----	----
Oak	Halfway	Woods Wainco Ashland Oak 6-7-86-17	3397	127	---	----	----	----	----	----	----	----
	Halfway	Woods Wainco Ashland Oak 14-7-86-17	3549	204	---	----	----	----	----	----	----	----
		Pool total	----	331	---	----	----	----	----	----	----	----
Osprey	Halfway	Pacific Halfway project	----	130	24	619	----	----	3	----	----	----
Peejay	Halfway	Pacific SR CanDel Peejay d-71-H/94-A-15	1851	59	---	----	----	----	----	----	----	----
		Decalta Ranger Peejay d-51-D/94-A-16	2023	25	---	----	----	----	----	----	----	----
		Pacific Unit 1	----	4,430	26	3,810	21,082	----	24	----	14	----
		Union Unit 2	----	8,229	26	6,884	35,411	----	37	----	14	----
		Pacific Unit 3	----	6,865	26	5,405	26,760	----	28	----	15	----
		Pacific Peejay North project	----	42	26	917	----	----	1	2	----	----
		Pacific ARCo project	----	2,717	26	1,317	6,912	----	8	----	3	----
		Pool total	----	22,367	---	----	----	----	----	----	----	----

Peejay West	Halfway	Pacific SR CanDel W Peejay d-44-G/94-A-15	1008	Suspended.								
		Pacific SR West Cdn W Peejay d-54-G/94-A-15	956	149	---	-----	-----	-----	----	----	----	----
Rigel	Dunlevy	Monsanto IOE Fina Rigel 6-19-87-16	1692	65	---	-----	-----	-----	----	----	----	----
		Monsanto IOE Fina Rigel 11-19-87-16	1616	47	---	-----	-----	-----	----	----	----	----
		Monsanto Rigel 6-23-87-17	1942	100	---	-----	-----	-----	----	----	----	----
		Monsanto Rigel 6-31-87-17	1714	46	---	-----	-----	-----	----	----	----	----
	Dunlevy	IOE et al Rigel b-44-J/94-A-10	2565	34	---	-----	-----	-----	----	----	----	----
		CIGOL et al Rigel b-84-K/94-A-10	3109	98	---	-----	-----	-----	----	----	----	----
		Pool total	-----	390	---	-----	-----	-----	----	----	----	----
Stoddart	Cecil	Apache Dunbar Stoddart 11-23-85-19	2548	69	---	-----	-----	-----	----	----	----	----
	Belloy	Uno-Tex et al Stoddart 6-31-85-19	2218	32	---	-----	-----	-----	----	----	----	----
		Uno-Tex et al Stoddart 10-31-85-19	1519	45	---	-----	-----	-----	----	----	----	----
		Apache et al Stoddart 6-36-85-20	2757	61	---	-----	-----	-----	----	----	----	----
		Pool total	-----	138	---	-----	-----	-----	----	----	----	----
Wargen	Gething	Pacific Westcoast Wargen d-48-C/94-H-6	3044	Suspended.								
Weasel	Halfway	Pacific SR CanDel Weasel d-82-J/94-A-15	2055	206	---	-----	-----	-----	----	----	----	----
		Pacific SR CanDel Weasel d-90-I/94-A-15	1531	Suspended.								
		Dome Provo Weasel d-2-B/94-H-2	1734	56	---	-----	-----	-----	----	----	----	----
		Tenneco Unit 1	-----	2,551	30	1,847	13,514	1,866	9	----	7	1
		Pacific Unit 2	-----	1,143	943	943	4,338	-----	6	----	6	----
		Pool total	-----	3,956	---	-----	-----	-----	----	----	----	----
Weasel West	Halfway	Tenn et al W Weasel d-71-C/94-H-2	2834	56	---	-----	-----	-----	----	----	----	----
		Tenn et al W Weasel d-72-C/94-H-2	3078	142	---	-----	-----	-----	----	----	----	----
		Tenn Monsanto W Weasel d-82-C/94-H-2	3144	60	---	-----	-----	-----	----	----	----	----
		Tenn et al W Weasel d-83-C/94-H-2	3115	25	---	-----	-----	-----	----	----	----	----
		Pool total	-----	283	---	-----	-----	-----	----	----	----	----
Wildmint	Halfway	Pacific SR CanDel Wildmint d-84-I/94-A-15	1566	Suspended.								
		Tenn Wildmint d-93-I/94-A-15	1947	Suspended.								
		Texcan Wildmint d-94-I/94-A-15	1289	167	---	-----	-----	-----	----	----	----	----
		Tenn Wildmint d-95-I/94-A-15	1191	47	---	-----	-----	-----	----	----	----	----
		Tenn Wildmint d-5-A/94-H-2	1121	Suspended.								
		Tenn Wildmint d-6-A/94-H-2	1184	Suspended.								
		Tenn Wildmint d-7-A/94-H-2	1750	Suspended.								
		CIGOL Wildmint d-13-A/94-H-2	1567	Suspended.								
		Union HB Wildmint d-15-A/94-H-2	984	Suspended.								
		Husky Colo Wildmint d-16-A/94-H-2	1304	Suspended.								
		Husky Colo Wildmint b-23-A/94-H-2	1206	Suspended.								
		Union HB Wildmint d-26-A/94-H-2	963	Suspended.								
		Union Project	-----	3,315	32	1,869	26,640	16,116	11	----	7	2
		Pool total	-----	3,529	---	-----	-----	-----	----	----	----	----
Willow	Gething	Union HB Willow d-20-H/94-H-2	449	122	---	-----	-----	-----	----	----	----	----
Wolf	Halfway	Pacific Sinclair Wolf d-82-B/94-A-15	1916	118	---	-----	-----	-----	----	----	----	----
		Baysel Sinclair Wolf b-92-B/94-A-15	1972	37	---	-----	-----	-----	----	----	----	----
		Baysel Sinclair Wolf d-93-B/94-A-15	1815	129	---	-----	-----	-----	----	----	----	----
		Baysel ARCo Wolf b-3-G/94-A-15	3379	105	---	-----	-----	-----	----	----	----	----
		Pool total	-----	389	---	-----	-----	-----	----	----	----	----
Other areas	Coplin	GAO Cdn Res Pintail 2-12-85-25	3157	42	---	-----	-----	-----	----	----	----	----
	Halfway	Texaco et al N Boundary 11-30-87-14	3098	99	---	-----	-----	-----	----	----	----	----
		Murphy N Boundary 8-31-87-14	3242	41	---	-----	-----	-----	----	----	----	----
		Union et al Spruce d-62-E/94-A-16	2323	Suspended.								
		Union HB Drake b-82-E/94-H-1	2848	50	---	-----	-----	-----	----	----	----	----
		Pool total	-----	182	---	-----	-----	-----	----	----	----	----
	Belloy	Wainco Fort St. John 11-23-84-19	3122	340	---	-----	-----	-----	----	----	----	----

Table 17—Gas-well Test and Allowable Data, December 31, 1974

Field/Pool/Project	Well Name	Well Authorization No.	Date	Pws (Psia)	"n"	AOFP (MSCF/D)	PRL (MSCF/D)
Airport—							
Cadomin	Pacific Airport 8-32-83-17 (3)	27	5-71	1,387	0.753	825	Zone abandoned.
Baldonnel	Pacific Airport 9-32-83-17 (97)	287	5-71	1,573	0.500	2,498	Zone abandoned.
Halfway	Pacific Airport 12-34-83-17 (10)	35	5-71	1,960	1.000	1,667	Zone abandoned.
Balsam—							
Bluesky	Union HB Balsam b-56-H/94-H-2	1889	2-72	1,023	------	------	------
Halfway	Union HB Balsam d-77-H/94-H-2	2861	------	------	------	------	------
Beaverdam—							
Halfway B	Tenn Sun Beaverdam d-37-L/94-A-16	1746	------	------	------	------	------
	Tenn Beaverdam d-39-L/94-A-16	1802	11-74	1,281	0.691	10,922	2,731
Beaver River—							
Nahanni	Amoco Beaver b-19-K/94-N-16	2563	12-72	5,294	0.526	85,012	------
	Pan Am Beaver d-27-K/94-N-16	2313	10-72	5,425	0.500	63,367	------
	Pan Am Beaver c-45-K/94-N-16	2116	10-72	5,302	0.500	46,778	------
	Amoco Beaver c-54-K/94-N-16	3434	------	------	------	------	------
	Amoco Beaver d-A64-K/94-N-16	2547	9-72	5,123	0.500	125,890	------
	Pan Am Beaver River d-73-K/94-N-16	682	10-72	5,283	0.528	132,107	------
Nahanni total	------	------	------	------	------	------	GEP.
Beavertail—							
Gething	Pacific Sinclair Beavertail d-71-C/94-A-15	1893	8-74	924	0.655	11,570	3,888
	Pacific Sinclair Beavertail d-73-C/94-A-15	1915	8-74	923	0.647	19,427	5,543
	Pacific ARCo Beavertail c-92-C/94-A-15	2610	4-74	951	0.671	10,156	2,539
	Texaco NFA Junction b-9-F/94-A-15	300	------	------	------	------	------
Gething total	------	------	------	------	------	------	11,970
Halfway	Pacific Sinclair Beavertail d-71-C/94-A-15	1893	------	------	------	------	------
Beg—							
Baldonnel project (2)	Pacific Imperial Beg c-24-B/94-G-1	1359	8-70	1,567	0.500	1,458	Disposal.
	Pacific Imperial Beg d-35-B/94-G-1	1154	10-74	1,225	0.500	2,210	------
	Pacific Imperial Beg d-46-B/94-G-1	806	7-74	1,490	0.500	2,420	------
	Pacific Imperial Beg d-57-B/94-G-1	1095	7-74	1,553	0.860	2,414	Suspended.
	Pacific et al Beg a-21-F/94-G-1	711	7-70	1,611	0.500	650	Suspended.
	Pacific et al Beg b-42-F/94-G-1	748	12-66	1,524	0.925	1,535	Zone abandoned.
	Pacific et al Beg d-64-F/94-G-1	733	8-74	1,028	1.000	3,124	------
	Pacific et al Beg b-84-F/94-G-1	741	6-72	1,318	1.000	3,608	------
	Pacific et al Beg b-95-F/94-G-1	747	8-74	810	1.000	1,678	------
	Pacific et al Beg d-10-G/94-G-1	541	8-74	821	1.000	688	------
	Pacific et al Beg b-6-K/94-G-1	740	8-74	1,146	1.000	1,512	------
	Pacific et al Beg b-17-K/94-G-1	539	6-72	1,193	0.661	3,615	------
	Pacific et al Beg a-28-K/94-G-1	749	6-72	1,251	0.500	3,034	Suspended.

	Pacific et al Beg b-59-K/94-G-1	786	-----	-----	-----	-----	-----
	Pacific et al Beg b-82-L/94-G-1	1132	7-72	1,255	0.577	2,273	-----
	Pacific Pan Am Dome Beg a-4-D/94-G-8	766	10-74	815	0.625	13,629	-----
	Pacific Pan Am Dome Beg d-15-D/94-G-8	855	6-63	1,332	0.600	3,600	Disposal.
Baldonnel project (2) total		-----	-----	-----	-----	-----	GEP.
Halfway project (2)	Richfield Sohio Beg d-13-B/94 G-1	1268	6-74	805	0.500	4,552	-----
	Pacific Imperial Beg c-24-B/94-G-1	1359	6-72	960	0.500	3,280	-----
	Pacific Imperial Beg d-35-B/94-G-1	1154	6-72	810	0.725	4,524	-----
	Pacific Imperial Beg d-46-B/94-G-1	806	10-74	921	0.725	6,410	-----
	Pacific Imperial Beg d-57-B/94-G-1	1095	10-74	796	0.775	8,212	-----
	Richfield Sohio Beg d-77-B/94-G-1	1233	6-74	1,236	0.537	1,343	Suspended.
	Pacific et al Beg b-88-B/94-G-1	1350	8-74	870	0.610	2,516	-----
	Pacific et al Beg b-A99-B/94-G-1	739	6-72	950	0.654	3,241	-----
	Pacific et al Beg a-21-F/94-G-1	711	6-72	1,397	0.500	4,609	-----
	Pacific et al Beg b-42-F/94-G-1	748	8-61	1,536	0.842	2,100	Disposal.
	Pacific et al Beg d-64-F/94-G-1	733	8-74	694	1.000	2,328	-----
	Pacific et al Beg b-84-F/94-G-1	741	6-72	1,026	0.508	1,799	-----
	Pacific et al Beg b-95-F/94-G-1	747	6-72	1,102	0.500	2,449	-----
	Pacific et al Beg d-10-G/94-G-1	541	6-72	943	0.531	4,754	-----
	Pacific et al Beg b-6-K/94-G-1	740	6-72	909	0.500	4,504	-----
	Pacific et al Beg b-A17-K/94-G-1	2387	6-72	1,286	0.642	3,104	-----
	Pacific et al Beg b-59-K/94-G-1	786	-----	-----	-----	-----	-----
Halfway project total (2)		-----	-----	-----	-----	-----	GEP.
Field total		-----	-----	-----	-----	-----	GEP.
Beg West—							
Baldonnel project (2)	Pacific et al W Beg c-84-C/94-G-1	622	6-72	1,477	0.550	2,246	Suspended.
	Pacific et al W Beg c-58-F/94-G-1	792	6-72	1,570	-----	-----	Suspended.
	Pacific et al W Beg a-79-F/94-G-1	620	6-72	1,496	0.726	2,792	Suspended.
Baldonnel total		-----	-----	-----	-----	-----	GEP.
Bernadet—							
Bluesky	West Nat et al Bernadet 8-1-88-25	1106	8-72	291	0.754	265	Suspended.[1]
Bivouac—							
Debolt	ARCo Bivouac d-68-C/94-I-8	3137	-----	-----	-----	-----	-----
	ARCo Bivouac a-87-C/94-I-8	3307	-----	-----	-----	-----	-----
Blueberry—							
Dunlevy	West Nat et al Blueberry 16-24-88-25	279	8-72	1,164	1.000	1,572	2,000[1]
	West Nat et al Blueberry a-29-K/94-A-12	330	8-72	1,333	0.675	526	Suspended.
	West Nat et al Blueberry d-A50-K/94-A-12	357	11-74	1,316	1.000	882	Suspended.
	West Nat et al Blueberry d-38-K/94-A-12	2146	-----	-----	-----	-----	-----
	West Nat et al Blueberry c-32-D/94-A-13	70	-----	-----	-----	-----	2,000[2]
	West Nat et al Blueberry d-A87-D/94-A-13	94	11-74	1,106	0.577	1,566	2,000[1]
	West Nat et al Blueberry d-97-D/94-A-13	581	8-72	800	0.571	2,218	2,000
Dunlevy total		-----	-----	-----	-----	-----	8,000

[1] Exempted from reporting "Maximum Day Production."
[2] Lease and camp fuel.

Table 17—Gas-well Test and Allowable Data, December 31, 1974—Continued

Field/Pool/Project	Well Name	Well Authorization No.	Date	Pws (Psia)	"n"	AOFP (MSCF/D)	PRL (MSCF/D)
Baldonnel	West Nat et al Blueberry d-A50-K/94-A-12	357	7-74	1,663	1.000	307	Suspended.
	West Nat et al Blueberry c-65-D/94-A-13	71	7-74	1,642	0.577	935	Suspended.
	West Nat et al Blueberry d-87-D/94-A-13	64	9-72	1,442	0.577	903	Suspended.[1]
	West Nat et al Blueberry d-97-D/94-A-13	581	9-60	1,653	1.000	5,600	Suspended.
Blueberry Pool A	West Nat et al Blueberry a-61-L/94-A-12	525	10-60	2,089	.....	.....	.....
Pool B	West Nat et al Blueberry b-13-D/94-A-13	601	.....	.....	.....	.....	.....
Halfway	West Nat et al Blueberry b-22-D/94-A-13	1946	11-74	1,788	0.516	887	* 2,000
Field total		.....	.....	.....	.....	.....	10,000
Blueberry East—							
Baldonnel	West Nat et al E Blueberry b-38-C/94-A-13	103	8-73	1,778	0.820	1,897	Suspended.
Debolt	West Nat et al E Blueberry b-36-C/94-A-13	331	8-59	1,380	1.000	838	Suspended.
Blueberry West—							
Dunlevy	West Nat et al W Blueberry 2-20-88-25	278	7-74	1,275	1.000	997	Suspended.
	West Nat et al W Blueberry d-82-I/94-B-9	165	9-72	1,189	1.000	1,438	Suspended.
Dunlevy total		.....	.....	.....	.....	.....	.....
Baldonnel	G Basins et al W Blueberry a-7-L/94-A-12	2435	9-72	1,682	0.731	8,092	2,136
	G Basins et al W Blueberry d-19-L/94-A-12	241	8-73	1,683	0.543	1,425	Water disposal.
	G Basins et al W Blueberry d-39-L/94-A-12	2551	9-72	1,676	0.798	1,869	2,000
Baldonnel total		.....	.....	.....	.....	.....	4,136
Boundary Lake—							
Bluesky	Pacific Boundary 8-15-85-14	270	10-74	420	0.687	230	Suspended.[1]
	Texaco NFA Boundary 8-23-86-14	1125	.....	.....	.....	.....	.....
Gething	Pacific Boundary Lake A16-4-85-14	655	11-74	645	0.839	2,296	2,000
	Pacific Boundary 12-10-85-14	352	11-74	565	0.839	4,025	2,000
Dunlevy	Amerada Boundary 8-5-85-14	799	10-61	1,468	0.822	11,200	Suspended.
Baldonnel	Texaco NFA Boundary 6-30-85-13	1137	9-74	639	0.605	502	2,000
	Pacific Boundary Lake 11-14-85-14	667	9-71	876	0.674	1,027	2,000
	Pacific Boundary 8-15-85-14	270	9-74	1,344	0.725	3,414	Suspended.[1]
	Sun Boundary Lake 8-23-85-14	652	9-72	851	0.767	7,153	2,454
	Amerada Boundary A6-24-85-14	1454	.....	.....	.....	.....	.....
	Texaco NFA Boundary Lake 6-25-85-14	687	9-74	716	0.850	1,944	2,000
Baldonnel total		.....	.....	.....	.....	.....	8,454
Basal Boundary	Pacific et al Boundary 14-4-85-14	1964	11-74	834	0.550	1,438	2,000[1]
Halfway	Texaco NFA Boundary 16-31-86-13	836	.....	.....	.....	.....	.....
	Huber et al Boundary 6-4-87-13	1501	11-64	1,569	0.900	360	Abandoned.
Field total		.....	.....	.....	.....	.....	14,454

Boundary Lake North—							
Halfway	Texaco NFA N Boundary 7-3-87-14	1395	-----	-----	-----	-----	-----
	Texaco NFA N Boundary 6-8-87-14	1529	8-73	1,001	1.000	14,893	5,640
	Texaco NFA N Boundary 10-9-87-14	1451	8-73	1,010	0.804	15,052	5,252
	Texaco NFA N Boundary 7-15-87-14	1881	1-73	1,501	0.850	1,971	2,000
	Murphy N Boundary 14-29-87-14	3520	-----	-----	-----	-----	-----
Halfway total							12,892
Bubbles—							
Baldonnel	Dome Basco Bubbles b-19-A/94-G-8	464	6-74	772	0.518	2,283	2,000
	Dome Provo Bubbles c-20-A/94-G-8	526	6-68	1,017	0.500	690	Suspended.
	Dome Basco Bubbles b-50-A/94-G-8	506	-----	-----	-----	-----	-----
	Dome Bubbles d-42-B/94-G-8	791	8-70	1,400	-----	-----	Disposal.
	McCoy Dome Bubbles b-A62-B/94-G-8	674	10-72	1,001	0.591	3,211	2,000
Baldonnel project (2)	Pacific Sunray Imp Bubbles b-22-I/94-G-1	467	10-71	1,445	-----	-----	Abandoned.
	Pacific Imperial Bubbles b-33-I/94-G-1	451	10-74	650	0.754	2,533	2,000
	Pacific Imperial Bubbles b-44-I/94-G-1	466	10-74	589	0.884	5,295	2,945
	Pacific Sunray Imp Bubbles d-55-I/94-G-1	479	11-69	1,336	-----	-----	Disposal.
	Pacific Imperial Bubbles b-66-I/94-G-1	480	10-71	754	0.686	3,637	2,000
	Pacific Imperial Bubbles d-77-I/94-G-1	478	10-73	929	0.500	3,056	Suspended.
	Pacific Imperial Bubbles d-88-I/94-G-1	462	6-74	756	0.925	11,784	5,111
	Pacific Dome et al Bubbles d-99-I/94-G-1	615	6-74	674	0.500	1,281	2,000[3]
Baldonnel project (2) total							14,056
Baldonnel total							18,056
Bubbles North—							
Halfway	Pac Imp N Bubbles d-95-B/94-G-8	750	8-61	1,470	0.589	2,500	Suspended.
	Pacific Imperial N Bubbles d-6-G/94-G-8	1055	-----	-----	-----	-----	-----
	Pacific CIGOL N Bubbles c-36-G/94-G-8	3153	8-72	1,294	1.000	456	Abandoned.
Buick Creek—							
Bluesky—							
Project Pool A (2)	Texaco NFA Buick c-98-L/94-A-10	1088	9-68	855	-----	-----	-----
	HB et al Buick d-17-D/94-A-15	1286	9-73	791	0.567	1,739	2,000
Project Pool B (3)	Texaco NFA Buick c-80-D/94-A-15	1087	7-66	1,045	0.500	750	Suspended.
Project Pool C (4)	Anadarko Cdn-Sup Buick 12-34-88-19	3265	-----	-----	-----	-----	-----
	Anadarko Cdn-Sup Buick c-32-I/94-A-11	2863	3-71	1,107	0.924	4,948	2,000
Project Pool D (5)	HOL APC Buick a-83-B/94-A-14	3177	1-74	1,210	1.000	2,376	2,000
	HOL APC Buick d-93-B/94-A-14	3212	-----	-----	-----	-----	-----
	HOL APC Buick a-63-B/94-A-14	3289	-----	-----	-----	-----	-----

[1] Exempted from reporting "Maximum Day Production."
[3] Leaseline well restricted to 2 MMSCF/D.

Table 17—Gas-well Test and Allowable Data, December 31, 1974—Continued

Field/Pool/Project	Well Name	Well Authorization No.	Date	Pws (Psia)	"n"	AOFP (MSCF/D)	PRL (MSCF/D)
Buick Creek—*Continued*							
Dunlevy—							
Project Pool A (4)	Anadarko Cdn-Sup Buick a-39-L/94-A-10	3165	10-72	1,142	0.820	23,642	5,911
	Anadarko Cdn-Sup Buick d-39-L/94-A-10	3366	.....	.....	.....	.....	.....
	Anadarko Cdn-Sup Buick b-22-I/95-A-11	2794	2-71	1,160	0.793	2,955	2,000
	Anadarko Cdn-Sup Buick c-34-I/94-A-11	3533	11-74	932	1.000	5,127	2,000
	Skye Buick c-36-I/94-A-11	3169	12-73	949	0.618	6,337	2,000
	Woods Buick a-65-I/94-A-11	2785	8-71	978	0.660	7,546	2,000
	Pacific Buick a-85-I/94-A-11	1323	8-72	725	0.963	5,866	2,000
	Texaco et al Buick c-94-I/94-A-11	2693	7-74	579	0.867	28,175	13,349
	Texaco NFA Buick d-96-I/94-A-11	787	6-73	624	0.700	9,138	3,985
	Texaco NFA Buick Creek d-98-I(1)/94-A-11	45	7-74	661	0.980	2,515	2,000
	Texaco NFA Buick Creek c-10-A(2)/94-A-14	65	5-74	999	0.506	201	Suspended.
	Whitehall Buick c-34-A/94-A-14	1336	11-74	785	0.712	1,739	2,000
	Texaco NFA Buick b-A46-A/94-A-14	1508	6-74	973	0.630	865	Suspended.
Project Pool A (4) total		.....	.....	.....	.....	.....	37,245
Dunlevy—							
Project Pool B (5)	Texaco NFA Buick c-98-L/94-A-10	1088	7-74	712	0.566	859	2,000
	Texaco NFA Buick a-31-A/94-A-14	295	7-74	643	0.661	7,145	2,773
	Whitehall Buick b-62-A/94-A-14	1303	3-74	773	1.000	1,572	2,000
	Texaco NFA Buick d-93-A/94-A-14	1346	6-74	1,181	0.694	.....	Observation.
	Texaco NFA Buick c-18-D/94-A-15	1185	6-73	728	0.748	3,296	2,000
	HB Ashland Buick d-37-D/94-A-15	3255	7-73	881	0.518	3,716	2,000
	Texaco NFA Buick c-80-D/94-A-15	1087	7-74	553	0.682	2,721	2,000
Project Pool B (5) total		.....	.....	.....	.....	.....	12,773
Project Pool C (6)	Anadarko Cdn-Sup Buick b-44-J/94-A-11	3273	8-73	1,316	1.000	1,350	2,000
	Texaco NFA Buick Creek c-79-J(6)/94-A-11	110	6-73	491	0.700	1,300	2,000
	Texaco NFA Buick Creek d 83-J(4)/94-A-11	96	7-74	371	0.898	8,590	4,928
	Texaco NFA Buick d-93-J/94-A-11	728	6-73	417	0.938	7,894	3,849
	Pacific Buick Creek b-4-B/94-A-14	457	6-74	478	0.931	1,057	2,000[1]
	Texaco NFA Buick b-10-B/94-A-14	1179	5-74	521	0.862	515	Suspended.
	Pacific Buick Creek c-14-B/94-A-14	469	7-73	576	0.869	1,326	2,000
	Sun Buick c-16-B/94-A-14	744	6-73	600	0.767	1,388	2,000
	Sun Buick d-19-B/94-A-14	756	6-73	518	1.000	1,139	2,000
	Texaco NFA Buick c-40-B/94-A-14	1213	6-73	567	0.940	717	Suspended.
	HOL APC Buick a-63-B/94-A-14	3289	11-73	953	1.000	686	2,000
	HOL APC Buick a-83-B/94-A-14	3177	11-73	751	0.848	2,672	2,000
	Sun Buick d-11-C/94-A-14	818	6-73	516	0.900	4,695	2,555
	Sun et al Buick c-32-C/94-A-14	1360	6-73	558	0.996	7,151	3,539
Project Pool C (6) total		.....	.....	.....	.....	.....	30,871

Lower Dunlevy (7)	HOL APC Buick a-63-B/94-A-14	3289	———	———	———	———	———
	HOL APC Buick d-93-B/94-A-14	3212	———	———	———	———	———
Cecil	Texaco NFA Buick Creek d-83-J(4)/94-A-11	96	6-66	490	0.583	1,500	Suspended.
Field total		———	———	———	———	———	86,889
Buick Creek North—							
Bluesky	Pacific West Prod N Buick c-22-F/94-A-14	1753	7-73[4]	488[4]	0.636[4]	5,376[4]	2,617[4]
	Pacific West Prod N Buick b-44-F/94-A-14	1799	———	———	———	———	———
	Dome CanDel N Buick b-66-F/94-A-14	3348	———	———	———	———	———
	Coseka N Buick d-55-F/94-A-14	3373	———	———	———	———	———
Dunlevy	Pacific West Prod N Buick a-81-C/94-A-14	2069	7-72	751	0.603	4,820	2,000
	Texaco NFA N Buick d-91-C/94-A-14	2174	9-74	594	0.736	6,221	2,703
	Pacific West Prod N Buick b-2-F/94-A-14	2026	7-73	662	0.700	1,727	2,000
	Pacific West Prod N Buick c-22-F/94-A-14	1753	7-73	(4)	(4)	(4)	———
	Pacific West Prod N Buick b-44-F/94-A-14	1799	———	———	———	———	———
	Coseka N Buick d-55-F/94-A-14	3373	8-73	1,288	1.000	1,120	2,000
	Dome CanDel N Buick b-66-F/94-A-14	3348	———	———	———	———	———
	Pacific West Prod N Buick b-86-F/94-A-14	1830	6-74	1,288	0.500	1,369	Suspended.
Dunlevy total		———	———	———	———	———	8,703
Field total		———	———	———	———	———	11,320
Buick Creek West—							
Dunlevy—							
Project Pool A (2)	Pacific West Buick Creek d-95-K(4)/94-A-11	99	11-74	346	0.790	3,547	2,000[1]
	Pacific West Buick Creek c-5-C(11)/94-A-14	264	7-72	396	0.906	3,030	Suspended.[1]
	Pacific West Buick Creek c-14-C(3)/94-A-14	95	5-74	615	0.975	6,432	Suspended.[1]
	Pacific West Buick Creek d-17-C(17)/94-A-14	384	10-72	408	0.837	21,204	9,772[1]
Project Pool A (2) total		———	———	———	———	———	11,772
Project Pool B (3)	Pacific West Buick Creek b-78-C(2)/94-A-14	89	6-74	488	0.712	1,852	2,000[1]
	Pacific West Buick Creek c-80-C(10)/94-A-14	261	5-74	591	———	———	———
	Pacific West Buick Creek d-89-C(12)/94-A-14	268	7-72	665	1.000	1,351	2,000[1]
	Pacific West Buick Creek b-91-D(9)/94-A-14	255	7-72	550	1.000	1,781	2,000
	Pacific West Buick Creek c-2-E(6)/94-A-14	239	6-74	496	0.686	3,914	2,000
Project Pool B (3) total		———	———	———	———	———	8,000
Dunlevy total		———	———	———	———	———	19,772
Baldonnel	Pacific West Buick Creek d-58-C(8)/94-A-14	249	5-74	1,400	———	———	Suspended.
	Pacific West Buick Creek a-78-C/94-A-14	644	7-72	590	0.699	1,483	2,000[1]
Halfway	Pacific West Buick Creek b-23-E(1)/94-A-14	86	7-62	699	0.712	2,450	Suspended.
Field total		———	———	———	———	———	21,772
Cabin—							
Slave Point C Pool	Pacific Cabin c-6-A/94-P-5	3480	———	———	———	———	2,000[5]
	West Nat Cabin b-40-A/94-P-5	1245	3-63	2,607	0.761	28,900	7,225
Slave Point A Pool	Pacific Cabin d-57-B/94-P-5	2425	1-74	2,611	0.539	10,539	2,635
Slave Point B Pool	General American Cabin a-61-F/94-P-5	2665	5-74	2,631	0.797	19,809	4,952
	West Nat Cabin a-19-G/94-P-5	1406	2-64	2,645	0.554	31,200	7,800
	Pacific Cabin a-49-G/94-P-5	2058	———	———	———	———	———
Field total		———	———	———	———	———	24,612

[1] Exempted from reporting "Maximum Day Production."
[4] Comingled production. Bluesky-Gething and Dunlevy not segregated.
[5] Interim.

Table 17—Gas-well Test and Allowable Data, December 31, 1974—Continued

Field/Pool/Project	Well Name	Well Authorization No.	Date	Pws (Psia)	"n"	AOFP (MSCF/D)	PRL (MSCF/D)
Cache Creek—							
Coplin	Texcan Cache 10-20-88-22	2567	12-69	2,239	1.000	2,900	2,000
	Texcan Cache 6-22-88-22	3367	.....	.....	.....	.....	.....
	Texcan Cache 6-28-88-22	2423	1-69	2,293	.....	.....	.....
Halfway	Texcan Cache 6-22-88-22	3367	3-74	1,946	.....	.....	.....
	Texcan Cache 6-28-88-22	2423	8-70	1,916	1.000	934	Suspended.
Cecil Lake—							
Cecil	Scurry CAEL Cecil 6-13-84-18	3184	7-74	1,794	0.766	43,646	10,912
North Pine	Scurry CanPlac Cecil 10-18 84-17	3394	6-74	1,894	0.669	4,365	Gas cap.
	Scurry Rainbow Cecil 6-31-84-17	2971	6-74	1,895	0.500	11,523	Gas cap.
Halfway	Scurry CAEL Cecil 6-13-84-18	3184	5-74	1,927	0.774	6,569	2,000
Field total		———	———	———	———	———	12,912
Clarke Lake—							
Kakisa	West Nat Imp Clarke Lake d-91-L/94-J-9	585	.....	.....	.....	.....	.....
Slave Point	Pacific et al Clarke a-65-G/94-J-10	1528	8-68	2,823	0.570	10,400	Disposal.
	Hamilton Cdn-Sup Clarke d-72-G/94-J-10	2176	3-72	2,670	0.786	75,243	20,055
	Gulf Shell Clarke c-76-H/94-J-10	2459	3-69	2,877	0.500	8,400	Suspended.
	Pacific et al Clarke c-100-H/94-J-10	2506	2-70	2,762	.....	.....	2,000
	Pacific et al Clarke b-8-I/94-J-10	3452	5-74	2,567	0.517	4,435	2,000
Slave Point project (2)	West Nat IOE Clarke d-29-K/94-J-9	1274	8-72	2,627	0.500	133,187	Suspended.
	Pacific IOE Clarke c-50-K/94-J-9	1913	8-72	2,598	0.781	13,740	Suspended.
	Pacific Imp Clarke c-56 L/94-J-9	1833	5-74	2,347	0.552	53,470	.....
	Pacific Imp Clarke b-69-L/94-J-9	2240	.....	.....	.....	.....	Disposal.
	Pacific Imp Clarke b-72-L/94-J-9	2540	5-74	2,261	0.637	86,247	.....
	Pacific Imp Clarke b-73-L/94-J-9	3517	7-74	2,259	0.615	121,037	.....
	Pacific Imp Clarke d-74-L/94-J-9	3163	.....	.....	.....	.....	.....
	Pacific Imp Clarke a-77-L/94-J-9	3104	7-74	2,259	0.719	11,266	.....
	West Nat Imp Clarke Lake d-88-L/94-J-9	344	5-74	2,174	0.620	95,521	.....
	West Nat Imp Clarke Lake d-91-L/94-J-9	585	5-74	2,214	0.854	12,898	.....
	Pacific Imp Clarke c-92-L/94-J-9	3011	6-74	2,228	0.621	24,639	.....
	West Nat Imp Clarke Lake c-94-L/94-J-9	397	5-74	2,171	1.000	41,645	.....
	Pacific Imp Clarke b-97-L/94-J-9	3361	6-74	2,191	0.647	46,598	.....
	Pacific et al Clarke a-52-F/94-J-10	3228	5-74	2,667	.....	.....	.....
	Pacific et al Clarke c-54-F/94-J-10	1932	5-74	2,713	0.575	11,542	.....
	Pacific Apache Clarke a-61-F/94-J-10	1578	5-74	2,625	0.695	35,042	.....
	Pacific Apache Clarke b-76-G/94-J-10	1071	5-74	2,624	0.674	10,077	.....
	Pacific et al Clarke d-69-H/94-J-10	1866	3-70	2,802	0.500	29,051	.....
	Pacific et al Clarke b-18-I/94-J-10	2316	5-74	2,587	0.567	21,686	.....
	Pacific et al Clarke c-20-I/94-J-10	2107	5-74	2,540	0.535	38,701	.....

	Pacific et al Clarke b-38-I/94-J-10	1933	5-74	2,489	.....	.....	.....
	Pacific et al Clarke c-69-I/94-J-10	2249	5-74	2,337	0.587	47,625	.....
	West Nat et al Clarke b-70-I/94-J-10	688	5-74	2,375	0.655	38,376	.....
	Pacific et al Clarke b-78-I/94-J-10	3378	6-74	2,311	0.517	8,591	.....
	West Nat et al Clarke c-78-I/94-J-10	505	5-74	2,308	1.000	109,459	.....
	Pacific Imp Clarke c-85-I/94-J-10	2310	6-74	2,322	.....	.....	Suspended.
	Pacific Imperial Clarke c-92-I/94-J-10	1554	5-74	2,182	0.500	83,267	.....
	Pacific Imp Clarke a-94-I/94-J-10	3073	6-70	2,230	.....	.....	.....
	Pacific et al Clarke b-22-J/94-J-10	1796	4-70	2,759	.....	.....	.....
	Pacific et al Clarke b-26-J/94-J-10	2776	.....	.....	.....	.....	.....
	Pacific et al Clarke c-43-J/94-J-10	2239	5-74	2,458	0.649	33,353	.....
	Pacific et al Clarke b-46-J/94-J-10	2162	6-74	2,500	0.550	15,635	.....
	West Nat et al Clarke c-47-J/94-J-10	211	8-72	2,652	.....	.....	.....
	West Nat et al Clarke a-52-J/94-J-10	856	5-74	2,419	0.733	21,579	.....
	Pacific et al Clarke a-55-J/94-J-10	1966	5-74	2,480	0.715	86,599	.....
	Pacific Imp Clarke b-6-D/94-J-16	2820	5-74	2,129	0.500	26,632	.....
	West Nat Imp Clarke Lake c-8-D/94-J-16	503	6-74	2,190	1.000	102,600	.....
	Pacific Imp Clarke a-10-D/94-J-16	3264	6-74	2,134	0.776	260,434	.....
	Pacific Imp Clarke b-10-D/94-J-16	2509	7-73	2,317	0.591	73,557	.....
Slave Point project (2) PRL	.....	.....	.....	.....	.....	.....	400,000
Slave Point total	.....	.....	.....	.....	.....	.....	424,055
Pine Point	Pacific Imp Clarke d-48-L/94-J-9	3497	.....	.....	.....	.....	.....
Currant—							
Halfway	Ipex et al Currant d-73-K/94-A-9	3321	.....	.....	.....	.....	.....
	Texaco NFA Currant a-3-C/94-A-16	1607	.....	.....	.....	.....	.....
	Wainoco et al Currant d-42-D/94-A-16	3410	.....	.....	.....	.....	.....
Cypress—							
Baldonnel	HB Cypress a-65-C/94-B-15	1339	8-63	1,960	0.669	11,200	Suspended.
	HB Cypress d-87-C/94-B-15	1326	3-71	1,960	0.625	25,112	Suspended.
	HB Cypress a-28-F/94-B-15	737	3-71	1,948	0.676	50,586	Suspended.
Dahl—							
Bluesky	Sierra Dahl b-62-G/94-H-7	2628	3-74	939	1.000	1,081	2,000
	Star Dahl d-93-G/94-H-7	2622	1-72	951	0.737	5,242	2,000
	Dome Dahl b-6-I/94-H-7	3457	.....	.....	.....	.....	.....
	Pacific et al Dahl d-11-J/94-H-7	2445	.....	.....	.....	.....	Suspended.
	Tenn Cdn-Sup Dahl d-53-J/94-H-7	1849	1-72	946	0.790	3,747	2,000
	Texaco Dahl a-67-J/94-H-7	2457	2-69	949	0.664	1,210	Suspended.
	IOE Scurry Dahl d-51-B/94-H-10	2642	.....	.....	.....	.....	.....
Field total	.....	.....	.....	.....	.....	.....	6,000
Dawson Creek—							
Dunvegan	Horizon Dawson B3-22-79-15	2216	.....	.....	.....	.....	.....
Cadotte	Pacific Sc Dawson Ck 3-22-79-15 (2)	302	6-67	540	0.900	805	Suspended.
Eagle—							
Belloy	Scurry CanPlac Eagle 16-28-84-18	3382	.....	.....	.....	.....	.....
Elm—							
Halfway	Bracell et al Elm d-83-C/94-H-7	2712	3-72	1,156	0.902	4,934	2,000

Table 17—Gas-well Test and Allowable Data, December 31, 1974—Continued

Field/Pool/Project	Well Name	Well Authorization No.	Date	Pws (Psia)	"n"	AOPP (MSCF/D)	PRL (MSCF/D)
Farrell Creek—							
Charlie Lake	CanDel et al Farrell a-30-L/94-A-5	2165	5-73	1,989	0.685	1,864	2,000
	CanDel et al Farrell a-41-I/94-B-8	2089	5-73	1,997	0.870	2,388	2,000
Charlie Lake total							4,000
Halfway	Ft St John Petroleums Farrell a-9-L/94-A-5	176	11-61	2,341	0.839	5,600	Suspended.
	CanDel et al Farrell a-30-L/94-A-5	2165					
	CanDel et al Farrell a-41-I/94-B-8	2089	5-73	1,597	0.783	2,319	2,000
Field total							6,000
Fireweed—							
Bluesky	Skye et al Fireweed b-22-H/94-A-13	3346					
	Skye et al Fireweed a-43-H/94-A-13	3071	3-72	1,329	0.710	3,407	2,000
Dunlevy	SOC et al Fireweed b-42-A/94-A-13	3203	8-73	1,334	0.729	13,678	3,420
	SOC et al Fireweed d-75-A/94-A-13	2993	3-72	1,304	0.559	4,538	2,000
	Union Fireweed d-53-G/94-A-13	497					
	SOC et al Fireweed b-4-H/94-A-13	3333	10-73	1,388	1.000	2,794	2,000
	SOC et al Fireweed a-7-H/94-A-13	3152	10-73	1,339	0.759	3,108	2,000
	SOC et al Fireweed c-16-H/94-A-13	3538					
	Skye et al Fireweed a-43-H/94-A-13	3071	3-72	1,321			
	CDR Union Fireweed d-55-H/94-A-13	1201					
Dunlevy total							9,420
Baldonnel	CDR Fireweed d-31-G/94-A-13	1384					
	Skye et al Fireweed a-61-G/94-A-13	3087					
Debolt	West Nat et al Fireweed a-57-A/94-A-13	507	9-60	2,472	0.625	2,050	Suspended.
	SOC et al Jeans d-75-A/94-A-13	2993	1-72	2,243	1.000	3,668	2,000
	West Nat et al Fireweed c-A1-H/94-A-13	455					
Field total							13,420
Flatrock—							
Siphon	CEGO et al Flatrock 10-27-84-16	1954	6-67	1,659	0.837	2,630	Suspended.
Boundary Lake	Wainoco Flatrock 6-18-84-16	3304					
Halfway A Pool	Champlin Flatrock 10-9-84-16	2516	6-74	1,070	0.945	8,741	3,662
Halfway C Pool	Champlin et al Flatrock 11-17-84-16	2827	6-74	1,612	0.721	7,308	2,000
	Wainoco et al Flatrock 6-18-84-16	3304	5-73	1,909			2,000
	Wainoco et al Flatrock 6-13-84-17	3221	5-73	1,902			2,000
Halfway B Pool	Ballinderry Flatrock 10-33-84-16	2760	10-73	1,606	0.659	8,086	2,451
Halfway total							12,113
Fort St. John—							
Dunlevy	Pacific Ft St. John A3-29-83-18 (31)	75	6-72	1,321	1.000	28,438	Suspended.
	Pacific Ft St John A9-19-83-18 (58)	190					

Baldonnel	Pacific Ft St John 16-8-83-18 (83)	233	7-74	622	0.820	2,231	2,000[1]
	Pacific Ft St John 9-14-83-18 (71)	204	.....	.....	.....	.....	.....
	Pacific Ft St John 13-14-83-18 (54)	194	7-74	662	0.993	1,218	Suspended.
	Pacific Ft St John 14-15 83-18 (7)	32	5-74	1,023	0.700	3,265	Suspended.
	Pacific Ft St John A6-16-83-18 (73)	212	6-72	517	0.733	1,436	2,000[1]
	Pacific Ft St John 6-17-83-18 (72)	210	8-74	535	0.851	3,500	2,000[1]
	Pacific Ft St John 8-20-83-18 (43)	170	5-74	420	0.850	2,019	2,000
	Pacific Ft St John B14-21-83-18 (62)	193	6-72	447	0.625	2,162	2,000[1]
	Pacific Ft St John 14-22-83-18 (32)	76	8-74	458	0.782	2,531	2,000[1]
	Pacific Ft St John 13-23-83-18 (34)	82	5-74	490	0.726	2,530	2,000
	Pacific Ft St John C3-29-83-18 (56)	186	5-74	510	0.565	2,077	2,000[1]
	Pacific Ft St John 4-32-83-18 (26)	67	6-72	930	1.000	531	Suspended.[1]
Baldonnel total		.....	.....	.....	.....	.....	16,000
Pingel	Pacific Ft St John B3-29-83-18 (52)	179	.....	.....	.....	.....	.....
Halfway A Pool	Pacific Ft St John 1-20-83-18 (30)	74	5-74	336	0.839	1,023	2,000[1]
	Pacific Ft St John 2-21-83-18 (46)	172	5-74	340	0.818	1,157	2,000[1]
	Pacific Ft St John A14-21-83-18 (51)	178	10-73	348	0.916	1,390	Suspended.
	Pacific Ft St John A14-22-83-18 (61)	192	5-74	495	1.000	65	Suspended.
	Pacific Ft St John B3-29-83-18 (52)	179	5-74	369	0.856	1,353	2,000
	Pacific Ft St John 10-30-83-18 (53)	181	6-72	930	0.868	2,077	Disposal.
Halfway B Pool	Home W Ft St John 10-27-83-19	2391	5-69	1,956	0.643	3,124	Suspended.
	Pacific et al Ft St John 11-34-83-19	2138	5-74	1,536	0.833	3,349	2,000
Halfway total		.....	.....	.....	.....	.....	8,000
Belloy	Pacific Ft St John 14-21-83-18 (4)	29	5-74	488	0.624	1,000	2,000[1]
	Pacific Ft St John 3-29-83-18 (23)	58	8-74	401	0.542	2,234	2,000[1]
Belloy total		.....	.....	.....	.....	.....	4,000
Field total		.....	.....	.....	.....	.....	28,000
Fort St. John Southeast—							
Dunlevy	Pac Ft St John SE 10-31-82-17 (80)	220	5-74	1,323	0.854	1,551	Suspended.
Baldonnel	Pac Ft St John SE 13-2-83-17 (74)	213	6-74	589	0.766	861	2,000[1]
	Pac Ft St John SE A4-10-83-17 (55)	184	6-74	919	0.500	935	2,000[1]
Baldonnel total		.....	.....	.....	.....	.....	4,000
Siphon	Pacific Ft St John SE 7-3-83-17 (49)	174	6-73	1,718	.....	.....	.....
Pingel	Pacific Ft St John SE 8-5-83-17 (20)	52	7-71	.....	.....	.....	.....
Halfway	Pac Ft St John SE 10-33-82-17 (22)	60	5-74	1,502	1.000	5,368	Suspended.
	Pac Ft St John SE 7-3-83-17 (49)	174	11-69	818	1.000	1,253	Zone abandoned.
	Pac Ft St John SE 16-3-83-17 (66)	197	6-74	408	0.795	2,658	2,000[1]
	Pac Ft St John SE A10-4-83-17 (60)	191	6-74	558	0.649	1,395	2,000[1]
	Pac Ft St John SE 7-5-83-17 (69)	202	5-74	1,718	1.000	1,343	Suspended.
	Pac Ft St John SE A10-10-83-17 (98)	320	5-74	779	0.845	1,779	Suspended.
Halfway total		.....	.....	.....	.....	.....	4,000

[1] Exempted from reporting "Maximum Day Production."

Table 17—Gas-well Test and Allowable Data, December 31, 1974—Continued

Field/Pool/Project	Well Name	Well Authorization No.	Date	Pws (Psia)	"n"	AOFP (MSCF/D)	PRL (MSCF/D)
Fort St. John Southeast—*Continued*							
Belloy	Pac Ft St John SE 11-32-82-17 (68)	201	6-74	424	0.745	3,091	2,000
	Pac Ft St John SE 10-4-83-17 (47)	173	6-74	610	0.810	5,306	3,715
	Pac Ft St John SE 8-5-83-17 (20)	52	5-67	1,558	1.000	1,536	Zone abandoned.
	Pac Ft St John SE 4-9-83-17 (44)	166	5-74	961	1.000	5,193	Suspended.
	Pac Ft St John SE 4-10 83-17 (12)	42	6-72	1,747	0.500	5,995	Suspended.
	Pac Ft St John SE 10-10-83-17 (79)	219	5-74	670	0.726	1,080	Suspended.
Belloy total		———	———	———	———	———	5,715
Field total		———	———	———	———	———	13,715
Grizzly—							
Dunlevy	Gray Oil PRP NW Grizzly c-25-A/93-I-15	1396	3-64	2,682	0.565	7,428	Suspended.
	Monkman Pass PRP Grizzly c-36-A/93-I-15	2973	8-72	2,598	0.522	4,411	2,000
Grizzly North—							
Dunlevy	Quasar et al Grizzly b-62-G/94-I-15	3180	12-72	2,010	0.500	12,336	3,084
Halfway	Quasar N Grizzly a-85-G/94-I-15	3181	4-74	8,061	0.500	48,239	12,060
Gundy Creek—							
Baldonnel	West Nat Gundy Creek b-69-A/94-B-16	253	4-59	1,618	1.000	5,000	Suspended.
	Frio Coseka Gundy a-8-A/94-B-16	———	———	———	———	———	———
	Frio Coseka Gundy c-76-A/94-B-16	3545	11-74	1,779	———	———	2,000[5]
	West Nat East Gundy Creek a-76-A/94-B-16	291	———	———	———	———	Suspended.
	West Nat Gundy Creek c-80-A/94-B-16	83	———	———	———	———	Suspended.
	West Nat Gundy Creek d-2-G/94-B-16	367	8-62	1,707	0.636	2,250	Suspended.
Blueberry	West Nat Gundy Creek b-69-A/94-B-16	253	4-59	1,845	1.000	8,300	Suspended.
Halfway—							
Baldonnel	West Nat et al Halfway 11-35-86-25	351	10-58	1,639	0.678	8,200	Suspended.
	West Nat et al Halfway 5-1-87-25	107	6-72	1,570	1.000	2,844	Suspended.
Coplin	West Nat et al Halfway 8-11-87-25	182	6-70	2,035	0.781	759	Suspended.
Helmet—							
Slave Point	Atkinson Sunlite Helmet b-2-K/94-P-7	2617	———	———	———	———	———
	FPC Chevron et al Helmet b-11-K/94-P-7	2,517	1-70	2,346	0.500	191,823	47,956
Highway—							
Dunlevy	West Nat et al Highway b-3-I/94-B-16	168	8-72	1,212	0.869	842	Suspended.[1]
Baldonnel	Pacific Highway b-25-I(1)/94-B-16	112	8-58	1,653	1.000	6,600	Suspended.
	Pacific Highway a-47-I(2)/94-B-16	180	11-57	1,680	0.754	3,600	Suspended.
	Pacific Highway a-69-I(3)/94-B-16	274	11-57	1,691	0.812	3,150	Suspended.
	Pacific Highway a-90-I(4)/94-B-16	229	11-64	1,388	0.535	920	Suspended.
Debolt	Pacific Highway a-90-I(4)/94-B-16	229	7-66	880	0.553	6,885	Suspended.

Inga—							
Baldonnel B Pool	Pacific Inga 6-29-86-23	2327	6-72	1,362	0.864	5,618	Suspended.
	Pacific Inga 6-32-86-23	2401	6-72	1,236	0.687	2,294	Suspended.
	Pacific Inga 6-4-87-23	2412	6-72	864	0.875	4,660	Suspended.
Baldonnel total		----	----	----	----	----	----
Inga (nonunit)	SOC Cardo Inga b-46-B/94-A-13	3156	9-72	2,135	0.734	3,647	Suspended.
Inga Unit 3 (6)	West Nat et al Inga d-42-J/94-A-12	2000	4-73	2,169	----	----	Observation.
	Cdn-Sup Whitehall Inga b-44-J/94-A-12	2461	4-73	2,191	----	----	Observation.
	Francana Cabot Inga b-82-J/94-A-12	2241	4-73	2,088	0.679	39,770	----
	West Nat et al Inga b-10-A/94-A-13	470	4-73	2,073	0.824	2,325	----
	Francana et al Inga a-5-B/94-A-13	2320	4-73	2,120	0.851	457	----
	West Nat et al Inga a-22-B/94-A-13	412	11-70	2,264	1.000	3,220	----
Unit total		----	----	----	----	----	10,000[6]
Field total		----	----	----	----	----	10,000
Inga North—							
Inga	Francana Cabot N Inga d-51-K/94-A-12	2533	----	----	----	----	----
	Francana Cabot N Inga a-81-K/94-A-12	2552	10-70	2,344	0.755	10,146	2,536
	Wincan et al N Inga b-20-B/94-A-13	2684	----	----	----	----	----
Jedney—							
Gething	Pacific Imperial Jedney a-95-C/94-G-8	1366	10-63	1,142	0.531	13,600	Suspended.
Baldonnel project (2)	Pacific Imperial Jedney c-78-H/94-G-1	1129	12-74	1,501	0.726	1,475	----
	Pacific Imperial Jedney b-99-H/94-G-1	1054	6-72	967	0.535	3,070	----
	Pacific Imperial Jedney c-100-H/94-G-1	1082	9-74	934	0.500	2,068	----
	Pacific Sunray Imp Jedney b-44-J/94-G-1	492	5-74	1,444	----	----	----
	Pacific Imperial Jedney b-66-J/94-G-1	475	11-72	963	0.839	5,307	----
	Pacific et al Jedney b-68-J/94-G-1	498	6-66	1,358	0.685	----	Disposal.
	Pacific Imperial Jedney d-77-J/94-G-1	484	5-74	835	0.532	1,679	----
	Pacific et al Jedney b-88-J/94-G-1	427	5-74	731	0.818	5,432	----
	Pacific Imp Jedney d-99-J/94-G-1	382	6-74	779	0.531	1,565	----
	Pacific Imperial Jedney b-10-B/94-G-8	473	7-74	756	0.766	6,563	----
	Pacific Imperial Jedney b-30-B/94-G-8	460	6-72	927	0.588	3,569	----
	Pacific Imperial Jedney d-31-C/94-G-8	1178	7-72	1,140	0.931	2,269	----
	Pacific Imperial Jedney d-44-C/94-G-8	1375	11-74	1,211	0.685	3,910	Suspended.
	Pacific Imperial Jedney d-53-C/94-G-8	820	11-74	1,263	0.880	1,784	----
	Pacific Imperial Jedney b-73-C/94-G-8	868	7-72	1,306	0.500	2,568	----
	Pacific et al Jedney c-86-C/94-G-8	778	11-74	993	0.500	1,747	----
	Pacific et al Jedney d-97-C/94-G-8	651	11-72	1,051	0.595	6,130	----
	Pacific Pan Am Dome Jedney c-8-F/94-G-8	1152	7-72	1,267	0.594	1,197	----
	Pacific Pan Am Dome Jedney b-28-F/94-G-8	944	11-74	1,119	0.500	1,798	----
	Skelly Jedney a-39-F/94-G-8	1334	10-73	1,104	1.000	3,563	----
Baldonnel project (2) total		----	----	----	----	----	GEP.

[1] Exempted from reporting "Maximum Day Production."
[6] Concurrent production scheme—annual allowable, 3,650 MMSCF (2660 MMSCF for 1971=Initial Product ion 10/4/71).

Table 17—Gas-well Test and Allowable Data, December 31, 1974—Continued

Field/Pool/Project	Well Name	Well Authorization No.	Date	Pws (Psia)	"n"	AOFP (MSCF/D)	PRL (MSCF/D)
Jedney—*Continued*							
Halfway project (2)	Pacific Imperial Jedney c-57-H/94-G-1	1183	6-72	1,317	0.500	2,017	.....
	Pacific Imperial Jedney d-68-H/94-G-1	1256	9-74	907	0.500	2,731	.....
	Pacific Imperial Jedney c-78-H/94-G-1	1129	6-72	901	0.853	3,322	.....
	Pacific Imperial Jedney b-99-H/94-G-1	1054	9-74	729	0.726	5,098	.....
	Pacific Imperial Jedney c-100-H/94-G-1	1082	6-72	933	0.921	8,374	.....
	Pacific Imperial Jedney a-65-J/94-G-1	461	6-72	985	0.543	3,649	.....
	Pacific Imperial Jedney b-66-J/94-G-1	475	6-74	791	0.649	5,951	.....
	Pacific Imperial Jedney d-77-J/94-G-1	484	11-72	863	0.869	4,997	.....
	Pacific Imp Jedney d-99-J/94-G-1	382	11-72	921	0.740	3,064	.....
	Pacific Imp Jedney d-19-B/94-G-8	2171	.....	.....	.....	.....	.....
	Pacific Imperial Jedney d-31-C/94-G-8	1178	11-74	729	0.500	3,473	.....
	Pacific Imperial Jedney d-42-C/94-G-8	453	6-74	714	0.684	2,128	.....
	Pacific Imperial Jedney d-44-C/94-G-8	1375	.....	.....	.....	.....	.....
	Pacific Imperial Jedney d-53-C/94-G-8	820	11-72	716	0.587	2,275	.....
	Pacific Imperial Jedney b-73-C/94-G-8	868	11-74	689	0.588	2,768	.....
	Pacific Imperial Jedney b-84-C/94-G-8	691	7-72	774	0.500	2,806	.....
	Pacific et al Jedney c-86-C/94-G-8	778	7-72	863	0.649	2,718	.....
	Pacific Imperial Jedney a-95-C/94-G-8	1366	8-70	1,444	0.500	.....	Disposal.
	Pacific et al Jedney d-97-C/94-G-8	651	11-74	772	0.742	3,245	.....
	Pacific Pan Am Dome Jedney c-8-F/94-G-8	1152	12-69	1,536	0.677	1,576	.....
	Pacific et al Jedney a-17-F/94-G-8	779	12-74	1,297	0.837	6,880	Suspended.
	Pacific Pan Am Dome Jedney b-28-F/94-G-8	944	7-72	800	0.554	2,807	.....
	Skelly Jedney a-39-F/94-G-8	1334	9-72	1,102	0.926	2,724	.....
	Pacific et al Jedney b-50-F/94-G-8	1907	.....	.....	.....	.....	.....
Halfway project (2) total	.....	.....	.....	.....	.....	.....	GEP.
Field total	.....	.....	.....	.....	.....	.....	GEP.
Jedney West—							
Baldonnel	Pacific et al W Jedney b-84-K/94-G-1	1081	6-72	1,605	0.500	1,187	Abandoned.
Halfway	Pacific et al W Jedney b-84-K/94-G-1	1081	6-72	1,308	0.500	1,302	Abandoned.
	Pacific et al W Jedney b-6-C/94-G-8	1276	7-72	1,219	0.500	850	Suspended.
Julienne Creek—							
Baldonnel	ARCo Pac Julienne b-39-D/94-G-1	658	6-73	1,261	.....	.....	.....
	Sinclair Julienne Ck a-50-D(B13-2)/94-G-1	304	6-73	1,726	0.912	2,719	.....
Baldonnel total	.....	.....	.....	.....	.....	.....	GEP.
Halfway	ARCo Pac Julienne b-39-D/94-G-1	658	6-73	1,953	0.674	1,943	.....
	Sinclair Julienne Ck a-50-D(B13-2)/94-G-1	304	6-73	1,281	0.988	2,266	.....
Halfway total	.....	.....	.....	.....	.....	.....	GEP.

