



Yamoga Building, Old Airport Road,  
P.O. Box 1, Fort Good Hope, NT X0E 0H0

Tel: 867-598-2413 Fax: 867-598-2325  
www.slwb.com

August 22, 2022

File: S22L1-001

Chris Moger  
Surface Landman  
Suncor Energy  
P.O. Box 2844, 150 6<sup>th</sup> Ave SW  
Calgary, AB T2P 3E3

Sent by email

Dear Chris Moger,

**Re: Suncor Energy Inc. Well Abandonment and Final Closure Project, Tweed Lake Area - Issuance Package - Water Licence S22L1-001 - Oil and Gas Well Abandonment, Site Remediation and Final Closure and Reclamation – southwest and south of Colville Lake, Northwest Territories**

The Sahtu Land and Water Board (Board) met on August 10, 2022 and considered the Application Package from Suncor Energy Inc. (Suncor) for Water Licence (Licence) S22L1-001 for the **Well Abandonment and Final Closure Project, Tweed Lake Area** in accordance with the *Waters Act*.

This Licence is issued for the purpose of well abandonment, site remediation as required, and final closure and reclamation of well leases located south of Colville Lake (Bele O-35) and southwest of Colville Lake (Tweed Lake A-67 and Tweed Lake M-47).

The Board has approved Water Licence S22L1-001 for a term of 5 years, effective August 22, 2022, and expiring August 21, 2027. The Licence is supported by the Board's Reasons for Decision. These documents are posted to the Board's Public Registry.<sup>1</sup>

#### Land Use Plan Conformity

The Board has confirmed that the Project has met the conformity requirements of the Sahtu Land Use Plan as set out in section 46 of the *Mackenzie Valley Resource Management Act* (MVRMA).

#### Security Deposit

A security deposit of \$1,966,498.00 is required within 90 days of issuance of this Licence, as per Part C, Condition 1, **POST SECURITY DEPOSIT**. The security deposit, is **payable to the Government of the Northwest Territories (GNWT)** and should be submitted to the following individual, to whom questions regarding security should also be directed:

<sup>1</sup> See SLWB Online Registry for [S22L1-001](https://www.slwb.com/registry/S22L1-001)

Nathen Richea, Director, Water Resources  
GNWT-Environment and Natural Resources (ENR)  
Box 1320  
Yellowknife NT X1A 2L4

The amount of security required as set out in Schedule 2 of the Licence, may be adjusted based on refinements of assumptions and costs and submission of a revised Closure Cost Estimate as per Part C, Conditions 2 and 3 and as described in the revised Closure and Reclamation Plan required as per Part I, Condition 2.

#### Water Use Fees

Water use fees in the amount of \$432.50 are required to be paid in the year that Project winter abandonment activities are to commence to the **Government of the Northwest Territories** by the date set out Part D, Condition 4, **WATER USE FEE**. Water use fees for the period of August 22, 2022 to August 21, 2023 are not required as the anticipated water use for the period is nil.

#### Submission Requirements

The Board's decisions on submissions that were considered in conjunction with the Application Package are set out below. Details of revisions required to Management Plans are included in Table A, attached.

#### *Management Plans – Approved*

The Board has approved the following Plans:

Part B, Condition 18, **ENGAGEMENT PLAN** - Engagement Plan and Record (V2)<sup>2</sup>.

Part H, Condition 2, **SPILL CONTINGENCY PLAN** (V1)<sup>3</sup>

#### *Management Plans – Approved with minor Revisions Required*

The Board requires that the following Plan be revised and submitted by the date outlined in Part F, Condition 4. The revised Plans will be approved when the Licensee receives written confirmation of conformity with requested changes detailed in the attached Table A.

Part F, Condition 4, **WASTE MANAGEMENT PLAN – REVISED** (V1)<sup>4</sup>

#### *Management Plans – Not Approved*

The Board has accepted but not approved the Closure and Reclamation Plan (CRP) as an Interim CRP submitted with the Application Package. The Board requires resubmission of an updated or Final Closure and Reclamation Plan Version 2.0 be revised and submitted by the date outlined in Part I, Condition 2 and in accordance with the requirements in Schedule 3, Condition 1. The Licensee may not commence the activities described in the Plan until the Plan has been approved.

Part I, Condition 2, **CLOSURE AND RECLAMATION PLAN – REVISED** (V1)<sup>5</sup>

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<sup>2</sup> See SLWB Online Registry for S22L1-001 – [Engagement Plan and Reporting – Version 2](#) – May 23, 2022

<sup>3</sup> See SLWB Online Registry for S22L1-001 – [Project Spill and Emergency Response Plan Version 1](#) – May 23, 2022

<sup>4</sup> See SLWB Online Registry for S22L1-001 – [Waste Management Plan – Version 1](#) – May 23, 2022

<sup>5</sup> See SLWB Online Registry for S22L1-001 – [Interim Closure and Reclamation Plan – Version 1](#) – May 23, 2022

### Other Advice and Reminders

- Suncor must take all possible efforts to bring benefits to the local communities through economic opportunities and partnerships for the abandonment Project.
- Suncor must engage with the people of Colville Lake in the preparation of the revised Closure and Reclamation Plan to identify objectives, preferred closure options and criteria for all components of the lease areas.
- The Board directs Suncor to make all the revisions for the management plans as required and described in Table A attached.
- The Board encourages Suncor to submit the revised Closure and Reclamation Plan (Part I, Condition 2) and the updated Closure Cost Estimate (Part C, Condition 2 and 3) greater than 90 days prior to Project commencement to allow sufficient time for the regulatory review and approval process.

