Courageous Lake Project

Closure and Reclamation Plan

September 2019

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SEABRIDGE GOLD

REVISION TABLE

Version	Date of Revision	Summary of Changes	Date Approved by MVLWB
1	Sept. 2019	Submitted as supporting document for Land Use Permit and Water Licence applications	

PLAIN LANGUAGE SUMMARY

The Closure and Reclamation Plan (CRP or Plan) is a key supporting document and forms part of Seabridge's applications for one Class A land use permit and two new Type B water licences.
The Courageous Lake project is currently in the early exploration phase and the proposed exploration activities are the same as those permitted under the most recent Class A Land Use Permit MV2012C0025 which expires December 27, 2019. The proposed exploration activities are fully described in the *Courageous Lake 2020 - 2025 Exploration Work Plan* which accompanies the application package. **There are no mining, mine development or advanced exploration activities planned during the term of the proposed permit and licences**.

The proposed exploration activities include:

- Diamond drilling;
- Fuel storage;
- Winter road construction and maintenance; and
- Gravel quarrying.

The CRP describes the activities required to achieve the overall closure goal of returning the exploration areas identified in this plan to viable and, wherever practicable, self-sustaining ecosystems that are compatible with a healthy environment and with human activities.

CONTENTS

List of Tables

List of Figures

List of Photos

ACRONYMS AND ABBREVIATIONS

Camp	Matthews Lake Camp
CARD	Contaminated and Remediation Directorate
CCME	Canadian Council of Ministers of the Environment
CIRNAC	Crown-Indigenous Relations and Northern Affairs Canada
CRP	Closure and Reclamation Plan
GNWT	Government of Northwest Territories
ISQG	Interim Sediment Quality Guidelines
km	kilometre
m^3/day	cubic metre per day
masl	metres above sea level
MLGB	Matthews Lake Greenstone Belt
MVLWB	Mackenzie Valley Land and Water Board
MVRMA	*Mackenzie Valley Resource Management Act* (1998)
PEL	Probable Effects Level
Seabridge	Seabridge Gold (NWT) Inc.
TK	Traditional Knowledge
W/m^2	watt per square metre
YKDFN	Yellowknives Dene First Nation

1. INTRODUCTION

Seabridge Gold (NWT) Inc. (Seabridge) is a Canadian based resource exploration company that has been conducting gold exploration in the Courageous Lake area since 2003. The Courageous Lake area is approximately 240 kilometres (km) northeast of Yellowknife, NWT (Figure 1). The property comprises 62 mineral leases and 26 mineral claims, totaling 50,258 hectares (ha) which are wholly owned by Seabridge. The property is located within an historic mining district that includes two past producing mines, underground exploration workings, and undeveloped mineral resources.

Exploration activities since 2012 have been regulated by a Class A Land Use Permit (MV2012C0025) issued by the Mackenzie Valley Land and Water Board (MVLWB). This permit expires December 27, 2019. For the next five to seven years, Seabridge proposes to conduct exploration activities that are focused on growing the mineral resources, maintaining community relationships and expanding the geological, ecological and traditional knowledge of the area.

To authorize these exploration activities Seabridge is submitting one Class A land use permit application and two Type B water licence applications to the MVLWB. The land use permit application describes the same activities within the same permit boundary as the expiring permit. Seabridge is submitting two Type B water licence applications to provide greater logistical flexibility and allow Seabridge to operate up to five drills simultaneously. While the proposed exploration activities remain the same as those previously authorized, the use of three or more drills at one time may result in daily water usage that exceeds the 100 m^3/day allowed by regulations without a water licence. At Courageous Lake, two Type B water licences are required because the proposed activities will occur on both Territorial lands and Federal lands. With the exception of the winter road, all activities will occur within the land use permit area identified on Figure 2.

Seabridge recognizes and acknowledges the traditional uses of the land and water resources by Indigenous peoples and the cultural significance of the Courageous Lake area. Seabridge is committed to protecting the environment within which it operates, through compliance to existing regulatory standards and this Closure and Reclamation Plan (CRP or Plan). More information on Seabridge's Environmental Policy is provided in Appendix A.

1.1 Purpose and Scope of the Closure and Reclamation Plan

The CRP is a key supporting document and forms part of Seabridge's applications to renew its Class A land use permit and two new Type B water licences. The CRP describes the activities required to reclaim lands that may be disturbed during the term of the permit and licences.

The activities to be permitted under the land use permit and water licences are fully described in the *Courageous Lake 2020 - 2025 Exploration Work Plan* which accompanies the land use permit and water licence applications. The proposed exploration activities are the same as those permitted under the most recent Class A Land Use Permit MV2012C0025 which expires December 27, 2019 and include:

- Diamond drilling;
- Fuel storage;
- Winter road construction and maintenance; and
- Gravel quarrying.