Shunda	Sinclair Julienne Ck a-50-D(B13-2)/94-G-1	304	.....	.....	.....	.....	.....
Field total	.....	.....	.....	.....	.....	.....	GEP.
Kobes-Townsend—							
Dunlevy	Pacific Kobes b-82-I/94-B-8	496	8-72	1,000	1.000	717	2,000[1]
	Pacific Kobes a-3-A(4)/94-B-9	372	7-74	1,030	0.704	2,058	Suspended.
	Pacific Kobes b-24-A/94-B-9	489	8-72	900	1.000	604	2,000[1]
Dunlevy total	.....	.....	.....	.....	.....	.....	4,000
Charlie Lake A Pool	Pacific Kobes c-73-I(2)/94-B-8	299	10-72	1,451	0.500	685	2,000[1]
Charlie Lake B Pool	Pacific Kobes d-94-I(1)/94-B-8	141	9-74	952	0.824	2,144	2,000[1]
	Pacific Kobes b-35-A(A-1)/94-B-9	177	8-72	1,205	0.564	1,477	2,000[1]
	Pacific Kobes d-57-A/94-B-9	2588	7-70	2,333	.....	.....	Suspended.
Charlie Lake C Pool	Pacific Kobes a-99-A(B-1)/94-B-9	314	7-74	1,213	0.500	530	Suspended.
	Pacific Townsend d-21-G(A-2)/94-B-9	251	8-71	1,213	0.864	1,296	Suspended.[1]
Charlie Lake total	.....	.....	.....	.....	.....	.....	6,000
Halfway project (2)	Pacific Kobes d-94-I(1)/94-B-8	141	10-72	1,691	0.627	7,464	GEP.
	Pacific Kobes b-35-A(A-1)/94-B-9	177	9-74	1,545	0.588	4,718	GEP.
Halfway project (2) total	.....	.....	.....	.....	.....	.....	GEP.
Debolt	Pacific Kobes a-99-A(B-1)/94-B-9	314	9-74	1,275	0.869	3,482	2,000
	Pacific Townsend a-20-H(A-1)/94-B-9	164	8-71	2,093	0.700	892	Suspended.
Field total	.....	.....	.....	.....	.....	.....	12,000
Kotcho Lake—							
Slave Point project (2) B Pool	West Nat Kotcho b-54-K/94-I-14	879	2-71	2,523	.....	.....	.....
Slave Point project (2) A Pool	Pacific Kotcho a-56-K/94-I-14	3301	2-74	2,519	0.500	13,676	.....
	West Nat Kotcho Lake c-67-K/94-I-14	404	3-74	2,505	0.853	793,932	.....
	Pacific Kotcho c-78-K/94-I-14	3101	2-74	2,492	0.663	9,312	.....
	Pacific Kotcho b-86-K/94 I-14	2097	2-71	2,478	0.623	96,353	.....
	West Nat Kotcho d-12-C/94-P-3	1147	3-74	2,482	0.605	56,642	.....
	Pacific Kotcho b-44-C/94-P-3	562	3-73	2,513	0.565	102,553	.....
	Pacific Kotcho d-70-C/94-P-3	2609	3-73	2,520	0.589	16,509	.....
	Pacific Kotcho d-100-C/94-P-3	2823	3-73	2,507	0.500	10,716	.....
	Pacific Kotcho c-31-E/94-P-3	2877	2-74	2,509	0.551	33,457	.....
	Pacific Kotcho a-67-E/94-P-3	3082	.....	.....	.....	.....	.....
	Pacific Kotcho b-30-F/94-P-3	677	3-73	2,508	0.500	41,531	.....
Slave Point project (2) total	.....	.....	.....	.....	.....	.....	GEP.
Kotcho Lake East—							
Bluesky A Pool	Cdn Res Quintana E Kotcho b-43-J/94-I-14	3107	.....	.....	.....	.....	.....
Bluesky C Pool	Cdn Res Quintana Pac E Kotcho b-68-H/94-I-14	3411	.....	.....	.....	.....	.....
Slave Point C Pool	Cdn Res Quintana Pac Kotcho d-71 G/94-I-14	3308	3-73	2,544	0.644	46,359	11,590
	Cdn Res Quintana Pac E Kotcho b-68-H/94-I-14	3411	1-74	2,529	0.735	65,247	16,312
Slave Point A Pool	West Nat Kotcho Lake d-39-J/94-I-14	532	.....	.....	.....	.....	.....
Slave Point B Pool	Cdn Res Quintana Kotcho b-43-J/94-I-14	3107	12-73	2,532	0.500	78,988	19,747
Slave Point total	.....	.....	.....	.....	.....	.....	47,649

[1] Exempted from reporting "Maximum Day Production."

Table 17—Gas-well Test and Allowable Data, December 31, 1974—Continued

Field/Pool/Project	Well Name	Well Authorization No.	Date	Pws (Psia)	"n"	AOFP (MSCF/D)	PRL (MSCF/D)
LaGarde—							
Dunlevy	Texaco NFA LaGarde 7-21-87-15	145	8-73	1,115	0.859	3,416	Suspended.
Boundary Lake	Texaco NFA LaGarde 10-29-87-15	1194	8-73	1,076	0.964	10,655	Suspended.
Laprise Creek—							
Baldonnel	Pacific et al Laprise c-12-I/94-G-8	2984	11-74	991	0.996	1,763	2,000
	Pacific et al Laprise d-33-I/94-G-8	2994	11-74	916	0.781	1,745	2,000
	Pembina Laprise b-44-I/94-G-8	3506	10-74	1,532	0.743	3,170	2,000
	Pembina Laprise d-55-I/94-G-8	3167	11-72	1,520	0.799	4,154	Suspended.
	Pacific CIGOL Laprise c-20-L/94-H-5	2945	8-74	1,022	0.927	3,986	2,000
Baldonnel project (2)	Dome Basco Laprise Creek a-81-A/94-G-8	490	10-72	1,094	0.500	3,407	.....
	Dome Provo Laprise Creek d-91-A/94-G-8	653	10-72	1,062	0.500	1,485	.....
	Dome Provo Laprise Creek b-2-H/94-G-8	483	8-73	1,022	0.720	7,061	.....
	Dome Provo Laprise d-4-H/94-G-8	1852	10-72	952	0.500	3,033	.....
	Dome Basco Laprise Creek d-13-H/94-G-8	474	8-73	1,093	0.500	4,583	.....
	Dome Laprise d-22-H/94-G-8	3501	.....	.....	.....	.....	.....
	Dome Provo Laprise Creek a-25-H/94-G-8	654	10-72	1,023	0.500	1,444	.....
	Dome Provo Laprise Creek a-33-H/94-G-8	666	8-71	1,037	0.615	4,183	.....
	Dome Basco Laprise Creek a-35-H/94-G-8	327	8-73	1,138	0.544	6,368	.....
	Dome Provo Laprise a-46-H/94-G-8	665	10-72	1,119	0.645	2,680	.....
	Dome Provo Laprise a-52-H/94-G-8	1445	10-72	1,018	0.500	2,825	.....
	Dome Provo Laprise a-81-H/94-G-8	837	8-73	1,121	0.500	4,074	.....
	Dome Provo Laprise d-91-H/94-G-8	809	8-73	1,088	0.579	6,093	.....
	Dome Provo Laprise c-92-H/94-G-8	1056	10-72	976	0.578	2,223	.....
	Dome Laprise d-37-C/94-H-5	1392	6-68	1,376	0.668	390	Suspended.
	Pacific et al Laprise a-69-C/94-H-5	3038	11-74	1,169	0.744	12,370	.....
	Tenn Monsanto Laprise d-79-C/94-H-5	1371	10-72	1,127	0.684	4,294	.....
	Pacific Imp Laprise b-90-C/94-H-5	1970	8-74	956	0.740	2,921	.....
	Pacific CIGOL Laprise d-99-C/94-H-5	3557	.....	.....	.....	.....	.....
	Pacific Imp Laprise b-100-C/94-H-5	1999	11-74	970	0.783	14,455	.....
	Amerada Laprise d-33-D/94-H-5	1282	.....	.....	.....	.....	.....
	Amerada Laprise d-55-D/94-H-5	1468	8-71	1,246	0.667	3,265	.....
	Amerada Laprise d-77-D/94-H-5	1378	7-73	1,257	0.521	3,946	.....
	Dome Laprise b-80-D/94-H-5	3496	.....	.....	.....	.....	.....
	Pacific IOE Laprise a-85-D/94-H-5	1948	11-74	1,118	0.500	4,407	.....
	Pacific et al Laprise b-88-D/94-H-5	3042	2-72	1,294	0.825	10,667	.....
	Amerada Laprise d-95-D/94-H-5	1477	8-71	1,432	0.500	1,171	.....
	Pacific et al Laprise c-98-D/94-H-5	3192	11-74	1,238	0.720	3,318	.....
	Pacific IOE Laprise d-3-E/94-H-5	1979	11-72	1,320	.....	.....	.....
	Amerada Laprise a-7-E/94-H-5	1337	8-71	1,385	0.500	5,709	.....

	Pacific IOE Laprise d-11-E/94-H-5	1364	-----	-----	-----	-----	-----
	Pacific Imperial Laprise a-22-E/94-H-5	715	7-71	1,144	0.554	3,490	-----
	Pacific Imperial Laprise c-24-E/94-H-5	1511	12-72	1,048	0.594	1,746	-----
	Pacific IOE Laprise a-29-E/94-H-5	1938	11-72	1,447	-----	-----	-----
	Dome Provo Laprise b-30-E/94-H-5	1837	8-73	1,053	0.649	4,153	-----
	Pacific Imperial Laprise a-33-E/94-H-5	690	8-74	851	0.810	7,802	-----
	Dome Provo Laprise c-40-E/94-H-5	1251	8-73	1,028	0.770	8,720	-----
	Pacific Imperial Laprise b-44-E/94-H-5	659	8-74	634	0.775	6,701	-----
	Pacific Imperial Laprise a-46-E/94-H-5	678	11-74	983	0.509	5,176	Suspended.
	Pacific Imperial Laprise a-49-E/94-H-5	1488	11-74	970	0.726	7,270	-----
	Pacific Imperial Laprise d-55-E/94-H-5	670	8-74	920	0.713	5,839	-----
	Pacific Imperial Laprise c-56-E/94-H-5	650	7-71	1,102	0.577	5,159	-----
	Pacific Imperial Laprise d-68-E/94-H-5	516	7-71	1,148	0.661	6,222	-----
	Dome Provo Laprise c-70-E/94-H-5	1225	8-73	1,102	0.510	5,656	-----
	Pacific Imperial Laprise c-78-E/94-H-5	551	1-73	1,093	0.700	5,649	-----
	Pacific Imperial Laprise a-99-E/94-H-5	1,341	8-74	1,006	0.767	10,922	-----
Baldonnel total		-----	-----	-----	-----	-----	GEP plus 6,000
Laprise Creek West—							
Baldonnel	Dome CDP C&E W Laprise c-71-G/94-G-8	1015	-----	-----	-----	-----	Suspended.
	Dome CDP C&E W Laprise c-82-G/94-G-8	873	6-67	970	0.618	2,695	Suspended.
Louise—							
Slave Point	Pacific Louise c-40-L/94-P-3	2472	2-74	2,601	0.500	6,566	2,000
	Placid Louise c-80-L/94-P-3	1570	3-65	2,315	-----	-----	-----
Milligan Creek—							
Gething	Union HB Milligan d-62-G/94-H-2	1001	12-70	1,022	-----	-----	2,000[2]
	Ipex et al Milligan d-76-G/94-H-2	2659	-----	-----	-----	-----	-----
	Ashland Homestead Milligan d-85-G/94-H-2	2644	4-70	1,024	0.880	3,535	Suspended.
Montney—							
Bluesky	Pac Sunray Montney 16-32-86-19 (3)	119	9-58	1,123	1.000	814	Suspended.
Cecil	Pac Sunray Montney 14-36-86-19 (2)	104	7-58	1,116	1.000	2,200	Suspended.
Halfway	Pac White Rose Sec Montney 6-5-87-18	801	7-72	1,409	0.529	1,754	Suspended[1]
	Pac Sunray Montney 14-31-86-19 (5)	289	7-61	1,185	0.932	2,250	Suspended.
Nettle—							
Halfway	Union KCL ROC Nettle d-58-A/94-H-7	1411	-----	-----	-----	-----	-----
Nig Creek—							
Baldonnel B Pool	Whitehall ARCo Nig a-87-J/94-A-13	2244	-----	-----	-----	-----	Abandoned.
Baldonnel	Huber Cdn-Sup Total Nig d-73-A/94-H-4	3389	2-74	1,437	0.629	1,163	2,000
	West Nat Nig a-3-B/94-H-4	1373	7-72	1,349	0.520	1,461	Suspended.
	Pacific Nig b-4-B/94-H-4	1728	11-73	943	0.637	2,205	2,000[1]
	Whitehall Nig b-6-B/94-H-4	1613	7-69	1,369	0.841	7,647	2,087
	Monsanto Nig d-13-B/94-H-4	1004	2-72	1,130	0.500	1,811	2,000
	Monsanto Nig a-21-B/94-H-4	1475	2-72	944	0.677	2,728	2,000
	Texaco NFA Nig d-33-B/94-H-4	2157	3-72	1,500	0.662	720	Suspended.
	Dome Provo Nig d-35-B/94-H-4	1139	9-74	1,053	0.595	3,976	2,000

[1] Exempted from reporting "Maximum Day Production."
[2] Lease fuel.

Table 17—Gas-well Test and Allowable Data, December 31, 1974—Continued

Field/Pool/Project	Well Name	Well Authorization No.	Date	Pws (Psia)	"n"	AOFP (MSCF/D)	PRL (MSCF/D)
Nig Creek—*Continued*							
Baldonnel project (2)	Texaco NFA Nig a-69-A/94-H-4	819[7]	7-74	1,260	0.500	1,015	2,000
	Texaco Gulf Nig d-76-A/94-H-4	2761	7-74	1,388	0.665	1,558	.....
	Texaco NFA Nig d-15-B/94-H-4	1180[7]	7-74	1,025	0.621	2,392	2,000
	Texaco NFA Nig c-36-B/94-H-4	729[7]	7-74	1,001	0.572	4,197	2,000
	Texaco et al Nig b-68-B/94-H-4	2784	7-74	1,029	0.665	2,795	.....
	Texaco NFA Nig Creek b-70-B(9)/94-H-4	383[7]	8-74	1,269	0.500	2,670	Suspended.
	Texaco NFA Nig d-71-B/94-H-4	790	7-74	908	1.000	310	.....
	Texaco NFA Nig d-75-B/94-H-4	1681	7-74	834	0.587	1,256	.....
	Texaco NFA Nig a-77-B/94-H-4	1762	7-73	888	0.663	5,585	.....
	Texaco NFA Nig Creek a-79-B(1)/94-H-4	61	7-73	1,000	0.591	5,004	.....
	Texaco NFA Nig c-90-B/94-H-4	1161	7-74	1,014	0.594	344	.....
	Texaco NFA Nig Creek a-31-F(7)/94-H-4	294	.....	.....	.....	.....	Disposal.
	Texaco NFA Nig Creek a-1-G/94-H-4	456	7-73	842	0.898	5,755	.....
	Texaco NFA Nig Creek b-2-G/94-H-4	447	7-73	899	0.564	8,913	.....
	Texaco NFA Nig a-6-G/94-H-4	1740	7-73	860	0.571	6,537	.....
	Texaco NFA Nig a-8-G/94-H-4	967	7-73	912	0.806	22,895	.....
	Texaco NFA Nig Creek a-12-G(6)/94-H-4	131	7-74	733	1.000	5,689	.....
	Texaco NFA Nig c-14-G/94-H-4	2178	3-72	1,311	0.670	375	Suspended.
	Texaco NFA Nig b-44-G/94-H-4	852	8-73	1,398	0.530	341	Abandoned.
	Texaco NFA Nig c-6-H/94-H-4	1654	7-74	1,033	0.793	282	.....
	Texaco NFA Nig c-14-H/94-H-4	1707	6-74	1,162	0.631	3,490	Suspended.
	Texaco NFA Nig c-33-H/94-H-4	1742	7-74	1,055	0.654	357	.....
	Texaco NFA Nig b-41-H/94-H-4	1976	8-73	1,234	1.000	363	Suspended.
Baldonnel project (2) PRL	.....	.....	.....	.....	.....	.....	80,300
Baldonnel total	.....	.....	.....	.....	.....	.....	90,387
Nig Creek West—							
Baldonnel	Pacific W Nig c-19-C/94-H-4	92	.....	.....	.....	.....	.....
	Tenn Monsanto W Nig d-39-C/94-H-4	1448	7-70	1,651	0.796	7,634	Abandoned.
North Pine—							
North Pine	Pacific et al N Pine 6-24-85-18	1994	8-72	1,285	0.583	7,493	2,377
	Pacific et al N Pine 6-27-85-18	1958	5-74	1,753	0.625	24,408	Suspended.
Oak—							
Cecil	Woods Wainoco Oak 7-2-87-18	3216	1-73	1,676	0.803	10,093	2,523
Halfway Pool A	Woods Wainoco Oak 11-24-86-18	3269	6-74	1,809	0.665	5,468	2,000
	Woods Wainoco Oak 10-27-86-18	3201	11-72	1,842	0.947	6,465	2,000
	Woods Wainoco Oak 6-35-86-18	3171	6-74	1,844	0.724	18,930	4,749
	Woods Wainoco Oak 7-2-87-18	3216	12-72	1,788	0.947	1,080	Suspended.
Halfway Pool A total	.....	.....	.....	.....	.....	.....	8,749

Halfway Pool B	Woods Wainoco Ashland Oak 6-18-86-17	3363	.....	.....	.....	.....	Gas cap.
Parkland—							
Belloy	IOE Pac Parkland 10-26-81-16	1355	9-64	2,945	0.500	3,650	Suspended.
	Pacific Alcon Parkland 7-27-81-16	2250	8-68	2,976	0.835	7,900	Suspended.
Wabamun project (2)	Pacific Imp Parkland 10-28-81-15	1153	6-74	2,566	0.650	3,799	.....
	Pacific Imp Parkland 6-29-81-15	153	6-74	2,425	0.679	11,571	.....
Wabamun project total	.....	.....	.....	.....	.....	.....	20,000
Peggo—							
Slave Point	Midwest Chevron Peggo d-65-A/94-P-7	2276	.....	.....	.....	.....	.....
	Dome et al Peggo d-79-A/94 P-7	2881	.....	.....	.....	.....	.....
Petitot River—							
Slave Point	West Nat Petitot b-90-K/94-P-12	722	2-74	2,803	0.652	16,896	4,224
	West Nat Petitot River b-1-D/94-P-13	533	2-60	2,783	0.824	225,000	1,500[5]
	Pacific Petitot d-14-D/94-P-13	3427	4-74	2,797	0.623	12,992	3,248
	West Nat Petitot River d-24-D/94-P-13	403	2-74	2,794	0.757	49,310	12,327
Red Creek—							
North Pine	Pacific Red Creek 5-27-85-21 (36)	93	5-65	1,267	1.000	3,308	Suspended.
Halfway	Pacific Red Creek 5-27-85-21 (36)	93	7-65	1,437	1.000	2,434	Suspended.
Redeye—							
Halfway	Quasar Amoco Redeye d-69-D/94-H-10	3274	.....	.....	.....	.....	.....
	Pan Am Redeye d-89-D/94-H-10	2442	1-69	939	0.966	27,385	6,846
Rigel—							
Bluesky	Imp et al Rigel 10-35-88-18	2593	(8)	(8)	(8)	(8)	(8)
	ARCo Rigel d-33-I/94-A-10	1763	11-70	981	.....	.....	.....
	IOE et al Rigel d-39-J/94-A-10	2686	10-70	1,118	0.509	55	Suspended.
Dunlevy	IOE Fina Rigel 7-35-87-18	2707	7-73	804	0.500	8,843	Suspended.
	Coseka Pem Rigel 10-6-88-18	3374	10-74	1,262	1.000	661	2,000
	IOE et al Rigel d-39-J/94-A-10	2686	7-73	886	0.826	6,776	Suspended.
	Cabot et al Rigel a-87-K/94-A-10	2573	.....	.....	.....	.....	.....
	CZAR et al Rigel b-88-K/94-A-10	3561	.....	.....	.....	.....	.....
Dunlevy project (2)	Denison Rigel 6-31-87-16	1372	7-73	1,014	0.765	4,732	Suspended.
	Monsanto Rigel 14-23-87-17	1973	.....	.....	.....	.....	.....
	IOE Fina Rigel 16 24-87-17	1739	6-69	1,040	.....	.....	.....
	Monsanto IOE Fina Rigel 11-26-87-17	1486	4-72	958	1.000	2,270	Suspended.
	Wintershall Rigel 10-34-87-17	1365	7-73	832	0.560	3,050	.....
	Pacific Rigel 6-35-87-17	1293	11-73	843	1.000	2,689	Suspended.
	Monsanto Rigel 6-36-87-17	1354	8-74	806	0.565	8,129	.....
	Whitehall Rigel 11-18-88-16	1234	.....	.....	.....	.....	.....
	IOE Fina Rigel 7-30-88-16	2258	.....	.....	.....	.....	.....
	Imp Fina Rigel 8-1-88-17	1312	12-71	927	.....	.....	.....
	Imp Fina Rigel 6-3-88-17	1187	7-73	695	0.553	6,103	.....
	Imp Fina Rigel 6-8 88-17	1208	7-73	1,050	0.675	2,544	Suspended.
	Imp Fina Rigel 6-10-88-17	1090	7-73	736	0.582	7,211	.....

[5] Interim.
[7] Restricted to individual well PRL.
[8] Bluesky and Dunlevy without segregation. Estimate 25 per cent of production from Bluesky.

Table 17—Gas-well Test and Allowable Data, December 31, 1974—Continued

Field/Pool/Project	Well Name	Well Authorization No.	Date	Pws (Psia)	"n"	AOFP (MSCF/D)	PRL (MSCF/D)
Rigel—*Continued*							
Dunlevy project (2)—*Continued*	Whitehall Rigel 6-14-88-17	1149	-----	-----	-----	-----	-----
	Whitehall Rigel 6-15-88-17	1148	8-74	696	0.720	16,827	-----
	Imp Fina Rigel 6-16-88-17	1168	7-73	1,250	-----	-----	-----
	Imp et al Rigel 7-19-88-17	1107	8-74	690	0.814	13,296	-----
	IOE Fina Rigel 10-25-88-17	2127	12-71	963	0.500	3,337	Suspended.
	Imp Fina Rigel 4-27-88-17	130	7-73	725	0.634	4,377	-----
	Imp Fina Rigel 6-28-88-17	1385	7-73	1,293	-----	-----	-----
	Imp et al Rigel 6-30-88-17	1032	8-74	703	0.716	11,140	-----
	IOE Fina Rigel 7-1-88-18	2974	8-73	829	0.833	1,734	-----
	IOE Fina Rigel 11-2-88-18	2597	7-74	730	0.837	13,149	-----
	Imp Fina Rigel 11-3-88-18	1593	12-71	945	-----	-----	-----
	Woods Rigel 10-8-88-18	2795	8-73	820	0.626	4,218	-----
	IOE Fina Rigel 11-11-88-18	1494	7-74	724	0.671	11,197	-----
	Imp et al Rigel 7-13-88-18	1978	8-74	685	0.669	9,659	-----
	Imp Fina Rigel 10-14-88-18	1465	7-73	790	0.663	5,021	-----
	Pacific Rigel 11-15-88-18	2572	9-74	787	0.837	1,994	-----
	Sierra Rigel 10-17-88-18	2725	9-71	992	0.700	1,198	-----
	Tenn Rigel 6-18-88-18	2987	-----	-----	-----	-----	Suspended.
	Richfield et al Rigel 10-19-88-18	1381	-----	-----	-----	-----	-----
	Imp et al Rigel 6-21-88-18	1118	7-73	799	0.952	4,738	-----
	Imp et al Rigel 7-23-88-18	1163	7-73	794	0.693	1,430	-----
	Sun Rigel 10-24-88-18	1324	9-70	1,000	0.675	6,267	-----
	Imp et al Rigel 6-27-88-18	828	7-73	732	0.699	4,122	-----
	Texaco NFA Rigel 10-29-88-18	1222	3-72	1,048	0.620	4,249	Suspended.
	Texaco NFA Rigel 9-31-88-18(10)	195	7-74	634	0.685	5,665	-----
	Imp et al Rigel 10-35-88-188	2593	7-73	859	0.658	3,923	-----
	Pembina Rigel 10-24-88-19	3160	6-74	1,211	1.000	1,939	-----
	ARCo Rigel a-27-I/94-A-10	1620	8-74	777	0.777	7,459	-----
	ARCo Rigel d-33-I/94-A-10	1763	7-73	993	-----	-----	-----
	IOE Fina Rigel d-57-I/94-A-10	1537	7-73	853	0.676	3,036	-----
	Imp IOE Fina Rigel a-21-J/94-A-10	2054	7-73	660	0.760	10,451	-----
	IOE et al Rigel c-56-J/94-A-10	2537	8-74	776	0.594	8,770	-----
	IOE Fina Rigel c-60-J/94-A-10	2400	8-74	767	0.622	9,026	-----
	IOE Fina Rigel a-89-J/94-A-10	2354	7-73	969	0.788	1,349	Suspended.
	Imp et al Rigel b-22-K/94-A-10	1003	-----	-----	-----	-----	-----
	Texaco NFA Rigel a-28-K/94-A-10	1370	7-74	741	0.660	696	-----
	IOE Fina Rigel d-71-K/94-A-10	2726	8-74	776	0.734	9,314	-----
Dunlevy project (2) total		-----	-----	-----	-----	-----	GEP plus 2,000

Rigel East—							
Dunlevy	Texaco NFA E Rigel 10-12-88-16	1192	2-63	1,335	0.660	3,270	Suspended.
	Tenn E Rigel 6-23-88-16	1275	12-71	1,330	.....	.....	.....
Halfway	Texaco NFA E Rigel 13-26-88-16(4)	160	1-69	1,532	0.800	3,500	2,000
Shekilie—							
Slave Point	Pacific Shekilie b-24-A/94-I-16	1816	.....	.....	.....	.....	.....
	Pacific Sinclair Shekilie b-46-A/94-I-16	2038	.....	.....	.....	.....	.....
Sierra—							
Pine Point	Socony Mobil Sierra a-98-K/94-I-11	1814	2-67	3,623	1.000	188,000	Suspended.
	Socony Mobil Sierra c-78-C/94-I-14	1602	2-68	3,450	0.662	610,000	Abandoned.
	Mobil Sierra c-A78-C/94-I-14	2596	8-73	3,337	1.000	445,000	98,345
	Socony Mobil Sierra c-91-D/94-I-14	1659	4-74	3,278	0.693	86,672	13,170
Pine Point total		.....	.....	.....	.....	.....	111,515
Siphon—							
Dunlevy	Pacific Westcoast Siphon 11-28-86-16	3133	10-74	1,182	0.755	13,761	Suspended.
	Pacific Westcoast Siphon A7-33-86-16	3118	5-73	1,333	0.843	20,682	5,454
	Pacific West Prod Siphon 7-34-86-16	2581	6-74	1,151	0.578	13,461	3,786
	Kissinger Vaughey Siphon 6-2-87-16	2952	6-74	1,002	0.713	3,912	2,000
	Kissinger Vaughey Siphon 7-3-87-16	3077	6-74	1,114	0.695	40,570	11,991
Dunlevy total		.....	.....	.....	.....	.....	23,231
Baldonnel	Pacific et al Siphon 11-27-86-16	444	10-69	1,449	.....	.....	Suspended.
	Dome Siphon 10-12-87-16	2446	1-70	1,381	0.966	1,550	Suspended.
Siphon	Texex Siphon 10-22-86-16	3196	.....	.....	.....	.....	.....
	Pacific et al Siphon 11-27-86-16	444	10-74	1,081	0.907	3,158	2,000
	Pacific West Prod Siphon 7-34-86-16	2581	10-74	1,111	0.926	3,713	2,000
	Kissinger Vaughey Siphon 6-11-87-16	3100	11-74	1,373	0.827	2,597	Suspended.
	Dome Siphon 10-12-87-16	2446	.....	.....	.....	.....	.....
Siphon total		.....	.....	.....	.....	.....	4,000
Halfway	Pacific et al Siphon 11-27-86-16	444	6-74	1,116	0.720	3,916	2,000
	Pacific Westcoast Siphon 11-28-86-16	3133	10-74	1,240	0.879	27,889	9,116
	Woods Anadarko Siphon 7-31-86-16	3055	.....	.....	.....	.....	.....
	Kissinger Vaughey Siphon 7-33-85-16	2972	6-74	1,242	0.977	4,457	2,000
	Kissinger Vaughey Siphon 6-2-87-16	2952	5-73	1,359	0.988	1,509	2,000
Halfway total		.....	.....	.....	.....	.....	15,116
Field total		.....	.....	.....	.....	.....	42,347
Siphon East—							
Bluesky	Sundale et al Siphon 10-32-86-15	3550	.....	.....	.....	.....	.....
	Sundale et al E Siphon 10-33-86-15	3449	4-74	1,159	0.819	3,469	2,000
	Woods LaGarde 6-3-87-15	3528	.....	.....	.....	.....	.....
Stoddart—							
Belloy	Pacific et al Stoddart 6-29-85-18	2262	6-74	1,995	0.892	1,051	2,000
	Mesa et al Stoddart 6-31-85-18	2539	6-73	1,371	0.747	2,996	2,000
	Apache Dunbar Stoddart 11-23-85-19	2548	10-69	2,384	0.920	3,140	Zone abandoned.
	Apache Dunbar Stoddart 6-26-85-19	2409	10-74	1,669	0.751	10,236	3,276
	Jeff Lake Mesa Stoddart 11-34-85-19	1959	.....	.....	.....	.....	.....

Table 17—Gas-well Test and Allowable Data, December 31, 1974—Continued

Field/Pool/Project	Well Name	Well Authorization No.	Date	Pws (Psia)	"n"	AOFP (MSCF/D)	PRL (MSCF/D)
Stoddart—*Continued*							
Belloy—*Continued*	Pacific et al Stoddart 10-35-85-19	2182	10-74	1,383	0.718	12,940	4,743
	Pacific Stoddart 11-2-86-19	2155	10-74	1,335	0.599	14,907	5,528
	Dome Provo Stoddart 11-8-86-19	1902	7-74	1,017	0.649	3,818	2,000
	Pacific Stoddart 6-10-86-19	2078	6-74	1,181	0.880	830	2,000[1]
	Jeff Lake Altair Stoddart 6-11-86-19	1841	10-74	1,364	0.673	26,228	10,947
	Pacific et al Stoddart 11-16-86-19	1473	8-72	1,468	0.630	2,590	2,000
	Whitehall Stoddart 6-17-86-19	1770	6-69	1,395	1.000	3,341	2,000
	Pacific et al Stoddart 11-18-86-19	2562	6-74	1,004	0.729	9,795	4,802
	Pacific Stoddart 6-19-86-19	2575	6-74	1,042	0.654	8,168	3,649
Belloy B Pool	Pacific et al Stoddart 10-1-86-20	438	-----	-----	-----	-----	Suspended.
	Pacific Stoddart 2-13-86-20(90)	262	6-74	957	0.756	15,418	7,384
	Pacific Stoddart 4-24-86-20(85)	244	6-74	968	0.927	13,589	7,253
Belloy total		-----	-----	-----	-----	-----	59,582
Stoddart West—							
Halfway	Pacific W Stoddart 6-22-86-20	2999	1-72	1,928	0.597	9,972	Abandoned.
Belloy	Woods W Stoddart 11-7-86-20	2814	9-71	2,639	0.784	19,344	4,836
	Pacific W Stoddart 11-10-86-20	1190	5-74	1,626	0.625	7,982	Suspended.
	Pacific W Stoddart 6-17-86-20	3564	-----	-----	-----	-----	-----
	Woods W Stoddart 10-18-86-20	2786	2-71	2,438	0.779	5,631	Suspended.
	Woods W Stoddart 11-19-86-20	2737	3-74	1,914	0.750	5,729	2,000
	Pacific et al W Stoddart 11-30-86-20	2199	6-74	1,728	0.692	12,042	2,879
	Pacific et al W Stoddart 7-5-87-20	2338	6-74	1,827	1.000	4,711	2,000
	Pacific Apache W Stoddart 10-8-87-20	3009	-----	-----	-----	-----	-----
	Trend et al W Stoddart 6-16-87-20	2780	3-71	2,132	0.869	2,633	2,000
Belloy total		-----	-----	-----	-----	-----	13,715
Sunrise—							
Paddy	Horizon Sunrise 11-6-79-16	2560	-----	-----	-----	-----	-----
	Pacific Horizon 10-7-79-16(3)	15	5-71	734	-----	-----	-----
Upper Cadotte	Great Northern Sunrise All-6-79-16	2878	3-71	632	0.724	707	Zone abandoned.
Cadotte	Pacific Sunrise 11-31-78-16(6A)	19	-----	-----	-----	-----	-----
	Horizon Sunrise 11-4-79-16	2569	8-70	770	-----	-----	-----
	Horizon Sunrise 11-5-79-16	2559	8-70	683	-----	-----	-----
	Great Northern Sunrise All-6-79-16	2878	2-71	721	0.625	2,398	Suspended.
	GNPM Sunrise 6-7-79-16	2983	12-71	708	0.930	1,730	2,000
	Horizon Sunrise 10-8-79-16	2538	12-69	714	-----	-----	-----
	Pacific Sunrise 10-9-79-16(4)	17	-----	-----	-----	-----	-----
	Horizon Sunrise 11-9-79-16	2564	8-70	730	-----	-----	-----
	GNPM Arlington Sunrise 11-2-79-17	3360	5-73	742	0.936	1,610	2,000
	GNPM Sunrise 7-12-79-17	2772	-----	-----	-----	-----	-----
Field total		-----	-----	-----	-----	-----	4,000

Thetlaandoa—							
Mississippian	Amoco et al Thetlaandoa c-30-K/94-P-6	3350	3-73	574	.....	.....	2,000[5]
	Amoco et al Thetlaandoa c-34-L/94-P-6	3322	.....	.....	.....	.....	.....
Tsea—							
Slave Point	Texaco NFA Tsea b-68-K/94-P-5	704	3-62	2,646	0.628	76,650	Suspended.
	Texaco NFA Tsea b-99-K/94-P-5	1426	3-64	2,734	0.523	12,600	Suspended.
Two Rivers—							
Baldonnel	Champlin et al Two Rivers 6-9-83-16	2139	6-72	1,705	.....	.....	2,000
Siphon	Champlin Two Rivers 10-5-83-16	2064	5-71	1,533	0.924	6,635	2,000
Halfway	Champlin et al Two Rivers 6-9-83-16	2139	6-74	1,550	0.855	29,520	10,246
Field total		.....	.....	.....	.....	.....	14,246
Velma—							
Gething	HB GraMic Velma a-67-C/94-H-8	3441	3-74	964	0.543	762	2,000
	HB et al Velma a-69-C/94-H-8	3336	2-74	959	0.946	16,750	4,188
	Decalta et al Velma a-7-E/94-H-8	3069	.....	.....	.....	.....	.....
	HB et al Velma b-66-D/94-H-8	3113	1-74	968	1.000	1,321	2,000
"A" Marker	GraMic et al Velma b-70-C/94-H-8	3053	.....	.....	.....	.....	.....
	HB et al Velma b-66-D/94-H-8	3113	2-74	938	1.000	520	2,000
Weasel—							
Baldonnel	Sinclair Pacific Weasel d-93-J/94-A-15	1790	12-65	1,113	0.675	6,050	2,000
Halfway A	PATP et al Weasel d-29-A/94-H-2	3225	.....	.....	.....	.....	.....
	Pacific Sinclair Weasel d-30-A/94-H-2	1631	.....	.....	.....	.....	.....
	PATP et al Weasel d-39-A/94-H-2	3437	.....	.....	.....	.....	.....
	Bracell et al Weasel d-18-B/94-H-2	2789	12-70	1,278	.....	.....	.....
	Tenn Ashland Weasel d-27-B/94-H-2	1703	10-65	1,248	0.754	1,070	Suspended.
Weasel West—							
Bluesky	Tenn Monsanto W Weasel b-81-C/94-H-2	3349	6-74	1,068	.....	.....	2,000
Halfway	Tenn Monsanto W Weasel b-81-C/94-H-2	3349	.....	.....	.....	.....	.....
Wilder—							
Halfway project (2)	Wainoco Woods Wilder 10-19-83-19	2793	8-73	1,884	0.730	29,463	.....
	Wainoco Woods Wilder 7-30-83-19	2773	10-72	1,786	0.866	17,266	.....
Halfway project (2) PRL	.....	.....	.....	.....	.....	.....	12,500
Belloy	Amerada Pac Wilder 11-17-83-19	697	.....	.....	.....	.....	.....
	Wainoco Woods Wilder 11-20-83-19	2708	8-70	2,602	1.000	1,132	Suspended.
Wildmint—							
Bluesky	Union HB Wildmint d-25-A/94-H-2	919	11-72	1,041	.....	.....	.....
Willow—							
Halfway	Union HB Willow d-11-G/94-H-2	1292	3-73	704	0.741	3,026	Suspended.
	Union HB Willow b-10-H/94-H-2	830	9-73	637	0.510	15,077	6,947

[1] Exempted from reporting "Maximum Day Production."
[5] Interim.

Table 17—Gas-well Test and Allowable Data, December 31, 1974—Continued

Field/Pool/Project	Well Name	Well Authorization No.	Date	Pws (Psia)	"n"	AOFP (MSCF/D)	PRL (MSCF/D)
Yoyo—							
Slave Point	West Nat et al Yoyo a-74-H/94-I-13	887	3-62	2,686	0.791	185,000	.....
Pine Point	West Nat et al Yoyo a-74-H/94-I-13	887	3-71	2,761	0.336	15,012	3,753
	BVX Mesa Redwater Yoyo b-86-H/94-I-13	2907	3-73	2,612	0.588	23,152	5,788
	Pacific Placid Yoyo d-95-H/94-I-13	1634	.....	.....	.....	.....	Disposal.
	Pacific Yoyo d-12-I/94-I-13	2602	4-74	2,476	0.652	154,977	36,559
	Placid Frontier Yoyo b-24-I/94-I-13	1895	3-67	2,883	0.845	132,000	Suspended.
	West Nat et al Yoyo b-29-I/94-I-13	1230	1-64	2,921	0.577	3,500	Suspended.
	Uno-Tex Hamilton Yoyo c-34-I/94-I-13	2229	2-68	2,838	0.640	92,000	Suspended.
	Quintana et al Yoyo d-77-E/94-I-14	3487	4-74	2,465	0.797	3,776	2,000
	West Nat Yoyo b-98-I/94-I-14	1405	4-74	2,473	0.533	58,064	15,873
	Pacific Yoyo a-2-L/94-I-14	2271	4-74	2,481	0.684	35,931	10,059
	Pacific Yoyo d-7-L/94-I-14	2035	4-74	2,483	0.600	48,659	13,390
	Placid Frontier Yoyo b-10-L/94-I-14	1569	4-74	2,441	0.643	47,895	11,974
	Pacific Yoyo d-17-L/94-I-14	3424	5-74	2,443	0.637	82,139	20,535[6]
	Frontier Yoyo c-18-L/94-I-14	1431	4-74	2,477	0.596	68,330	18,918
	West Nat et al Yoyo b-24-L/94-I-14	1313	4-74	2,471	0.524	78,964	21,559
	Tenn Altair Yoyo a-47-L/94-I-14	1831	7-72	2,661	0.693	209,828	56,047
	Uno-Tex Hamilton Yoyo a-49-L/94-I-14	2068	3-71	2,761	1.000	288,903	72,226
Pine Point total		.....	.....	.....	.....	.....	286,774
Other areas—							
Cadotte	Westcoast Pouce Coupe 8-18-80-13(6)	.....	7-60	595	.....	.....	.....
	Westcoast Pouce Coupe 6-30-80-13(1)	.....	.....	.....	.....	.....	.....
Notikewin	Westcoast Kiskatinaw 8-30-80-14(5)	.....	.....	.....	.....	.....	.....
Bluesky	Pacific Westcoast Pouce 7-30-80-13	2995	.....	.....	.....	.....	.....
	Texaco NFA East Osborn a-33-J/94-A-9	322	.....	.....	.....	.....	.....
	Pacific et al Caribou d-27-H/94-A-16	3117	.....	.....	.....	.....	.....
	Imp Fina Altares a-83-A/94-B-8	410	3-71	1,238	.....	.....	Suspended.
	PPC Richfield Daiber c-76-D/94-B-16	386	.....	.....	.....	.....	.....
	Richfield et al Big Arrow c-71-F/94-H-2	159	.....	.....	.....	.....	.....
	Triad BP Pickell Creek c-88-I/94-H-3	695	.....	.....	.....	.....	.....
	Triad BP Birley d-17-A/94-H-6	987	.....	.....	.....	.....	.....
	GPD et al Gleam d-90-J/94-H-6	3108	1-73	1,009	0.822	1,629	2,000
	Texaco NFA Silver c-52-K/94-H-6	571	.....	.....	.....	.....	.....
	Cnd Res Quintana Pac Kotcho b-68-H/94-I-14	3411	.....	.....	.....	.....	.....
	Texaco NFA Judy c-53-D/94-P-6	717	.....	.....	.....	.....	.....
Bluesky total		.....	.....	.....	.....	.....	6,506

Gething	Texaco NFA East Osborn a-33-J(7)/94-A-9	322	.....	.....	.....	.....	.....
	Texcan N Nancy d-26-I/94-A-15	1905	.....	.....	.....	.....	.....
	Union HB Beaverdam d-64-L/94-A-16	1825	.....	.....	.....	.....	.....
	Texaco NFA Cameron River b-49-L/94-B-9	120	.....	.....	.....	.....	.....
	Union HB Ladyfern d-77-H/94-H-1	2615	3-70	1,047	0.729	6,016	2,000
	Dome Antelope a-63-L/94-H-1	3142	.....	.....	.....	.....	.....
	Richfield et al Big Arrow c-71-F(1)/94-H-2	159	.....	.....	.....	.....	.....
	Pan Am Dome Silver d-81-L/94-H-6	2406	.....	.....	.....	.....	.....
	Dome Nettle b-44-A/94-H-7	3126	.....	.....	.....	.....	.....
Dunlevy	Pacific Pingel Creek 5-26-81-18	66	.....	.....	.....	.....	.....
	KM AEG Mast d-80-A/93-P-3	3319	.....	.....	.....	.....	.....
	Texaco NFA E Osborn a-45-J/94-A-19	1257	.....	.....	.....	.....	.....
	Fina Bearberry d-95-L/94-A-11	3240	3-73	1,329	0.823	4,114	2,000
	SOC et al Inga d-55-B/94-A-13	3376	10-73	1,340	0.841	2,071	2,000
	SOC et al W Jeans c-78-B/94-A-13	3227	12-74	1,359	0.841	2,825	2,000
	SOC et al W Jeans d-11-F/94-A-13	3392	.....	.....	.....	.....	.....
	SOC et al W Jeans b-10-G/94-A-13	3535	.....	.....	.....	.....	Suspended.
	SOC et al Graham b-21-D/94-B-9	3158	.....	.....	.....	.....	.....
	HB BA Union Lime c-80-C/94-H-1	122	.....	.....	.....	.....	.....
	Union ROC Firebird d-89-D/94-H-2	707	.....	.....	.....	.....	.....
Dunlevy total		.....	.....	.....	.....	.....	6,000
Lower Dunlevy	Union ROC Firebird d-89-D/94-H-2	707	.....	.....	.....	.....	.....
Baldonnel	Pacific Westcoast Pouce 7-30-80-13	2995	.....	.....	.....	.....	.....
	Westcoast Pingel 13-11-81-17(8)	4	.....	.....	.....	.....	.....
	Pacific Ft St John 12-7-84-18(19)	62	8-70	1,503	0.770	1,977	Suspended.
	Pacific Ft St John 1-15-84-19(5)	30	9-52	1,594	.....	.....	.....
	Wainoco Ft St John 11-23-84-19	3122	.....	.....	.....	.....	.....
	Wainoco Ft St John 6-24-84-19	3060	7-72	1,587	.....	.....	Zone abandoned.
	Sinclair Bear Ck 11-18-84-20(B2-3)	243	.....	.....	.....	.....	.....
	Home et al Attachie 7-20-84-22	2961	.....	.....	.....	.....	.....
	White Rose Sec Montney 10-29-86-18	1130	9-62	1,520	0.669	1,640	Suspended.
	Tenn LaGarde 6-35-87-15	1200	11-63	1,665	0.754	1,250	Suspended.
	Texaco NFA E Osborn 6-33-88-14	1319	1-69	1,309	0.736	1,168	2,000
	TGS Falls c-32-F/93-0-9	2230	.....	.....	.....	.....	.....
	Hunt Sands Sun Falls c-18-G/93-0-9	1028	.....	.....	.....	.....	.....
	Triad BP Sukunka a-43-B/93-P-5	1517	9-65	4,601	0.623	89,000	Suspended.
	Anadarko Ashland Osborn d-35-L/94-A-9	3447	.....	.....	.....	.....	.....
	Whitehall Numac Nig a-49-J/94-A-13	2012	1-67	1,578	1.000	1,000	Abandoned.
	Chevron Birch b-47-I/94-A-13	3393	1-74	1,546	1.000	994	2,000
	Altair Sarcee C&E Zeke c-34-L/94-A-14	1332	.....	.....	.....	.....	.....
	Pacific et al Coyote d-51-C/94-A-16	3125	4-72	1,225	0.763	10,291	2,573
	Texaco NFA Cameron River b-49-L(1)/94-B-9	120	.....	.....	.....	.....	.....
	HB Cypress a-92-K/94-B-10	2365	3-71	1,960	0.630	53,208	Suspended.
	FPC Richfield Daiber c-56-D/94-B-16	432	9-71	2,008	0.573	1,166	2,000
	FPC Richfield Daiber c-76-D(1)/94-B-16	386	9-71	2,011	0.726	11,289	Suspended.
	Pacific S Julienne b-70-K/94-B-16	2779	.....	.....	.....	.....	.....

[5] Interim.

Table 17—Gas-well Test and Allowable Data, December 31, 1974—Continued

Field/Pool/Project	Well Name	Well Authorization No.	Date	Pws (Psia)	"n"	AOFP (MSCF/D)	PRL (MSCF/D)
Other areas—*Continued*							
Baldonnel—*Continued*	Woods Amerada N Julienne d-33-H/94-G-2	2574	2-70	1,961	1.000	540	2,000
	Sinclair et al N Julienne c-54-H/94-G-2	757	8-71	1,944	.....	.....	.....
	Uno-Tex et al Lily d-67-K/94-G-2	3088	.....	.....	.....	.....	.....
	Pan Am Dome Sikanni b-43-B/94-G-7	1335	9-63	1,726	0.832	5,500	Suspended.
	Union ARCo Firebird d-43-D/94-H-2	2060	.....	.....	.....	.....	.....
	Pacific Sunray Imp Sojer a-61-L/94-H-4	472	.....	.....	.....	.....	.....
	Champlin Bass Martin c-91-B/94-H-5	2245	.....	.....	.....	.....	.....
	Ashland CK Tb Wargen d-19-B/94-H-6	2119	.....	.....	.....	.....	.....
Baldonnel total		.....	.....	.....	.....	.....	12,573
Halfway	HB et al Moberly 16-20-79-25	3174	.....	.....	.....	.....	.....
	Wainoco Ft St John 11-12-84-19	3010	.....	.....	.....	.....	.....
	Wainoco Ft St John 11-23-84-19	3122	.....	.....	.....	.....	.....
	Wainoco Ft St John 6-24-84-19	3060	.....	.....	.....	.....	.....
	Pacific Wilder 13-1-84-20(14)	47	12-53	2,035	0.780	5,500	Suspended.
	Quasar AEG et al Grizzly a-49-H/93-I-15	3407	.....	.....	.....	.....	.....
	Cankee CIGOL Melanie d-68-K/94-A-9	1859	.....	.....	.....	.....	.....
	Sinclair Pacific Mink d-88-A/94-A-15	1564	.....	.....	.....	.....	.....
	Dome et al W Peejay d-31-G/94-A-15	1927	.....	.....	.....	.....	.....
	GraMic Scurry et al N Nancy d-30-I/94-A-15	2713	.....	.....	.....	.....	.....
	Pacific SR CanDel Beaverdam d-71-I/94-A-15	2101	4-67	1,323	0.794	4,400	Suspended.
	Pacific SR CanDel W Dede b-45-K/94-A-15	1271	3-63	1,411	0.700	5,600	Suspended.
	Union HB Spruce d-74-E/94-A-16	2664	.....	.....	.....	.....	.....
	ARCo et al E Bulrush d-93-F/94-A-16	2603	.....	.....	.....	.....	.....
	Sinclair et al Graham c-53-D(B5-1)/94-B-9	238	.....	.....	.....	.....	.....
	Texaco NFA Cameron River d-43-H/94-B-10	433	2-60	3,861	.....	.....	.....
	Pacific S Julienne b-70-K/94-B-16	2779	.....	.....	.....	.....	.....
	Texaco Tepee d-99-G/94-G-8	1432	.....	.....	.....	.....	.....
	Mesa et al Phophet c-97-D/94-G-15	2160	.....	.....	.....	.....	.....
	Fina Tommy Lakes a-29-A/94-G-16	566	3-60	768	0.554	2,850	Suspended.
	Ashland Cankee Tb Snowberry b-57-D/94-H-1	1892	.....	.....	.....	.....	.....
	HB Dome Drake c-60-F/94-H-1	3513	.....	.....	.....	.....	.....
	Richfield et al Big Arrow c-71-F(1)/94-H-2	159	.....	.....	.....	.....	.....
	CIGOL S Milligan d-24-G/94-H-2	3135	.....	.....	.....	.....	.....
	Placid Banner Sandy d-28-G/94-H-2	2496	.....	.....	.....	.....	.....
	Union et al W Milligan c-50-G/94-H-2	1266	.....	.....	.....	.....	.....
	CIGOL Ashland Beatton d-99-G/94-H-2	3112	.....	.....	.....	.....	.....
	Union HB Bluebell d-22-H/94-H-2	2296	.....	.....	.....	.....	.....
Charlie Lake	CanDel et al LL&E Trutch b-2-K/94-G-10	3345	.....	.....	.....	.....	.....
	Richfield Prespatou Creek d-59-A(1)/94-H-3	240	.....	.....	.....	.....	.....

Siphon	Union HB Alder c-39-I/94-H-2	721	3-70	907	.....	.....	.....
Coplin	TPPL et al W Inga 6-11-87-24	3070	.....	.....	.....	.....	.....
	TPPL et al W Inga 10-17-87-24	3121	9-72	2,109	.....	.....	.....
	Union Silverberry 6-16-88-20	3076	12-74	954	0.961	39,989	17,787
	Texaco NFA Redeye d-69-I/94-H-6	1549	.....	.....	.....	.....	.....
Inga	Westcoast et al Goose 6-5-85-21	2989	11-72	1,857	0.814	6,551	Suspended.
Pingel	Pacific et al Pingel 13-17-81-17 (1)	36	.....	.....	.....	.....	Suspended.
	Pacific Pingel Creek 5-26-81-18 (2)	66	.....	.....	.....	.....	.....
"A" Marker	Dome Drake b-48-F/94-H-1	3141	.....	.....	.....	.....	.....
	HB Dome Drake c-60-F/94-H-1	3513	.....	.....	.....	.....	.....
Halfway	KCL et al Woodrush d-83-H/94-H-2	2115	.....	.....	.....	.....	.....
	Triad BP Pickell b-84-I/94-H-3	908	.....	.....	.....	.....	.....
	Triad BP Birley a-5-A/94-H-6	724	.....	.....	.....	.....	.....
	Lobitos Black d-57-F/94-H-6	1315	.....	.....	.....	.....	.....
	Dome Nettle b-44-A/94-H-7	3126	.....	.....	.....	.....	.....
	HB Union Bogbean b-6-B/94-H-8	3297	.....	.....	.....	.....	.....
	Quasar Amoco Redeye d-69-D/94-H-10	3274	.....	.....	.....	.....	.....
Permo Carboniferous	Mesa et al Moose Lick b-8-K/94-G-2	2185	1-68	2,784	625	15,300	Suspended.
Belloy	FPC Kilkerran 12-31-78-14	154	8-66	3,473	1.000	1,450	Suspended.
	Pacific Two Rivers 2-27-82-16(37)	135	.....	.....	.....	.....	.....
	Wainoco Francana Pluto 10-27-85-17	2992	.....	.....	.....	.....	.....
	Pacific Red Creek 6-7-85-20(39)	102	.....	.....	.....	.....	.....
	Apache Woods W Stoddart 10-14-87-21	2777	9-71	2,291	0.721	996	2,000
	Texaco NFA East Osborn a-33-J(7)/94-A-9	322	1-69	1,937	0.624	8,070	2,018
	Texaco NFA Cameron River d-43-H/94-B-10	433	.....	.....	.....	.....	.....
	CSP Town c-69-J/94-B-16	315	8-61	1,992	.....	.....	.....
	BA HB W Pocketknife d-33-I/94-G-6	1393	8-64	2,054	0.789	121,083	Suspended.
Mattson	Texex Tattoo b-44-L/94-O-10	3432	2-74	527	0.658	2,361	2,000
	Aquit et al Tattoo a-78-L/94-O-10	3291	1-74	970	1.000	2,555	2,000
	Aquit AmMin et al Windflower d-87-A/94-O-11	3330	3-73	534	1.000	32,727	8,182
	AmMin Aquit et al Windflower d-6-H/94-O-11	3458	.....	.....	.....	.....	.....
Mississippian	Amoco et al Thetlaandoa c-89-G/94-P-6	3413	.....	.....	.....	.....	.....
Upper Kiskatinaw	Sinclair et al Doe 6-16-81-14 (B6-1)	230	7-72	3,016	0.500	2,706	2,000
	Home et al Attachie 7-20-84-22	2961	3-73	2,872	1.000	11,550	2,888
Upper Kiskatinaw total		.....	.....	.....	.....	.....	4,888
Lower Kiskatinaw	Home et al Attachie 7-20-84-22	2961	.....	.....	.....	.....	4,888
Debolt	SOC et al Graham b-21-D/94-B-9	3158	10-73	4,097	0.697	3,621	2,000
	Sinclair et al Lily d-12-K(XB 18-1)/94-G-2	385	8-71	2,917	.....	.....	Suspended.
	ARCo Pacific FPC Grassy a-A75-D/94-G-7	2687	6-70	2,132	1.000	181,349	45,349
	HB Pacific Pocketknife c-37-L/94-G-7	468	7-60	1,727	0.642	26,000	Suspended.
	CanDel et al LL&E Trutch b-2-K/94-G-10	3345	.....	.....	.....	.....	.....
	Mesa et al Prophet c-97-D/94-G-15	2160	.....	.....	.....	.....	.....
	West Nat Bougie Creek a-49-I/94-G-15	138	.....	.....	.....	.....	.....
	Wainoco Pennzoil Kyklo c-79-I/94-I-11	3050	.....	.....	.....	.....	.....
	Texaco NFA Walrus b-86-L/94-I-16	947	.....	.....	.....	.....	.....
	Pacific S Ft Nelson b-96-B(1)/94-J-10	348	5-58	1,051	0.599	2,350	Suspended.

