

**Type B Water Licence # MV2018L2-0006**

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Attached to Water Licence MV2018L2-0006

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## Part A: Scope and Definitions

### 1. Scope

- a) This Licence entitles the Licensee to use Water and dispose of Waste for the purpose of mineral exploration for the Yellowknife City Gold Project in the south-central Northwest Territories. This undertaking is described in the Complete Application and includes the following:
  - i. Withdrawal of water;
  - ii. Deposit of Waste;
  - iii. Construction and operation of camps;
  - iv. Construction, operation, and maintenance of access road and winter road;
  - v. Use and storage of fuel; and
  - vi. Progressive Reclamation and associated closure activities.
- b) This Licence is issued subject to the conditions contained herein with respect to the taking of Water and the depositing of Waste of any type in any Waters or in any place under any conditions where such Waste or any other Waste that results from the deposit of such Waste may enter any Waters. Whenever new Regulations are made or existing Regulations are amended by the Governor in Council under the Act and/or the Commissioner in Executive Council under the Act, or other statutes imposing more stringent conditions relating to the quantity or type of Waste that may be so deposited or under which any such Waste may be so deposited this Licence shall be deemed, upon promulgation of such Regulations, to be automatically amended to conform with such Regulations.
- c) Compliance with the term and conditions of this Licence does not relieve the Licensee from responsibility for compliance with the requirements of all applicable Federal, Territorial or municipal legislation.
- d) The Licensee shall take every reasonable precaution to protect the environment.
- e) In conducting its activities under this Licence, the Licensee shall make best efforts to consider and incorporate any scientific and Traditional Knowledge that is made available to the Licensee.

### 2. Definitions

**Act** –the *Waters Act*, S.N.W.T. 2014, c.18.

**Action Level** - a predetermined qualitative or quantitative trigger which, if exceeded, requires the Licensee to take appropriate actions including, but not limited to: further investigations, changes to operations, or enhanced mitigation measures.

**Artesian Aquifer** - a Water-bearing rock stratum which, when encountered during drilling operations, produces a pressurized flow of Groundwater that reaches an elevation above the Water table or above the ground surface.

**Board** - the Mackenzie Valley Land and Water Board, established under subsection 99(1) of the *Mackenzie Valley Resource Management Act*.

**Closure and Reclamation Plan** – a document, developed in accordance with the Mackenzie Valley Land and Water Board and Aboriginal Affairs and Northern Development Canada’s *Guidelines for the Closure and Reclamation of Advanced Mineral Exploration and Mine Sites in the Northwest Territories* which describes the proposed plans to close and reclaim the undertaking.

**Construction** - any activities undertaken to construct or build any components of, or associated with, the undertaking.

**Discharge** - the direct or indirect release of any Water or Waste to the Receiving Environment.

**Drilling Waste** - all materials or chemicals, solid or liquid, associated with drilling, including drill cuttings and Drilling Fluids.

**Engagement Plan** - a document, developed in accordance with the Board’s *Engagement and Consultation Policy* and the *Engagement Guidelines for Applicants and Holders of Water Licences and Land Use Permits* describes proposed engagement activities during the life of the undertaking.

**Groundwater** - all Water below the ground surface.

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

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

**Licensee** – TerraX Minerals Inc.

**Minister** – the Minister of Indian Affairs and Northern Development Canada or the Minister of Government of the Northwest Territories, as the case may be.

~~**Modification** – a change, other than an expansion, that does not alter the purpose or function of a structure.~~

**Commented [JH1]:** Board staff has removed this section in the Licence as TerraX has not proposed to construct any structure.

**Ordinary High Water Mark** - the usual or average level to which a body of water rises at its highest point and remains for sufficient time so as to change the characteristics of the land. In flowing waters (rivers, streams) this refers to the “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 predominately aquatic vegetation to terrestrial vegetation (excepting water tolerant species). For reservoirs, this refers to normal high operating levels (full supply level).