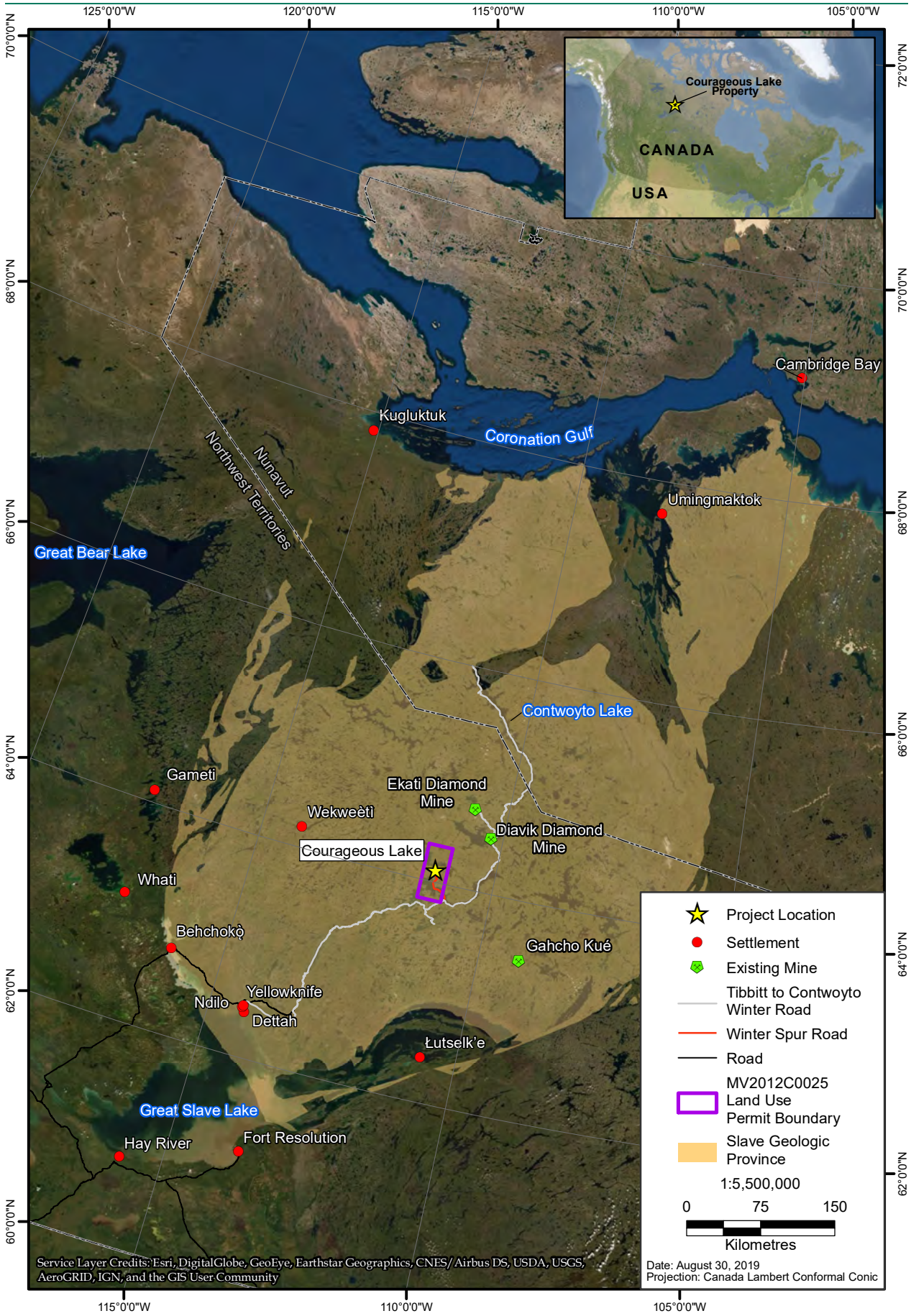

Figure 1: Regional Map of the Courageous Lake Property

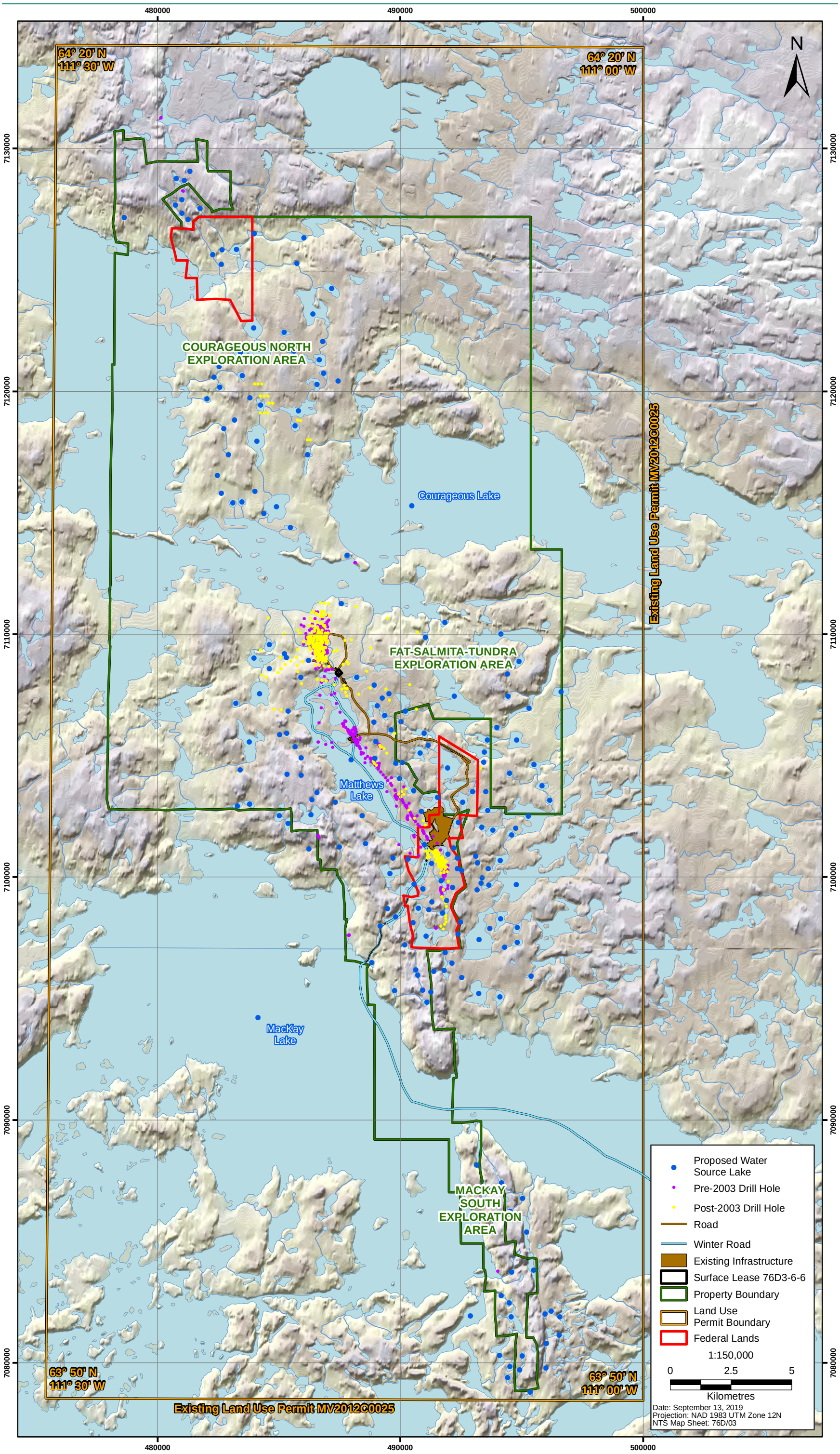

Figure 2: Courageous Lake Property - Proposed Exploration Land Use and Water Use

1.2 Goal of the Closure and Reclamation Plan

The goal of the CRP is to outline the activities that will achieve the overall closure goal of returning the areas addressed in this CRP to viable and, wherever practicable, self-sustaining ecosystems that are compatible with a healthy environment and with human activities, which is consistent with MVLWB/AANDC (2013).

1.3 Closure and Reclamation Planning Team

Seabridge's Courageous Lake Permitting Manager, Jane Howe P.Geo (BC), and Vice President of Environmental Affairs, Brent Murphy P.Geol (NT/NU) lead the development of the Courageous Lake Project's Closure and Reclamation Plan with inputs from qualified professionals, Eric Denholm, P.Eng. (BC, NT/NU), Lorraine Muckian, R.P.Bio (BC), and Tonia Robb, PhD from ERM Consultants Canada Ltd.

1.4 Engagement

Seabridge has regularly undertaken activities that are focused on informing, involving and engaging several Indigenous groups since acquiring the property. In addition to these ongoing engagement activities, and prior to submission of the permit and licence applications, Seabridge has also undertaken fourteen months of engagement activities focused on the proposed activities and content of these applications. As part of the application package, Seabridge has included a summary of the pre-submission engagement activities in the *Courageous Lake 2020 - 2025 Exploration Work Plan* (see Appendix H of the Exploration Work Plan).

1.5 Regulatory Context

An application to use water requires the preparation of a CRP under section 5(2)(h) of the *Waters Regulations* (R-19-2014) and section 6(2)(h) of the *Mackenzie Valley Federal Areas Waters Regulations* (SOR/93 303). The Plan has been prepared to be consistent with the *Guidelines for the Closure and Reclamation of Advanced Mineral Exploration and Mine Sites in the Northwest Territories* (MVLWB/AANDC 2013).

The term "advanced exploration" was defined in the *MVLWB Guidelines for Closure Cost Estimating for Mines (2017)* as

> *"mineral exploration typically marked by the start of bulk sampling. It typically consists of large diameter drilling and trenching, and in larger-scale projects, development of declines or adits, and some onsite ore processing. Roads are often built, field camps can increase in size and heavy equipment may be brought in. The activities associated with advanced exploration typically trigger a land use permit and water licence."*

Seabridge does not propose to undertake any advanced exploration activities.