Table 17—Gas-well Test and Allowable Data, December 31, 1974—Continued

Field/Pool/Project	Well Name	Well Authorization No.	Date	Pws (Psia)	"n"	AOFP (MSCF/D)	PRL (MSCF/D)
Other areas—*Continued*							
Debolt—*Continued*	Pacific North Kotcho c-93-C/94-P-3	579	— —	------	------	------	------
	Midwest et al Thetlaandoa c-12-E/94-P-6	3502	------	------	------	------	------
	AmMin Thetlaandoa d-37-C/94-P-11	3416	2-74	570	0.895	9,229	2,307
	Midwest et al Thetlaandoa a-58-F/94-P-6	3481	8-74	577	0.643	1,799	2,000
Debolt total		------	------	------	------	------	51,656
Banff	Dome et al Imp Slave d-10-I/94-H-11	2225	3-68	2,684	0.500	1,400	Suspended.
	Pacific et al Ekwan a-55-G/94-I-10	897	------	------	------	------	------
Jean Marie	Placid Hunt Amoco Niteal a-58-E/94-I-3	2611	------	------	------	------	------
	Atlantic Tees a-16-J/94-I-6	1542	------	------	------	------	------
Slave Point	HB Imperial Union Paddy a-49-B(1)/94-H-16	129	8-55	3,114	1.000	8,250	Suspended.
	Atlantic Tees a-16-J/94-I-6	1542	------	------	------	------	------
	IOE Junior c-3-C/94-I-11	1249	3-63	2,696	0.500	4,700	Suspended.
	Imp Junior c-98-C/94-I-11	926	3-62	2,714	0.500	90,000	Suspended.
	Pacific Sextet c-22-K/94-I-12	2884	3-71	2,690	0.692	4,373	2,000
	Atkinson Helmet Gunnel a-97-K/94-I-12	2629	2-73	3,241	0.632	1,110	2,000
	Pacific Gunnel c-95-L/94-I-12	1239	2-63	2,648	------	------	------
	Cdn Res Quintana Adsett a-36-G/94-J-2	3032	8-72	3,542	0.566	7,409	2,000
	Pacific et al Jackfish a-30-K/94-J-8	999	1-63	1,955	------	------	------
	BA Shell Klua Creek a-50-C(1)/94-J-9	157	------	------	------	------	------
	Mesa Pubco S Clarke b-75-F/94-J-9	2817	5-73	2,777	0.563	59,712	14,928
	West Nat Imp Clarke Lake b-78-J/94-J-9	700	12-68	3,331	------	------	------
	Pacific et al Milo c-43-E/94-J-10	2260	------	------	------	------	------
	IOE E Clarke b-6-A/94-J-16	1576	3-67	3,146	0.685	(10)	Suspended.
	Pan Am A-1 Cam Lake a-31-I/94-O-16	594	------	------	------	------	------
	Tenn FPC Tooga d-18-K/94-P-2	2066	------	------	------	------	------
	SOBC Helmet b-49-G/94-P-7	1279	------	------	------	------	------
	FPC Chevron Peggo b-53-I/94-P-7	2453	2-70	2,322	0.724	751	2,000
	GAOL GERC Helmet c-40-K/94-P-7	2839	3-71	2,349	------	------	------
	Huber Quintana et al Hostli a-74-G/94-P-8	2902	1-72	2,123	0.560	10,545	2,636
	Huber Quintana Amoco Hostli d-81-G/94-P-8	3056	------	------	------	------	------
	Pan Am et al Dilly a-30-K/94-P-12	877	3-62	2,766	1.000	14,700	Suspended.
	CanDel Barnwell HB Hoss b-82-G/94-P-14	2234	------	------	------	------	------
Slave Point total		------	------	------	------	------	23,564
Sulphur Point	Socony Mobil Swat b-50-F/94-I-5	1835	------	------	------	------	------
	Mobil Sahtaneh c-70-I/94-I-12	2436	------	------	------	------	------
	Pacific et al Jackfish a-30-K/94-J-8	999	------	------	------	------	------
	BP et al Gote d-37-D/94-P-12	3063	3-72	3,232	------	------	------

Pine Point	Penzl Mesa Fontas d-77-H/94-J-8	3268	——	——	——	——	——
	Penzl Mesa Clarke a-36-C/94-J-9	3235	——	——	——	——	——
	ATAPCO et al Klua b-19-G/94-J-9	3241	——	——	——	——	——
	Pan Am A-1 Komie a-51-A/94-O 8	527	3-70	3,713	——	——	——
	Texaco NFA Missle d-54-A/94-O-9	2232	3-68	3,728	0.550	3,972	Suspended.
	Pan Am IOE Union Hostli d-48-J/94-P-8	2287	——	——	——	——	——
	Chevron N Helmet a-54-B/94-P-10	2108	——	——	——	——	——
Other areas total		——	——	——	——	——	139,792

[10] Not applicable.

Table 18—Wells Drilled and Drilling, 1974

Well Authorization No.	Well Name	Date Spudded	Date Released	Total Depth (Ft.)	Status at December 31, 1974
3532	Altana Cecil 11-28-84-17	19-6-74	9-7-74	5,000	Abandoned—dry.
3458	AmMin Aquit et al Windflower d-6-H	12-1-74	5-2-74	2,340	Mattson gas.
3484	AmMin Aquit et al Windflower d-67-A	9-2-74	26-2-74	2,610	Abandoned—dry.
3461	AmMin HBOG Cli d-55-L	12-1-74	21-1-74	1,700	Debolt gas.
3417	AmMin HBOG Etset c-58-F	29-12-73	8-1-74	1,700	Debolt gas.
3494	AmMin Ootla c-85-J	17-2-74	25-2-74	1,880	Abandoned—dry.
3510	AmMin Owl b-17-H	12-3-74	20-3-74	2,213	Abandoned—dry.
3509	AmMin Owl d-17-G	28-2-74	10-3-74	2,444	Abandoned—dry.
3486	AmMin Thetlaandoa b-24-B	5-2-74	15-2-74	1,850	Abandoned—dry.
3473	AmMin Thetlaandoa d-19-D	25-1-74	30-1-74	1,980	Abandoned—dry.
3434	Amoco Beaver c-54-K	28-3-74	15-11-74	14,247	Nahanni gas.
3375	Amoco et al LaBiche a-67-D	14-10-73	28-8-74	17,700	Abandoned—dry.
3414	Amoco et al Thetlaandoa a-83-G	30-12-73	9-1-74	2,300	Abandoned—dry.
3491	Amoco et al Walrus b-33-E	2-3-74	10-3-74	1,430	Abandoned—dry.
3489	Amoco et al Walrus c-63-D	13-2-74	27-2-74	1,900	Abandoned—dry.
3472	Amoco et al Wildboy b-68-J	23-1-74	30-1-74	1,700	Abandoned—dry.
3466	Amoco HBOG Tattoo d-77-K	20-1-74	10-2-74	2,548	Abandoned—dry.
3447	Anadarko Ashland Osborn d-35-L	30-12-73	14-1-74	4,210	Baldonnel gas.
3533	Anadarko Cdn-Sup Buick c-34-I	21-7-74	30-7-74	3,695	Dunlevy gas.
3508	Aquit et al Kiwigana c-37-G	7-3-74	16-3-74	1,625	Abandoned—dry.
3493	Aquit et al Tattoo a-2-D	14-2-74	25-2-74	1,860	Abandoned—dry.
3469	Aquit et al Tattoo a-28-D	24-1-74	9-2-74	3,160	Abandoned—dry.
3425	Aquit et al Tattoo b-96-E	30-12-73	19-1-74	2,660	Mattson gas.
3559	Ashland Anadarko E Buick d-11-D	31-10-74	14-11-74	4,240	Abandoned—dry.
3526	Ashland Mike d-43-H	23-3-74	7-4-74	4,020	Dunlevy gas.
3516	Ashland Sam d-79-E	7-3-74	20-3-74	4,100	Abandoned—dry.
3575	ATAPCO PCP Evie d-86-F	2-12-74	.....	.....	Drilling.
3470	ATAPCO et al Klua d-35-G	26-1-74	11-3-74	7,700	Debolt gas.
3565	Ballinderry Frio El Can Nig c-23-J	19-11-74	9-12-74	4,690	Finished drilling.
3566	Ballinderry Frio El Can Mars d-11-C	13-12-74	.....	.....	Drilling.
3440	BP et al Bullmoose d-77-E	12-3-74	.....	.....	Drilling.
3326	BP et al Etsho a-77-I	24-2-73	3-1-74	8,642	Abandoned—dry.
3460	BP et al Trail d-7-J	20-1-74	1-4-74	8,825	Debolt gas.
3515	Brascan et al Mike d-35-H	9-3-74	20-3-74	3,433	Abandoned—dry.
3463	Brascan et al Mike d-53-H	19-1-74	10-2-74	4,022	Gething oil.
3525	Brascan et al Mike d-54-H	22-3-74	31-3-74	3,488	Abandoned—dry.
3503	Brascan S Wargen d-39-K	13-3-74	26-3-74	4,365	Abandoned—dry.
3479	Cdn Res Quintana Adsett b-84-G	4-2-74	16-3-74	8,940	Slave Point gas.
3412	Cdn Res Quintana Hiller c-92-J	28-12-73	6-1-74	2,260	Abandoned—dry.
3465	Cdn Res Quintana Pac E Kotcho c-36-J	18-1-74	26-1-74	2,180	Abandoned—dry.
3411	Cdn Res et al E Kotcho b-68-H	3-12-73	6-1-74	6,377	Bluesky gas and Slave Point gas.

3498	Cdn Res Quintana Kotcho c-4-E	21-2-74	3-4-74	6,790	Slave Point gas.
3459	Cdn Res Quintana Pac Kotcho c-44-H	11-1-74	15-2-74	6,855	Water disposal.
3450	Cdn Res Quintana Pac Kotcho d-7-I	8-1-74	17-1-74	2,173	Abandoned—dry.
3421	Cdn Res Siebens Kwokwullie d-95-D	16-1-74	12-2-74	6,875	Abandoned—dry.
3485	Cdn Res Wildboy a-20-H	17-2-74	8-3-74	6,249	Abandoned—dry.
3589	Cdn-Sup Gopher 16-18-85-16	28-12-74	.....	.....	Drilling.
3514	Cdn-Sup Petitot a-86-D	4-3-74	27-3-74	6,780	Abandoned—dry.
3476	Chevron Birch b-64-I	10-2-74	1-3-74	4,340	Abandoned—dry.
3474	Chevron W Clarke c-89-F	26-1-74	24-3-74	7,400	Slave Point gas.
3554	CHRL et al W Stoddart 7-24-87-21	29-10-74	17-11-74	6,575	Abandoned—dry.
3505	CIGOL Currant d-74-K	14-3-74	24-3-74	4,070	Abandoned.
3490	CIGOL et al Umbach b-68-C	7-2-74	23-2-74	4,035	Abandoned—dry.
3504	CIGOL et al Umbach d-73-G	25-2-74	11-3-74	4,320	Abandoned—dry.
3591	Coseka et al Halfway 10-13-86-25	31-12-74	.....	.....	Drilling.
3580	CZAR et al Rigel a-9-C	30-12-74	.....	.....	Drilling.
3561	CZAR et al Rigel b-88-K	8-11-74	17-11-74	3,682	Dunlevy gas.
2742	CZAR Wainoco N Cache c-16-L	20-12-74	28-12-74	5,300	Finished drilling (abandoned hole re-ent.).
3455	Dome Black a-63-E	21-1-74	4-2-74	4,350	Abandoned—dry.
3457	Dome et al Dahl b-6-I	10-2-74	18-2-74	4,035	Bluesky gas.
3454	Dome Ladyfern a-65-H	13-1-74	7-2-74	3,475	Abandoned—dry.
3453	Dome Ladyfern d-31-J	17-1-74	27-1-74	3,473	Abandoned—dry.
3496	Dome Laprise b-80-D	25-2-74	14-3-74	4,200	Baldonnel gas.
3501	Dome Laprise d-22-H	17-3-74	28-3-74	4,544	Baldonnel gas.
3456	Dome S Wargen b-88-G	7-2-74	19-2-74	4,225	Abandoned—dry.
3542	Elf et al Boudreau 4-34-83-21	12-11-74	.....	.....	Drilling.
3471	Elf et al Horseshoe c-45-B	2-2-74	22-7-74	11,608	Finished drilling.
3581	Elf Etset d-11-E	21-12-74	30-12-74	1,731	Abandoned—dry.
3552	Fina Bearberry d-75-L	2-11-74	15-11-74	4,432	Abandoned—dry.
3439	Forest CanDel Deszen a-45-E	12-1-74	27-1-74	3,295	Abandoned—dry.
3467	Francana Cabot Siphon 10-20-86-16	16-1-74	28-1-74	4,575	Abandoned—dry.
3569	Frio Ballinderry Caribou a-30-G	4-12-74	.....	.....	Drilling.
3577	Frio Coseka Gundy a-8-H	12-12-74	28-12-74	4,820	Baldonnel gas.
3545	Frio Coseka Gundy c-76-A	1-9-74	17-9-74	4,538	Baldonnel gas.
3435	GAO Cdn Res N Pintail 6-11-86-25	9-1-74	9-3-74	7,600	Abandoned.
3445	GAO Elf Stoddart 6-13-85-20	6-1-74	27-1-74	6,520	Abandoned—dry.
3442	GAO et al Bogbean d-81-J	18-1-74	25-1-74	3,418	Abandoned—dry.
3444	GAO et al Canuck c-14-J	26-1-74	3-2-74	3,425	Abandoned—dry.
3443	GAO et al Canuck d-48-G	27-1-74	7-2-74	3,480	Abandoned.
3543	Gulf POC Pintail 7-19-84-24	8-10-74	27-11-74	8,400	Abandoned—dry.
3512	HB Ashland Numac Burn b-6-B	19-3-74	3-4-74	4,280	Abandoned—dry.
3513	HB Dome Drake c-60-F	24-3-74	2-4-74	3,520	Charlie Lake gas and Halfway gas.
3441	HB GraMic Velma a-67-C	11-1-74	23-1-74	3,450	Gething gas.
3482	HB Pacific Crush d-27-F	9-3-74	21-3-74	3,900	Abandoned—dry.
3420	HB Robertson d-91-E	27-12-73	17-2-74	4,040	Charlie Lake gas.
3464	Home et al Attachie 6-8-84-22	28-1-74	7-4-74	7,150	Abandoned—dry.
3468	Home et al Farmington 11-10-80-15	3-2-74	15-2-74	2,731	Cadotte gas.
3527	Huber Doig A10-34-87-16	21-6-74	30-6-74	3,780	Abandoned—dry.

Table 18—Wells Drilled and Drilling, 1974—Continued

Well Authorization No.	Well Name	Date Spudded	Date Released	Total Depth (Ft.)	Status at December 31, 1974
3380	Inexco et al Tornado b-9-J	24-10-73	30-6-74	14,170	Abandoned—dry.
3429	IOE Pembina E Beg c-12-G	16-12-73	29-1-74	5,725	Abandoned—dry.
3477	IOE Hershey Adsett d-37-F	2-2-74	26-3-74	8,626	Abandoned—dry.
3403	KM et al Mast b-60-A	30-11-73	3-3-74	6,500	Abandoned—dry.
3555	Lamar Hunt E Nig c-74-L	7-11-74	.....	.....	Drilling.
3548	Lamar Hunt Nig d-71-A	26-9-74	14-10-74	4,330	Abandoned—dry.
3531	Lamar Hunt Oak 6-17-87-18	7-7-74	27-7-74	4,738	Abandoned—dry.
3488	Lamar Hunt SOC Aikman b-2-C	8-3-74	8-9-74	8,900	Abandoned—dry.
3390	LH Aikman b-22-C	15-11-73	15-3-74	6,501	Halfway gas.
3391	LH Sikanni b-77-L	8-1-74	8-3-74	6,139	Debolt gas.
3556	LH ARCo Sikanni d-11-A	1-12-74	.....	.....	Drilling.
3507	Mesa Cdn-Sup S Clarke a-7-K	15-3-74	13-4-74	6,593	Abandoned—dry.
3536	Mesa et al Pink d-63-D	18-8-74	.....	.....	Drilling.
3481	Midwest et al Thetlaandoa a-58-F	31-1-74	16-2-74	2,700	Debolt gas.
3502	Midwest et al Thetlaandoa c-12-E	19-2-74	26-2-74	2,068	Debolt gas.
3520	Murphy N Boundary 14-29-87-14	20-3-74	1-4-74	4,645	Halfway gas.
3480	Pacific Cabin c-6-H	29-1-74	24-4-74	7,048	Slave Point gas.
3423	Pacific Cabin b-42-B	18-12-73	17-1-74	7,003	Water disposal.
3422	Pacific Cabin d-79-B	15-12-73	19-1-74	7,350	Abandoned—dry.
3553	Pacific CIGOL Laprise a-53-I	23-10-74	10-11-74	4,077	Abandoned—dry.
3557	Pacific CIGOL Laprise d-99-C	14-11-74	28-11-74	4,165	Baldonnel gas.
3452	Pacific et al Clarke b-8-I	20-2-74	23-3-74	6,498	Slave Point gas.
3283	Pacific et al Inga 14-16-87-23	3-1-74	17-1-74	5,045	Inga oil.
3478	Pacific et al Yoyo b-82-H	17-2-74	21-3-74	7,367	Abandoned—dry.
3524	Pacific et al Weasel b-14-B	5-4-74	12-4-74	3,875	Halfway oil.
3517	Pacific Imp Clarke b-73-L	14-3-74	12-4-74	6,300	Slave Point gas.
3497	Pacific Imp Clarke d-48-L	2-3-74	10-4-74	6,895	Pine Point gas.
3492	Pacific Kotcho a-41-K	12-2-74	8-3-74	6,952	Abandoned—dry.
3409	Pacific Muskwa b-94-L	19-12-74	22-2-74	9,614	Abandoned—dry.
3430	Pacific Petitot c-59-K	3-1-74	10-2-74	6,745	Water disposal.
3427	Pacific Petitot d-14-D	24-1-74	26-2-74	6,581	Slave Point gas.
3521	Pacific Provident Fox d-50-D	21-3-74	2-4-74	4,070	Halfway oil.
3438	Pacific Union E Kotcho a-83-G	23-1-74	16-2-74	6,752	Abandoned—dry.
3564	Pacific W Stoddart 6-17-86-20	8-11-74	29-11-74	6,380	Gething gas.
3424	Pacific Yoyo d-17-L	7-12-73	18-1-74	7,260	Pine Point gas.
3506	Pembina Laprise b-44-I	7-3-74	22-3-74	4,260	Baldonnel gas.
3534	Pembina Rolla 11-31-79-14	30-6-74	24-7-74	5,330	Abandoned—dry.
3419	Penzl Mesa Fontas a-24-H	16-12-73	15-1-74	7,520	Abandoned—dry.
3579	Penzl Mesa Jackfish a-78-K	20-12-74	.....	.....	Drilling.
3407	Quasar AEG et al Grizzly a-49-H	14-12-73	21-9-74	13,330	Halfway gas.
3522	Quasar et al Bullmoose a-86-K	31-3-74	.....	.....	Drilling.

3368	Quasar et al Grizzly a-3-A	17-9-74	21-2-74	11,845	Abandoned.
3395	Quasar et al Oetco c-28-I	16-12-73	22-6-74	13,698	Abandoned—dry.
3436	Quasar HB Phillips Wolverine d-89-K	20-1-74	11-9-74	14,640	Dunlevy gas.
3511	Quasar Union Ojay c-88-F	6-3-74	20-10-74	11,960	Baldonnel gas.
3583	Quintana et al Tooga c-58-C	18-12-74	----------	------	Drilling.
3487	Quintana et al Yoyo d-77-E	15-2-74	29-3-74	7,287	Pine Point gas.
3530	Scurry Ballinderry Cecil 6-1-84-18	11-11-74	4-12-74	5,203	Abandoned—dry.
3462	Scurry Ballinderry Cecil 6-12-84-18	22-2-74	16-3-74	5,070	North Pine oil.
3406	Signal Dogrib a-7-L	12-12-73	4-3-74	7,750	Abandoned—dry.
3538	SOC et al Fireweed c-16-H	13-3-74	20-8-74	4,175	Dunlevy gas.
3535	SOC et al W Jeans b-10-G	30-7-74	10-8-74	4,564	Dunlevy gas.
3495	SOC et al W Jeans c-40-G	4-3-74	17-3-74	4,465	Abandoned—dry.
3483	SOC et al W Jeans c-96-B	19-2-74	2-3-74	4,600	Abandoned—dry.
3558	Sundale et al Honker 6-6-86-15	4-11-74	17-11-74	4,860	Abandoned—dry.
3449	Sundale et al E Siphon 10-33-86-15	12-1-74	31-1-74	4,711	Bluesky gas.
3550	Sundale et al Siphon 10-32-86-15	1-11-74	10-11-74	3,780	Bluesky gas.
3578	Sundale et al Siphon 11-27-86-15	13-12-74	----------	------	Drilling.
3537	Texcan Cache 10-14-88-22	13-8-74	14-9-74	5,222	Abandoned—dry.
3547	Texcan Cache 10-27-88-22	19-9-74	6-10-74	5,214	Abandoned—dry.
3546	Texex Flatbed a-21-F	12-11-74	----------	------	Drilling.
3432	Texex Tattoo b-44-L	3-1-74	19-1-74	2,243	Mattson gas.
3433	Texex Tattoo b-66-D	23-1-74	17-2-74	3,544	Abandoned—dry.
3562	Union et al Peejay b-93-D	11-11-74	22-11-74	3,920	Abandoned—dry.
3570	Uno-Tex et al Chipesia d-79-D	11-12-74	----------	------	Drilling.
3518	Wainoco et al Currant d-31-D	18-12-74	31-12-74	4,000	Abandoned—dry.
3410	Wainoco et al Currant d-42-D	26-12-73	7-1-74	4,003	Halfway gas.
3541	Wainoco Woods Oak 11-15-87-18	3-8-74	17-8-74	4,695	Abandoned—dry.
3572	Westcoast et al Goose 6-8-85-21	23-11-74	17-12-74	5,560	Abandoned—dry.
3540	West Nat et al Fireweed d-77-A	12-8-74	24-8-74	4,421	Abandoned—dry.
3539	West Nat Teck et al Fireweed b-70-D	3-8-74	14-8-74	4,285	Abandoned.
3560	Woods Canark Umbach b-66-J	4-11-74	13-11-74	4,550	Abandoned—dry.
3528	Woods LaGarde 6-3-87-15	20-9-74	5-10-74	4,650	Bluesky gas.
3574	Woods LaGarde 11-1-87-15	26-12-74	----------	------	Drilling.
3549	Woods Wainoco Ashland Oak 14-7-86-17	15-10-74	1-11-74	4,225	Halfway oil.

Table 19—Oilfields and Gasfields Designated at December 31, 1974

Field	Date Designated	Date(s) Revised	Field Location	Pool(s)	Number of Wells Capable of Production	Discovery Well(s)	Pool(s) Discovered
Airport	Oct. 1, 1968		Tp. 83, R. 17, W6M	4, 5, 9	----	Pacific Airport 8-32-83-17 (3), gas	4
						Pacific Airport 12-34-83-17 (10), gas	9
		Jan. 1, 1961		3	10	Pacific Airport 9-32-83-17 (97), gas	5
Aitken Creek	Feb. 15, 1960	Oct. 1, 1963	N.T.S. 94-A-13	3	----	Union Aitken Creek b-42-L, oil	3
		Apr. 1, 1971				Union HB Aitken d-57-L, gas	3
						Union HB Balsam d-77-H, gas	9
Balsam	Dec. 31, 1971	Mar. 31, 1972	N.T.S. 94-H-2	2, 9	3	Ipex Cox Hamilton Balsam d-47-H, oil	9
						Union HB Balsam b-56-H, gas	2
Bear Flat	Oct. 1, 1969		Tp. 84, R. 20, W6M	6	2	Monsanto Bear Flat 7-16-84-20, oil	6
Beatton River	Aug. 7, 1959	Jan. 1, 1962	N.T.S. 94-H-2	9	16	Triad Beatton d-60-J, gas	9
		Apr. 1, 1971				Triad Beatton River b-38-J, oil	9
		Jan. 1, 1962					
		Oct. 1, 1964					
Beatton River West	Aug. 7, 1959	Apr. 1, 1969	N.T.S. 94-H-2	2	12	Triad West Beatton River d-39-K, oil	2
		July 1, 1970					
		Jan. 1, 1971					
Beaverdam	Apr. 1, 1966		N.T.S. 94-A-16	9	3	Tenn Sun Beaverdam d-37-L, gas	9
						Tenn Beaverdam d-38-L, oil	9
Beaver River	Jan. 1, 1971	Oct. 1, 1971	N.T.S. 94-N-16, 95-C-1	14	6	Pan Am Beaver River d-73-K, gas	14
Beavertail	Apr. 1, 1970		N.T.S. 94-A-15	3, 9	4	Pacific Sinclair Beavertail d-71-C, gas	3, 9
		Jan. 1, 1962					
		Apr. 1, 1962	N.T.S. 94-B-16, 94-G-1,				
Beg	July 1, 1961	July 1, 1962	94-G-8	5, 9	30	Pacific et al Beg b-17-K, gas	5
		Apr. 1, 1963				Pacific et al Beg d-10-G, gas	9
		Apr. 1, 1964					
Beg West	Apr. 1, 1962	Oct. 1, 1963	N.T.S. 94-G-1	5	3	Pacific et al W Beg a-19-F, gas	5
Bernadet	Oct. 1, 1963		Tp. 87, 88, R. 24, 25, W6M	3	1	West Nat et al Bernadet 8-1-88-25, gas	3
Bivouac	Mar. 31, 1973		N.T.S. 94-A-13	11	2	ARCo Bivouac d-68-C	11
		Dec. 22, 1958				West Nat et al Blueberry b-22-D, gas	9
		Feb. 15, 1960	N.T.S. 94-A-12, 94-A-13	4, 5, 6, 9	33	West Nat et al Blueberry b-32-D, gas	4
Blueberry	Feb. 7, 1958	May 27, 1960	Tp. 88, R. 25, W6M	11		West Nat et al Blueberry d-87-D, gas	5
		Oct. 1, 1961				West Nat et al Blueberry a-61-L, gas	6
		Jan. 1, 1963				West Nat et al Blueberry d-82-L, oil	11
Blueberry East	Dec. 22, 1958		N.T.S. 94-A-13	5, 9, 11	2	West Nat et al E Blueberry b-38-C, gas	5, 9
						West Nat et al E Blueberry b-36-C, gas	11
		July 1, 1961	N.T.S. 94-A-12, 94-B-9,			West Nat et al W Blueberry d-82-L, gas	4
Blueberry West	Feb. 7, 1958	Oct. 1, 1969	94-B-16	4, 5	5	West Nat et al W Blueberry d-19-L, gas	5
			Tp. 88, R. 25, W6M				

Boundary Lake	Oct. 30, 1956	Feb. 7, 1958 Aug. 7, 1959 Feb. 15, 1960 Jan. 1, 1961 Apr. 1, 1961 July 1, 1961 Jan. 1, 1962 Apr. 1, 1962 Oct. 1, 1963 Oct. 1, 1964 Jan. 1, 1965 Oct. 1, 1965 Jan. 1, 1966 Apr. 1, 1966	Tp. 84–87, R. 13, W6M Tp. 83–86, R. 14, 15, W6M	2, 3, 4, 5 8, 9	331	Pacific Boundary 8-15-85-14, gas and oil — 2, 4, 5 Pacific Boundary 12-10-85-14, gas — 3 Amerada Boundary 8-5-85-14, gas — 4 Texaco NFA Boundary L 6-6-85-14 (1), oil — 8 Sun Boundary Lake 6-23-85-14, oil — 9 Texaco NFA Boundary 16-31-86-13, gas — 9
Boundary Lake North	Jan. 1, 1965	Apr. 1, 1966	Tp. 87, R. 14, W6M	9	4	Texaco NFA N Boundary 7-3-87-14, gas — 9
Bubbles	Nov. 24, 1959	Feb. 15, 1960 May 27, 1960 Jan. 1, 1961	N.T.S. 94-G-1, 94-G-8, 94-H-4	5	10	Pacific Imperial Bubbles b-33-I, gas — 5
Bubbles North	Dec. 31, 1971	Dec. 31, 1972	N.T.S. 94-G-8	9	2	Pac Imp N Bubbles d-95-B, gas — 9
Buick Creek	Feb. 7, 1958	Aug. 7, 1959 Jan. 1, 1961 July 1, 1961 Oct. 1, 1963 Jan. 1, 1965 Apr. 1, 1970 Sept. 30, 1972 Dec. 31, 1972 June 30, 1973 Dec. 31, 1973	N.T.S. 94-A-11, 94-A-14 N.T.S. 94-A-10, 94-A-15 Tp. 88, R. 19, W6M	2, 4, 6	44	MicMac et al Buick d-17-D, gas — 2 Texaco NFA Buick Creek d-98-I (1), gas — 4 Texaco NFA Buick Creek d-83-J (4), gas — 6
Buick Creek North	Apr. 1, 1967	.....	N.T.S. 94-A-14	3, 4	12	Pacific West Prod N Buick c-22-F, gas — 3, 4
Buick Creek West	Feb. 7, 1958	Jan. 6, 1959 Feb. 15, 1960 Jan. 1, 1963 Dec. 31, 1973	N.T.S. 94-A-11, 94-A-14	3, 4, 5, 9, 11	14	Pacific West Buick Creek c-2-E(6), gas — 3 Pacific W Buick Creek c-83-K(13A), oil — 4 Pacific West Buick Creek b-78-C(2), gas — 4 Pacific West Buick Creek c-58-C(8), gas — 5 Pacific West Buick Creek b-23-E(1), gas — 9 Cox Union W Buick c-32-F — 11
Bulrush	July 1, 1964	Apr. 1, 1965	N.T.S. 94-A-16	9	4	Union HB Sinclair Bulrush d-78-F, oil — 9
Bulrush East	Apr. 1, 1967	.....	N.T.S. 94-A-16	9	1	Dome Provo Co-op E Bulrush d-5-K, oil — 9
Cabin	Apr. 1, 1970	Dec. 31, 1972 June 30, 1974	N.T.S. 94-P-4, 94-P-5	9	6	West Nat Cabin a-19-G, gas — 9
Cache Creek	Dec. 31, 1971	Dec. 31, 1973	Tp. 88, R. 22, W6M	6, 9	5	Texcan N Cache 6-28-88-22, gas — 6, 9
Cecil Lake	Sept. 30, 1972	.....	N.T.S. 94-A-14 Tp. 84, R. 17, 18, W6M	6	7	Scurry ML Cecil 6-31-84-17, gas — 6
Charlie Lake	Jan. 1, 1961	.....	Tp. 84, R. 18, W6M	3	1	Scurry ML CAEL Cecil 10-24-84-18, oil — 6 Imp Pac Charlie 13-5-84-18, oil — 3

Table 19—Oilfields and Gasfields Designated at December 31, 1974—Continued

Field	Date Designated	Date(s) Revised	Field Location	Pool(s)	Number of Wells Capable of Production	Discovery Well(s)	Pool(s) Discovered
Clarke Lake	Feb. 15, 1960	May 27, 1960 Jan. 1, 1961 Apr. 1, 1962 Apr. 1, 1965 Apr. 1, 1966 Jan. 1, 1967 Apr. 1, 1967 July 1, 1967 July 1, 1968 July 1, 1969 July 1, 1970 Mar. 31, 1973	N.T.S. 94-J-9, 94-J-10, 94-J-15, 94-J-16	13	41	West Nat et al Clarke Lake c-47-J, gas	13
Crush	Apr. 1, 1968	July 1, 1968 Oct. 1, 1968	N.T.S. 94-A-16	9	8	Union et al Crush d-28-F, oil	9
Currant	Oct. 1, 1965	Mar. 31, 1973 Dec. 31, 1973	N.T.S. 94-A-9, 94-A-16	9	11	Union HB Sinc Pac Currant d-37-C, gas Sinclair et al Currant d-17-C, oil	9 9
Cypress	Dec. 31, 1971		N.T.S. 94-B-15	5	3	Security Cypress a-28-F, gas	5
Dahl	Dec. 31, 1971		N.T.S. 94-H-7, 94-H-10	2	8	Tenn Cdn-Sup Dahl d-53-J, gas	2
Dawson Creek	Feb. 7, 1958		Tp. 79, R. 15, W6M	1	2	Pac Sc Dawson Ck 1-15-79-15(1), gas	1
Eagle	Dec. 31, 1971	Mar. 31, 1973 Sept. 30, 1973	Tp. 84, R. 18, W6M	10	6	Raines Eagle 11-29-84-18, oil	10
Elm	Dec. 31, 1971		N.T.S. 94-H-7	9	2	BO&G et al Elm d-83-C, gas Bralorne et al Elm b-62-C, oil	9 9
Farrell Creek	Jan. 1, 1968		N.T.S. 94-A-5, 94-B-8 Tp. 85, R. 26, W6M Tp. 86, R. 26, W6M	6, 9	5	Ft St John Petroleums Farrell a-9-L, gas CanDel et al Farrell a-41-I, gas	9 6
Fireweed	Dec. 31, 1972		N.T.S. 94-A-13, 94-A-14	2, 4, 5, 11	15	West Nat et al Fireweed c-A1-H, gas Union Fireweed d-53-G, gas CDR Fireweed d-31-G, gas Sierra et al Fireweed a-43-H, gas	11 4 5 2
Flatrock	July 1, 1971	Oct. 1, 1971 Sept. 30, 1972 Dec. 31, 1972	Tp. 84 R. 16, 17, W6M	9	8	Champlin Flatrock 10-9-84-16, gas Wainoco et al Flatrock 6-13-84-17, oil	9 9
Fort St. John	Aug. 22, 1956	Feb. 7, 1958 Feb. 15, 1960 Jan. 1, 1961 Oct. 1, 1968 Apr. 1, 1969	Tp. 83, R. 18, 19, W6M	4, 5, 6, 9, 10	29	Pacific Ft St John A3-29-83-18(31), gas Pacific Ft St John 14-15-83-18(7), gas Pacific Ft St John B3-29-83-18(52), gas Pacific Ft St John 3-14-83-18(9), oil Pacific Ft St John 1-20-83-18(30), gas Imp Pac Ft St John 9-19-83-19(45), oil Pacific Ft St John 14-21-83-18(4), gas	4 5 6 6 9 10 10

Fort St. John Southeast	Feb. 7, 1958		Tp. 82, 83, R. 17, W6M	4, 5, 9, 10	15	Pacific Ft St John SE 10-31-82-17(80), gas 4 Pac Ft St John SE A4-10-83-17(55), gas 5 Pac Ft St John SE 10-33-82-17(22), gas 9 Pac Ft St John SE 4-10-83-17(12), gas 10
Grizzly	Dec. 31, 1971		N.T.S. 93-I-15	4	2	Gray Oil PRP NW Grizzly c-25-A, gas 4
Grizzly North	Dec. 31, 1973		N.T.S. 93-I-15	4	2	Quasar et al Grizzly b-62-G, gas 4
Gundy Creek	Feb. 7, 1958	Jan. 6, 1959	N.T.S. 94-B-16	5, 6	6	West Nat Gundy Creek b-69-A, gas 6 West Nat Gundy Creek c-80-A, gas 5
Halfway	Dec. 22, 1958		Tp. 86, 87, R. 25, W6M	5, 6	4	West Nat et al Halfway 5-1-87-25, gas 5 West Nat et al Halfway 8-11-87-25, gas 6 West Nat et al Halfway 14-11-87-25, oil 6
Helmet	Dec. 31, 1971		N.T.S. 94-P-7	13	2	FPC Chevron et al Helmet b-11-K, gas 13
Highway	Feb. 7, 1958		N.T.S. 94-B-16	4, 5, 11	6	West Nat et al Highway b-3-I(1), gas 4 Pacific Highway b-25-I(1), gas 5 Pacific Highway a-90-I(4), gas 11
Inga	Jan. 1, 1967	Apr. 1, 1968 July 1, 1968 Oct. 1, 1968 Jan. 1, 1969 Apr. 1, 1969 July 1, 1970 Oct. 1, 1970 Jan. 1, 1971 July 1, 1971 Dec. 31, 1972	Tp. 85, R. 23, W6M Tp. 86, R. 23, 24, W6M Tp. 87, R. 23, 24, W6M Tp. 88, R. 23, 24, W6M N.T.S. 94-A-12 N.T.S. 94-A-13	5, 6, 7	79	Cdn-Sup et al Inga 10-25-88-24, oil 7 Hunt Sands Pac Imp Inga 7-16-86-23, oil 5 Texaco Inga 6-25-87-24, oil 6 Pacific Inga 6-29-86-23, gas 5 Tenn Cdn-Sup et al Inga 13-7-88-23, gas 7
Inga North	Dec. 31, 1971		N.T.S. 94-A-12, 94-A-13	7	3	Pioneer Cabot N Inga d-51-K, gas 7
Jedney	Aug. 7, 1959	Nov. 24, 1959 Feb. 15, 1960 Jan. 1, 1961 Apr. 1, 1961 Apr. 1, 1963 Oct. 1, 1963	N.T.S. 94-G-1, 94-G-8	3, 5, 9	42	Pacific Imperial Jedney a-95-C, gas 3 Pacific et al Jedney b-88-J, gas 5 Pacific Imp Jedney d-99-J, gas 9
Jedney West	July 1, 1964		N.T.S. 94-G-1, 94-G-8	5, 9	1	Pacific et al W Jedney b-84-K, gas 5, 9
Julienne Creek	Apr. 1, 1971		N.T.S. 94-G-1, 94-G-2	9, 5	5	Sinclair Julienne Ck a-50-D, gas 5, 9
Kobes-Townsend	Dec. 22, 1958	Feb. 15, 1960	N.T.S. 94-B-8, 94-B-9	4, 6, 9, 11	13	Pacific Kobes a-3-A(4), gas 4 Pacific Kobes a-94-I(1), gas 6, 9 Pacific Townsend a-20-H(A-1), gas 11
Kotcho Lake	Apr. 1, 1962	Apr. 1, 1967 June 30, 1972 Apr. 1, 1971 Dec. 31, 1972 Dec. 31, 1973	N.T.S. 94-I-14, 94-P-3	4, 8	12	West Nat Kotcho Lake c-67-K, gas 13
Kotcho Lake East	Dec. 31, 1973		N.T.S. 94-I-14	13	7	West Nat Kotcho Lake d-39-J 13
LaGarde	July 1, 1970		Tp. 87, R. 15, W6M	4, 8	2	Texaco NFA LaGarde 7-21-87-15, gas 4 Texaco NFA LaGarde 10-29-87-15, gas 8

Table 19—Oilfields and Gasfields Designated at December 31, 1974—Continued

Field	Date Designated	Date(s) Revised	Field Location	Pool(s)	Number of Wells Capable of Production	Discovery Well(s)	Pool(s) Discovered
Laprise Creek	Feb. 15, 1960	Jan. 1, 1961 Apr. 1, 1961 Apr. 1, 1963 Jan. 1, 1964 Apr. 1, 1964 Mar. 31, 1972 Dec. 31, 1972	N.T.S. 94-G-8, 94-H-4, 94-H-5	5	51	Dome Basco Laprise Ck a-35-H, gas	5
Laprise Creek West	July 1, 1962		N.T.S. 94-G-8	5	2	Dome CDP C&E Laprise c-82-G, gas	5
Louise	Dec. 31, 1972		N.T.S. 94-P-3, 94-P-4	13	2	Placid Louise c-80-L, gas	13
Milligan Creek	Feb. 7, 1958	Aug. 7, 1959 Feb. 15, 1960 Jan. 1, 1961 Apr. 1, 1962 July 1, 1963 Jan. 1, 1970 Apr. 1, 1970	N.T.S. 94-H-2	3, 9	31	Union HB Milligan Creek d-73-G, oil Union HB Milligan d-62-G, gas Whitehall et al Milligan d-75-G, gas	9 3 9
Moberly Lake	Jan. 1, 1969	Apr. 1, 1969	Tp. 82, R. 22, W6M	6	2	JBA Moberly 10-15-82-22, oil	6
Montney	Feb. 7, 1958	Jan. 6, 1959 Jan. 1, 1962	Tp. 87, R. 18, W6M Tp. 86, 87, R. 19, W6M	3, 6, 9	4	Pac Sunray Montney 16-32-86-19(3), gas Pac Sunray Montney 14-36-86-19(2), gas Pac Sunray Montney 14-31-86-19(5), gas	3 6 9
Nettle	Apr. 1, 1966		N.T.S. 94-H-7	3	5	Union KCL ROC Nettle d-67-A, oil Union KCL ROC Nettle d-76-A, gas	3 3
Nig Creek	Aug. 7, 1959	Feb. 15, 1960 Jan. 1, 1961 Apr. 1, 1961 Jan. 1, 1962 Apr. 1, 1962 Apr. 1, 1965 July 1, 1965 Apr. 1, 1966 Dec. 31, 1973	N.T.S. 94-A-13, 94-H-3 94-H-4	5	31	Texaco NFA Nig Creek a-79-B(1), gas Texaco NFA Nig d-87-A, oil	5 5
Nig Creek West	Oct. 1, 1971		N.T.S. 94-H-4	5	1	Fargo Nig Creek c-19-C, gas	5
North Pine	Oct. 1, 1968	Oct. 1, 1969	Tp. 85, R. 18, W6M	6	2	Texaco N Pine 6-15-85-18, oil Pacific et al N Pine 6-27-85-18, gas	6 6
Oak	Dec. 31, 1972	Mar. 31, 1973 Dec. 31, 1973	Tp. 86, 87, R. 18, W6M	9	8	Woods Wainoco Oak 6-34-86-18, gas Woods Wainoco Ashland Oak 6-7-86-17, oil	9 —
Osprey	Apr. 1, 1966	Apr. 1, 1970	N.T.S. 94-A-15	9	4	Pacific SR CanDel Osprey d-4-J, oil Tenn Osprey d-13-L, gas	9 9
Parkland	Feb. 7, 1958	July 1, 1963 June 30, 1972	Tp. 81, R. 15, 16, W6M	12	4	Pacific Imp Parkland 6-29-81-15, gas	12

Peejay	Feb. 15, 1960	May 27, 1960 Jan. 1, 1961 Jan. 1, 1962 Apr. 1, 1962 July 1, 1965 Oct. 1, 1965 Jan. 1, 1966 Apr. 1, 1966 July 1, 1966 Oct. 1, 1966 Apr. 1, 1967 July 1, 1967 Jan. 1, 1968	N.T.S. 94-A-15, 94-A-16	9	104	Pacific SR West Cdn Peejay d-52-L, gas 9 Pacific Sinclair Peejay d-39-E, oil 9
						Pacific SR West Cdn W Peejay d-54-G, oil 9
Peejay West	Jan. 1, 1963	Dec. 31, 1973	N.T.S. 94-A-15	9	4	Baysel SR CanDel Peejay West d-83-G, gas 9
Peggo	Dec. 31, 1971		N.T.S. 94-P-7	13	2	Midwest Chevron Peggo d-65-A, gas 13
Petitot River	Apr. 1, 1961		N.T.S. 94-P-12, 94-P-13	13	4	West Nat Petitot River d-24-D, gas 13
Redeye	Mar. 31, 1973		N.T.S. 94-H-10	9	2	Pan Am Redeye d-89-D, gas 9
Red Creek	Feb. 7, 1958	Aug. 7, 1959 Feb. 15, 1960	Tp. 85, R. 21, W6M	6, 9	2	Pacific Red Creek 5-27-85-21 (36), gas 6, 9
Rigel	Oct. 1, 1962	Jan. 1, 1963 Apr. 1, 1963 Jan. 1, 1964 Oct. 1, 1964 Oct. 1, 1965 Jan. 1, 1967 July 1, 1967 July 1, 1968 Oct. 1, 1968 Jan. 1, 1969 July 1, 1969 Apr. 1, 1970 Jan. 1, 1971 Dec. 31, 1973	N.T.S. 94-A-10 Tp. 87, 88, R. 16, W6M Tp. 87, 88, R. 17, W6M Tp. 87, 88, R. 18, W6M Tp. 88, R. 19, W6M	4	64	Monsanto Rigel 6-13-87-17, oil 4 Imp Fina Rigel 4-27-88-17, gas 4
Rigel East	Dec. 31, 1971		Tp. 88, R. 16, W6M	9, 4	3	Texaco NFA E Rigel 13-26-88-16, gas 9 Texaco NFA E Rigel 10-12-88-16, gas 4
Shekilie	Dec. 31, 1971		N.T.S. 94-I-16	13	2	Pacific Shekilie b-24-A, gas 13
Sierra	Oct. 1, 1969	Mar. 31, 1974	N.T.S. 94-I-11, 94-I-14	14	3	Socony Mobil Sierra c-78-C, gas 14
Siphon	Apr. 1, 1971	Oct. 1, 1971 Dec. 31, 1971 Mar. 31, 1972 June 30, 1972 Dec. 31, 1972	Tp. 86, 87, R. 16, W6M	4, 5, 6, 9	19	Pacific West Prod Siphon 7-34-86-16, gas 4 Pacific et al Siphon 11-27-86-16, gas 5, 6, 9
Siphon East	Dec. 31, 1974		Tp. 86, R. 15, W6M	2	4	Sundale et al E Siphon 10-33-86-15 2

Table 19—Oilfields and Gasfields Designated at December 31, 1974—Continued

Field	Date Designated	Date(s) Revised	Field Location	Pool(s)	Number of Wells Capable of Production	Discovery Well(s)	Pool(s) Discovered
Stoddart	Jan. 6, 1959	Feb. 15, 1960 Apr. 1, 1965 Jan. 1, 1966 Apr. 1, 1967 Apr. 1, 1968 Apr. 1, 1969 Oct. 1, 1969 July 1, 1970 Jan. 1, 1971 Mar. 31, 1972	Tp. 85, R. 18, 19, 20, W6M Tp. 86, R. 19, 20, W6M	6, 10	21	Pacific Stoddart 4-24-86-20 (85), gas Uno-Tex et al Stoddart 10-31-85-19, oil Chaut Dunbar Stoddart 11-23-85-19, oil	10 10 6
Stoddart West	Apr. 1, 1964	July 1, 1970 Jan. 1, 1971 Apr. 1, 1971 Dec. 31, 1972	Tp. 86, R. 20, 21, W6M Tp. 87, R. 20, W6M	9, 10	9	Pacific W Stoddart 6-22-86-20, gas Pacific W Stoddart 11-10-86-20, gas	9 10
Sunrise	Feb. 7, 1958	Jan. 1, 1961 Apr. 1, 1965 Oct. 1, 1969 Jan. 1, 1971 Mar. 31, 1973	Tp. 78, R. 16, W6M Tp. 79, R. 16, 17, W6M	1	12	Pacific Sunrise 10-7-79-16(3), gas	1
Thetlaandoa	Dec. 31, 1973		N.T.S. 94-P-6	11	2	Amoco et al Thetlaandoa c-34-L	11
Tsea	Dec. 31, 1971		N.T.S. 94-P-5, 94-P-12	13	2	Texaco NFA Tsea b-68-K, gas	13
Two Rivers	Apr. 1, 1969		Tp. 83, R. 16, W6M	5, 6, 9	3	Champlin Two Rivers 10-5-83-16, gas Champlin et al Two Rivers 6-9-83-16, gas	6 5, 9
Velma	Dec. 31, 1972		N.T.S. 94-H-8	2, 6	6	GraMic Forest Buttes Velma d-15-E, gas GraMic et al Velma b-70-C, gas	2 6
Wargen	Dec. 31, 1971	Mar. 31, 1972	N.T.S. 94-H-6	2, 3	3	Imp Pac Sunray Wargen c-58-C, gas Pacific et al Wargen d-37-C, oil	2 3
Weasel	Apr. 1, 1966	Apr. 1, 1967	N.T.S. 94-H-2, 94-A-15	5, 9	24	Tenn Ashland Weasel d-35-B, oil Sinclair Pacific Weasel d-93-J, gas Pacific Sinclair Weasel d-50-A, gas	9 5 9
Weasel West	Apr. 1, 1971	Mar. 31, 1972 Mar. 31, 1973	N.T.S. 94-H-2	9	7	Tenn et al W Weasel d-71-C, oil	9
Wilder	Jan. 1, 1971		Tp. 83, R. 19, W6M	4, 9, 10	4	Amerada Pac Wilder 11-17-83-19, gas Wainoco Woods Wilder 7-30-83-19, gas	9, 10 4, 9
Wildmint	Jan. 1, 1962	July 1, 1962 Jan. 1, 1963 Apr. 1, 1964 Jan. 1, 1966	N.T.S. 94-A-15, 94-H-2	9	27	Union HB Wildmint d-46-A, oil Tenn Wildmint d-4-A, gas	9 9
Willow	July 1, 1963	Apr. 1, 1970	N.T.S. 94-H-2	3, 9	4	Union HB Willow b-10-H, gas Union HB Willow d-20-H, oil	9 3

Wolf	Apr. 1, 1967		N.T.S. 94-A-15	9	5	Baysel Sinclair Wolf d-93-B, oil Baysel Sinclair Wolf d-3-G, gas	9 9
Yoyo	Apr. 1, 1965	Jan. 1, 1967 Apr. 1, 1967 Jan. 1, 1968 Oct. 1, 1970 July 1, 1971	N.T.S. 94-I-13, 94-I-14	13, 14	17	West Nat et al Yoyo b-24-L, gas West Nat et al Yoyo b-29-I, gas	14 13

Numerical list of pools:

1. Lower Cretaceous Cadotte sandstone.
2. Lower Cretaceous Bluesky sandstone.
3. Lower Cretaceous Gething sandstone.
4. Lower Cretaceous Dunlevy sandstone.
5. Triassic Baldonnel carbonate.
6. Triassic Charlie Lake sandstone and carbonate.
7. Triassic Inga sandstone.
8. Triassic Boundary Lake carbonate.
9. Triassic Halfway sandstone.
10. Permian Belloy carbonate.
11. Debolt carbonate.
12. Upper Devonian Wabamun carbonate.
13. Middle Devonian Slave Point carbonate.
14. Middle Devonian Pine Point carbonate.

Table 20—Monthly Crude Oil Production by Fields and Pools, 1974

(Quantities in barrels.)

Field and Pool	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Totals
Aitken Creek—													
Gething	33,157	31,083	34,886	22,796	30,407	34,196	31,434	31,856	31,980	32,315	30,730	31,469	376,309
Gething[1]	2,744	2,410	2,220	1,821	1,663	1,035	1,035	838	921	1,080	1,039	1,176	17,982
Field totals	35,901	33,493	37,106	24,617	32,070	35,231	32,469	32,694	32,901	33,395	31,769	32,645	394,291
Bear Flat—North Pine	3,375	2,985	3,265	1,047	1,214	1,365	700	1,426	1,440	2,520	2,814	2,804	24,955
Beatton River—Halfway	29,100	27,781	30,899	28,304	28,959	27,877	30,564	28,060	29,023	30,217	27,765	30,957	349,506
Beatton River West—Bluesky	25,148	24,790	26,739	29,279	28,167	30,393	31,437	28,627	34,927	37,314	36,637	35,399	368,857
Blueberry—Debolt	46,321	42,627	44,893	47,972	47,083	42,665	28,282	42,860	43,272	43,716	48,179	44,806	522,676
Boundary Lake—													
Baldonnel[1]		80	81		24	26	300		156	44		100	811
Boundary	678,133	610,923	661,372	639,006	643,402	632,888	643,421	598,749	584,117	640,266	601,683	589,956	7,523,916
Cecil	1,739	1,477	1,604	1,572	1,575	1,553	1,343	1,312	1,423	927	877	1,188	16,590
Halfway	7,282	6,637	7,532	6,284	5,837	5,927	7,857	4,995	5,826	6,942	7,129	6,077	78,325
Field totals	687,154	619,117	670,589	646,862	650,838	640,394	652,921	605,056	591,522	648,179	609,689	597,321	7,619,642
Buick Creek—													
Bluesky[1]					82	120	112	138	113	109	83	95	852
Dunlevy	382	309	141	188	129	254	108	119	269	182	75		2,156
Dunlevy[1]	983	1,144	1,245	971	549	1,138	976	991	954	1,019	898	934	11,802
Field totals	1,365	1,453	1,386	1,159	760	1,512	1,196	1,248	1,336	1,310	1,056	1,029	14,810
Bulrush—Halfway	4,056	3,893	3,866	3,686	3,923	3,676	3,535	3,655	3,521	3,438	3,737	3,536	44,522
Cecil Lake—North Pine	4,785	4,654	6,053	1,756	2,285	10,734	6,014	4,355	4,468	5,013	5,122	5,246	60,485
Crush—Halfway	30,668	23,075	23,644	23,198	25,876	23,859	22,871	24,552	25,271	25,829	23,641	23,039	295,523
Currant—Halfway	11,343	7,284	8,675	8,665	7,506	10,168	9,151	11,329	11,069	13,389	13,596	14,848	127,023
Eagle—Belloy	12,612	12,371	8,891	7,736	17,780	17,308	17,832	17,657	19,039	19,655	17,108	16,509	184,498
Flatrock—													
Boundary	323	312	318	309	240	367	360	561	281	338	281	235	3,925
Halfway[1]								2,210	1,595	2,285	1,874	1,968	9,932
Field totals	323	312	318	309	240	367	360	2,771	1,876	2,623	2,155	2,203	13,857
Fort St. John—Pingel	4,888	4,531	4,523	1,596	3,319	4,051	3,957	2,672	2,566	4,118	3,848	3,666	43,735
Inga—Inga	223,794	199,659	200,472	215,494	219,359	155,233	147,616	181,376	179,808	204,111	185,400	197,673	2,309,995
Jedney—													
Baldonnel[1]	118	92	79	95	96		25	106	120	66	75		872
Halfway[1]	56	41	36	35	51		4	47	63	41	27		401
Field totals	174	133	115	130	147		29	153	183	107	102		1,273
Milligan—													
Halfway[1]	133												133
Halfway	167,120	154,645	156,201	141,152	135,925	134,025	151,162	150,328	142,308	149,988	137,912	132,807	1,753,573
Field totals	167,253	154,645	156,201	141,152	135,925	134,025	151,162	150,328	142,308	149,988	137,912	132,807	1,753,706

Nig Creek—Baldonnel	683	638	697	654	364	689	636	608	617	736	603	661	7,586
Oak—													
Halfway		1,536					2,823	4,810	3,953	3,294	5,248	10,806	32,470
Halfway[1]						256							256
Field totals		1,536				256	2,823	4,810	3,953	3,294	5,248	10,806	32,726
Osprey—Halfway	3,143	3,248	2,309	3,003	2,733	2,815	1,613	2,615	2,521	2,399	2,224	2,163	30,786
Peejay—Halfway	238,754	219,785	245,107	234,805	240,442	231,994	231,332	239,869	238,580	229,318	215,188	222,654	2,787,828
Peejay West—Halfway		2,266	1,780										4,046
Rigel—													
Dunlevy	4,910	3,603	3,630	1,245	1,380	3,252	3,896	3,146	2,775	3,231	4,552	4,328	39,948
Dunlevy[1]									28		35	26	89
Field totals	4,910	3,603	3,630	1,245	1,380	3,252	3,896	3,146	2,803	3,231	4,587	4,354	40,037
Siphon—													
Dunlevy[1]	101	118	116	113	253	384	174	452	249	155	71	85	2,271
Siphon[1]	129	202	210	193	232	97	116	150	125	137	162	205	1,958
Halfway[1]	1,479	1,114	1,319	1,032	662	696	718	677	661	828	756	868	10,810
Field totals	1,709	1,434	1,645	1,338	1,147	1,177	1,008	1,279	1,035	1,120	989	1,158	15,039
Stoddart—													
Cecil	328	398	550		443	413	110			259	239	324	3,064
Belloy	2,688	2,947	3,234	1,555	1,219	1,938	2,733	3,247	2,404	2,817	2,739	2,840	30,361
Field totals	3,016	3,345	3,784	1,555	1,662	2,351	2,843	3,247	2,404	3,076	2,978	3,164	33,425
Stoddart—Belloy[1]	3,520	3,185	3,458	3,085	2,700	2,529	2,302	2,560	2,788	2,507	3,174	3,552	35,360
Two Rivers—Siphon[1]	502	392	435	309	375	361	153						2,527
Weasel—Halfway	100,590	88,065	102,133	114,677	105,142	101,899	105,879	106,500	87,034	97,431	98,708	86,374	1,194,432
Weasel West—Halfway	6,541	4,745	5,282	4,049	6,255	5,120	7,312	7,427	4,627	6,120	7,362	7,156	71,996
Wildmint—Halfway	44,216	45,496	46,594	44,944	43,086	37,388	38,668	34,647	31,340	30,145	25,811	22,236	444,571
Willow—													
Gething	1,574	1,435	1,462	947	1,537	1,484	1,502	1,499	1,114	901	1,281	1,376	16,112
Halfway[1]	223	283	274	206	250	234	263	233	214	170	196	193	2,739
Field totals	1,797	1,718	1,736	1,153	1,787	1,718	1,765	1,732	1,328	1,071	1,477	1,569	18,851
Wolf—Halfway	7,348	6,453	7,448	5,399	6,473	6,647	7,098	6,745	6,114	6,606	6,179	7,275	79,785
Other Areas—													
Dunlevy[1]												21	21
Coplin	777	624	686	440	546	191	384	353	223	317	193	178	4,912
Halfway	337	924	2,403	472		1,688	1,523	1,417	961	1,357	1,389	1,376	13,847
Confidential				498									498
Confidential[1]				130				185	67				382
Field totals	1,114	1,548	3,089	1,540	546	1,879	1,907	1,955	1,251	1,674	1,582	1,575	19,660
Totals—													
Crude	1,695,338	1,540,575	1,646,603	1,592,288	1,612,060	1,531,866	1,542,769	1,547,019	1,502,648	1,604,892	1,518,057	1,509,784	18,843,899
Field Condensate	10,765	9,685	10,159	8,430	7,483	7,067	6,562	8,940	8,277	8,758	8,583	9,401	104,110
Total crude and condensate	1,706,103	1,550,260	1,656,762	1,600,718	1,619,543	1,538,933	1,549,331	1,555,959	1,510,925	1,613,650	1,526,640	1,519,185	18,948,009

[1] Condensate.