### Inspectors

The Inspectors referred to in the Licence can be contacted at the regional GNWT-ENR offices.<sup>6</sup>

### Licence Processes and Additional Information

Sections 5 and 6 of the Board's *Guide to the Water Licensing Process*<sup>7</sup> (Guide) contain detailed information on Licence enforcement and potential post-issuance processes, such as amendments to conditions, and assignment to another company. Please be familiar with these sections of the Guide and reach out to Board staff with any questions about Board processes related to the Licence.

Full cooperation of Suncor Energy Inc. is anticipated and appreciated. Please contact Marie Nietfeld [marie.nietfeld@slwb.com](mailto:marie.nietfeld@slwb.com) OR Bonnie Bergsma at [bonnie.bergsma@slwb.com](mailto:bonnie.bergsma@slwb.com) or (519) 289-3390 with any questions or concerns regarding this letter.

Yours sincerely,



Tanya MacIntosh  
Chair, Sahtu Land and Water Board

BCC'd to: K'asho Got'ine District Distribution List  
Jeff Walker, Director, Water Resources, GNWT-ENR Sahtu Regional Office

Attached: Table A: Board Directions for revising Management Plans  
Water Licence S22L1-001  
Reasons for Decision

### **Table A: Board Direction for revision of Waste Management Plan**

<sup>6</sup> See GNWT-ENR Regional Offices webpage (<https://www.enr.gov.nt.ca/en/regional-offices>) for regional contact information.

<sup>7</sup> See SLWB Policies and Guidelines webpage for MVLWB [Guide to the Water Licensing Process](#) (2020).

Document	Additional Information / Revisions Required
<p><b>Waste Management Plan (WMP)</b></p>	<ul style="list-style-type: none"> <li>• Following the Board directions on August 22, 2022, revise the WMP to include or address the following: <ul style="list-style-type: none"> <li>• efforts should be made to recycle all beverage containers and electronics</li> <li>• clarification in the text if domestic non-hazardous waste will be incinerated or not.</li> <li>• “domestic refuge” characteristics differ on pages of the WMP and should be categorized into compostable (food) waste, recyclable products, and non-recyclable non-hazardous domestic waste in Tables 4-1 and 5-1</li> <li>• empty fuel drums can cause toxicity to plants and animals if leaks occur</li> <li>• all waste from program should be removed off-site, and clarification if existing construction materials from previous drill operations will be moved off-site</li> <li>• food related waste stream be stored separately from non-recyclable non-hazardous domestic waste and recyclable products</li> <li>• Suncor to refer to the more recent Guideline for Hazardous Waste Management (2017)</li> </ul> </li> </ul>



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**Suncor Energy Inc.**  
**Water Licence S22L1-001**

Pursuant to the *Waters Act* and the Waters Regulations,  
the Sahtu Land and Water Board grants this Water Licence to:

Suncor Energy Inc.

(Licensee)

of Suncor Energy Centre East Tower, 150 6 Ave SW, Calgary, AB T2P 3E3

(Mailing Address)

hereinafter called the Licensee, to proceed with the following undertaking, subject to the annexed definitions and conditions contained therein:

Location:	Tweed Lake area and 65 km south of Colville Lake, K'asho Got'ine District, N.W.T.
Water Management Area:	Mackenzie River
Purpose:	Industrial activities in Oil and Gas Well Abandonment, Site Remediation and Final Closure and Reclamation
Type:	Type B
Quantity of Water <b>not to be exceeded:</b>	Up to 299 m <sup>3</sup> per day
Effective Date:	August 22, 2022
Expiry Date:	August 21, 2027

Tanya Macintosh

Chair, Sahtu Land and Water Board

Bonnie Bergsma

Regulatory Coordinator-Specialist

# Type B Water Licence S22L1-001

## Suncor Energy Inc. – Well Abandonment, Remediation and Closure and Reclamation Project

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## Part A: Scope and Defined Terms

### Scope:

1. This Licence entitles the Licensee to use Water and deposit Waste for Industrial activities during the Well Abandonment, Remediation and Closure and Reclamation Project in the Colville Lake area of the NWT. **SCOPE**  
  
The scope of this Licence includes the following:
  - a) Well abandonment activities with associated winter road and ice pad construction and camp activities; reclamation, remediation, monitoring and site closure activities;
  - b) Withdrawal of Water for ice road and ice pad construction, downhole abandonment, and camp activities;
  - c) Depositing of Waste to approved facilities;
  - d) Construction of watercourse crossing(s) with snowfills; and
  - e) Remediation of wellsites and drill Sumps, and associated Closure and Reclamation activities.
  