**Receiving Environment** - the aquatic environment that receives any Water or Waste released from the

undertaking.

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

**Regulations** - Regulations promulgated pursuant to section 63 of the *Waters Act*.

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

**Sump** - a man-made pit or natural depression in the earth's surface used for the purpose of depositing Waste that does not contain Toxic Material, such as non-toxic Drilling Waste, therein.

**Spill Contingency Plan** - a document, developed in accordance with Indian and Northern Affairs Canada's *Guidelines for Spill Contingency Planning*, that describes the set of procedures to be implemented to minimize the effects of a spill.

**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.

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

**Toxic Material** - any substance that enters or may enter the environment in a quantity or concentration or under conditions such that it:

- a) Has or may have an immediate or long-term harmful effect on the environment or its biological diversity;
- b) Constitutes or may constitute a danger to the environment on which life depends; or
- c) Constitutes or may constitute a danger in Canada to human life or health.

**Unauthorized Discharge** - a Discharge or spill of any Water or Waste not authorized under this Licence.

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

**Wastewater** - any Water that is generated by activities or originates on site and contains Waste and includes, but is not limited to, runoff, Seepage, or Minewater.

**Waste Management Plan** - a document, developed in accordance with the Board's *Guidelines for the Development of a Waste Management Plan* which describes the methods of Waste management from Waste generation to final disposal.

**Water** - any Water as defined in section 1 of the *Waters Act*.

**Watercourse** - a natural watercourse, body of Water or Water supply, whether usually containing Water or not, and includes Groundwater, springs, swamps, and gulches.

**Water Use** - a use of Water as defined in section 1 of the *Waters Act*.

**Water Use Fee** - the fee for the use of Water set out in the Regulations promulgated under section 63 of the *Waters Act*.

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## Part B: General Conditions

1. The Licensee shall ensure a copy of this Licence is maintained on site at all times.
2. 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 denoted.
3. All information submitted to the Board, as required by this Licence, shall:
  - a) Be submitted in a form acceptable to the Board;
  - b) Be in accordance with the Board's *Document Submission Standards*; and
  - c) Include a section within each submission which identifies where the pertinent requirements of the Licence are addressed.
4. The Licensee shall operate in accordance with any approved plans, programs, studies and manuals referred to in this Licence, including such revisions as may be made to these documents pursuant to the conditions of this Licence and as approved by the Board.
5. The Licensee shall review the approved plans annually, or as directed by the Board, and make any necessary revisions to reflect changes in operations. All revised plans shall be submitted to the Board, for approval, at least 60 days, unless otherwise specified, prior to implementing any proposed updates or changes in the approved plan, and shall be accompanied by a brief summary of the changes made. All revised plans shall be presented in a format consistent with the Board's *Standard Outline for Management Plans*.
6. The Licensee shall comply with the Schedules, which are annexed to and form part of this Licence, and any changes to the Schedules as may be made from time to time by the Board.
7. The Schedules and any compliance dates specified in this Licence may be changed at the discretion of the Board.
8. If any date for a submission falls on a weekend or holiday, the item shall be submitted on the following business day.
9. Meters, devices, or other such methods used for measuring the volumes of Water used and Waste Discharged shall be installed, operated, and maintained by the Licensee to the satisfaction of an Inspector.
10. The Licensee shall adhere to the **Engagement Plan**, once approved, and shall annually review the Plan and make any necessary revisions to reflect changes in operations or as directed by the Board. Revisions to the Plan shall be submitted to the Board for approval.
11. Beginning March 31, 2020, and no later than every March 31 thereafter, the Licensee shall submit an **Annual Water Licence Report** to the Board. The Report shall be in accordance with Schedule 1, condition 1.
12. The Licensee shall notify the Inspector and the Board immediately of any non-compliance with the conditions of this Licence or any direction provided by the Board.