Table 21—Monthly Nonassociated and Associated Gas Production by Fields and Pools, 1974

(Volumes in MSCF at 14.65 psia and 60°F)

Field and Pool	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Aitken Creek—													
Gething	325,039	266,232	251,252	239,140	158,036	102,983	95,608	73,711	70,390	69,487	63,635	70,529	1,786,042
Gething[1]	38,115	36,360	67,910	64,424	110,793	168,623	169,671	171,016	136,121	147,699	153,048	141,174	1,404,954
Field totals	363,154	302,592	319,162	303,564	268,829	271,606	265,279	244,727	206,511	217,186	216,683	211,703	3,190,996
Bear Flat—North Pine[1]	28,917	28,007	30,810	10,365	10,654	16,297	5,490	12,939	8,576	20,768	18,324	18,094	209,241
Beatton River—Halfway	11,784	45,647	33,287	10,000	10,586	9,962	11,101	10,161	9,949	9,986	9,744	8,984	181,191
Beatton River West—Bluesky[1]	11,779	10,731	11,260	10,944	11,030	12,158	11,970	10,240	12,128	10,050	9,737	9,285	131,312
Beaver River—Nahanni	1,959,201	1,581,251	2,287,114	1,487,735	1,615,406	1,409,085	1,260,761	1,019,227	981,716	891,862	786,460	923,659	16,203,477
Beavertail—Gething	221,984	215,709	176,563	277,182	316,153	275,973	278,355	322,503	194,653	365,098	317,794	372,730	3,334,697
Beg—													
Baldonnel	291,015	259,345	228,516	228,545	335,025	81,509	.....	204,173	271,260	364,220	309,427	309,167	2,882,202
Halfway	321,115	269,345	315,037	353,934	298,282	85,630	.....	334,534	206,549	424,987	311,002	356,801	3,277,216
Field totals	612,130	528,690	543,553	582,479	633,307	167,139	.....	538,707	477,809	789,207	620,429	665,968	6,159,418
Blueberry—													
Dunlevy	78,056	67,962	76,037	72,112	74,915	29,694	833	64,527	73,647	73,932	66,155	71,759	749,629
Halfway	.....	30,020	43,347	2,434	2,347	.....	.....	.....	26,100	12,549	25,811	7,598	150,206
Debolt[1]	123,385	104,094	96,904	93,189	124,633	135,134	78,132	110,295	107,985	136,396	100,239	102,768	1,313,154
Field totals	201,441	202,076	216,288	167,735	201,895	164,828	78,965	174,822	207,732	222,877	192,205	182,125	2,212,989
Blueberry West—Baldonnel	81,411	73,062	67,582	62,669	69,943	9,901	.....	16,817	16,305	66,948	61,901	54,245	580,784
Boundary Lake—													
Bluesky	560	.....	3,158	5,025	2,334	1,114	1,198	.....	.....	.....	.....	.....	13,389
Gething	11,229	.....	28,500	58,196	77,071	91,904	59,241	.....	25,386	38,064	59,394	51,899	500,884
Baldonnel	79,660	71,988	87,880	107,843	107,538	81,028	67,370	11,949	75,353	78,504	68,191	83,737	921,041
Cecil[1]	549	425	449	462	465	465	453	532	377	490	301	415	5,383
Boundary Lake[1]	510,713	433,879	450,621	467,367	438,141	440,537	475,574	370,042	375,296	455,426	386,603	344,781	5,148,980
Basal Boundary	11,800	9,719	12,602	14,149	13,757	12,985	9,300	1,520	9,078	11,601	12,799	12,842	132,152
Halfway[1]	8,144	7,543	7,640	7,070	5,966	5,408	8,197	5,527	6,175	7,712	7,269	6,888	83,539
Field totals	622,655	523,554	590,850	660,112	645,272	633,441	621,333	389,570	491,665	591,797	534,557	500,562	6,805,368
Bubbles—Baldonnel	286,274	219,567	252,464	267,426	262,280	77,227	.....	199,460	268,743	254,084	272,025	260,538	2,620,088
Buick Creek—													
Bluesky	77,066	45,700	17,138	88,291	181,345	192,237	182,259	162,471	159,806	153,341	157,652	177,342	1,594,648
Dunlevy	1,072,514	956,092	1,096,400	1,068,568	1,121,833	1,138,281	1,051,806	998,564	952,549	931,237	977,349	1,114,278	12,479,471
Dunlevy[1]	3,461	3,069	2,057	2,825	1,897	4,075	2,109	2,521	2,560	2,668	1,666	.....	28,908
Field totals	1,153,041	1,004,861	1,115,595	1,159,684	1,305,075	1,334,593	1,236,174	1,163,556	1,114,915	1,087,246	1,136,667	1,291,620	14,103,027
Buick Creek North—													
Bluesky	21,923	20,516	23,281	24,658	23,498	20,609	21,870	13,278	12,571	13,837	20,511	22,041	238,593
Dunlevy	179,565	159,961	176,305	170,585	169,201	169,360	100,027	154,687	149,729	151,850	156,483	162,087	1,899,840
Field totals	201,488	180,477	199,586	195,243	192,699	189,969	121,897	167,965	162,300	165,687	176,994	184,128	2,138,433

Buick Creek West—													
Dunlevy	198,222	195,118	210,263	212,604	206,968	185,172	164,215	136,658	115,531	129,871	200,878	185,996	2,141,496
Baldonnel	9,487	7,738	8,286	7,397	6,733	7,159	3,524	7,882	7,689	12,013	7,377	10,311	95,596
Field totals	207,709	202,856	218,549	220,001	213,701	192,331	167,739	144,540	123,220	141,884	208,255	196,307	2,237,092
Bulrush—Halfway[1]	78,659	74,705	76,024	71,257	77,024	70,875	62,610	73,871	73,003	73,068	73,870	72,817	877,783
Cabin—Slave Point	.....	.....	.....	288,674	388,957	383,277	353,568	283,701	316,286	365,611	477,694	445,440	3,303,208
Cecil Lake—													
Cecil	.....	.....	.....	.....	.....	.....	37,860	.....	.....	.....	.....	.....	37,860
North Pine[1]	7,876	8,538	11,925	3,484	3,276	22,849	8,653	8,882	11,263	13,682	14,929	14,504	129,861
Halfway	.....	.....	.....	.....	.....	.....	19,600	.....	.....	.....	.....	.....	19,600
Field totals	7,876	8,538	11,925	3,484	3,276	22,849	66,113	8,882	11,263	13,682	14,929	14,504	187,321
Clarke Lake—Slave Point	10,960,582	9,881,069	10,310,800	9,630,747	9,746,022	8,640,519	6,440,835	7,151,127	3,744,145	8,678,341	10,395,708	10,172,535	105,752,430
Crush—Halfway[1]	42,692	33,247	44,823	40,634	44,334	40,327	35,632	37,166	34,637	35,891	33,894	31,333	454,610
Currant—Halfway[1]	27,521	15,540	15,242	14,250	14,178	21,642	21,266	21,752	20,079	18,185	15,882	21,893	227,430
Eagle—Belloy[1]	8,137	10,321	6,944	4,435	15,181	17,392	20,910	22,881	26,455	28,527	20,382	18,694	200,259
Farrell Creek—													
Charlie Lake	78,121	53,822	70,297	52,418	62,480	19,293	.....	27,502	54,474	69,179	69,625	67,425	624,636
Halfway	37,663	25,576	36,829	29,813	30,159	10,248	.....	26,945	35,005	36,829	37,028	37,149	343,244
Field totals	115,784	79,398	107,126	82,231	92,639	29,541	.....	54,447	89,479	106,008	106,653	104,574	967,880
Flatrock—													
Boundary Lake[1]	1,016	660	833	814	599	1,056	1,156	1,602	941	612	862	861	11,012
Halfway	257,505	192,086	119,688	135,696	118,391	22,840	126,299	139,598	143,318	174,763	229,029	187,548	1,846,761
Field totals	258,521	192,746	120,521	136,510	118,990	23,896	127,455	141,200	144,259	175,375	229,891	188,409	1,857,773
Fort St. John—													
Baldonnel	166,472	125,374	102,714	140,845	103,265	.....	134,119	165,054	156,643	157,469	121,200	141,693	1,514,848
Pingle[1]	22,603	20,571	22,288	6,668	14,951	17,015	17,758	12,050	10,674	14,521	14,739	13,091	186,929
Halfway	80,575	54,790	57,684	69,173	58,230	14,848	75,109	82,115	73,485	82,535	75,283	83,325	807,152
Belloy	24,928	20,926	12,072	22,825	17,589	.....	27,589	28,159	23,017	23,219	23,562	23,763	247,649
Field totals	294,578	221,661	194,758	239,511	194,035	31,863	254,575	287,378	263,819	277,744	234,784	261,872	2,756,578
Fort St. John Southeast—													
Baldonnel	49,354	48,182	52,473	47,736	55,457	43,667	8,420	44,739	47,654	45,891	49,922	45,407	538,902
Halfway	52,584	55,025	57,568	47,851	53,952	52,144	9,793	49,369	51,665	67,564	70,674	64,218	632,407
Belloy	93,389	90,608	99,383	99,902	117,135	94,946	27,494	73,430	86,234	98,801	110,224	99,193	1,090,739
Field totals	195,327	193,815	209,424	195,489	226,544	190,757	45,707	167,538	185,553	212,256	230,820	208,818	2,262,048
Grizzly—Dunlevy	24,348	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	24,348
Inga—													
Inga	379,841	337,225	243,387	199,507	172,776	43,656	.....	214,873	264,693	325,252	299,795	297,960	2,778,965
Inga[1]	342,788	289,566	292,065	298,918	321,097	230,343	192,909	262,643	249,191	295,385	309,060	289,975	3,373,940
Field totals	722,629	626,791	535,452	498,425	493,873	273,999	192,909	477,516	513,884	620,637	608,855	587,935	6,152,905
Jedney—													
Baldonnel	702,206	663,682	712,485	682,925	532,058	180,719	11,701	563,707	425,538	735,905	709,332	720,859	6,641,117
Halfway	534,320	487,107	572,050	548,405	397,818	151,394	2,083	395,229	371,953	629,825	598,370	578,011	5,266,565
Field totals	1,236,526	1,150,789	1,284,535	1,231,330	929,876	332,113	13,784	958,936	797,491	1,365,730	1,307,702	1,298,870	11,907,682

Table 21—Monthly Nonassociated and Associated Gas Production by Fields and Pools, 1974—Continued
(Volumes in MSCF at 14.65 psia and 60°F)

Field and Pool	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Julienne Creek—													
Baldonnel	12,149	15,049	7,674	3,573	907	2,323		12,946	18,205	15,365	98	2,603	90,892
Halfway	68,219	57,149	66,799	56,162	57,630	11,372		55,178	59,034	61,050	53,623	48,740	594,956
Field totals	80,368	72,198	74,473	59,735	58,537	13,695		68,124	77,239	76,415	53,721	51,343	685,848
Kobes-Townsend—													
Dunlevy	20,949	17,592	22,400	20,489	21,646	5,643		16,707	20,253	21,967	20,131	27,372	215,149
Charlie Lake	45,165	39,717	45,997	177,881	183,241	48,833		155,333	173,607	167,382	175,986	186,154	1,399,296
Halfway	290,598	250,109	282,164	125,552	138,584	36,378		152,839	141,002	140,908	126,302	138,504	1,822,940
Debolt	83,061	77,339	88,322	83,318	86,283	20,592		63,661	104,166	81,691	80,224	83,561	852,218
Field totals	439,773	384,757	438,883	407,240	429,754	111,446		388,540	439,028	411,948	402,643	435,591	4,289,603
Kotcho Lake—Slave Point	554,572	438,627	426,236	397,007	259,884				40,350	387,804	242,109	474,337	3,220,926
Kotcho Lake East—Slave Point				84,683	167,971	236,626	247,468	73,046	116,125	168,499	80,482	150,997	1,325,897
Laprise Creek—Baldonnel	2,349,818	2,140,282	2,378,336	2,286,040	2,309,559	2,109,429	2,269,852	2,230,426	1,976,754	1,940,553	2,054,817	2,071,528	26,117,394
Louise—Slave Point				76,671		22,358	122,591	94,516	82,521	123,715	127,810	104,733	754,915
Milligan—													
Gething	27,991	5,622	7,103	8,210	3,593	3,693	4,149	4,049	6,931	10,029	8,275	6,784	96,429
Halfway	1,574												1,574
Halfway[1]	66,397	50,613	73,968	53,759	39,454	37,464	41,170	52,041	46,598	60,142	45,233	36,069	602,908
Field totals	95,962	56,235	81,071	61,969	43,047	41,157	45,319	56,090	53,529	70,171	53,508	42,853	700,911
Nig Creek—													
Baldonnel	1,237,484	1,127,120	1,226,602	1,201,295	1,141,870	1,088,098	1,075,402	1,087,547	1,016,176	1,055,910	952,378	1,009,278	13,219,160
Baldonnel[1]	445	518	546	545	195	727	573	707	695	542	525	515	6,533
Field totals	1,237,929	1,127,638	1,227,148	1,201,840	1,142,065	1,088,825	1,075,975	1,088,254	1,016,871	1,056,452	952,903	1,009,793	13,225,693
North Pine—North Pine	28,922	39,878	35,885	43,327	3,061	39,419	44,018	43,810	38,698	36,237	14,016	35,297	402,568
Oak—													
Halfway						15,469							15,469
Halfway[1]		1,836					452	799	716	698	1,251	2,611	8,363
Field totals		1,836				15,469	452	799	716	698	1,251	2,611	23,832
Osprey—Halfway[1]	3,295	4,370	2,962	3,761	3,512	5,234	2,613	3,669	3,727	3,678	3,729	3,810	44,360
Parkland—Wabamun	400,691	366,673	409,747	396,719	408,993	349,843	407,406	401,688	322,221	402,279	404,992	406,889	4,678,141
Peejay—Halfway[1]	103,982	88,039	92,177	86,417	87,425	84,099	76,460	80,895	84,223	79,514	76,980	73,930	1,014,141
Peejay West—Halfway[1]		17,753	30,009										47,762
Petitot River—Slave Point				278,113	330,228	349,317	337,619	287,668	188,671	289,316	320,881	339,632	2,721,445
Rigel—													
Bluesky	17,050	14,913	16,706	15,754	16,191	15,352	12,996	15,731	15,134	14,679	14,841	15,367	184,714
Dunlevy	1,804,743	1,643,510	1,840,731	1,745,151	1,732,558	1,636,536	1,595,925	1,428,169	1,584,687	1,498,647	1,605,605	1,643,071	19,759,333
Dunlevy[1]	48,330	31,742	32,838	6,185	22,481	16,458	13,993	4,594	4,143	4,899	41,357	46,516	273,536
Field totals	1,870,123	1,690,165	1,890,275	1,767,090	1,771,230	1,668,346	1,622,914	1,448,494	1,603,964	1,518,225	1,661,803	1,704,954	20,217,583

Sierra—Pine Point	2,256,286	1,490,618	1,425,558	1,902,068	1,828,263	1,375,053	1,259,662	1,513,361	1,025,205	1,512,534	3,414,700	3,765,700	22,769,008
Siphon—													
Dunlevy	737,947	653,976	680,680	639,351	640,407	614,664	444,710	681,591	652,273	602,993	548,100	529,400	7,426,092
Siphon	122,087	104,642	120,626	112,956	114,989	108,169	84,363	108,483	101,863	94,146	130,693	151,196	1,354,213
Halfway	253,179	224,161	256,489	222,131	243,586	214,126	160,638	216,660	204,283	172,045	193,629	211,528	2,572,455
Field totals	1,113,213	982,779	1,057,795	974,438	998,982	936,959	689,711	1,006,734	958,419	869,184	872,422	892,124	11,352,760
Stoddart—													
Cecil[1]	2,314	2,778	3,510	.....	3,636	2,888	1,091	.....	.....	1,606	1,759	2,476	22,058
Belloy	1,084,593	1,021,793	1,108,978	1,058,531	1,085,813	1,024,069	975,262	1,020,123	1,000,827	909,906	1,009,386	996,003	12,295,284
Belloy[1]	20,839	19,368	21,715	20,699	17,808	20,076	20,736	22,180	18,652	17,797	15,543	17,984	233,397
Field totals	1,107,746	1,043,939	1,134,203	1,079,230	1,107,257	1,047,033	997,089	1,042,303	1,019,479	929,309	1,026,688	1,016,463	12,550,739
Stoddart West—Belloy	308,767	237,172	230,410	237,377	217,289	198,673	195,372	211,613	236,910	328,120	198,144	234,893	2,834,740
Sunrise—Cadotte	14,215	15,137	17,564	15,595	11,421	16,210	18,333	21,023	41,698	54,254	52,517	52,978	330,945
Two Rivers—													
Baldonnel	.....	.....	.....	.....	.....	.....	.....	11,171	12,519	13,408	12,914	8,102	58,114
Siphon	36,819	29,504	27,719	23,804	22,697	27,319	14,905	2,139	.....	.....	.....	.....	184,906
Halfway	172,474	156,500	180,160	163,249	190,441	86,666	166,541	181,314	192,482	195,209	180,091	178,543	2,043,670
Field totals	209,293	186,004	207,879	187,053	213,138	113,985	181,446	194,624	205,001	208,617	193,005	186,645	2,286,690
Weasel—													
Baldonnel	2,016	1,794	2,263	1,408	2,116	1,970	1,873	1,899	1,942	2,181	2,431	2,303	24,196
Halfway[1]	48,885	41,350	43,846	45,522	44,437	43,168	45,405	42,563	33,973	35,046	39,342	37,426	500,963
Field totals	50,901	43,144	46,109	46,930	46,553	45,138	47,278	44,462	35,915	37,227	41,773	39,729	525,159
Weasel West—Halfway[1]	3,209	1,633	2,584	3,517	3,332	1,871	2,876	3,068	1,946	2,805	3,416	3,249	33,506
Wilder—Halfway	320,062	276,329	293,283	281,341	306,665	329,353	392,020	303,127	311,605	345,370	340,679	238,978	3,738,812
Wildmint—													
Bluesky	7,312	6,961	7,333	6,990	7,242	6,557	6,940	6,013	5,628	6,234	5,743	5,883	78,836
Halfway[1]	34,825	35,500	31,976	33,049	35,776	28,571	38,286	32,296	30,174	30,426	27,729	22,639	381,247
Field totals	42,137	42,461	39,309	40,039	43,018	35,128	45,226	38,309	35,802	36,660	33,472	28,522	460,083
Willow—													
Gething	10,822	9,500	9,784	8,781	9,274	9,909	10,309	9,994	7,357	6,593	8,236	8,683	109,242
Halfway	137,060	138,351	154,273	155,835	148,881	127,528	143,478	146,356	123,894	114,226	115,532	140,715	1,646,129
Field totals	147,882	147,851	164,057	164,616	158,155	137,437	153,787	156,350	131,251	120,819	123,768	149,398	1,755,371
Wolf—Halfway[1]	4,615	5,763	5,688	6,327	5,096	5,157	7,362	5,690	6,385	6,230	5,670	8,015	71,998
Yoyo—Pine Point	7,471,095	6,664,400	6,741,546	6,941,492	6,549,848	6,762,744	4,176,878	3,567,279	4,134,249	7,582,850	6,944,849	7,124,156	74,661,386
Other Areas—													
Gething	.....	2,970	11,130	.....	.....	.....	.....	.....	.....	.....	.....	.....	14,100
Dunlevy	5,350	15,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	29,777	50,127
Coplin	319,055	314,384	358,836	316,796	339,292	273,239	317,325	226,716	214,357	199,181	171,440	141,625	3,192,246
Halfway[1]	522	756	2,030	318	.....	799	133	119	569	924	1,001	765	7,936
Mattson	.....	40,290	8,620	.....	.....	.....	.....	.....	.....	.....	.....	.....	48,910
Slave Point	305,686	293,842	317,070	339,703	261,411	.....	200,573	303,411	278,812	204,111	284,640	331,263	3,120,522
Confidential	.....	.....	.....	22,430	.....	.....	.....	31,920	11,560	.....	.....	.....	65,910
Confidential[1]	.....	.....	.....	134	.....	.....	.....	.....	.....	.....	.....	.....	134
Field totals	630,613	667,242	697,686	679,381	600,703	274,038	518,031	562,166	505,298	404,216	457,081	503,430	6,499,885
Totals—nonassociated	39,164,998	34,406,201	36,606,395	36,186,012	35,729,514	30,787,023	25,247,136	27,645,022	23,865,807	34,287,468	37,030,348	38,099,975	399,055,899
Associated	1,616,619	1,434,422	1,524,715	1,376,120	1,477,231	1,470,579	1,385,050	1,392,735	1,324,568	1,521,966	1,442,320	1,360,245	17,326,570
Totals	40,781,617	35,840,623	38,131,110	37,562,132	37,206,745	32,257,602	26,632,186	29,037,757	25,190,375	35,809,434	38,472,668	39,460,220	416,382,469

Table 22—Summary of Drilling and Production Statistics, 1974

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Well authorizations—													
Issued	37	29	12	.....	3	3	7	6	2	15	11	19	144
Cancelled	3	.....	1	.....	1	.....	.....	1	1	.....	1	1	9
Wells spudded	37	25	26	1	.....	3	3	6	4	5	14	15	139
Rigs operated (during month)	40	42	38	21	9	14	13	14	12	11	19	23	49[1]
Rigs operating (at month's end)	33	28	21	8	9	11	9	9	8	8	9	18	.....
Development footage	45,063	40,139	73,200	35,848	.....	.....	3,695	17,445	9,760	18,419	51,258	10,380	305,207
Exploratory outpost footage	46,733	39,536	33,213	11,220	.....	3,780	15,068	4,695	13,330	.....	12,640	10,934	191,149
Exploratory wildcat footage	21,677	53,419	62,241	19,895	.....	27,868	11,608	17,700	23,540	11,960	9,410	4,690	264,008
Total footage drilled	113,473	133,094	168,654	66,963	.....	31,648	30,371	39,840	46,630	30,379	73,308	26,004	760,364
Wells abandoned	15	18	22	3	.....	3	3	4	2	2	8	4	84
Service wells	1	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3
Finished drilling wells	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	2	3
Oil wells completed	1	1	1	2	.....	.....	.....	.....	.....	1	.....	.....	6
Producible oil wells	696	697	687	698	696	698	697	694	694	694	695	695	.....
Producing oil wells	542	541	542	539	535	535	539	542	540	539	548	519	.....
Production in barrels	1,695,338	1,540,575	1,640,603	1,592,288	1,612,060	1,531,866	1,542,769	1,547,019	1,502,648	1,604,892	1,518,057	1,509,784	18,843,899
Average daily production	54,688	55,020	52,923	53,076	52,002	51,062	49,767	49,904	50,088	51,770	50,602	48,703	51,634
Gas wells completed	11	9	9	8	.....	.....	1	2	3	2	5	1	51
Producible gas wells	868	873	877	890	904	904	905	905	903	906	907	909	.....
Producing gas wells	319	310	309	335	340	314	248	319	334	340	342	340	.....
Production in MSCF[2]	39,164,998	34,406,201	36,606,395	36,186,012	35,729,514	30,787,023	25,065,690	27,595,654	23,851,834	34,277,413	37,013,894	38,053,877	398,738,505
Average daily production	1,214,115	1,228,793	1,180,851	1,206,200	1,152,565	1,026,234	808,507	890,182	795,061	1,105,723	1,233,796	1,227,544	1,089,131

[1] Rigs operated during 1974.
[2] Nonassociated gas production only.
NOTE—Each zone of a multiple completion is counted as one well.

Table 23—Monthly Supply and Disposition of Crude Oil and Condensate/Pentanes Plus, 1974

(Quantities in barrels.)

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Supply													
British Columbia Production—													
Crude oil	1,695,338	1,540,575	1,646,603	1,592,288	1,612,060	1,531,866	1,542,769	1,547,019	1,502,648	1,604,892	1,518,057	1,509,784	18,843,899
Field condensate	10,765	9,685	10,159	8,430	7,483	7,067	6,562	8,940	8,353	8,758	8,583	9,380	104,165
Plant condensate	97,193	88,648	95,773	94,251	94,265	84,929	78,425	94,718	88,503	94,079	110,504	101,637	1,122,925
Total, British Columbia	1,803,296	1,638,908	1,752,535	1,694,969	1,713,808	1,623,862	1,627,756	1,650,677	1,599,504	1,707,729	1,637.144	1,620,801	20,070,989
Alberta imports—													
Pipe-line	11,571,611	10,623,543	11,630,010	10,724,768	10,507,372	9,404,190	8,927,918	9,198,399	9,236,669	9,813,001	8,244,917	9,319,658	119,202,056
Rail	982	2,993	3,319	1,285	1,208	2,418	1,440	2,405	965	1,460	2,226	7,881	28,582
Total, Alberta	11,572,593	10,626,536	11,633,329	10,726,053	10,508,580	9,406,608	8,929,358	9,200.804	9,237,634	9,814,461	8,247,143	9,327,539	119,230,638
Total supply	13,306,869	12,334,464	13,385,864	12,421,022	12,222,388	11,030,470	10,557,114	10,851,481	10,837,138	11,522,190	9,884,287	10,948,340	139,301,627
Disposition													
Inventory changes—													
Field	1,296	2,135	10,397	—6,897	—276	6,476	11,256	5,481	—8,759	232	893	—3,701	18,533
Plant	—12,775	—6,032	—14,259	2,517	—183	154	—4,096	2,393	—7,863	11,066	—13,214	13,763	—28,529
Transporters	212,811	551,675	—277,650	189,272	—396,725	191,084	116,302	—447,254	—11,454	244,146	—61,046	—95,677	215,484
Totals	201,332	547,778	—281,512	184,892	—397,184	197,714	123,462	—439,380	—28,076	255,444	—73,367	—85,615	205,488
Losses and adjustments—													
Field		—58	—3,031	—3,411							—3,993		—10,493
Plant	4,586	6,002	6,932	3,960	3,933	3,597	5,854	4,878	5,624	—592	8,509	4,022	57,305
Transporters	—8,155	4,550	—9,611	1,230	19,756	—30,682	1,548	485	10,550	3,903	—1,386	—4,736	—12,548
Totals	—3,569	10,494	—5,710	1,779	23,689	—27,085	7,402	5,363	16,174	3,311	3,130	—714	34,264
Pipe-line use in Province	15,258	16,806	16,392	14,276	10,126	9,144	5,147	7,170	6,141	8,384	4,045	4,503	117,392
Transfers	45,814	39,270	46,546	46,928	48,743	51,044	48,995	52,196	54,959	50,428	74,949	29,940	589,812
Deliveries—													
To British Columbia refineries—													
British Columbia production	1,729,173	1,436,906	1,781,050	1,531,757	1,506,278	1,731,481	1,771,895	1,676,956	1,657,483	1,692,661	1,523,178	1,751,998	19,790,816
Alberta production	3,084,449	2,681,473	2,706,485	2,389,789	2,908,676	2,700,508	2,650,100	2,423,782	2,555,095	2,622,534	2,237,667	2,577,096	31,537,654
Totals	4,813,622	4,118,379	4,487,535	3,921,546	4,414,954	4,431,989	4,421,995	4,100,738	4,212,578	4,315,195	3,760,845	4,329,094	51,328,470
To Eastern Canada—													
British Columbia production				139,866									139,866
Alberta production	2,390,497	2,887,631	4,089,475	1,996,349	2,021,425	747,006	540,631	723,881	260,200	333,824			15,990,919
Totals	2,390,497	2,887,631	4,089,475	2,136,215	2,021,425	747,006	540,631	723,881	260,200	333,824			16,130,785
To export—													
British Columbia production	90,436	64,529	81,452	30,645	32,560	42,285	24,025	20,051	30,728	23,876	32,442	62,650	535,679
Alberta production	5,818,897	4,577,655	4,948,843	6,082,704	6,062,520	5,570,747	5,404,164	6,381,218	6,282,938	6,526,820	6,079,278	6,601,963	70,337,747
Totals	5,909,333	4,642,184	5,030,295	6,113,349	6,095,080	5,613,032	5,428,189	6,401,269	6,313,666	6,550,696	6,111,720	6,664,613	70,873,426
Reporting adjustment	3,602	2,902	2,843	2,037	5,555	7,626	—18,707	244	1,496	4,908	2,965	6,519	21,990
Total disposition	13,306,869	12,334,464	13,385,864	12,421,022	12,222,388	11,030.470	10,557,114	10,851,481	10,837,138	11,522,190	9,884,287	10,948,340	139,301,627

Table 23—Monthly Supply and Disposition of Crude Oil and Condensate/Pentanes Plus, 1974—Continued

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
British Columbia Refinertes													
Receipts—													
British Columbia crude	1,733,497	1,887,481	1,869,107	1,562,024	1,542,669	1,745,997	1,760,346	1,720,590	1,645,745	1,814,255	1,665,842	1,819,510	20,767,063
British Columbia condensate	45,814	39,270	49,545	50,237	51,741	51,044	48,995	52,196	59,958	50,428	78,942	29,940	608,110
Totals	1,779,311	1,926,751	1,918,652	1,612,261	1,594,410	1,797,041	1,809,341	1,772,786	1,705,703	1,864,683	1,744,784	1,849,450	21,375,173
Alberta crude	3,084,449	2,291,002	2,706,485	2,389,789	2,908,676	2,700,508	2,650,100	2,423,782	2,555,095	2,622,534	2,237,667	2,577,096	31,147,183
Alberta condensate	982	2,993	3,319	1,285	1,208	2,418	1,440	2,405	965	1,460	1,460	2,994	22,929
Totals	3,085,431	2,293,995	2,709,804	2,391,074	2,909,884	2,702,926	2,651,540	2,426,187	2,556,060	2,623,994	2,239,127	2,580,090	31,170,112
Total receipts	4,864,742	4,220,746	4,628,456	4,003,335	4,504,294	4,499,967	4,460,881	4,198,973	4,261,763	4,488,677	3,983,911	4,429,540	52,545,285
Disposition													
Inventory changes	121,803	−43,287	198,120	−4,193	27,911	28,077	−158,464	38,266	−190,295	170,636	50,996	−39,720	199,850
Losses and adjustments	−7,761	9,098	59,230	559	48,408	−1,499	100	−650	−286	395	179,799	1,333	288,726
Refinery runs—													
British Columbia production	1,588,366	1,663,570	1,578,027	1,641,757	1,595,686	1,793,203	2,435,776	1,800,301	1,776,807	1,701,115	1,553,318	1,874,479	21,002,405
Alberta production	3,162,334	2,591,365	2,793,079	2,365,212	2,832,289	2,680,186	2,183,469	2,361,056	2,675,537	2,616,531	2,199,798	2,593,448	31,054,304
Totals	4,750,700	4,254,935	4,371,106	4,006,969	4,427,975	4,473,389	4,619,245	4,161,357	4,452,344	4,317,646	3,753,116	4,467,927	52,056,709
Total disposition	4,864,742	4,220,746	4,628,456	4,003,335	4,504,294	4,499,967	4,460,881	4,198,973	4,261,763	4,488,677	3,983,911	4,429,540	52,545,285

Table 24—Monthly Supply and Disposition of Natural Gas, 1974

(Volumes in MSCF at 14.65 psia and 60°F)

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Supply													
British Columbia production—													
Nonassociated gas	39,164,998	34,406,201	36,606,395	36,186,012	35,729,514	30,787,023	25,065,690	27,595,654	23,851,834	34,277,413	37,013,894	38,053,877	398,738,505
Associated gas	1,616,619	1,434,422	1,524,715	1,376,120	1,477,231	1,470,579	1,566,496	1,442,103	1,338,541	1,521,966	1,444,751	1,360,245	17,573,788
Less injected	412,375	352,087	329,848	334,620	321,713	318,170	302,034	299,475	258,372	281,253	223,658	271,416	3,705,021
Net British Columbia production	40,369,242	35,488,536	37,801,262	37,227,512	36,885,032	31,939,432	26,330,152	28,738,282	24,932,003	35,518,126	38,234,987	39,142,706	412,607,272
Imports—													
Alberta	41,315,747	37,645,793	41,636,715	38,371,874	31,777,602	29,864,558	32,626,544	33,112,527	30,797,378	36,530,004	38,508,717	41,459,437	433,646,896
Northwest Territories	2,871,483	2,499,539	2,728,405	2,588,499	2,698,825	2,542,225	2,665,100	2,282,638	2,371,926	2,613,782	2,439,351	2,485,228	30,787,001
Yukon					64,242	170,173	156,763	135,977	182,125	181,772	135,934	116,716	1,143,702
Total supply	84,556,472	75,633,868	82,166,382	78,187,885	71,425,701	64,516,388	61,778,559	64,269,424	58,283,432	74,843,684	79,318,989	83,204,087	878,184,871
Disposition													
Flared—													
Field	414,629	382,160	411,291	345,006	336,517	474,006	522,210	411,660	347,576	340,190	347,411	260,923	4,593,579
Plant													
Residual gas			500		433					265			1,198
Natural gas	1,605	1,785	327	2,812	12,459	2,378	5,196	129,565	5,549	1,361	2,181	157	165,375
Gathering systems	1,968	34,443	5,265	2,257	2,099	2,024	17,058	12,167	60,104	2,319	2,033	2,282	144,019
Totals	418,202	418,388	417,383	350,075	351,508	478,408	544,464	553,392	413,229	344,135	351,625	263,362	4,904,171
Fuel—													
Lease	267,755	219,984	233,154	247,414	221,458	172,736	157,309	204,961	195,395	219,020	222,571	243,351	2,605,108
Plant	1,677,502	1,303,935	1,676,883	1,534,174	1,460,658	1,348,621	1,311,230	1,267,334	1,205,500	1,415,706	1,539,106	1,553,700	17,294,349
Transporters	2,099,850	1,784,092	1,957,768	1,871,084	1,651,698	1,391,139	992,993	1,147,064	859,392	1,569,571	1,915,124	1,384,433	18,624,208
Totals	4,045,107	3,308,011	3,867,805	3,652,672	3,333,814	2,912,496	2,461,532	2,619,359	2,260,287	3,204,297	3,676,801	3,181,484	38,523,665
Line-pack changes	−68,247	−27,807	184,553	63,586	−51,892	−37,110	−54,980	95,983	−126,253	138,897	36,784	538,655	692,169
Losses and adjustments—													
Field	150,268	465,861	133,712	27,898	419,318	68,274	545,452	94,098	530,541	1,228,242	692,324	498,818	4,854,806
Plant	901,851	792,399	805,220	607,546	283,566	−311,722	490,105	275,631	−206,008	−112,637	−317,371	96,794	3,305,374
Gathering systems	−291	−8,174	9,574	71,987	−34,025	30,477	8,626	−5,948	3,583	−23,833	1,294	−15,149	38,121
Transporters	105,162	127,619	13,614	177,589	70,856	143,726	174,783	−41,102	352,293	305,093	168,198	−72,794	1,525,037
Totals	1,156,990	1,377,705	962,120	885,020	739,715	−69,245	1,218,966	322,679	680,409	1,396,865	544,445	507,669	9,723,338
Processing shrinkage	4,253,218	3,706,619	3,936,804	3,970,361	3,935,581	3,425,396	2,562,388	2,818,522	2,515,463	3,890,944	4,535,533	4,607,454	44,158,283
Deliveries—													
British Columbia distributors—													
North	1,711,403	1,519,488	1,686,990	1,415,358	1,253,693	1,109,318	1,048,477	1,177,813	1,157,595	1,120,059	1,395,303	1,518,896	16,114,393
Interior	4,644,973	3,895,303	4,225,624	3,264,768	3,013,863	2,796,823	2,145,878	2,506,203	2,359,320	3,167,830	3,887,756	4,391,136	40,299,477
Lower Mainland	9,514,171	8,277,923	8,943,122	6,650,780	5,538,817	3,944,403	3,569,744	3,401,476	3,551,066	5,738,114	7,707,543	8,670,778	75,507,937
Totals	15,870 547	13,692,714	14,855,736	11,330,906	9,806,373	7,850,544	6,764,099	7,085,492	7,067,981	10,026,003	12,990,602	14,580,810	131,921,807

Table 24—Monthly Supply and Disposition of Natural Gas, 1974—Continued

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Disposition—Continued													
Export—													
British Columbia production	19,698,516	17,447,293	18,342,993	21,249,662	22,962,717	20,797,649	16,851,344	18,590,799	15,842,677	20,811,923	20,508,420	19,831,942	232,935,935
Alberta production	39,192,390	35,757,109	39,602,288	36,754,181	30,472,629	28,658,820	31,516,536	31,987,408	29,420,396	35,055,339	36,829,922	39,733,346	414,980,364
Totals	58,890,906	53,204,402	57,945,281	58,003,843	53,435,346	49,456,469	48,367,880	50,578,207	45,263,073	55,867,262	57,338,342	59,565,288	647,916,299
Reporting adjustment	—10,251	—46,164	—3,300	—68,578	—124,744	499,430	—85,790	195,790	209,243	—24,719	—155,143	—40,635	345,139
Total disposition	84,556,472	75,633,868	82,166,382	78,187,885	71,425,701	64,516,388	61,778,559	64,269,424	58,283,432	74,843,684	79,318,989	83,204,087	878,184,871
British Columbia Distributors													
Receipts—													
Natural gas—													
From transporters	15,871,836	13,696,841	14,854,666	11,331,198	9,806,470	7,802,491	6,763,937	7,085,436	7,066,277	10,026,376	12,991,018	14,539,245	131,835,791
From storage	119,396	.....	2,881	.....	7,861	8,891	9,534	9,530	9,051	.....	.....	2,064	169,208
L.P. gas	124,461	99,021	99,132	81,256	71,117	58,109	56,321	52,173	51,596	71,348	92,176	106,505	963,215
Total receipts	16,115,693	13,795,862	14,956,679	11,412,454	9,885,448	7,869,491	6,829,792	7,147,139	7,126,924	10,097,724	13,083,194	14,647,814	132,968,214
Disposition—													
Fuel	50,006	46,818	48,952	22,638	26,924	51,659	17,201	23,447	23,175	23,410	27,733	40,673	402,636
Line-pack changes	—28,390	—12,058	5,763	22,118	—13,478	—11,550	—6,214	4,815	13,213	—13,117	23,097	21,117	5,316
Losses and adjustments	1,350,740	—1,005,914	—45,599	—1,260,466	—918,945	—1,455,571	—650,793	—97,747	317,237	2,139,494	2,839,959	2,142,687	3,355,082
To storage	.....	60,540	.....	65,329	.....	.....	.....	.....	.....	27,030	4,411	.....	157,310
Sales—													
Residential	5,129,843	5,209,957	4,336,839	4,088,439	2,963,888	2,277,281	1,502,290	1,121,329	1,012,841	1,445,255	2,547,260	3,738,393	35,373,615
Commercial	3,990,239	3,925,539	3,704,933	2,987,793	2,538,072	1,920,648	1,613,343	1,149,898	1,156,100	1,423,383	2,430,399	3,280,766	30,121,113
Industrial	5,595,615	5,316,225	5,998,576	5,281,484	5,262,254	5,046,112	4,325,803	4,884,923	4,478,882	4,862,022	5,130,301	5,390,900	61,573,097
Electric power	27,640	254,755	907,215	205,119	26,733	40,912	28,162	60,474	125,476	190,247	80,034	33,278	1,980,045
Total sales	14,743,337	14,706,476	14,947,563	12,562,835	10,790,947	9,284,953	7,469,598	7,216,624	6,773,299	7,920,907	10,187,994	12,443,337	129,047,870
Total disposition	16,115,693	13,795,862	14,956,679	11,412,454	9,885,448	7,869,491	6,829,792	7,147,139	7,126,924	10,097,724	13,083,194	14,647,814	132,968,214

Table 25—Monthly Supply and Disposition of Butane and Propane, and Sulphur, 1974

(Quantities in barrels of 34.9723 Canadian gallons at 60°F)

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Butane Supply													
British Columbia production—													
Plant	60,448	52,810	62,007	54,279	60,018	58,854	55,123	51,366	48,237	47,221	60,691	52,045	663,099
Refinery	34,718	30,491	41,676	35,051	41,194	49,091	66,369	55,509	43,246	45,431	30,598	29,396	502,770
Total supply	95,166	83,301	103,683	89,330	101,212	107,945	121,492	106,875	91,483	92,652	91,289	81,441	1,165,869
Disposition													
Inventory change	−2,952	3,316	−316	−3,764	1,051	13,629	−9,027	−2,067	−5,813	1,334	3,707	8,833	7,931
Gasoline enrichment	29,128	13,789	16,342	16,337	16,697	1,824	14,592	9,608	18,264	15,987	.....	10,185	162,753
Plant fuel	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Losses and adjustments	5,059	3,645	1,279	6,022	6,900	13,996	−2,761	836	580	1,307	7,351	8,378	52,592
Sales—													
British Columbia	63,931	62,551	86,378	70,735	76,564	78,496	118,688	98,498	71,052	68,082	78,044	51,830	924,849
Alberta	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Export—U.S.A.	.....	.....	.....	.....	.....	.....	.....	.....	7,400	5,942	2,187	2,215	17,744
Totals	63,931	62,551	86,378	70,735	76,564	78,496	118,688	98,498	78,452	74,024	80,231	54,045	942,593
Total disposition	95,166	83,301	103,683	89,330	101,212	107,945	121,492	106,875	91,483	92,652	91,289	81,441	1,165,869
Propane Supply													
British Columbia production—													
Plant	53,799	51,762	59,249	47,205	45,794	50,504	50,290	41,633	39,916	39,968	46,033	35,968	562,121
Refinery	68,561	42,042	44,237	46,978	51,627	42,945	41,132	39,399	42,241	45,097	33,993	49,671	547,923
Total supply	122,360	93,804	103,486	94,183	97,421	93,449	91,422	81,032	82,157	85,065	80,026	85,639	1,110,044
Disposition													
Inventory change	−2,031	2,656	2,866	−2,885	−1,287	11,067	−10,132	−2,725	2,795	−2,568	5,820	5,597	9,173
Plant fuel	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Losses and adjustments	504	3	3	5,260	1,747	1,672	4,333	.....	.....	1	3	4	13,530
Sales—													
British Columbia	123,887	91,145	100,617	91,808	96,961	80,710	97,221	83,757	79,362	87,632	74,203	80,038	1,087,341
Export—													
Northwest Territories	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
U.S.A.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Offshore	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Totals	123,887	91,145	100,617	91,808	96,961	80,710	97,221	83,757	79,362	87,632	74,203	80,038	1,087,341
Total disposition	122,360	93,804	103,486	94,183	97,421	93,449	91,422	81,032	82,157	85,065	80,026	85,639	1,110,044

Table 25—Monthly Supply and Disposition of Butane and Propane, and Sulphur, 1974—Continued

(Quantities in long tons)

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Sulphur Supply													
British Columbia production—													
Total supply	6,033	5,585	5,527	5,385	5,131	1,384	.....	4,826	5,665	6,451	6,231	6,194	58,412
Disposition													
Inventory change	1,650	2,178	1,926	921	—210	—2,510	—4,184	1,495	—1,059	2,121	2,442	721	5,491
Losses and adjustments	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sales—													
British Columbia	2,521	2,703	2,605	2,804	2,684	1,801	1,990	2,134	2,255	2,235	2,077	2,205	28,014
Export	1,862	704	996	1,660	2,657	2,093	2,194	1,197	4,469	2,095	1,712	3,268	24,907
Totals	4,383	3,407	3,601	4,464	5,341	3,894	4,184	3,331	6,724	4,330	3,789	5,473	52,921
Total disposition	6,033	5,585	5,527	5,385	5,131	1,384	.....	4,826	5,665	6,451	6,231	6,194	58,412

Table 26—Crude-oil Pipe-lines, 1974

Company	Fields Served	Size and Mileage of Main and Lateral Lines		Pumping-stations		Present Capacity (Bbl./Day)	Gathering Mileage	Throughput (Bbl./Day)	Storage Capacity (Bbl.)
		Size (In.)	Mileage	Number	Capacity (Bbl./Day)				
Blueberry–Taylor Pipeline Co.	Aitken Creek, Blueberry	12¾	2.2	....	.....	.....	.....	.....	.....
		8⅝	62.8	1	5,000	12,000	37.4	2,539	65,000
	Fort St. John	.....	.....	....	.....	.....	.....	180	.....
	Inga	6⅝	1.7	1	12,500	12,500	.....	8,450	1,000
	Stoddart	.....	.....	....	.....	.....	.....	116	.....
Trans-Prairie Pipelines (B.C.) Ltd.	Beatton River, Beatton River West, Boundary Lake, Bulrush, Currant, Milligan Creek, Osprey, Peejay, Weasel, Wildmint, Willow, Wolf	4½	45.6	1	36,000	52,000[1]	84.6	52,316	160,000
		6⅝	24.3	2	45,000	45,000[2]	.....	.....	.....
		8⅝	103.0	....	.....	.....	.....	.....	.....
		12¾	39.0	....	.....	.....	.....	.....	.....
Tenneco Oil & Minerals Ltd.	Inga	6⅝	3.2	....	.....	.....	.....	.....	.....
		4½	8.7	1	10,000	10,000	13.9	4,000	.....
		3½	2.0	1	1,600	.....	.....	.....	.....
Westcoast Petroleum Ltd.	.....	12	505.0	12	70,000	70,000	.....	46,999	586,000

[1] Boundary Lake.
[2] Terminal to Westcoast Petroleum Ltd.

Table 27—Crude-oil Refineries, 1974

Name	Location	Type	Year of First Operation	Source of Crude	Crude-oil Capacity (Bbl. per Calendar Day)	Storage Capacity (Bbl.)	Cracking-plant Units	Cracking Capacity (Bbl. per Calendar Day)	Other Units
Chevron Canada Ltd.	North Burnaby	Comp.	1936	B.C. and Alberta	22,000	1,613,200	Catalytic-fluid	8,100	Catalytic polymerization, catalytic reformer, lube-oil blending plant, asphalt.
Gulf Oil Canada Limited	Kamloops	Comp.	1954	B.C.	7,700	680,000	Catalytic-fluid	2,500	Catalytic polymerization, catalytic reformer, distillate, desulphurization, merox.
Gulf Oil Canada Limited	Port Moody	Comp.	1958	B.C. and Alberta	37,700	2,175,000	Catalytic-fluid	10,000	Catalytic reformer, distillate, desulphurization, alkylation-sulphuric acid, naphtha, merox.
Imperial Oil Enterprises Ltd.	Ioco	Comp.	1915	B.C. and Alberta	36,800	3,200,000	Catalytic-fluid	11,700	Catalytic polymerization, powerformer, toluene extraction, LPG plant, desulphurization.
Pacific Petroleums Ltd.	Taylor	Comp.	1960	B.C.	12,200	1,010,000	FCCU	4,400	H.F. alkylation, asphalt, pentane splitter, platformer, unifiner, HDS unit, DDS unit.
Shell Canada Limited	Shellburn	Comp.	1932	B.C. and Alberta	22,000	2,455,300	Catalytic-fluid	6,000	Catalytic polymerization, platformer, vacuum flashing, solvent fractionation, distillate hydrotreater, sulphur recovery.
Union Oil Company of Canada Limited	Prince George	SA	1967	B.C.	8,000	675,000			Unifiner, reformer, asphalt.

Symbols: SA—skimming, asphalt; Comp.—complete.

Table 28—Natural Gas Pipe-lines, 1974

Company	Source of Natural Gas	Transmission-lines		Compressor Stations		Present Daily Capacity (MSCF)	Gathering and Distribution Lines		Areas Served by Distributors
		Size (In.)	Mileage	Number	Horse-power		Size (In.)	Mileage	
British Columbia Hydro and Power Authority	Westcoast Transmission Co. Ltd.	30	38.9	....	.....	558,000	.....	4,042.7	
		24	16.4	....	.....	.....	.....	.....	
		20	44.1	....	.....	.....	.....	.....	Lower Mainland of British Columbia.
		18	37.3	....	.....	.....	.....	.....	
		16	17.6	....	.....	.....	.....	.....	
		12	81.0	....	.....	.....	.....	.....	
Columbia Natural Gas Ltd.	Alberta and Southern Gas Co. Ltd.	8	55.5	....	.....	85,500	8	1.8	Cranbrook, Fernie, Kimberley, Creston, Sparwood, Elk Valley, Skookumchuck, Elko, Elkford, and Yahk.
		6	70.7	....	.....	.....	6	3.3	
	Westcoast Transmission Co. Ltd.	4	20.2	....	.....	.....	4	9.4	
		3	28.1	....	.....	.....	3	21.7	
		2	0.5	....	.....	.....	2	41.2	
		....	.....	....	.....	.....	1¼	56.7	
		....	.....	....	.....	.....	¾	117.3	
		....	.....	....	.....	.....	⅝	3.5	
Gas Trunk Line of British Columbia	Beg field	....	.....	1	1,000	.....	16	27.4	To Westcoast Transmission Co. Ltd.
		....	.....	....	.....	.....	6⅝	5.9	
	Boundary Lake field	....	.....	....	.....	.....	16	31.4	
		....	.....	....	.....	.....	6⅝	2.9	
	Jedney and Bubbles field	....	.....	4	4,960	.....	12¾	31.5	
		....	.....	....	.....	.....	10¾	7.0	
	Laprise Creek field	....	.....	1	2,160	.....	12¾	23.8	
	Nig Creek field	....	.....	1	1,800	.....	16	28.3	
Inland Natural Gas Co. Ltd.	Westcoast Transmission Co. Ltd.	12	286.8	1	2,200	150,000	8	12.4	Mackenzie, Hudson Hope, Chetwynd, Prince George, Cariboo, North Okanagan, Okanagan, and West Kootenay areas.
		10	119.1	1	2,200	.....	6	36.0	
		8	25.7	....	.....	.....	4	172.9	
		6	99.9	....	.....	.....	3	90.5	
		4	143.3	....	.....	.....	2	567.5	
		3	70.0	....	.....	.....	1½	20.7	
		2	69.4	....	.....	.....	1¼	218.5	
		1¼	1.6	....	.....	.....	.....	.....	
Northland Utilities (B.C.) Ltd.	Peace River Transmission Co. Ltd.	3	2.0	....	.....	10,900	10	0.4	Dawson Creek, Pouce Coupe, and Rolla.
		2	0.4	....	.....	.....	8	1.6	
		1¼	3.2	....	.....	.....	6	2.7	
		....	.....	....	.....	.....	4	12.1	
		....	.....	....	.....	.....	3	5.4	
		....	.....	....	.....	.....	2	24.8	
		....	.....	....	.....	.....	1¼	16.1	
		....	.....	....	.....	.....	¾	0.6	

Table 28—Natural Gas Pipe-lines, 1974—Continued

Company	Source of Natural Gas	Transmission lines		Compressor Stations		Present Daily Capacity (MSCF)	Gathering and Distribution Lines		Areas Served by Distributors
		Size (In.)	Mileage	Number	Horse-power		Size (In.)	Mileage	
Pacific Northern Gas Ltd.	Westcoast Transmission Co. Ltd.	10¾	274.4	2	3,150	54,000	6	2.5	Vanderhoof, Fraser Lake, Burns Lake, Smithers, Terrace, Prince Rupert, Kitimat, Houston, Fort St. James.
		8⅝	92.4	----	----	----	4	10.5	
		6⅝	36.0	----	----	----	3	17.6	
		4½	14.0	----	----	----	2	44.2	
Pacific Northern Gas Ltd.	Westcoast Transmission Co. Ltd.	3½	43.7	----	----	----	1¼	32.7	
		2⅞	17.8	----	----	----	¾	21.9	
		2⅜	22.6	----	----	----	½	0.1	
		1¾	3.6	----	----	----			
Plains Western Gas & Electric Co. Ltd.	Westcoast Transmission Co. Ltd.	6	0.3	----	----	----	4	13.9	Fort St. John, Taylor, Grandhaven, Charlie Lake, Airport, Baldonnel.
		4	20.9	----	----	----	3	2.0	
		3	5.7	----	----	----	2½	1.5	
		2	2.0	----	----	----	2	45.8	
		----	----	----	----	----	1½	2.7	
		----	----	----	----	----	1¼	0.1	
		----	----	----	----	----	1	8.8	
		----	----	----	----	----	¾	4.8	
Union Oil Company of Canada	Milligan-Peejay system	----	----	----	----	55,000	10¾	22.1	To Westcoast Transmission Co. Ltd.
		----	----	----	----	39,300	8⅝	13.6	
		----	----	----	----	17,400	6⅝	7.1	
Westcoast Transmission	Alberta	26	32.5	----	----	215,000	----	----	
	Taylor-Willow Flats	30	76.3						
	Willow Flats-Huntingdon	30	570.3	13	281,640	1,360,000	----	----	
		36	462.1						
	Alaska Highway system	----	422.1	----	----	----	26	37.5	
		----	----	----	----	----	20	18.1	
		----	----	----	----	----	18	17.9	
		----	----	----	----	----	12¾	9.9	
	Beaver River	24	110.9	----	----	270,000	----	----	
	Blueberry West field	----	----	----	----	----	8⅝	6.7	
	Boundary Lake field	----	----	----	----	----	16	0.5	
	Bubbles field	----	----	1	660	----	----	----	
	Buick Creek field	----	----	----	----	----	10¾	5.6	
	Buick Creek East field	----	----	----	----	----	8⅝	6.6	
	Buick Creek West field	----	----	1	1,980	----	20	16.2	
	Clarke Lake field	----	----	----	----	----	16	8.2	
	Dawson Creek field	----	----	----	----	----	8⅝	5.4	
	Fort St. John field	----	----	1	1,980	----	18	7.8	
		----	----	----	----	----	10¾	0.9	
		----	----	----	----	----	8⅝	0.7	

	Fort St. John Southeast field	12	7.0	---	------	------	12¾	4.0
	Fort Nelson plant	30	220.8	4	93,400	858,000	------	------
	Chetwynd	36	44.5	---	------	------	------	------
	Gundy Creek field	---	-----	---	------	------	10¾	6.1
	Kobes-Townsend field	---	-----	1	6,000	------	12¾	18.9
		---	-----	---	------	------	8⅝	5.5
	Kotcho Lake field	---	-----	---	------	------	12	10.0
	Kotcho Lake East field	---	-----	---	------	------	10¾	11.5
	Laprise Creek field	---	-----	1	5,160	------	6⅝	2.5
	Milligan-Peejay system	---	-----	---	------	------	12	32.2
	Montney field	---	-----	---	------	------	4½	7.4
	Parkland field	---	-----	---	------	------	8⅝	6.6
	Petitot-Louise system	---	-----	---	------	------	10¾	11.8
							12¾	15.8
							16	6.5
							20	25.9
	Red Creek field	---	-----	1	230	------	4½	2.9
	Rigel field	---	-----	1	6,800	------	12¾	9.6
				1	1,400	------	10¾	10.3
	Sierra field	---	-----	---	------	------	12	6.8
							16	6.8
	Stoddart field	---	-----	1	1,400	------	8⅝	6.3
	Yoyo field	---	-----	---	------	------	24	48.0

Table 29—Gas-processing Plants, 1974

Operator	Location	Fields Served	Plant Type	Year of First Operation	Plant Capacity, Million SCF/Day		Natural Gas	Residual Gas to—
					In	Out		
Amoco Canada Petroleum Company Limited	Units 68, 69, Block J, N.T.S. Map 94-N-16	Beaver River	Dehydration	1971	247	239.5		Westcoast Transmission Co. Ltd.
Imperial Oil Limited	SE. ¼ Sec. 2, Tp. 85, R. 14, W6M	Boundary Lake	Inlet separator, M.E.A. absorption treating, glycol absorption dehydration, combined refrigeration and oil absorption natural gas liquid recovery, distillation	1964	21	17	Pentanes plus, propane, butane	Westcoast Transmission Co. Ltd.
Mobil Oil of Canada Ltd.	Unit 91, Block D, N.T.S. Map 94-I-14	Sierra	Inlet separator, dry desiccant dehydration	1969	101	100		Westcoast Transmission Co. Ltd.
Pacific Petroleums Ltd.	Sec. 36, Tp. 82, R. 18, W6M	All British Columbia producing gasfields except Parkland, Dawson Creek, Boundary Lake, Sierra, Clarke Lake, Yoyo, and Beaver River	Inlet separator, M.E.A. treating dry desiccant, dehydration oil absorption, distillation	1957	500	460	Condensate, pentanes plus	Westcoast Transmission Co. Ltd.
Westcoast Transmission Co. Ltd.	NW. ¼ Sec. 10, Tp. 85, R. 14, W6M	Boundary Lake	M.E.A. absorption, dehydration	1961	9.4	8.9	Condensate	Westcoast Transmission Co. Ltd.
Westcoast Transmission Co. Ltd.	Unit 85, Block G, N.T.S. Map 94-J-10	Beaver River, Clarke Lake, Yoyo	Potassium carbonate, M.E.A. D.E.A. absorption, dehydration	1965	1,096	910		Westcoast Transmission Co. Ltd.

