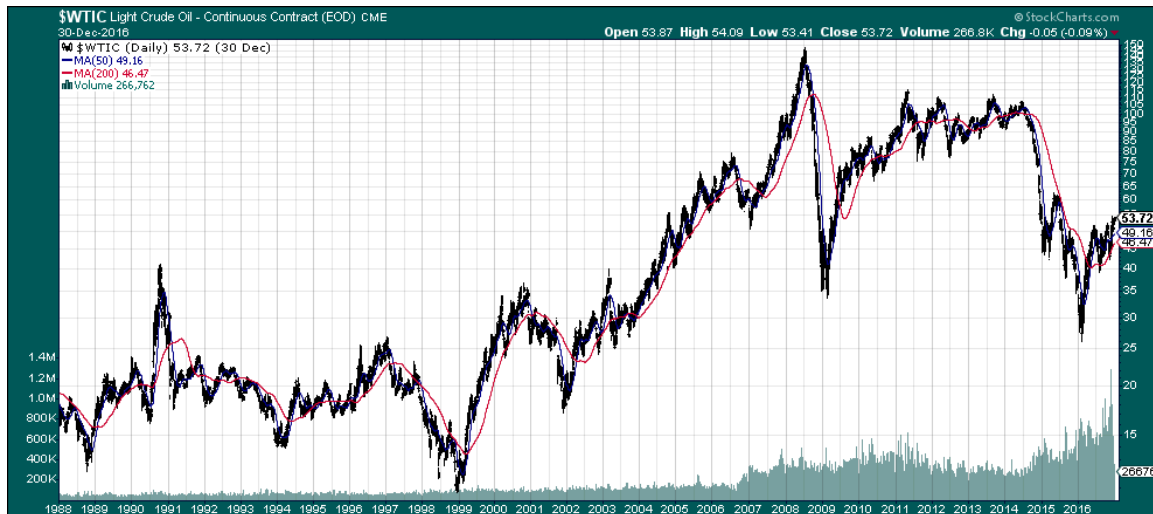


A Tale of Two Leaders

Sir John Browne and Bill McCaffrey



Cover Slide: Oil Prices, 1988 – 2018

Good afternoon, and thank you for inviting me to speak.

To begin, here's a slide of the oil price rollercoaster over the last 40 years. The year the chart begins in 1988, when prices were about US\$17. In 1998-9 prices cratered again, and BP took the opportunity to acquire Amoco. The chart also shows that prices touched US\$140 in 2008 and collapsed the following year.

I worked for Amoco for about a year and a half as a contractor, working in public relations. The company was celebrating its 50th year in Canada, and I proposed a company history to Vince Rodych, who was then vice president of Public Affairs.

I wrote the book, and Amoco Canada employees celebrated the company's semi-centennial with different events throughout the organization. We had an official launch of the book at the Glenbow. Later, most Calgary staff got together at the Stampede grounds.

The irony of that event is that it commemorated Amoco Canada's first and last fifty years. BP's Sir John Browne attended the formal book launch, which took place at the Glenbow, and told me that history was one of his favourite subjects. He was charming and supportive. But he had come to Canada to announce that BP was taking the company over.

Aftermath

Today I want to talk about the intermediate aftermath of those times – in particular in relation to the oil sands, which is the subject of my latest book. The idea of writing that history came from the Oil Sands Oral History project, conducted by the Petroleum History Society a year or so before I began writing. Half a dozen journalists and historians

conducted those interviews. Together, we interviewed 117 men and women who in many ways were the industry's pioneers.

We are fortunate to have been able to capture the stories of such notables as Peter Lougheed and Suncor's Rick George, both of whom I interviewed, and both of whom have since passed away. These interviews now reside in the Glenbow archives.

The leaders who ultimately enabled the oil sands to flourish have represented business, science and government. Of particular significance, in recent decades many players have emerged from anonymity in the petroleum industry to create substantial oil sands businesses.

To appreciate the importance of these developments, consider the interlocking stories of BP and Amoco on the one hand, and Bill McCaffrey's MEG Energy on the other. Let me start with BP Amoco, beginning with a few comments about Sir John Browne, whom I am sure you remember.

