



Imperial Oil

Edmonton CFA Society Conference Investing in Alberta's Oil Sands

Imperial Oil – A Leader in Thermal In-situ Production

E.L. (Eddie) Lui

**Vice-president, Oil Sands Development and Research
Resources Division
Imperial Oil Limited
June 8, 2006**

Good morning. I'd like to thank the Edmonton Society of Financial Analysts for the opportunity to speak to you today and to share with you Imperial Oil's current development and future opportunities for thermal in-situ oil sands production.

Cautionary Statement

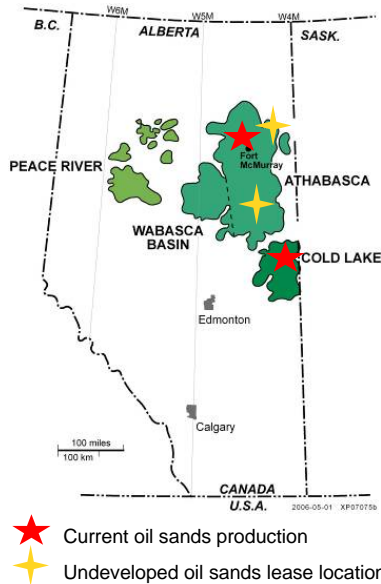
This presentation contains forward-looking information on future production, project start-ups and future capital spending. Actual results could differ materially due to changes in project schedules, operating performance, demand for oil and gas, commercial negotiations or other technical and economic factors.

Oil-equivalent barrels (OEB) may be misleading, particularly if used in isolation. An OEB conversion ratio of 6,000 cubic feet to one barrel is based on an energy-equivalency conversion method primarily applicable at the burner tip and does not represent a value equivalency at the well head.

Slide 2

Before we begin, I want to remind you that the presentation this morning contains forward-looking information and actual results could be different as a result of many factors -- which are noted on this slide.

Significant Oil Sands Position



- Active in the oil sands since early 1960's
- Premier lease position and quality resource

	Oil Sands Land Holdings (K acres, net)	Oil Sands Non-proved Resource (GB)
In situ	361	3
Mining	104	7
Total	465	10

Slide 3

Imperial's oil sands assets are enormous in size and scope, and offer long-term growth opportunities for the company.

We have been a pioneer in the development of Canada's vast oil sands resources since the early 60's -- in both in-situ and mining projects.

This map shows the three major oil sands deposits and shows our position in both current oil sands production (red symbols) and in undeveloped oil sands leases (gold symbols).

Imperial holds about 465,000 acres of oil sands leases including Cold Lake -- the largest in-situ oil sands operation in the world and the premier in-situ project in Canada. This asset is wholly owned and operated by Imperial.

Imperial also has extensive oil sands interests which are currently undeveloped -- mostly in the Athabasca area of Alberta. The gold star northeast of Fort McMurray represents the Kearl leases on which we propose to develop a 300,000 barrel a day mining project with ExxonMobil Canada.

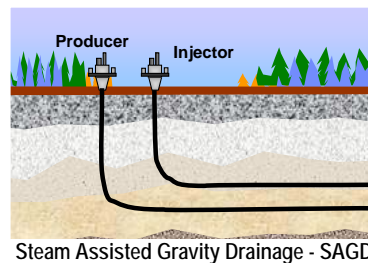
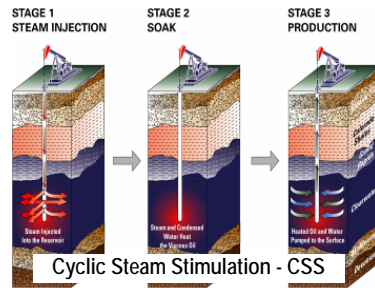
The gold star to the southeast of Fort McMurray represents a number of leases which we are evaluating for development using in-situ methods.

My comments today will focus on our current in-situ operations and development at Cold Lake, but first I'd like to address some of the common misconceptions regarding thermal in-situ production methods.