Table 30—Sulphur Plant, 1974

Name	Location	Raw Material	Principal Product	Year of First Operation	Capacity (Long Tons per Day)
Canadian Occidental Petroleum Ltd.	Taylor	Hydrogen sulphide	Sulphur	1957	260

Table 31—Natural Gas and Processed Products, Sales and Values to Producers, Comparison 1974 and 1973

	Gross Gas Production	Residue Gas Sales	Gross Value	Gas Royalty	Liquid Products	Sulphur	Total Value Products	Products Royalty	Total Royalty
1974			$	$	$		$	$	$
January	40,781,617	33,001,974	5,862,365.28	550,296.72	65,407.50		65,407.50	4,893.84	555,190.56
February	35,840,623	28,837,030	5,124,036.61	482,050.40	54,580.33		54,580.33	3,898.27	485,948.67
March	38,134,098	30,767,251	5,441,315.97	514,958.30	78,633.77		78,633.77	3,986.22	518,944.52
April	37,562,727	30,721,176	5,495,268.76	513,170.86	61,048.49		61,048.49	4,448.88	517,619.74
May	37,206,746	30,218,258	5,412,797.10	36,755.83	112,257.01		112,257.01	2,009.80	38,765.63
June	32,256,533	25,866,442	4,642,973.98	33,433.43	125,912.99		125,912.99	2,125.04	35,558.47
July	26,632,186	20,939,869	3,745,702.06	49,148.80	148,564.55		148,564.55	5,317.31	54,466.11
August	29,037,756	23,714,617	4,245,169.02	47,072.33	178,667.71		178,667.71	5,185.17	52,257.50
September	25,190,375	20,154,274	3,607,109.60	45,475.95	151,476.36		151,476.36	4,620.07	50,096.02
October	35,799,379	28,451,739	5,130,301.98	45,713.58	186,354.90		186,354.90	4,189.38	49,902.96
November	38,458,645	31,227,121	6,203,844.74	266,050.46	113,036.34		113,036.34	55,560.86	321,611.32
December	39,444,493	32,103,265	6,387,771.43	258,858.39	77,435.69		77,435.69	39,954.62	298,813.01
1974 totals	416,345,178	336,003,016	61,298,656.53	2,842,985.05	1,353,375.64		1,353,375.64	136,189.46	2,979,174.51
1973									
January	44,854,620	35,809,909	4,221,225.11	574,067.34	57,607.69		57,607.69	3,734.37	577,801.71
February	39,829,201	32,271,805	3,811,196.75	518,557.11	46,314.02		46,314.02	3,076.26	521,633.37
March	43,480,373	35,480,408	4,243,462.12	578,090.62	55,667.12		55,667.12	3,665.33	581,755.95
April	41,832,074	34,463,027	4,115,738.36	560,720.87	54,049.75		54,049.75	3,942.81	564,663.68
May	40,130,943	32,642,980	3,914,755.57	532,205.52	52,388.67		52,388.67	4,087.30	536,292.82
June	34,758,571	28,210,619	3,385,893.99	459,906.62	51,008.32		51,008.32	3,549.82	463,456.44
July	34,746,298	27,862,352	3,347,687.43	454,261.01	51,516.73		51,516.73	3,860.97	458,121.98
August	37,821,275	30,569,320	3,654,368.13	496,527.26	51,666.82		51,666.82	4,590.48	501,117.74
September	38,016,996	30,195,828	3,627,466.55	493,404.07	46,434.00		46,434.00	3,087.17	496,491.24
October	42,268,068	34,629,007	4,153,629.84	565,370.44	49,218.00		49,218.00	3,391.80	568,762.24
November	41,504,374	34,022,042	5,175,147.02	554,907.00	52,863.00		52,863.00	3,459.35	558,366.35
December	42,507,439	34,439,872	6,088,041.84	563,322.39	60,006.14		60,006.14	4,183.72	567,506.11
1973 totals	481,750,232	390,597,169	49,738,612.71	6,351,340.25	628,740.26		628,740.26	44,629.38	6,395,969.63
Increase or decrease	(65,405,054)	(54,594,153)	11,560,043.82	(3,508,355.20)	724,635.38		724,635.38	91,560.08	(3,416,795.12)

NOTES:
Monthly figures refer to value of production and royalty assessed for that month. Payments to producers and the Crown are not due until the following month.
Includes amendments to March 31, 1975.

Table 32—Petroleum, Sales and Values to Producers, Comparison 1974 and 1973

	Barrels Produced	Sales		Gross Value	Transportation Charges	Net Value	Other Disposals	Royalty	
		Market	Other					Bbls. on Prod.	Amount
1974		$	$	$	$	$			$
January	1,706,103	1,707,904	.....	6,067,210.45	31,634.93	6,035,575.52	1,726	460,381	1,626,506.77
February	1,550,260	1,553,417	19	5,478,079.60	25,394.36	5,452,685.24	36	396,896	1,395,296.03
March	1,656,762	1,655,642	354	5,843,030.22	31,888.91	5,811,141.31	352	440,157	1,544,369.19
April	1,600,743	1,615,585	.....	10,000,586.56	23,018.26	9,977,568.30	(352)	823,157	5,084,357.33
May	1,619,543	1,620,845	.....	10,040,927.06	31,253.41	10,009,673.65	100	828,327	5,116,334.17
June	1,538,929	1,533,604	30	9,487,146.97	30,009.68	9,457,137.29	(39)	778,408	4,800,786.95
July	1,549,331	1,562,890	409	9,665,140.14	17,651.73	9,647,488.41	160	786,898	4,850,704.31
August	1,555,960	1,555,203	.....	9,499,241.40	29,359.58	9,469,881.82	.....	792,387	4,812,045.81
September	1,510,925	1,523,312	334	9,309,485.27	27,414.81	9,282,070.46	.....	763,367	4,651,577.98
October	1,613,650	1,615,098	.....	9,836,776.68	31,979.02	9,804,797.66	.....	825,575	5,025,316.60
November	1,526,743	1,532,763	120	9,366,676.35	32,212.52	9,334,463.83	118	773,141	4,708,398.91
December	1,519,185	1,523,924	.....	9,309,102.03	33,241.27	9,275,860.76	.....	768,791	4,680,392.18
1974 totals	18,948,134	19,000,187	1,266	103,903,402.73	345,058.48	103,558,344.25	2,101[1]	8,437,485	48,296,086.23
1973									
January	1,914,478	1,917,699	.....	5,497,896.99	36,484.95	5,461,412.04	14,260	297,498	847,844.66
February	1,740,260	1,742,120	20	4,970,522.70	31,010.17	4,939,512.53	13,220	265,752	772,587.72
March	1,928,871	1,945,165	.....	5,686,411.24	36,125.24	5,650,286.00	11,764	299,268	869,793.48
April	1,764,182	1,767,293	50	5,156,622.86	18,133.85	5,138,489.01	10,368	271,235	788,932.01
May	1,820,458	1,837,579	25	5,826,211.70	24,468.52	5,801,743.18	9,980	281,429	889,681.17
June	1,765,025	1,766,112	.....	5,609,799.29	28,632.60	5,581,166.69	3,179	499,685	1,578,170.26
July	1,783,426	1,786,764	91	5,672,241.92	28,085.53	5,644,156.39	24,611	499,047	1,579,154.16
August	1,750,491	1,757,792	30	6,177,990.18	24,575.06	6,153,415.12	2,783	499,484	1,740,315.77
September	1,709,813	1,713,063	250	6,075,593.90	28,639.66	6,046,954.24	18,132	461,083	1,630,915.30
October	1,746,751	1,752,845	.....	6,195,216.60	31,295.93	6,163,920.67	18,790	475,785	1,681,848.08
November	1,681,489	1,683,145	100	5,964,129.51	21,769.43	5,942,360.08	17,473	449,514	1,590,560.05
December	1,723,097	1,731,240	.....	6,153,188.10	26,408.73	6,126,779.37	20,384	465,365	1,644,257.31
1973 totals	21,328,341	21,400,817	566	68,985,824.99	335,629.67	68,650,195.32	164,944	4,765,145	15,614,059.97
Increase or decrease	(2,380,207)	(2,400,630)	580	35,017,499.33	8,482.81	35,009,016.52	86,135	3,672,340	32,682,026.26

NOTES:

Monthly figures refer to value of production and royalty assessed for that month. Payments to producers and the Crown are not due until the following month. Includes amendments to March 31, 1975.

[1] Transfers not included in other disposals 1974.

ILLUSTRATIONS

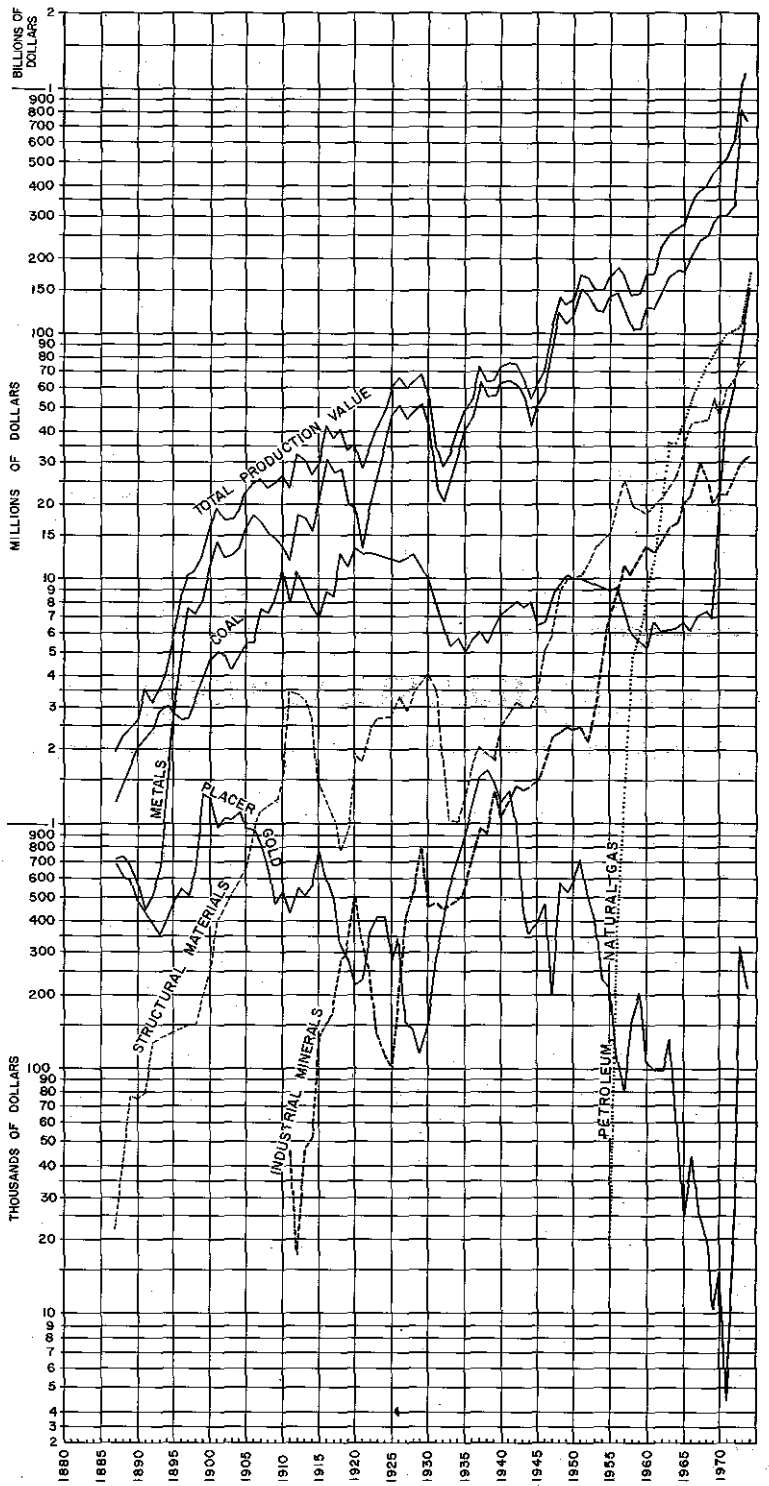


FIGURE 1—Value of mineral production, 1887–1974.

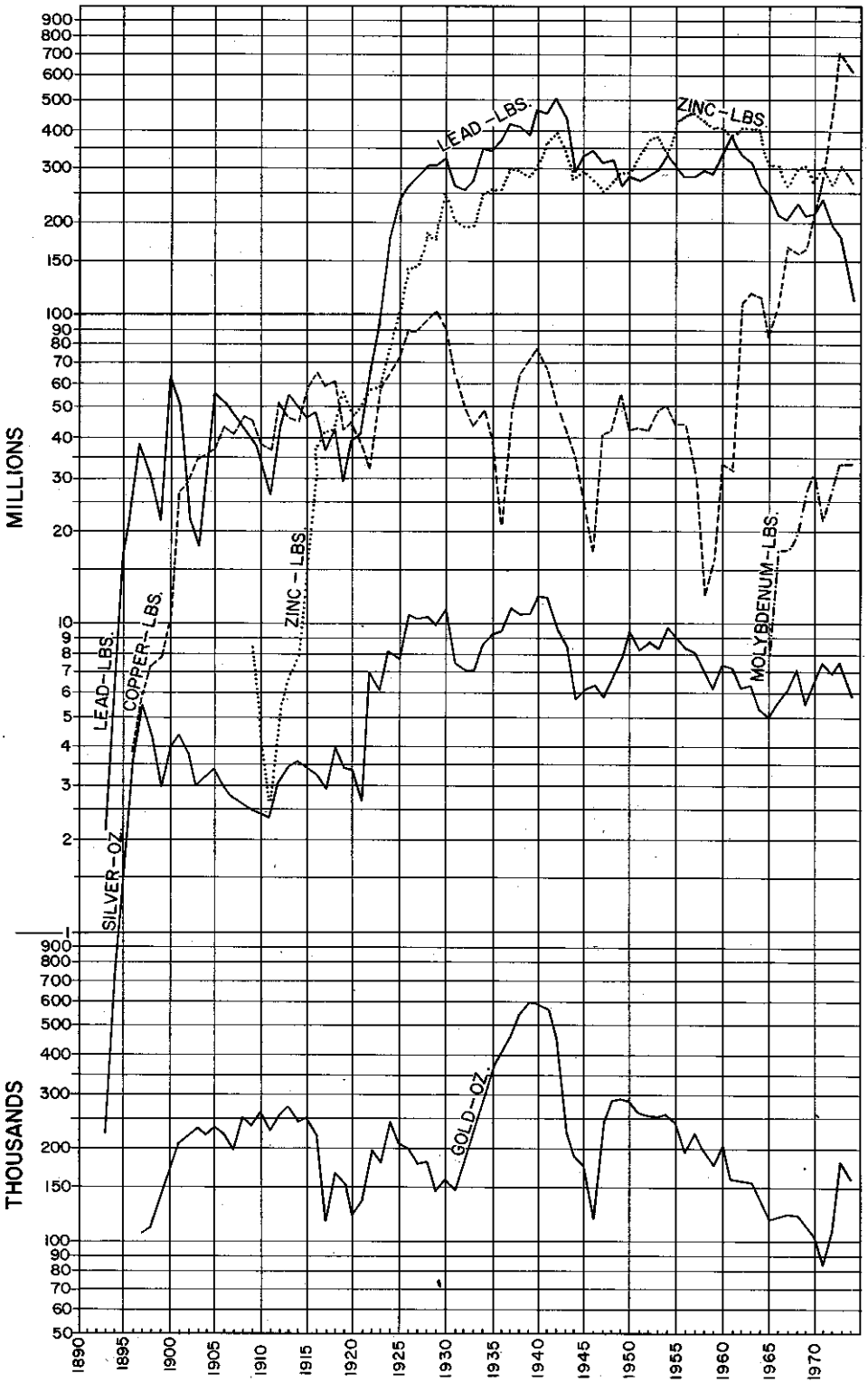
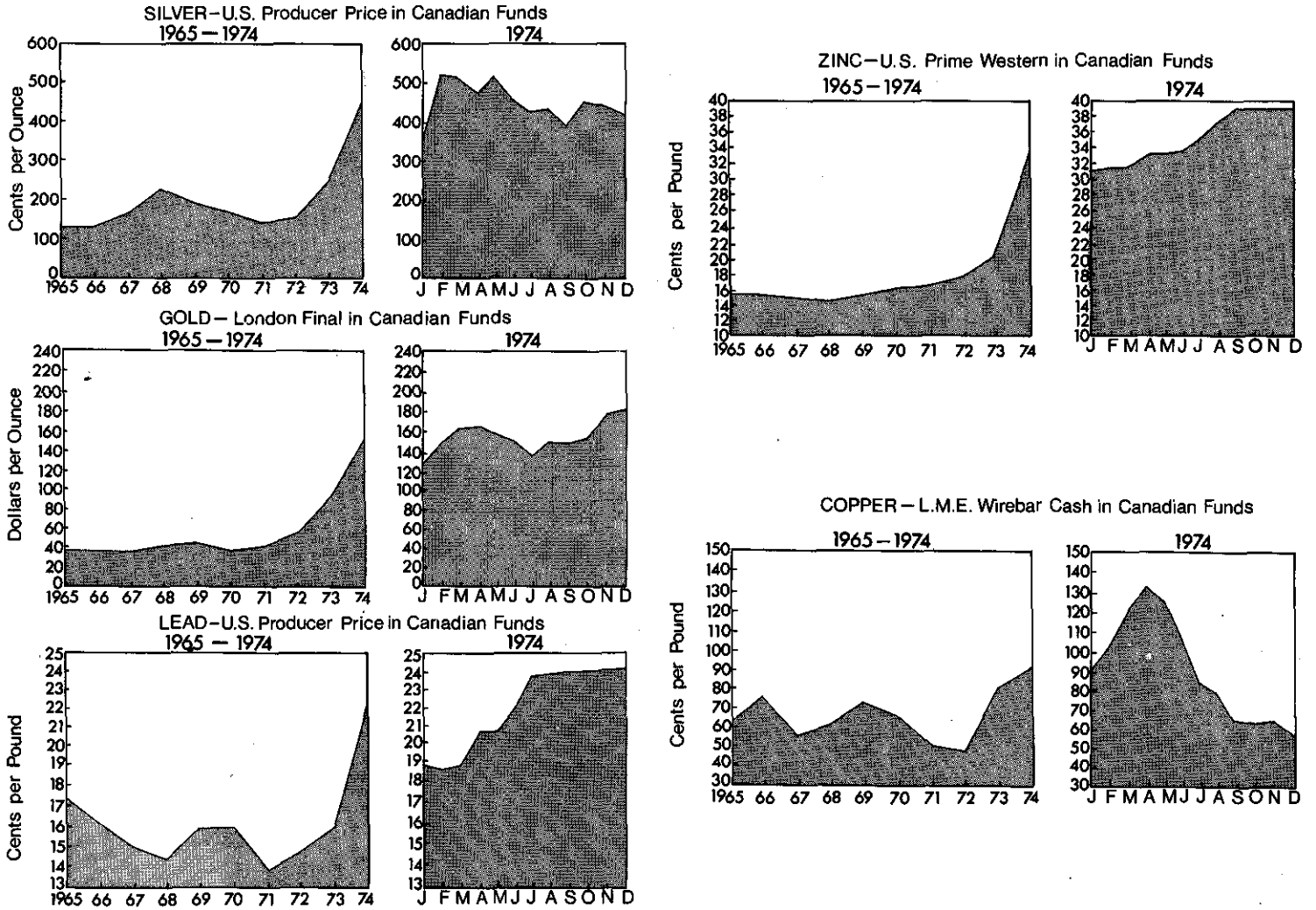


FIGURE 2—Production quantities of gold, silver, copper, lead, zinc, and molybdenum, 1893–1974.

Fig.3

METAL PRICES



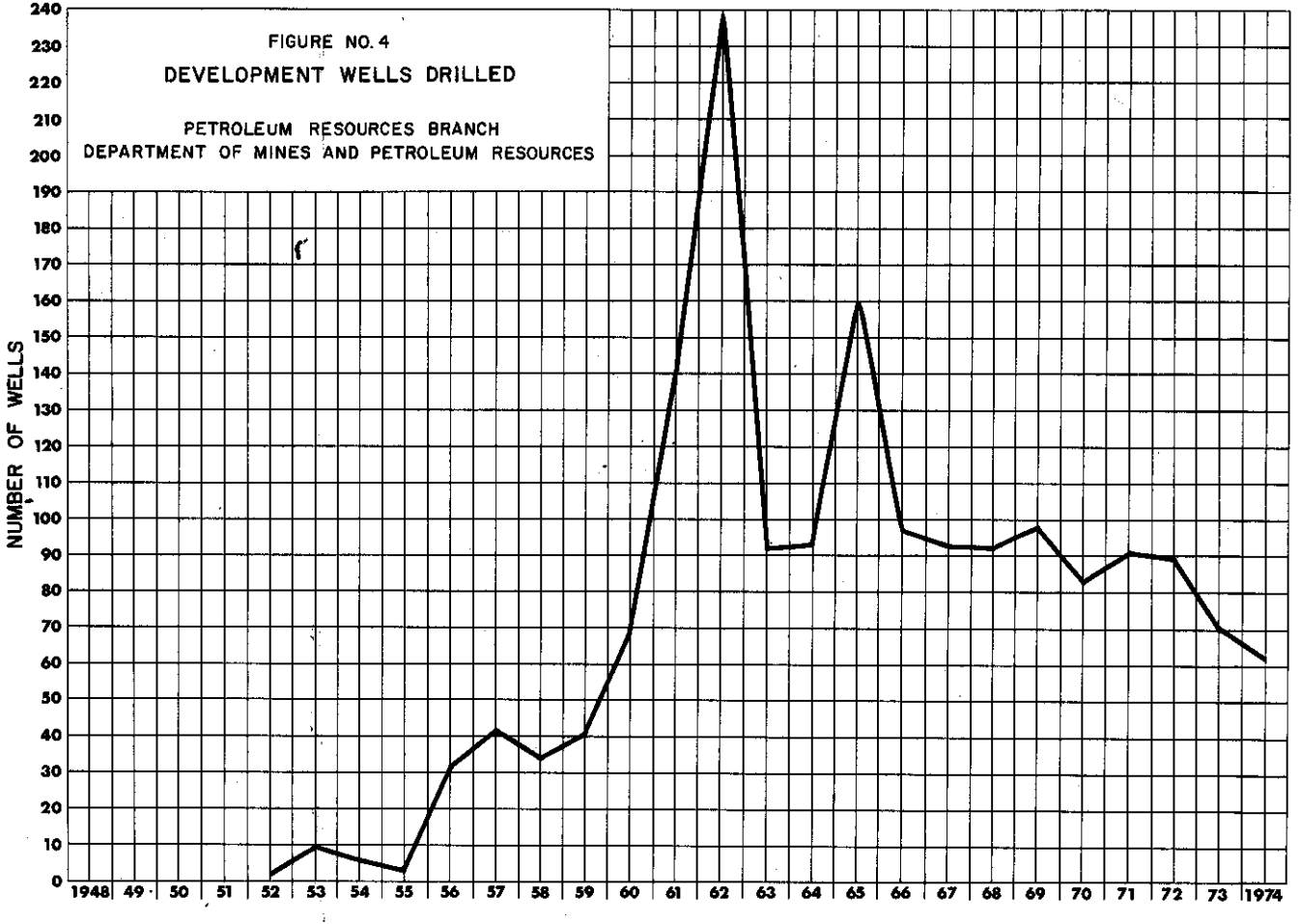


FIGURE NO. 4
DEVELOPMENT WELLS DRILLED
PETROLEUM RESOURCES BRANCH
DEPARTMENT OF MINES AND PETROLEUM RESOURCES
NUMBER OF WELLS
0
10
20
30
40
50
60
70
80
90
100
110
120
130
140
150
160
170
180
190
200
210
220
230
240
1948
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
1974

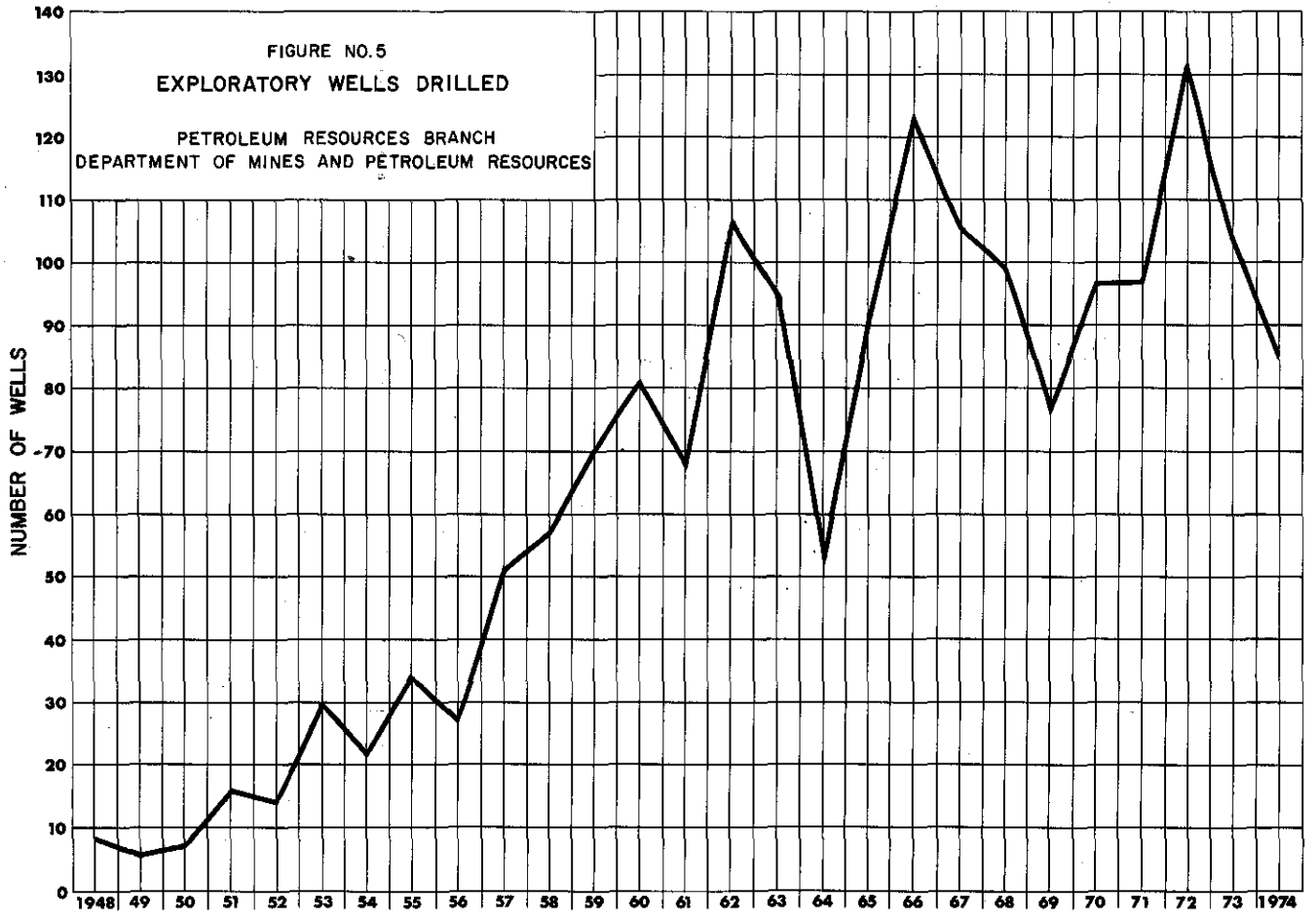


FIGURE NO. 5
EXPLORATORY WELLS DRILLED
PETROLEUM RESOURCES BRANCH
DEPARTMENT OF MINES AND PETROLEUM RESOURCES
NUMBER OF WELLS
0
10
20
30
40
50
60
70
80
90
100
110
120
130
140
1948
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
1974

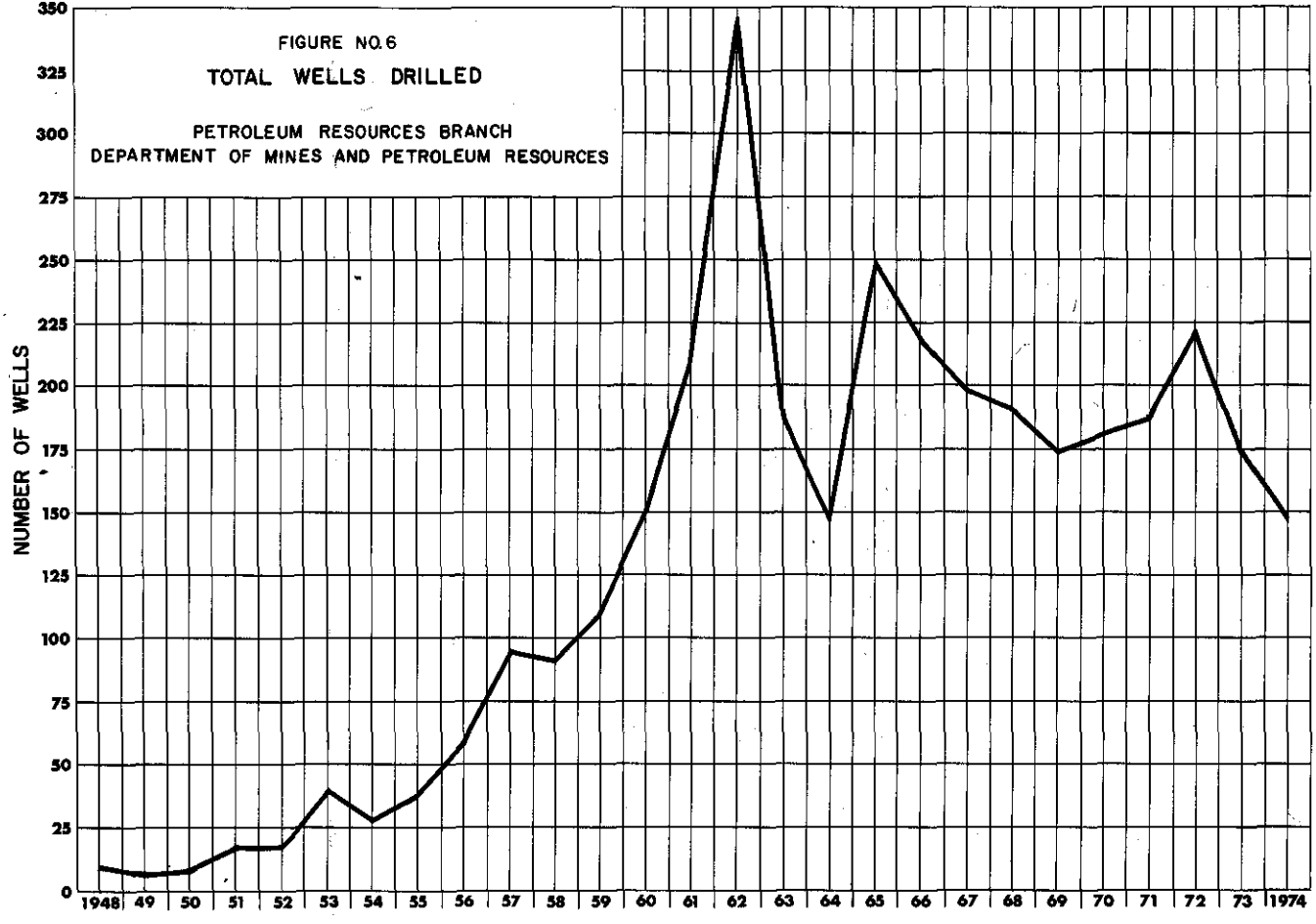


FIGURE NO. 6
TOTAL WELLS DRILLED
PETROLEUM RESOURCES BRANCH
DEPARTMENT OF MINES AND PETROLEUM RESOURCES
NUMBER OF WELLS
350
325
300
275
250
225
200
175
150
125
100
75
50
25
0
1948
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
1974

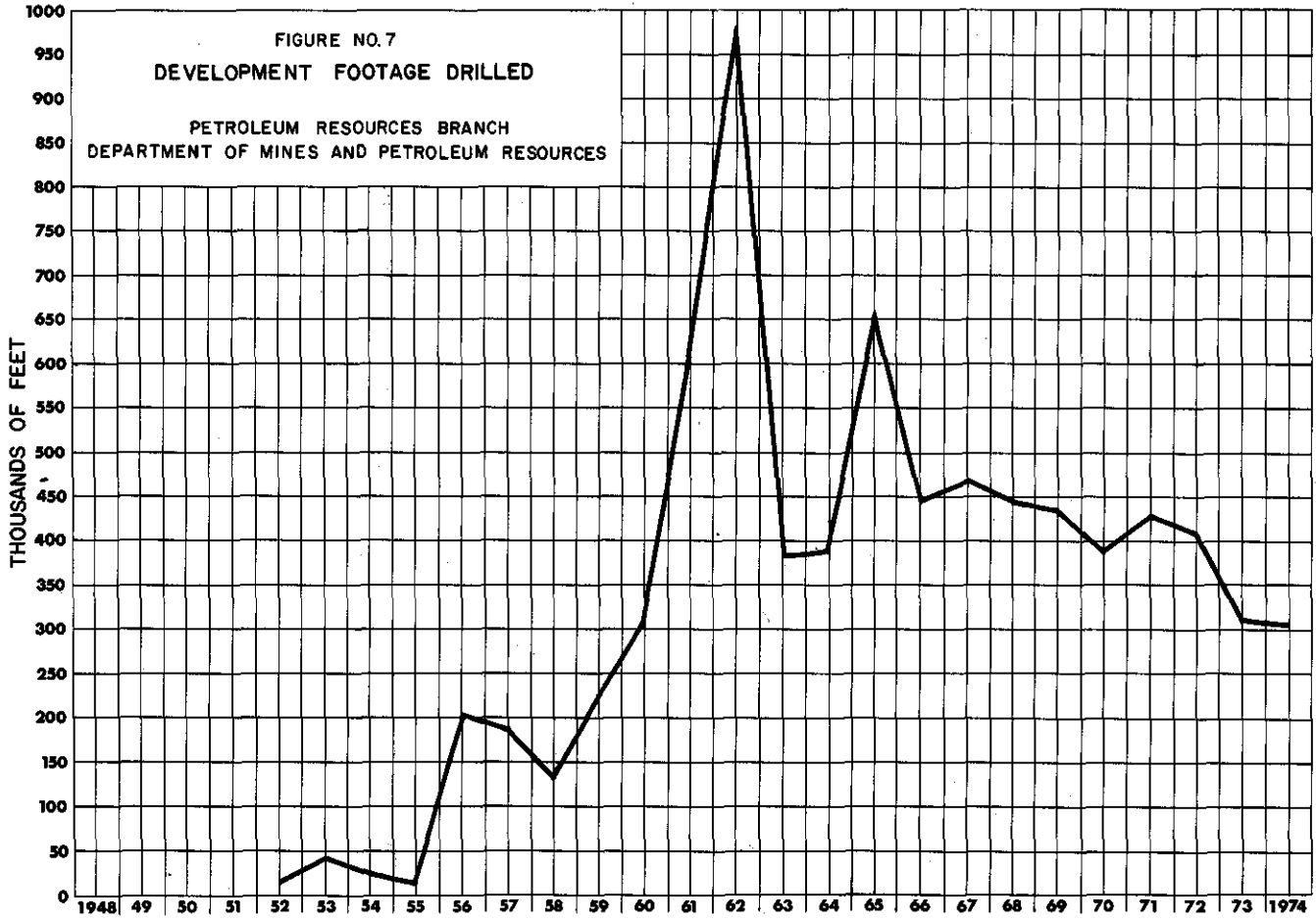


FIGURE NO. 7
DEVELOPMENT FOOTAGE DRILLED
PETROLEUM RESOURCES BRANCH
DEPARTMENT OF MINES AND PETROLEUM RESOURCES
THOUSANDS OF FEET
1000
950
900
850
800
750
700
650
600
550
500
450
400
350
300
250
200
150
100
50
0
1948 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 1974

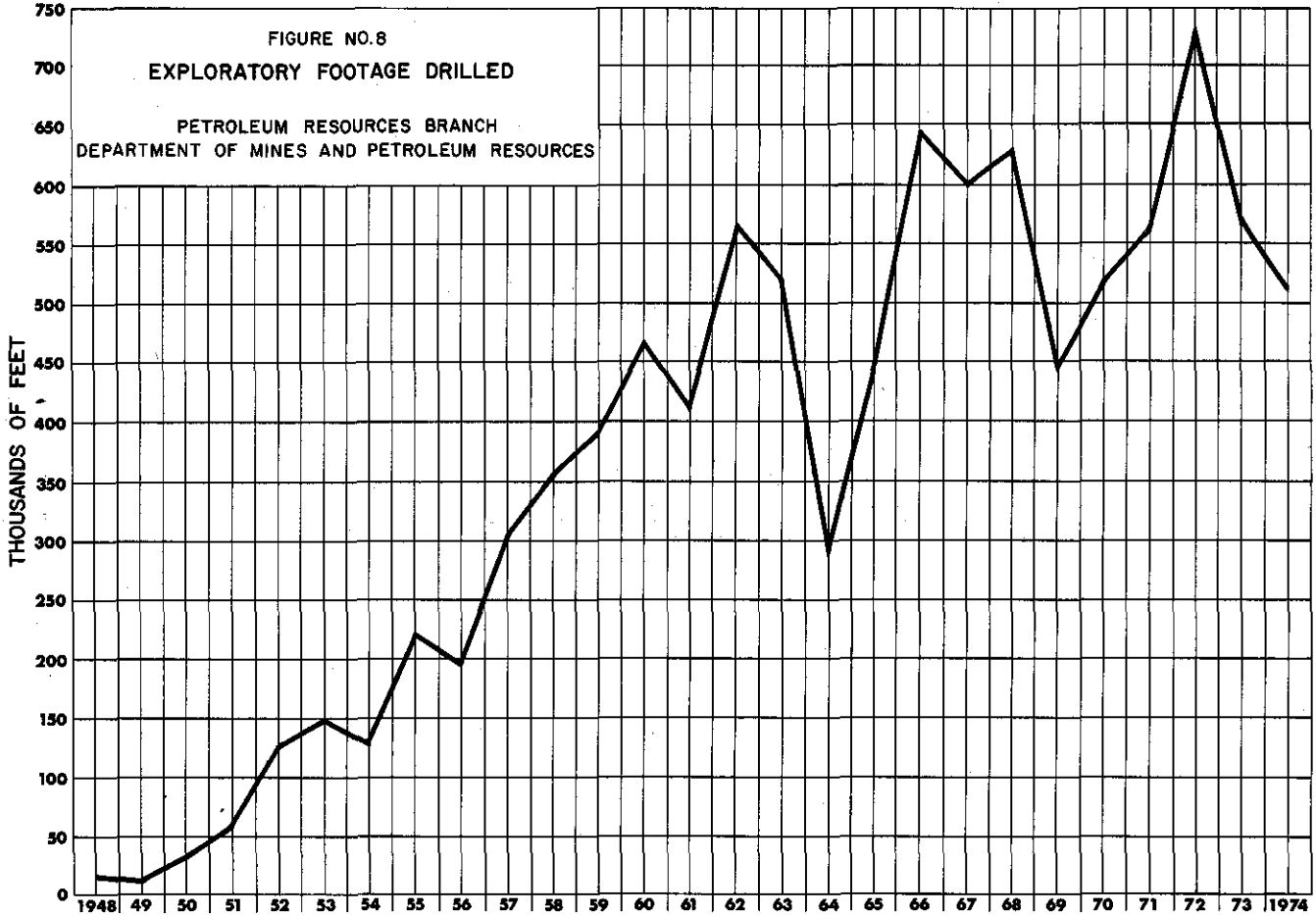


FIGURE NO. 8
EXPLORATORY FOOTAGE DRILLED
PETROLEUM RESOURCES BRANCH
DEPARTMENT OF MINES AND PETROLEUM RESOURCES
THOUSANDS OF FEET
750
700
650
600
550
500
450
400
350
300
250
200
150
100
50
0
1948 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 1974

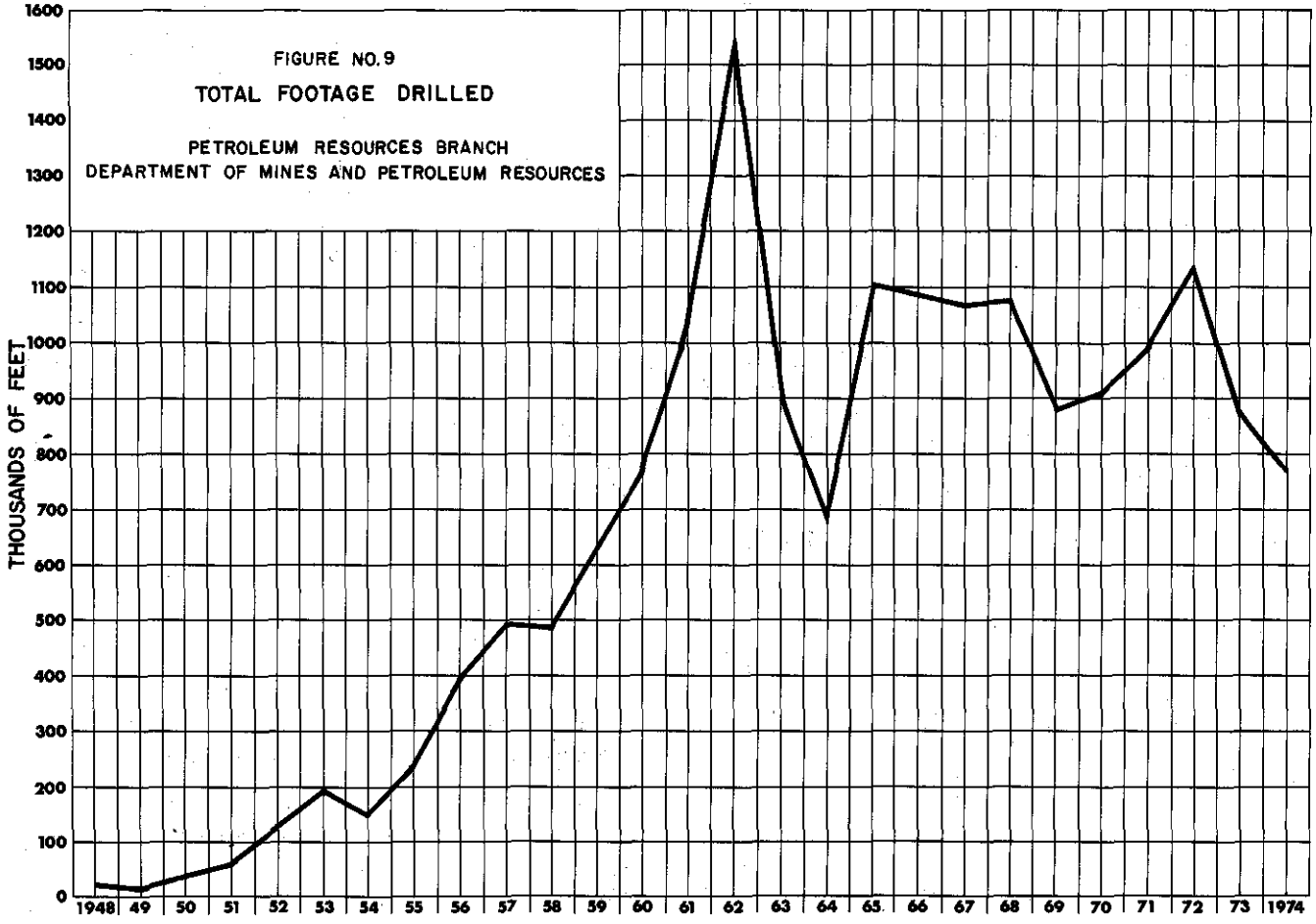


FIGURE NO. 9
TOTAL FOOTAGE DRILLED
PETROLEUM RESOURCES BRANCH
DEPARTMENT OF MINES AND PETROLEUM RESOURCES
THOUSANDS OF FEET
1600
1500
1400
1300
1200
1100
1000
900
800
700
600
500
400
300
200
100
0
1948 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 1974

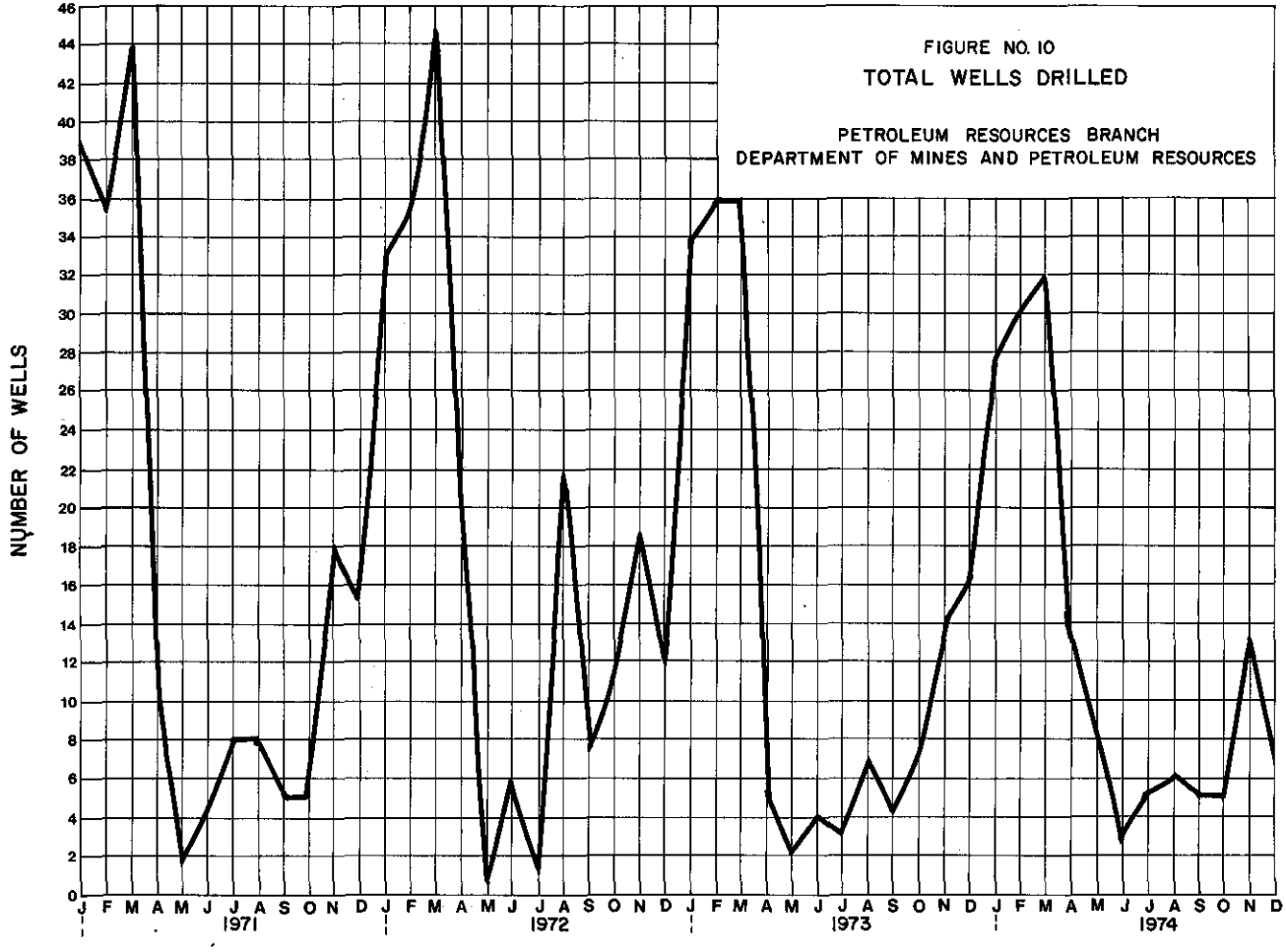


FIGURE NO. 10
TOTAL WELLS DRILLED
PETROLEUM RESOURCES BRANCH
DEPARTMENT OF MINES AND PETROLEUM RESOURCES
NUMBER OF WELLS
0
2
4
6
8
10
12
14
16
18
20
22
24
26
28
30
32
34
36
38
40
42
44
46
J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D
1971
1972
1973
1974

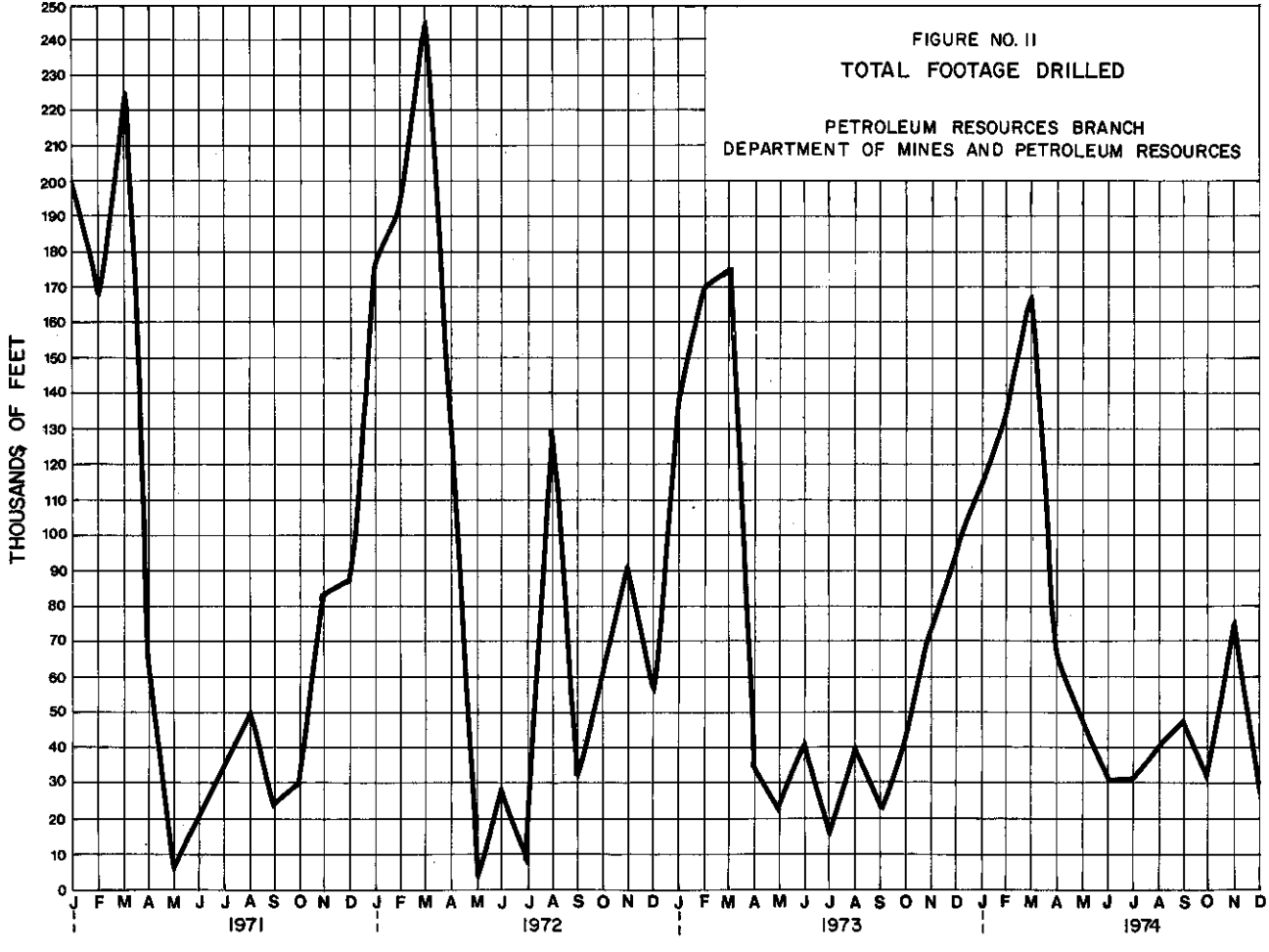


FIGURE NO. 11
TOTAL FOOTAGE DRILLED
PETROLEUM RESOURCES BRANCH
DEPARTMENT OF MINES AND PETROLEUM RESOURCES
THOUSANDS OF FEET
250
240
230
220
210
200
190
180
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D
1971
1972
1973
1974

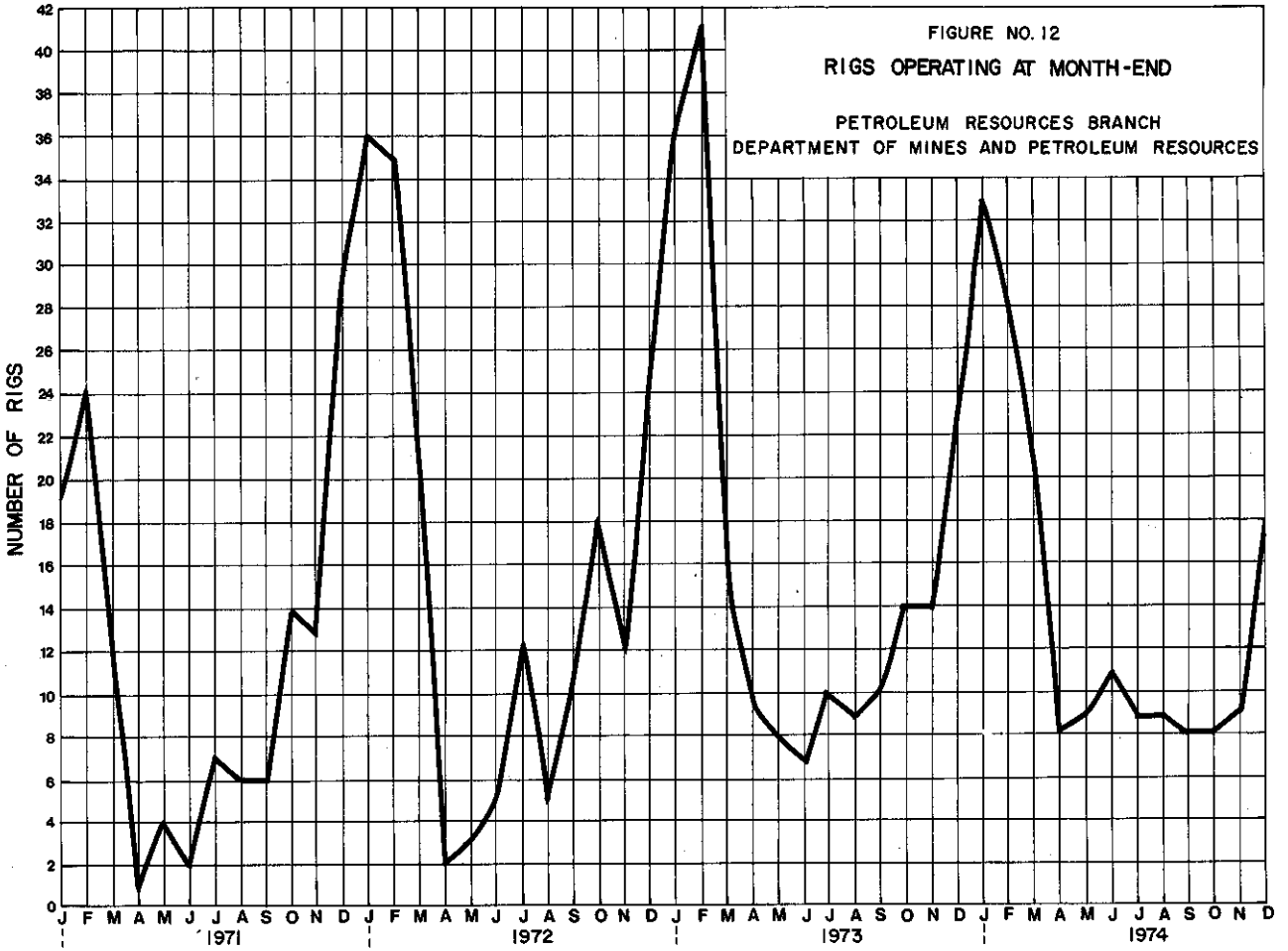


FIGURE NO. 12
RIGS OPERATING AT MONTH-END
PETROLEUM RESOURCES BRANCH
DEPARTMENT OF MINES AND PETROLEUM RESOURCES
NUMBER OF RIGS
0
2
4
6
8
10
12
14
16
18
20
22
24
26
28
30
32
34
36
38
40
42
J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D
1971
1972
1973
1974

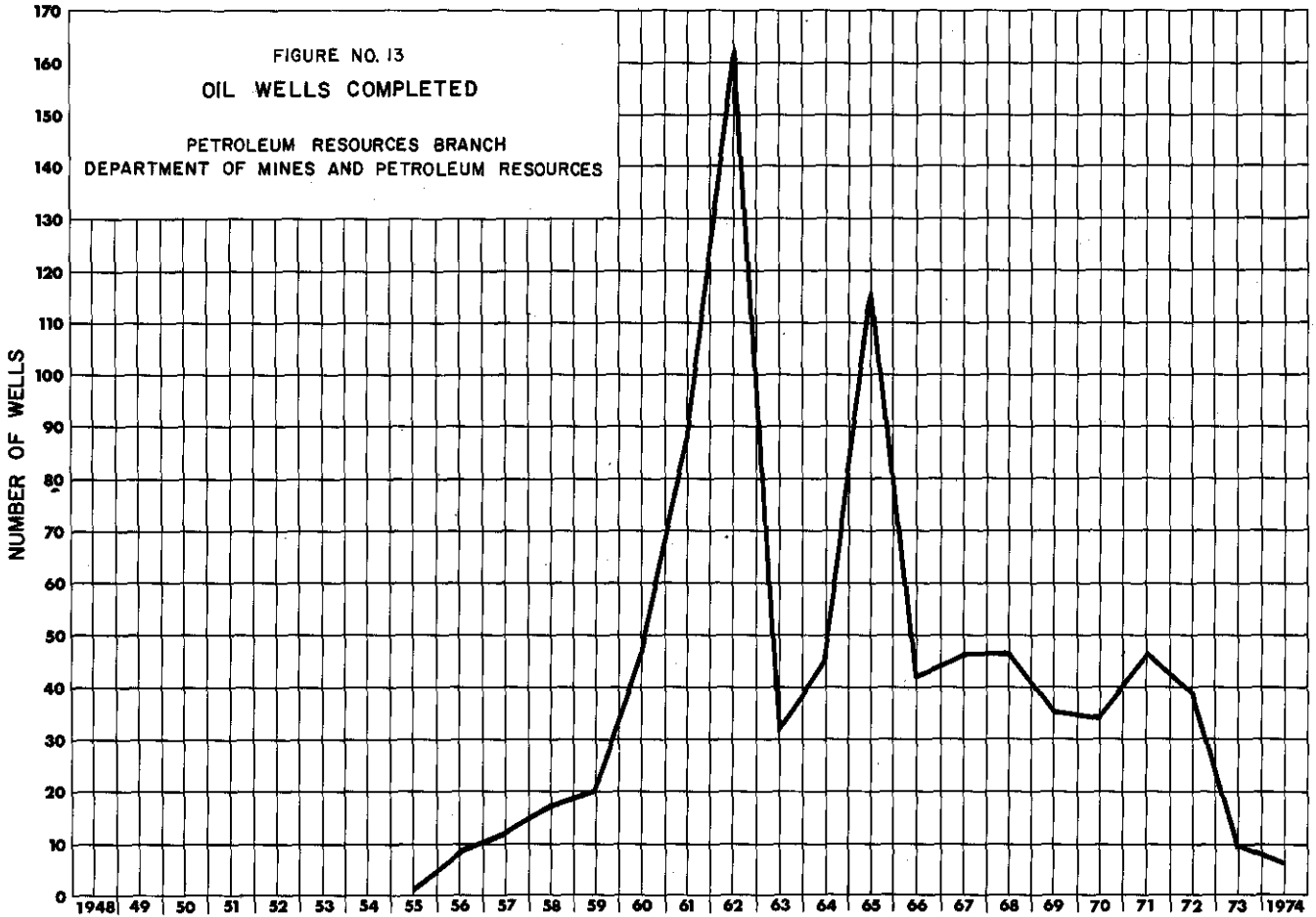


FIGURE NO. 13
OIL WELLS COMPLETED
PETROLEUM RESOURCES BRANCH
DEPARTMENT OF MINES AND PETROLEUM RESOURCES
NUMBER OF WELLS
0
10
20
30
40
50
60
70
80
90
100
110
120
130
140
150
160
170
1948
49
50
51
52
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72
73
1974