Sir John Browne

John Browne rose to the top at BP as a relatively young man. He received a knighthood in 1998 and a life peerage in 2001. In his memoirs, he said almost nothing about Canada – only that in the late 1970s he got an assignment here to investigate opportunities in the oil sands.

Specifically, he looked at BP's test project at Wolf Lake. His conclusion? The oil sands were "too inefficient" to produce. "It was a viewpoint I continued to hold, for economic and environmental reasons, during the rest of my time at BP," he said. As Browne rose through the ranks, he sold BP's oil sands operations as soon as he could. In the end, the company's Wolf Lake property went to Amoco Canada for a nominal fee.

In 1992, British Petroleum sold off its 57% stake in BP Canada (upstream operations). BP Canada became Talisman Energy.

The slide shows three events in the BP/Amoco story. The first is Amoco's 1988 takeover of Dome. At the time, it was the biggest acquisition in Canadian history. I've also indicated BP's takeover of Amoco. I've also noted the 2010 Deepwater Horizon blowout. I won't say anything more about that, although the arrow shows the huge volume of BP Amoco shares traded during that crisis. John Browne's view about the oil sands profoundly affected Canadian operations after the merger.



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Amoco Canada as oil sands pioneer

Amoco had tested many approaches to oil sands production. For example, in 1958, the company had begun a pilot project near Fort McMurray at Gregoire Lake – one of the early experiments with *in-situ* production. Partly as a result of this work, Amoco patented a production process that used the "combination of forward combustion and waterflood." This was quite an advanced technology for its time.

The air would keep the fire burning and the resulting heat would increase the reservoir formation's temperature to 93° C. When the formation reached these temperatures, operators injected water into the reservoir. This produced a complex set of forces that drove the hot, fluid oil into production wells.

Early results were promising. Amoco's 1968 annual report said the company had applied for approval to expand production rates to 8,000 barrels per day. In addition, said the report, "We contemplate expanding the project to about 60,000 barrels of oil per day after improving the production technique further." One of the first modern *in-situ* pilot plants in Canada, the project did not reach those levels of production, but it was an important source of technological innovation.

Amoco Canada's first commercial heavy oil production came from the Elk Point project near Lloydminster, on the Alberta/Saskatchewan border. This reservoir is a source of conventional heavy oil, since it is light enough to flow to the wellbore without in-situ production techniques. Begun as a primary heavy oil facility in 1984 (when production was selling for \$33.50 per barrel,) the plant closed down briefly in 1986 when its heavy oil fetched as little as \$6.36 per barrel – less than a third of the project's operating costs.

The Elk Point properties were 100 per cent Amoco owned. Through the Dome acquisition of 1988, Amoco acquired an additional 140 sections of land at nearby Lindbergh. The following year the company experimented unsuccessfully with steam flood – part of an effort throughout the petroleum industry to bring costs down in the wake of the previous year's oil price crash. Companies had to shift their thinking on the economics of heavy oil recovery. Primary production rather than thermal recovery became the goal.

Then field engineers and operators noticed that the more sand that came out with oil produced through primary recovery, the greater the oil production. The next step was stunningly simple: Operators removed sand control screens from the wells and otherwise modified the production system. Strange concepts such as "foamy oil" and "wormholes" explained the otherwise impossible (with traditional fluid flow concepts) producing rates and recovery factors that resulted from this change. This and other process changes enabled the company to take production from 2,140 barrels per day in 1988 to 4,500 barrels per day in 1991. More importantly, production costs declined to only \$5.56 per barrel – a 73 per cent reduction.

The Age of Supermajors

But change was in the wind, with the biggest oil companies getting much bigger through mergers. The years 1998 to 2002 were a period of consolidation, with the world's major oil companies combining to form six "super-majors," as they were then called.

Sir John was the first off the mark. With cooperation from Amoco's chairman, Larry Fuller, he engineered BP's \$110 billion take-over of Amoco. In its day, it was the biggest industrial merger of all time. The following year, BP acquired ARCO – a descendent of Richfield Corporation, whose 1975 departure from the Syncrude consortium triggered a crisis – in a separate, \$26.8 billion deal.

“What appealed to us was that Amoco was very much a US business and it would give us access to great US refining and marketing operations and US natural gas production,” he said. He was not interested in the company’s oil sands assets.

