



IMPERIAL STANDARD: Imperial Oil, Exxon,
and the Canadian Oil Industry from 1880
Graham D. Taylor

ISBN 978-1-77385-036-8

THIS BOOK IS AN OPEN ACCESS E-BOOK. It is an electronic version of a book that can be purchased in physical form through any bookseller or on-line retailer, or from our distributors. Please support this open access publication by requesting that your university purchase a print copy of this book, or by purchasing a copy yourself. If you have any questions, please contact us at ucpress@ucalgary.ca

Cover Art: The artwork on the cover of this book is not open access and falls under traditional copyright provisions; it cannot be reproduced in any way without written permission of the artists and their agents. The cover can be displayed as a complete cover image for the purposes of publicizing this work, but the artwork cannot be extracted from the context of the cover of this special work without breaching the artist's copyright.

COPYRIGHT NOTICE: This open-access work is published under a Creative Commons licence. This means that you are free to copy, distribute, display or perform the work as long as you clearly attribute the work to its authors and publisher, that you do not use this work for any commercial gain in any form, and that you in no way alter, transform, or build on the work outside of its use in normal academic scholarship without our express permission. If you want to reuse or distribute the work, you must inform its new audience of the licence terms of this work. For more information, see details of the Creative Commons licence at: <http://creativecommons.org/licenses/by-nc-nd/4.0/>

UNDER THE CREATIVE COMMONS LICENCE YOU MAY:

- Read and store this document free of charge;
- Distribute it for personal use free of charge;
- Print sections of the work for personal use;
- Read or perform parts of the work in a context where no financial transactions take place.

UNDER THE CREATIVE COMMONS LICENCE YOU MAY NOT:

- Gain financially from the work in any way;
- Sell the work or seek monies in relation to the distribution of the work;
- Use the work in any commercial activity of any kind;
- Port a third party indirectly via use or distribution of the work;
- Distribute in or through a commercial body (with the exception of academic usage within educational institutions such as schools and universities);
- Produce, distribute, or store the cover image outside of its function as a cover of this work;
- Alter or build on the work outside of normal academic scholarship.

Acknowledgement: We acknowledge the wording around open access used by Australian publisher, re.press, and thank them for giving us permission to adapt their wording to our policy <http://www.re-press.org>

CONCLUSION

The last half of the nineteenth century witnessed transformations in the technologies of extraction, production, transportation, and communications that provided opportunities for aspiring entrepreneurs to achieve economies of scale in production and expand their market reach across entire countries and abroad. In the burgeoning kerosene industry, John D. Rockefeller fashioned an empire through the vertical integration of refining, pipelines, and marketing to achieve a dominant position for Standard Oil in the United States by the 1880s and a worldwide market position over the following decade. In Canada, a group of refiners formed Imperial Oil in 1880 to establish a similar degree of dominance in the Canadian market. Imperial never achieved that goal, and lost a crucial edge in technology when the scientist Herman Frasch moved from Imperial to Standard Oil. But by the 1890s it had developed an integrated system that in many respects paralleled for Canada the much larger operations of Standard Oil across the border.¹

The period from the 1880s to the First World War has been designated the first era of globalization as British, European, and later American companies extended their reach across much of the rest of the world. The emergence of new investment markets and expansion of existing ones, as well as the development of new financial instruments to reach a wider investing public, provided sources of capital on a much larger scale. In turn this enabled the rise of companies with national or international aspirations. The mercantilist empires of Britain and France dismantled many of their investment trade barriers by the 1860s. The establishment of the

“gold standard” among major industrial nations in the following decade fostered the acceleration of capital mobility across borders.²

At the same time, the exponents of globalization encountered increasing resistance, particularly from emerging industrial nations including Germany, Japan, and the United States. Protective tariffs were erected and trade restrictions were developed in order to foster domestic industries. One of the by-products of these policies—anticipated or not—was that companies seeking to enter promising new markets abroad, or to access raw materials essential for industrial growth, turned to portfolio and direct investment in these protectionist countries. By the early twentieth century, the United States was host country to over \$7 billion (USD) from overseas investors, of which \$1.5 billion (USD) was in direct investment.³

Canada established its own protectionist system with the National Policy in 1879—not necessarily because it expected to become an industrial powerhouse, but rather to protect jobs at home by inviting foreign direct investment. If this was the intent, it seems to have worked: by 1914 Canada was host to \$800 million (USD), equivalent to 53 per cent of FDI in the US, which had a population ten times larger. Likewise Canada’s GNP more than doubled between 1880 and 1910.⁴

Imperial Oil was not so fortunate. Even before the amalgamation of the company in 1880, exports of Canadian kerosene had declined substantially, and Imperial lobbied for trade protection under the National Policy. Standard Oil’s products, however, remained competitive, particularly in the Maritimes, and in the 1890s the US company embarked on a strategy familiar from its expansion ventures at home. Imperial found itself surrounded by competitors that had financing and technological support from Standard. A sharp depression in the US in the mid-1890s accelerated Standard’s campaign to conquer the Canadian market. Although Imperial sought to hold its investors through generous dividend payments, by 1898–99, with prospects for a shrinking market and diminishing output from the Petrolia oil wells, the outlook was bleak. Standard offered good terms, as it had in takeovers of US competitors, and the merger was swiftly consummated.⁵

In the normal course of events, it is quite probable that Imperial would have become simply a vehicle for marketing Standard Oil products in Canada: all but one refinery was closed and the output of the Petrolia fields continued to decline. In addition, the government of Canada under

the Liberal regime of Wilfrid Laurier seemed headed for some form of reciprocity in trade with the US in the first decade of the twentieth century. Three events in 1911, however, disrupted this “normal course” and transformed the relationship between Standard Oil and Imperial Oil.

At the national level, in 1911 a proposed US-Canada Reciprocity Treaty was defeated, and Canada remained protectionist for several more decades. On the industry front, Standard’s greatest rival, Royal Dutch Shell, launched a beachhead in Canada, establishing an oil and gas storage facility in Montreal in 1911. This was followed with threats to embark on major exploratory ventures in Alberta a few years later. But the most significant event took place in the US when the Supreme Court upheld a ruling ordering dissolution of Standard Oil in 1911.

Small oil producers in the US, as well as populist and progressive politicians and state authorities from Pennsylvania to Texas, had been pursuing Standard Oil for more than two decades. The company had been regarded as a target of the federal Sherman Antitrust Act of 1890, but had avoided prosecution in part through various legal stratagems. In 1908, however, the US Justice Department brought a case against it, and a court-ordered dissolution was upheld three years later. Standard Oil was broken up into thirty-four companies, of which the largest were Standard Oil of New Jersey (Jersey Standard, later Exxon) and Standard Oil of New York (Socony, later Mobil). In 1999 Exxon and Mobil were reunited.⁶

Imperial Oil ended up with Jersey Standard, which proved to be providential for the Canadian company. Walter Teagle took charge of Jersey Standard’s foreign sales and also became president of Imperial Oil. Combining these roles, he fashioned a strategy for both companies that would sustain them through the next thirty years, during which time he also became the chief executive of Jersey Standard.

Teagle recognized, as did other managers of Jersey Standard, that the company had immense refining assets and a strong transportation and marketing structure but virtually no direct access to crude oil, which it had to buy from other Standard remnants or independent suppliers. Standard Oil had missed an opportunity to enter the burgeoning Texas oil fields in the early 1900s, and in any case expansion into production in the US might arouse antitrust authorities. The alternative was to look for new oilfields abroad, particularly in Latin America. In that region, the British

had well established commercial connections, while thanks to President Theodore Roosevelt's "Big Stick" diplomacy American companies faced hostility from local governments.

In this situation, Imperial Oil could prove useful. As part of the British Empire, the Canadian company could facilitate dealings with British companies, as was the case in Peru. In addition, it could provide cover for an American company in a hostile environment, as was the case in Colombia. In addition, Teagle regarded Imperial as a potential platform for a broader array of Jersey Standard overseas interests, shielded from scrutiny and possible further tax and antitrust measures by the US government. As it happened, this proved to be an unwarranted fear: as the US moved toward intervention in the First World War, the value of big businesses for military preparedness underwent a reconsideration. By the 1920s the US government was an enthusiastic proponent of overseas investment by the oil industry for "national defense." In the Middle East Jersey Standard acquired a foothold in the Anglo-French consortium, Iraq Petroleum, with assistance from the US State Department. In the meantime, however, Imperial Oil served Jersey Standard's purposes as a vehicle for expansion in South America through the International Petroleum Company.⁷

As president of Imperial Oil Teagle arranged for a substantial increase in capitalization—to \$50 million (CAD)—to construct refineries across the country, provided Imperial with access to thermal cracking refining technology, and supported what proved to be extensive exploration for new oil resources in Alberta and the Northwest Territories. Retrospectively this might be deemed an overreaction to the threat of Royal Dutch Shell in Canada. But these measures also equipped Imperial with an updated and integrated system that enabled it to sustain its position as the leading company in the industry in Canada for much of the rest of the century.

But Imperial was also firmly embedded in Jersey Standard's international structure. While oil from Peru was carried to Imperial's market on the west coast of Canada, and Colombian oil to the Maritimes, a substantial amount of the oil from both sources went to Jersey Standard's refinery in Bayonne, New Jersey. Most of the profits from International Petroleum in the 1930s flowed ultimately as dividends to Jersey Standard. Although Imperial had established a research lab at Sarnia in the 1920s, it remained dependent on the parent company for access to the most

up-to-date technology in many areas. Marketing strategies and labour relations policies drew on Jersey Standard models. International Petroleum provided opportunities for Imperial's managers, engineers, and geologists to develop their capabilities while at the top levels Imperial executives served on the Jersey Standard board of directors, and the parent company designated individual members of their executive committee to act as liaisons with Imperial Oil.⁸

As the Second World War ended, new opportunities for overseas expansion opened for Jersey Standard, particularly in the Middle East where it joined the Aramco consortium in Saudi Arabia in 1947. By that time oil production from Jersey Standard's affiliates in Venezuela had far exceeded output from Colombia and Peru, augmenting the large producing and refining operations of Humble Oil in Texas, which it had acquired in 1919. For Imperial Oil, however, the future was far less promising. During the 1920s Imperial's subsidiary, Royalite, had found gas and oil in Alberta's Turner Valley near Calgary, but by the postwar years the production rate was declining. Meanwhile, the government of Colombia was proposing to take over International Petroleum's fields by 1951. Imperial had been exploring for oil in northern Alberta and the Northwest Territories since 1921 with limited success—aside from Norman Wells, which had supplied the Canol project during the Second World War but was too distant from markets to be commercially viable.

In 1945, Henry Hewetson took over as president of Imperial. Although he was an American Hewetson had connections to Canada, having served with the Royal Flying Corps in the First World War, and he worked at the Sarnia refinery before going back to the US. Eventually Hewetson headed Standard Oil of Louisiana, then returned to Imperial Oil in 1935, where he overhauled the company's sales and marketing operations. In many respects he resembled Teagle, both physically and in his stature with the parent company, where he was appointed director in 1950.⁹

Since Alberta had plentiful reserves of natural gas, Jersey Standard contemplated providing Imperial with access to a modified version of a German patent it had acquired in the 1930s that would produce synthetic crude oil from gas. But Hewetson backed Link and other geologists seeking a "last chance effort" to strike oil, and arranged for Jersey Standard to bring in specialists and undertake research using seismic surveys to

identify “anomalies” in an area of central Alberta known as the western Canadian sedimentary basin. According to one account of the events leading to the Leduc discovery, the area chosen was “geologically all wrong but [Imperial] found oil anyway.”¹⁰

Leduc had a larger impact on the Imperial-Jersey Standard relationship than either party may have anticipated. In order to finance developing the infrastructure around Leduc, including building a pipeline to central Canada, Imperial sold International Petroleum to Jersey Standard. In effect Imperial Oil became primarily a vertically integrated Canadian operation, still linked to its US parent but increasingly oriented to the domestic Canadian market. Over the next seventy years Imperial’s commitment to developing Canadian oil resources deepened as it advanced into the oil sands of Alberta and the oil and gas frontiers of northern Canada.

In 1947–48 by a curious—and unrelated—coincidence, the government of Canada contemplated, and then recoiled from, a proposed customs union and comprehensive trade agreement with the United States. During the Second World War there had been a good deal of economic cooperation between the two countries, but by 1947 Canada faced a serious imbalance in its trade and currency accounts as the British market failed to rebound and imports from the United States soared. Eventually the Marshall Plan, in which Canada was allowed to participate as a supplier of goods, mitigated these problems. But in the interim proposals for greater integration between the two countries had support, at least within the government agencies and ministries. Nevertheless their views were not endorsed by Canada’s prime minister Mackenzie King, who had been a member of the Laurier cabinet during the Reciprocity Treaty debacle of 1911 and did not wish to repeat the experience.¹¹

This rejection did not, then, reflect a nascent Canadian nationalism. But over the next two decades issues involving American economic (and political) influence in Canada would begin to take effect, culminating in the early 1970s when the first energy crisis focused public attention on the role of foreign-owned companies in the oil and gas industry, with Imperial Oil as exhibit number one. Even in the 1950s there was some incipient discontent: the role of Americans in financing the Trans Canada Pipe Line engendered criticism, and John Diefenbaker indulged in nationalist rhetoric during election campaigns. Generally, however, government

policies reflect what later was characterized as a “continentalist” approach: the National Oil Policy, for example, supported the existing arrangements under which eastern Canada imported oil, relying on multinational suppliers—and the proposal for a pipeline to Montreal was shelved.¹²

Within the Jersey Standard system, relations with Imperial also exhibited a “continentalist” (or “corporatist”) character during this period. The “Esso” oval sign towered over service stations, while the name “Imperial” diminished into the background. Generous dividends continued to flow from Imperial, although it was able to retain a somewhat greater amount of earnings for reinvestment.¹³ More Canadians rose to the senior management level at Imperial, and they were also encouraged to pursue lateral promotions across other Jersey Standard divisions and affiliates: Ken Jamieson, who became president of Jersey Standard in 1965 and chairman of the board in 1969, was a prominent example of this career path.¹⁴

At the same time, however, Imperial was moving toward a strategy of expansion and diversification within Canada. As the company focused on new initiatives into northern Canada and the oil sands, it strengthened its research operations to support these areas. The achievements of Roger Butler and others in developing technologies to enhance *in situ* oil sands extraction and drilling for oil in Arctic conditions were the result of these measures.

Multinational oil companies, including Jersey Standard, had faced nationalism in producer states since early in the twentieth century. In 1918 Russian revolutionaries seized the Baku oil fields. During the 1930s, Bolivia and Mexico nationalized their oil, joined by Colombia in the 1950s, and Argentina, Peru, Indonesia, and Iraq in the 1960s. The floodgates opened after the first energy crisis in 1973–74 as most of the major OPEC members either nationalized their industry or set up government-owned corporations to run them.

Canada of course never experienced such upheavals, but the oil multinationals did face intense criticism in the early 1970s and again in 1979–81 in the wake of the two energy crises. The government of Canada also established a crown corporation whose initial mandate was supposed to be to promote “frontier exploration” for new oil sources. In practice it evolved into an integrated company that challenged the oil majors before being privatized in the 1990s.

The National Energy Program was an ambitious set of policies intended to encourage both new resource development and “Canadian” (not necessarily publicly owned) oil companies while enhancing federal tax revenues. It foundered in the midst of volatile oil price gyrations and feuding between the federal and provincial governments. By the end of the century, with continental free trade agreements in place, nationalist controversies over oil and other resources seemed to be vestiges of a rapidly disappearing past—except, perhaps, for Albertans with long memories.

Throughout these events, Imperial Oil was a target for criticism by Canadian nationalists. In 1981, Jack Armstrong as board chairman vigorously defended the importance of foreign investment, multinationals, and foreign technology in developing Canada’s oil resources.¹⁵ It was a forceful statement on behalf of multinationals in an era when Jersey Standard’s executives and the heads of other big oil companies were being haled before committees of the US Congress, and accused of profiteering from the energy crises.

At the same time, it was a defense of the benefits the foreign-owned oil companies offered to Canada, and Armstrong presented himself as the head of a Canadian company rather than as a spokesman for Jersey Standard. This did not of course necessarily convince Canadian critics of multinationals, nor did the underlying nationalism necessarily resonate at Jersey Standard’s headquarters. In 1981 Imperial was reporting record earnings levels and had promising new projects in the oil sands and northern Canada. As the historians of Exxon noted, Imperial’s “independence” was respected “as long as the company remained successful.”¹⁶ Over the next two decades that perspective shifted along with the fortunes of both companies.

The events of the 1970s–80s left Jersey Standard (rechristened Exxon in 1972) in a situation reminiscent of the years following the breakup of Standard Oil. Although it retained producing fields in North America, including those of Imperial in Canada, it had lost direct access to many of its overseas production holdings. As with the other oil multinationals, it had to adapt to a world in which it processed, transported, and sold oil owned by the producer states. Beyond that role, it faced several strategic options. It could diversify into other “energy-related” fields or indeed transform itself into a kind of conglomerate. It could expand into new producing fields. Or it could accommodate to changing conditions by merging with

other companies that had greater access to production or a strong market position or innovative technology.

Exxon pursued all of these options, although not simultaneously. During the 1970s–early 1980s under Clifford Garvin the company presented itself as being in “the energy business . . . rather than just the oil business.”¹⁷ To that end Exxon explored initiatives in nuclear fuel, solar power, even coal as well as supporting Imperial’s oil sands ventures. Perhaps the most ambitious operation involved shale oil in Colorado; but it proved to be premature and was shut down in 1982. It was during this period that Exxon scientists were conducting research into the role of fossil fuels in climate change. As oil prices spiked up in the early 1980s, however, diversification efforts diminished; Lawrence Rawl and Lee Raymond, who by mid-decade emerged as the new leaders at Exxon, vowed to return the company to its “core business”—oil and gas.¹⁸

In the following decade Exxon embarked on a search for new producing fields, sometimes alone but often within a consortium or in partnership. Africa in particular looked promising, leading to ventures in Chad, Cameroon, and Angola. These undertakings sometimes presented physical risks for company employees as well as financial risks, reminiscent of exploratory operations in the early twentieth century in Latin America and Russia. The collapse of the Soviet Union seemed to present great opportunities not only in central Asian states such as Kazakhstan and Azerbaijan but also in Russia, although the complex politics and bureaucratic hurdles presented endless obstacles. Ultimately Exxon was able to mount a profitable venture on Sakhalin Island, after eleven years of manoeuvring.¹⁹

Given its quest for new sources of oil, a merger with another oil major with producing fields seemed logical. But there were other factors involved. After the boom and collapse of oil prices in 1981–85, the industry entered a long period of depressed prices—except for sudden episodes of volatility, as happened during the first Gulf War in 1991. The growth of the “Asian Tigers” of Southeast Asia at the end of that decade promised a larger and more enduring market for oil, but the abrupt collapse of that boom in 1998 generated a sudden rush toward consolidation among the large multinationals. This rush was initiated by BP, which sought to merge with Mobil. When that fell through, BP turned to Amoco. Soon all the other big companies were alert for further action. Exxon in particular

feared losing ground to BP and Shell, two traditional rivals. This led to the quick merger of Exxon and Mobil in 1999, reuniting the two largest survivors of the breakup of Standard Oil in 1911, ironically with the blessing of the US Federal Trade Commission on the grounds that this was “a very different world.”²⁰

These developments at Exxon would affect the manner in which the parent company related to Imperial Oil. The oil price collapse in 1985–86 hit Exxon hard and led to a full-scale review of the company’s structure by Rawls and Raymond. They concluded that Exxon had become overly bureaucratic, burdened with multiple committee reviews and reports. At the same time there was too much decentralization, so that top management lacked the capability to react in a “nimble” way to changing conditions. Imperial in particular was perceived as having too much autonomy, as did Humble (now designated Exxon USA). For the time being, both affiliates escaped the full impact of reorganization—although the reformers reoriented the company toward a renewed effort at overseas expansion of production. In 1991 Rawl orchestrated the unification of all overseas oil exploration into a new entity, undercutting Exxon USA. He and Raymond also contemplated buying out the minority shareholders in Imperial but they were reluctant to shoulder the costs and to challenge Canadian regulations of foreign takeovers.²¹

The Exxon-Mobil merger provided a new opportunity to bring Imperial Oil to heel. Raymond supported the continuation of Mobil’s Canadian operations to counter those of Imperial, even though he acknowledged that this was an “inefficient arrangement.”²² Over the following years Mobil veterans were placed in managerial positions at Imperial, including the presidency of the company. This was not out of line with the policies of Exxon—or indeed of any multinational company—but still it was definitely a signal that things were changing.

Meanwhile the issue of fossil fuels and climate change loomed ever larger, both over companies and over the industry as a whole. In the 1990s Lee Raymond of Exxon adopted a position of denial and resistance to international pressures as exemplified in the Kyoto Accord. Rex Tillerson, Raymond’s successor, retreated from this defiant view and Exxon Mobil announced a new initiative in biofuels, aiming at generating gasoline from algae, which received a good deal of publicity. At the same time the

company continued to lobby against US measures to limit imports of oil sands products. More broadly, it took the view that world energy needs would have to rely on fossil fuels for at least another generation.²³

Imperial Oil was, if anything, in a more difficult situation. Since the 1980s it had committed large resources to the development of the oil sands and northern Canadian oil and gas. While hopes for the latter dwindled, the company continued to place its bets on the oil sands through investments in the Kearl mine and the reopening of Cold Lake and other *in situ* ventures. But delays and resistance to pipeline development linking the oil sands to world markets and continuing volatility in oil prices made for a perpetual cycle of uncertainty about the future.

In July 2018 a *Wall Street Journal* article focusing on the new chief executive officer of Exxon, Darren Woods, noted the company's acknowledgement that a \$20 billion (USD) oil sands project in Canada "was no longer profitable." The same article went on to observe: "Exxon is weighing reducing its exposure to Canada where it has operated for 130 years."²⁴ Imperial Oil—and for that matter Exxon—has been written off before, and risen from the dead, or at least from the sickbed. Nevertheless, this particular statement implied that a significant change in the Exxon Mobil-Imperial relationship was in the offing, although whether Exxon Mobil contemplated selling all or part of the Canadian company or just planned to scale back new investments in the oil sands was unclear.

In some respects, however, the two companies had been following different trajectories since the Leduc discovery in 1947. Exxon had lost many of its overseas production fields, then rebuilt its position. The amalgamation with Mobil had if anything made Exxon even more of a global player. Meanwhile, Imperial, while remaining part of the Exxon system, increasingly focused on serving the Canadian market and developing resources in Canada. For Exxon, Imperial's most important asset was its position in the oil sands, which was nevertheless a frustratingly expensive and controversial feature. But these conditions had been evident for more than twenty years, and while oil prices fell dramatically in 2014, they subsequently partially rebounded, rising above \$74 (USD)/bbl. (West Texas Intermediate) in July 2018.²⁵ So it is hard to know at this time whether Darren Woods's remarks reflect a response to continuing uncertainty in the oil market or a long-term change in strategy for Exxon Mobil.

APPENDICES

APPENDIX 1

Imperial Oil Company Financial Statements, 1892–98 (\$000 CAD)

Year	Assets	Surplus	Net Profit	Dividends
1892	931	297	52	32
1893	1,016	232	66	30
1894	1,094	351	69	25
1895	1,028	375	60	25
1896	1,087	447	104	36
1897	1,118	465	62	35
1898	1,055	456	n/a	30

SOURCE: Ewing, *History of Imperial Oil*, Chapter 3, Appendix II.

APPENDIX 2A

Imperial Oil Production, Sales, and Net Earnings, 1912–20
(\$000 CAD)

Year	Refining *	Sales/Mfg \$	Net income
1912	3,100	107,068	2,431
1913	3,400	119,011	3,362
1914	5,000	108,155	2,414
1915	7,000	133,620	4,784
1916	8,400	138,379	4,666
1917	13,700	227,258	5,124
1918	18,300	308,071	6,143
1919	21,200	277,877	7,174
1920	20,800	314,110	11,095

* bbl./day.