The following regulatory authorizations for the Project also informed the closure and reclamation requirements:

1. Class 'A' Land Use Permit MV2012C0025 issued by the MVLWB and valid to December 2019 and the MVLWB's Standard Land Use Permit template, dated October 2, 2018, to anticipate conditions and CRP content that may be imposed in the new permit. This CRP addresses all activities authorized under the existing land use permit, assuming the scope and conditions are similar.
2. MVLWB Draft Standard Water Licence conditions, dated May 13, 2019, were reviewed to anticipate conditions and CRP content that may be imposed in the new licences.

3. Quarry Permit issued by the GNWT Department of Lands (2019QP0036). This CRP addresses reclamation and closure of the quarry (Treeline Borrow Pit).
4. Surface Lease 76D/3-6-6 was originally issued in 1994 pursuant to the *Territorial Lands Act* (1985) and predates the *Mackenzie Valley Resource Management Act* (MVRMA; 1998). Section 152 of the MVRMA grandfathers the pre-existing right to operate a commercial camp including the right to maintain improvements on the land, dispose/discharge wastes and store fuel. Reclamation of facilities within the lease will be conducted according to the requirements of the Surface Lease and, therefore, the lease area is excluded from the scope of this CRP.

Seabridge is not responsible for reclamation requirements related to the following:

- Ongoing remedial activities by Crown-Indigenous Relations and Northern Affairs Canada - Contaminated and Remediation Directorate (CIRNAC-CARD) at two federal reserves in the Courageous Lake area: TUNDRA-TAURCANIS MINE and the ALPHA NOV5 parcel; including:
  - Quarrying Permit 2017QP0004, which authorizes the removal by CIRNAC-CARD of esker material from the Treeline Borrow Pit.
  - CIRNAC-CARD Land Use Permit MV2016X0011 and MV2016L8-0003, which authorizes the reclamation by CIRNAC-CARD of the former Tundra Mine. The airstrip and local roads will be required by CIRNAC-CARD during post-closure monitoring phase and these components are not included.
- Former FAT Deposit shaft site, former Red-24 pit, and the former Salmita mine site which were reclaimed prior to Seabridge's acquisition of the property. Including two buildings at the Salmita site.

1.6 Federal Reserves

There are two areas of Federal lands that remain under the administration and control of a minister of the Government of Canada, as shown on Figure 2. The former Tundra-Taurcanis Mine and gravel airstrip are on lands held by the Federal government to facilitate past and ongoing remedial activities. A second reserve (Alpha,Nov5) is located on the east side of the north arm of Courageous Lake where one or more abandoned, historic exploration camps and fuel caches exist, dating back to the 1970s period.