**Part C: Conditions Applying to Security Deposit**

1. The Licensee shall post and maintain a security deposit in accordance with Schedule 2, condition 1.
2. The security deposit required under Part C, condition 1, shall be in a form acceptable to the Minister and shall be maintained until such time as it is fully or partially refunded by the Minister pursuant to subsection 35(5) of the *Waters Act*.
3. Upon request of the Board, the Licensee shall submit a revised Reclamation liability estimate utilizing the current version of RECLAIM or another method acceptable to the Board.
4. The amount of the security deposit referred to in Part C, condition 1 may be revised by the Board based on estimates of the reclamation liability referred to in Part C, condition 3 or based on such other information as may be available to the Board.
5. If the amount of the security deposit is revised by the Board as described under Part C, condition 4, the Licensee shall post the revised amount with the Minister within 90 days of the Board giving notice of the revised amount.

**Part D: Conditions Applying to Water Use**

1. Prior to the use of Water, the Licensee shall obtain written authorization from an Inspector and submit the following information to the Inspector:
  - a. Name and location of the lake to be used as a Water Source;
  - b. Anticipated daily withdrawal volumes and duration of use, including a comparison of the total Water volume requested for use against the total Water volume available;
  - c. Any available bathymetric information, including maximum depths; and
  - d. Any available information on other Water uses from that source.
2. Within 30 days following the month being reported, the Licensee shall submit a Water Use Report to the Board and the Inspector, which shall include, but not be limited to the following information:
  - a. The volume of Water that was removed from each source; and
  - b. The location of, and depth at the intake pipe.
3. In one ice-covered season, total water withdrawal from a single waterbody shall not exceed 10% of the available water volume calculated using the appropriate maximum expected ice thickness.
4. The total quantity of Water withdrawn shall not exceed 299 cubic metres per day.
5. Prior to the effective date of this Licence and in advance of any Water use, the Licensee shall annually pay the Water Use Fee in accordance with the Mackenzie Valley Land and Water Board's *Water Use Fee Policy*.



**Part E: Conditions Applying to Construction**

1. The Licensee shall ensure that all structures intended to contain, withhold, divert, or retain Water or Wastes are designed, constructed, and maintained to prevent escape of Waste to the Receiving Environment.

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#### **Part F: Conditions Applying to Water and Waste Management**

1. The Licensee shall manage Water and Waste with the objectives of minimizing impacts on the quantity and quality of Water in the Receiving Environment through the use of appropriate mitigation measures, monitoring, and follow-up actions.
2. The Licensee shall ensure that any unauthorized Wastes do not enter any Waters.

#### **Management Plans**

3. The Licensee shall adhere to the **Waste Management Plan**, once approved, and shall annually review the Plan and make any necessary revisions to reflect changes in operations, technology, chemicals, or fuels, or as directed by the Board. Revisions to the Plan shall be submitted to the Board for approval.
4. The Licensee shall dispose of all Sewage and Greywater as described in the approved Waste Management Plan.

#### **Operations and Maintenance**

5. If, during the period of this Licence, an Artesian Aquifer is encountered and producing Water at the ground surface, the Licensee shall:
  - (a) Employ appropriate technology, as necessary, to prevent Artesian Aquifer Water from flowing off-lease and to minimize the quantity of such Water that will be stored on-site;
  - (b) Notify the Board and an Inspector, in writing, within 48 hours of the flow rate, in cubic metres; and
  - (c) Within 24 hours following cessation of the flow of Artesian Aquifer Water, the Licensee shall submit to the Board and an Inspector a detailed report of the event, which shall include the total amount of Artesian Aquifer Water in cubic metres that has been released and the amount in cubic metres stored in the snow bermed area or otherwise approved storage area.
6. Upon the completion of each drilling operation, the Licensee shall, where fluids generated by an **Artesian Aquifer** are encountered, seal the borehole in such a manner as to permanently prevent any further outflow of water.
7. The disposal of fluids generated by an Artesian Aquifer to other than a snow bermed area, or other self-contained area, requires the approval of the Board and an Inspector.
8. The sealing of an Artesian Aquifer shall be to the satisfaction of an Inspector.