CSS vs SAGD – The Facts

Resource determines technology

- **Cyclic Steam Stimulation (CSS):**
 - not possible in shallow reservoirs without capping shale
 - more effective in wider range of reservoir qualities
- **Steam-Assisted Gravity Drainage (SAGD):**
 - requires “cleaner” reservoir with high bitumen saturation
 - may be more effective for reservoirs with top gas or bottom water



Slide 4

In-situ production of the oil sands is made possible through two main thermal recovery methods -- cyclic steam stimulation (or "CSS") and steam assisted gravity drainage ("SAGD") -- both developed and patented by Imperial Oil.

The two drawings on the bottom of this slide show the main characteristics of the two processes:

- CSS (shown in the bottom left) is a three-stage process in which high-pressure "wet" steam (steam which includes both vapour and hot water) is injected into the reservoir (stage 1), allowed to soak (stage 2) and then produced (stage 3) -- all from the same wellbore. This cycle is repeated many times (upwards of 15 cycles) with the same well.
- SAGD (shown in the bottom right) is a continuous process using two horizontal wells drilled about five metres (15 feet) apart. "Dry" steam is injected via the top (injector) well, and bitumen is produced from the bottom (production) well. If "wet" steam were to be used for SAGD, the hot water left in the steam would fall via gravity directly to the lower production well, and impact the efficiency and effectiveness of the process.

There are some common misconceptions about CSS versus SAGD -- and I'd like to address some of these misconceptions.

First and foremost, resource determines the recovery process used -- it is critical to match the recovery process to the unique characteristics of the reservoir.

CSS is not a viable alternative for shallow reservoirs that don't have a thick capping shale to manage the high steam injection pressure. But, the high injection pressure and multiple recovery mechanisms enable CSS to work effectively with a broader range of reservoir quality.

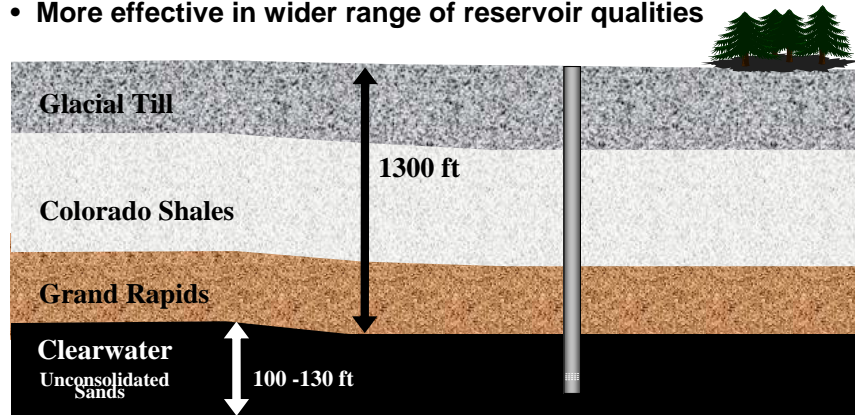
For SAGD, the relatively lower steam injection pressure and continuous nature of the process requires cleaner reservoirs with higher bitumen saturation to be effective. But, SAGD has the potential to develop an oil sands resource that is in contact with extensive top gas or bottom water zones, with the steam chamber pressure being maintained in balance with the pressure of the top gas or bottom water. Over the next few years field data from several competitor SAGD projects will clarify this potential.

CSS and SAGD have been tested in different oil sands basins in Alberta. In Cold Lake and Peace River where the reservoirs are deeper, CSS has clearly been demonstrated to be superior to SAGD. And over the years, we have observed operators in both of these areas converting from low pressure processes to high pressure CSS.

In the Athabasca area, where the oil sands deposit is shallower and the absence of a capping formation, SAGD is the only viable in-situ thermal recovery alternative.