Exploration activities such as winter roads and diamond drilling may extend into these areas of federal jurisdiction. Existence of the split estate requires the calculation of separate security estimates (Section 9) for Territorial and Federal lands as well as separate inspections/approvals to certify reclamation is complete.

2. PROJECT ENVIRONMENT

2.1 Atmospheric Environment

The Courageous Lake property is located south of the Arctic Circle within the subarctic region. The climate of the area is typical of the subarctic, with long cold winters with cool summers. An onsite meteorology station located next to Matthews Creek and operating since 2008 has recorded temperatures that range from - 44.4°C to 28.5°C, with an average daily mean temperature of 8.5°C.

Precipitation is relatively low as expected for a subarctic environment. Average annual monthly precipitation is 18.5 mm, with an average daily total of 0.6 mm. The majority of precipitation occurs as rainfall (i.e., greater than 60%) during the summer months.

Winds tend to be fairly evenly distributed across all wind directions with an annual average wind speed of 4.5 m/s with maximum gusts of 21.5 m/s. Solar radiation ranges from 3 W/m^2 in December to 277 W/m^2 in May.

Further details on baseline meteorological conditions can be found in Rescan (2012a).

2.2 Physical (Terrestrial) Environment

The Courageous Lake property is located north of the tree line in a zone of continuous ice-rich permafrost that typically extends to 320 m below surface. The region displays the geomorphological and soil characteristics typical of the Arctic tundra environment. The land is dominated by gently undulating landscapes and rolling topography. The difference between the maximum elevation (450 masl) and the lowest (410 masl) elevation is 40 m. The area is characterized by gentle slopes with rare occurrences of steep slopes in the southern part of the property. This smoothness of landforms reflects the influence of local hydrological patterns associated with the impermeable permafrost layer.

The dominant surficial features on the property are heath tundra and heath boulder followed by water with the remaining cover represented by a number of minor features. Soils are moderately coarse textured (sandy loams and loams) and associated with morainal deposits throughout the property. Coarser textured glaciofluvial deposits tend to be scattered over the higher relief areas. Organic materials have accumulated in valley bottoms and on plains in depression areas.

Further details of the terrain and soils baseline study for the Courageous Lake area is provided in Rescan (2012b).

2.3 Chemical Environment

Soils in the area tend to be mildly acidic with the exception of organic soils, and generally have low organic carbon content. Elevated arsenic concentrations have been recorded in soils collected from study areas within the property boundary.

Lake sediment observations were first collected in Matthews and Courageous lakes in 1983 (as cited in EBA 2003 report). Sediment sampling was again conducted in 2010 and 2011 in Matthews and Courageous lakes in addition to two other lakes on the Courageous Lake property (Rescan 2012c). Sediments in the monitored lakes were composed mostly of silt and clay (particles with which metals and other elements tend to bind). A few sites had more sand in their sediments and correspondingly lower metal concentrations. Canadian Council of Ministers of the Environment (CCME) guidelines consist of the Interim Sediment Quality Guidelines (ISQGs) and the Probable Effects Level (PEL) guideline (CCME 2019).
Arsenic exceeded the PEL guideline at most sites indicating that high arsenic levels are likely common and natural in the lake sediments within the property.

Water quality data has been collected in the area since 1983 in association with the former Tundra and Salmita mines. Water quality samples were collected from Matthews Lake and Courageous Lake in 2004 and 2005 and again in 2010 and 2011 at both stream (six) and lake sites (19) (Rescan 2012c). Analysis of water samples collected from the lakes and streams in the area suggested that the water is typically soft with low alkalinity and nutrients. Deeper lakes and streams with deep lake water sources tended to have low levels of all water quality constituents. Streams containing higher level of organic sediments and shallow lakes tended to have higher concentrations of most water quality variables. These results are consistent with other waterbodies within the geographical area.

The property is in a zone of continuous permafrost, consequently groundwater is restricted to deeper parts of the stratigraphy, typically below 320 m. Groundwater monitoring completed in 2011 near Matthews Lake indicated that water can be classified as brackish with total dissolved solid (TDS) values ranging from approximately 2,000 mg/L to 9,000 mg/L (Rescan 2011). Calcium and chloride comprise about 80% of the TDS in the groundwater samples collected.

2.4 Biological Environment

Two ecozones are present within the area: Taiga Shield Ecozone and the Southern Arctic Ecozone. The most common ecosystems identified during surveys in 2010 and 2011 were tundra and wetland fens (Rescan 2012d). Vegetation mapping indicated that the most common ecosystem association was Scrub Birch – Labrador Tea Tundra, followed by Scrub Birch – Crowberry Tundra and Mixed Sedge – Sheathed Cottongrass Fen. All other ecosystem associations accounted for a minor proportion of the area.

Incidental sightings of wildlife have been recorded since 1983 include: caribou, grizzly bear, wolf, moose, muskox and wolverine, as well as five other small or meso-mammals. Field surveys on the property have included: aerial surveys for caribou, carnivore dens, cliff-nesting raptors and waterbirds; DNA hair studies for wolverine and grizzly bear; ground surveys for waterbirds and upland breeding birds; radar surveys for migrating birds; small mammal trapping; and remote camera studies of caribou (EBA 2005, Kanik and Villamere 1983, Rescan 2012e). A total of 77 species have been observed, 11 mammals and 66 birds.

The Courageous Lake area is not within the calving grounds of the Bathurst caribou herd; however, caribou have been observed on the property during both its spring and fall migrations, and more recently during the over-wintering period. Remote digital cameras are used to non-invasively monitor seasonal movement of caribou at several prominent locations around the property including eskers and higher elevation areas.