SOURCES: Ewing, *History of Imperial Oil*, Chapter 4, Tables 6–7; Gibb & Knowlton, *History of Standard Oil (NJ): The Resurgent Years*, 677–8.

APPENDIX 2B

Imperial Oil Ltd., Income Received, and Dividends Paid, 1921–47
(\$000 CAD)

Year	Mfg./Sales	Div. Rec'd.*	Net Income**
1921	1,350	1,008	315
1922	7,710	2,227	9,560
1923	2,528	1,251	5,596
1924	7,927	3,246	13,089
1925	7,927	2,155	11,221
1926	14,102	3,266	17,540
1927	5,648	3,266	13,615
1928	16,775	3,098	22,963
1930	7,215	8,850	19,020
1931	8,915	8,973	18,227
1932	4,331	9,371	14,713
1933	3,927	10,279	14,101
1934	3,023	22,165	25,772
1935	2,900	23,162	25,229
1936	3,082	23,104	25,628
1937	3,572	24,406	26,452
1938	3,573	24,482	25,960
1939	5,368	17,048	19,250
1940	7,113	14,032	17,039
1941	5,496	10,635	16,144
1942	7,936	9,673	14,063
1943	8,397	9,628	15,549
1944	9,141	9,473	16,193
1945	11,902	9,415	16,617
1946	14,902	5,713	17,326
1947	15,556	5,756	20,464

* Dividends received from subsidiaries: 90% from IPC 1923–40; 80% 1940–47.

** Net income after taxes.

*** Standard Oil (NJ) held 78–80% of IOL shares.

Sources: Ewing, *History of Imperial Oil*, Chapter 15, Tables 1–2; IOL Annual Reports 1932–46.

APPENDIX 2C

Imperial Oil Sales, Production, Earnings, and Dividends, 1947–80

Year	Sales 000 bbl./day	Production 000 bbl./day	Earnings \$M[CAD]	Dividends \$M [CAD]	%Dividends/ earnings
1947	130	6	20	14	66
1948	142	12	23	14	60
1949	154	25	25	14	54
1950	174	36	30	15	49
1951	196	63	36	17	49
1952	209	65	41	22	54
1953	212	78	48	24	50
1954	218	84	50	27	54
1955	250	93	62	29	46
1956	275	103	69	36	52
1957	276	95	75	37	52
1958	275	75	51	38	75
1959	293	82	55	38	69
1960	298	90	61	43	69
1961	295	111	68	44	65
1962	317	124	68	44	65
1963	327	126	71	49	69

APPENDIX 2C

Continued

Year	Sales 000 bbl./day	Production 000 bbl./day	Earnings \$M[CAD]	Dividends \$M [CAD]	%Dividends/ earnings
1964	342	131	79	55	70
1965	348	133	86	58	68
1966	356	146	92	63	69
1967	370	141	96	67	70
1968	383	150	100	67	67
1969	381	154	94	68	72
1970	400	170	105	68	65
1971	406	183	136	77	56
1972	417	224	151	77	51
1973	449	275	227	104	46
1974	443	224	290	104	47
1975	418	173	250	104	42
1976	441	154	264	106	40
1977	433	148	293	116	40
1978	449	147	314	124	39
1979	468	256	471	150	32
1980	449	226	601	201	33

SOURCES:

IOL and Consolidated Subsidiaries Financial Review 1959. IOL Archives, Series 4, Box 292A.
Acc. 80-0021; IOL Annual Reports, 1959–81.

APPENDIX 3A

Canadian Oil Companies, Comparison, 1947 (\$000 CAD)

	Imperial	British American *	McColl Frontenac **
Assets	241,506	71,529	44,692
Earnings	20,464	8,141	2,780
Production bbl. (000)	47,485	15,857	10,057

* British American became Gulf Canada in 1967.

** McColl Frontenac became Texaco Canada in 1941.

SOURCE: Imperial Oil Records, Series 4, Box 292A Acc. 80-0021.

APPENDIX 3B

Canadian Oil Companies, Comparison, 1994 (\$ M. CAD)

	Imperial	Shell Canada	Petro Canada	Amoco Canada	Nova
Assets	11,928	6,113	5,912	6,076	8,257
Sales	9,019	5,034	4,730	4,270	3,724
Net Income	359	320	262	-70	575
Employees	9,470	4,391	6,209	2,800	6,600

SOURCE: Rinaldo Stefan, *Report on Imperial Oil* (1996). Appendix 1. Imperial Oil Records, IOL-pub 6-157.

Notes

INTRODUCTION

- 1 www.theglobeandmail.com/report-on-business/rob-magazine/top1000.
- 2 See Appendices 3A and 3B.
- 3 www.fortune.com/fortune-500/global500; Steve Coll, *Private Empire: Exxon Mobil and American Power* (New York: Penguin Press, 2012), 65–6.
- 4 Graham D. Taylor, *The Rise of Canadian Business* (Don Mills, ON: Oxford University Press Canada, 2009), 73.
- 5 Henrietta M. Larson, Evelyn H. Knowlton, and Charles S. Popple, *The History of Standard Oil (New Jersey): New Horizons 1927–1950* (New York: Harper & Row, 1971), 720–1.
- 6 Mira Wilkins, “The History of Multinational Enterprise,” in A.M. Rugman et al., ed., *The Oxford Handbook of International Business*, 2nd edition (Oxford, UK: Oxford University Press, 2010), 3–39.
- 7 The volumes of *The History of Standard Oil (New Jersey)* are cited throughout this work. Other examples include Mira Wilkins and Frank Ernest Hill, *American Business Abroad: Ford on Six Continents*, 2nd edition (Cambridge, UK: Cambridge University Press 2011), and George David Smith, *From Monopoly to Competition: The Transformations of Alcoa, 1888–1986* (Cambridge, UK: Cambridge University Press, 1988).
- 8 Julian Birkenshaw, “Strategy and Management in MNE Subsidiaries,” in Rugman et al., *the Oxford Handbook of International Business*, 367–89; Geoffrey Jones, *Multinationals and Global Capitalism* (Oxford, UK: Oxford University Press, 2005), 162–3.
- 9 Joseph A. Pratt and William E. Hale, *Exxon: Transforming Energy, 1973–2005* (Austin, TX: Dolph Briscoe Center for American History, University of Texas at Austin 2013).

PROLOGUE

- 1 Barry Broadfoot, Interviews with Vern Hunter, Doug Layer, W.D.C. MacKenzie, Vern Taylor. Imperial Oil Archives, Glenbow Museum and Archives, Calgary, Alberta, Series 16: Records of the External Affairs Department [Edited versions of these interviews were published in Barry Broadfoot and Mark Nichols, *Memories: The Story of Imperial's First Century* (Toronto: Imperial Oil, 1980)]. Petroleum Industry Oral History Collection, Glenbow Museum and Archives: Vern Hunter [interviewed 17 Aug 1983 by Aubrey Kerr]; Doug Layer [interviewed 12 July 1983 by Nadine Mackenzie]; Vern Taylor [interviewed 4 June 1981 by Aubrey Kerr]. Jacqueline Chartier, "Vern 'Dry Hole' Hunter: How a Preacher's Son Became an Oilpatch Legend," *Alberta History* 56, no. 3 (Summer 2008): 2–7. "Birth of an Oil Well," *Imperial Oil Review* (Apr 1947): 3–5. Hal Tennant, "Leduc—Turning Point of an Industry," *Imperial Oil Review* (Feb 1958): 3–15.
- 2 John S. Ewing, "History of Imperial Oil," unpublished manuscript, Imperial Oil Archives, Glenbow Museum, chs 8, 15; Graham D. Taylor, "From Branch Operation to Integrated Subsidiary: The Reorganisation of Imperial Oil Under Walter Teagle, 1911–1917," *Business History* 34, no. 3 (July 1992): 49–68.
- 3 "Claim Biggest Oilfield Soon Opens in North," *Globe & Mail*, 20 Oct 1920, 2.
- 4 George de Mille, *Oil in Canada West: The Early Years* (Calgary: Northwest Printing & Lithographing, 1970), 147–209. Earle Gray, *The Great Canadian Oil Patch: The Petroleum Era from Birth to Peak*, 2nd edition (Edmonton: June Warren Publishing, 2004), 114–42; Aubrey Kerr, *Leduc* (Calgary: Altona, 1991), 21–32.
- 5 Minutes of the Board of Directors, Imperial Oil Ltd., 7 May 1947; 3 Sept 1947; 8 Sept 1947; 7 Oct 1947. Imperial Oil Shareholders, Special General Meeting, 22 Sept 1947. Imperial Oil Archives, Glenbow Museum and Archives, Series 2: Corporate Services. Bennett H. Wall, *Growth in a Changing Environment: A History of the Standard Oil Company (New Jersey) 1950–1975* (New York: McGraw Hill Co., 1988), ch. 12. [Note: currency figures are identified as either in Canadian dollars (CAD) or US dollars (USD)].

CHAPTER 1

- 1 Joyce Barkhouse, *Abraham Gesner* (Don Mills: Fitzhenry & Whiteside, 1980), 50–60; Kendall Beaton, "Dr. Gesner's Kerosene: The Start of American Oil Refining," *Business History Review* 39 (Feb 1955): 28–53; Loris S. Russell, "Gesner, Abraham," *Dictionary of Canadian Biography*, vol. 9 (Toronto: University of Toronto Press, 1976), www.biographi.ca/en/bio/gesner_abraham; Earle Gray, "Gesner, Williams and the Birth of the Oil Industry," *Oil Industry History* 9 (2008): 11–23; Allison Mitcham, ed., *The Best of Abraham Gesner* (Hantsport, NS: Lancelot Press, 1995); Jean-Pierre Proulx, *Whaling in the North Atlantic: From Earliest Times to the Mid-19th Century* (Ottawa: Parks Canada National Historic Parks and Sites Branch, 1986), 68–9.
- 2 Gray, *Great Canadian Oil Patch*, 34–44; Edward Phelps, "Foundations of the Canadian Oil Industry, 1850–1866," in Edith Firth, ed., *Profiles of a Province: Studies in the History of Ontario* (Toronto: Ontario Historical Society, 1969), 156–9; Christina Burr, *Canada's Victorian Oil Town: The Transformation of Petrolia from a Resource Town*

- into a Victorian Community (Montreal: McGill-Queen's University Press, 2006), 38–9, 58–66; Hope Morritt, *Rivers of Oil: The Founding of North America's Petroleum Industry* (Kingston: Quarry Press, 1993), 19–37.
- 3 Earle Gray, *Ontario's Petroleum Legacy* (Edmonton: Heritage Community Foundation, 2008), 38–9; Burt, 87–96; Morritt, 85–6.
 - 4 Timothy W. Cobban, *Cities of Oil* (Toronto: University of Toronto Press, 2013), 13–24; W.B. Mack, "Oil Refining in London," 29 Nov 1948, Imperial Oil Archives, Acc. 800074/001(01).
 - 5 W.A.E. McBryde, "Petroleum 'Deodorized': The Early Canadian History of the 'Doctor Sweetening' Process," *Annals of Science*, 1 May 1991, 102–11; Cobban, 19–21. Ewing, chapter 2, 14–15.
 - 6 Hugh Grant and Henry Thille, "Tariffs, Strategy and Structure: Competition and Collusion in the Ontario Petroleum Industry, 1870–1880," *Journal of Economic History* 61, no. 2 (June 2001): 392–3; Ewing, ch. 2, 27–8; Ben Forster, *A Conjunction of Interests: Business, Politics and Tariffs 1825–1879* (Toronto: University of Toronto Press, 1986), 111–12.
 - 7 Quoted in Hugh Grant, "The 'Mysterious' Jacob L. Englehart and the Early Ontario Petroleum Industry," *Ontario History* 75, no. 1 (Mar 1993): 68.
 - 8 Grant, "The 'Mysterious' Jacob L. Englehart," 68–71; Cobban, 19–20; Morritt, 89–90, 98–100; Gray, *Great Canadian Oil Patch*, 489–92.
 - 9 Harold F. Williamson and Arnold R. Daum, *The American Petroleum Industry: The Age of Illumination 1859–1899* (Evanston: Northwestern University Press, 1959), 337–9; *Canadian Petroleum Production, Historical Statistics of Canada Q19-25*. www.statcan.gc.ca/pub/11-516-x; Gary May, *Hard Oiler! The Story of Canadians' Quest for Oil At Home and Abroad* (Toronto: Dundurn Press, 1998), 70–5.
 - 10 Cobban, 48–59; Gray, *Great Canadian Oil Patch*, 492–5; Grant, "The 'Mysterious' Jacob L. Englehart," 72–3; Morritt, 115–16; Albert Tucker, "Englehart, Jacob," *Dictionary of Canadian Biography*, vol. XV (Toronto: University of Toronto Press, 2005), www.biographi.ca.
 - 11 Cobban, 29–33; Forster, 156–7; Grant and Thille, "Tariffs, Strategy and Structure," 393–4; Williamson and Daum, 209–11.
 - 12 Imperial Oil Agreement, 30 Apr 1880. Imperial Oil Archives, Corporate Affairs, Historical File, Box 7, File 6.
 - 13 Ewing, ch. 2, 68–9; Robert Page, "The Early History of the Canadian Oil Industry, 1860–1900," *Queen's Quarterly* 91, no. 4 (Winter 1984): 855; Imperial Oil Agreement, 30 Apr 1880.
 - 14 Norman R. Ball and Edward Phelps, "Williams, James Miller," *Dictionary of Canadian Biography*, vol. XI (Toronto: University of Toronto Press, 1982), www.biographi.ca/en/bio/williams_james_miller; Burt, 119–22.

CHAPTER 2

- 1 Williamson and Daum, 211–31, 273–9.
- 2 Ron Chernow, *Titan: The Life of John D. Rockefeller* (New York: Vintage, 1998), 73–95, 129–55, 157–82; Williamson and Daum, 301–8, 346–56.
- 3 Ralph W. Hidy and Muriel Hidy, *History of Standard Oil (New Jersey): Pioneering in Big Business* (New York: Harper & Bros, 1955), 40–68; Greene, William N., “Strategies of the Major Oil Companies,” (PhD diss., Harvard University, 1982), ch. 3, 3–6.
- 4 Imperial Oil Profit and Loss Account, 1880–1882. Imperial Oil Archives; Williamson and Daum, Appendix D3, 747.
- 5 Cobban, 40–2; G.A. Purdy, *Petroleum: Prehistoric to Petrochemicals* (Toronto: Copp Clark, 1957), 32–3.
- 6 Hugh Grant and Henry Thille, “How Standard Oil Came to Canada: The Monopolization of Canadian Petroleum Refining, 1886–1898,” (unpublished ms, July 2004), 4–5, 856.
- 7 W.A.E. McBryde, “Ontario: Early Pilot Plant for the Chemical Refining of Oil in North America,” *Ontario History* 79, no. 3 (Sept 1987): 217–19; Cobban, 67–8; Gray, *Great Canadian Oil Patch*, 497–8; Ewing, ch. 2, 42–6.
- 8 McBryde, 219–24; Hidy, 160–5.
- 9 Imperial Oil Profit & Loss Statements, 1890–1894. Imperial Oil Archives; Ewing, ch. 2, 83–92.
- 10 Ewing, ch. 4, 5–6; 858–9. Samuel Rogers’s son, Edward “Ted” Rogers, was one of the founders of radio broadcasting in Canada, and his son Ted Rogers Jr. became the head of the largest cable system in the country.
- 11 Hidy, 128–44; Daniel Yergin, *The Prize: The Epic Quest for Oil, Money and Power* (New York: Simon & Schuster, 1991), 57–63.
- 12 Ewing, ch. 3, 67–70.
- 13 Hidy, 209–25; Chernow, 330–42.
- 14 Grant and Thille, “How Standard Oil Came to Canada,” 7–8; Cobban, 68–70.
- 15 See Appendix 1.
- 16 Ewing, ch. 4, 60–6, 862–4.
- 17 Ewing, ch. 4, 78–89; Cobban, 71–2; Imperial Oil, Profit and Loss Accounts 1894–1898. Imperial Oil Archives.

CHAPTER 3

- 1 Imperial Oil Ltd., Minutes of Board Meeting, 12–13 Jan 1899. IOL Minute Books 1899–1915. IOL Archives; Ewing, ch. 5, 1–4, 14–17.
- 2 Hidy, 254–6, 315–16.

- 3 Cobban, 71–3; Ewing, chapter 5, 18–20; John T. Saywell, “The Early History of Canadian Oil Companies: A Chapter in Canadian Business History,” *Ontario History* 53, no. 1 (1961): 68–71.
- 4 Ewing, ch. 6, 26–39; Imperial Oil Board of Directors Minutes 16 July 1908; 8 Dec 1908.
- 5 Steve Weinberg, *Taking on the Trust* (New York: Norton, 2008), 208–28; Nevins, vol. 2, 519–26; Hidy, 649–52; Yergin, 96–110.
- 6 Hidy, 694–8; *Standard Oil of New Jersey v. United States* 221 US 1. law.cornell.edu/supreme court/text.
- 7 Hidy, 711–14; Joseph A. Pratt, “Exxon and the Control of Oil,” *Journal of American History* 99, no. 1 (June 2012): 147–8. By 2000, Indiana Standard, Ohio Standard, and Atlantic Refining ended up as part of British Petroleum (BP). Standard of California (Chevron) remained, along with Exxon-Mobil, as the most durable survivors of the 1911 dissolution.
- 8 Harold F. Williamson et al., *The American Petroleum Industry: The Age of Energy 1899–1959* (Westport, CT: Greenwood Publishers, 1959), 167–205, 242–60; Jonathan Singer, *Broken Trusts: The Texas Attorney General versus the Oil Industry 1889–1909* (Texas: A&M University Press, 2002), 57–68.
- 9 Yergin, 71–7, 87–95, 121–8; Hidy, 547–79.
- 10 Wall and Gibb, 61–9; 83–4, 94–6; George S. Gibb and E.H. Knowlton, *The History of Standard Oil of New Jersey: The Resurgent Years 1911–1917* (New York: Harper, 1956), 28–9, 76–7.
- 11 Walter Teagle to H.P. Chamberlain, 27 Jan 1912; Teagle to W.J. Hanna, 28 Nov 1913 Imperial Oil Archives, President’s File, Box 24, File 1 (Acc. 80-0013); Hanna to Teagle, 16 Dec 1913; Teagle to Hanna, 10 Jan 1914. Imperial Oil Archives, President’s File, Box 1, File 3 (Acc. 80-0028); Ewing, ch. 7, 81–2; ch. 8, 46–53; Imperial Oil Board of Directors Minutes, 29 Jan 1913, 12 Nov 1915.
- 12 Ewing, ch. 7, 30–4; chapter 9, 3–9; chapter 11, 96–8; Imperial Oil Board of Directors Minutes, 29 Sept 1914; 28 Aug 1916.
- 13 Wall and Gibb, 108–9, 113–14. The development of the Joint Industrial Committees at Imperial is described in chapter 5.
- 14 A.C. Bedford, Standard Oil (N.J.) to Teagle, Memorandum on Employee Stock Distribution, Feb 1916; Bedford to Teagle, 25 Sept 1916. Imperial Oil Archives, President’s Files, Box 2 “Special File” (Acc. 80-0028). Imperial Oil Board of Directors Minutes, 12 Nov 1915; Ewing, ch. 8, 48–53; Wall and Gibb, 108.
- 15 Teagle to W.J. Davidson, 17 June 1916. Imperial Oil Archives, President’s Files, Box 2, “Special File” (Acc. 80-0028).
- 16 Imperial Oil Board of Directors Minutes 12 Nov 1915; 9 Aug 1917; 10 Dec 1917; Dominion of Canada Income Tax Assessment Notice 27 Oct 1921. Imperial Oil Archives, Series 4 (Acc. 80-0073).
- 17 Wall and Gibb, 110–11.

- 18 Imperial Oil and International Oil Co. in South America is discussed in chapter 4. Imperial Oil's quest for oil in western Canada is discussed in chapter 6.
- 19 Imperial Oil Board of Directors, Board of Directors, 1 Aug 1919.

CHAPTER 4

- 1 Walter Teagle to W.J. Hanna, Re: Peruvian Situation, 8 Nov 1913. IOL Archives, Series 5 Corporate Affairs, Box 6, London & Pacific Petroleum Co. file; Charles Goodsell, *American Corporations and Peruvian Politics* (Cambridge, MA: Harvard University Press, 1974), 120; Gibb and Knowlton, 94–5; Wall and Gibb, 97–8.
- 2 W.C. Teagle to Montagu Pierce, London, 13 Dec 1913. London & Pacific Petroleum file, IOL Archives Gibb and Knowlton, 95–6.
- 3 Alan Hill, “Historical Foundations of Canada’s Oil Industry” (MA thesis, University of Manitoba, 1979), 187.
- 4 M.J. Hanna, Imperial Oil Ltd., to W.T. White, Minister of Finance, Ottawa, 10 Apr 1914. London & Pacific Petroleum files, IOL Archives; Wall and Gibb, 99–100.
- 5 Resolution confirming the General By Laws of the International Petroleum Co. Ltd., 31 Dec 1914; “International Oil Securities Listed,” 5 May 1915. London & Pacific Petroleum file, IOL Archives. IPC issued \$1,039,000 in common shares on the Toronto Stock Exchange, while IOL retained majority control of the issued stock.
- 6 Gibb and Knowlton, 95; Rosemary Thorp and Geoffrey Bertram, *Peru 1890–1977: Growth and Policy in an Open Economy* (New York: Columbia University Press, 1978), 100–5.
- 7 Jonathan C. Brown, “Jersey Standard and the Politics of Latin American Oil Production, 1911–30,” in John D. Wirth, ed., *Latin American Oil Companies and the Politics of Energy* (Lincoln: University of Nebraska Press, 1985), 16–17.
- 8 Brown, 17–18; Peter Klaren, *Peru: Society and Nationhood in the Andes* (New York: Oxford University Press, 2000), 213–18.
- 9 Goodsell, 120–1, 141–2; Alberto Pinelo, *The Multinational Corporation as a Force in Latin American Politics: A Case Study of the International Petroleum Company in Peru* (New York: Praeger, 1973), 13–14; Wall and Gibb, 101–4.
- 10 Hill, 190–3; Pinelo, 17; Harvey O’Connor, *World Crisis in Oil* (New York: Monthly Review Press, 1962), 225–31. According to Hill, based on research in the State and Military Records of the Public Archives of Canada, the Canadian government did not officially requisition the tankers, and the British minister in Lima protested against the withdrawal of the IPC tanker supplying the domestic market.
- 11 Gibb and Knowlton, 99–105; Brown, 19–20.
- 12 Brown, 20; Goodsell, 121; Gibb and Knowlton, 367–9; Thorp and Bertram, 108–11. The 1922 agreement was subsequently endorsed by an arbitration panel of the Hague International Court.
- 13 Marcelo Bucheli, “Multinational Oil Companies in Colombia and Mexico: Corporate Strategy, Nationalism and Local Politics,” unpublished paper presented at the