2. The scope of this Licence is as described in the Preliminary Screening for S22L1-001, dated August 10, 2022. **SCOPE – PRELIMINARY SCREENING**
  
3. This Licence is issued subject to the conditions contained herein with respect to the use of Water and the deposit of Waste in any Waters or in any place under any conditions where such Waste or any other Waste that results from the deposits of such Waste may enter any Waters. Any change made to the *Mackenzie Valley Resource Management Act* or *Waters Act* and/or the Mackenzie Valley Federal Areas Waters Regulations or Waters Regulations that affects licence conditions and defined terms will be deemed to have amended this Licence. **LEGISLATION SUBJECT TO CHANGE**
  
4. Compliance with this Licence does not relieve the Licensee from responsibility for compliance with the requirements of any applicable federal, territorial, Délljne, or municipal legislation. **LEGISLATIVE COMPLIANCE**

## **Defined Terms:**

**Analyst** – an Analyst designated by the Minister under subsection 65(1) of the *Waters Act*.

**Board** – the Sahtu Land and Water Board established under Part 3 of the *Mackenzie Valley Resource Management Act*.

**Closure Cost Estimate** - an estimate of the cost to close and reclaim the Project.

**Closure and Reclamation** – the process and activities that facilitate the return of areas affected by the Project to viable and, wherever practicable, self-sustaining ecosystems that are compatible with a healthy environment and human activities.

**Closure and Reclamation Plan (CRP)** – a document, developed in accordance with this Licence, that clearly describes the Closure and Reclamation for the Project.

**Discharge** – a direct or indirect deposit or release of any Water or Waste to the Receiving Environment.

**Drilling Waste** – Waste material specifically produced from drilling activity.

**Engagement Plan** – a document, developed in accordance with the MVLWB *Engagement and Consultation Policy* and the *Engagement Guidelines for Applicants and Holders of Water Licences and Land Use Permits*, that clearly describes how, when, and which engagement activities will occur with an affected party during the life of the Project.

**Greywater** – all liquid Waste from showers, baths, sinks, kitchens, and domestic washing facilities, but does not include Toilet Waste.

**Groundwater** – as defined in section 1 of the Waters Regulations: all water in a zone of saturation below the land surface, regardless of its origin.

**Hazardous Waste** - a Waste which, because of its quantity, concentration, or characteristics, may be harmful to human health or the environment when improperly treated, stored, transported, or discharged.

**Inspector** – an Inspector designated by the Minister under subsection 65(1) of the *Waters Act*.

**Licensee** – the holder of this Licence.

**Minister** – the Minister of the Government of the Northwest Territories (GNWT) – Environment and Natural Resources.

**Ordinary High-Water Mark** – the usual or average level to which a Watercourse rises at its highest point and remains for sufficient time so as to change the characteristics of the land. In flowing Watercourses (rivers, streams), this refers to an active channel/bank-full level, which is often the 1:2-year flood flow return level. In inland lakes, wetlands or marine environments, it refers to those parts of the Watercourse bed and banks that are frequently flooded by Water so as to leave a mark on the land and where the natural vegetation changes from predominantly aquatic vegetation to terrestrial vegetation



(excepting Water tolerant species). For reservoirs, this refers to normal high operating levels (full supply level).

**Progressive Reclamation** – Closure and Reclamation activities conducted during the operating phase of the Project.

**Project** – the undertaking described in Part A, Conditions 1 and 2.

**Receiving Environment** – the natural environment that, directly or indirectly, receives any deposit of Waste from the Project.

**RECLAIM** – the Government of the Northwest Territories’ model for estimating Closure and Reclamation costs.

**Remediation** – the removal, reduction, or neutralization of substances, Wastes, or hazardous materials from a site in order to prevent or minimize any adverse effects on the environment and public safety, now or in the future.

**Sewage** – all Toilet Wastes and Greywater.

**Spill Contingency Plan (SCP)** – a document developed for the Project in accordance with INAC’s *Guidelines for Spill Contingency Planning*.

**Sump** – a human-made excavation or natural depression designated for depositing Water and/or Waste.

**Toilet Wastes** – all human excreta and associated products, not including Greywater.

**Traditional Knowledge** – the cumulative, collective body of knowledge, experience and values built up by a group of people through generations of living in close contact with nature. It builds upon the historic experiences of a people and adapts to social, economic, environmental, spiritual, and political change.

**Unauthorized Discharge** – a Discharge of any Water or Waste not authorized under this Licence

**Waste** – as defined in section 1 of the *Waters Act*:

- a) a substance that, if added to water, would degrade or alter or form part of a process of degradation or alteration of the quality of the water to an extent that is detrimental to its use by people or by an animal, fish or plant, or
- b) water that contains a substance in such a quantity or concentration, or that has been so treated, processed or changed, by heat or other means, that it would, if added to other water, degrade or alter or form part of a process of degradation or alteration of the quality of that water to the extent described in paragraph (a), and includes,
- c) a substance or water that, for the purposes of the *Canada Water Act*, is deemed to be waste,
- d) a substance or class of substances prescribed by regulations made under subparagraph 63(1)(b)(i),
- e) water that contains a substance or class of substances in a quantity or concentration that is equal to or greater than a quantity or concentration prescribed in respect of that substance or class of substances by regulations made under subparagraph 63(1)(b)(ii), and

- f) water that has been subjected to a treatment, process or change prescribed by regulations made under subparagraph 63(1)(b)(iii).

**Waste Management Plan (WMP)** – a document, developed in accordance with the MVLWB *Guidelines for Developing a Waste Management Plan*, that describes the methods of Waste management for the Project from Waste generation to final disposal.

**Water** – as defined in section 1 of the *Waters Act*: water under the administration and control of the Commissioner, whether in a liquid or frozen state, on or below the surface of land.

**Watercourse** – as defined in section 1 of the Waters Regulations: a natural watercourse, body of Water or Water supply, whether usually containing Water or not, and includes Groundwater, springs, swamps, and gulches.

**Water Management Area** – a geographical area of the Northwest Territories established by section 2 and Schedule A of the Waters Regulations.

**Waters Regulations** – the regulations proclaimed pursuant to section 63 of the *Waters Act*.

**Water Use** – as defined in section 1 of the *Waters Act*: a direct or indirect use of any kind, including, but not limited to,

- a) a diversion or obstruction of waters,
- b) an alteration of the flow of waters, and
- c) an alteration of the bed or banks of a river, stream, lake or other body of water, whether or not the body of water is seasonal, but does not include a use connected with shipping activities that are governed by the *Canada Shipping Act, 2001*.

**Water Use Fee** – the fee for use of Water as per the Waters Regulations pursuant to section 63 of the *Waters Act* and the MVLWB *Water Use Fee Policy*.

## Part B: General Conditions

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|----|---|---|
| 1. | The Licensee shall ensure a copy of this Licence is maintained on site at all times.  | <b>COPY OF LICENCE</b>  |
| 2. | The Licensee shall take every reasonable precaution to protect the environment.   | <b>PRECAUTION TO PROTECT ENVIRONMENT</b>                            |
| 3. | In conducting its activities under this Licence, the Licensee shall make every reasonable effort to consider and incorporate any scientific information and Traditional Knowledge that is made available to the Licensee.   | <b>INCORPORATE SCIENTIFIC INFORMATION AND TRADITIONAL KNOWLEDGE</b> |
| 4. | In each submission required by this Licence or by any directive from the Board, the Licensee shall identify all recommendations based on Traditional Knowledge received, describe how the recommendations were incorporated into the submission, and provide justification for any recommendation not adopted.  | <b>IDENTIFY TRADITIONAL KNOWLEDGE</b>                               |
| 5. | All references to policies, guidelines, codes of practice, statutes, regulations, or other authorities shall be read as a reference to the most recent versions, unless otherwise noted.  | <b>REFERENCES</b>   |
| 6. | <p>The Licensee shall ensure all submissions to the Board:</p> <ul style="list-style-type: none"> <li>a) Are in accordance with the MVLWB <i>Document Submission Standards</i>;</li> <li>b) Include a conformity statement or table which identifies where the requirements of this Licence, or other directives from the Board, are addressed; and</li> <li>c) Include any additional information requested by the Board.</li> </ul> | <b>SUBMISSION FORMAT AND CONFORMITY</b>                             |
| 7. | The Licensee shall ensure management plans are submitted to the Board in a format consistent with the MVLWB <i>Standard Outline for Management Plans</i> , unless otherwise specified.  | <b>MANAGEMENT PLAN FORMAT</b>                                       |
| 8. | The Licensee shall comply with all plans and programs, including revisions, approved pursuant to the conditions of this Licence.  | <b>COMPLY WITH SUBMISSIONS AND REVISIONS</b>                        |
| 9. | The Licensee shall conduct an annual review of all plans and programs, and make any revisions necessary to reflect changes in operations, contact information, or other details. No later than September 29 each year, the Licensee shall send a notification letter to the Board, listing the documents that have been reviewed and do not require revisions.  | <b>ANNUAL REVIEW</b>  |

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| 10. | The Licensee may propose changes at any time by submitting revised plans and programs to the Board, for approval, a minimum of 90 days prior to the proposed implementation date for the changes. The Licensee shall not implement the changes until approved by the Board.   | <b>REVISIONS</b>                                     |
| 11. | The Licensee shall revise any submission and submit it as per the Board's directive.  | <b>REVISE AND SUBMIT</b>                             |
| 12. | If any date for any submission falls on a weekend or holiday, the Licensee may submit the item on the following business day.   | <b>SUBMISSION DATE</b>                               |
| 13. | The Licensee shall comply with the <b>Schedules</b> , which are annexed to and form part of this Licence, and any updates to the Schedules as may be made by the Board.   | <b>COMPLY WITH SCHEDULE(S)</b>                       |
| 14. | The Schedules and any compliance dates specified in this Licence may be updated at the discretion of the Board.   | <b>UPDATES TO COMPLIANCE DATE(S)</b>                 |
| 15. | The Licensee shall comply with all directives issued by the Board in respect of the implementation of the conditions of this Licence.   | <b>COMPLY WITH BOARD DIRECTIVES</b>                  |
| 16. | The Licensee shall install, operate, and maintain meters, devices, or other such methods for measuring the volumes of Water used and Waste discharged to the satisfaction of an Inspector.  | <b>MEASURE WATER USE AND WASTE DISCHARGED</b>        |
| 17. | Beginning September 29, 2023 and no later than every September 30 thereafter, the Licensee shall submit an <b>Annual Water Licence Report</b> to the Board and an Inspector. The Report shall be in accordance with the requirements of Schedule 1, Condition 1.  | <b>ANNUAL WATER LICENCE REPORT</b>                   |
| 18. | The Licensee shall comply with the <b>Engagement Plan</b> , once approved.  | <b>ENGAGEMENT PLAN</b>                               |
| 19. | A minimum of ten days prior to the initial commencement of winter abandonment Project activities, the Licensee shall provide written notification to the Board and an Inspector. Notification shall include the commencement date, and the name and contact information for the individual responsible for overseeing the Project. Written notification shall be provided to the Board and an Inspector if any changes occur. | <b>NOTIFICATION – COMMENCEMENT</b>                   |
| 20. | The Licensee shall immediately provide written notification to the Board and an Inspector of any non-compliance with the conditions of this Licence.  | <b>NOTIFICATION – NON-COMPLIANCE WITH CONDITIONS</b> |