Fish community monitoring since 2005 confirmed the presence of fish species in Courageous Lake and Matthews Lake, in addition to lakes and streams within the area between these larger lakes (Rescan 2012f). A total of ten fish species were captured in lakes and streams including: Arctic grayling, lake trout, round whitefish, lake whitefish, northern pike, cisco, longnose sucker, burbot, ninespine stickleback, lake chub, and slimy sculpin. Of these ten species, cisco, lake trout, lake whitefish, and round whitefish were captured in lakes only. Low species diversity was observed in the lake fish communities. Lake trout and Arctic grayling were the dominant fish species captured.

2.5 Traditional Uses

Two Traditional Knowledge (TK) studies have been undertaken in the area around Courageous Lake. The first of which was published by the Tłı̨chǫ Government (Tsatchia et al 2013) and a second confidential study in preparation by the Yellowknives Dene First Nation (YKDFN 2019). The following summaries have been extracted from these studies.

The Tłı̨chǫ people have used the Courageous Lake area during fall and winter for a long time. In the fall people traveled by canoe to the area to hunt caribou, collect plants for traditional medicines, pick berries and to fish, hunt and trap. Some people overwintered at Courageous Lake, using the small isolated areas

of trees for heat or making sleds. The Tłı̨chǫ people did not traditionally use the Courageous Lake area during spring or summer. The report describes the Elders' environmental knowledge of the region with a focus on the fall caribou migration route from Lac de Gras through the Courageous Lake area and MacKay Lake towards Snare River and the hunting grounds, including important water crossings in the area such as Nodinka Narrows and the eskers and islands in Courageous Lake.

The draft TK Study by the YKDFN describes the Courageous Lake area as an important place for traditional and contemporary uses that include: hunting, fishing, gathering and tool making. Several campsites, cabins and gravesites were used during historic hunting and trapping activities and are connected by a dense network of trails. YKDFN hunted for caribou, moose, grizzly bear and trapped for white fox, wolverine and martin throughout the area. While the patterns and intensity of land use in the area have shifted over time, the area remains culturally important to the Yellowknives. The YKDFN continue to use two permanent camps for contemporary hunting and on-the-land experiences that foster intergenerational teaching and knowledge sharing.

3. PROJECT DESCRIPTION

3.1 Location and Access

The Courageous Lake property is centered at Latitude 64°05′ North and Longitude 111°15′ West, approximately 240 km northeast of Yellowknife, NWT (Figure 1).

Site access is by air and winter road. Air access is via float plane (Matthews Lake) and a gravel airstrip. Exploration activities are carried out by utilizing helicopters or pre-existing gravel roads. A winter road is constructed seasonally as required for delivery of bulk supplies and mobilization/demobilization of equipment across MacKay Lake from the Tibbitt to Contwoyto Winter Road.

With the exception of the winter road, all exploration activities will occur within the existing land use permit area identified on Figure 2.

3.2 Site History

Exploration activity has occurred in the Courageous Lake area since the early 1940s and culminated with mining and ore processing at the Tundra Mine. Mining also occurred at the Salmita Mine, the Red-24 bulk sample open pit, and the FAT deposit. Reclamation ensued at each of these areas, resulting in the existing footprint of roads, airstrips and remnant gravel pads as shown in Figure 3.

Seabridge has undertaken exploration activities in the area since 2003 under three consecutive Class A Land Use Permits (Table 1). Seabridge utilizes the existing infrastructure (roads, airstrip, gravel pads) that were established by previous owners/operators. In 2010 Seabridge purchased the Surface Lease 76D/3-6 covering the Matthews Lake Camp. Since 2003, Seabridge has drilled a total of 345 holes at 338 drill sites around the property, as shown on Figure 4.

All drill sites have been reclaimed. Drill holes and other exploration activities that were completed under land use permits MV2003C0050 and MV2010C0046 were issued final clearance by MVLWB as listed in Table 1. Drill holes completed under MV2012C0025 have been reclaimed but have not yet received final clearance. Request for final clearance will be submitted with the application to renew permit MV2012C0025.

Table 1: Summary of Land Use Permits, Seabridge 2004 to 2019

Land Use Permit	Duration	Final Clearance Issued	Scope of Activities
MV2003C0050	February 25, 2004 – February 25, 2011	April 28, 2011	Exploration drilling, winter road construction and operation, fuel storage, gravel quarrying
MV2010C0046	February 25, 2011 – December 27, 2012	February 14, 2013	
MV2012C0025	December 27, 2012 – December 17, 2019	Pending - request for clearance will be submitted as part of permit renewal package	

3.3 Site Geology

The Courageous Lake property is located within the Matthews Lake Greenstone Belt (MLGB), which is a steeply east dipping homoclinal sequence of metavolcanic and metasedimentary rocks of the Yellowknife Supergroup. The MLGB is bounded to the west by a sodic granite pluton, referred to as the Courageous Lake Batholith, and to the east by conformably overlying turbidite sequences. Regional metamorphism within the MLGB has created mineral assemblages indicative of lower to mid-greenschist facies metamorphic grade. Lower amphibolite facies grade metamorphism has been identified north and south of the MLGB.