His takeover of Amoco started a stampede. Exxon merged with Mobil to form ExxonMobil. French major Total absorbed Elf-Aquitaine, and then took over Belgium’s Petrofina to create a European giant. Chevron and Texaco merged, also consuming Gulf Oil – a company I once worked for. The final union came when Conoco and Phillips joined forces. Shell, on the other hand, continued to focus mostly on organic growth.

The purpose of these mergers was to create companies with complementary geographic and strategic assets. During John Brown’s term as chair and CEO, BP became the world’s second-largest non-state oil company . Today it is the largest. Only Chevron Corporation, ExxonMobil Corporation and Royal Dutch Shell are close in size.

MEG Energy

“The deal will place it in the top three of international oil producers, but 6,000 people worldwide will lose their jobs as a result,” wrote the BBC about the acquisition.

No one could have predicted the impact these deals would have on human lives, of course, but neither could anyone have imagined the impact they would have on the petroleum industry itself. If not for the BP acquisition, Amoco might have become a leader in oil sands development. But because of John Browne’s skepticism in respect to the oil sands, Amoco did not become a leader in the business.

Bill McCaffrey did, however. He was one of many corporate employees who received severance packages as they were walked out the door.

A 16-year Amoco veteran and an engineer by training, the layoffs didn’t faze him. After getting his package he joined with two friends to form McCaffrey Energy Group – it later became MEG Energy – which had market capitalization of more than \$8 billion within ten years. Unlike BP, however, it began as an oil sands company and remained in the upstream. That left the company totally exposed to commodity prices.

McCaffrey had joined Amoco straight out of university, and the new University of Alberta graduate went through a typical training progression. “I started off as a facility engineer, then a production engineer, then an operations engineer,” he told me.

I became a reservoir engineer over time. I was involved with developing technologies that would advance the oil sands – specifically Primrose. It had been using cyclic steam in those areas before and my job as a reservoir engineer was to find something that would work, that would be economic. After developing that technology I was in charge of actually developing the fields.... And for a period of about three years we were drilling horizontal wells day in, day out, non-stop in the Air Weapons Range. We had perhaps two hundred horizontal wells. What that taught us is that you could drill wells horizontally from surface in a commercially viable way and ... could count on the production from it.

McCaffrey had been at Amoco during “D-Day” – corporate slang for September 1, 1988, when the company formally acquired Dome Petroleum for \$5.8 billion – at the time, the largest cash acquisition in Canadian history. The merger was “a pivot point” for Amoco, McCaffrey told me. For one thing, there were two Dome employees for every one employee from Amoco, so there was a change in corporate culture.

“Amoco had been a fairly rigid company; Dome was more entrepreneurial, had been pursuing the oil sands and had a portfolio of [assets] that was truly great. Primrose was a major project. At one point I was responsible for the commercial development of up to 80 billion barrels of bitumen,” he said. “That’s a massive number on any scale, but it was a prize that came to Amoco as a result of that merger.” In the beginning, he said, “the company had no appreciation for the sheer magnitude of what they had acquired with Dome....”

“There were other properties,” he said. “We acquired Wolf Lake for a dollar from Petro-Canada and BP,” and that gave the company a production facility the company could tie into Primrose. “It spawned development of the property that Canadian Natural Resources has today.” He described other properties that came with the deal. There was one “called Mic Mac which is now Canadian Natural’s Horizon. There was Kirby and that’s now in partnership between BP and Devon.” Dome assets at Gregoire Lake became part of the OPTI/Nexen Long Lake project. “Burnt Lake, which is in the Air Weapons Range, was later owned by Suncor and now by CNRL. It was one of those unique points in time where you had that kind of size of resource being identified and Amoco had control of it all, they had one hundred per cent, except for the Burnt Lake stuff.”

McCaffrey was also one of the project engineers involved with the Underground Test Facility, “working worked shoulder-to-shoulder to advance a technology that had been developed by Roger Butler. This is a great technology and it forms the basis of the majority of the in-situ technology used in the province today,” he said. Even though Amoco had all these assets and this experience in the oil sands, however, when BP took the company over, the new management dropped them.