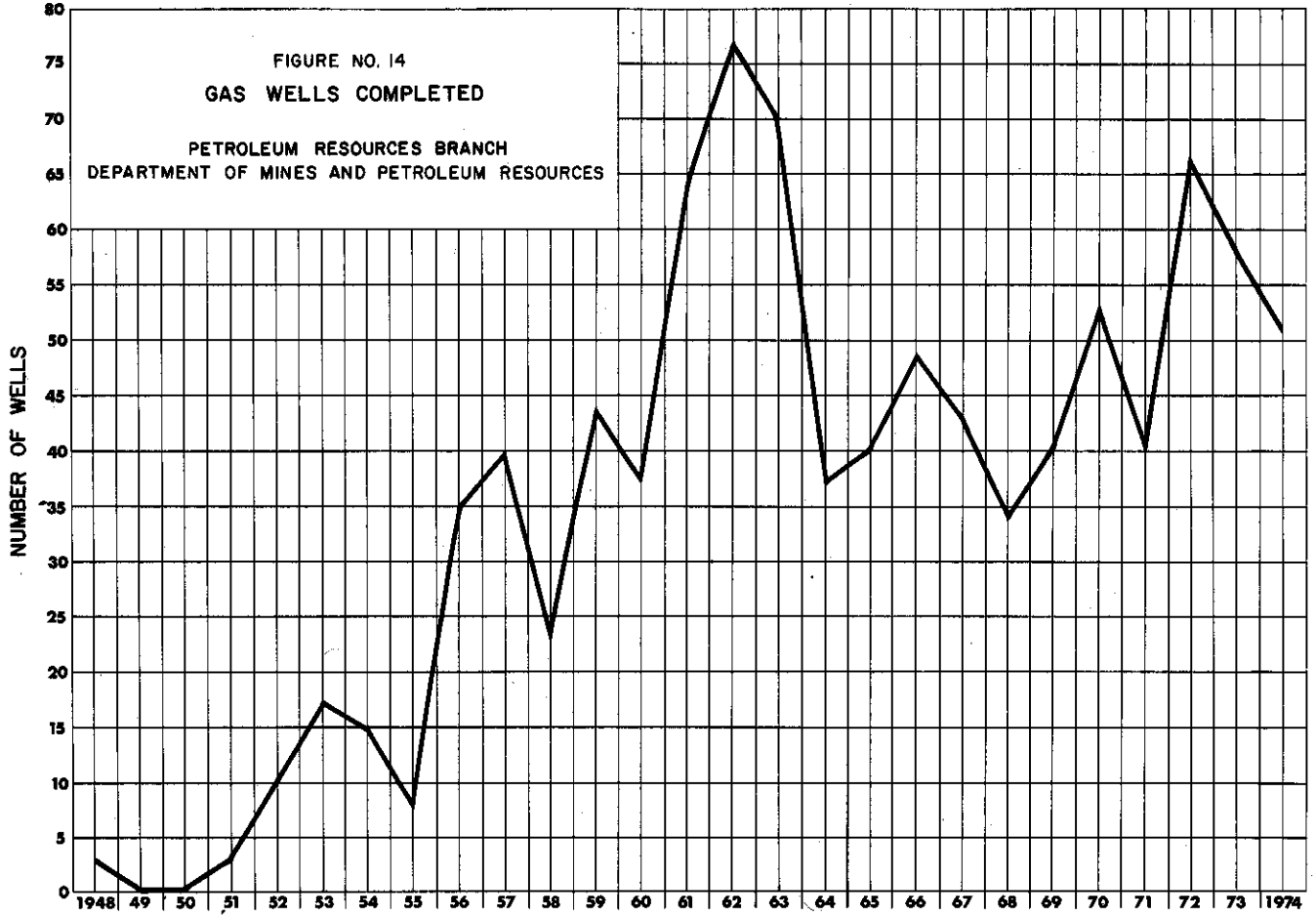


FIGURE NO. 14
GAS WELLS COMPLETED
PETROLEUM RESOURCES BRANCH
DEPARTMENT OF MINES AND PETROLEUM RESOURCES
NUMBER OF WELLS
0
5
10
15
20
25
30
35
40
45
50
55
60
65
70
75
80
1948
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
1974

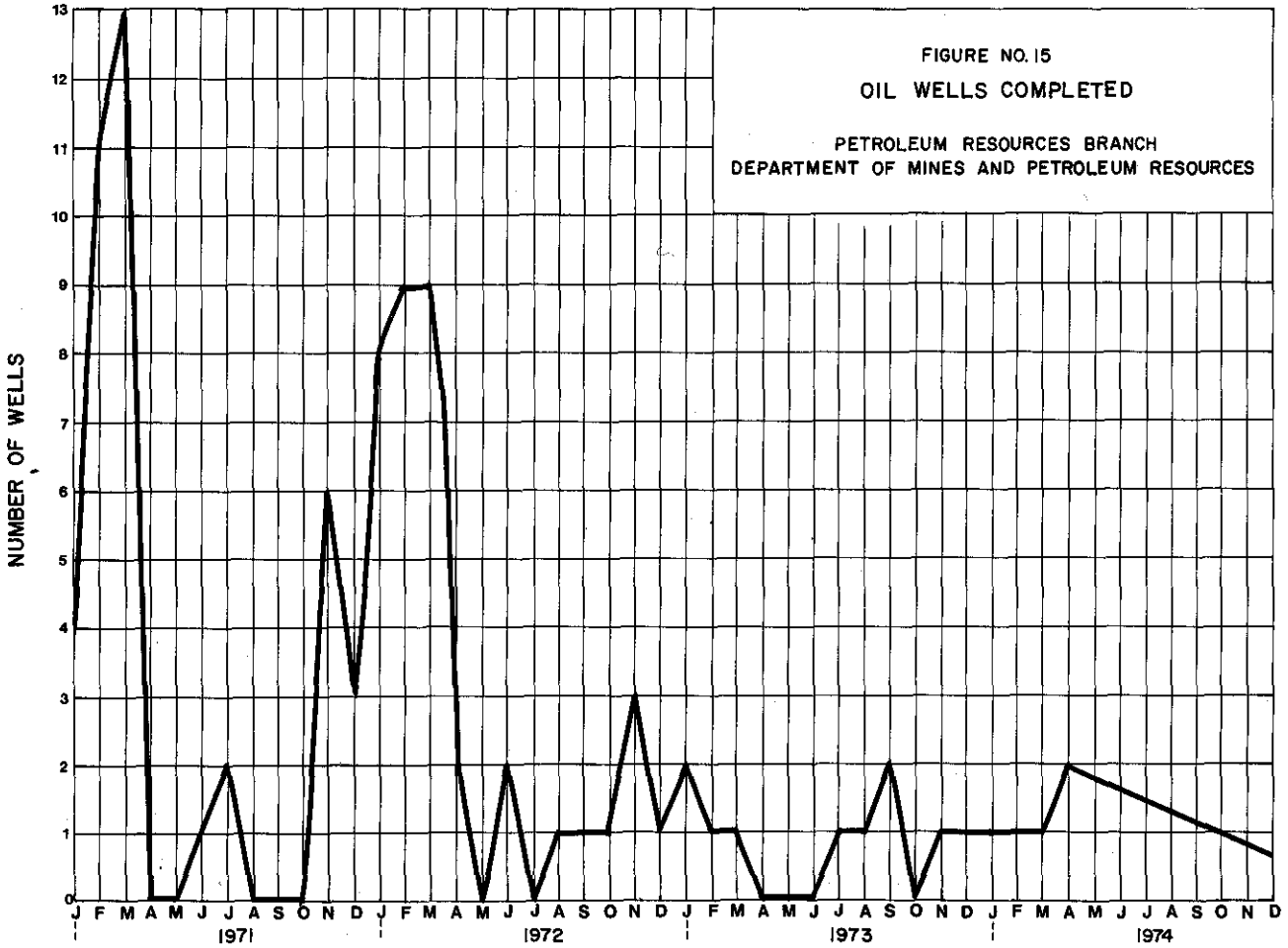


FIGURE NO. 15
OIL WELLS COMPLETED
PETROLEUM RESOURCES BRANCH
DEPARTMENT OF MINES AND PETROLEUM RESOURCES
NUMBER OF WELLS
0
1
2
3
4
5
6
7
8
9
10
11
12
13
J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D
1971
1972
1973
1974

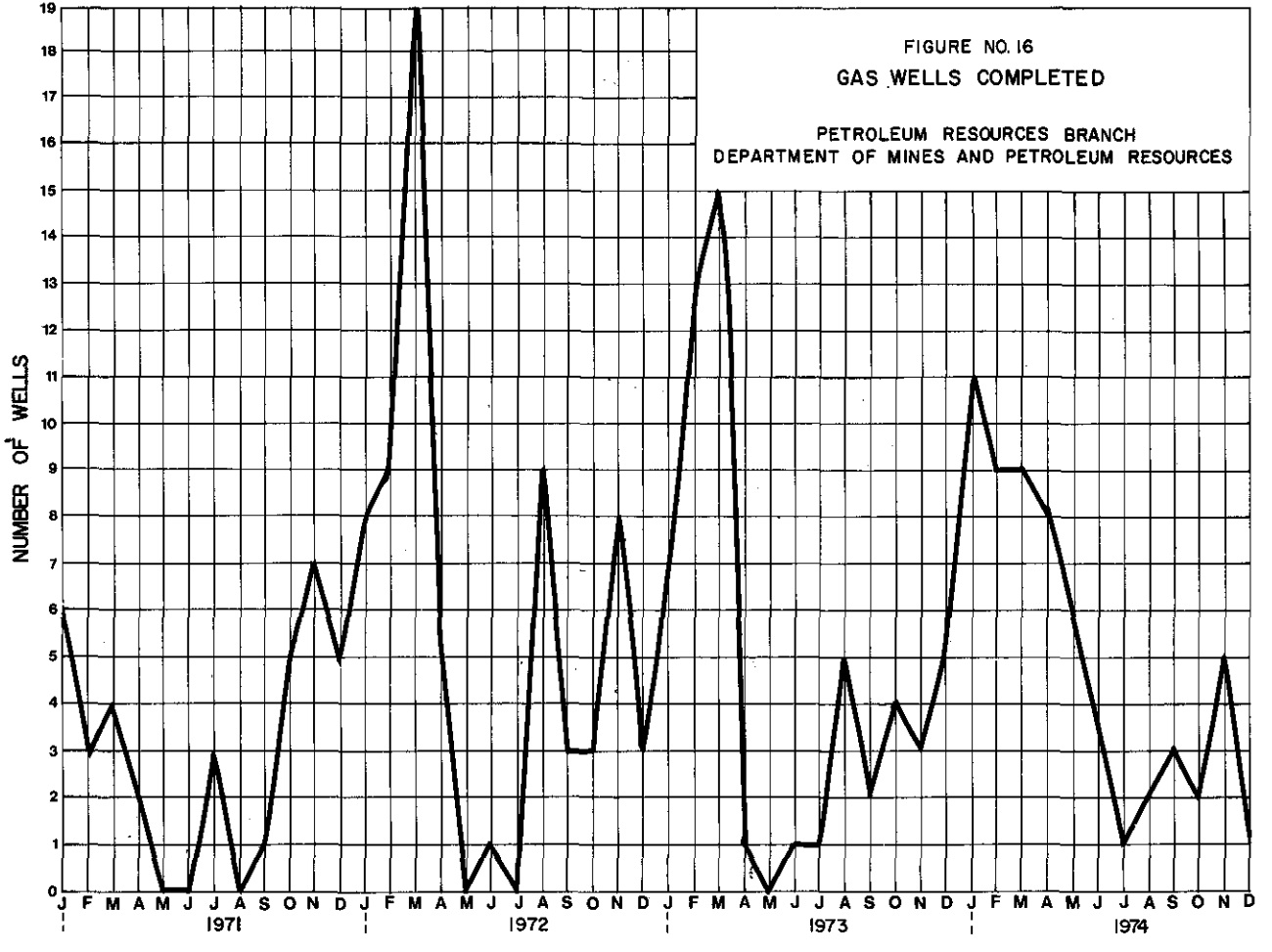


FIGURE NO. 16
GAS WELLS COMPLETED
PETROLEUM RESOURCES BRANCH
DEPARTMENT OF MINES AND PETROLEUM RESOURCES
NUMBER OF WELLS
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D
1971
1972
1973
1974

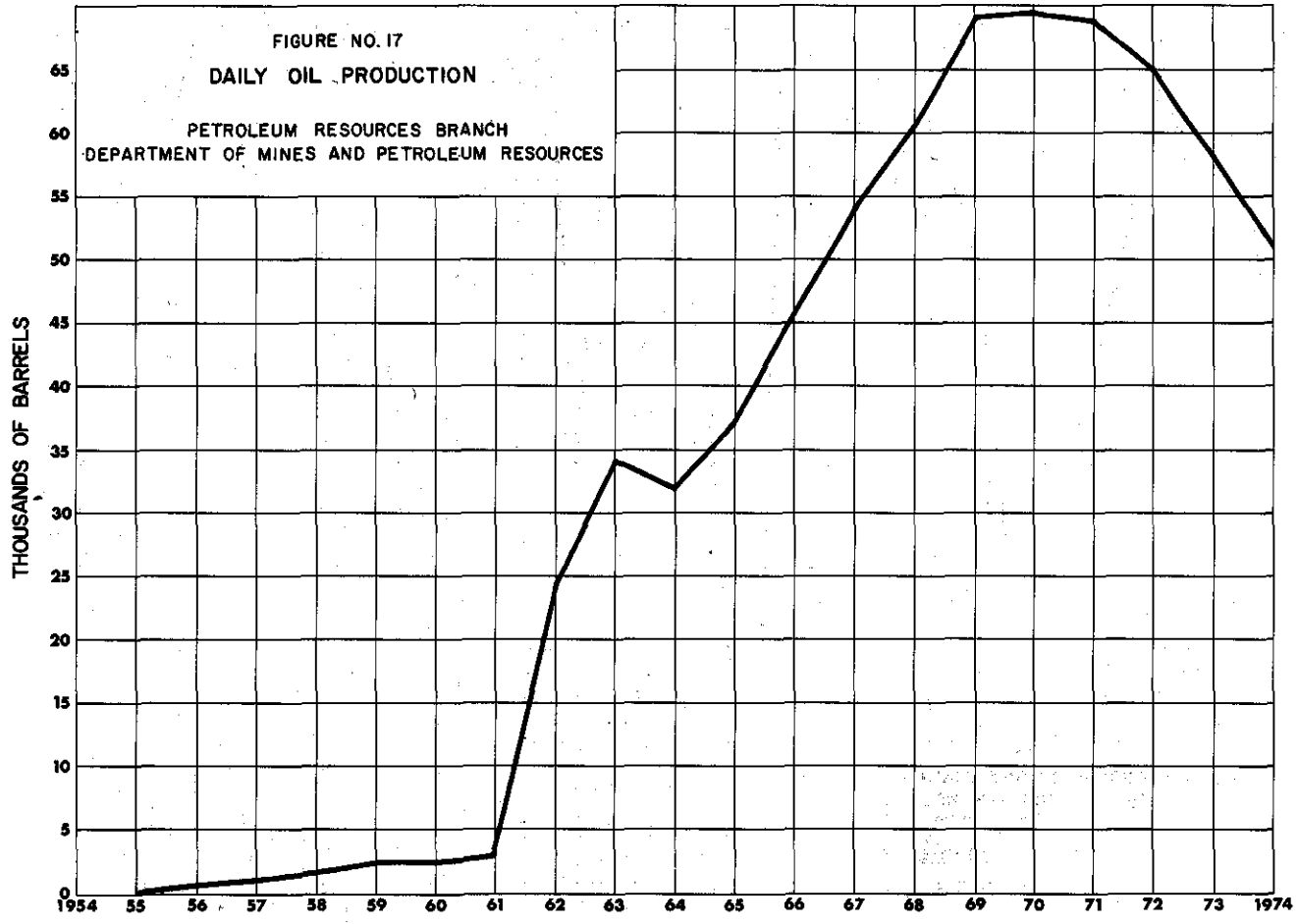


FIGURE NO. 17
DAILY OIL PRODUCTION
PETROLEUM RESOURCES BRANCH
DEPARTMENT OF MINES AND PETROLEUM RESOURCES
THOUSANDS OF BARRELS
0
5
10
15
20
25
30
35
40
45
50
55
60
65
1954
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
1974

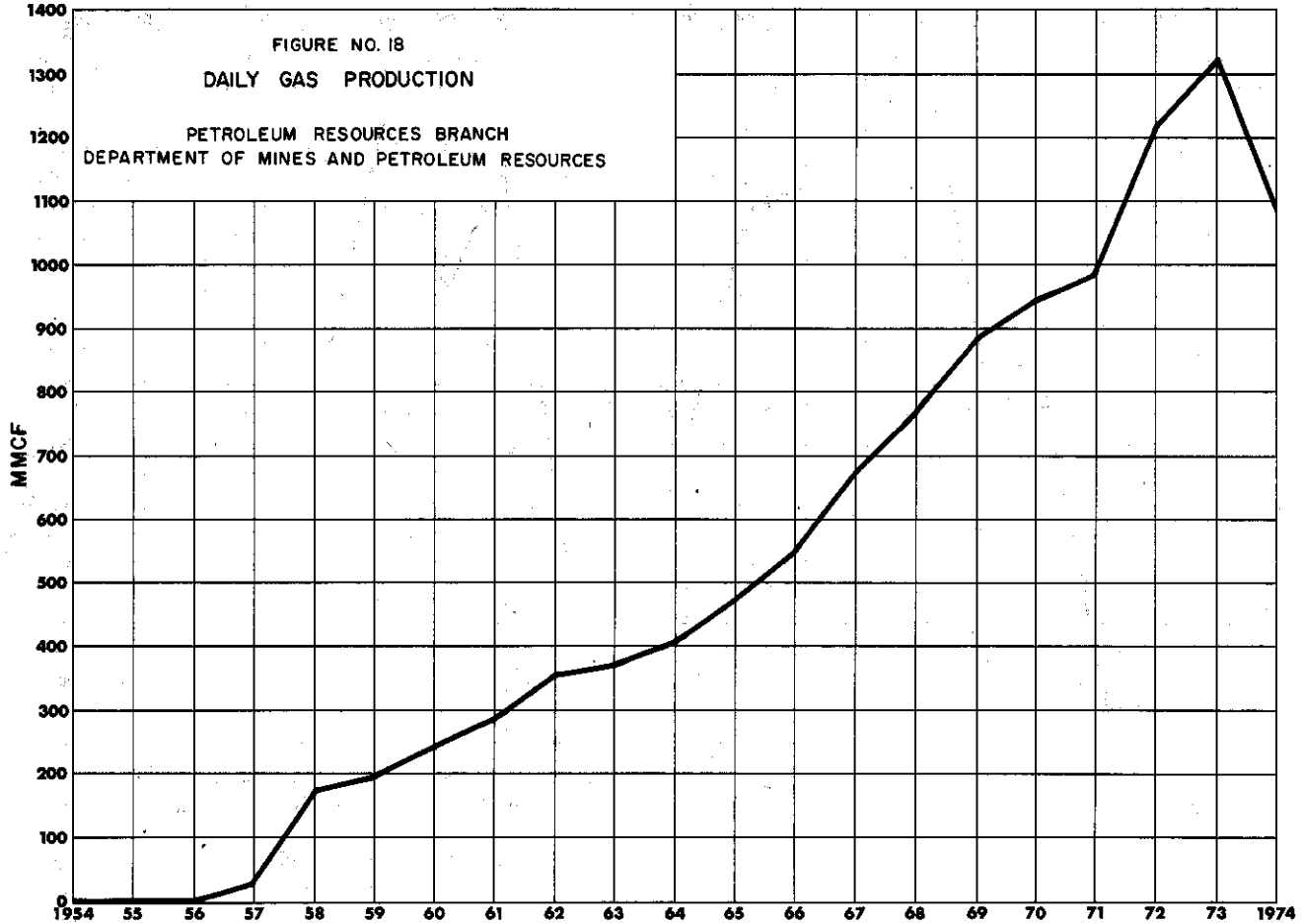


FIGURE NO. 18
DAILY GAS PRODUCTION
PETROLEUM RESOURCES BRANCH
DEPARTMENT OF MINES AND PETROLEUM RESOURCES
MMCF
1400
1300
1200
1100
1000
900
800
700
600
500
400
300
200
100
0
1954
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
1974

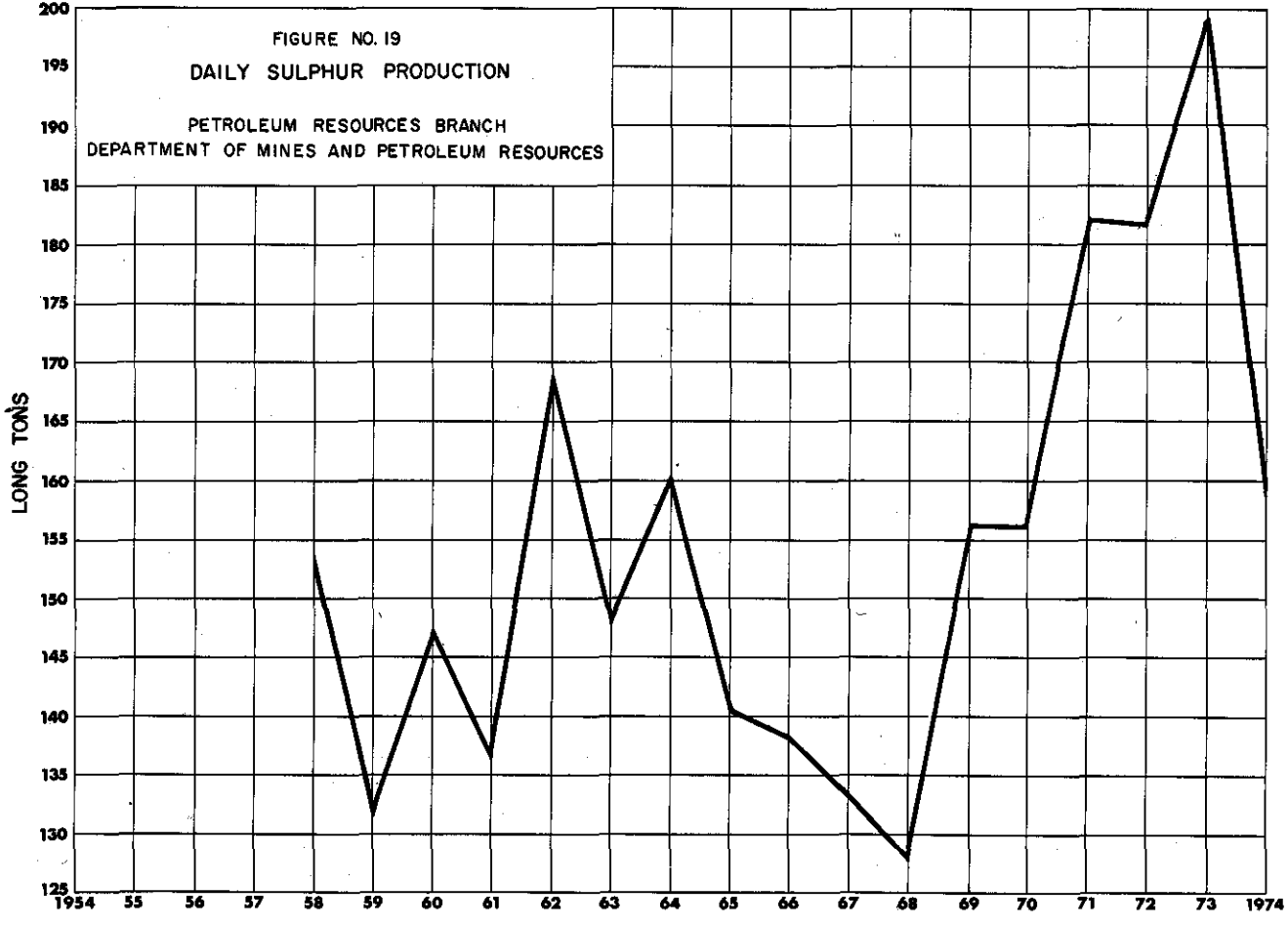
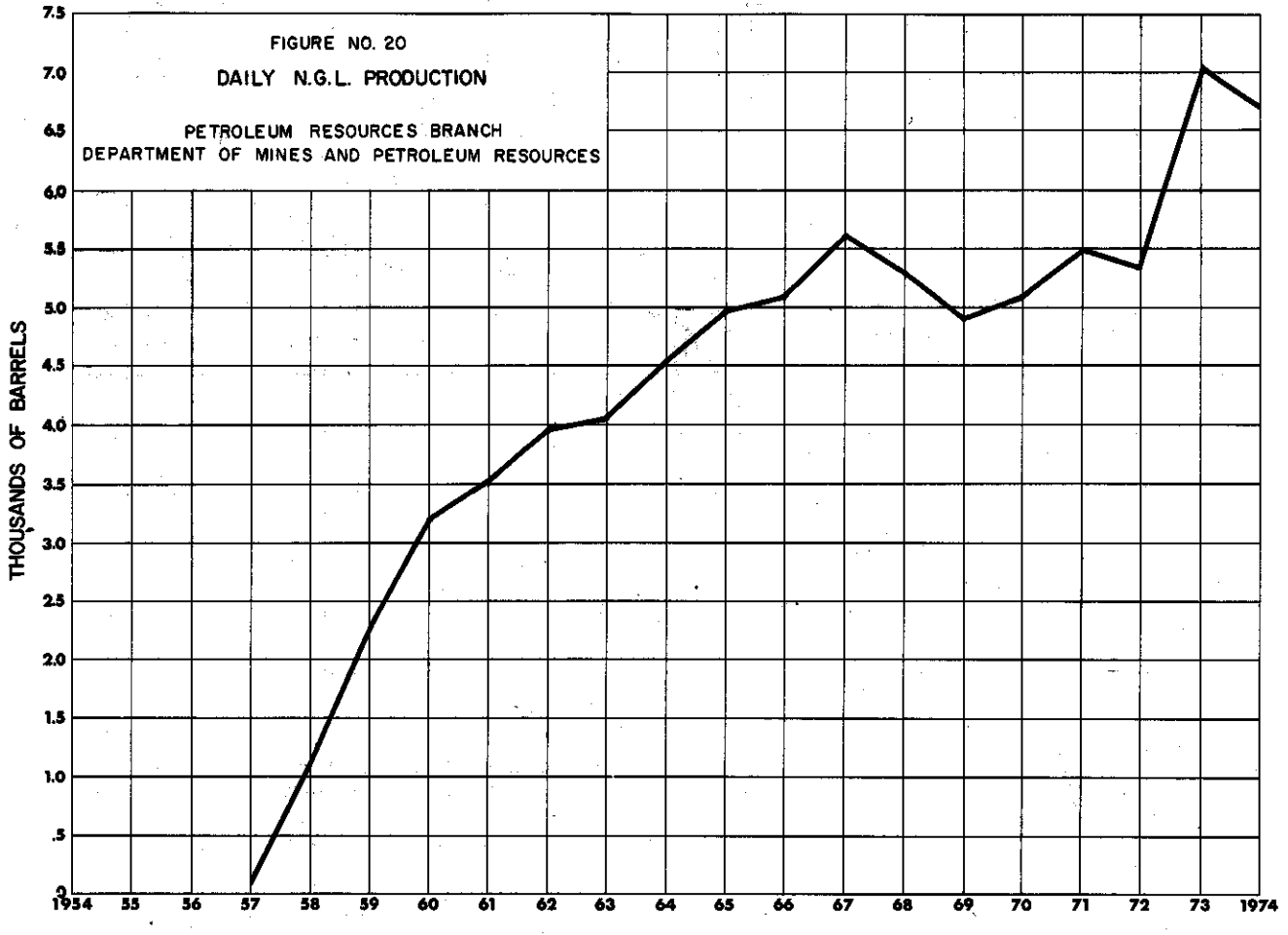


FIGURE NO. 19
DAILY SULPHUR PRODUCTION
PETROLEUM RESOURCES BRANCH
DEPARTMENT OF MINES AND PETROLEUM RESOURCES
LONG TONS
200
195
190
185
180
175
170
165
160
155
150
145
140
135
130
125
1954
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
1974

FIGURE NO. 20

DAILY N.G.L. PRODUCTION

PETROLEUM RESOURCES BRANCH
DEPARTMENT OF MINES AND PETROLEUM RESOURCES



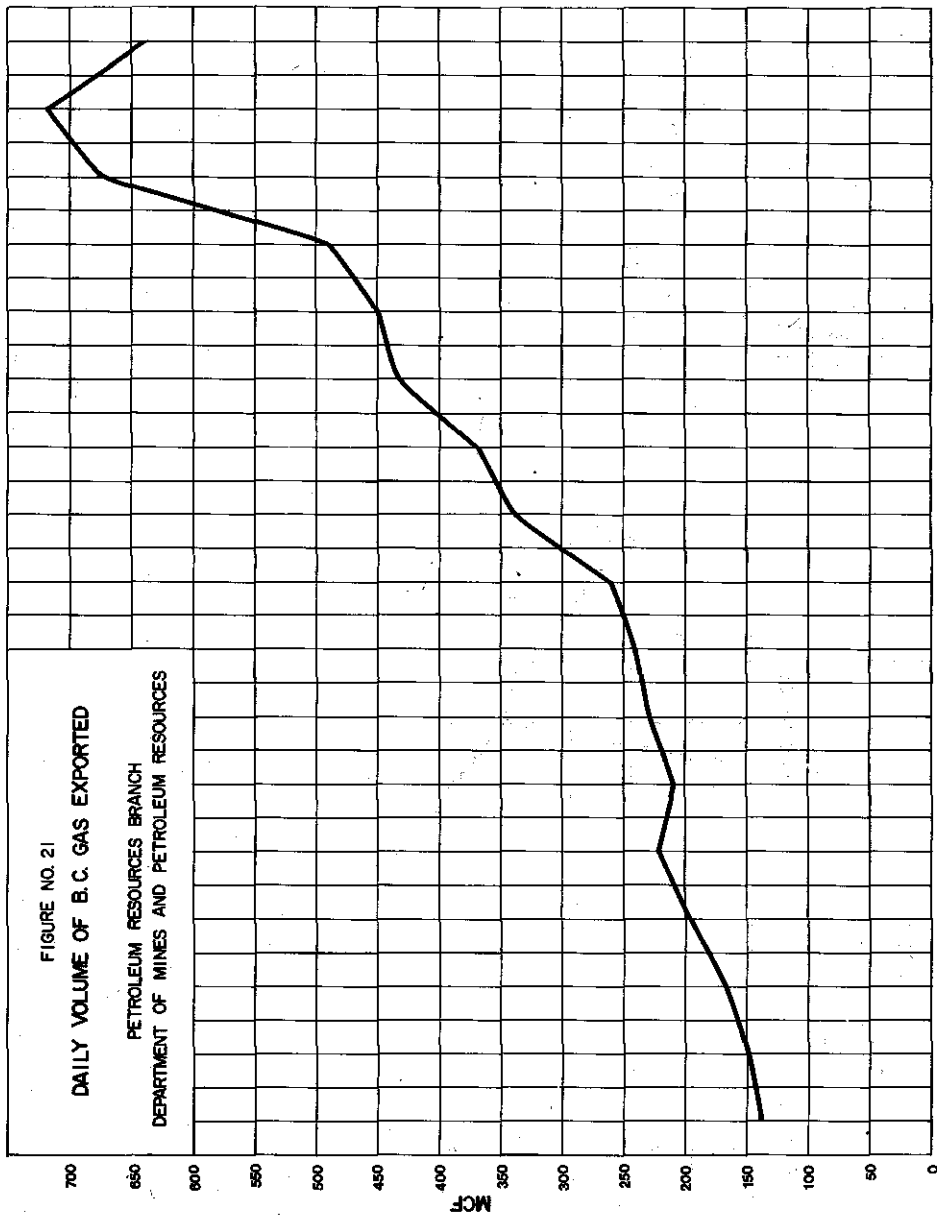


FIGURE NO. 21
DAILY VOLUME OF B.C. GAS EXPORTED
PETROLEUM RESOURCES BRANCH
DEPARTMENT OF MINES AND PETROLEUM RESOURCES
MCF
700
650
600
550
500
450
400
350
300
250
200
150
100
50
0
1958
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
1974

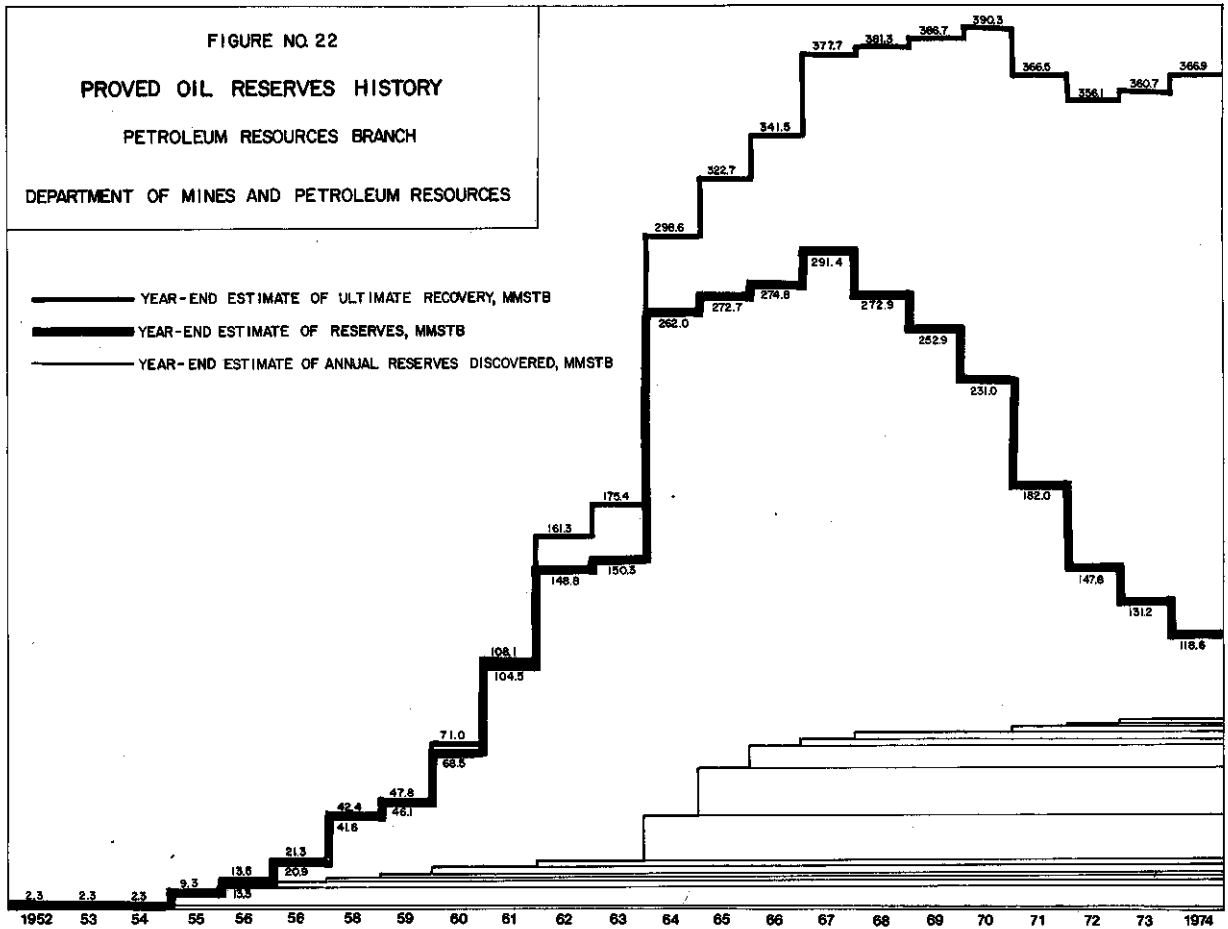


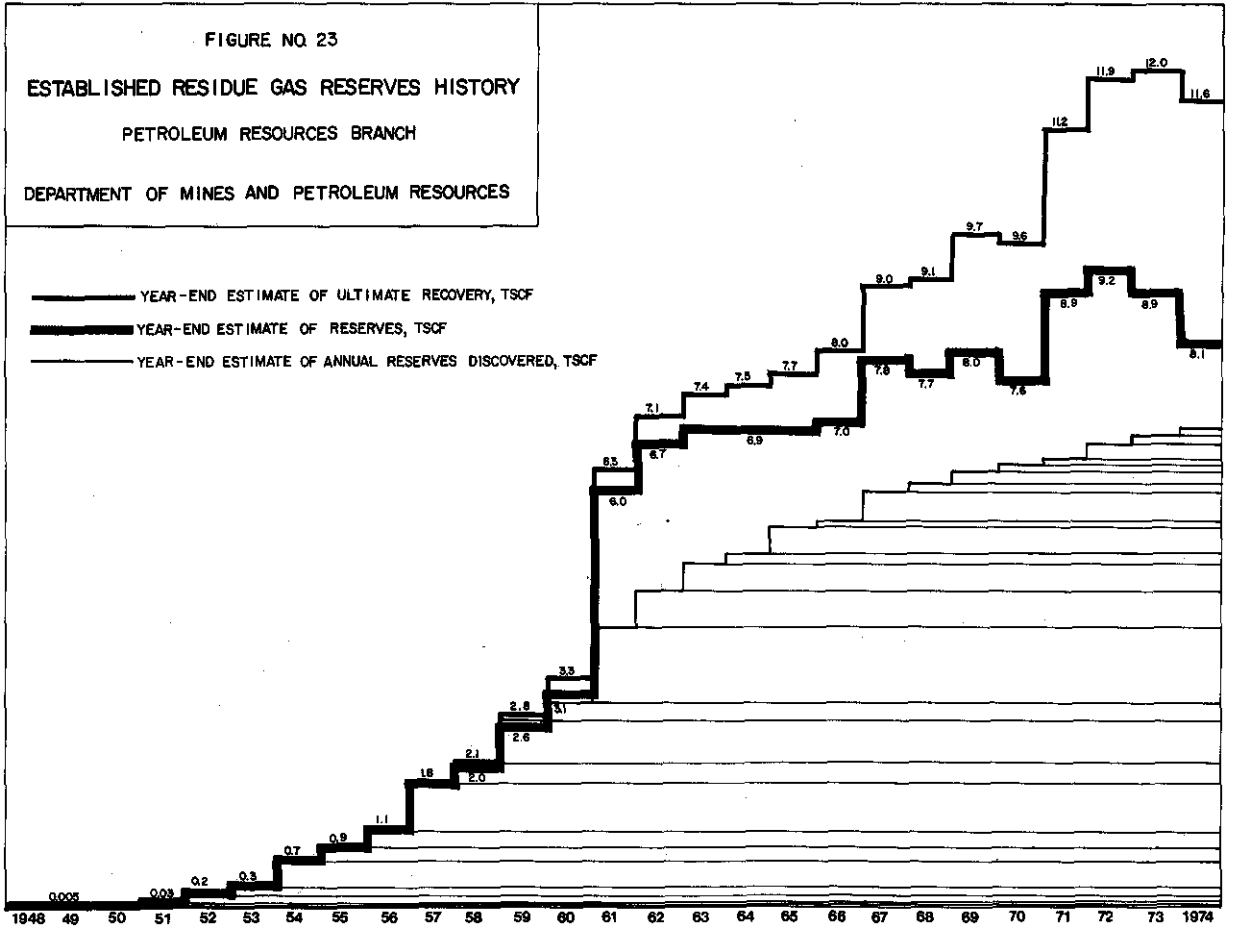
FIGURE NO. 22
PROVED OIL RESERVES HISTORY
PETROLEUM RESOURCES BRANCH
DEPARTMENT OF MINES AND PETROLEUM RESOURCES
YEAR-END ESTIMATE OF ULTIMATE RECOVERY, MMSTB
YEAR-END ESTIMATE OF RESERVES, MMSTB
YEAR-END ESTIMATE OF ANNUAL RESERVES DISCOVERED, MMSTB
2.3
2.3
2.3
9.3
13.6
13.5
21.3
20.9
42.4
41.6
47.8
46.1
71.0
68.5
108.1
104.5
161.3
148.8
175.4
150.3
298.6
262.0
322.7
272.7
341.5
274.8
377.7
291.4
381.3
272.9
386.7
252.9
390.3
231.0
366.5
182.0
356.1
147.6
360.7
131.2
366.9
118.6
1952
53
54
55
56
56
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
1974

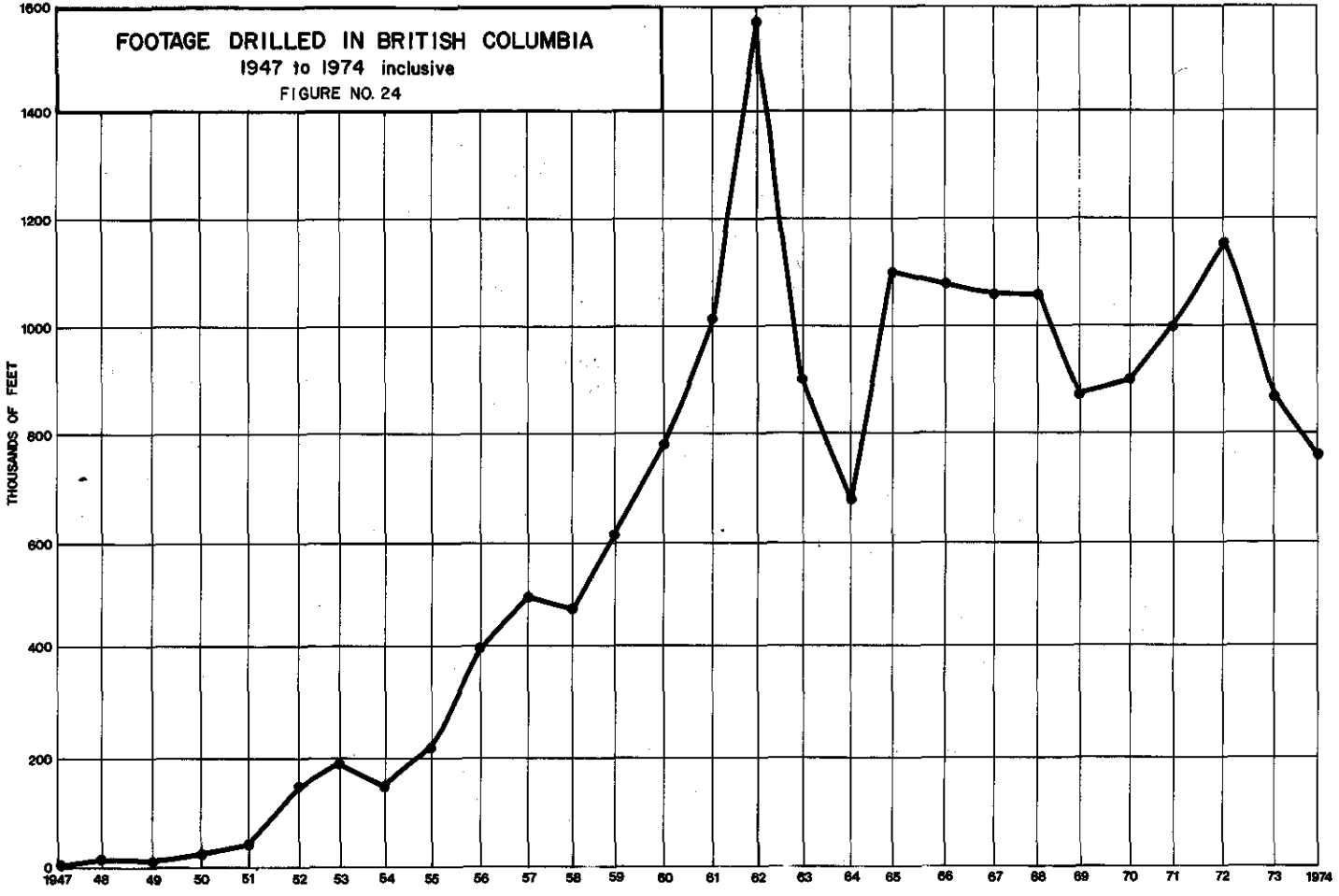
FIGURE NO. 23

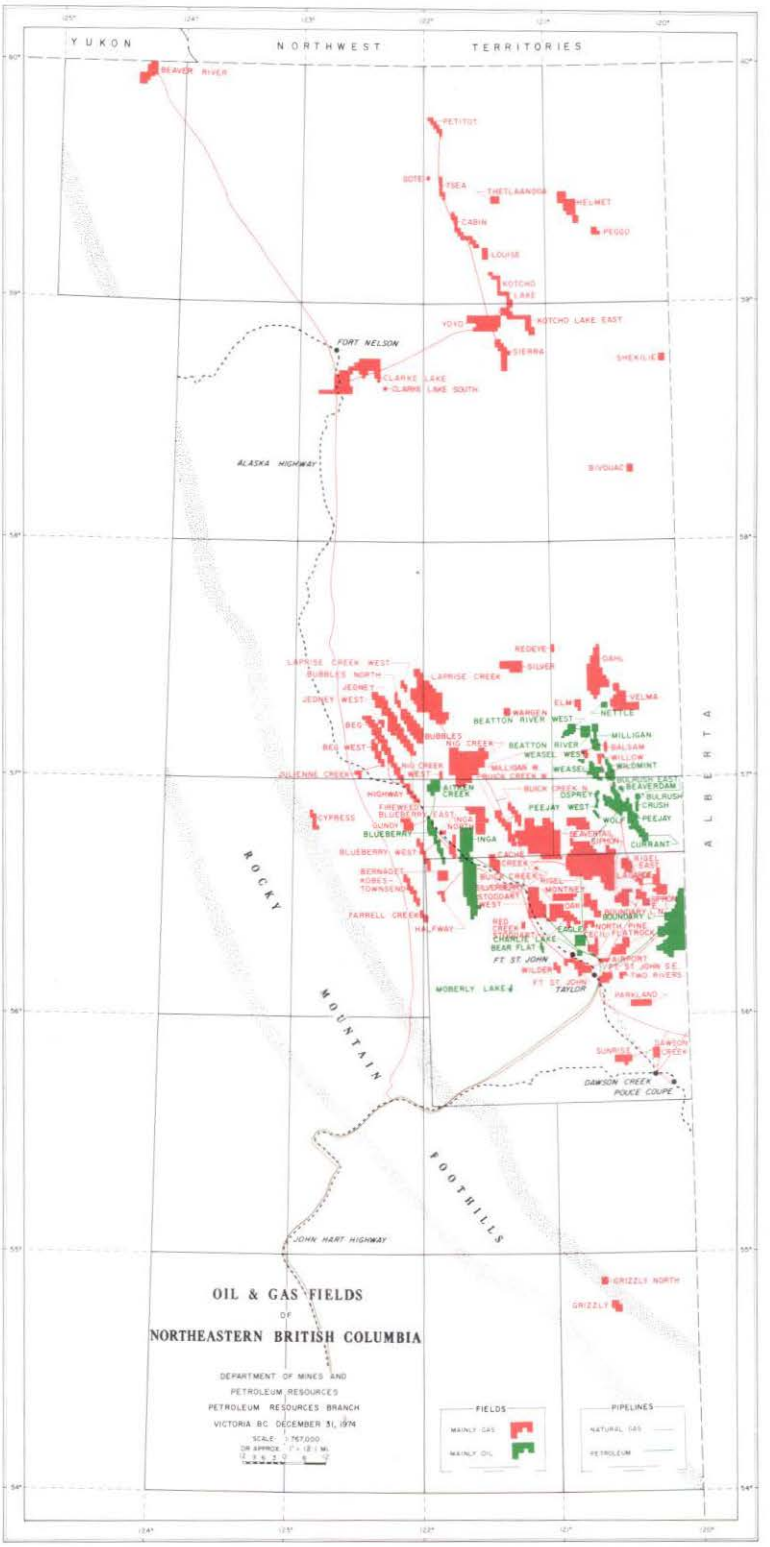
ESTABLISHED RESIDUE GAS RESERVES HISTORY

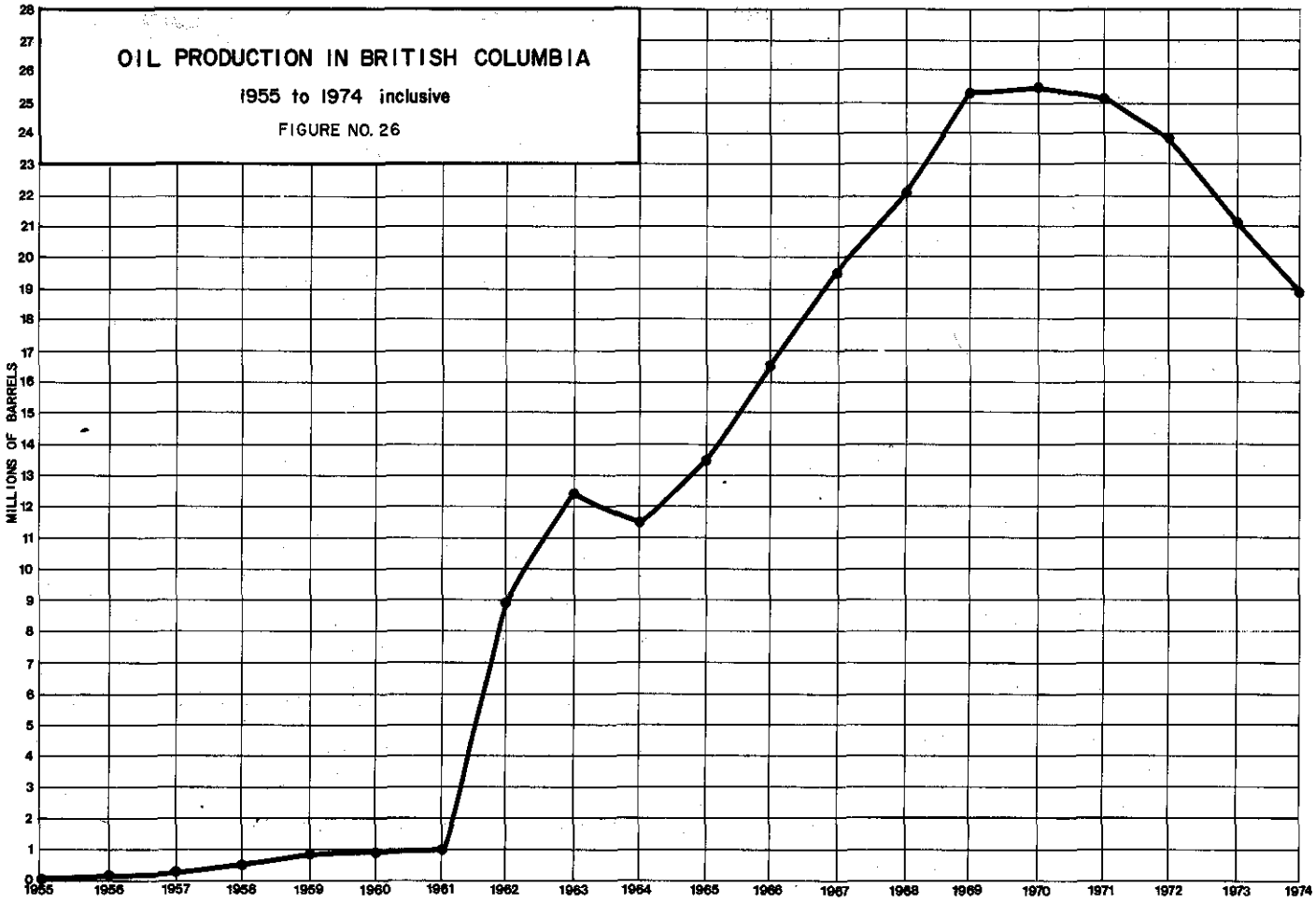
PETROLEUM RESOURCES BRANCH

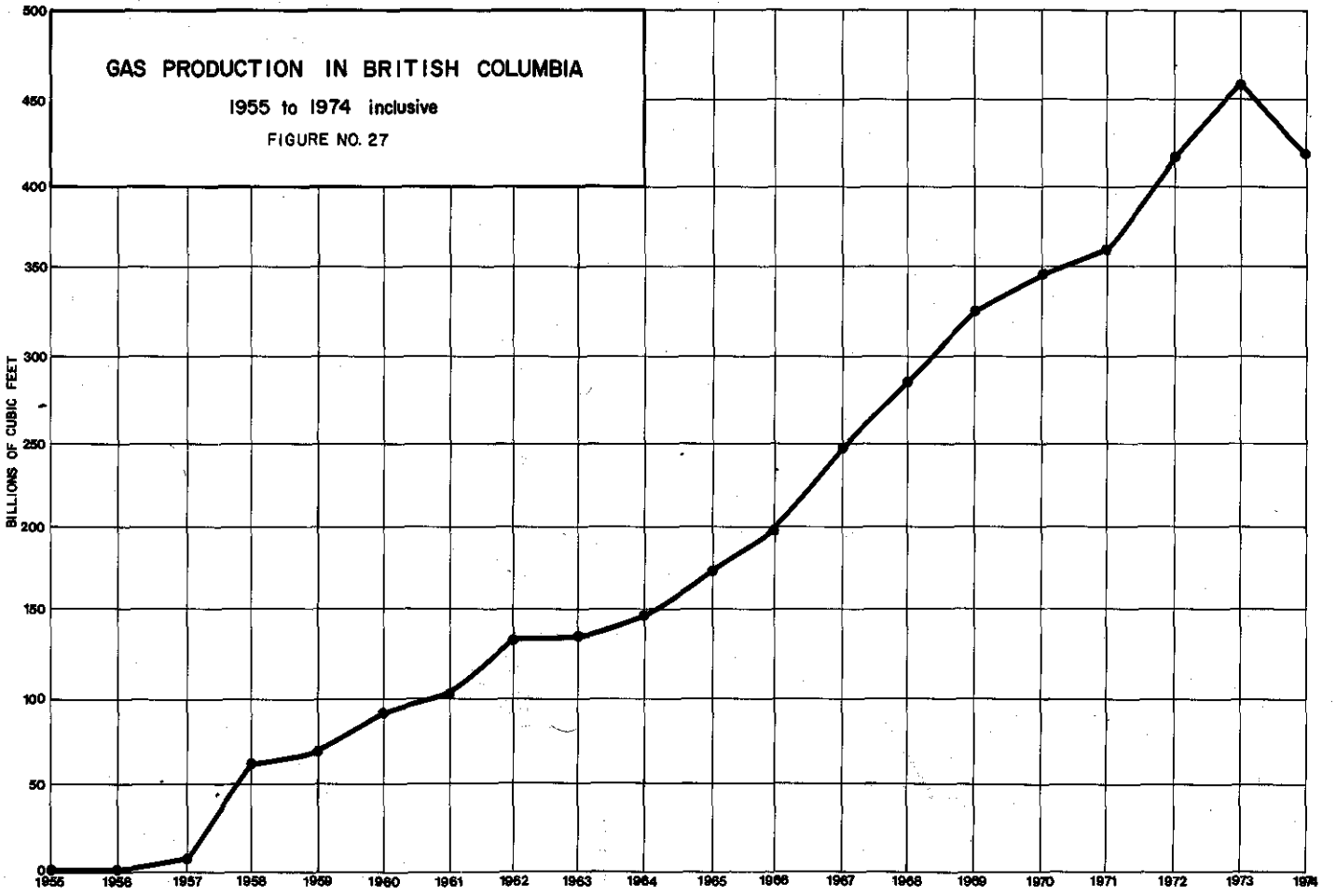
DEPARTMENT OF MINES AND PETROLEUM RESOURCES

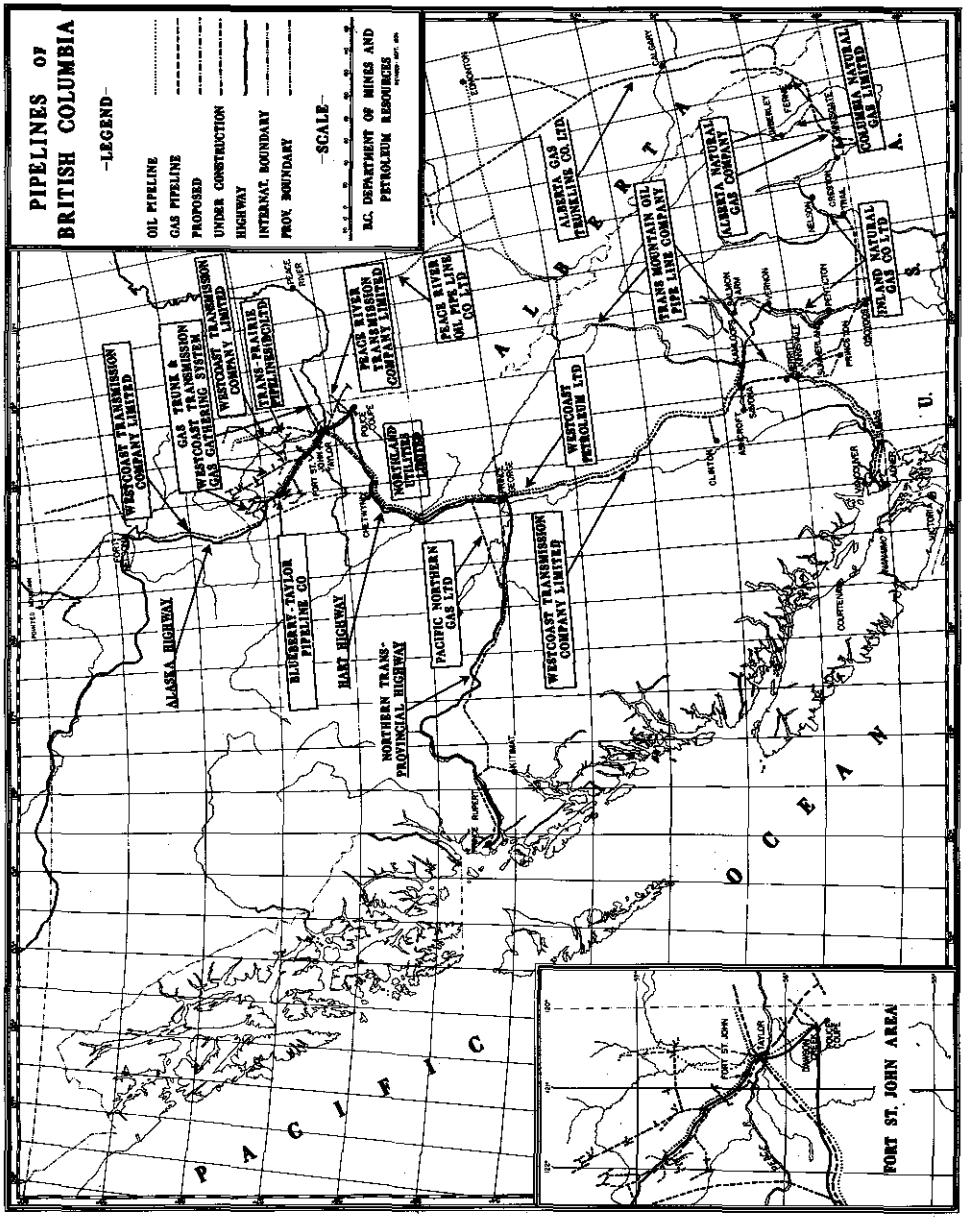



FOOTAGE DRILLED IN BRITISH COLUMBIA
1947 to 1974 inclusive
FIGURE NO. 24
THOUSANDS OF FEET
0
200
400
600
800
1000
1200
1400
1600
1947
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
1974


YUKON
NORTHWEST TERRITORIES
ALBERTA
BEAVER RIVER
PETITOT
TSEA
THETLAANDIA
HELMET
CABIN
PEGGO
LOUISE
KOTCHO LAKE
KOTCHO LAKE EAST
YOHO
SIERRA
SHEKILIE
FORT NELSON
CLARKE LAKE
CLARKE LAKE SOUTH
ALASKA HIGHWAY
BIVOUAC
REDEYE
SILVER
OAHL
LAPRISE CREEK WEST
BUBBLES NORTH
LAPRISE CREEK
JEDNEY
JEDNEY WEST
ELM
WARREN
WELMA
NETTLE
BEATTON RIVER WEST
BEG
BUBBLES
NIG CREEK
BEATTON RIVER
MILLIGAN
BEG WEST
NIG CREEK WEST
WEASEL WEST
BALSAM
WILLOW
WILDMINT
WILLIGAN
WEASEL
QUIENNE CREEK
BEAVERDAM EAST
BEAVERDAM
BUCK CREEK SOUTH
OSPREY
BULRUSH
CRUSH
HIGHWAY
ALTARES CREEK
CYPRESS
FIREWEED BLUEBERRY EAST
PEEJAY WEST
PEEJAY
WOLF
SUNDOG
BLUEBERRY
INGA
BEAVERTAIL
CURRANT
BLUEBERRY WEST
ACHE
RIGEL EAST
BUCK CREEK
RIGEL
BERNADET
KOBES-TOWNSEND
BLUEBERRY
STODDART
MONTNEY
WEST
FARRELL CREEK
HALFWAY
RED CREEK
CHERLYLE LAKE
EAGLE
NORTH PINE
FLATROCK
BOUNDARY LAKE
BEAR FLAT
FT ST JOHN
WILDER
BUICK CREEK
FT ST JOHN SE
TWO RIVERS
WORSLEY LAKE
FT ST JOHN
TAYLOR
PARKLAND
SUNRISE
DAWSON CREEK
DAWSON CREEK POUCE COUPE
ROCKY MOUNTAIN FOOTHILLS
JOHN HART HIGHWAY
GRIZZLY NORTH
GRIZZLY
OIL & GAS FIELDS
OF
NORTHEASTERN BRITISH COLUMBIA
DEPARTMENT OF MINES AND PETROLEUM RESOURCES
PETROLEUM RESOURCES BRANCH
VICTORIA, B.C. DECEMBER 31, 1974
SCALE - 1:767,000
OR APPROX. 1 - 12.1 MI.
FIELDS
MAINLY GAS
MAINLY OIL
PIPELINES
NATURAL GAS
PETROLEUM


OIL PRODUCTION IN BRITISH COLUMBIA
1955 to 1974 inclusive
FIGURE NO. 26
MILLIONS OF BARRELS
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
1955
1956
1957
1958
1959
1960
1961
1962
1963
1964
1965
1966
1967
1968
1969
1970
1971
1972
1973
1974


GAS PRODUCTION IN BRITISH COLUMBIA
1955 to 1974 inclusive
FIGURE NO. 27
BILLIONS OF CUBIC FEET
500
450
400
350
300
250
200
150
100
50
0
1955
1956
1957
1958
1959
1960
1961
1962
1963
1964
1965
1966
1967
1968
1969
1970
1971
1972
1973
1974


PIPELINES OF BRITISH COLUMBIA
-LEGEND-
OIL PIPELINE
GAS PIPELINE
PROPOSED
UNDER CONSTRUCTION
HIGHWAY
INTERNAL BOUNDARY
PROV. BOUNDARY
-SCALE-
B.C. DEPARTMENT OF MINES AND PETROLEUM RESOURCES
WESTCOAST TRANSMISSION COMPANY LIMITED
GAS TRUNK & WESTCOAST TRANSMISSION GAS GATHERING SYSTEM WESTCOAST TRANSMISSION COMPANY LIMITED
TRANS-PRAIRIE PIPELINES LIMITED
PEACE RIVER TRANSMISSION COMPANY LIMITED
PEACE RIVER OIL PIPE LINE CO. LTD.
NORTHLAND BELT LINES LIMITED
ALBERTA GAS TRUNKLINE CO. LTD.
TRANS MOUNTAIN OIL PIPE LINE COMPANY
ALBERTA NATURAL GAS COMPANY
COLUMBIA NATURAL GAS LIMITED
WESTCOAST PETROLEUM LTD.
INLAND NATURAL GAS CO. LTD.
BLUEBERRY-TAYLOR PIPELINE CO.
ALASKA HIGHWAY
HART HIGHWAY
NORTHERN TRANS-PROVINCIAL HIGHWAY
PACIFIC NORTHERN GAS LTD.
WESTCOAST TRANSMISSION COMPANY LIMITED
PACIFIC OCEAN
ALBERTA
U.S.A.
FORT ST. JOHN AREA

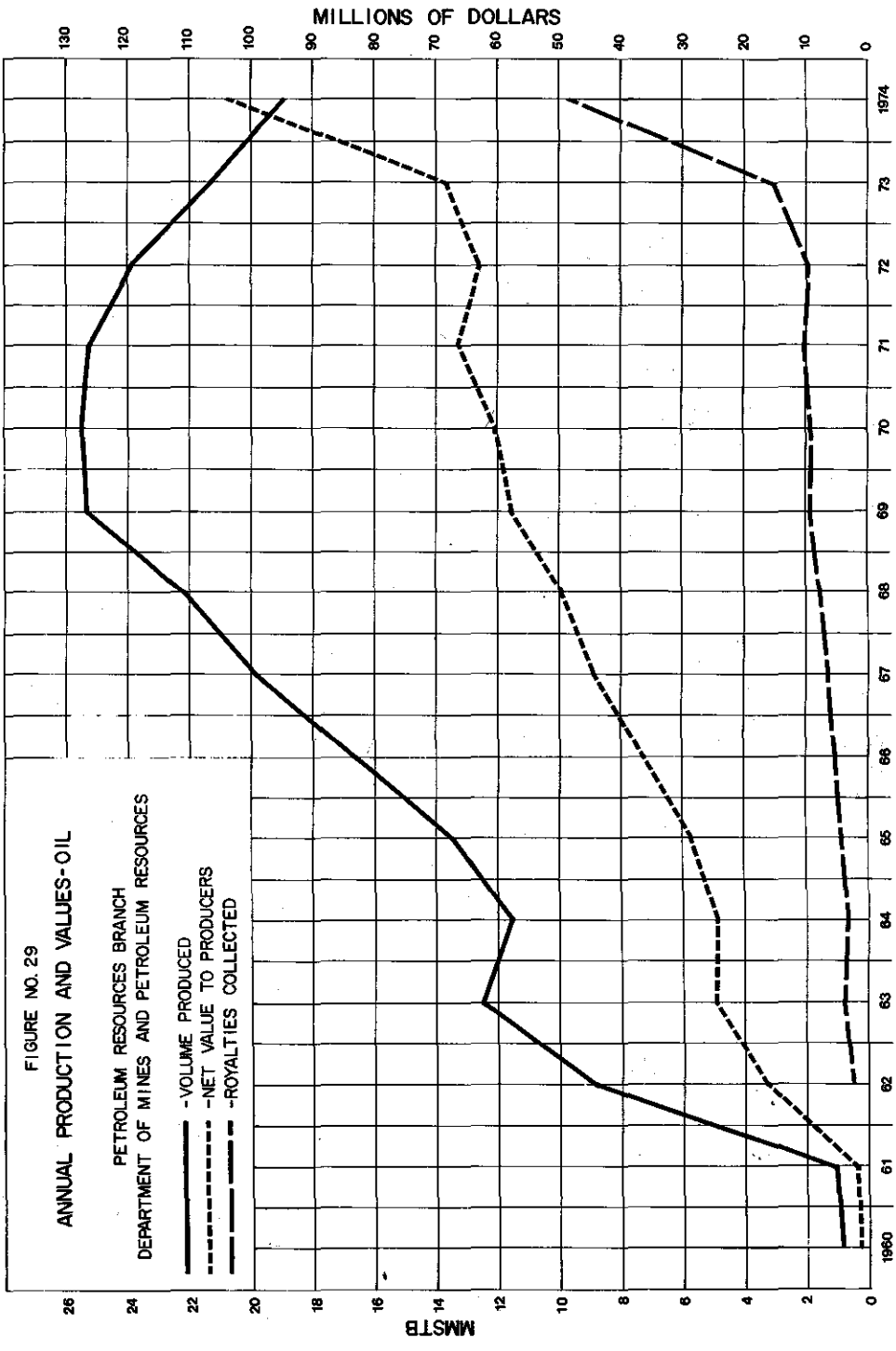
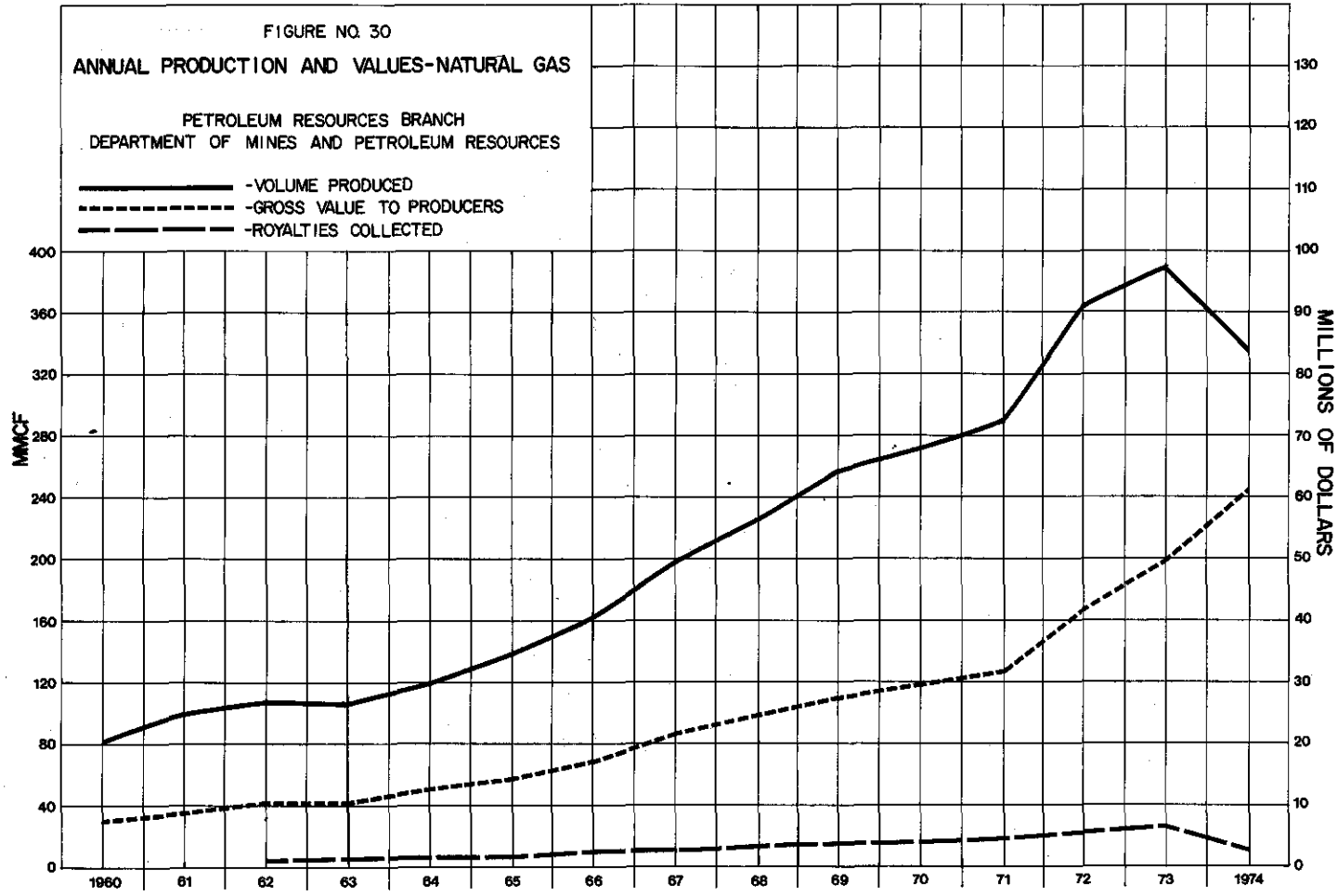
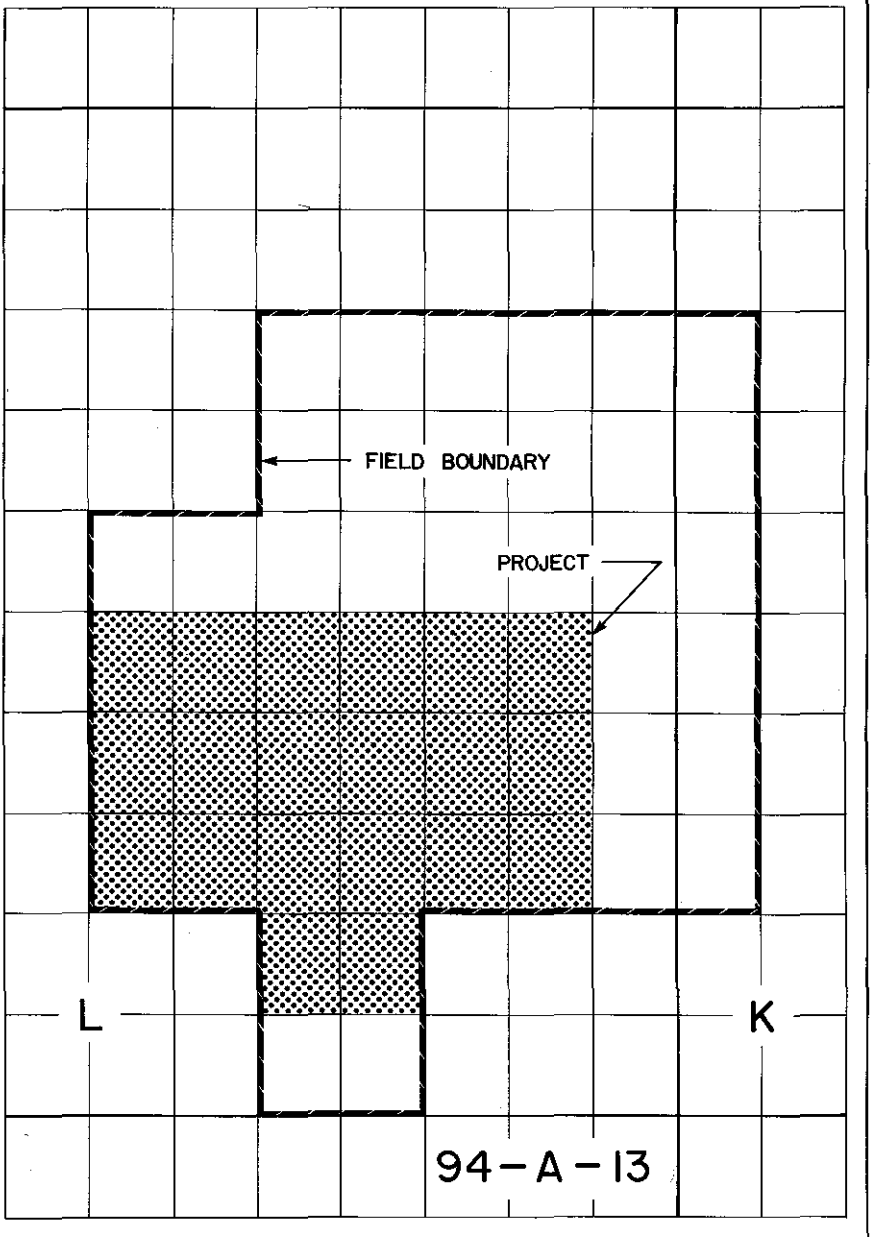

MILLIONS OF DOLLARS
MMSTB
FIGURE NO. 29
ANNUAL PRODUCTION AND VALUES-OIL
PETROLEUM RESOURCES BRANCH
DEPARTMENT OF MINES AND PETROLEUM RESOURCES
-VOLUME PRODUCED
-NET VALUE TO PRODUCERS
-ROYALTIES COLLECTED
1960
61
62
63
64
65
66
67
68
69
70
71
72
73
1974

FIGURE NO. 30

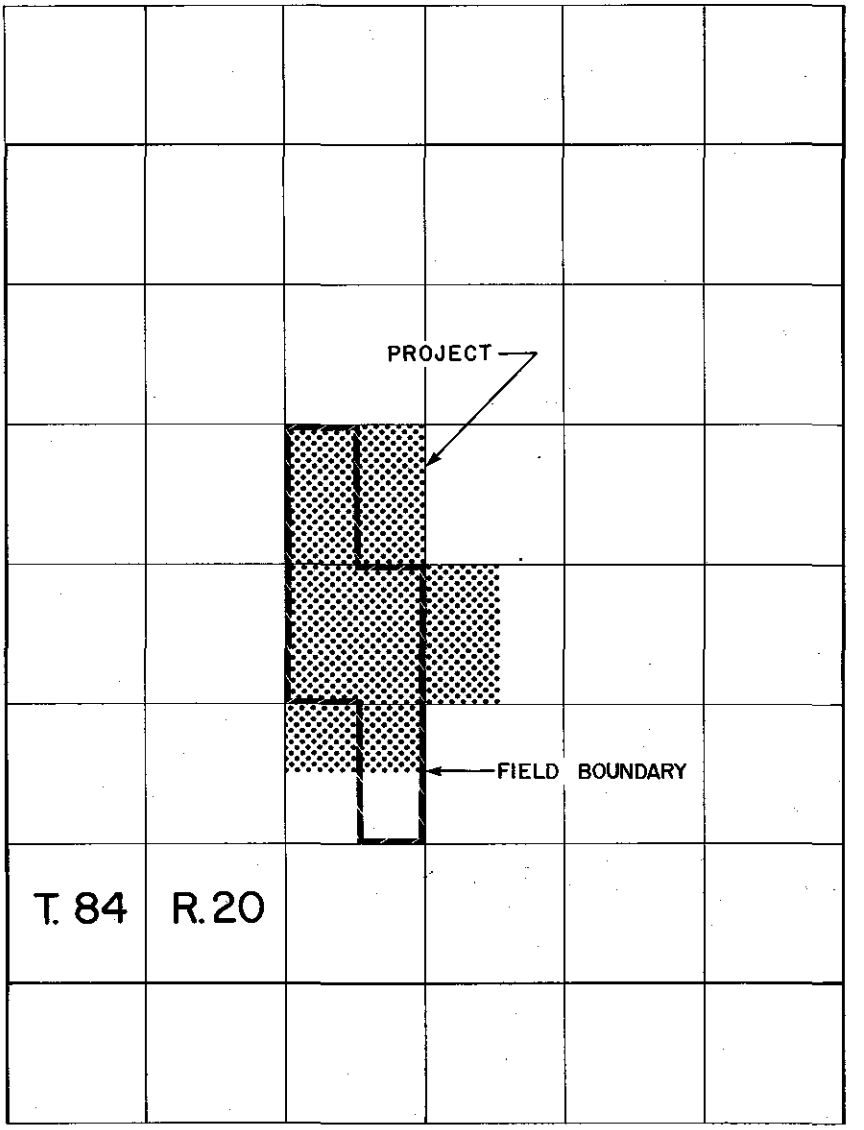
ANNUAL PRODUCTION AND VALUES-NATURAL GAS

