

TSM Performance by Company

Shell Canada Energy



Shell Canada Energy (Shell) operates the Muskeg River and the Jackpine mines, located 75 kilometres north of Fort McMurray, Alberta, on behalf of the owners of the Athabasca Oil Sands Project (AOSP): Shell Canada Energy (60%), Chevron Canada Limited (20%) and Marathon Oil Canada Corporation (20%).

As the average life cycle of an oil sands project is typically 40 years, Shell has a long-term interest in the communities where it operates and is committed to working in ways that mitigate environmental and social impacts and create positive benefits.

INDIGENOUS COMMUNITIES

Shell has been working closely with Indigenous peoples in Canada for many years. Engagements include direct consultation on projects and operations, ongoing interaction and collaboration through industry relations committees, and formal engagement with Elders, and First Nation and Métis Leaders.

Shell greatly values the perspectives and input of Indigenous communities, and has successfully established agreements with several local First Nations and Métis groups. Shell also provides opportunities to qualified local businesses and residents, with an emphasis on ensuring Indigenous businesses are able to participate in the contracting and employment processes. Since 2005, the AOSP has invested over \$1.8 billion with more than 70 Indigenous-owned businesses and contractors that provide a broad array of products and services to Shell's operations.

In 2015, Shell received gold certification for Progressive Aboriginal Relations, a Canadian Council for Aboriginal Business-sponsored program that acknowledges leadership and performance in Indigenous relations.

INVESTING IN THE COMMUNITY

Social investment is Shell's voluntary contribution to communities in Canada. The company seeks to initiate and support programs relevant to its business activities and focuses its social investment around science, education, innovation and business skills.

In 2015, Shell made approximately \$2.2 million in contributions on behalf of the AOSP and in-situ operations.

One example is Shell's long-term support for Indspire, an Indigenous-led charitable organization that invests in the education of Indigenous youth in Canada. Shell's 26-year partnership with Indspire began with investments in Indigenous post-secondary education, but has expanded to investments in Kindergarten to Grade 12 programs, post-secondary scholarships and events that recognize Indigenous leaders.

ENVIRONMENTAL PERFORMANCE

Producing oil sands safely and in a manner that minimizes impact to the environment and society is of the utmost importance to Shell.

In 2004, the Muskeg River Mine was certified to the ISO 14001:2004 standard – the first oil sands operation in the world to attain this accreditation. This certificate was renewed in 2013, extending the scope to include the Jackpine Mine. The most recent ISO 14001:2004 surveillance audit was completed in October 2015. This ISO standard, though voluntary, is externally audited and is recognized as the top international standard for environmental management systems.

Shell was one of the founding members of Canada's Oil Sands Innovation Alliance (COSIA). COSIA is a first-of-its-kind alliance of oil sands producers that collaborate on innovation and technology to drive accelerated environmental performance improvement. Shell's own internal Environmental Performance Improvement (EPI) program is structured to mirror the COSIA focus areas, and the delivery model is embedded in daily operations. Since implementing EPI in 2012, the company continues to make progress towards its short and long-term goals with respect to land (including tailings), water and air.

Shell's view is that climate change is one of the most pressing challenges our society faces today. From increasing energy efficiency to advancing fuel technology to educating customers on ways to consume fuel more efficiently, Shell is focused on reducing GHG emissions at all stages of the energy life cycle – from the mine to the motorist.

Launched in November 2015, Shell's Quest carbon capture and storage (CCS) project in Alberta is designed to capture over one million tonnes of CO₂ per year from the Scotford Upgrader for storage deep underground. Quest includes a rigorous monitoring program to ensure the CO₂ remains safely and securely in place. This includes continuous monitoring and early warning systems, groundwater sampling and 3-D seismic surveying. The experience gained from Quest will be crucial to reducing the time and cost of advancing new CCS projects worldwide. Shell expects its Quest project to decrease GHG intensity, bringing Shell's oil sands products more in line with the average emissions of North American crude oil.

TSM PERFORMANCE

Shell continues to maintain high standards in the TSM performance protocols of Crisis Management Planning, and Aboriginal and Community Outreach, with management programs in place that are reviewed, tested and documented. The company is working extensively on community of interest engagement and dialogue. Shell informs stakeholders about its environmental performance through its annual Oil Sands Performance Report.

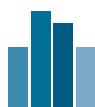
Shell's tailings management initiatives continued in 2015, focusing on advancing technologies to treat fluid fine tailings (FFT) that would meet the Alberta Tailings Management Framework set in March 2015. In 2014, Shell completed a successful pilot of a tailings centrifuge, which advanced the units to be moved into commercial scale in 2015. Shell has invested approximately \$465 million over the past decade in research to develop technologies that speed up the drying or dewatering process for FFT. Shell continues to work towards improving tailings treatment technologies to treat FFT that have a high percentage of fine particles.

MULTI-STAKEHOLDER MEMBERSHIP

Ongoing, meaningful involvement with multi-stakeholder groups is an important part of Shell's environmental management strategy. In addition to MAC, Shell is an active member of the Oil Sands Community Alliance, the Wood Buffalo Environmental Association, Joint Oil Sands Monitoring, the Canadian Association of Petroleum Producers, COSIA, and the Integrated CO₂ Network.

🔗 For more information, please visit: www.shell.ca/oilsands





Externally
Verified Results

2015 TSM Results

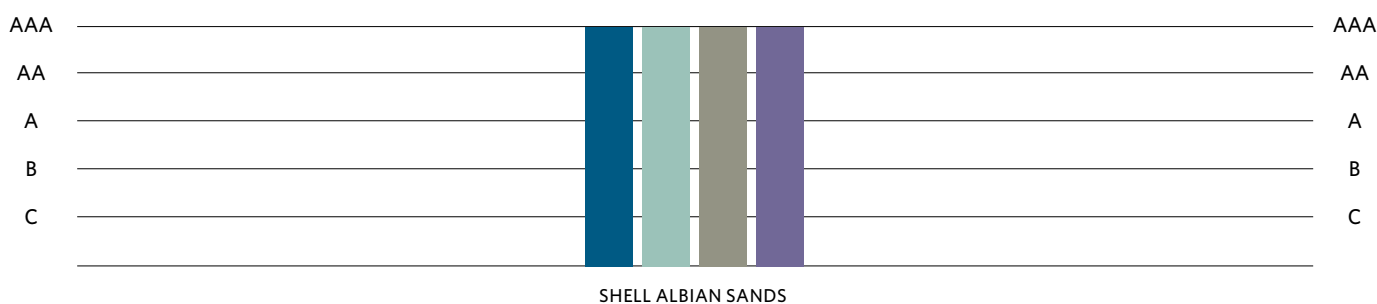
Shell Canada Energy

Crisis Management Planning Assessment

FACILITY	PREPAREDNESS	REVIEW	TRAINING
SHELL CANADA ENERGY	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
SHELL ALBIAN SANDS	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

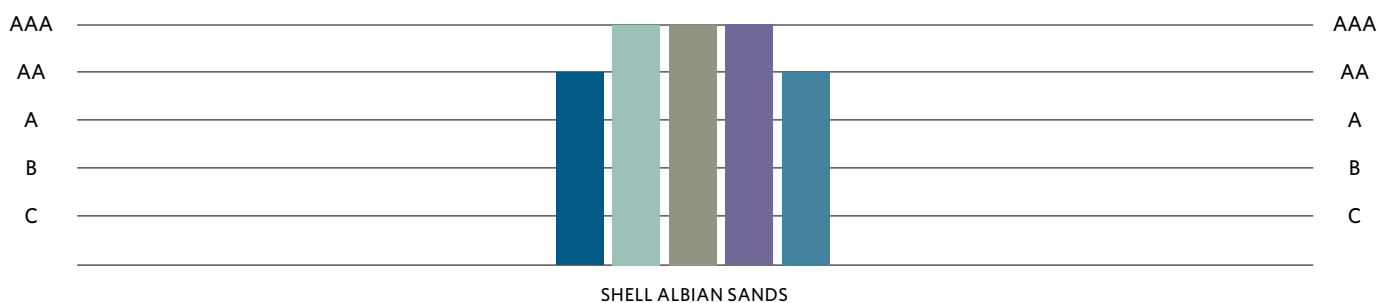
Aboriginal and Community Outreach Assessment

- COMMUNITY OF INTEREST (COI) IDENTIFICATION
- COI RESPONSE MECHANISM
- EFFECTIVE COI ENGAGEMENT AND DIALOGUE
- REPORTING



Safety and Health Assessment

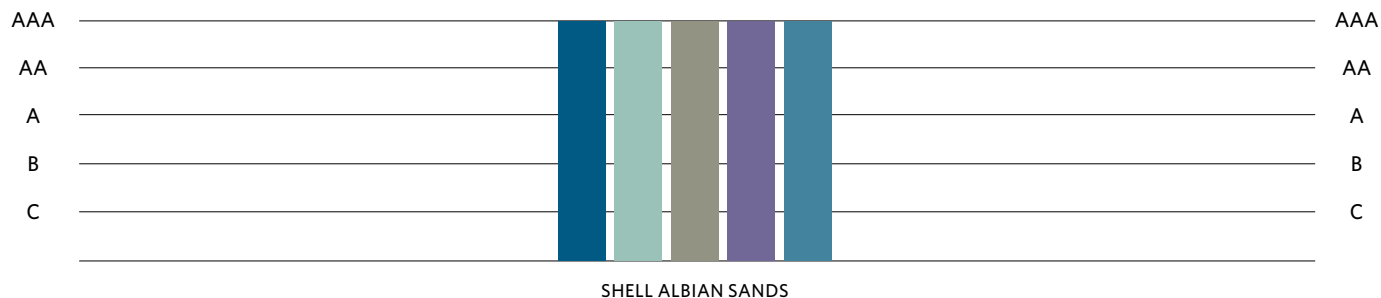
- POLICY, COMMITMENT AND ACCOUNTABILITY
- TRAINING, BEHAVIOUR AND CULTURE
- PLANNING, IMPLEMENTATION AND OPERATION
- MONITORING AND REPORTING
- PERFORMANCE



Tailings Management Assessment

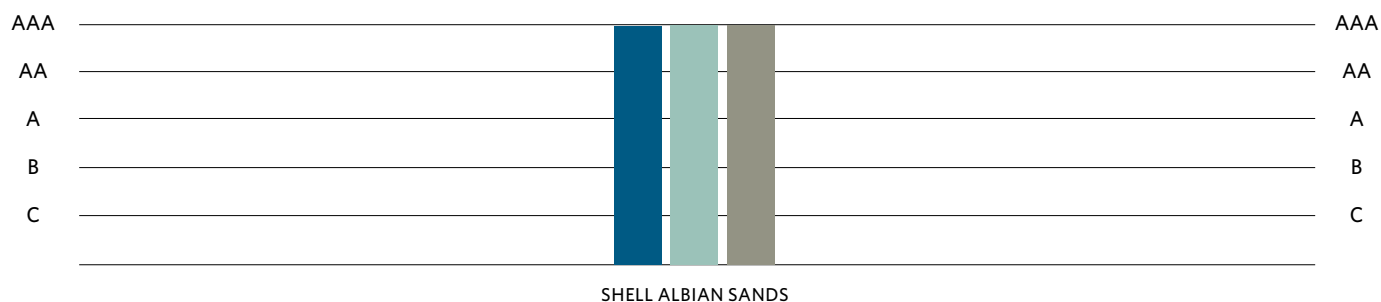
Externally
Verified Results

- TAILINGS MANAGEMENT POLICY AND COMMITMENT
- TAILINGS MANAGEMENT SYSTEM
- ASSIGNED ACCOUNTABILITY AND RESPONSIBILITY FOR TAILINGS MANAGEMENT
- ANNUAL TAILINGS MANAGEMENT REVIEW
- OPERATION, MAINTENANCE AND SURVEILLANCE (OMS) MANUAL



Biodiversity Conservation Management Assessment

- CORPORATE BIODIVERSITY CONSERVATION POLICY, ACCOUNTABILITY AND COMMUNICATIONS
- FACILITY-LEVEL BIODIVERSITY CONSERVATION PLANNING AND IMPLEMENTATION
- BIODIVERSITY CONSERVATION REPORTING



Energy Use and GHG Emissions Management Assessment

- ENERGY USE AND GHG EMISSIONS MANAGEMENT SYSTEMS
- ENERGY USE AND GHG EMISSIONS REPORTING SYSTEMS
- ENERGY AND GHG EMISSIONS PERFORMANCE TARGETS