Cold Lake Reservoir Allows for CSS

- CSS – high pressure, high rate
- Multiple recovery mechanisms (re-compaction drive, solution gas drive and gravity drainage)
- More effective in wider range of reservoir qualities



Slide 5

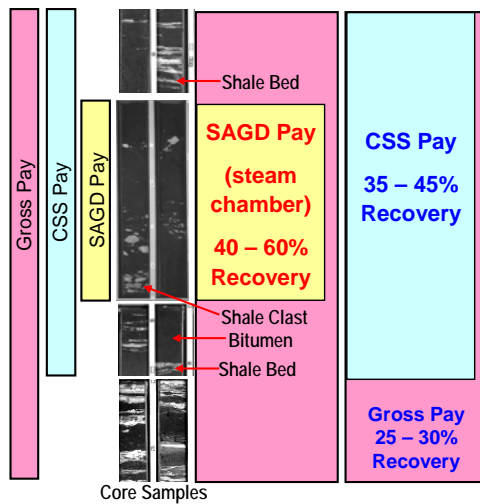
The schematic on this slide shows the reservoir we produce from at Cold Lake -- the Clearwater formation -- shown in black in the picture. Sitting above the Grand Rapids formation (shown in brown) is the "capping shale" barrier that I referenced, which is critical to our ability to use the high pressure CSS process.

The high injection pressure, above horizontal fracture pressure, facilitates three main drive mechanisms:

- Re-compaction drive -- the high pressure steam used literally lifts up the upper formations. Once the steam cycle is finished the re-compaction or settling of the ground pushes bitumen back toward the wellbore enhancing production.
- Solution gas drive -- as the reservoir pressure declines during the production phase, natural gas dissolved in the bitumen expands, pushing additional bitumen toward the wellbore; and
- Gravity drainage.

Together, these recovery mechanisms make CSS a more robust recovery method across a wider range of reservoirs with differing quality, and allow for recovery of bitumen from a larger resource base. Let me illustrate this further using the next chart.

CSS vs SAGD – Common Bases



- Recovery rates based on different target “pay”
 - SAGD recovery relative to steam chamber only
 - CSS recovery relative to larger portion of target reservoir
- Same amount of natural gas/bbl bitumen used
 - SOR* same for SAGD and CSS

SAGD	
- dry steam SOR:	2.5 - 3
- bbl wet steam/bbl dry:	$\times 1.3$
- wet steam SOR:	3 - 4
CSS	
- wet steam SOR:	3 - 4

*Steam-to-oil ratio

Slide 6

The two black columns in the middle of the diagram are actual oil sands core. Bitumen is present all through these cores but the more continuous thick black area is the best "pay". The lighter colourations in the sample show shale layers -- barriers that impede the flow of steam and ultimately bitumen produced.

SAGD targets the thickest, best-quality portion of a reservoir to create its steam chamber (shown as the yellow rectangle) and recovery rates are quoted relative to this small area -- typically in the order of approximately 50 percent.

For CSS, the high-pressure steam can fracture through thin shale layers and thus contact more bitumen resource -- in this example, resources shown in the blue rectangle. In the portion of the reservoir being targeted by CSS, typical recovery rates are about 35 to 45 percent. This translates to a recovery rate of 25 to 30 percent of the gross pay -- the entire bitumen bearing zone, which is the basis Imperial reports its recovery rates. In our mind, a more meaningful measure of the true efficiency of a recovery process.

For a similar quality resource and on a consistent basis, recovery rate for SAGD and CSS would be very similar.

The other misconception that I want to address relates to energy use.

Pacesetter CSS and SAGD operations use about the same amount of natural gas to produce a barrel of bitumen. This statement is not obvious from a comparison of steam-to-oil ratios (or SOR's) for CSS and SAGD. The difference is that the quality -- or heat content -- of the steam injected in CSS is different than SAGD.

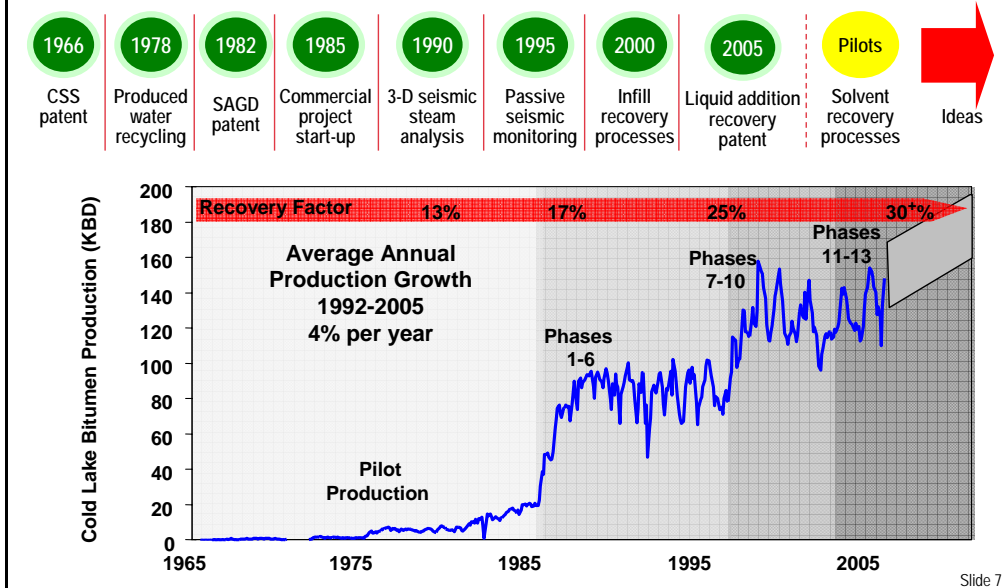
Most CSS and SAGD projects generate steam using once-through steam generators. The steam produced in these generators is typically 75 percent steam vapor and 25 percent hot water.

- For reasons I mentioned earlier, the hot water from the steam has to be removed before injection into the reservoir for SAGD operation. The heat from the hot water is recovered in the plant -- reducing the amount of natural gas that a SAGD producer needs to purchase.
- For CSS, both the steam vapor and hot water -- also called "wet steam" are injected into the reservoir.

It takes about 1.3 barrels of wet steam to create 1 barrel of dry steam -- or put in another way, it takes about 30 percent more natural gas to create 1 barrel of dry steam. So to compare steam-to-oil ratios (SOR) for SAGD and CSS, SAGD SOR's needs to be increased by about 30 percent to put the comparison on a common energy basis.

Now I'd like to tell you about our in-situ operation at Cold Lake.

Cold Lake – Technology in Action



Imperial has been a leader in the development of much of the technology that has underpinned the commercial development of Canada's vast oil sands resource.

The circles at the top of this chart highlight the numerous technology advances that we have made at Cold Lake since the 1960's. Imperial invested over \$250 million on research and technology development before the start-up of the Cold Lake commercial project in 1985. As I mentioned before, Imperial invented and held patents on both cyclic steam stimulation (CSS) and steam assisted gravity drainage (SAGD). This sustained commitment to development of technology is a unique competitive advantage for Imperial Oil.

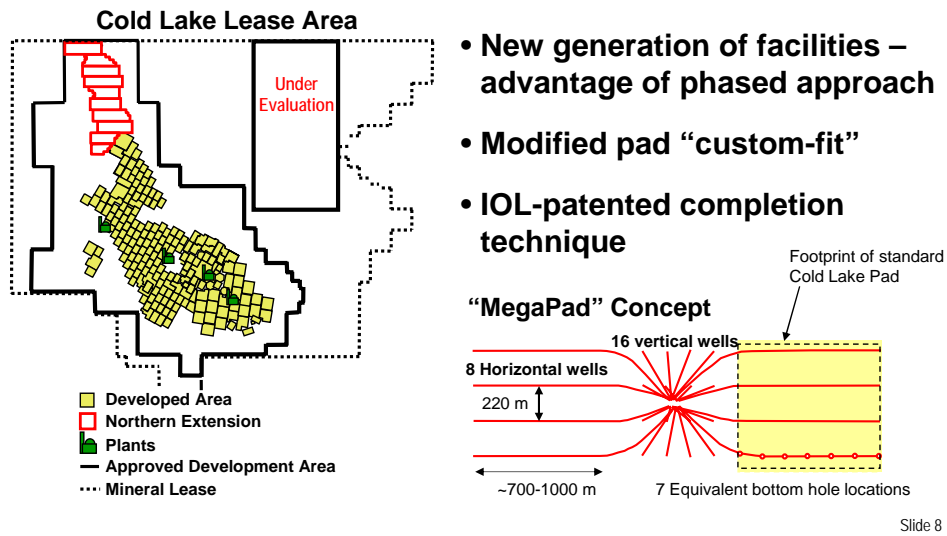
Our ongoing commitment to technology is unwavering. Our most recent invention late last year was a patented process to enhance CSS recovery through the addition of a small amount of diluent with the steam. We have piloted this since 2002. Results are encouraging and we have plans for larger-scale implementation later this year. This technology will further increase recovery in areas already developed, using existing wells, facilities and infrastructure.