The reason, according to McCaffrey, was at the top of the organization. Chairman and CEO John Browne’s earliest experience with the oil sands had been as a junior reservoir engineer at Wolf Lake, which was not a high quality reservoir. “He came to dislike the oil sands, and believed that it wasn’t something that you should have in your business. We all make our decisions from our experiences, and his experience was with old technology and a lower-quality reservoir. That’s what shaped his thinking. After the BP-Amoco merger, he decided to divest. It didn’t fit into his strategic model. There are different thoughts and different strategies and at that time, for Sir John, it didn’t fit into the BP portfolio.”

McCaffrey left Amoco at the end of 1998, and within months world oil prices were about ten dollars a barrel. On St. Patrick’s Day he set up a company; “I’m Irish,” he said, “so that’s a good thing.” He had told his wife Janice that he was going to do something “crazy:” buy “swampland” and start a company.

He asked, "Are you okay with this?" She said, "Go for it."

McCaffrey, his brother-in-law Steve Turner and Vancouver-based entrepreneur Dave Wizinsky put \$100,000 each into the company. McCaffrey then bought nine sections at Christina Lake for \$150,000. "There was about a billion barrels in place at the time and we were able to compete with the industry," which generally believed oil prices were going to stay in the \$10 per barrel range for a long time. "Who cares about oil sands?" was the prevailing sentiment. For the oil in place on that property, about 1 billion barrels, they paid roughly 1.5 cents per barrel.

For the first four years of operations, McCaffrey Energy Group focused on quietly acquiring oil sands leases; the company gave little thought to actually building an oil sands operation. The conventional wisdom at the time was that only a super-major could have the resources to do so. But McCaffrey became intrigued by the idea of doing so himself. "To me, you really needed three things: quality assets, people with experience and quality investors. And if you could put those three legs of the stool together you could compete favourably with the majors." The first two legs were in place, but he needed investors.

For a while, McCaffrey walked around the streets of Calgary looking for investors – "anybody who would put in money." It was a time-consuming process, because most people were only investing, say, \$25,000. But in 2004 McCaffrey came upon a New York-based investment group called Warburg Pincus – "a class, class organization. They're private equity. They have a long-term value-focused orientation and they bet on the people. So when they invest they go through every detail about you, they dig up information about you, but because they're going to count on you I think that's fair."

After Warburg Pincus, he was able to find investors like Toronto-based Wellington Financial, Chinese insurance companies and pension funds, and endowments and sovereign wealth funds. "From 2004 to maybe even the end of 2009, the company was able to bring in thirty blue chip investors. We were able to raise more money privately [\$3.2 billion] than any other company in any industry in the world ever. That's a huge statement but it has been backed by five different banks. They have done the research and they cannot find another one like that." He added, "All money is not equal. We could only deliver a product that we thought would have enormous value over time, but it did take time. You needed to make sure that the dollars that you were going to bring in were well aligned with what you could deliver."

Raising money became an obsession, and he found himself doing enormous amounts of travelling because "in the private equity in the world you do one-on-ones. You sit down in meetings of three or four people and you just tell your story and you work with them to understand it. We were doing laps of the Earth. We got it down where you could go around the earth in five days. Three nights sleep, two in airplanes, on top of that you get three continents. When you leave, you go east. You come back from the west five days later." McCaffrey lived up to his promises, and production from the company continued to grow. In 2013 MEG produced, on average, 35,317 barrels per day. That represented a 23 per cent increase over the previous year.

In that year, the company was testing a refinement on SAGD, which it called “enhanced modified steam and gas push.” At its Christina Lake operation, MEG drilled two infill wells and injected non-condensable gas with steam between three well pairs in early stages of production – a technique normally applied in late phases of SAGD production. The technology lowered steam rates by 30 per cent without decreasing production.

Conclusion

My final chart shows MEG Energy’s share price since the company’s listing on the TSE. Initially, the shares did well. For the last few years, though, they’ve done poorly – in sharp contrast to BP Amoco’s performance.

Calgarians are well aware why this happened. The chart shows that the lack of pipeline and tidewater access to export markets, combined with the highly profitable crude oil that Americans are accessing through fracking, caught the industry off guard.

Four years ago, MEG shares were more than \$50 each. Today they are less than one-tenth that price.

To sum up, BP has been so successful because of its vertical integration and its access to global resources and markets. MEG has suffered because its operations are all in the vulnerable Western Canada Sedimentary Basin.



Slide #3