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| 21. | The Licensee shall immediately provide written notification to the Board of any non-compliance with a Board directive issued in respect of the implementation of the conditions of this Licence. | <b>NOTIFICATION –<br/>NON-COMPLIANCE<br/>WITH DIRECTIVES</b> |
| 22. | The Licensee shall ensure that a copy of any written authorization issued to the Licensee by an Inspector is provided to the Board.  | <b>COPY – WRITTEN<br/>AUTHORIZATION</b>                      |
| 23. | The Licensee shall submit a current Project schedule to the Board and an Inspector upon request.   | <b>SUBMIT CURRENT<br/>PROJECT SCHEDULE</b>                   |

### **Part C: Security**

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|----|--|---|
| 1. | The Licensee shall post and maintain a security deposit with the Minister in accordance with Schedule 2. The Licensee shall post the security deposit within 90 days after issuance of this Licence.   | <b>POST SECURITY<br/>DEPOSIT</b>        |
| 2. | The Licensee may submit an updated Closure Cost Estimate using the current version of RECLAIM within 90 days of the commencement of the winter abandonment Project.  | <b>UPDATE CLOSURE<br/>COST ESTIMATE</b> |
| 3. | The amount of the security deposit required by Part C, Condition 1 may be adjusted by the Board: <ul style="list-style-type: none"> <li>a) Based on an updated Closure Cost Estimate as per Part C, Condition 2; or</li> <li>b) Based on such other information as may become available to the Board.</li> </ul> | <b>ADJUSTED SECURITY<br/>AMOUNT</b>     |

## Part D: Water Use

1. The Licence shall only obtain Water for the Project for the Project winter abandonment activities, as set out in the following table. The Licensee may withdraw up to 46,250 m<sup>3</sup>/year from these sources, without exceeding the maximum under-ice water withdrawal volumes (quantities) approved for each source.

**WATER SOURCE,  
VOLUMES AND  
MAXIMUM UNDER-  
ICE WATER  
WITHDRAWAL  
VOLUME**

Water Source Number / Name	Location and Coordinates	Maximum Quantity (m <sup>3</sup> per year)	Maximum Under-Ice Quantity (m <sup>3</sup> per year)
Colville Lake WTP # 1	-126.133691, 67.031406	15,000	N/A
Tweed Lake # 2	-125.869955, 66.832213	15,000	N/A
Unnamed Lake # 3	-126.146734, 66.751351	3,000	5,918
Unnamed Lake # 4	-126.05713, 66.675555	3,000	6,267
Unnamed Lake # 5	-126.063311, 66.661845	3,000	5,818
Unnamed Lake # 6	-126.268151, 66.606799	3,000	40,333
Unnamed Lake # 7	-125.905802, 66.922177	1,250	4,349
Unnamed Lake # 8	-125.996881, 66.626335	3,000	7,208

2. The total quantity of Water withdrawn shall not exceed 299 cubic metres per day.
3. The Licensee shall construct and maintain the Water intake(s) with a screen designed to prevent impingement or entrapment of fish.
4. Prior to August 22 in advance of any Water use in the year of commencing the winter abandonment Project activities as set out in Part D, Condition 1, the Licensee shall pay the Water Use Fee in accordance with the MVLWB *Water Use Fee Policy*.

**MAXIMUM WATER  
WITHDRAWAL  
WATER INTAKE  
SCREEN**

**WATER USE FEE**

## Part E: Construction

*Intentionally left blank*

## Part F: Waste and Water Management

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|----|---|--|
| 1. | The Licensee shall manage Waste and Water with the objective of minimizing the impacts of the Project on the quantity and quality of Water in the Receiving Environment through the use of appropriate mitigation measures, monitoring, and follow-up actions.  | <b>OBJECTIVE – WASTE AND WATER MANAGEMENT</b>        |
| 2. | The Licensee shall minimize erosion by implementing suitable erosion control measures that shall be located and maintained to the satisfaction of an Inspector.   | <b>EROSION CONTROL</b>                               |
| 3. | The Licensee shall comply with the <b>Waste Management Plan</b> once approved.  | <b>WASTE MANAGEMENT PLAN</b>                         |
| 4. | A minimum of 90 days prior to the commencement of winter abandonment activities for the Project, the Licensee shall submit to the Board, for approval, a revised <b>Waste Management Plan</b> . The Licensee shall not commence winter abandonment activities for the Project, prior to Board approval of the Plan. | <b>WASTE MANAGEMENT PLAN -REVISED</b>                |
| 5. | The Licensee shall deposit all Waste as described in the approved Waste Management Plan.  | <b>DEPOSIT OF WASTE</b>                              |
| 6. | A minimum of ten days prior to depositing any Waste into a licenced municipal facility, the Licensee shall provide written notification to the Board and an Inspector.  | <b>NOTIFICATION – WASTE DEPOSIT</b>                  |
| 7. | The Licensee shall not discharge Waste, including Wastewater, to any Watercourse, or to the ground surface within 100 metres of the Ordinary High-Water Mark of any Watercourse.  | <b>DISCHARGE LOCATION – ORDINARY HIGH-WATER MARK</b> |

## Part G: Aquatic Effects Monitoring

*Intentionally left blank.*

## Part H: Spill Contingency Planning

- |    |  |  |
|----|--|--|
| 1. | The Licensee shall ensure that Unauthorized Discharges associated with the Project do not enter any Waters.  | <b>OBJECTIVE – PREVENT WASTE INTO WATER</b>        |
| 2. | The Licensee shall comply with the <b>Spill Contingency Plan</b> , once approved.  | <b>SPILL CONTINGENCY PLAN</b>                      |
| 3. | <p>If a spill or an Unauthorized Discharge occurs or is foreseeable, the Licensee shall:</p> <p>a) Implement the approved Spill Contingency Plan referred to in Part H, Condition 2;</p> <p>b) Report it immediately using the NU-NT Spill Report Form by one of the following methods:</p> <ul style="list-style-type: none"> <li>• Telephone: (867) 920-8130</li> <li>• Fax: (867) 873-6924</li> <li>• E-mail: <a href="mailto:spills@gov.nt.ca">spills@gov.nt.ca</a></li> <li>• Online: Spill Reporting and Tracking Database</li> </ul> <p>c) Notify the Board and an Inspector immediately; and</p> <p>d) Within 30 days of initially reporting the incident, or within a timeframe authorized by an Inspector, submit a detailed report to the Board and an Inspector, including descriptions of causes, response actions, and any changes to procedures to prevent similar occurrences in the future. Written notification shall be provided to the Board and an Inspector if any changes occur</p> | <b>REPORT SPILLS</b>                               |
| 4. | The Licensee shall ensure that spill prevention infrastructure and spill response equipment is in place prior to commencement of the Project.  | <b>SPILL PREVENTION AND RESPONSE EQUIPMENT</b>     |
| 5. | The Licensee shall restore all areas affected by spills and Unauthorized Discharges to the satisfaction of an Inspector.   | <b>CLEAN UP SPILLS</b>                             |
| 6. | The Licensee shall not establish any fuel storage facilities or refueling stations, or store chemicals or Wastes within 100 metres of the Ordinary High-Water Mark of any Watercourse.   | <b>MATERIAL STORAGE – ORDINARY HIGH-WATER MARK</b> |



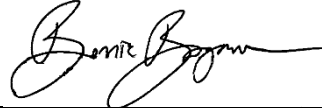
## Part I: Closure and Reclamation

1. The Licensee shall comply with the **Closure and Reclamation Plan**, once approved. **CLOSURE AND RECLAMATION PLAN**
2. Within 90 days prior to the commencement of winter abandonment Project activities, the Licensee shall submit to the Board, for approval, a revised **Closure and Reclamation Plan**. The Plan shall be in accordance with the requirements of Schedule 3, Condition 1. The Licensee shall not commence winter Project activities or activities described in the Plan prior to Board approval. **CLOSURE AND RECLAMATION PLAN - REVISED**
3. Within 90 days of completing Abandonment and Closure of the wellsites, the Licensee shall submit to the Board a **Wellsite Abandonment Completion Report**. **WELLSITE ABANDONMENT COMPLETION REPORT**
4. Within 120 days of completing Abandonment and Closure of the wellsites, the Licensee shall submit, to the Board, for approval, a **Wellsite Reclamation Monitoring and Maintenance Plan**. **WELLSITE RECLAMATION MONITORING AND MAINTENANCE PLAN**

Signed on behalf of the SAHTU LAND AND WATER BOARD



Tanya MacIntosh, Chair



Bonnie Bergsma, Witness

## Schedule 1: Annual Water Licence Report

	Condition
1.	The <b>Annual Water Licence Report</b> referred to in Part B, Condition 17 of this Licence shall include, but not be limited to, the following information about activities conducted during the previous calendar year:
	a) A brief summary of Project activities;
	b) An updated Project schedule;
	c) The monthly and annual quantities in cubic metres of fresh Water obtained from all sources, as required in Part B, Condition 16 of this Licence;
	d) A summary of the calibration and status of the meters and devices referred to in Part B, Condition 16 of this Licence;
	e) A summary of engagement activities conducted in accordance with the approved <b>Engagement Plan</b> , referred to in Part B, Condition 18 of this Licence;
	f) A summary of how Traditional Knowledge was incorporated into decision making;
	g) The monthly and annual quantities, in cubic metres, of each and all Waste types, as described in the approved <b>Waste Management Plan</b> , and all Discharges, and deposits to Waste Disposal facilities, identified by location;
	h) A description of any erosion susceptible areas encountered and a summary of activities to prevent or mitigate erosion;
	i) A summary of activities conducted in accordance with the approved <b>Spill Contingency Plan</b> , referred to in Part H, Condition 2 of this Licence, including: <ul style="list-style-type: none"> <li>i. A list and description for all Unauthorized Discharges, including the date, NWT spill number, volume, location, summary of the circumstances and follow-up actions taken, and status (i.e. open or closed), in accordance with the reporting requirements in Part H, Condition 4 of this Licence; and</li> <li>ii. An outline of any spill training carried out.</li> </ul>
	j) A summary of any Closure and Reclamation work completed;
	k) A list of any non-compliance(s) with the conditions of this Licence or any directive from the Board pursuant to the conditions of this Licence;
	l) A summary of actions taken to address concerns, non-conformances, or deficiencies in any reports filed by an Inspector;
	m) Any other details requested by the Board by September 29 of the year being reported.

