



阳光油砂
SUNSHINE OILSANDS LTD.

Sunshine Oilsands Ltd.

陽光油砂有限公司*

(a corporation incorporated under the Business Corporations Act of the Province of Alberta, Canada with limited liability)

(HKEX: 2012)



2020 Environmental, Social and Governance Report

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Environmental, Social and Governance Report

ABOUT THIS REPORT

Sunshine Oilsands Ltd. (“Sunshine” or the “Company”), together with its subsidiaries (the “Group”), is pleased to present this Environmental, Social and Governance Report (the “Report”) to provide an overview of the Group’s management on significant issues affecting the operation, and the performance of the Group in terms of environmental and social aspects.

Preparation Basis and Scope

This Report is prepared in accordance with Appendix 27 to the rules governing the listing of securities on The Stock Exchange of Hong Kong Limited (the “Stock Exchange”) (the “Listing Rules”) - “Environmental, Social and Governance Reporting Guide” and has complied with “comply or explain” provision in the Listing Rules.

This Report summarises the performance of the Group in respect of corporate social responsibility, covering its core operation in Hong Kong and Canada which is considered as material by the Group - the exploration for and the development of oil properties for the production of bitumen in the Athabasca oil sands region in Alberta, Canada. With the aim to optimise and improve the disclosure requirements in the Report, the Group has taken initiative to formulate policies, record relevant data, implement and monitor measures. This Report shall be published both in Chinese and English on the website of Hong Kong Stock Exchange. Should there be any discrepancy between the Chinese and the English versions, the English version shall prevail.

Reporting Period

This Report demonstrates our sustainability initiatives during the reporting period from 1 January 2020 to 31 December 2020.

Contact Information

The Group welcomes your feedback on this Report for our sustainability initiatives. Please contact us by email ir@sunshineoilsands.com.

STAKEHOLDERS ENGAGEMENT

The Group understands the success of the Group's business depends on the support from its key stakeholders, who (a) have invested or will invest in the Group; (b) have the ability to influence the outcomes within the Group; and (c) are interested in or affected by or have the potential to be affected by the impact of the Group's activities, products, services and relationships. It allows the Group to understand risks and opportunities. The Group will continue to ensure effective communication and maintain good relationship with each of its key stakeholders.

Stakeholders are prioritised from time to time in view of the Group's roles and duties, strategic plan and business initiatives. The Group engages with its stakeholders to develop mutually beneficial relationships and to seek their views on its business proposals and initiatives as well as to promote sustainability in the marketplace, workplace, community and environment.

The Group acknowledges the importance of intelligence gained from the stakeholders' insights, inquiries and continuous interest in the Group's business activities. The Group has identified key stakeholders that are important to our business and established various channels for communication. The following table provides an overview of the Group's key stakeholders, and various platforms and methods of communication are used to reach, listen and respond.

Stakeholders	Issues of concern	Engagement channels
Government	<ul style="list-style-type: none"> - Compliance with relevant laws and regulations - Proper tax payment - Promote regional economic development and employment 	<ul style="list-style-type: none"> - On-site inspections and checks - Research and discussion through work conferences, work reports preparation and submission for approval - Annual reports and other published information - Website
Shareholders and Investors	<ul style="list-style-type: none"> - Low risk - Return on the investment - Transparent information 	<ul style="list-style-type: none"> - Annual general meeting and other shareholder meetings - Annual report and announcements - Newsletters

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Stakeholders	Issues of concern	Engagement channels
	<ul style="list-style-type: none"> - Protection of interests and fair treatment of shareholders 	<ul style="list-style-type: none"> - Results presentations
Employees	<ul style="list-style-type: none"> - Safeguard the rights and interests of employees - Career development opportunities - Health and safety 	<ul style="list-style-type: none"> - Conference - Training, seminars, cultural and sport activities - Newsletters - Intranet and emails
Customers	<ul style="list-style-type: none"> - Safe and high-quality service - Stable relationship - Information transparency - Integrity and business ethics 	<ul style="list-style-type: none"> - Website, brochures and annual reports - Email and customer service hotline - Feedback forms - Regular meetings
Suppliers/ Business partners	<ul style="list-style-type: none"> - Long-term partnership - Honest cooperation - Fair and open - Information resources sharing - Risk reduction 	<ul style="list-style-type: none"> - Business meetings, supplier conferences, phone calls and interviews - Regular meetings - Review and assessments - Tendering process
Peer/Industry associations	<ul style="list-style-type: none"> - Experience sharing - Cooperation - Fair competition 	<ul style="list-style-type: none"> - Industry conferences - Site visits
Public and Communities	<ul style="list-style-type: none"> - Community involvement - Cultural conservation - Social responsibilities 	<ul style="list-style-type: none"> - Charity and social investment - Stakeholders engagement

Through general communication with stakeholders, the Group understands the expectations and concerns of the stakeholders. The feedback obtained allow the Group to make more informed decisions, and to better assess and manage the resulting impact.

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The Group has adopted the principle of materiality in the ESG reporting by understanding the key ESG issues that are important to the business of the Group. All the key ESG issues and key performance indicators (KPIs) are reported in the Report according to recommendations of the ESG Reporting Guide (Appendix 27 of the Listing Rules) and the GRI Guidelines.