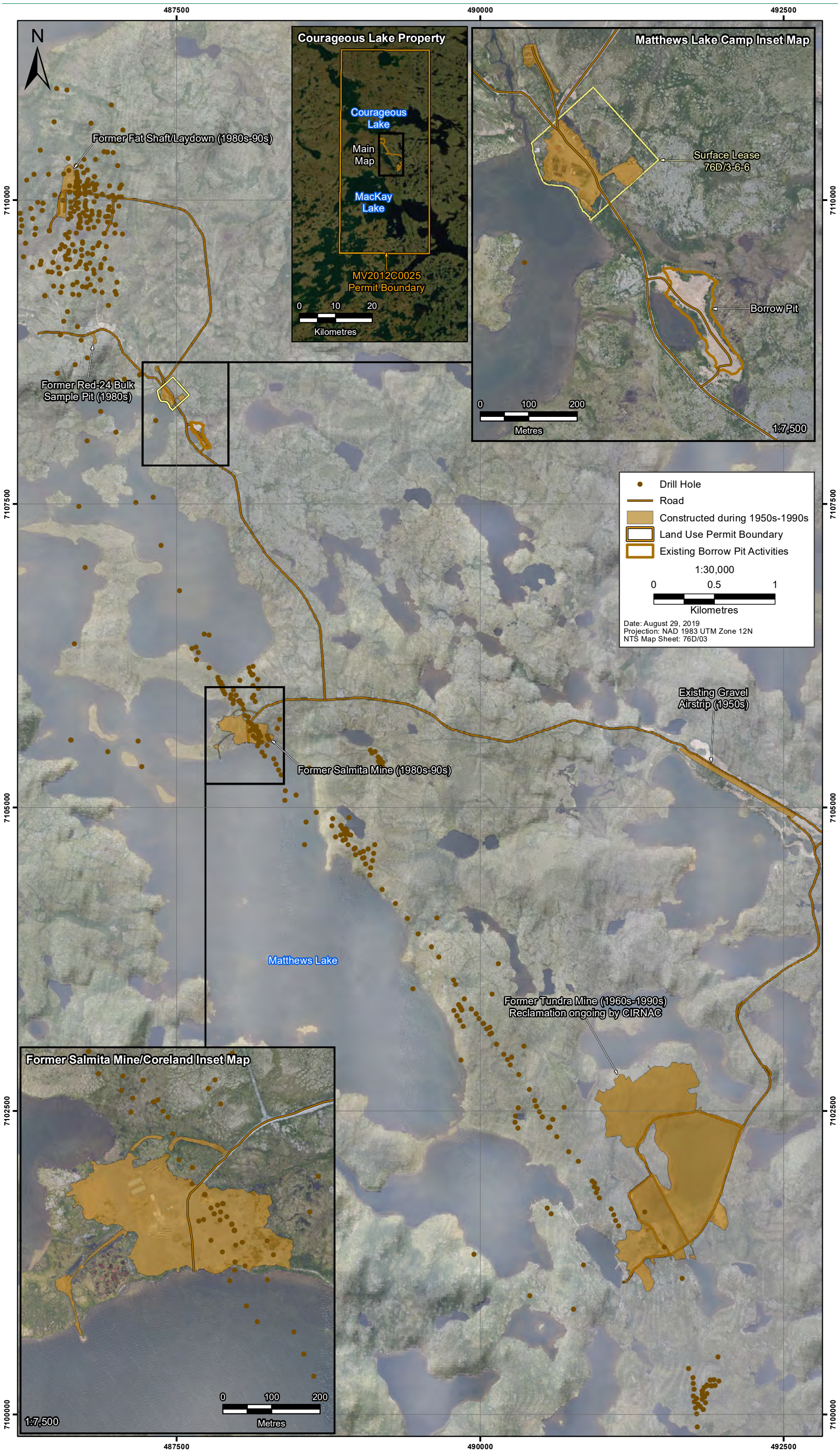

Figure 3: Existing Land Use Disturbances prior to Seabridge Gold Acquisition of Courageous Lake Property