PETROLEUM RESOURCES BRANCH
DEPARTMENT OF MINES AND PETROLEUM RESOURCES

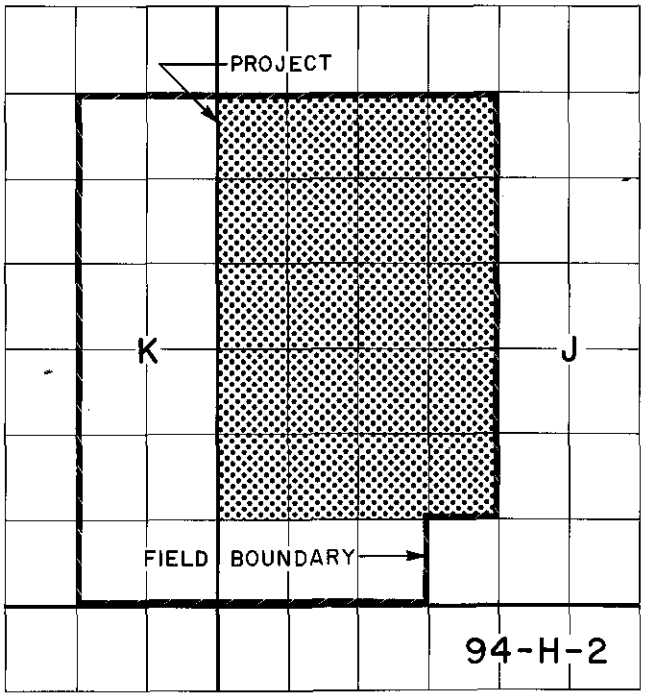




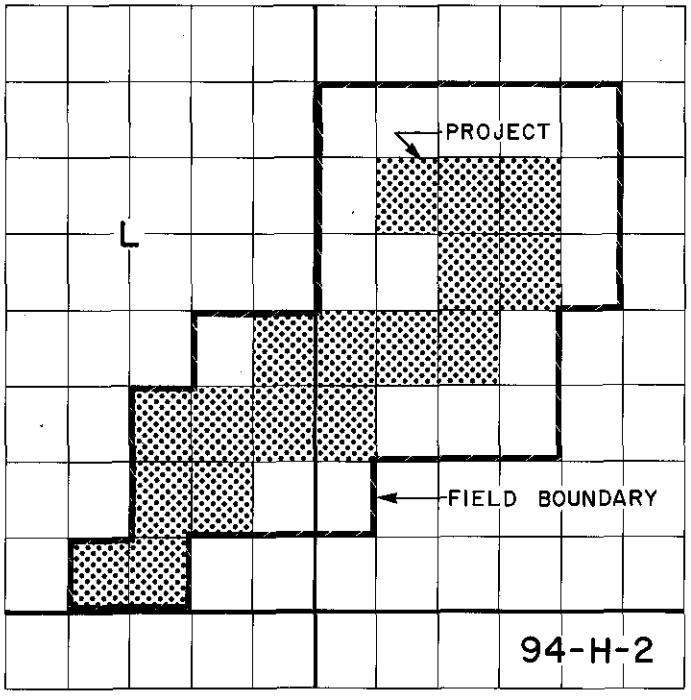
MAP 1
UNION OIL PROJECT
GETHING POOL
AITKEN CREEK FIELD



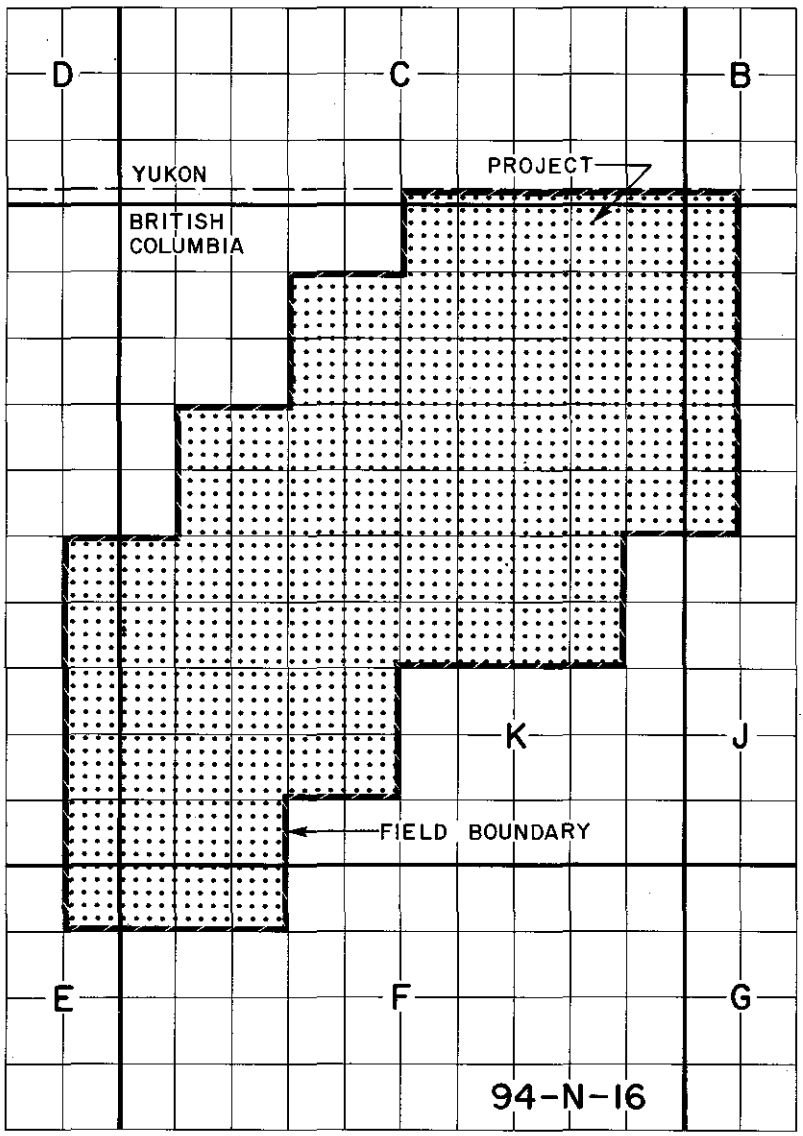
MAP 2
MONSANTO PROJECT
NORTH PINE POOL
BEAR FLAT FIELD



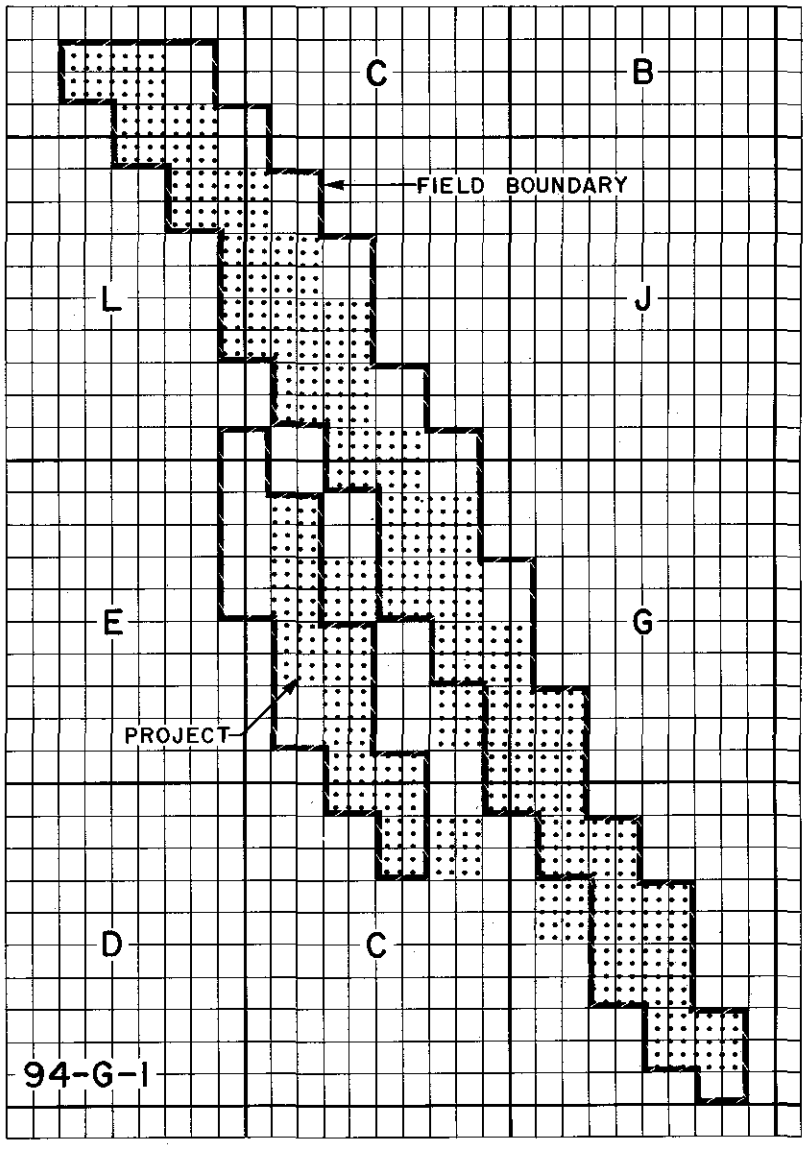
MAP 3
BP OIL PROJECT
HALFWAY POOL
BEATTON RIVER FIELD



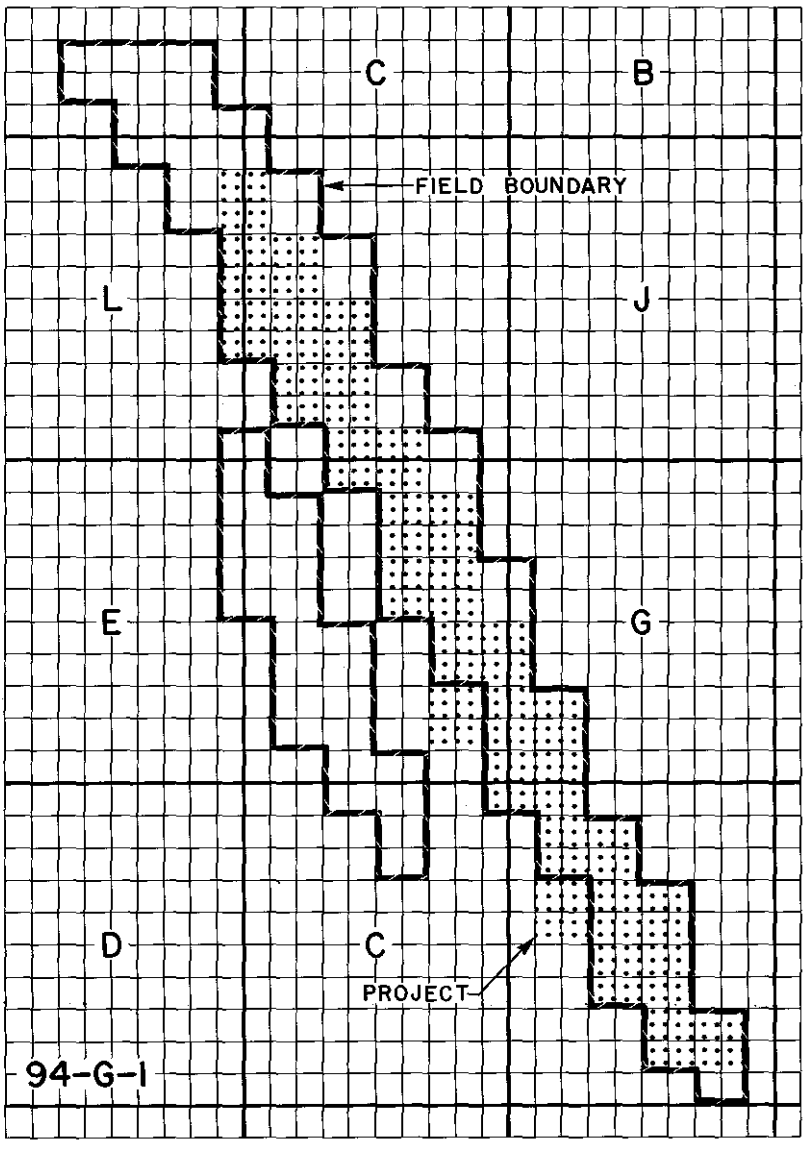
MAP 4
BP OIL UNIT I
BLUESKY POOL
BEATTON RIVER WEST FIELD



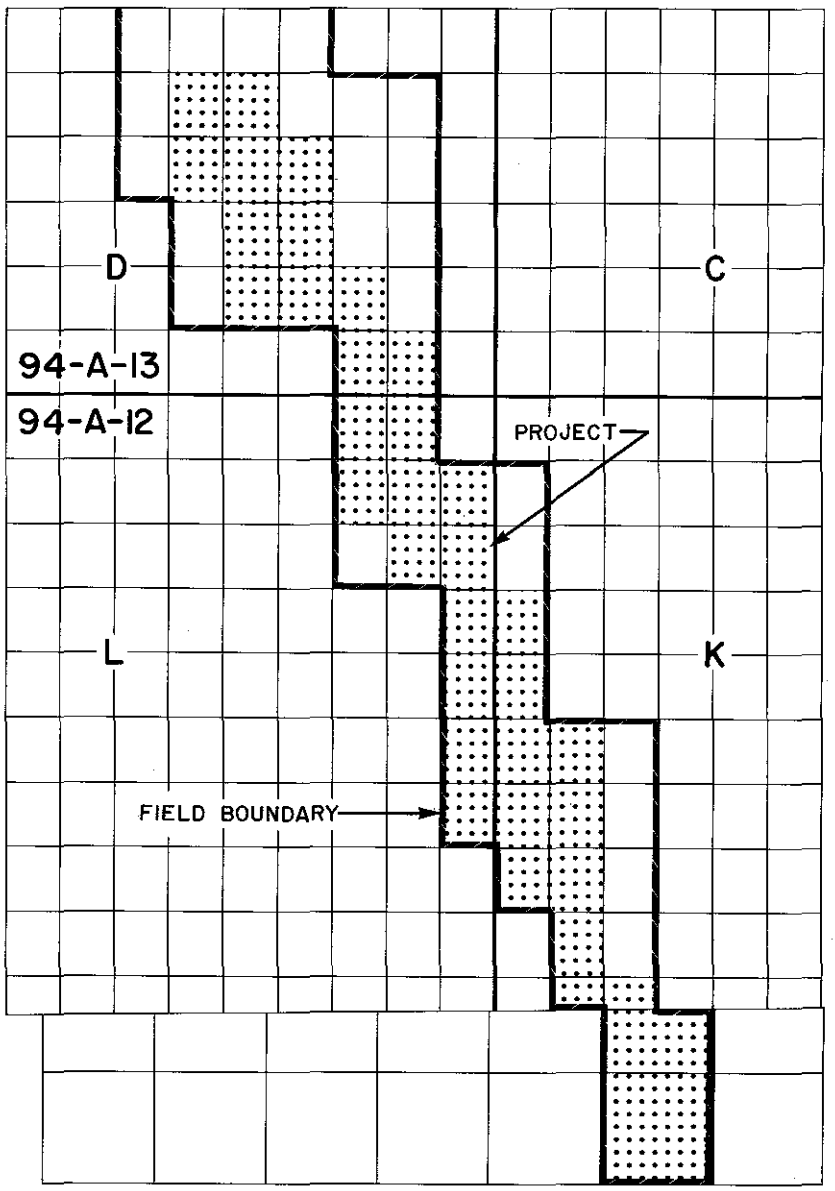
MAP 5
AMOCO PROJECT
NAHANNI POOL
BEAVER RIVER FIELD



MAP 6
PACIFIC PETROLEUMS PROJECT
BALDONNEL POOL
BEG & BEG WEST FIELDS

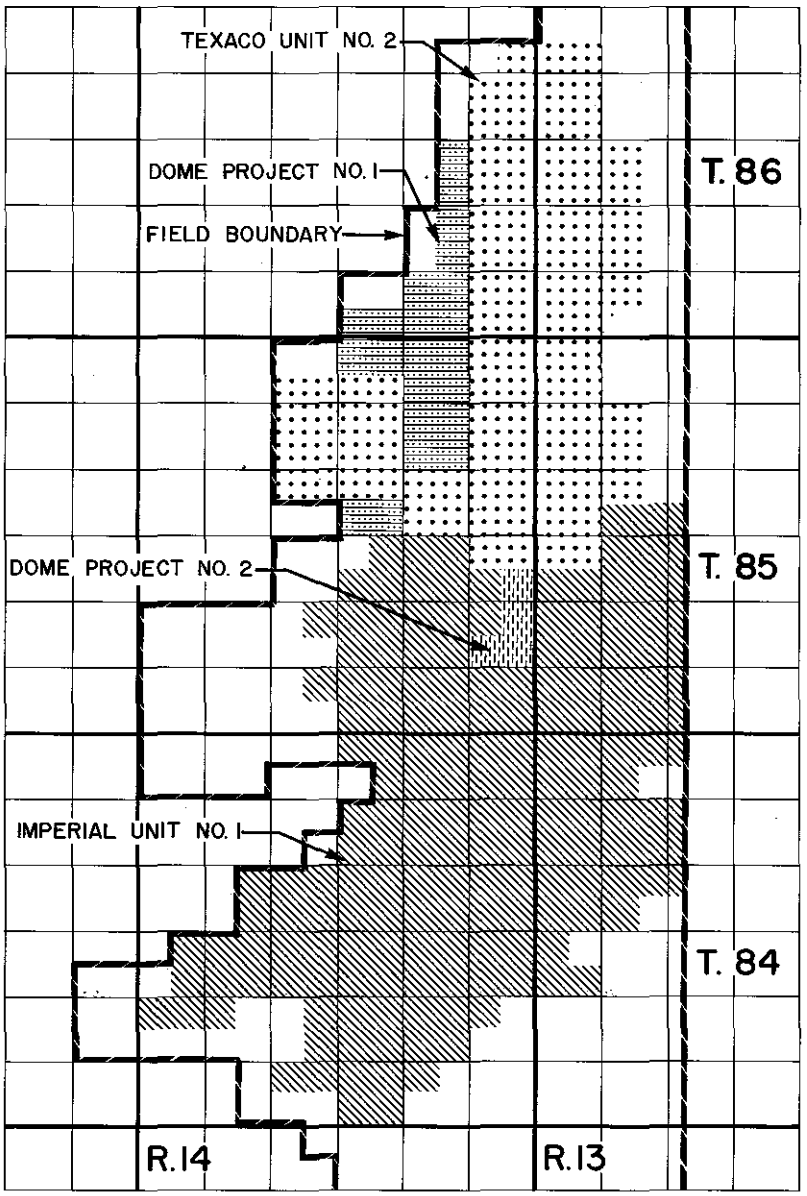


MAP 7
PACIFIC PETROLEUMS PROJECT
HALFWAY POOL
BEG FIELD

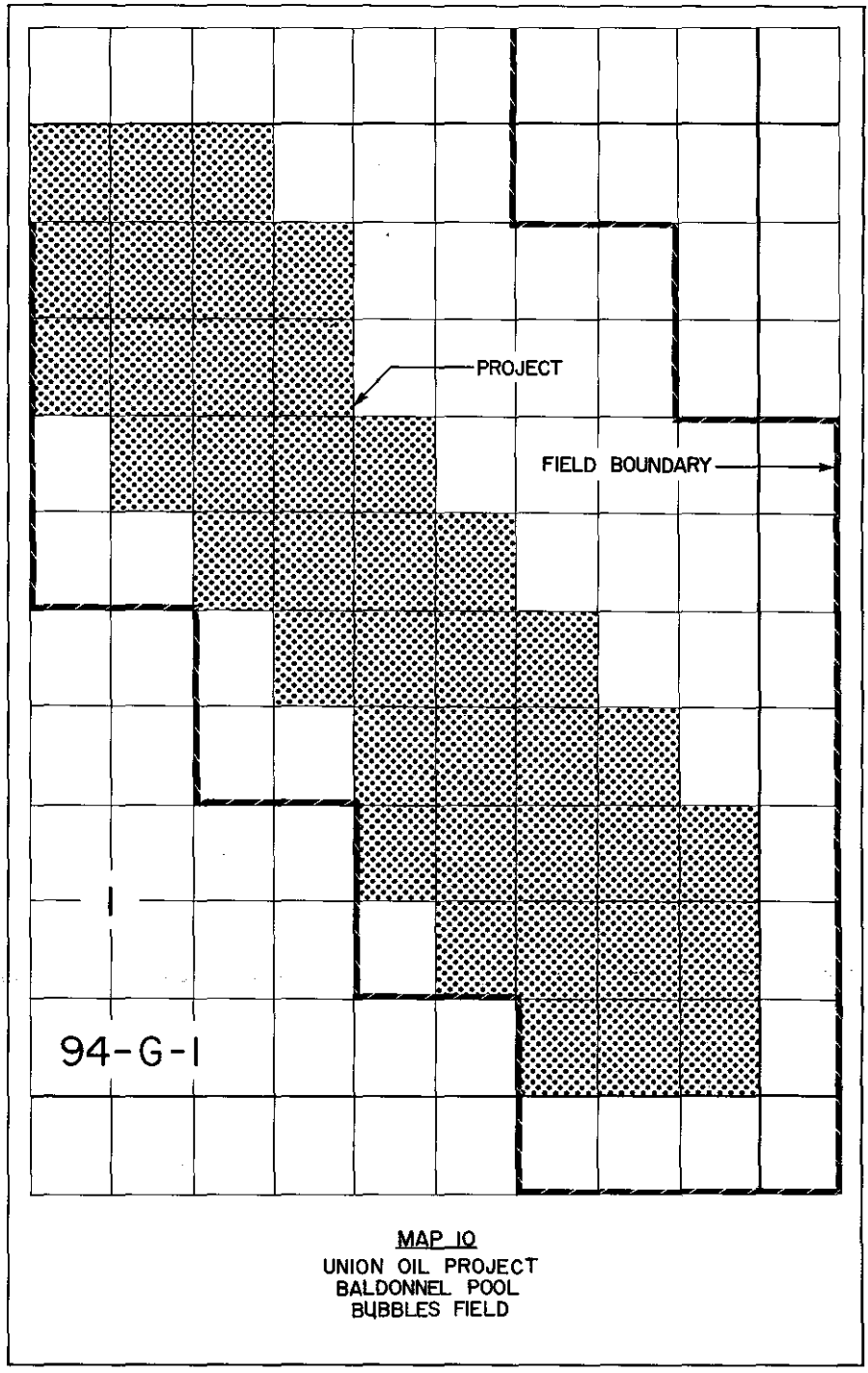


MAP 8

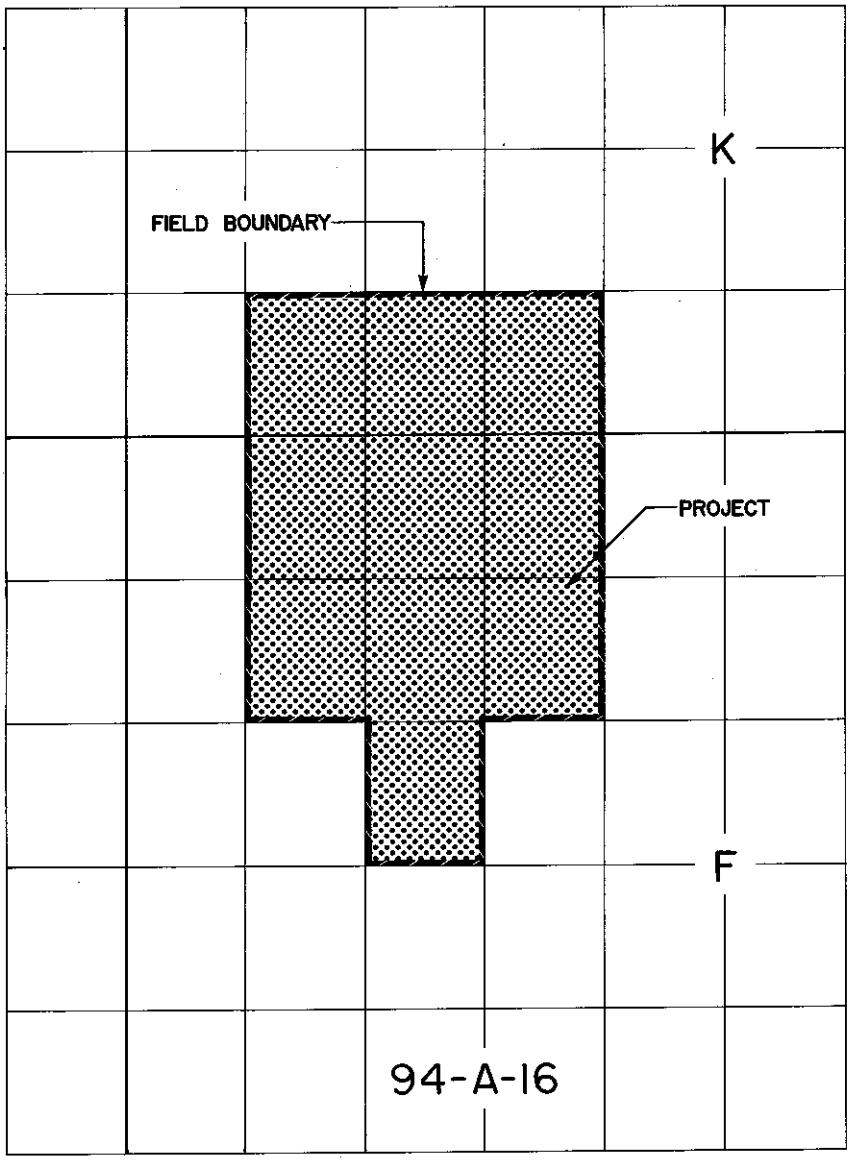
PACIFIC PETROLEUMS PROJECT
DEBOLT POOL
BLUEBERRY FIELD



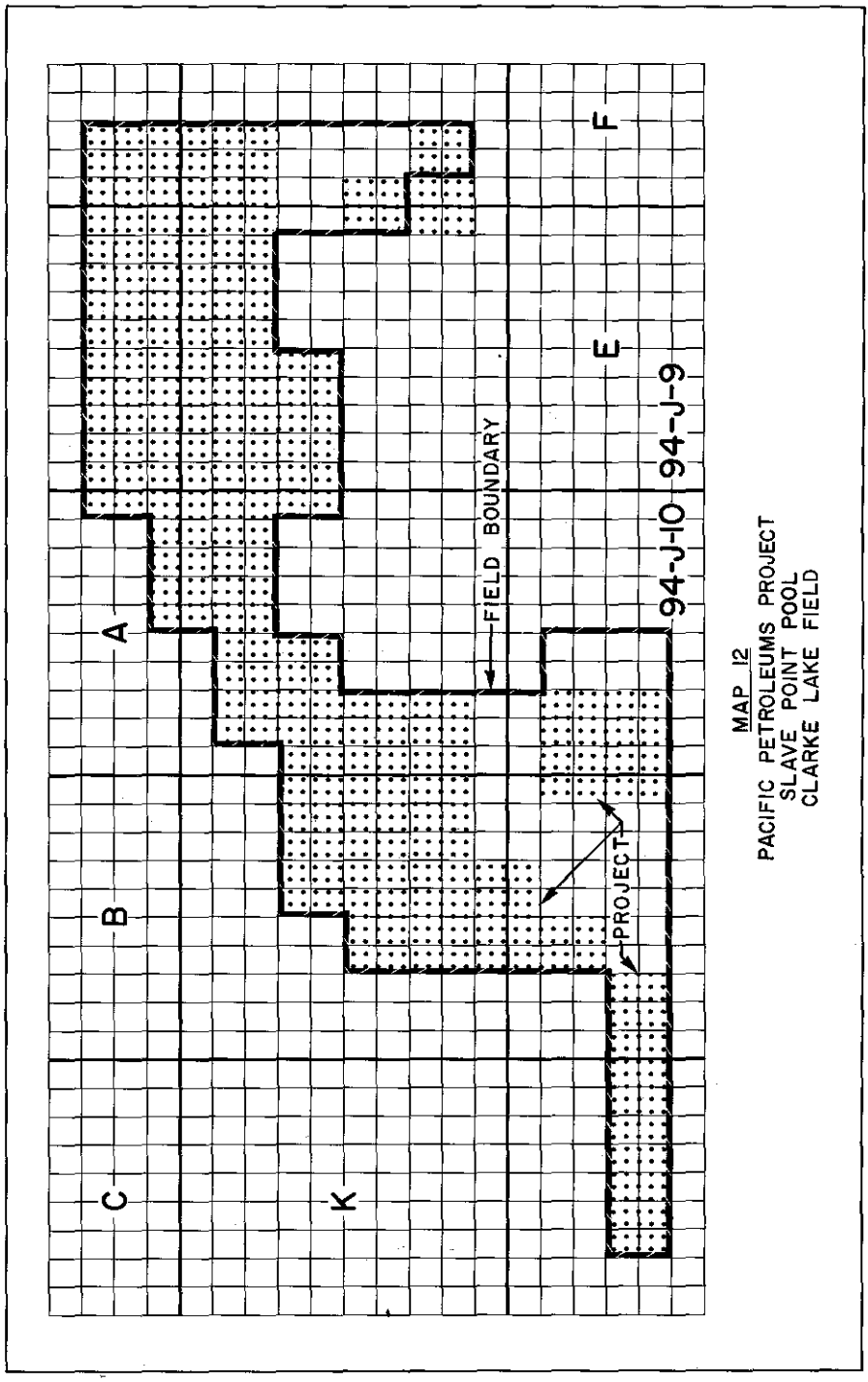
MAP 9
BOUNDARY LAKE POOL PROJECTS
BOUNDARY LAKE FIELD



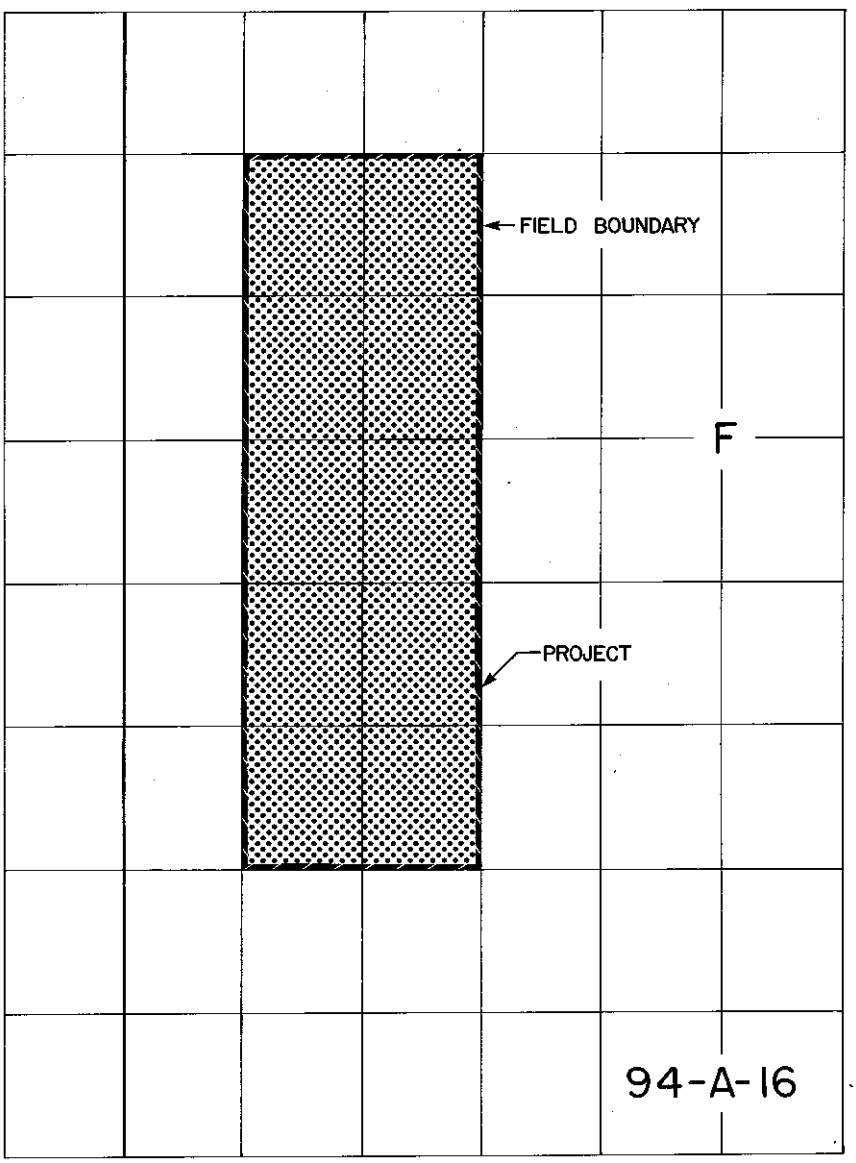
MAP 10
UNION OIL PROJECT
BALDONNEL POOL
BUBBLES FIELD



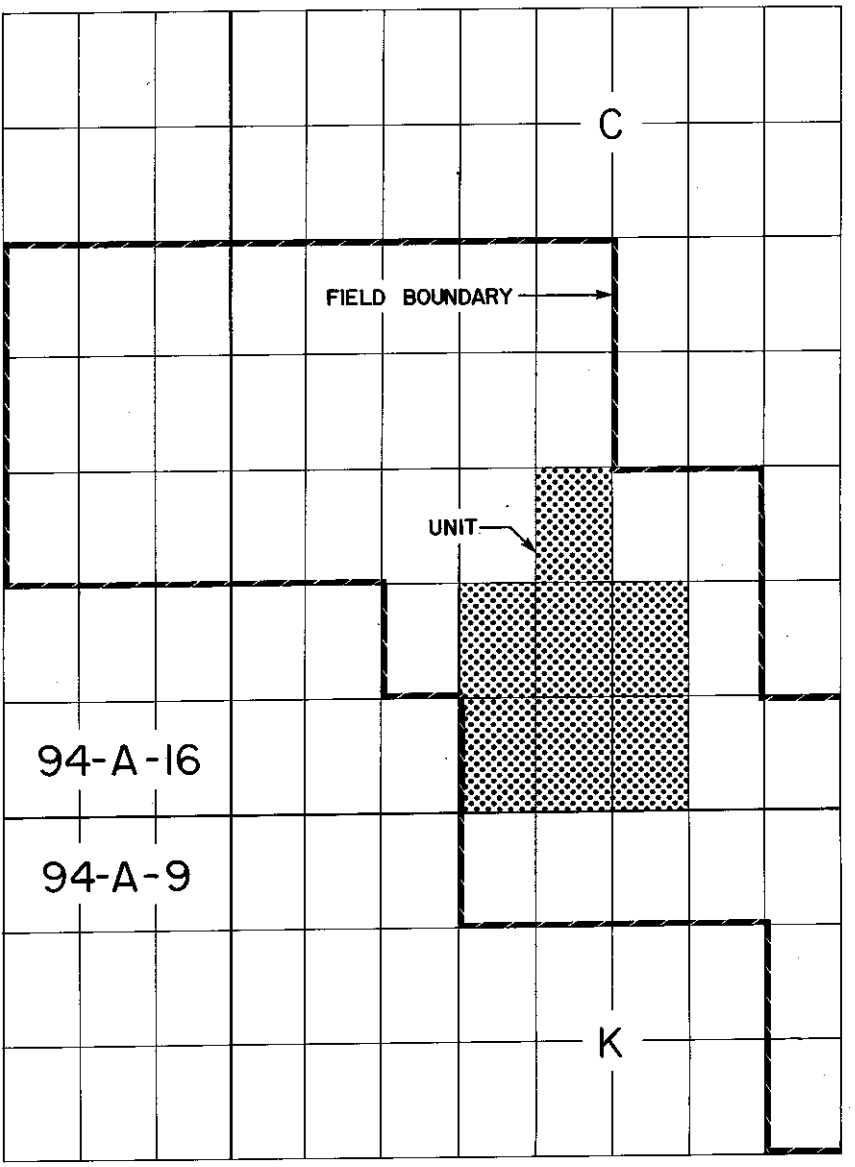
MAP II
UNION OIL PROJECT
HALFWAY POOL
BULRUSH FIELD



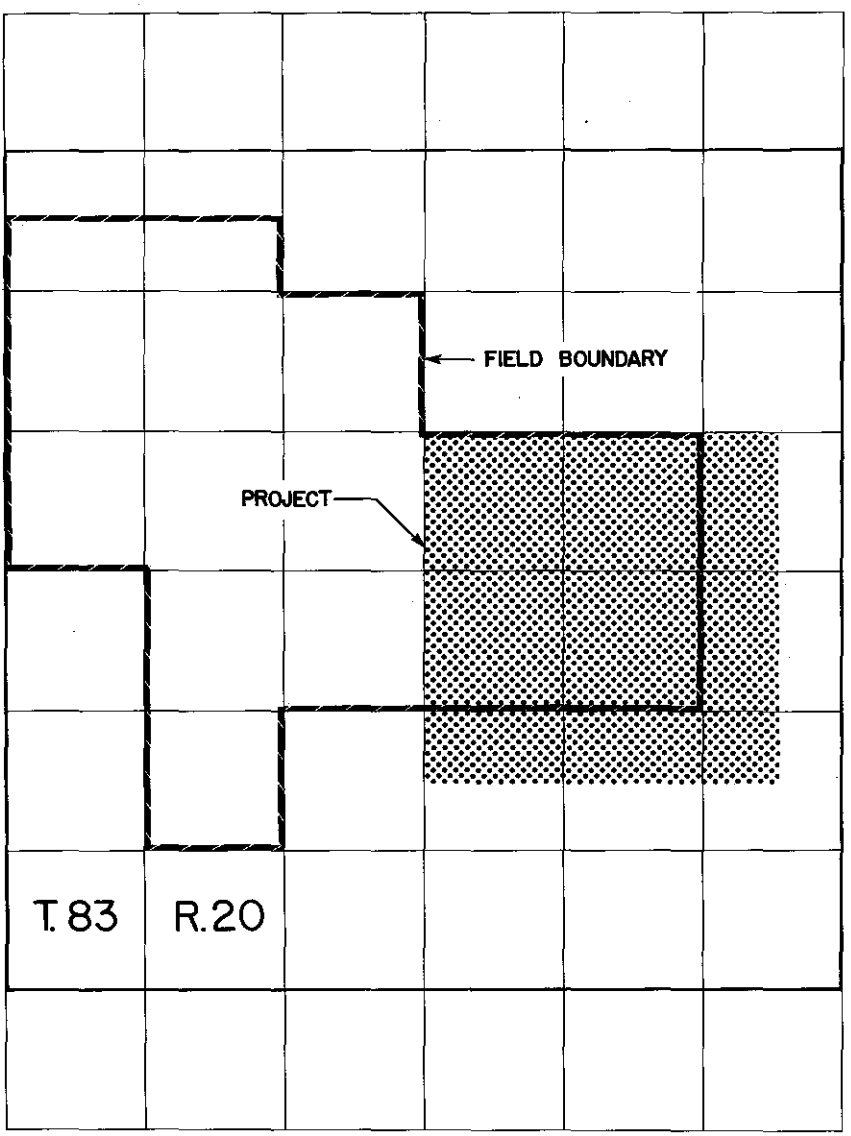
MAP 12
PACIFIC PETROLEUMS PROJECT
SLAVE POINT POOL
CLARKE LAKE FIELD



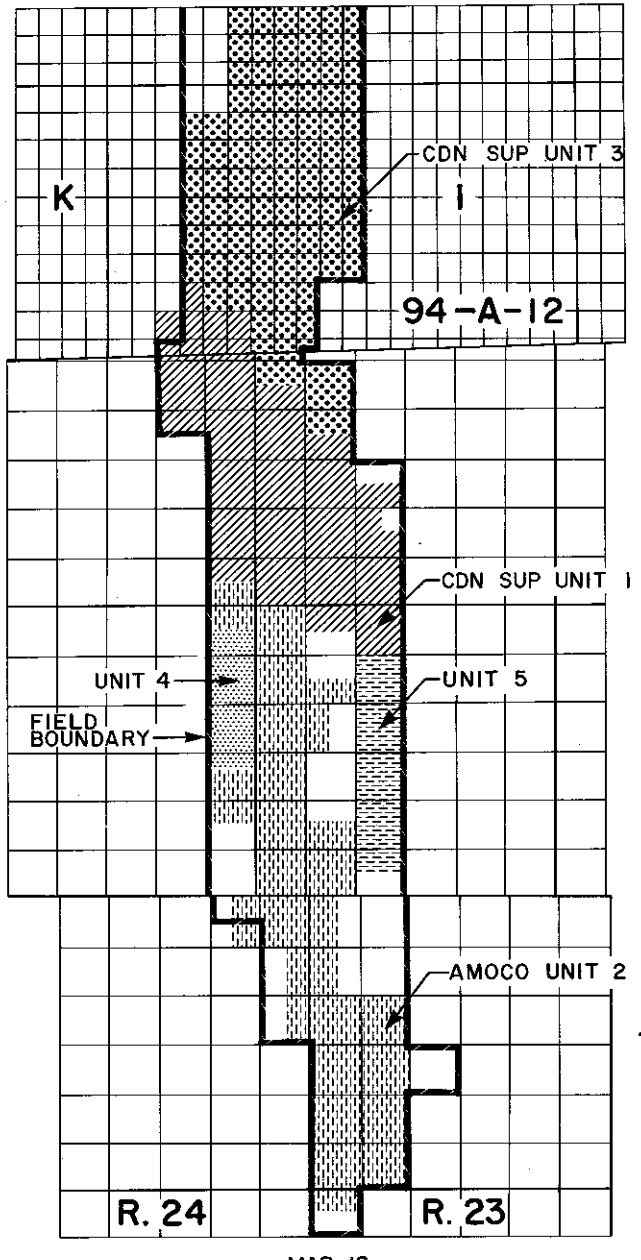
MAP 13
UNION OIL UNIT I
HALFWAY POOL
CRUSH FIELD



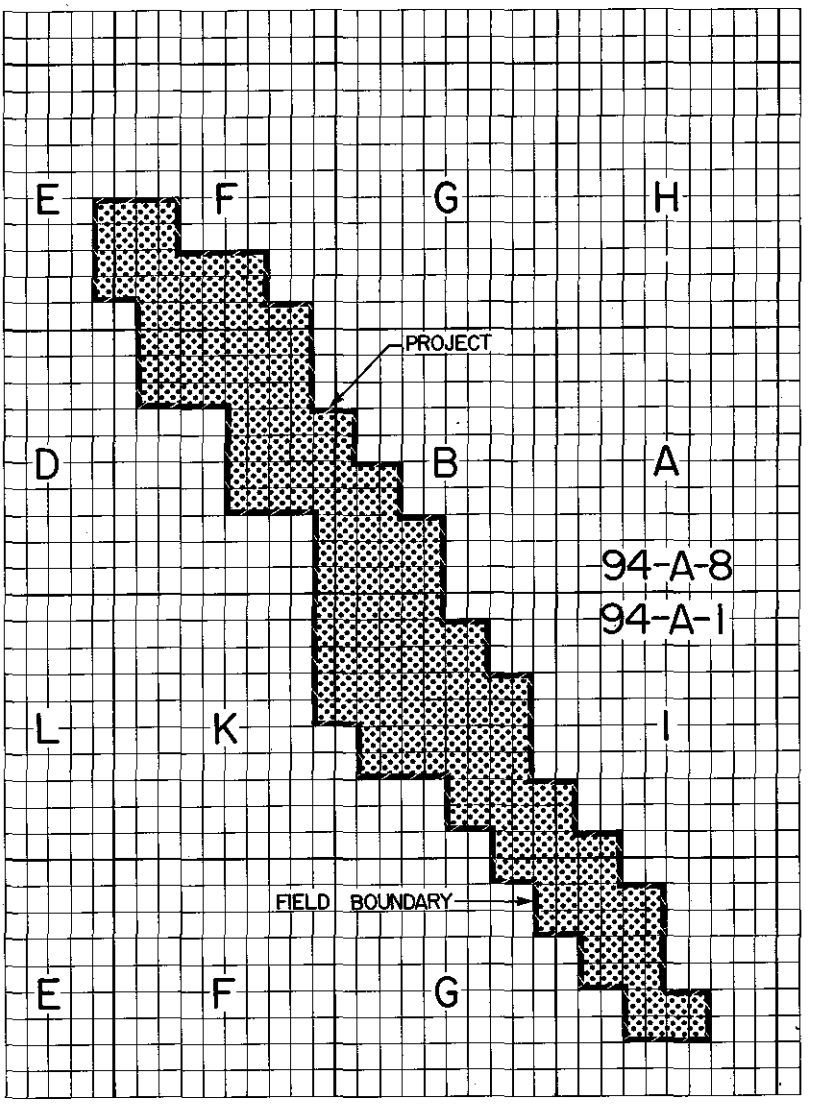
MAP 14
PACIFIC PETROLEUMS UNIT 1
HALFWAY POOL
CURRANT FIELD



MAP 15
PACIFIC PETROLEUMS UNIT I
PINGEL POOL
FORT ST. JOHN FIELD

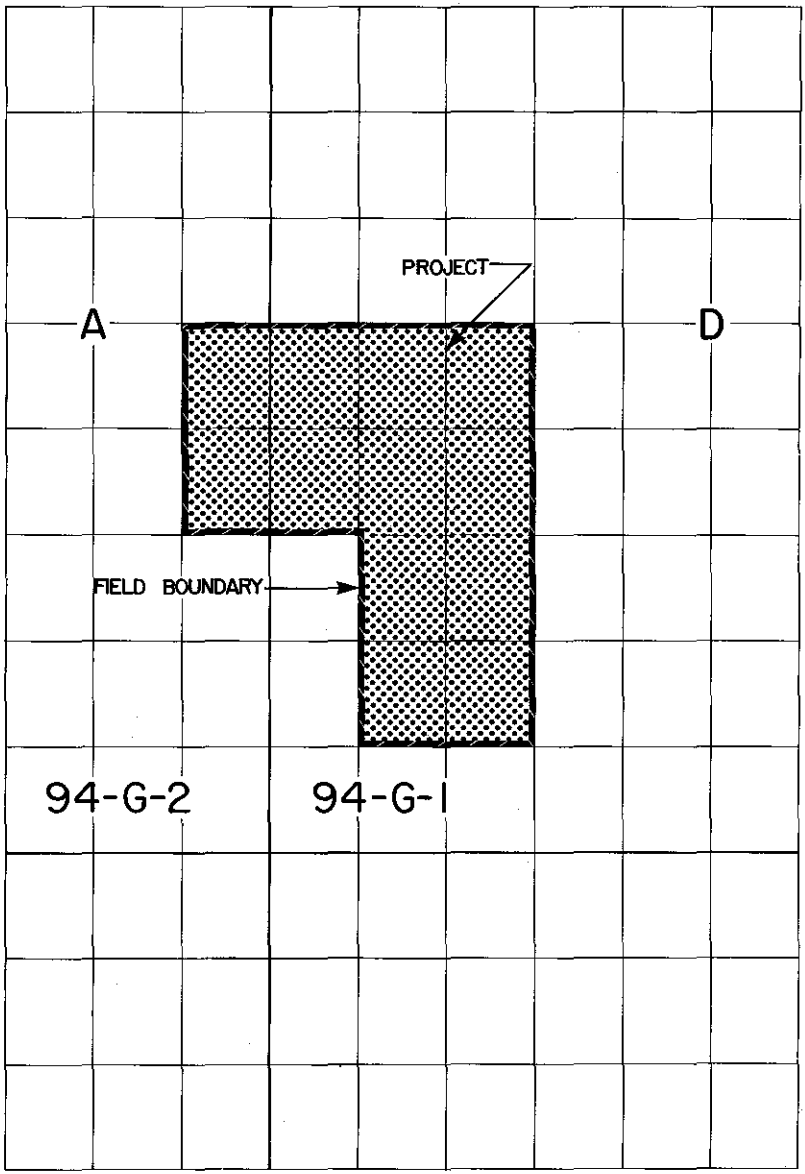


MAP 16
INGA POOL UNITS
INGA FIELD



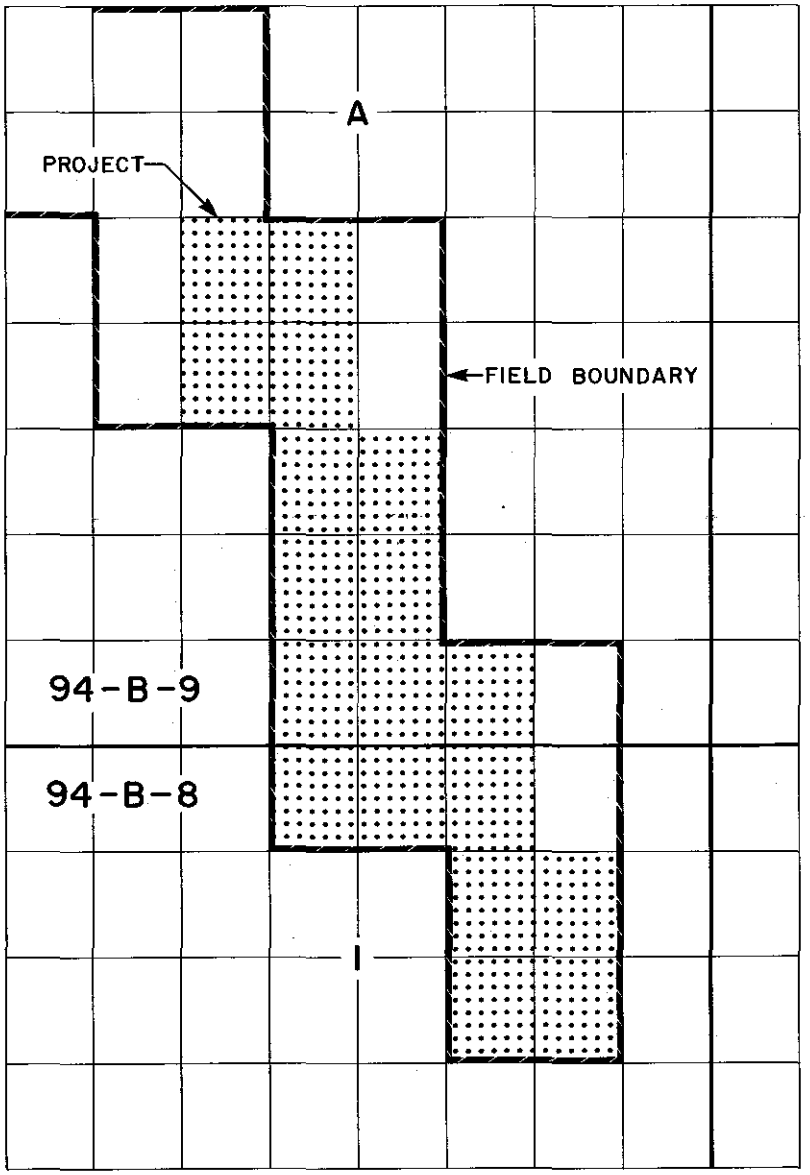
MAP 17

PACIFIC PROJECTS
BALDONNEL & HALFWAY POOLS
JEDNEY FIELD

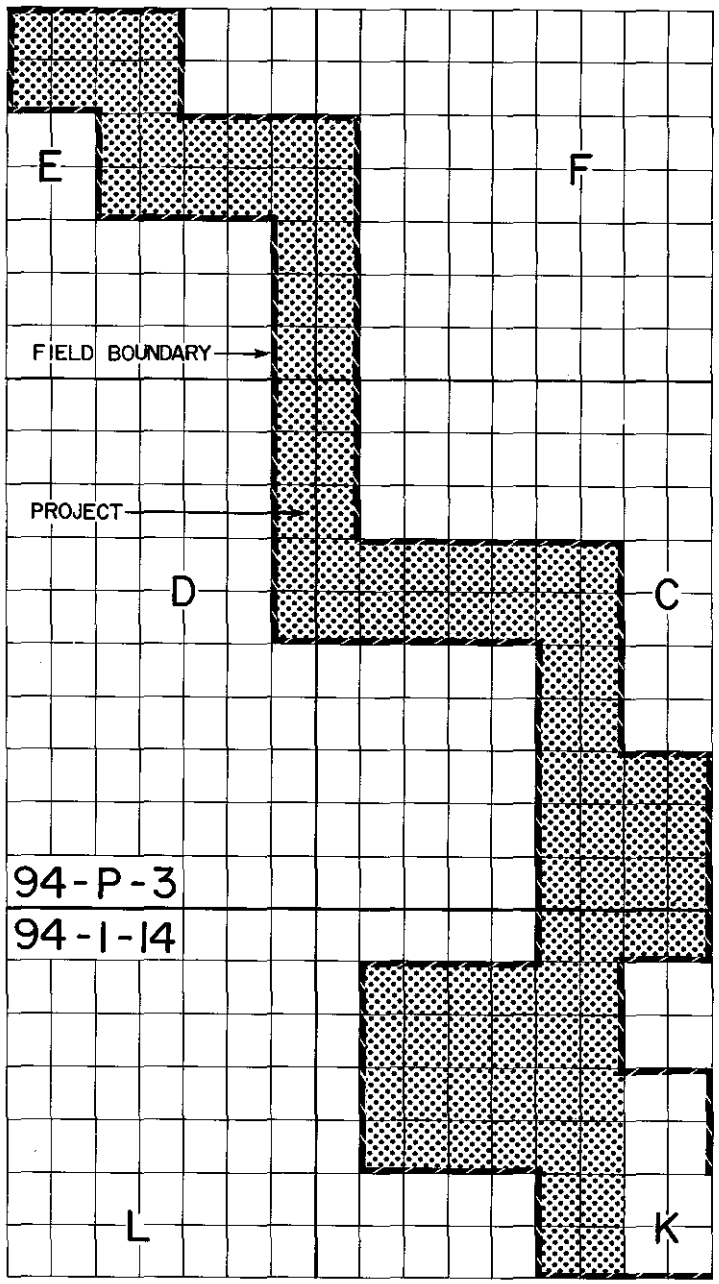


MAP 18

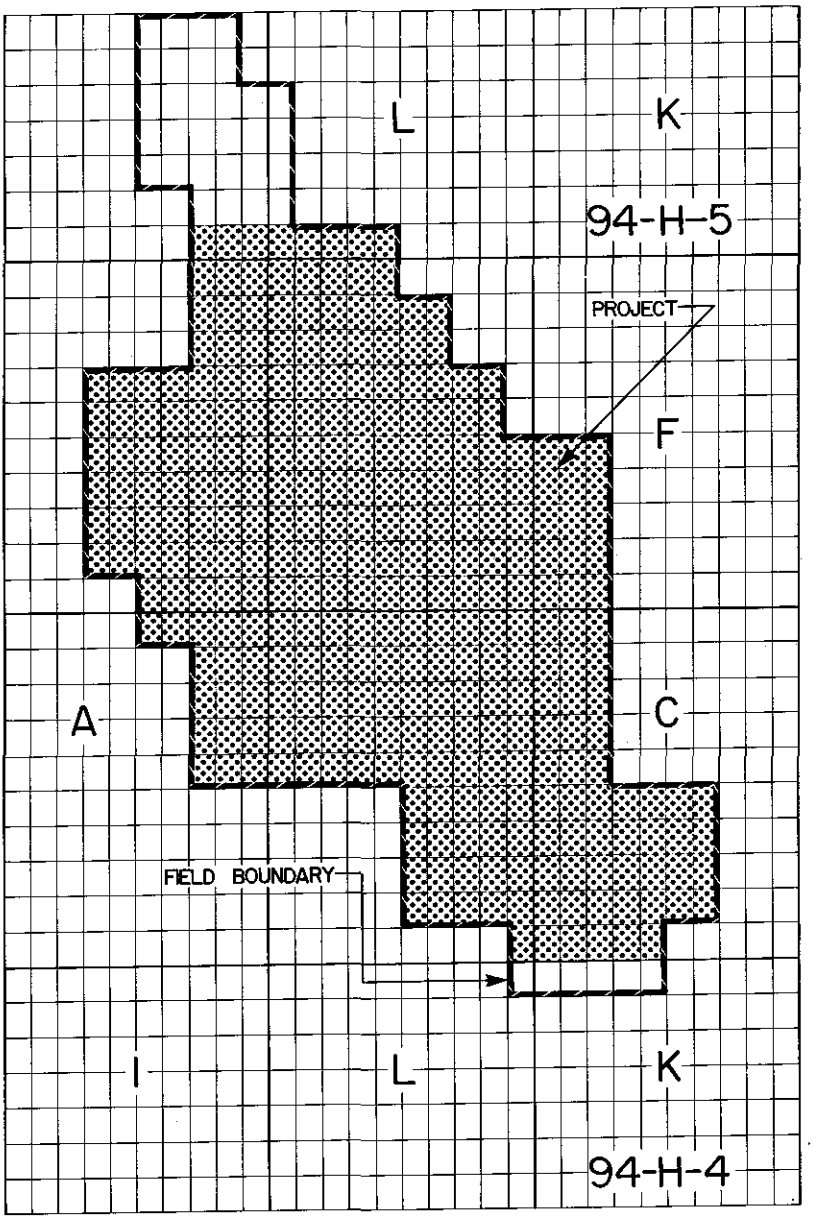
ARCO PROJECTS
BALDONNEL & HALFWAY POOLS
JULIENNE FIELD



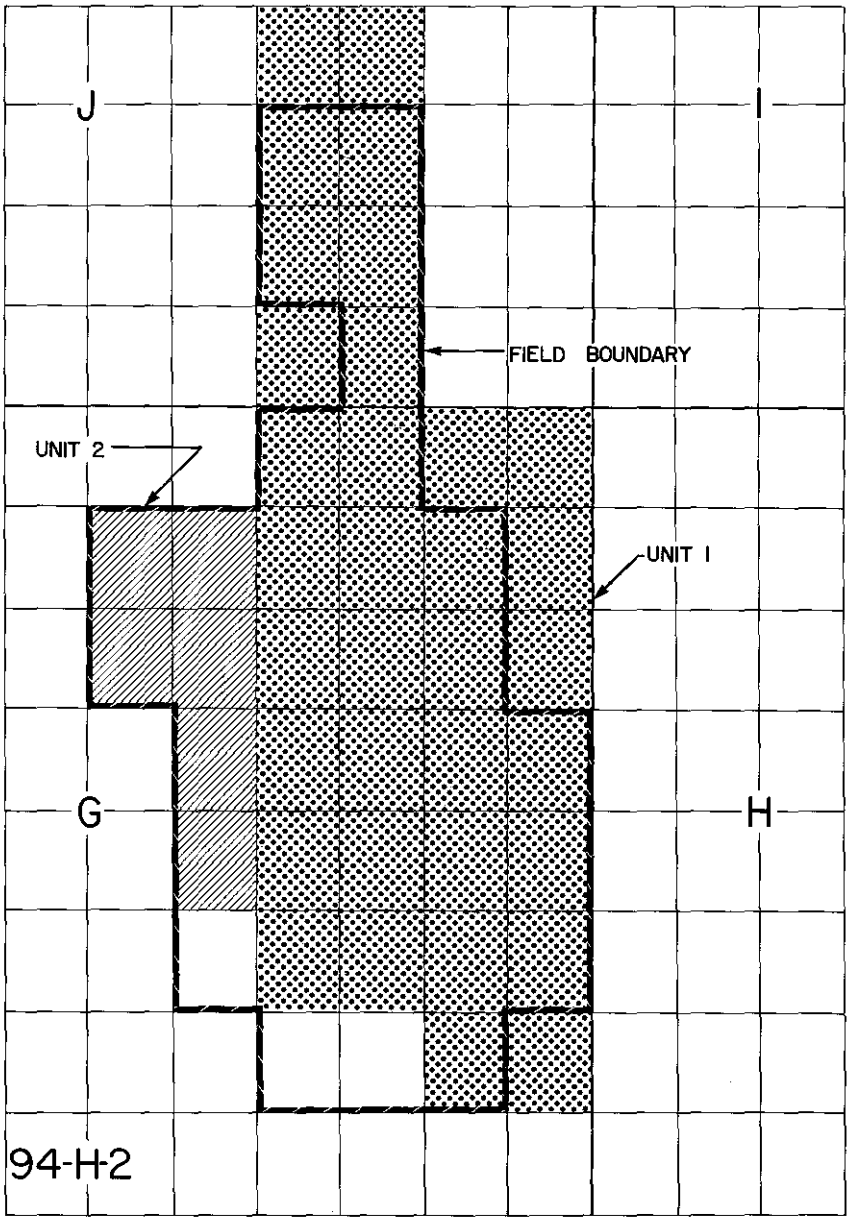
MAP 19
PACIFIC PETROLEUM PROJECT
HALFWAY POOL
KOBES-TOWNSEND FIELD



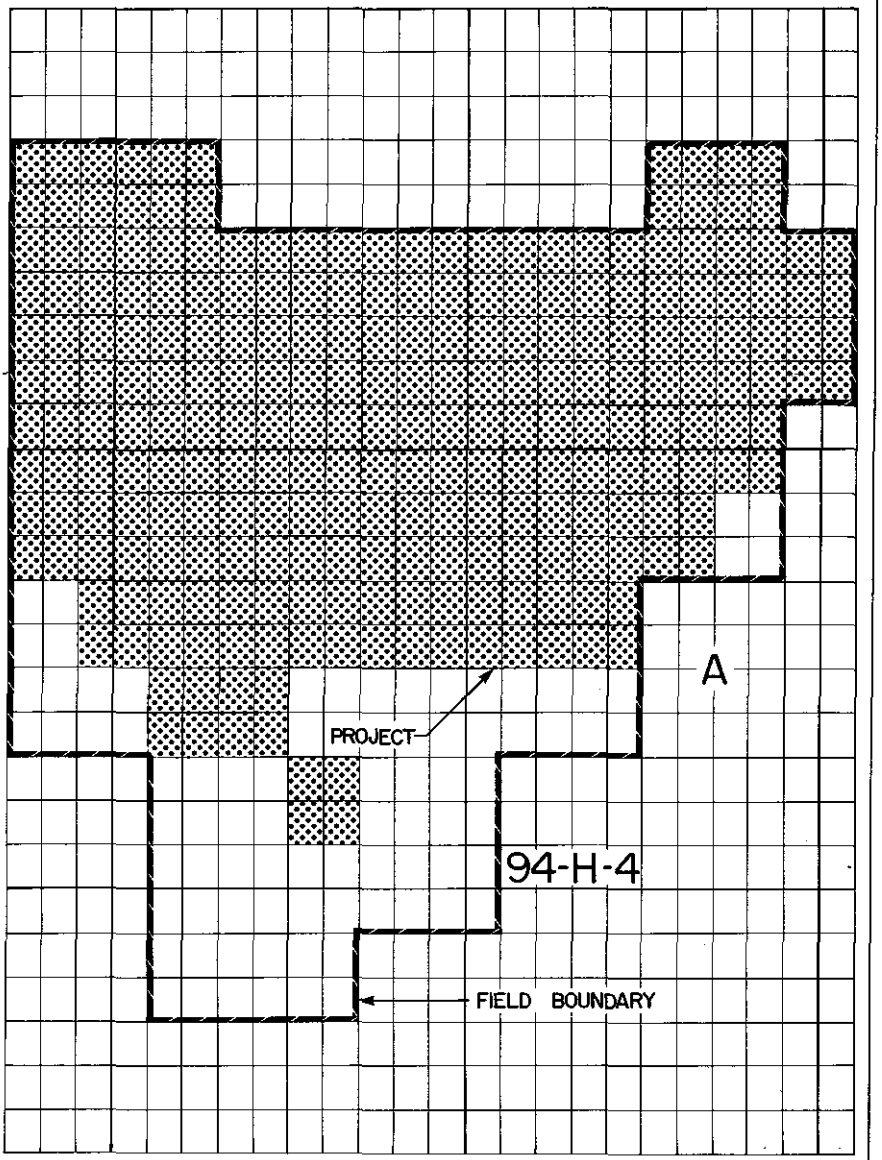
MAP 20
PACIFIC PETROLEUM PROJECT
SLAVE POINT POOL
KOTCHO LAKE FIELD



MAP 21
BALDONNEL POOL PROJECT
LAPRISE CREEK FIELD

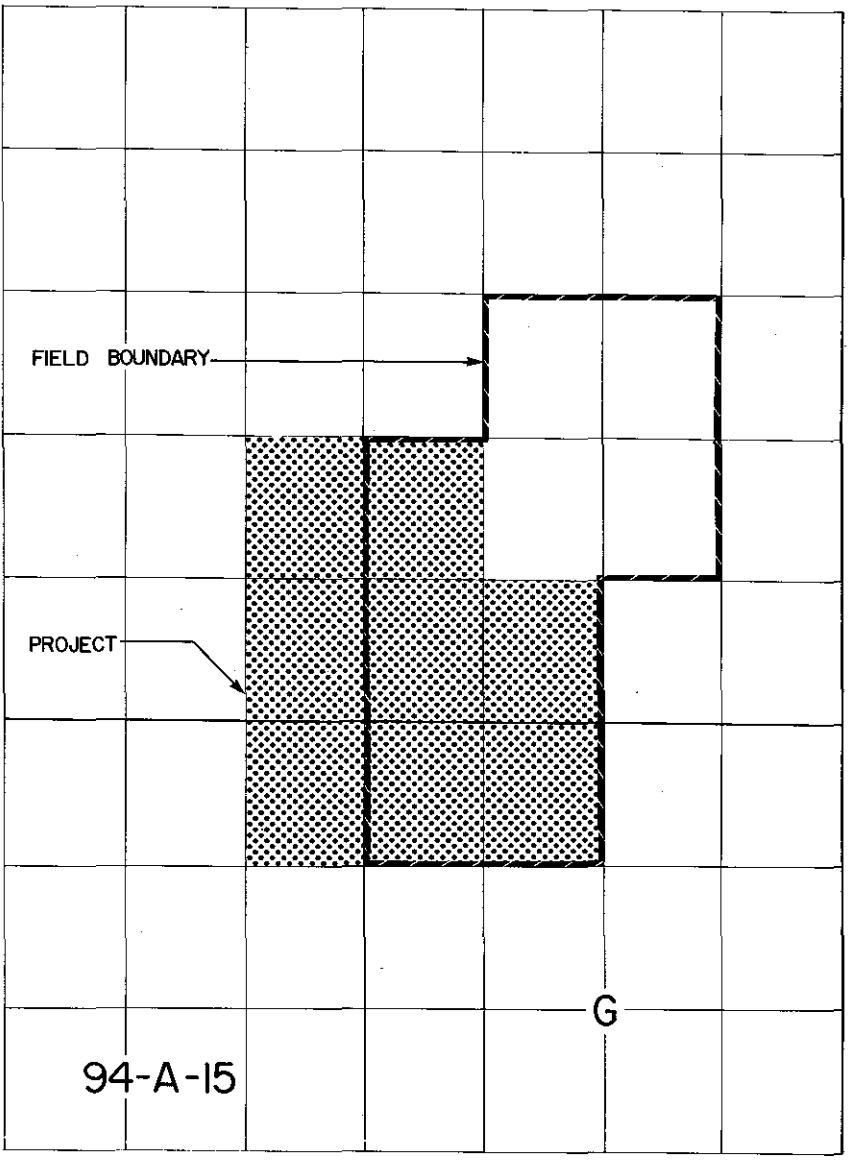


MAP 22
UNION OIL UNITS
HALFWAY POOL
MILLIGAN CREEK FIELD

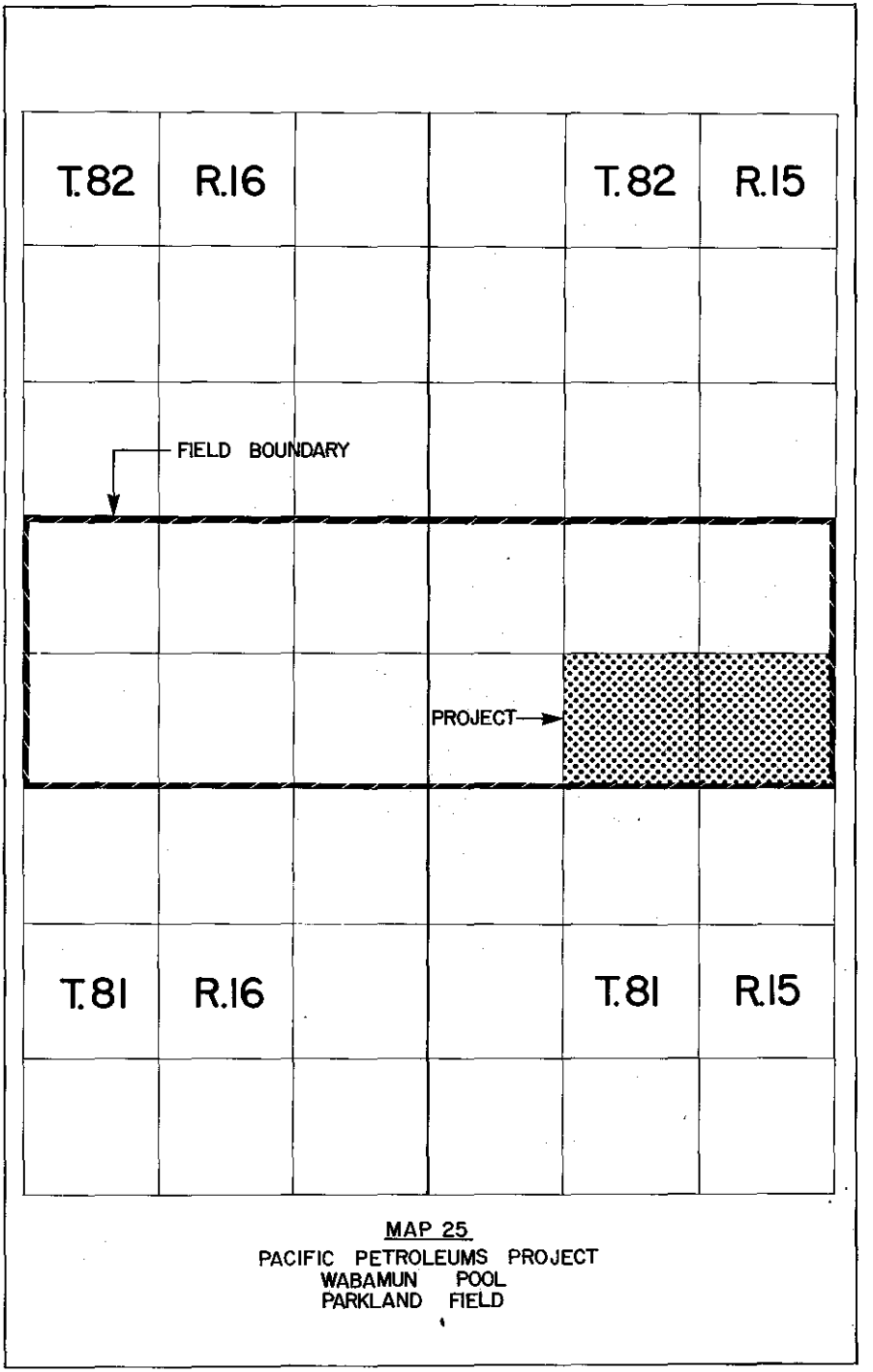


MAP 23

TEXACO EXPLORATION PROJECT
BALDONNEL POOL
NIG CREEK FIELD

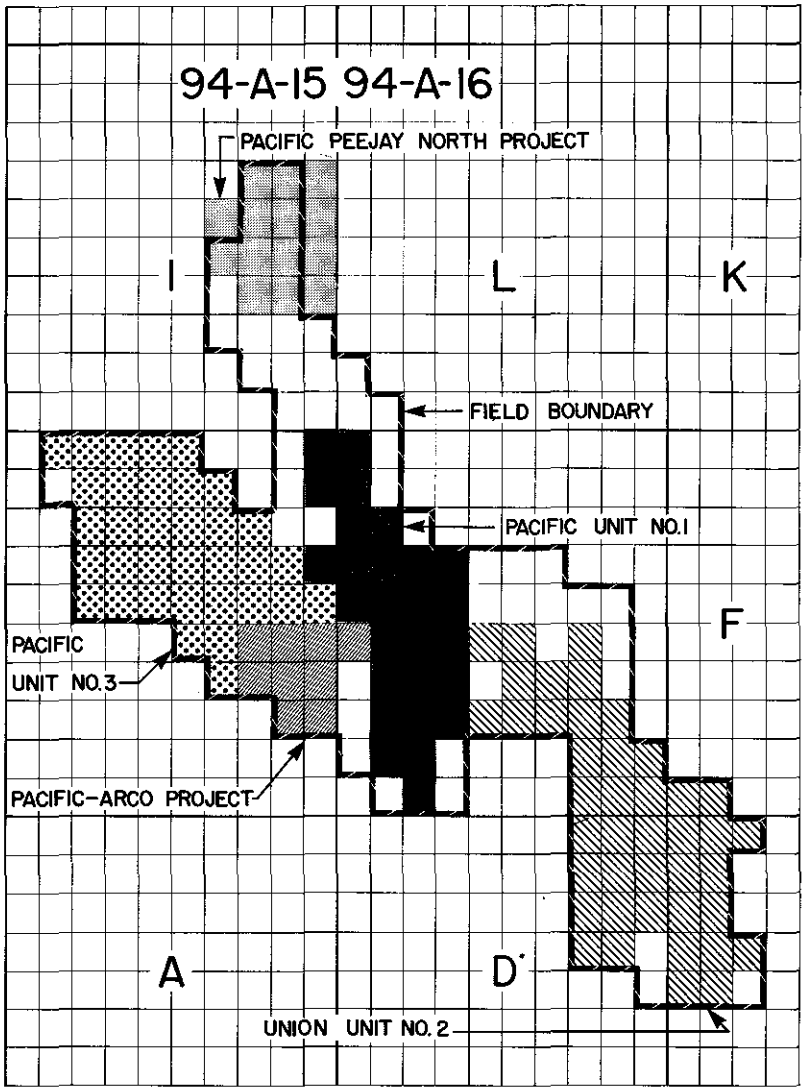


MAP 24
PACIFIC PETROLEUMS PROJECT
HALFWAY POOL
OSPREY FIELD



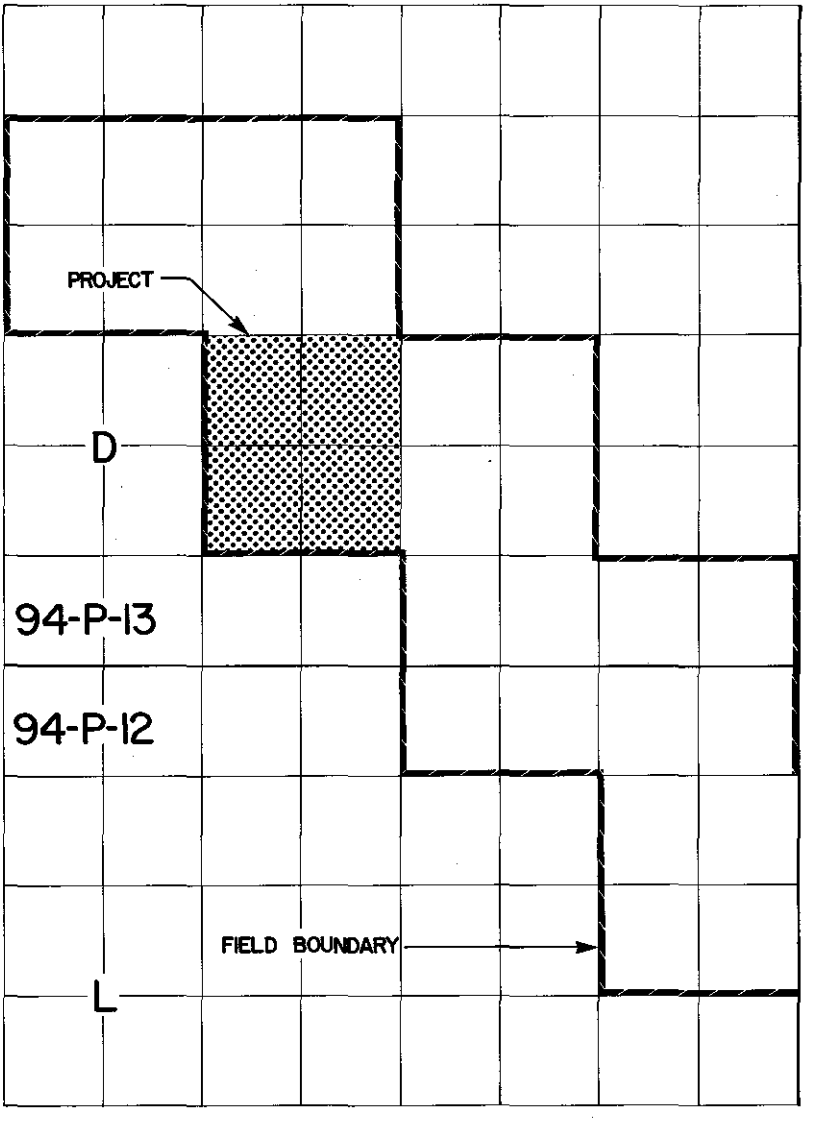
MAP 25

PACIFIC PETROLEUMS PROJECT
WABAMUN POOL
PARKLAND FIELD

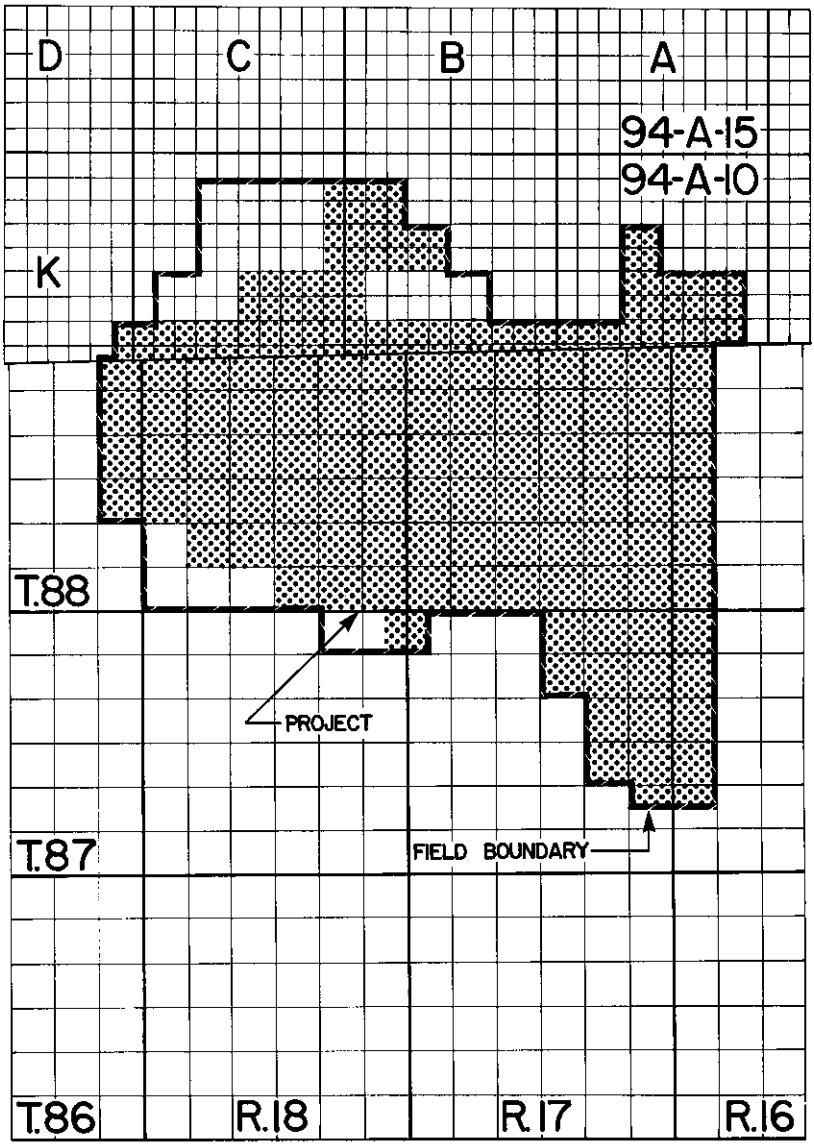


MAP 26

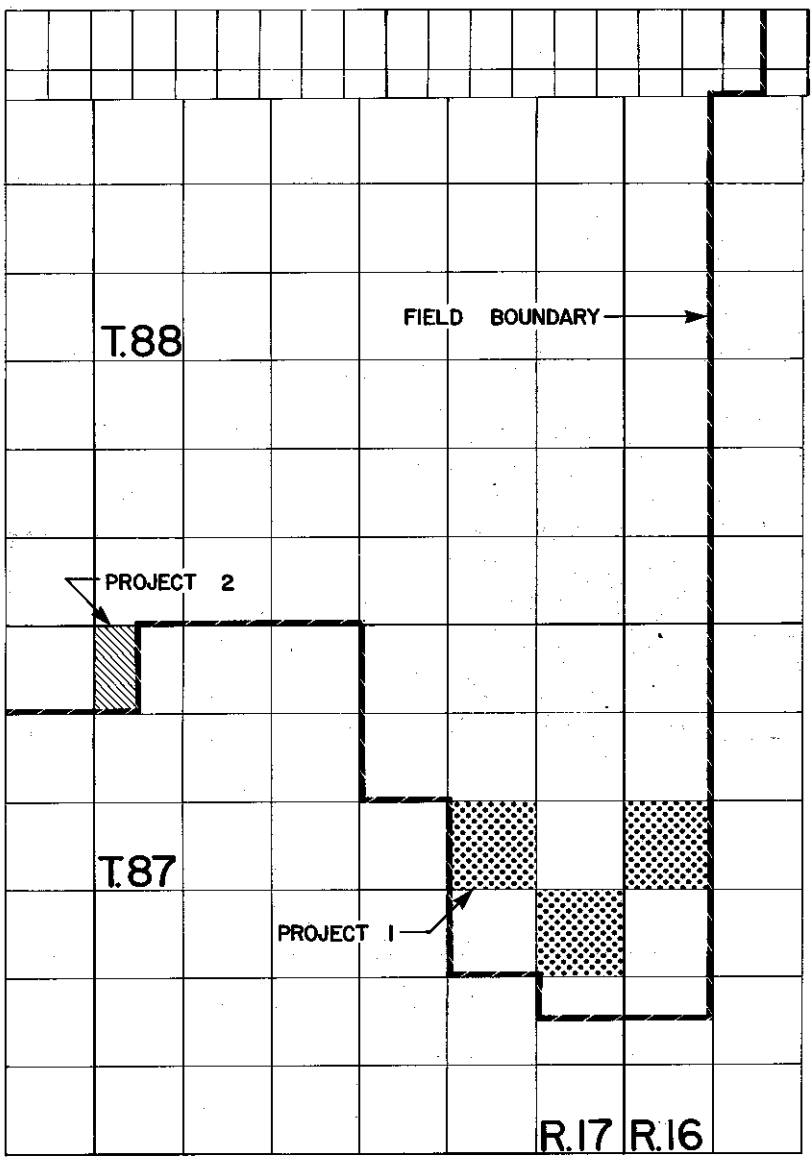
HALFWAY POOL PROJECT
PEEJAY FIELD



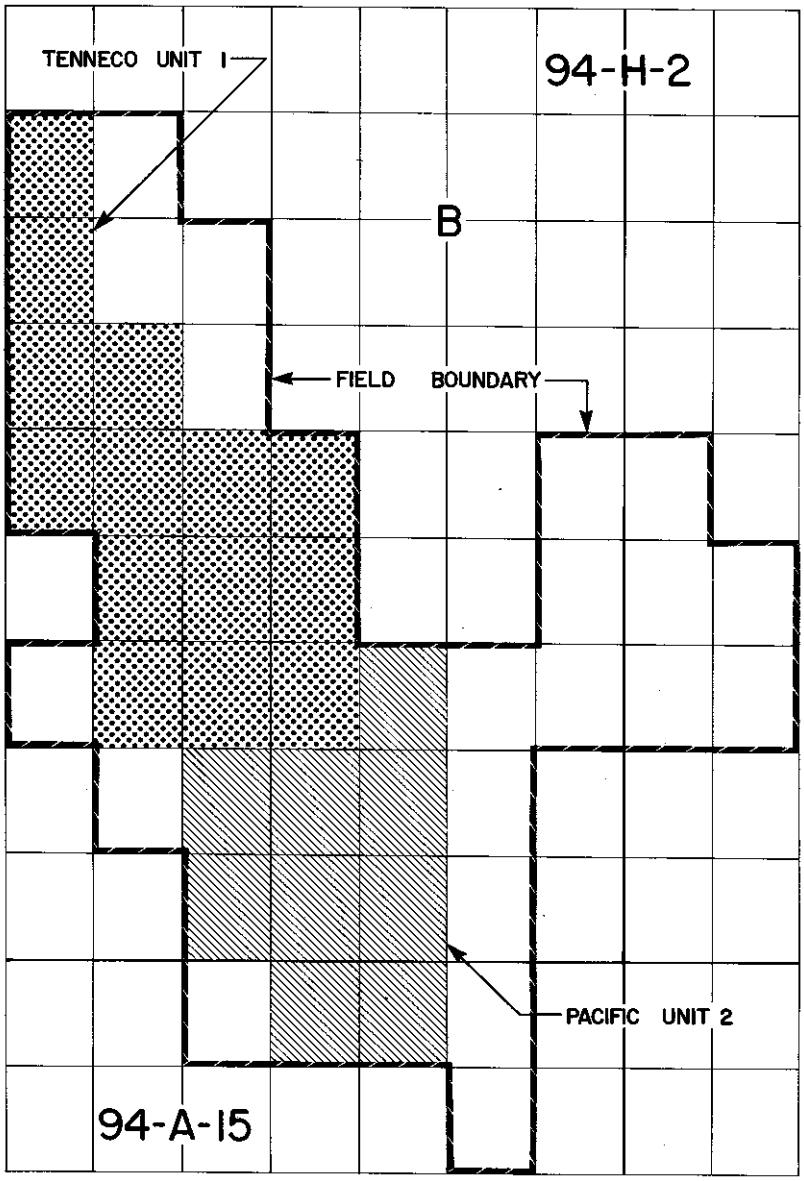
MAP 27
PACIFIC PETROLEUMS PROJECT
SLAVE POINT POOL
PETITOT RIVER FIELD



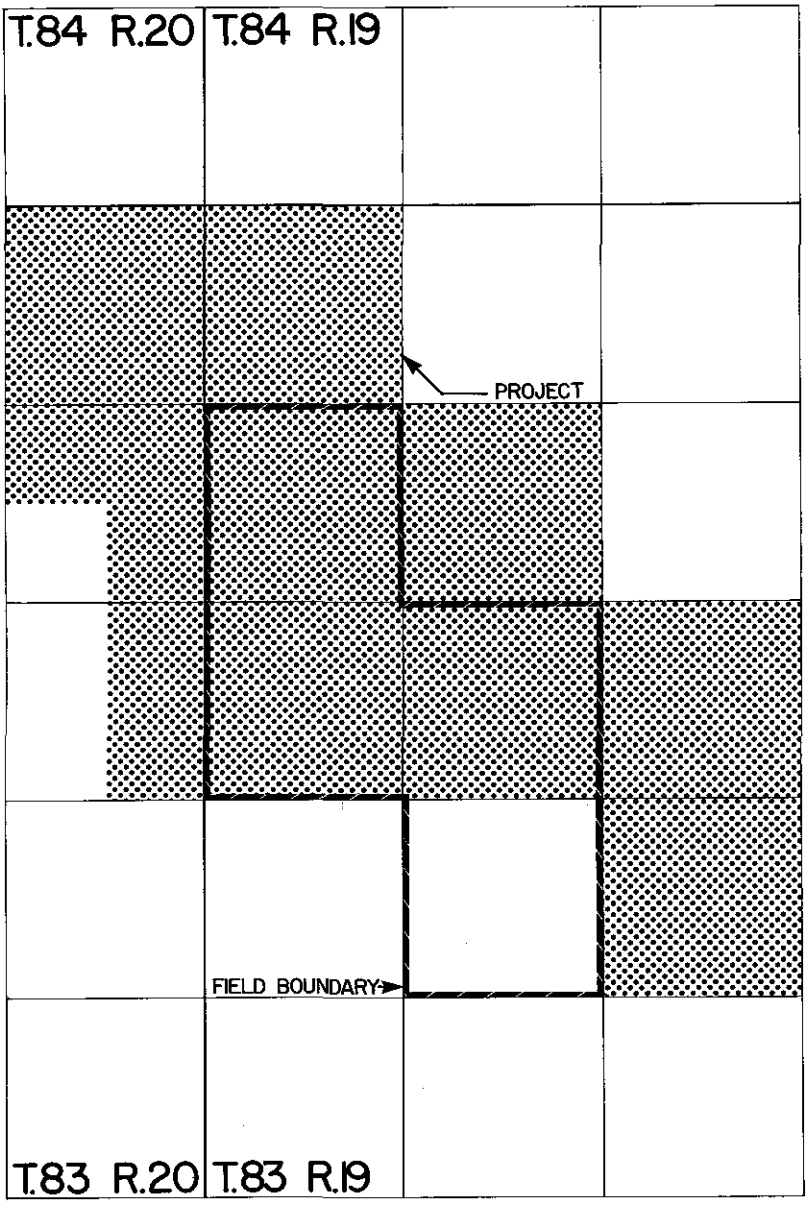
MAP 28
DUNLEVY POOL PROJECT
RIGEL FIELD



MAP 29
MONSANTO CONSERVATION PROJECTS
DUNLEVY POOL
RIGEL FIELD

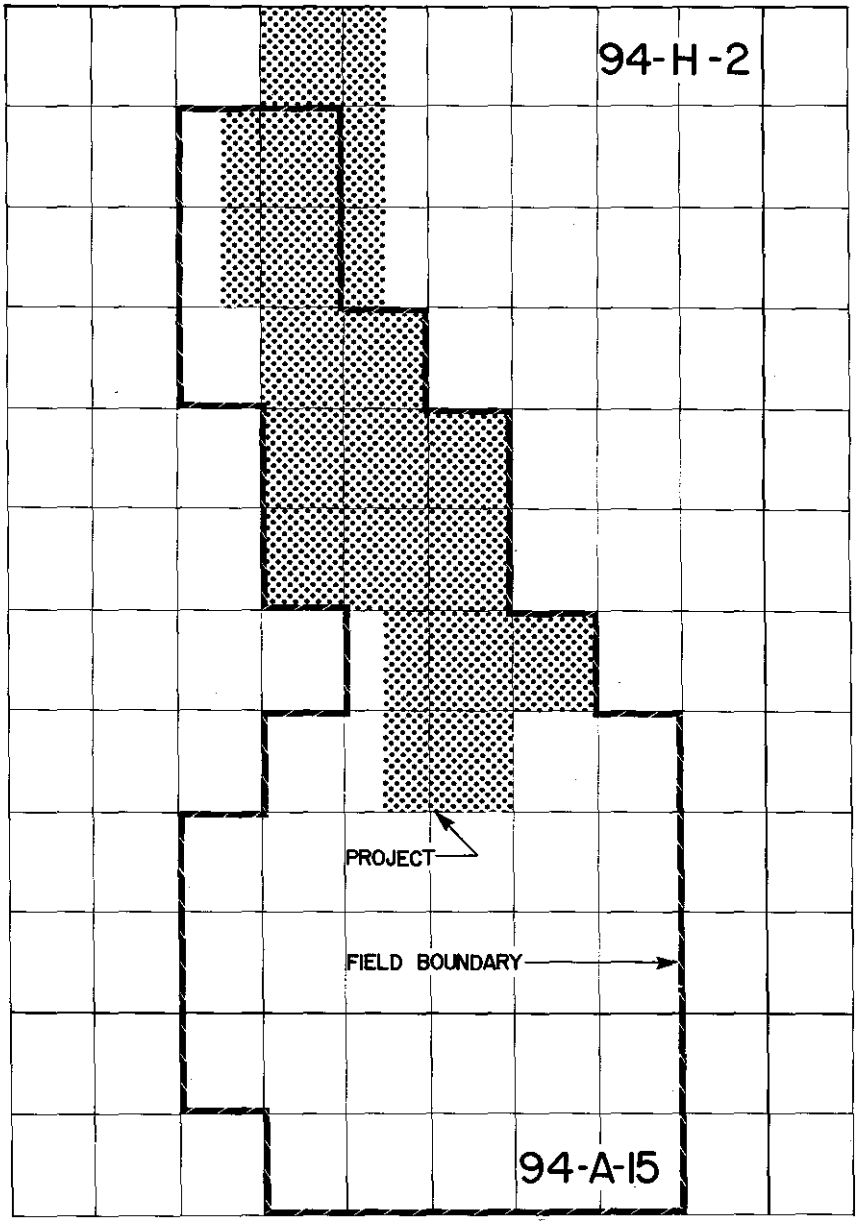


MAP 30
HALFWAY POOL UNITS
WEASEL FIELD



MAP 31

WAINOCO UNIT I
HALFWAY & BELLOY POOLS
WILDER FIELD



MAP 32
UNION OIL PROJECT
HALFWAY POOL
WILDMINT FIELD