- International Economic History Meeting, Helsinki 2006, 9–10; Marco Palacios, *Between Legitimacy and Violence: A History of Colombia 1875–2002* (Durham: University of North Carolina Press, 2006), 85–6; Mira Wilkins, “Multinational Oil Companies in South America in the 1920s,” *Business History Review* 48, no. 3 (Autumn 1974): 430.
- 14 Gibb and Knowlton, 369–71; Wall and Gibb, 189–93.
 - 15 Bucheli, “Multinational Oil Companies in Mexico and Colombia,” 6–9; Richard Lael, *Arrogant Diplomacy: U.S. Policy toward Colombia 1903–1922* (Wilmington: Scholarly Resources Press, 1987), 93–4; Palacios, 69–71; Wall and Gibb, 192–3.
 - 16 Wall and Gibb, 84–5.
 - 17 The company name appears in various iterations, including Andean and Andian. I have used the latter because it is the spelling that appears most frequently in contemporary Imperial Oil documents.
 - 18 Teagle to Hanna, 7 Jan 1914. London & Pacific files, IOL Archives; Brown, 31–2; Hill, 194–5.
 - 19 “Stockholders Vote for Big Oil Merger,” *New York Times*, 20 Aug 1920; Gibb and Knowlton, 371–2.
 - 20 Minutes of Annual General Meeting of Imperial Oil, Toronto, 22 Feb 1923. Annual General Meetings, Corporate Records, Series 1, IOL Archives.
 - 21 Minutes of Imperial Oil Annual General Meeting, 26 Feb 1927. IOL Archives.
 - 22 Edwin Lieuwen, *Petroleum in Venezuela: A History* (New York: Russell and Russell, 1954), 84–5.
 - 23 Henrietta Larson, Evelyn Knowlton, and Charles Popple, *History of Standard Oil (New Jersey): New Horizons 1927–1950* (New York: Harper & Row, 1971), 58–9, 132–8; Greene, “Strategies of the Major Oil Companies,” ch. 4, 22–3.
 - 24 Frederick Pike, *The Modern History of Peru* (New York: Praeger, 1967), 268–76; Goodsell, 142; Thorp and Bertram, 165–6.
 - 25 Rene De La Pedraja, *Energy Politics in Colombia* (Boulder, CO: Westview Press, 1989), 5–11, 25–6, 36–8; Palacios, 99–103; Stephen Randall, *The Diplomacy of Modernization: Colombian-American Relations 1920–1940* (Toronto: University of Toronto Press, 1971), 90–4.
 - 26 Gibb and Knowlton, 372.
 - 27 *Imperial Oil Review*, June 1933, 6–7, 12–13; Gibb and Knowlton, 103–4.
 - 28 Imperial Oil Co., Annual General Meeting, 22 Feb 1923. IOL Archives.
 - 29 Bucheli (2008), 80.
 - 30 Brown, 29–30.
 - 31 Imperial Oil President Charles O. Stillman, Report to Annual General Meeting, Toronto, 15 Mar 1928. IOL Archives; Bucheli, (2006) 81–2; Palacios, 86. The main target of political ire at this point was the Colombian Oil Company, a subsidiary of Gulf Oil,

- which had acquired the “Banco concession” in eastern Colombia but had failed to develop the field: De La Pedraja, 12–14; Randall, 98–9.
- 32 “Petroleum Transport in the Tropics,” *Imperial Oil Review* (Sept 1927).
- 33 Xavier Duran, “Oil in Colombia 1900–1950: Speculators and Multinational Companies,” *Ecopetrol: Energía limpia para el future*. www.ecopetrol.com.co/especiales, n16. During the 1930s–40s the average Bayonne refinery output was about twice the volume of all the Imperial refineries in Canada. Larson et al., 200–1.
- 34 Imperial Oil, Minutes of the Annual General Meeting, 1922, 1924, 1927. IOL Archives.
- 35 Gibb and Knowlton, 458–9; Larson et al., 115, 474, 720.
- 36 Ewing, ch. 15, Tables 1–2; ch. 20, Tables 1–2. International Petroleum Company Annual Reports 1932–46. IOL Archives. See Appendix 1].
- 37 Ewing, ch. 20, 6–7.
- 38 See Appendix 2A.
- 39 Ewing, ch. 20, 4–5;
- 40 Duran, 4–5; De La Pedraja, 36–8.
- 41 Larson et al., 726–7; Bennett H. Wall, *History of Standard Oil (New Jersey: Growth in a Changing Environment 1950–1975)* (New York: McGraw Hill, 1988), 431–44.
- 42 Victor Bulmer Thomas, *The Economic History of Latin America since Independence* (Cambridge: Cambridge University Press, 2003), 156–60, 424–5; Palacios, 14–15.
- 43 Palacios, 58.
- 44 Thorp and Bertram, 164.
- 45 Wilkins (1974), 422–3. Gibb and Knowlton, 503–6.
- 46 Wall, 435.

CHAPTER 5

- 1 Wall and Gibb, *Teagle*, 120–2.
- 2 Ewing, chapter 8, 83–4; *Imperial Oil Review* (August 1919): 13; February 1922, 3; “G. Harrison Smith the New President,” *Imperial Oil Review* (June/July 1933): 12–13; Thelma LeCocq, “LeSueur: Imperial’s President,” *Canadian Business* (July 1944): 28–9.
- 3 Wall and Gibb, 71.
- 4 Wall and Gibb, 202–10; Gibb and Knowlton, 279–307; Yergin, 197–204.
- 5 Wall and Gibb, 258–60; Yergin, 260–5; Anthony Sampson, *The Seven Sisters*, 86–7.
- 6 Wall and Gibb, 236–45; Alfred D. Chandler Jr., *Strategy and Structure: Chapters in the History of American Industrial Enterprise* (Cambridge, MA: MIT Press, 1962), 164–225.
- 7 *Historical Statistics of Canada*, T147–194a; Ewing, ch. 6, 5–6; Robert Ankli et al., “Adoption of the Gas Tractor in Western Canada,” *Canadian Papers in Rural History* 2 (1980): 9–39; Steve Penfold, “Petroleum Liquids,” in R.W. Sandwell, *Powering Up*

- Canada: A History of Power, Fuel and Energy from 1600* (Montreal: McGill-Queen's University Press, 2016), 276–9.
- 8 Gibb and Knowlton, 113–16; Purdy, *Petroleum*, 157–9.
 - 9 Gibb and Knowlton, 115–18.
 - 10 Ewing, ch. 11, 63–71; Gibb and Knowlton, 532–6; “Imperial Oil Announces New 3 Star Gasoline,” *Globe & Mail*, 3 Sept 1931, 15. Imperial’s research and development operations are reviewed in more detail in chapter 8.
 - 11 Ewing, ch. 9, 22–3. One of these independent distributors was Kenneth Irving in New Brunswick, who leveraged his “partnership” with Imperial in the 1920s into a full-fledged integrated oil company (with offshoots in shipbuilding and numerous other industries) in the years after 1948. Irving became one of the richest individuals in Canada, while hiding his wealth overseas.
 - 12 Gibb and Knowlton, 487–9, 502–3; Ewing, ch. 9, 26–33, 71–2.
 - 13 Ewing, ch. 9, 24–5, 66; *Imperial Oil Review* (February 1922): 3, 17; March 1934, 27. Union Oil of California (later Unocal) was acquired by Standard of California (Chevron) in 2005.
 - 14 Saywell, “Early History of Canadian Oil Companies,” 71–2; Earle Gray, “How Shell Bought the No. 3 Spot,” *Oilweek*, 27 Nov 1967, 19–25.
 - 15 Earle Gray, “BA Poised for Dynamic Growth,” *Oilweek*, 9 Oct 1967, 24–8; “A.L. Ellsworth,” *Globe & Mail*, 7 June 1929, 21. In 1965 Gulf Oil acquired British American Oil.
 - 16 Charles Law, “Trust Texaco to Go Where the Most Profits Flow,” *Oilweek* 1 Nov 1968, 21–4, 30; “McColl Brothers Oil Sale is Completed,” *Globe & Mail*, 7 Dec 1927, 7; “Texaco Buys into McColl Frontenac,” *Globe & Mail*, 27 Apr 1938, 18; “Texaco Corporation Wins McColl Fight,” *Globe & Mail*, 3 June 1938, 20. In 1994 Imperial Oil acquired Texaco Canada during the chaotic aftermath of Texaco’s bankruptcy.
 - 17 Ewing, ch. 15, 14–16; “Imperial Oil Ltd. Will Split Common Stock Four-One,” *Globe & Mail*, 2 Apr 1929, 7; “Imperial Oil Soars to New High 119 ½ under Heavy Buying,” *Globe & Mail*, 15 Apr 1929; “Losses Predominate Among Active Issues on Exchange,” *Globe & Mail*, 16 Oct 1929, 6.
 - 18 “Imperial Oil Limited and Consolidated Subsidiaries Financial Review: Twenty Year Statistics,” [1952, 8]. IOL Records, Series 4 [Comptrollers Records], Box 292A Acc. 80-0021.
 - 19 C.D. Crichton, “‘Exclusive Rights Agreement’ Newfoundland Petroleum Monopoly, 1932–34,” 5 Dec 1960; G.H. Smith, Vice President IOL, to Sir Wilfred Grenfell, 27 May 1932 (Attachment No. 5); Victor Ross to G.H. Smith, 3 Apr 1932 (Attachment No. 6); Victor Ross, “Newfoundland Exclusive Rights” [re: Amulree Commission report], 28 Nov 1933 (Attachment No. 12). Imperial Oil Ltd. Vertical File: History, Misc. Glenbow Archive. See Peter Neary, *Newfoundland in the North Atlantic World 1929–1949* (Montreal: McGill-Queen’s University Press, 1988), 12–28, on the background to this episode. Newfoundland joined Canada in 1948.
 - 20 Ewing, ch. 15, 31–2, 36.

- 21 G.A. Purdy, *Petroleum: Prehistoric to Petrochemical* (Toronto: Copp Clark, 1957), 125–30, 153–5; Hugh M. Grant, “The Petroleum Industry and Canadian Economic Development: An Economic History 1900–1960” (PhD diss., University of Toronto, 1987), ch. 3.
- 22 Gibb and Knowlton, 141–52, 575–77; Howard M. Gitelman, *The Legacy of the Ludlow Massacre: A Chapter in American Industrial Relations* (Philadelphia: University of Pennsylvania Press, 1988); Paul Craven, *An Impartial Umpire: Industrial Relations and the Canadian State 1900–1911* (Toronto: University of Toronto Press, 1980).
- 23 “The Industrial Representation Plan,” *Imperial Oil Review* (January 1919); H.M. Grant, “Solving the Labour Problem at Imperial Oil: Welfare Capitalism in the Canadian Petroleum Industry 1919–1929,” *Labour/Le Travail* 41 (Spring 1998): 81–3; Ewing, ch. 8, 72–3.
- 24 “In Quebec,” *Imperial Oil Review* 4 (1971); East Montreal Refinery, IOL Vertical File.
- 25 Grant, “Solving the Labour Problem,” 79–81.
- 26 All references are from the Montreal East Refinery Joint Industrial Council Minutes. IOL Archives, Series 18, Human Relations Acc 80002, Box 02.
- 27 “Pacific Pioneer,” *Imperial Oil Review* 5 (1971).
- 28 All references are from the Ioco Refinery Joint Industrial Council Minutes, IOL Archives, Series 18, Human Resources, Box 2, Acc. 90-0001.
- 29 “History of Ioco Strike, 24 Sept–26 Nov 1957.” Imperial Oil Archives, IOLpub 6-12. Glenbow Archives; Imperial Oil Executive Committee Minutes, 19 Sept 1957; 11 Nov 1957; 26 Nov 1957. Imperial Oil Archives, Series 2, Executive Committee Minutes. [Hereafter cited as IOL Exec. Cte. Minutes], Glenbow Archives.
- 30 IOL Exec. Cte. Minutes, 29 May 1969; 6 Oct 1969.
- 31 “Joint Industrial Councils and Committees in I.O.L.,” 11 Jan 1977. IOL Archive, Vertical Files, Industrial Relations.

CHAPTER 6

- 1 Peter McKenzie Brown, *Bitumen: The People, Passions and Performance behind Alberta’s Oil Sands* (Calgary: Create Space Independent Publishing Platform, 2017), 29–30.
- 2 David H. Breen, *Alberta’s Petroleum Industry and the Conservation Board* (Edmonton: University of Alberta Press, 1993), 8–15; F.K. Beach and J.L. Irwin, “The History of Alberta Oil,” (Edmonton: Alberta Department of Lands and Mines, 1939), 8–13.
- 3 David H. Breen “Anglo-American Rivalry and the Evolution of Canadian Petroleum Policy to 1930,” *Canadian Historical Review* 62, no. 3 (1981): 283–6.
- 4 David Finch, *Hell’s Half Acre: Early Days in the Great Alberta Oil Patch* (Surrey, BC: Heritage House Publishing, 2005), 18–23; “Herron’s Gas Seep Started in All,” *Oilweek* 14, 18 May 1964; Gray, *Great Canadian Oil Patch*, 71–80; Colin A.M. Duncan and R.W. Sandwell, “Manufactured and Natural Gas,” in Sandwell, ed., *Powering Up Canada*, 318–25.

- 5 Bosworth's report on his 1914 expedition into Alberta may have influenced Shell in its 1917 bid for a monopoly in the exploitation of oil development in the region. Peter McKenzie-Brown, *Bitumen*, 59–61, 67–8.
- 6 "Claim Biggest Oilfield Soon Opens in North," *Globe & Mail*, 20 Oct 1920, 2.
- 7 Ewing, ch. 12, 8–22; De Mille, *Oil in Canada West*, 151–5, 185–99; John Ness, "The Story That Can Never Be Told," IOL Archive, Vertical Files, IOL History 1948–55; Gray, *Great Canadian Oil Patch*, 119–20.
- 8 Sarah Lawley, "The Link of History," *Imperial Oil Review* (Spring 1989): 17–19; Frank H. Ellis, "Bold Venture into Northern Winter," *Imperial Oil Review* (April 1971): 130–3; J.M. Smallwood, "Oil in the Frozen North," *American Review of Reviews* (1921): 639–44. IOL Archives, Vertical Files, Industry & Trade: Canadian North File.
- 9 J.H. McLeod, "A Factual Memorandum Concerning the History of the Incorporation and Development of Royalite Oil Company Limited," 13 Dec 1938. Royalite Archives, Glenbow Museum and Archives, Series 9: M6891/File 197, 5–6; Ewing, ch. 12, 28–30; Finch, 25–6; Gibb and Knowlton, 659; Timothy Le Riche, *Alberta's Oil Patch* (Calgary: Folklore Publishing, 2006), 46–7. McLeod had also headed the Dalhousie Company in 1925–28.
- 10 Breen, *Alberta's Petroleum Industry*, 36–7; Patricia Barry, "The Canol Project: An Adventure of the U.S. War Department in Canada's Northwest" (Edmonton: P.S. Barry, 1985), 242–5.
- 11 Finch, 38–42; Gray, *Great Canadian Oil Patch*, 82–4.
- 12 "Royalite Oil Takeovers," Royalite Archives, Series 9, File 1; McLeod, "Factual Memorandum," 11–15; Ewing, ch. 12, 34–5.
- 13 Ewing, ch. 12, 38; James Gray, *R.B. Bennett: The Calgary Years* (Toronto: University of Toronto Press, 1991), 119–29; Peter B. Waite, *In Search of R.B. Bennett* (Montreal: McGill-Queen's University Press, 2012), 12–13.
- 14 "Eugene Lacoste Deplores Wasting of Alberta's Gas," *Toronto Globe*, 9 Dec 1929, 6; Larson et al., *New Horizons*, 110–11.
- 15 Royalite Annual Meetings 5 Apr 1927; 30 Apr 1929; 18 Apr 1933; 30 Apr 1935. Royalite Archives, M6891, File #8; Breen, *Alberta's Petroleum Industry*, 51–8, 72–3; McLeod, "Factual Memorandum," 6; Le Riche, 46–8.
- 16 Earle Gray, *Great Canadian Oil Patch*, 85–7; Gray, "Home Oil Built on Turner Valley," *Oilweek* 15, no. 1, 18 May 1964; Le Riche, 77–9.
- 17 Gray, *Great Canadian Oil Patch*, 100–5.
- 18 Gray, *Great Canadian Oil Patch*, 108–9.
- 19 Breen, *Alberta's Petroleum Industry*, 110–19, 138–45; Gray, *Great Canadian Oil Patch*, 106–10.
- 20 "Alberta's Oil Industry: Report of a Royal Commission to Inquire into Matters Connected with Petroleum and Petroleum Products," 266–71. IOL Archives, McGillvray Commission; "Alberta Royal Commission Reports on the Oil Industry,"

- Imperial Oil Review* (Summer 1940): 23–9; Breen, *Alberta's Petroleum Industry*, 169–87; Finch, 81–2.
- 21 “Imperial Oil Contribution to the War Effort,” n.d. (c. 1944), Vertical Files, Petroleum in War, IOL Archives; Larson et al., *New Horizons*, 392–8; Purdy, *Petroleum*, 51–2.
- 22 Larson et al., 161–6.
- 23 R.K. Stratford, “The Canadian Petroleum Industry’s Contribution to the War,” 1944, Petroleum in War, Vertical Files, IOL Archives; Stratford, “Post War Advantages Expected to Result From Processes and Products Developed for Wartime Purposes,” 1945, Petroleum in War, Vertical Files, IOL Archives; Larson et al., 507–12; Purdy, *Petroleum*, 52. Chapter 8 provides more details on Imperial Oil research and the development of petrochemicals.
- 24 Stetson Conn and Byron Fairchild, *The Framework of Hemispheric Defense* (Washington, DC: US Department of the Army, 1960), 390–408; Brian Garfield, *The Thousand Mile War: World War II in Alaska and the Aleutians* (Fairbanks: University of Alaska Press, 1995).
- 25 *Life*, 13 Apr 1942, 20.
- 26 Philip Fradkin, “The First and Forgotten Pipeline,” *Audubon News*, November 1977, 59–67; Patricia Barry, “The Prolific Pipeline: Getting Canol Under Way,” *Dalhousie Review* 56, no. 2 (Summer 1976): 252–67; Charles R. O’Brien, “The Canol Project: A Study in Emergency Planning,” *Pacific Northwest Quarterly* 61, no. 2 (April 1970): 101–8; Ian Kerr Kelly, “The Canol Project: Defence, Politics and Oil” (MA thesis, Trent University, 1977), 18–45. Gray, *Great Canadian Oil Patch*, 121–4. The term “Canol” is usually interpreted to stand for “Canadian Oil” but has also been presented as an acronym for “Canadian American Norman Oil Line.”
- 27 Kelly, 47.
- 28 Ewing, ch. 16, 17–20; Kelly, 44–5. Ewing noted that at this time the cost of transporting crude oil to the Norman Wells region would be \$6.00 (CN) per bbl., while the average cost of crude oil in the US was \$1.25/bbl.
- 29 Patricia Barry, “The Canol Project: An Adventure of the U.S. War Department in Canada’s Northwest” (Edmonton: P.S. Barry, 1985), 253–4.
- 30 Barry, “Canol Project,” 261.
- 31 Patricia Barry, “The Prolific Pipeline: Finding Oil for Canol,” *Dalhousie Review* 57, no. 2 (Summer 1977): 205–23; Ewing, ch. 16, 21–4; Stephen J. Randall, *United States Foreign Oil Policy Since World War I* (Montreal: McGill-Queen’s University Press, 2005), 160–5.
- 32 W.D.C. Mackenzie, interview. IOL Archives, Oral History Collection.
- 33 Fradkin, 75–6; Kelly, 102–6.
- 34 Kelly, 150–3; Ewing, ch. 16, 24–5; Gray, *Great Canadian Oil Patch*, 130–1.
- 35 Ewing, ch. 10, 70–6; Larson et al., 323–4.
- 36 Ewing, ch. 17, 13–19, 31–45, 85–6.

- 37 "Discovery at Jumping Pond," *Nickle's Daily Oil Bulletin*, 15 Dec 1944; "Sun Oil of Philadelphia Enters Alberta," *Nickle's Daily Oil Bulletin*, 16 Jan 1945.
- 38 Ewing, ch. 17, 9–13. The US had introduced an oil depletion allowance in 1926, and expanded it during the Second World War.
- 39 Gray, *Great Canadian Oil Patch*, 134.
- 40 Larson et al., 723–4; Breen, *Alberta Petroleum*, 248–9.
- 41 Gray, *The Great Canadian Oil Patch*, 136–41; Breen, *Alberta Petroleum*, 250–1; Hal Tennant, "Leduc—Turning Point of an Industry," *Imperial Oil Review* (February 1957): 3–7; "Imperial-Leduc: It's an Oil Discovery!," *Nickle's Daily Oil Bulletin*, 14 Feb 1947. The events on 13 Feb 1947 are recounted in the prologue to this book.

CHAPTER 7

- 1 W.G. Charlton, "Imperial Oil Limited History 1950–1975," 4–5. Imperial Oil Archives, Series 5. Glenbow Museum & Archives; Eric J. Hanson, *Dynamic Decade: The Evolution and Effects of the Oil Industry in Alberta* (Toronto: McClelland & Stewart, 1958), 66–83; Oliver Knight, "Oil—Canada's New Wealth," *Business History Review* 30, no. 2 (September 1956): 297–328.
- 2 Erik Lisee, "Betrayed: Leduc, Manning and Surface Rights in Alberta, 1947–55," *Prairie Forum* 35, no. 1 (Spring 2010): 77–100.
- 3 "Report of an Assessment of Farmers' Opinions in the Leduc Area Pertaining to Drilling Operations," 23 Oct–5 Nov 1947. Imperial Oil Archives Acc 80-0039, Box 27, File 2. Glenbow Archives.
- 4 Hanson, 79–83.
- 5 See chapter 13 for a more detailed account of the Atlantic #3 fire.
- 6 Gray, *Great Canadian Oil Patch*, 150–2, 215–18; Hanson, 101–9.
- 7 Breen, *Alberta's Petroleum Industry and the Conservation Board* (Edmonton: University of Alberta Press, 1993), 252–84; Hanson, 93–109.
- 8 The purchasing power of the Canadian dollar in 1946 was 25 to 30 per cent less than it had been in 1935–40. The exchange rate affected not only the costs of importing US crude, but also the purchase of new equipment for production and distribution. The Canadian government did not lift price controls on domestic petroleum products until 1947 so Imperial and other oil importers had to absorb the gap. Ewing, ch. 20, 2–3; Larson et al., *New Horizons*, 561–2.
- 9 Imperial Oil Board of Directors, Minutes 3 Sept 1947; 8 Sept 1947; Minutes of Special Shareholder's Meeting, 22 Sept 1947. Imperial Oil Archives, Series 1, Glenbow Archives. Ewing, ch. 20, 3–6.
- 10 Ewing, ch. 20, 18–20; Larson et al., 726–32.
- 11 Imperial Oil board of directors, minutes 16 June 1947; 7 Oct 1947. Imperial Oil Archives, Series 1. Glenbow Archives. Royalite board of directors minutes 13 Nov 1948; 17 Dec 1948; 14 Jan 1949. Royalite Archives. Glenbow Archives. Ewing, ch. 20, 24–5.