The Group has evaluated the materiality and importance in ESG aspects through the following steps:

Step 1: Identification – Industry Benchmarking

- Relevant ESG areas were identified through the review of relevant ESG reports of the local and international industry peers.
- The materiality of each ESG area was determined based on its importance to the Group through internal discussion of the management and the recommendation in the ESG Reporting Guide (Appendix 27 of the Listing Rules).

Step 2: Prioritization – Stakeholder Engagement

- Discussion with the key stakeholders were conducted on these relevant ESG areas identified above to ensure all the key aspects were covered.

Step 3: Validation – Determining Material Issues

- Based on the discussion with key stakeholders and internal discussion among the management, the Group's management ensured all the key and material ESG areas, which are important to the Group's business development, were reported and in compliance with ESG Reporting Guide.

As a result of the above procedures, the important ESG areas as identified were discussed in this Report.

ENVIRONMENTAL ASPECTS

EMISSIONS

The Group's oil sands operations have potential impacts on the environment. In terms of our existing operations, we are actively pursuing the continuous improvement of air quality and greenhouse gas ("GHG") emissions by improving energy conservation and efficiency, and adopting innovative technology for emission reduction. Our environmental strategies target at meeting corporate standards, operations compliance, energy efficiency, liability reduction, air emissions and GHG management. The Group ensures all emissions from the operation of the project meet the standards by complying with the applicable environmental laws and regulations, extensive environmental monitoring and reporting during operations. The major part of environmental legislation is set in the Environmental Protection and Enhancement Act ("EPEA"), and the Oil Sands Conservation Act and Rules. In 2020, the Group has complied with the relevant laws and regulations relating to environmental issues.

Air Pollutants Emission

Air pollution is the major environmental issue associated with our Steam Assisted Gravity Drainage ("SAGD")¹ facilities in the oil sands operation project. The Group is subject to strict air quality standards in Alberta, in which we fully comply with Alberta Ambient Air Quality Objectives which are developed under the EPEA by the Government of Alberta for managing and protecting the air quality. The EPEA Approval (the "Approval") set out the limit of emission of various pollutants, including nitrogen oxides and sulphur dioxide. We are required to design and operate facilities below the levels specified in the Ambient Air Quality Objectives. For example, our SAGD facilities are designed with integrated natural gas driven cogeneration, which are more economic than purchasing electricity from the grid and have fewer air emissions than coal power generation.

To reduce the air pollution impact with surrounding stakeholders, we commissioned a qualified consultancy to conduct an air quality assessment to predict the levels of pollutant by our West Ells project before its commencement. The assessment result indicated the pollutants produced would remain within the air quality standards imposed by the Government of Alberta. In 2020, we continuously monitor our SAGD facilities to ensure compliance with the applicable environmental laws, regulations

¹ SAGD is an enhanced oil recovery technology for producing heavy crude oil and bitumen.

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and standards in Canada. We will monitor the air quality at several monitoring stations positioned around the facilities. The significant decrease in air pollutants emissions from stationary combustion in 2020 was mainly attributable to the temporary suspension of production since March 31, 2020 due to the severe decline in crude oil price and the outbreak of COVID-19 in North America. The decrease in air pollutant emission from mobile combustion in 2020 was due to decrease in fuel consumption and travel distance by company vehicles as a result of the decrease in field staff and number of vehicles needed to support them subsequent to the temporary suspension of production. The decrease in sulphur dioxide emission from stationary combustion was mainly due to a decrease in combustion of natural gas subsequent to the temporary suspension of production. The slight decrease in particulate matter emission from stationary combustion was due to the decrease in diesel consumption from stationary source as a result of the temporary suspension of production since March 31, 2020.

For operation in Hong Kong, the air pollutants emission is not significant as it involves air emission from vehicles only.

The following table represents the major air pollutant emissions from stationary and mobile combustion for the reporting period.

Air Pollutants ²	Unit	2020	2019
Total nitrogen oxides (NOx)	tonnes	23.979	67.566
- Stationary combustion ³	tonnes	23.930	67.500
- Mobile combustion	tonnes	0.049	0.066
Total sulphur dioxide (SO₂)	tonnes	4.521	13.901
- Stationary combustion ⁴	tonnes	4.520	13.900
- Mobile combustion	kg	0.755	0.809
Total particulate matter (PM)	tonnes	0.481	0.547

² Emissions from mobile combustion sources are estimated data based on consumption of fuel and the travel distance of vehicles and the emissions factors under HKEx ESG Reporting "Appendix 2: Reporting Guidance on Environmental KPIs".

³ Emission of nitrogen oxides from stationary combustion is the estimated data from annual air emissions report submitted to the Government of Alberta by the Group.

⁴ Emission of SO₂ is the estimated data from annual air emissions report uploaded to the Government of Alberta by the Group.

Air Pollutants ²	Unit	2020	2019
- Stationary combustion ⁵	tonnes	0.476	0.541 ⁶
- Mobile combustion	tonnes	0.005	0.006

GHG Emission

The Group recognises that climate change can pose a risk to its business and it is committed to mitigating the effects of climate change. GHG is considered as one of the major contributors to the climate change. The majority of the GHG emission of the Group comes from stationary combustion of natural gas and diesel. Existing SAGD extraction technology is refined to reduce the amount of steam required to be injected into the reservoir to heat bitumen. A number of oil extraction technologies are also being developed to reduce or eliminate the need of steam. Using less steam can reduce GHG emission caused by the burning of natural gas.

The Group is subject to the Alberta Climate Change and Emissions Management Act, and the Specified Gas Reporting Regulation (“SGRR”) to report GHG emission. GHG emission limits are regulated by the Carbon Competitiveness Incentive Regulation (“CCIR”). During 2020, the amount of the Group’s GHG emissions did not exceed the 100,000 tonnes reporting threshold as regulated by CCIR. There is an intensity benchmark laid out in the CCIR and all facilities regulated under CCIR must either meet that benchmark or purchase carbon offsets from other producers/ the Government itself, so that the net intensity meets the benchmark. The significant decrease in GHG scope 1 emission from stationary combustion in 2020 was mainly attributable to the temporary suspension in production since March 31, 2020 due to the sharp decrease in crude oil price and the outbreak of COVID-19 in North America. The decrease in GHG scope 1 emission from mobile combustion in 2020 was mainly due to decrease in fuel consumption by the company as a result of the decrease in field staff and the number of vehicles required to support them since the temporary suspension of production. The slight increase in GHG scope 2 emission in 2020 resulted from the slight increase in purchased electricity in Hong Kong during the year.

The trigger point for the new CCIR regulations remains the same as the Specified Gas Emitters Regulation (SGER), which is 100,000 tonnes of GHG production per

⁵ According to HKEx ESG Reporting “Appendix 2: Reporting Guidance on Environmental KPIs”, gaseous fuel consumption is not a significant source of PM emissions. Data estimated based on diesel consumption and calculator at Environment and Climate Change Canada (ECCC).

⁶ The 2019 Emission data of particulate matter from stationary combustion has been adjusted to reflect the actual situation.

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year, and the Corporation will not be regulated until GHG emissions reach 100,000 tonnes or the Group decides to opt-in to the regulation prior to reaching 100,000 tonnes.

In Hong Kong, the GHG emission is not significant as it involves normal electricity usage in office operation and fuel usage in passenger car only. For GHG Scope 3 of GHG emission, the amount of emission decreased significantly this year due to the sharp decrease in business air travel as most staffs at the production site were laid off subsequent to the temporary suspension of production due to the COVID-19 pandemic and the oil market downturn, and most of them commute by air. For 2020, the increase in GHG intensity compared to 2019 is due to decline in production volume as the Group recorded bitumen production for the first quarter only.

The GHG emission of the Group during the reporting period is as follows:

GHG Emission ⁷	Unit	2020	2019
Scope 1 ⁸	tonnes of CO ₂ -e	29,442.32	94,962.47
- Stationary combustion ⁹	tonnes of CO ₂ -e	29,311.99	94,816.86
- Mobile combustion	tonnes of CO ₂ -e	130.33	145.61
Scope 2 ¹⁰	tonnes of CO ₂ -e	12.43	11.59
Scope 3 ¹¹	tonnes of CO ₂ -e	0.61	7.70
Total GHG emission	tonnes of CO₂-e	29,455.35	94,981.75
GHG intensity	tonnes of CO ₂ -e/ m ³ of production volume	1.98	0.96

Hazardous and Non-hazardous Wastes

Normally, less waste is generated by SAGD operation, as compared to conventional oil sands mining. The Group's "Environmental Guide Book" provides detailed guideline on characterisation, disposal and manifest of different wastes. Wastes are initially characterised as dangerous/hazardous wastes and non-dangerous/non-

⁷ The calculation of the GHG emission is based on Appendix 2: Reporting Guidance on Environmental KPIs.

⁸ Scope 1: Direct emission from sources that are owned or controlled by the Group.

⁹ From Annual Air Emissions Report submitted to the Government of Alberta by the Group.

¹⁰ Scope 2: Indirect emissions from purchased electricity consumed by the Group.

¹¹ Scope 3: Other indirect emissions mainly from business air travel and paper waste disposed at landfills.

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hazardous wastes. The Group strictly complies with the applicable laws and regulations for waste management, including Waste Control Regulation and “Alberta Energy Regulator (“AER”) Directive 58: Oilfield Waste Management Requirements for the Upstream Petroleum Industry”.

The Group strives to reduce non-dangerous/non-hazardous waste to be sent to landfill by recycling. For example, we recycle paper used in office operation, metals and cooking oil. In Canada, non-hazardous wastes are recycled where possible and there was no disposal of hazardous waste during the reporting period. There was no disposal of hazardous waste during the reporting period. In 2020, the decrease in non-hazardous waste was mainly due to decrease in evaporator blowdown water resulting from less steam generation during the year due to the temporary suspension of production since March 31, 2020. During the reporting period, there were no metals generated to be recycled and cooking oil was disposed in domestic waste versus recycled as a cost saving solution.

During the reporting period, the waste disposal and recycled data are as follows:

Wastes disposal	Unit	2020	2019
Hazardous waste	tonnes	N/A	N/A
Hazardous waste intensity	tonnes/ m ³ of production volume	N/A	N/A
Non-hazardous waste	tonnes	4,027.00	16,921.50 ¹²
Non-hazardous waste intensity	tonnes/ m ³ of production volume	0.27	0.17

Wastes recycled	Unit	2020	2019
Paper	kg	161.6	334.52

Wastewater

Wastewater is categorised into industrial wastewater and domestic wastewater. All wastewater must be tested prior to discharge by using industrial testing limits and procedures. Sunshine is in compliance with the relevant regulatory requirements for managing wastewater.

For industrial wastewater, the Group only disposes industrial wastewater to the central processing facility water recycling treatment unit, approved disposal wells,

¹² The Non-hazardous waste disposal for 2019 has been adjusted to reflect the actual situation.

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and/or approved waste processing and disposal facilities. The Industrial runoff control system allows the Group to monitor the discharge of wastewater within the limits for parameters, including pH level, chloride, oil and grease. The Group is responsible to monitor the industrial runoff control system and report the monitoring result annually. The performance of industrial wastewater control system is assessed with evaluation of the management and disposal of industrial wastewater for improvement.

For domestic wastewater, discharge of any substance from the domestic wastewater system to the surrounding watershed is strictly prohibited. All domestic wastewater and sludge produced by the operational facilities should undergo domestic wastewater collection and be disposed of in the distribution fields on the lease with subsequent disposal to an approved wastewater treatment system (“WWTS”). The Group has obtained EPEA approval to operate the WWTS. If there is an unapproved discharge of substance from WWTS, the Group must immediately report to the local regulatory bodies.

Noise

Noise generated from our operation project has potential impact on the nearby natural habitat and human’s hearing. The Group complies with “AER Directive 38: Noise Control” in the oil sands operation. When applying for oil sands project, the Group has engaged a qualified consulting company to conduct noise impact assessment for predicting the noise level resulting from the operation of the project and evaluating the potential impacts on nearby natural wildlife. Noise mitigation measures and monitoring will be required if the predicted sound level exceeds the permissible sound level under AER Directive 38.

During the operation, engineering controls are the primary method to reduce the noise produced. The Group strives to reduce noise levels in operational facilities wherever possible. For example, we install the quietest equipment to minimise the workplace noise levels. In order to mitigate the effects from exposure to workplace noise, indoor and outdoor noise surveys are conducted by qualified person as a minimum of once every five years, or immediately after equipment or project design changes have been implemented. Results of noise surveys must be recorded and maintained.

USE OF RESOURCES

Energy

To manage the energy use and reduce energy consumption, the Group has established an “Energy Management Policy”. The Group strives to use energy in the most efficient, cost-effective and environmentally responsible manner. Efficient use of energy plays a key role in support of our plan to maximise profitability and strengthen our competitive position. We aim to maximise energy performance, reduce operating expenses and increase shareholders’ value by actively and responsibly managing energy consumption through works and management practices, training and the use of new technology. The decrease in natural gas consumption in 2020 was mainly due to the decrease in steam generation as a result of decline in SAGD production. For the consumption of diesel from stationary source, diesel is used in standalone generator sets and heaters by the Group and contractors in project sites. In 2020, the diesel consumption from stationary source dropped slightly due to the slight decrease in diesel usage by heaters subsequent to the temporary plant shutdown. The decrease in mobile fuel consumption in 2020 was mainly attributable to the decrease in field staff and the number of vehicles required to support them due to the temporary suspension of production.

For office operation in Hong Kong, the slight increase in electricity consumption in 2020 was mainly attributable to the usage of air purifiers in Hong Kong office, and the decrease in gasoline consumption was due to decline in the passenger vehicle usage to prevent the spread of COVID-19. We will continue to create a green office environment and improve the employees’ awareness to reduce the energy consumption.

During the reporting period, the energy consumption of the Group is as follows:

Energy consumption	Unit	2020	2019
Canada	kWh in ‘000s		
- Natural gas ¹³	kWh in ‘000s	241,926.10	579,363.02
- Propane ¹⁴	kWh in ‘000s	332.05	491.90
- Gasoline	kWh in ‘000s	200.45	393.56

¹³ Natural gas is based on BP statistical review conversion table. Gasoline and Diesel are based on EIA energy conversion calculator.

¹⁴ The category of energy consumption from propane has been included to reflect the actual situation. Propane was used for camp heaters.

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Energy consumption	Unit	2020	2019
- Diesel	kWh in '000s	1,245.99	1,827.42 ¹⁵
Hong Kong	kWh in '000s	18.76	27.31
- Purchased electricity	kWh in '000s	15.73	14.67
- Gasoline	kWh in '000s	3.02	12.64
Total energy consumption	kWh in '000s	241,944.85	579,390.32
Energy intensity	kWh in '000s/ m ³ of production volume	16.30	5.87

Sunshine endeavours to demonstrate its commitment to the environment and community by reducing environmental impacts associated with energy use. We will work towards continuous improvement of energy performance.

Water

Water is an essential resource for SAGD operation in oil sands extraction. It is heated to generate steam for the extraction of bitumen from sand. Compared to conventional mining operation, SAGD operation uses less water. The self-contained water treatment system in SAGD operation allows us to recycle water by up to 97%. The water treatment system involves technology used to remove silica and reduce water hardness so that the water can be reused and pumped to the boiler again for steam production. Water which is not reused is typically disposed at an approved waste management facility.

The Group has obtained water licence for legal usage of fresh water according to Water Act in SAGD operation. Due to the necessary use of water to create steam in the extraction process, a number of stakeholders are concerned about fresh water consumption in the oil sand production. For the long-term sustainable use of water resource, the Group will explore saline water sources as an alternative. We anticipate utilising brackish water¹⁶ to reduce the demand for fresh water. Brackish water source will be identified through a Devonian drilling program. The brackish water needs to be processed to remove particles and dissolved solids, making it acceptable as a water source for heating in the boiler. Apart from saline water sources, we also explore for the possibility of natural storm water as a water source to supplement consumption and reduce overall fresh water use. The surface storm water run-off will be collected in a storm water retention pond. The pond design is

¹⁵ The energy consumption data from diesel for 2019 has been adjusted to reflect the actual situation.

¹⁶ Brackish water is the water that has a higher salinity than fresh water, but not as high as seawater.

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based on EPEA. With alternative choices of water sources, we hope to reduce the fresh water consumption.

For office operation in Hong Kong, water supply is controlled by the building management company. Hence, water usage data is not available. Water usage in Hong Kong office is minimal.

Water consumption decreased during the reporting period because less steam was generated due to the decline in SAGD production subsequent to the temporary suspension of production since March 31, 2020. The water consumption of the Group during the reporting period is as follows:

Water	Unit	2020	2019
Water consumption	m ³	61,075.9	187,354.60
Water intensity	m ³ /m ³ of production volume	4.12	1.90

THE ENVIRONMENT AND NATURAL RESOURCES

The Group understands that oil sands operations have potential negative impact on the environment. In particular, our operations can contribute towards the pollution of the air, land and water systems. To minimize the potential impact on the environment and natural resources, every application of oil sand project requires an environmental impact assessment to clearly identify the potential environmental impacts and formulate mitigation plans. The Group's "Environmental Guide Book" also lists out some of the general guidelines to mitigate the impacts on land, soil, vegetation, and wildlife, and impacts as a result of spills.

Land

Forestry clearance and well pad preparation are required for site preparation of our oil sands operations. These activities may affect the soil fertility and destroy the habitats of wildlife. A reclamation plan to restore the lands' capability back to the pre-development state is required when applying for the project in order to achieve a sustainable landscape. For in situ projects ¹⁷, pre-disturbance assessment, conservation and reclamation plans must be submitted to the government for approval. Hence, we complied with applicable environmental laws and regulations at our production sites during the reporting period.

Soil

Soil contamination by our projects could have significant impact on human health and ecosystem. The Group has commissioned a qualified third party to implement soil monitoring program at oil sands project sites. The objective of the soil monitoring program is to fulfil the requirements of the Approval. Soil samples were collected for baseline soils assessment, to be used in comparison of the current soil samples in order to determine any adverse impacts of the operations. Apart from baseline soil assessment, operational soil monitoring program is also in place to screen any soil contamination and the associated adverse effects. For any detection of soil pollution, a soil management program is required to remediate any adverse effects. For the construction of project, the Group has the responsibility to conserve topsoil, subsoil and 40cm-depth of shallow organic soils, and to ensure soil stockpiles are stable for vegetation.

¹⁷ In situ production methods apply heat to targeted reservoirs to decrease the viscosity of bitumen, which allows it to flow into wells and be pumped to the surface. In situ recovery methods create significantly less surface disturbance than mining operations and do not produce tailing ponds.

Vegetation

The Group is responsible for managing vegetation on all the infrastructure, including well pads and roads. For instance, all noxious and restricted weeds shall be cut, kept down and destroyed. The Group strives to minimize noxious and restricted weeds in the project site area.

Wildlife

Our project sites are within the natural habitat of wildlife animals, for example, black bears and caribou. Our operations may cause disturbance to the wildlife. In order to reduce the disturbance caused on the nearby wildlife habitat, the Group has established internal control policy to maintain and restore the habitat, minimize mortality, facilitate movement and monitor the wildlife living environment. The Group complies with the applicable laws and regulations including the Canada Wildlife Act. Feeding of wildlife is strictly prohibited. All fuel and refined oils are stored properly to avoid contact by wildlife.

Spill management

The operation of the oil sands projects is subject to risks and hazards relating to spills. We clearly understand spills can impose a serious consequence to the environment and natural resources, such as ground water, soil and ecosystem. To mitigate the impact of spills, the Group complies with the relevant regulatory requirements. Detailed guidelines and policies are in place for spill response clean up and reporting. The reporting system allows the regulatory bodies and the corresponding stakeholders to be alerted for any spill incidents.

SOCIAL ASPECTS

EMPLOYMENT AND LABOUR PRACTICES

EMPLOYMENT

The Group understands it is the commitment, knowledge, skills and competence of our employees that drive the Group's business. The Group therefore has established "Human Resources Policy" to address key issues on equal opportunity and non-discrimination, recruitment, compensation and benefits, etc. regarding attracting, retaining and developing employees. Equal opportunity and nondiscrimination are fundamental principles in the Group's human resources management. The Group does not make any distinction, exclusion or preference on the basis of age, race, colour, sex, religion, political opinion, nationality or social origin. All recruitment is done on the basis of merit, with strict adherence to laws and regulations, including Alberta Employment Standards Code and in conformance with the principles of the human resources management. In order to achieve internal equity, the Group maintains a grade structure which establishes a clear relationship between positions and classifies them into functional groups and grades.

The total workforce (in number of staff) at the end of the reporting period by gender, age group, employment type and geographical location are as follows:

Employment	2020	2019
Total workforce	32	59
By gender		
- Male	22	43
- Female	10	16
By age group		
- 30 years old or below	7	9
- 31-40 years old	13	20
- 41-50 years old	3	16
- 51 years old or above	9	14
By employment type		
- Senior management	2	3
- Middle management	5	8
- General	15	41
- Contract or short term	10	7
By geographical location		

Employment	2020	2019
- Canada	25	52
- Hong Kong	7	7

In 2020, the significant increase in the turnover rate of staff between 41-50 years old is mainly because staffs at the production site were most impacted by the temporary suspension of production since March 31, 2020 due to the market downturn and the COVID-19 pandemic, and most of them were in this age group.

The staff turnover rate¹⁸ by gender, age group, geographical location during the reporting period are as follows:

Turnover Rate	2020	2019
By gender		
- Male	58%	43%
- Female	31%	24%
By age group		
- 30 years old or below	25%	40%
- 31-40 years old	30%	25%
- 41-50 years old	126%	34%
- 51 years old or above	35%	58%
By geographical region		
- Canada	60%	43%
- Hong Kong	0%	0%
Total	51%	38%

Human Resources Strategy

The Group is committed to a human resources strategy that fosters progressive thinking, new ideas and new approaches to develop oil sand resources safely and responsibly. We hire employees and retain service providers to support decisions, advance technology and continuously improve our business.

We have experienced development and/or production delays due to labour and services shortage for projects in Alberta in recent years. Our human resources strategy to create a sense of belonging and job satisfaction in workplace can help address this recruitment challenge for long-term employee retention. In addition, we

¹⁸ Turnover rate = Employee loss in the reporting period/Average number of employee (Employee loss in the reporting period excludes the loss of short-term/contract employee)

organise various employment programs with the First Nations¹⁹ groups, local and remote community schools, colleges and universities to attract talents.

Human Rights

The Group respects the rights and freedom of employees. The Group is subject to the Human Rights Act to prohibit any forms of discrimination on gender, age or physical disability. The Group has established “Discrimination, Harassment and Workplace Violence Policy” to ensure our employees are kept free from discrimination and workplace violence. Discrimination, harassment and workplace violence are considered as unacceptable behaviors. Every employee has the responsibility to adhere to this policy. The Group will take disciplinary action to combat against any violation of the policy.

The Group is also subject to Labour Relations Code in which employees are allowed to join a union. The union has collective bargaining power on behalf of all employees within the Group, while there is a very low unionisation rate in Alberta energy sector.

Compensation and benefits

The Group aims to maintain a fair, equitable and transparent compensation and benefits structure that attracts and retains employees with professional skills and qualifications, and provides necessary incentive and encouragement for outstanding performance. The Group provides compensation to employees that is comparable with the market trend and sustainable with the Group’s financial capability. Comprehensive benefit plan is offered to employees for harmonious and work-life balance culture. Outstanding performance and effort of employees are recognised with annual employee service awards.

There are also birthday celebrations for employees in Hong Kong to enhance the communications among employees.

¹⁹ First Nations are descendants of the original inhabitants of Canada who lived there for many thousands of years before explorers arrived from Europe.

HEALTH AND SAFETY

Safety is a fundamental value of the Group. We believe all injuries, work-related illnesses and accidents can be prevented. We strive for the highest standards of safety and health performance. Our safety culture is based on prevention, hazard awareness, continuous improvement and compliance with careful development procedures. Comprehensive health and safety policies and procedures including “Hazard Assessment Standard”, and “Incident Management Process” are in place. We comply with the applicable laws and regulations, including Occupational Health and Safety Act, Occupational Health and Safety Regulation and Occupational Health and Safety Code.

At the operational level, safety training is required by all employees to understand the safety precautions and to increase awareness of emergency responses and procedures (see “Development and Training” for details). Apart from employees at the operational level, the Group’s commitment to health and safety also extends to its contractors. We require our contractors to possess appropriate qualifications in the contracted tasks and in production safety. In addition, they are required to enter into production safety contracts with us by which they need to undertake all appropriate safety measures. The Group monitors the operational activities regularly to ensure the health and safety programs are implemented effectively and the operations are in compliance with our policies, practices and procedures.

All the above-mentioned preventative measures contribute to excellent safety record of the Group. During 2020, there were no work-related fatalities and no lost days due to injury. The Group will continue to emphasize improvements in the field safety monitoring program for preventing workplace injuries.

DEVELOPMENT AND TRAINING

The Group considers the development of employees as a key contributor to the success of sustainable growth of the Group and recognizes that changes take place in the work environment which necessitates continuous learning of employees. According to the “Staff Training and Development Policy”, the Group is committed to supporting staff development for all employees. A wide range of development methods, including formal training courses, seminars, e-learning, professional qualification training and on-the-job training are offered to employees. Trainings are particularly focused on safety precaution, knowledge and skills of operating in oil sands project sites, which are our primary concern. During 2020, the major training courses offered to employees included the following:

Training course title	Description
Field Operator Units (West Ells site specific on the job training)	<ul style="list-style-type: none"> i. Unit 2: Control Room. Training takes approximately 84 hours to complete; ii. Unit 3: Power and Distribution. Training takes approximately 84 hours to complete; iii. Unit 4: Steam and Water. Training takes approximately 84 hours to complete; iv. Unit 5: Process and De-oiling. Training takes approximately 84 hours to complete; and v. Unit 6: Field and Truck Loading. Training takes approximately 84 hours to complete.
Site Orientation	For all new employees and contractors who visit or work at West Ells facility, the orientation is valid for 1 year. Training takes approximately 0.5 hour to complete.
Training in Workplace Hazardous Materials Information System (“WHMIS”)	For employees who work with hazardous materials to be familiar with the hazardous classification. Training takes approximately 2 hours to complete.
Training in Transportation of Dangerous Goods (“TDG”)	For employees to understand the regulations governing the transportation of dangerous goods on Canadian roadways, classifications of dangerous goods, TDG symbols, etc. Training takes approximately 3 hours to complete.
H2S Alive	For employees who are exposed to hydrogen sulphide (“H ₂ S”) to increase awareness of H ₂ S hazards. Training takes approximately 8 hours to complete.
Standard First Aid & CPR	For employees to learn for the skills in emergency first aid for injuries and illnesses. Training takes approximately 8 hours to complete.

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Training in Confined Space Entry/Confined Space Rescue	For employees who work in confined space to understand the entry and rescue procedures. Training takes approximately 8 hours to complete.
Training in Fall Protection	For employees to learn different forms of fall protection against falling accidents. Training takes approximately 4 hours to complete.
Training in Power Engineering (First/Second/Third Class)	For employees to prepare for working in a power plant and is regulated by the Alberta Boilers Safety Association ("ABSA"). Training hours vary depending on the individuals to obtain their certification.
Director Training	For directors to understand the duties and responsibilities, risk management and internal control, etc.
APEGA Professional development	All engineers & geoscientists must complete 80 hours CPD (continuous professional development) hours per year to sustain membership
ABSA renewals/recertification	Annual recertification for 1, 2,3 class power engineers to ensure site operation and safety
CPA	All accountants must declare continuous professional development hours, 60 hours annual is required.

The Human Resources Department of the Group is responsible for developing a training plan in accordance with the Group's development objective and employees' needs. The plan is reviewed regularly with reference to employees' feedback to ensure continuous improvement. Training activities undertaken by employees are also reviewed and evaluated by feedback and departmental meetings. Employees have equal access to staff training and development opportunities. During the reporting period, the detailed breakdown of the percentage of employees trained, and the average training hours completed per employee by gender and employee category are as follows:

Percentage of employees trained ²⁰	2020	2019
By gender		
- Male	95%	98%
- Female	90%	56%
By employment category		
- Senior management	100%	100%

²⁰ The percentage of employees trained and average training hours data excluded those that has left the company during the reporting period.

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Percentage of employees trained ²⁰	2020	2019
- Middle management	80%	88%
- General	93%	85%
- Contract or short term	100%	86%

Average training hours (in hours per employee) ¹⁸	2020	2019
By gender		
- Male	18.23	57.74
- Female	23.60	6.98
By employment category		
- Senior management	47.50	43.67
- Middle management	23.00	45.19
- General	20.40	46.64
- Contract or short term	12.10	27.14

In 2020, the average training hours per employee decreased for General and Contract or short term staffs because most on-site trainings were cancelled due to the outbreak of COVID-19 and the temporary suspension of production.

LABOUR STANDARDS

The Group respects human rights and is committed to finding practical, meaningful and culturally appropriate solutions to the elimination of child and forced labour practices. The Group is in strict compliance with Employment Standards Code and Employment Standards Regulation. As stipulated in the “No Child Labour Policy” of the Group, the use of child labour and forced labour is strictly prohibited. The Group does not employ any person below the age of eighteen years old at the workplace and has zero tolerance towards the breach. No employee is forced to work against his/her will or work as forced labour. Employment contracts and other records, documenting all relevant personal details of the employees, are properly maintained and open for verification by any authorised personnel or relevant statutory bodies. Any cases of child or forced labour should be reported timely to functional heads. Our suppliers are expected to follow the same standard of labour practices when working with us.

OPERATING PRACTICES

SUPPLY CHAIN MANAGEMENT

The Group works closely with suppliers who carry out their business with us in accordance with the applicable laws, rules and regulations. Suppliers are required to develop and enforce policies and practices that are consistent with the Group's policies and requirements to reduce our risks associated with supply chain management. Our suppliers provide us with a wide range of goods and services, from office support to oil sands project operation. We recognise our suppliers as valuable stakeholders in the business operation to achieve quality excellence of products and good reputation of the Group.

Below is the table which summarises the number of suppliers by geographical region:

No. of suppliers by geographical region	2020	2019
North America	189	233
Asia	7	9

With environmental consideration, the Group prefers choosing local suppliers. Over 95% of the goods and services are sourced locally. The Group is committed to sustainable supply chain. This can strengthen the control of environmental risks related to supply chain. "Environmental Purchasing Policy" of the Group supports the purchase of recycled and environmentally preferred products from suppliers in order to minimise environmental impacts. Waste prevention, recycling, and use of recycled or recyclable materials are encouraged through lease agreement, contractual relationships and purchasing practices with suppliers and other business partners.

With a comprehensive supply chain management mechanism, we ensure fair dealing, impartial selection, transparency and communication with the suppliers. All suppliers are treated with fairness and respect. They are selected based on a list of criteria, such as technical specifications, quality, price, environmental and social impacts, etc. The Group compares the suppliers available in the market by the above-mentioned criteria and selects the ones that are the best for the Group. All suppliers must be evaluated on an annual basis to ensure their compliance with the environmental policies and procedures of the Group.

PRODUCT RESPONSIBILITY

Achieving and maintaining safe and high-quality standards of operation projects are important for the sustainable development of the Group. Bitumen and/or diluted bitumen (“dilbit”) are the products which we produce in the operation projects. The selling price of these products directly depends on product quality. Therefore, safe operations and quality control of products are indispensable to long-term success of the Group.

Quality Management

The goal of the Group is to deliver maximum value and provide sustainable, predictable oil production growth. Quality is a crucial element to achieve this goal. The Group is committed to continuous effort to improve the product quality in the operation process. Ensuring the health and safety of employees in the operation process, establishing a sustainable supply chain management with contractors and suppliers and fulfilling our responsibility to the environment are our definitions of quality. With these clear definitions, a good quality management system is established to provide a framework for measuring and improving our product quality. The details are as below:

1. selection and monitoring of suppliers’ performance against the criteria set;
2. training and development for our employees;
3. regular audit of our internal processes;
4. measurable quality objectives which reflect our business aims; and
5. management reviews of audit results.

Our internal quality management procedures are reviewed regularly and are documented in a quality control manual which is made available to all employees.

Quality assurance procedures for the bitumen and/or dilbit production involve several tests and measurements in different processes. In the plant, all the processed oil is measured by specific meters for parameters, including volume, density/API Gravity²¹

²¹ API Gravity is a standard for measuring the density of petroleum and is suggested by American Petroleum Institute (“API”), which is the major United States trade association for the oil and natural gas industry.

and Basic sediment and water²² (“BS&W”), to analyse the oil and water content before flowing into the tanks for sale. The meters are required to be calibrated annually to ensure the accuracy of measurement. Manual oil cuts are conducted frequently to validate the oil and water content of the processed oil measured by the meters. The dilbit is measured by specific meters for the above-mentioned parameters again when loading to the truck and before leaving the plant. The meters are also required to be calibrated annually. At the unloading facility of the sales point, the dilbit is measured by Lease Automatic Custody Transfer (“LACT”) unit against the pipeline specification. This LACT unit system is recognised by the industry for automatic measurement of the volume and quality of crude oil and main petroleum products from production facilities to trucks, railcars, pipelines or storage tanks. Products that do not meet the specifications will need to get a discount rate based on the quality or will not be accepted at the loading facility.

Customer Data Protection

The Group takes customer privacy issues seriously. The Group fully complies with all applicable laws and regulations, including the Data Protection Act. The “Data Protection Policy” of the Group is established on collection, handling and storage of personal data. The Board of Directors is responsible for ensuring the Group meets legal obligation on data protection. Personal data is managed by IT managers. IT managers are responsible for ensuring all systems, services and equipment used for storing data by the Group data meet acceptable security standards. Regular checks and scans are performed to ensure security hardware and software functions properly. Data protection training is provided to most employees to help them understand their responsibilities when handling data.

Some key measures for customer data protection are implemented as follows:

- All servers and computers containing data should be protected by approved security software and a firewall.
- Data should be backed up frequently and tested regularly, which is in line with the Group’s standard backup procedures.
- Servers containing personal data should be sited in a secure location, away from general office space.

²² Basic sediment and water (“BS&W”) is a technical specification of certain impurities in crude oil. When extracted from an oil reservoir, the crude oil will contain some amount of water and suspended solids from the reservoir formation.

ANTI-CORRUPTION

The Group is committed to conducting its business ethically and legally with the highest standards of openness, honesty and accountability. Unlawful or unethical behaviours including soliciting, accepting, or paying bribes or other illicit payments for any purpose are not tolerated in the Group's workforce. Situations where judgment might be influenced or appears to be influenced by improper considerations must be avoided. Payment or acceptance of any “kickbacks” from contractors or other external parties is prohibited. The relevant law which the Group is subject to and abides by is the Corruption of Foreign Public Officials Act. All staff must comply with the applicable laws and regulations. Our business partners and suppliers are expected to follow the same standard when conducting their business with us. Non-compliance could have serious ramifications. In 2020, no legal cases (2019: nil) regarding corrupt practices were brought against the Group or its employees.

The Group's “Whistle Blowing Policy” sets out a mechanism to enable and encourage employees to raise any concerns about malpractice. All cases reported to the Group are expeditiously and thoroughly investigated while the confidentiality is respected in order to protect individuals. The Group abstains from any improper intervention in political process and does not make contributions to political parties, committees or their representatives, unless permitted by law, and approved in advance by the senior management. The Group fully complies with all legal requirement for public disclosure.

COMMUNITY

COMMUNITY INVESTMENT

The Group is committed to social responsibility by promoting industry leading consultation and regulatory best practices throughout the life cycles of our projects. We hold and maintain excellent working relationships with all current regional stakeholders including indigenous groups such as First Nations in the Athabasca oil sands region. While maintaining this reputation, the Group has been able to mitigate concerns and objections to developments in the area. The “Aboriginal Stakeholders Engagement Process and Strategy” of the Group sets up a framework to manage the potential risks associated with our proposed and existing oil sands activities in order to mitigate the impacts on the indigenous groups. For example, prior to the launch of any project, we consult stakeholders, including members of the public, regulatory bodies and aboriginal communities who are, or may be affected by the proposed exploration and/or development activities. We will seek to ensure a

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transparent and respectful relationship is built and maintained with neighbours and stakeholders throughout the project area and encourage their input into the design of the project.

The Group is willing to seek out creative social investment opportunities in local communities which may be affected by our proposed operation to create a mutually beneficial and long-term value for the Company and the stakeholders.

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KPI B6.3	Description and practices relating to observing and protecting intellectual property rights	Intellectual property rights were not material to the Group's operation.	-
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