As you can see from the graph on the bottom of this slide, bitumen production at Cold Lake has increased significantly since our first pilots in the 1960s, to our current production level of over 150,000 barrels per day. We have taken a deliberate, phased approach to developing this high-quality asset -- bringing production on in stages to incorporate advances in technology into new production phases.

Across the top of the graph in red, I have listed the changes in bitumen recovery factor over the last 20 years. The increase from 13 to 30+ percent is a direct result of our continued focus in research and technology development and our growing expertise in thermal operations.

Cold Lake – Current Development

Near term development focused on northern extension



Looking forward ... near term development at Cold Lake is focused on developing the "northern extension" of our approved development area.

The Cold Lake lease area (shown as the dashed black line on the map) is about 300 square miles. The approved development area shown as the solid black line is about 140 square miles and we are currently active in about half of that.

Our efforts to the end of the decade are to develop the area shown in red, one of the new areas which we received regulatory approval for in 2004. Over the next five years, we plan to develop 10 new pads in this area. The first investments were made in 2005 with the drilling of two new pads in the southerly part of this area.

This development is another example of our commitment to continuous improvement through application of new technology at Cold Lake:

- The well design and layout in this development has been customized to optimize resource access.
- Looking at the illustration in the bottom right of this slide, you can see that these new 'mega' pads use horizontal as well as vertical wells. One pad can now access the same resource as three standard Cold Lake pads, which reduces the overall capital required for this development, as well as the surface footprint.
- For successful thermal operations, it is essential to control the steam distribution in a horizontal well to achieve optimal production results. Imperial has developed a patented completion technique with a special designed wellbore assembly to achieve this objective.

Finally, I'll draw your attention to the black rectangle directly to the east of our northern extension area. This is the next section of the Cold Lake lease that we will develop. We have a team in place evaluating the most economic options to bring this part of the Cold Lake lease into production.

A Leader in Canada's Oil Sands

- Pioneer in the development of Canada's oil sands
- Leader in oil sands research
- Significant current position – potential for future growth
 - Cold Lake
 - Syncrude expansion projects
 - Kearl mining project
 - Undeveloped oil sands assets



Slide 9

Let me close with a summary of the key points that I feel distinguish Imperial Oil as a leader in the development of oil sands.

We have been a pioneer in the development of oil sands -- with extensive operating experience and knowledge. Our continued commitment to research and technology development will provide us with the key to continued economic and responsible development of oil sands resources.

We hold a significant position in the oil sands resource -- with high-quality assets like Cold Lake -- and are well positioned for continued future growth in both in-situ operations as well as mining, through our 25 percent ownership of Syncrude and our Kearl mining project.

Thank you for your attention and I will be happy to answer any questions later in the session.

For more information

Imperial Oil Limited's site on the World Wide Web contains a variety of corporate and investor information. It can be accessed at <http://www.imperialoil.ca>.

For more detailed investor information, or to receive annual and interim reports, please contact:

Susan Swan

Manager, Investor Relations
Imperial Oil Limited
237 Fourth Avenue SW
Calgary, Alberta T2P 3M9
Email: susan.b.swan@esso.ca
Phone: (403) 237-4537