- “Royalite Co. Now Independent,” *Western Oil Examiner*, 22 Jan 1949, 1, 3; Wellington Jeffers, “Finance At Large,” *Globe & Mail*, 17 Jan 1949, 20. When Royalite reorganized its board it 1950, two of its new members included Allan and Samuel Bronfman, of Seagram fame.
- 12 “Imperial Oil Ltd. Investments in Canadian Marketing Companies,” 8 Sept 1946. Imperial Oil Archives, Acc. 80-0028, Box 005. Glenbow Archives. The General Manager of Champlain Oil in 1932–35 was Charley Trudeau, who had sold his chain of thirty service stations in Quebec, the Automobile Owners Association, to Champlain in 1932 for \$1 million [CAD]. Charley’s son, Pierre, and his grandson, Justin, both became prime ministers of Canada.
 - 13 D.L. McCarthy to the President and Directors of Imperial Oil Ltd., 26 Oct 1946; Imperial Oil board of directors, Minutes 27 Jan 1947. Imperial Oil Archives, Series 1, Glenbow Museum.
 - 14 Memorandum re: K.C. Irving, 27 Feb 1945; Memorandum for Mr. Hewetson re: Maritime Situation, 18 Jan 1946 [This document has the intriguing heading: “To be destroyed on consummation of plan”]; Draft Agreement between Kenneth C. Irving and Imperial Oil Ltd., 1 Feb 1946. Imperial Oil Archive, Series, Acc. 80-0028, Box 005, Irving File, Glenbow Archives.
 - 15 Douglas How and Ralph Costello, *KC: The Biography of K.C. Irving* (Toronto: King Porter Books, 1993), 29–31, 44–56, 140–1.
 - 16 H.H. Hewetson, Meeting re: P.J.B.D. proposal, 22 Sept 1946. Imperial Oil Archives, Series 3, Corporate Affairs, Acc. 80-0028, Box 005, Joint Defence Board file. Glenbow Archives; Barry, 142–3.
 - 17 “Refineries: Edmonton Refinery (1950). Imperial Oil Archives, Series, Vertical File: Refineries. Glenbow Archives; Charlton, 6.
 - 18 Hanson, 143–7; B.H. Wall, *Growth in a Changing Environment*, 352, 282–3.
 - 19 W.J. Davenport, “The Imperial Pipe Line,” *Imperial Oil Review* (January 1918): 9–10; Larson et al., *New Horizons*, 228–32, 744–50; Imperial Oil board, Minutes, 12 April 1946. Imperial Oil Archives, Series 1, Glenbow Archives.
 - 20 Gray, *Great Canadian Oil Patch*, 250–1; Charlton, 6–7; J.D. White, Vice Pres., Imperial Oil to A.I. Levorsen, Dean of School of Mineral Science, Stanford University, Palo Alto, California, 20 July 1949; W.O. Twaits, “Board Review of Pipe Line Status,” 24 Feb 1949; Interprovincial Pipe Line Co., First Shareholders Meeting, 6 May 1949. Imperial Oil Archives, Glenbow Archives.
 - 21 Gray, *Great Canadian Oil Patch*, 250–1. O.B. Hopkins, Memorandum re: Duty and Sales Tax on Pipe Line Material, 20 May 1949; G.L. Stewart, president, Imperial Oil to Hon. C.D. Howe, Minister of Trade & Commerce, 3 Aug 1949; Howe to Stewart, 8 Aug 1949. Imperial Oil Archives, Glenbow Archives.
 - 22 C.D. Crichton, Interprovincial Pipeline Co. to W.F. Prendergast et al., Memorandum re: Public Relations program, 18 July 1949; W.F. Prendergast to A.A. Turner, Imperial Oil Ltd., Regina, Sask., 23 June 1949. Imperial Oil Archives, Glenbow Archives.

- 23 Imperial Oil board, Minutes, 6 Oct 1949. Imperial Oil archives, Series 1, Glenbow Museum; Hanson, 155–8. A similar “Throughput Agreement” was made by Imperial and other Canadian oil companies in 1950 to help finance the expansion of the Portland to Montreal pipeline.
- 24 D. Murie, Manager, Fort William Chamber of Commerce to I.W. Mackerath, Imperial Oil Co., Fort William, 9 June 1949; “Plan for Oil Pipe Line Points to Canadian Wealth” *Port Arthur News Chronicle*, 27 May 1949; “Oil Pipe Line Routes,” *Winnipeg Tribune*, 8 Sept 1949. Imperial Oil Archive, Glenbow Archives.
- 25 “Canadian Shield Diverts Pipeline to Northern U.S.,” *Globe & Mail*, 9 Sept 1949, 9; Wall, *Growth in a Changing Environment*, 354–5.
- 26 Quoted in Gray, *Great Canadian Oil Patch*, 254.
- 27 “Lakehead Groups Want Oil Pipeline Kept in Canada,” *Globe & Mail*, 7 Sept 1949, 2; G.L. Stewart, pres., Imperial Oil to Hewetson, 28 Sept 1949. Imperial Oil Archive, Glenbow Archives.
- 28 O.B. Hopkins, pres. Interprovincial Pipeline Co., to Mayor C.O. Robinson, Port Arthur, Ontario, 21 September 1947; “Oil Men Defend Pipe Line Decision,” *Fort William Daily Times*, 27 Sept 1949. Imperial Oil Archives, Glenbow Archives.
- 29 Hanson, 157–8; Gray, *Great Canadian Oil Patch*, 254; Hopkins to T.B. Sexton, Transit Co. Ltd., 25 May 1949; “Comparison of 50,000 B/D Movement to Sarnia via P/L and Lake Tanker versus Direct Pipeline,” 28 June 1949; J.R. White to Hon. Douglas Abbott, Minister of Finance, 23 Sept 1949. Imperial Oil Archive, Glenbow Archives.
- 30 L.F. Kahle to O.B. Hopkins, pres., Interprovincial Pipeline Co. 28 Oct 1949; L.F. Kahle, “Memorandum on discussion with I.N. McKinnon, Deputy Minister of Mines and Minerals and J.L. Oberholtzer, Deputy Minister of Industries and Labour, 2 Nov 1949.” Imperial Oil Archive, Glenbow Archives; “Pipeline Contracts Let Now Total \$41,000,000,” *Globe & Mail*, 3 Nov 1949, 22.
- 31 “Western Oil Reaches Ontario,” *Imperial Oil Review*; Gray, *Great Canadian Oil Patch*, 256–7.
- 32 Charlton, 32–3.
- 33 Hanson, 249–64.

CHAPTER 8

- 1 Gibb and Knowlton, *The Resurgent Years*, 520–33; Larson et al., 150–1.
- 2 “Biographical Information Dr. R.K. Stratford”; “Chronology of the Technical and Research Department.” Exxon Mobil Records, General Subject Files: Research Imperial Oil, Call No. 2.207 G220. Dolph Briscoe Center for American History, University of Texas, Austin TX.
- 3 Ewing, ch. 11, 63–5; Larson et al., 151–2.
- 4 Larson et al., 153–6;
- 5 Ewing, ch. 11, 66–8.

- 6 Larson et al., 165–6; Purdy, *Petroleum*, 164–6.
- 7 Larson et al., 433–42; Wall, *Teagle*, 314–15; “German-Held Patents Freed to Industry,” *Globe & Mail*, 26 Mar 1942, 3.
- 8 Larson et al., 412–16, 507–13; Matthew Bellamy, *Profiting the Crown: Canada’s Polymer Corporation 1942–1990* (Montreal: McGill-Queen’s University Press, 2005), 16–21; Paul A.C. Koistinen, *Arsenal of World War II: The Political Economy of American Warfare 1940–45* (Lawrence: University Press of Kansas, 2004), 148–58.
- 9 Bellamy, 28–37; Cobban, *Cities of Oil*, 64–6, 92–8; Purdy, *Petroleum*, 52, 442–4.
- 10 Cobban, 98–100; Larson et al., *New Horizons*, 512; E.R. Rowzee, “Sarnia, the Birthplace of Canada’s Petro-Chemical Industry,” *Chemistry and Industry*, 10 Dec 1949, 864–5. Exxon Mobil Archives, Call No. 2.207/G220. Dolph Briscoe Center.
- 11 F.C. Lantz, “Memorandum: Outline of Scope of St. Clair’s Activities in Relation to Imperial, Standard Oil Development, and Polymer Organization,” 3 Jan 1944. Imperial Oil Archives, Acc. 80-0013, Box 3; Series, 1m-14, Box 12g. Glenbow Archives.
- 12 Bellamy, 65–70; Cobban, 98–104; Peter McKenzie-Brown, Gordon Jaremko, and David Finch, *The Great Oil Age: The Petroleum Industry in Canada* (Calgary: Detselig Enterprises Ltd., 1993), 117–18.
- 13 John L. Tiedje, “International Technology Transfer through a Multinational Corporation,” Address to the World Congress on Chemical Engineering, 6 Oct 1981; J.L. Livingstone, “Imperial’s Research,” 10 Feb 1981. Imperial Oil Archives, Vertical Files, Research/Glenbow Archives; Mark Nichols, “Fifty Years of Men and Ideas,” *Imperial Oil Review* 4 (1979): 6–13.
- 14 Larson et al., 768.
- 15 Wall, *Growth in a Changing Environment*, 175–86.
- 16 “The Man From Medicine Hat,” *Time*, 18 Feb 1974; Wall, *Growth in a Changing Environment*, 189–90; Le Riche, *Alberta’s Oil Patch*, 180.
- 17 Imperial Oil *Annual Report*, 1956, 9; IOL Exec. Cte. Minutes, 15 Dec 1955; 12 Feb 1957; 5 March 1957.
- 18 IOL Exec. Cte. Minutes, 26 Nov 1959.
- 19 IOL Exec. Cte. Minutes, 16 March 1961; D.A. Foster to C.S. Lindsley Re: Imperial–Redwater Fertilizer Manufacturing Project, 1 Dec 1966. Esso Chemical Canada Business Plan Studies: Notes and Correspondence. Imperial Oil Archives, Series, 1M-14-Box 15. Glenbow Archives.
- 20 Wall, *Growth in a Changing Environment*, 359–60; Charlton, 21–2; “Imperial Enters Petrochemical Field,” *Imperial Oil Review* (Dec 1955): 14; Patricia Clarke, “Made of Oil,” *Imperial Oil Review* 4 (1981): 18–22.
- 21 Wall, *Growth in a Changing Environment*, 55–6; IOL Exec. Cte. Minutes, 5 April 1962.
- 22 Wall, *Growth in a Changing Environment*, 56–7, 260. IOL Exec. Cte. Minutes, 19 May 1964; 21 Sept 1965; 3 Mar 1966; 17 July 1969.

- 23 IOL Exec. Cte., 4 March 1965. On Deuterium and Industrial Estates, see Roy George, *The Life and Times of Industrial Estates Ltd.* (Halifax: Dalhousie University Institute of Public Affairs, 1974), 77–8.
- 24 Interview with W.O. Twaits, 10 July 1979. Imperial Oil Archives.

CHAPTER 9

- 1 Robert J. Bertrand, *Canada's Oil Monopoly* (Toronto: Lorimer, 1981), 589–614. This volume, an abridgement of a seven-volume government document prepared by Bertrand as part of a Combines Investigation, engendered its own controversy as the Canadian government tried, unsuccessfully, to block Lorimer from publishing it as a “commercial” book.
- 2 David L. Jackson, “A Study of Imperial Oil Limited,” 1964. Imperial Oil Archives, IOL pub-6-24, 18, 26.
- 3 Jackson, 20, 23; Bertrand, 444–53.
- 4 W.O. Twaits to IOL Executive Committee, 20 Apr 1955.
- 5 IOL Exec. Cte. Minutes, 26 July 1955; 26 Sept 1958; 4 July 1968. Wall, *Growth in a Changing Environment*, 132–3.
- 6 IOL Exec. Cte. Minutes, 3 Apr 1962.
- 7 “Hockey Night Across Canada,” *Imperial Oil Review* (March/April 1952): 12–13.
- 8 IOL Exec. Cte. Minutes, 12 Sept 1953; 28 Sept 1961. J.L. Potts, “Saturday Night Hockey,” Canadian Communications Foundation, Jan 2002; Paul Patskovy, “Hockey Night in Canada—The Television Years,” Canadian Communications Foundation, Aug 2007.
- 9 IOL Exec. Cte. Minutes, 8 Jan 1953; 10 Mar 1953; 22 Dec 1953.
- 10 IOL Exec. Cte. Minutes, 4 Jan 1962; 2 July 1963; 11 Feb 1964.
- 11 IOL Exec. Cte. Minutes, 29 Apr 1971; 27 Feb 1973; 12 Sept 1975; 14 Oct 1975.
- 12 “Here is How Imperial Protects Its Dealers and Customers in a Price War,” IOL Exec. Cte. Minutes, 25 June 1959.
- 13 IOL Exec. Cte. Minutes, 7 Nov 1957; 20 Mar 1958; 8 Sept 1958; 28 Mar 1959.
- 14 IOL Exec. Cte. Minutes, 5 Sept 1961; 7 Sept 1972.
- 15 Bertrand, 91–6.
- 16 “A Program for Dealer Relations, 1962”; V.B. Cervin, “Analysis of Dealer Problems, 1958,” Marketing Research Dept. Acc. 80-0039, Box 27, Files 7, 8, IOL Archives.
- 17 Brian Brennan, *The Good Steward: The Ernest C. Manning Story* (Calgary: Fitzhenry & Whiteside, 2008), 88–92.
- 18 Breen, *Alberta's Petroleum Industry*, 305.
- 19 Breen, *Alberta's Petroleum Industry*, 312.

- 20 Breen, *Alberta's Petroleum Industry*, 313–17; Earle Gray, document on “Prorating” to author, 13 June 2016; “Oil Allowable for Redwater Again Discussed,” *Globe & Mail*, 25 Apr 1949, 30.
- 21 Wall, *Growth in A Changing Environment*, 379; IOL Exec. Cte., 11 Aug 1964; “Big Producers Win Point, Alberta Slashes Well Minimums,” *Globe & Mail*, 27 July 1964, 22.
- 22 IOL Exec. Cte. Minutes, 15 Dec 1960.
- 23 IOL Exec. Cte. Minutes, 10 Jan 1961; 17 Oct 1961.
- 24 IOL Exec. Cte. Minutes, 3 Sept 1962.
- 25 IOL Exec. Cte. Minutes, 24 Sept 1963; 3 Oct 1963, 1 Oct 1964.
- 26 Ruth Worth, “Gasoline Price Prober on Safari in 2,600,000-word Tiger Infested Jungle,” *Globe & Mail*, 20 July 1965, B12; IOL Exec. Cte. Minutes, 2 Jan 1964; 4 June 1964.
- 27 IOL Exec. Cte. Minutes, 19 June 1966; George MacFarlane, “Gas Price Report Gains Approval of Imperial Oil,” *Globe & Mail*, 7 Apr 1966, B10.
- 28 Gray, *Great Canadian Oil Patch*, 297–330.
- 29 William Kilbourn, *Pipeline: Transcanada and the Great Debate, A History of Business and Politics* (Toronto: Clarke Irwin, 1970), 94–113; John Duffy, *Fights of Our Lives: Elections, Leadership and the Making of Canada* (Toronto: Harper Collins, 2002), 196–9.
- 30 Breen, *Alberta's Petroleum Industry*, 424–5, 465–8; Riche, 80–1; Gray, *Great Canadian Oil Patch*, 420–1.
- 31 Breen, *Alberta's Petroleum Industry*, 437–8; “Imperial Oil Opposes Pipeline to Montreal,” *Globe & Mail*, 6 May 1958, 24; Earle Gray, *Forty Years in the Public Interest: A History of the National Energy Board* (Toronto: Douglas & McIntyre, 2000), 9–10.
- 32 Ron Anderson, “Refining in Canada: Alberta Oil Seeks Wider Markets,” *Globe & Mail*, 7 Aug 1958, 24.
- 33 Gray, *National Energy Board*, 28–9; Tammy Nemeth, “Canada-U.S. Oil and Gas Relations 1958 to 1974,” (PhD diss., University of British Columbia, 2007), 55–65; IOL Exec. Cte. Minutes, 4 Mar 1959.
- 34 Breen, *Alberta's Petroleum Industry*, 398–419; John N. McDougall, *Fuels and the National Policy* (Toronto: Butterworths, 1982), 90.
- 35 Nemeth, “Canada-U.S. Oil and Gas Relations,” 126–7; Nemeth, “Consolidating the Continental Drift: American Influence on Diefenbaker’s National Oil Policy,” *Journal of Canadian History* 13, no. 1 (2002): 202–3.
- 36 Nemeth, “Canada-U.S. Oil and Gas Relations,” 156–9; G. Bruce Doern and Glen Toner, *The Politics of Energy* (Toronto: Methuen, 1985), 80–2.
- 37 See, for example, David Crane, *Controlling Interest: The Canadian Gas and Oil Stakes* (Toronto: McClelland & Stewart, 1982), 55–6; Melissa Clark-Jones, *A Staple State: Canadian Industrial Resources in Cold War* (Toronto: University of Toronto Press, 1987), 42–9. For a critique see Nemeth, “Canada-U.S. Oil and Gas Relations,” 143–6.

- 38 Wall, *Growth in a Changing Environment*, 399–402, 425–8; George Philip, *Oil and Politics in Latin America: Nationalist Movements and State Companies* (Cambridge: Cambridge University Press, 1982), 294–9.
- 39 Nemeth, “Canada-U.S. Oil and Gas Relations,” 156–61.
- 40 De Mille, *Oil in Canada West*, 159–60; Ewing, ch. 19; Peter A. Shulman, “The Making of a Tax Break: The Oil Depletion Allowance, Scientific Taxation and Natural Resource Policy in the Early Twentieth Century,” *Journal of Policy History* 23, no. 3 (June 2011): 281–322.
- 41 Twaits quoted in Clark-Jones, 38; Carl Nickle, *Daily Oil Bulletin*, 31 Dec 1957.
- 42 Supreme Court of Canada, *Home Oil v. Minister of National Revenue*, SCR 733 (10 Oct 1955).
- 43 “Imperial Oil Enters Tax Appeal Test Case,” *Globe & Mail*, 26 Sept 1957, 17; Bruce MacDonald, “4-3 Tax Ruling Costs Oil Firms \$60,000,000,” *Globe & Mail*, 5 Oct 1960, 21; Supreme Court of Canada, *Minister of National Revenue v. Imperial Oil Co. Ltd.*, SCR 735 (4 Oct 1960).
- 44 IOL Exec. Cte. Minutes, 27 Sept 1962.
- 45 IOL Exec. Cte. Minutes, 30 Oct 1962; 9 Nov 1962; 11 Dec 1962.
- 46 IOL Exec. Cte. Minutes, 22 Feb 1968.
- 47 “B-A Urges Exploration Incentives,” *Globe & Mail*, 9 Nov 1963, 34; “Participation Plan,” *Globe & Mail*, 11 Dec 1963, B5; “Stop Importing Tax Plans, Imperial Oil Urges Canada,” *Globe & Mail*, 8 Oct 1963, B4.
- 48 Report of the Royal Commission on Taxation, Feb 1967, vol. 4, 322–7, 356–7. Publications.gc.ca/collections 2014; John F. Helliwell et al., “Oil and Gas Taxation,” *Osgoode Hall Law Journal* 26, no. 3 (Fall 1988): 455–6.
- 49 Kenneth Smith, “Could Have Disastrous Effects, Mining Group Says Angrily,” *Globe & Mail*, 27 Feb 1967, 25; “Carter Report Misguided, Deficient: Twaits,” *Globe & Mail*, 19 April 1967, B1; “Carter Prospects Devastating for Oil Industry, Twaits Says,” *Globe & Mail*, 25 May 1967, 28. Interestingly, Peter Munk, later to head Canada’s largest gold mining companies, supported the report; at the time he was heading a company called Clairtone, in the stereo equipment business.
- 50 Linda McQuaig, *Behind Closed Doors* (Markham: Penguin Books Canada, 1987), 154–8; “Position Overstated, Carter Says: Tax Report Author Backtracks on Complete Implementation,” *Globe & Mail*, 25 Apr 1967, B1; Ronald Anderson, “Carter Plan Dead But Gains Tax Likely Result, Economists Predict,” *Globe & Mail*, 21 Dec 1967.
- 51 “Tighter Depletion Allowances for Oil, Gas, Mining Companies,” *Globe & Mail*, 23 Oct 1968, B12; “Imperial Oil Profit Lower by \$2 Million,” *Globe & Mail*, 22 Oct 1969, B7; McQuaig, 158–9.
- 52 Halliwell, et al., 457–8.
- 53 “Imperial and the Tax White Paper,” *Imperial Oil Review*, June 1970, 29–31; “White Paper Threat to Syncrude Stressed by Imperial Oil Head,” *Globe & Mail*, 9 Apr 1970, B1.

CHAPTER 10

- 1 Denis Smith, *Rogue Tory: The Life and Legend of John G. Diefenbaker* (Toronto: MacFarlane Walter and Ross, 1995), 224–7; John Duffy, *Fights of Our Lives: Elections, Leadership and the Making of Canada* (Toronto: Harper Collins, 2002), 196–9.
- 2 IOL Exec. Cte., Minutes, 25 July 1963; Peter Foster, *The Blue Eyed Sheiks: The Canadian Oil Establishment* (Toronto: Collins, 1979), 66–7.
- 3 Wall, *Growth in a Changing Environment*, 137–46; Charles Emmerson, *The Future History of the Arctic* (New York: Public Affairs Press, 2010), 177–9. As in the case of Leduc, the North Slope exploration that began in the early 1960s proved fruitless until the Prudhoe Bay discovery.
- 4 Quoted in Peter McKenzie Brown, *Bitumen*, 60; Joyce E. Hunt, *Local Push, Global Pull: The Untold History of the Athabasca Oil Sands, 1910–30* (Calgary: J.E. Hunt, 2011), 269–71. The bituminous oil fields were often interchangeably designated the “tar sands” and “oil sands” in the early references up to the subject, but in the 1960s the term “oil sands” became the preferred usage in government and business circles, while environmental critics continued to use “tar sands” to highlight their views emphasizing the industry’s pollution and association with climate change, e.g., Andrew Nikiforuk, *Tar Sands: Dirty Oil and the Future of a Continent* (Vancouver: Greystone Books, 2010), 12–14; Tony Clarke, *Tar Sands Showdown: Canada and the Politics of Oil in an Age of Climate Change* (Toronto: Lorimer, 2008).
- 5 Hunt, 273–7.
- 6 Quoted in Paul Chastko, *Developing Alberta’s Oil Sands: From Karl Clark to Kyoto* (Calgary: University of Calgary Press, 2004), 1.
- 7 McKenzie Brown, *Bitumen*, 29–30, 47–8; Steve Lynett, “Digging for Oil,” *Imperial Oil Review* 4 (1973): 18–21.
- 8 McKenzie Brown, *Bitumen*, 77–88; Michael Pengelly, “The Enigma of the Oil Sands,” *Imperial Oil Review* (Apr 1960): 16–18; Gray, *Great Canadian Oil Patch*, 335–41.
- 9 Chastko, *Developing Alberta’s Oil Sands*, 31–45.
- 10 McKenzie Brown, *Bitumen*, 93–108; Gray, *Great Canadian Oil Patch*, 342–4.
- 11 Chastko, 81–90.
- 12 Brian Brennan, *The Good Steward: The Ernest C. Manning Story* (Calgary: Fifth House, 2008), 110–14; Chastko, 103–12; Graham D. Taylor, “Sun Oil and Great Canadian Oil Sands Ltd.: The Financing and Management of a ‘Pioneer’ Enterprise 1962–1974,” *Journal of Canadian Studies* 20, no. 2 (Autumn 1985): 106–8; Breen, *Alberta Conservation Board*, 439–40.
- 13 McKenzie Brown, *Bitumen*, 116–17.
- 14 IOL Exec. Cte. Minutes, 9 July 1959; 4 Aug 1959.
- 15 “The Tar Sands of Alberta, Canada,” 31–5. Exxon-Mobil Archives, Box 2.207.G236. Briscoe Center, Austin Texas; Wall, *Growth in a Changing Environment*, 943, fn63.
- 16 Breen, *Alberta Conservation Board*, 447–8.