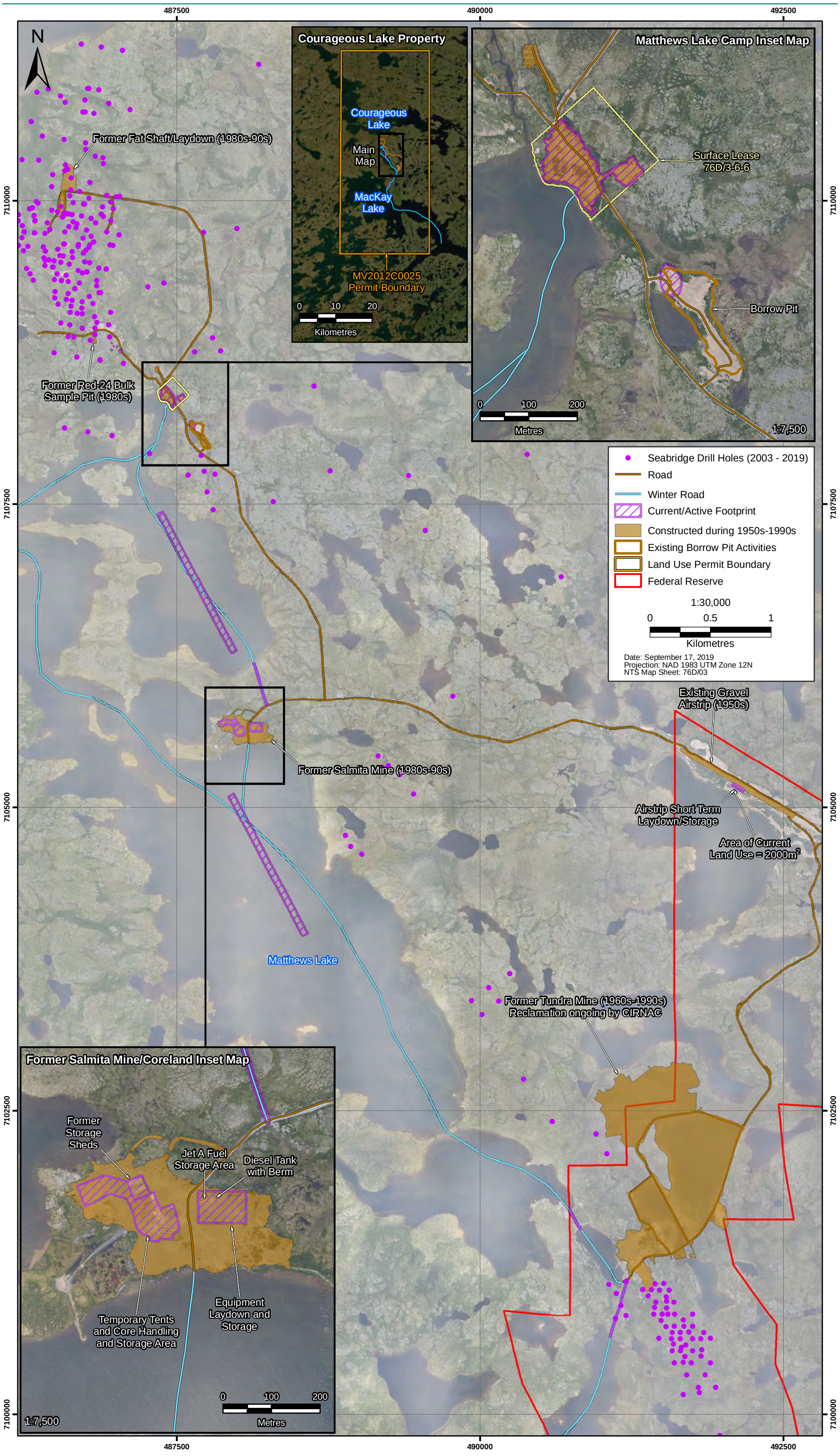

Figure 4: Current Land Use Activities by Seabridge Gold

The volcanic material within the MLGB represents a tholeiitic to calc-alkaline suite of volcanic rocks common to many Archean greenstone belts. Felsic volcanic lithologies are the predominant host of the FAT-Salmita-Tundra deposits. Within the felsic volcanic rocks are abundant lens-shaped epiclastic intercalations that are thought to be derived from a tuffaceous source. These lithologies include tuffaceous greywacke, thinly laminated siltstone, and fine-grained arkosic sandstone.

Sulfide mineralogy observed at the FAT-Salmita-Tundra deposits is relatively simple and consists of pyrite, pyrrhotite, arsenopyrite, sphalerite, and chalcopyrite in decreasing order of abundance. While all of these minerals can be found in the mineralized zones, only arsenopyrite has a consistent correlative relationship to gold concentrations.

Other areas of the Courageous Lake property to the north and south of the known FAT-Salmita-Tundra deposits contain similar prospective geology and evidence of gold mineralization. Seabridge continues to evaluate these areas to identify and test analogous and other styles of gold mineralization.

3.4 Proposed Exploration Activities

The proposed exploration activities to be permitted by the renewal land use permit are the same as the activities authorized under the existing Land Use Permit MV2012C0025: fuel storage, winter road construction/operation, quarrying, and exploration drilling. All activities will take place within 63˚50′ N and 111˚00′ W by 64˚20′ N and 111˚30′ W (Figure 2).

A detailed description of proposed exploration activities is provided in the *Courageous Lake 2020 - 2025 Exploration Work Plan* which accompanies the land use permit and water licence applications. Exploration activities are proposed to occur in two potential scenarios: Typical Drill Programs with up to three drill rigs and approximately 25-people at the camp for seasonal programs of two to three months. If results are positive, exploration activities may progress to a Large Drill Program that involves up to five drill rigs, a full 49-person camp over a duration of three to six months. In the later scenario, additional fuel storage capacity, and temporary structures may be required, along with additional mobile equipment. The progression from a typical-sized exploration program to a larger program is a normal step in the progression of mineral exploration activities.

Seabridge has used these two programs to develop a phased approach for posting security. The phased approach will ensure that the amount of security is appropriate for the equipment required to undertake the exploration activities during each phase.

3.4.1 Infrastructure and Buildings

A complete description of existing infrastructure is included in the *Courageous Lake 2020 - 2025 Exploration Work Plan*. Existing buildings are located at two sites: the Matthews Lake Camp and Coreland (former Salmita site) (Figure 4). As mentioned previously, reclamation of the Matthews Lake Camp will be undertaken pursuant to the requirements of Surface Lease 76D/3-6-6 and is excluded from the scope of this CRP.

Seabridge’s proposed exploration activities will utilize existing infrastructure and buildings at Coreland, the former Salmita Mine, which consists of two metal Quonset-style buildings that were erected by previous operators plus five temporary tents or wooden structures that were established by Seabridge (Photos 1 and 2). Power is provided by a 15.5 kilowatt diesel generator and heat is provided by diesel heaters. Fuel storage for heaters consists of several 454 L double-walled tanks.

Two new temporary tent structures may be constructed to support additional core handling, sawing and sampling activities if the project progresses to a Large Drill Program during the term of the new permit and water licences.