#### **Discharge Locations and Rates**

9. Waste, including Wastewater, shall not be discharged or decanted to any waterbody, Watercourse, or to the ground surface within 100 metres of the Normal High Water Mark of any waterbody or Watercourse.

10. A minimum of 48 hours prior to the commencement of drilling at each drill target, the Licensee shall notify an Inspector of the location of Drilling Waste disposal.
11. In the event where decanting Waste or Water from the Sump(s) is planned or required by an unanticipated event, the Licensee shall:
  - a) Advise an Inspector; and
  - b) Prior to decanting, obtain written authorization for the location of the Sump discharge from the Inspector.

**Inspections of Structures and Facilities**

12. The Licensee shall conduct daily erosion inspections of Discharge points during periods of Discharge, or more frequently as directed by an Inspector. Records of these inspections shall be kept for review upon request of an Inspector.
13. The Licensee shall conduct weekly inspections of all Sumps, or more frequently, as directed by an Inspector. Records of these inspections shall be kept for review upon request of an Inspector.

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**Part G: Conditions Applying to Watercourse Crossings**

1. The Licensee shall minimize the disturbance of riparian vegetation within the immediate boundary of any Watercourse crossing to the extent practicable.
2. The Licensee shall ensure that only clean snow is used for construction of snowfills for vehicle and equipment access on all Watercourse crossings and that no debris is placed in the Watercourse channel.
3. Ice and snow crossings should not impede the flow of any Watercourse. These crossings shall be v-notched or removed before spring break-up to facilitate natural flow.
4. All areas affected by construction or removal activities shall be stabilized and landscaped to pre-construction profiles or as approved by an Inspector.

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**Part H: Conditions Applying to Contingency Planning**

1. The Licensee shall operate in accordance with the **Spill Contingency Plan**, once approved.
2. If, during the period of this Licence, a spill or an Unauthorized Discharge occurs or is foreseeable, the Licensee shall:
  - a) Implement the Spill Contingency Plan;
  - b) Report the incident immediately via the 24-Hour Spill Reporting Line (867) 920-8130 in accordance with the instructions contained in the Spill Report Form NWT 1752/0593 or subsequent editions;
  - c) Report each spill and Unauthorized Discharge to the Board and an Inspector within 24 hours; and,
  - d) Submit a detailed report on each spill and Unauthorized Discharge, including descriptions of root causes, response actions and any changes to procedures to prevent similar occurrences in the future, to the Board within 30 days.
3. All spills and Unauthorized Discharges of Water or Waste shall be reclaimed to the satisfaction of an Inspector.

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**Part I: Conditions Applying to Closure and Reclamation**

1. The Licensee shall operate in accordance with the **Closure and Reclamation Plan**, once approved, and shall endeavor to carry out progressive Reclamation of areas as soon as is reasonably practicable.
2. A minimum of 60 days prior to commencement of Construction of camp(s), the Licensee shall submit a revised Closure and Reclamation Plan to the Board for approval. The Plan shall be in accordance with the Mackenzie Valley Land and Water Board and Aboriginal Affairs and Northern Development Canada's *Guidelines for the Closure and Reclamation of Advanced Mineral Exploration and Mine Sites in the Northwest Territories*.
3. The Licensee shall revise the Closure and Reclamation Plan as directed by the Board and submit the revised Plan to the Board for approval. The Plan shall be in accordance with the Mackenzie Valley Land and Water Board and Aboriginal Affairs and Northern Development Canada's *Guidelines for the Closure and Reclamation of Advanced Mineral Exploration and Mine Sites in the Northwest Territories*.

