Minister of Mines and Petroleum Resources Annual Report

1975

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in right of the Province of British Columbia.
1977

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

MAY IT PLEASE YOUR HONOUR:

The Annual Report of the Department of Mines and Petroleum Resources is herewith respectfully submitted.

T. M. WATERLAND
Minister of Mines and Petroleum Resources

Office of the Minister of Mines and Petroleum Resources
June 1976

The Honourable James R. Chabot,
Minister of Mines and Petroleum Resources.

SIR: I have the honour to submit the Annual Report of the Department of Mines and Petroleum Resources for the 12 months ended December 31, 1975.

JAMES T. FYLES
Deputy Minister

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CHAPTER 1

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INTRODUCTION

A Government report on the mineral industry in the Province 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. Because of the increasing size of this volume, a new volume, *Geology, Exploration and Mining in British Columbia,* was initiated in 1969 to document geological and technical reports previously incorporated in the Annual Report. Starting in 1975 this technical volume has been divided into three separate reports that can be issued at the time they are prepared but eventually bound together. Information on mine safety, fatal accidents, dangerous occurrences, etc., that form part of the Chief Inspectors' Report were included in the Annual Report until 1973; in 1974 this report was issued separately. In 1975 it forms part of a separate report, *Mining in British Columbia, 1975,* but is not included in the bound volume, *Geology, Exploration and Mining in British Columbia, 1975.*

The Annual Report for 1975 therefore contains four chapters—an introduction with a general review of the mineral and petroleum industries, a chapter on the activities of the Department, one on the statistics of the mineral industry, and one on the performance of the petroleum industry.

The Annual Report can be seen from the above to be in a period of change in regard to format and content. This change has occurred in conjunction with the flux of change evident in Departmental organization and executive and administrative personnel. These changes, outlined in chapter 2, occurred mainly at the beginning and the end of 1975.

In the year 1975 the mineral and petroleum industries, even more than the Department, were in a period of considerable change. The industries were subject to notable pressures from several interlinked forces beyond their control which were related to the general economic recession, the developing energy crisis, and the impact of conflicting Federal-Provincial policies. Most metals were priced throughout the year at their lowest level in real value for many years which, combined with the ongoing dispute concerning apportionment of resource taxation between the two senior levels of government, had a depressive effect on production as well as exploration. The petroleum industry was in an even more complex situation with exploration and production both declining. New regulations introduced in November 1975 defining separate schedules for 'new' and 'old' gas improved the situation. The saving aspect of the over-all industry in 1975 was coal, where the effect of a full year of enhanced value for metallurgical coal increased both exploration and production. Due mainly to the record high value of coal production, the 1975 total for the combined industry was another new record, $1,217 million, slightly higher than the 1974 total of $1,197 million.

The following list indicates the relative proportion of the total values of the industry taken by the various sectors in 1975 compared to 1974:

	1975 Per Cent	1974 Per Cent
Metals	48	64
Industrial minerals	4	3
Structural materials	8	6
Coal	26	13
Petroleum and natural gas	14	14

Table 1-1 shows the quantity and value of solid minerals and petroleum and natural gas by commodity in 1974 and 1975. Quantities shown are in metric (SI) units for the first time, so that a conversion table is provided. Table of prices in chapter 3 shows the prices used in calculation of value. Figure 1-1 illustrates the percentage value of production in 1975 by major commodity.

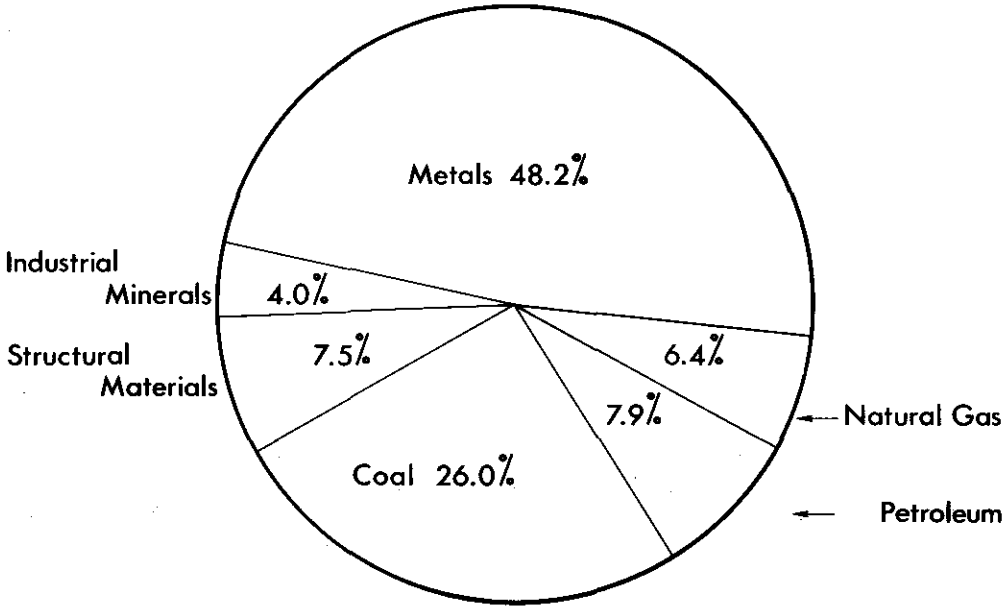
Table 1-1—Mineral Production, Quantity and Value, 1974 and 1975

	1974		1975		1975 Production Paid for to Mines	
	Quantity	Value	Quantity	Value	Quantity	Value
Metals		$		$		$
Antimony kg	221 238	879,897	364 045	1,467,928	.....	.....
Bismuth kg	33 711	680,771	19 163	261,931	.....	.....
Cadmium kg	195 979	1,532,096	320 923	1,971,035	59 877	308,079
Copper kg	287 547 048	541,644,913	258 497 599	331,693,850	258 419 560	240,270,370
Gold—placer kg	45	232,512	44	232,204	44	232,204
Gold—lode, fine kg	5 001	26,749,083	4 819	25,082,494	4 844	19,089,477
Iron concentrates t	1 306 930	12,742,227	1 299 215	15,245,902	1 281 489	15,037,019
Lead kg	55 252 692	23,333,016	70 603 483	24,450,158	67 171 851	17,781,091
Molybdenum kg	13 789 825	60,791,552	13 026 627	71,201,391	13 026 627	71,201,391
Nickel kg	688 656	2,351,406	.....	.....	.....	.....
Silver kg	181 696	28,440,365	196 306	30,545,947	180 592	21,476,408
Tin kg	143 816	1,150,722	32 511	200,669	24 868	143,025
Zinc kg	77 733 732	59,582,753	99 668 230	80,572,872	88 456 211	44,074,003
Others	.....	4,488,138	.....	3,695,987	.....	2,362,450
Subtotals	.....	764,599,451	.....	586,622,368	.....	431,975,517
Industrial Minerals						
Asbestos t	83 403	27,398,900	76 771	37,849,743	76 771	37,849,743
Diatomite t	1 593	32,600	5 847	229,483	5 847	229,483
Fluxes t	34 451	206,049	39 589	174,824	39 589	174,824
Granules t	31 546	1,025,615	33 316	1,144,968	33 316	1,144,968
Gypsum and gypsite t	400 338	1,412,157	474 387	1,751,799	474 387	1,751,799
Jade kg	3 510	18,613	110 437	414,123	110 437	414,123
Sulphur t	206 646	3,068,507	246 079	5,738,134	246 079.	5,738,134
Others	.....	513,773	.....	1,364,528	.....	1,364,528
Subtotals	.....	33,676,214	.....	48,667,602	.....	48,667,602
Structural Materials						
Cement t	890 372	25,828,823	915 293	31,681,722	915 293	31,681,722
Clay products	.....	6,615,128	.....	6,593,189	.....	6,593,189
Lime and limestone t	2 097 909	4,297,547	1 976 415	4,349,800	1 976 415	4,349,800
Rubble, riprap, and crushed rock t	2 691 473	5,715,219	4 103 452	8,723,448	4 103 452	8,723,448
Sand and gravel t	31 440 908	35,611,346	28 945 523	39,575,457	28 945 523	39,575,457
Building stone t	452	20,330	53	4,395	53	4,395
Subtotals	.....	78,088,393	.....	90,928,011	.....	90,928,011
Coal						
Coal—sold and used t	7 757 440	154,593,643	8 924 816	317,111,744	8 924 816	317,111,744
Total solid minerals	.....	1,030,957,701	.....	1,043,329,725	.....	888,682,874
Petroleum and Natural Gas						
Crude oil m^3	3 012 553	103,335,328	2 261 987	94,229,725	2 261 987	94,229,725
Field condensate m^3	16 561	568,075	16 094	668,092	16 094	668,092
Plant condensate m^3	178 534	924,549	185 275	6,525,837	185 275	6,525,837
Subtotals	3 207 648	104,827,952	2 463 356	101,423,654	2 463 356	101,423,654
Natural gas to pipeline 10^6m^3	1 042	128,018,726	928	214,733,528	928	214,733,528
Butane m^3	105 426	232,085	106 429	2,577,205	106 429	2,577,205
Propane m^3	89 373	196,742	81 976	1,985,087	81 976	1,985,087
Subtotals	195 841	128,447,553	189 333	219,295,820	189 333	219,295,820
Total petroleum and natural gas	.....	223,275,505	.....	320,719,474	.....	320,719,474
Grand totals	.....	1,264,233,206	.....	1,364,049,199	.....	1,209,402,348

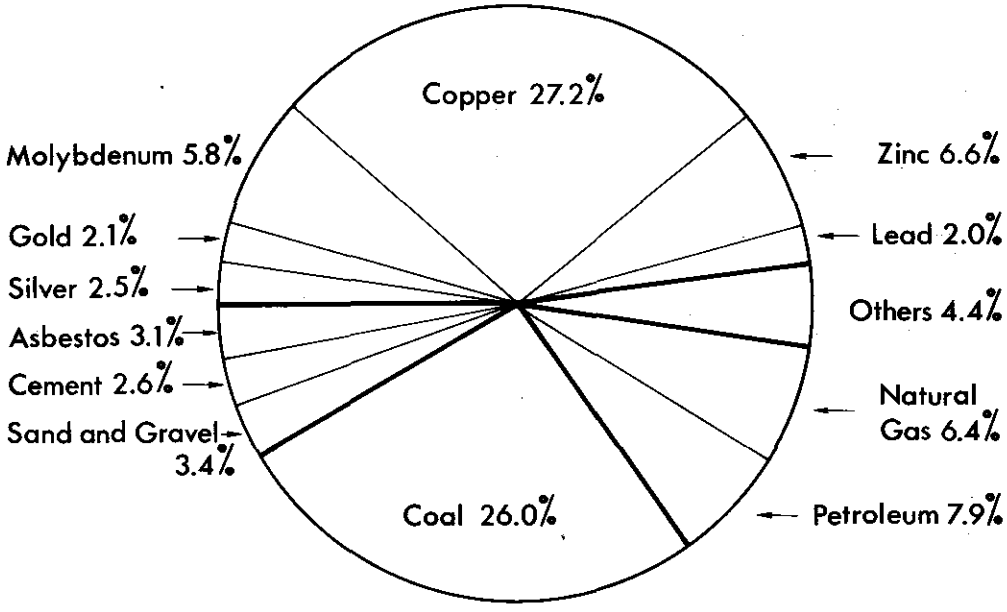
Conversion Table

Metric	Symbol	
Tonnes	t	÷ .90718 = short tons
Kilograms	kg	÷ .45359 = pounds
Kilograms	kg	÷ .031103 = troy ounce
Cubic metres	m^3	× 6.29 = barrels
Millions cubic metres	10^6m^3	× 353 147 = thousand standard cubic feet

VALUE OF MINERAL PRODUCTION — 1975 — $1,217,450,382



MAJOR MINERALS PRODUCED IN 1975
(By Value)



THE MINING INDUSTRY IN 1975

By

A. SUTHERLAND BROWN, J. E. MERRETT, and W. P. WILSON

SOLID MINERAL PRODUCTION IN 1975

The value of solid minerals, that is, metals, industrial minerals, structural materials, and coal, set a new record, slightly higher than 1974 and exceeding $1 billion for the second year (*see* Table 1-1). The continued increase in the value of production in the face of extended recession and low metal prices is attributable to further increase in production of coal, which now represents 30 per cent of the total value of solid minerals, up from 15 per cent, and is now very nearly as great as the value of copper production. In 1975 the total value of production was $1,043,329,725. Metals represented 56.2 per cent of this total or $586.6 million; coal represented 30.4 per cent or $317.1 million; structural materials represented 8.7 per cent or $90.9 million; and industrial minerals represented 4.6 per cent or $48.7 million.

METALS

Figure 1-2 shows the production of major metals in tonnes or pounds from 1890 to 1975. The graph reveals the long-term trends of mining. Lead and zinc production advanced sharply in the period 1920 to 1943, thereafter starting a slow decline, a feature dependent principally on the production history of the Sullivan mine. In contrast, copper production remained at a modest level until the onset of major porphyry copper production in the late sixties. Molybdenum production also started its growth in this period, related principally to mining of porphyry deposits. Precious metals are not shown but their history in this period is principally one of by-product origin related to the production of major base metals. Detailed graphs of metal production are shown in chapter 3.

Copper continued in 1975 to be the most valuable metal, although the quantity of production declined 10 per cent from 1974, the value of production declined 39 per cent, and the value to the mines declined 45 per cent. This value shown in Table 1-1 is that paid to the mines for mineral products excluding outward transportation, smelting, and refining costs.

Molybdenum markets continued to be strong and the price rose almost 25 per cent. Therefore, although production dropped 5 per cent, the value advanced 17 per cent. In value paid to mines, molybdenum continued in second place although the total value of zinc production exceeded it again.

Zinc production was up mainly because the Cominco smelter operated for the full year. Although the price of zinc increased marginally to a total value of more than $80 million, the value paid to mines was only $44 million.

The value of silver and gold again exceeded the value of lead production, although the precious metals were largely produced as by-products. Silver production was up 8 per cent and the price down marginally so that the total value was up 7.4 per cent. The quantity and value of lode gold production was down marginally from 1974 and totalled $25 million in 1975.

Lead production was up significantly (28 per cent) for the same reason as was zinc production, but the lead price declined so that the value of production was only up by 5 per cent and totalled $24.5 million. The value paid for to mines was $17.8 million.

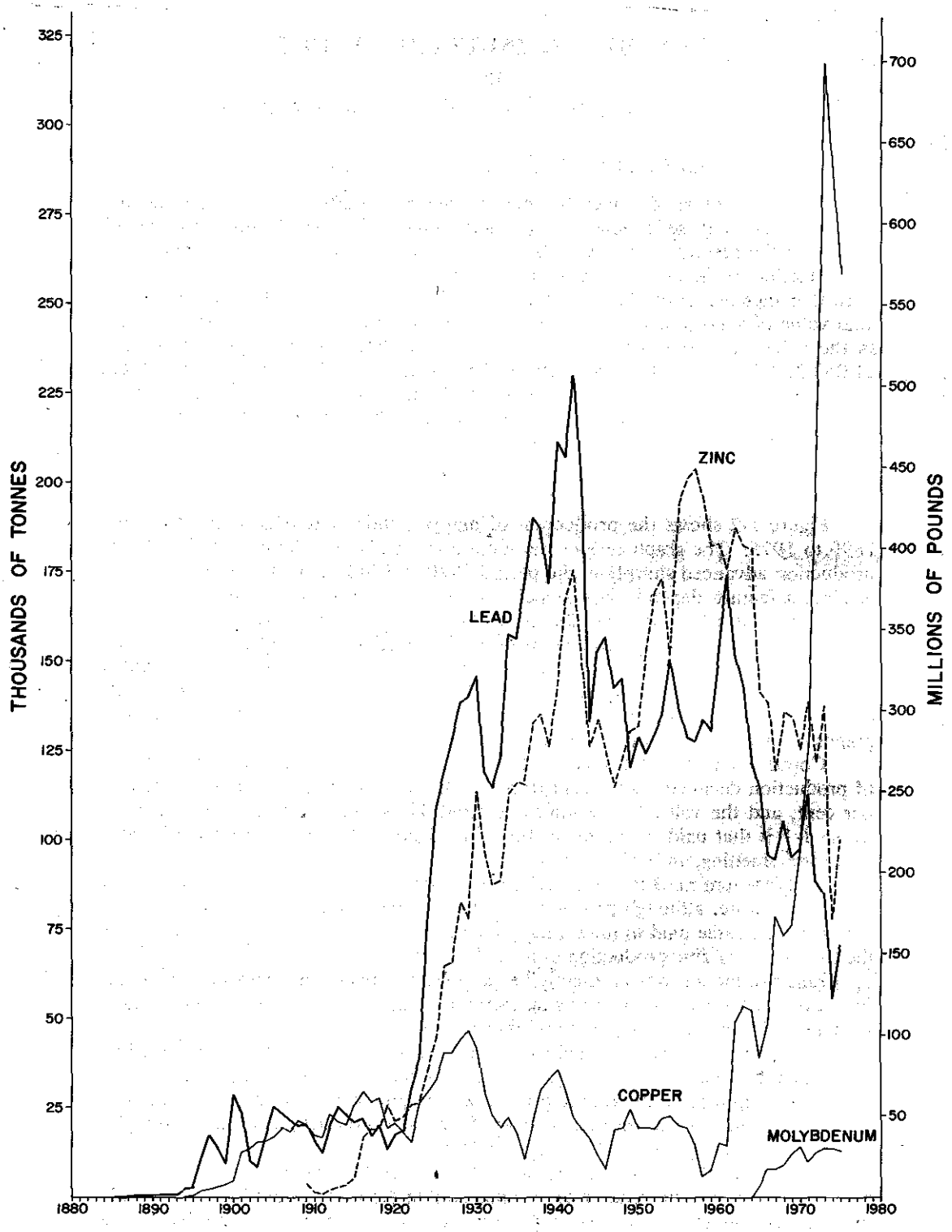


Figure 1.2—Quantities of Metals Produced.

Iron concentrate production was down marginally, but the value of production at $15.2 million was up 20 per cent.

Coal

Coal advanced in all respects; production of clean coal sold and used was up 15 per cent to 8.9 million tonnes and the value of this production was $317 million, an increase of 105 per cent. This large increase reflects nearly a full year's production at the enhanced price structures. In 1975 the value of coal production was nearly equal to the total value of copper production and considerably more than the value of copper paid to mines.

Nonmetallic Commodities

The value of industrial minerals was $48.7 million, up 45 per cent, chiefly as a result of a 38 per cent increase in the value of asbestos production. The actual production of asbestos declined, but the price advanced.

The value of structural materials totals $90.9 million, an advance of 16 per cent over the previous year. Three quarters of the value of production of structural materials is represented by sand and gravel and cement for the construction industry.

PROVINCIAL REVENUE FROM MINING COMPANIES

Direct revenue in 1975 to the Provincial Government derived from the mining sector of the mineral industry is shown in Table 1-2. The amount for mineral royalties shown is the amount collected after adjustments for 1974, etc. For coal licences and rentals the amount shown includes cash paid in lieu of work, some of which may be refundable.

Table 1-2—Revenue From Mineral Resources

	$
Claim recording fees, lease rentals, and free miners' certificates, etc.	1,637,810.76
Coal licences and rentals collected	1,008,323.01
Coal royalties	3,644,267.91
Mineral land taxes	15,416,461.09
Mineral royalties collected on copper, molybdenum, iron, gold, silver, lead, zinc, and cadmium	8,846,389.75
Mining taxes	17,785,959.00
Rentals and royalties on industrial minerals and structural materials	782,788.00
Total	49,121,999.52

EXPENDITURE BY MINING COMPANIES

Major expenditure in 1975 by companies involved in exploration, development, and mining of metals, minerals, and coal were as shown in Table 1-3. A major portion of mine development and exploration costs expended were in coal properties in the Crowsnest and Peace River Coalfields.

Table 1-3—Expenditure (Mining Companies)

	$	$
Capital expenditures	102,908,657	
Exploration and development	77,375,528	180,284,185
Mining operations (metals, minerals, coal)		359,688,537
Mining operations (structural materials)		31,006,058
Repair expenditures		126,918,798
Total		697,897,578

MINING AND TREATMENT

The major mines of all sorts operating in 1975, except sand and gravel pits and limestone quarries, are shown on a map of the Province as Figure 1-3. Major sand and gravel operations and limestone quarries are mostly within a small area of the southwestern part of the Province. On the figure mines are distinguished according to main geological type and whether open pit or underground. The table on Figure 1-3 lists the mine, rated mill capacity, products, operating company and address, and mine address.

Metal Mines

Metal mining was effected by the continuing depressed economy with generally low metal prices and high costs, including taxes. The only encouragement was in prices for molybdenum and zinc and possibly fewer days lost by strikes. As a result, although production of some metals increased, over-all value declined approximately 35 per cent from 1974.

In 1975, 66 mines produced an aggregate of 80 360 807 tonnes of ore which was concentrated or shipped directly to a smelter. This contrasts with 54 mines in 1974 producing 81 886 884 tonnes so that, although more small mines were in production in 1975, gross tonnage decreased about 2 per cent. Of the 66 mines, 28 produced more than 1 000 tonnes (or the previous criterion of 1,000 tons). The significant producing metal mines (>1 000 tonnes) are shown on Figure 1-3 classified as to geological type and whether open pit or underground. Thirteen mines produced more than 1 million tonnes of ore in 1975 and in aggregate produced more than 77 million tonnes or 96 per cent of the total. Of these 13 large mines, only two (Sullivan and Granduc) were underground mines. In regard to geological type, nine were mining porphyry deposits, two skarn deposits, one stratiform deposit, and one massive sulphide deposit. There are 15 mines of intermediate size producing between 1 million and 1 thousand tonnes per year of which only three are open-pit mines. These intermediate-sized mines are of very diverse geological nature; however, only one (Boss Mountain) is a porphyry deposit and most are vein deposits.

During the year the only new mine to start production was the small open-pit gold-silver mine of Dusty Mac. This ore was trucked to the Horn Silver mine for milling while the latter mine was shut down for much of the year to carry out exploration. Two old mines, Scranton and Ruth Vermont, reopened during the year. The Pinchi mercury mine closed in September 1975 because of poor markets and prices, and the Magnum (Churchill) and Mineral King mines closed after briefly renewed periods of production.

Concentrating

In 1975, 30 concentrators at metal mines were in operation (*see* Table 3-12); eight treated copper ore, three treated copper-iron ore, one treated zinc-copper-silver-lead ore, eleven treated lead-zinc-silver ore, four treated copper-molybdenum ore, two treated molybdenum ore, and one treated mercury ore.

Smelting, Refining, and Destination of Concentrates

The only base-metal smelter in operation in the Province is the lead-zinc smelter owned and operated by Cominco Ltd. in Trail. Concentrates of other metals are mostly exported to smelters in diverse parts of the world, but mainly Japan and the United States. However, molybdenum concentrates at Endako are roasted to form molybdenum trioxide and are also processed to make ferromolybdenum. Cinnabar concentrates are roasted at Pinchi mine to form mercury.

The smelter at Trail received concentrates and scrap from a number of sources—company mines within the Province (Sullivan and HB), outside the Province (Pine Point), and custom sources both inside and outside the Province. The smelter received 96 081 tonnes of lead concentrates and 174 561 tonnes of zinc concentrates from the Sullivan and HB mines, and 9 112 tonnes of lead concentrates and 1 529 tonnes of zinc concentrates from other British Columbia mines. The total value of concentrates, including by-product metal, from British Columbia treated at Trail was $118,068,893 or 20 per cent of metal production of the Province in 1975.

Endako shipped products containing 5 564 104 kilograms of molybdenum. Of this, 1 488 tonnes was molybdenum. concentrates, 7 975 tonnes was molybdenum trioxide, and 117 tonnes was ferromolybdenum.

The proportions of the total metal production going to the various destinations are not known accurately but are approximately as follows: Smelted or treated in British Columbia, $118.1 million (20.1 per cent); shipped to other parts of Canada, $68.7 million (11.7 per cent); exported to Japan, $259.4 million (44.3 per cent); exported to the United States, $56.3 million (9.6 per cent); exported to Germany, $9.4 million (1.7 per cent); other plus unattributed, $73.8 million (12.6 per cent).

Three main changes have occurred in the destination of concentrates in 1975 compared to 1974: the percentage smelted in the Province returned to normal (20.1 per cent from 10.9 per cent) after the long strike in 1974; the percentage exported to Japan was down significantly because of *force majeure* declared by Japanese buyers (44.3 per cent from 69.9 per cent); and the percentage shipped to other parts of Canada increased significantly (11.7 per cent from 3.8 per cent).

The destination of concentrates of the major metals is shown in Table 3-13 and discussed following.

Copper concentrates produced in British Columbia were shipped to the following destinations: Eastern Canada, 187 556 tonnes; the United States, 86 163 tonnes; Japan, 665 381 tonnes; Germany, 22 575 tonnes.

Details of the disposition of molybdenum (13 026 627 kilograms valued at $71,201,391) are not always ascertainable but, from known sales, slightly over one half of the total was shipped to Europe and about one third to Japan. The balance was disposed of to a multitude of countries.

Zinc concentrates, produced but not smelted in British Columbia, totalled 32 254 tonnes and were shipped to the United States.

Iron concentrates produced in British Columbia were sold to the following markets; Japan, 949 093 tonnes; the United States, 263 238 tonnes; Australia, 30 638 tonnes.

Lead concentrates, produced but not smelted in British Columbia, totalled 273 tonnes and were shipped to the United States.

Industrial Mineral Mines

Industrial mineral production is dominantly the product of two mines, the Cassiar asbestos mine at Cassiar in the north and Western Gypsum mine at Invermere in the East Kootenay district. Both are open-pit mines of moderate size and have a considerable history of production. In addition, two small mines in the East Kootenays produced barite.

Most major limestone quarries are located on Texada Island, with one at Cobble Hill on Vancouver Island. Quarries in the Interior of the Province are generally smaller. A notable addition to the latter which started shipping in the beginning of 1975 is the Pavilion Lake plant of Steel Brothers Canada Limited. This quarry and plant are unique in several ways. The 275-tonne-per-day plant produces calcined lime at the quarry site on Pavilion Indian Reserve 3, and most of the employees are natives of the band.

Coal Mines

The producing coal mines are shown on Table 3-8 in chapter 3, and the list of major mines on Figure 1-3. Six coal mines are shown on the former and three on the latter, but both ignore the fact that Kaiser Resources Ltd. and Fording Coal Limited produced from more than one mine. Kaiser produces chiefly from an open-pit complex on Harmer Ridge and the South Balmer hydraulic mine. Fording produces principally from the Clode Creek and Greenhills open pits. These two operators produced 96 per cent of the clean coal output of the Province. An additional 3 per cent is produced from the Crowsnest Coalfield of the Kootenays at Coal Mountain by Bryon Creek Collieries Limited and at Tent Mountain by Coleman Collieries Limited. Coal produced by Coalition Mining Limited in the Peace River Coalfield was basically for test purposes—about half of which was shipped to Great Britain. A minor amount of coal was produced from the Telkwa Coalfield of central British Columbia for local heating purposes.

The following salient facts of coal mine production are evident in Table 3-8B:

(1) Ninety-one per cent of raw coal production comes from surface mining operations.

(2) Ninety-three per cent of the raw coal produced was metallurgical coal.

(3) Clean coal output increased 24 per cent over 1974 to 9 579 802 tonnes. The percentage relative to raw coal dropped slightly from 76 per cent in 1974 to 74 per cent.

(4) The value of coal sold and used increased sharply to $317,111,744 from $154,593,643 in 1974, an increase of 105.1 per cent resulting principally from increased average values of 78.27 per cent, but also from the increase of 24 per cent in production.

(5) Coal sales to Japan accounted for 88 per cent of the total, a drop of about 3 per cent, resulting largely from increased sale of coal to Ontario (now 5 per cent). Domestic coke production remained static and so dropped to our third largest market.

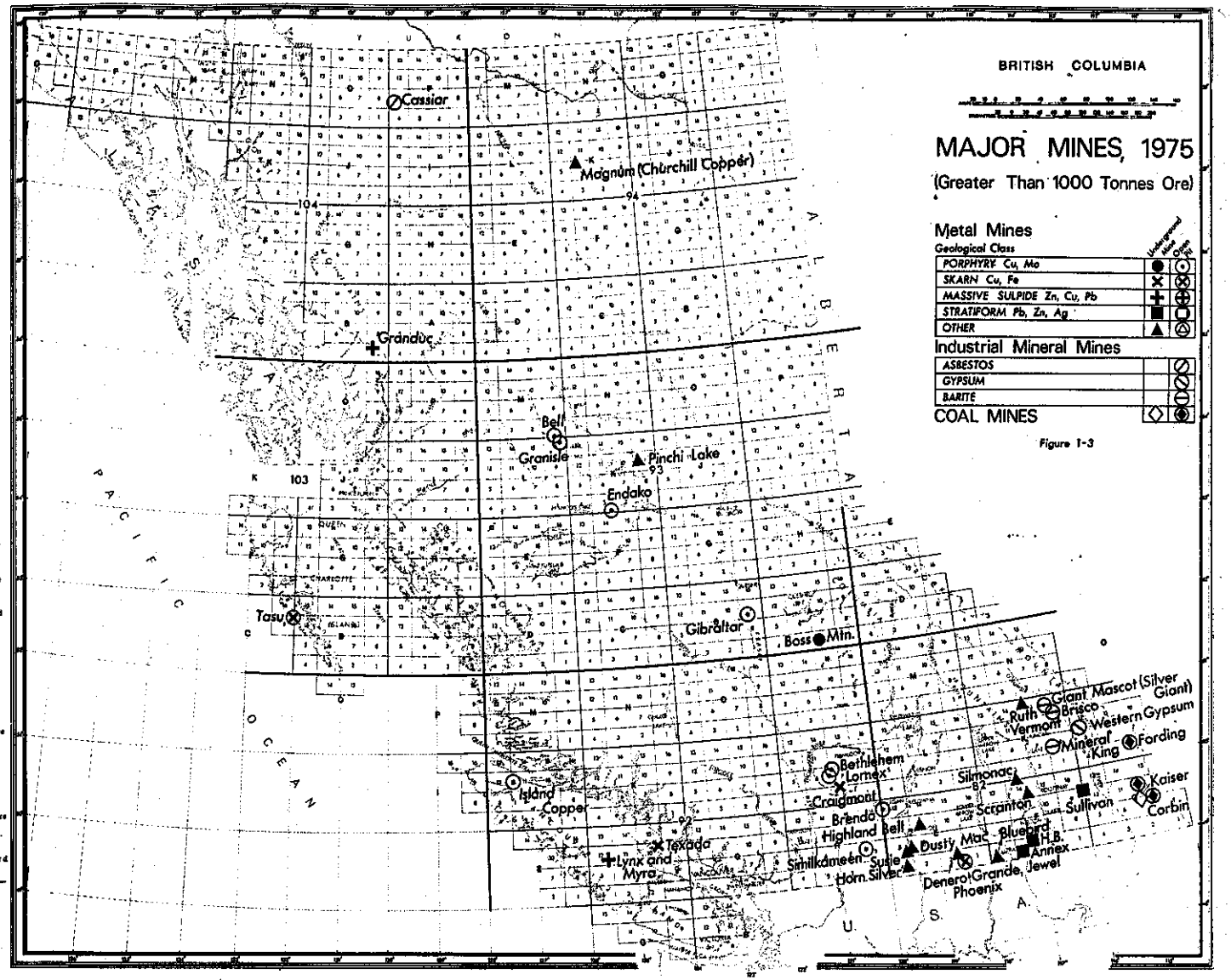
MINE SAFETY

Active safety programs were in effect at all mines throughout the Province during 1975. The control of mine safety is vested in management in the *Mines*

Mines in British Columbia Which Produced More Than 1 000 Tonnes of Ore in 1975

Name of Mine	Products	N.T.S. Location	Rated Capacity of Mill/Cleaning Plant (Tonnes/Day)	Mine's Type	Name of Company	Company Address	Mine Address
Metal Mines							
Phoenix	Cu, Au, Ag	82E/3E	2 500	O	Granby Mining Corp.	17th Floor, 1050 W. Pender St., Vancouver V6E 3S7	Box 490, Grand Forks. (Mining ending 1976)
Denero Grande, Jewel	Au, Ag, Pb, Zn, SiO2	82E/2E	.....	U	Cok Resources Ltd.	711, 475 Howe St., Vancouver V6E 2B3	(Shipments suspended late 1975).
Horn Silver	Ag, Pb, Zn, Cu	82E/4E	140	U	Dankoe Mines Ltd.	2082, 1177 W. Hastings St., Vancouver V6E 2K3	Box 190, Keremeos.
Susie	Ag, Pb, Zn, Cu, Au	82E/4E	.....	U	Hem Mines Ltd.	Box 855, Oliver	Box 855, Oliver.
Dusty Mac	Au, Ag	82E/5E	.....	O	Dusty Mac Mines Ltd.	433, 355 Burrard St., Vancouver	Box 402, Okanagan Falls.
Highland Bell	Ag, Zn, Pb, Au, Cu	82E/6E	180	U	Teck Corp. Ltd.	1199 W. Hastings St., Vancouver V6E 2K5	Beaverdell V0H 1A0.
H.B.	Zn, Pb, Ag, Cu	82F/3E	1 090	U	Cominco Ltd. (H.B. mine)	200 Granville Square, Vancouver V6C 2R2	Salmo.
Annex	Zn, Pb, Ag	82F/3E	900	U	Reeves MacDonald Mines Ltd.	105, 465 Ward St., Nelson V1L 1S7	(Closed Mar. 1975).
Bluebird	Ag, Zn, Pb	82F/4W	.....	U	Standonray Mines Ltd.	3567 W. 37th Ave., Vancouver V6S 1P9	3567 W. 37th Ave., Vancouver V6S 1P9.
Silmonac	Au Zn, Pb, Ag, Cd	82F/14	140	U	Kam-Kotia Mines Ltd. and Silmonac Mines Ltd.	420 475 Howe St., Vancouver V6C 2B3	Box 189, New Denver.
Scranton	Au, Ag, Zn, Pb	82F/14E	.....	U	Silver Star Mines Ltd.	c/o Kirkstiek, 1900 Guinness Tower, 1055 W. Hastings, Vancouver V6E 2E9	Kaslo.
Sullivan	Zn, Pb, Ag, Cd	82G/12W	9 500	U	Cominco Ltd. (Sullivan mine)	200 Granville Square, Vancouver V6C 2R2	Box 2000, Kimberley V1A 2G1.
Ruth Vermont	Ag, Pb, Zn	82K/15W	450	U	Consolidated Columbia River Mines Ltd.	3rd Floor, 73 Water St., Vancouver V6B 1A1	Box 1649, Golden.
Texada	Fe, Cu	92F/10E	4 500	U	Texada Mines Ltd.	Box 10, Gillies Bay, V0N 1W0	Box 10, Gillies Bay (Closing Dec. 1976).
Lynx, Myra	Zn, Cu, Ag, Pb, Au, Cd	92F/12E	900	O	Western Mines Ltd.	Rm. 1103, Box 49666, 595 Burrard St., Vancouver V7X 1C4	Box 8000, Campbell River.
Similkameen	Cu, Ag, Au	92H/7E	13 600	O	Similkameen Mining Co. Ltd.	14th Floor, 750 W. Pender St., Vancouver V6C 1K3	Box 520, Princeton V0X 1W0.
Brenda	Cu, Mo, Ag	92H/16E	22 000	O	Brenda Mines Ltd.	Box 420, Peachland V0H 1X0	Box 420, Peachland, V0H 1X0.
Craigmont	Cu	92I/2W	4 660	U	Craigmont Mines Ltd.	700, 1030 W. Georgia St., Vancouver V6E 2A8	Box 3000, Merritt.
Lornex	Cu, Mo, Ag, Au	92I/6E	40 900	O	Lornex Mining Corp. Ltd.	202, 580 Granville St., Vancouver V6C 1W8	Box 1500, Logan Lake V0K 1W0.
Bethlehem	Cu, Ag, Au	92I/7W	16 800	O	Bethlehem Copper Corp. Ltd.	2100, 1055 W. Hastings St., Vancouver V6E 2H5	Box 520, Ashcroft.
Island Copper	Cu, Mo, Ag, Au	92L/13W	34 500	O	Utah Mines Ltd.	1600, 1050 W. Pender St., Vancouver V6E 3S7	Box 370, Port Hardy V0N 2P0.
Boss Mountain	Mo	93A/2W	1 590	U	Noranda Mines Ltd. (Boss Mt. Div.)	1050 Davie St., Vancouver V6B 2W7	Hendrix Lake.
Gibraltar	Cu, Mo, Ag	93B/9W	36 350	O	Gibraltar Mines Ltd.	700, 1030 W. Georgia St., Vancouver V6E 2A8	Box 130, McLeese Lake V0L 1P0.
Endako	Mo	93K/3E	24 500	O	Canex Placer Ltd. (Endako Div.)	700, 1030 W. Georgia St., Vancouver V6E 2A8	Endako.
Pinchi Lake	Hg	93K/9W	730	U	Cominco Ltd. (Pinchi Lake mine)	200 Granville Square, Vancouver V6C 2R2	(Mining suspended late 1973).
Granisle	Cu, Ag, Au	93L/16E	12 260	O	Granisle Copper Ltd.	17th Floor, 1050 W. Pender St., Vancouver V6E 3S7	Box 1000, Granisle.
Bell (Newman)	Cu, Au	93M/1E	11 800	O	Noranda Mines Ltd. (Bell Copper Div.)	1050 Davie St., Vancouver V6B 2W7	Box 2000, Granisle.
Magnum (Churchill)	Cu	94K/11W	680	U	Consolidated Churchill Copper Corp.	1199 W. Hastings St., Vancouver V6E 2K5	Closed Apr. 1975.
Tasu	Fe, Cu	103C/16E	7 300	O	Westfrob Mines Ltd. (Tasu)	601, 1112 W. Pender St., Vancouver V6E 2S1	Tasu.
Granduc	Cu, Ag, Au	104B/1W	7 270	U	Granduc Operating Co.	520, 890 W. Pender St., Vancouver V6C 1K3	Box 69, Stewart.
Industrial Mineral Open Pits and Quarry							
Western Gypsum	Gypsum	82J/5W	2 450	O	Western Gypsum Ltd.	Box 217, Invermere V0A 1K0	Box 217, Invermere V0A 1K0.
Mineral King	Barite	82K/8W	Small	O	Mountain Minerals Ltd.	Box 700, Lethbridge, Alta.	Box 603, Invermere.
Brisco	Barite	82K/16W	.....	U	Mountain Minerals Ltd.	Box 700, Lethbridge, Alta.	Box 603, Invermere.
Giant Mascot (Silver Giant)	Barite	82K/16W	91	O	Baroid of Canada Ltd.	600, 608 Seventh St., SW., Calgary, Alta. T2P 1Z3	Spillimacheen.
Cassiar	Asbestos	104P/5W	3 630	O	Cassiar Asbestos Corp. Ltd.	2000, 1055 W. Hastings St., Vancouver V6E 3V3	Cassiar V0C 1S0.
Coal Mines							
Corbin (No. 3 Ph)	Coal	82G/10E	1 700	O	Byron Creek Collieries Ltd.	Box 270, Blairmore, Alta.	Box 270, Blairmore Alta.
Harmer Ridge and N. and S. Balmer	Coal	82G/10, 15	28 000	O, U	Kaiser Resources Ltd.	2600 Board of Trade Tower, 1177 W. Hastings St., Vancouver V6E 2L1	Box 2000, Sparwood.
Clode Creek, Greenhills, Turabull	Coal	93I/2W	17 000	O	Fording Coal Ltd.	206, 205 Ninth Ave., SE., Calgary, Alta. T2G 0R4	Box 100, Elkford V0B 1H0.

O—Open pit. U—Underground.



Regulation Act and *Coal Mines Regulation Act,* and the Department of Mines and Petroleum Resources, through its Inspection and Engineering Division, is responsible for the observance of the Acts by all persons working at the mines. The Inspection and Engineering Division maintains a Province-wide system of districts staffed by inspection and rescue personnel. Staffs of specialized personnel have also been established. During the year, additional staff have been obtained to assist both District Inspectors and specialists in their duties.

The Board of Examiners, a part of the Inspection and Engineering Division, conducts examinations for the various certificates of competency required by certain supervisors and managers of mines. Miners' certificates and coal miners' certificates are now issued after examination by the District Inspectors.

During the year a number of amendments were introduced to improve mine safety, such as the requirement that all persons working underground must be instructed in survival rescue procedures. The regulation restricting the employment of women in underground mines has been removed.

The Province continues to maintain leadership in promoting mine safety because of the progressive efforts of the Department and the co-operative spirit existing in the industry.

In underground mining, attention has been directed toward reducing fire hazards and, to this end, the use of fire-resistant hydraulic fluids has become mandatory, and the installation of fire-suppression kits is also recommended as a defence against fires from other origins. Some flame-proof, diesel-powered, load-haul-dump vehicles were placed in service in coal mines. Roll-over protective structures are now required on all new equipment and existing vehicles also, where practical. Guidelines have been issued for the selection of electrical equipment for use in underground coal mines.

The trend to mining on a large scale by open-pit methods using large equipment has brought new challenges. The on-site testing of large truck brakes, which has resulted in improved brake performance, has gained the Department world-wide recognition. Failures of certain equipment components were under study during the year and, as a result, nondestructive tests are now required of truck front-wheel spindles to ensure safe operation. Attention has also been directed toward improving safety standards for electrical systems on open-pit shovels, and an improved ground fault system for 600-volt cab tire cables has been developed.

Monitoring of dust and ventilation conditions at mines continued, and a number of plants have improved their dust control systems during the year. A more stringent standard has been set for assessing conditions in the asbestos industry, and corrective measures were implemented. Noise control surveys indicate that 89 per cent of all operations are now performing audiometric testing on employees.

Mine-rescue stations, manned by qualified staff and fully supplied with rescue equipment, are maintained at Fernie, Kamloops, Nanaimo, Nelson, Prince George, and Smithers. Each station has on hand sufficient self-contained oxygen-supplying breathing apparatus to maintain at least two mine-rescue teams of six men each. In addition, each station has auxiliary equipment such as Type N gas masks, gas detectors, oxygen therapy units, and first aid equipment. The Department also has some equipment on loan to some mining companies to supplement their own equipment.

The mine-rescue staff also makes periodic visits to mines to give or assist in survival rescue and first aid training, and to check rescue equipment to ensure that it is well maintained and in good operating condition.

Four mine safety associations operate in different zones of the Province to promote mine rescue and first aid training, as well as provide programs in safety

education. Competitions are held annually in various centres during May and June. These associations are sponsored by the Department of Mines and Petroleum Resources and Workers' Compensation Board. They are aided by mining company officials, safety supervisors, mine inspectors, mine-rescue co-ordinators, and, in some instances, local industry. The Provincial Underground Mine Rescue Competition was held in Fernie on June 28. The Kaiser Resources' team, captained by Peter Zeith, won the trophy and went on to compete in the 9th Canadian Underground Mine Rescue finals in Calgary, Alta., on July 5, 1975. The Provincial Surface Mine Rescue Competition was also held in Fernie on June 28, and the team from Similkameen Mining Company Limited, captained by L. Hornsby, won the trophy.

Several trophies and awards have been provided by various organizations in recognition of deeds of bravery, rescue work, and for safety. In the 1973 Annual Report it was recorded that James Mellon, miner, received bravery awards from the Canadian Institute of Mining and Metallurgy and the Workers' Compensation Board for his actions in removing an injured workman from a heading in the Silmonac mine when holes, loaded with explosives, were detonating. Mr. Mellon has now received further honour from the Carnegie Hero Fund Commission, which presented him with a bronze medal and a cash award.

The John T. Ryan Safety trophies were established in 1941 by the Mine Safety Appliance Co. of Canada Ltd. to promote safety in coal and metal mines in Canada. Three Canadian and six regional trophies were established and their administration was given to the Canadian Institute of Mining and Metallurgy. In 1975 the British Columbia and Yukon Regional trophy for metal mines was won by Granduc Operating Company, and the Western Region trophy for coal mines was won by the underground operations of Kaiser Resources Ltd.

In 1951 the West Kootenay Mine Safety Association donated a trophy to promote safety in small mines, and in 1975 this trophy was awarded to the Horn Silver mine of Dankoe Mines Ltd.

In 1961 the Department of Mines and Petroleum Resources organized a safety competition for the open-pit and quarry industry, and provided two trophies. Since that time three categories of competition have been established, based on amassed man-hours, and trophies or certificates of achievement awarded to mines having the least number of compensable accidents in their respective categories.

In 1975, four operations, the Britannia pit of Construction Aggregates Ltd., the Cobble Hill quarries of British Columbia Cement Company Limited, and the Texada limestone quarries of both Domtar Chemicals Limited and Canada Cement Lafarge Ltd., shared in winning the 'A' category trophy. The 'B' category trophy was again won by the Phoenix mine of Granby Mining Corporation. Certificates of achievement were won by Blackham's Construction Ltd., Dolan's Ltd., Langley Division of Construction Aggregates Ltd., Surrey pit of Lafarge Concrete Ltd., and Plateau Construction Ltd., operator of the Canada Cement Lafarge quarries near Kamloops.

RECLAMATION

The objective of mine reclamation is to restore disturbed land surfaces and waste-disposal areas to useful purposes compatible with the surrounding countryside.

Reclamation of areas affected by mining is administered by the Inspection and Engineering Division of the Department of Mines and Petroleum Resources, and permits are issued under authority of the *Mines Regulation Act* and *Coal Mines*

Regulation Act. The Chief Inspector is the Chairman of the Reclamation Committee, which is a committee of representatives of the various Government resource ministries. 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 1975, 71 new reclamation permits were issued and 11 permits were approved for renewals, covering a total area of 13 600 hectares with a total bonding of $3,174,700.

Reclamation guidelines for exploration were issued by the Department and have improved reclamation procedures and reduced land disturbance, especially in coal exploration.

Progress is continuing in reclamation techniques, both on test plots and on reclaimed land. Kaiser Resources Ltd. has demonstrated that waste dumps can be reclaimed with proper site preparation and seeding. Test plots indicate that vegetation can be established at elevations of 1 350 metres. Revegetation of tailings ponds is an area of major concern and, although some success has been achieved, more research is needed, and it is proposed that a research program funded by the Department be established in 1976.

EXPLORATION

METALS

Exploration in metals was uniformly lower in 1975 compared to 1974, judged by many of the indices shown in the following list. These include information from Departmental records and from questionnaires. Most indices show a drop of 13 to 32 per cent.

	1974	1975
Exploration expenditure	$25,400,000	$22,100,000
Claims recorded	16,971	11,751
Certificates of work	48,071	39,403
Free miners' certificates—		
Individual	9,998	8,484
Companies	700	562
Total drilling (m)	92 802	192 935
Total geophysical surveys (line-km)	6 989	4 835

Pattern

The pattern of distribution of metals exploration on properties is grossly similar to former years. The changes from the pattern in 1974 can be summarized as follows:

In the southeast, exploration became somewhat broader in distribution although somewhat less intense. In particular, activity picked up in a band extending from the Arrow Lakes through Revelstoke to the southeastern Cariboo. In the southwest, including Vancouver Island, exploration was generally more restricted areally. In the Skeena Arch of Central British Columbia the same was true, more restricted and less intense exploration. However, after a lapse of a year, activity picked up again and was widely distributed in the Robb Lake (Halfway River) area of the Rockies. In the north, exploration remained fragmented into isolated areas with three areas prominent, around Kinaskan Lake, Kutcho Creek, and the Tatshenshini River.

Reconnaissance exploration is not as easily monitored as exploration on properties, but was fairly active, particularly in the northern Rocky Mountains for zinc, Stikine and Tatshenshini areas for copper, and the East Kootenays for lead-zinc and uranium.

Major Exploration Activity

Major activity at properties not in production, defined as programs of greater than 3 000 metres of drilling or 300 metres of development, occurred at only seven properties. Four of these were underground development, two of which were preparing for production. These properties listed from southeast to northwest were:

*RUTH VERMONT MINE (Columbia River mines), formerly active lead-zinc vein deposit, 43 kilometres west of Spillimacheen.

PAT, GOLDSTREAM (Noranda), a newly discovered copper-zinc massive sulphide deposit north of Revelstoke.

*OK (Alwin), a former producing copper lode deposit within the Highland Valley porphyry copper district.

*WARMAN (Northair), a gold-silver-lead-zinc vein deposit that is proceeding to production, 11 kilometres north of Brandywine Falls.

*MOSQUITO (Home Oil), a gold vein deposit adjacent to the former Cariboo Gold Quartz mine, 2.5 kilometres northwest of Wells.

BIG ONION (Canadian Superior), a porphyry copper prospect, 17 kilometres east of Smithers.

RED, CHRIS, WINDY, SUS (Texasgulf), a porphyry copper-gold prospect, 9 kilometres south of Eddontenajon Lake.

Four other programs were drilled over 2 000 metres, including

AURUM, IDAHO, PIPESTEM (Carolin Mines), a disseminated gold deposit near Hope.

NU, ELK (Denak—Canex Placer), an extension of the Endako porphyry molybdenum mine.

POPLAR (Utah), a porphyry copper deposit, 60 kilometres south of Houston.

CHAPPELLE (DuPont), a gold-silver vein deposit, 300 kilometres north of Smithers.

Three other programs were important because of their implication for further prospecting.

FUKI-DONEN (PNC Japan), secondary uranium deposits between Beaverdell and Kelowna.

KINGFISHER (Colby Mines), a deformed and metamorphosed zinc-lead deposit in Shuswap gneisses, 20 kilometres southeast of Sicamous.

JEFF (Imperial Oil) and SMRB (Sumac Mines), bedded copper-zinc massive sulphide deposits, 100 kilometres east of Dease Lake.

* Underground development and drilling.

Development and Feasibility Studies

During 1975, two properties were proceeding toward production, the Warman and Afton deposits. The Warman gold-silver-lead-zinc vein deposit of Northair Mines Ltd. carried out major underground development and construction of its 275-tonne-per-day concentrator and surface plant. In early fall, Teck Corporation Ltd. announced its decision to proceed to production with the Afton syenitic copper porphyry deposit. This involved a small open-pit mine, a 6 350-tonne-per-day concentrator, and a top-blown rotary converter smelter producing blister copper.

Work leading to feasibility studies was conducted at three properties—Boss Mountain, Berg, and Sam Goosly. At Boss Mountain extensive drilling was carried out to establish the feasibility of open-pit or underground mining of the extensive low-grade stringer ore surrounding the breccia bodies currently mined. At Berg, Canex Placer Limited proceeded with its program of drilling large-diameter core for metallurgical testing of this porphyry copper-molybdenum property optioned from Kennco Explorations, (Western) Limited. At Sam Goosly the only additional study was the excavating of three trenches in the southern tail zone for bulk samples.

Nonmetallic Commodities

Exploration on deposits of industrial minerals and structural materials in 1975 was carried out at a fairly normal level. Some fluorite, jade, limestone, magnesite, phosphate, and silica properties received extensive development work. Geophysical and stripping programs occurred on several phosphate properties at the base of the Fernie shale in the Elk River area. A test shipment of magnesite was made from the Mount Brussilof deposit (ROK). Significant drill programs occurred on the Eaglet fluorite property near Quesnel Lake, the Blue jade property northwest of Lillooet, and the AN silica property in the Rocky Mountains, 50 kilometres east of Fort McLeod.

Coal

Distribution of Coalfields

The principal coal resources of the Province occur in comparatively narrow linear belts within the intermontane basins of the East Kootenay area (the Crowsnest Coalfield) and the inner foothills region of northeastern British Columbia (the Peace River Coalfield). These deposits of Late Jurassic to Early Cretaceous age contain major reserves of medium to low-volatile bituminous coal, generally suitable for the production of metallurgical coke.

The Kootenay Formation which underlies the Fernie and Elk River basins contain 10 or more mineable seams, with an aggregate thickness in excess of 45 metres. Of these, the Balmer and correlative seams which occur at the base of the sequence may be up to 15 metres thick, and this factor, together with favourable strip ratios in the currently developed mine areas, accounts for most of the reserves defined to date. The Kootenay coals generally exhibit good coking characteristics and are low in sulphur.

Regional potential of the Gething and Commotion Formations in the Peace River area is less well defined. However, a combined total of at least seven mineable seams of medium and low-volatile bituminous coking coal has been identified along much of the foothills belt southeastward from Peace River to the Alberta border. Prospective mine areas which have been most thoroughly investigated are situated within broadly synclinal, structurally less deformed blocks which appear amenable to underground mining. Other areas which appear to offer attractive open-pit potential are situated along thickened fold limbs.

In addition to the above-described mountain coals, local deposits of lignite, sub-bituminous, high-volatile bituminous, and semi-anthracite coals, of Late Cretaceous and Tertiary age, occur in widely scattered areas of British Columbia. Size and economic potential of most of these, including possible reserves in the former coal-mining areas of Vancouver Island, are comparatively small, although they are of potential value for base-load power development as energy costs continue to increase. An exception to the foregoing is the Hat Creek property, which is a Tertiary lignite of limited areal extent but of considerable thickness.

Exploration

In early 1975, prices received for British Columbia coking coal were in the order of $35.53 per tonne, up from approximately $19.93 per tonne a year previously. This dramatic rise in price of almost 80 per cent in a one-year period was chiefly responsible for spurring on 1975 coal exploration to a new high of $7.3 million in work accepted for assessment credit or $13 million in total exploration costs according to Economics and Statistics (Table 3-5).

Many of the properties in the Crowsnest Coalfield are in the prefeasibility stage and hence the emphasis has been on office-related work rather than actual exploration in the field. Nevertheless, two properties had greater than 3 000 metres of drilling—Sage Creek Coal Limited (Rio Tinto Canadian Exploration Limited) in the Flathead Valley and Elco (Scurry-Rainbow Oil Limited) in the Upper Elk Valley. In addition, more than 2 000 metres of drilling as well as other work was carried out at Coal Mountain (Crows Nest Industries Limited) and at Hosmer Wheeler and Greenhills (Kaiser Resources Ltd.).

In the Peace River Coalfield exploration was generally at an earlier stage with 12 properties carrying out significant programs. Seam tracing and mapping and over 3 000 metres of drilling were carried out at Quintette (Denison Mines Limited) and over 2 000 metres at Belcourt-Monkman (Canadian Superior Oil Ltd.), Carbon Creek (Utah Mines Ltd.), and Pine Pass (Pan Ocean Oil Ltd.).

Although the bulk of exploration was concentrated on the metallurgical coal properties in the Rocky Mountains described above, several thermal coal properties in other parts of the Province saw work in 1975. The largest and most significant of these is British Columbia Hydro and Power Authority's drilling program on the immense deposit of low-rank coal in the Tertiary Basin at Hat Creek where over 23 000 metres of drilling was carried out. In addition, the old Comox Coalfield of Vancouver Island was explored by Weldwood of Canada Ltd. by a program of 52 holes totalling over 6 500 metres.

The policy of not issuing new licences over new coal land was continued through 1975. British Columbia Hydro and Power Authority was excepted from this policy and applied for and was issued 24 new licences totalling 5 180 hectares (12,799 acres) in the Hat Creek Coalfield. Ninety-nine licences were forfeited during the year, totalling 21 633 hectares (53,456 acres).

THE PETROLEUM AND NATURAL GAS INDUSTRY IN 1975

By

A. G. T. WEAVER and W. L. INGRAM

Exploration and drilling activities in British Columbia related to petroleum and natural gas continued to decline during 1975. The number of seismic crew-weeks worked was only 41, down 80 per cent from 1974. Eighty-one wells and 421,547 feet were drilled in the year compared to 147 wells and 760,364 feet for 1974, representing a decrease of about 44 per cent. Similarly, well authorizations issued dropped from 144 in 1974 to 100 in 1975. Some significance was seen in the type of drilling done. Development footage showed a greater reduction annually than exploratory footage, indicating the lack of proven or potential areas for drilling programs.

No major discoveries were made in 1975 although 31 gas wells and two oil wells were completed. Exploratory new pool and new field discoveries accounted for 17 successful completions out of a total of 50 exploratory wells drilled.

Two marginal oil pools were encountered in stratigraphic developments of the Dunlevy Formation near the present limits of the Buick Creek Field. Gas well completions were scattered throughout the productive area of the northeastern corner of the Province although most of the discoveries were in the Middle Devonian reef area centred on Fort Nelson and the foothills belt. In the foothills encouraging results were obtained from exploratory wells drilled in the Tenaka and Bullmoose areas, located south of Fort Nelson and Sukunka respectively.

Production of oil and gas decreased appreciably from the 1974 volumes. Petroleum production was down 24 per cent to 14.3 million stock tank barrels while natural gas declined 4 per cent to 389 billion cubic feet. The production from several oilfields was curtailed due to adverse conditions of production experienced through Provincial and Federal taxation rates. Improved oil royalty schedules and increased gas prices, implemented near year-end, is expected to reduce these declining trends. Extension of the gas-gathering system to the Helmet area, under construction at the close of the year, should be beneficial.

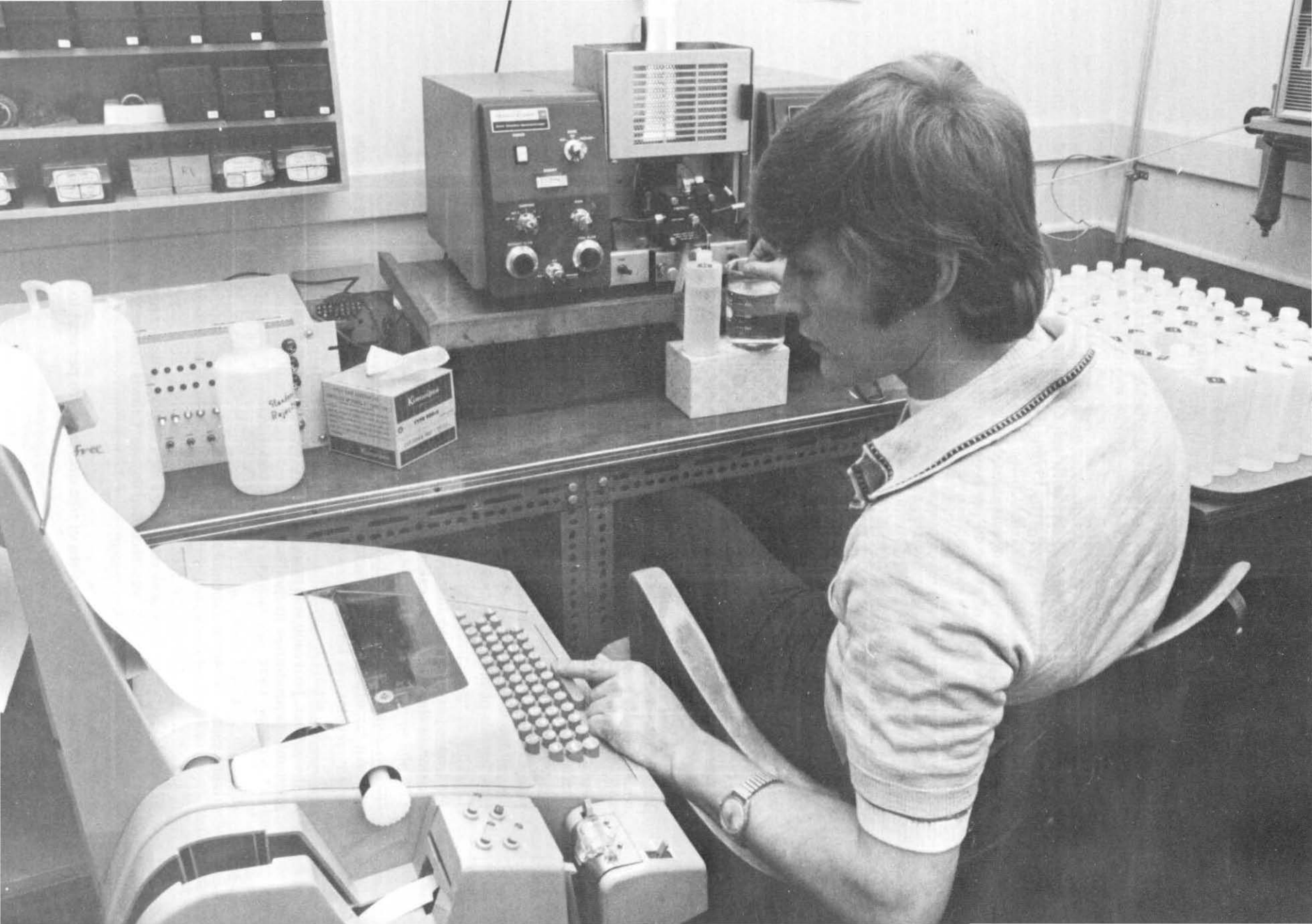
Provincial reserves at the end of 1975 were established at 105 million stock tank barrels of proven oil and 6,927 billion cubic feet of natural gas, some 12 and 15 per cent respectively lower than the 1974 year-end estimate. These decreases were only partly due to the 1975 annual production, the principal reason being a revision in the methods of calculation. Only 0.077 million stock tank barrels and 118 billion cubic feet were added as a result of the 1975 drilling programs, again emphasizing the need for further discoveries.

An important legislative change took place in November 1975 when revised royalty regulations for oil were approved by Order in Council 3481. In the new regulations, separate schedules were set up for 'old' and 'new' oil, and in the case of the former, provision was made for a royalty rebate in the form of a credit against allowable expenditures in the Province.

Also in 1975 the British Columbia Petroleum Corporation published new prices for 'old' and 'new' natural gas, which in the case of 'old' gas also included a credit against allowable expenditures.

As a result of decreased activity and interest in exploration and development, revenues to the Crown for fees, rents, and bonuses were down 27 per cent to $25,517,036. The fees and rents were up slightly, but a major decrease of 44 per cent to $12,749,248 was recorded in the Crown reserve disposition bonuses paid to explore and develop resources. Of particular note was the 57-per-cent drop in bonuses paid for permits.

Acreage held under all forms of title decreased 16 per cent to 19,683,370 acres.



Departmental Activity

CHAPTER 2

CONTENTS

DEPARTMENTAL ACTIVITY

The year 1975 was noted for change in organization and in executive and administrative personnel of the Department in contrast to the previous year, which was notable for change in legislation.

LEGISLATION, 1975

During the Session of the Legislature in 1975 three Acts directly affecting the mineral and petroleum industries were amended. These were Bill 94, *Coal Mines Regulation Act;* Bill 107, *Petroleum and Natural Gas Act, 1965;* and Bill 125, *Mines Regulation Act.* (In addition, Bill 75 has application that in cases where the masculine gender is used in Acts it is to be interpreted as including the feminine.)

The *Mines Regulation Act* was amended in the following ways:

Section 1 is amended to authorize an Inspector to be able to order that a mine be worked so as not to endanger the safety of employees.

Section 2 contains a requirement for the filing of a plan of the work system in conformity with a similar requirement in the *Coal Mines Regulation Act.*

Section 3 (*a*) increases the amount of deposit as security to ensure performance of reclamation programs for a mine from $500 to $1,000 per acre.

Section 3 (*b*) makes it an offence to carry out exploration without a permit.

Section 3 (*c*) provides the penalty of cancellation of a permit in addition to other penalties provided under the Act for failure to comply with the provisions of the Act and the orders of the Chief Inspector or an Inspector.

Setcion 3 (*d*) makes clear that placer mining operations are included within the Chief Inspector's authority.

Section 4 requires survival rescue procedure training for all underground workers.

The *Coal Mines Regulation Act* was amended in many respects similarly to the *Mines Regulation Act.* In addition the following amendments were included:

Section 1 includes a new definition to complete the safety provisions in section 6 of the Act.

Section 2 empowers an Inspector to order the preparation of an engineering report respecting the safety of a mine.

Section 3 provides more detailed provisions than section 7 of the revised Act, specifically in regard to the maximum recovery of the resource and the requirements of approval for underground support plans.

Section 6 includes new safety provisions designed to prevent ignition caused by light metals.

The Petroleum and Natural Gas Act, 1965 was amended to

1. Provide for the disposition of oil sand and oil shale and products derived therefrom.

2. Reduce the qualification period from five years to four years before the rental provisions of an order made by the Mediation and Arbitration Board can be renegotiated.

3. Provide the Mediation and Arbitration Board with authority regarding disposition of security deposits.

4. Require a licensee and permittee to submit a copy of their agreement to the Commissioner before drilling is commenced in a unit adjoining the common boundary of a permit and a natural gas licence.

5. Clarify that the boundaries of a gas licence selected from a permit do not have to be separated by a unit where holders of adjoining permits agree to select adjoining licences that have mutual boundaries.

6. Provide the Minister with authority to withdraw Crown reserves from disposition by public auction or public tender and to dispose of such withdrawn Crown reserves in accordance with the terms and conditions and for the price or prices approved by the Lieutenant-Governor in Council.

7. Include production facilities in the requirement for a person to obtain a certificate of restoration before the site is deemed abandoned.

8. Require the submission of an application before normal producing operations are ceased and before producing operations are resumed.

9. Clarify that no equipment may be removed from a location without the written permission of the Commissioner where a person has failed to comply with the Act, regulations, a notice or order given under either, or a term, promise, or condition of his permit, licence, lease, or drilling reservation. Formerly, reference was made only to failure to comply with the Act.

10. Clarify that a disposition of petroleum and natural gas under the Act shall not include petroleum and natural gas recoverable from oil sand or oil shale unless the disposition states otherwise.

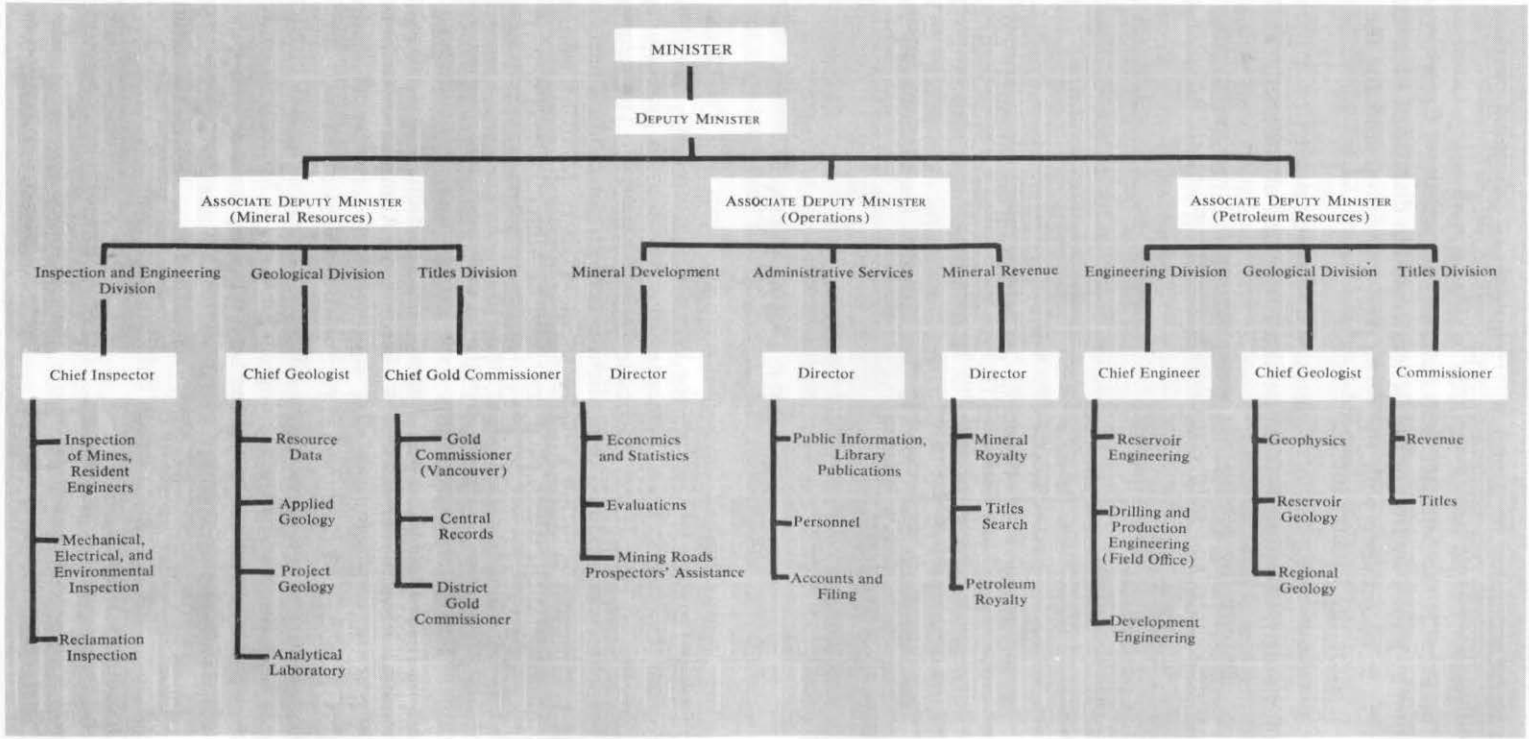
The Petroleum and Natural Gas Royalty Regulations administered by the Mineral Revenue Division of the Department were also amended.

ORGANIZATION

The organization of the Department of Mines and Petroleum Resources was modified in January 1975 when the two existing branches, Mineral Resources and Petroleum Resources, were augmented by a new branch, Operations Branch, under the direction of Hart Horn, Associate Deputy Minister. The structure of the existing branches was modified only slightly (*see* Organization Chart, page A 28), but units previously reporting directly to the Deputy Minister were consolidated in Operations Branch, which then consisted of Mineral Development, Administrative Services, and Mineral Revenue Divisions. J. S. Poyen (Jr.) became director of Mineral Development, which included Economics and Statistics and Evaluation Sections. The latter section took over Prospectors' Assistance and Mining Road programs from Inspection and Engineering Division W. W. Ross became director of Mineral Revenue Division. A director of Administrative Services was never appointed, and the division was supervised directly by H. Horn as Associate Deputy Minister. It included Personnel, Accounts and Filing, and a Public Information, Library, and Publication Section. The library and publications had previously been directed by the Geological Division of Mineral Resources for historical reasons and as the chief user of the facilities.

The changes of Minister and Deputy Minister in October 1975 followed by the change of Government in December 1975 set in motion modifications to the organization just described which culminated in January 1976 with the termination of Operations Branch.

ORGANIZATION CHART TO DECEMBER 1975



APPOINTMENTS AND RETIREMENTS

During the year the changes of organization and of Government brought about major change of executive and administrative personnel. The Department of Mines and Petroleum Resources reported to three Ministers during the year. The Honourable Leo T. Nimsick was Minister until October 9, at which time he became Minister of Travel Industry. The Honourable Gary I. Lauk was appointed Minister at that time and continued until the change of Government in December. The Honourable Tom Waterland was appointed Minister on December 22, 1975.

Parallel changes occurred in Deputy Minister. John E. McMynn resigned as Deputy Minister effective October 9 and was replaced by A. L. Peel, Deputy Minister of Economic Development, who was appointed Acting Deputy Minister until January 1976. Hart Horn, formerly Director of Mineral Revenue, was appointed Associated Deputy Minister of Operations Branch in January 1975 and continued until December when his resignation was accepted. J. S. Poyen (Jr.), formerly Director of Economics and Planning Division, was appointed Director of Mineral Development in conjunction with the reorganization of January 1975. W. W. Ross, who had been Deputy Director of Mineral Revenue Division, was appointed Director in March 1975. A. J. Dingley resigned as Chief Petroleum Engineer on July 4 and A. G. T. Weaver, formerly with Shell Canada, became Chief Petroleum Engineer on October 1, 1975. A. Sutherland Brown, who had been Deputy Chief Geologist, Mineral Resources Branch, was appointed Chief Geologist on January 8, 1975.

BRANCH ACTIVITY

The organization, function, and main activities of the major components of the Department of Mines and Petroleum Resources are reviewed in sequence: Mineral Resources, Petroleum Resources, and Operations.

MINERAL RESOURCES BRANCH

The Mineral Resources Branch, under the general direction of Dr. J. T. Fyles, Associate Deputy Minister, administers the *Mineral Act, Coal Act, Placer Mining Act, Mines Regulation Act,* and *Coal Mines Regulation Act,* and therefore most matters related to the exploration and mining of solid minerals. The Branch, through its Geological Division, is also involved in geological mapping and research related to the mineral resources. The Branch is divided into three divisions: Inspection and Engineering, Geological, and Titles.

INSPECTION AND ENGINEERING DIVISION

Inspectors stationed at the places listed below inspected coal mines, metal mines, and quarries. They also examined prospects, mining properties, roads and trails, and carried out special investigations under the *Mineral Act.* The Environment Control Inspectors conducted dust, ventilation, and noise surveys at all mines and quarries and, where necessary, made recommendations to improve environmental conditions. P. E. Olson supervised the road and trails program and prospectors' grub-stakes. J. D. McDonald administered the reclamation sections of the *Coal Mines Regulation Act* and *Mines Regulation Act.* A. R. C. James, Senior Inspector, Coal, had additional duties as mining adviser to the Securities Commission. Mine-rescue training is completed under the direction of the Co-ordinators, Rescue Training for the areas in which their stations are located.

Staff

Inspectors and Resident Engineers

J. W. Peck Chief Inspector of Mines ..... Victoria
J. E. Merrett, Deputy Chief Inspector of Mines ..... Victoria
A. R. C. James, Senior Inspector of Mines; Aid to Securities ..... Victoria
V. E. Dawson, Senior Inspector of Mines, Electrical-Mechanical ..... Victoria
J. Cartwright, Inspector of Mines, Electrical ..... Victoria
P. E. Olson, Senior Inspector, Mining Roads ..... Victoria
J. D. McDonald, Senior Inspector, Reclamation ..... Victoria
D. M. Galbraith, Inspector, Reclamation ..... Victoria
S. Elias, Senior Inspector, Environmental Control ..... Vancouver
G. V. Lewis, Inspector, Environmental Control ..... Vancouver
N. D. Birkenhead, Technician, Environmental Control ..... Vancouver
J. W. Robinson, Inspector and Resident Engineer ..... Vancouver
W. H. Childress, Inspector, Technician ..... Vancouver
W. C. Robinson, Inspector and Resident Engineer ..... Nanaimo
H. A. Armour, Inspector, Technician ..... Nanaimo
B. M. Dudas, Inspector and Resident Engineer ..... Prince Rupert
B. Varkonyi, Inspector, Technician ..... Prince Rupert
J. F. Hutter, Inspector and Resident Engineer ..... Smithers
S. J. North, Inspector, Technician ..... Smithers
A. D. Tidsbury, Inspector and Resident Engineer ..... Prince George
D. I. R. Henderson, Inspector and Resident Engineer ..... Prince George
K. G. Hughes, Inspector, Technician, Mechanical ..... Prince George
J. J. Sutherland, Inspector, Technician ..... Prince George
B. E. Warner, Technician, Reclamation ..... Prince George
D. Smith, Inspector and Resident Engineer ..... Kamloops
T. M. Waterland, Inspector and Resident Engineer ..... Kamloops
E. S. Sadar, Inspector and Resident Engineer ..... Kamloops
R. H. Heistad, Inspector, Technician, Mechanical ..... Kamloops
J. A. Thomson, Inspector, Technician ..... Kamloops
J. B. C. Lang, Inspector and Resident Engineer ..... Nelson
A. L. O'Bryan, Technician, Reclamation ..... Nelson
R. W. Lewis, Inspector and Resident Engineer ..... Fernie

Co-ordinators, Mine-rescue Training

G. J. Lee, Senior Co-ordinator ..... Victoria
T. H. Robertson ..... Nanaimo
J. E. A. Lovestrom ..... Smithers
R. J. Stevenson ..... Prince George
B. A. McConachie ..... Kamloops
E. C. Ingham ..... Nelson
A. Littler ..... Fernie

Staff

In January, B. E. Warner joined the staff at Prince George office as Technician, Reclamation for the examination of the many placer operations in the Cariboo area. The following month, R. J. Stevenson also commenced duties in Prince George as Co-ordinator, Rescue Training, replacing E. C. Ingham, who had transferred to Nelson to fill the vacancy at that office. In March, N. D. Birkenhead joined the Environmental Control staff at the Vancouver office as technician performing noise surveys at the mines. On April 1, J. A. Thomson, Co-ordinator, Rescue Training (Kamloops) transferred to the inspection staff as an Inspector, Technician to assist the engineer inspectors in their examinations of mines. During this same month the following appointments were made in the same capacity: B. Varkonyi to the Prince Rupert office; S. J. North to the Smithers office; J. J. Sutherland to the Prince George office; and H. A. Armour to the Nanaimo office. In April, also, A. L. O'Bryan was appointed to the Nelson office staff as Reclamation Technician, and in June, D. M. Galbraith, P.Eng., joined the headquarters' staff in Victoria as Inspector, Reclamation. In August, B. A. McConachie filled the Co-ordinator, Rescue Training vacancy in the Kamloops office and in October, K. G. Hughes was appointed Inspector, Technician (Mechanical) to the Prince George office.

Geological Division

Objectives

The objectives of the Geological Division are to provide accurate and current information on the quantity and distribution of mineral and coal deposits of the Province for Government and industry, to provide maps and other data, ideas, and interpretations useful in the search for these deposits, and to assist in the orderly exploration, development, and use of these resources.

Organization and Function

To carry out these objectives, the Division is organized into four sections. The Division is dominantly oriented to geological mapping and field studies but also carries on significant office studies. The roles of the various sections are as follows:

Project Geology, under Dr. N. C. Carter, is a field-oriented section with 11 geologists concerned principally with geological mapping of areas of high and moderate mineral and coal potential, and studies of the deposits in these areas. Such projects in the past have contributed to increased exploration and the discovery of addition resources. The emphasis in the past has been on metal deposits, but geologists in the section are currently making significant contributions in regard to the coal program.

Applied Geology, under Dr. E. W. Grove, is a field-oriented section of five geologists that is concerned with monitoring the activity of the exploration and mining industry, evaluating mines and prospects for several purposes, and with helping small operators, prospectors, and exploration geologists. The section was therefore highly involved in the Prospectors' Assistance Program and related training of prospectors. The District Geologists, resident in Smithers, Prince George, Kamloops, and Nelson, also represent the Department on many intergovernmental committees.

Resource Data, under Dr. J. A. Garnett, is an office-oriented section of six geologists concerned principally with the gathering, compilation, and computerization of data relating to the mineral resources of the Province, and also with interpretations of this data for various integrated land use studies and other special projects.

Analytical Laboratory, under Dr. W. M. Johnson, has a professional and technical staff of nine. The laboratory provides a full service of analyses of rocks and assays of metals in significant and trace amounts of samples submitted by Departmental geologists and engineers, prospectors under the *Prospectors Assistance Act* and other prospectors, and by other departments of the Government.

Staff

The professional staff of the Division on December 31, 1975, was as follows:

A Sutherland Brown, Ph.D., P.Eng.	Chief Geologist
N. C. Carter, Ph.D., P.Eng.	Senior Geologist
J. A. Garnett, Ph.D., P.Eng.	Senior Geologist
E. W. Grove, Ph.D., P.Eng.	Senior Geologist
W. M. Johnson, Ph.D., P.Eng.	Chief Analyst
P. F. Ralph, L.R.I.C.	Deputy Chief Analyst
P. A. Christopher, Ph.D., P.Eng.	Geologist
B. N. Church, Ph.D., P.Eng.	Geologist
G. E. P. Eastwood, Ph.D., P.Eng.	Geologist
R. D. Gilchrist, B.Sc.	Geologist
T. Höy, Ph.D.	Geologist
E. V. Jackson, B.Sc., P.Eng.	Geologist
J. W. McCammon, M.A.Sc., P.Eng.	Geologist
W. D. McCartney, Ph.D., P.Eng.	Geologist
W. J. McMillan, Ph.D., P.Eng.	Geologist
K. E. Northcote, Ph.D., P.Eng.	Geologist
A. Panteleyev, M.Sc., P.Eng.	Geologist
D. E. Pearson, Ph.D., P.Eng.	Geologist
V. A. Preto, Ph.D., P.Eng.	Geologist
A. F. Bowman, M.Sc.	Geomathematician
G. G. Addie, M.Sc., P.Eng.	District Geologist, Nelson
G. H. Klein, B.A.Sc., P.Eng.	District Geologist, Prince George
T. G. Schroeter, M.Sc., P.Eng.	District Geologist, Smithers
G. P. E. White, B.Sc., P.Eng.	District Geologist, Kamloops
G. L. James	Research Officer (Geology)
Judith Winsby, B.Sc.	Research Officer (Geology)
J. L. Armitage	Chief Draughtsman
R. E. Player	Lapidary and Photographer
N. G. Colvin	Laboratory Scientist
R. J. Hibberson, B.Sc.	Laboratory Scientist
B. Bhagwanani, B.Sc.	Laboratory Scientist
M. A. Chaudhry	Laboratory Technician
F. F. Karpick	Assayer
L. E. Shepherd	Laboratory Technician
Mrs. V. V. Vilkos, Ph.D.	Laboratory Scientist

The Department also has contracted for the services of A. H. Matheson, B.Sc., to prepare Mineral Deposit/Land Use maps.

Staff Changes

Dr. A. Sutherland Brown was appointed Chief Geologist in January 1975.

Dr. J. A. Garnett was appointed Senior Geologist, Resource Data, in July 1975.

Dr. N. C. Carter and Dr. E. W. Grove, both Senior Geologists, in effect switched positions, with Dr. Carter becoming head of Project Geology and Dr. Grove head of Applied Geology.

Dr. W. D. McCartney, a graduate of the University of British Columbia and Harvard, joined the staff in October 1975, after several years of consulting work for the Department.

R. D. Gilchrist, a graduate of the University of Alberta, joined the staff as a coal geologist in February 1975.

G. L. Bell, coal consultant for several years, left in March 1975.

In addition, the Library and Publication Sections that the Division formerly administered for the Department, were transferred to the Operations Branch. With these changes A. F. Shepherd, geologist in charge of the Library, and Mrs. R. J. Moir, Assistant Editor, were transferred from the Division.

Review of Work in 1975

Field projects—The two highlights of the year were the unravelling of the problems of structure and stratigraphy of the Rainbow Lake-Kutcho Creek area by Panteleyev and Pearson, which has important implications to the exploration companies in the area; and the success of several aspects of our coal program, establishing the possibilities of correlation of Rocky Mountain coals by Duff and Pearson, mapping of the Hat Creek basin by Church, and Princeton Basin by McMechan.

An outline of major field projects follows:

G. E. P. Eastwood completed mapping of the Carnation Creek watershed as part of an integrated resource study co-ordinated by Environment Canada. Considerable work was done on the Reako iron-copper deposit near Port Renfrew, including core logging and mapping. Further work is planned for 1976. A number of prospects being worked by the *Prospectors Assistance Act* grantees were also visited.

K. E. Northcote spent several days at Island Copper updating geological reserve data and checked the Weldwood coal exploration program on several occasions. The Cream Silver property in Strathcona Park was visited as part of the problem of mineral claims in parks. At the same time, several other deposits near the south boundary of the park were examined, and this should provide useful information for the proposed changes in the boundaries of Strathcona Park. Drill core recovered by British Columbia Hydro and Power Authority from the Suquash coal deposit was also logged. Considerable time was devoted to prospectors under the *Prospectors Assistance Act.*

V. A. Preto's field program in the Nicola volcanic belt north of Princeton involved a detailed investigation of the Axe porphyry prospect. A belt of rhyolitic volcanic rocks, not previously identified, was encountered in the western part of the belt.

B. N. Church completed a detailed outcrop map of the Hat Creek coal basin. Later work in the vicinity of Phoenix copper mine in the Greenwood area resulted in a better understanding of the stratigraphic setting of this deposit.

A. Panteleyev completed mapping of a 250-square-mile area centred on the Galore Creek copper deposit. This work resulted in a good picture of the relationships between Mesozoic volcanism, intrusive activity, and mineralization. Two

weeks were spent with D. E. Pearson sorting out stratigraphy and structure of an area including the Sumac-Imperial Oil stratabound pyritic copper-zinc deposit at Kutcho Creek.

D. E. Pearson, in conjunction with Prof. D. Duff, logged 20,000 feet of drill core from the Upper Elk River valley and south of the Dominion Coal Block in an attempt to demonstrate the usefulness of fossil contents as a basis for correlation of coal seams.

P. A. Christopher completed an investigation of a 35-square-mile area near Beaverdell which included Highland Bell mine and molybdenite deposits at Carmi and Tuzo Creek. Uranium occurrences in the same area, under investigation by Japanese interests, were also studied. The Caroline gold prospect near Hope was mapped in detail and trenches were sampled. Several prospectors under the *Prospectors Assistance Act* were visited in the field.

Several field projects were done on a contract basis, including the following:

Prof. D. Duff submitted a report on this investigation at several coal-bearing areas, including Upper Elk Valley-Fernie, Hat Creek, and Princeton.

R. D. McMechan completed field mapping of the Princeton basin in late September. The work indicated that there is little prospect for coal occurrences in the northern half of the basin. A gravity survey under contract to C. A. Agar at the end of the year confirmed and added to the projections of field geology.

D. Bailey completed mapping a 200-square-mile area centred on the Cariboo Bell copper deposit, and his work should present a better understanding of the volcanic stratigraphy, coeval intrusive activity, and associated mineralization in this area.

M. Vining completed mapping in the vicinity of Giant Mascot mine between Emory and American Creeks, delimiting the boundaries of the ultramafic body host to nickel-copper mineralization.

Susan Atkinson completed structural mapping at Toby Creek and in the vicinity of Paradise mine.

In addition to supervising visits, some field studies were conducted by N. C. Carter, E. W. Grove, J. A. Garnett, and A. Sutherland Brown.

A large portion of the district geologists' time during the year was taken up in giving courses and help to prospectors under the *Prospectors Assistance Act.* In addition, they were involved in keeping abreast of exploring activities, prospect evaluations, and fieldwork related to current exploration.

Office studies—Office studies other than routine included major advances in computerizing the mineral inventory, metal reserve studies, 80 per cent completion of the Mineral Deposit/Land Use map series of the Province, and manuscript preparation of a new geological map of the Province. During the year the work at The University of British Columbia on the MINDEP program, funded in a major way by this Department, and studies within the Division regarding development of a producers' file, have advanced the Division's capability for providing a more comprehensive mineral inventory.

During the year the Division was visited by geologists from a number of countries to study our methods, for co-operative projects, or to facilitate their own research. Geologists spending more time than a day with us came from the USSR, U.S.A., France, and New Zealand. In return, Dr. W. J. McMillan visited France as a co-ordination of the co-operative program with the BRGM (Geological Survey) of France in regard to estimating the potential of granitic bodies to contain ore deposits. Dr. D. E. Pearson and R. D. Gilchrist spent two weeks with the Geo-

logical Survey of Illinois to study their methods, particularly in coal inventory, and Dr. W. M. Johnson visited South Africa to study coal-treatment plants.

Many changes occurred in 1975 in the Laboratory, its instrumentation and methods. Renovations, nearly completed at the year-end, caused notable disruptions, but production remained stable or increased. Preparation and research were carried out to allay a number of current analytical problems; this should bear fruit in 1976. The major element analytical scheme at atomic absorption was automated for data acquisition and a sample changer has been designed and awaits construction. Initial work on extension of this scheme to some trace elements is in progress. Advances in the trace analysis of gold were made and reported in a paper given by M. A. Chaudhry in May. A Philips 1450 X-ray fluorescence automated spectrometer was delivered in February 1975. This equipment was still not functioning perfectly satisfactorily at the year-end, although a large number of problems had been resolved. There appears to have been difficulty in the supplier rectifying many of these faults. A large suite of synthetic standards have been prepared for trace analysis in rocks and diagnostic statistical evaluations made of these.

A time-sharing terminal for the Honeywell computer will be installed in the Laboratory during 1976.

The Wet Laboratory reported 20,330 results on 2,466 samples to Departmental geologists and 1,511 results on 531 samples for *Prospectors Assistance Act* appointees and prospectors. Continued assistance was given to other Government departments where requested.

The X-ray Diffraction Laboratory reported 305 quartz determinations and 159 minerals were identified.

The Emission Spectrographic Laboratory reported semi-quantitative results on 1,173 samples and 1,958 quantitative results on 726 samples.

There were 47 mineral separations completed.

Publications

Most of the work of the Division is made available to the interested public through a series of publications, and also through open files. The most important publications include the following:

(1) *Geology, Exploration and Mining in British Columbia* is our major yearly publication that summarizes and collates all known exploration and mining activity each year as well as reports on properties by Division geologists.

(2) *Geological Fieldwork* is a smaller yearly publication that describes the work of project and district geologists in a preliminary manner as soon as possible after the completion of the field season and within the same calendar year.

(3) Bulletins are produced at irregular intervals, usually one or two a year, and generally describe the geology and mineral deposits in detail of various areas of mineral potential mapped by Division geologists. No bulletins were published in 1975.

(4) Preliminary geological maps are issued on ozalid paper as soon as compilations are completed. In 1975 the following were issued:

Preliminary Map No. 17, *Geology of the Allison-Missezula Lake Area,* by V. A. Preto;

Table 2-1—Gold Commissioners' and Mining Recorders' Office Statistics, 1975

Mining Division	Free Miners' Certificates		Lode Mining								Placer-Mining					Revenue		
								Production										
	Individual	Company	Mineral Claims	Work Record	Cash in Lieu	Rental	Bills of Sale, Etc.	Lease	Percentage	Mineral Lease Rental	Lease Issued	Work Numbers	Rental and Cash in Lieu	Bills of Sale, Etc.	Extensions	Free Miners' Certificates	Mining Receipts	Total
			(Units)	(Years)	$	$				$			$			$	$	$
Alberni	68	1	133	943	3,600	15,025	39	.....	.....	2,564.00	.....	.....	280	.....	.....	705	23,015.50	23,720.50
Atlin	142	.....	501	1,124	14,600	17,995	17	.....	.....	366.00	5	131	2,950	5	39	650	38,715.28	39,365.28
Cariboo	1,018	5	499	2,342	13,000	36,765	59	.....	.....	11,622.00	56	323	14,610	78	74	5,679	85,823.56	91,502.56
Clinton	49	2	203	435	8,600	16,295	54	.....	.....	846.00	6	20	.....	7	.....	802	29,565.55	30,367.55
Fort Steele	246	9	467	2,415	19,200	35,595	34	.....	.....	2,984.00	5	38	1,980	9	7	4,092	63,451.03	67,543.03
Golden	127	8	102	435	24,200	9,530	20	.....	.....	1,028.00	1	.....	5,880	1	.....	3,230	43,196.50	46,426.50
Greenwood	144	5	990	1,492	9,800	26,790	65	.....	.....	8,325.00	1	11	350	.....	3	2,229	46,970.50	49,199.50
Kamloops	504	14	1,376	2,985	40,400	82,340	128	.....	1	21,072.00	3	14	840	1	6	6,249	162,532.04	168,781.04
Liard	218	.....	591	5,478	70,000	95,925	107	.....	.....	3,568.00	9	45	9,600	27	22	985	202,888.00	203,873.00
Lillooet	118	2	486	610	11,800	12,340	25	.....	.....	2,778.00	3	34	1,480	4	11	1,100	31,942.25	33,042.25
Nanaimo	351	7	218	4,428	13,800	64,950	72	.....	.....	8,405.88	.....	.....	130	.....	.....	3,143	59,716.00	62,859.00
Nelson	280	4	291	309	2,800	5,405	24	.....	1	956.00	2	9	50	.....	3	2,540	10,452.30	12,992.30
New Westminster	651	17	518	1,274	5,400	22,750	43	.....	.....	2,692.00	1	25	340	1	10	7,790	32,470.00	40,260.00
Nicola	80	2	369	660	4,400	17,095	26	.....	.....	1,850.00	.....	.....	.....	.....	.....	1,170	25,991.00	27,161.00
Omineca	317	2	2,488	8,784	58,200	150,680	198	.....	2	19,522.00	9	42	1,320	11	.....	1,857	236,133.50	237,990.50
Osoyoos	282	5	238	996	18,600	15,740	27	1	.....	10,758.00	.....	.....	.....	.....	.....	2,962	49,009.57	51,971.57
Revelstoke	68	1	381	1,028	2,800	15,095	21	.....	.....	502.00	9	6	230	2	5	716	20,871.50	21,587.50
Similkameen	155	2	199	461	15,200	17,085	36	.....	.....	4,670.00	10	88	5,710	7	6	1,255	52,989.50	54,244.50
Skeena	208	1	679	1,469	50,000	32,145	71	.....	.....	3,922.00	.....	6	90	.....	.....	1,175	92,182.50	93,357.50
Slocan	132	.....	247	295	13,000	7,435	30	.....	3	4,193.00	.....	2	.....	.....	.....	560	29,049.31	29,609.31
Trail Creek	73	4	31	46	600	1,015	4	.....	.....	380.00	.....	.....	.....	.....	.....	1,852	2,122.50	3,974.50
Vancouver	2,251	376	310	887	6,800	17,200	35	1	1	1,004.00	.....	.....	.....	.....	.....	148,091	36,784.87	184,875.87
Vernon	400	4	359	402	1,000	6,175	25	.....	.....	654.00	.....	12	50	3	2	3,162	10,080.30	13,242.30
Victoria	602	91	75	105	3,200	3,725	9	.....	.....	184.00	.....	22	360	1	.....	35,544	13,519.70	49,063.70
Totals 1975	8,484	562	11,751	39,403	411,000	725,095	1,169	2	8	114,845.88	120	828	46,250	157	188	237,538	1,399,472.76	1,637,810.76
Totals 1974	9,998	700	16,971	48,071	480,500	762,465	1,266	1	10	(1)	401	1,051	25,750	326	*Nil*	303,798	1,482,659.07	1,786,457.07

[1] Not recorded.

Preliminary Map No. 18, *Geology of the Central Part of the Nicola Belt,* by V. A. Preto;

Preliminary Map No. 19, *Geology of Germansen Lake Area,* by H. D. Meade.

(5) Mineral inventory maps show the locations and commodities present of all known mineral deposits. No revised maps were issued in 1975.

(6) Mineral Deposit/Land Use maps are interpretive maps that portray the varying mineral potential of terrain in a simple five-fold classification. In 1975, 15 maps at a scale of 1:250,000 were issued.

(7) Aeromagnetic maps are produced with the Federal Government as an aid to prospecting and interpreting geological maps. In 1975, 14 aeromagnetic maps of the Fort Grahame area (94C/10E) were issued at 1:5280 and nine maps were issued of the Liard Trough (central and northern Rocky Mountains) at a scale of 1:250,000.

(8) Assessment Report Index maps were issued during the year that show the location and numbers of reports accepted for assessment credit by the Department. The maps, at various scales, cover the mineralized terrain of the Province.

TITLES DIVISION

Staff

E. J. Bowles.....Chief Gold Commissioner
R Rutherford.....Deputy Chief Gold Commissioner
D. Doyle.....Gold Commissioner, Vancouver

Gold Commissioners, Mining Recorders, and Sub-Mining Recorders, whose duties are laid down in the *Mineral Act* and the *Placer Mining Act,* administer these Acts and other Acts relating to mining. Mining Recorders, in addition to their own functions, may also exercise the powers conferred upon Gold Commissioners with regard to mineral claims within the mining division for which they have been appointed.

Recording of location and of work upon a mineral claim as required by the *Mineral Act* and upon a placer mining lease by the *Placer Mining Act* must be made at the office of the Mining Recorder for the mining division in which the claim or lease is located. Information concerning claims and leases and concerning the ownership and standing of the claims and leases in any mining division may be obtained from the Mining Recorder for the mining division in which the property is situated or from the Department's offices at Victoria and Room 320, 890 West Pender Street, Vancouver. Officials in the offices of the Gold Commissioner at Victoria and the Gold Commissioner in Vancouver act as Sub-Mining Recorders for all mining divisions. Sub-Mining Recorders, who act as forwarding agents, are appointed at various places throughout the Province. They are authorized to accept documents and fees, and forward them to the office of the Mining Recorder for the correct mining division. Officials and their offices in various parts of the Province are listed in the following table:

Table 2-2—List of Gold Commissioners and Mining Recorders

Mining Division	Location of Office	Gold Commissioner	Mining Recorder
Alberni	Port Alberni	W. G. Mundell	W. G. Mundell.
Atlin	Atlin		R. E. Hall.
Cariboo	Quesnel	H. S. Tatchell	H. S. Tatchell.
Clinton	Clinton	W. R. Anderson	W. R. Anderson.
Fort Steele	Cranbrook	W. L. Draper	W. L. Draper.
Golden	Golden		J. Olson.
Greenwood	Grand Forks		S. Matsuo.
Kamloops	Kamloops	N. R. Blake	N. R. Blake.
Liard	Victoria	E. A. H. Mitchell	E. A. H. Mitchell.
Lillooet	Lillooet		M. Sakakibara.
Nanaimo	Nanaimo	R. H. Archibald	R. H. Archibald.
Nelson	Nelson	G. L. Brodie	G. L. Brodie.
New Westminster	New Westminster	F. E. Hughes	J. Hoem.
Nicola	Merritt	L. P. Lean	L. P. Lean.
Omineca	Smithers	A. W. Milton	A. W. Milton.
Osoyoos	Penticton		L. D. Sands.
Revelstoke	Revelstoke	D. G. B. Roberts	D. G. B. Roberts.
Similkameen	Princeton	W. L. Marshall	W. L. Marshall.
Skeena	Prince Rupert	T. H. W. Harding	T. H. W. Harding.
Slocan	Kaslo	T. P. McKinnon	T. P. McKinnon.
Trail Creek	Rossland	A. Sherwood	A. Sherwood.
Vancouver	Vancouver	D. Doyle	Mrs. S. Jeannotte (Deputy).
Vernon	Vernon	N. A. Nelson	N. A. Nelson.
Victoria	Victoria	E. A. H. Mitchell	E. A. H. Mitchell.

Central Records Offices (Victoria and Vancouver)

Transcripts of all recordings in Mining Recorders' offices throughout the Province are sent to the office of the Chief Gold Commissioner in Victoria twice each month. The records and maps showing the approximate positions of mineral claims held by record and of placer mining leases may be consulted by the public during office hours at Victoria and at the office of the Gold Commissioner at Vancouver, Room 320, 890 West Pender Street. The approximate position of mineral claims held by record and of placer mining leases is plotted from details supplied by locators.

During 1975, two investigations were carried out pursuant to section 80 of the *Mineral Act*. One investigation was made with regard to mineral claims having been located or recorded otherwise than in accordance with the *Mineral Act*, which resulted in mineral claim being cancelled.

Maps Showing Mineral Claims and Placer Leases

Maps showing the approximate locations of placer leases, leases issued under the *Mineral Act*, and mineral claims held by record may be seen at the Division's office, Room 411, Douglas Building, Victoria, and at Room 320, 890 West Pender Street, Vancouver. The Titles Division is now engaged in redrawing and improving the above-mentioned maps with maps based on the National Topographical System of mapping. The new sheets cover 15 minutes of longitude and 15 minutes of latitude. Prints are obtainable on request made to the Chief Gold Commissioner at Victoria. Requests should be accompanied by the proper sum.

	Price (per Sheet) $
Claim maps redrawn to NTS series, 1¼ inches=1 mile (1:50,000)	0.50
Claim maps not yet redrawn to NTS series	1.50

Claim maps redrawn to National Topographic System (1¼ inches = 1 mile; 1:50,000) are also available for purchase in the Vancouver office. Indexes to these maps indicating the areas covered by the above-mentioned scales are available on request to the Victoria and Vancouver offices.

Maps showing the location of coal licences issued under the *Coal Act* may be seen at the Titles Division, Mineral Resources Branch, Room 411, Douglas Building, Victoria. An index of coal reference maps is obtainable from the Chief Gold Commissioner at the above address.

It is advisable to order claim maps from an index, which will be supplied on request.

Coal

Information concerning the ownership and standing of coal licences and coal leases may be obtained upon application to the Chief Gold Commissioner, Department of Mines and Petroleum Resources, Victoria. Maps showing location of coal licences and coal leases are also available upon application and payment of the required fee.

Coal Revenue, 1975

Licences—	$
Fees	16,880.00
Rental	932,121.00
Cash paid in lieu of work	59,322.00*

* Refundable subject to section 22 of the *Coal Act*.

During 1975, 24 coal licences were issued. As of December 31, 1975, a total of 1,088 coal licences, amounting to 612,311 acres, was held in good standing.

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 was 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 into three divisions, namely, the Engineering Division, the Geological Division, and the Titles Division.

Engineering Division

The Engineering Division, under the direction of Chief Engineer A. G. T. Weaver, 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 *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.

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. Oil and gas allowable rates are set by the section, and recommendations concerning proposed improved recovery and produced fluid disposition schemes are made.

The *Drilling and Production Engineering Section,* under the supervision of 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.

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 J. A. Hudson, 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.

STAFF

On December 31, 1975, the professional and technical staff included the following:

Associate Deputy Minister

J. D. Lineham, P.Eng. — Chief of Branch

Engineering Division

A. G. T. Weaver, P.Eng. — Chief Engineer
W. L. Ingram, P.Eng. — Senior Development Engineer
M. B. Hamersley, C.E.T. — Development Technician
B. T. Barber, P.Eng. — Senior Reservoir Engineer
P. S. Attariwala, P.Eng. — Reservoir Technician
P. K. Huus — Reservoir Technician
J. H. Burt — Reservoir Technician
D. L. Johnson, P.Eng. — District Engineer
D. A. Selby — Field Technician
G. T. Mohler — Field Technician
W. B. Holland, C.E.T. — Field Technician
J. W. D. Kielo — Field Technician
G. L. Holland — Field Technician
J. L. Withers — Geophysical Technician

Geological Division

W. M. Young, P.Eng. — Chief Geologist
R. Stewart, P.Eng. — Senior Reservoir Geologist
T. B. Ramsay, P.Eng. — Reservoir Geologist
K. A. McAdam — Reservoir Geologist

G. R. Morgan, P.Eng. — Senior Economic Geologist
S. S. Cosburn, P.Eng. — Economic Geologist
D. W. Dewar — Economic Geologist
J. A. Hudson, P.Eng. — Senior Geophysicist

Titles Division

R. E. Moss — Commissioner
W. J. Quinn — Assistant Commissioner

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 1965 amendments to the *Petroleum and Natural Gas Act, 1965,* grants rights of entry to oil and gas companies over alienated lands, and determines conditions of entry and compensation therefore. The Act now provides for a process of mediation by the Chairman of the Board. Failing satisfactory agreement between the parties upon mediation, the Act provides for final disposition by the Board of entry conditions and compensation. The Board is also 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 an operator has ceased to use occupied lands.

In 1975, five field inspections were carried out by the Board; three mediation hearings were held and as a result of the parties failing to reach agreement on mediation, three Arbitration Board hearings were then held followed by Board orders respecting each hearing; the Board met 56 times during the year to deal with general Board matters and specific concerns of the public.

OPERATIONS BRANCH

Operations Branch came into being in January 1975 under the direction of Hart Horn, Associate Deputy Minister. The Branch took over responsibility for Administrative Services, Mineral Development, and Mineral Revenue Divisions and thus administered the *Mineral Royalties Act* and the *Prospectors Assistance Act.* It also organized the Departmental input into the Copper Task Force report which was issued during the year and the work of the Coal Task Force which was in preparation during the year. In addition, under the Mineral Development Division, it controlled the Prospectors' Assistance and Roads and Trails Programs. These programs were supervised, however, largely by personnel within other divisions. The grant to the B.C. Mining School at Rossland was also administered by the Operations Branch.

Administrative Services Division

Administrative Services Division was organized into three sections—Accounts, Personnel, and Public Information, Library, and Publications. The Division was supervised by Hart Horn, Associate Deputy Minister, as no Director was appointed.

Accounts Section

Accounts Section, under Mrs. Sharon G. Bone, was 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 maintenance of the central filing system and mail services of the Department.

Public Information

Public Information, Library, and Publications were combined as one section under the direction of Mrs. Pat Grove. Public information previously had been handled in a diverse way by the divisions responsible, but in 1975 was combined with direction of the library and the production of publications.

Personnel

The Personnel Officer, R. E. Moss, and the Personnel Clerk, Mrs. Sharon Belfie, continued to be very active with the adjustment and change in administration and new procedures as a result of the Master Agreement with the British Columbia Government Employees' Union and the Department's involvement with 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—Technical Assistants, Technicians, Engineering Aides, Engineering Assistants, and Co-ordinators (Rescue Training).

The following positions have been made as 'Management Excluded Group' and are therefore excluded from any BCGEU or BCGPEA involvement:

Deputy Minister.
Associate Deputy Minister, Petroleum Resources Branch.
Associate Deputy Minister, Mineral Resources Branch.
Associate Deputy Minister, Operations Branch.
Chief Inspector, Mineral Resources Branch.
Chief Geologist, Mineral Resources Branch.
Chief Gold Commissioner, Mineral Resources Branch.
Deputy Chief Gold Commissioner, Mineral Resources Branch.
Chief Commissioner, Petroleum Resources Branch.
Deputy Chief Commissioner, Petroleum Resources Branch.
Chief Engineer, Petroleum Resources Branch.
Director of Mineral Revenue.
Assistant Director of Mineral Revenue.
Director of Mineral Development.
Assistant Director of Mineral Development.

Departmental Comptroller.
Secretary to Deputy Minister.
Secretary to Associate Deputy Minister (3).
Personnel Clerk.

The Personnel statistics for the Department for 1975 are:

Permanent employees	240
Appointments	53
Resignations	20
Retirements	1
In-service transfers	15
Promotions and reclassifications	16
Temporary employees	7
Temporary employees under WIG '75	14
Temporary employees under summer field program	13

MINERAL DEVELOPMENT DIVISION

In 1975 the Mineral Development Division was conceived and included under the new Operations Branch of the Department. The Director was J. S. Poyen and the Assistant Director, prior to his resignation in July 1975, was L. E. Sivertson. It was during the year that the name of the Division changed from Economics and Planning to Mineral Development. The main significance of this change was that the emphasis of the Division shifted from economic analysis for policy alternatives to a more development-oriented concept of mineral evaluation.

As a result the Division added a Prospectors' Assistance Section to the existing Economics and Statistics Section. This addition was designed to encourage basic exploration in the mineral industry. In addition to this section's responsibilities under the *Prospectors Assistance Act,* it also administered the Roads and Trails Program.

These programs were supervised by the Director of Prospectors' Assistance, P. E. Olson, who was charged with the implementation of these innovative concepts. It should be noted that while the administration of these programs rested in this Division, the Director was assisted by the staff members of the Inspection Division and the Geological Division (and in particular the co-operation received in prospectors' training and field supervision by the District Geologists).

In addition to specific economic evaluations for development, the Economics Section continued analysis in commodity studies, mineral and coal price forecasting, higher value-added studies, resource taxation, recreation corridors, natural gas pricing, mineral policy review, studies under the *Foreign Investment Review Act,* the Anti-Inflation Guidelines, and the export levy. The work of the Economic Section has been co-ordinated by John Clancy.

The ongoing statistical work, co-ordinated by W. P. Wilson, included the Annual Census of Mining, mail out, compilation, and organization of mineral statistics for the Annual Report, and monthly mineral statistics for intergovernmental use (under review). The Section is currently involved in a number of committees relevant to mineral statistics, including Mines Ministers' Subcommittee on Mineral Statistics, Consultative Council for Mineral Statistics, Coal Statistics, and Statistics Canada, and represents the Government of British Columbia on such committees.

A Task Force on Mineral Valuation established at the Mines Ministers' Conference was charged with evaluating and, if necessary, redesigning the statistical forms currently in use throughout Canada. A three-man working group (British Columbia Department of Mines and Petroleum Resources, Statistics Canada, and Department of Energy, Mines and Resources, Ottawa) has worked to this end and significant progress has been made.

Mineral Revenue Division

The Mineral Revenue Division was responsible for the assessment and collection of mineral royalties, mineral land taxes, and petroleum and natural gas royalties imposed under the provisions of the *Coal Act, Mineral Act, Mineral Land Tax Act, Mineral Royalties Act, Petroleum and Natural Gas Act, 1965,* and *Placer Mining Act.* The efficient discharge of this responsibility was hampered considerably during the year due to numerous staff changes so that the Division had less than a full-operating complement for much of the year.

The Division had an authorized complement of 25 and, as of December 31, 21 of these positions were filled. The Division was organized into three operating sections—Mineral Accounting, Petroleum Accounting, and Mineral Titles Search. William W. Ross succeeded Hart Horn as Director of the Division on May 15, and in November, Bruce Garrison assumed the position of Assistant Director, vacated by W. W. Ross. With the promotion of Bruce Garrison, Alfred Lockwood assumed the duties of Mineral Accountant in addition to his duties as Petroleum Accountant. Supervision of the Mineral Titles Search Section was assumed by Norman Smith, replacing David Conway who transferred to the Department of Municipal Affairs. At the year-end staff vacancies existed in the Vancouver, Prince George, and Prince Rupert offices of the Mineral Titles Search Section, and it is not anticipated that these vacancies will be filled. Consequently, the work of these offices will be handled by the other district offices and headquarters.

Due to the severe down-turn in world copper markets, considerable attention was directed to the over-all impact of taxation on the profits of mining companies, with special focus on copper producers. It became quite apparent that the net smelter returns for low-grade copper producers was very close to the break-even point, and that over-all operating losses would likely be experienced by some producers.

Administrative particulars of royalty and tax provisions of statutes and regulations administered by this Division are as follows:

Coal Royalty

Coal royalties are assessed in accordance with the Coal Royalty Regulations made under the provisions of the *Coal Act.* Under these regulations coal is classified as either metallurgical or thermal coal. Effective January 1, 1975, the rate of royalty on metallurgical coal increased to $1.50 per long ton from $1 per long ton, while the rate on thermal coal increased to 75 cents per long ton from 50 cents per long ton. Coal royalty collections during the year were $3,644,268 on coal production of 2,560,342 long tons from three producers. Monthly revenue collections are set out in Table 2-4.

Mineral Act Royalty

Iron ore royalty agreements affecting two producing mines are in effect under the provisions of the *Mineral Act.* During 1975, $185,284 was collected under

these agreements on 741,134 long tons of iron concentrates having a deemed iron content of 370,567 long tons. The monthly royalty collections are set out in Table 2-4.

Mineral Land Tax

Mineral land taxes are assessed under the provisions of the *Mineral Land Tax Act* and related regulations on freehold mineral rights. The Act has a three-level tax structure consisting of undesignated mineral lands, production areas, and production tracts. As a result of the 1974 title search operation, 703 parcels were added to the 1975 tax roll. Many folios under the same ownership and in the same land district were consolidated into parcels, thus reducing the 1975 tax roll from 6,358 folios to 3,029 folios covering 888,757.04 acres of mineral land. The 1975 tax roll acreage was reduced from 1974 by a net of 155,767.95 acres which was due mainly to the deletion of approximately 278,000 acres of mineral lands being surrendered or in the process of surrender. Details of the 1975 mineral land tax roll assessment is as follows:

Table 2-3—Mineral Land Tax Roll Assessment, 1975

Classification of Mineral Land	Number of Folios	Acreage, May 1, 1975	Tax Assessed	Tax Collected
			$	$
Nondesignated mineral land	2,981	844,150.52	490,537.64	280,137.77
Production areas	13	3,187.13	6,374.26	4,516.64
Production tracts	35	41,419.39	15,429,209.49	15,131,806.68
Interest	.....	.....	1,024.20	(1)
Delinquent taxes	.....	.....	5,947.69	(1)
	3,029	888,757.04	15,933,093.28	15,416,461.09

1 Interest and delinquent tax collections included in tax collected under each classification.

Monthly revenue collections are set out in Table 2-4.

Under the *Mineral Land Tax Act,* an owner of mineral land may elect to surrender his mineral land rather than pay the taxes which may be assessed. During 1975, two surrenders were recorded covering 84,633 acres of mineral land. In addition there are 18 surrenders in process covering approximately 2,645,359 acres of mineral land. Surrenders covering approximately 2,365,985 acres in the Esquimalt and Nanaimo Railway belt of Vancouver Island have been in process for the past two years and still have not been registered due to complexities in title and Land Registry Office requirements.

When an owner of mineral land fails to pay mineral land taxes assessed by August 1 of the year following the year in which the tax was assessed, the mineral lands then become subject to forfeiture under the provisions of section 14 of the *Mineral Land Tax Act.* During 1975, formal forfeiture proceedings were completed on 305 parcels of mineral land covering 11,357.84 acres of mineral land which were subject to forfeiture in 1974. In addition, 318 parcels of mineral land covering 40,726.14 acres were delinquent and preparation for forfeiture on these parcels is proceeding.

Mineral Royalties

Mineral royalties are assessed under the provisions of the *Mineral Royalties Act* and related regulations on designated minerals produced from a production

Table 2-4—1975 Calendar Year Revenue Collections of the Mineral Revenue Division

Month	Gas	Oil	Products	Penalties	Total Petroleum and Natural Gas Royalties	Iron Ore Agreements	Coal Act	Mineral Royalties Act	Total Mineral Royalties	Mineral Land Tax Act	Total Mineral Land Taxes and Royalties	Total Divisional Revenue
	$	$	$	$	$	$	$	$	$	$	$	$
January	280,973.85	4,672,899.69	3,370.57		4,957,244.11	17,372.41	212,092.00	369,523.21	598,987.62	3,488.54	602,476.16	5,559,720.27
February	221,411.43	2,865,591.84	135,256.72		3,222,259.99	12,436.08	180,397.50	234,854.08	427,687.66	450.45	428,138.11	3,650,398.10
March	311,443.12	5,007,001.47	63,396.09		5,379,840.68	13,730.02	186,258.00	168,647.43	368,635.45	399.43	369,034.88	5,748,875.56
April	232,643.00	4,154,621.87	74,015.30		4,461,280.17	19,969.74	252,982.50	221,945.96	494,898.20	4,007.60	498,975.80	4,960,255.97
May	147,176.93	4,035,604.87	55,901.63	460.00	4,239,143.43	14,768.43	292,935.41	224,989.52	532,693.36	9,127.18	541,820.54	4,780,963.97
June	143,422.29	3,259,805.82	39,457.17	30.00	3,442,715.28	10,867.83	428,130.00	491,891.89	930,889.72	5,490,421.29	6,421,311.01	9,864,026.29
July	141,878.53	3,148,602.48	39,923.25	50.00	3,330,454.26	21,821.86	384,675.00	477,419.79	883,916.65	6,231,575.22	7,115,491.87	10,445,946.13
August	9,819.50	3,827,684.51	45,544.71		3,883,048.72	13,955.03	217,372.50	520,009.43	751,336.96	3,669,092.96	4,420,429.92	8,303,478.64
September	716,396.76	4,179,493.26	36,731.34	150.00	4,932,771.36	19,236.84	484,069.50	419,339.64	922,645.98	2,377.40	925,023.38	5,857,794.74
October	3,720.20	2,732,973.32	41,957.05	40.00	2,778,690.57		556,458.00	702,342.19	1,258,800.19	473.67	1,259,273.86	4,037,964.43
November	348,168.56	2,434,842.45	35,967.18		2,818,978.19	3,522.43	298,681.50	539,190.92	841,394.85	1,174.61	842,569.46	3,661,547.65
December	291,875.43	4,463,367.89		70.00	4,755,313.32	37,602.93	150,216.00	646,684.18	834,503.11	3,802.74	838,305.85	5,593,619.17
1975 total	2,848,929.60	44,782,489.47	569,521.01	800.00	48,201,740.08	185,283.60	3,644,267.91	5,016,838.24	8,846,389.75	15,416,461.09	24,262,850.84	72,464,590.92
1974 total	3,288,296.85	45,300,184.21	51,181.21	649.20	48,640,311.47	155,925.04	1,361,081.25	12,979,098.52	14,496,104.81	2,640,022.84	17,136,127.65	65,776,439.12
Cumulative total	6,137,226.45	90,082,673.68	620,702.22	1,449.20	96,842,051.55	341,208.64	5,005,349.16	17,995,936.76	23,342,494.56	18,056,483.93	41,398,978.49	138,241,030.04

instrument held under the provisions of the *Mineral Act, Placer Mining Act,* or *Coal Act.* During 1975 the basic rate of royalty under the *Mineral Royalties Act* was increased from 2.5 to 5 per cent, and basic values for designated minerals were increased by 11.632 per cent. Gold, molybdenum, and iron were the only designated minerals subject to a surcharge royalty during 1975. The total revenue collected under the Act for the year was $5,016,838 as detailed in Table 2-4, while the actual assessments for the calendar year were $10,814,168 as reflected in Table 2-5. Audits of the 1974 royalty returns indicated that closing 1973 inventories of raw ore and concentrate had not, in many cases, been properly reported for purposes of royalty calculations, consequently 1974 royalties were overstated and adjustments will be required when inventories have been properly reconciled.

Table 2-5—Royalties Assessed for the 1975 Calendar Year Under the Mineral Royalties Act

	Quantity	Net Value	Basic Royalty	Sur Royalty	Total	Rate of Royalty	Royalty Per Unit
		$	$	$	$	Per Cent	$
Copper lb.	398,777,777	160,354,030	6,413,334	.....	6,413,334	4.00	0.016
Gold oz.	93,911	11,035,306	428,465	652,227	1,080,692	9.79	11.508
Silver oz.	1,401,817	4,588,441	219,487	.....	219,487	4.78	0.157
Molybdenum lb.	24,003,400	52,764,216	2,337,128	508,867	2,845,995	5.39	0.119
Lead lb.	2,160,405	268,314	9,382	.....	9,382	3.50	0.004
Zinc lb.	8,012,671	1,259,136	61,314	.....	61,314	4.87	0.008
Cadmium lb.	29,393	11,433	457	.....	457	4.00	0.016
Iron ton	43,837	939,759	46,988	136,519	183,507	19.53	4.186
	.....	231,220,635	9,516,555	1,297,613	10,814,168	4.68	.....

Petroleum and Natural Gas Royalties

Petroleum and natural gas royalties are assessed on all petroleum and natural gas, including sulphur and natural gas liquids produced from Crown lands held under the provisions of the *Petroleum and Natural Gas Act, 1965.* Natural gas and natural gas by-products produced and sold under contract with the British Columbia Petroleum Corporation are exempt from payment of royalty. Regulations under the Act were amended effective November 10, 1975, which established the classification of 'old' oil and 'new' oil, reduced the gross royalty rate, and established an exploration credit on 'old' oil which can be redeemed upon proof of approved exploration work. Total revenue collected under the Act for the year was $48,201,740, as detailed in Table 2-4.

PUBLICATIONS

A list of publications of the Department of Mines and Petroleum Resources is available free on request to the Petroleum Resources Branch or the Chief Geologist, Mineral Resources Branch, Douglas Building, Victoria.

Publications that are in print may be obtained from the Department of Mines and Petroleum Resources, Douglas Building, Victoria, and from the Geological Survey of Canada, 100 West Pender Street, Vancouver. Current publications may also be obtained from the Gold Commissioner's office, Room 320, 890 West Pender Street, Vancouver.

Publications are available for reference use in the Departmental Library, Room 430, Douglas Building, Victoria, in the reading-room of the Geological Survey of Canada, 100 West Pender Street, Vancouver, in the offices of the Inspector of Mines in Nelson and Prince Rupert, as well as in some public libraries.

ROCK AND MINERAL SETS

Sets of rocks and minerals are available for sale to prospectors, schools, and residents of British Columbia. Information regarding them may be obtained from the Chief Geologist, Mineral Resources Branch, Douglas Building, Victoria.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Mineral Resource Statistics

CHAPTER 3

CONTENTS

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 became known.

Data are obtained from the certified returns made by the 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. Metric weights are used throughout.

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 66.

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 66, converted into Canadian funds. The abbreviations in the table are Mont.=Montreal; N.Y.=New York; Lon.=London; E. St. L.=East St. Louis; and U.S.=United States.

Starting in 1949 the prices of silver, copper, lead, and zinc were average United States prices converted into Canadian funds. Average monthly prices were supplied by Statistics Canada from figures published in the Metal Markets section of *Metals Week*. Specifically, for silver it was the New York price; for lead it was the New York price; for zinc it was the price at East St. Louis of Prime Western; for copper it was the United States export refinery price. Commencing in 1970 the copper price is the average of prices received by the various British Columbia shippers and since 1974 this applies also to gold, silver, lead, zinc, and cadmium.

For antimony and bismuth the average producers' price to consumers is used. For nickel the price used is the Canadian price set by the International Nickel Company of Canada Ltd. The value per tonne of the iron ore used in making pig iron at Kimberley was 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 method established in 1963 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 66.

For 1925 to 1973 the values had been calculated by using the true average price (*see* page A 66) 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 or origin.

Coal

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

Petroleum and Natural Gas

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 OF 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 3-7C 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 3-1, 3-3, and 3-7C.

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 3-1 and 3-7D.

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 3-1, 3-3, and 3-7D.

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 3-7D.

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 3-1 and 3-7D.

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 3-1, 3-3, and 3-7C.

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 3-1, 3-3, and 3-7E.

Butane—Butane is recovered as a by-product at the gas-processing plant at Taylor and at oil refineries. *See* Table 3-1, 3-3, and 3-7A.

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 3-7C 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 3-1, 3-3, and 3-7C.

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 490 000 tonnes-per-year plant at Bamberton, and Canada Cement Lafarge Ltd., with a 476 000 tonnes-per-year plant on Lulu Island and a 191 000 tonnes-per-year plant at Kamloops. *See* Tables 3-1, 3-3, and 3-7E.

Chromite—Two shipments of chromite are on record, 608 tonnes from Cascade in 1918 and 114 tonnes from Scottie Creek in 1929. *See* Tables 3-1 and 3-7C.

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 3-1, 3-3, and 3-7E.

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 3-1, 3-3, 3-7A, 3-8A, and 3-8B.

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 3-1 and 3-7C.

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 3-1. Up to 1966, coke statistics had been included in the Annual Report as Table 3-9, but this table has been discontinued. The coal used in making coke is still recorded in Table 3-8B.

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* Tables 3-1, 3-3, and 3-7A.

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 3-12 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 1975 was 25 8.5 million kilograms. *See* Tables 3-1, 3-3, 3-6, and 3-7B.

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 oil pipeline was built to connect the oil-gathering terminal at Taylor to the Trans Mountain Oil Pipe Line Company pipeline near Kamloops. In 1975, oil was produced from 31 separate fields, of which the Boundary Lake, Peejay, Milligan Creek, and Inga fields were the most productive.

In Tables 3-1, 3-3, and 3-7A, 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 3-7D.

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 3-7D.

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 3-1, 3-3, and 3-7D.

Gold, lode—Gold has played an imoprtant 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 3-1, 3-3, 3-6, and 3-7B. *See* Table 3-12 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 163 000 kilograms valued at $97.8 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 3-1, 3-3, 3-6, and 3-7A.

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 3-1, 3-3, and 3-7D.

Gypsum and gypsite—Production of gypsum and gypsite has been recorded since 1911. Between 1925 and 1956, more than 907 000 tonnes were shipped from Falkland and some was quarried near Cranbrook and Windermere. Since 1956, all production has come from Windermere. *See* Tables 3-1, 3-3, and 3-7D.

Hydromagnesite—Small shipments of hydromagnesite were made from Atlin between 1904 and 1916 and from Clinton in 1921. *See* Tables 3-1 and 3-7D.

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 18 million tonnes 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 3-7C, is of calcine. *See* Tables 3-1, 3-3, 3-6, and 3-7C.

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 3-1 and 3-7D.

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 3-1, 3-3, and 3-7D.

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 88 per cent of the Province's lead and has produced about 86 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 3-12 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 7.6 million tonnes.

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 3-1, 3-3, 3-6, and 3-7B.

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 3-1, 3-3, and 3-7E.

Magnesium—In 1941 and 1942, Cominco Ltd. produced magnesium from magnesite mined from a large deposit at Marysville. *See* Tables 3-1 and 3-7C.

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 3-1 and 3-7D.

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 3-1 and 3-7C.

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 3-1 and 3-7C.

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 3-1 and 3-7D.

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 3-1, 3-3, 3-6, and 3-7C.

Natro-alunite—In 1912 and 1913, 363 tonnes of natro-alunite were mined from a small low-grade deposit at Kyuquot Sound. There has been no subsequent production. *See* Tables 3-1 and 3-7D.

Natural gas—Commercial production of natural gas began in 1954 to supply the community of Fort St. John. In 1957 the gas plant at Taylor and the pipeline to serve British Columbia and the northwestern United States was completed. The daily average volume of production in 1975 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.

The production shown in Tables 3-1, 3-3, and 3-7A 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 millions of cubic metres at standard conditions (99.2 kPa, (kilopascals) pressure, 15°C temperature, up to and including the year 1960, and thereafter 101.3 kPa pressure, 15°C 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 3-1, 3-3, and 3-7C.

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 3-1 and 3-7C.

Perlite—In 1953 a test shipment of 1 009 tonnes was made from a quarry on François Lake. There has been no further production. *See* Tables 3-1 and 3-7D.

Petroleum, crude—*See* Crude oil.

Phosphate rock—Between 1927 and 1933, Cominco Ltd. produced 3 485 tonnes 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 3-1 and 3-7D.

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 3-1, 3-3, and 3-7C.

Propane—Propane is recovered from gas-processing plants at Taylor and Boundary Lake, and at oil refineries. *See* Tables 3-1, 3-3, and 3-7A.

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 3-1, 3-3, and 3-7E.

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 3-1, 3-3, and 3-7E.

Selenium—The only recorded production of selenium, 332 kilograms, was in 1931 from the refining of blister copper from the Anyox smelter. *See* Tables 3-1 and 3-7C.

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 3-12 details the current silver production. 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 1.3 million kilograms of silver between 1918 and 1968. *See* Tables 3-1, 3-3, 3-6, and 3-7B.

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 3-1 and 3-7D.

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 3-1, 3-3, and 3-7E.

Structural materials—In Table 3-7E 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 3-2 that includes unclassified structural materials in that and previous years not assignable to particular

years. The figure $3,180,828 in Table 3-7E under "Other Clay Products" is the value in the period 1886–1910 that cannot be allotted to particular clay products or asigned to mining divisions. *See* Tables 3-1, 3-2, 3-3, 3-7A, and 3-7E.

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* Tables 3-1, 3-3, and 3-7D.

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 3-1 and 3-7G.

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

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 3-1, 3-3, and 3-7C.

Volcanic ash—The only recorded production of volcanic ash is 27 tonnes from the Cariboo Mining Division in 1954. *See* Table 3-7D.

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 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. Usually 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 3-12 for details of current zinc producers.

Records for the period 1905 to 1908 show shipments totalling 17 096 tonnes 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 3-1, 3-3, 3-6, and 3-7B.

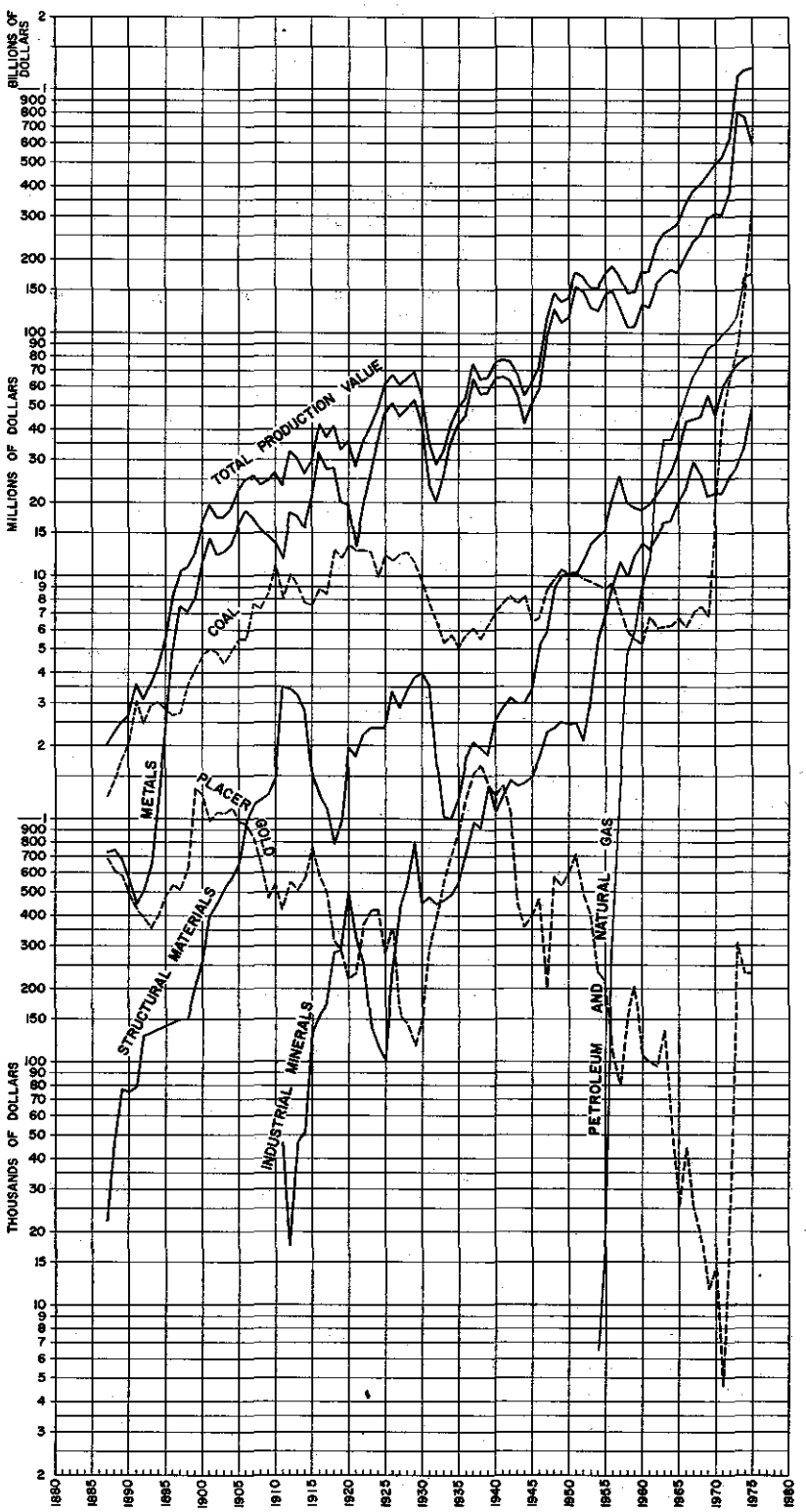


Figure 3-1—Value of Mineral Production, 1887–1975.

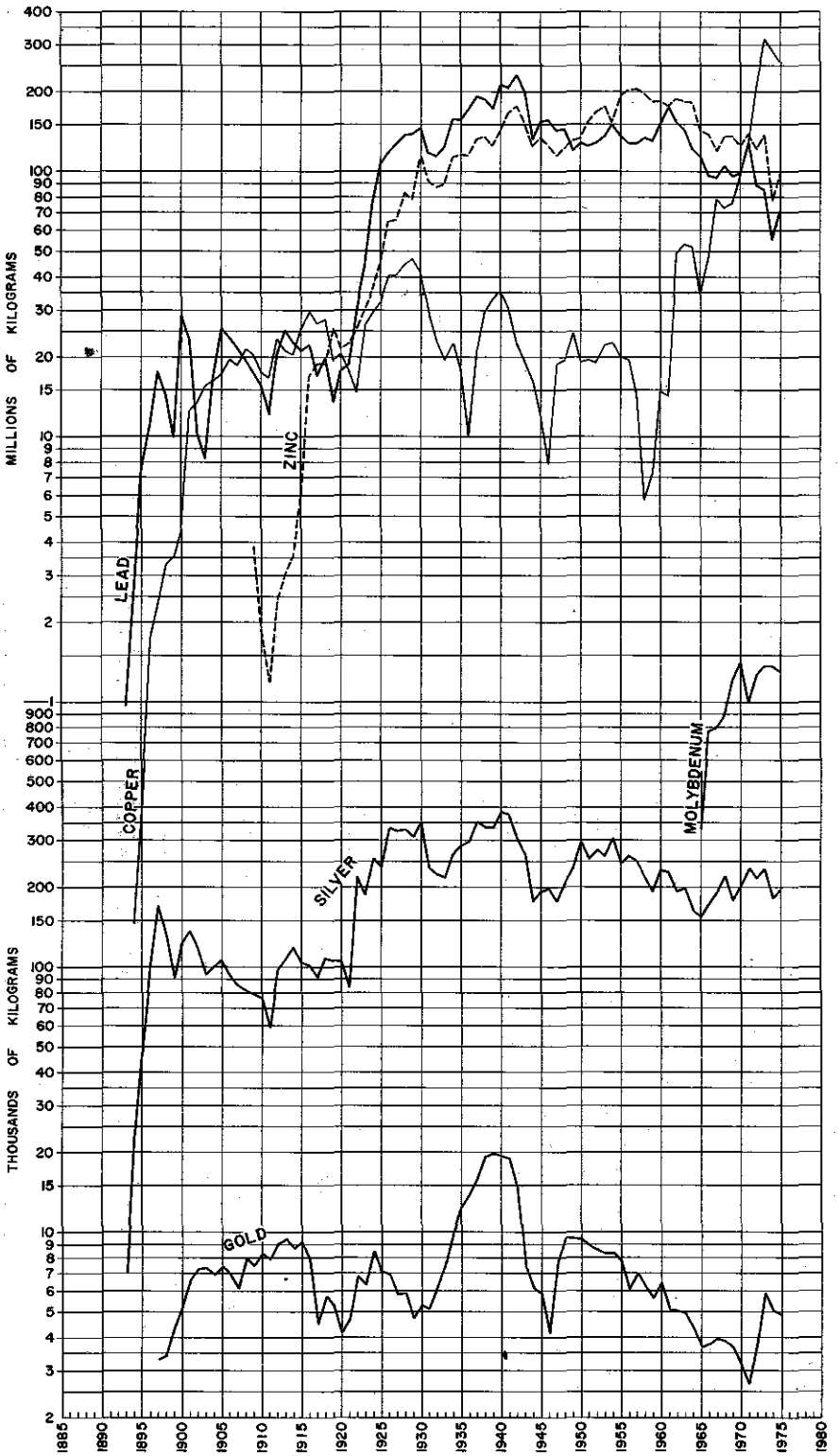


Figure 3-2—Production Quantities of Gold, Silver, Copper, Lead, Zinc, and Molybdenum, 1893–1975.

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

Year	Gold, Fine	Silver, Fine	Copper	Lead	Zinc	Coal
	$/kg	$/kg	$/kg	$/kg	$/kg	$/t
1901	664.57	18.01 N.Y	0.355 N.Y.	0.057 N.Y.	.....	2.92
1902	,,	15.93 ,,	.258 ,,	.081 ,,	.....	2.90
1903	,,	16.33 ,,	.292 ,,	.084 ,,	.....	2.94
1904	,,	17.16 ,,	.283 ,,	.086 ,,	.....	2.89
1905	,,	16.50 ,,	.344 ,,	.094 ,,	.....	2.98
1906	,,	20.40 ,,	.425 ,,	.106 ,,	.....	2.88
1907	,,	19.95 ,,	.441 ,,	.106 ,,	.....	3.38
1908	,,	16.15 ,,	.291 ,,	.083 ,,	.....	3.43
1909	,,	15.73 ,,	.286 ,,	.085 ,,	.....	3.52
1910	,,	16.34 ,,	.281 ,,	.088 ,,	0.101 E. St. L.	3.69
1911	,,	16.28 ,,	.273 ,,	.088 ,,	.108 ,,	3.51
1912	,,	18.58 ,,	.360 ,,	.089 ,,	.130 ,,	3.70
1913	,,	18.26 ,,	.337 ,,	.087 ,,	.106 ,,	3.74
1914	,,	16.75 ,,	.300 ,,	.077 ,,	.097 ,,	3.69
1915	,,	15.18 ,,	.381 ,,	.092 ,,	.248 ,,	3.78
1916	,,	20.06 ,,	.600 ,,	.136 ,,	.240 ,,	3.80
1917	,,	24.87 ,,	.599 ,,	.174 ,,	.167 ,,	3.84
1918	,,	29.56 ,,	.543 ,,	.147 ,,	.153 ,,	5.50
1919	,,	33.94 ,,	.412 ,,	.114 ,,	.138 ,,	5.42
1920	,,	30.80 ,,	.385 ,,	.158 ,,	.144 ,,	5.20
1921	,,	19.14 ,,	.276 ,,	.090 ,,	.087 ,,	5.30
1922	,,	20.62 ,,	.295 ,,	.114 ,,	.107 ,,	5.20
1923	,,	19.81 ,,	.318 ,,	.144 ,,	.124 ,,	5.30
1924	,,	20.40 ,,	.287 ,,	.161 ,,	.119 ,,	5.39
1925	,,	22.21 ,,	.310 ,,	.173 Lond.	.174 Lond.	5.28
1926	,,	19.97 ,,	.304 ,,	.149 ,,	.163 ,,	5.34
1927	,,	18.12 ,,	.285 ,,	.116 ,,	.137 ,,	5.30
1928	,,	18.70 ,,	.321 ,,	.101 ,,	.121 ,,	5.19
1929	,,	17.04 ,,	.399 ,,	.111 ,,	.119 ,,	5.22
1930	,,	12.27 ,,	.286 ,,	.087 ,,	.079 ,,	5.21
1931	,,	9.23 ,,	.179 ,,	.060 ,,	.056 ,,	4.80
1932	754.59	10.18 ,,	.141 Lond.	.047 ,,	.053 ,,	4.45
1933	919.53	12.16 ,,	.164 ,,	.053 ,,	.071 ,,	4.30
1934	1,109.22	15.26 ,,	.164 ,,	.054 ,,	.067 ,,	4.41
1935	1,131.40	20.83 ,,	.172 ,,	.069 ,,	.068 ,,	4.35
1936	1,126.26	14.51 ,,	.209 ,,	.086 ,,	.073 ,,	4.66
1937	1,124.97	14.43 ,,	.288 ,,	.113 ,,	.108 ,,	4.68
1938	1,131.08	13.98 ,,	.220 ,,	.074 ,,	.068 ,,	4.42
1939	1,161.95	13.02 ,,	.223 ,,	.070 ,,	.068 ,,	4.43
1940	1,237.82	12.30 ,,	.222 ,,	.074 ,,	.075 ,,	4.70
1941	1,237.82	12.30 ,,	.222 ,,	.074 ,,	.075 ,,	4.57
1942	1,237.82	13.24 ,,	.222 ,,	.074 ,,	.075 ,,	4.55
1943	1,237.82	14.55 ,,	.259 ,,	.083 ,,	.088 ,,	4.60
1944	1,237.82	13.83 ,,	.265 ,,	.099 ,,	.095 ,,	4.68
1945	1,237.82	15.11 ,,	.277 ,,	.110 ,,	.142 ,,	4.67
1946	1,181.56	26.89 ,,	.282 ,,	.149 ,,	.172 ,,	5.16
1947	1,125.29	23.15 ,,	.450 ,,	.301 ,,	.248 ,,	5.64
1948	1,125.29	24.11 Mont.	.493 U.S.	.398 ,,	.307 ,,	6.71
1949	1,157.44	23.87 U.S.	.440 ,,	.348 U.S.	.292 U.S.	7.18
1950	1,223.35	25.93 ,,	.517 ,,	.319 ,,	.332 ,,	7.09
1951	1,184.77	30.40 ,,	.611 ,,	.406 ,,	.439 ,,	7.12
1952	1,101.82	26.74 ,,	.685 ,,	.355 ,,	.350 ,,	7.65
1953	1,106.65	26.93 ,,	.669 ,,	.292 ,,	.235 ,,	7.58
1954	1,095.39	26.68 ,,	.642 ,,	.302 ,,	.230 ,,	7.72
1955	1,109.86	28.25 ,,	.844 ,,	.329 ,,	.267 ,,	7.43
1956	1,107.29	28.73 ,,	.877 ,,	.347 ,,	.293 ,,	7.26
1957	1,078.67	27.99 ,,	.574 ,,	.310 ,,	.246 ,,	7.45
1958	1,092.50	27.79 ,,	.516 ,,	.259 ,,	.221 ,,	8.21
1959	1,079.32	28.12 ,,	.611 ,,	.257 ,,	.242 ,,	8.74
1960	1,091.53	28.50 ,,	.639 ,,	.256 ,,	.277 ,,	7.32
1961	1,140.08	30.12 ,,	.620 ,,	.243 ,,	.258 ,,	8.16
1962	1,202.78	37.30 ,,	.672 ,,	.227 ,,	.274 ,,	8.19
1963	1,213.71	44.36 ,,	.676 ,,	.265 ,,	.290 ,,	8.08
1964	1,213.71	44.84 ,,	.737 ,,	.323 ,,	.323 ,,	7.65
1965	1,213.07	44.81 ,,	.846 ,,	.380 ,,	.345 ,,	7.75
1966	1,212.42	44.79 ,,	1.176 ,,	.359 ,,	.344 ,,	8.02
1967	1,214.03	53.73 ,,	1.125 ,,	.333 ,,	.329 ,,	8.54
1968	1,212.42	74.29 ,,	1.195 ,,	.321 ,,	.312 ,,	8.72
1969	1,211.78	61.96 ,,	1.470 ,,	.354 ,,	.347 ,,	8.82
1970	1,175.45	59.46 ,,	1.294[2]	.360 ,,	.353 ,,	8.16
1971	1,136.22	50.14 ,,	1.030[2]	.308 ,,	.359 ,,	11.06
1972	1,849.34	53.48 ,,	.989[2]	.328 ,,	.388 ,,	12.08
1973	3,131.85	82.51 ,,	1.835[2]	.359 ,,	.455 ,,	12.71
1974	5,348.68[2]	156.53[2]	1.884[2]	.422[2]	.767[2]	19.93
1975	*5,204.66*[2]	*155.60*[2]	*1.283*[2]	*.346*[2]	*.808*[2]	*35.53*

[1] *See* page A 52 for detailed explanation.
[2] *See* page A 53 for explanation.

Table 3-1—Mineral Production: Total to Date, Past Year, and Latest Year

Products[1]	Total Quantity to Date[2]	Total Value to Date	Quantity, 1974[2]	Value, 1974	Quantity, 1975[2]	Value, 1975
Metals		$		$		$
Antimony ..... kg	25 636 985	21,083,812	221 238	879,897	364 045	1,467,928
Bismuth ..... kg	3 194 278	15,419,159	33 711	680,771	19 163	261,931
Cadmium ..... kg	19 551 649	82,553,054	195 979	1,532,096	320 923	1,971,035
Chromite ..... t	722	32,295	.....	.....	.....	.....
Cobalt ..... kg	114 484	376,661	.....	.....	.....	.....
Copper ..... kg	3 134 913 435	2,908,691,281	287 547 048	541,644,913	258 497 599	331,693,850
Gold—						
placer ..... kg	163 072	97,765,189	45	232,512	44	232,204
lode, fine ..... kg	551 630	583,791,626	5 001	26,749,083	4 819	25,082,494
Iron concentrates ..... t	30 780 945	309,458,147	1 306 930	12,742,227	1 299 215	15,245,902
Lead ..... kg	7 591 288 122	1,489,809,560	55 252 692	23,333,016	70 603 483	24,450,158
Magnesium ..... kg	92 819	88,184	.....	.....	.....	.....
Manganese ..... t	1 564	32,668	.....	.....	.....	.....
Mercury[3] ..... kg	1 891 974	10,447,358	.....	.....	.....	.....
Molybdenum ..... kg	117 513 000	468,461,337	13 789 825	60,791,552	13 026 627	71,201,391
Nickel ..... kg	23 337 783	51,698,754	688 656	2,351,406	.....	.....
Palladium ..... kg	23	30,462	.....	.....	.....	.....
Platinum ..... kg	44	135,008	.....	.....	.....	.....
Selenium ..... kg	232	1,389	.....	.....	.....	.....
Silver ..... kg	16 162 191	455,201,762	181 696	28,440,365	196 306	30,545,947
Tin ..... kg	8 866 999	19,042,883	143 816	1,150,722	32 511	200,669
Tungsten (WO_3) ..... kg	9 090 002	48,068,016	.....	.....	.....	.....
Zinc ..... kg	7 116 300 419	1,689,523,810	77 733 732	59,582,753	99 668 230	80,572,872
Others	.....	55,207,407	.....	4,488,138	.....	3,695,987
Totals	.....	8,306,919,822	.....	764,599,451	.....	586,622,368
Industrial Minerals						
Arsenious oxide ..... kg	9 986 428	273,201	.....	.....	.....	.....
Asbestos ..... t	1 273 372	304,454,227	83 403	27,398,900	76 771	37,849,743
Bentonite ..... t	718	16,858	.....	.....	.....	.....
Fluxes ..... t	3 874 125	8,220,820	34 451	206,049	35 914	174,824
Granules ..... t	509 684	10,314,467	31 546	1,025,615	33 316	1,144,968
Gypsum and gypsite ..... t	5 577 228	20,721,413	400 338	1,412,157	474 387	1,751,799
Hydromagnesite ..... t	2 044	27,536	.....	.....	.....	.....
Iron oxide and ochre ..... t	16 427	155,050	.....	.....	.....	.....
Jade ..... kg	641 077	1,702,764	3 510	18,613	110 437	414,123
Magnesium sulphate ..... t	12 604	254,352	.....	.....	.....	.....
Mica ..... kg	5 815 954	185,818	.....	.....	.....	.....
Natro-alunite ..... t	474	9,398	.....	.....	.....	.....
Perlite ..... t	1 009	11,120	.....	.....	.....	.....
Phosphate rock ..... t	3 485	16,894	.....	.....	.....	.....
Sodium carbonate ..... t	9 518	118,983	.....	.....	.....	.....
Sulphur ..... t	7 889 486	112,982,058	206 646	3,068,507	246 079	5,738,134
Talc ..... t	984	34,871	.....	.....	.....	.....
Others	.....	8,017,203	.....	546,373	.....	1,594,011
Totals	.....	467,517,033	.....	33,676,214	.....	48,667,602
Structural Materials						
Cement ..... t	16 050 409	338,897,979	890 372	25,828,823	915 293	31,681,722
Clay products	.....	107,735,724	.....	6,615,128	.....	6,593,189
Lime and limestone ..... t	.....	72,382,676	2 097 909	4,297,547	1 976 415	4,349,800
Rubble, riprap, crushed rock ..... t	.....	76,213,109	2 691 473	5,715,219	4 103 452	8,723,448
Sand and gravel ..... t	.....	422,670,591	31 440 908	35,611,346	28 945 523	39,575,457
Building-stone ..... t	1 057 115	9,263,104	452	20,330	53	4,395
Not assigned	.....	5,972,171	.....	.....	.....	.....
Totals	.....	1,033,135,354	.....	78,088,393	.....	90,928,011
Coal						
Coal—sold and used ..... t	164 837 263	1,307,797,183	7 757 440	154,593,643	8 924 816	317,111,744
Petroleum and Natural Gas						
Crude oil ..... m^3	41 752 651	746,090,406	3 012 553	103,335,328	2 261 987	94,229,725
Field condensate ..... m^3	150 523	3,145,021	16 561	568,075	16 094	668,092
Plant condensate ..... m^3	2 600 567	13,957,098	178 534	924,549	185 275	6,525,837
Natural gas to pipeline $10^6 m^3$	10 440	663,646,065	1 042	128,018,726	928	214,733,528
Butane ..... m^3	1 217 941	4,824,827	105 426	232,085	106 429	2,577,205
Propane ..... m^3	958 145	3,755,576	89 373	196,742	81 976	1,985,087
Totals	.....	1,435,419,893	.....	233,275,505	.....	320,719,474
Grand totals	.....	12,550,789,285	.....	1,264,233,206	.....	1,364,049,199

[1] *See* notes on individual products listed alphabetically on pages A 54 to A 63.
[2] *See* page A 9 for conversion table to old system.
[3] From 1968, excludes production which is confidential.

Table 3-2—Total Value of Mineral Production, 1836–1975

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 3-2—Total Value of Mineral Production, 1836–1975—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	124,104,445	1,109,388,641
1974	764,599,451	33,676,214	78,088,393	154,593,643	233,275,505	1,264,233,206
1975	586,622,368	48,667,602	90,928,011	317,111,744	320,719,474	1,364,049,199
Totals	8,306,919,822	467,517,033	1,033,135,354	1,307,797,183	1,435,419,893	12,550,789,285

Table 3-3—Mineral Production for the 10 Years, 1966–75

Description	1966		1967		1968		1969		1970	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Metals		$		$		$		$		$
Antimony kg	637 603	745,011	575 010	671,874	526 146	614,779	371 999	508,476	329 521	1,104,040
Bismuth kg	21 516	198,848	64 640	572,878	94 248	868,533	28 344	288,070	59 935	828,486
Cadmium kg	530 505	3,017,491	451 034	2,784,222	608 462	3,823,095	517 607	4,016,788	426 062	3,343,944
Cobalt kg										
Copper kg	47 990 080	56,438,255	78 352 932	88,135,172	73 024 968	87,284,148	75 937 956	111,592,416	96 329 694	124,657,958
Gold—placer kg	48	44,632	28	25,632	21	19,571	12	11,720	15	14,185
lode, fine kg	3 717	4,506,646	3 924	4,763,688	3 854	4,672,242	3 654	4,427,506	3 135	3,685,476
Iron concentrates t	1 952 074	20,778,934	1 954 468	20,820,765	1 900 311	21,437,569	1 882 266	19,787,845	1 704 650	17,391,883
Lead kg	95 929 798	34,436,934	94 406 546	31,432,079	105 063 971	32,782,257	95 286 815	33,693,539	97 448 607	35,096,021
Molybdenum kg	7 754 088	27,606,061	7 945 782	31,183,064	8 980 988	32,552,722	12 064 350	47,999,442	14 186 706	52,561,796
Nickel kg	1 445 914	2,731,869	1 896 388	3,946,715	1 504 631	3,372,225	1 351 304	3,396,208	1 545 927	4,703,320
Silver kg	172 595	7,729,939	192 240	10,328,695	221 791	16,475,795	179 170	11,100,491	202 521	12,041,181
Tin kg	322 390	1,130,096	198 584	621,682	162 472	497,885	130 828	470,136	119 619	421,946
Tungsten (WO_3) kg										
Zinc kg	138 401 395	47,666,540	119 217 472	39,248,539	135 803 151	43,550,181	134 565 200	46,639,024	125 005 208	44,111,055
Others		1,632,747		1,330,313		2,961,024		10,949,453		10,020,179
Totals		208,664,003		235,865,318		250,912,026		294,881,114		309,981,470
Industrial Minerals										
Asbestos t	80 531	15,718,741	83 635	18,273,220	67 736	14,833,891	72 926	14,871,334	78 680	16,033,827
Fluxes (quartz, limestone) t	21 693	112,314	43 592	221,212	38 337	157,679	20 268	81,917	28 690	106,533
Granules (quartz, limestone, granite) t	21 732	424,667	28 379	305,655	27 430	436,928	31 521	654,701	20 275	526,491
Gypsum and gypsite t	186 903	576,873	208 691	691,592	223 506	689,847	254 821	764,032	245 180	736,635
Jade kg	5 277	13,225	9 144	24,341	22 233	105,670	11 944	42,635	119 114	250,256
Sulphur t	310 689	5,834,523	285 299	9,654,603	290 770	9,650,285	316 717	3,824,593	305 194	3,957,542
Others		184,981		193,442		182,482		253,731		409,075
Totals		22,865,324		29,364,065		26,056,782		20,492,943		22,020,359
Structural Materials										
Cement t	641 847	12,918,301	644 077	13,581,850	595 439	13,634,166	721 744	16,604,688	546 025	13,485,549
Clay products		4,100,192		3,945,207		4,388,505		4,550,546		4,714,368
Lime and limestone t	1 346 209	2,696,011	1 492 541	2,822,138	1 829 684	3,337,277	1 734 420	3,237,032	1 694 237	3,204,076
Rubble, riprap, crushed rock t	1 442 588	1,890,992	2 075 090	2,967,195	3 071 450	3,524,439	3 407 875	4,456,211	2 442 384	3,018,242
Sand and gravel t	22 062 629	21,959,733	21 056 325	20,643,673	20 562 107	20,271,723	26 428 476	26,553,699	21 006 650	21,679,387
Building-stone t	69 599	215,043	3 245	51,425	1 500	33,366	1 975	39,352	159	2,449
Totals		43,780,272		44,011,488		45,189,476		55,441,528		46,104,071
Coal										
Sold and used t	771 848	6,196,219	824 436	7,045,341	870 180	7,588,989	773 226	6,817,155	2 398 635	19,559,669
Petroleum and Natural Gas										
Crude oil m^3	2 645 304	36,268,683	3 125 234	44,748,477	3 521 844	50,082,837	4 023 884	58,176,213	4 027 781	60,405,941
Field condensate m^3	6 291	86,265	6 450	92,357	8 611	122,408	12 425	180,520	17 052	277,829
Plant condensate m^3	154 946	312,360	161 541	267,941	152 670	247,455	150 104	263,278	159 489	253,009
Natural gas delivered to pipeline $10^6 m^3$	457	17,339,587	562	21,667,136	635	24,531,445	717	27,897,585	772	29,804,411
Butane m^3	79 650	160,312	93 505	188,197	83 875	168,814	66 385	133,613	49,074	98,772
Propane m^3	53 153	106,980	65 672	132,178	63 723	128,256	52 069	104,800	66 828	134,505
Totals		54,274,187		67,096,286		75,281,215		86,756,009		90,974,467
Grand totals		335,780,005		383,382,498		405,028,488		464,388,749		488,640,036

Table 3-3—Mineral Production for the 10 Years, 1966–75—Continued

Description	1971		1972		1973		1974		1975	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Metals										
		$		$		$		$		$
Antimony kg	146 748	243,614	308 260	418,042	753 110	1,192,118	221 238	879,897	364 045	1,467,928
Bismuth kg	37 431	388,674	42 556	324,617	1 293	13,058	33 711	680,771	19 163	261,931
Cadmium kg	470 243	2,011,223	315 540	1,759,995	367 761	2,951,236	195 979	1,532,096	320 923	1,971,035
Cobalt kg	51 503	103,099	70 642	155,739	18 555	117,403				
Copper kg	127 286 040	131,037,918	211 832 288	209,403,822	317 603 055	582,803,251	287 547 048	541,644,913	258 497 599	331,693,850
Gold—placer kg	6	4,647	21	26,905	119	311,524	45	232,512	44	232,204
lode, fine kg	2 668	3,031,844	3 783	6,995,448	5 785	18,117,268	5 001	26,749,083	4 819	25,082,494
Iron concentrates t	1 750 738	18,153,612	1 139 698	11,642,379	1 420 160	12,906,063	1 306 930	12,742,227	1 299 215	15,245,902
Lead kg	112 865 575	34,711,408	88 109 663	28,896,566	84 890 924	30,477,936	55 252 692	23,333,016	70 603 483	24,450,158
Molybdenum kg	9 926 694	36,954,846	12 719 391	43,260,349	13 785 264	51,851,509	13 789 825	60,791,552	13 026 627	71,201,391
Nickel kg	1 153 742	3,497,420	1 469 851	4,601,486	1 119 221	3,775,232	688 656	2,351,406		
Silver kg	238 670	11,968,046	215 420	11,519,660	236 987	19,552,997	181 696	28,440,365	196 306	30,545,947
Tin kg	144 695	421,079	159 230	473,908	138 221	597,265	143 816	1,150,722	32 511	200,669
Tungsten (WO_3) kg	605 909	3,012,540	577 509	2,167,663	640 378	4,224,062				
Zinc kg	138 549 629	49,745,789	121 719 968	47,172,894	137 380 768	62,564,751	77 733 732	59,582,753	99 668 230	80,572,872
Others		5,774,192		3,212,297		4,161,923		4,488,138		3,695,987
Totals		301,059,951		372,032,770		795,617,596		764,599,451		586,622,368
Industrial Minerals										
Asbestos t	79 032	17,800,406	95 986	20,870,241	98 852	21,102,892	83 403	27,398,900	76 771	37,849,743
Fluxes (quartz, limestone) t	24 258	98,426	28 667	59,246	41 937	106,371	34 451	206,049	35 914	174,824
Granules (quartz, limestone, granite) t	26 524	519,192	33 709	757,924	31 135	857,643	31 546	1,025,615	33 316	1,144,968
Gypsum and gypsite t	312 791	930,348	352 272	1,087,196	331 347	1,114,009	400 338	1,412,157	474 387	1,751,799
Jade kg	76 094	196,332	110 551	235,218	69 967	306,808	3 510	18,613	110 437	414,123
Sulphur t	261 691	2,147,778	270 074	2,306,933	286 701	4,187,387	206 646	3,068,507	246 079	5,738,134
Others		217,285		447,362		294,554		546,373		1,594,011
Totals		21,909,767		25,764,120		27,969,664		33,676,214		48,667,602
Structural Materials										
Cement t	822 329	21,629,385	808 230	21,014,112	862 521	24,935,624	890 372	25,828,823	915 293	31,681,722
Clay products		5,981,785		5,263,749		5,590,290		6,615,128		6,593,189
Lime and limestone t	1 650 658	3,037,222	1 838 227	3,357,927	1 954 008	3,633,870	2 097 909	4,297,547	1 976 415	4,349,800
Rubble, riprap, crushed rock t	3 327 758	3,670,583	3 013 438	4,032,548	2 579 122	4,160,009	2 691 473	5,715,219	4 103 452	8,723,448
Sand and gravel t	26 598 612	25,612,396	31 593 921	33,076,196	30 811 402	35,379,590	31 440 908	35,611,346	28 945 523	39,575,457
Building-stone t	2 057	8,962	176	1,166	729	21,448	452	20,330	53	4,395
Totals		59,940,333		66,745,698		73,720,831		78,088,393		90,928,011
Coal										
Sold and used t	4 141 496	45,801,936	5 466 846	66,030,210	6 924 733	87,976,105	7 757 440	154,593,643	8 924 816	317,111,744
Petroleum and Natural Gas										
Crude oil m^3	3 999 254	66,471,856	3 788 914	63,166,717	3 368 960	68,306,032	3 012 553	103,335,328	2 261 987	94,229,725
Field condensate m^3	17 331	287,781	16 619	277,069	20 114	407,807	16 561	568,075	16 094	668,092
Plant condensate m^3	181 907	293,287	161 854	327,820	180 088	222,463	178 534	924,549	185 275	6,525,837
Natural gas delivered to pipeline 10^6m^3	825	31,946,372	1 075	41,616,824	1 211	54,762,105	1 042	128,018,726	928	214,733,528
Butane m^3	50 590	101,822	54 200	106,533	109 057	212,640	105 426	232,085	106 429	2,577,205
Propane m^3	74 547	150,040	76 323	150,015	99 188	193,398	89 373	196,742	81 976	1,985,087
Totals		99,251,158		105,644,978		124,104,445		233,275,505		320,719,474
Grand totals		527,963,145		636,217,776		1,109,388,641		1,264,233,206		1,364,049,199

Table 3-4—Comparison of Total Volume and Value of Production, and Volume and Value of Production Paid for to Mines

Metals		1975 Total Production		1975 Production Paid for to Mines	
		Quantity	Value	Quantity	Value
			$		$
Antimony	kg	364 045	1,467,928	.....	.....
Bismuth	kg	19 163	261,931	.....	.....
Cadmium	kg	320 923	1,971,035	59 877	308,079
Copper	kg	258 497 599	331,693,850	258 419 560	240,270,370
Gold—placer	kg	44	232,204	44	232,204
lode, fine	kg	4 819	25,082,494	4 844	19,089,477
Iron concentrates	t	1 299 215	15,245,902	1 281 489	15,037,019
Lead	kg	70 603 483	24,450,158	67 171 851	17,781,091
Molybdenum	kg	13 026 627	71,201,391	13 026 627	71,201,391
Nickel	kg	.....	.....	.....	.....
Silver	kg	196 306	30,545,947	180 592	21,476,408
Tin	kg	32 511	200,669	24 868	143,025
Zinc	kg	99 668,230	80,572,872	88 456 211	44,074,003
Others	.....	.....	3,695,987	.....	2,362,450
Totals	.....	.....	586,622,368	.....	431,975,517

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 3-5—Exploration and Development Expenditures, 1974 and 1975

	Physical Work and Surveys	Administration, Overhead, Land Costs, Etc.	Construction, Machinery and Equipment, Other Capital Costs	Totals
A. Exploration on Undeclared Mines	$	$	$	$
Metal mines—				
1974	18,773,326	6,525,878	128,144	25,427,348
1975	16,366,152	5,298,367	442,327	22,106,846
Coal mines—				
1974	3,450,746	884,849	18,958	4,354,553
1975	9,955,507	3,057,843	.....	13,013,350
Others—				
1974	42,706	11,134	.....	53,840
1975	90,025	35,679	.....	125,704
Totals—				
1974	22,266,778	7,421,861	147,102	29,835,741
1975	26,411,684	8,391,889	442,327	35,245,900
B. Exploration on Declared or Operating Mines				
Metal mines—				
1974	2,652,243	762,224	278,500	3,692,967
1975	2,792,378	3,090,135	.....	5,882,513
Coal mines—				
1974	488,308	104,259	.....	592,567
1975	1,000,000	.....	.....	1,000,000
Others—				
1974	4,236	.....	.....	4,236
1975	36,242	2,700	.....	38,942
Totals—				
1974	3,144,787	866,483	278,500	4,289,770
1975	3,828,620	3,092,835	.....	6,921,455
C. Development on Declared Mines				
Metal mines—				
1974	1,280,513	1,028,199	1,985,000	4,293,712
1975	.....	57,166	840,344	897,510
Coal mines—				
1974	320,098	256,055	111,500	687,653
1975	.....	.....	.....	.....
Others—				
1974	23,242	37,988	2,883,584	2,944,814
1975	.....	.....	.....	.....
Totals—				
1974	1,623,853	1,322,242	4,980,084	7,926,179
1975	.....	57,166	840,344	897,510
D. Development of Operating Mines				
Metal mines—				
1974	20,933,501	1,722,680	46,732,326	69,388,507
1975	9,013,375	5,804,924	24,548,602	39,366,901
Coal mines—				
1974	9,027,818	.....	16,607,506	25,635,324
1975	3,300,000	.....	59,000,000	62,300,000
Others—				
1974	6,198,552	146,182	16,606,229	22,950,963
1975	17,350,175	124,860	18,077,384	35,552,419
Totals—				
1974	36,159,871	1,868,862	79,946,061	117,974,794
1975	29,663,550	5,929,784	101,625,986	137,219,320

Table 3-6—Production of Gold, Silver, Copper, Lead, Zinc, Molybdenum, and Iron Concentrates, 1858–1975

Year	Gold (Placer)		Gold (Fine)		Silver		Copper	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
	kg	$	kg	$	kg	$	kg	$
1858–90	100 978.533	55,192,163			6 876.531	214,152		
1891–1900	11 703.748	6,397,183	19 682.165	12,858,353	700 977.829	13,561,194	16 064 375	4,365,210
1901–10	15 787.261	8,628,660	72 224.836	47,998.17[illegible]	971 114.910	16,973,507	172 344 737	56,384,783
1911	779.441	426,000	7 110.675	4,725,512	58 858.198	958,293	16 750 016	4,571,644
1912	1 016.446	555,500	8 008.898	5,322,442	97 417.955	1,810,045	23 340 171	8,408,513
1913	933.090	510,000	8 467.916	5,627,595	107 798.519	1,968,606	21 073 930	7,094,489
1914	1 033.864	565,000	7 687.729	5,109,008	112 038.605	1,876,736	20 415 949	6,121,319
1915	1 408.655	770,000	7 776.403	5,167,934	104 708.436	1,588,991	25 817 619	9,835,500
1916	1 062.167	580,500	6 902.751	4,587,333	102 699.711	2,059,739	29 655 426	17,784,494
1917	907.585	496,000	3 562.009	2,367,191	91 107.405	2,265,749	26 765 241	16,038,256
1918	585.358	320,000	5 121.855	3,403,811	108 803.644	3,215,870	27 888 416	15,143,449
1919	524.086	286,500	4 740.906	3,150,644	105 847.210	3,592,673	19 259 132	7,939,896
1920	405.583	221,600	3 733.853	2,481,392	105 061.237	3,235,980	20 360 601	7,832,899
1921	426.733	233,200	4 222.699	2,804,197	83 150.418	1,591,201	17 706 790	4,879,624
1922	674.624	368,800	6 153.915	4,089,684	220 872.076	4,554,781	14 678 125	4,329,754
1923	768.555	420,000	5 575.057	3,704,994	187 643.964	3,718,129	26 181 346	8,323,266
1924	769.799	420,750	7 704.711	5,120,535	259 454.010	5,292,184	29 413 222	8,442,870
1925	512.453	280,092	6 522.890	4,335 06[illegible]	238 088.613	5,286,818	32 797 475	10,153,269
1926	650.426	355,503	6 264.984	4,163,859	334 312.337	6,675,606	40 523 625	12,324,421
1927	285.868	156,247	5 536.365	3,679,601	325 654.164	5,902,043	40 461 530	11,525,011
1928	262.012	143,208	5 619.130	3,734,609	330 536.775	6,182,461	44 410 233	14,265,242
1929	217.192	118,711	4 516.871	3,002,020	309 791.230	5,278,194	46 626 180	18,612,850
1930	278.527	152,235	5 002.482	3,324,975	352 342.964	4,322,185	41 894 588	11,990,466
1931	534.225	291,992	4 545.175	3,020,837	234 837.945	2,254,979	29 090 879	5,365,690
1932	634.501	395,542	5 649.891	4,263,389	222 406.822	2,264,729	22 955 299	3,228,892
1933	744.233	562,787	6 954.289	6,394,645	218 397.615	2,656,526	19 572 164	3,216,701
1934	783.205	714,431	9 244.309	10,253,952	267 920.527	4,088,280	22 521 530	3,683,662
1935	961.985	895,058	11 363.263	12,856,419	288 323.068	6,005,996	17 884 241	3,073,428
1936	1 349.528	1,249,940	12 583.590	14,172,367	296 944.198	4,308,330	9 830 071	2,053,828
1937	1 684.321	1,558,245	14 331.671	16,122,767	351 630.830	5,073,962	20 891 260	6,023,411
1938	1 796.478	1,671,015	17 340.607	19,613,624	337 827.661	4,722,288	29 832 572	6,558,575
1939	1 547.250	1,478,492	18 267.912	21,226,957	336 577.786	4,381,365	33 227 590	7,392,862
1940	1 215.101	1,236,928	18 149.347	22,461,516	383 436.042	4,715,315	35 371 049	7,865,085
1941	1 361.534	1,385,962	17 760.622	21,984,501	378 700.797	4,658,545	30 134 516	6,700,693
1942	1 023.413	1,041,772	13 825.843	17,113,943	301 011.133	4,080,775	22 723 823	5,052,856
1943	454.104	462,270	6 979.607	8,639,516	265 193.820	3,858,496	19 190 263	4,971,132
1944	355.601	361,977	5 804.815	7,185,332	177 453.003	2,453,293	16 465 584	4,356,070
1945	391.556	398,591	5 454.626	6,751,860	191 510.720	2,893,934	11 726 375	3,244,472
1946	489.219	475,361	3 658.086	4,322,241	197 994.264	5,324,959	7 938 069	2,240,070
1947	216.757	200,585	7 566.800	8,514,870	177 550.262	4,110,092	18 952 769	8,519,741
1948	632.386	585,200	8 902.612	10,018,050	209 016.328	5,040,101	19 515 886	9,616,174
1949	556.308	529,524	8 969.981	10,382,256	237 559.178	5,671,082	24 882 500	10,956,550
1950	595.125	598,717	8 832.723	10,805,553	295 772.610	7,667,950	19 147 001	9,889,458
1951	736.861	717,911	8 126.405	9,627,947	255 632.882	7,770,983	19 617 612	11,980,155
1952	545.982	494,756	7 955.805	8,765,889	274 042.530	7,326,803	19 053 280	13,054,893
1953	443.062	403,230	7 886.228	8,727,294	260 606.407	7,019,272	22 235 441	14,869,544
1954	270.098	238,967	8 036.642	8,803,279	305 630.613	8,154,145	22 747 578	14,599,693
1955	238.436	217,614	7 541.762	8,370,306	245 811.643	6,942,995	20 065 928	16,932,549
1956	120.213	109,450	5 963.782	6,603,628	261 423.017	7,511,866	19 667 923	17,251,872
1957	91.318	80,990	6 948.504	7,495,170	252 847.111	7,077,166	14 237 029	8,170,465
1958	175.732	157,871	6 044.992	6,604,149	218 998.027	6,086,854	5 741 837	2,964,529
1959	235.450	208,973	5 385.360	5,812,511	192 779.535	5,421,417	7 363 374	4,497,991
1960	119.653	107,418	6 394.155	6,979,441	231 612.937	6,600,183	14 997 694	9,583,724
1961	106.248	99,884	4 970.913	5,667,253	229 353.429	6,909,140	14 375 361	8,965,149
1962	103.106	96,697	4 940.712	5,942,101	192 521.474	7,181,907	49 431 850	33,209,215
1963	143.696	135,411	4 820.312	5,850,458	199 764.616	8,861,050	53 635 704	36,238,007
1964	57.292	55,191	4 307.361	5,227,884	163 901.675	7,348,938	52 414 456	38,609,136
1965	26.935	25,053	3 642.908	4,419,089	154 646.729	6,929,793	38 644 540	32,696,081
1966	47.743	44,632	3 717.057	4,505,646	172 594.622	7,729,939	47 990 080	56,438,255
1967	27.713	25,632	3 923.861	4,763,688	192 239.525	10,328,695	78 352 932	88,135,172
1968	20.839	19,571	3 853.537	4,672,242	221 791.325	16,475,795	73 024 968	87,284,148
1969	12.410	11,720	3 654.012	4,427,506	179 169.889	11,100,491	75 937 956	111,592,416
1970	15.272	14,185	3 135.462	3,685,476	202 521.462	12,041,181	96 329 694	124,657,958
1971	5.505	4,647	2 668.046	3,031,844	238 670.301	11,968,046	127 286 040	131,037,918
1972	21.492	26,905	3 782.871	6,995,448	215 420.498	11,519,660	211 832 288	209,403,822
1973	119.156	311,524	5 784.723	18,117,268	236 987.318	19,552,997	317 603 055	582,803,251
1974	45.162	232,512	5 001.082	26,749,083	181 695.950	28,440,365	287 547 048	541,644,913
1975	43.744	232,204	4 819.241	25,082,494	196 305.885	30,545,947	258 497 599	331,693,850
Totals	163 071.954	97,765,189	551 630.602	583,791,626	16 162 190.750	455,201,762	3 134 913 435	2,908,691,281

Table 3-6—Production of Gold, Silver, Copper, Lead, Zinc, Molybdenum, and Iron Concentrates, 1858–1975—Continued

Year	Lead		Zinc		Molybdenum		Iron Concentrates	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
	kg	$	kg	$	kg	$	t	$
1858–90	473 729	45,527					27 097	70,879
1891–1900	93 002 804	7,581,619					11 820	45,602
1901–10	184 989 089	17,033,102	5 753 423	894,169			17 738	68,436
1911	12 189 051	1,069,521	1 195 003	129,092				
1912	20 353 243	1,805,627	2 430 462	316,139				
1913	25 112 864	2,175,832	3 065 710	324,421				
1914	22 963 016	1,771,877	3 568 151	346,125	901	662		
1915	21 093 563	1,939,200	5 888 705	1,460,524	1 641	2,000		
1916	22 102 314	3,007,462	16 859 478	4,043,985	5 598	20,560		
1917	16 922 293	2,951,020	18 982 067	3,166,259	3 167	11,636		
1918	19 912 447	2,928,107	18 947 777	2,899,040	436	1,840	907	5,000
1919	13 370 004	1,526,855	25 735 631	3,540,429			1 116	6,150
1920	17 840 247	2,816,115	21 413 198	3,077,979			1 335	7,360
1921	18 779 664	1,693,354	22 416 133	1,952,065			916	5,050
1922	30 593 731	3,480,306	25 921 103	2,777,322			1 089	3,600
1923	43 845 439	6,321,770	26 464 465	3,278,903			220	1,337
1924	77 284 697	12,415,917	35 893 017	4,266,741				
1925	107 908 698	18,670,329	44 568 438	7,754,450				
1926	119 305 027	17,757,535	64 807 554	10,586,610				
1927	128 364 347	14,874,292	65 872 809	8,996,135				
1928	138 408 812	13,961,412	82 445 946	9.984,612			18	
1929	139 705 336	15,555,189	78 061 406	9,268,792				
1930	145 966 952	12,638,198	113 614 910	9,017,005				
1931	118 796 232	7,097,812	91 657 703	5,160,911				
1932	114 308 115	5,326,432	87 143 752	4,621,641				
1933	123 235 512	6,497,719	88 887 198	6,291,416				
1934	157 562 183	8,461,859	113 013 038	7,584,199				
1935	156 156 723	10,785,930	116 227 650	7,940,860				
1936	171 444 146	14,790,028	115 475 574	8,439,373				
1937	190 107 902	21,417,049	132 081 905	14,274,245				
1938	187 323 227	13,810,024	135 395 388	9,172,822				
1939	171 794 338	12,002,390	126 283 585	8,544,375				
1940	211 758 089	15,695,467	141 529 456	10,643,026				
1941	207 218 262	15,358,976	166 861 962	12,548,031				
1942	230 060 714	17,052,054	175 646 590	13,208,636				
1943	199 196 604	16,485,902	152 474 485	13,446,018				
1944	132 866 893	13,181,530	126 126 765	11,956,725				
1945	152 849 156	16,848,823	133 714 538	18,984,581				
1946	156 879 853	23,345,731	124 406 109	21,420,484				
1947	142 306 192	42,887,313	114 761 068	28,412,593				
1948	145 165 821	57,734,770	122 610 001	37,654,211			616	3,735
1949	120 373 215	41,929,866	130 736 145	38,181,214			4 964	27,579
1950	128 830 683	41,052,905	131 697 238	43,769,392				
1951	124 037 181	50,316,015	153 091 761	67,164,754			102 997	790,000
1952	129 250 197	45,936,692	169 130 882	59,189,656			816 898	5,474,924
1953	135 004 129	39,481,244	173 407 848	40,810,618			899 240	6,763,105
1954	150 807 088	45,482,505	151 555 559	34,805,755			486 018	3,733,891
1955	137 241 656	45,161,245	194 680 177	52,048,909			554 223	3,228,756
1956	128 691 681	44,702,619	201 327 284	58,934,801			335 616	2,190,847
1957	127 732 462	39,568,086	203 787 462	50,206,681			324 174	2,200,637
1958	133 615 439	34,627,075	195 952 146	43,234,839			571 769	4,193,442
1959	130 372 360	33,542,306	182 498 693	44,169,198			770 421	6,363,848
1960	151 321 570	38,661,912	182 977 897	50,656,726	2 456	9,500	1 052 651	10,292,847
1961	174 307 617	42,313,569	175 970 780	45,370,891			1 211 147	12,082,540
1962	152 080 806	34,537,454	187 528 084	51,356,376			1 627 342	18,326,911
1963	142 869 197	37,834,714	182 734 698	53,069,163			1 869 009	20,746,424
1964	121 896 644	39,402,293	181 797 313	58,648,561	12 812	47,063	1 816 684	20,419,487
1965	113 480 794	43,149,171	141 179 547	48,666,933	3 306 274	12,405,344	1 964 410	21,498,581
1966	95 929 798	34,436,934	138 401 395	47,666,540	7 754 088	27,606,061	1 952 074	20,778,934
1967	94 406 546	31,432,079	119 217 472	39,248,539	7 945 782	31,183,064	1 954 468	20,820,765
1968	105 063 971	32,782,257	135 803 151	43,550,181	8 980 988	32,552,722	1 900 311	21,437,569
1969	95 286 815	33,693,539	134 565 199	46,639,024	12 064 350	47,999,442	1 882 266	19,787,845
1970	97 448 607	35,096,021	125 005 208	44,111,055	14 186 706	52,561,796	1 704 650	17,391,883
1971	112 865 575	34,711,408	138 549 629	49,745,789	9 926 694	36,954,846	1 750 738	18,153,612
1972	88 109 663	28,896,566	121 719 968	47,172,894	12 719 391	43,260,349	1 139 698	11,642,379
1973	84 890 924	30,477,936	137 380 768	62,564,751	13 785 264	51,851,509	1 420 160	12,906,063
1974	55 252 692	23,333,016	77 733 732	59,582,753	13 789 825	60,791,552	1 306 930	12,742,227
1975	70 603 483	24,450,158	99 668 230	80,572,872	13 026 627	71,201,391	1 299 215	15,245,902
Totals	7 591 288 122	1,489,809,560	7 116 300 419	1,689,523,810	117 513 000	468,461,337	30 780 945	309,458,147

Table 3-7A—Mineral Production by Mining

Division	Period	Placer Gold		Metals	Industrial Minerals	Structural Materials
		Quantity	Value			
		kg	$	$	$	$
Alberni	1974			25,132,336		426,416
	1975			**21,542,622**		**600,288**
	To date	50.294	33,253	212,600,501	9,398	5,585,187
Atlin	1974	37.635	194,162	7,437		
	1975	**18.526**	**98,206**	**47,869**		**4,164**
	To date	22 944.236	17,683,327	38,102,513	20,325	342,405
Cariboo	1974	7.185	36,598	75,446,970	32,600	3,166,865
	1975	**12.663**	**69,551**	**56,667,716**	**229,483**	**4,230,037**
	To date	81 229.967	54,293,041	340,862,131	706,884	34,365,718
Clinton	1974					137,548
	1975					**412,036**
	To date	316.349	243,069	848,377	162,427	4,390,684
Fort Steele	1974			69,625,441	836,022	510,688
	1975	**.665**	**3,637**	**82,543,661**	**1,992,228**	**1,087,969**
	To date	639.241	472,087	2,524,588,177	23,642,039	11,314,738
Golden	1974			146,196	1,412,157	172,470
	1975			**337,885**	**1,751,799**	**279,350**
	To date	14.587	11,268	64,651,190	18,584,540	4,161,062
Greenwood	1974			8,578,568		310,246
	1975			**9,798,823**		**249,071**
	To date	157.817	115,662	224,776,758	2,327,897	2,899,889
Kamloops	1974			147,508,550		7,306,243
	1975			**94,830,324**		**8,648,363**
	To date	858.287	604,785	594,057,063	6,540,538	50,408,433
Liard	1974			7,920,059	28,237,794	1,553,474
	1975	**.169**	**757**		**38,696,495**	**2,514,306**
	To date	1 564.525	1,252,640	19,156,498	322,453,605	17,188,547
Lillooet	1974	.342	1,752			78,446
	1975	**.222**	**1,006**			**195,839**
	To date	2 891.464	1,928,446	148,167,256	473,095	3,610,857
Nanaimo	1974			94,728,693	208,364	5,457,971
	1975			**76,699,019**	**271,103**	**7,278,604**
	To date	26.935	19,300	529,892,041	2,432,198	86,316,785
Nelson	1974			11,119,941	947,024	715,164
	1975			**10,408,662**	**885,083**	**871,500**
	To date	111.535	89,026	390,965,957	4,770,127	9,786,703
New Westminster	1974			3,073,121		18,909,769
	1975	**.152**	**992**			**20,394,370**
	To date	975.387	596,902	63,751,805	1,611,625	232,973,695
Nicola	1974			36,834,594		183,784
	1975			**29,353,271**		**140,487**
	To date	7.278	4,764	323,233,408	10,050	2,369,071
Omineca	1974			107,042,529	17,812	830,029
	1975	**.492**	**2,720**	**80,754,439**	**407,636**	**1,002,877**
	To date	1 755.665	1,506,400	572,160,281	1,169,456	15,465,901
Osoyoos	1974			42,451,307	73,581	253,200
	1975			**44,991,371**	**59,984**	**786,229**
	To date	7.465	5,466	277,099,055	6,720,225	5,260,349
Revelstoke	1974			39,181		357,663
	1975			**7,064**		**159,337**
	To date	235.823	164,477	15,496,982		3,734,015
Similkameen	1974			39,345,102		26,936
	1975			**20,897,382**		**118,609**
	To date	1 415.404	878,204	227,743,199	18,558	4,468,449
Skeena	1974			69,165,909		1,801,043
	1975			**35,797,725**		**2,532,935**
	To date	143.167	105,569	573,779,770	1,240,215	23,136,431
Slocan	1974			1,318,389		138,283
	1975			**1,604,330**		**29,976**
	To date	11.384	9,397	278,777,869		2,426,269
Trail Creek	1974			125,627		38,018
	1975			**209,600**		**86,116**
	To date	26.460	24,260	90,682,293		3,773,261
Vancouver	1974			8,565,798		13,004,969
	1975			**170,722**		**15,425,449**
	To date	5.661	5,306	297,687,013	7,066,964	174,791,611
Vernon	1974					1,359,344
	1975	**.085**	**464**		**101,519**	**1,785,644**
	To date	85.058	73,349	339,159	189,581	11,961,681
Victoria	1974			3,955,255	285	18,035,302
	1975			**82,565**		**19,693,463**
	To date	19.533	15,680	24,809,343	190,651	269,498,832
Not assigned	1974			12,235,936	1,910,575	2,654,432
	1975	**10.770**	**54,872**	**19,647,114**	**4,272,272**	**2,400,992**
	To date	47 578.423	17,628,911	374,925,994	67,176,635	52,004,931
Totals	1974	45.162	232,512	764,366,939	33,070,214	78,088,393
	1975	**43.744**	**232,204**	**586,390,164**	**48,667,602**	**90,928,011**
	To date	163 071.954	97,765,189	8,209,154,633	467,517,033	1,033,135,354

Divisions, 1974 and 1975, and Total to Date

Coal		Petroleum and Natural Gas						Division Total
		Crude Oil and Condensates		Natural Gas Delivered to Pipeline		Butane and Propane		
Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	
t	$	m3	$	10^6m3	$	m3	$	$
								25,558,752
								22,142,910
								218,228,339
								201,599
								150,238
								56,148,570
								78,683,033
								61,196,787
263	1,100							430,229,474
								137,548
								412,036
								5,644,507
7 741 040	154,279,961							225,252,112
8 909 438	**316,716,363**							**402,343,858**
89 961 905	971,006,711							3,531,028,752
								1,730,823
								2,369,034
								87,408,060
								8,888,814
								10,047,894
								230,120,206
								154,814,793
								103,478,687
13 687	59,765							651,670,584
16 057	309,000	3 207 648	104,827,952	1 042	128,018,726	194 799	428,827	271,295,832
15 060	**390,116**	**2 608 236**	**101,423,654**	**928**	**214,733,528**	**188 405**	**4,562,292**	**362,321,148**
131 923	1,515,507	44 503 741	763,193,425	10 440	663,646,065	2 176 086	8,580,403	1,796,986,690
								80,198
								196,845
								154,179,654
								100,395,028
								84,248,726
67 425 673	301,144,744							919,805,018
								12,782,129
								12,163,245
								405,611,813
								21,982,890
								20,395,362
								298,934,027
								37,018,378
								29,493,758
2 657 660	11,080,836							336,698,129
343	4,682							107,895,052
318	**5,265**							**82,172,937**
456 250	3,429,671							593,731,709
								42,778,178
								45,837,584
1 018	5,008							289,090,103
								396,844
								166,401
								19,395,474
								39,372,038
								21,015,991
4 188 851	19,553,725							252,662,135
								70,966,952
								38,330,660
33	116							598,262,101
								1,456,672
								1,634,306
								281,213,535
								163,645
								295,716
								94,479,814
								22,230,767
								15 596,171
								479,550,894
								1,359,344
								1,887,627
								12,563,720
								21,990,842
								19,776,028
								294,514,506
								16,800,943
								26,375,250
								512,636,471
7 757 440	154,593,643	3 207 648	104,827,952	1 042	128,018,726	194 799	428,827	1,264,233,206
8 924 816	**317,111,744**	**2 608 236**	**101,423,654**	**928**	**214,733,528**	**188 405**	**4,562,292**	**1,364,049,199**
164 837 263	1,307,797,183	44 503 741	763,193,425	10 440	663,646,065	2 176 086	8,580,403	12,550,789,285

Table 3-7B—Production of Lode Gold, Silver, Copper, Lead, and Zinc by Mining Divisions, 1974 and 1975, and Total to Date

Division	Period	Lode Gold		Silver		Copper		Lead		Zinc		Division Total
		Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	
		kg	$	kg	$	kg	$	kg	$	kg	$	$
Alberni	1974	481.568	2,913,676	23 270.425	3,991,418	2 289 382	4,473,530	1 455 535	847,435	15 649 592	12,676,388	24,902,447
	1975	**509.000**	**2,566,499**	**29 578.300**	**4,107,670**	**2 231 001**	**2,413,864**	**2 849 451**	**793,757**	**14 408 308**	**11,491,157**	**21,372,947**
	To date	13 485.794	22,071,318	185 183.841	16,644,483	39 106 233	48,471,753	11 467 475	4,141,980	150 380 489	68,363,078	159,692,612
Atlin	1974	.031	154	48.987	6,837			987	446			7,437
	1975	**.466**	**2,165**	**297.189**	**41,053**			**14 054**	**4,646**			**47,869**
	To date	10 706.056	12,129,051	105 385.237	2,043,578	11 238 899	8,160,266	10 794 704	3,442,999	41 307 420	10,864,497	37,540,391
Cariboo	1974			3 963.611	644,217	35 895 704	70,432,540					71,076,757
	1975			**4 894.959**	**781,612**	**39 272 913**	**48,620,794**					**49,402,406**
	To date	37 393.613	43,347,296	13 434.257	1,535,555	163 989 061	253,847,310	11 890	3,993	230	20	298,734,174
Clinton	1974											
	1975											
	To date	727.499	827,328	982.419	14,237	26 103	5,905	88	7			847,477
Fort Steele	1974	42.269	212,685	53 044.362	8,382,914	2 007 402	4,728,974	49 151 811	20,483,922	46 613 459	35,135,831	68,944,326
	1975	**.986**	**4,892**	**64 231.899**	**10,758,342**			**61 899 110**	**21,572,692**	**61 596 053**	**49,842,164**	**82,178,090**
	To date	390.707	749,363	7 785 181.430	204,514,843	7 163 855	12,534,149	6 377 900 154	1,213,572,914	4 837 869 730	1,050,493,794	2,481,865,063
Golden	1974			337.872	42,706			131 528	57,439	72 721	45,371	145,516
	1975	**.062**	**277**	**1 026.181**	**136,125**	**732**	**588**	**193 122**	**60,611**	**173 304**	**137,987**	**335,588**
	To date	11.259	14,975	138 804.851	4,287,626	532 092	367,849	117 088 294	25,946,248	151 223 553	32,850,167	63,466,865
Greenwood	1974	323.067	1,652,385	12 193.993	1,769,043	3 362 630	4,984,600	137 731	55,695	150 483	112,349	8,574,072
	1975	**374.035**	**1,742,243**	**14 188.101**	**2,041,858**	**4 031 709**	**5,858,078**	**145 062**	**50,962**	**138 362**	**102,476**	**9,795,617**
	To date	42 872.894	37,420,318	1 359 426.007	39,235,395	266 050 958	142,757,620	11 459 116	2,623,556	11 259 466	2,536,521	224,573,410
Kamloops	1974	37.573	213,741	17 169.074	2,989,771	72 908 763	138,508,467					141,711,979
	1975	**25.081**	**147,506**	**14 347.064**	**2,188,691**	**70 014 608**	**87,178,673**	**69 709**	**24,370**	**3 708**	**2,453**	**89,541,693**
	To date	2 154.766	2,779,445	105 364.395	9,358,773	406 839 626	565,680,332	322 889	72,627	207 672	34,661	577,925,888
Liard	1974					3 665 955	7,920,059					7,920,059
	1975											
	To date	3.546	4,120	33.809	1,416	13 570 392	19,147,861	7 428	2,736	804	286	19,156,419
Lillooet	1974											
	1975											
	To date	130 183.721	147,358,931	30 728.738	719,635	181	41	28 355	2,548	7	2	148,081,157
Nanaimo	1974	1 278.644	6,786,414	7 313.622	1,081,227	37 910 208	81,997,244					89,864,885
	1975	**1 684.912**	**8,866,380**	**9 416.184**	**1,455,317**	**46 893 324**	**60,197,094**					**70,518,791**
	To date	13 267.482	30,872,107	90 938.422	6,044,019	244 552 212	338,705,290					375,621,416
Nelson	1974	3.484	19,641	2 810.984	404,283			3 382 414	1,424,570	11 566 292	8,784,167	10,632,661
	1975	**3.421**	**18,317**	**545.298**	**82,595**			**1 511 260**	**521,886**	**11 169 716**	**9,485,927**	**10,108,725**
	To date	41 732.201	42,060,269	323 150.062	8,981,439	6 765 479	1,689,196	236 377 155	67,232,988	659 434 700	208,335,481	328,299,323
New Westminster	1974					503 773	721,715					721,715
	1975											
	To date	139.093	114,376	470.246	7,729	11 333 143	11,553,105	12 893	1,119	5 786	481	11,676,810
Nicola	1974	9.144	47,020			23 382 239	35,995,108					36,042,128
	1975	**18.164**	**72,386**			**19 697 153**	**28,455,593**					**28,527,979**
	To date	336.192	404,797	8 598.518	135,632	291 426 782	319,041,157	1 016 721	91,282	146 913	10,977	319,683,845
Omineca	1974	1 449.680	7,676,747	6 078.957	852,247	37 142 773	64,582,119	25 229	10,090	42 740	25,545	73,146,748
	1975	**1 181.385**	**5,887,331**	**4 362.693**	**607,289**	**32 313 682**	**40,336,614**	**7 347**	**2,933**	**6 075**	**5,027**	**46,839,194**
	To date	7 329.235	21,987,311	356 108.635	12,203,703	174 881 721	249,773,015	13 791 690	3,922,541	19 593 919	6,175,522	294,062,092

Osoyoos	1974	120.555	626,474	12 937.200	1,988,376	13 384 367	24,827,059	3 846	1,580	7 029	3,905	27,447,394
	1975	**355.756**	**1,958,915**	**17 787.059**	**2,848,128**	**14 500 282**	**18,137,957**	**9 532**	**3,546**	**15 814**	**8,365**	**22,956,911**
	To date	52 641.205	54,002,488	149 079.540	11,654,937	87 102 665	117,674,239	264 663	74,541	132 960	47,852	188,454,057
Revelstoke	1974	1.244	6,000	146.619	18,856	.....	.....	27 393	12,682	2 129	1,643	39,181
	1975	.....	.....	**46.343**	**6,706**	.....	.....	**902**	**358**	.....	.....	**7,064**
	To date	1 163.532	1,081,981	128 300.932	2,819,189	69 710	51,037	16 405 728	3,875,737	12 812 590	3,316,221	11,144,165
Similkameen	1974	784.791	4,561,581	3 410.288	526,722	17 995 856	34,256,799	.....	.....	.....	.....	39,345,102
	1975	**495.191**	**2,750,271**	**1 678.380**	**282,543**	**12 299 516**	**17,864,568**	.....	.....	.....	.....	**20,897,382**
	To date	8 357.594	17,302,567	142 449.096	3,838,205	330 747 687	206,452,846	178 550	15,137	36 494	5,258	227,614,013
Skeena	1974	349.815	1,438,620	20 539.675	2,678,190	30 573 458	56,316,754	106	48	267	206	60,433,818
	1975	**171.977**	**1,064,783**	**10 402.569**	**1,619,223**	**17 043 167**	**22,380,651**	**2 274**	**1,622**	**6 141**	**2,202**	**25,068,481**
	To date	77 582.741	66,856,103	2 252 498.248	53,497,544	461 483 412	313,960,613	27 219 408	5,440,404	7 807 675	2,544,189	442,298,853
Slocan	1974	.124	601	4 578.393	767,278	.....	.....	369 009	200,707	333 572	326,322	1,294,908
	1975	**5.010**	**22,565**	**6 723.799**	**949,457**	**3**	**2**	**638 815**	**215,143**	**511 625**	**403,363**	**1,590,530**
	To date	540.604	533,187	2 440 400.957	58,066,694	6 200	1,863	512 892 760	107,613,385	432 580 942	106,759,850	272,974,979
Trail Creek	1974	5.070	26,268	551.954	79,959	.....	.....	20 434	7,846	22 738	11,554	125,627
	1975	**5.707**	**28,925**	**1 051.157**	**152,085**	.....	.....	**31 113**	**10,974**	**26 619**	**17,606**	**209,600**
	To date	92 860.883	63,438,571	116 108.712	2,355,439	55 592 776	18,245,404	129 996	35,343	137 147	57,473	84,132,230
Vancouver	1974	18.413	89,651	2 171.954	399,712	4 482 153	8,076,048	.....	.....	784	387	8,565,798
	1975	**11.592**	**64,791**	**5.941**	**1,090**	**68 809**	**104,583**	.....	.....	**483**	**258**	**170,722**
	To date	15 565.394	16,349,937	174 643.719	4,567,906	506 814 505	242,708,600	8 423 179	1,883,516	108 110 071	30,973,731	296,483,690
Vernon	1974	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	1975	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	To date	164.970	180,309	2 022.037	114,727	297	100	74 473	24,557	30 128	9,434	329,127
Victoria	1974	32.067	154,650	375.195	48,252	2 004 358	3,752,353	.....	.....	.....	.....	3,955,255
	1975	**.809**	**4,160**	**9.144**	**1,352**	**52 661**	**77,053**	.....	.....	.....	.....	**82,565**
	To date	1 375.126	1,236,495	29 477.992	654,486	29 773 660	22,579,154	95 298	19,848	1 618 731	283,923	24,773,906
Not assigned[1]	1974	63.543	322,775	11 252.785	1,768,357	38 027	71,544	546 669	230,556	3 271 976	2,459,085	4,852,317
	1975	**(24.313)**	**(119,912)**	**15 713.625**	**2,484,796**	**78 039**	**67,738**	**3 431 632**	**1,186,658**	**11 612 019**	**9,073,887**	**12,693,167**
	To date	644.495	668,983	223 418.650	11,004,572	25 895 786	15,282,576	245 325 215	49,769,554	682 102 992	165,860,442	242,586,127
Totals	1974	5 001.082	26,749,083	181 695.950	28,440,865	287 547 048	541,644,918	55 252 692	23,333,016	77 733 732	59,582,758	679,750,130
	1975	**4 819.241**	**25,082,494**	**196 305.885**	**30,545,947**	**258 497 599**	**331,693,850**	**70 603 483**	**24,450,158**	**99 668 230**	**80,572,872**	**492,345,321**
	To date	551 630.602	583,791,626	16 162 190.750	455,201,762	3 134 913 435	2,908,691,281	7 591 288 122	1,489,809,560	7 116 300 419	1,689,523,810	7,127,018,030

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

Table 3-7C—Production of Miscellaneous Metals by Mining Divisions, 1974 and 1975, 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
		kg	$	kg	$	kg	$	t	$	t	$	t	$	kg	$
Alberni	1974					27 213	229,889								
	1975					**23 864**	**169,675**								
	To date					479 672	3,273,178			4 293 517	49,634,711				
Atlin	1974														
	1975														
	To date					144 791	561,762								
Cariboo	1974														
	1975														
	To date														
Clinton	1974														
	1975														
	To date							114	900						
Fort Steele	1974									8 001	80,262				
	1975									**17 726**	**208,883**				
	To date					1 542 022	10,064,486			1 264 282	14,364,341				
Golden	1974					292	680								
	1975					**523**	**2,297**								
	To date	18 172	14,906			255 495	1,169,419								
Greenwood	1974					555	4,496								
	1975					**463**	**3,206**								
	To date					35 714	171,953	608	31,395						
Kamloops	1974														
	1975														
	To date					54	371			19 202	95,851			4 984	5,795
Liard	1974														
	1975														
	To date														
Lillooet	1974														
	1975														
	To date	6 108	4,321											4 187	41,304
Nanaimo	1974									314 342	3,187,408				
	1975									**296 250**	**3,482,483**				
	To date									15 504 566	148,381,611				
Nelson	1974					62 336	487,280								
	1975					**43 182**	**297,937**								
	To date					3 954 684	19,343,680								
New Westminster	1974														
	1975														
	To date														
Nicola	1974									38 220	792,466				
	1975									**38 520**	**825,292**				
	To date									184 912	3,549,563				
Omineca	1974					200	1,326								
	1975														
	To date	53 697	21,882			135 245	628,342							1 882 803	10,400,259

Osoyoos	1974														
	1975														
	To date											15			
Revelstoke	1974														
	1975														
	To date	4 261	3,455			46 997	176,102								
Similkameen	1974														
	1975														
	To date														
Skeena	1974									946 367	8,732,091				
	1975									**946 719**	**10,729,244**				
	To date					64 360	316,764			9 513 967	93,480,145				
Slocan	1974					2 182	23,481								
	1975					**2 195**	**13,800**								
	To date	14 453	8,133			1 226 775	5,786,597					491	8,160		
Trail Creek	1974														
	1975														
	To date					52	210			499	1,925				
Vancouver	1974														
	1975														
	To date					256 735	1,203,323								
Vernon	1974														
	1975														
	To date					86	532								
Victoria	1974														
	1975														
	To date					3 175	10,929					1 058	24,508		
Not assigned	1974	221 238	879,897	33 711	680,771	103 201	784,944								
	1975	**364 045**	**1,467,928**	**19 163**	**261,931**	**250 696**	**1,484,120**								
	To date	25 540 294	21,031,115	3 194 278	15,419,159	11 405 792	39,845,406								
Totals	1974	221 238	879,897	33 711	680,771	195 979	1,532,096			1 306 930	12,742,227				
	1975	**364 045**	**1,467,928**	**19 163**	**261,931**	**320 923**	**1,971,035**			**1 299 215**	**15,245,902**				
	To date	25 636 985	21,083,812	3 194 278	15,419,159	19 551 649	82,553,054	722	32,295	30 780 945	309,458,147	1 564	32,668	1 891 974	10,447,858

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

Table 3-7C—Production of Miscellaneous Metals by Mining Divisions, 1974 and 1975, 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		
		kg	$	kg	$	kg	$	kg	$	kg	$	kg	$	$	$
Alberni	1974														229,889
	1975														**169,675**
	To date														52,907,889
Atlin	1974														
	1975														
	To date											132	360		562,122
Cariboo	1974	965 696	4,370,218												4,370,218
	1975	**1 345 674**	**7,265,310**												**7,265,310**
	To date	10 488 021	42,104,227					1.835	2,299			12 564	21,431		42,127,957
Clinton	1974														
	1975														
	To date														900
Fort Steele	1974									75 106	600,853				681,115
	1975									**24 868**	**156,688**				**365,571**
	To date									8 734 427	18,206,103			88,1841	42,723,114
Golden	1974														680
	1975														**2,297**
	To date														1,184,325
Greenwood	1974														4,496
	1975														**3,206**
	To date														203,348
Kamloops	1974	1 785 876	5,796,571												5,796,571
	1975	**1 427 463**	**5,288,631**												**5,288,631**
	To date	4 791 619	16,029,208												16,131,225
Liard	1974														
	1975														
	To date							.062	79						79
Lillooet	1974														
	1975														
	To date	666	2,440					.093	113			14 675	37,921		86,099
Nanaimo	1974	574 925	1,726,400												4,863,808
	1975	**615 313**	**2,697,745**												**6,180,228**
	To date	1 787 087	5,889,014												154,270,625
Nelson	1974														487,280
	1975														**297,937**
	To date	6 820	18,378									8 056 095	43,304,576		62,666,634
New Westminster	1974			688 656	2,351,406										2,351,406
	1975														
	To date			23 337 783	51,698,754									376,2412	52,074,995
Nicola	1974														792,466
	1975														**825,292**
	To date														3,549,563
Omineca	1974	7 248 869	33,894,455												33,895,781
	1975	**5 564 104**	**33,915,245**												**33,915,245**
	To date	63 636 654	262,349,422					.093	154			1 002 839	4,697,710	4202	278,098,189

Osoyoos	1974	3 214 459	15,003,913												15,003,913
	1975	**4 074 073**	**22,034,460**												**22,034,460**
	To date	23 485 058	93,644,998												93,644,998
Revelstoke	1974														
	1975														
	To date	1 190 714	4,167,573									8 531	5,687		4,352,817
Similkameen	1974														
	1975														
	To date							40.030	129,186						129,186
Skeena	1974														8,732,091
	1975														**10,729,244**
	To date	10 470 935	37,732,288									166	331	1,3898	131,480,917
Slocan	1974														23,481
	1975														**13,800**
	To date														5,802,890
Trail Creek	1974														
	1975														
	To date	1 652 970	6,514,289			23 296	30,462	1.649	3,177						6,550,063
Vancouver	1974														
	1975														
	To date														1,203,323
Vernon	1974														
	1975														
	To date	2 456	9,500												10,032
Victoria	1974														
	1975														
	To date														35,437
Not assigned	1974									68 710	549,869			4,488,138	7,383,619
	1975									**7 643**	**43,981**			**3,695,987**	**6,953,947**
	To date									132 572	836,780			55,207,407	132,339,867
Totals	1974	13 789 825	60,791,552	688 656	2,351,406					143 816	1,150,722			4,488,138	84,616,809
	1975	**13 026 627**	**71,201,391**							**32 511**	**200,669**			**3,695,987**	**94,044,843**
	To date	117 513 000	468,461,337	23 337 783	51,698,754	23 296	30,462	43.762	135,008	8 866 999	19,042,883	9 090 002	48,068,016	55,673,641	1,082,136,594

[1] Magnesium, page A 60. [2] Cobalt, page A 56. [3] Selenium, page A 62.

Table 3-7D—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
		t	$	t	$	t	$	t	$	t	$
Alberni	1974										
	1975										
	To date										
Atlin	1974										
	1975										
	To date										
Cariboo	1974					1 593	32,600				
	1975					**5 847**	**229,483**				
	To date					18 606	563,404			44	168
Clinton	1974										
	1975										
	To date										
Fort Steele	1974										
	1975										
	To date			7	80						
Golden	1974										
	1975										
	To date			398 388	4,489,227			2 956	12,612		
Greenwood	1974										
	1975										
	To date							1 624 308	1,540,319	181	4,000
Kamloops	1974										
	1975										
	To date									567	12,230
Liard	1974	83 403	27,398,900								
	1975	**76 771**	**37,849,743**								
	To date	1 273 372	304,454,227								
Lillooet	1974										
	1975										
	To date										
Nanaimo	1974							34 435	205,764	117	2,600
	1975							**35 914**	**174,824**	**2 325**	**96,279**
	To date							959 781	1,876,217	25 917	555,981
Nelson	1974									27 271	947,024
	1975									**23 394**	**885,083**
	To date							6 895	8,174	149 942	4,706,052
New Westminster	1974										
	1975										
	To date									99 490	1,611,625
Nicola	1974										
	1975										
	To date										
Omineca	1974									32	2,410
	1975									**26**	**2,103**
	To date									61	4,799
Osoyoos	1974									4 126	73,581
	1975									**3 300**	**59,984**
	To date							728 113	3,699,031	191 929	2,688,723
Similkameen	1974										
	1975										
	To date										
Skeena	1974										
	1975										
	To date							545 232	1,050,722		
Vancouver	1974										
	1975										
	To date									26 936	418,606
Vernon	1974										
	1975									**4 271**	**101,519**
	To date							2 903	30,400	5 904	155,203
Victoria	1974							16	285		
	1975										
	To date							262	3,345	8 713	157,080
Not assigned	1974										
	1975										
	To date										
Totals	1974	83 403	27,398,900			1 593	32,600	34 451	206,049	31 546	1,025,615
	1975	**76 771**	**37,849,743**			**5 847**	**229,483**	**35 914**	**174,824**	**33 316**	**1,144,968**
	To date	1 273 372	304,454,227	398 395	4,489,307	18 606	563,404	3 870 450	8,220,820	509 684	10,314,467

[1] From 1972, excludes production which is confidential.
Other: *See* notes on individual minerals listed alphabetically on pages A 54 to A 63.

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

Mining Divisions, 1974 and 1975, and Total to Date

Gypsum and Gypsite		Jade		Mica		Sulphur		Other, Value	Division Total
Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value		
t	$	kg	$	kg	$	t	$	$	$
								9,3982	9,398
								20,3253	20,325
									32,600
									229,483
				4 542 160	143,012			3004	706,884
792	6,236							156,19135 6	162,427
						57 240	836,022		836,022
						86 062	**1,992,228**		**1,992,228**
102 400	298,824					1 266 516	23,326,241	16,8947	23,642,039
400 338	1,412,157								1,412,157
474 387	**1,751,799**								**1,751,799**
4 340 446	14,081,425							1,2768 9	18,584,540
								783,57810	2,327,897
1 131 179	6,323,178			192 640	2,075			203,0555 6	6,540,538
		834	3,211			53 772	835,683		28,237,794
		1 458	**8,590**			**34 405**	**838,162**		**38,696,495**
		24 400	81,601			879 935	17,917,777		322,453,605
		253 391	467,966					5,1299	473,095
									208,364
									271,103
									2,432,198
									947,024
									885,083
								55,9018	4,770,127
									1,611,625
2 184	10,050								10,050
		2 676	15,402						17,812
		108 979	**405,533**						**407,636**
		363 286	1,153,197					11,46011 12	1,169,456
									73,581
									59,984
				720 664	25,938			306,5335 10 11	6,720,225
227	1,700							16,85813	18,558
				287 689	10,815	37 761	178,678		1,240,215
						623 773	6,550,969	97,3898	7,066,964
									101,519
				72 801	3,978				189,581
									285
								30,2269	190,651
						95 634	1,396,802	513,773	1,910,575
						125 612	**2,907,744**	**1,364,528**	**4,272,272**
						5 081 501	65,008,393	2,168,242	67,176,635
400 338	1,412,157	3 510	18,613			206 646	3,068,507	513,773	33,676,214
474 387	**1,751,799**	**110 437**	**414,123**			**246 079**	**5,738,134**	**1,364,528**	**48,667,602**
5 577 228	20,721,413	641 077	1,702,764	5 815 954	185,818	7 889 486	112,982,058	3,882,755	467,517,033

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

Table 3-7E—Production of Structural Materials by Mining Divisions, 1974 and 1975, and Total to Date

Division	Period	Cement	Lime and Lime-stone	Building-stone	Rubble, Riprap, and Crushed Rock	Sand and Gravel	Clay Products	Unclassified Material	Division Total
		$	$	$	$	$	$	$	$
Alberni	1974				867	425,549			426,416
	1975				**146**	**600,142**			**600,288**
	To date				346,659	5,238,528			5,585,187
Atlin	1974								
	1975					**4,164**			**4,164**
	To date		1,108		102,453	238,844			**342,405**
Cariboo	1974		489,237		607,890	2,069,738			3,166,865
	1975		**332,564**		**2,139,774**	**1,757,699**			**4,230,037**
	To date		2,070,824		6,054,492	25,907,945	**332,457**		**34,365,718**
Clinton	1974				5,247	132,301			137,548
	1975				**13,068**	**398,968**			**412,036**
	To date				1,872,224	2,518,410			4,390,634
Fort Steele	1974				144,503	366,185			510,688
	1975				**184,619**	**903,350**			**1,087,969**
	To date		43,873	71,941	2,955,311	8,227,695	15,918		11,314,738
Golden	1974					172,470			172,470
	1975				**10,260**	**269,090**			**279,350**
	To date		1,000	50,840	255,923	3,725,140	128,159		4,161,062
Greenwood	1974			8,884		301,362			310,246
	1975					**249,071**			**249,071**
	To date		42,560	161,020	278,474	2,296,552	121,283		2,899,889
Kamloops	1974	4,915,944			1,241,695	1,148,604			7,306,243
	1975	**5,970,918**			**1,367,948**	**1,309,497**			**8,648,363**
	To date	20,708,886	25,067	19,800	12,601,801	16,980,500	72,379		50,408,433
Liard	1974				89,558	1,463,916			1,553,474
	1975				**326,649**	**2,187,657**			**2,514,306**
	To date				2,127,808	15,060,739			17,188,547
Lillooet	1974					78,446			78,446
	1975		**161,019**		**19,820**	**15,000**			**195,839**
	To date		161,119	2,000	1,120,223	2,327,515			3,610,857
Nanaimo	1974		3,359,771		649,211	1,448,989			5,457,971
	1975		**3,302,182**		**1,137,942**	**2,838,480**			**7,278,604**
	To date		61,551,422	3,450,735	4,844,841	15,290,745	1,178,992		86,316,735
Nelson	1974		345,546	2,926	28,680	338,012			715,164
	1975		**459,986**	**200**	**8,830**	**402,484**			**871,500**
	To date		1,827,171	437,138	586,801	6,913,619	21,974		9,786,703
New Westminster	1974		76,000		2,318,484	10,470,813	6,044,472		18,909,769
	1975		**63,000**		**2,868,374**	**11,069,807**	**6,593,189**		**20,394,370**
	To date		3,457,910	20,974	22,971,155	115,976,782	90,546,874		232,973,695
Nicola	1974				240	183,544			183,784
	1975					**140,487**			**140,487**
	To date			8,000	187,994	2,173,077			2,369,071
Omineca	1974		4,706		121,738	703,585			830,029
	1975		**5,121**	**70**	**258,765**	**738,921**			**1,002,877**
	To date		25,869	70	2,790,777	12,643,911	5,274		15,465,901
Osoyoos	1974				16,592	236,698			253,290
	1975					**786,229**			**786,229**
	To date		43,774	33,018	355,349	4,828,208			5,260,349
Revelstoke	1974			8,520	176,807	172,336			357,663
	1975			**4,125**	**4,125**	**151,087**			**159,337**
	To date		1,000	23,420	761,153	2,948,442			3,734,015
Similkameen	1974				450	26,486			26,936
	1975				**55,044**	**63,565**			**118,609**
	To date	10,500	11,571	24,000	712,341	3,696,682	13,355		4,468,449
Skeena	1974				277,032	1,524,011			1,801,043
	1975				**524,259**	**2,008,676**			**2,532,935**
	To date		1,645,300	144,000	4,120,017	17,213,865	13,249		23,136,431
Slocan	1974				5,263	133,020			138,283
	1975					**29,976**			**29,976**
	To date		1,000	115,143	157,323	2,152,803			2,426,269
Trail Creek	1974					38,018			38,018
	1975					**86,116**			**86,116**
	To date		32,500	85,520	381,393	3,273,848			3,773,261
Vancouver	1974	7,162,302			19,522	6,483,145			13,664,969
	1975	**10,328,746**			**2,681**	**5,094,022**			**15,425,449**
	To date	97,137,930	40,885	4,012,560	8,681,796	63,829,848	1,088,592		174,791,611
Vernon	1974				9,245	1,350,099			1,359,344
	1975					**1,785,644**			**1,785,644**
	To date		46,499	97,852	403,649	11,252,377	161,254		11,961,631
Victoria	1974	13,750,577	22,287		2,195	3,689,587	570,656		18,035,302
	1975	**15,382,058**	**25,928**		**1,144**	**4,284,333**			**19,693,463**
	To date	221,040,663	1,036,726	55	531,582	36,034,670	10,855,136		269,498,832
Not assigned	1974					2,654,432			2,654,432
	1975					**2,400,992**			**2,400,992**
	To date		315,498	505,018	1,011,570	41,919,846	3,180,828	5,972,171	52,904,931
Totals	1974	25,828,823	4,297,547	20,330	5,715,219	35,611,346	6,615,128		78,088,393
	1975	**31,681,722**	**4,349,800**	**4,395**	**8,723,448**	**39,575,457**	**6,593,189**		**90,928,011**
	To date	338,897,979	72,382,676	9,263,104	76,213,109	422,670,591	107,735,724	5,972,171	1,033,135,354

Table 3-8A—Production of Coal, 1836–1975

Year	Quantity[1]	Value	Year	Quantity[1]	Value
	tonnes	$		tonnes	$
1836–59	37 985	149,548	1918	2 336 238	12,833,994
1860	14 475	56,988	1919	2 207 659	11,975,671
1861	13 995	55,096	1920	2 587 763	13,450,169
1862	18 409	72,472	1921	2 422 455	12,836,013
1863	21 687	85,380	1922	2 473 692	12,880,060
1864	29 091	115,528	1923	2 391 998	12,678,548
1865	33 345	131,276	1924	1 839 619	9,911,935
1866	25 518	100,460	1925	2 305 337	12,168,905
1867	31 740	124,956	1926	2 182 760	11,650,180
1868	44 711	176,020	1927	2 316 408	12,269,135
1869	36 376	143,208	1928	2 431 794	12,633,510
1870	30 322	119,372	1929	2 154 607	11,256,260
1871	50 310	164,612	1930	1 809 364	9,435,650
1872	50 310	164,612	1931	1 601 600	7,684,155
1873	50 311	164,612	1932	1 464 759	6,523,644
1874	82 856	244,641	1933	1 249 347	5,375,171
1875	111 912	330,435	1934	1 297 306	5,725,133
1876	141 425	417,576	1935	1 159 721	5,048,864
1877	156 525	462,156	1936	1 226 780	5,722,502
1878	173 587	522,538	1937	1 312 003	6,139,920
1879	245 172	723,903	1938	1 259 626	5,565,069
1880	271 889	802,785	1939	1 416 184	6,280,956
1881	232 020	685,171	1940	1 507 758	7,088,265
1882	286 666	846,417	1941	1 673 516	7,660,000
1883	216 721	639,897	1942	1 810 731	8,237,172
1884	400 391	1,182,210	1943	1 682 591	7,742,030
1885	371 461	1,096,788	1944	1 752 626	8,217,966
1886	331 875	979,908	1945	1 381 654	6,454,360
1887	419 992	1,240,080	1946	1 305 516	6,732,470
1888	497 150	1,467,903	1947	1 538 895	8,680,440
1889	589 133	1,739,490	1948	1 455 552	9,765,395
1890	689 020	2,034,420	1949	1 470 782	10,549,924
1891	1 045 607	3,087,291	1950	1 427 907	10,119,303
1892	839 591	2,479,005	1951	1 427 513	10,169,617
1893	993 988	2,934,882	1952	1 272 150	9,729,739
1894	1 029 204	3,038,859	1953	1 255 662	9,528,279
1895	954 727	2,824,687	1954	1 186 849	9,154,544
1896	909 237	2,693,961	1955	1 209 157	8,986,501
1897	906 610	2,734,522	1956	1 285 664	9,346,518
1898	1 146 015	3,582,595	1957	984 886	7,340,339
1899	1 302 088	4,126,803	1958	722 490	5,937,860
1900	1 615 688	4,744,530	1959	625 964	5,472,064
1901	1 718 692	5,016,398	1960	715 455	5,242,223
1902	1 667 960	4,832,257	1961	833 827	6,802,134
1903	1 473 933	4,332,297	1962	748 731	6,133,986
1904	1 712 739	4,953,024	1963	771 594	6,237,997
1905	1 855 121	5,511,861	1964	826 737	6,327,678
1906	1 929 540	5,548,044	1965	862 513	6,713,590
1907	2 255 214	7,637,713	1966	771 848	6,196,219
1908	2 143 225	7,356,866	1967	824 436	7,045,341
1909	2 439 109	8,574,884	1968	870 180	7,588,989
1910	3 007 074	11,108,335	1969	773 226	6,817,155
1911	2 305 778	8,071,747	1970	2 398 635	19,559,669
1912	2 913 778	10,786,812	1971	4 141 496	45,801,936
1913	2 461 665	9,197,460	1972	5 466 846	66,030,210
1914	2 029 400	7,745,847	1973	6 924 733	87,976,105
1915	1 883 851	1,114,178	1974	7 757 440	154,593,643
1916	2 343 671	8,900,675	1975	8 924 816	317,111,744
1917	2 209 982	8,484,343	Totals	164 837 263	1,307,797,183

[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 3-8B—Coal Production and Distribution by Collieries and by Mining Divisions, 1975

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						
	t	t	t	t	t	t	t	t	t	t	t	$
Fort Steele Mining Division												
Byron Creek Collieries Ltd.	339 322	313 111	.....	.....	721	206 169	.....	86 245	30 625	323 760	323 760	6,565,714
Coleman Collieries Ltd.	36 162	29 282	.....	.....	.....	.....	.....	29 282	.....	29 282	29 282	646,547
Fording Coal Ltd.	4 404 880	2 879 147	.....	.....	663	959	.....	2 762 688	.....	2 764 310	2 764 310	104,294,630
Kaiser Resources Ltd.	8 120 727	6 320 560	3 810	240 628	53 171	228 442	2 877	4 828 778	434 380	5 547 648	5 792 086	205,209,472
Liard Mining Division												
Coalition Mining Ltd.	37 384	37 384	.....	.....	.....	.....	.....	.....	15 060	15 060	15 060	390,116
Omineca Mining Division												
Bulkley Valley Coal Sales Ltd.	318	318	.....	.....	318	.....	.....	.....	.....	318	318	5,265
Totals	12 938 793	9 579 802	3 810	240 628	54 873	435 570	2 877	7 706 993	480 065	8 680 378	8 924 816	317,111,744

Table 3-9—Principal Items of Expenditure, Reported for Operations of All Classes

Class	Salaries and Wages	Fuel and Electricity	Process Supplies
	$	$	$
Metal-mining	111,416,678	27,207,753	129,572,490
Exploration and development	52,027,724	----------	----------
Coal	48,974,098	8,892,481	13,860,286
Petroleum and natural gas (exploration and production)	7,812,325	----------	----------
Industrial minerals	12,618,827	2,871,226	4,274,698
Structural-materials industry	14,103,916	10,133,378	6,768,764
Totals, 1975	246,953,568	49,104,838	154,476,238
Totals, 1974	272,945,078	42,381,258	140,002,685
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 3-10—Employment in the Mineral Industry, 1901–75

Year	Metals					Coal Mines			Structural Materials					
	Placer	Mines		Concentrates	Smelters	Total	Under	Above[1]	Total	Quarries and Pits	Plants	Industrial Materials	Exploration and Development	Petroleum and Natural Gas Exploration and Development	Total
		Under	Above												
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	834	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	2,893	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	1,203	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	3,118	7,111	705	237	942	1,828	508	571	.....	.....	11,034
1962	35	1,677	1,976	949	3,356	7,958	548	228	776	1,523	481	517	270	.....	11,560
1963	43	1,713	2,012	850	3,239	7,814	501	247	748	909	460	528	450	.....	10,952
1964	5	1,839	1,967	822	3,281	7,909	446	267	713	1,293	444	509	772	.....	11,645
1965	2	1,752	2,019	965	3,529	8,265	405	244	649	1,079	422	639	786	441	12,283
1966	2	2,006	2,296	1,014	3,654	8,970	347	267	614	1,269	393	582	1,894	478	14,202
1967	.....	1,928	2,532	992	3,435	8,887	260	197	457	1,309	372	584	1,264	507	13,380
1968	.....	1,823	2,369	1,072	3,283	8,547	195	358	553	1,207	380	582	3,990	400	15,659
1969	7	1,794	2,470	1,099	3,468	8,831	245	455	700	1,097	549	567	4,270	416	16,437
1970	.....	2,160	3,167	1,331	3,738	10,396	242	1,033	1,275	740	647	627	4,964	437	19,086
1971	.....	2,073	3,058	1,513	3,481	10,125	444	1,013	1,457	846	794	666	4,040	495	18,423
1972	.....	1,833	3,463	1,734	3,353	10,383	214	1,771	1,985	1,116	800	527	4,201	458	19,470
1973	.....	1,704	4,005	2,394	3,390	11,493	265	1,951	2,216	898	802	667	3,392	454	19,922
1974	.....	1,509	4,239	2,352	2,767	10,867	267	2,255	2,522	895	782	646	2,848	509	19,069
1975	.....	**1,100**	**3,619**	**1,983**	**3,733**	**10,435**	**299**	**2,464**	**2,763**	**826**	**725**	**705**	**2,931**	**518**	**18,903**

[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 3-11—Employment at Major Metal and Coal Mines, 1975

	Tonnes		Days Operating Mill	Average Number Employed[1]					
	Mined	Milled		Administrative, Etc.	Mine		Mill	Others	Total
					Surface	Underground			
Metal Mines									
Anaconda Canada Ltd. (Britannia)[2]	.....	.....	.....	9	.....	.....	.....	15	24
Bethlehem Copper Corp. (Bethlehem)	6 451 247	5 864 500	365	27	185	.....	134	.....	346
Brenda Mines Ltd. (Brenda)	9 324 813	9 115 839	365	117	144	.....	171	.....	432
Canex Placer Ltd. (Endako)	17 916	17 916	221	9	5	19	8	.....	41
Colt Resources Ltd. (Denero Grande, Jewel)[3]	1 859	.....	.....	2	2	6	.....	.....	10
Cominco Ltd. (H.B.)	411 084	411 084	334	26	26	60	12	.....	124
Cominco Ltd. (Sullivan)	2 002 916	2 002 916	365	208	75	410	242	.....	935
Consolidated Columbia River Mines Ltd. (Ruth Vermont)	10 258	10 258	55	3	11	7	4	.....	25
Craigmont Mines Ltd. (Craigmont)	1 771 102	1 774 731	357	5	49	109	61	178	402
Dankoe Mines Ltd. (Horn Silver)	17 916	17 916	221	9	5	19	8	.....	41
Gibraltar Mines Ltd. (Gibraltar)	15 533 643	10 388 118	365	133	128	.....	259	.....	520
Granduc Operating Co. (Granduc)	1 499 585	1 499 585	365	117	90	139	32	.....	378
Granby Mining Corp. (Phoenix)	332 480	985 875	365	25	51	.....	46	.....	122
Granisle Copper Ltd. (Granisle)	4 539 402	4 475 103	365	69	84	.....	156	.....	309
Kam-Kotia-Burkam Joint Venture (Silmonac)	10 928	10 928	365	1	9	11	8	5	34
Lornex Mining Corp. Ltd. (Lornex)	11 468 765	11 696 413	337	177	206	.....	241	.....	624
Noranda Mines Ltd. (Bell)	4 480 660	4 335 049	365	89	44	.....	139	.....	272
Noranda Mines Ltd. (Boss Mountain)	545 496	545 496	363	41	40	50	24	.....	155
Reeves MacDonald Ltd. (Annex)	32 211	32 211	60	4	4	11	3	.....	22
Similkameen Mining Co. Ltd. (Similkameen)	3 693 900	3 693 900	306	83	198	.....	71	.....	352
Teck Corporation Ltd. (Highland Bell)	34 898	34 898	355	7	6	17	8	.....	38
Texada Mines Ltd. (Texada)	889 431	906 730	350	18	64	69	32	.....	183
Utah Mines Ltd. (Island Copper)	11 981 331	12 075 145	357	193	431	.....	177	.....	801
Wesfrob Mines Ltd. (Tasu)	1 893 111	1 622 410	284	82	21	7	111	.....	221
Western Mines Ltd. (Lynx and Myra)	260 717	260 717	325	53	11	151	31	.....	246
Other mines	.....	.....	.....	16	9	15	5	.....	45
Total metal mines	.....	.....	.....	1,523	1,898	1,100	1,983	198	6,702
Coal Mines									
Byron Creek Collieries	339 322	.....	365	13	4	.....	1	.....	18
Coalition Mining Ltd.	37 384	.....	365	4	15	7	.....	.....	26
Coleman Collieries Ltd.	36 162	.....	105	.....	2	.....	.....	.....	2
Fording Coal Ltd.	4 404 880	.....	365	166	621	.....	130	.....	917
Kaiser Resources Ltd.	8 120 727	.....	365	227	1,103	292	178	.....	1,800
Total coal mines	.....	.....	.....	410	1,745	299	309	.....	2,763

[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] Copper precipitate produced incidental to treatment of water as required by Pollution Control Branch.

[3] Estimated.

Table 3-12—Metal Production, 1975

Property or Mine	Location of Mine	Owner or Agent	Ore Shipped or Treated	Product Shipped	Gross Metal Content					
					Gold	Silver	Copper	Lead	Zinc	Cadmium
			t		kg	kg	kg	kg	kg	kg
Alberni Mining Division										
Lynx and Myra	Buttle Lake	Western Mines Ltd.	260 717	Copper concentrates, 7 892 t; lead concentrates, 6 767 t; zinc concentrates. 30 597 t	642.837	35 977.151	2 707 398	3 459 337	18 090 898	70 372
Musketeer	Tofino	New Musketeer Gold Mine Ltd.	7	Crude ore	.435	.280	4			
Privateer	Zeballos	New Privateer Gold Mines Ltd.	7	Crude ore	.467	.373				
Atlin Mining Division										
Atlin-Ruffner	Atlin	Atlin Silver Corp.	137	Crude ore	.607	313.518		18 386		
Cariboo Mining Division										
Boss Mountain mine	Big Timothy Mountain	Noranda Mines Ltd. (Boss Mountain Div.)	545 496	Molybdenite concentrates, 1 927 t; containing 1 094 002 kg of molybdenum						
Gibraltar mine	McLeese Lake	Gibraltar Mines Ltd.	10 388 118	Copper concentrates, 155 736 t; molybdenite concentrates, 470 t; containing 251 672 kg of molybdenum		5 391.611	41 165 032			
Clinton Mining Division										
Nil										
Fort Steele Mining Division										
Dardenelle, Mother Lode	Wild Horse River	Magnum Enterprises Ltd.	43	Crude ore	1.061	2.805		2 110	65	
Sullivan mine	Kimberley	Cominco Ltd.	2 002 916	Lead concentrates, 91 131 t; zinc concentrates, 151 683 t; tin concentrates, 49 t, containing 24 868 kg of tin	5.132	73 570.507	437 533	68 047 946	75 418 513	34 701
Golden Mining Division										
Ruth Vermont	Spillimacheen	Consolidated Columbia River Mines Ltd.	10 258	Lead concentrates, 356 t; zinc concentrates, 342 t	.453	1 110.066	3 414	210 279	217 213	1 385

Greenwood Mining Division										
Burnt Basin	Paulson	Alvija Mines Ltd.	786	Lead concentrates, 25 t; zinc concentrates, 98 t		49.235		23 223	37 825	253
Denero Grande, Jewel	Greenwood	Colt Resources Ltd.	1 859	Crude ore	17.698	108.643		4 912	2 122	
Highland Bell mine	Beaverdell	Teck Corporation Ltd.	34 898	Lead concentrates, 704 t; zinc concentrates, 239 t; jig concentrates, 33 t	4.852	11 131.172		132 745	136 173	1 304
Phoenix mine	Greenwood	Granby Mining Corp., Phoenix Copper Div.	985 875	Copper concentrates, 15 797 t	366.978	3 657.215	4 220 275			
Marshall	Greenwood	San Jacinto Explorations Ltd.	176	Crude ore	3.266	3.017		176	176	
Skomac	Greenwood	Robert Mines Ltd.	434	Crude ore	2.146	301.606		13 067	8 439	
Kamloops Mining Division										
Bethlehem	Highland Valley	Bethlehem Copper Corp.	5 864 500	Copper concentrates, 66 257 t	20.061	4 206.432	22 154 586			
Lornex mine	Highland Valley	Lornex Mining Corp. Ltd.	11 696 413	Copper concentrates, 154 294 t; molybdenite concentrates, 2 608 t, containing 1 406 082 kg of molybdenum	7.745	130 042.545	50 239 447			
Lucky Coon	Adams Plateau	K. Viney Contracting Co. Ltd.	424	Crude ore; lead concentrates, 25 t	.439	.316		69 705	7 416	3 708
Liard Mining Division										
Magnum mine	Delano Creek	Consolidated Churchill Copper Corp. Ltd.[1]		Copper concentrates, 2 887 t			808 665			
Lillooet Mining Division										
Nil										
Nanaimo Mining Division										
Island Copper mine	Rupert Inlet	Utah Mines Ltd.	12 075 145	Copper concentrates, 201 322 t; molybdenite concentrates, 1 485 t, containing 615 313 kg of molybdenum; rhenium shipments are confidential	1 705.595	8 996.170	47 514 467			
Texada mine	Texada Island	Texada Mines Ltd.	906 730	Iron concentrates, 296 250 t; copper concentrates, 7 426 t	45.597	1 385.359	1 635 716			
Nelson Mining Division										
Annex	Nelway	Reeves MacDonald Mines Ltd.	32 211	Lead concentrates, 273 t; zinc concentrates, 1 604 t		296.847		151 543	850 479	7 924
H.B.	Salmo	Cominco Ltd.	411 084	Lead concentrates, 4 950 t; zinc concentrates, 22 878 t	.622	1 130.314		1 666 762	12 480 257	96 325
Mother Lode (Independence)	Salmo	Nugget Mines Ltd.	484	Siliceous ore, dump clean-up	3.919	34.462				

[1] No report received, quantities estimated.

Table 3-12—Metal Production, 1975—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
New Westminster Mining Division			t		kg	kg	kg	kg	kg	kg
Nil										
Nicola Mining Division										
Craigmont mine	Merritt	Craigmont Mines Ltd.	1 774 731	Copper concenrates, 69 996 t; iron concentrates, 41 145 t	26.997		20 564 778			
Omineca Mining Division										
Bell mine (Newman)	Babine Lake	Noranda Mines Ltd. (Bell Copper Div.)	4 335 049	Copper concentrates, 63 283 t	739.069	2 061.227	16 466 056			
Endako mine	Endako	Canex Placer Ltd. (Endako Mines Div.)	8 543 821	Molybdenite concentrates, 1 488 t; molybdenum trioxide, 7 975 t; ferromolybdenum, 117 t; total content, 5 564 104 kg of molybdenum						
Granisle mine	Babine Lake	Granisle Copper Ltd.	4 475 103	Copper concentrates, 55 294 t	552.140	4 982.701	17 034 399			
Pinchi Lake mine	Pinchi Lake	Cominco Ltd.	(2)	Mercury						
Silver Standard mine	Hazelton	George Braun, New Hazelton	133	Crude ore	.218	189.386		4 352	4 523	
Sunrise	Hazelton	Sunrise Silver Mines Ltd.	40	Crude ore		45.597		4 867	4 908	
Tetra (Moricetown Silver)	Smithers	Paul Kindrat, Smithers	60	Crude ore	.084	212.185		2 612		
Osoyoos Mining Division										
Brenda mine	Brenda Lake	Brenda Mines Ltd.	9 115 839	Copper concentrates, 52 314 t; molybdenite concentrates, 6 511 t; molybdic oxide, 725 t; total content, 4 074 073 kg of molybdenum	125.718	7 872.511	15 101 190			
Dusty Mac	Okanagan Falls	Dusty Mac Mines Ltd.	39 940[3]	Gold-silver	239.431	4 293.240	740	1 066		
Horn Silver mine	Keremeos	Dankoe Mines Ltd.	17 916	Silver concentrates, 792 t	11.010	8 120.682	5 013	18 058	25 102	
Susie	Oliver	Hem Mines Ltd.	7 365	Crude ore	43.762	779.752	3 080	25 434	11 974	
Revelstoke Mining Division										
Henry	Trout Lake	A. Chilton, Nakusp	32	Crude ore		55.177		1 660	255	
Similkameen Mining Division										
Similkameen mine (Ingerbelle)	Princeton	Similkameen Mining Co. Ltd.	3 693 900	Copper concentrates, 46 865 t	574.783	2 551.006	12 768 721			

Skeena Mining Division										
Babe	Port Clements, Q.C.I.	E. Specogna, Nanaimo	6	Crude ore	.902	.529				
Goat	Surprise Creek, Stewart	Nordore Mining Co. Ltd.	16	Crude ore		15.925		67	352	
Granduc mine	Stewart	Granduc Operating Co.	1 499 585	Copper concentrates, 56 813 t	162.606	9 604.482	16 222 977			
Tasu mine	Tasu Sound	Wesfrob Mines Ltd.	1 622 385	Iron concentrates, 946 719 t; copper concentrates, 7 934 t	42.238	1 720.991	1 499 933			
View Fraction	Stewart	N. Benkovich, Stewart	136	Crude ore	6.322	150.781	1 020	6 919	6 493	
Slocan Mining Division										
Antoine	McGrugan Creek	W. Turley, Kaslo	144	Crude ore		92.127		5 191	13 217	
Arlington	Slocan	W. Storegaard and R. Salisbury, Slocan	120	Crude ore		44.384		6 679	8 317	
Bluebell	Riondell	D. Pearce, Nelson	Salvage	Lead concentrates, 21 t; zinc concentrates, 32 t		53.902		11 957	14 648	101
Eastmont	Enterprise Creek	G. B. Bandeen, New Denver	62	Crude ore		39.470		2 654	4 012	
Enterprise	Enterprise Creek	Malamute Holdings Ltd. and T. Mazur, Calgary	263	Crude ore	.093	139.715		7 495	29 616	
Galena Farm	Silverton	R. Mills and W. Mengler, Silverton	25	Crude ore		3.235		272	7 645	
Hecla	Silverton	R. Mills and W. Mengler, Silverton	12	Crude ore		55.301		2 651	1 106	
Jackson Basin	West side Arrow Lake	Fostall Mines Ltd.	57	Crude ore		6.376		2 284	17 245	
Jesse	Silverton	W. Mengler, Silverton	2	Crude ore		4.323	11			
Kalispell	Enterprise Creek	P. Leontowicz	36	Dump clean-up		3.763		323	143	
Little Tim	Slocan City	D. Nebor, Slocan, and W. Turley, Kaslo	21	Crude ore		60.869		1 699	1 152	
Morning Star	Slocan City	Louis de Kock	36	Crude ore	.435	1.400				
Ottawa	Springer Creek	C. Thickett, Slocan City	12	Crude ore		105.532		82	35	
Panama, Silver Glana	New Denver	United Hearne Resources Ltd.	379	Crude ore		360.546		1 438	1 187	
Scranton	Kaslo	Star Syndicate	1 611	Lead concentrates, 99 t; zinc concentrates, 114 t	4.821	214.828		76 844	64 622	1 338
Shannon	Slocan Lake	A. F. Strebchuk, Hills	20	Crude ore	.629	11.228		2 332	2 685	
Silmonac (Minniehaha)	Slocan Lake	Kam-Kotia and Burkam Joint Venture	10 928	Lead concentrates, 982 t; zinc concentrates, 757 t		6 228.905		591 365	471 192	2 940
Victor	New Denver	E. Perepolkin and N. Wolinski, Sandon	29	Crude ore from stockpile		34.555		2 540	2 680	
White Water	Retallack	P. Leontowicz and D. Bialkoski, New Denver	75	Crude ore, dump clean-up	.109	96.233		8 755	19 214	

[2] Confidential.
[3] Shipped to Danko Mines Ltd. for milling.

Table 3-12—Metal Production, 1975—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
Trail Creek Mining Division			t		kg	kg	kg	kg	kg	kg
Blue Bird	Rossland	Standonray Mines Ltd.	1 358	Crude ore; silver concentrates, 91 t	2.809	1 173.005		46 333	51 846	
Midnight	Rossland	Sand Mines Ltd.	313	Crude ore	4.417	8.336				
Vancouver Mining Division										
Britannia mine	Howe Sound	Anaconda Canada Ltd.		Copper concentrates, 30 t; copper precipitates, 211 t	.043	4.043	72 740			
Warman (Northair)	Callaghan Creek	Northair Mines Ltd.	526	High-grade ore, test shipments	12.690	12.379	1 485	1 185	5 504	
Vernon Mining Division										
Nil										
Victoria Mining Division										
Sunro mine	River Jordan	Jordan River Mines Ltd.		Copper concentrates, 213 t; from stockpile	.902	9.331	53 735			

Table 3-13—Destination of British Columbia Concentrates in 1975

	Lead	Zinc	Copper	Iron
	t	t	t	t
Trail	105 193	176 090		
Other Canadian			187 556	56 246
United States	273	32 254	86 163	263 238
Japan			665 381	949 093
Other foreign			22 575	30 638
Totals	105 466	208 344	961 675	1 299 215

Petroleum and Natural Gas

CHAPTER 4

CONTENTS

ILLUSTRATIONS

ORGANIZATION

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 was 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 into three divisions, namely, the Engineering Division, the Geological Division, and the Titles Division.

ENGINEERING DIVISION

The Engineering Division, under the direction of Chief Engineer A. G. T. Weaver, 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 *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.

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. Oil and gas allowable rates are set by the section, and recommendations concerning proposed improved recovery and produced fluid disposition schemes are made.

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.

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 J. A. Hudson, 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.

STAFF

On December 31, 1975, the professional and technical staff included the following:

Associate Deputy Minister

J. D. Lineham, P.Eng.—Chief of Branch

Engineering Division

A. G. T. Weaver, P.Eng.—Chief Engineer
W. L. Ingram, P.Eng.—Senior Development Engineer
M. B. Hamersley, C.E.T.—Development Technician

B. T. Barber, P.Eng. — Senior Reservoir Engineer
P. S. Attariwala, P.Eng. — Reservoir Technician
P. K. Huus — Reservoir Technician
J. H. Burt — Reservoir Technician
D. L. Johnson, P.Eng. — District Engineer
D. A. Selby — Field Technician
G. T. Mohler — Field Technician
W. B. Holland, C.E.T. — Field Technician
J. W. D. Kielo — Field Technician
G. L. Holland — Field Technician
J. L. Withers — Geophysical Technician

Geological Division

W. M. Young, P.Eng. — Chief Geologist
R. Stewart, P.Eng. — Senior Reservoir Geologist
T. B. Ramsay, P.Eng. — Reservoir Geologist
K. A. McAdam — Reservoir Geologist
G. R. Morgan, P.Eng. — Senior Economic Geologist
S. S. Cosburn, P.Eng. — Economic Geologist
D. W. Dewar — Economic Geologist
J. A. Hudson, P.Eng. — Senior Geophysicist

Titles Division

R. E. Moss — Commissioner
W. J. Quinn — Assistant Commissioner

LEGISLATION

The *Petroleum and Natural Gas Act, 1965* was amended during 1975 to

(1) provide for the disposition of oil sand and oil shale and products derived therefrom;

(2) reduce the qualification period from five years to four years before the rental provisions of an order made by the Mediation and Arbitration Board can be renegotiated;

(3) provide the Mediation and Arbitration Board with authority regarding disposition of security deposits;

(4) require a licensee and permittee to submit a copy of their agreement to the Commissioner before drilling is commenced in a unit adjoining the common boundary of a permit and a natural gas licence;

(5) clarify that the boundaries of a gas licence selected from a permit do not have to be separated by a unit where holders of adjoining permits agree to select adjoining licences that have mutual boundaries;

(6) provide the Minister with authority to withdraw Crown reserves from disposition by public auction or public tender and to dispose of such withdrawn Crown reserves in accordance with the terms and conditions and for the price or prices approved by the Lieutenant-Governor in Council;

(7) include production facilities in the requirement for a person to obtain a certificate of restoration before the site is deemed abandoned;

(8) require the submission of an application before normal producing operations are ceased and before producing operations are resumed;

(9) clarify that no equipment may be removed from a location without the written permission of the Commissioner where a person has failed to comply with the Act, regulations, a notice or order given under either, or a term, promise, or condition of his permit, licence, lease, or drilling reservation; formerly, reference was made only to failure to comply with the Act;

(10) clarify that a disposition of petroleum and natural gas under the Act shall not include petroleum and natural gas recoverable from oil sand or oil shale unless the disposition states otherwise.

The Petroleum and Natural Gas Royalty Regulations administered by the Mineral Revenue Division of the Department were also amended.

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 1965 amendments to the *Petroleum and Natural Gas Act, 1965,* grants rights of entry to oil and gas companies over alienated lands, and determines conditions of entry and compensation therefore. The Act now provides for a process of mediation by the Chairman of the Board. Failing satisfactory agreement between the parties upon mediation, the Act provides for final disposition by the Board of entry conditions and compensation. The Board is also 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 an operator has ceased to use occupied lands.

In 1975, five field inspections were carried out by the Board; three mediation hearings were held and as a result of the parties failing to reach agreement on mediation, three Arbitration Board hearings were then held followed by Board orders respecting each hearing; the Board met 56 times during the year to deal with general Board matters and specific concerns of the public.

BRANCH ACTIVITY

ENGINEERING DIVISION

DEVELOPMENT ENGINEERING

The Development Engineering Section is responsible for all matters related to the location, drilling, completion, and abandonment of wells in the Province. This involves the assurance that operators of all wells drilled conform to the requirements of the Drilling and Production Regulations, which includes the submission of prescribed forms and information.

During 1975, 100 well authorizations were issued, while 11 were cancelled where operators decided against drilling the locations. Also, the section approved changes for 39 well names, 72 well statuses, and 3 well classifications.

Seven new fields were designated by the section in 1975 and field boundaries were amended on 16 occasions. The new fields were at Clarke Lake South, Dilly, Gote, Milligan Creek West, Silver, Silverberry, and Town. Field boundaries were changed once during the year for 10 fields and twice for Dahl, Gundy Creek, and Siphon East. At the end of 1975 there were 104 designated fields, which are listed in Table 4-6 and shown in Figure 4-23.

Other major accomplishments by the section included a complete review of the Drilling and Production Regulations. Revised legislation was prepared but not promulgated as the *Petroleum and Natural Gas Act* was also being studied for amendment. The changeover to the Branch filing system continued throughout the year with a 'library-type' withdrawal method introduced. In preparation for metrication, all petroleum-related legislation was identified and recommendations for conversion prepared.

Drilling activities in the Province during 1975 reached the lowest level in nearly 20 years. Not since 1956, when the petroleum industry was in its very infancy, has the number of wells and footage drilled been so low. Eighty-one wells and 421,547 feet were drilled in 1975, compared to 147 wells and 760,364 feet in 1974. Only 31 gas wells and 2 oil wells were completed, while 44 abandonments were drilled. Generally, all activities were decreased by about 45 per cent, the third successive year when declines were recorded. No drilling ventures were undertaken outside of the northeastern corner of the Province.

At the end of 1975, one location was awaiting evaluation to determine a final status and 18 locations were actively drilling. Two wells were completed for salt-water disposal purposes. Wells drilled and drilling are listed in Table 4-5 and annual footage drilled since 1947 are shown graphically in Figure 4-22. The drilling operations were accomplished by 38 oil companies employing 44 individual drilling rigs which were owned by 15 different drilling contractors.

Production of crude oil from British Columbia oilfields during 1975 was 14,277,142 barrels, a decrease of 24 per cent in comparison to 1974. The largest producing fields were Boundary Lake, 5,586,206 barrels; Peejay, 1,982,517 barrels; Inga, 1,609,569 barrels; and Milligan Creek, 1,376,817 barrels. Gas production, down 3 per cent, was 403,003,977 mcf. The Clarke Lake field produced the largest volume, 97,900,513 mcf; which was followed by Yoyo, 66,839,606 mcf; Sierra, 34,968,624 mcf; and Laprise Creek, 25,994,959 mcf. Of the eight oil and gas fields mentioned, only the Sierra gas field produced a greater volume than in 1974.

Monthly crude oil and natural gas production by fields and pools for 1975 is given in Tables 4-8 and 4-9. Graphs of annual production since 1955 are shown in Figures 4-24 and 4-25.

Two operational procedures involving water continued throughout the year. Waterflood operations to aid the efficiency of oil recovery were used in 10 producing pools in the Province. A total of 37,477,398 barrels, including both fresh and formation water, was injected into 152 water-injection wells. Fields receiving the largest volumes were Boundary Lake, 17,644,482 barrels; Peejay, 6,050,887 barrels; Milligan Creek, 3,384,269 barrels; and Inga, 2,699,458 barrels.

Disposal of salt water produced with petroleum and natural gas was accomplished by injection into subsurface formations, preferably the formation from which the water originated. Storage of salt water is permitted in surface pits only in emergency situations and for a limited period of time. During 1975, there were 9,043,975 barrels injected into 30 disposal wells and 25,789 barrels put into evaporation pits.

General statistics showing well operation and production data are given in Table 4-10, while the monthly dispositions of various petroleum products are shown in Tables 4-11, 4-12, 4-13, 4-14, and 4-15 and monthly values to producers in Table 4-16. Summaries of data compiled for the various processing and pipeline facilities are given in Tables 4-17, 4-18, 4-19, 4-20, and 4-21.

Reservoir Engineering

During the year a number of forecasts of production were prepared and some were presented at public hearings, as follows:

(*a*) A forecast of L.P.G. supply from natural gas production in British Columbia was presented at a British Columbia Energy Commission hearing in April on L.P.G. supply and demand in the Province.

(*b*) A forecast of crude oil and condensate production in British Columbia was presented at a National Energy Board hearing at Calgary in April on crude oil and condensate supply and demand in Canada.

(*c*) A forecast of natural gas potential production in British Columbia was presented at a British Columbia Energy Commission hearing in May and June on the wellhead price of natural gas.

(*d*) An updated version of (*c*) revised to reflect actual production instead of potential production was forwarded to British Columbia Energy Commission staff in December.

The report entitled *The Hydrocarbon and By-Product Reserves in British Columbia at December 31, 1974* was published in September; a computer program was employed for the first time to calculate the remaining reserves in each pool and to print out ultimate recovery, cumulative production, and remaining reserve in reproducible form. It is expected that a considerable saving in man-hours spent in preparing this report will be effected and the report will be available sooner after year-end than in previous years. It is planned, in addition, to publish a separate loose-leaf edition of reservoir parameters and other information for each pool.

Provincial reserves of oil, natural gas, and by-products are summarized in Table 4-4. Proven oil reserves are estimated at 105 million stock tank barrels, a decrease of some 14 million barrels from December 31, 1974. This decrease was due to production as drilling added only 71 thousand barrels and revisions 439 thousand. Established raw gas reserves are estimated at 7,993 billion cubic feet, a decrease of 1,400 billion from December 31, 1974. Production accounted for some 400 billion, revisions mainly in Beaver River and Clarke Lake fields reduced the estimates by some 1,145 billion, whereas drilling added only 139 billion cubic feet. Natural gas liquids are estimated at 43 million stock tank barrels, a decrease of some 1.5 million barrels from a year ago; production of 2.3 million barrels was

partly offset by 0.7 million barrels discovered. Reserves of sulphur were estimated at 4.36 million long tons, an increase of 0.4 million from December 31, 1974. The increase was due to drilling, which added 0.17 million, and revisions, which added 0.37 million to offset production of 0.13 million.

Applications by Pacific Petroleums Ltd. in Peejay Unit No. 1 and Union Oil Company of Canada Limited in Peejay Unit No. 2 for approval of the conversion of one well in each unit to water-injection were approved. An application by Texaco Exploration Canada Ltd. in Inga Unit No. 4 to revert to a primary MPR due to problems with the water-injection well was approved.

An application by Canadian Superior Oil Ltd. for an increase in gas allowable from 10 to 15 MMSCF/D in Inga Unit No. 3 was made effective during the year following enlargement of the unit.

An application by Union Oil Company of Canada Limited for approval of a scheme for concurrent production from the Aitken Creek field was received. No decision had been made by year-end.

An application by Dome Petroleum Limited for 320-acre spacing in the Laprise Creek field was received; the application was opposed by Pacific Petroleums Ltd. No decision had been made by year-end.

Various types of application from industry were handled as follows:

(1) Five applications for approval to convert wells to salt-water disposal service were received; two were rejected, one for Kotcho East c-44-H/94-I-14 was approved and the two others for Helmet d-96-F/94-P-7 and Sierra d-92-D/94-I-14 were published in *The British Columbia Gazette* in December in case there were any objections from interested parties. In addition, there were seven applications to dispose of produced water in approved salt-water disposal wells; these were approved.

(2) Thirty-four applications for approval to flare gas were received and approved. Ten applications for a waiver of the requirement for an AOFP test prior to production were received and approved.

(3) Six applications for Good Engineering Practice for single well spacing areas were received; three were approved and three were rejected.

(4) Two applications for approval to comingle gas production in the wellbore, one in Buick Creek North d-55-F/94-A-14 and one in Gundy Creek d-2-G/94-B-16, were approved.

(5) An application for approval to conduct biennial bottom-hole pressure surveys in Currant Unit No. 1 was approved.

Drilling and Production

During 1975, 196,000 miles were driven by field staff members in the course of filling the section's primary responsibility of enforcing the Drilling and Production Regulations in the field. Inspectional duties included the following:

	Number
Tests witnessed, oil	7
Tests witnessed, gas	49
Gas meters checked	1,165
Batteries inspections	557
Rig visits	555
Abandonment and lease inspections	5,017
Days, seismic inspection	62
Segregation tests witnessed	9

In addition to inspectional work the field office staff carry out oilfield and laboratory work for the benefit of both the Branch and industry. In 1975 this included 100 static pressure gradients run in oil and gas wells, 726 calibrations of pressure bombs, and 264 calibrations of positive displacement meters.

TITLES DIVISION

There were five dispositions of Crown reserve petroleum and natural gas rights held during 1975. These resulted in tender bonus bids amounting to $12,749,248.20, a decrease of $10,206,086.86 from the previous year. A total of 248 parcels were offered, with bids acceptable on 146 parcels covering 1,181,292 acres. The average price per acre was $10.79, which is a decrease of $0.53 per acre over 1974. The average bonus price per acre was permits, $7.08; leases, $62.27; and drilling reservations, $14.29.

During the year, 13 geophysical licences were issued or renewed, a decrease of four over 1974. One unit agreement was approved.

A total of 71 notices of commencement of exploratory work were recorded, an increase of one 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, 1975, 19,683,370 acres or approximately 30,755 square miles, a decrease of 3,807,194 acres under the 1974 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	389	13,292,568
Natural gas licences	1	7,809
Drilling reservations	27	317,693
Leases (all types)	3,350	6,065,300
Total		19,683,370

During 1975 the following transactions were completed:

1. *Permits—*

Issued	32
Renewed	298
Converted to lease	50
Cancelled	55
Transferred (assigned)	15

2. *Drilling reservations—*

Issued	18
Renewed	5
Converted to lease	21
Cancelled	25
Transferred (assigned)	2

3. *Leases*—

Issued	365
Annual rental paid	2,490
Renewed for 10-year term	36
Extended under penalty	92
Extended, *not* under penalty	205
Cancelled	690
Transferred (assigned)	290

4. *Natural gas licences*—

Issued	1
Renewed	*Nil*
Converted to lease	1
Cancelled	1
Transferred (assigned)	*Nil*

5. *Crown sales*—

	Number Advertised	Number Sold
Permits	37	31
Drilling reservations	33	18
Leases	178	97
Totals	248	146

6. *Geophysical licences* issued — 13

7. *Notices of commencement of exploratory work* approved — 84

8. *Affidavits of work* approved—

Permits	70
Leases	14

9. *Miscellaneous recordings* (mergers, grouping notices, etc.) approved — 390

10. *Certificates prepared* for Inspection Division, Mineral Resources Branch — 325

11. *Unit agreements* approved — 1

Acreage of Crown Petroleum and Natural Gas Rights Held, 1966–75

	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975
	Acres	Acres	Acres	Acres	Acres	Acres	Acres	Acres	Acres	Acres
Petroleum and natural gas permits	29,716,610	23,214,363	32,622,739	31,893,990	21,379,461	18,726,137	19,891,946	17,410,475	16,227,862	13,292,568
Petroleum and natural gas leases	10,439,595	10,596,352	10,029,674	8,837,265	7,765,668	7,226,320	6,493,633	6,196,570	6,405,086	5,574,381
Natural gas licences	27,815	.....	.....	.....	.....	.....	.....	20,781	15,565	7,809
Natural gas leases	524,612	549,218	518,826	475,419	472,964	471,919	470,260	479,754	479,960	487,739
Petroleum leases	2,568	644	644	.....	.....	1,284	1,284	1,284	1,284	3,180
Drilling reservations	503,603	462,138	384,925	350,546	292,402	337,656	452,079	419,878	360,807	317,693
Totals	41,214,803	34,822,715	43,556,808	41,557,220	29,910,495	26,763,316	27,309,202	24,528,742	23,490,564	19,683,370

Petroleum and Natural Gas Revenue, 1947–75

	Cumulative, 1947–66	1967	1968	1969	1970	1971	1972	1973	1974	1975	Cumulative, 1947–75
Rentals and Fees	$	$	$	$	$	$	$	$	$	$	$
Permits	39,994,071	1,369,232	1,184,457	1,772,064	1,426,448	1,615,619	1,729,829	1,524,431	2,224,111	2,150,965	54,991,227
Drilling reservations	818,756	86,303	87,759	79,796	48,156	79,120	107,537	77,344	85,481	75,635	1,545,887
Natural gas licences	65,254	.....	.....	.....	.....	.....	.....	803	8,057	4,155	78,269
Leases (all)	43,670,783	8,901,196	9,349,480	8,488,114	7,699,844	7,733,584	6,976,517	6,500,830	9,678,015	10,242,543	119,240,906
Total rentals	84,548,864	10,356,731	10,621,696	10,339,974	9,174,448	9,428,323	8,813,883	8,103,408	11,995,664	12,473,298	175,856,289
Crown Reserve Disposition Bonuses											
Permits	25,184,602	8,428,409	9,554,004	16,516,392	9,505,074	14,688,570	13,818,020	7,877,134	15,434,510	6,623,647	127,631,362
Drilling reservations	20,427,453	3,013,979	1,785,527	1,394,215	1,825,404	2,486,763	3,011,025	3,108,092	2,669,318	2,708,463	42,430,239
Leases	52,862,255	2,855,428	3,737,489	3,735,845	5,008,323	5,010,918	3,666,617	6,791,215	4,851,506	3,417,137	91,936,733
Total Crown reserve disposition bonuses	98,474,310	14,297,816	15,077,020	21,646,452	16,339,801	22,186,251	20,495,662	17,776,441	22,955,334	12,749,247	261,998,334
Crown Royalties											
Gas	11,318,417	2,870,656	3,217,227	3,730,634	3,948,356	4,209,793	5,580,434	6,061,250	2,843,329[1]	2,848,930[1]	46,629,026
Oil	19,713,596	6,678,245	7,677,405	9,017,352	9,483,937	10,415,656	9,845,125	14,543,621	48,296,036	44,782,489	180,453,462
Processed products	811,130	58,536	50,762	48,847	42,314	42,517	44,379	42,675	134,180	570,321	1,845,661
Total Crown royalties	31,843,143	9,607,437	10,945,394	12,796,833	13,474,607	14,667,966	15,469,938	20,647,546	51,273,545	48,201,740	228,928,149
Miscellaneous fees	227,120	17,917	17,955	19,625	21,843	35,604	42,775	27,028	19,104	18,541	447,512
Total petroleum and natural gas revenue	215,093,437	34,279,901	36,662,065	44,802,884	39,010,699	46,318,144	44,822,258	46,554,423	86,243,647	73,442,826	667,230,284

[1] Crown royalty collected by Mineral Revenue Division.

GEOLOGICAL DIVISION

ECONOMIC GEOLOGY

The Economic Geology Section was responsible for initiating, organizing, and carrying through to publication regional subsurface mapping projects within the sedimentary basin of northeastern British Columbia. To this end the program of regional mapping begun in 1974 was continued and the results made available to industry and the public. Where possible, released seismic data from Branch files has been integrated into the mapping program.

Regional Subsurface Mapping Projects Completed

Geologic Horizon	Map Type	Area (NTS)	Scale
1. Middle Devonian Carbonate	Structure	94-I, J, O, P	1:125,000
2. Fort Simpson Middle Devonian Carbonate	Isopach	94-I, J, O, P	1:125,000
3. Mississippian	Structure	94-I, J, O, P	1:125,000
4. Triassic	Structure	94-A, B, G, H	1:125,000
5. Bluesky-Gething	Structure	94-A, B, G, H	1:125,000
6. All penetrated horizons	Formation test	93-I, P	1:125,000
7. All penetrated horizons	Formation test	94-A, B, G, H	1:125,000
8. All penetrated horizons	Formation test	94-I, J, O, P	1:125,000
9. Cretaceous Bluesky and Mississippian Report	————	94-I, P	1:125,000

Special mapping and related projects were as follows:

Drillstem test and penetration maps—The compilation and publication of Drillstem test and penetration maps showing for all wells outside designated field boundaries the deepest formation penetrated, all formation tests, and the zone(s) in which gas and oil wells are completed. The purposes of this compilation project were to assist industry and individuals who might be interested in exploring for hydrocarbon in the area and to assist in making an inventory of the petroleum and natural gas resources remaining in the northeastern part of the Province.

Cretaceous Bluesky and Mississippian Debolt—A preliminary report entitled "The Cretaceous Bluesky and Mississippian Debolt of N.T.S. Sheets 94-I and 94-P" was completed. This work was begun as a study of the gas-bearing potential of the Mississippian subcrop in the area. Early in the work it was realized that, because the so-called Bluesky sandstone exists on or close to the eroded Mississippian surface and its distribution was affected by that surface, it would be relevant to consider it also in the course of the work.

Ultimate petroleum resources in northeastern British Columbia—A completed study in report form attempts to estimate the amount of hydrocarbon remaining to be found in northeastern British Columbia. In this report, present reserves discovered by present drilling densities are used to estimate the ultimate resource which may be discovered by the optimum drilling density.

Structural cross-section project—The commencement of a project to make a series of structural cross-sections across the foothills belt of the northeastern part of the Province was initiated. These sections drawn to true scale, incorporate surface and subsurface geologic information and released seismic data.

RESERVOIR GEOLOGY

Activity by the reservoir geology group during the year was primarily confined to constructing, revising, and maintaining geological maps or suites of geological maps pertinent to the hydrocarbon reservoirs contained in 67 oil pools and 212 gas pools. In addition to this work the section was also responsible for providing hydro-

carbon net pay data on approximately 220 single-well completions. Work assignments were carried out in close co-ordination with the Branch Reservoir Engineering Group.

Pool subsurface mapping and related projects were:

Net oil and gas pay evaluations—A total of two oil and 31 gas zone intervals penetrated by the drill were evaluated for their hydrocarbon potential.

Silver and Siphon East fields, Fort St. John area—Field status was designated to both Silver and Siphon East on the basis of several successful Bluesky gas pool well completions.

Helmet field, Fort Nelson area—The Helmet field originally designated as a single Slave Point gas pool was extended to include three additional single-well gas pools.

Peejay Halfway oil pool project—A comprehensive geological and engineering revision study of the Peejay Halfway reservoir was completed. This re-evaluation of the reservoir geometry was done as an aid to assessing the results of the current enhanced secondary recovery operations.

Reservoir reference volume project—A reappraisal of the larger reservoirs with the objective publication of a reference volume was initiated. Fields and their attendant pools reviewed under this scheme included Aitken Creek, Beatton River, Beatton River West, Peejay, Weasel, and Weasel East.

GEOPHYSICS

Geophysical work which was instituted in mid-year began with the examination of a large amount of geophysical information which has been submitted by operators in the Province since the start of petroleum exploration. The aim of this work was to assess seismic quality and present usefulness. The released portion of the geophysical data was integrated with the subsurface geology to enhance the regional mapping.

Geophysical quality control—In attempting to use reported data it became obvious that some sort of quality control was required for the purpose of identification and correlation of seismic reflection events. To this end, the regulations covering geophysical operations were revised to include a section sampling of the final seismic playback obtained during the course of the exploration program. These section samples which show the seismic events used in preparing submitted maps enable the Branch geophysicist to correlate data from area to area. These data, as they are released from confidential status, provide the basis for a more realistic input to the regional mapping program.

Table 4-1—Exploratory and Development Wells Completed, 1975

	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	---	------	4	37,917	4	37,917	7	52,772	---	----------	---	----------	11	90,689
New pool wildcats	---	------	5	42,120	5	42,120	9	46,506	---	----------	---	----------	14	88,626
Deep-pool tests	---	------	2[1]	8,905	2[1]	8,905	1[1]	525	---	----------	---	----------	3	9,430
Outposts	---	------	6	26,103	6	26,103	15	61,243	---	----------	---	----------	21	87,346
Total exploratory wells	---	------	15	115,045	15	115,045	31	161,046	---	----------	---	----------	46	276,091
Total development wells	2	7,489	16	69,294	18	76,783	12	46,192	---	----------	---	----------	30	122,975
Subtotals	2	7,489	31	177,339	33	191,828	43	207,238	---	----------	---	----------	76	399,066
Other wells drilled (service wells)	---	------	---	----------	---	----------	---	----------	1	6,230	3	16,251	4	22,481
Totals	2	7,489	31	177,339	33	191,828	43	207,238	1	6,230	3	16,251	80	421,547

[1] Three deep-pool tests are not included in the well total as they are counted under "Development" and "Outpost". There was one dual well which was counted as a single well.

Table 4-2—Project and Individual Well MPR Data, December 31, 1975

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	1,229	-----	33,552	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	-----	1,013	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	17,913	-----	10	1	5	----
		Pool total	-----	2,716	----	-----	-----	-----	----	----	----	----
Beatton River West	Bluesky	BPOG Unit 1	-----	1,236	4	2,623	3,867	-----	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	2,621	-----	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	14,756	-----	25	----	7	----
		Dome project 2	-----	1,484	9	650	5,256	-----	6	----	2	----
		Imperial Unit 1	-----	38,657	9	26,743	84,134	-----	154	----	37	----
		Texaco Unit 2	-----	22,723	9	14,025	67,747	-----	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	----	4,813	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 M CAEL Cecil 10-24-84-18	3045	174	----	----	----	----	----	----	----	----
		Scurry Ballinderry 6-12-84-18	3462	25	----	----	----	----	----	----	----	----
		Pool total	----	335	----	----	----	----	----	----	----	----
Charlie Lake	Gething	Imp Pac Charlie 13-5-84-18	269	Suspended.								
Crush	Halfway	Union Unit 1	----	1,383	13	1,474	4,121	----	8	----	2	----
Currant	Halfway	Union HB Currant d-28-C/94-A-16	1768	Suspended.								
		Pacific Unit 1	----	627	14	696	3,375	----	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 7-16-86-23	933	Suspended.								
	Inga	Canadian Superior Unit 1	----	7,246	16	11,057	27,829	----	26	1	14	----
		Amoco Unit 2	----	7,489	16	12,703	6,124	----	34	----	11	----
		Texaco Unit 4	----	740	16	1,510	358	----	3	----	1	----
		Pacific Unit 5	----	630	16	2,913	614	----	6	----	6	----
		Pool total	----	16,105	----	----	----	----	----	----	----	----
Milligan Creek	Halfway	Union Unit 1	----	10,000	22	3,370	57,924	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 KCL 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 Wainoco Ashland Oak 6-7-86-17	3397	127								
	Halfway	Woods Wainoco Ashland Oak 14-7-86-17	3549	204								
		Pool total	----	331	----	----	----	----	----	----	----	----

Table 4-2—Project and Individual Well MPR Data, December 31, 1975—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
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	22,455	-----	24	-----	14	----
		Union Unit 2	-----	8,229	26	6,884	37,289	-----	37	-----	14	----
		Pacific Unit 3	-----	6,865	26	5,405	28,894	-----	28	----	15	----
		Pacific Peejay North project	-----	42	26	456	-----	-----	1	2	----	----
		Pacific ARCO project	-----	2,717	26	1,317	7,578	-----	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	---	-----	-----	-----	-----	----	----	----
		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	15,169	1,866	9	-----	7	1
		Pacific Unit 2	-----	1,143	943	943	4,908	-----	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	1,921	27,944	16,116	12	—	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	Gething	Brascan et al Mike d-53-H/94-H-3	3463	88	—	—	—	—	—	—	—	—
	Coplin	GAO Cdn Res Pintail 2-12-85-25	3157	42	—	—	—	—	—	—	—	—
	Halfway	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	Wainoco Fort St John 11-23-84-19	3122	340	—	—	—	—	—	—	—	—

Table 4-3—Gas-well Test and Allowance Data, December 31, 1975

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	Abandoned.
Baldonnel	Pacific Airport 9-32-83-17 (97)	287	5-71	1,573	0.500	2,498	Abandoned.
Halfway	Pacific Airport 12-34-83-17 (10)	35	5-71	1,960	1.000	1,667	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	2-75	1,190	0.929	12,271	3,068
Beaver River—							
Nahanni	Amoco Beaver b-19-K/94-N-16	2563	8-75	5,332	0.526	85,673	.....
	Pan Am Beaver d-27-K/94-N-16	2313	8-75	5,154	0.500	60,186	.....
	Pan Am Beaver c-45-K/94-N-16	2116	8-75	4,173	0.500	36,804	.....
	Amoco Beaver c-54-K/94-N-16	3434	1-75	4,308	0.500	35,496	.....
	Amoco Beaver d-A64-K/94-N-16	2547	8-75	4,167	0.500	102,427	.....
	Pan Am Beaver River d-73-K/94-N-16	682	8-75	4,366	0.528	108,005	.....
Nahanni total		.....	.....	.....	.....	.....	GEP.
Beaverdam—							
Halfway B	Tenn Sun Beaverdam d-37-L/94-A-16	1746	.....	.....	.....	.....	.....
	Tenn Beaverdam d-39-L/94-A-16	1802	6-75	1,213	0.691	10,129	2,621
Beavertail—							
Gething	Pacific Sinclair Beavertail d-71-C/94-A-15	1893	9-75	868	0.655	10,656	3,719
	Pacific Sinclair Beavertail d-73-C/94-A-15	1915	9-75	872	0.647	24,021	7,100
	Pacific ARCo Beavertail c-92-C/94-A-15	2610	9-75	872	0.671	8,864	2,619
	Texex Texcan Beavertail c-94-C/94-A-15	3563	4-75	888	0.858	7,428	2,000
	Texaco NFA Beavertail b-9-F/94-A-15	300	8-71	1,083	0.539	10,504	2,626
Gething total		.....	.....	.....	.....	.....	16,064
Halfway	Pacific Sinclair Beavertail d-71-C/94-A-15	1893	.....	.....	.....	.....	.....
Beg—							
Baldonnel project	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	Abandoned.
	Pacific et al Beg d-64-F/94-G-1	733	8-75	768	1.000	981	.....
	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	8-75	893	1.000	1,340	.....
	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	8-75	901	0.661	1,535	.....

	Pacific et al Beg a-28-K/94-G-1	749	6-72	1,251	0.500	3,034	.....
	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	5-75	740	0.625	10,008	.....
	Pacific Pan Am Dome Beg d-15-D/94-G-8	855	6-63	1,332	0.600	3,600	Disposal.
Baldonnel project total	.....	.....	.....	.....	.....	.....	GEP.
Halfway project	Richfield Sohio Beg d-13-B/94-G-1	1268	8-75	710	0.500	4,015	.....
	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	8-75	1,125	0.537	1,214	.....
	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	5-75	761	0.664	1,484	.....
	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	5-75	1,543	0.508	2,723	.....
	Pacific et al Beg b-95-F/94-G-1	747	8-74	810	0.500	1,800	.....
	Pacific et al Beg d-10-G/94-G-1	541	8-75	631	0.531	1,378	.....
	Pacific et al Beg b-6-K/94-G-1	740	8-75	717	0.500	1,351	.....
	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	.....	.....	.....	.....	.....	.....	GEP.
Field total	.....	.....	.....	.....	.....	.....	GEP.
Beg West—							
Baldonnel project	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	772	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.
Bivouac—							
Deboit	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
	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[1]
	West Nat et al Blueberry d-A87-D/94-A-13	94	11-74	1,106	0.577	1,566	2,000
	West Nat et al Blueberry d-97-D/94-A-13	581	6-75	785	0.571	1,225	2,000
Dunlevy total	.....	.....	.....	.....	.....	.....	8,000

[1] Lease and camp fuel.

Table 4-3—Gas-well Test and Allowance Data, December 31, 1975—Continued

Field/Pool/Project	Well Name	Well Authorization No.	Date	Pws (Psia)	"n"	AOFP (MSCF/D)	PRL (MSCF/D)
Blueberry—*Continued*							
Baldonnel	West Nat et al Blueberry d-A50-K/94-A-12	357	7-75	1,611	1.000	288	Suspended.
	West Nat et al Blueberry c-65-D/94-A-13	71	7-75	1,639	0.577	933	Suspended.
	West Nat et al Blueberry d-87-D/94-A-13	64	9-72	1,442	0.577	903	Suspended.
	West Nat et al Blueberry d-97-D/94-A-13	581	9-60	1,653	1.000	5,600	Suspended.
Blueberry	West Nat et al Blueberry a-61-L/94-A-12	525	10-60	2,089	.....	.....	.....
	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	7-72	1,782	0.820	1,904	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	7-75	1,302	1.000	1,040	Suspended.
	West Nat et al W Blueberry d-82-I/94-B-9	165	9-72	1,189	1.000	1,438	Suspended.
Baldonnel	G Basins et al W Blueberry a-7-L/94-A-12	2435	5-75	1,536	0.731	7,086	2,000
	G Basins et al W Blueberry d-19-L/94-A-12	241	8-73	1,683	0.543	1,425	Disposal.
	G Basins et al W Blueberry d-39-L/94-A-12	2551	5-75	1,635	0.798	1,797	2,000
Baldonnel total	.....	.....	.....	.....	.....	.....	4,000
Boundary Lake—							
Bluesky	Pacific Boundary 8-15-85-14	270	10-74	420	0.687	230	Suspended.
	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	6-75	532	0.839	3,638	GEP.
Gething total	.....	.....	.....	.....	.....	.....	2,000[2]
Dunlevy	Amerada Boundary 8-5-85-14	799	6-75	1,465	0.822	3,414	Suspended.
Baldonnel	Texaco NFA Boundary 6-30-85-13	1137	9-74	639	0.605	502	Suspended.
	Pacific Boundary Lake 11-14-85-14	667	9-71	876	0.674	1,027	Suspended.
	Pacific Boundary 8-15-85-14	270	9-74	1,344	0.725	3,414	Suspended.
	Sun Boundary Lake 8-23-85-14	652	8-74	780	0.767	6,258	2,284
	Amerada Boundary A6-24-85-14	1454	.....	.....	.....	.....	.....
	Texaco NFA Boundary Lake 6-25-85-14	687	11-75	628	0.850	1,391	2,000
Baldonnel total	.....	.....	.....	.....	.....	.....	4,284
Basal Boundary	Pacific et al Boundary 14-4-85-14	1964	11-74	834	0.550	1,438	2,000
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	.....	.....	.....	.....	.....	.....	8,284[2]

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	Suspended.
	Texaco NFA N Boundary 10-9-87-14	1451	8-73	1,010	0.804	15,052	Suspended.
	Texaco NFA N Boundary 7-15-87-14	1881	1-73	1,501	0.850	1,971	Suspended.
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	6-74	874	0.591	2,735	2,000
Baldonnel project	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 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	Texaco NFA Buick c-98-L/94-A-10	1088	9-68	855	.....	.....	.....
	HB et al Buick d-17-D/94-A-15	1286	7-75	781	0.576	1,372	2,000
Pool B	Texaco NFA Buick c-80-D/94-A-15	1087	7-66	1,045	0.500	750	Suspended.
Pool C	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
Pool D	HOL APC Buick a-83-B/94-A-14	3177	5-75	878	0.963	3,062	2,000
	HOL APC Buick d-93-B/94-A-14	3212	6-75	885	.....	.....	.....
	HOL APC Buick a-63-B/94-A-14	3289	.....	.....	.....	.....	.....
Dunlevy—							
Project Pool A	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/94-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	6-75	519	0.963	2,464	2,000
	Texaco et al Buick c-94-I/94-A-11	2693	7-75	537	0.867	22,835	11,440

[2] Plus GEP. [3] Leaseline well restricted to 2 MMSCF/D.

Table 4-3—Gas-well Test and Allowance Data, December 31, 1975—Continued

Field/Pool/Project	Well Name	Well Authorization No.	Date	Pws (Psia)	"n"	AOFP (MSCF/D)	PRL (MSCF/D)
Buick Creek—*Continued*							
	Texaco NFA Buick d-96-I/94-A-11	787	7-75	531	0.700	6,033	2,913
	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	Suspended.
	Texaco NFA Buick b-A46-A/94-A-14	1508	6-74	973	0.630	865	Suspended.
Project Pool A total							32,264
Project Pool B	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	7-75	597	0.748	2,072	2,000
	HB Ashland Buick d-37-D/94-A-15	3255	7-75	759	0.518	1,772	2,000
	Texaco NFA Buick c-80-D/94-A-15	1087	7-75	509	0.682	2,434	2,000
Project Pool B total							12,773
Project Pool C	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	7-75	625	0.700	1,823	Suspended.
	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	8-75	375	0.938	3,540	2,000
	Pacific Buick Creek b-4-B/94-A-14	457	6-74	478	0.931	1,057	2,000
	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	7-74	555	0.767	1,232	2,000
	Sun Buick d-19-B/94-A-14	756	6-73	518	1.000	1,139	Suspended.
	Texaco NFA Buick c-40-B/94-A-14	1213	7-75	535	0.940	643	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	5-75	584	0.737	2,841	2,000
	Sun Buick d-11-C/94-A-14	818	7-74	446	0.900	3,611	2,121
	Sun et al Buick c-32-C/94-A-14	1360	8-74	414	0.996	3,946	2,535
Project Pool C total							23,584
Dunlevy total							68,621
Lower Dunlevy	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							74,621

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	([4])	([4])	([4])	([4])	([4])
Dunlevy	Pacific West Prod N Buick a-81-C/94-A-14	2069	6-75	574	0.603	2,257	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	6-74	558	0.700	1,360	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—							
A pool	Pacific West Buick Creek d-95-K(4)/94-A-11	99	6-75	346	0.790	3,547	2,000
	Pacific West Buick Creek c-5-C(11)/94-A-14	264	7-72	396	0.906	3,030	Suspended.
	Pacific West Buick Creek c-14-C(3)/94-A-14	95	5-74	615	0.975	6,432	Suspended.
	Pacific West Buick Creek d-17-C(17)/94-A-14	384	6-75	343	0.837	15,564	8,124
A pool total		.....	.....	.....	.....	.....	10,124
B pool	Pacific West Buick Creek b-78-C(2)/94-A-14	89	6-74	488	0.712	1,852	2,000
	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	6-75	592	1.000	1,505	2,000
	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
B pool total		.....	.....	.....	.....	.....	8,000
Dunlevy total		.....	.....	.....	.....	.....	18,124
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	6-75	679	0.699	323	2,000
Halfway	Pacific West Buick Creek b-23-E(1)/94-A-14	86	7-62	699	0.712	2,450	Suspended.
Field total		.....	.....	.....	.....	.....	20,124
Cabin—							
Slave Point A pool	Pacific Cabin d-57-B/94-P-5	2425	3-75	2,579	0.539	1,457	2,000
B pool	General American Cabin a-61-F/94-P-5	2665	3-75	2,626	0.797	17,667	4,462
	West Nat Cabin a-19-G/94-P-5	1406	3-75	2,615	0.554	14,869	3,747
	Pacific Cabin a-49-G/94-P-5	2058	.....	.....	.....	.....	.....
C pool	Pacific Cabin c-6-A/94-P-5	3480	3-75	2,572	0.500	6,498	2,000
	West Nat Cabin b-40-A/94-P-5	1245	3-75	2,572	0.761	6,661	2,000
Field total		.....	.....	.....	.....	.....	14,209

[4] Comingled production. Bluesky-Gething and Dunlevy not segregated.

Table 4-3—Gas-well Test and Allowance Data, December 31, 1975—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.
	CZAR Wainoco N Cache c-16-L/94-A-11	2742	2-75	1,931	0.664	9,624	2,406
Field total		.....	.....	.....	.....	.....	4,406
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	6-75	1,887	0.669	4,343	Gas cap.
	Scurry Rainbow Cecil 6-31-84-17	2971	7-75	1,878	0.500	11,420	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	Chevron W Clarke c-89-F/94-J-10	3474	3-75	2,817	.....	.....	.....
	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	7-75	2,592	0.786	63,937	17,423
	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	7-75	2,565	0.517	4,431	2,000
Slave Point project	West Nat IOE Clarke d-29-K/94-J-9	1274	8-72	2,627	0.500	113,187	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	8-75	2,259	0.552	51,261	Suspended.
	Pacific Imp Clarke b-69-L/94-J-9	2240	.....	.....	.....	.....	Disposal.
	Pacific Imp Clarke b-72-L/94-J-9	2540	7-75	2,142	0.637	80,506	.....
	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	.....	.....	.....	.....	Disposal.
	Pacific Imp Clarke a-77-L/94-J-9	3104	7-75	2,168	0.719	10,619	.....
	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	7-75	2,122	0.621	23,192	.....
	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	7-75	2,118	0.647	44,599	.....
	Pacific et al Clarke c-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	Suspended.
	Pacific Apache Clarke a-61-F/94-J-10	1578	8-75	2,636	0.695	35,246	.....

	Pacific Apache Clarke b-76-G/94-J-10	1071	8-75	2,600	0.674	9,953	.....
	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	7-75	2,535	0.567	21,192	.....
	Pacific et al Clarke c-20-I/94-J-10	2107	7-75	2,504	0.535	38,114	.....
	Pacific et al Clarke b-38-I/94-J-10	1933	8-75	2,489	.....	.....	.....
	Pacific et al Clarke c-69-I/94-J-10	2249	7-75	2,294	0.587	46,598	.....
	West Nat et al Clarke b-70-I/94-J-10	688	8-75	2,318	0.655	37,174	.....
	Pacific et al Clarke b-78-I/94-J-10	3378	7-75	2,288	0.517	8,502	.....
	West Nat et al Clarke c-78-I/94-J-10	505	7-75	2,287	1.000	107,476	.....
	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	7-75	2,147	0.500	81,931	.....
	Pacific Imp Clarke a-94-I/94-J-10	3073	6-70	2,230	.....	.....	Suspended.
	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	7-75	2,401	0.649	32,353	.....
	Pacific et al Clarke b-46-J/94-J-10	2162	8-75	2,458	0.550	15,346	.....
	West Nat et al Clarke c-47-J/94-J-10	211	8-75	2,514	.....	.....	.....
	West Nat et al Clarke a-52-J/94-J-10	856	7-75	2,297	0.733	20,002	.....
	Pacific et al Clarke a-55-J/94-J-10	1966	7-75	2,425	0.715	83,866	.....
	Pacific Imp Clarke b-6-D/94-J-16	2820	7-75	2,078	0.500	25,994	.....
	West Nat Imp Clarke Lake c-8-D/94-J-16	503	7-75	2,137	1.000	97,694	.....
	Pacific Imp Clarke a-10-D/94-J-16	3264	7-75	2,092	0.776	252,522	.....
	Pacific Imp Clarke b-10-D/94-J-16	2509	7-75	2,105	0.591	65,670	.....
Slave Point project PRL	.....	.....	.....	.....	.....	.....	400,000
Slave Point total	.....	.....	.....	.....	.....	.....	421,423
Pine Point	Pacific Imp Clarke d-48-L/94-J-9	3497	.....	.....	.....	.....	.....
Clarke Lake South—							
Slave Point	Mesa Pubco S Clarke b-75-F/94-J-9	2817	7-74	2,719	0.563	58,310	14,882
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

Table 4-3—Gas-well Test and Allowance Data, December 31, 1975—Continued

Field/Pool/Project	Well Name	Well Authorization No.	Date	Pws (Psia)	"n"	AOFP (MSCF/D)	PRL (MSCF/D)
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.
Dilly—							
Slave Point	Pan Am et al Dilly a-30-K/94-P-12	877	3-62	2,775	1.000	14,796	Suspended.
Eagle—							
Belloy	Scurry CanPlac Eagle 16-28-84-18	3382	.....	.....	.....	.....	.....
Elm—							
Halfway	Bracelle et al Elm d-83-C/94-H-7	2712	3-72	1,156	0.902	4,934	2,000
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	1-73	2,145	0.839	4,835	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 A pool	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
	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	.....	.....	.....	.....	.....
B pool	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	.....	.....	.....	.....	.....
C pool	Union Fireweed d-53-G/94-A-13	497	.....	.....	.....	.....	2,000
Dunlevy total	.....	.....	.....	.....	.....	.....	11,420
Baldonnel	CDR Fireweed d-31-G/94-A-13	1384	.....	.....	.....	.....	.....
	Skye et al Fireweed a-61-G/94-A-13	3087	.....	.....	.....	.....	.....
Debolt A pool	West Nat et al Fireweed a-57-A/94-A-13	507	9-60	2,472	0.625	2,050	Suspended.
B pool	SOC et al Fireweed d-75-A/94-A-13	2993	1-72	2,243	1.000	3,668	2,000
C pool	West Nat et al Fireweed c-A1-H/94-A-13	455	.....	.....	.....	.....	.....
Field total	.....	.....	.....	.....	.....	.....	15,420
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	6-75	1,005	0.945	7,765	3,425
B pool	Ballinderry Flatrock 10-33-84-16	2760	6-75	1,135	0.721	8,309	2,990
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	6-75	1,737	------	------	2,000
	Wainoco et al Flatrock 6-13-84-17	3221	6-75	1,745	------	------	2,000
Halfway C total		------	------	------	------	------	6,000
Halfway total		------	------	------	------	------	12,415
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	9-75	626	0.820	2,231	2,000
	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	5-75	1,025	0.700	3,274	Suspended.
	Pacific Ft St John A6-16-83-18 (73)	212	6-72	517	0.733	1,436	2,000
	Pacific Ft St John 6-17-83-18 (72)	210	9-75	579	0.851	3,500	Suspended.
	Pacific Ft St John 8-20-83-18 (43)	170	5-75	405	0.850	1,898	2,000
	Pacific Ft St John B14-21-83-18 (62)	193	9-75	395	0.625	1,124	2,000
	Pacific Ft St John 14-22-83-18 (32)	76	8-75	564	0.782	3,505	2,000
	Pacific Ft St John 13-23-83-18 (34)	82	5-75	456	0.726	2,279	2,000
	Pacific Ft St John C3-29-83-18 (56)	186	8-75	511	0.565	2,082	2,000
	Pacific Ft St John 4-32-83-18 (26)	67	6-72	930	1.000	531	Suspended.
Baldonnel total		------	------	------	------	------	14,000
Pingel	Pacific Ft St John B3-29-83-18 (52)	179	------	------	------	------	------
Halfway A pool	Pacific Ft St John 1-20-83-18 (30)	74	5-75	347	0.839	1,080	2,000
	Pacific Ft St John 2-21-83-18 (46)	172	8-75	338	0.818	1,146	2,000
	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	8-75	366	0.856	1,334	2,000
	Pacific Ft St John 10-30-83-18 (53)	181	6-72	930	0.868	2,077	Disposal.
A pool total		------	------	------	------	------	6,000
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
C pool	Wainoco Ft St John 11-12-84-19	3010	6-75	1,822	1.000	15,313	3,828
Halfway total		------	------	------	------	------	11,828
Belloy	Pacific Ft St John 14-21-83-18 (4)	29	8-75	533	0.624	1,116	2,000
	Pacific Ft St John 3-29-83-18 (23)	58	8-74	401	0.542	2,234	2,000
Belloy total		------	------	------	------	------	4,000
Field total		------	------	------	------	------	29,828
Fort St. John Southeast—							
Dunlevy	Pac Ft St John SE 10-31-83-17 (80)	220	5-75	1,339	0.854	1,583	Suspended.
Baldonnel	Pac Ft St John SE 13-2-83-17 (74)	213	5-75	653	0.766	1,008	2,000
	Pac Ft St John SE A4-10-83-17 (55)	184	6-74	919	0.500	935	2,000
Baldonnel total		------	------	------	------	------	4,000

Table 4-3—Gas-well Test and Allowance Data, December 31, 1975—Continued

Field/Pool/Project	Well Name	Well Authorization No.	Date	Pws (Psia)	"n"	AOFP (MSCF/D)	PRL (MSCF/D)
Fort St. John Southeast—*Continued*							
Siphon	Pacific Ft St John SE 7-3-83-17 (49)	174	5-75	1,740	.....	.....	.....
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	5-75	1,513	1.000	5,447	Suspended.
	Pac Ft St John SE 7-3-83-17 (49)	174	11-69	818	1.000	1,253	Abandoned.
	Pac Ft St John SE 16-3-83-17 (66)	197	5-75	379	0.795	2,364	2,000
	Pac Ft St John SE A10-4-83-17 (60)	191	8-75	704	0.649	1,051	2,000
	Pac Ft St John SE 7-5-83-17 (69)	202	5-75	1,711	1.000	1,332	Suspended.
	Pac Ft St John SE A10-10-83-17 (98)	320	5-75	631	0.845	1,246	Suspended.
Halfway total	.....	.....	.....	.....	.....	.....	4,000
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	5-75	2,817	1.000	5,021	Abandoned.
	Pac Ft St John SE 4-9-83-17 (44)	166	5-75	942	1.000	4,990	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	5-75	756	0.726	1,287	Suspended.
Belloy total	.....	.....	.....	.....	.....	.....	5,715
Field total	.....	.....	.....	.....	.....	.....	13,715
Gote—							
Sulphur Point	BP et al Gote d-37-D/94-P-12	3063	3-72	3,232	.....	.....	.....
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	Suspended.
Halfway	Quasar N Grizzly a-85-G/94-I-15	3181	4-74	8,061	0.500	48,239	12,060
Gundy Creek—							
Baldonnel A pool	Coseka et al Gundy d-55-A/94-B-16	3628	.....	.....	.....	.....	.....
	West Nat East Gundy Creek a-76-A/94-B-16	291	.....	.....	.....	.....	Suspended.
	Frio Coseka Gundy c-76-A/94-B-16	3545	1-75	1,780	0.835	5,280	2,000
	Coseka et al Gundy b-97-A/94-B-16	3593	10-75	1,540	0.816	6,931	2,000
	Frio Coseka Gundy a-8-H/94-B-16	3577	.....	.....	.....	.....	.....
B pool	West Nat Gundy Creek b-69-A/94-B-16	253	4-59	1,618	1.000	5,000	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.
Field total	.....	.....	.....	.....	.....	.....	4,000

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 project pool A	SOBC Helmet b-49-G/94-P-7	1297	.....	.....	.....	.....	.....
Pool B	Atkinson Sunlite Helmet b-2-K/94-P-7	2617	.....	.....	.....	.....	.....
	FPC Chevron et al Helmet b-11-K/94-P-7	2517	1-70	2,346	0.500	191,823	47,956
Pool C	GAOL GERC Helmet c-40-K/94-P-7	2839	3-71	2,349	.....	.....	.....
Pool D	Atkinson et al Helmet d-63-F/94-P-7	3619	3-75	2,332	0.500	3,249	2,000
Pool E	Hamilton et al Helmet b-30-G/94-P-7	3588	12-75	2,329	0.638	37,554	9,389
Field total		.....	.....	.....	.....	.....	59,345
Highway—							
Dunlevy	West Nat et al Highway b-3-I/94-B-16	168	8-72	1,212	0.869	842	Suspended.
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—							
Dunlevy	SOC et al Inga d-55-B/94-A-13	3376	10-73	1,340	0.841	2,071	2,000
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.
Inga Unit #3	West Nat et al Inga d-42-J/94-A-12	2000	3-75	2,100	.....	.....	Observation.
	Cdn-Sup Whitehall Inga b-44-J/94-A-12	2461	3-75	2,124	.....	.....	Observation.
	Francana Cabot Inga b-82-J/94-A-12	2241	3-75	2,047	0.679	38,715	.....
	West Nat et al Inga b-10-A/94-A-13	470	3-75	2,039	0.824	2,262	.....
	Francana et al Inga a-5-B/94-A-13	2320	3-75	2,034	0.851	3,874	.....
	West Nat et al Inga a-22-B/94-A-13	412	11-70	2,264	1.000	3,220	.....
	SOC Cardo Inga b-46-B/94-A-13	3156	9-72	2,135	0.734	3,647	Suspended.
Unit total		.....	.....	.....	.....	.....	15,000[5]
Field total		.....	.....	.....	.....	.....	17,000
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	Pacific Imperial Jedney c-78-H/94-G-1	1129	12-74	1,501	0.726	1,475	Suspended.
	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	8-75	717	0.839	2,792	.....
	Pacific et al Jedney b-68-J/94-G-1	498	6-66	1,358	0.685	.....	Disposal.

[5] Concurrent production scheme.

Table 4-3—Gas-well Test and Allowance Data, December 31, 1975—Continued

Field/Pool/Project	Well Name	Well Authorization No.	Date	Pws (Psia)	"n"	AOFP (MSCF/D)	PRL (MSCF/D)
Jedney—*Continued*							
Baldonnel project—*Continued*	Pacific Imperial Jedney d-77-J/94-G-1	484	5-75	590	0.532	213	.....
	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	5-75	996	0.931	1,416	.....
	Pacific Imperial Jedney d-44-C/94-G-8	1375	11-74	1,211	0.685	3,910	.....
	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	5-75	1,182	0.500	856	.....
	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	5-75	967	0.595	4,604	.....
	Pacific Pan Am Dome Jedney c-8-F/94-G-8	1152	7-72	1,267	0.594	1,197	Suspended.
	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	6-75	870	1.000	2,213	.....
Baldonnel project total		.....	.....	.....	.....	.....	GEP.
Halfway project	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	5-75	725	0.543	816	.....
	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	6-74	737	0.869	3,798	.....
	Pacific Imp Jedney d-99-J/94-G-1	382	5-75	708	0.740	2,748	.....
	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	5-75	698	0.684	1,757	.....
	Pacific Imperial Jedney d-44-C/94-G-8	1375	.....	.....	.....	.....	.....
	Pacific Imperial Jedney d-53-C/94-G-8	820	5-75	621	0.587	1,319	.....
	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	5-75	586	0.500	839	.....
	Pacific et al Jedney c-86-C/94-G-8	778	5-75	805	0.649	361	.....
	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	Suspended.
	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	5-75	629	0.554	851	.....
	Skelly Jedney a-39-F/94-G-8	1334	6-75	723	0.926	1,248	.....

Jedney—*Continued*							
Halfway Project—*Continued*	Pacific et al Jedney b-50-F/94-G-8	1907	.....	.....	.....	.....	.....
Halfway project 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 project	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 project total	.....	.....	.....	.....	.....	.....	GEP.
Halfway project	ARCo Pac Julienne b-39-D/94-G-1	658	8-75	1,552	0.674	1,425	.....
	Sinclair Julienne Ck a-50-D(B13-2)/94-G-1	304	8-75	1,295	0.988	2,315	.....
Halfway project 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	6-75	888	1.000	1,110	2,000
	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
Dunlevy total	.....	.....	.....	.....	.....	.....	4,000
Charlie Lake A pool	Pacific Kobes c-73-I(2)/94-B-8	299	6-75	931	0.500	414	2,000
B pool	Pacific Kobes d-94-I(1)/94-B-8	141	9-74	952	0.824	2,144	2,000
	Pacific Kobes b-35-A(A-1)/94-B-9	177	8-72	1,205	0.564	1,477	2,000
	Pacific Kobes d-57-A/94-B-9	2588	7-70	2,333	.....	.....	Suspended.
C pool	Pacific Kobes a-99-A(B-1)/94-B-9	314	10-75	1,122	0.500	490	2,000
	Pacific Townsend d-21-G(A-2)/94-B-9	251	8-71	1,213	0.864	1,296	Suspended.
Charlie Lake total	.....	.....	.....	.....	.....	.....	8,000
Halfway project	Pacific Kobes d-94-I(1)/94-B-8	141	6-75	1,495	0.627	5,928	GEP.
	Pacific Kobes b-35-A(A-1)/94-B-9	177	9-74	1,545	0.588	4,718	GEP.
Halfway project total	.....	.....	.....	.....	.....	.....	GEP.
Debolt	Pacific Kobes a-99-A(B-1)/94-B-9	314	6-75	1,178	0.869	3,598	2,000
	Pacific Townsend a-20-H(A-1)/94-B-9	164	8-71	2,093	0.700	892	Suspended.
Field total	.....	.....	.....	.....	.....	.....	14,000
Kotcho Lake—							
Slave Point project A pool	Pacific Kotcho a-56-K/94-I-14	3301	2-75	2,499	0.500	13,567	.....
	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	2-75	2,483	0.663	9,267	.....
	Pacific Kotcho b-86-K/94-I-14	2097	2-71	2,478	0.623	96,353	Suspended.
	West Nat Kotcho d-12-C/94-P-3	1147	3-74	2,482	0.605	56,642	Suspended.
	Pacific Kotcho b-44-C/94-P-3	562	3-75	2,462	0.565	13,300	Suspended.
	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	3-75	2,484	0.500	2,546	.....

Table 4-3—Gas-well Test and Allowance Data, December 31, 1975—Continued

Field/Pool/Project	Well Name	Well Authorization No.	Date	Pws (Psia)	"n"	AOFP (MSCF/D)	PRL (MSCF/D)
Kotcho Lake—*Continued*							
Slave Point project A pool—*Continued*	Pacific Kotcho c-31-E/94-P-3	2877	2-74	2,509	0.551	33,457	Suspended.
	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 B pool	West Nat Kotcho b-54-K/94-I-14	879	2-71	2,523	.....	.....	.....
Slave Point project total	.....	.....	.....	.....	.....	.....	GEP.
Kotcho Lake East—							
Bluesky A pool	Cdn Res Quintana E Kotcho b-43-J/94-I-14	3107	.....	.....	.....	.....	.....
B pool	Cdn Res Quintana E Kotcho d-A71-G/94-I-14	3617	3-75	765	1.000	2,770	2,000
C pool	Cdn Res Quintana Pac E Kotcho b-68-H/94-I-14	3411	.....	.....	.....	.....	.....
Slave Point A pool	West Nat E Kotcho Lake d-39-J/94-I-14	532	.....	.....	.....	.....	.....
Slave Point project B pool	Cdn Res Quintana E Kotcho b-43-J/94-I-14	3107	2-75	2,507	0.500	78,208	19,552
Slave Point C pool	Cdn Res Quintana Pac E Kotcho d-71-G/94-I-14	3308	3-73	2,544	0.644	46,359	11,590
	Cdn Res et al E Kotcho b-68-H	3411	1-74	2,529	0.735	65,247	16,312
Slave Point total	.....	.....	.....	.....	.....	.....	47,454
Field total	.....	.....	.....	.....	.....	.....	49,454
LaGarde—							
Dunlevy	Texaco NFA LaGarde 7-21-87-15	145	8-73	1,115	0.859	3,416	Suspended.
Boundary Lake	Texaco NFA LaGarde 10-28-87-15	1194	8-73	1,076	0.964	10,655	Suspended.
Laprise Creek—							
Baldonnel project	Dome Basco Laprise Creek a-81-A/94-G-8	490	9-74	1,001	0.500	3,117	.....
	Dome Provo Laprise Creek d-91-A/94-G-8	653	9-74	935	0.500	1,307	.....
	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	9-74	857	0.500	2,730	.....
	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	9-74	884	0.500	1,248	.....
	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	9-74	1,020	0.645	2,378	.....
	Dome Provo Laprise a-52-H/94-G-8	1445	9-74	926	0.500	2,570	.....
	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	9-74	878	0.578	1,967	.....
	Pacific et al Laprise c-12-I/94-G-8	2984	11-74	991	0.996	1,763	.....
	Pacific et al Laprise d-33-I/94-G-8	2994	11-74	916	0.781	1,745	.....
	Pembina Laprise b-44-I/94-G-8	3506	10-74	1,532	0.743	3,170	.....
	Pembina Laprise d-55-I/94-G-8	3167	11-72	1,520	0.799	4,154	Suspended.

	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	11-74	1,077	0.674	4,036	Suspended.
	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	9-74	1,184	0.667	3,050	Suspended.
	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	Suspended.
	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	Suspended.
	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	Suspended.
	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	9-74	991	0.770	8,241	.....
	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	1341	8-74	1,006	0.767	10,922	.....
	Pacific CIGOL Laprise c-20-L/94-H-5	2945	8-74	1,022	0.927	3,986	.....
Baldonnel total		.....	.....	.....	.....	.....	GEP.
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	3-75	2,572	0.500	5,724	2,000
	Placid Louise c-80-L/94-P-3	1570	3-65	2,315	.....	.....	.....
Milligan Creek—							
Gething A pool	Union HB Milligan d-62-G/94-H-2	1001	11-74	745	.....	.....	2,000[6]
B pool	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.

[6] Lease fuel.

Table 4-3—Gas-well Test and Allowance Data, December 31, 1975—Continued

Field/Pool/Project	Well Name	Well Authorization No.	Date	Pws (Psia)	"n"	AOFP (MSCF/D)	PRL (MSCF/D)
Milligan West—							
Halfway	Placid PCP W Milligan d-28-G/94-H-2	2496	.....	.....	.....	.....	.....
	Union et al W Milligan c-50-G/94-H-2	1266	4-75	1,256	0.717	14,000	3,500
Montney—							
Bluesky	Pac Sunray Montney 16-32-86-19	119	9-58	1,123	1.000	814	Suspended.
Cecil	Pac Sunray Montney 14-36-86-19	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.
	Pac Sunray Montney 14-31-86-19	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	9-75	921	0.637	713	2,000
	Whitehall Nig b-6-B/94-H-4	1613	11-74	1,119	0.841	5,447	2,000
	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
Baldonnel project	Texaco NFA Nig a-69-A/94-H-4	8197	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	11807	7-74	1,025	0.621	2,392	2,000
	Texaco NFA Nig c-36-B/94-H-4	7297	7-75	987	0.572	4,130	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	3837	8-74	1,269	0.500	2,670	Suspended.
	Texaco NFA Nig d-71-B/94-H-4	790	7-75	986	1.000	366	.....
	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	7-75	924	0.591	4,558	.....
	Texaco NFA Nig c-90-B/94-H-4	1161	7-75	1,116	0.594	385	Suspended.
	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	7-75	789	0.564	7,693	.....
	Texaco NFA Nig a-6-G/94-H-4	1740	7-75	797	0.571	5,993	.....
	Texaco NFA Nig a-8-G/94-H-4	967	8-74	822	0.806	19,364	.....
	Texaco NFA Nig Creek a-12-G(6)/94-H-4	131	7-75	726	1.000	5,581	.....
	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	7-75	1,165	0.631	3,501	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	7-75	1,210	1.000	349	Suspended.
Baldonnel project PRL	.....	.....	.....	.....	.....	.....	80,300
Baldonnel total	.....	.....	.....	.....	.....	.....	92,300
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	7-75	1,137	0.583	3,500	2,000
	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	Suspended.
	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.
Pool A total	.....	.....	.....	.....	.....	.....	6,749
Pool B	Woods Wainoco Ashland Oak 6-18-86-17	3363	.....	.....	.....	.....	Gas cap.
Field total	.....	.....	.....	.....	.....	.....	9,272
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	Pacific Imp Parkland 10-28-81-15	1153	9-75	2,482	0.650	3,996	.....
	Pacific Imp Parkland 6-29-81-15	153	9-75	2,321	0.679	11,886	.....
Wabamun project total	.....	.....	.....	.....	.....	.....	20,000
Peejay—							
Halfway	Union HB Spruce d-74-E/94-A-16	2664	2-75	1,494	0.896	26,145	6,536
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	2-75	2,753	0.652	16,504	4,181
	West Nat Petitot River b-1-D/94-P-13	533	3-75	2,753	0.677	9,923	2,511
Slave Point project	Pacific Petitot d-14-D/94-P-13	3427	3-75	2,759	0.623	11,620	.....
	West Nat Petitot River d-24-D/94-P-13	403	3-75	2,754	0.757	46,274	.....
Slave Point project total	.....	.....	.....	.....	.....	.....	7,323
Slave Point total	.....	.....	.....	.....	.....	.....	14,015
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	Suspended.

[7] Restricted to individual well PRL.

Table 4-3—Gas-well Test and Allowance Data, December 31, 1975—Continued

Field/Pool/Project	Well Name	Well Authorization No.	Date	Pws (Psia)	"n"	AOFP (MSCF/D)	PRL (MSCF/D)
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	7-75	771	0.509	38	Suspended.
Dunlevy	IOE Fina Rigel 7-35-87-18	2707	7-75	707	0.500	7,766	Suspended.
	Coseka Pem Rigel 10-6-88-18	3374	4-75	843	1.000	295	Suspended.
	IOE et al Rigel d-39-J/94-A-10	2686	8-74	819	0.826	5,951	Suspended.
	Cabot et al Rigel a-87-K/94-A-10	2573	.....	.....	.....	.....	.....
	CZAR et al Rigel b-88-K/94-A-10	3561	8-75	1,158	0.721	10,803	2,701
	CZAR et al Rigel a-9-C/94-A-15	3580	.....	.....	.....	.....	.....
Dunlevy project	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	7-75	767	.....	.....	.....
	Monsanto IOE Fina Rigel 11-26-87-17	1486	4-72	958	1.000	2,270	Suspended.
	Wintershall Rigel 10-34-87-17	1365	7-75	763	0.560	2,768	.....
	Pacific Rigel 6-35-87-17	1293	11-73	843	1.000	2,689	Suspended.
	Monsanto Rigel 6-36-87-17	1354	7-75	758	0.565	7,730	.....
	Whitehall Rigel 11-18-88-16	1234	.....	.....	.....	.....	.....
	IOE Fina Rigel 7-30-88-16	2258	.....	.....	.....	.....	.....
	Imp Fina Rigel 8-1-88-17	1312	11-74	801	.....	.....	.....
	Imp Fina Rigel 6-3-88-17	1187	7-75	649	0.553	6,900	.....
	Imp Fina Rigel 6-8-88-17	1208	7-75	1,055	0.675	2,561	Suspended.
	Imp Fina Rigel 6-10-88-17	1090	7-75	657	0.582	6,318	.....
	Whitehall Rigel 6-14-88-17	1149	.....	.....	.....	.....	.....
	Whitehall Rigel 6-15-88-17	1148	7-75	653	0.720	15,351	.....
	Imp Fina Rigel 6-16-88-17	1168	7-75	1,250	.....	.....	.....
	Imp et al Rigel 7-19-88-17	1107	7-75	643	0.814	11,755	.....
	IOE Fina Rigel 10-25-88-17	2127	11-74	825	0.500	2,859	Suspended.
	Imp Fina Rigel 4-27-88-17	130	7-75	661	0.634	3,893	.....
	Imp Fina Rigel 6-28-88-17	1385	7-75	1,290	.....	.....	.....
	Imp et al Rigel 6-30-88-17	1032	7-75	652	0.716	12,544	.....
	IOE Fina Rigel 7-1-88-18	2974	7-75	731	0.833	1,406	.....
	IOE Fina Rigel 11-2-88-18	2597	7-75	693	0.837	12,829	.....
	Imp Fina Rigel 11-3-88-18	1593	11-74	781	.....	.....	.....
	Woods Rigel 10-8-88-18	2795	7-75	700	0.626	3,460	.....
	IOE Fina Rigel 11-11-88-18	1494	7-75	680	0.671	9,249	.....
	Imp et al Rigel 7-13-88-18	1978	7-75	656	0.669	9,399	.....
	Imp Fina Rigel 10-14-88-18	1465	7-75	691	0.663	4,204	.....
	Pacific Rigel 11-15-88-18	2572	8-75	736	0.837	2,056	.....
	Sierra Rigel 10-17-88-18	2725	9-71	992	0.700	1,198	Suspended.

	Tenn Rigel 6-18-88-18	2987	7-75	1,221	.....	.....	Suspended.
	Richfield et al Rigel 10-19-88-18	1381	.....	.....	.....	.....	.....
	Imp et al Rigel 6-21-88-18	1118	7-75	710	0.952	3,784	.....
	Imp et al Rigel 7-23-88-18	1163	7-75	704	0.693	1,210	.....
	Sun Rigel 10-24-88-18	1324	7-75	664	0.675	3,606	.....
	Imp et al Rigel 6-27-88-18	828	7-75	668	0.699	3,627	.....
	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	.....
	[8] Imp et al Rigel 10-35-88-18	2593	7-75	751	0.658	3,287	.....
	Pembina Rigel 10-24-88-19	3160	4-75	1,064	1.000	1,497	Abandoned.
	[9] ARCo Rigel a-27-I/94-A-10	1620	7-75	744	0.777	6,973	.....
	ARCo Rigel d-33-I/94-A-10	1763	7-75	886	.....	.....	.....
	IOE Fina Rigel d-57-I/94-A-10	1537	7-75	762	0.676	2,607	.....
	Imp IOE Fina Rigel a-21-J/94-A-10	2054	7-75	595	0.760	11,343	.....
	IOE et al Rigel c-56-J/94-A-10	2537	7-75	721	0.594	6,274	.....
	IOE Fina Rigel c-60-J/94-A-10	2400	7-75	731	0.622	8,570	.....
	IOE Fina Rigel a-89-J/94-A-10	2354	7-75	841	0.788	1,079	Suspended.
	Imp et al Rigel b-22-K/94-A-10	1003	.....	.....	.....	.....	.....
	Texaco NFA Rigel a-28-K/94-A-10	1370	8-75	685	0.660	423	.....
	IOE Fina Rigel d-71-K/94-A-10	2726	7-75	728	0.734	8,481	.....
Lower Dunlevy	Pembina Rigel 10-24-88-19	3160	6-75	1,204	0.721	7,884	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	.....	Suspended.
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	47,000
	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	0.896	373,936	96,476
	Socony Mobil Sierra c-91-D/94-I-14	1659	4-74	3,271	0.507	67,730	17,407
Pine Point total		.....	.....	.....	.....	.....	160,883
Silverberry—							
Coplin	Union Silverberry 6-16-88-20	3076	12-74	954	0.961	39,989	17,787
Silver—							
Bluesky	GPD et al Silver 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	.....	.....	.....	.....	.....
	Texaco Silver c-94-K/94-H-6	3567	.....	.....	.....	.....	.....
	Pan Am Dome Silver d-81-L/94-H-6	2406	.....	.....	.....	.....	.....
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	11-74	1,150	0.843	17,596	5,208

[8] Bluesky and Dunlevy without segregation.
[9] Bluesky and Dunlevy without segregation. Estimate 25 per cent of production from Bluesky.

Table 4-3—Gas-well Test and Allowance Data, December 31, 1975—Continued

Field/Pool/Project	Well Name	Well Authorization No.	Date	Pws (Psia)	"n"	AOFP (MSCF/D)	PRL (MSCF/D)
Siphon—*Continued*							
Dunlevy—*Continued*	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		.....	.....	.....	.....	.....	22,985
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	2,000
	Dome Siphon 10-12-87-16	2446	.....	.....	.....	.....	.....
Siphon total		.....	.....	.....	.....	.....	6,000
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 7-33-86-16	2972	6-74	1,242	0.977	4,457	2,000
	Kissinger Vaughey Siphon 6-2-87-16	2952	6-74	1,290	0.988	1,361	2,000
Halfway total		.....	.....	.....	.....	.....	15,116
Field total		.....	.....	.....	.....	.....	44,101
Siphon East—							
Bluesky	Sundale et al E Siphon 11-15-86-15	3630	.....	.....	.....	.....	.....
	Sundale et al E Siphon 11-27-86-15	3578	.....	.....	.....	.....	.....
	Sundale et al E Siphon 10-31-86-15	3609	.....	.....	.....	.....	.....
	Sundale et al E Siphon 10-32-86-15	3550	4-75	1,144	0.683	6,824	2,000
	Sundale et al E Siphon 10-33-86-15	3449	4-74	1,159	0.819	3,469	2,000
	Woods E Siphon 6-3-87-15	3528	1-75	1,162	0.663	4,501	2,000
	Woods E Siphon 6-4-87-15	1865	.....	.....	.....	.....	2,000
Bluesky total		.....	.....	.....	.....	.....	8,000
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	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	.....	.....	.....	.....	Suspended.
	Pacific et al Stoddart 10-35-85-19	2182	7-75	1,334	0.718	15,382	5,768
	Pacific Stoddart 11-2-86-19	2155	7-75	1,268	0.599	14,015	5,354

	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	7-75	1,472	0.880	1,223	2,000
	Jeff Lake Altair Stoddart 6-11-86-19	1841	8-75	1,288	0.673	24,280	10,500
	Pacific et al Stoddart 11-16-86-19	1473	7-75	1,109	0.630	2,100	2,000
	Whitehall Stoddart 6-17-86-19	1770	11-74	1,119	1.000	2,150	2,000
	Pacific et al Stoddart 11-18-86-19	2562	6-75	937	0.729	8,857	4,535
	Pacific Stoddart 6-19-86-19	2575	7-75	926	0.654	7,000	3,353
B pool	Pacific et al Stoddart 10-1-86-20	438	.....	.....	.....	.....	Suspended.
	Pacific Stoddart 2-13-86-20 (90)	262	6-75	921	0.756	14,550	7,144
	Pacific Stoddart 4-24-86-20 (85)	244	7-75	916	0.927	12,267	6,833
Belloy total		.....	.....	.....	.....	.....	58,763
Stoddart West—							
Gething	Pacific W Stoddart 6-17-86-20	3564	.....	.....	.....	.....	.....
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
	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	6-75	1,803	0.750	5,456	2,000
	Pacific et al W Stoddart 11-30-86-20	2199	6-75	1,552	0.692	10,378	3,539
	Pacific et al W Stoddart 7-5-87-20	2338	6-75	1,752	1.000	4,332	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
B pool	Pacific W Stoddart 11-10-86-20	1190	5-74	1,626	0.625	7,982	Suspended.
Belloy total		.....	.....	.....	.....	.....	14,375
Sunrise—							
Paddy	Horizon Sunrise 11-6-79-16	2560	.....	.....	.....	.....	.....
	Pacific Sunrise 10-7-79-16(3)	15	5-71	734	.....	.....	.....
Upper Cadotte	Great Northern Sunrise A11-6-79-16	2878	3-71	632	0.724	707	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 A11-6-79-16	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	2-75	564	0.951	3,047	Suspended.
	Amoco et al Thetlaandoa c-34-L/94-P-6	3322	2-75	579	0.641	7,974	Suspended.
Town—							
Halfway	Canhunter Town c-69-J/94-B-16	315	12-75	1,712	0.500	3,870	2,000
Belloy	Canhunter Town c-69-J/94-B-16	315	2-75	2,175	.....	.....	Abandoned.
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.

Table 4-3—Gas-well Test and Allowance Data, December 31, 1975—Continued

Field/Pool/Project	Well Name	Well Authorization No.	Date	Pws (Psia)	"n"	AOFP (MSCF/D)	PRL (MSCF/D)
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	Suspended.
Halfway	Champlin et al Two Rivers 6-9-83-16	2139	6-74	1,550	0.855	29,520	10,246
Field total	.....	.....	.....	.....	.....	.....	12,246
Velma—							
Gething	Dome CZAR et al Velma a-61-A/94-H-7	3600	.....	.....	.....	.....	.....
	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	.....	.....	.....	.....	.....
	Dome CZAR et al Velma b-10-E/94-H-8	3602	.....	.....	.....	.....	.....
	HB et al Velma b-66-D/94-H-8	3113	1-74	968	1.000	1,321	2,000
Gething total	.....	.....	.....	.....	.....	.....	8,188
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
Field total	.....	.....	.....	.....	.....	.....	10,188
Weasel—							
Baldonnel	Sinclair Pacific Weasel d-93-J/94-A-15	1790	12-65	1,113	0.675	6,050	2,000
Halfway E pool	Bracell et al Weasel d-18-B/94-H-2	2789	12-70	1,278	.....	.....	.....
F pool	PAPT et al Weasel d-29-A/94-H-2	3225	7-75	1,194	0.620	6,405	360
	Pacific Sinclair Weasel d-30-A/94-H-2	1631	6-74	1,172	.....	.....	.....
	PAPT et al Weasel d-39-A/94-H-2	3437	7-75	1,226	1.000	2,268	.....
	Pac Sinclair Weasel d-50-A/94-H-2	709	.....	.....	.....	.....	.....
G pool	Tenn Ashland Weasel d-27-B/94-H-2	1703	7-75	1,225	0.754	1,040	Suspended.
Weasel West—							
Bluesky	Tenn Monsanto W Weasel b-81-C/94-H-2	3349	7-75	1,068	.....	.....	2,000
Halfway	Tenn Monsanto W Weasel b-81-C/94-H-2	3349	.....	.....	.....	.....	.....
Wilder—							
Halfway project	Wainoco Woods Wilder 10-19-83-19	2793	8-74	1,786	0.730	27,252	.....
	Wainoco Woods Wilder 7-30-83-19	2773	10-72	1,786	0.866	17,266	.....
Halfway project PRL	.....	.....	.....	.....	.....	.....	12,500
Belloy project	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	7-75	500	0.510	11,778	6,087

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	1-75	2,320	0.562	8,419	2,391
	BVX Mesa Redwater Yoyo b-86-H/94-I-13	2907	3-75	2,389	0.588	20,845	5,947
	Pacific Placid Yoyo d-95-H/94-I-13	1634	.....	.....	.....	.....	Disposal.
	Pacific Yoyo d-12-I/94-I-13	2602	3-75	2,361	0.652	157,517	45,365
	Placid Frontier Yoyo b-24-I/94-I-13	1895	3-67	2,886	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	2-75	2,418	0.640	74,947	18,737
	Quintana et al Yoyo d-77-E/94-I-14	3487	1-75	2,405	0.797	3,631	2,000
	West Nat Yoyo b-98-E/94-I-14	1405	3-75	2,445	0.533	96,406	26,512
	Pacific Yoyo a-2-L/94-I-14	2271	3-75	2,434	0.684	74,092	21,004
	Pacific Yoyo d-7-L/94-I-14	2035	3-75	2,389	0.600	95,394	26,997
	Placid Frontier Yoyo b-10-L/94-I-14	1569	3-75	2,362	0.643	47,752	13,705
	Pacific Yoyo d-17-L/94-I-14	3424	3-75	2,363	0.593	72,134	20,486
	Frontier Yoyo c-18-L/94-I-14	1431	3-75	2,360	0.596	200,650	57,185
	West Nat et al Yoyo b-24-L/94-I-14	1313	3-75	2,369	0.524	89,648	25,012
	Tenn Altair Yoyo a-47-L/94-I-14	1831	4-75	2,349	0.693	176,521	51,209
	Uno-Tex Hamilton Yoyo a-49-L/94-I-14	2068	3-74	2,479	0.662	125,784	Suspended.
Pine Point total		.....	.....	.....	.....	.....	316,550
Other areas—							
Cadotte	Westcoast Pouce Coupe 8-18-80-13(6)	.....	7-60	595	.....	.....	.....
	Westcoast Pouce Coupe 6-30-80-13(1)	.....	.....	.....	.....	.....	.....
	Home et al Farmington 11-10-80-15	3468	.....	.....	.....	.....	.....
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.
	FPC 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	.....	.....	.....	.....	.....
	Texaco NFA Judy c-53-D/94-P-6	717	.....	.....	.....	.....	.....
Gething	Texaco NFA East Osborn a-33-J(7)/94-A-9	322	.....	.....	.....	.....	.....
	Texcan N Nancy d-46-I/94-A-15	1905	3-74	1,071	.....	.....	.....
	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	.....	.....	.....	.....	.....
	Dome Nettle b-44-A/94-H-7	3126	.....	.....	.....	.....	.....
Dunlevy	Pacific Pingel Creek 5-26-81-18	66	.....	.....	.....	.....	.....
	Quasar HB Phillips Wolverine d-89-K/93-I-15	3436	10-74	4,039	.....	.....	.....
	KM AEG Mast d-80-A/93-P-3	3319	.....	.....	.....	.....	.....
	Texaco NFA E Osborn a-45-J/94-A-9	1257	.....	.....	.....	.....	.....
	Fina Bearberry d-95-L/94-A-11	3240	3-73	1,329	0.823	4,114	2,000

Table 4-3—Gas-well Test and Allowance Data, December 31, 1975—Continued

Field/Pool/Project	Well Name	Well Authorization No.	Date	Pws (Psia)	"n"	AOFP (MSCF/D)	PRL (MSCF/D)
Other areas—*Continued*							
Dunlevy—*Continued*	SOC et al W Jeans c-78-B/94-A-13	3227	12-74	1,359	0.841	2,825	Suspended.
	SOC et al W Jeans d-11-F/94-A-13	3392	11-74	1,332	.....	.....	.....
	SOC et al W Jeans b-10-G/94-A-13	3535	.....	.....	.....	.....	2,000
	CZAR et al Buick d-53-D/94-A-15	3641	.....	.....	.....	.....	.....
	SOC et al Graham b-21-D/94-B-9	3158	.....	.....	.....	.....	.....
	HB BA Union Lime c-80-C/94-H-1	122	3-75	1,148	1.000	8,974	Suspended.
	Union ROC Firebird d-89-D/94-H-2	707	.....	.....	.....	.....	.....
Dunlevy total		.....	.....	.....	.....	.....	4,000
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	.....	.....	Abandoned.
	Sinclair Bear Ck 11-18-84-20(B2-3)	243	.....	.....	.....	.....	.....
	Home et al Attachie 7-20-84-22	2961	.....	.....	.....	.....	.....
	White Rose Sec Mcntney 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
	Quasar Union Ojay c-88-F/93-I-9	3511	10-74	4,678	0.941	6,797	2,000
	TGS Falls c-32-F/93-O-9	2230	.....	.....	.....	.....	.....
	Hunt Sands Sun Falls c-18-G/93-O-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	3-74	1,244	.....	.....	.....
	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	.....	.....	.....	.....	.....
	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
Inga	Westcoast et al Goose 6-5-85-21	2989	11-72	1,857	0.814	6,551	Suspended.
Charlie Lake	CanDel et al LL&E Trutch b-2-K/94-G-10	3345	.....	.....	.....	.....	.....
	Richfield-Prespatou Crk 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	.....	.....	.....
	Texaco NFA Redeye d-69-I/94-H-6	1549	.....	.....	.....	.....	.....
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	HB et al Moberly 16-20-79-25	3174	.....	.....	.....	.....	.....
	Wainoco Ft St John 11-12-84-19	3010	6-75	1,822	1.000	15,313	3,828
	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	9-74	8,748	.....	.....	.....
	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.
	ARCo et al E Bulrush d-93-F/94-A-16	2603	.....	.....	.....	.....	.....
	LH Aikman b-22-C/94-B-9	3390	8-74	3,242	0.500	900	Suspended.
	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	.....	.....	.....
	HB Robertson d-91-E/94-B-15	3420	4-74	1,719	.....	.....	Suspended.
	Pacific S Julienne b-70-K/94-B-16	2779	.....	.....	.....	.....	.....
	Texaco Tepee d-99-G/94-G-8	1432	.....	.....	.....	.....	.....
	Mesa et al Prophet 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	.....	.....	.....	.....	.....
	CIGOL Ashland Beatton d-99-G/94-H-2	3112	.....	.....	.....	.....	.....
	Union HB Bluebell d-22-H/94-H-2	2296	12-75	1,174	.....	.....	.....
	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	.....	.....	.....	.....	.....

Table 4-3—Gas-well Test and Allowance Data, December 31, 1975—Continued

Field/Pool/Project	Well Name	Well Authorization No.	Date	Pws (Psia)	"n"	AOFP (MSCF/D)	PRL (MSCF/D)
Other areas—*Continued*							
Halfway—*Continued*	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	------	------	------	------	------
Halfway total			------	------	------	------	3,828
Montney	Elf et al Horseshoe c-45-B/94-B-10	3471	1-75	3,113	0.607	17,523	Suspended.
Permo-Carboniferous	Mesa et al Moose Lick b-8-K/94-G-2	2185	1-68	2,784	0.625	15,300	Suspended.
Belloy	FPC Kilkerran 12-31-78-14	154	8-66	3,473	1.000	1,450	Abandoned.
	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	------	------	------	------	------
	BA HB W Pocketknife d-33-I/94-G-6	1393	8-64	2,054	0.789	121,083	Suspended.
Belloy total			------	------	------	------	4,018
Mattson	Aquit et al Tattoo b-96-E/94-O-10	3425	2-74	511	------	------	------
	Texex Tattoo b-44-L/94-O-10	3432	2-74	527	0.658	2,361	Suspended.
	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	------	------	------	------	------
Mattson total			------	------	------	------	10,182
Mississippian	AmMin HBOG Cli d-55-L/94-P-11	3461	3-74	511	1.000	890	2,000
	Amoco et al Thetlaandoa c-89-G/94-P-6	3413	1-75	598	------	------	Abandoned.
Upper Kiskatinaw	Sinclair et al Doe 6-16-81-14 (B6-1)	230	7-72	3,016	0.500	2,706	Suspended.
	Home et al Attachie 7-20-84-22	2961	3-73	2,872	1.000	11,550	2,888
Lower Kiskatinaw	Home et al Attachie 7-20-84-22	2961	------	------	------	------	------
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	3-74	2,916	------	------	Suspended.
	LH Sikanni b-77-L/94-G-2	3391	------	------	------	------	------
	ARCo Pacific FPC Grassy a-A75-D/94-G-7	2687	6-70	2,132	1.000	181,349	Suspended.
	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.
	BP et al Trail d-7-J/94-O-9	3460	.....	.....	.....	.....	.....
	Aquit et al Tattoo b-96-E/94-O-10	3425	.....	.....	.....	.....	.....
	Pacific North Kotcho c-93-C/94-P-3	579	.....	.....	.....	.....	.....
	Midwest et al Thetlaandoa c-12-E/94-P-6	3502	8-74	587	.....	.....	.....
	AmMin Thetlaandoa d-37-C/94-P-11	3416	2-74	570	0.895	9,229	2,307
	AmMin HBOG Etset c-58-F/94-P-11	3417	.....	.....	.....	.....	.....
	Midwest et al Thetlaandoa a-58-F/94-P-6	3481	8-74	577	0.643	1,799	2,000
Debolt total		.....	.....	.....	.....	.....	6,307
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-13	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	12,700	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 Kotcho c-4-E/94-I-15	3498	.....	.....	.....	.....	.....
	Cdn Res Quintana Adsett a-36-G/94-J-2	3032	8-72	3,542	0.566	7,409	2,000
	Cdn Res Quintana Adsett b-84-G/94-J-2	3479	1-75	3,529	0.500	2,691	Suspended.
	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	.....	.....	.....	.....	.....
	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	.....	.....	.....	.....	.....
	FPC Chevron Peggo b-53-I/94-P-7	2453	2-70	2,322	0.724	751	2,000
	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	.....	.....	.....	.....	.....
	CanDel Barnwell HB Hoss b-82-G/94-P-14	2234	.....	.....	.....	.....	.....
Slave Point total		.....	.....	.....	.....	.....	10,636
Sulphur Point	Socony Mobil Swat b-59-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	.....	.....	.....	.....	.....
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	.....	.....	Suspended.
	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	.....	.....	.....	.....	Suspended.
	Chevron N Helmet a-54-B/94-P-10	2108	2-75	2,777	0.579	69,471	17,368
Other areas total		.....	.....	.....	.....	.....	75,800

10 Not available.

Table 4-4—Hydrocarbon and By-products Reserves, December 31, 1975

	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	1,240,199	81,467	14,875.8	1,489.0	(1)	(1)	(1)	(1)
			Established					
Ultimate recovery, current estimate	367,654.3	148,955.5	12,325.9		10,751.2	11,226.0	80,225.3	5,835.4
Cumulative production to December 31, 1974	248,345.9	.....	3,933.7		3,477.3	3,664.7	34,933.1	1,345.5
Reserves estimated 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
Drilling in 1975	+77.3	.....	+139.3		+118.0	+123.7	+739.5	+171.1
Revisions in 1975	+439.0	−1,111.9	−1,145.7		−991.8	−966.3	+3.8	+366.9
Production in 1975	−14,276.5	.....	−399.2		−346.6[2]	−359.0[2]	−2,283.6[3]	−129.4[3]
Reserves at December 31, 1975	105,031.9	148,955.5	7,993.0		6,927.3	7,202.3	43,008.6	4,360.5
	253,987.4							

NOTES—

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

BSCF=Billions of standard cubic feet at 14.65 psia and 60°F.

MLT=Thousands of 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 515.6 MSTB, 669.4 MSTB, 1165.3 MSTB, and 59.9 MLT respectively. In addition, 101.2 MSTB of pentanes plus were removed at the wellhead for a total of 2451.5 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.

Table 4-5—Wells Drilled and Drilling, 1975

Well Authorization No.	Well Name	Date Spudded	Date Released	Total Depth (Ft.)	Status at December 31, 1975
3575	ATAPCO PCP Evie d-86-F	2-12-74	20-1-75	8,146	Abandoned—dry.
3613	ATAPCO PCP Klua d-97-A	24-2-75	5-3-75	2,072	Abandoned—dry.
3614	ATAPCO HBOG Klua a-47-H	8-3-75	14-3-75	2,050	Abandoned—dry.
3470	ATAPCO et al Klua d-35-G re-entry	2-2-75	21-2-75	2,027	Water disposal and abandoned.
3625	AmMin Boundary 11-32-84-14	22-7-75	4-8-75	4,455	Boundary Lake gas.
3596	Amoco PCP Thetlaandoa a-89-B	15-1-75	27-1-75	2,308	Abandoned—dry.
3635	Ashland Numac Buick b-26-I	16-10-75	25-10-75	3,645	Dunlevy oil.
3616	Atkinson et al Helmet a-67-K	19-2-75	13-3-75	5,907	Slave Point gas.
3587	Atkinson et al Helmet c-73-F	14-1-75	24-2-75	6,112	Slave Point gas.
3619	Atkinson et al Helmet d-63-F	22-2-75	20-3-75	6,133	Slave Point gas.
3620	Atkinson et al Helmet d-96-F	26-2-75	22-3-75	6,224	Disposal well.
3682	BP et al Beatton d-22-K	26-12-75	.....	.....	Drilling.
3440	BP et al Bullmoose d-77-E	12-3-74	11-1-75	11,160	Baldonnel gas.
3611	BP E Sukunka d-37-A	29-3-75	8-9-75	11,656	Baldonnel gas.
3566	Ballinderry Frio El Can Mars d-11-C	13-12-74	1-1-75	4,535	Abandoned—dry.
3668	Baysel Weasel d-91-J	14-12-75	25-12-75	3,750	Halfway gas.
3662	CZAR et al Buick c-32-D	1-12-75	10-12-75	3,700	Dunlevy gas.
3641	CZAR et al Buick d-53-D	27-10-75	5-11-75	3,663	Dunlevy gas.
3580	CZAR et al Rigel a-9-C	30-12-74	7-1-75	3,535	Dunlevy gas.
3597	CZAR et al Rigel c-18-C	14-1-75	28-1-75	4,200	Abandoned—dry.
3612	Cdn Res et al Adsett d-97-G	14-2-75	16-4-75	8,500	Disposal well.
3608	Cdn Res Kotcho d-77-J	1-2-75	7-2-75	2,190	Abandoned—dry.
3617	Cdn Res Quintana E Kotcho d-A71-G	9-2-75	7-3-75	2,450	Bluesky gas.
3665	Cdn Res Union et al E Kotcho d-7-J	15-12-75	.....	.....	Drilling.
3666	Cdn Res et al E Kotcho a-42-J	10-12-75	.....	.....	Drilling.
3621	Cdn-Sup Beavertail b-62-C	24-2-75	4-3-75	3,435	Abandoned—dry.
3589	Cdn-Sup Gopher 16-18-85-16	28-12-74	11-1-75	4,510	Abandoned—dry.
3652	Chevron W Clarke d-99-F	14-12-75	.....	.....	Drilling.
3653	Chevron SOBC Helmet b-15-G	19-12-75	.....	.....	Drilling.
3642	Coseka Union E Buick b-8-K	5-11-75	13-11-75	3,900	Abandoned—dry.
3628	Coseka et al Gundy d-55-A	25-9-75	6-10-75	4,195	Baldonnel gas.
3593	Coseka et al Gundy b-97-A	27-8-75	8-9-75	4,645	Baldonnel gas.
3603	Coseka et al Gundy d-19-H	9-9-75	22-9-75	4,916	Abandoned—dry.
3591	Coseka et al Halfway 10-13-86-25	31-12-74	17-1-75	4,200	Abandoned—dry.
3640	Decalta Fina Chowade d-8-A	2-12-75	.....	.....	Drilling.
3599	Dome HBOG Antelope b-22-L	14-2-75	22-2-75	3,590	Abandoned—dry.
3598	Dome CZAR et al Dahl a-83-H	16-1-75	24-1-75	4,002	Abandoned—dry.
3633	Dome Laprise a-42-H	30-12-75	.....	.....	Drilling.
3600	Dome CZAR et al Nettle a-61-A	3-2-75	11-2-75	3,730	Gething gas.
3636	Dome Amoco Sikanni b-22-B	8-11-75	1-12-75	4,380	Abandoned—dry.
3648	Dome Amoco Sikanni c-54-B	2-12-75	24-12-75	4,693	Gething gas.

Table 4-5—Wells Drilled and Drilling, 1975—Continued

Well Authorization No.	Well Name	Date Spudded	Date Rig Released	Total Depth (Ft.)	Status at December 31, 1975
3602	Dome CZAR et al Velma b-10-E	25-1-75	1-2-75	3,750	Gething gas.
3663	Elf et al Boudreau 10-3-84-21	8-12-75	.....	.....	Drilling.
3542	Elf et al Boudreau 4-34-83-21	12-11-74	14-2-75	11,856	Halfway gas.
3590	Elf Cli d-33-L	3-1-75	15-1-75	1,650	Abandoned—dry.
3569	Frio Ballinderry Caribou a-30-G	4-12-74	14-1-75	7,285	Debolt gas.
3582	Frio Quintana Horserange a-32-D	8-1-75	30-1-75	5,120	Abandoned—dry.
3626	GAO W Siphon 13-33-86-17	2-8-75	16-8-75	4,560	Abandoned—dry.
3606	HB Velma d-95-C	29-1-75	6-2-75	3,510	Abandoned—dry.
3607	HB Dome Velma a-27-D	9-2-75	17-2-75	3,650	Abandoned—dry.
3588	Hamilton et al Helmet b-30-G	8-1-75	6-2-75	6,159	Slave Point gas.
3646	IOE et al Rigel c-94-K	27-11-75	8-12-75	3,411	Abandoned—dry.
3647	Imp Laprise c-38-I	12-12-75	.....	.....	Drilling.
3649	Imp et al Mica 11-34-81-14	12-12-75	.....	.....	Drilling.
3556	LH ARCo Sikanni d-11-A	1-12-74	28-2-75	6,298	Abandoned—dry.
3592	Lamar Hunt Kimea d-17-F	19-1-75	24-2-75	6,950	Abandoned—dry.
3555	Lamar Hunt E Nig c-74-L	7-11-74	14-1-75	11,734	Debolt gas.
3536	Mesa et al Pink d-63-D	18-8-74	1-2-75	9,000	Abandoned—dry.
3622	Pacific ARCo Beavertail a-1-F	6-3-75	19-3-75	4,075	Abandoned—dry.
3639	Pacific WP W Buick a-41-E	31-10-75	14-11-75	5,043	Abandoned—dry.
3638	Pacific WP N Buick d-75-F	25-10-75	5-11-75	4,095	Abandoned—dry.
3661	Pacific WP Charlie 11-8-84-18	9-12-75	30-12-75	6,230	Finished drilling.
3618	Pacific Melanie d-77-K	24-2-75	8-3-75	4,060	Abandoned—dry.
3673	Pacific Murdale 10-34-87-20	22-12-75	.....	.....	Drilling.
3634	Pacific Red Creek 10-33-85-21	18-10-75	21-11-75	6,519	North Pine gas.
3623	Pacific et al Wildmint d-96-I	10-3-75	21-3-75	3,786	Abandoned—dry.
3610	Pacific Yoyo d-13-L	11-2-75	2-4-75	7,160	Bluesky gas.
3650	Pacific Yoyo d-A13-L	27-11-75	.....	.....	Drilling.
3660	Pacific Yoyo c-36-I	8-12-75	.....	.....	Drilling.
3629	Pembina Rigel 10-13-88-19	2-10-75	10-10-75	3,785	Abandoned—dry.
3579	Penzl Mesa Jackfish a-78-K	20-12-74	23-1-75	7,405	Abandoned—dry.
3551	Phillips BP Mesa Tenaka c-20-K	6-1-75	12-3-75	8,600	Slave Point gas.
3522	Quasar et al Bullmoose a-86-K	31-3-74	4-1-75	13,135	Abandoned—dry.
3573	Quasar Fearless b-77-A	5-2-75	13-10-75	13,219	Halfway gas.
3586	Quasar Union Onion c-69-H	8-12-75	.....	.....	Drilling.
3583	Quasar et al Tooga c-58-C	18-12-74	3-1-75	2,310	Abandoned—dry.
3637	Quintana HBOG Roger a-30-A	9-12-75	.....	.....	Drilling.
3595	Quintana et al Tooga b-62-B	12-1-75	20-1-75	2,315	Abandoned—dry.
3584	Quintana Tooga b-68-E	22-1-75	29-1-75	2,234	Abandoned—dry.
3645	Scurry CanPlac Cecil 12-24-84-18	20-11-75	3-12-75	4,570	Abandoned—dry.
3578	Sundale et al E Siphon 11-27-86-15	13-12-74	3-1-75	3,850	Bluesky gas.
3576	Sundale et al Siphon 10-16-86-16	6-1-75	21-1-75	4,550	Siphon gas.

3630	Sundale et al E Siphon 11-15-86-15	20-10-75	9-11-75	4,820	Bluesky gas.
3609	Sundale et al E Siphon 10-31-86-15	3-3-75	11-3-75	3,719	Bluesky gas.
3571	TPOC Clark Beavercrow b-67-I	2-1-75	16-3-75	4,600	Abandoned—dry.
3563	Texex Texcan Beavertail c-94-C	6-3-75	13-3-75	3,393	Gething gas.
3546	Texex Flatbed a-21-F	12-11-74	28-5-75	10,814	Abandoned—dry.
3567	Texex Silver c-94-K	26-1-75	8-2-75	4,007	Bluesky gas.
3644	Texex et al Tsea b-48-K	20-12-75	.....	.....	Drilling.
3570	Uno-Tex et al Chipesia d-79-D	11-12-74	25-2-75	10,214	Abandoned—dry.
3594	Wainoco Gulf Hornet d-85-J	16-1-75	21-3-75	8,742	Abandoned—dry.
3624	West Central et al Buick 10-28-88-19	3-7-75	10-7-75	3,844	Dunlevy oil.
3670	Westcoast DiaSham Kyklo a-34-F	18-12-75	.....	.....	Drilling.
3657	Westcoast Numac Silver c-16-C	14-12-75	.....	.....	Drilling.
3585	Westcoast Homestead Umback d-47-F	11-1-75	27-1-75	4,320	Abandoned—dry.
3615	Wincan et al Dahl a-69-I	25-2-75	4-3-75	3,940	Bluesky gas.
3574	Woods LaGarde 11-1-87-15	26-12-74	10-1-75	4,610	Abandoned—dry.
3627	Wood Anadarko W Siphon 11-26-86-17	7-8-75	17-8-75	4,540	Abandoned—dry.

Table 4-6—Oilfields and Gasfields Designated, December 31, 1975

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
Aitken Creek	Feb. 15, 1960	Jan. 1, 1961	N.T.S. 94-A-13	3	10	Pacific Airport 9-32-83-17 (97), gas	5
		Oct. 1, 1963		3	—	Union Aitken Creek b-42-L, oil	3
		Apr. 1, 1971				Union HB Aitken d-57-L, gas	3
Balsam	Dec. 31, 1971	Mar. 31, 1972	N.T.S. 94-H-2	2, 9	3	Union HB Balsam d-77-H, gas	9
						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
Beatton River West	Aug. 7, 1959	Jan. 1, 1962	N.T.S. 94-H-2	2	12	Triad West Beatton River d-39-K, oil	2
		Oct. 1, 1964					
		Apr. 1, 1969					
		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	Mar. 31, 1975	N.T.S. 94-A-15	3, 9	6	Pacific Sinclair Beavertail d-71-C, gas	3, 9
Beg	July 1, 1961	Jan. 1, 1962	N.T.S. 94-B-16, 94-G-1 94-G-8	5, 9	30	Pacific et al Beg b-17-K, gas	5
		Apr. 1, 1962					
		July 1, 1962				Pacific et al Beg d-10-G, gas	9
		Apr. 1, 1963					
		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, gas	11
Blueberry	Feb. 7, 1958	Dec. 22, 1958	N.T.S. 94-A-12, 94-A-13 Tp. 88, R. 25, W6M	4, 5, 6, 9 11	33	West Nat et al Blueberry b-22-D, gas	9
		Feb. 15, 1960				West Nat et al Blueberry b-32-D, gas	4
		May 27, 1960				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
Blueberry West	Feb. 7, 1958	July 1, 1961	N.T.S. 94-A-12, 94-B-9, 94-B-16 Tp. 88, R. 25, W6M	4, 5	4	West Nat et al W Blueberry d-82-L, gas	4
		Oct. 1, 1969				West Nat et al W Blueberry d-19-L, gas	5

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	332	Pacific Boundary 8-15-85-14, gas and oil Pacific Boundary 12-10-85-14, gas Amerada Boundary 8-5-85-14, gas Texaco NFA Boundary L 6-6-85-14 (1) oil Sun Boundary Lake 6-23-85-14, oil Texaco NFA Boundary 16-31-86-13, gas	2, 4, 5 3 4 8 9 9
Boundary Lake North	Jan. 1, 1965	Apr. 1, 1966 Mar. 31, 1975	Tp. 87, 88, R. 14, W6M	9	7	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 Dec. 31, 1975	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	47	MicMac et al Buick d-17-D, gas Texaco NFA Buick Creek d-98-I (1), gas Texaco NFA Buick Creek d-83-J (4), gas	2 4 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 Pacific W Buick Creek c-83-K (13A), oil Pacific West Buick Creek b-78-C (2), gas Pacific West Buick Creek c-58-C (8), gas Pacific West Buick Creek b-23-E (1), gas Cox Union W Buick c-32-F, gas	3 4 4 5 9 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	6	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	9	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 Imp Pac Charlie 13-5-84-18, oil	6 3

Table 4-6—Oilfields and Gasfields Designated, December 31, 1975—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 Dec. 31, 1975	N.T.S. 94-J-9, 94-J-10, 94-J-15, 94-J-16	13	44	West Nat et al Clarke Lake c-47-J, gas	13
Clarke Lake South	Sept. 30, 1975		N.T.S. 94-J-9	13	1	Mesa Pubco S Clarke b-75-F, 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	Mar. 31, 1975 June 30, 1975	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
Dilly	Dec. 31, 1975		N.T.S. 94-P-12	13	1	Pan Am et al Dilly a-30-K, gas	13
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

		Feb. 7, 1958				Pacific Ft St John A3-29-83-18 (31), gas	4
		Feb. 15, 1960				Pacific Ft St John 14-15-83-18 (7), gas	5
		Jan. 1, 1961				Pacific Ft St John B3-29-83-18 (52), gas	6
Fort St. John	Aug. 22, 1956	Oct. 1, 1968	Tp. 83, 84, R. 18, 19, W6M	4, 5, 6, 9, 10	30	Pacific Ft St John 3-14-83-18 (9), oil	6
		Apr. 1, 1969				Pacific Ft St John 1-20-83-18 (30), gas	9
		Sept. 30, 1975				Imp Pac Ft St John 9-19-83-19 (45), oil	10
						Pacific Ft St John 14-21-83-18 (4), gas	10
						Pacific Ft St John SE 10-31-82-17 (80), gas	4
Fort St. John Southeast	Feb. 7, 1958		Tp. 82, 83, R. 17, W6M	4, 5, 9, 10	15	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
Gote	Sept. 30, 1975		N.T.S. 94-P-12	14	1	BP et al Gote d-37-D, gas	14
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
		Jan. 6, 1959				West Nat Gundy Creek b-69-A, gas	6
Gundy Creek	Feb. 7, 1958	Mar. 31, 1975	N.T.S. 94-B-16	5, 6	8	West Nat Gundy Creek c-80-A, gas	5
		Dec. 31, 1975					
						West Nat et al Halfway 5-1-87-25, gas	5
Halfway	Dec. 22, 1958		Tp. 86, 87, R. 25, W6M	5, 6	4	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	June 30, 1975	N.T.S. 94-P-7	13	8	FPC Chevron et al Helmet b-11-K, gas	13
						West Nat et al Highway b-3-I (1), gas	4
Highway	Feb. 7, 1958		N.T.S. 94-B-16	4, 5, 11	6	Pacific Highway b-25-I (1), gas	5
						Pacific Highway a-90-I (4), gas	11
		Apr. 1, 1968					
		July 1, 1968					
		Oct. 1, 1968				Cdn-Sup et al Inga 10-25-88-24, oil	7
		Jan. 1, 1969	Tp. 85, R. 23, W6M			Hunt Sands Pac Imp Inga 7-16-86-23, oil	5
Inga	Jan. 1, 1967	Apr. 1, 1969	Tp. 86, R. 23, 24, W6M	5, 6, 7	80	Texaco Inga 6-25-87-24, oil	6
		July 1, 1970	Tp. 87, R. 23, 24, W6M			Pacific Inga 6-29-86-23, gas	5
		Oct. 1, 1970	Tp. 88, R. 23, 24, W6M			Tenn Cdn-Sup et al Inga 13-7-88-23, gas	7
		Jan. 1, 1971	N.T.S. 94-A-12				
		July 1, 1971	N.T.S. 94-A-13				
		Dec. 31, 1972					
		Dec. 31, 1975					
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
		Nov. 24, 1959					
		Feb. 15, 1960				Pacific Imperial Jedney a-95-C, gas	3
Jedney	Aug. 7, 1959	Jan. 1, 1961	N.T.S. 94-G-1, 94-G-8	3, 5, 9	42	Pacific et al Jedney b-88-J, gas	5
		Apr. 1, 1961				Pacific Imp Jedney d-99-J, gas	9
		Apr. 1, 1963					
		Oct. 1, 1963					
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
						Pacific Kobes a-3-A (4), gas	4
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-94-I (1), gas	6, 9
						Pacific Townsend a-20-H (A-1), gas	11

Table 4-6—Oilfields and Gasfields Designated, December 31, 1975—Continued

Field	Date Designated	Date(s) Revised	Field Location	Pool(s)	Number of Wells Capable of Production	Discovery Well(s)	Pool(s) Discovered
Kotcho Lake	Apr. 1, 1962	Apr. 1, 1967 Apr. 1,1971 June 30, 1972 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, gas	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
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	9
						Union HB Milligan d-62-G, gas	3
						Whitehall et al Milligan d-75-G, gas	9
Milligan Creek West	Sept. 30, 1975		N.T.S. 94-H-2	3	2	Union HB Milligan d-62-G, gas	3
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	3
						Pac Sunray Montney 14-36-86-19 (2), gas	6
						Pac Sunray Montney 14-31-86-19 (5), gas	9
Nettle	Apr. 1, 1966		N.T.S. 94-H-7	3	5	Union KCL ROC Nettle d-67-A, oil	3
						Union KCL ROC Nettle d-76-A, gas	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	30	Texaco NFA Nig Creek a-79-B (1), gas	5
						Texaco NFA Nig d-87-A, oil	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 — 6 Pacific et al N Pine 6-27-85-18, gas — 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 — 9 Woods Wainoco Ashland Oak 6-7-86-17, oil — —
Osprey	Apr. 1, 1966	Apr. 1, 1970	N.T.S. 94-A-15	9	4	Pacific SR CanDel Osprey d-4-J, oil — 9 Tenn Osprey d-13-L, gas — 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
		May 27, 1960 Jan. 1, 1961 Jan. 1, 1962 Apr. 1, 1962 July 1, 1965 Oct. 1, 1965				
Peejay	Feb. 15, 1960	Jan. 1, 1966	N.T.S. 94-A-15, 94-A-16	9	105	Pacific SR West Cdn Peejay d-52-L, gas — 9 Pacific Sinclair Peejay d-39-E, oil — 9
		Apr. 1, 1966 July 1, 1966 Oct. 1, 1966 Apr. 1, 1967 July 1, 1967 Jan. 1, 1968 Sept. 30, 1975				
Peejay West	Jan. 1, 1963	Dec. 31, 1973	N.T.S. 94-A-15	9	4	Pacific SR West Cdn W Peejay d-54-G, oil — 9 Baysel SR CanDel W Peejay 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 Dec. 31, 1975	Tp. 85, R. 21, W6M	6, 9	3	Pacific Red Creek 5-27-85-21 (36), gas — 6, 9
		Jan. 1, 1963 Apr. 1, 1963 Jan. 1, 1964 Oct. 1, 1964 Oct. 1, 1965 Jan. 1, 1967	N.T.S. 94-A-10, 94-A-15			
Rigel	Oct. 1, 1962	July 1, 1967 July 1, 1968 Oct. 1, 1968 Jan. 1, 1969 July 1, 1969 Apr. 1, 1970 Jan. 1, 1971 Dec. 31, 1973 Mar. 31, 1975	Tp. 87, 88, R. 16, W6M Tp. 87, 88, R. 17, W6M Tp. 87, 88, R. 18, W6M Tp. 88, R. 19, W6M	4	66	Monsanto Rigel 6-13-87-17, oil — 4 Imp Fina Rigel 4-27-88-17, gas — 4

Table 4-6—Oilfields and Gasfields Designated, December 31, 1975—Continued

Field	Date Designated	Date(s) Revised	Field Location	Pool(s)	Number of Wells Capable of Production	Discovery Well(s)	Pool(s) Discovered
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
Silver	Sept. 30, 1975		N.T.S. 94-H-6, 94-H-11	2	5	Texaco NFA Silver c-52-K, gas	2
Silverberry	Sept. 30, 1975		Tp. 88, R. 20, W6M	6	1	Union Silverberry 6-16-88-20, gas	6
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	Mar. 31, 1975 Dec. 31, 1975	Tp. 86, 87, R. 15, W6M	2	7	Sundale et al E Siphon 10-33-86-15, gas	2
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	10
						Uno-Tex et al Stoddart 10-31-85-19, oil	10
						Chaut Dunbar Stoddart 11-23-85-19, oil	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	9
						Pacific W Stoddart 11-10-86-20, gas	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, gas	11
Town	Dec. 31, 1975		N.T.S. 94-B-16	9	1	Canhunter Town c-69-J, gas	9
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	6
						Champlin et al Two Rivers 6-9-83-16, gas	5, 9
Velma	Dec. 31, 1972	Mar. 31, 1975	N.T.S. 94-H-8	2, 6	9	GraMic Forest Buttes Velma d-15-E, gas	2
						GraMic et al Velma b-70-C, gas	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	26	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 4-7—Number of Capable and Operating Wells, December 31, 1975

Field and Pool	Oil Wells		Gas Wells	
	Capable	Operating	Capable	Operating
Aitken Creek—Gething	6	4	4	1
Balsam—				
Bluesky	—	—	1	—
Halfway	1	—	1	1
Field totals	1	—	2	1
Bear Flat—North Pine	2	1	—	—
Beatton River—Halfway	15	10	1	—
Beatton River West—Bluesky	12	10	—	—
Beaverdam—Halfway	1	—	2	1
Beaver River—Nahanni	—	—	6	2
Beavertail—				
Gething	—	—	5	—
Halfway	—	—	1	—
Field totals	—	—	6	—
Beg—				
Baldonnel	—	—	14	7
Halfway	—	—	16	11
Field totals	—	—	30	18
Beg West—Baldonnel	—	—	3	—
Bernadet—Bluesky	—	—	1	—
Bivouac—Debolt	—	—	2	—
Blueberry—				
Dunlevy	—	—	7	4
Baldonnel	—	—	4	—
Blueberry	—	—	2	—
Halfway	—	—	1	—
Debolt	19	18	—	—
Field totals	19	18	14	4
Blueberry East—				
Baldonnel	—	—	1	—
Debolt	—	—	1	—
Field totals	—	—	2	—
Blueberry West—				
Dunlevy	—	—	2	—
Baldonnel	—	—	2	1
Field totals	—	—	4	1
Boundary Lake—				
Bluesky	—	—	2	—
Gething	—	—	2	1
Dunlevy	1	—	1	—
Baldonnel	—	—	6	2
Cecil	2	2	—	—
Boundary Lake	310	237	—	—
Basal Boundary Lake	—	—	1	1
Halfway	6	4	1	—
Field totals	319	243	13	4
Boundary Lake North—Halfway	2	1	5	2
Bubbles—Baldonnel	—	—	10	5
Bubbles North—Halfway	—	—	2	—
Buick Creek—				
Bluesky	—	—	8	2
Dunlevy	2	1	33	22
Lower Dunlevy	—	—	2	—
Cecil	—	—	1	—
Confidential	1	1	—	—
Field totals	3	2	44	24
Buick Creek North—				
Bluesky	—	—	4	2
Dunlevy	—	—	8	5
Field totals	—	—	12	7

Table 4-7—Number of Capable and Operating Wells, December 31, 1975—Continued

Field and Pool	Oil Wells		Gas Wells	
	Capable	Operating	Capable	Operating
Buick Creek West—				
Dunlevy	2	—	9	5
Baldonnel	—	—	2	—
Halfway	—	—	1	—
Field totals	2	—	12	5
Bulrush—Halfway	4	2	—	—
Bulrush East—Halfway	1	—	—	—
Cabin—Slave Point	—	—	6	4
Cache Creek—				
Coplin	—	—	3	—
Halfway	—	—	3	—
Field totals	—	—	6	—
Cecil Lake—				
Cecil	—	—	1	—
North Pine	3	3	4	—
Halfway	—	—	1	—
Field totals	3	3	6	—
Charlie Lake—Gething	1	—	—	—
Clarke Lake—				
Slave Point	—	—	42	26
Pine Point	—	—	1	—
Kakisa	—	—	1	—
Field totals	—	—	44	26
Clarke Lake South—Slave Point	—	—	1	1
Crush—Halfway	8	5	—	—
Currant—Halfway	5	3	6	—
Cypress—Baldonnel	—	—	3	—
Dahl—Bluesky	—	—	8	—
Dawson Creek—				
Dunvegan	—	—	1	—
Cadotte	—	—	1	—
Field totals	—	—	2	—
Dilly—Slave Point	—	—	1	—
Eagle—Belloy	5	3	1	—
Elm—Halfway	1	—	1	—
Farrell Creek—				
Charlie Lake	—	—	2	2
Halfway	—	—	3	1
Field totals	—	—	5	3
Fireweed—				
Bluesky	—	—	2	—
Dunlevy	—	—	8	4
Baldonnel	—	—	2	—
Debolt	—	—	3	1
Field totals	—	—	15	5
Flatrock—				
Siphon	—	—	1	—
Boundary Lake	1	1	1	—
Halfway	—	—	5	4
Field totals	1	1	7	4
Fort St. John—				
Dunlevy	—	—	2	—
Baldonnel	—	—	12	5
Pingel	4	2	1	—
Halfway	—	—	8	5
Belloy	1	—	2	2
Field totals	5	2	25	12

Table 4-7—Number of Capable and Operating Wells, December 31, 1975—Continued

Field and Pool	Oil Wells		Gas Wells	
	Capable	Operating	Capable	Operating
Fort St. John Southeast—				
Dunlevy	—	—	1	—
Baldonnel	—	—	2	2
Siphon	—	—	1	—
Pingel	—	—	1	—
Halfway	—	—	5	2
Belloy	—	—	5	1
Field totals	—	—	15	5
Gote—Sulphur Point	—	—	1	1
Grizzly—Dunlevy	—	—	2	—
Grizzly North—				
Dunlevy	—	—	1	—
Halfway	—	—	1	—
Field totals	—	—	2	—
Gundy Creek—				
Baldonnel	—	—	8	5
Blueberry	—	—	1	—
Field totals	—	—	9	5
Halfway—				
Baldonnel	—	—	2	—
Coplin	—	—	1	—
Blueberry	1	—	—	—
Field totals	1	—	3	—
Helmet—				
Slave Point	—	—	6	—
Confidential	—	—	2	—
Field totals	—	—	8	—
Highway—				
Dunlevy	—	—	1	—
Baldonnel	—	—	4	—
Debolt	—	—	1	—
Field totals	—	—	6	—
Inga—				
Baldonnel	1	—	3	—
Dunlevy	—	—	1	1
Inga	69	39	6	1
Field totals	70	39	10	2
Inga North—Inga	—	—	3	—
Jedney—				
Gething	—	—	1	—
Baldonnel	—	—	19	16
Halfway	—	—	22	18
Field totals	—	—	42	34
Jedney West—Halfway	—	—	1	—
Julienne Creek—				
Baldonnel	—	—	2	—
Halfway	—	—	2	2
Shunda	—	—	1	—
Field totals	—	—	5	2
Kobes-Townsend—				
Dunlevy	—	—	3	2
Charlie Lake	—	—	6	3
Halfway	—	—	2	2
Debolt	—	—	2	—
Field totals	—	—	13	7
Kotcho Lake—Slave Point	—	—	12	3
Kotcho Lake East—				
Bluesky	—	—	3	—
Slave Point	—	—	4	1
Field totals	—	—	7	1

Table 4-7—Number of Capable and Operating Wells, December 31, 1975—Continued

Field and Pool	Oil Wells		Gas Wells	
	Capable	Operating	Capable	Operating
LaGarde—				
Dunlevy	—	—	1	—
Boundary Lake	—	—	1	—
Field totals	—	—	2	—
Laprise Creek—Baldonnel	—	—	51	35
Laprise Creek West—Baldonnel	—	—	2	—
Louise—Slave Point	—	—	2	1
Milligan Creek—				
Gething	—	—	3	1
Halfway	26	12	2	—
Field totals	26	12	5	1
Milligan Creek West—Halfway	—	—	2	1
Moberly Lake—Pingel	2	—	—	—
Montney—				
Bluesky	—	—	1	—
Cecil	—	—	1	—
Halfway	—	—	2	—
Field totals	—	—	4	—
Nettle—				
Gething	3	—	1	—
Halfway	—	—	1	—
Field totals	3	—	2	—
Nig Creek—Baldonnel	1	1	29	22
Nig Creek West—Baldonnel	—	—	1	—
North Pine—Siphon	—	—	2	1
Oak—				
Cecil	—	—	1	—
Halfway	2	2	5	—
Field totals	2	2	6	—
Osprey—Halfway	3	1	1	—
Parkland—				
Belloy	—	—	2	—
Wabamun	—	—	2	2
Field totals	—	—	4	2
Peejay—Halfway	102	57	3	1
Peejay West—Halfway	2	—	2	—
Peggo—Slave Point	—	—	2	—
Petitot River—Slave Point	—	—	4	2
Red Creek—				
North Pine	—	—	2	—
Halfway	—	—	1	—
Field totals	—	—	3	—
Redeye—Halfway	—	—	2	—
Rigel—				
Bluesky	—	—	3	—
Dunlevy	6	4	55	26
Lower Dunlevy	2	—	—	—
Field totals	8	4	58	26
Rigel East—				
Dunlevy	—	—	2	—
Halfway	—	—	1	—
Field totals	—	—	3	—
Shekilie—Slave Point	—	—	2	—
Sierra—Pine Point	—	—	3	3
Silver—Bluesky	—	—	4	—
Silverberry—Coplin	—	—	1	1
Siphon—				
Dunlevy	—	—	5	4
Baldonnel	—	—	4	—
Siphon	—	—	5	3
Halfway	—	—	5	4
Field totals	—	—	19	11

Table 4-7—Number of Capable and Operating Wells, December 31, 1975—Continued

Field and Pool	Oil Wells		Gas Wells	
	Capable	Operating	Capable	Operating
Siphon East—Bluesky	—	—	7	5
Stoddart—				
Cecil	1	1	—	—
Belloy	4	4	16	13
Field totals	5	5	16	13
Stoddart West—				
Gething	—	—	1	—
Belloy	—	—	8	5
Field totals	—	—	9	5
Sunrise—				
Paddy	—	—	2	—
Cadotte	—	—	10	3
Field totals	—	—	12	3
Thetlaandoa—Mississippian	—	—	2	—
Town—Halfway	—	—	1	1
Tsea—Slave Point	—	—	2	—
Two Rivers—				
Baldonnel	—	—	1	1
Siphon	—	—	1	—
Halfway	—	—	1	—
Field totals	—	—	3	1
Velma—				
Gething	—	—	7	—
'A' Marker	—	—	2	—
Field totals	—	—	9	—
Wargen—Gething	2	—	1	—
Weasel—				
Baldonnel	—	—	1	1
Halfway	18	15	7	—
Field totals	18	15	8	1
Weasel West—				
Bluesky	—	—	1	—
Halfway	5	2	1	—
Field totals	5	2	2	—
Wilder—				
Halfway	—	—	2	1
Belloy	—	—	2	—
Field totals	—	—	4	1
Wildmint—				
Bluesky	—	—	1	1
Halfway	23	7	3	—
Field totals	23	7	4	1
Willow—				
Gething	1	1	1	—
Halfway	—	—	2	1
Field totals	1	1	3	1
Wolf—Halfway	4	4	1	—
Yoyo—				
Slave Point	—	—	1	—
Pine Point	—	—	16	13
Field totals	—	—	17	13

Table 4-7—Number of Capable and Operating Wells, December 31, 1975—Continued

Field and Pool	Oil Wells		Gas Wells	
	Capable	Operating	Capable	Operating
Other areas—				
Cadotte	----	----	3	----
Notikewin	----	----	1	----
Bluesky	----	----	8	----
Gething	2	1	9	----
Dunlevy	----	----	14	3
Lower Dunlevy	----	----	1	----
Baldonnel	----	----	31	----
Inga	----	----	1	----
Charlie Lake	----	----	1	----
Siphon	----	----	1	----
Coplin	1	----	3	----
Pingel	----	----	2	----
'A' Marker	----	----	2	----
Halfway	3	1	34	----
Montney	----	----	1	----
Permo-Carboniferous	----	----	1	----
Belloy	1	----	7	1
Mississippian	----	----	1	----
Mattson	----	----	5	----
Upper Kiskatinaw	----	----	2	----
Lower Kiskatinaw	----	----	1	----
Debolt	----	----	20	----
Banff	----	----	2	----
Jean Marie	----	----	2	----
Slave Point	----	----	21	----
Sulphur Point	----	----	4	----
Pine Point	----	----	7	----
Confidential	----	----	2	----
Area totals	7	2	187	4
Totals	701	460	958	346

Table 4-8—Monthly Crude-oil Production by Fields and Pools, 1975

(Quantities in barrels)

Field and Pool	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Aitken Creek—													
Gething	34,454	27,526	36,909	35,334	35,226	31,687	32,673	36,833	34,033	37,921	28,491	33,578	404,665
Gething[1]	748	800	1,210	1,010	1,117	1,432	2,033	1,268	1,152	.....	566	374	11,710
Field totals	35,202	28,326	38,119	36,344	36,343	33,119	34,706	38,101	35,185	37,921	29,057	33,952	416,375
Bear Flat—North Pine	2,539	2,197	2,330	1,769	397	2,085	2,279	2,389	2,158	2,253	1,981	2,058	24,435
Beatton River—Halfway	34,746	25,756	34,593	32,903	33,038	29,982	27,932	27,257	15,807	15,394	17,145	24,277	318,830
Beatton River West—Bluesky	31,589	26,396	32,838	30,672	27,954	26,870	28,058	25,564	23,052	25,415	24,561	25,912	328,881
Beaverdam—Halfway[1]	123	177	252	186	180	132	133	160	122	141	68	142	1,816
Blueberry—Debolt	39,824	33,857	39,408	36,872	34,672	28,956	40,082	36,354	29,492	34,414	36,411	35,504	425,846
Boundary Lake—													
Baldonnel[1]	27	24	.....	.....	.....	.....	.....	.....	.....	206	.....	.....	257
Boundary	563,651	495,147	542,002	507,752	414,542	396,021	424,969	426,244	414,309	419,561	417,511	475,380	5,497,089
Boundary[1]	.....	.....	.....	.....	.....	.....	.....	48	.....	.....	.....	.....	48
Cecil	1,257	835	968	992	745	42	277	1,057	1,266	957	1,062	1,032	10,490
Halfway	6,196	5,576	6,884	6,683	6,528	3,755	8,081	6,527	7,329	6,910	6,962	6,891	78,322
Field totals	571,131	501,582	549,854	515,427	421,815	399,818	433,327	433,876	422,904	427,634	425,535	483,303	5,586,206
Boundary Lake North—													
Halfway	1,261	1,243	1,355	435	582	1,412	1,373	1,361	1,299	1,342	1,321	407	13,391
Halfway[1,2]	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,333	1,333
Field totals	1,261	1,243	1,355	435	582	1,412	1,373	1,361	1,299	1,342	1,321	1,740	14,724
Buick Creek—													
Bluesky[1]	84	53	74	49	53	68	65	81	98	58	53	.....	736
Dunlevy	.....	.....	.....	.....	195	358	312	306	242	136	190	5	1,744
Dunlevy[1]	848	840	934	1,128	589	856	766	805	875	1,028	809	778	10,256
Confidential	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	693	693
Field totals	932	893	1,008	1,177	837	1,282	1,143	1,192	1,215	1,222	1,052	1,476	13,429
Bulrush—Halfway	3,315	3,207	3,530	2,079	1,790	1,906	1,819	1,862	1,877	1,917	1,800	1,725	26,827
Cecil Lake—North Pine	5,083	2,706	3,437	3,804	1,232	5,125	2,393	3,083	4,242	5,036	2,445	2,994	41,580
Crush—Halfway	23,842	20,598	22,411	20,522	18,931	20,242	19,025	20,443	18,720	18,865	24,649	26,458	254,706
Currant—Halfway	10,166	2,523	11,507	13,778	14,981	9,887	13,649	6,737	14,909	20,895	24,387	20,552	163,971
Eagle—Belloy	15,823	14,758	16,126	15,112	16,604	11,467	16,588	16,515	15,201	16,285	15,902	14,659	185,040
Flatrock—													
Boundary Lake	293	235	632	535	292	556	448	383	255	423	387	294	4,733
Halfway[1]	1,720	1,806	1,702	1,592	1,453	1,133	1,564	1,601	1,555	1,490	1,357	1,408	18,381
Field totals	2,013	2,041	2,334	2,127	1,745	1,689	2,012	1,984	1,810	1,913	1,744	1,702	23,114
Fort St. John—Pingel	3,652	3,440	4,015	3,812	4,009	3,692	3,639	3,722	3,717	3,607	3,694	2,557	43,556
Inga—Inga	188,453	161,477	155,582	135,709	97,692	118,272	111,044	120,900	125,677	128,210	126,375	140,178	1,609,569
Jedney—													
Baldonnel[1]	122	140	97	99	106	105	87	61	97	101	97	104	1,216
Halfway[1]	69	65	38	37	32	43	37	21	28	27	30	30	457
Field totals	191	205	135	136	138	148	124	82	125	128	127	134	1,673

Milligan Creek—Halfway	129,590	114,291	125,426	123,038	128,778	123,805	116,636	106,637	103,994	105,182	98,227	101,213	1,376,817
Milligan Creek West—Halfway[1]				38	32	57		40					167
Nig Creek—Baldonnel	418	11	612	644	136	758	547		864	644	532	5	5,171
Oak—Halfway	9,404	9,355	10,607	6,934	3,117	10,373	12,296	10,693	10,540	9,397	10,800	8,778	112,294
Osprey—Halfway	2,131	2,391	2,469	2,138	2,477	2,636	2,684	1,943	2,160	1,942	2,031	2,140	27,142
Peejay—													
Halfway	190,848	178,548	201,320	178,301	173,172	165,444	155,547	162,272	150,457	152,026	135,200	138,466	1,981,601
Halfway[1]				53	157	84	79	8	303	114	74	44	916
Field totals	190,848	178,548	201,320	178,354	173,329	165,528	155,626	162,280	150,760	152,140	135,274	138,510	1,982,517
Rigel—													
Dunlevy	3,936	3,382	3,726	2,373	1,337	3,113	3,880	3,991	3,694	3,674	3,824	3,892	40,822
Dunlevy[1]	35	80		61	35	64		48		50			373
Field totals	3,971	3,462	3,726	2,434	1,372	3,177	3,880	4,039	3,694	3,724	3,824	3,892	41,195
Silverberry—Coplin[1]	213	226	271	18	120	45	201	13	31	38	14	283	1,473
Siphon—													
Dunlevy[1]	278	221	136	132	111	136	118	96	122	106	70	151	1,677
Siphon[1]	180	116	183	242	218	226	211	141	192	241	216	259	2,425
Halfway[1]	657	618	707	468	562	428	249	281	342	414	364	771	5,861
Field totals	1,115	955	1,026	842	891	790	578	518	656	761	650	1,181	9,963
Siphon East—Bluesky[1]					71	127	45	55	53	27	70	131	579
Stoddart—													
Cecil	310	331	524		222	230	230	316	327	327	354	270	3,441
Belloy	3,133	2,865	2,833	1,948	1,633	2,942	2,258	2,306	2,658	2,727	2,527	2,182	30,012
Field totals	3,443	3,196	3,357	1,948	1,855	3,172	2,488	2,622	2,985	3,054	2,881	2,452	33,453
Stoddart West—Belloy[1]	3,280	2,787	3,270	3,174	2,698	2,662	2,987	2,678	2,969	2,797	2,840	2,607	34,749
Weasel—													
Halfway	74,773	63,433	84,913	74,428	87,560	82,500	75,410	71,782	54,162	79,282	73,453	80,448	902,144
Halfway[1]							336	76					412
Field totals	74,773	63,433	84,913	74,428	87,560	82,500	75,746	71,858	54,162	79,282	73,453	80,448	902,556
Weasel West—Halfway	7,343	6,345	7,001	6,893	6,378	6,949	7,151	5,189	3,797	1,454	2,163	5,613	66,276
Wildmint—Halfway	18,048	15,347	17,666	16,360	14,177	13,413	17,022	23,257	21,832	18,404	13,324	13,534	202,384
Willow—													
Gething	1,351	1,088	1,279	1,278	1,364	1,229	1,510	1,393	897	1,513	1,282	1,230	15,414
Halfway[1]	183	189	179	175	174	178	92	184	132	194	167	209	2,056
Field totals	1,534	1,277	1,458	1,453	1,538	1,407	1,602	1,577	1,029	1,707	1,449	1,439	17,470
Wolf—Halfway	6,276	5,837	6,091	5,476	5,279	5,089	5,790	4,947	4,899	5,722	5,425	5,496	66,327
Other areas—													
Gething	1,457	4,115	3,381	758								1,095	10,806
Halfway								243	221		596	1,063	2,123
Belloy[1]				268	698	686	495	578	14	897	262	430	4,328
Field totals	1,457	4,115	3,381	1,026	698	686	495	821	235	897	858	2,588	17,257
Totals—													
Oil	1,415,162	1,234,816	1,382,375	1,269,332	1,135,040	1,110,796	1,135,602	1,132,506	1,074,087	1,121,835	1,085,012	1,180,579	14,277,142
Condensate	8,567	8,142	9,053	8,730	8,406	8,462	9,498	8,243	8,085	7,929	7,057	9,054	101,226
Total oil and condensate	1,423,729	1,242,958	1,391,428	1,278,062	1,143,446	1,119,258	1,145,100	1,140,749	1,082,172	1,129,764	1,092,069	1,189,633	14,378,368

[1] Condensate.

Table 4-9—Monthly Nonassociated and Associated Gas Production by Fields and Pools, 1975

(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	75,456	80,856	84,511	74,962	85,855	70,831	64,402	40,620	14,576	8,490	74,025	37,199	711,783
Gething[1]	144,010	131,447	182,061	144,847	171,493	153,780	171,309	186,045	174,261	204,688	134,333	176,533	1,974,807
Field totals	219,466	212,303	266,572	219,809	257,348	224,611	235,711	226,665	188,837	213,178	208,358	213,732	2,686,590
Balsam—Halfway	15,540	7,682	211	56,220	101,071	122,690	113,050	52,764	77,957	93,684	88,782	89,984	819,635
Bear Flat—North Pine[1]	18,879	15,833	18,309	14,707	3,049	18,847	20,621	21,626	19,265	19,240	17,554	18,061	205,991
Beatton River—Halfway[1]	9,268	12,986	14,993	11,025	8,042	7,344	10,027	8,235	6,049	6,247	5,886	9,146	109,248
Beatton River West—Bluesky[1]	7,778	6,644	8,038	6,225	7,618	6,432	8,211	7,114	6,544	8,110	6,714	8,055	87,483
Beaverdam—Halfway	44,713	96,786	104,771	99,289	92,548	78,315	74,789	82,363	73,768	77,796	47,580	75,656	948,374
Beaver River—Nahanni	1,150,400	971,347	999,527	995,525	953,600	890,720	864,316	817,897	806,988	899,023	830,889	794,915	10,975,147
Beavertail—Gething	345,787	329,476	355,841	346,359	321,081	315,459	311,753	104,581	295,203	248,738	310,402	338,238	3,622,918
Beg—													
Baldonnel	246,153	307,146	320,350	287,877	216,993	236,521	240,288	226,651	255,051	289,107	272,205	258,583	3,156,925
Halfway	315,963	265,204	369,203	304,833	246,878	261,790	245,388	303,973	303,992	297,724	233,994	324,704	3,473,646
Field totals	562,116	572,350	689,553	592,710	463,871	498,311	485,676	530,624	559,043	586,831	506,199	583,287	6,630,571
Blueberry—													
Dunlevy	69,669	58,284	71,492	70,961	64,403	60,704	76,777	68,181	63,904	71,936	68,505	73,615	818,431
Debolt[1]	96,070	79,149	95,937	69,410	117,755	63,446	109,111	130,672	132,368	113,392	115,974	89,847	1,213,131
Field totals	165,739	137,433	167,429	140,371	182,158	124,150	185,888	198,853	196,272	185,328	184,479	163,462	2,031,562
Blueberry West—Baldonnel	54,448	54,255	53,930	50,059	44,420	39,311	39,524	39,507	11,749	34,491	36,640	33,609	491,943
Boundary Lake—													
Gething	67,873	18,188	67,635	83,612	28,751	.....	.....	.....	.....	.....	10,855	76,459	353,373
Dunlevy	.....	.....	.....	.....	.....	2,444	.....	.....	.....	.....	.....	.....	2,444
Baldonnel	63,891	49,988	53,379	64,181	62,384	70,780	25,425	47,948	73,502	83,201	68,347	92,687	755,713
Cecil[1]	443	308	264	288	219	17	133	407	620	391	414	444	3,948
Boundary Lake[1]	310,722	268,251	295,790	258,797	198,014	186,527	208,677	214,154	216,498	205,757	202,811	216,420	2,782,418
Basal Boundary	14,275	9,220	14,391	13,590	3,858	.....	.....	.....	5,932	6,737	4,164	4,636	76,803
Halfway[1]	6,674	5,428	6,706	7,447	6,612	4,325	8,921	6,620	7,393	5,911	6,813	7,186	80,036
Field totals	463,878	351,383	438,165	427,915	299,838	264,093	243,156	269,129	303,945	301,997	293,404	397,832	4,054,735
Boundary Lake North—													
Halfway	.....	.....	.....	.....	.....	.....	.....	.....	.....	9,080	71,524	167,351	247,955
Halfway[1]	825	865	181	168	88	1,328	1,388	1,318	1,299	1,307	1,377	626	10,770
Field totals	825	865	181	168	88	1,328	1,388	1,318	1,299	10,387	72,901	167,977	258,725
Bubbles—Baldonnel	231,566	223,724	247,250	239,365	219,262	207,724	225,737	196,296	207,119	210,260	210,296	90,217	2,508,816
Buick Creek—													
Bluesky	174,011	149,908	166,306	158,069	129,800	152,194	144,811	118,912	148,775	140,494	147,585	79,434	1,710,299
Dunlevy	1,107,368	921,438	1,061,550	1,061,763	953,700	1,050,498	1,090,040	858,766	1,034,197	989,929	1,015,166	904,248	12,048,663
Dunlevy[1]	.....	.....	.....	.....	3,292	2,271	2,821	2,306	1,986	1,818	853	.....	15,347
Confidential[1]	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5,132	5,132
Field totals	1,281,379	1,071,346	1,227,856	1,219,832	1,086,792	1,204,963	1,237,672	979,984	1,184,958	1,132,241	1,163,604	988,814	13,779,441
Buick Creek North—													
Bluesky	21,860	17,884	22,018	21,619	20,111	21,726	18,850	19,155	17,944	22,925	27,553	24,421	256,066
Dunlevy	157,973	136,797	156,791	175,200	167,962	194,813	196,774	100,878	151,829	149,241	146,754	146,398	1,881,410
Field totals	179,833	154,681	178,809	196,819	188,073	216,539	215,624	120,033	169,773	172,166	174,307	170,819	2,137,476

Buick Creek West—													
Dunlevy	205,195	199,579	210,740	190,375	178,534	165,464	151,300	95,797	115,265	153,896	166,693	155,555	1,988,393
Baldonnel	1,062	1,258	13,356	6,583	6,626	6,962	6,379	4,959	4,782	13,318	1,583	.....	66,868
Field totals	206,257	200,837	224,096	196,958	185,160	172,426	157,679	100,756	120,047	167,214	168,276	155,555	2,055,261
Bulrush—Halfway[1]	70,708	64,992	71,837	13,064	8,699	8,898	7,767	6,817	6,952	7,343	8,307	7,080	282,464
Cabin—Slave Point	416,470	245,299	392,725	388,240	353,703	381,582	382,266	381,342	362,816	289,106	261,483	308,295	4,163,327
Cache Creek—Halfway	.....	.....	.....	.....	.....	.....	.....	.....	3,704	.....	.....	.....	3,704
Cecil Lake—North Pine[1]	13,999	8,329	9,825	14,990	3,812	15,953	5,503	6,270	12,913	20,008	7,167	12,903	131,672
Clarke Lake—Slave Point	9,857,853	8,820,794	9,582,127	8,487,183	9,023,165	8,648,034	5,888,118	5,598,822	7,184,628	8,610,981	8,087,251	8,111,557	97,900,513
Clarke Lake South—Slave Point	321,159	287,345	319,644	279,464	325,824	320,297	324,803	335,076	294,669	340,468	335,052	312,816	3,796,617
Crush—Halfway[1]	30,223	26,606	30,954	27,060	25,961	25,554	23,864	18,044	19,633	17,258	17,868	19,642	282,667
Currant—Halfway[1]	15,411	2,589	8,726	10,473	10,728	5,275	7,488	3,270	5,989	8,984	12,954	10,416	102,303
Eagle—Belloy[1]	18,476	19,892	20,811	20,579	24,923	17,072	22,592	23,328	20,533	24,285	25,272	26,532	264,295
Farrell Creek—													
Charlie Lake	46,072	42,650	47,391	23,270	58,521	63,551	73,200	61,308	74,651	73,797	62,060	44,538	671,009
Halfway	36,291	32,062	35,519	15,572	32,986	32,786	31,684	27,240	31,712	30,291	28,817	31,720	366,680
Field totals	82,363	74,712	82,910	38,842	91,507	96,337	104,884	88,548	106,363	104,088	90,877	76,258	1,037,689
Fireweed—													
Dunlevy	.....	.....	.....	.....	.....	.....	.....	.....	173,149	261,406	126,264	263,555	824,374
Debolt	.....	.....	.....	.....	.....	.....	.....	.....	38,058	44,476	140,179	31,173	253,886
Field totals	.....	.....	.....	.....	.....	.....	.....	.....	211,207	305,882	266,443	294,728	1,078,260
Flatrock—													
Boundary Lake[1]	489	560	2,156	1,583	815	2,008	1,607	1,377	1,122	1,861	1,703	976	16,257
Halfway	232,030	189,796	238,690	207,581	191,159	124,708	180,086	153,472	156,570	257,561	247,623	171,943	2,351,219
Field totals	232,519	190,356	240,846	209,164	191,974	126,716	181,693	154,849	157,692	259,422	249,326	172,919	2,367,476
Fort St. John—													
Baldonnel	121,784	112,402	113,905	107,817	54,937	59,645	88,183	.....	30,153	128,642	118,716	122,321	1,058,505
Pingel[1]	13,011	11,615	13,060	12,428	16,033	17,840	18,653	19,382	18,863	20,598	18,637	12,286	192,406
Halfway	74,022	61,298	140,819	144,962	107,869	106,784	161,838	151,071	145,429	169,246	164,016	169,574	1,596,928
Belloy	11,151	4,844	10,614	8,841	16,593	19,933	24,008	.....	9,076	33,977	24,721	23,068	186,826
Field totals	219,968	190,159	278,398	274,048	195,432	204,202	292,682	170,453	203,521	352,463	326,090	327,249	3,034,665
Fort St. John Southeast—													
Baldonnel	50,291	45,168	49,249	46,250	32,301	36,189	15,229	51,427	27,452	35,859	50,099	47,945	487,459
Halfway	69,100	59,007	60,174	61,398	45,235	44,748	21,408	57,328	27,806	45,902	51,674	51,526	595,306
Belloy	110,936	89,468	97,924	94,460	77,167	70,491	33,722	99,315	52,510	81,416	91,323	93,637	992,369
Field totals	230,327	193,643	207,347	202,108	154,703	151,428	70,359	208,070	107,768	163,177	193,096	193,108	2,075,134
Gote—Sulphur Point	.....	.....	.....	114,992	113,083	140,751	117,501	142,855	128,578	120,827	151,019	194,206	1,223,812
Gundy Creek—Baldonnel	13,776	31,896	41,008	86,182	113,598	131,467	134,733	81,611	124,918	171,633	254,262	272,768	1,457,852
Inga—													
Dunlevy	.....	.....	.....	.....	.....	.....	.....	.....	17,354	49,657	47,980	60,182	175,173
Inga	297,602	261,729	209,764	186,855	249,831	318,728	296,721	297,546	224,082	269,809	350,617	358,595	3,321,879
Inga[1]	270,724	238,295	229,874	221,814	197,302	198,993	207,417	219,520	216,161	238,263	238,081	233,885	2,710,329
Field totals	568,326	500,024	439,638	408,669	447,133	517,721	504,138	517,066	457,597	557,729	636,678	652,662	6,207,381
Jedney—													
Baldonnel	712,394	647,677	696,598	654,910	518,675	590,604	646,044	410,633	516,749	552,391	629,233	642,068	7,217,976
Halfway	578,246	513,502	547,827	514,199	376,340	433,812	507,792	317,216	376,265	411,637	500,343	536,915	5,614,094
Field totals	1,290,640	1,161,179	1,244,425	1,169,109	895,015	1,024,416	1,153,836	727,849	893,014	964,028	1,129,576	1,178,983	12,832,070
Julienne Creek—													
Baldonnel	.....	.....	.....	24,013	16,252	11,702	10,803	8,215	12,289	6,471	5,953	.....	95,698
Halfway	41,456	41,842	39,928	41,222	43,731	37,727	36,783	28,143	36,998	23,646	17,938	35,612	425,026
Field totals	41,456	41,842	39,928	65,235	59,983	49,429	47,586	36,358	49,287	30,117	23,891	35,612	520,724

Table 4-9—Monthly Nonassociated and Associated Gas Production by Fields and Pools, 1975—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
Kobes-Townsend—													
Dunlevy	23,263	19,015	24,026	23,395	22,088	21,405	23,144	15,957	18,496	19,350	21,009	22,913	254,061
Charlie Lake	187,478	163,501	176,831	42,815	39,612	167,067	43,055	134,172	163,662	169,653	160,892	164,765	1,613,503
Halfway	141,932	118,789	136,886	252,994	204,587	133,258	228,710	104,043	133,323	134,322	117,604	29,669	1,736,117
Debolt	63,678	74,986	79,819	73,055	75,389	72,198	80,411	51,168	71,242	63,013	73,970	80,127	859,056
Field totals	416,351	376,291	417,562	392,259	341,676	393,928	375,320	305,340	386,723	386,338	373,475	297,474	4,462,737
Kotcho Lake—Slave Point	483,327	440,378	433,402	415,620	301,963	293,067	383,441	447,067	192,815	247,630	259,367	272,314	4,170,391
Kotcho Lake East—Slave Point	40,037	115,495	37,738	69,255	78,881	47,784	47,179	64,675	66,368	56,352	65,952	46,459	736,175
Laprise Creek—Baldonnel	1,920,617	2,030,250	2,289,134	2,232,979	2,175,833	2,023,902	2,091,295	2,211,434	2,163,864	2,324,899	2,232,985	2,297,767	25,994,959
Louise—Slave Point	102,938	85,923	98,519	90,908	73,986	82,072	99,520	96,581	89,560	78,672	83,123	89,635	1,071,437
Milligan Creek—													
Gething	7,406	8,785	8,344	7,594	7,330	5,543	4,971	4,704	7,884	6,861	7,357	8,598	85,377
Halfway[1]	40,653	45,478	52,896	57,546	62,882	62,511	62,395	60,091	56,712	53,699	55,706	61,400	671,969
Field totals	48,059	54,263	61,240	65,140	70,212	68,054	67,366	64,795	64,596	60,560	63,063	69,998	757,346
Milligan Creek West—Halfway	.....	.....	252	80,375	91,518	42,093	16,496	15,755	6,165	7,358	8,229	6,583	274,824
Nig Creek—													
Baldonnel	899,098	891,421	1,010,654	950,007	937,316	934,739	586,529	647,383	845,185	945,797	894,533	889,496	10,432,158
Baldonnel[1]	231	193	193	363	168	669	449	147	478	543	419	7	3,860
Field totals	899,329	891,614	1,010,847	950,370	937,484	935,408	586,978	647,530	845,663	946,340	894,952	889,503	10,436,018
North Pine—North Pine	4,106	.....	.....	.....	.....	11,652	46,352	43,566	42,973	39,868	36,934	27,774	253,225
Oak—Halfway[1]	3,514	3,515	3,995	2,560	1,087	4,098	3,737	3,970	4,435	4,427	6,421	4,050	45,809
Osprey—Halfway[1]	3,142	3,464	4,018	3,229	3,325	3,545	4,766	3,308	3,400	4,860	3,849	3,628	44,534
Parkland—Wabamun	392,912	353,161	395,524	353,946	388,616	381,422	410,369	168,502	166,417	414,299	388,108	366,486	4,179,762
Peejay—													
Halfway	.....	18,802	420	62,006	137,861	122,525	101,659	128,728	124,834	126,208	124,556	108,795	1,056,394
Halfway[1]	63,727	59,145	66,229	60,013	57,252	52,818	56,884	60,648	56,447	54,334	48,115	50,578	686,190
Field totals	63,727	77,947	66,649	122,019	195,113	175,343	158,543	189,376	181,281	180,542	172,671	159,373	1,742,584
Petitot River—Slave Point	344,746	269,457	271,199	318,045	298,896	304,693	314,070	313,813	299,176	293,644	270,234	217,280	3,515,253
Rigel—													
Bluesky	13,935	13,858	15,536	14,924	14,398	13,845	11,477	15,290	14,643	14,937	14,047	14,514	171,404
Dunlevy	1,596,458	1,504,420	1,644,388	1,559,800	1,502,770	1,331,567	1,107,601	1,473,826	1,353,942	1,430,016	1,363,350	1,355,940	17,224,078
Dunlevy[1]	41,666	35,775	46,297	36,172	27,570	24,382	42,275	45,090	43,434	37,985	48,520	47,740	476,906
Lower Dunlevy	4,554	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4,554
Field totals	1,656,613	1,554,053	1,706,221	1,610,896	1,544,738	1,369,794	1,161,353	1,534,206	1,412,019	1,482,938	1,425,917	1,418,194	17,876,942
Sierra—Pine Point	1,419,000	1,607,900	2,955,000	3,425,900	3,292,100	2,476,900	3,491,376	2,648,066	3,138,204	3,782,092	3,341,986	3,390,100	34,968,624
Silverberry—Coplin	146,927	116,186	138,410	59,550	36,039	27,561	62,408	97,376	41,693	17,703	11,101	134,671	889,625
Siphon—													
Dunlevy	535,964	485,649	523,105	418,980	426,855	443,066	402,802	332,877	323,606	325,292	288,845	451,836	4,958,877
Siphon	135,751	109,673	144,513	127,873	77,286	104,356	87,386	48,286	65,507	70,610	50,800	96,284	1,118,325
Halfway	194,463	172,967	194,266	176,855	170,254	153,589	144,450	101,049	150,975	154,832	136,308	157,380	1,907,388
Field totals	866,178	768,289	861,884	723,708	674,395	701,011	634,638	482,212	540,088	550,734	475,953	705,500	7,984,590

Siphon East—Bluesky	.....	75,770	154,272	128,667	129,005	174,872	174,047	179,038	166,450	229,514	235,261	231,073	1,877,969
Stoddart—													
Cecil[1]	2,466	2,392	4,130	.....	1,466	1,884	1,321	1,493	2,441	2,461	2,733	2,212	24,999
Belloy	961,318	850,828	996,375	960,700	795,285	744,312	951,221	878,382	932,648	931,794	931,812	938,637	10,873,312
Belloy[1]	18,865	17,275	20,574	15,735	11,744	10,678	9,818	12,283	14,078	14,253	14,513	13,771	173,587
Field totals	982,649	870,495	1,021,079	976,435	808,495	756,874	962,360	892,158	949,167	948,508	949,058	954,620	11,071,898
Stoddart West—Belloy	225,556	225,808	226,677	259,518	210,350	217,674	223,976	207,870	206,835	211,206	234,919	230,224	2,680,613
Sunrise—Cadotte	52,097	49,963	53,946	48,204	39,899	36,309	40,682	38,196	19,494	42,673	43,221	43,271	507,955
Thetlaandoa—Mississippian	.....	3,724	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3,724
Town—Halfway	.....	3,974	.....	.....	.....	.....	4,299	23,150	7,386	1,161	31,850	43,386	115,206
Two Rivers—													
Baldonnel	12,688	11,654	13,220	12,619	11,397	10,445	13,754	10,751	14,109	14,212	13,594	13,987	152,430
Halfway	182,599	166,226	176,494	160,375	139,764	126,668	176,388	138,711	167,653	170,225	164,097	164,898	1,934,098
Field totals	195,287	177,880	189,714	172,994	151,161	137,113	190,142	149,462	181,762	184,437	177,691	178,885	2,086,528
Weasel—													
Baldonnel	2,122	1,874	1,898	1,742	1,902	1,918	2,086	2,233	1,535	1,922	1,942	1,998	23,172
Halfway	.....	.....	.....	.....	.....	.....	2,341	4,208	.....	.....	.....	.....	6,549
Halfway[1]	28,925	27,549	33,625	32,838	36,263	36,196	33,124	26,913	27,841	34,195	31,515	38,793	387,777
Field totals	31,047	29,423	35,523	34,580	38,165	38,114	37,551	33,354	29,376	36,117	33,457	40,791	417,498
Weasel West—Halfway[1]	3,295	2,953	3,548	3,607	3,286	3,641	3,756	2,518	1,681	582	1,119	2,666	32,652
Wilder—Halfway	256,441	241,975	223,618	258,882	256,527	249,118	240,403	314,212	302,238	311,178	293,037	313,647	3,261,276
Wildmint—													
Bluesky	6,840	5,936	6,580	6,801	5,618	5,236	5,816	6,135	6,308	6,473	6,440	6,840	75,023
Halfway[1]	22,826	21,329	21,102	19,004	31,081	20,245	29,602	26,718	25,249	25,287	22,689	24,110	289,242
Field totals	29,666	27,265	27,682	25,805	36,699	25,481	35,418	32,853	31,557	31,760	29,129	30,950	364,265
Willow—													
Gething[1]	8,609	7,342	8,120	8,293	8,283	7,702	9,368	8,846	5,753	8,648	8,189	8,862	98,015
Halfway	127,206	122,776	129,750	118,475	111,320	110,951	105,600	113,488	83,310	109,484	104,429	107,609	1,344,398
Field totals	135,815	130,118	137,870	126,768	119,603	118,653	114,968	122,334	89,063	118,132	112,618	116,471	1,442,413
Wolf—Halfway[1]	6,207	5,847	5,469	5,305	7,200	4,872	5,983	5,969	4,253	6,792	5,926	6,529	70,352
Yoyo—Pine Point	5,412,058	5,937,616	5,533,916	6,500,307	6,778,930	6,403,041	4,446,990	3,306,994	3,294,308	6,600,291	6,143,402	6,481,753	66,839,606
Other areas—													
Gething[1]	626	4,620	6,106	1,432	.....	.....	.....	.....	.....	.....	.....	236	13,020
Dunlevy	2,130	19,864	64,204	.....	.....	.....	.....	.....	15,773	62,789	80,133	81,956	326,849
Baldonnel	.....	.....	.....	.....	.....	.....	.....	25,858	17,307	.....	.....	.....	43,165
Halfway[1]	.....	.....	.....	.....	.....	.....	.....	2,786	3,367	626	7,952	11,542	26,273
Montney	61,405	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	61,405
Belloy	.....	.....	.....	7,864	28,170	24,971	23,491	19,029	13,023	17,332	14,753	11,206	159,839
Mississippian	258	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	258
Debolt	.....	.....	29,700	.....	.....	.....	.....	.....	.....	.....	.....	.....	29,700
Slave Point	137	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	137
Field totals	64,556	24,484	100,010	9,296	28,170	24,971	23,491	47,673	49,470	80,747	102,838	104,940	660,646
Totals—Nonassociated	33,315,281	31,704,403	35,185,774	35,008,883	34,510,552	32,822,304	29,060,320	25,814,441	28,441,060	35,242,931	33,830,345	34,551,794	389,488,088
Associated	1,272,462	1,130,666	1,285,824	1,081,002	1,056,062	969,151	1,099,588	1,137,285	1,118,018	1,154,153	1,080,384	1,131,294	13,515,889
Totals	34,587,743	32,835,069	36,471,598	36,089,885	35,566,614	33,791,455	30,159,908	26,951,726	29,559,078	36,397,084	34,910,729	35,683,088	403,003,977

[1] Condensate.

Table 4-10—Summary of Drilling and Production Statistics, 1975

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Well authorizations—													
Issued	17	11	1			1	3		3	12	21	31	100
Cancelled	3	8											11
Wells spudded	19	14	6				2	3	2	7	6	20	79
Rigs operated (during month)	30	23	17	5	3	2	4	5	3	3	9	20	351[1]
Rigs operating (at month's end)	16	15	5	3	2	2	3	3	2	2	5	18	
Development footage	13,585	6,159	24,918	15,660			3,844	4,455	4,645	11,625	18,138	30,736	133,765
Exploratory outpost footage	37,185	32,252	20,419					9,100	16,572		8,483		124,011
Exploratory wildcat footage	66,344	44,126	27,849		10,814					13,219	1,419		163,771
Total footage drilled	117,114	82,537	73,186	15,660	10,814		3,844	13,555	21,217	24,844	28,040	30,736	421,547
Wells abandoned	16	9	8		1			2	1	1	3	3	44
Service wells		1	1	1									3
Finished drilling wells												1	1
Oil wells completed							1			1			2
Producible oil wells	694	694	694	694	694	694	695	695	696	696	695	696	
Producing oil wells	505	492	490	485	414	427	428	437	415	410	372	450	
Production in barrels	1,415,162	1,234,816	1,382,375	1,269,332	1,135,040	1,110,796	1,135,602	1,132,506	1,074,135	1,121,787	1,085,012	1,180,668	14,277,231
Average daily production	45,650	44,101	44,593	42,311	36,614	37,027	36,632	36,532	35,804	36,187	36,167	38,086	39,142
Gas wells completed	6	6	7	1				1	2	2	3	3	31
Producible gas wells	942	941	949	956	955	955	952	954	955	957	959	963	
Producing gas wells	339	336	344	349	337	342	337	333	333	341	351	346	
Production in MSCF[2]	33,315,219	31,706,006	35,081,003	35,022,163	34,511,265	32,822,304	28,994,671	25,814,441	28,441,038	35,242,931	33,830,345	34,558,323	389,339,709
Average daily production	1,074,684	1,132,357	1,131,645	1,167,405	1,113,267	1,094,077	935,312	832,724	948,035	1,136,869	1,127,678	1,114,785	1,067,403

[1] Rigs operated during 1975.
[2] Nonassociated gas production only.
NOTE—Each zone of a multiple completion is counted as one well.

Table 4-11—Monthly Supply and Disposition of Crude Oil/Pentanes Plus, 1975

(Quantities in barrels.)

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Supply													
British Columbia production—													
Crude oil	1,415,162	1,234,816	1,382,375	1,269,332	1,135,040	1,110,796	1,135,602	1,132,506	1,074,135	1,121,787	1,085,012	1,180,668	14,277,231
Field condensate	8,572	8,137	9,053	8,730	8,406	8,462	9,498	8,195	8,085	7,977	7,057	9,054	101,226
Plant condensate	93,042	96,620	106,541	112,569	93,479	95,753	90,551	89,323	88,305	108,354	96,984	93,807	1,165,328
Totals, British Columbia	1,516,776	1,339,573	1,497,969	1,390,631	1,236,925	1,215,011	1,235,651	1,230,024	1,170,525	1,238,118	1,189,053	1,283,529	15,543,785
Alberta imports—													
Pipeline	9,027,691	7,824,754	9,166,522	8,229,317	7,121,630	8,596,617	8,430,151	8,307,134	8,312,558	7,722,028	8,058,162	8,595,027	99,391,591
Rail	8,868	6,114	4,672	3,574		6,600	25,203	27,533	9,844	12,107	16,567	14,837	135,919
Totals, Alberta	9,036,559	7,830,868	9,171,194	8,232,891	7,121,630	8,603,217	8,455,354	8,334,667	8,322,402	7,734,135	8,074,729	8,609,864	99,527,510
Total supply	10,553,335	9,170,441	10,669,163	9,623,522	8,358,555	9,818,228	9,691,005	9,564,691	9,492,927	8,972,253	9,263,782	9,893,393	115,071,295
Disposition													
Inventory changes—													
Field	4,455	604	858	−4,810	2,106	978	−3,783	−2,379	6,190	−9,467	2,571	9,305	6,628
Plant	−4,049	33,899	21,508	37,706	−43,142	−10,339	−13,064	500	−14,367	15,508	14,689	−2,325	36,524
Transporters	−73,279	59,543	−71,249	−19,288	4,671	156,064	138,373	117,952	−271,215	143,012	−200,196	193,271	177,659
Totals	−72,873	94,046	−48,883	13,608	−36,365	146,703	121,526	116,073	−279,392	149,053	−182,936	200,251	220,811
Losses and adjustments—													
Field	−193	−456	25	58		−6,408	−2,891	−3,000	1,526	28	45	763	−10,503
Plant	5,223	2,739	3,553	2,923	2,558	3,680	2,611	3,448	3,751	6,031	3,652	3,469	43,638
Transporters	−7,251	−19,401	10,476	−2,139	3,094	11,333	−6,399	4,001	12,204	−17,895	−10,009	−22,416	−44,402
Totals	−2,221	−17,118	14,054	842	5,652	8,605	−6,679	4,449	17,481	−11,836	−6,312	−18,184	−11,267
Pipeline use in Province	10,351	4,882	9,015	4,057	1,760	3,702	3,901	3,743	3,952	5,134	985	4,200	55,682
Transfers	40,767	39,232	44,148	37,691	27,752	40,816	54,245	44,709	50,946	49,780	43,089	39,872	513,047
Deliveries—													
To British Columbia refineries—													
British Columbia production	1,486,162	1,435,234	1,341,231	1,595,579	1,226,474	1,182,241	1,297,051	1,325,790	1,416,295	1,400,298	1,169,911	1,277,559	16,153,825
Alberta production	2,900,684	2,664,056	3,565,984	2,713,225	2,250,022	3,093,085	2,884,679	2,879,428	3,147,321	2,273,074	3,139,302	3,151,570	34,662,430
Totals	4,386,846	4,099,290	4,907,215	4,308,804	3,476,496	4,275,326	4,181,730	4,205,218	4,563,616	3,673,372	4,309,213	4,429,129	50,816,255
To Eastern Canada—													
British Columbia production													
Alberta production	516,038	283,267	305,435	312,489									1,417,229
Totals	516,038	283,267	305,435	312,489									1,417,229

Table 4-11—Monthly Supply and Disposition of Crude Oil/Pentanes Plus, 1975—Continued

(Quantities in barrels.)

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Disposition—*Continued*													
Deliveries—*Continued*													
To export—													
British Columbia production	67,319	47,066	34,755	29,022	74,959	61,766	39,135	37,049	38,801	27,980	35,606	46,480	539,938
Alberta production	5,604,194	4,637,134	5,405,384	4,920,178	4,805,782	5,310,367	5,227,587	5,150,504	5,077,591	5,070,419	5,064,150	5,176,145	61,449,435
Totals	5,671,513	4,684,200	5,440,139	4,949,200	4,880,741	5,372,133	5,266,722	5,187,553	5,116,392	5,098,399	5,099,756	5,222,625	61,989,373
Reporting adjustment	2,914	−17,358	−1,960	−3,169	2,519	−29,057	69,560	2,946	19,932	8,351	−13	15,500	70,165
Total disposition	10,553,335	9,170,441	10,669,163	9,623,522	8,358,555	9,818,228	9,691,005	9,564,691	9,492,927	8,972,253	9,263,782	9,893,393	115,071,295
British Columbia Refineries													
Receipts—													
British Columbia crude	1,537,498	1,436,342	1,271,683	1,579,276	1,270,363	1,275,627	1,298,858	1,314,613	1,338,834	1,359,563	1,141,639	1,255,991	16,080,287
British Columbia condensate	40,767	39,232	44,148	37,691	33,754	46,814	57,248	47,709	53,946	52,781	43,089	39,872	537,051
Totals	1,578,265	1,475,574	1,315,831	1,616,967	1,304,117	1,322,441	1,356,106	1,362,322	1,392,780	1,412,344	1,184,728	1,295,863	16,617,338
Alberta crude	2,900,684	2,664,056	3,565,990	2,713,225	2,251,222	3,047,119	2,884,679	2,879,428	3,147,321	2,273,074	3,146,397	2,832,135	34,305,330
Alberta condensate	1,993	2,918	1,454	2,869	.....	6,032	25,002	26,038	8,646	11,287	8,287	10,178	104,704
Totals	2,902,677	2,666,974	3,567,444	2,716,094	2,251,222	3,053,151	2,909,681	2,905,466	3,155,967	2,284,361	3,154,684	2,842,313	34,410,034
Total receipts	4,480,942	4,142,548	4,883,275	4,333,061	3,555,339	4,375,592	4,265,787	4,267,788	4,548,747	3,696,705	4,339,412	4,138,176	51,027,372
Disposition—													
Inventory changes	251,337	−85,702	47,005	61,044	−116,501	38,473	−173,826	−220,392	−15,208	212,516	−312,585	63,513	−250,326
Losses and adjustments	−2,892	−1,479	−882	−5,023	−395	−1,986	−1,576	−650	−300	146	−265	312	−14,990
Refinery runs—													
British Columbia production	1,487,585	1,446,254	1,901,278	1,497,736	1,418,653	1,420,119	1,483,744	1,419,345	1,442,771	1,310,942	1,443,172	2,545,276	18,816,875
Alberta production	2,744,912	2,783,475	2,935,874	2,779,304	2,243,582	2,918,986	2,957,445	3,069,485	3,121,484	2,173,101	3,209,090	1,529,075	32,475,813
Totals	4,232,497	4,229,729	4,837,152	4,277,040	3,672,235	4,339,105	4,441,189	4,488,830	4,564,255	3,484,043	4,652,262	4,074,351	51,292,688
Total disposition	4,480,942	4,142,548	4,883,275	4,333,061	3,555,339	4,375,592	4,265,787	4,267,788	4,548,747	3,696,705	4,339,412	4,138,176	51,027,372

Table 4-12—Monthly Supply and Disposition of Natural Gas, 1975

(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	33,315,219	31,706,006	35,081,003	35,022,163	34,511,265	32,822,304	28,994,671	25,814,441	28,441,038	35,242,931	33,830,345	34,558,323	389,339,709
Associated gas	1,272,524	1,129,063	1,390,595	1,067,722	1,055,349	969,151	1,165,237	1,137,285	1,118,018	1,154,175	1,080,384	1,124,802	13,664,305
Less injected	261,986	258,587	321,290	217,072	228,376	209,926	226,684	221,309	182,527	206,867	204,217	206,616	2,745,457
Net British Columbia production	34,325,757	32,576,482	36,150,308	35,872,813	35,338,238	33,581,529	29,933,224	26,730,417	29,376,529	36,190,239	34,706,512	35,476,509	400,258,557
Imports—													
Alberta	796,847	737,012	1,089,074	926,863	992,040	890,951	937,334	930,645	779,420	1,776,278	2,363,987	2,191,476	14,411,927
Northwest Territories	2,438,250	2,292,079	2,519,396	2,431,213	2,412,483	2,281,168	2,379,075	2,224,733	2,493,043	2,696,980	3,276,796	3,358,850	30,804,066
Yukon	192,260	168,106	180,245	161,019	150,872	164,262	156,691	169,007	146,943	100,479	145,119	147,325	1,882,328
Total imports	3,427,357	3,197,197	3,788,715	3,519,095	3,555,395	3,336,381	3,473,100	3,324,385	3,419,406	4,573,737	5,785,902	5,697,651	47,098,321
Total supply	37,753,114	35,773,679	39,939,023	39,391,908	38,893,633	36,917,910	33,406,324	30,054,802	32,795,935	40,763,976	40,492,414	41,174,160	447,356,878
Disposition													
Flared—													
Field	409,074	311,795	442,563	236,190	263,518	259,448	290,335	356,223	317,382	236,241	265,553	292,189	3,680,511
Plant	.....	.....	564	93,518	.....	.....	.....	.....	28,960	.....	.....	.....	123,042
Gathering systems	1,705	21,948	14,216	3,039	48,957	3,914	7,611	1,424	19,921	70,167	13,486	2,437	208,825
Totals	410,779	333,743	457,343	332,747	312,475	263,362	297,946	357,647	366,263	306,408	279,039	294,626	4,012,378
Fuel—													
Field	237,258	236,405	277,923	235,520	206,015	194,422	210,631	199,137	203,228	217,243	251,937	243,637	2,713,356
Plant	1,434,742	1,298,161	1,397,553	1,378,101	1,365,851	1,269,030	1,203,852	1,458,296	1,239,695	1,365,347	1,439,993	1,413,548	16,264,169
Compressor	25,630	23,795	27,491	26,762	26,742	20,695	21,385	18,729	21,305	24,616	28,791	29,724	295,665
Totals	1,697,630	1,558,361	1,702,967	1,640,383	1,598,608	1,484,147	1,435,868	1,676,162	1,464,228	1,607,206	1,720,721	1,686,909	19,273,190
Line pack changes	−8,060	22,980	4,236	1,823	8,181	−13,004	12,615	−35,453	25,311	−7,219	4,010	3,594	19,014
Losses and adjustments—													
Field	617,587	430,262	648,603	448,379	503,876	512,298	1,145,990	618,567	608,071	984,315	650,570	1,038,081	8,206,599
Plant	251,256	205,338	268,127	17,142	−64,947	186,844	125,678	45,142	703,606	61,061	324,734	506,824	2,630,805
Gathering systems	119,255	40,842	354	74,483	71,926	18,764	27,174	23,063	69,890	43,857	20,529	−5,977	504,160
Totals	988,098	676,442	917,084	540,004	510,855	717,906	1,298,842	686,772	1,381,567	1,089,233	995,833	1,538,928	11,341,564
Processing shrinkage	3,667,713	3,687,081	4,032,985	4,199,309	4,090,126	3,853,766	3,259,813	2,841,777	3,157,074	4,160,338	3,890,620	3,993,928	44,834,530
Available marketable gas in northeastern British Columbia	31,008,073	29,501,458	32,958,411	32,692,414	32,336,967	30,721,207	27,102,959	24,667,737	26,404,996	33,759,112	33,565,553	34,302,742	369,021,629
Reporting adjustment	−11,119	−6,386	−134,003	−14,772	36,421	−109,474	−1,719	−139,840	−3,504	−151,102	36,638	−646,567	−1,145,427
Total disposition	37,753,114	35,773,679	39,939,023	39,391,908	38,893,633	36,917,910	33,406,324	30,054,802	32,795,935	40,763,976	40,492,414	41,174,160	447,356,878
BRITISH COLUMBIA TRANSPORTERS													
Supply													
Available marketable gas in northeastern British Columbia	31,008,073	29,501,458	32,958,411	32,692,414	32,336,967	30,721,207	27,102,959	24,667,737	26,404,996	33,759,112	33,565,552	34,302,742	369,021,628
Imports to southeastern British Columbia–Alberta	41,178,338	36,717,044	40,265,012	37,423,056	35,132,125	32,382,349	35,787,016	35,973,960	33,509,419	37,551,046	39,101,930	40,183,395	445,204,780
Total supply	72,186,411	66,218,502	73,223,513	70,115,470	67,469,092	63,103,556	62,889,975	60,641,697	59,914,415	71,310,158	72,667,482	74,486,137	814,226,408

Table 4-12—Monthly Supply and Disposition of Natural Gas, 1975—Continued

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

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Disposition													
Fuel	1,572,303	1,429,570	1,620,064	1,634,784	1,523,436	1,358,053	1,219,064	1,029,130	1,121,868	1,855,106	1,734,273	1,772,948	17,870,599
Losses and adjustments	138,780	42,009	—7,906	—16,605	133,642	—119,735	292,797	164,552	—6,827	—115,358	—60,502	—112,746	332,101
Line pack changes	—69,525	67,232	67,596	16,168	—112,183	118,941	—44,207	—105,991	81,616	—184,357	90,295	102,577	28,162
Deliveries to British Columbia distributors—													
North	390,532	354,718	351,421	233,502	168,551	123,749	110,392	124,293	139,524	245,901	352,056	433,686	3,028,325
Interior	6,322,986	5,758,420	5,744,894	4,770,657	4,267,963	3,770,572	2,230,996	1,581,432	1,709,382	4,051,167	5,696,823	5,964,131	51,869,423
Lower Mainland	9,324,440	8,491,954	8,438,978	6,933,701	6,538,697	5,793,656	5,735,360	6,953,456	7,494,455	10,578,248	9,474,704	9,794,255	95,551,904
Totals	16,037,958	14,605,092	14,535,293	11,937,860	10,975,211	9,687,977	8,076,748	8,659,181	9,343,361	14,875,316	15,523,583	16,192,072	150,449,652
Export—													
From northeastern British Columbia	14,701,529	14,516,218	18,093,914	20,145,360	20,770,397	20,496,723	18,597,616	15,916,874	16,546,315	18,361,058	17,557,499	17,638,016	213,341,519
From southeastern British Columbia	39,814,079	35,565,708	38,994,272	36,366,202	34,176,397	31,566,844	34,755,015	34,994,654	32,830,649	36,542,762	37,848,260	38,798,799	432,253,641
Totals	54,515,608	50,081,926	57,088,186	56,511,562	54,946,794	52,063,567	53,352,631	50,911,528	49,376,964	54,903,820	55,405,759	56,436,815	645,595,160
Reporting adjustments	—8,713	—7,327	—79,720	31,701	2,192	—5,247	—7,058	—16,703	—2,567	—24,369	—25,926	94,471	—49,266
Total disposition	72,186,411	66,218,502	73,223,513	70,115,470	67,469,092	63,103,556	62,889,975	60,641,697	59,914,415	71,310,158	72,667,482	74,486,137	814,226,408
BRITISH COLUMBIA DISTRIBUTORS													
Receipts													
From transporters	16,157,161	14,725,389	14,619,937	12,015,270	11,032,352	9,737,848	8,124,594	8,710,117	9,384,490	14,909,530	15,602,864	16,322,847	151,342,399
From storage	71,938	32,029	11,624	9,348	9,668	----------	----------	7,719	8,359	----------	41,752	----------	192,437
Other receipts	5,201	1,794	1,676	640	993	664	459	309	426	405	1,037	1,709	15,313
Total receipts	16,234,300	14,759,212	14,633,237	12,025,258	11,043,013	9,738,512	8,125,053	8,718,145	9,393,275	14,909,935	15,645,653	16,324,556	151,550,149
Disposition													
Fuel	59,180	52,697	38,874	28,720	43,003	27,262	12,756	8,679	—2,381	65,459	41,068	49,414	424,731
Losses and adjustments	1,830,015	—254,618	294,451	—1,377,467	—1,795,833	—921,246	—743,681	416,649	176,793	2,784,285	3,403,578	2,251,536	6,064,462
Line pack changes	—12,613	—13,969	35,404	—18,015	2,873	—9,587	—20,674	—8,374	15,647	29,038	—286	43,815	43,259
To storage	----------	----------	----------	----------	----------	48,661	87,014	----------	----------	14,725	----------	43,674	194,074
Sales—													
Residential	5,090,662	5,847,273	4,734,147	4,439,442	3,346,381	2,223,202	1,486,917	1,158,332	1,216,533	1,711,932	3,030,525	4,740,464	39,025,810
Commercial	4,131,555	4,442,863	3,836,483	3,554,681	2,811,175	1,856,660	1,417,283	1,199,685	1,425,493	1,683,936	2,935,801	3,962,037	33,257,652
Industrial	5,086,933	4,648,641	5,596,864	5,287,092	5,241,024	4,670,010	3,257,875	2,337,026	2,347,925	4,440,171	5,219,463	4,938,747	53,071,771
Electrical power	48,568	36,325	97,014	110,805	1,394,390	1,843,550	2,627,563	3,606,148	4,213,265	4,180,389	1,015,504	294,869	19,468,390
Total sales	14,357,718	14,975,102	14,264,508	13,392,020	12,792,970	10,593,422	8,789,638	8,301,191	9,203,216	12,016,428	12,201,293	13,936,117	144,823,623
Total disposition	16,234,300	14,759,212	14,633,237	12,025,258	11,043,013	9,738,512	8,125,053	8,718,145	9,393,275	14,909,935	15,645,653	16,324,556	151,550,149

Table 4-13—Monthly Supply and Disposition of Butane, 1975

(Quantities in barrels of 34.9723 Canadian gallons at 60°F)

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Supply													
British Columbia production—													
Plant	49,467	53,467	61,412	56,027	51,562	56,494	53,576	48,387	44,929	66,464	59,326	68,293	669,404
Refinery	34,894	27,636	28,869	22,756	35,095	17,868	29,067	37,590	32,084	40,861	38,102	31,867	376,689
Totals	84,361	81,103	90,281	78,783	86,657	74,362	82,643	85,977	77,013	107,325	97,428	100,160	1,046,093
Alberta imports	2,524	10,620	2,799	3,217	2,445	4,594	3,991	6,106	11,057	3,362	2,711	4,265	57,691
Total supply	86,885	91,723	93,080	82,000	89,102	78,956	86,634	92,083	88,070	110,687	100,139	104,425	1,103,784
Disposition													
Inventory change	−12,038	1,771	−3,313	2,820	−181	9,049	−14,701	6,873	−5,398	−360	1,618	6	−13,854
Fuel	2,028	648	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2,676
Gasoline enrichment	9,273	9,676	11,442	9,729	5,808	5,097	10,208	5,081	18,357	20,697	20,688	21,325	147,381
Losses and adjustments	189	.....	.....	−593	.....	.....	1,816	123	−1	857	.....	−2,514	−123
Sales of British Columbia production—													
British Columbia	43,739	33,235	29,122	27,825	28,098	18,399	26,130	27,476	24,354	38,203	41,366	37,233	375,180
Alberta	11,122	24,980	36,201	30,683	31,189	12,785	31,479	23,204	11,224	4,494	.....	.....	217,361
United States	30,048	10,793	16,829	8,319	21,743	29,032	27,711	23,220	28,477	43,434	33,756	44,110	317,472
Totals	84,909	69,008	82,152	66,827	81,030	60,216	85,320	73,900	64,055	86,131	75,122	81,343	910,013
Sales of Alberta production—													
British Columbia	2,524	10,620	2,799	3,217	2,445	4,594	3,991	6,106	11,057	3,362	2,711	4,265	57,691
Total sales	87,433	79,628	84,951	70,044	83,475	64,810	89,311	80,006	75,112	89,493	77,833	85,608	967,704
Total disposition	86,885	91,723	93,080	82,000	89,102	78,956	86,634	92,083	88,070	110,687	100,139	104,425	1,103,784

Table 4-14—Monthly Supply and Disposition of Propane, 1975

(Quantities in barrels of 34.9723 Canadian gallons at 60°F)

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Supply													
British Columbia production—													
Plant	35,883	36,483	48,547	44,772	48,246	44,861	41,321	44,929	32,931	47,677	46,253	43,704	515,607
Refinery	48,038	41,781	49,943	32,619	32,600	40,844	41,257	23,129	33,594	48,103	51,651	45,841	489,400
Totals	83,921	78,264	98,490	77,391	80,846	85,705	82,578	68,058	66,525	95,780	97,904	89,545	1,005,007
Alberta imports	195,751	294,898	332,984	298,796	285,151	307,668	264,780	303,599	276,407	368,059	346,019	396,062	3,670,174
Total supply	279,672	373,162	431,474	376,187	365,997	393,373	347,358	371,657	342,932	463,839	443,923	485,607	4,675,181
Disposition													
Inventory change	—12,992	—527	16,319	—5,368	—7,636	2,390	1,458	56	1,226	—5,102	—302	3,782	—6,696
Fuel	1,610	.....	.....	.....	.....	.....	.....	.....	.....	182	.....	.....	1,792
Losses and adjustments	13	—7,213	—1,382	.....	2,916	624	233	5	5	33	.....	.....	—4,766
Sales of British Columbia production—													
British Columbia	83,837	79,421	70,833	55,507	50,891	55,958	51,228	39,816	44,976	73,400	79,773	74,661	760,301
Alberta	3,130	206	.....	.....	.....	.....	.....	.....	1,428	.....	.....	57	4,821
Northwest Territories	3,782	1,119	668	224	.....	.....	.....	.....	854	628	1,100	1,957	10,332
United States	4,541	5,258	12,052	27,028	34,675	26,733	29,659	28,181	18,036	26,639	17,333	9,088	239,223
Totals, British Columbia	95,290	86,004	83,553	82,759	85,566	82,691	80,887	67,997	65,294	100,667	98,206	85,763	1,014,677
Sales of Alberta production—													
British Columbia	107,775	123,392	73,550	63,422	59,383	46,155	27,497	56,303	44,368	71,933	74,792	124,838	873,408
Offshore	87,976	171,506	259,434	235,374	225,768	261,513	237,283	247,296	232,039	296,126	271,227	271,224	2,796,766
Totals, Alberta	195,751	294,898	332,984	298,796	285,151	307,668	264,780	303,599	276,407	368,059	346,019	396,062	3,670,174
Total sales	291,041	380,902	416,537	381,555	370,717	390,359	345,667	371,596	341,701	468,726	444,225	481,825	4,684,851
Total disposition	279,672	373,162	431,474	376,187	365,997	393,373	347,358	371,657	342,932	463,839	443,923	485,607	4,675,181

Table 4-15—Monthly Supply and Disposition of Sulphur, 1975

(Quantities in long tons)

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Supply													
British Columbia production	4,295	5,144	5,579	5,662	4,227	4,611	4,975	4,207	4,062	5,374	5,933	5,801	59,870
Disposition													
Inventory change	241	1,807	2,908	1,522	728	1,163	2,311	1,746	1,565	2,785	3,266	1,906	21,948
Losses and adjustments	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sales—													
North America	1,883	2,078	2,092	2,319	2,335	1,713	1,624	1,594	1,689	2,228	1,955	1,858	23,368
Offshore	2,171	1,259	579	1,821	1,164	1,735	1,040	867	808	361	712	2,037	14,554
Totals	4,054	3,337	2,671	4,140	3,499	3,448	2,664	2,461	2,497	2,589	2,667	3,895	37,922
Total disposition	4,295	5,144	5,579	5,662	4,227	4,611	4,975	4,207	4,062	5,374	5,933	5,801	59,870

Table 4-16—Monthly Gross Values to Producers of Crude Oil, Natural Gas, Natural Gas Liquids, and Sulphur, 1975

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
	$	$	$	$	$	$	$	$	$	$	$	$	$
Crude oil	8,634,086	7,531,789	8,425,286	7,536,299	6,804,971	6,641,098	8,575,452	8,371,545	7,856,361	8,360,402	8,002,086	8,680,764	95,420,139
Natural gas	5,741,725	5,486,673	6,068,437	6,073,924	5,971,735	5,747,511	5,111,146	4,745,020	5,230,651	6,218,901	10,412,741	10,533,113	77,341,577
Products—													
Natural gas liquids[1]	108,382	112,836	153,074	132,100	111,785	118,417	121,015	105,938	101,961	94,740	92,848	105,845	1,358,941
Sulphur													
Total products	108,382	112,836	153,074	132,100	111,785	118,417	121,015	105,938	101,961	94,740	92,848	105,845	1,358,941
Total value	14,484,193	13,131,298	14,646,797	13,742,323	12,888,491	12,507,026	13,807,613	13,222,503	13,188,973	14,674,043	18,507,675	19,319,722	174,120,657

[1] Includes condensate, pentanes plus, propane, and butane, but does not include petroleum from Boundary Lake Gas Conservation plant, which is included under crude oil sales values.

NOTE—This statement includes amendments received up to March 31, 1976.

Table 4-17—Crude-oil Pipelines, 1975

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	2,281	65,000
	Fort St. John	.....	.....	....	.....	.....	.....	117	.....
	Inga	6⅝	1.7	1	12,500	12,500	.....	4,417	1,000
	Stoddart	.....	.....	....	.....	.....	.....	92	.....
CDC Oil & Gas Limited	Inga	6⅝	3.2	....	.....	.....	.....	.....	.....
		4½	8.7	1	10,000	10,000	13.9	4,000	.....
		3½	2.0	1	1,600	.....	....	.....	.....
Trans-Prairie Pipelines Ltd.	Beatton River, Beatton River West, Boundary Lake, Bulrush, Currant, Milligan Creek, Osprey, Peejay, Weasel, Wildmint, Willow, Wolf	3½	24.5	1	36,000	52,000[1]	84.6	52,316	160,000
		4½	109.0	2	45,000	45,000[2]	.....	.....	.....
		6⅝	42.9	....	.....	.....	.....	.....	.....
		8⅝	104.0	....	.....	.....	.....	.....	.....
		12¾	39.1	....	.....	.....	.....	.....	.....
Westcoast Petroleum Ltd.	.....	12	505.0	12	70,000	70,000	.....	34,828	586,000

[1] Boundary Lake.
[2] Terminal to Westcoast Petroleum Ltd.

Table 4-18—Crude-oil Refineries, 1975

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	627,000	Catalytic-fluid	2,260	Catalytic polymerization, catalytic reformer, distillate, desulphurization, merox, asphalt, naphtha.
Gulf Oil Canada Limited	Port Moody	Comp.	1958	B.C. and Alberta	37,200	1,754,000	Catalytic-fluid	9,500	Catalytic reformer, distillate, desulphurization, alkylation-sulphuric acid, naphtha-desulphurization, merox, sulphur.
Imperial Oil Enterprises Ltd.	Ioco	Comp.	1915	B.C. and Alberta	39,200	3,200,000	Catalytic-fluid	11,700	Catalytic polymerization, powerformer, toluene extraction, sulphur, L.P.G. plant, desulphurization.
Pacific Petroleums Ltd.	Taylor	Comp.	1960	B.C.	14,300	1,100,000	Catalytic-fluid	4,650	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.	7,700	675,000			Unifiner, reformer, asphalt.

Symbols: SA—skimming asphalt; Comp.—complete.

Table 4-19—Natural Gas Pipelines, 1975

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	38.8	....	.....	562,000	.....	4,133.6	
		24	19.2	....	.....	.....	.....	.....	
		20	47.1	....	.....	.....	.....	.....	Lower Mainland of British Columbia.
		18	37.5	....	.....	.....	.....	.....	
		16	14.2	....	.....	.....	.....	.....	
		12	58.2	....	.....	.....	.....	.....	
		10	14.9	....	.....	.....	.....	.....	
		8	26.1	....	.....	.....	.....	.....	
		6	23.5	....	.....	.....	.....	.....	
		4	12.7	....	.....	.....	.....	.....	
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, Skookumchuk, Elko, Elkford, and Yahk.
		6	70.7	....	.....	.....	6	4.7	
	Westcoast Transmission Co. Ltd.	4	20.2	....	.....	.....	4	10.0	
		3	28.1	....	.....	.....	3	21.8	
		2	0.5	....	.....	.....	2	42.0	
		....	.....	....	.....	.....	1¼	58.7	
		....	.....	....	.....	.....	¾	123.3	
		....	.....	....	.....	.....	⅝	3.6	
Gas Trunk Line of British Columbia	Beg field	....	.....	....	.....	.....	16	27.4	To Westcoast Transmission Co. Ltd.
		....	.....	....	.....	.....	6⅝	5.9	
	Boundary Lake field	....	.....	....	.....	.....	16	31.4	
		....	.....	....	.....	.....	6⅝	2.9	
	Jedney and Bubbles field	....	.....	....	.....	.....	12¾	31.5	
		....	.....	....	.....	.....	10¾	7.0	
	Laprise Creek field	....	.....	....	.....	.....	12¾	23.8	
	Nig Creek field	....	.....	1	1,800	.....	16	28.3	
Inland Natural Gas Co. Ltd.	Westcoast Transmission Co. Ltd.	12	357.2	1	2,200	185,000	8	12.4	Peace River, Prince George, Cariboo, Thompson, Okanagan, and Kootenay areas.
		10	119.1	1	2,200	.....	6	37.1	
		8	25.7	1	1,100	.....	4	185.1	
		6	99.9	....	.....	.....	3	90.9	
		4	144.0	....	.....	.....	2	589.7	
		3	70.0	....	.....	.....	1½	20.7	
		2	70.7	....	.....	.....	1¼	247.9	
		1¼	1.6	....	.....	.....	.....	.....	
Northland Utilities (B.C.) Ltd.	Peace River Transmission Co.	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	12.6	
		....	.....	....	.....	.....	3	5.4	

Table 4-19—Natural Gas Pipelines, 1975—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	
Northland Utilities (B.C.) Ltd. —*Continued*		----	------	----	------	------	2	25.5	
		----	------	----	------	------	1¼	16.4	
		----	------	----	------	------	¾	0.6	
Pacific Northern Gas Ltd.	Westcoast Transmission Co. Ltd.	10¾	274.3	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	17.7	
		4½	14.0	----	------	------	2	46.3	
		3½	43.7	----	------	------	1¼	34.2	
		2⅞	17.8	----	------	------	¾	23.6	
		2⅜	28.4	----	------	------	½	0.1	
		1⅓	4.0	----	------	------	------	------	
Plains Western Gas & Electric Co. Ltd.	Westcoast Transmission Co. Ltd.	6	0.3	----	------	12,000	4	14.1	Fort St. John, Taylor, Grandhaven, Charlie Lake, Airport, Baldonnel.
		4	20.9	----	------	------	3	3.0	
		3	4.6	----	------	------	2½	1.5	
		2	2.0	----	------	------	2	48.2	
		----	------	----	------	------	1½	2.7	
		----	------	----	------	------	1¼	0.1	
		----	------	----	------	------	1	9.8	
		----	------	----	------	------	¾	4.8	
Westcoast Transmission	Alberta	26	32.5	----	------	215,000	------	------	
	Taylor-Willow Flats	30	76.3	----	------	------	------	------	
	Willow Flats-Huntingdon	30	570.3	13	279,640	1,360,000	------	------	
		36	464.0	----	------	------	------	------	
	Alaska Highway system	----	------	----	------	------	26	37.5	
		----	------	----	------	------	20	18.1	
		----	------	----	------	------	18	17.9	
		----	------	----	------	------	12¾	9.9	
	Beaver River	24	110.9	1	39,000	270,000	------	------	
	Blueberry West field	----	------	----	------	------	8⅝	6.7	
	Boundary Lake field	----	------	1	4,000	------	16	0.5	
	Bubbles field	----	------	1	660	------	------	------	
	Buick Creek field	----	------	----	------	------	26	1.8	
		----	------	----	------	------	10¾	7.3	
	Buick Creek East field	----	------	----	------	------	8⅝	6.6	
	Buick Creek West field	----	------	1	1,980	------	20	16.2	
	Charlie Lake field	----	------	----	------	------	6⅝	2.3	
	Clarke Lake field	----	------	----	------	------	16	16.4	
	Dawson Creek field	----	------	----	------	------	8⅝	5.4	
	Fireweed field	----	------	----	------	------	10¾	15.3	

		----	-------	----	-------	----------	6⅝	4.2
		----	-------	----	-------	----------	3½	5.0
	Flatrock field	----	-------	----	-------	----------	3½	5.0
	Fort St. John field	----	-------	3	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	-------	----------
	Fort Nelson-Willow Flats	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	9.7
	Kotcho Lake East field	----	-------	----	-------	----------	10¾	11.5
	Laprise Creek field	----	-------	1	5,160	----------	6⅝	2.5
	Milligan-Peejay system	----	-------	1	4,000	----------	12	32.2
		----	-------	----	-------	----------	10¾	23.4
		----	-------	----	-------	----------	8⅝	13.2
		----	-------	----	-------	----------	6⅝	6.8
Westcoast Transmission	Montney field	----	-------	----	-------	----------	4½	7.4
	Nig Creek field	----	-------	----	-------	----------	6⅝	2.4
	Parkland field	----	-------	----	-------	----------	8⅝	6.7
	Petitot-Louise system	----	-------	----	-------	----------	10¾	11.8
		----	-------	----	-------	----------	12¾	15.8
		----	-------	----	-------	----------	16	6.5
		----	-------	----	-------	----------	20	25.9
	Red Creek field	----	-------	----	-------	----------	4½	2.9
	Rigel field	----	-------	1	6,800	----------	12¾	11.1
		----	-------	1	1,400	----------	10¾	11.5
	Sierra field	----	-------	----	-------	----------	12	6.8
		----	-------	----	-------	----------	16	6.8
	Stoddart field	----	-------	1	1,400	----------	8⅝	6.3
	Yoyo field	----	-------	----	-------	----------	24	48.0

Table 4-20—Gas-processing Plants, 1975

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 dessiccant dehydration	1969	127	125		Westcoast Transmission Co. Ltd.
Pacific Petroleum 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	455	Condensate, pentanes plus, propane, butanes	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 4-21—Sulphur Plant, 1975

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

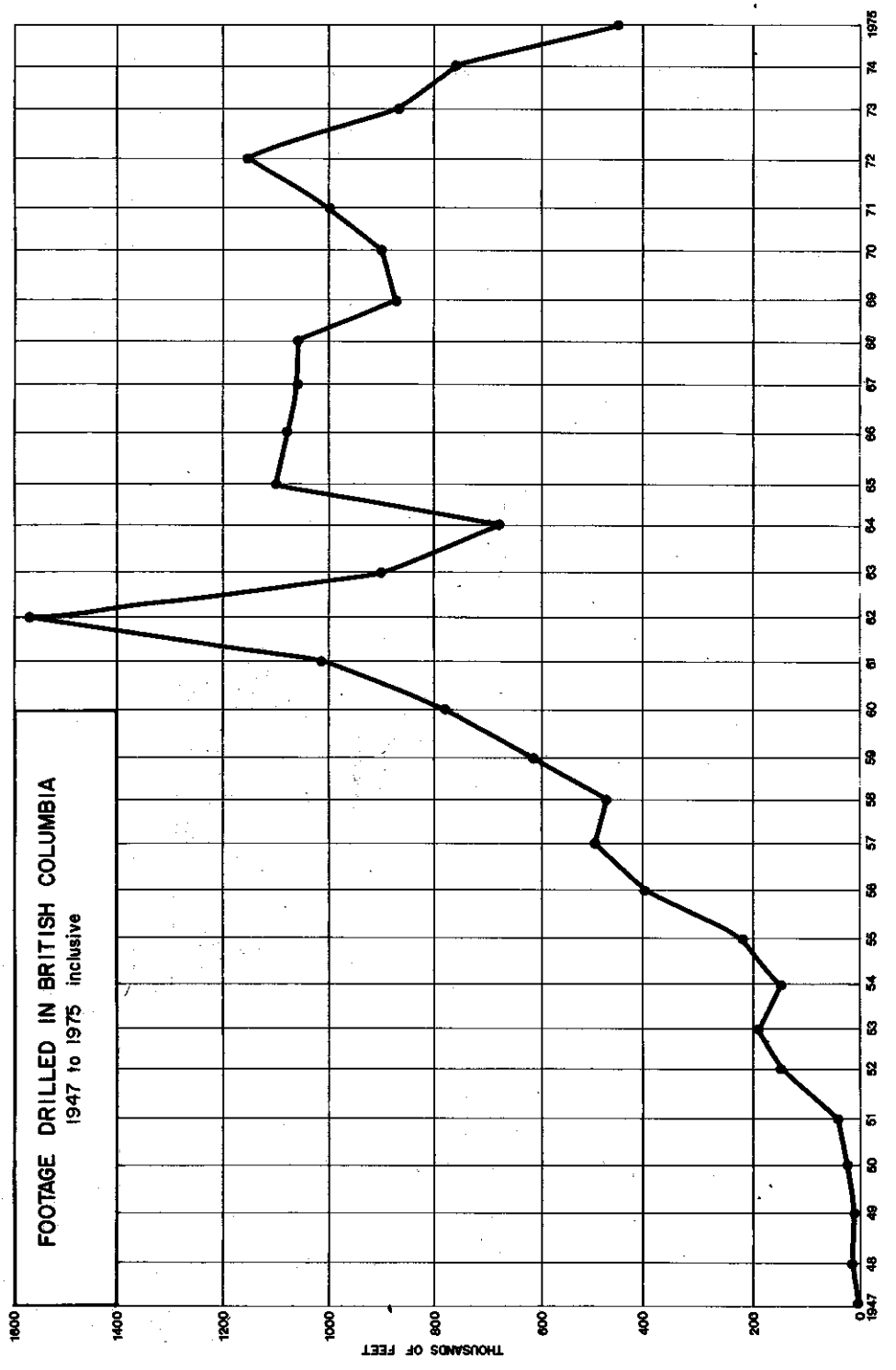

FOOTAGE DRILLED IN BRITISH COLUMBIA
1947 to 1975 inclusive
THOUSANDS OF FEET
1600
1400
1200
1000
800
600
400
200
0
1947
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
74
1975

Figure 4-22

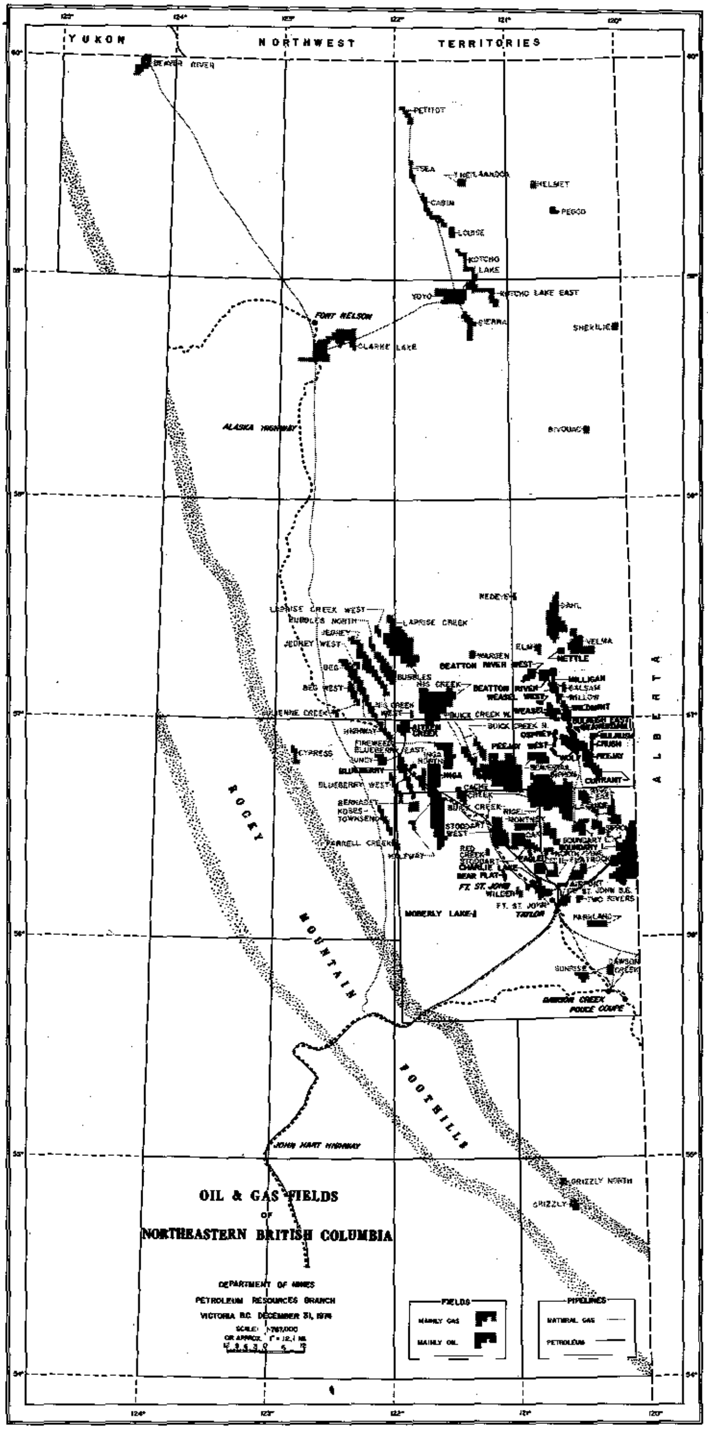

YUKON
NORTHWEST
TERRITORIES
ALBERTA
BEAVER RIVER
PETITOT
HELMET
PEGGO
CABIN
LOUISE
KOTCHO LAKE
KOTCHO LAKE EAST
YOYO
SIERRA
SHEKILIE
FORT NELSON
CLARKE LAKE
ALASKA HIGHWAY
BIVOUAC
ROCKY
MOUNTAIN
FOOTHILLS
LAPRISE CREEK WEST
LAPRISE CREEK
BUBBLES NORTH
JEDNEY
JEDNEY WEST
BEG
BEG WEST
BUBBLES
DAHL
VELMA
ELAN
NETTLE
BEATTON RIVER WEST
BEATTON RIVER
MILLIGAN
BALSAM
WILLOW
WEASEL
BUICK CREEK W.
BUICK CREEK N.
HIGHWAY
CYPRESS
FIREWEED
BLUEBERRY
BLUEBERRY WEST
INGA
INGA NORTH
PEEJAY
PEEJAY WEST
CRUSH
CURRANT
CACHE CREEK
BUICK CREEK
BERNADET
KOBES-TOWNSEND
FARRELL CREEK
HALFWAY
STODDART WEST
RED CREEK
STODDART
CHARLIE LAKE
BEAR FLAT
FT. ST. JOHN
WILDER
FT. ST. JOHN
TAYLOR
TWO RIVERS
AIRPORT
BOUNDARY L.
FLATROCK
PARKLAND
MOBERLY LAKE
SUNRISE
DAWSON CREEK
POUCE COUPE
JOHN HART HIGHWAY
GRIZZLY NORTH
GRIZZLY
OIL & GAS FIELDS OF NORTHEASTERN BRITISH COLUMBIA
DEPARTMENT OF MINES
PETROLEUM RESOURCES BRANCH
VICTORIA B.C. DECEMBER 31, 1974
FIELDS
MAINLY GAS
MAINLY OIL
PIPELINES
NATURAL GAS
PETROLEUM

Figure 4-23

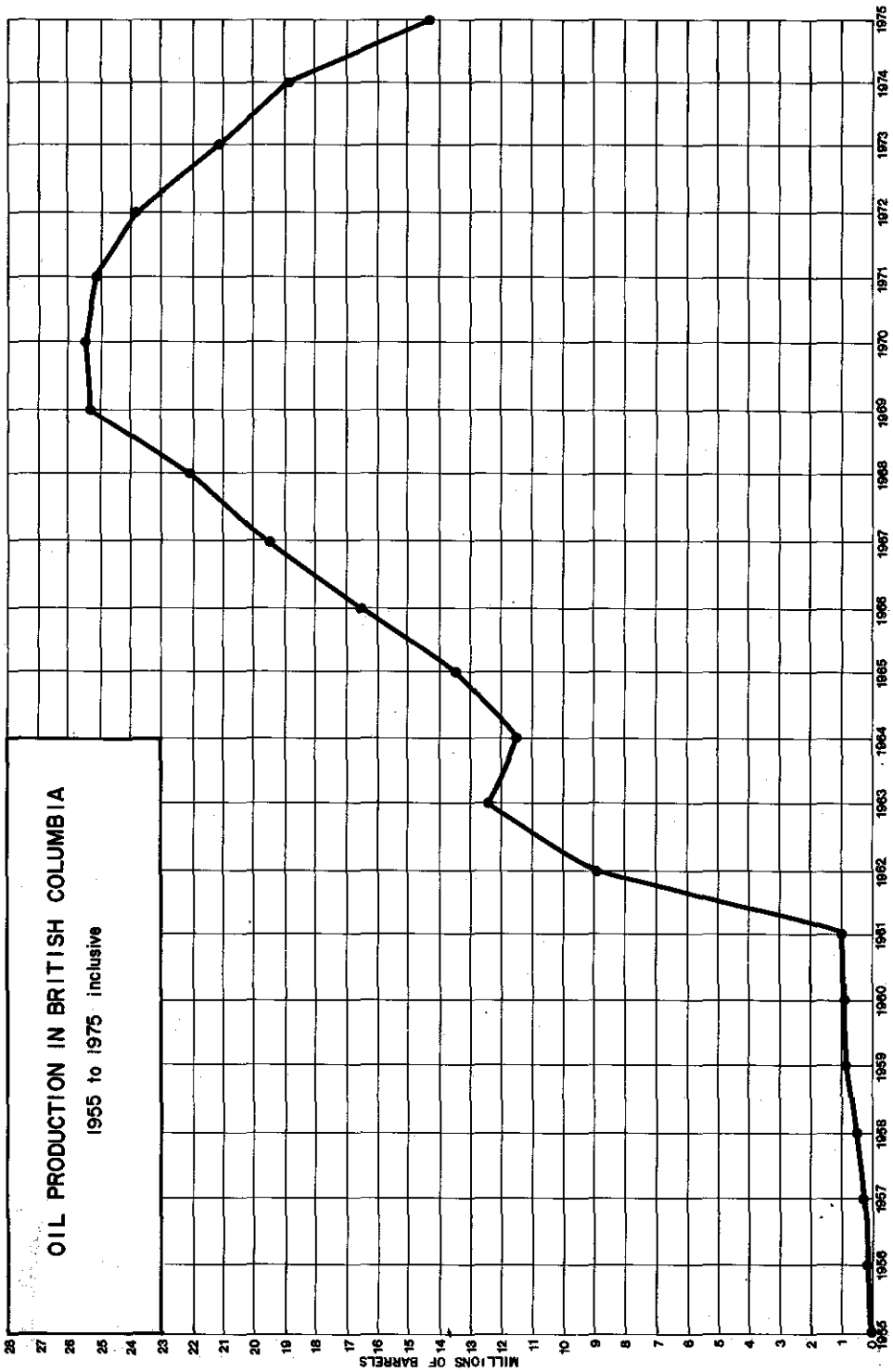

OIL PRODUCTION IN BRITISH COLUMBIA
1955 to 1975 inclusive
MILLIONS OF BARRELS
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
1955
1956
1957
1958
1959
1960
1961
1962
1963
1964
1965
1966
1967
1968
1969
1970
1971
1972
1973
1974
1975

Figure 4-24

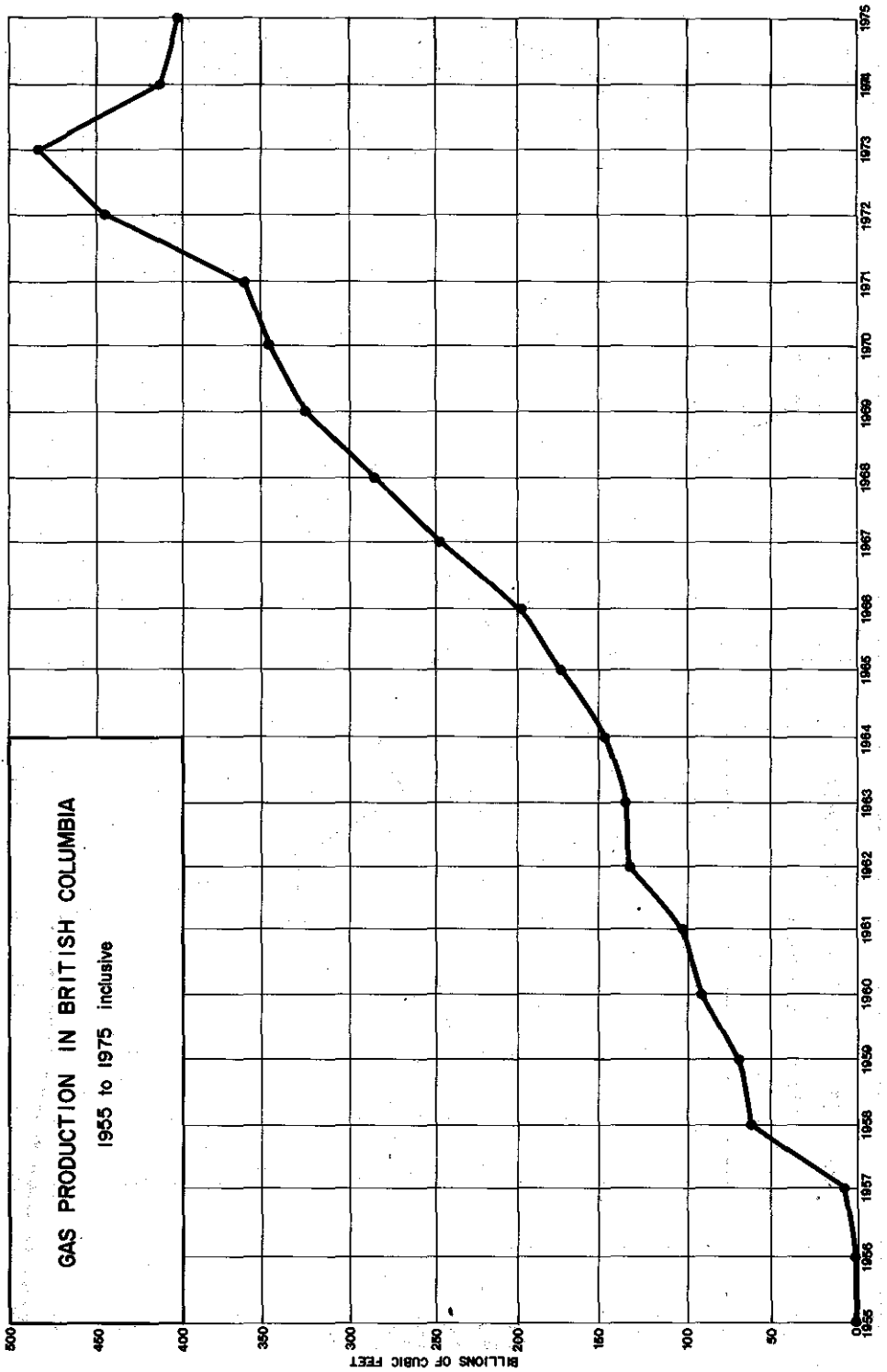

GAS PRODUCTION IN BRITISH COLUMBIA
1955 to 1975 inclusive
BILLIONS OF CUBIC FEET
500
450
400
350
300
250
200
150
100
50
0
1955
1956
1957
1958
1959
1960
1961
1962
1963
1964
1965
1966
1967
1968
1969
1970
1971
1972
1973
1974
1975

Figure 4-25

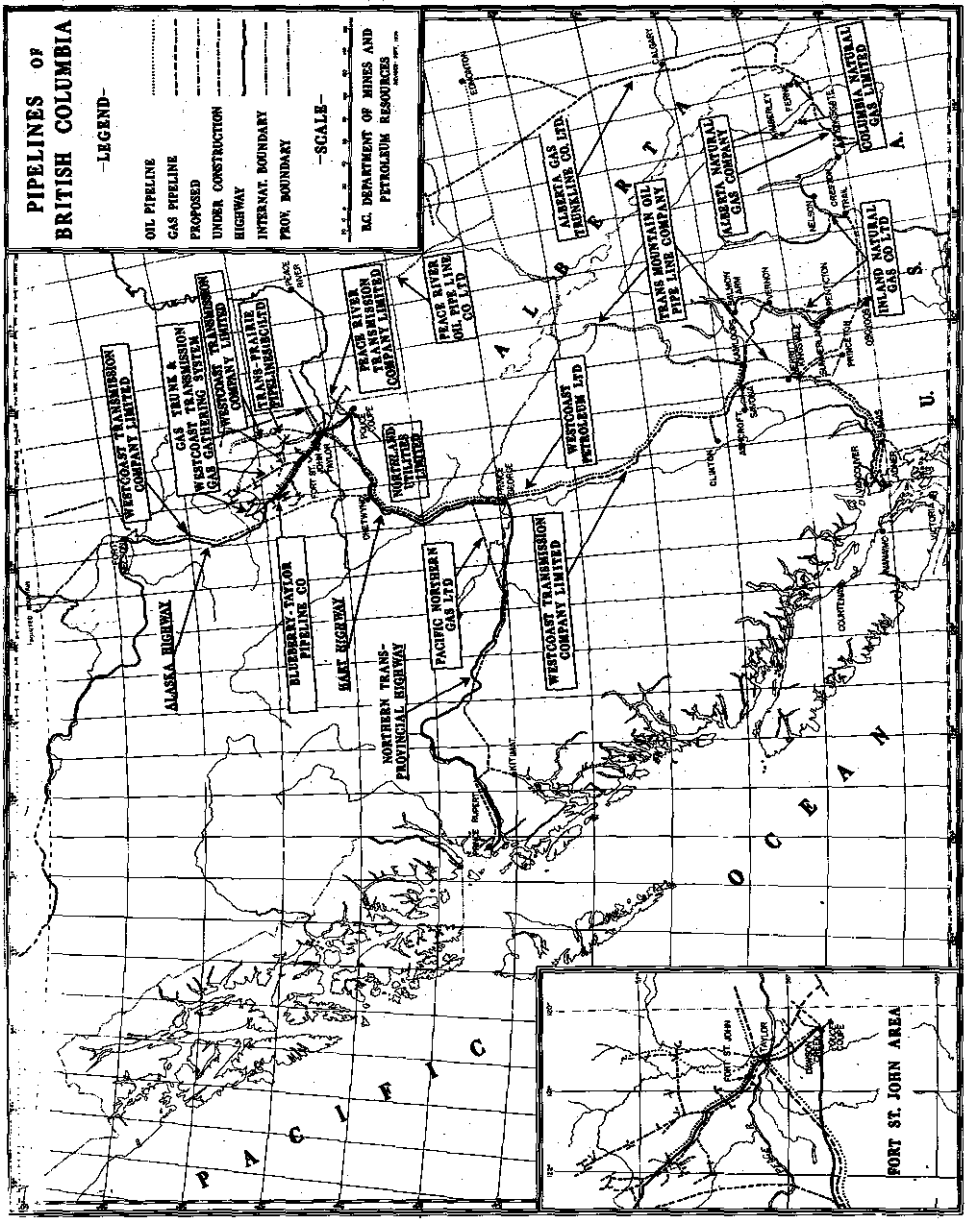
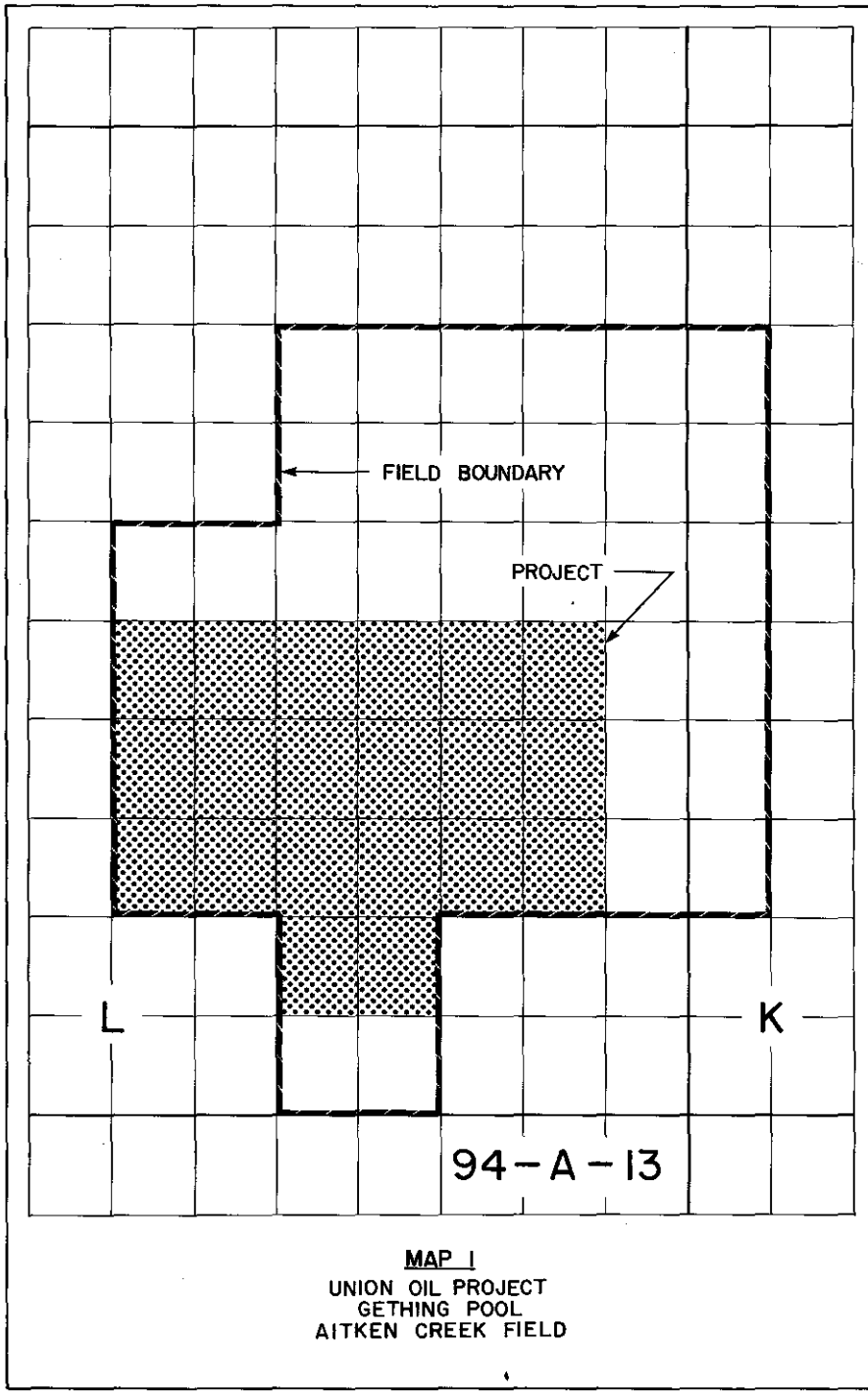
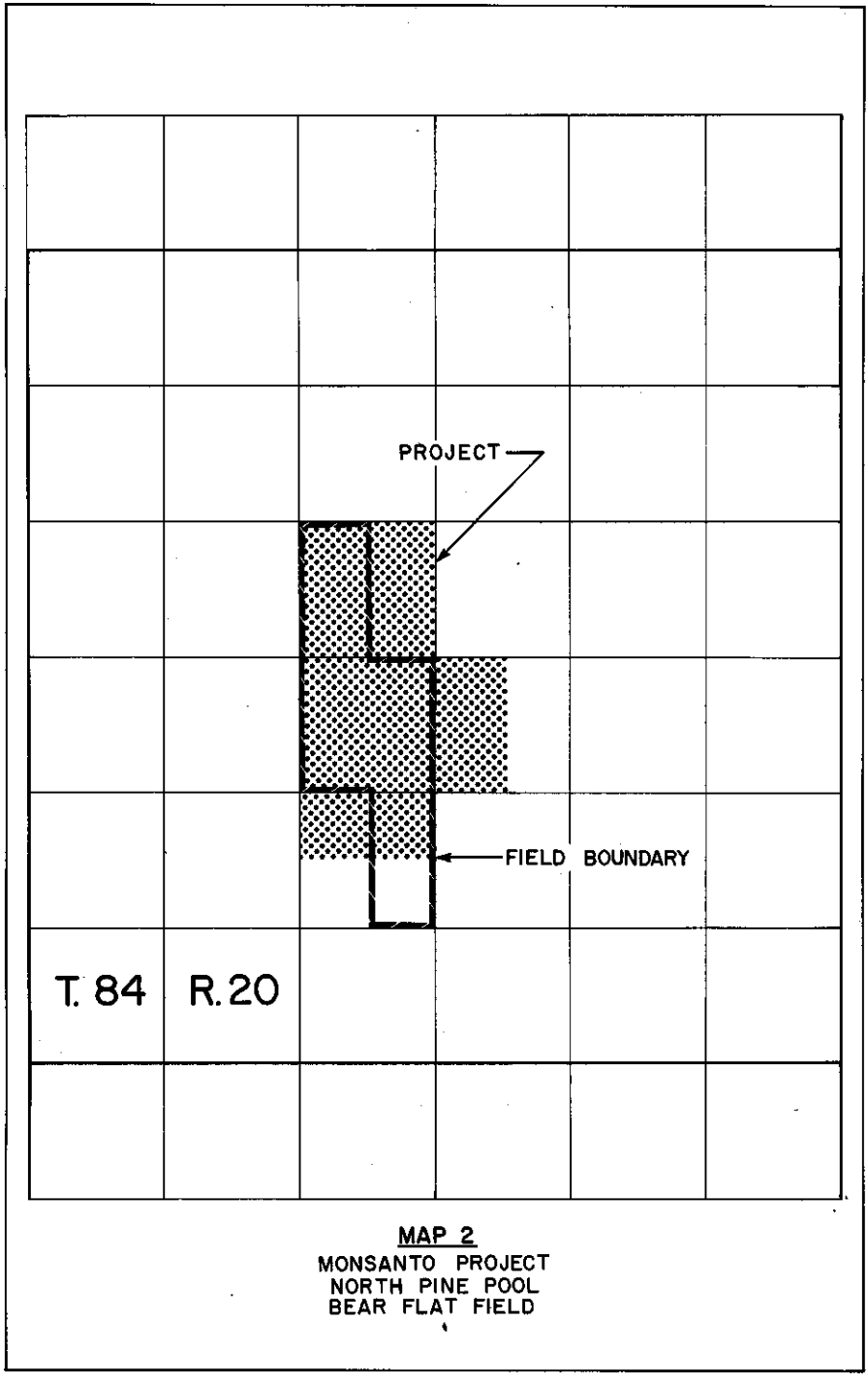

PIPELINES OF BRITISH COLUMBIA
-LEGEND-
OIL PIPELINE
GAS PIPELINE
PROPOSED
UNDER CONSTRUCTION
HIGHWAY
INTERNAT. BOUNDARY
PROV. BOUNDARY
-SCALE-
B.C. DEPARTMENT OF MINES AND PETROLEUM RESOURCES
WESTCOAST TRANSMISSION COMPANY LIMITED
GAS TRUNK & WESTCOAST TRANSMISSION GAS GATHERING SYSTEM
WESTCOAST TRANSMISSION COMPANY LIMITED
TRANS-PRAIRIE PIPELINES LTD
PEACE RIVER TRANSMISSION COMPANY LIMITED
PEACE RIVER OIL PIPE LINE CO LTD
ALBERTA GAS TRUNKLINE CO. LTD.
TRANS MOUNTAIN OIL PIPE LINE COMPANY
ALBERTA NATURAL GAS COMPANY
COLUMBIA NATURAL GAS LIMITED
INLAND NATURAL GAS CO LTD
NORTHERN UTILITIES LIMITED
WESTCOAST PETROLEUM LTD
BLUEBERRY-TAYLOR PIPELINE CO
PACIFIC NORTHERN GAS LTD
WESTCOAST TRANSMISSION COMPANY LIMITED
ALASKA HIGHWAY
MACKENZIE HIGHWAY
NORTHERN TRANS-PROVINCIAL HIGHWAY
PACIFIC OCEAN
ALBERTA
U.S.A.
FORT ST. JOHN AREA

Figure 4-26



MAP 1
UNION OIL PROJECT
GETHING POOL
AITKEN CREEK FIELD

Figure 4-27



MAP 2
MONSANTO PROJECT
NORTH PINE POOL
BEAR FLAT FIELD

Figure 4-28

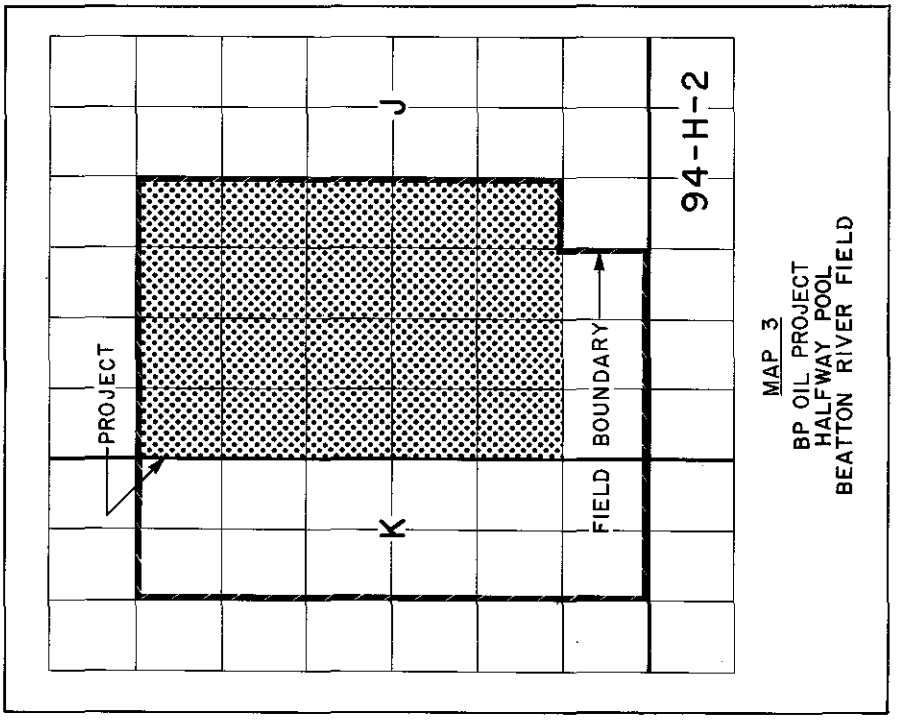


Figure 4-29

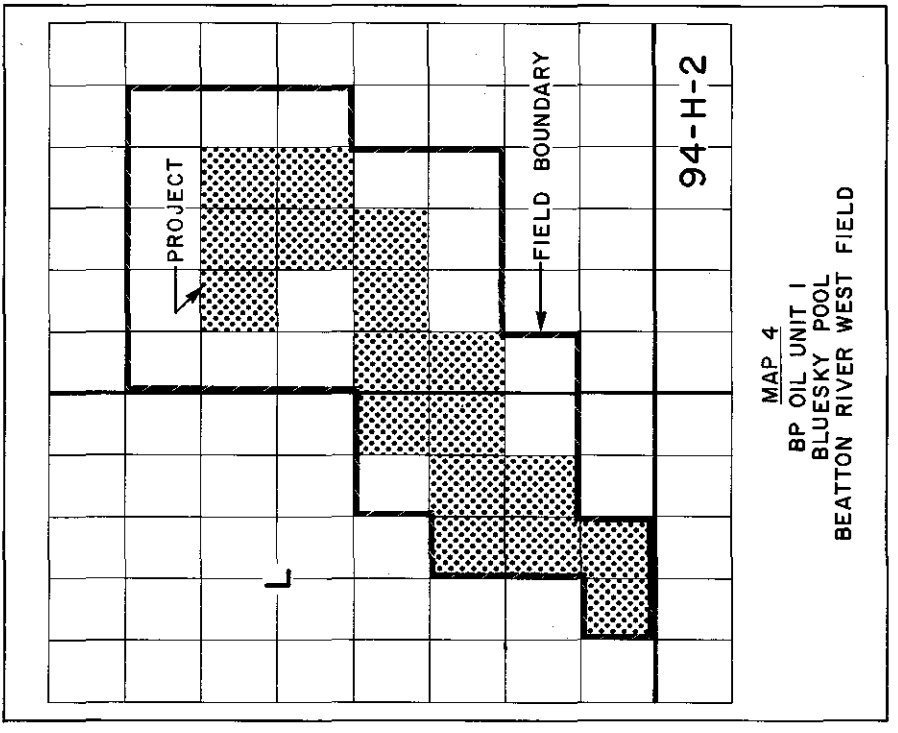
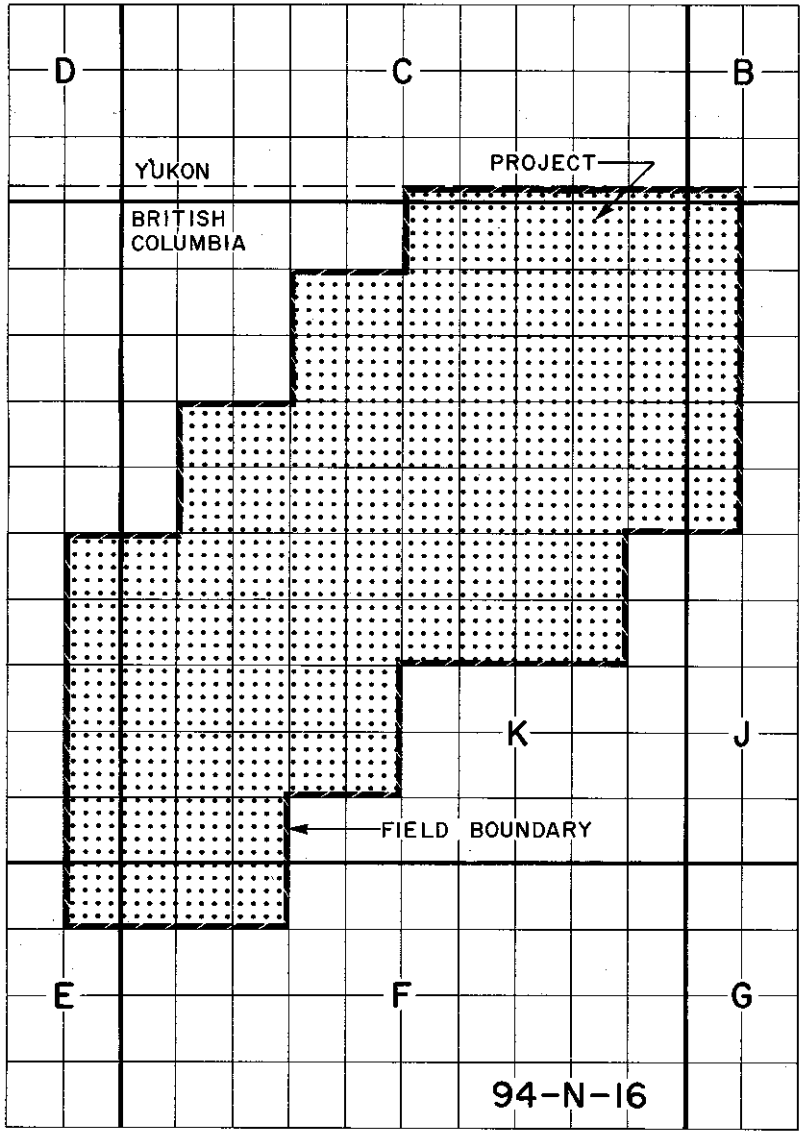


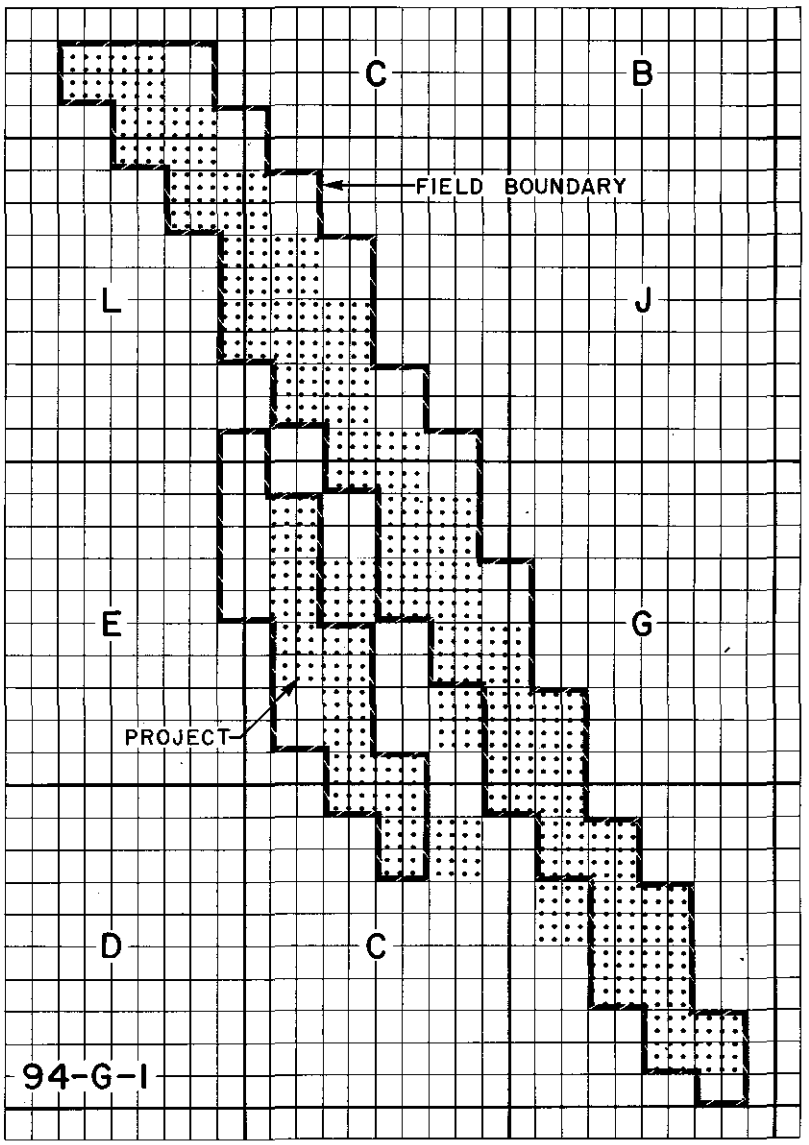
Figure 4-30

Figure 4-31



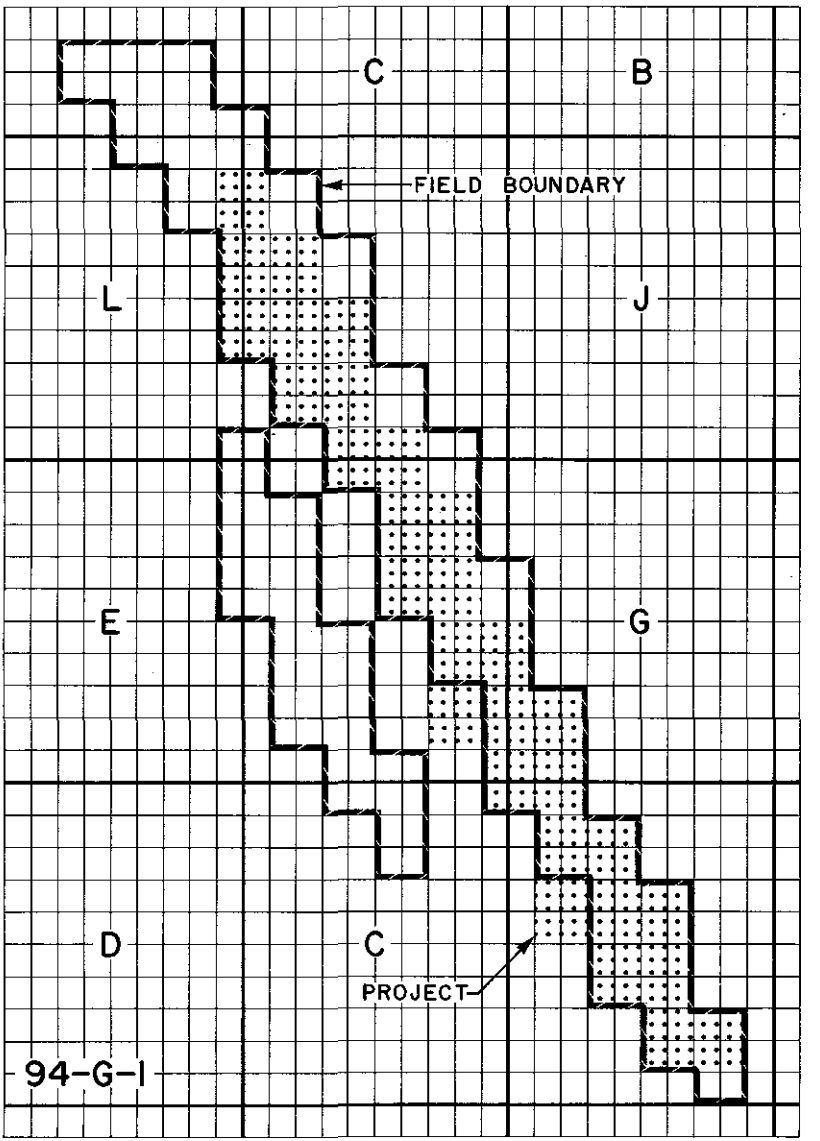
MAP 5
AMOCO PROJECT
NAHANNI POOL
BEAVER RIVER FIELD

Figure 4-32



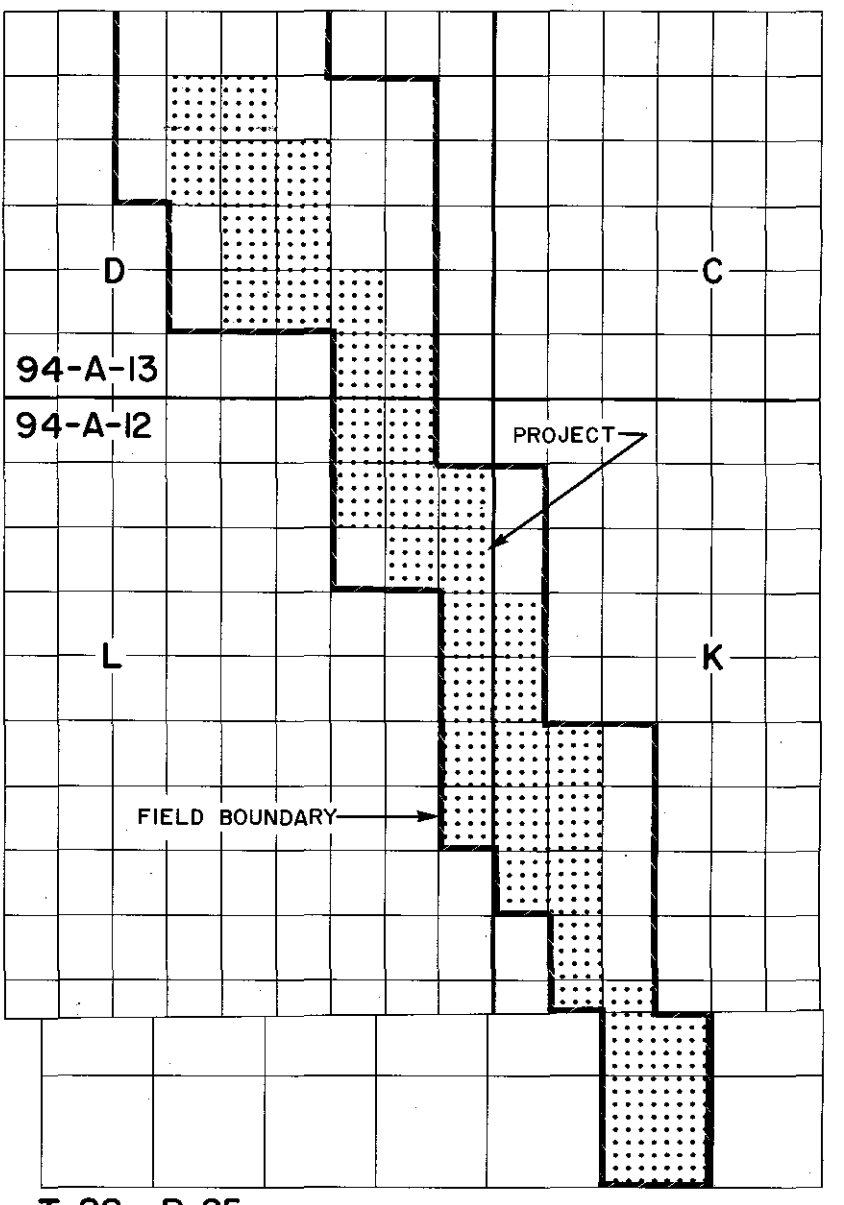
MAP 6
PACIFIC PETROLEUMS PROJECT
BALDONNEL POOL
BEG & BEG WEST FIELDS

Figure 4-33



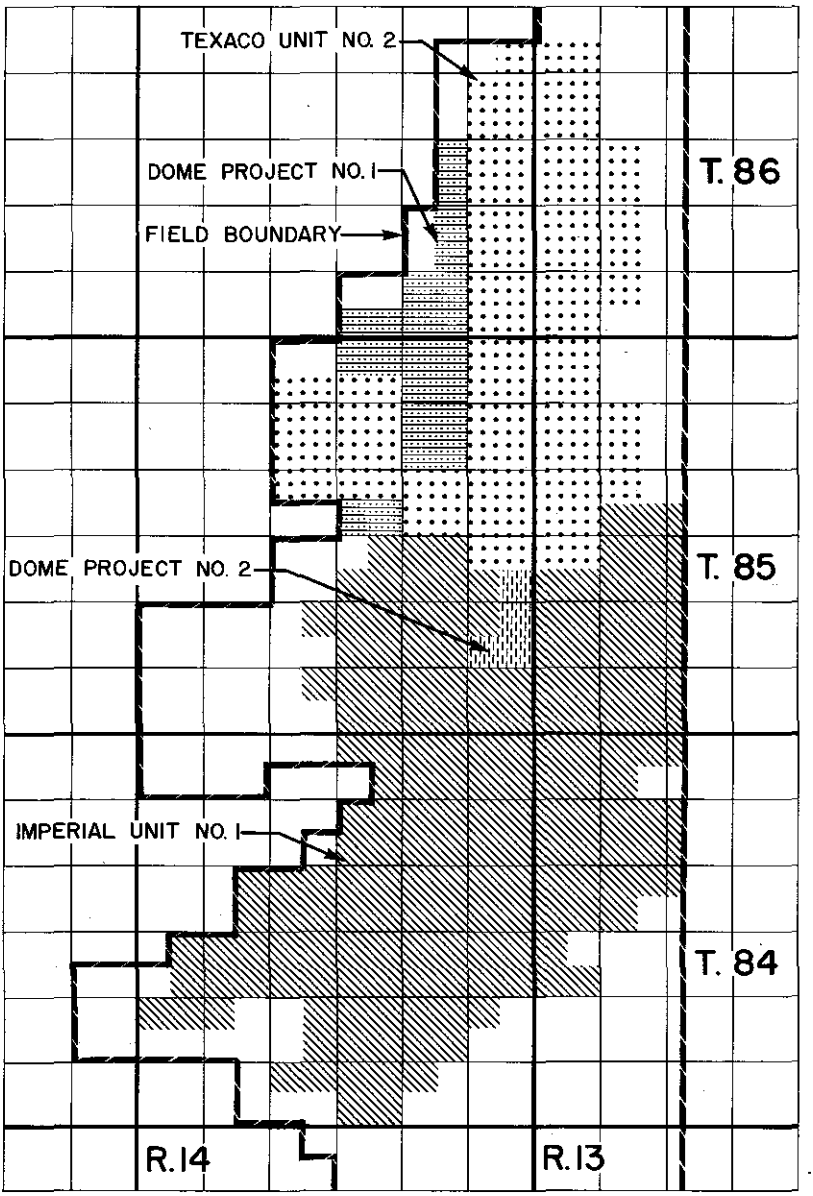
MAP 7
PACIFIC PETROLEUMS PROJECT
HALFWAY POOL
BEG FIELD

Figure 4-34



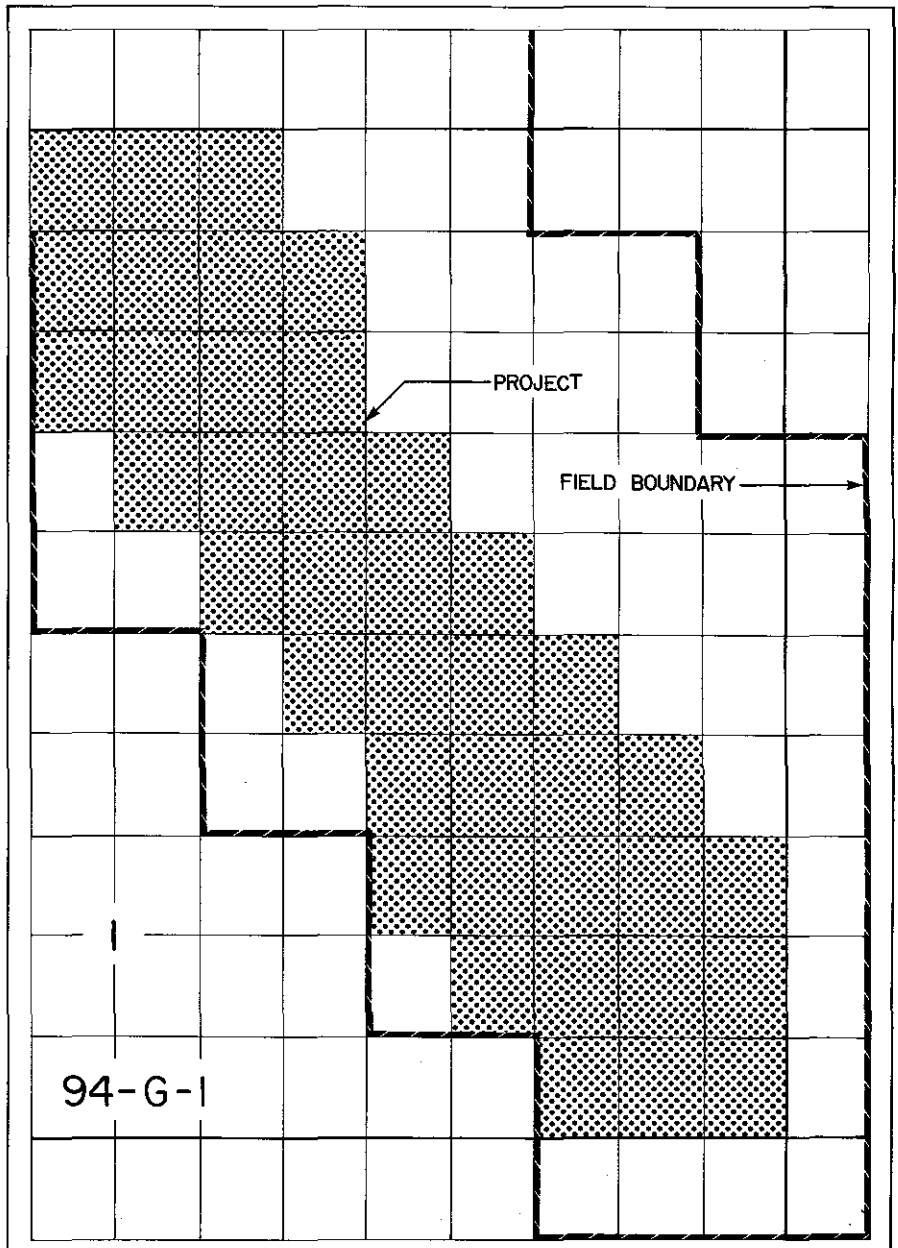
MAP 8
PACIFIC PETROLEUMS PROJECT
DEBOLT POOL
BLUEBERRY FIELD

Figure 4-35



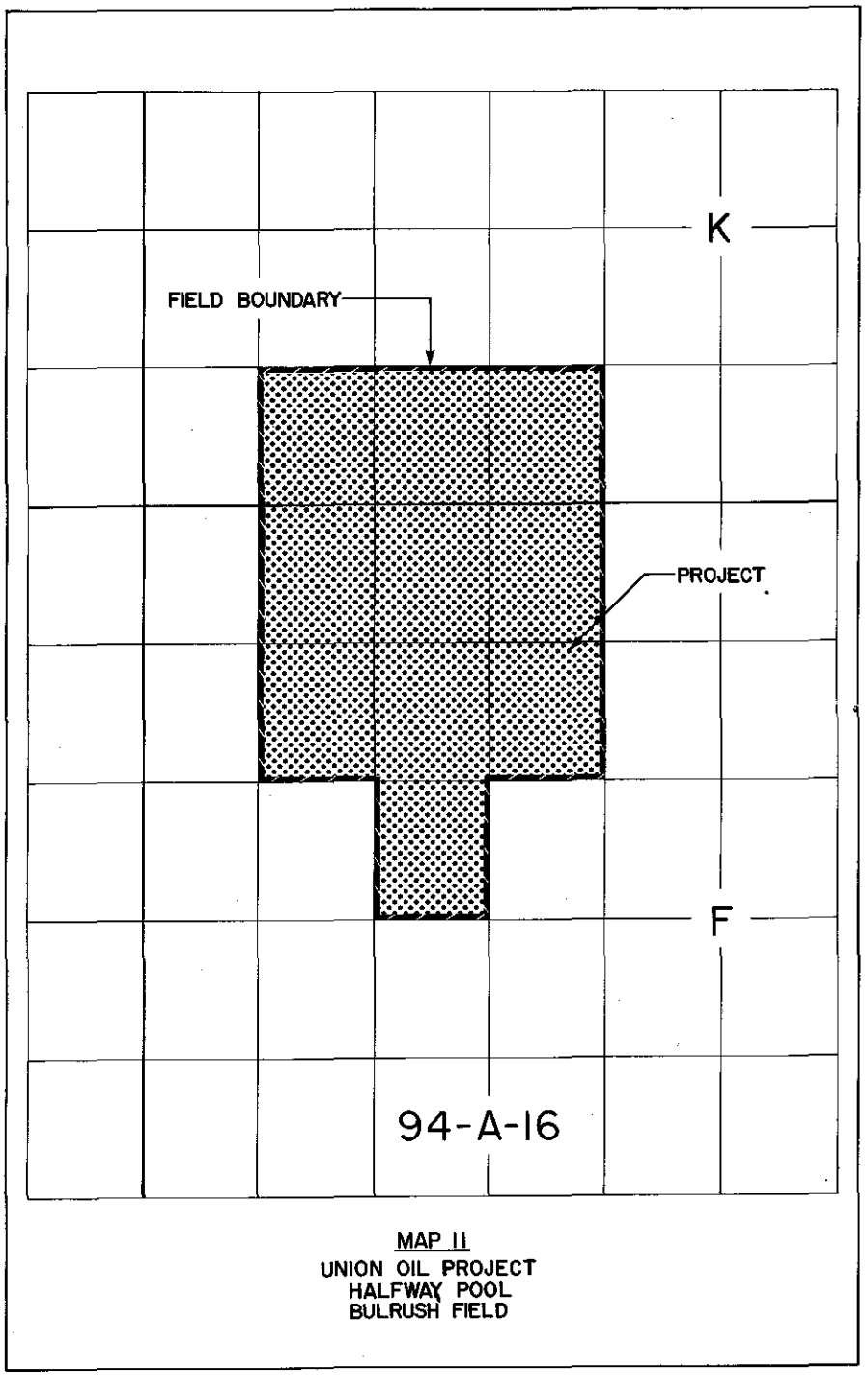
MAP 9
BOUNDARY LAKE POOL PROJECTS
BOUNDARY LAKE FIELD

Figure 4-36



MAP 10
PACIFIC PETROLEUMS PROJECT
BALDONNEL POOL
BUBBLES FIELD

Figure 4-37



MAP II
UNION OIL PROJECT
HALFWAY POOL
BULRUSH FIELD

Figure 4-38

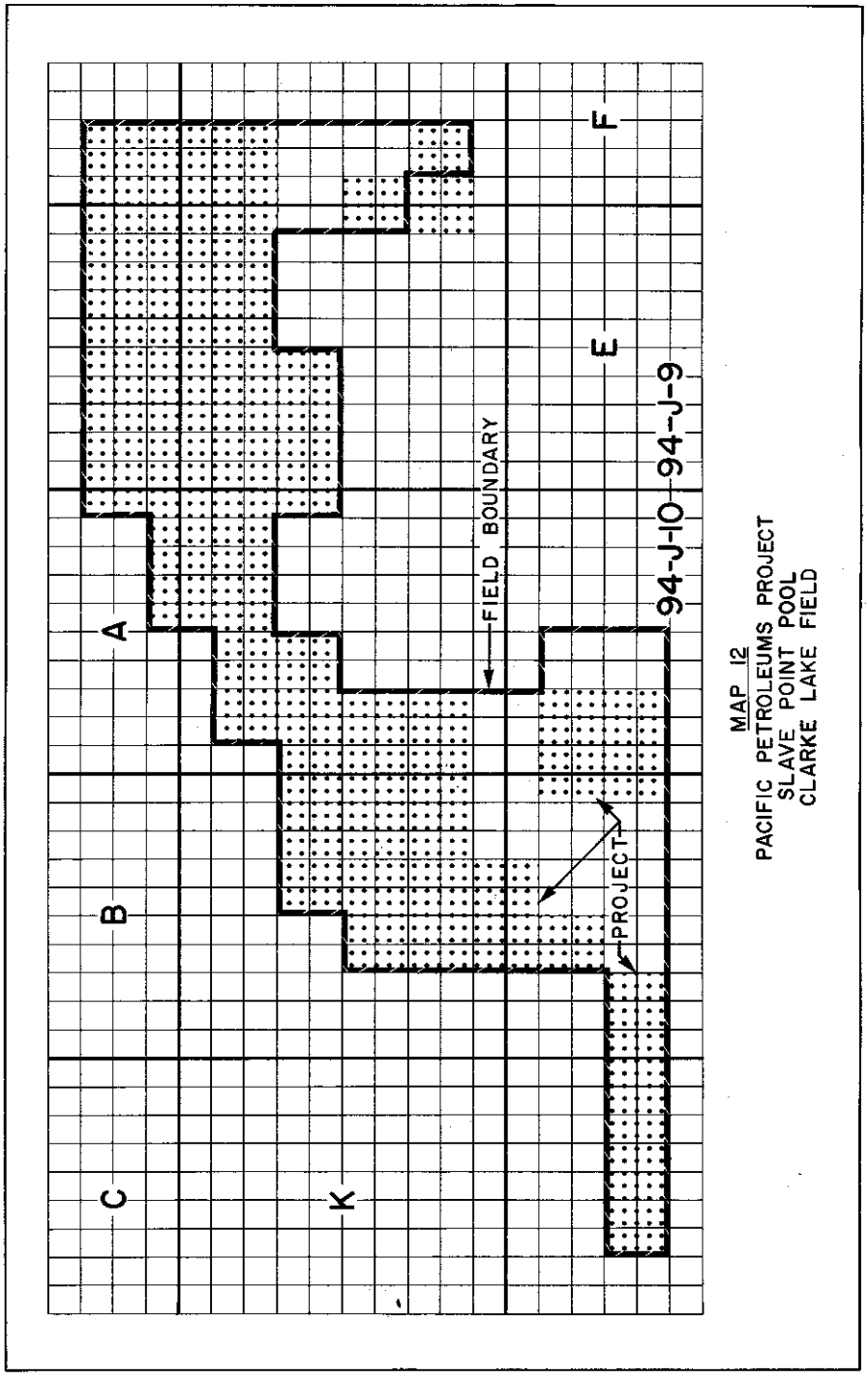
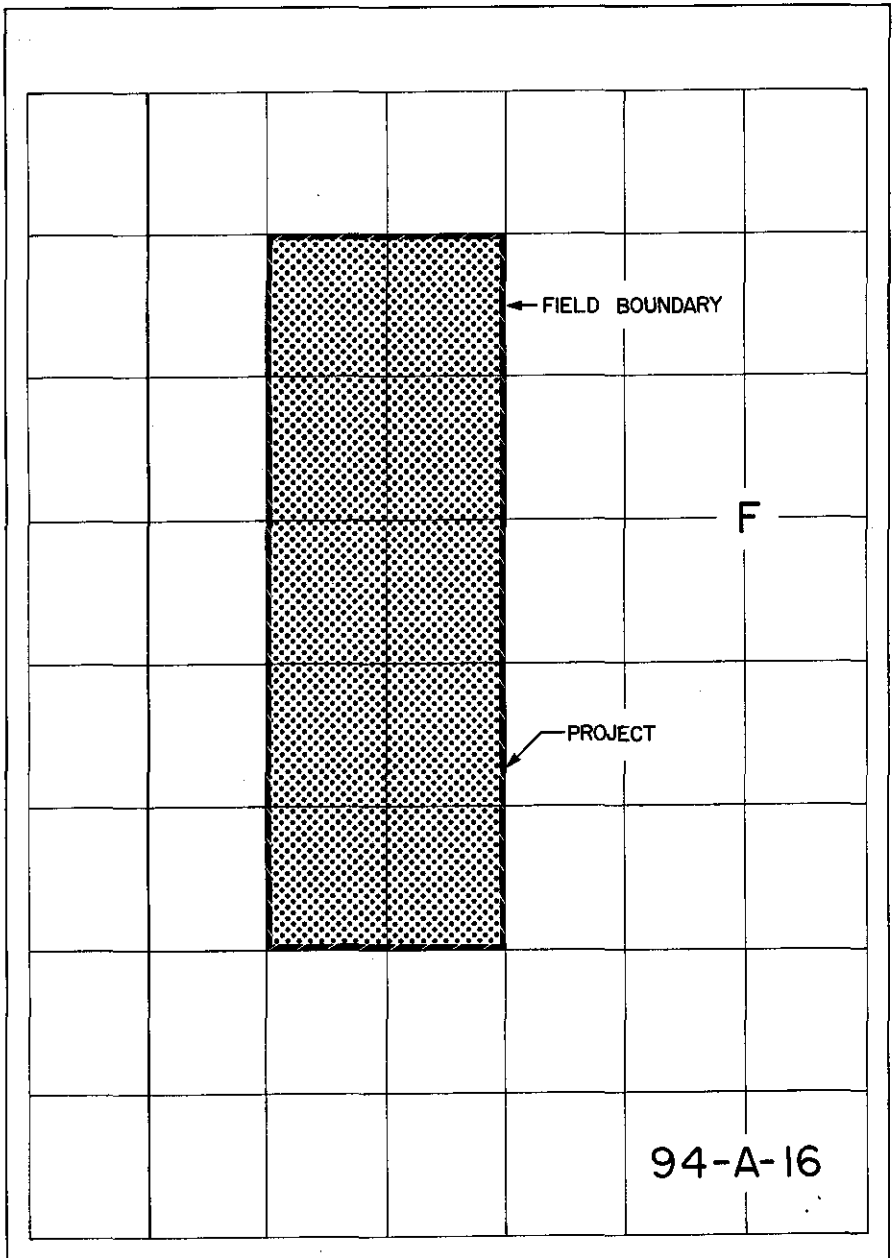
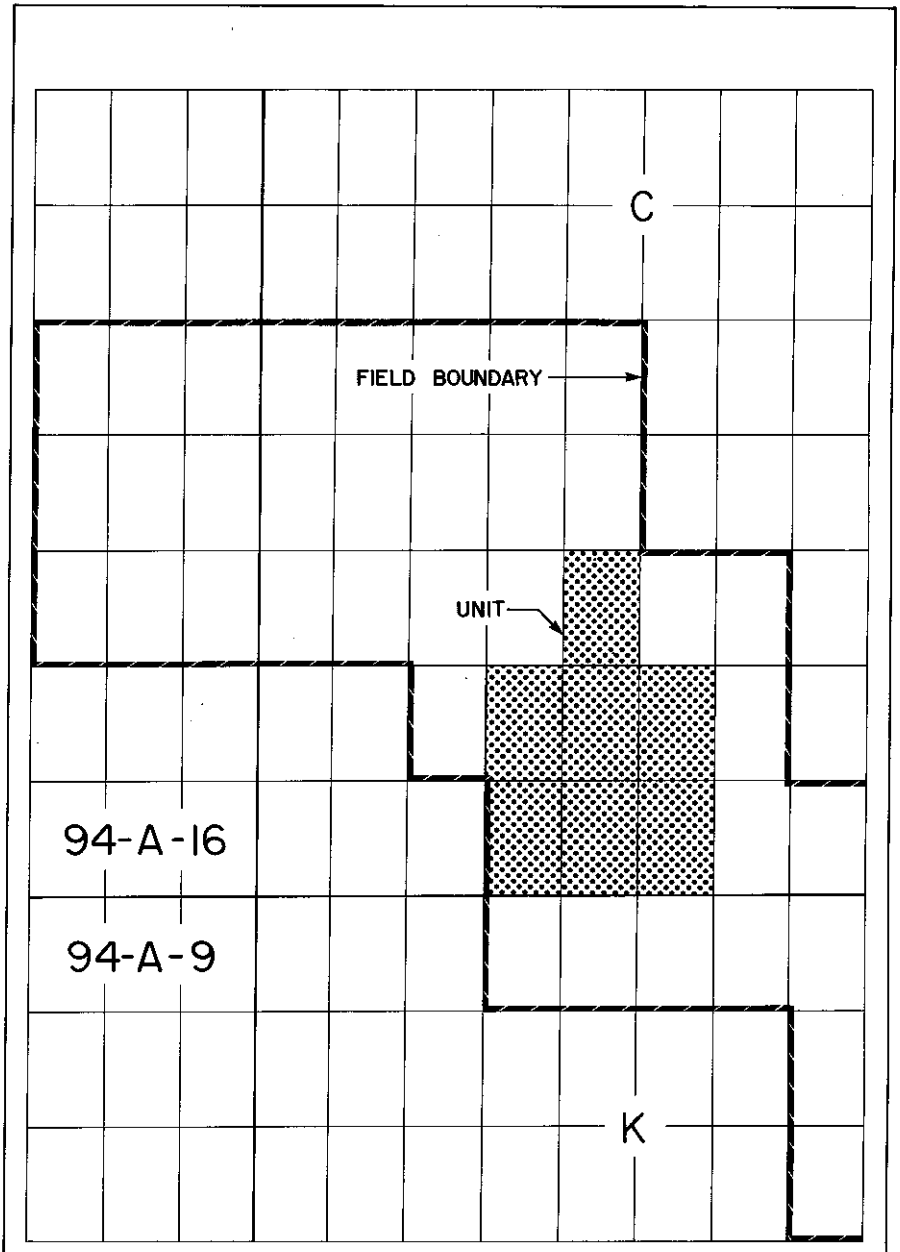

A
B
C
K
E
F
94-J-10
94-J-9
FIELD BOUNDARY
PROJECT
MAP 12
PACIFIC PETROLEUMS PROJECT
SLAVE POINT POOL
CLARKE LAKE FIELD

Figure 4-39



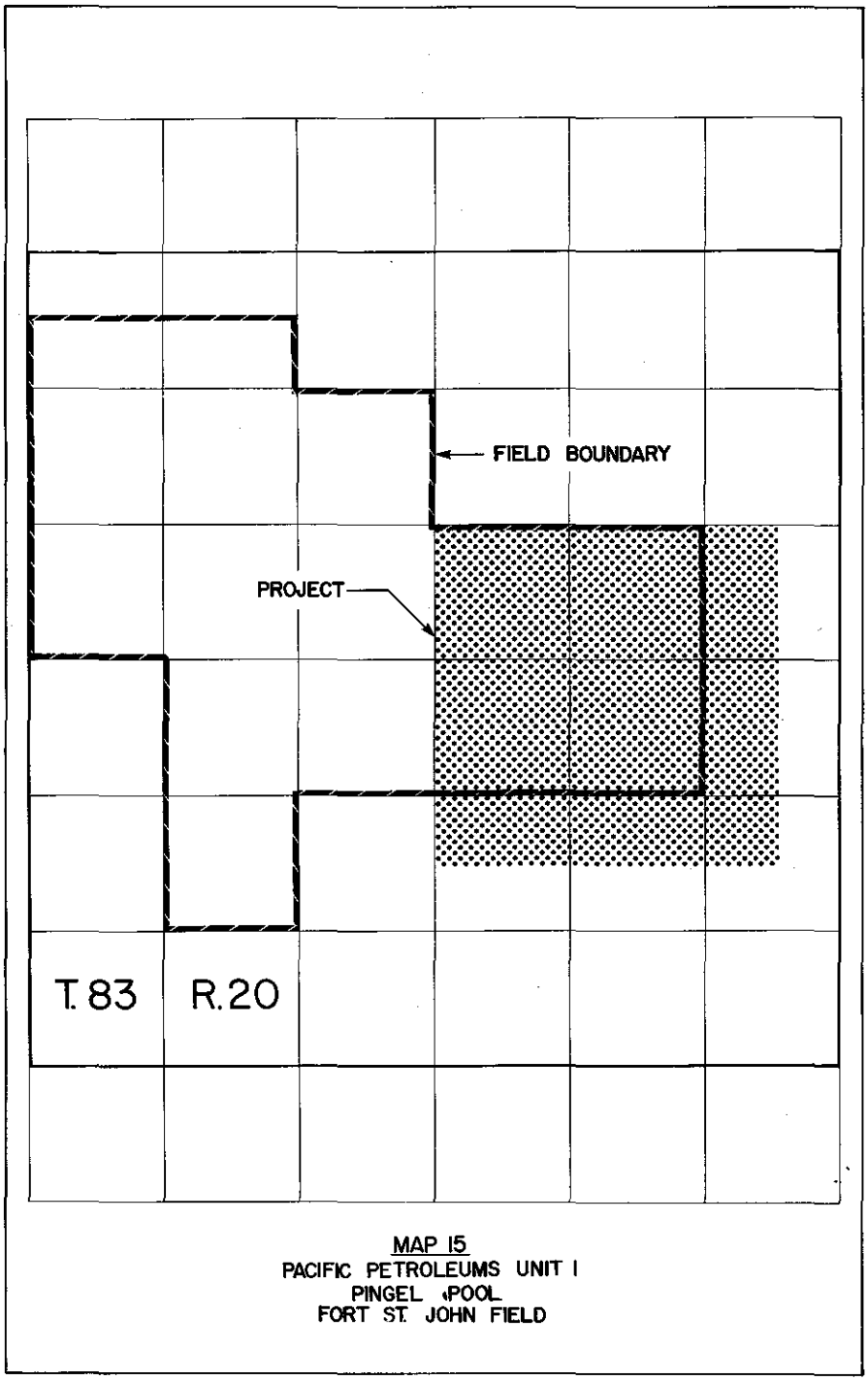
MAP 13
UNION OIL UNIT I
HALFWAY POOL
CRUSH FIELD

Figure 4-40



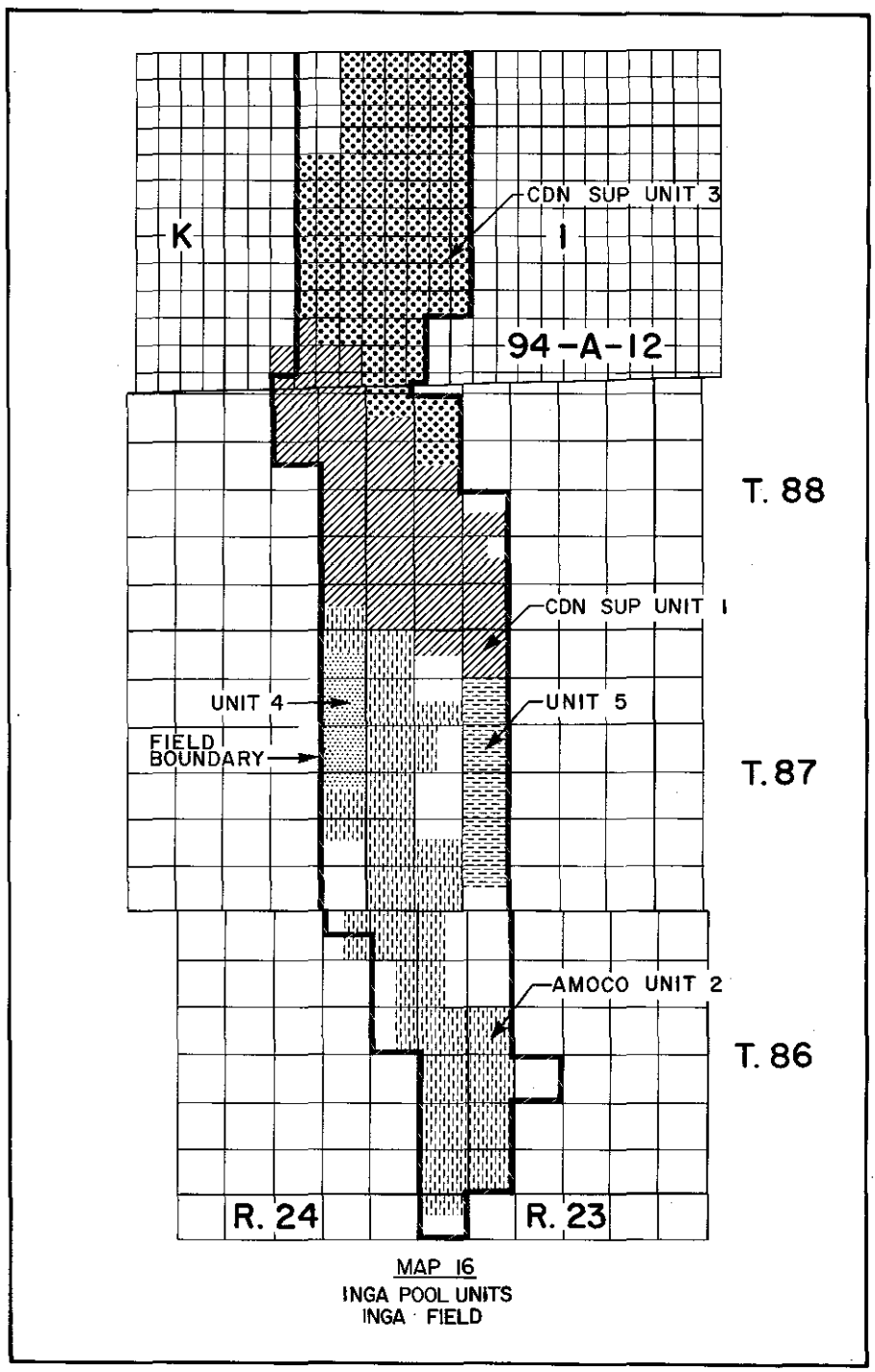
MAP 14
PACIFIC PETROLEUMS UNIT I
HALFWAY POOL
CURRANT FIELD

Figure 4-41



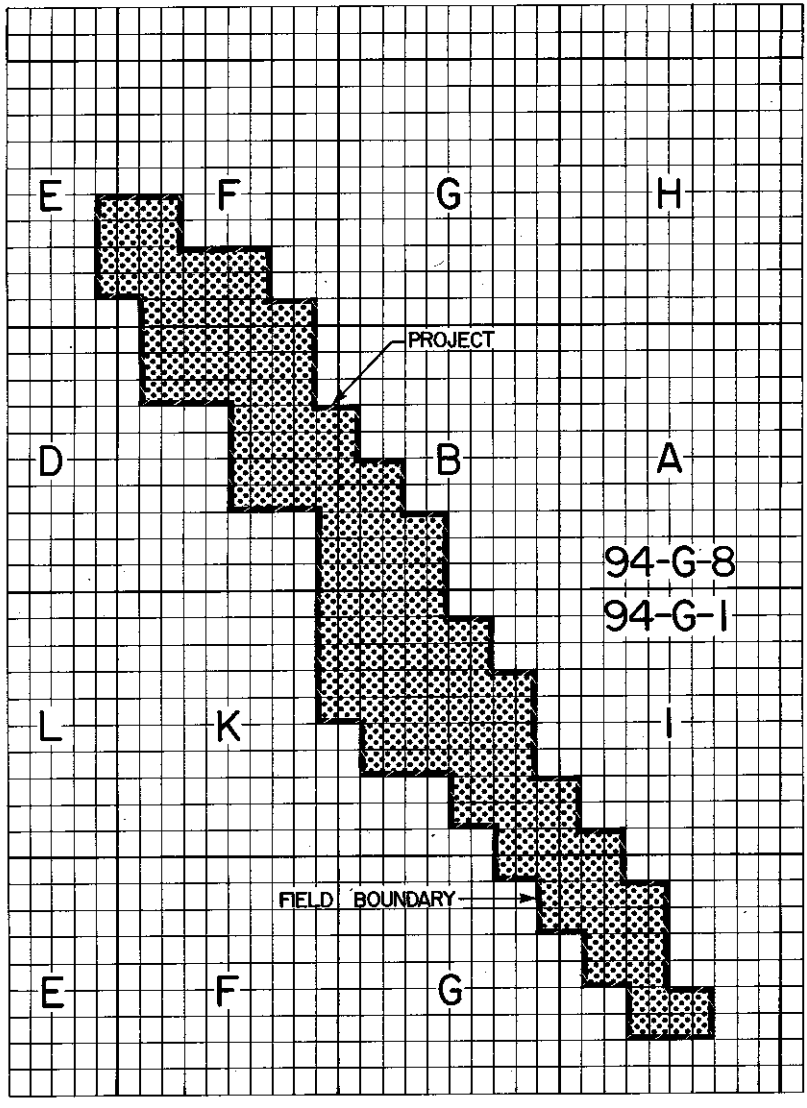
MAP 15
PACIFIC PETROLEUMS UNIT I
PINGEL POOL
FORT ST. JOHN FIELD

Figure 4-42



MAP 16
INGA POOL UNITS
INGA FIELD

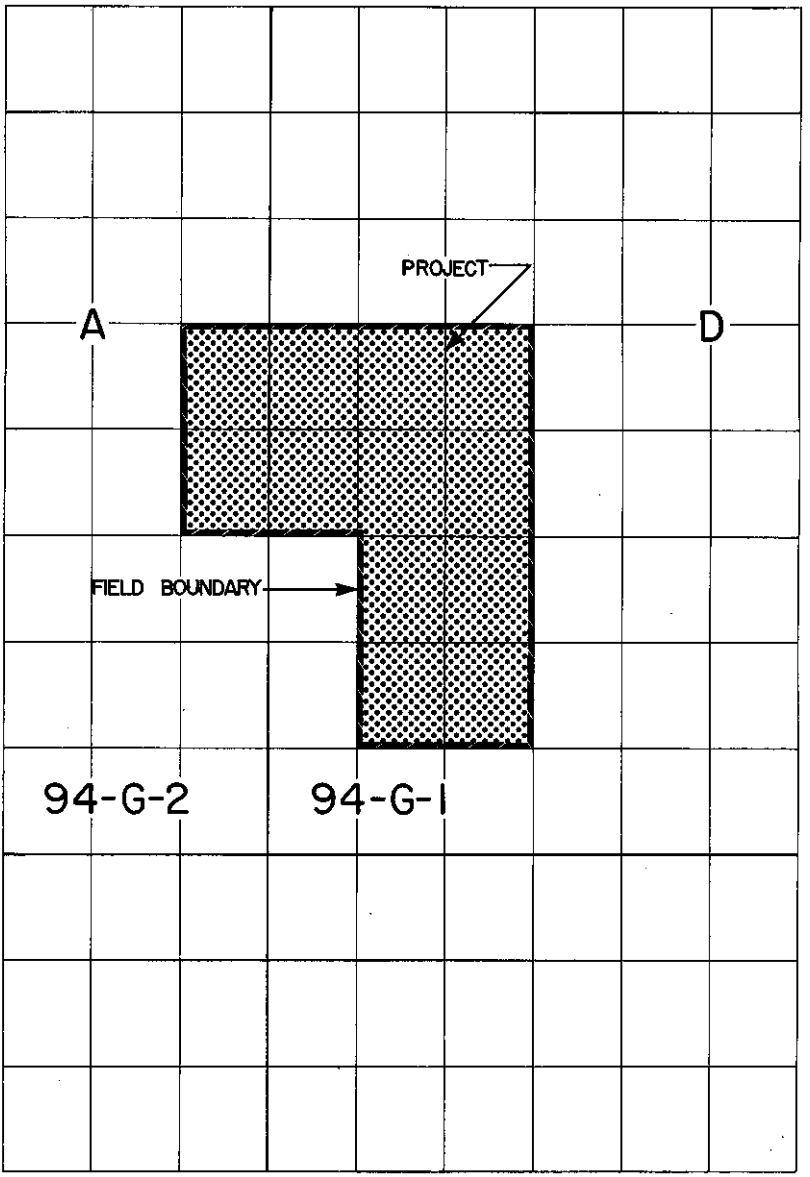
Figure 4-43



MAP 17

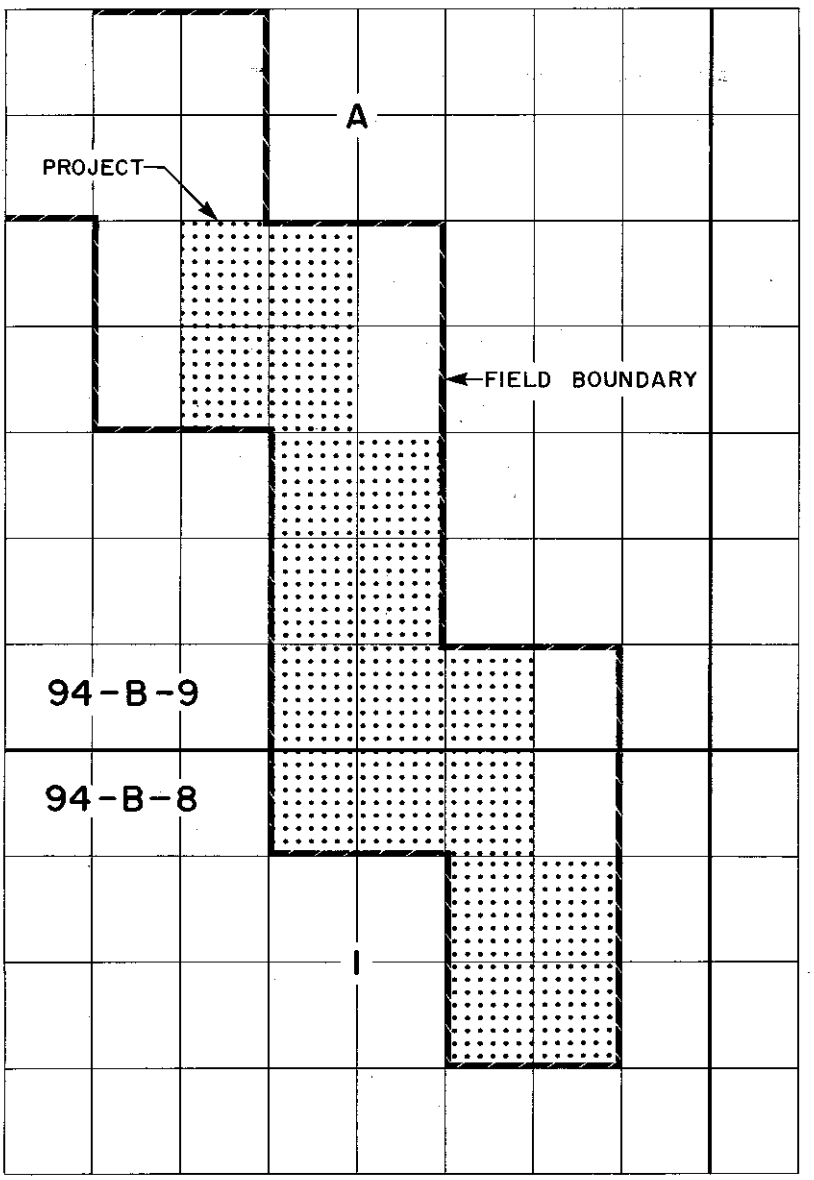
PACIFIC PETROLEUMS PROJECT
BALDONNEL & HALFWAY POOLS
JEDNEY FIELD

Figure 4-44



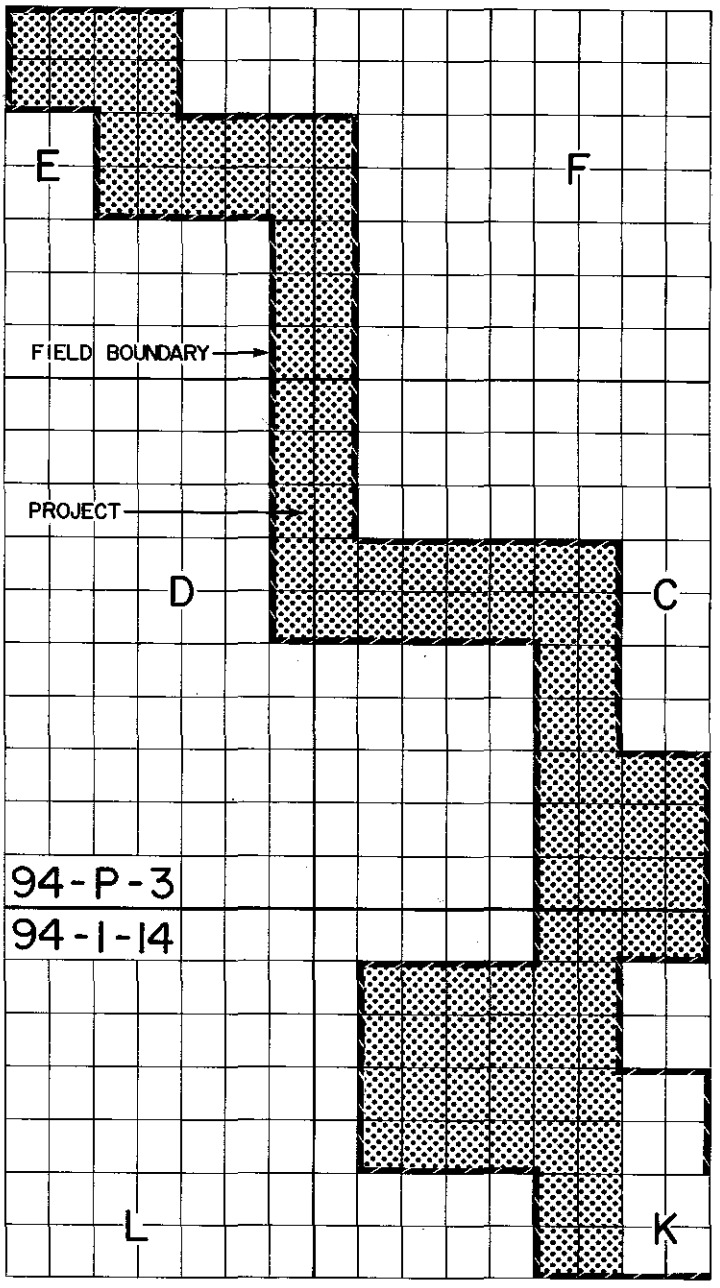
MAP 18
ARCO PROJECTS
BALDONNEL & HALFWAY POOLS
JULIENNE FIELD

Figure 4-45



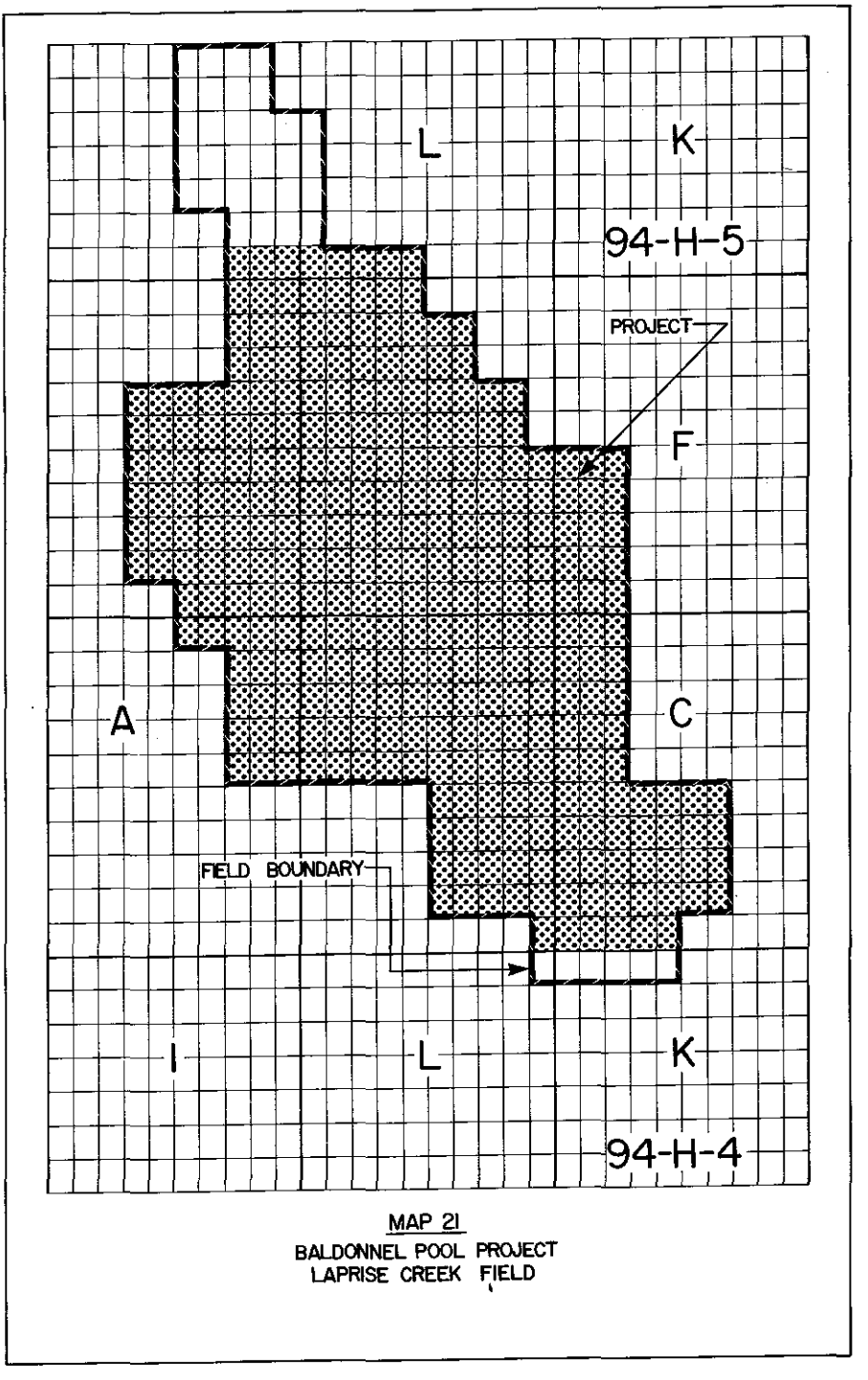
MAP 19
PACIFIC PETROLEUM PROJECT
HALFWAY POOL
KOBES-TOWNSEND FIELD

Figure 4-46



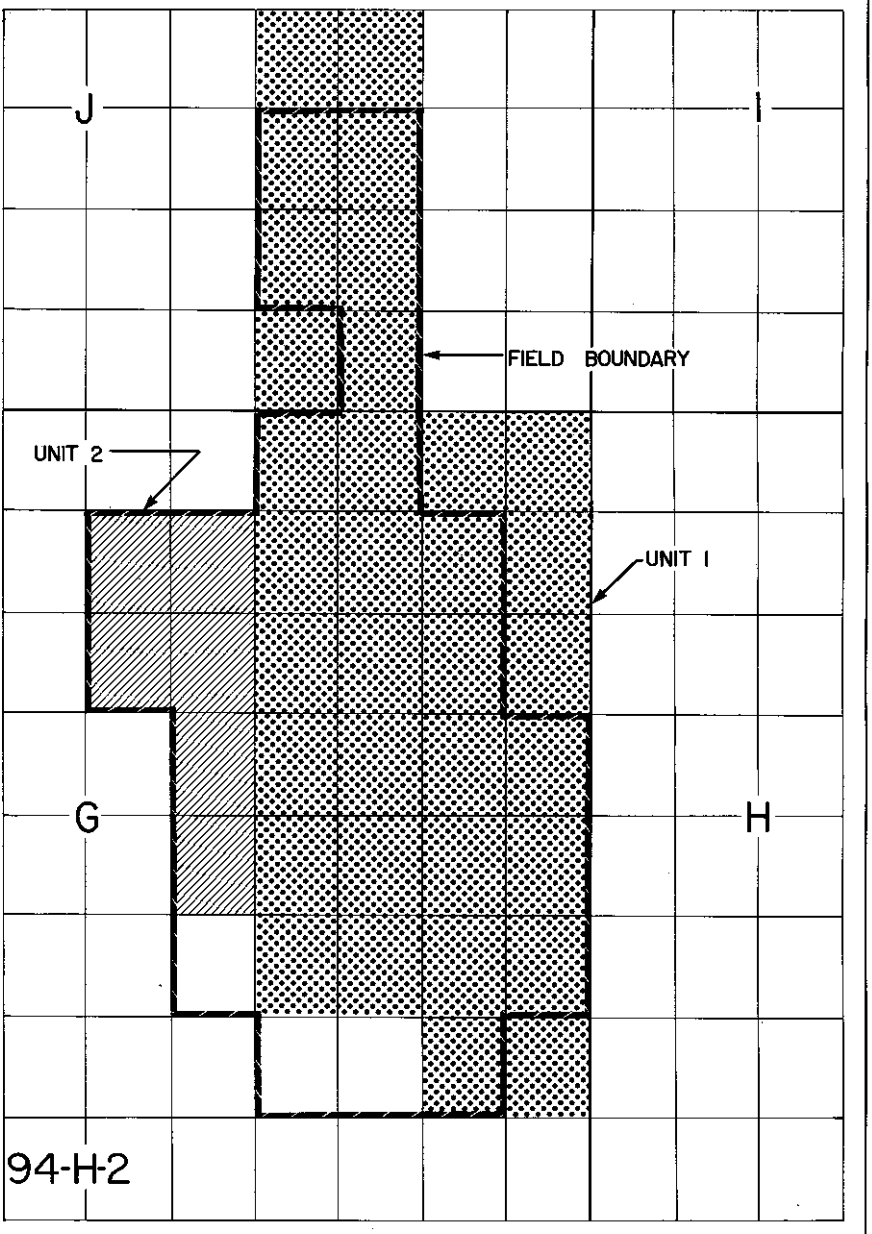
MAP 20
PACIFIC PETROLEUM PROJECT
SLAVE POINT POOL
KOTCHO LAKE FIELD

Figure 4-47



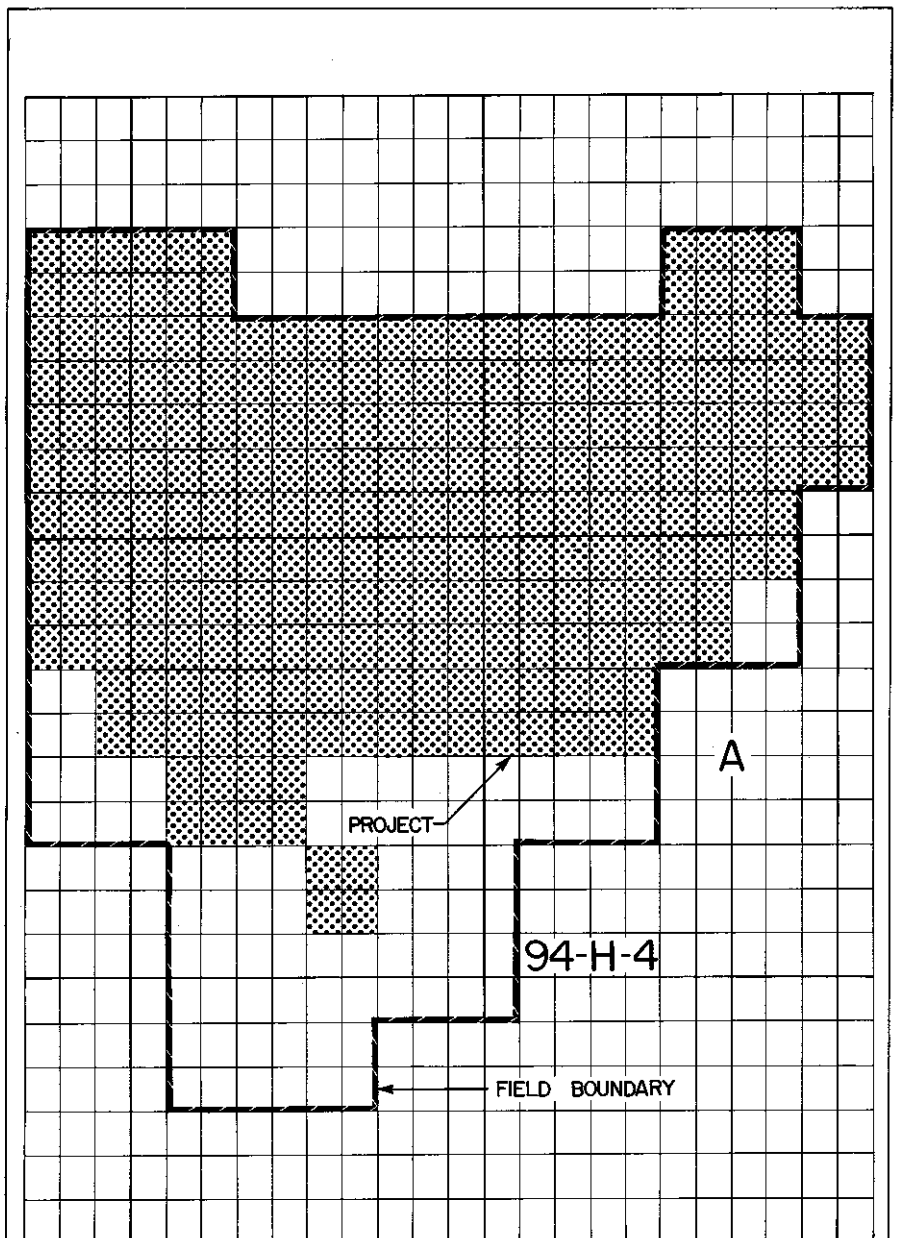
MAP 21
BALDONNEL POOL PROJECT
LAPRISE CREEK FIELD

Figure 4-48



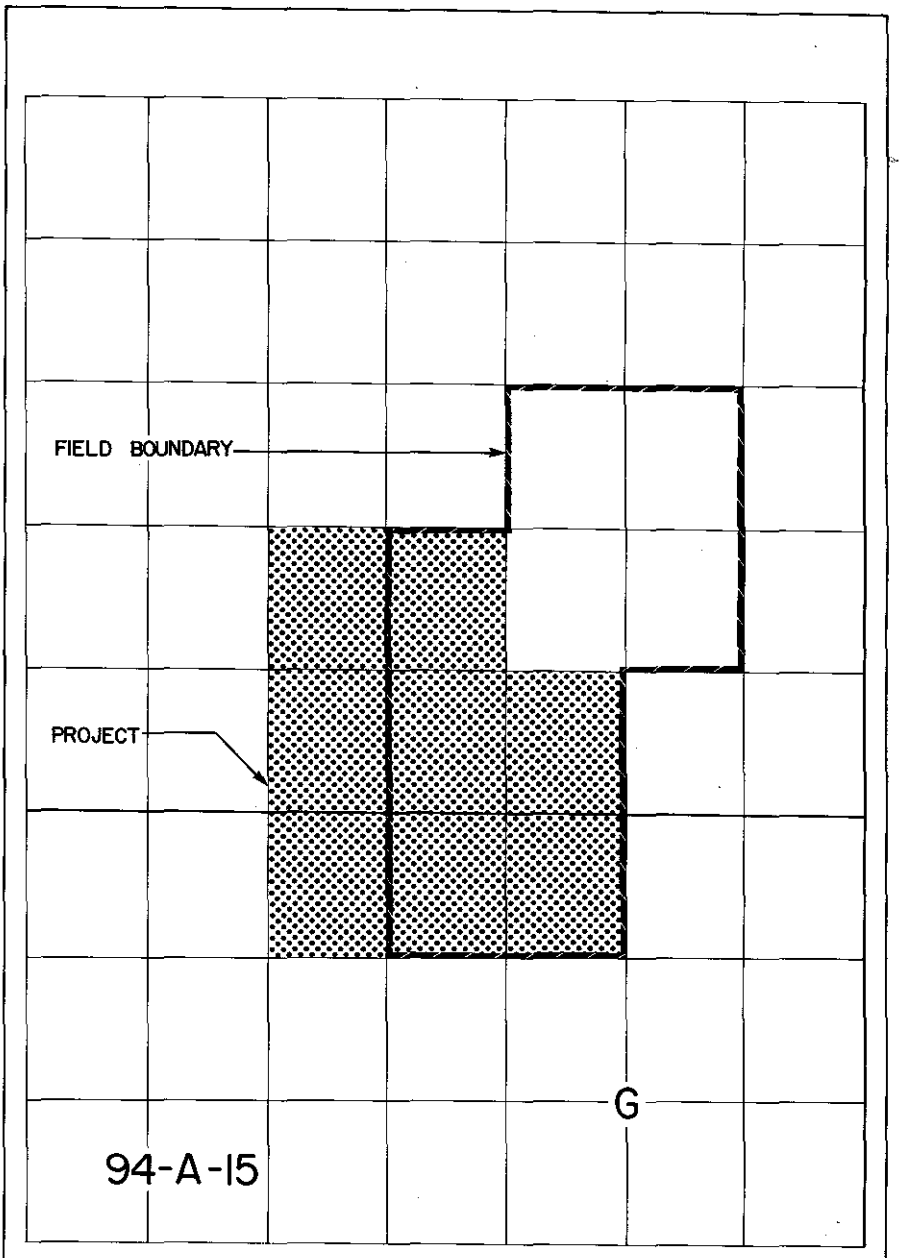
MAP 22
UNION OIL UNITS
HALFWAY POOL
MILLIGAN CREEK FIELD

Figure 4-49



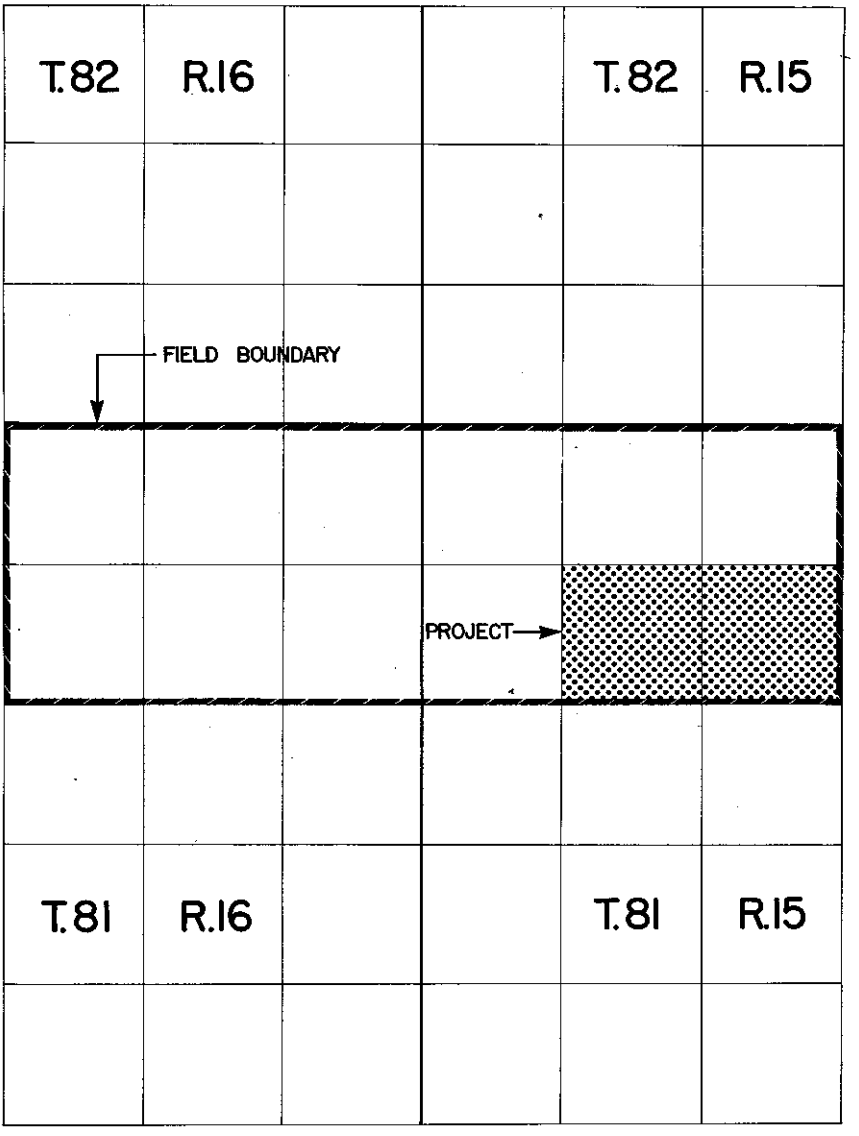
MAP 23
TEXACO EXPLORATION PROJECT
BALDONNEL POOL
NIG CREEK FIELD

Figure 4-50



MAP 24
PACIFIC PETROLEUMS PROJECT
HALFWAY POOL
OSPREY FIELD

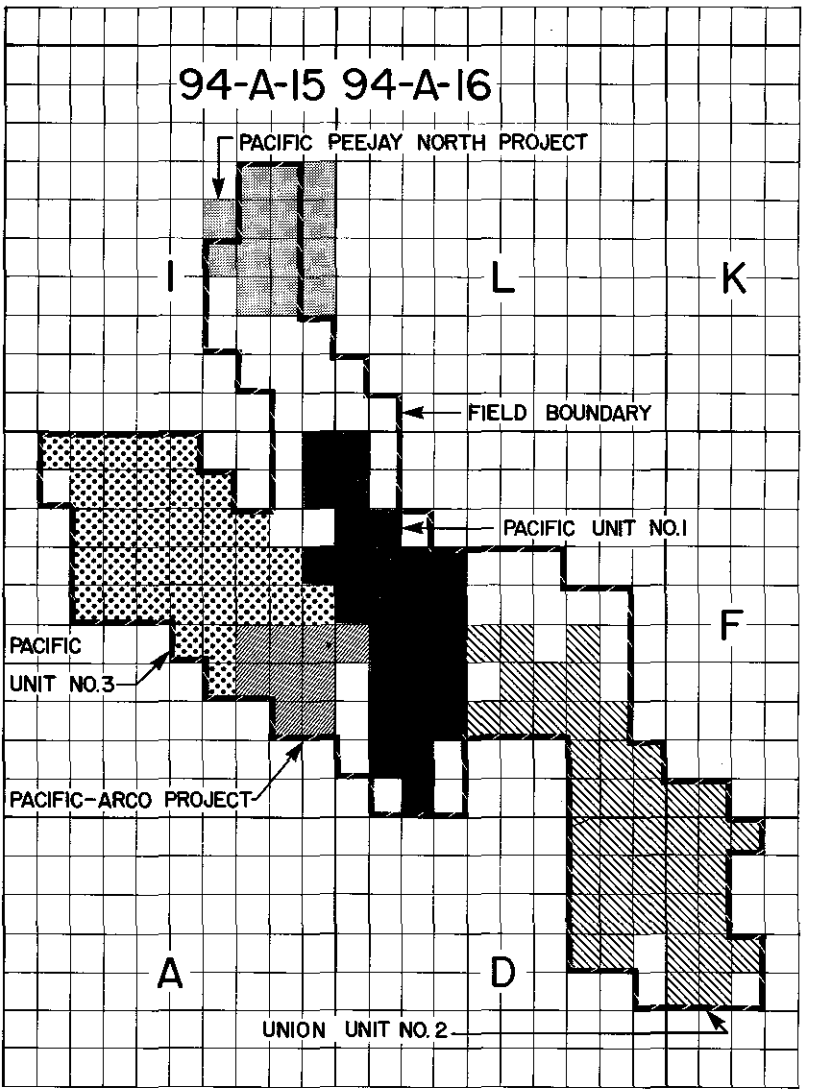
Figure 4-51



MAP 25

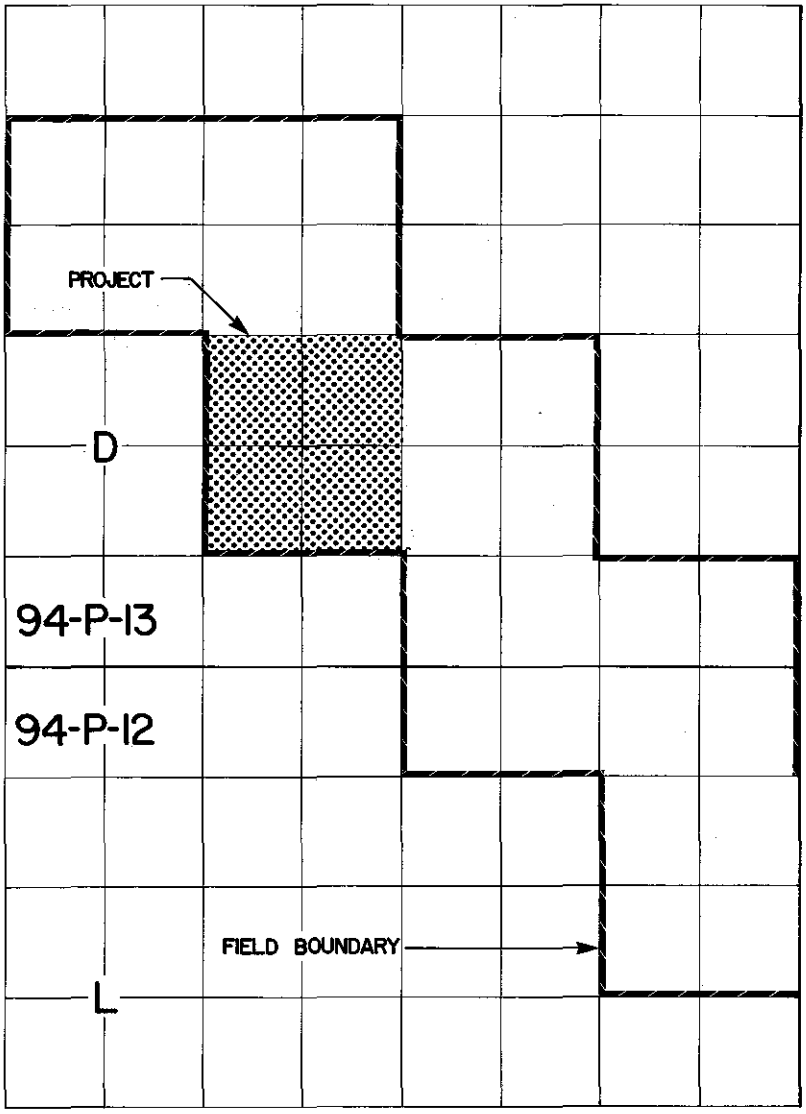
PACIFIC PETROLEUMS PROJECT
WABAMUN POOL
PARKLAND FIELD

Figure 4-52



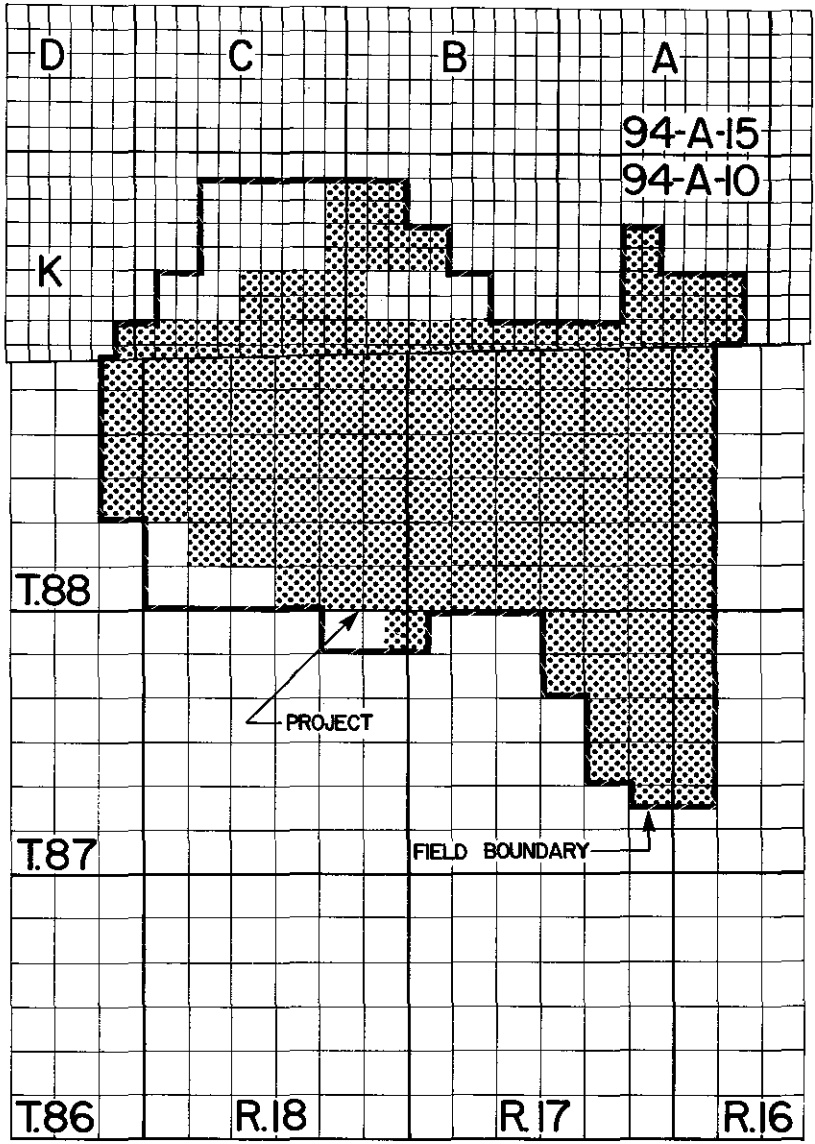
MAP 26
HALFWAY POOL PROJECT
PEEJAY FIELD

Figure 4-53



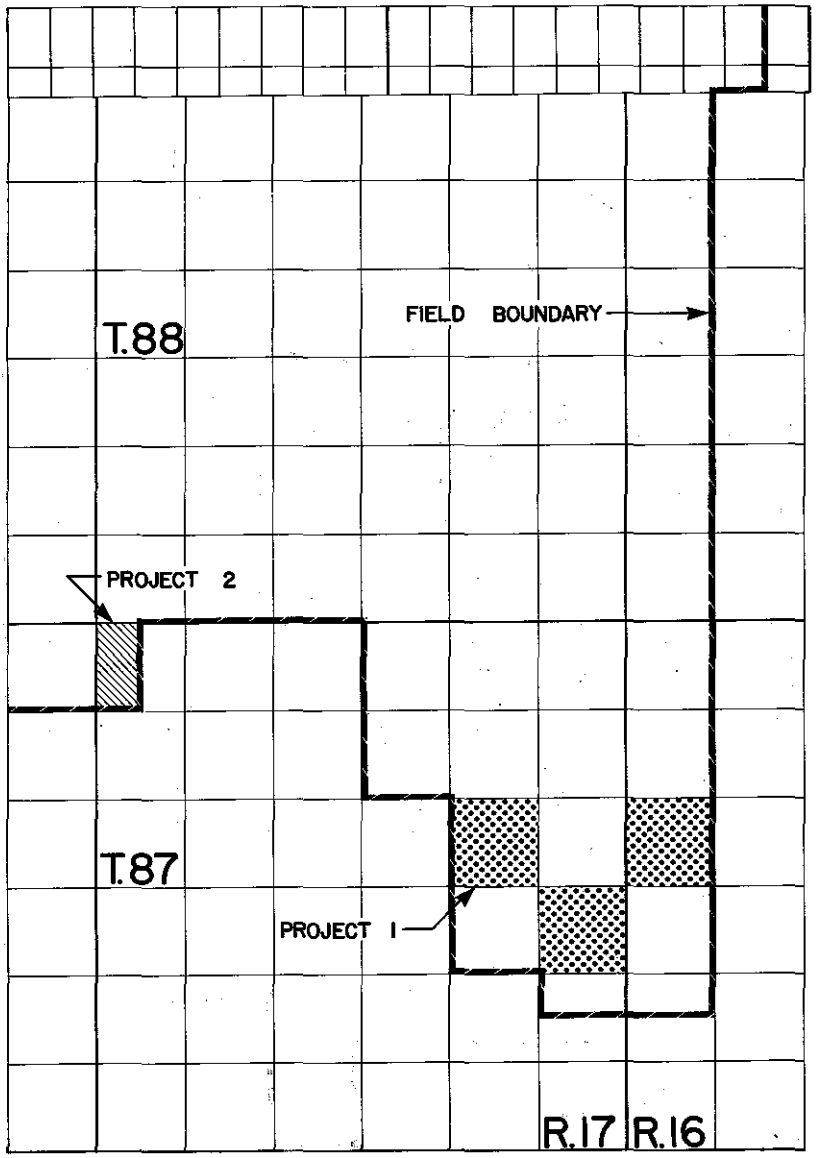
MAP 27
PACIFIC PETROLEUMS PROJECT
SLAVE POINT POOL
PETITOT RIVER FIELD

Figure 4-54



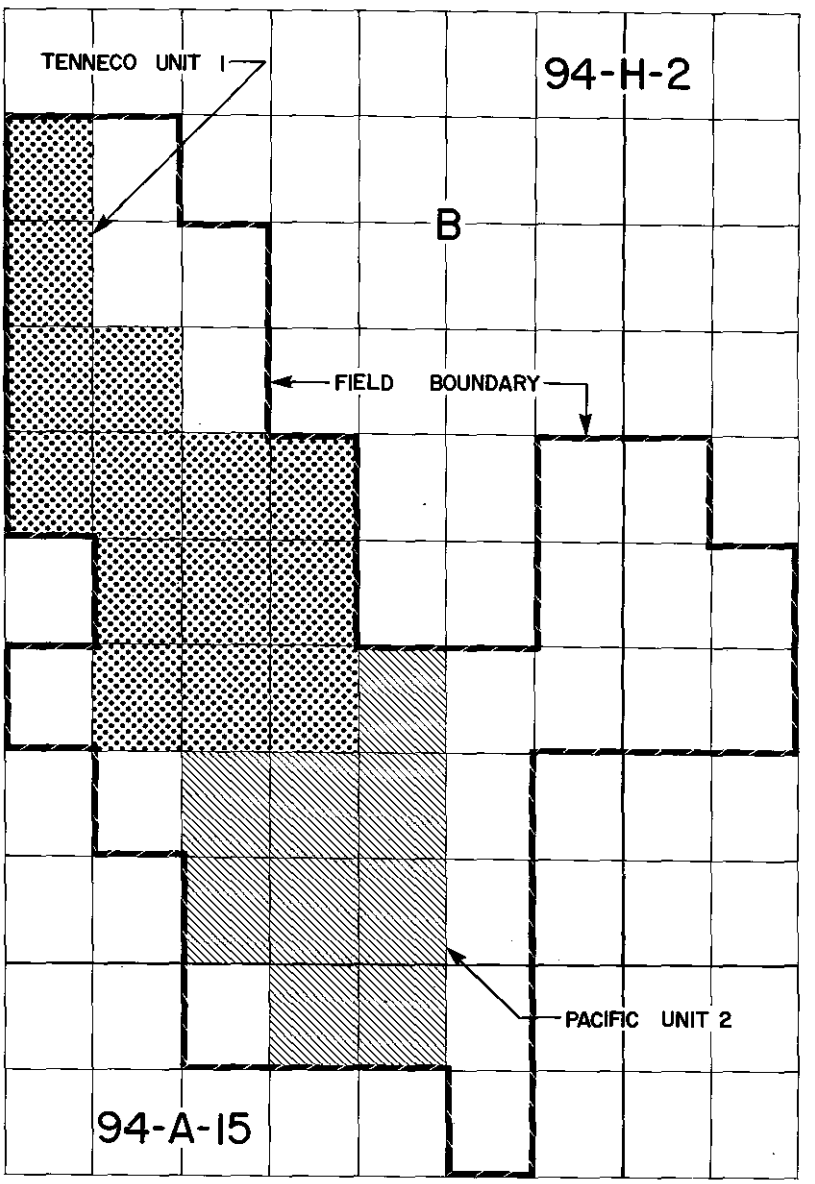
MAP 28
DUNLEVY POOL PROJECT
RIGEL FIELD

Figure 4-55



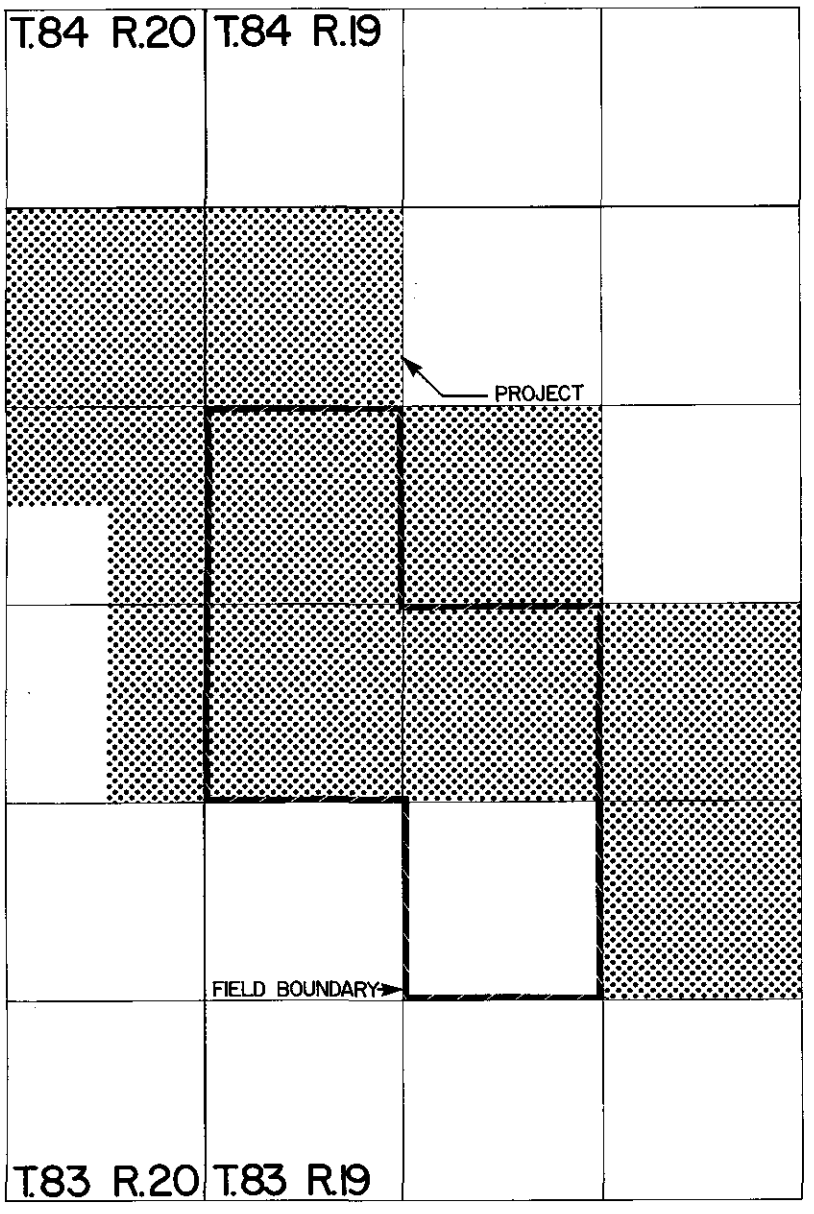
MAP 29
MONSANTO CONSERVATION PROJECTS
DUNLEVY POOL
RIGEL FIELD

Figure 4-56



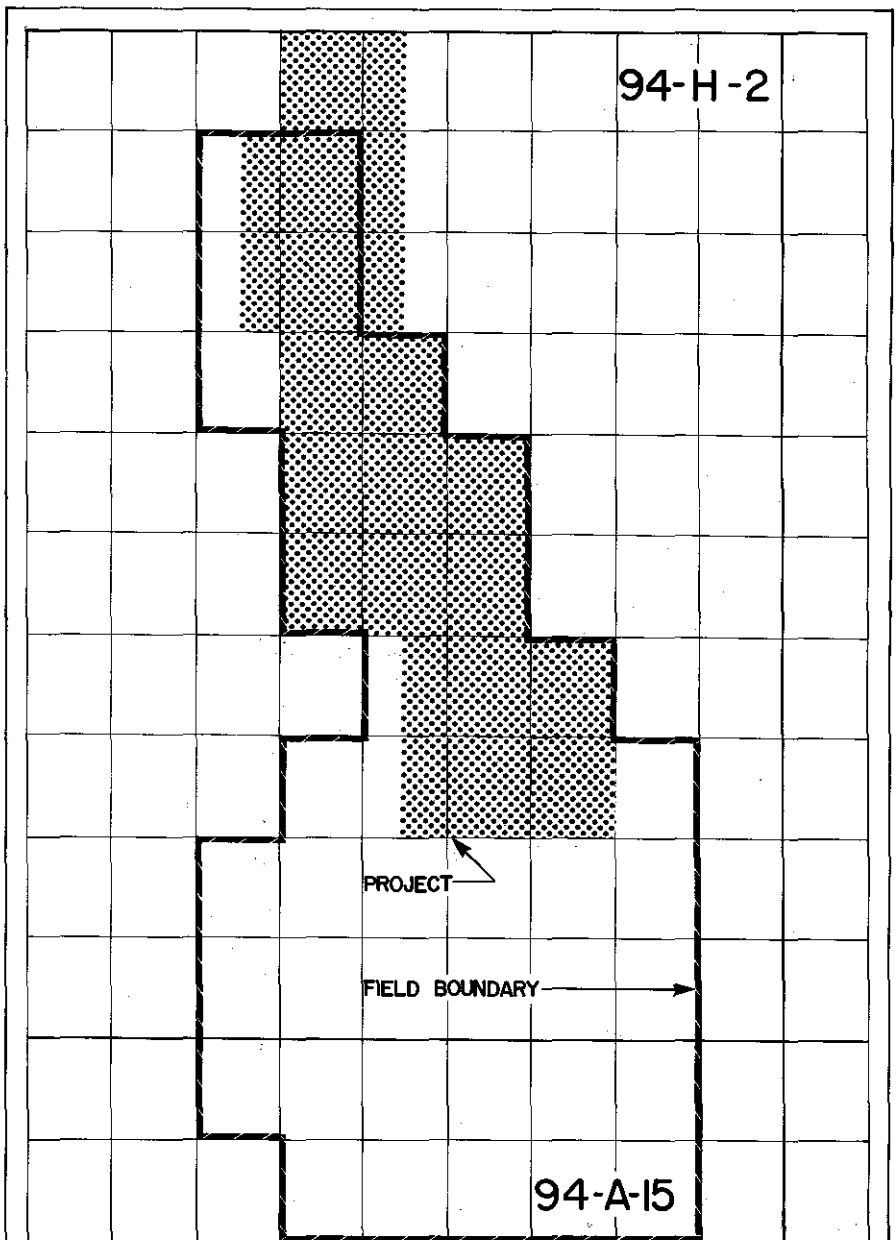
MAP 30
HALFWAY POOL UNITS
WEASEL FIELD

Figure 4-57



MAP 31
WAINOCO UNIT I
HALFWAY & BELLOY POOLS
WILDER FIELD

Figure 4-58



MAP 32
UNION OIL PROJECT
HALFWAY POOL
WILDMINT FIELD

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(as at December 31, 1976)

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