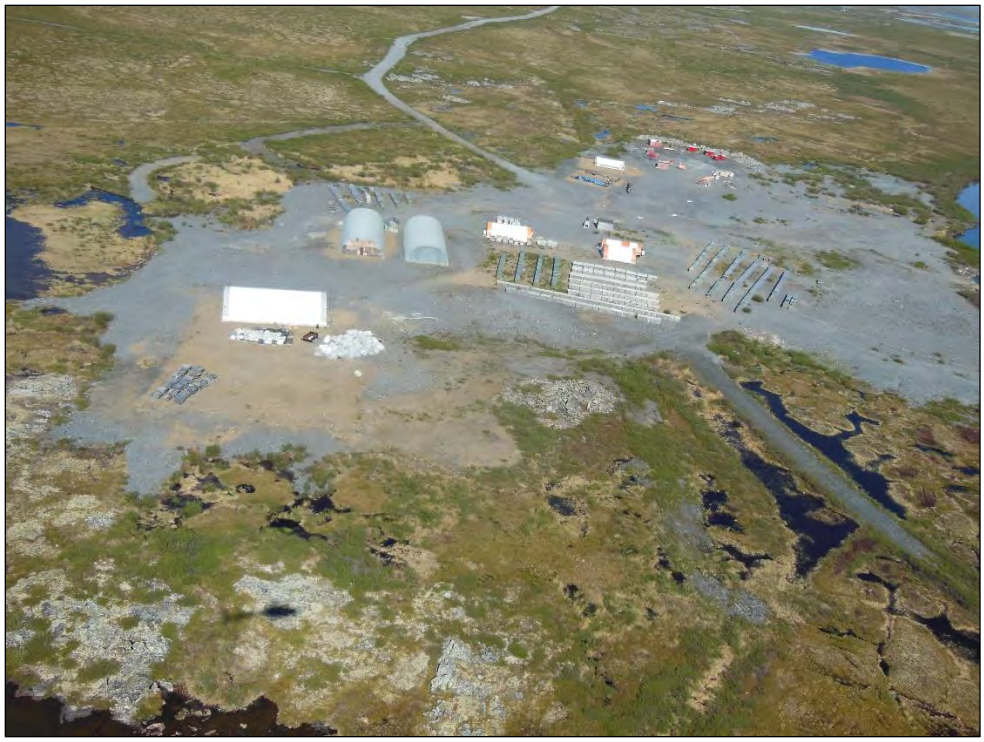

Photo 1: Coreland Site (looking eastward), July 2019.

Photo 2: Coreland Site (looking westward), July 2019.

Core will continue to be stored at Coreland in sturdy racks.

Approximately 19 km of gravel roads connect the historic mining areas of the property. The roads are low profile, typically 6 to 8 m in width, and were constructed using either local esker material or crushed rock sourced during historic mining activities. During the term of the new permit and water licences the existing roads will be maintained. No new roads will be constructed.

3.4.2 Equipment

Due to the nature of exploration activities, the amount of equipment utilized onsite is relatively limited. Equipment primarily consists of drill rigs and mobile and non-mobile equipment to support the drill rigs and overall exploration effort.

A complete list of equipment that will be used for a Typical Drill Program during the permit term is included in the *Courageous Lake 2020 - 2025 Exploration Work Plan*. A list of additional equipment that may be added should the project progress to a Large Drill Program is also included.

3.4.3 Fuel Storage

There is currently one 75,000 L aboveground, double-walled bulk diesel fuel tank within a lined, bermed containment area at the Coreland site (Photo 2). As described in the *Courageous Lake 2020 - 2025 Exploration Work Plan*, three additional bulk diesel fuel tanks and two Jet B bulk tanks may be added at Coreland to support a Large Drill Program.

A lined, bermed containment area designed for approximately 120 drummed fuel exists at Coreland (Photo 2). During the term of the new permit and water licences this drum containment area may be re-engineered and converted to use with a bulk fuel storage tank to support exploration drilling, as noted above.

An MVLWB-approved Spill Contingency Plan is in place that describes fuel storage at the site and contingency measures employed to avoid spills and to respond to potential spill incidents.

3.4.4 Winter Road Construction and Maintenance

Construction and maintenance of the winter road follows established procedures for initial monitoring, plowing snow and flooding followed by routine monitoring and maintenance through the period of operation (typically February/ March). The route is well established and has been used since the 1940s (Figures 2, 3, and 4).

3.4.5 Treeline Sand and Gravel Borrow Pit

Seabridge recently obtained Quarrying Permit 2019QP0036 to extract 300 m^3 of sand and gravel from the Treeline Sand and Gravel Borrow Pit on a seasonal basis. This material will be used primarily for road and camp maintenance in support of ongoing exploration activities. The location of the borrow pit area is shown on Figure 4. The borrow area is accessed via an existing all-weather road that is connected to the camp and other work areas.

There are no buildings or equipment at the borrow pit.

3.4.6 Exploration Drilling

The drills are diesel powered. Approximately 5 tonnes of equipment and materials are required at each drill site including pumps, waterline hoses, drill rods, tools, fuel tanks, mud tanks, wooden shacks etc. Hand tools may be used to provide the necessary site preparation work to conduct drilling operations. All drill fluids used are biodegradable and non-toxic. The amount of diesel present at an active drill site is approximately 4 double-walled tanks that each contain about 205 to 265 L, sufficient for 24 hours of

operation. Control measures will be used where necessary to prevent the discharge of drill fluids into any lake or watercourse such as the construction of hand-built retaining structures, ditching and tanks to capture drilling fluids. The footprint of a typical drill site is approximately 20 m by 20 m.

During winter, snow cats and snowmobiles are utilized for drill mobilization and support when there is enough snow cover to do so. If there is insufficient snow then drilling activities are supported by helicopter. Drilling activities conducted during the summer are supported by helicopter.

3.5 Environmental Management

All activities will be conducted in accordance with approved management plans, including:

- Waste Management Plan;
- Spill Contingency Plan;
- Wildlife Management and Monitoring Plan;
- Quarry Management Plan; and
- Engagement Plan.

4. PERMANENT CLOSURE AND RECLAMATION

4.1 Definition of Permanent Closure and Reclamation

Consistent with the MVLWB/AANDC (2013) guidelines, Permanent Closure is defined as follows:

> *"Permanent closure is the final closure of the **Project** with no foreseeable intent by the licensee to return to ~~**either**~~ active exploration ~~**or mining**~~."* [bolded words have been edited for the purpose of this CRP]

The MVLWB/AANDC (2013) guidelines further state that:

> "*Permanent closure indicates that the licensee intends to have no activity on the site aside from post-closure monitoring and potential contingency actions. Permanent closure does not, however, preclude the proponent or another party from pursuing opportunities at the existing site or in the area at a time beyond the foreseeable future."*

The *Closure Goal* for the Courageous Lake project is:

> *"To return the ~~**mine site and**~~ affected areas to viable and, wherever practicable, self-sustaining ecosystems that are compatible with a healthy environment and with human activities."* [bolded words have been edited for the purpose of this CRP]

The authorized activities are limited to exploration drilling with well-established and proven reclamation methods; therefore, there is a high level of certainty that the planned closure and reclamation activities will achieve the closure goal without on-going monitoring and maintenance. