Context and Purpose of this Interpretation Document

This document is a reference document that explains Suncor's perspective and interpretation of the associated questions in its disclosure. This document is also meant to provide context to the answers to those questions, as detailed in the accompanying tables. The context described in this document is linked to the disclosure table and is meant to help the reader interpret Suncor's responses to each specific question in the table.

Suncor is Canada's largest integrated oil and gas company, with mining and tailings facilities in the Athabasca Oil sands region of Alberta and operations in Fort McMurray. Suncor has been in operation for more than fifty years and continues to successfully manage risks associated with tailings storage facilities.

Suncor is providing information with respect to three categories of mine and tailings facilities. Firstly, it is providing information on the mine and tailings facilities at Base Mine, where Suncor is the owner and operator. Secondly, it is providing information on the mine and tailings facilities at Fort Hills, where Suncor has a 54.11% ownership interest (with the other owners being Teck Resources Limited and Total E&P Canada Ltd.). Suncor is the operator at Fort Hills. Thirdly, it is providing information on the mine and tailings facilities of the Syncrude joint venture where Suncor has a 58.74% working interest (with the other owners being Imperial Oil Resources Limited, Sinopec Oil Sands Partnership, and CNOOC Oil Sands Canada). Suncor is not the operator of the Syncrude joint venture and the Syncrude information disclosed herein was provided to Suncor by the operator (Syncrude Canada Ltd. "SCL").

Accordingly, responses relating to: (i) Base Mine refer to Suncor as the owner and operator; (ii) Fort Hills refer to Suncor as a partial owner and operator; and (iii) Syncrude joint venture refer to Suncor solely as a participant in the joint venture. This is outlined in our responses to Question 3 in our response.

Response to Overview Questions

Overview Question 1 - Provide an overview of Suncor's tailings management system, and how you manage risk.

With respect to its operated facilities, Suncor manages tailings risk through its Tailings Facility Management System (TFMS). TFMS is a well-established process which is a supporting element of Suncor's overall Operational Excellence Management System (OEMS). Suncor's current TFMS was developed in response to the development of the Mining Associations of Canada's (MAC's) Guide to Managing Tailings Facilities and MAC's Towards Sustainable Mining initiative (TSM). In 2017, Suncor received a "AAA" rating in tailings management through TSM.

SCL, as operator of the Syncrude joint venture, manages tailings risk through its Operational Integrity Management System (OIMS) with a specific module for Geotechnical Earthen Structure Integrity. SCL is also a member company of MAC and complies with the MAC 2017 Guidance document. SCL has historically maintained an "A" rating in tailings management through TSM and is currently taking steps to achieve a "AAA" rating.

Both Suncor's and SCL's management systems emphasize:

1. Responsible Corporate Accountability for Tailings
2. Effective Operations Integrity and Governance
3. Robust Dam Safety Management

Responsible Corporate Accountability for Tailings

Suncor, and its joint venture partners, have an unwavering commitment to safety above all else. Tailings facilities are important assets with significant inherent risk and accordingly receive a high level of focus. These facilities are designed to have a very low probability of failure because of the potentially high consequence if a failure were to occur. Inherent risk is managed to the lowest possible residual risk level. Accountable executives for tailings management, and other supporting leaders, provide senior level oversight and support for tailings facility management. Both Suncor's and SCL's respective enterprise risk governance processes include a review of tailings management and other principle risks up to their respective Board of Directors.

Effective Operations Integrity and Governance

Respective Geotechnical teams at Suncor and SCL have technical expertise and authority to ensure that every dam is constructed as per design, and maintained to industry leading practice and standards for dams.

Accountability for managing tailings facility assets sits with the operator of the asset (Suncor for Base Mine and Fort Hills and SCL for the Syncrude joint venture) with each having full authority to operate and maintain their respective facilities in accordance with technical specifications, regulatory requirements and industry leading practice and standards.