Signed the **XX<sup>th</sup> of XXXX of XXXX** on behalf of the Mackenzie Valley Land and Water Board

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XXXX, Chair

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XXXX, Witness

**Schedule 1**  
**Attached to Water Licence MV2018L2-0006**  
**TerraX Minerals Inc. – Mineral Exploration**

**Part B: General Conditions – Annual Water Licence Report**

1. The Annual Water Licence Report referred to in Part B of this Licence shall include, but not limited to, the following information:

Management Plans and Activities:

- a) A summary of engagement activities conducted in accordance with the approved **Engagement Plan**, in Part B of this Licence, undertaken during the previous calendar year, including a brief description of activities planned for the forthcoming year, and a summary of updates or changes made;
- b) A summary of Construction activities in accordance with Part E of this Licence;
- c) A summary of activities conducted in accordance with the approved **Waste Management Plan**, required in Part F of this Licence, undertaken during the previous calendar year, including:
  - i. A summary of updates or changes to the process or facilities required for the management of Waste, and/or revisions to the Waste Management Plan; and
  - ii. Log of all Sumps excavated;
  - iii. The monthly and annual quantities in cubic metres of non-hazardous and hazardous Waste managed in associated with the Project;
  - iv. The monthly and annual quantities in cubic metres of each type of Waste Discharged and the location at which each Discharge took place, including but not limited to:
    - (a) Monthly and annual quantities of all solid Waste deposited, identified by location;
    - (b) Monthly and annual quantities of all liquid Waste deposited, identified by location;
    - (c) Monthly and annual quantities of Drilling Waste deposited into Sumps; and
    - (d) Monthly and annual quantities of hazardous waste staged for proper disposal, and copies of manifests;
- d) A summary of activities conducted in accordance with the approved **Spill Contingency Plan**, required in Part H of this Licence, undertaken during the previous calendar year, including:
  - i. A list and description for all Unauthorized Discharges that occurred during the previous calendar year, 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 I of this Licence;
  - ii. An outline of any spill training and communications exercises carried out during the previous calendar year; and
  - iii. A description of any updates or revisions made.
- e) A summary of activities conducted in accordance with the **Closure and Reclamation Plan**, required in Part I of this Licence, completed during the year, including:
  - i. A summary of any Closure and Reclamation work completed during the year;
  - ii. and an outline of any work anticipated for the next year; and

iv. A description of any updates or revisions made.

Other Reporting Requirements:

- f) The monthly and annual quantities in cubic metres of Water obtained from each source;
- g) A summary of the calibration and status of the meters and devices referred to in Part B of this Licence;
- h) An updated schedule for the undertaking;
- i) A description of any erosion susceptible areas encountered and a summary of activities to prevent or mitigate erosion;
- j) A report of the performance of erosion mitigations applied in previous years;
- k) A summary of actions taken to address concerns, non-conformances, or deficiencies in any reports filed by an Inspector; and
- l) Any other details on Waste management or Waste Use requested by the Board.



**Schedule 2**  
**Attached to Water Licence MV2018L2-0006**  
**TerraX Minerals Inc. – Mineral Exploration**

**Part C: Security Deposits**

1. Pursuant to section 35 of the Act and section 11 of the Regulations, the Licensee shall post security deposits referred to in Part C, condition 1 of this Licence totaling \$54,719.00 based on the schedule set out below:
  - a. Prior to the commencement of drilling operations, the Licensee shall post and maintain a total security deposit of \$22,417.00;
  - b. Prior to the use of more than 6 diamond drills, the Licensee shall post and maintain an additional security deposit in the amount \$10,915.00 to maintain a total security deposit of \$33,332.00; and
  - c. Prior to the construction and operation of a camp, the Licensee shall post and maintain an additional security deposit in the amount of \$21,387.00 to maintain a total security deposit of \$54,719.00.

**Commented [KL2]:** Board staff are seeking input on the security deposit Schedule. The phased security estimate presented here was proposed by TerraX in their application submission and was developed in consultation with the GNWT-ENR.

Please note this is only for the Water Licence portion of the RECLAIM estimate. Additional security is proposed under the Land Use Permit.

Signed the XX<sup>th</sup> day of XXXX, XXXX on behalf of the Mackenzie Valley Land and Water Board

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XXXX, Chair

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XXXX, Witness