- 17 IOL Exec. Cte. Minutes, 9 Mar 1959.
- 18 “Project Oilsand,” Alberta Energy Heritage. Alberta.ca/energyheritage/sands/mega-projects; J.R. Walker, “Oil Sands A-bomb Seen Great Danger,” *Calgary Herald*, 29 Jan 1959, 1.
- 19 IOL Exec. Cte. Minutes, 1 Oct 1959; McKenzie Brown, *Bitumen*, 119.
- 20 IOL Exec. Cte. Minutes, 8 Sept 1959; *Nickle’s Daily Oil Bulletin*, 15 Jan 1960.
- 21 IOL Exec. Cte. Minutes, 14 Mar 1961; 18 July 1961; “Report on Athabasca Technical and Policy Committees,” 1 July 1, 1961. IOL Archives.
- 22 IOL Exec. Cte. Minutes, 2 Feb 1960, 11 Sept 1962; Pengelly, “The Enigma of Athabasca,” 15–16; “The Tar Sands of Alberta,” 30–1, 36–8.
- 23 Taylor, “Sun Oil,” 108–9; Breen, *Alberta Conservation Board*, 455–7.
- 24 Taylor, “Sun Oil,” 109–10; IOL Exec. Cte., 22 May 1962; 13 Jan 1963.
- 25 McKenzie Brown, *Bitumen*, 155–8; IOL Exec. Cte. Minutes, 4 Dec 1963; 7 Jan 1965; 19 Jan 1965.
- 26 Taylor, “Sun Oil,” 104.
- 27 Gray, *Great Canadian Oil Patch*, 346–7.
- 28 “Tar Sands of Alberta,” 68–71; IOL Exec. Cte. Minutes, 13 May 1966; 16 Sept 1969; “Syn crude Proposes 80,000 b/d Production from Alta. Tar sands,” *Oilweek* 19, no. 1 (13 May 1968): 21–2; Chastko, 127–32.
- 29 IOL Exec. Cte. Minutes, 10 Dec 1968; 16 Sept 1969.
- 30 IOL Exec. Cte. Minutes, 8 May 1973, 8 Aug 1973; Gray, *Great Canadian Oil Patch*, 350–1; David Wood, *The Lougheed Legacy* (Toronto: Key Porter, 1985), 112–19; Erik Lizee, “Rhetoric and Reality: Albertans and Their Oil Industry under Peter Lougheed” (MA thesis, University of Alberta, 2010), 96–7.
- 31 Larry Pratt, *The Tar Sands: Syncrude and the Politics of Oil* (Toronto: Hurtig Press, 1976); Foster, *Blue Eyed Sheiks*, 83–4; Lizee, 99–100.
- 32 IOL Exec. Cte. Minutes, 6 Dec 1974; Gray, *Great Canadian Oil Sands*, 351–2; McKenzie Brown, *Bitumen*, 160–2; Chastko, 160–1. In 1966 Imperial, Cities Service and Richfield had diluted their Syncrude commitment to enable Royalite to increase its share to 30 per cent. Subsequently Gulf Oil of Canada (which had already taken over British American Oil Co.) absorbed Royalite.
- 33 Gray, *Great Canadian Oil Patch*, 352–3; McKenzie Brown, *Bitumen*, 167–8.
- 34 Gray, *Great Canadian Oil Patch*, 353–4; “Jacob Absher,” www.history.alberta.ca/energyheritage/sands.
- 35 Roger M. Butler, “Energy From Cold Lake,” 10 Feb 1981. IOL Archive, Vertical File, Research; “Reaching the Heavy Oil,” *Imperial Oil Review* 3 (1975): 27. Butler was the chief developer of the process, which was patented by Imperial in 1969. McKenzie Brown, *Bitumen*, 190.

- 36 IOL Exec. Cte. Minutes, 7 June 1966; “Reaching the Heavy Oil,” 28–9; Steve Lynett, “Cold Lake,” *Imperial Oil Review* 4, 1974, 5–7; Dominion Securities, “The Heavy Oil Deposits of Western Canada,” Oct 1974, 9–11. IOL-pub-6-74.
- 37 Paul Murray, “Miracle at Cold Lake,” *Imperial Oil Review* 6 (1979): 17–19; Sandford Brown, “Wringing Oil from Sand,” *The Lamp* (Spring 1985): 17–18; Foster, *Blue Eyed Sheiks*, 86–7.
- 38 McKenzie Brown, *Bitumen*, 191–3; Gray, *Great Canadian Oil Patch*, 258–9; “Dr. Roger M. Butler,” www.canadianpetroleumhalloffame.ca/roger_butler.
- 39 Gray, *Great Canadian Oil Patch*, 362–4; Emerson, *The Future History of the Arctic*, 172–5; J.G. Thomson, “Development of North Hampered by Muskegs,” *Oilweek*, 11 Dec 1959, 21–2.
- 40 IOL Production Department, “Notes on Northwest Territories Land Play,” IOL Exec. Cte. Minutes, 1 Apr 1958; *Nickle’s Daily Oil Bulletin*, 18 June 1961; Gray, *Great Canadian Oil Patch*, 364–5; Peter Foster, *Other People’s Money: The Banks, the Government and Dome* (Don Mills, ON: Collins, 1983), 35–7.
- 41 IOL Exec. Cte. Minutes, 16 Jan 1964; 17 Apr 1964.
- 42 Gray, *Great Canadian Oil Patch*, 367–72; “Energy From the Frontiers,” *Imperial Oil Review* 1 (1974): 28–9; *Nickle’s Daily Oil Bulletin*, 30 June 1967, 3–5; IOL Exec. Cte., Minutes, 5 May 1971.
- 43 Wall, *Growth in a Changing Environment*, 134–5.
- 44 Wall, *Growth in a Changing Environment*, 135–40; Emerson, *The Future History of the Arctic*, 178–9.
- 45 IOL Exec. Cte. Minutes, 9 Apr 1970; “Energy From the Frontiers,” 29–31; J.A. Armstrong, “Notes for a Panel Discussion, N.Y. Security Analysts,” 6 Feb 1973. IOL Vertical Files, Petroleum Industry & Trade—Canadian North. Imperial Oil Archives; “The Search,” *Imperial Oil Review* 1 (1975): 16–19.
- 46 W.G. Charlton, “Imperial Oil Limited History 1950–75,” 41–2; Gray, *Great Canadian Oil Patch*, 402.
- 47 Robert Page, *Northern Development: The Canadian Dilemma* (Toronto: McClelland & Stewart, 1986), 172–6; McKenzie Brown and Finch, *The Great Oil Age*, 91–2. Exxon moved the Glomar Beaufort Sea platform to its offshore operations near Russian Sakhalin Island in 2001.
- 48 Earle Gray, *Unfamiliar History: Canada @150* (Toronto: Civil Sector Press, 2017), 342–57; Emerson, 95–6. By the second decade of the twenty-first century, with Arctic warming, hundreds of vessels had travelled through the Northwest Passage.
- 49 IOL Exec. Cte., Minutes, 21 Aug 1969; 16 Dec 1969; *Nickle’s Daily Oil Bulletin*, 14 July 1969, 6; Gray, *Great Canadian Oil Patch*, 385–6. The consortium’s argument about tanker safety may have been influenced by the sinking of Imperial Oil’s tanker, *Arrow*, off Nova Scotia in February 1970.

- 50 Wall, *Growth in a Changing Environment*, 376–7; Page, *Northern Development*, 75–88; Foster, *Blue Eyed Sheiks*, 112–18.
- 51 Page, *Northern Development*, 155–65.
- 52 IOL Exec. Cte., Minutes, 25 June 1974; 4 Mar 1975; Foster, *Blue Eyed Sheiks*, 120–1.
- 53 IOL Exec. Cte., Minutes, 18 July 1972.
- 54 Page, *Northern Development*, 66–8; Foster, *Blue Eyed Sheiks*, 116.
- 55 Page, *Northern Development*, 103–21.
- 56 Charlton, “Imperial Oil History 1950–75,” 38–9; Earle Gray, *Forty Years in the Public Interest: A History of the National Energy Board* (Toronto: Douglas & McIntyre, 2000), 66–70; Page, *Northern Development*, 124–54.
- 57 Earle Gray, *National Energy Board*, 71–4; Page, *Northern Development*, 268–81. The energy crises and the National Energy Program are discussed in chapter 11.
- 58 Foster, *Blue Eyed Sheiks*, 67–9, 212–13.
- 59 Sean Kheraj, “An Environmental History of the Hearings on the Norman Wells Pipeline in the 1980s,” Riley Fellowship Lecture, University of Winnipeg, 27 Oct 2017.
- 60 Page, *Northern Development*, 230–5; Robert Bone and Robert Mahnic, “Norman Wells: The Oil Center of the Northwest Territories,” *Arctic* 37, no. 1 (March 1984): 55–7; *Nickle’s Daily Oil Bulletin*, 17 May 1985.
- 61 Robert Huston and Ashish George Sam, “The Mackenzie Valley Pipeline.” www.utexas.edu/energy.com/thinkcorner/Mackenzie.
- 62 Jason Unrau et al., “Timeline: The Mackenzie Valley Saga,” *Globe & Mail*, 30 Dec 2009; 23 Aug 2012; “Trans Canada and Exxon Mobil to Work Together On Alaska Pipe Line Project,” 11 June 2009. www.transcanada.com/announcements.
- 63 Jeffrey Jones, “Imperial Oil weighs Mackenzie gas project revamp,” *Globe & Mail*, 18 Oct 2013; Lauren Krugel, “Imperial Oil Seeks Sunset- Clause Extension for Mackenzie Gas Project,” *Globe & Mail*, 27 Aug 2015; “Mackenzie Gas Project Extended,” *Oil & Gas Journal*, 3 June 2016; Joseph A. Pratt and William E. Hale, *Exxon: Transforming Energy 1973–2005* (Austin: University of Texas Dolph Briscoe Center, 2013), 490–1.
- 64 Guy Quenneville, CBC News, “Imperial Oil to Suspend Norman Wells Oil Production Due to Continuing Pipeline Shutdown,” 26 Jan 2017; Gary Park, “Adieu to Norman Wells,” *Petroleum News* 21, no. 38 (18 Sept 2016).

CHAPTER 11

- 1 Daniel Yergin, *The Prize*, 244–68; Mira Wilkins, *The Maturing of Multinational Enterprise*, 238–41; William R. Childs, *The Texas Railroad Commission: Understanding Regulation to the Mid-Twentieth Century* (College Station, TX: Texas A&M University Press, 2005), 199–228; William R. McNally, *Crude Volatility: The History and Future of Boom-Bust Oil Prices* (New York: Columbia University Press, 2017), 67–112.

- 2 Wilkins, *Maturing of Multinational Enterprise*, 365–70; Yergin, *The Prize*, 563–87; Robert Fitzgerald, *The Rise of the Global Company*, 386–97.
- 3 Yergin, *The Prize*, 588–632; Andrew Scott Cooper, *The Oil Kings* (New York: Simon & Schuster, 2012), 137–68.
- 4 Yergin, *The Prize*, 674–98, 711–14; McNally, *Crude Volatility*, 123–44.
- 5 McNally, *Crude Volatility*, 145–59; Randall, *United States Foreign Oil Policy*, 295–318.
- 6 McNally, *Crude Volatility*, 160–9; Yergin, *The Quest: Energy, Security, and the Remaking of the Modern World* (New York: Penguin Press, 2011), 285–311.
- 7 McNally, *Crude Volatility*, 170–224; Yergin, *The Quest*, 327–45.
- 8 Steve Coll, *Private Empire: Exxon Mobil and American Power* (New York: Penguin Books, 2013), 51–5, 157–70, 452–67.
- 9 Pratt and Hale, *Exxon*, 12–22, 310–61; Yergin, *The Quest*, 84–107.
- 10 Gray, *National Energy Board*, 58–9, Appendix B; “Western Canadian Select Explained,” *Oil Sands Magazine*, 20 Feb 2016; Kevin McCormack, “Canadian Oil and Gas Production: Older Than the Country Itself,” *BOE Report*, 17 Oct 2016.
- 11 Paul Sabin, “Crisis and Continuity in U.S. Oil Politics, 1965–80,” *Journal of American History* 99, no. 1 (June 2012): 177–86; Randall, *United States Foreign Oil Policy*, 260–5; Robert Sherrill, *The Oil Follies of 1970–80* (New York: Anchor Press, 1983), 77–8.
- 12 Peter Foster, *Self Serve* (Toronto: MacFarlane Walter & Ross, 1992), 39–53; Nemeth, “Canada-U.S. Oil and Gas,” 261–73. The EMR was established in 1966 but expanded its role, at the expense of the NEB, during the Trudeau era.
- 13 Gray, *Great Canadian Oil Patch*, 442–5.
- 14 “Energy Statement by Donald MacDonald, Nov. 1, 1973,” *Nickle’s Daily Oil Bulletin*, 8 Nov 1973.
- 15 Gray, *Great Canadian Oil Patch*, 445–8; John English, *Just Watch Me: The Life of Pierre Elliott Trudeau*, volume 2 (Toronto: Knopf Canada, 2009), 231–2, 240.
- 16 IOL Exec. Cte. Minutes 3 Jan 1974; 15 Jan 1974; Aug. 13, 1974; Nemeth, “Canada- U.S. Oil and Gas,” 275–81; Gray, *National Energy Board*, 52–4.
- 17 Quoted in Wall, *Growth in a Changing Environment*, 386.
- 18 “Ten Year Financial and Operating Summary, 1966–75,” *IOL Annual Report 1976, 20*.
- 19 Foster, *Self Serve*, 57–63; John Fossum, *Oil, the State and Federalism: The Rise and Demise of Petro Canada as a Statist Impulse* (Toronto: University of Toronto Press, 1997), 73–84.
- 20 Fossum, 99–100; Helliwell et al., “Oil and Gas Taxation,” *Osgoode Hall Law Journal* 26, no. 3 (Fall 1988): 463–4.
- 21 English, 482.
- 22 Gray, *National Energy Board*, 60–1; Peter Foster, *The Sorcerer’s Apprentices* (Toronto: Collins, 1982), 143–50; G. Bruce Doern, *The Politics of Energy* (Toronto: Methuen, 1985), ch. 6.

- 23 Doern, 207–9; Foster, *Sorcerer's Apprentices*, 158–9; Helliwell et al., “Oil and Gas Taxation,” 467–8.
- 24 Geoffrey Stevens, “The Politics of Energy,” *Globe & Mail*, 20 Nov 1980, 6; Jeff Carruthers, “Imperial Oil Stops Judy Creek Project Because of Federal Pricing Plan,” *Globe & Mail*, 1 Dec 1980, B1; Anthony McCallum, “Imperial Oil Sees Need to Adapt to Energy Rules,” *Globe & Mail*, 6 Jan 1981, B2.
- 25 Doern, 210–11; English, 488–92; Andrew Brown, “IPAC Members React Strongly to National Energy Policy,” *Nickle's Daily Oil Bulletin*, 7 Nov 1980; “Trudeau, Lougheed Sign Five Year Agreement,” *Nickle's Daily Oil Bulletin*, 2 Sept 1981.
- 26 Gray, *Great Canadian Oil Patch*, 450–4; Tammy Nemeth, “Pat Carney and the Dismantling of the National Energy Program,” *Past Imperfect* 7, 1998: 87–123.
- 27 IOL *Annual Report* 1981, 44–5; IOL *Annual Report* 1986, 42–3.
- 28 IOL *Annual Report* 1981, 46–7; “Imperial Oil Limited—Historical Highlights 1978–86. IOL Public Affairs and Secretary's Department, IOL Archives, Acc. 80-0074/001(01).
- 29 Gillian Steward, “The Age of Imperialism Comes to an End,” *Canadian Business*, August 1982, 61–71; Foster, *The Sorcerer's Apprentices*, 257–9.
- 30 Foster, *Sorcerer's Apprentices*, 254; “Imperial Oil—Historical Highlights 1978–86”; Rinaldo Stefan, “Report on Imperial Oil Ltd.” 1996. IOL-pub-6-157. IOL Archives. See Appendix 3B.

CHAPTER 12

- 1 Canada Bureau of Competition Policy, *The State of Competition in the Canadian Petroleum Industry*, volume 1: Findings, Issues and Remedies (Ottawa: Bureau of Competition Policy, 1981), 16–33.
- 2 “Major Oil Companies Issue Denials of Conspiracy to Fix 1970s Prices,” *Globe & Mail*, 5 Mar 1981, 8; “Oil Firms Profited from Tax, PC Says,” *Globe & Mail*, 13 Mar 1981, 10.
- 3 James Lorimer, ed., *Canada's Oil Monopoly* (Toronto: James Lorimer & Company, 1981)
- 4 William Johnson, “Executives Take Stand in Oil Combines Case,” *Globe & Mail*, 22 Apr 1975, 8; “Oil Price Fixing Investigation Nears End,” *Globe & Mail*, 17 Dec 1976, 8; Edward Clifford, “‘Invisible’ Combines Watchdog Turns Media Star,” *Globe & Mail*, 19 Mar 1979, B5.
- 5 Robert Stephens, “Oil Giants' Control of Supply under Fire,” *Globe & Mail*, 20 Oct 1981, 2; Stephens, “Chairman Denies Ottawa Managing Oil Industry Probe,” *Globe & Mail*, 1 Dec 1981, 19; Jennifer Lewington, “Combines Investigation Distorted, Imperial says,” *Globe & Mail*, 8 Sept 1982, 8.
- 6 Christopher Waddell, “Ottawa Proposes New Bill to Alter Competition Laws,” *Globe & Mail*, 18 Dec 1985, B1; Moya K. Mason, “From Mackenzie King's 1923 Combines Investigation Act to the Competition Act of 1986,” www.moyak.com/papers/combines-investigation-act.
- 7 *Canada's Oil Monopoly*, 4.

- 8 Foster, *Blue Eyed Sheiks*, 64–5.
- 9 Yves Lavigne, “Exxon-Imperial Pact on Technology is Bleeding the Country Dry: Broadbent,” *Globe & Mail*, 22 Nov 1980, A13. Broadbent’s charges were based on material from James Laxer, *The Big, Tough Expensive Job: Imperial Oil and the Canadian Economy* (Montreal: Press Porcepic, 1976), x.
- 10 Paul Taylor, “Imperial’s Exxon Ties Held Benefit Not Drain,” *Globe & Mail*, 27 March 1981, B2; “The Myth of Foreign Control,” *Imperial Oil Review* (June 1964).
- 11 Gibb and Knowlton, *The Resurgent Years*, 617–21; Larson et al., *New Horizons*, 20–1, 32–4.
- 12 Wall, *Growth in a Changing Environment*, 65–70.
- 13 Lyman H. Fraser, Assistant General Secretary, IOL, to Prof. A.E. Safarian, University of Saskatchewan, 4 Oct 1960. IOL Archives, Acc. 80.0079/001 (01); Wall, *Growth in a Changing Environment*, 72, 943; Foster, *The Sorcerer’s Apprentices*, 238–42.
- 14 “Imperial Oil Limited and Consolidated Subsidiaries Financial Review: Twenty Year Statistics,” IOL archives, Series 4, Box 292A, Acc. 80-0021; Ten Year Financial Operating Summary, *IOL Annual Report* 1976, 20–1.
- 15 Larson et al., *New Horizons*, 465–7; Ewing, ch. 20, 72–3.
- 16 Larson et al., *New Horizons*, 723–4.
- 17 Wall, *Growth in a Changing Environment*, 392; Nicholas Lemann, “So You Want to be Chairman of Exxon?” *Texas Monthly*, Dec 1978, www.texasmonthly.com/articles; “The Long-Term View from the 29th Floor,” *Time*, 29 Dec 1967.
- 18 R. Kelland, “Claiming Their Ground: Three Pioneering Women in Their Profession,” 19 Oct 2006. albertashistoricplaces.com.
- 19 *IOL Annual Report*, 2013, 6; Foster, *The Sorcerer’s Apprentices*, 248–53.
- 20 Pratt and Hale, *Exxon*, 217–25; *IOL Annual Report* 1990, 28–9.
- 21 Thomas Petzinger Jr., *Oil and Honor: The Texaco-Pennzoil Wars* (1988).
- 22 Sean McCarthy, “Texaco Canada May Play Key Role in U.S. Plan,” *Globe & Mail*, 16 Dec 1987, B9; Leonard Zehr, “Sale Could Make Texaco Canada Hot Stock,” *Globe & Mail*, 17 Sept 1988, B2.
- 23 Leonard Zehr and Martin Middlestaedt, “Imperial Wins Bidding for Texaco Canada,” *Globe & Mail*, Jan. 18, 1989, B1.
- 24 John Kohut, “Imperial-Texaco Takeover Stalled,” *Globe & Mail*, May 12, 1989, B1; Clyde Graham, “Texaco Takeover Faces Opposition before Tribunal,” *Globe & Mail*, Aug. 1, 1989, B5; Drew Fagan, “Tribunal Allows Texaco Deal,” *Globe & Mail*, Feb. 17, 1990, B1.
- 25 Deirdre McMurdy, “Imperial Shareholders Still Steaming,” *Globe & Mail*, 25 Apr 1990, B1; Pratt and Hale, *Exxon*, 368–9, 554; Stefan, “Report on Imperial Oil,” 1996.
- 26 Pratt and Hale, *Exxon*, 369–70; *IOL, Annual Report* 2013.

CHAPTER 13

- 1 Quoted in Chris J. Magoc, "Reflections on the Public Interpretation of Regional Environmental History in Western Pennsylvania," *Public Historian* 36, no. 3 (Aug 2014): 59.
- 2 Cobban, *Cities of Oil*, 15,17, 24–5.
- 3 Quoted in Brian Black, *Petrolia: The Landscape of America's First Oil Boom* (Baltimore: Johns Hopkins University Press, 2000), 65.
- 4 Gray, *Great Canadian Oil Patch*, 352–3.
- 5 Hugh S. Gorman, *Redefining Efficiency: Pollution Concerns, Regulatory Mechanisms and Technological Change in the U.S. Petroleum Industry* (Akron: University of Akron Press, 2001), 162–3; "Ending Oil Gushers—BOP," *American Oil & Gas History*, www.aogh.org/technology.
- 6 David Finch, "The History of the Conservation Board," *Alberta Oil Magazine*, 29 July 2008; Breen, *Conservation Board*, 645–7.
- 7 David Breen, "Atlantic No. 3 Disaster: From Raging Inferno to 'Beacon of Promise,'" in Anthony Rasporich, ed., *Harm's Way: Disasters in Western Canada* (Calgary: University of Calgary Press, 2004), 157–75.
- 8 Jamie Benidickson, "The Evolution of Canadian Water Law and Policy: Securing Safe and Sustainable Abundance," *Water Policy History* 13, no. 1 (2017): 73–4.
- 9 "Control of Industrial Pollution in the Sarnia Area," IOL-pub-6-16. Acc. 628.509713. Imperial Oil Archives; Cobban, *Cities of Oil*, 93, 111–12.
- 10 "On the Rocks: Shipwrecks of Nova Scotia," Maritime Museum of the Atlantic, Halifax, NS, novascotia.com/museum/wrecks/shipwrecks.
- 11 Mac MacKay, "Imperial Oil Tankers—Part I: Imperial Quebec," *Shipfax*, 28 Apr 2015. Shipfax.blogspot.ca/2015/imperial-oil-tankers-part1; Wall, *Growth in a Changing Environment*, 381–2.
- 12 IOL Executive Committee, Minutes, 17 Feb 1970, 3 Mar 1970; Brenda Large, "Costs from Arrow Cleanup Are Hard to Recover, Lawyers Say," *Globe & Mail*, 27 July 1970, 3.
- 13 "Jamieson Criticizes Businesses for Irresponsibility on Pollution," *Globe & Mail*, 14 Mar 1970, 2.
- 14 Joseph Pratt, "Letting the Grandchildren Do It: Environmental Planning during the Ascent of Oil as a Major Energy Source," *Public Historian* 2, no. 4 (Summer 1980): 43–50.
- 15 Dimitry Anastakis, "A 'War on Pollution?' Canadian Responses to the Automotive Emissions Problem, 1970–1980," *Canadian Historical Review* 90, no. 1 (Mar 2009): 99–137.
- 16 IOL Executive Committee, 22 Dec 1970: "Motor Gas Lead Elimination Studies"; IOL Executive Committee Minutes, 18 July 1970.
- 17 David R. Boyd, *Unnatural Law: Rethinking Canadian Environmental Law and Policy* (Vancouver: University of British Columbia Press, 2003), 31–2, 97.

- 18 Sean Kheraj, "Manifold Destiny: A History of Oil Pipelines in Canada," unpublished lecture, Riley Lectures on Canadian History, University of Winnipeg, 26 Oct 2017, 16.
- 19 Chastko, 161–3; McKenzie Brown, *Bitumen*, 215–24; Canadian Energy Research Institute, *Oil Sands Environmental Impacts: Study #143* (Calgary 2014), 3–4; John Cotter, "Environmental Health Risks of Oil Sands Likely Underestimated: Study," *Globe & Mail*, 3 Feb 2014.
- 20 CERI, *Oil Sands Environmental Impacts*, 5–6; John Cotter, "Environmental Health Risks of Oil Sands Likely Underestimated: Study," *Globe & Mail*, 3 Feb 2014; Kelly Cryderman, "CNRL Ordered to Drain a Lake in Alberta, Stop Oil Spill," *Globe & Mail*, 24 Sept 2013.
- 21 Boyd, 80–94; Yergin, *The Quest*, 493–525.
- 22 Pratt and Hale, *Exxon*, 461–6; Steve Coll, *Private Empire: Exxon Mobil and American Power* (New York: Penguin Press, 2012), 79–92.
- 23 Neela Banerjee et al., "Exxon: The Road Not Taken," *Inside Climate News*, 2015, 4–6.
- 24 Pratt and Hale, *Exxon*, 185.
- 25 Pratt and Hale, *Exxon*, 219–22; Tom Bower, *Oil: Money, Politics and Power in the 21st Century* (New York: Grand Central Publishing, 2009), 161–2.
- 26 Pratt and Hale, *Exxon*, 471–6; Coll, *Private Empire*, 594–8.
- 27 Alex D. Charpentier et al., "Understanding the Canadian Oil Sands Industry's Greenhouse Gas Emissions," *Environmental Research Letter* 4 (2009): 1–2; Jacob G. Englander et al., "Historical Trends in Greenhouse Gas Emissions of the Alberta Oil Sands (1970–2010)," *Environmental Research Letter* 8 (2013): 1–2; John P. Giesy et al., "Alberta Oil Sands Development," *Publications of the [U.S.] National Academy of Science*, 19 Jan 2010, 951–2. www.pnas.org/cgi/doi/10.1073/pnas.0912880107.
- 28 Imperial Oil, "Review of Environmental Protection Activities for 1978–1979," 1–2. IOLpub-6-117; Robert Peterson, "A Cleaner Canada," *Imperial Oil Review* (Summer 1998): 29. These documents were cited in Brendan DeMelle and Kevin Grandia, "'There Is No Doubt': Exxon Knew CO2 Pollution Was a Global Threat by the Late 1970s," www.desmogblog.com/2016/04/26.
- 29 Philip Hope, "No Kudos for Kyoto from Imperial Oil," *Alberta Report* 25, issue 50, 30 Nov 1998.
- 30 David Ebner, "Imperial Oil's Kearl Project Gets Green Light," *Globe & Mail*, 1 Mar 2007, B5; Ebner, "Imperial Suffers Kearl Defeat," *Globe & Mail*, 15 May 2018, B1; Bruce Marsh, "Technology Holds the Key to Responsible Oil Sands Development," *Imperial Oil Review* (Winter 2010): 4–5.
- 31 McKenzie-Brown, *Bitumen*, 171–2; Shawn McCarthy, "Big Oil Makes Case for Carbon-Capture Subsidies," *Globe & Mail*, 9 Nov 2009, B4.
- 32 Kelly Cryderman, "Imperial Turns Off Taps on New Growth Opportunities," *Globe & Mail*, 18 July 2018, B1.
- 33 "Imperial Oil Moving Head Office to Calgary: Report," *Globe & Mail*, 29 Sept 2004, A6. Pratt and Hale, *Exxon*, 256–9.

CONCLUSION

- 1 William N. Greene, "Strategies of Major Oil Companies," ch. 3, 2–21; Grant and Thille, "Tariffs, Strategy and Structure: Competition and Collusion in the Ontario Petroleum Industry," 392–413.
- 2 Jeffrey A. Frieden, *Global Capitalism* (New York: Norton, 2006), 2–20; Geoffrey Jones, *Multinationals and Global Capitalism* (Oxford, UK: Oxford University Press, 2005), 18–22.
- 3 Robert Fitzgerald, *The Rise of the Global Company* (Cambridge, UK: Cambridge University Press, 2015), 44–54; Mira Wilkins, *The History of Foreign Investment in the United States 1914–1945* (Cambridge, MA: Harvard University Press, 2004), 8.
- 4 Michael Bliss, "Canadianizing American Business: The Roots of the Branch Plant," in Ian Lumsden, ed., *Close the 49th Parallel, etc.: The Americanization of Canada* (Toronto: University of Toronto Press, 1972), 26–42; Kenneth Norrie and Douglas Owsram, *A History of the Canadian Economy* (Toronto: Harcourt Brace Jovanovich, 1991), 293–5.
- 5 Greene, ch. 3, 22–6; Grant and Thille, "How Standard Oil Came to Canada: The Monopolization of Petroleum Refining, 1886–98," 4–5; Ewing, "History of Imperial Oil," ch. 4.
- 6 James May, "The Story of Standard Oil Co. v. United States," in Eleanor M. Fox and Daniel A. Crane, ed., *Antitrust Stories* (New York: Foundation Press, 2007), 1–59; Daniel Yergin, *The Prize*, 96–113.
- 7 Wall and Gibb, *Teagle of Jersey Standard*, chs 6, 11; Greene, ch. 4, 2–18; Stephen Randall, *United States Foreign Oil Policy*, 13–44.
- 8 Ewing, ch. 20; Larson et al., *The History of Standard Oil (New Jersey): New Horizons*, 619, 809–10.
- 9 Ewing, ch. 10; Larson, 584, 619.
- 10 Gray, *Great Canadian Oil Patch*, 137–8; Aubrey Kerr, *Corridors of Time* (Calgary: S.A. Kerr, 1988), 108–9.
- 11 Robert Bothwell, *Canada and the United States* (Toronto: University of Toronto Press, 1992), 28–34.
- 12 Clark-Jones, *A Staple State*, 58–64; Nemeth, "Consolidating the Continental Drift," 191–215.
- 13 See Appendix 2.
- 14 Earle Gray, "John Kenneth Jamieson," *The Canadian Encyclopedia*, 20 Sept 2007. www.thecanadianencyclopedia.ca.
- 15 See chapter 12.
- 16 Pratt and Hale, *Exxon*, 223.
- 17 Pratt and Hale, *Exxon*, 185.
- 18 Yergin, *The Prize*, 715–16; Pratt and Hale, *Exxon*, 185–214.

- 19 Pratt and Hale, *Exxon*, 310–61; Coll, *Private Empire*, 154–93, 349–70; Yergin, *The Quest*, 33–5.
- 20 Yergin, *The Quest*, 93–9; Fitzgerald, *Rise of the Global Company*, 471–3.
- 21 Pratt and Hale, *Exxon*, 238–40, 447–8.
- 22 Pratt and Hale, *Exxon*, 448.
- 23 Coll, *Private Empire*, 544–9.
- 24 Bradley Olson, “Exxon, Once a ‘Perfect Machine,’ is Running Dry,” *Wall Street Journal*, 13 July 2018.
- 25 [www.http.oilprice.com/oil-price-charts](http://www.oilprice.com/oil-price-charts).

Bibliography

Archival Sources

- Exxon/Mobil Records, Dolph Briscoe Center for American History, University of Texas at Austin
- Imperial Oil Archives, Glenbow Museum and Archives, Calgary
- Imperial Oil Annual Reports, 1927–2016. Imperial Oil Archives
- Royalite Records, Glenbow Museum and Archives, Calgary

Newspapers and Journals

- Globe and Mail*
- Imperial Oil Review*
- Monetary Times*
- Nickle's Daily Oil Bulletin*
- Oil Week*

Books

- Barkhouse, Joyce. *Abraham Gesner*. Don Mills: Fitzhenry & Whiteside, 1980.
- Bellamy, Matthew. *Profiting the Crown: Canada's Polymer Corporation 1942–1990*. Montreal: McGill-Queen's University Press, 2005.
- Bertrand, Robert. *Canada's Oil Monopoly*. Toronto: James Lorimer, 1981.
- Black, Brian. *Petrolia: The Landscape of America's First Oil Boom*. Baltimore: Johns Hopkins University Press, 2000.
- Bower, Tom. *Oil: Money, Politics and Power in the 21st Century*. New York: Grand Central Publishing, 2009.
- Boyd, David R. *Unnatural Law: Rethinking Canadian Environmental Law and Policy*. Vancouver: University of British Columbia Press, 2003.

- Breen, David H. *Alberta's Petroleum Industry and the Conservation Board*. Edmonton: University of Alberta Press, 1993.
- Brennan, Brian. *The Good Steward: The Ernest C. Manning Story*. Calgary: Fitzhenry & Whiteside, 2008.
- Burr, Christina. *Canada's Victorian Oil Town: The Transformation of Petrolia from a Resource Town into a Victorian Community*. Montreal: McGill-Queen's University Press, 2006.
- Chastko, Paul. *Developing Alberta's Oil Sands from Karl Clark to Kyoto*. Calgary: University of Calgary Press, 2004.
- Chernow, Ron. *Titan: The Life of John D. Rockefeller*. New York: Vintage Press, 1998.
- Childs, William R. *The Texas Railroad Commission: Understanding Regulation in the Mid-20th Century*. College Station, TX: Texas A&M University Press, 2005.
- Clark-Jones, Melissa. *A Staple State: Canadian Industrial Resources in Cold War*. Toronto: University of Toronto Press, 1987.
- Clarke, Tony. *Tar Sands Showdown: Canada and the Politics of Oil in an Age of Climate Change*. Toronto: Lorimer, 2008.
- Cobban, Timothy W. *Cities of Oil*. Toronto: University of Toronto Press, 2013.
- Coll, Steve. *Private Empire: Exxon Mobil and American Power*. New York: Penguin Books, 2013.
- Crane, David. *Controlling Interest: The Canadian Oil and Gas Stakes*. Toronto: McClelland & Stewart, 1982.
- Craven, Paul. *An Impartial Umpire: Industrial Relations and the Canadian State 1900–1911*. Toronto: University of Toronto Press, 1980.
- De La Pedraja, René. *Energy Politics in Colombia*. Boulder, CO: Westview Press, 1989.
- DeMille, George. *Oil in Canada West: The Early Years*. Calgary: Northwest Printing and Lithographing, 1970.
- Doern, G. Bruce. *The Politics of Energy: The Development and Implementation of the National Energy Policy*. Toronto: Methuen, 1985.
- Finch, David. *Hell's Half Acre: Early Days in the Great Alberta Oil Patch*. Surrey, BC: Heritage House, 2005.
- Fitzgerald, Robert. *The Rise of the Global Company: Multinationals and the Making of the Modern World*. Cambridge, UK: Cambridge University Press, 2015.
- Forster, Ben. *A Conjunction of Interests: Business, Politics and Tariffs 1825–1879*. Toronto: University of Toronto Press, 1986.
- Fossum, John. *Oil, the State and Federalism: The Rise and Demise of Petro Canada as a Statist Impulse*. Toronto: University of Toronto Press, 1997.
- Foster, Peter. *The Blue Eyed Sheikhs: The Canadian Oil Establishment*. Toronto: Collins, 1979.
- . *The Sorcerer's Apprentices: Canada's Super-Bureaucrats and the Energy Mess*. Toronto: Collins, 1982.

- . *Self Serve: How Petro Canada Pumped Canadians Dry*. Toronto: MacFarlane Walter & Ross, 1992.
- . *Other People's Money: The Banks, The Government and Dome*. Don Mills, ON: Collins, 1983.
- Gibb, George S., and Evelyn H. Knowlton. *The History of Standard Oil (New Jersey): The Resurgent Years 1911–1927*. New York: Harper & Row, 1956.
- Gitelman, Howard. *The Legacy of the Ludlow Massacre: A Chapter in American Industrial Relations*. Philadelphia: University of Pennsylvania Press, 1988.
- Goodsell, Charles. *American Corporations and Peruvian Politics*. Cambridge, MA: Harvard University Press, 1974.
- Gorman, Hugh S. *Redefining Efficiency: Pollution Concerns, Regulatory Mechanisms and Technological Change in the U.S. Petroleum Industry*. Akron: University of Akron Press, 2001.
- Gray, Earle. *Super Pipe: The Arctic Pipeline – World's Greatest Fiasco?* Toronto: Griffin House, 1979.
- . *Forty Years in the Public Interest: A History of the National Energy Board*. Toronto: Douglas & McIntyre, 2000.
- . *The Great Canadian Oil Patch: The Petroleum Era from Birth to Peak*, 2nd ed. Edmonton: June Warren Publishers, 2004.
- . *Ontario's Petroleum Legacy*. Edmonton: Heritage Community Foundation, 2008.
- Gray, James R. *R.B. Bennett: The Calgary Years*. Toronto: University of Toronto Press, 1991.
- Hanson, Eric J. *Dynamic Decade: The Evolution and Effects of the Oil Industry in Alberta*. Toronto: McClelland & Stewart, 1958.
- Hidy, Ralph W., and Muriel Hidy. *The History of Standard Oil (New Jersey): Pioneering in Big Business*. New York: Harper & Row, 1955.
- Hunt, Joyce E. *Local Push, Global Pull: The Untold History of the Athabasca Oil Sands 1910–30*. Calgary: J.E. Hunt, 2011.
- Jones, Geoffrey. *Multinationals and Global Capitalism: From the Nineteenth to the Twenty-First Century*. Oxford, UK: Oxford University Press, 2005.
- Kerr, Aubrey. *Leduc*. Calgary: Altona, 1991.
- Kilbourn, William. *Pipeline: Transcanada and the Great Debate, A History of Business and Politics*. Toronto: Clarke Irwin, 1970.
- Klaren, Peter. *Peru: Society and Nationhood in the Andes*. New York: Oxford University Press, 2000.
- Lael, Richard. *Arrogant Diplomacy: U.S. Policy toward Colombia 1903–1922*. Wilmington: Scholarly Resources Press, 1987.
- Larson, Henrietta, Evelyn H. Knowlton, and Charles Popple. *History of Standard Oil (New Jersey): New Horizons 1927–1950*. New York: Harper & Row, 1971.

- LeRiche, Timothy. *Alberta's Oil Patch: The People, Politics and Companies*. Calgary: Folklore Publishing, 2006.
- Lieuwen, Edward. *Petroleum in Venezuela: A History*. New York: Russell and Russell, 1954.
- May, Gary. *Hard Oiler!: The Story of Canadians Quest for Oil at Home and Abroad*. Toronto: Dundurn Press, 1998.
- McKenzie Brown, Peter. *Bitumen: The People, Performance and Passion behind Alberta's Oil Sands*. Calgary: Create Space Independent Publishing Platform, 2017.
- McKenzie Brown, Peter, David Finch, and Gordon Jarenko. *The Great Oil Age: The Petroleum Industry in Canada*. Calgary: Detselig Enterprises, 1993.
- McNally, Robert. *Crude Volatility: The History and Future of Boom-Bust Oil Prices*. New York: Columbia University Press, 2017.
- McQuaig, Linda. *Behind Closed Doors*. Markham: Penguin Books Canada, 1987.
- Morrith, Hope. *Rivers of Oil: The Founding of North America's Petroleum Industry*. Kingston: Quarry Press, 1993.
- Nikiforuk, Andrew. *Tar Sands: Dirty Oil and the Future of a Continent*. Vancouver: Greystone Books, 2010.
- O'Connor, Harvey. *World Crisis in Oil*. New York: Monthly Review Press, 1962.
- Page, Robert. *Northern Development: The Canadian Dilemma*. Toronto: McClelland & Stewart, 1986.
- Palacios, Marco. *Between Legitimacy and Violence: A History of Colombia 1875–2002*. Durham: University of North Carolina Press, 2006.
- Philip, George. *Oil and Politics in Latin America: Nationalist Movements and State Companies*. Cambridge, UK: Cambridge University Press, 1982.
- Pike, Frederick. *The Modern History of Peru*. New York: Praeger, 1967.
- Pineto, Alberto. *The Multinational Corporation as a Force in Latin American Politics: A Case Study of the International Petroleum Company in Peru*. New York: Praeger, 1973.
- Pratt, Joseph A., and William E. Hale. *Exxon: Transforming Energy 1973–2005*. Austin, TX: Dolph Briscoe Center for American History, 2009.
- Purdy, G.A. *Petroleum: Prehistoric to Petrochemicals*. Toronto: Copp Clark, 1957.
- Randall, Stephen J. *The Diplomacy of Modernization: Colombian-American Relations 1920–1940*. Toronto: University of Toronto Press, 1971.
- . *United States Foreign Oil Policy since World War I*, 2nd ed. Montreal: McGill-Queen's University Press, 2005.
- Sampson, Anthony. *The Seven Sisters: The Great Oil Companies and the World They Made*. New York: Viking Press, 1975.
- Sandwell, R.W., ed. *Powering Up Canada: A History of Power, Fuel, and Energy from 1600*. Montreal: McGill-Queen's University Press, 2016.

- Sherrill, Robert. *The Oil Follies of 1970–1980*. New York: Anchor Press, 1983.
- Singer, Jonathan. *Broken Trusts: The Texas Attorney General versus the Oil Industry 1889–1909*. College Station, TX: Texas A&M University Press, 2002.
- Thomas, Victor Bulmer. *The Economic History of Latin America since Independence*. Cambridge, UK: Cambridge University Press, 2003.
- Thorp, Rosemary, and Geoffrey Bartram. *Peru 1890–1977: Growth and Policy in an Open Economy*. New York: Columbia University Press, 1978.
- Waite, Peter B. *In Search of R.B. Bennett*. Montreal and Kingston: McGill-Queen's University Press, 2012.
- Wall, Bennett H. *Growth in a Changing Environment: A History of Standard Oil (New Jersey) 1950–1972*. New York: McGraw Hill, 1988.
- Wall, Bennett H., and George S. Gibb. *Teagle of Jersey Standard*. New Orleans: Tulane University Press, 1974.
- Weinberg, Steve. *Taking on the Trust*. New York: Norton, 2008.
- Wilkins, Mira. *The Emergence of Multinational Enterprise: American Business Abroad from the Colonial Era to 1914*. Cambridge, MA: Harvard University Press, 1970.
- . *The Maturing of Multinational Enterprise: American Business Abroad from 1914 to 1970*. Cambridge, MA: Harvard University Press, 1974.
- . *The History of Foreign Investment in the United States 1914–1945*. Cambridge, MA: Harvard University Press, 2004.
- Williamson, Harold F., and Arnold R. Daum. *The American Petroleum Industry: The Age of Illumination 1859–1899*. Evanston: Northwestern University Press, 1955.
- Williamson, Harold F., Ralph L. Andreano, Arnold R. Daum, and Gilbert C. Klose. *The American Petroleum Industry: The Age of Energy 1899–1959*. Westport, CT: Greenwood & Publishers, 1959.
- Wirth, John D., ed. *Latin American Oil Companies and the Politics of Energy*. Lincoln: University of Nebraska Press, 1985.
- Yergin, Daniel. *The Prize: The Epic Quest for Oil, Money and Power*. New York: Simon & Schuster, 1991.

Articles and Chapters

- Anastakis, Dimitry. "A War on Pollution? Canadian Responses to the Automotive Emissions Problem, 1970–80." *Canadian Historical Review* 90, no. 1 (March 2009): 99–137.
- Ankli, Robert W. "Adoption of the Gas Tractor in Western Canada." *Canadian Papers in Rural History* 2 (1980): 9–39.
- Barry, Patricia. "The Prolific Pipeline: Getting Canol under Way." *Dalhousie Review* 56, no. 2 (Summer 1976): 252–67.

- Beaton, Kendall. "Dr. Gesner's Kerosene: The Start of American Oil Refining." *Business History Review* 39 (February 1955): 28–53.
- Benidickson, Jamie. "The Evolution of Canadian Water Law and Policy: Securing Safe and Sustainable Abundance." *McGill Journal of Sustainable Development* 13, no. 1 (2017): 61–103.
- Birkenshaw, Julian, and Torben Petersen. "Strategy and Management in MNE Subsidiaries." In *Oxford Handbook of International Business*, 2nd edition, edited by A.M. Rugman and T.L. Brewer, 367–88. New York: Oxford University Press, 2010.
- Breen, David. "Atlantic No. 3 Disaster: From Raging Inferno to 'Beacon of Promise.'" In *Harm's Way: Disasters in Western Canada*, edited by Anthony Rasporich, 157–75. Calgary: University of Calgary Press, 2004.
- Brown, Jonathan C. "Jersey Standard and the Politics of Latin American Oil Production, 1911–1930." In *Latin American Oil Companies and the Politics of Energy*, edited by John D. Wirth, 1–50. Lincoln, NE: University of Nebraska Press, 1985.
- Bucheli, Marcelo. "Canadian Multinational Corporations and Economic Nationalism: The Case of Imperial Oil Ltd. in Alberta (Canada) and Colombia, 1899–1938." *Enterprise and History* 54 (April 2009): 67–85.
- Chastko, Paul. "Anonymity and Ambivalence: The Canadian and American Oil Industries and the Emergence of Continental Oil." *Journal of American History* 99, no. 1 (June 2012): 166–76.
- Finch, David. "The History of the Conservation Board." *Alberta Oil Magazine*, 29 July 2008.
- Grant, Hugh. "The 'Mysterious' Jacob L. Englehart and the Early Ontario Petroleum Industry." *Ontario History* 85, no. 1 (March 1993): 65–75.
- . "Solving the Labour Problem at Imperial Oil: Welfare Capitalism in the Canadian Petroleum Industry, 1919–1929." *Labour/Le Travail* 41 (Spring 1998): 69–95.
- Grant, Hugh, and Henry Thille. "Tariffs, Strategy and Structure: Competition and Collusion in the Ontario Petroleum Industry, 1870–1880." *Journal of Economic History* 61, no. 2 (June 2001): 390–413.
- Gray, Earle. "Gesner, Williams and the Birth of the Oil Industry." *Oil Industry History* 9 (2003): 11–23.
- Helliwell, John F., Mary E. MacGregor, Robert N. MacRae, and Andre Plourde. "Oil and Gas Taxation." *Osgoode Hall Law Journal* 26, no. 3 (Fall 1988): 453–94.
- Knight, Oliver. "Oil – Canada's New Wealth." *Business History Review* 30, no. 2 (September 1956): 297–329.
- Lemann, Nicholas. "So You Want to be Chairman of Exxon?" *Texas Monthly*, December 1978. www.texasmonthly.com/articles.
- Lissee, Erik. "Betrayed: Leduc, Manning and Surface Rights in Alberta 1947–55." *Prairie Forum* 35, no. 1 (Spring 2010): 77–100.

- Magoc, Chris J. "Reflections on the Public Interpretation of Environmental History in Western Pennsylvania." *Public Historian* 36, no. 3 (August 2014): 50–69.
- McBryde, W.A.E. "Ontario Early Pilot Plant for the Chemical Refining of Oil in North America." *Ontario History* 79, no. 3 (September 1987): 203–29.
- . "Petroleum 'Deodorized': The Early Canadian History of the 'Doctor Sweetening Process.'" *Annals of Science* 48, no. 2 (1991): 103–11.
- Nemeth, Tammy. "Pat Carney and the Dismantling of the National Energy Program." *Past Imperfect* 7 (1998): 87–123.
- . "Consolidating the Continental Drift: American Influence on Diefenbaker's National Oil Policy." *Journal of Canadian History* 13, no. 1 (2002): 191–215.
- Page, Robert. "The Early History of the Canadian Oil Industry 1860–1900." *Queen's Quarterly* 91, no. 4 (Winter 1984): 849–66.
- Phelps, Edward. "Foundations of the Canadian Oil Industry 1850–1866." In *Profiles of a Province: Studies in the History of Ontario*, edited by Edith Firth, 156–9. Toronto: Ontario Historical Society, 1969.
- Pratt, Joseph A. "Letting the Grandchildren Do It: Environmental Planning during the Ascent of Oil as a Major Energy Source." *Public Historian* 2, no. 4 (Summer 1980): 28–61.
- . "Exxon and the Control of Oil." *Journal of American History* 99, no. 1 (June 2012): 145–54.
- Saywell, John T. "The Early History of Canadian Oil Companies: A Chapter in Canadian Business History." *Ontario History* 53, no. 1 (1961): 68–71.
- Shulman, Peter. "The Making of a Tax Break: The Oil Depletion Allowance, Scientific Taxation and Natural Resource Policy in the Early Twentieth Century." *Journal of Policy History* 23, no. 3 (June 2011): 281–322.
- Steward, Gillian. "The Age of Imperialism Comes to an End." *Canadian Business*, August 1982, 61–71.
- Taylor, Graham D. "Sun Oil and Great Canadian Oil Sands Ltd.: The Financing and Management of a 'Pioneer' Enterprise 1962–74." *Journal of Canadian Studies* 20, no. 2 (Autumn 1985): 102–21.
- . "From Branch Operation to Integrated Subsidiary: The Reorganisation of Imperial Oil under Walter Teagle, 1911–1917." *Business History* 34, no. 3 (July 1994): 49–69.
- . "Under (Canadian) Cover: Standard Oil (New Jersey) and the International Petroleum Company in Peru and Colombia 1914–1948." *Management and Organizational History* 10, no. 2 (2015): 153–69.
- Wilkins, Mira. "Multinational Oil Companies in South America in the 1920s." *Business History Review* 48, no. 3 (1974): 414–46.
- . "The History of Multinational Enterprise." In *The Oxford Handbook of International Business*, 2nd edition, edited by A.M. Rugman and T.L. Brewer, 3–38. New York: Oxford University Press, 2010.

Unpublished

- Barry, Patricia. "The Canol Project: An Adventure of the U.S. War Department in Canada's Northwest." Edmonton: P.A. Barry, 1985. Trent University Archives, Peterborough, Ontario.
- Bucheli, Marcelo. "Multinational Oil Companies in Colombia and Mexico: Corporate Strategy, Nationalism and Local Politics." Paper presented at the International Economic Meeting, Helsinki, 2006.
- Charlton, W.G. "Imperial Oil History 1950–1975" (ca. 1981). IOL pub 1a-22. Imperial Oil Archives.
- "Esso Mariners – A History of Imperial Oil's Fleet Operations, 1899 to 1980." IOL pub 1a-20. Imperial Oil Archives.
- Ewing, John S. *History of Imperial Oil* (ca. 1951), 4 volumes. IOL pub 1a-8. Imperial Oil Archives, Glenbow Museum and Archives, Calgary, Alberta.
- Finch, David. "Leduc – A Living History." 2007. IOL pub 1a-27. Imperial Oil Archives.
- Grant, Hugh. "The Petroleum Industry and Canadian Economic Development: An Economic History 1900–1961." PhD diss., University of Toronto, 1986.
- Grant, Hugh, and Henry Thille. "How Standard Oil Came to Canada: The Monopolization of Canadian Petroleum Refining, 1886–1898." Working Paper, 2004. <http://EconPapers.repec.org/RePEc.gue.guelph.2004-4>.
- Greene, William N. "Strategies of the Major Oil Companies." PhD diss., Harvard University, 1982.
- Jackson, David L. "A Study of Imperial Oil Limited." 1964. IOL pub 6-24. Imperial Oil Archives.
- Kheraj, Sean. "Manifold Destiny: A History of Oil Pipelines in Canada." Riley Fellowship Lecture on Canadian History, University of Winnipeg, 26 October 2017.
- . "An Environmental History of the Hearings on the Norman Wells Pipeline in the 1980s." Riley Fellowship Lecture on Canadian History, University of Winnipeg, 27 October 2017.
- Little, Edward J.H. "Fixed Asset Accounting for an Integrated Oil Company." 1968. IOL pub 6-31. Imperial Oil Archives.
- Mason, Moya K. "From Mackenzie King's 1923 Combines Investigation Act to the Competition Act of 1986." www.moyak.com/papers/combines-investigation-act.
- Nemeth, Tammy. "Canada-U.S. Oil and Gas Relations 1958 to 1974." PhD diss., University of British Columbia, 2007.
- Stefan, Rinaldo. "Report on Imperial Oil Ltd." 1996. IOL pub 6-157. Imperial Oil Archives.

Index

Page numbers in italics refer to figures.

A

- Abasand Oils Ltd., 217
Abercrombie, James, 282
Aberhart, William, 129
Aboriginal Pipeline Group (APG), 243, 244
Absher, Jacob Owen, 228
advertising campaigns, 189, 190
Ajax pipeline, 85
Alaskan strategic oil reserve, 214, 233–34
Alberta: conference of oil companies in, 217–18; control of Crown lands, 129; farmers' concern over effects of oil drilling, 151; gas export from, 199; land reclamation of the oil sands sites, 289; map of oil and gas fields in, 145, 150; McGillvray Commission, 131; natural gas deposits, 118, 144; Oil and Gas Conservation Act, 130; oil exploration in, 9, 11, 15, 117–18, 120, 144; oil production cuts, 262, 263; oil transportation from, 16, 17; pipelines construction in, 11; refineries in, 161; regulations on petroleum industry, 129–30, 151; Right of Arbitration Entry Act, 151; sale of mining rights in, 118–19; “Western Accord” with, 263; *See also* Leduc; oil sands
Alberta Conservation Board, 282
Alberta Gas Pipeline Ltd., 237
Alberta Oil and Gas Conservation Board, 195
Alberta Oil Sands Technology Research Agency, 231
Alberta Southern Oils Ltd., 126
Alcan highway project, 15
Alderdice, Frederick, 105
Allen, Robert, 130
American Oil Workers International Union, 115
Amoco, 232, 255, 265, 305, 316
Amulree, William W. Mackenzie, 105
Anderson, Robert, 225
Andian National Corporation, 79, 81
Andrews, Samuel, 38
Anglo-American Oil Company, 49
Anglo-Persian Petroleum Company, 93
Antisell, Thomas, 23
Arab-Israeli war of 1967, 251
Aramco consortium, 301
Archbold, James, 54
Archbold, John D., 41, 54, 62
Arctic Gas consortium, 240, 241
Arctic region: aerial view of oil rig in, 234; companies engaged in exploration of, 232, 233, 234, 244; consortiums in, 236–37, 238; encounters with First Nations peoples, 238–39, 242–43; environmental concerns, 240–41, 244; gas field discoveries in, 243; geological surveys of, 232; government

- regulations of, 232; Imperial Oil's exploration program in, 235–36, 241–42; infrastructure development, 243; investments in, 234, 238; land disputes, 239; petroleum industry in, 215, 231–32; pipeline projects, 236–38, 239, 240, 241, 242–43, 245; technical challenges of exploration of, 237–38; US strategic oil reserve in, 233–34; wildcat drillers in, 232
- Armstrong, Jack: as advocate of Imperial Oil, 270; career of, 214, 226, 275; meeting with Lalonde, 262; on oil sands exploration, 289; opinion on government economic policy, 259–60; photograph of, 259; rejection of Bertrand's report, 267
- Arnold, Ralph, 215
- Arnold, Thurman, 175
- Asian Tigers, 255, 305
- “As Is” Agreement, 95
- asphaltum discovery, 22–23
- Athabasca region, 117, 214, 228
- Atlantic No. 3 disaster, 151–52, 195, 283, 284
- Atlantic Oil Company, 283
- Atomic Energy Board of Canada, 220
- Atwood, Luther, 22
- Austin, Jack, 287
- automobile industry: emission regulations, 287; growth of, 60, 97
- Auto Pact, 287
- B**
- Badische Anilin und Soda Fabrik (BASF), 174
- Ball, Max, 217
- Barrett, J.F., 286
- Barstow, Frank Q., 48, 54, 55, 56
- Bayonne refinery, 108–9
- Beamer, Clay, 181, 182
- Bechtel Corporation, 167, 169, 218, 236
- Bedford, Alfred Cotton, 91, 108
- Bell, George, 103, 129
- Bell, Joel, 260
- Bell, Robert, 117, 216
- Benedum, Mike, 76, 78
- Bennett, Richard B., 119, 123, 126–27, 129
- Bennett, W.A.C., 196, 197
- Benson, Edgar, 210
- Berger, Thomas, 240
- Bertrand, Robert, 267
- Betancourt, Romulo, 204
- bitumen extraction process, 217
- Bituminous Sand Extraction Company, 228
- Blair, Bob, 237, 239
- Blair, Sidney, 218
- Bonaparte, Charles, 58
- Borden, Henry, 200
- Bosworth, T.O., 14, 121–22, 215
- Bothwell oil boom, 25
- Boyd, David, 288
- Brainerd, Alfred, 54
- Brent Crude, 256
- British-American Oil Company, 103, 106, 316
- British Columbia Royal Commission, 197–98
- British Columbia's electric power industry, 197
- British Commonwealth Air Training Program (BCATP), 132–33
- British Petroleum (BP), 185, 234, 255
- Broadbent, Ed, 270
- Brown, Robert, 103, 129
- Brown, Robert A., Jr., 201
- Brownlee, John, 127, 129
- Building Products Ltd., 183
- Bullock, Joseph, 46
- Burton, William, 97, 171
- Bush, George W., 290
- Bushnell, Joseph, 48
- Bushnell, Thomas, 48
- Bushnell Company, 48, 51, 54, 60
- butadiene production, 176
- Butler, Roger, 229, 230, 231, 303

C

- Calder, William, 128, 129
- Calgary Development & Producers Ltd., 126
- Calgary Natural Gas Company, 118, 119
- Calgary Petroleum Products Company, 119, 123
- Cameron, Harry, 282
- Canada: chemical companies, 178; Clean Air Act, 287–88; demand for fertilizer, 182; Department of Energy, Mines and Resources (EMR), 257; gross national product, 298; Interprovincial Pipeline system, 257; kerosene export, 298; National Energy Program (NEP), 5, 230, 261, 304; National Oil Policy, 203, 204, 257, 298, 303; Oil and Gas Resources Conservation Act, 195; Oil Import Compensation Program, 261; participation in Marshall Plan, 302; Petroleum and Gas Revenue Tax (PGRT), 261; Pipe Line Act, 195; protectionism, 298; tax laws, 66, 72, 257–58; Western Accord, 256
- Canada's Bank Act (1871), 34
- Canada's War Bonds, 65–66
- Canada-United States Free Trade Agreement, 288
- Canada-US International Joint Commission, 284, 285
- Canadian Arctic Gas project, 238
- Canadian Arctic Resources Committee (CARC), 240
- Canadian Congress of Labour, 115
- Canadian crude oil: distillation process, 27, 44–45; domestic reserves, 143; export of, 27; problem of sulphur, 13, 27, 43; transportation of, 31, 169
- Canadian Natural Resources Inc., 289
- Canadian Oil Company, 24, 36
- Canadian oil industry: cartel arrangements, 29; challenges to, 192; companies in, 1, 186, 270–71, 316; depletion allowances, 210, 260–61; export market of, 30, 202–3; history of, 5–6; post-Second World War, 143; price regulation in, 255–56, 258, 267; protectionism of, 13, 27, 32–33, 46, 50, 261; regulatory system, 195; rise of oil production, 30; “Rockefeller plan” for, 34; taxation of, 205, 206–10, 264
- Canadian Pacific Railway, 43, 117–18
- Canadian Polysar, 94, 134
- Canadian Victory Loan Bond, 65
- Canadian Western company, 125–26
- Canadian Western Natural Gas, Light, Heat & Power Company, 118
- Canol Project, 134, 137–38, 140, 160
- carbon emissions, 5–6, 289–90, 291
- Carbon Oil Company, 29, 30, 32
- Carling, John, 26
- Carney, Patricia, 263
- Carpenter, A.A., 127
- Carson, C.E., 161, 177
- Carson, Rachel, 285
- Carter, John H., 71
- Carter, Kenneth, 208, 210
- Carter Oil, 106, 144
- Caspian Sea oil fields, 47
- Chamberlain, Horace, 54, 56, 60, 63
- Champlain Oil Company, 158, 330n12
- Chandler, Alfred, Jr., 95
- Charles Pratt Company, 38
- Charlton, W.G., 241
- China National Petroleum Company, 2
- China's economic growth, 253
- Cities Service consortium, 220, 221, 223, 224, 226
- Clark, Edgar M., 171
- Clark, Joe, 261
- Clark, Karl, 216, 218, 220
- climate change, 291–92, 295–96
- Clinton, Bill, 290
- Coakley, George, 11
- coal hydrogenation process, 174
- Cochrane, Thomas, 22
- Cogan, J.A., 274–75
- Cold Lake oil fields, 229–30, 265, 289, 292

Colombia: Cartagena pipeline, 79, 81;
 economic growth, 88; foreign
 concessions in, 82–83; Infantas oil
 fields, 79, 81; map of oil fields in, 77; oil
 resources development, 76, 78, 85

Colonial Development Corporation, 51

Colorado Fuel & Iron, 108

conservation, definition of, 282

Consumer Gas Supply Agency, 99

Convention on Climate Change, 290

Cooperative Investment Trust, 112

Coste, Eugene, 118, 119

Cote, Michel, 269

“cracking” technique, 37

Creole Petroleum, 156, 204

Creole Syndicate, 82

Crerar, Thomas, 130

Cross, A.E., 119

crude oil: Canadian import of, 155;
 conversion into gasoline, 175;
 distillation process, 26; drilling
 operations, 23–25; impurities of, 25;
 prices, 25, 26, 249, 250, 251, 252, 253,
 255–56; South American export of,
 85–86; transportation of, 26; types of,
 256; *See also* Canadian crude oil

Cullinan, Joseph, 60

cyclic steam stimulation (CSS) process (a.k.a.
 “huff and puff”), 228–29

Cygnets pipeline, 12, 85

D

Dalhousie Oil Co. Ltd., 126

Delano, Frederic, 136

De Mares, Robert, 76, 78, 81

Deterding, Henri, 61, 62, 93, 95, 120

Devon, town of, 151

Diefenbaker, John, 200, 202, 203, 213–14,
 302–3

Dingman, Archibald W., 118, 119, 123

Dingman well, 119

Dodd, Samuel, 41, 57

Dolomite Oils Ltd., 126

Dome Canada, 262

Dome Petroleum, 232, 233, 262, 263

Dominion War Exchange Conservation Act,
 143, 205

Dow Chemical, 284

Drake, Edwin, 24

Draper, Thomas, 216

drilling operations, 24, 144, 146, 281

Dryfoos, Abraham, 30

Duplessis, Maurice, 114

DuPont, 96, 175, 271

E

Eastern Oil Company, 48, 51

Edmonton-Montreal pipeline, 200

Edmonton-Regina pipeline, 164, 167

Eisenhower, Dwight, 203, 218

Ells, Sidney, 216, 217

Ellsworth, Albert L., 103

El Paso Gas, 237

Empire Transportation Company, 40

Enbridge pipeline, 294

energy crises of the 1970s, 204, 226, 260, 269

Englehart, Jacob, 27–29, 28, 30–31, 32, 34–36,
 54

English, William, 31, 32, 35

Enjay Co., 180

Enniskillen Township: asphaltum discovery
 in, 22–23; drilling operations in, 23,
 24–25

environmental issues, 7, 239–40, 282–83, 285

“Environmental Protection Activities
 Review,” 288

Erie & Huron railway group, 31

Esso Chemical Canada, 182–83

Esso Resources Canada Ltd., 242

Esso service stations, 12, 100, 101

Ethyl Gasoline Corporation, 133

Ewing, John, 13, 87

Exxon Corporation: access to crude oil,
 254; agricultural chemicals division,
 265; business strategy, 305; Canadian
 operations, 265, 307; competitors,
 305–6; diversification strategy, 291–92;
 executives, 274; impact of oil prices on,

254; merger with Humble Oil, 271–72; offshore drilling, 255; organizational structure, 271; programs for managers, 275; relations with Imperial Oil, 270, 278–79; reorganization of, 306; research on global warming trends, 291, 292; revenue, 276; search for new oil fields, 305; *See also* Jersey Standard; Standard Oil Company

Exxon Mobil: affiliates, 2–3; creation of, 6–7, 279, 306; global operations, 2, 89; oil sands exploration, 227; ownership of Imperial Oil, 17; studies of, 6; *See also* Jersey Standard; Standard Oil Company

Exxon Valdez disaster, 255, 287

F

Fairbank, John H., 25, 29, 31, 36, 51

Fall, Albert B., 80

Fallows, Joseph, 35

Farish, William, 175

Fischer-Tropsch process, 15

Fisher, William, 228

Fitzgerald, Frederick A., 31, 34, 35, 35–36, 48, 54, 56

Fitzsimmons, Robert, 216, 217, 221

Flagler, Henry, 38

Flanagan, James, 79, 80

flash test, 33

Fluid Iron Ore Reduction (FIOR), 114, 183

Folger, Henry, 56

Foothills Oil & Gas Ltd., 126

Ford, Henry, 97

Fordson Tractor, 97

Fort McMurray, 120, 215, 216–17, 218, 226

Fort Norman, 14–15, 121, 122–23

Foster, Peter, 264, 265, 272

“fracking” technology, 254

Frasch, Herman, 43, 44, 44, 45, 97–98, 171, 297

Frontenac Oil, 103

Frost, Leslie, 169

G

Gallagher, Jack, 232, 233

“Gallagher allowance,” 261

Garvin, Clifford, 292, 305

Gas-Arctic Northwest Project Study Group, 237

Gas Arctic Study Group, 241

gasoline: advertising, 189; demand for, 97; import duties on, 99; lead-free, 287, 288; market for, 98–99, 101, 191; price wars, 196; production of high-octane, 133

Geary, John, 31, 35

General Motors of Canada, 97

Geological Survey of Canada, 118

Gesner, Abraham, 21, 22

Getty, Don, 226, 230

Gilliland, E.R., 179

“Global Climate Coalition,” 291, 292

globalization, 297–98

global oil companies, 251, 255

Gordon, Walter, 199, 260

Gordon Commission report, 201

Gould, Jay, 39

Graham, James, 136–37

Grand Trunk Railway, 31

Grattan Oil, 120

Great Canadian Oil Sands (GCOS), 218, 223–24, 289

Great Depression: impact on petroleum industry, 86, 104–5, 128

Great Lakes Water Quality Agreement, 285

Great Western Railway, 25, 31

Green, Howard, 221

Greenfield, Herbert, 127

Gretna-Superior pipeline, 166, 167

Guggenheim, Isaac, 32, 34

Gulf Canada, 236

Gulf Oil Corporation, 82, 95, 186

Gulf Refining Company in Texas, 61

Guthrie, H.J., 56, 63

H

Haider, Michael, 144, 274, 275
Hale, William, 6
Halifax Gas Company, 22
Hall, Frank G., 163
Halvorsen, A.E., 101, 163
Hamilton, J.W., 165
Hanna, William J., 54, 63, 74, 79, 92, 120
Harkness, Samuel, 38
Heard, S.F., 157
Hearn, Thomas, 295
Hearst, William Randolph, 57
Herrera, Enrique, 82
Herron, William S., 119, 123, 128, 129, 157
Hewetson, Henry, 11, 15, 16, 142–43, 144, 154, 165, 273, 301
Hewitt, Edward, 111
Hicks, Clarence, 108, 109
Higgins, Ebenezer, 29
Hodgins, Edward, 31, 35
Hodgins, Thomas, 31, 35, 36
Holman, Eugene, 136, 137
Holt, Herbert, 79, 85
Home Oil, 206–7
Hopkins, O.B., 15, 121, 122, 144, 163, 165, 274
Hopper, Wilbert, 260
Houdry, Eugene, 175
Howard, Frank, 171, 174, 180
Howe, C.D., 137, 163, 166, 176–77, 178, 199
Hubbert, M. King, 214
Hudson's Bay Company, 117
Humble Oil, 93, 96, 172, 233, 236
Humphreys, Claude, 217
Humphreys, R.E., 97
Hunt, Thomas Sterry, 22
Hunter, Vern, 9
Husky Oil, 230
Husky Refining Company, 186

I

Ickes, Harold, 140
I.G. Farben, 94, 132, 134, 143, 174, 175

Imperial Acadia (tanker), 286
Imperial Oil Company: access to oil reserve, 72, 214–15; acquisitions, 51, 123–24, 126; advertising, 102, 189, 190; affiliate companies, 162; Alberta operations, 87, 94, 146, 149, 196; archival materials on, 5; Arctic exploration, 235–36; assets, 141; bank loans, 46, 154; Bertrand investigation of, 267–68, 269; board of directors, 36; branches, 43; business strategy, 183; in Canada's petroleum industry, role of, 1, 3, 270–71; Canadian war effort and, 65; Canol Project, 134, 137–38; capitalization, 63, 300; capital spending cut, 263; centralization of, 191; challenges of, 12–13, 46, 48; chemical production plant, 181; chief executives, 275; climate change strategy, 292; Cold Lake operations, 230, 265; competitors, 1, 2–3, 101, 103, 143, 186–87; control over distributors, 157–58; cracking process license, 98; creation of, 6, 12, 34–35, 107, 297; criticism of, 304; debt of, 55; decentralization of, 194; diversification of, 183–84; dividends, 42, 46, 51, 86–87, 153, 276–77, 314–15; drilling operations, 14, 153; employee stock purchase program, 112; energy crisis of 1973–74 and, 260; “enhanced oil recovery” project, 263; environmental challenges, 282–83; expansion of, 1–2, 6, 11, 154, 163–64; expedition to Fort Norman, 215; Exxon's relations with, 6–7, 270–71, 272, 276, 278–79; fertilizer operation, 182; financial restructuring, 153–59; financial statements of, 311; fleet of ships, 285; full service gas stations, 100, 100, 191–92; gasoline production, 98, 99, 100; golden age for, 169–70; governments' relations with, 6, 194–95, 198–99; during Great Depression, 103–4; headquarter relocation, 295; heavy water

project, 184; infrastructure, 160–70; international business operations, 180, 300; International Petroleum Company and, 90, 302; investments, 85, 129, 169–70, 184; Judy Creek operations, 263, 265; labour relations in, 64, 107, 114–15, 115–16; leadership, 141; lease of mineral rights on Crown lands by, 124; management of, 13, 273; marketing strategy, 99, 188, 191; motor oil production, 187–88; National Energy Program and, 262–63; Newfoundland operations, 105–6; oil exploration, 14–15, 17, 120, 143, 153–54; oil sands development, 228–29, 293, 294, 307; oil transportation, 16; operating capital, 156; parent company, 13–14, 17, 154–55, 299; patents, 1, 174, 270; pipelines, 2, 12; pricing policy, 192, 193; profit, 42, 46, 66, 153, 312, 314–15; public relations, 190–91; recapitalization of, 104; refineries, 12, 16, 42, 107, 124, 140, 153, 161, 272; reorganization of, 13, 91–92, 142, 207–8; research operations, 171–72, 175, 178; revenue, 1, 2, 43, 46, 51, 260, 264; royalties, 152, 260; sales operations, 56, 64, 104, 196–97, 312; during Second World War, 132–33, 134, 137–38, 139–41, 140; shareholders, 35, 43, 272; size of, 12; South American investments, 72, 74, 86, 87, 155–56; spending on drilling, 205–6; staff cuts, 276; Standard Oil's control of, 51–52, 53–54, 106; stocks, 53, 141, 277, 278; subsidiary companies, 16–17, 134; support of professional hockey, 190; surplus inventory problem, 99; taxation of, 206–7, 264; Teagle's tenure at, 60–68, 91–92; technological developments, 55–56, 171, 244; Texaco Canada takeover, 6, 277–78; "The High Costs of Kyoto" memo, 293; value of, 104, 106; vulnerability of, 186–87;

wages at, 114–15; weaknesses of, 43; western market, 48; women in, 275

Imperial Oil Ltd., 63, 313

Imperial Oil Resources Ventures Ltd., 227

Imperial Oil Review, 64, 85, 92, 109, 110, 114

Imperial Pipe Line Company in Alberta, 164

Imperial Quebec (tanker), 285

Indigenous people, 238–39

Industrial Estates Ltd., 184

Industry and Humanity (King), 108

Intergovernmental Panel on Climate Change, 289

International Bitumen Co., 216

International Mining and Manufacturing Company, 23

International Petroleum Company (IPC): acquisition of Tropical Oil, 80–81; Canadian press on, 84–85; capital, 74, 80; concessions, 76, 81, 89; connection to Imperial Oil, 90, 156; construction of pipelines, 162; creation of, 67, 72, 74, 88; dividends, 86–87; Jersey Standard's control of, 83, 87–88, 156; labour relations, 85; loans, 76; oil production, 81, 86; opportunity for Imperial's employees in, 301; South American operations, 13, 16, 74–76, 78–79, 81–84, 85, 88–89, 90, 156; training ground for managers, 275; transportation issues, 81

Interprovincial Pipeline Company (Enbridge), 16, 163, 165, 167

loco refinery, 109–10, 113, 114, 115

Iraq oil fields, 94

Irving, Kenneth C., 158–59

Irving Oil, 158, 159, 186

J

Jamieson, Don, 287

Jamieson, J. Kenneth, 181, 254, 274, 274, 303

Jersey Standard (Standard Oil Company of New Jersey): access to oil reserve, 72, 214; antitrust investigation of, 158; Board of Directors, 273; budgeting, 271;

business strategy, 90, 180; challenges of, 93; competitors, 61, 93–94; control of International Petroleum, 87–88; creation of, 58, 59; criticism of, 204; diversification, 183; dividend payments, 273; expansion of, 6; forty-hour work week, adoption of, 64; in the global oil markets, 92–94; lawsuit against, 95; management of, 54, 273; mergers, 59; oil exploration in Alberta, 119; overseas expansion, 301; patents, 175, 177; pipeline construction, 85, 162; production of aviation fuel, 133; profits, 300–301; relations with Imperial Oil, 12, 16, 303; renaming, 304; reorganization of, 49, 57, 96, 271, 273; research and development, 144, 179; South American operations, 71–72, 82, 85, 204; stock ownership plan, 65; subsidiaries of, 60, 180; synthetic rubber development, 134, 176, 180; Teagle's tenure at, 83; *See also* Exxon Corporation; Exxon Mobil; Standard Oil Company

Johnson, Lyndon, 257

Joint American Study Committee (Jasco), 174

joint industrial councils, 109, 110, 110–12, 113, 116

Jones, Jesse, 176

Joseph Bullock & Sons, 48; *See also* Eastern Oil Company

K

Kearl project, 293, 294

kerosene: commercial production of, 22, 97; demand for, 30; import of, 27, 29, 32; market for, 60; price for, 32; quality of, 43; use of, 97

Kerwin, Patrick Grandcourt, 207

Keswick, William, 71

Kevin-Sunburst oilfield, 125

Keystone XL pipeline, 294, 295

Kheraj, Sean, 288

King, Benjamin, 25

King, William Lyon Mackenzie, 108, 137, 166

King, William R., 54

King-Hicks program, 109–10

Kinley, Myron, 283

Klein, Ralph, 227

Knode, William, 130

Knox, Frank, 140

Kruger, Richard, 279, 294

Kyoto accord, 290–91, 292, 293

L

labour relations, 107, 109–10, 114; *See also* strikes

La Brea y Parinas oil fields, 71, 74, 76

Lalonde, Marc, 262, 270

Lambton County: drilling operations in, 24

Lambton Crude Oil Partnership, 29

Lantz, F.C., 177

Laurier, Wilfrid, 50, 299

Leaver, Charles, 174

Leduc Number One site, 9, 10, 11

Leduc Number Two site, 151

Leduc oil fields: competition in, 185; exploration of, 146; explosion and fire in, 283–84; oil discovery in, 87, 89, 144, 149, 302; strike, 67

Lee, Ivy, 166

Leguia, Augusto, 76, 82

LeSueur, R.V., 68, 83, 92, 96, 137, 139, 140, 141, 142

Levy, Walter, 201

Lewis, W.K., 179

Li, Ka-sheng, 277

Limits to Growth, The (report), 240

Link, Theodore, 14, 15, 121, 122, 135, 136, 138, 144

liquefied natural gas (LGN) technology, 244

Livingstone, J.R., 179, 262, 268

Lloyd, Henry Demarest, 49

Lloyd Champion, 217, 218

Lodge, Henry Cabot, 80

London & Pacific Petroleum Company, 71, 89
London Refining Company, 30–31, 32, 34, 281
London Union Oils Ltd., 126
Loranger, Diane, 275, 276
Lougheed, James, 119, 124, 225
Lougheed, Peter, 225, 263
Lougheed Terminal, 115
Loughney, Ed, 208
Lowery Petroleum Ltd., 126
Ludlow Massacre, 108

M

MacDonald, Donald, 226, 258, 260, 269
Macdonald, John A., 33
Mackenzie, Alexander, 33, 117, 216
Mackenzie Valley Gas Project, 243, 244
Mackenzie Valley highway, 243
Mackenzie Valley pipeline, 240, 241, 244, 245
Mackenzie Valley Pipe Line Research Ltd., 236
MacKinnon, Ronald, 136
MacMahon, Frank, 283
Manning, Ernest, 130, 152, 169, 195, 201, 225, 284
Marcus Hook refinery, 218
Marsh, Bruce, 279, 294
Marshall, George, 136
Mathieson, Kenneth, 71
Maximum Permissible Rate of Recovery (MPR), 196
Mayer, G.W., 64, 68, 92, 273
Mayland Oil Co., 126
McClave, James, 217
McCloskey, Leo, 177
McCull Brothers Ltd., 103
McCull Frontenac, 103, 151, 161, 316
McCullum, L.F., 274
McGillvray, A.A., 131
McGregor, Duncan, 97
McKinley, William, 57, 58
McLaughlin, Robert, 97
McLeod, John H., 123, 130
McMahon, Frank, 163, 237
McMurray Oil & Asphaltum Co., 216
McQueen, Alexander, 68, 83, 120, 123, 124, 127
Mechin, G.C., 112, 113, 114
Mellons family, 60–61
Mene Grande Oil Company, 82
Menzies, Merrill, 213
Mexican oil industry, 82, 93, 203, 303
Midwest Petroleum Ltd., 126
Midwest Refining Co., 67
Mildred Lake mine site, 221
Minhinnick, John, 31, 35, 43, 44
Mining Association of Canada, 209
Mitchell, George, 254
Monnett, Frank, 57
Montalvo, José Antonio, 82
Montreal East refinery, 111, 112–13, 114
Montreal Pipeline, 201, 203, 204, 205
Moroney, Tip, 152, 195, 284
Morrow, Charles W., 198
Moyer, John, 129
Mulroney, Brian, 263
Murchison, Clint, 199
Murray, Alexander, 23
Mutual Oil Company, 32

N

National Energy Board, 203, 240, 241, 242, 244, 245, 257, 263
Natland, Manfred, 220
natural gas: prices of, 244; problem of wastage of, 127–28, 130
Nesbitt Thomson, 103
Newfoundland's "Prosperity Loan," 105
New Jersey's corporate reform act, 72
New York Life Insurance Company, 76
Nickle, C.J., 152, 206
Nixon, Richard, 257
Nobel group, 93

- Norman Wells: establishment of, 231; expansion of, 136, 138; Imperial operations at, 136, 245; oil production capacity, 137–38, 140, 242; pipeline from, 139, 140; during wartime, 137
- North American Free Trade Agreement (NAFTA), 264
- North American Gas Light Company, 22
- North Atlantic: oil exploration in, 235–36; specialized vessels in, 236
- Northern Border Pipeline Agreement, 241
- Northern Frontier, Northern Homeland* (report), 241
- Northwest Company, 120, 121–22
- North West Company, 117
- Northwest Pipeline Corporation, 237
- Northwest Territories: oil exploration in, 14, 117
- Nova Corporation, 265, 277, 316
- O**
- Obama, Barack, 290
- Ohio oil fields, 45
- Oil, Chemical and Atomic Workers Union (OCAW), 115
- Oil and Gas Wells Act, 127
- Oil Creek well explosion, 281
- oil prices: global politics and, 278; impact on oil industry, 254; volatility of, 227, 242–43, 255, 276, 305, 306
- oil producing countries, 253, 303
- oil sands: Cold Lake venture, 229–30; companies involved in exploration of, 223–24, 227; environmental challenges of, 289; history of discovery of, 215–16; Imperial's venture in, 293; location of, 16; map of, 219; Mildred Lake project, 224; mining technology, 223, 224–25; oil extraction from, 220; Peace River and a Japanese group (JACOS) project, 230; pilot plant, 221–22, 222; profitability of, 307; public perception of, 294–95; refining technology, 231, 292; terminology, 336n4; transportation problem, 230
- oil spills, 281, 285, 287
- Oil Springs, 24–25
- Okalta Oils Ltd., 128
- Onassis, Aristotle, 285
- “Operation Franklin” geological survey, 232
- “Operation Oil Sands,” 220–21
- Organization of Petroleum Exporting Countries (OPEC), 95, 251–52, 253
- ozone layer, 290
- P**
- Panamanian “revolution,” 78–79
- Panarctic Oils Ltd., 233
- Pardo y Barreda, José, 75
- Paris accord, 291
- Parsons, Silas, 103
- Pearson & Son company, 78
- Pennsylvania crude, 27
- Pennsylvania oil fields, 30, 37, 281
- Pennsylvania Railroad, 40
- Pennzoil oil company, 277
- Perez Alfonso, Juan, 204
- Peru: internal oil consumption in, 89; oil exports from, 86, 88; oil fields in, 71, 73; policy toward foreign companies, 75, 76, 82; political turmoil in, 75, 76, 82; taxation system in, 75
- Peters, William, 27
- Peterson, Robert, 278, 293
- Petro Canada, 260, 262, 316
- petroleum conservation legislation, 130–31
- petroleum industry: Asian market, 305; boom and bust cycles, 249; era of optimism, 38; expansion of, 98–99, 250; global politics and, 251–52, 253; government regulations of, 124; marketing organizations, 158; military and, 93; new producers in, 250; price wars, 192–93, 194; reaction to climate change, 291–92, 295–96; system of transportation, 50; technological

changes and, 282; in the US and Canada, map of, 39; *See also* refining industry

Petrolia fields in Ontario, 12–13, 25–26, 55, 56, 143, 281–82

Petrolia-London pipeline, 42

Petro Peru, 88

Pew, J. Howard, 60, 218, 224

Phillips, Lazarus, 207, 210

Pierce, Frank W., 273

Pipe Line Act, 163

pipelines: construction of, 31–32, 161–62, 164, 165–67, 169; incidents at, 294; interprovincial, 164–66, 200; leaks of, 288–89; map of, 168; opposition to, 294, 295; technological changes and, 282; *See also* individual pipelines

pollution, 281, 284, 287, 288

Polymer Corporation, 177, 178, 181, 284

Pond, Peter, 117, 216

Port Arthur city, 165, 166

Portland-Montreal pipeline, 142, 155, 162

Practical Treatise on Petroleum, Coal and Other Distilled Oils, A (Gesner), 22

Pratt, Joseph, 6

Pratt, Wallace, 233

Pratt, William, 54

Premier Oil Company, 48

Project Plowshare, 218

Pulitzer, Joseph, 57

Pure Oil, 78

Q

Qaddafi, Muammar, 251

Queen City Oil Company, 51, 55

R

railways, 31, 32, 39–40

Rawl, Lawrence, 276, 292, 305, 306

Raymond, Lee, 255, 276, 278, 292, 293, 295, 305, 306

Redwater oil field, 11, 155, 163, 164, 182, 195

refining industry: centres of, 26–27, 29, 38, 66; competition in, 111; consolidation of, 26, 29, 34; expansion of, 63–64, 161; hazards of, 26, 33, 281–82; labour relations in, 108–10, 111–12; pollution emission, 281, 288; safety problems, 282; technological processes, 37–38, 97–98, 107, 133, 171, 175–76, 178–79

Regina-Gretna pipeline, 169

Restrictive Trade Practices Commission, 268, 269

Review of Environmental Protection Activities, 293

Reyes Prieto, Rafael, 78

Richfield Oil Company, 220, 225, 234

Ritchie, Ronald, 198

Robinson, C.O., 166

Rockefeller, John D., 12, 33, 38–39, 40–41, 57, 58, 297

Rockefeller, John D., Jr., 108–9, 166

Rockefeller Foundation, 108

Rogers, Henry H., 41, 58

Rogers, Samuel, 46, 47, 51, 55

Romanian oil fields, 185

Roosevelt, Theodore, 58

Ross, Victor, 92, 101, 105, 142

Royal Commission on Canada's Economic Prospects, 199

Royal Commission on Energy (Borden Commission), 200

Royal Commission on Taxation (Carter Commission), 208–11

Royal Commission on the Economic Union and Development Prospects for Canada, 268–69

Royal Dutch Shell: competitors of, 2, 13; early history of, 61; as international power, 93; oil sands exploration, 227; penetration into Canadian market, 14, 67, 101, 103, 120, 121, 300

Royalite Number 4 site, 124, 125

Royalite Oil Co.: acquisition of CPPL, 128; business operations in Alberta, 17, 125–26, 301; business strategy, 130;

capitalization of, 123; management of, 123; natural gas production, 124; oil exploration, 124, 157; shareholders of, 126; stock market, 124, 126, 157; wastage of natural gas by, 127

Royalite tank wagon, 47

Royal Oil Co., 47

Russia's oil diplomacy, 255

S

Sadler, Everitt, 14

Saint Clair Processing Corporation, 134, 177–78, 207

Saint Clair River clean up, 283, 284

St. Clair River Research Committee, 284

Samuel, Marcus, 49, 61, 93

Sarnia refinery: Bushnell's acquisition of, 51; expansion of, 63; Joint Industrial Council at, 110; net earnings, 66; oil supply for, 85; photograph of, 55; processing capacity, 107, 164, 169; union organizations at, 109

Saudi Arabia, 94, 252–53

Scott, Thomas, 39, 40

Second World War: Canada's role in, 132; Japan in, 133–34, 136; oil industry during, 132–33, 134

shale revolution, 254

Sharp, Mitchell, 209, 210

Shelford, Cyril, 198

Shell Canada, 61, 186, 227, 232, 243, 265, 277, 284, 316

Shell Transport Company, 49, 50, 61, 93

Sierra Club, 240

Silent Spring (Carson), 285

Silver Star refinery, 32, 34, 42

Sinclair Oil, 78, 99, 234

Sise, Charles, 34

Smallwood, Joey, 235

Smallwood, Thomas, 35

Smith, G. Harrison: career, 68, 74, 80, 83, 92, 99, 106, 273; photograph, 84; retirement, 105, 141

Smythe, Conn, 190

Social Credit party, 129, 130, 152, 203, 225

Solar Refining Company, 45

Somervell, Brehon, 136, 137, 138, 139

Sonneborn, Carrie, 32

Sonneborn, Jonas, 30

Sonneborn, Solomon, 28, 30

Southern Lowery Oils, 126

South Improvement Company, 40

Southwest Petroleum, 126

Spencer, William, 26, 27, 31, 43

Spindletop oil strike, 60

Spragins, Frank, 224, 225

Sproule, John C., 232, 233

Squires, Richard, 105

SS *Arrow* disaster, 285, 286, 286–87

Standard Development Company, 98

Standard-IG Company, 174

Standard of Indiana, 95

Standard Oil Company: acquisitions, 51–52, 61; affiliates, 57; board of directors, 54; business alliances, 41; in Canadian market, 47, 50, 104; Colombian investments, 78–79; competitors, 61, 299; dissolution of, 49, 59; domestic problems, 48–49; expansion of, 33, 40, 95–96; formation of, 6, 297; gasoline production, 99–101; investigations of, 49; as joint stock company, 40; labour relations, 107; lawsuits against, 57, 58–59; lobbyist efforts, 50; management of, 41–42; press coverage of activities of, 57–58; relations with Imperial Oil, 4–5, 13, 95, 106; reorganization of, 2, 57, 299; research operations, 45, 172; *See also* Exxon Corporation; Exxon Mobil; Jersey Standard

Standard Oil Development Co., 171, 172, 174

Standard Oil of California, 231

Standard Oil of Louisiana, 95, 301

Standard Oil of New Jersey. *See* Jersey Standard

Standard Oil of New York, 59, 60, 299

Standard Oil Trust, 34, 41, 42

State of Competition in the Canadian Petroleum Industry, The (report), 267
 steam assisted gravity drainage (SAGD) process, 231
 Stefansson, Vilhjalmur, 136
 Stelco, 163
 Sterling Pacific Co., 126
 Stewart, Charles, 124
 Stewart, George, B., 157, 160
 Stillman, Charles, 54, 63, 81, 85, 86, 98, 106, 110, 122
 St. Laurent, Louis Stephen, 200
 Stratford, Richard K., 98, 172, 173
 Strathcona refinery, 161, 272
 strikes, 108–10, 111, 115
 styrene production, 177
 subsidiary companies, 3–4
 Suncor, 186, 227
 Sun Oil, 143, 185–86, 218, 224
 Supertest Petroleum, 158
 Syncrude consortium, 2, 224–25, 226, 227, 265, 289
 synthetic fuel development, 94, 144
 synthetic rubber industry, 174, 175–76

T

Tanner, Nathan, 9, 11, 130, 195, 218
 Tapley, J.L., 215
 Tarbell, Ida M., 58
 tar sands. *See* oil sands
 Taylor, Charles, 120, 121, 122
 Taylor, Vernon, 11, 149, 224
 Taylor, Walker, 9, 11
 Teagle, Walter Clark: Achnacarry meeting, 95; attitude toward minority shareholders, 64–65; business strategy, 300; career, 6, 60, 61–62, 63, 67–68, 74, 84; connection to Canada, 92; critique of Imperial Oil Company, 141; education, 61; interests in Alberta oil, 119; labour relations, 64, 65, 107, 109; photograph, 62; as president of Jersey Standard, 91, 92, 94, 96; reorganization of Imperial Oil by, 13, 14; resignation from the Imperial board, 67–68; search for new oil sources, 66–67; South American investments, 71–72, 78, 79, 93
 Teamsters union, 115
 Texaco, 103, 151, 161, 169, 180
 Texaco Canada, 5, 115, 186, 187, 265, 277–78, 316
 Texas Company, 99
 Texas Fuel Co., 60
 Texas Railroad Commission, 94
 thermal cracking technology, 1, 94, 98, 107, 171, 282, 300
 Thompson, Malcolm, 119
 Three Rivers Oil & Gas, 103
 Tiedje, John, 179
 Tillerson, Rex, 254, 292, 306
 Tod, Jim, 284
 Toronto-Montreal pipeline, 258
Torrey Canyon (tanker), 285
 trade union movement, 107, 109, 115
 Trans Alaska Pipeline, 236, 239, 240
 Trans-Arab Pipeline (Tapline), 167
 Trans-Canada Pipeline, 202, 243, 302
 Trans Canada Pipeline Co., 199–200
 Transit & Storage Company, 162
 Trans Mountain Pipeline, 169, 197, 236, 264, 294
 Trees, Joe, 76, 78, 80–81
 Tripp, Charles, 23
 Tripp, Henry, 23
 Tropical Oil, 76, 80, 88
 Trudeau, Charley, 330n12
 Trudeau, Pierre, 225, 240, 242, 257, 258–59, 261
 Truman, Harry, 140, 160
 Trump, Donald, 291
 Tulsa consulting company, 164, 167
 Turner Valley: decline of, 143; discovery of gas in, 301; oil exploration in, 1, 123–25, 126, 129; oil rig workers in, 125; wildcat drilling operations, 201
 Turner Valley Gas Conservation Board, 129

Turner Valley Royalties, 103, 129
Twaits, Bill: career, 187; on government tax policy, 206, 208, 210, 211; meetings with government officials, 197, 201; personality, 197; photograph, 188; public relations, 190

U

Ultramar, 185
Union Oil Company of California, 101, 113, 285
Union Oil of Canada, 143
United Farmers of Alberta (UFA), 123–24, 127, 129
United States: antitrust legislation, 49, 58, 74, 299; “Big Stick” diplomacy, 75, 300; Clean Air Act, 287, 288; corporate income tax, 72; depression in, 49; economic policy, 257; foreign affairs, 78–79, 257, 300; foreign investments in, 298; Mandatory Oil Import Program, 202, 203; oil industry, 30, 205, 251, 300; Oil Pollution Act, 282; Panamanian “revolution” and, 78; real-estate bubble, 253; strategic petroleum reserve, 233; Trans Alaska Pipeline Act, 236–37; Wagner Act, 116; Webb-Pomerene Act, 92
Urrutia, Carlos, 79
Urrutia-Thomson Treaty, 79, 80
US Atomic Energy Commission, 220
US-Canada relations, 160, 299, 302
US Environmental Protection Agency, 291

V

Vacuum Oil Company, 42
Venezuela’s oil industry, 82, 204–5
Victor refinery, 34, 42
Viking-Kinsella field, 120, 144
Visser, Charlie, 284
Voluntary Oil Import Program, 202

W

Walker, John, 35, 36
wars and revolutions: impact on oil market, 252, 253, 278
Waterman, Herman, 29, 35
Waterman, Isaac, 29, 35, 36
Wealth against Commonwealth (Lloyd), 49
Weeks, L.G., 144, 273–74
welfare capitalism, 109
Western Select Crude (WSC), 256
West Texas Intermediate (WTI) light crude, 256
whale oil: utilitarian use of, 21–22
White, Edward D., 59
White, Frederick, 51
White, Jack, 181, 270
White, John R., 163, 274
White, T.H., 72
Whitehorse refinery, 15, 16, 137, 138–39, 140, 161
White Paper on Carter Commission recommendation, 209, 210, 211
Wilhelm, Robert, 278
Williams, Charles James, 36
Williams, James Miller, 23, 24, 26, 36
Williamson, Archibald, 71
Wilson, Woodrow, 72, 79
Winnipeg General Strike, 107
Woods, Darren, 307
W.W. Barnes, 161

Y

Yost, Raymond, 119
Young, James, 22, 23
Yukon geological surveys, 231

Graham Taylor's history of Imperial Oil is a triumph.

— MIRA WILKINS, Emeritus Professor of Economics, Florida International University

This authoritative historical study of one of Canada's largest companies provides a compelling contribution to the sparse literature on the relationships between affiliates and parents within large multinationals. Taylor expertly brings out the nuance and evolving nature of Imperial's relationship with its parent Exxon, and delivers a study of significance for all students of the global enterprise.

— GEOFFREY JONES, Isidor Straus Professor of Business History, Harvard Business School

Graham Taylor's broad ranging history of the most important corporate player in the development of the petroleum industry in Canada makes a groundbreaking contribution, not only to the existing literature on the vital oil and gas sector, but also to the broader fields of Canadian business and economic history.

— DAVID BREEN, Emeritus Professor, Department of History, University of British Columbia

For over 130 years, Imperial Oil dominated Canada's oil industry. Their 1947 discovery of crude oil in Leduc, Alberta transformed the industry and the country. But from 1899 onwards, two-thirds of the company was owned by an American giant, making Imperial Oil one of the largest foreign-controlled multinationals in Canada.

Imperial Standard is the first full-scale history of Imperial Oil. It illuminates Imperial's longstanding connections to Standard Oil of New Jersey, also known as Exxon Mobil. Although this relationship was often beneficial to Imperial, allowing them access to technology and capital, it also came at a cost, causing Imperial to be assailed as the embodiment of foreign control of Canada's natural resources.

Graham D. Taylor draws on an extensive collection of primary sources to explore the complex relationship between the two companies. This groundbreaking history provides unprecedented insight into one of Canada's most influential oil companies as it has grown and evolved with the industry itself.

GRAHAM D. TAYLOR is Professor Emeritus in the Department of History at Trent University. He is the author of *Du Pont and the International Chemical Industry* and *The Rise of Canadian Business*, and winner of the 2015 Petroleum History Society Best Article Prize.



UNIVERSITY OF CALGARY
Press

press.ucalgary.ca