Robust Dam Safety Management

There are stringent regulations governing tailings and dam safety in Canada. Alberta regulators released the new Dam and Canal Safety Directive in December 2018 that establishes industry leading practices for dam safety management regulation. The Mining Association of Canada's (MAC) Toward Sustainable Mining Tailings Protocol and the Canadian Dam Safety Association

are recognized as the benchmark for tailings facility management. These protocols are now being adopted around the world as best practice.

Both Suncor and SCL manage robust dam safety programs, aimed at protecting the integrity of tailings dam facilities through extensive checks and oversight for design, construction and monitoring, including a series of internal and external reviews.

Suncor and SCL each employ specialized and experienced engineers, referred to as geotechnical engineers of record, for each tailings facility and/or dam structure. These qualified individuals collaborate closely with geotechnical design teams, referred to as geotechnical designers of record.

In addition to using these expert teams, both Suncor and SCL have established independent external review boards that review and critique ongoing technical work several times a year at each site. The scope of the external review board's work includes a performance review for tailings facilities and their associated dams. The review boards are comprised of internationally recognized experts in their fields. Lastly, all designs must be approved by dam safety engineers at the Alberta Energy Regulator in accordance with Alberta's Dam & Canal Safety Directive.

Once designs are approved, both Suncor and SCL exercise caution during construction, focusing on ensuring that facilities have construction practices that strictly adhere to design specifications. This is completed through Quality Assurance Programs overseen by qualified engineers who monitor and provide technical oversight during the construction of all dams.

Suncor and SCL's tailings facilities are actively operated and monitored as part of a disciplined dam safety management system. Assigned engineers have technical oversight of the performance of all dams during and after construction. Geotechnical instruments are placed in the structures at designed depths and locations during the construction and operating phases to monitor the facility. Suncor and SCL each use the data obtained to monitor the ongoing health and integrity of the structures during all phases of the tailings facility lifecycle.

Overview Question 2 - Confirm whether your approach to tailings management has changed or will change in light of recent tailings disasters at Brumadinho, Mariana, Mount Polley and others. Have you for example, reviewed all tailings storage facilities with upstream construction, and taken steps necessary to protect local communities and the environment.

Suncor

Suncor has reviewed recent global failures like Mount Polley and Brumadinho to assess what learnings can be applied to existing systems through our continuous improvement mindset. Learnings from these failures have reinforced Suncor's focus on construction due diligence for all dam construction methods used at our sites.

Suncor's dam safety management system is governed by our OEMS and continues to evolve through applied learnings in the Oil Sands Industry as well as through shared learnings on the international stage. A central technical team at Suncor sets and implements standards, practices, and procedures for the design, construction, and operation of all tailings facilities on Suncor operated sites.

Suncor retains site specific external review boards with strong international experience that are recognized as experts in dam safety risk management. Review board members are well connected to the international dam safety community and are able to provide guidance and advice on advancing industry leading practices as well as learnings from dam safety incidents. Recent examples of applied learnings include assessing:

1. Change management practices and sub surface modeling techniques
2. Forensic approaches to managing dam safety information
3. Supplemental liquefaction studies on high consequence facilities
4. Implementation of MAC's recommended enhancements to the Tailings Protocol as a result of the Mount Polley and Samarco investigation findings

As a member and active participant in the Mining Association of Canada's TSM initiative, Suncor uses a highly integrated approach through the Tailings Protocol, Aboriginal and Community Outreach Protocol, and the Crisis Management and Communications Planning Protocol as part of a stakeholder communication strategy on tailings management. Suncor's Tailings Protocol "AAA" rating (2018) further recognizes Suncor's strong commitment to managing dam safety risks. As a member of the TSM Tailings Working Group, Suncor's technical team has participated in developing an enhanced set of guidelines, in support of the Tailings Protocol, sanctioned by MAC in 2019 that guides the Canadian mining industry on best practices and improved effectiveness.

Syncrude

SCL has also reviewed recent global failures like Mount Polley and Brumadinho to assess what learnings can be applied to existing systems through our continuous improvement mindset. Learnings from theses failures have reinforced SCL's focus on construction due diligence for all dam construction methods used at our sites. SCL's independent geotechnical review board is also aware of recent dam

incidents and reflect this in their assessments. All dams have an Emergency response plan (ERP) and an Emergency preparedness plan (EPP) which are regularly tested. The EPP's are shared with affected stakeholders as determined through inundation studies.

Dam Integrity Advisory Committee

Both Suncor and SCL were founding members of the Dam Integrity Advisory Committee (DIAC) that was formed after the Mount Polley dam failure in 2014. DIAC's mandate was to share: lessons learned, briefings on global issues and incidents, promote new dam safety technologies and education, and to facilitate collaboration between Industry, regulators, Canadian Dam Safety (CDA) and the Mining Association of Canada (MAC). Both Suncor and SCL are current participating members of DIAC.

Footnotes supporting tailings facilities disclosures - Questions 1 – 20

1. Tailings Facility Identifier

Tailings Storage Facilities (TSF) at Suncor and Syncrude are defined as an impoundment surrounded by engineered dams/dykes for the purpose of containing tailings. Each facility and associated dam/dykes require dam safety regulatory approval (initially and through life cycle operations). Some of these facilities are in-pit, contained facilities while others are external facilities.

2. Location

The interpretation of the question requires Suncor to provide the centroid of each tailings storage facility coordinates (latitude and longitude) for both Suncor operated facilities and SCL operated facilities.

3. Ownership Structure

Suncor has facilities listed in the categories of operated, JV operated, and JV non-operated. For the JV operated and not operated facilities, Suncor is not the sole owner. Suncor is a partial owner of the Fort Hills project (together with Teck Resources Limited. and Total E&P Canada Ltd.) and is the operator of the facilities. Suncor is a partial owner of the Syncrude joint venture (together with Imperial Oil Resources Ltd., Sinopec Oil Sands Partnership, and CNOOC Oil Sands Canada), with Syncrude Canada Ltd. (SCL) being the operator of the facilities.

4. Status

Is the tailings storage facility active, inactive, or closed?

- Active is defined as in operation for either ongoing tailings management or progressing to closure.
- Inactive is defined as not in operation but not yet closed.
- Closed is defined as having completed closure activities but still owned by the Operator.

5. Date of Initial Operation

Indicates the year in which the tailings storage facility was first commissioned through active tailings deposition.

6. Is the Dam currently operated or closed as per currently approved design?

None of Base Mine, Fort Hills or the Syncrude joint venture currently has any closed facilities. Regulators have set criteria that govern approval requirements for all lifecycles of a tailings storage facility and its associated dams.

7. Raising Method

The term Raising Methods is used to describe the different types of dam construction methods; typical categories include downstream, upstream, centerline, and modified centerline.

8. Current Maximum Height

What is the current maximum height of the highest tailings dam associated with each tailings facility?

9. Current Tailings Storage Impoundment Volume

Current volumes are calculated using various techniques, including but not limited to, 3D modelling, and infill drilling techniques and are approximate values only. Total volumes include sand fraction and fluid tailings; fluid tailings volumes include water and are stated separately in the table.

10. Planned Tailings Storage Impoundment Volume in 5 years' time.

Planned volumes are calculated based on future expected production rates and expected precipitation and are revisited on an annual basis. Total volumes include sand fraction and fluid tailings; fluid tailings volumes include water and are stated separately in the table. Future fluid tailings volumes will reduce through time as treatment progresses.

11. Most Recent Independent Expert Review

Two types of Independent Expert Reviews are conducted.

1. Firstly both Suncor and SCL employ independent external review boards consisting of internationally recognized experts in tailings risk management. SCL's board was instituted in 1976. Suncor's formal board started in the mid 1980s. Each of the review boards engage both formally and informally in the course of normal business throughout the year and support the Dam Safety Risks Management governance process. Each of the review boards report findings/actions to appropriate accountable executives and their leadership teams on a prescribed basis. Review board recommendations are minuted and stewarded at subsequent review board meetings.
2. Secondly, in conjunction with provincial regulation requirements, third party engineering firms are secured to perform Dam Safety Reviews (DSRs), also on a prescribed basis.

Resulting actions of both the external Review Boards and DSRs are managed by resident technical teams and included as part of risk management governance.

12. Do you have full and complete relevant engineering records including design, construction, operation, maintenance and/or closure?

For each of Base Mine, Fort Hills and the Syncrude joint venture, the respective operator of the facilities maintains all relevant engineering records (either internally or externally through the engineering firms with "Designer of Record" accountability).

13. What is your hazard categorization of this facility, based on consequence of failure?

For both Suncor and SCL, the hazard classification used for the tailings facility is the consequence classification of the highest consequence dam structure. Consequence classification is assessed in conjunction with provincial regulatory bodies and the "Designer of Record" and is based on an inundation study which considers potential downstream impacts. **The assigned consequence classification for a dam does not imply a high risk dam. The consequence of failure does not recognize the likelihood of failure, or the extensive systems that are in place to reduce the likelihood of failure to as low as possible, and therefore is not a representation of actual risk.**

14. What guideline do you follow for the classification system?

The dam safety regulation in Alberta is through the Water (Ministerial) Regulation and detailed in the Dam and Canal Safety Directive. These documents are available for public information on the Alberta Environment and Parks (AEP) website. The regulation and directive governs dam safety requirements for all dams and canals in the province, including defining dam classifications.

15. Has this facility, at any point in its history, failed to be confirmed or certified as stable, or experienced notable stability concerns, as identified by an independent engineer (even if later certified as stable by the same or a different firm).

Neither Suncor nor SCL have a facility that has failed to be confirmed or certified as stable. Structures are actively monitored and managed to ensure they remain stable. Numerous technical papers have been published that define the development of stable dams in the oil sands region.

16. Do you have internal/in house engineering specialist oversight of this facility? Or do you have external engineering support for this purpose?

At both Suncor and SCL, in house specialists are used for technical oversight of all tailings facilities. In house experts are supported by external design specialists and senior independent reviewers. In addition, all facilities are managed by Suncor and SCL in accordance with the MAC "Guide to Management of Tailings Facilities" and MAC's TSM Tailings Protocol. These processes are audited through operations integrity audits and the TSM required audits and assessments.

17. Has a formal analysis of the downstream impact on communities, ecosystems and critical infrastructure in the event of catastrophic failure been undertaken and to reflect final conditions? If so, when did this assessment take place?

Both Suncor, through the Outreach & Disclosure, Chief Sustainability Office, and SCL utilize MAC's TSM initiative, to engage with communities and stakeholders as laid out in the Tailings Management Protocol, Aboriginal and Community Outreach Protocol, and the Crisis Management and Communications Planning Protocol for transparency in tailings management. The understanding of potential downstream impacts of external tailings facilities (assessed through formal inundation studies) is required as part of the Alberta regulatory process for new tailings facilities. The regulators require tailings facility owners to inform communities and stakeholders about tailings risks through the Emergency Preparedness Plan which includes the inundation study information.

18. Is there a) a closure plan in place for this dam, and b) does it include long term monitoring?

At Suncor and SCL, mine planning teams focus on end of mine life planning, including closure requirements (closure may require long term monitoring of reclaimed lands on the path to closure). Federal and Provincial Regulatory bodies also play an important role in closure planning, requiring regularly scheduled updates to closure plans, and requiring operators to post security to cover asset retirement and closure obligations.

19. Have you, or do you plan to assess your tailings facilities against the impact of more regular extreme weather events as a result of climate change, e.g. over the next two years?

Suncor's and SCL's emergency preparedness risk management processes help quantify the impact of extreme weather events. Understanding the potential impacts of Probable Maximum Flood events is key to this assessment. This risk is also assessed in closure planning studies that aim to support the decommissioning of tailings facilities in a manner acceptable to affected communities and stakeholders.

20. Any other relevant information and supporting documentation.

This question provides the opportunity for operators to supply any supplemental information that demonstrates due diligence managing tailings facility risks. Links to the Alberta Energy Regulator and the Mining Association of Canada have been provided.