## Schedule 2: Conditions Applying to Security Deposits

Condition	
1.	Pursuant to Section 35(1) of the Waters Act, and section 11 of the Regulations, the Licensee shall post a security deposit referred to in Part C of this Licence of \$ 1,966,498.00.

## Schedule 3: Conditions Applying to Closure and Reclamation

1.	<b>The Closure and Reclamation Plan</b> referred to in Part I, Condition 2 of this of this Licence shall include, but not be limited to the following information:
	a) A description of the overall goals for Closure and Reclamation of the Project, including expected future land use;
	b) A description of engagement related to Closure and Reclamation planning, including a summary of completed and planned engagement, and links to the <b>Engagement Plan</b> referred to in Part B, Condition 18 for the Project;
	c) A description of the pre-existing and current Project environment, including, but not limited to: <ol style="list-style-type: none"> <li>i. climatic conditions;</li> <li>ii. physical conditions;</li> <li>iii. chemical conditions;</li> <li>iv. biological conditions;</li> <li>v. any physical or chemical assessments of soil, water, and permafrost; and</li> <li>vi. traditional uses.</li> </ol>
	d) A description of the Project, including, but not limited to: <ol style="list-style-type: none"> <li>i. site history;</li> <li>ii. Project development;</li> <li>iii. current status of the Project;</li> <li>iv. maps delineating all disturbed areas, hydrological features, and elevation contours; and</li> <li>v. photographs.</li> </ol>
	e) A description of each Project component, including, but not limited to: <ol style="list-style-type: none"> <li>i. wellsites and leases;</li> <li>ii. sumps;</li> <li>iii. areas affected by spills or Unauthorized Discharges; and</li> <li>iv. other areas affected by Project activities.</li> </ol>
	f) For each Project component identified in condition (h) above, a description of remediation and reclamation activities anticipated during post-abandonment monitoring, maintenance, and reporting including, but not limited to: <ol style="list-style-type: none"> <li>i. water management (wallow areas) and restoration of natural drainage</li> <li>ii. soil management with analysis and interpretation of any samples collected during the reporting period;</li> <li>iii. climate change considerations;</li> <li>iv. uncertainties and contingencies.</li> </ol>

**Annex A: Concordance Table of Items Requiring Submission**

<b>PART, Condition #</b>	<b>Condition Title</b>	<b>First Due</b>	<b>Frequency</b>
B, 9	Annual Review of Plans	September 29, 2023	Annual
B, 17	Annual Water Licence Report	September 29, 2023	Annual
B, 19	Notification Project commencement - winter	10 days in advance	Once
C, 1	Post Security	90 days after issuance	November 21, 2022
D, 4	Water Use Fees	Prior to August 22	In the year of the winter abandonment activity
F, 4	Resubmit Waste Management Plan	90 days prior to winter abandonment activities	once
F, 6	Notification – Waste Deposit	10 days in advance	anytime
H, 3	Report Spills	Immediately	anytime
I, 2	Submit revised Closure and Reclamation Plan	90 days prior to winter abandonment activities	once
I, 3	Wellsite Abandonment Completion Report	90 days following well abandonment	once
I, 4	Wellsite Reclamation Monitoring and Maintenance Plan	120 days following well abandonment	once



**Sahtu Land & Water Board**  
**REASONS FOR DECISION**  
**Issued Pursuant to Section 72.25 and 121 of**  
***The Mackenzie Valley Resource Management Act***  
**Section 40(2)(c) of**  
**Mackenzie Valley Land Use Regulations, and**  
**Section 54 of the *Waters Act***

**Type A Land Use Permit S22A-001 and Type B Water Licence S22L1-001**

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This is the decision of the Sahtu Land & Water Board (the Board) with respect to the applications deemed complete June 22, 2022 for issuance of a Land Use Permit and Water Licence made by:

**Suncor Energy Inc.**  
**Calgary, AB.**

for: Well abandonment, site remediation and final closure and reclamation activities at Tweed Lake M-47, Tweed Lake A-67 and Bele O-35 leases on Exploration Licences (EL 096K/13-001, 096K/13-002, 096K/09-001) located in the Tweed lake area and 65 km south of Colville Lake, Northwest Territories.

With respect to this application, written notice was given to 12 organizations within the Sahtu Settlement Area and 22 outside of the settlement area in accordance with Sections 63 & 64 of the *Mackenzie Valley Resource Management Act* (MVRMA). There was no Public Hearing held in association with this Application.

**DECISION**

After having been satisfied that the project has been screened pursuant to s.125(1)(a) of the *Mackenzie Valley Resource Management Act* (MVRMA), and that any potential adverse environmental effects were insignificant or mitigable with known technology, and as such the application could proceed through the regulatory process and after reviewing the submission of the Applicant, the Board, having due regard to the facts and circumstances, the merits of the submissions made to it, and to the purpose, scope and intent of the MVRMA and Regulations made thereunder has determined that:

Land Use Permit S22A-001 and Water Licence S22L1-001 will be issued subject to the terms and conditions contained therein.

**REASONS**

The Board's reasons for this decision are as follows:

- It is the opinion of the Board that the Project conforms with the Sahtu Land Use Plan and has met referral obligations to the Sahtu Land Use Planning Board as outlined in section 61 of the MVRMA.
- The use of land and water proposed by the Proponent is of a nature contemplated by the MVRMA.
- The Board is satisfied that appropriate consultation has been conducted and that advice has been sought and considered, in accordance with sections 63 and 64 of the MVRMA and in consideration of public health restrictions.

- It is the opinion of the Board that the Engagement Plan and Record includes provisions for comprehensive, meaningful, and ongoing engagement efforts with the local community to address concerns, to improve understanding of Project activities and potential effects, and to participate in the development of closure objectives, criteria and options, especially in regard to the sumps, and has approved the **Engagement Plan**.
- To the best of their ability and in accordance with the scale of their Project activities and budget, Suncor will provide opportunities and benefits to local communities and land claim organizations through employment and training, hiring of Sahtu businesses and local contractors.
- No significant/unmitigable negative impacts and public concerns have been made known to the Board.
- It is the opinion of the Board that the terms and conditions attached to S22A-001 and to S22L1-001 pursuant to the MVRMA and the *Waters Act* will ensure that any potential environmental impacts resulting from this development are not significant. The effects of the Project on the environment can take place in an environmentally responsible manner provided that environmental considerations and mitigation measures outlined in the Land Use Permit and Water Licence are followed.
- It is the opinion of the Board that the potential environmental and socio-economic impacts from undertaking Project remediation and reclamation activities should result in positive environmental benefits.
- The Board has added three non-standard conditions for the submission of Plans to address concerns raised through the public review process about the increased potential for erosion and permafrost degradation due to changes in the climate and response of the ground and any current or long-term effects on sump stability: Condition 20 **PERMAFROST PROTECTION CONTINGENCY PLAN**, Condition 24 **SEDIMENT AND EROSION CONTROL CONTINGENCY PLAN**, and Condition 76 **SUMP REMEDIATION AND RESTORATION PLAN**.
- Based on the knowledge and experience of the Board, and evidence provided in the public review, achieving 100% sump stability in permafrost environments is problematic. The Board's preference is that any sumps that are not stable and are showing signs of subsistence should be removed with disposal of all contaminated sump materials offsite to reduce the long-term liability of contaminate migration to the surrounding environment. The Board has added three standard conditions in the Permit to address any sump instability issues if required (Conditions 32 **RECLAIM SUMPS**, Condition 33 **SUMPS FREEBOARD**, and Condition 34 **SUMP MATERIAL**).
- It is the opinion of the Board that adequate security has never been allocated for the Project and there are current unsecured historical liabilities on the lease sites. The Board preferred the evidence of the GNWT-ENR and GNWT-Lands that due to the current unsecured liabilities at the sites, the security be posted within 90 days of issuance of the Permit S22A-001 with \$1,757,670.00 allocated for the Land Liability and within 90 days of issuance of the Licence S22L1-001 with \$1,966,498.00 allocated for the Water Liability.
- The Board preferred the evidence and assumptions presented in the Closure Cost Estimate prepared by ARKTIS and submitted by the GNWT-Environment and Natural Resources (ENR), noting that the GNWT has more experience with remediation projects in the north and that they would rather have the sites over secured than under secured.
- The Board agrees with Suncor's rationale that further consultation with the GNWT-ENR and other affected parties, especially undertaking a joint summer site inspection to confirm the status of all sumps and lease areas will clarify assumptions and possibly result in a reduction in the total amount of security required for the Project.
- The Board included two Conditions in the Part C of Licence S22L1-001 that would allow for an adjustment of the security amount as presented in Schedule 2 based on a resubmission following a refinement of assumptions, discussion and support from GNWT-ENR.

- The Board has approved the **Spill Contingency Plan**.
- The Board has conditionally approved the **Waste Management Plan**, requiring a revision be submitted to the Board for approval addressing all review comments and recommendations within 90 days prior to commencement of winter abandonment activities.
- The Board has not approved but accepted the **Closure and Reclamation Plan** as **Interim** with a revised plan to be submitted to the Board for approval prior to commencement of winter abandonment activities.

Land Use Permit S22A-001 and Water Licence S22L1-001 contain provisions that the Board feels necessary to ensure and monitor compliance with the MVRMA and the Regulations made thereunder, and to provide appropriate safeguards in respect of Suncor's use of the lands affected by the Permit and use of the waters affected by the Licence.

The Board will provide any referenced material or documents and/or reasons for decision for any specific clause or clauses contained within the Applications if requested to do so in writing.

SIGNED this 10<sup>th</sup> day of August 2022 on behalf of the SAHTU Land & Water Board.



Tanya MacIntosh

Chairperson, Sahtu Land and Water Board