

## Oil flowing down to Shell

by Kevin Crush

The Shell Scotford Upgrader is ready to roll.

"As we are speaking there is a bitumen flow in the pipelines heading in our direction and it will be arriving here in the next week or so," says general manager Sam Spanglet.

Oil in the pipes means that Strathcona County's largest construction project is winding down and production is set to begin in earnest by late February or March. By September, it's expected the upgrader will be converting bitumen into 155,000 barrels of light oil per day. That, according to Shell Canada, is equal, to 10 per cent of Canada's oil needs.

### Quick start-up

The flow of oil followed hot on the heels of the start-up of Muskeg River Mine, 75 kilometres north of Fort McMurray, on Dec. 29.

The \$1.7 billion upgrader near Fort Saskatchewan has taken years to complete, but when it went through start-up late last year it went surprisingly quick with most units started in a fraction of the industry average time.

"Most of our units have been commissioned and started up without any incidents. So far, I think it has been the smoothest start-up that I've ever seen and I think that anybody has ever seen," said Spanglet.

For instance, the world's largest hydrogen plant was started up to 100-percent production in just five days. The average is six to 12 weeks.



The crude unit, which does the separation, took six days for start-up when it would normally take two months. And the residual hydro-cracker unit, which has 9,000 joints, was pressure tested and passed without a single leak. Normally, that would take four months, instead it took just 22 hours.

### No effect from Kyoto

Despite the ferocious pace, Spanglet says no shortcuts were ever taken and safety was always kept foremost. The reason for the speed is partly due to the quality of workers at the site, he says, and that Shell has practically rewritten the book on start-ups by accounting for everything before the process started.

"The concept was to be proactive rather than reactive: think about, what can go wrong. Think about how do you ensure that you don't have leaks? How do you ensure that you don't

have dirt left in the pipes?"

According to the general manager, that has rarely been done in past projects.

"It's much easier to do it before you have oil in, but for some reason we're dumb enough not to do that."

Development of the upgrader and Shell's oil sands projects have not been affected by the debate over the Kyoto Protocol. The reason, says Spanglet, is Shell International committed itself to the accord 10 years ago.

"Regardless of what the plan for Kyoto is, we're going to be there anyways," said Spanglet.

### Exceeds regulations

"We have always been progressive in reducing emissions, pollution and CO2 emissions.

"We have been exceeding all kinds of rules and regulations. Before Kyoto, we had announced that the oil

sands project we were going to reduce CO2 emissions by 50 per cent in 10 years."

Spanglet also noted Shell's relationship with its residential neighbours has been cordial.

"The philosophy that we have is that I believe community, and particularly the 61 nearby neighbours, have the right know what's happening here and what are the risks."

That included officials going door-to-door prior to the start-up of each unit at the upgrader to explain what they will see or hear and any risks associated with the startups.

### Bitumen moves slowly

The first bitumen is expected to arrive at the plant sometime this week. It's moving slowly as each section of the pipeline has to be checked thoroughly before the heavy oil is allowed to move to the next section. The oil will then fill up the tanks at the upgrader and start to be processed in February.

Of the 155,000 barrels per day Shell expects to be producing, 100,000 barrels will be sent to the Shell refinery and the rest sold to other producers.

### Co-generator harness electricity

The co-generator plant at the upgrader, using steam and natural gas from the plant to create electricity, is also online, feeding an addition 80MW into the grid.

**Note:** ShawFlex was a major supplier of cable to this project.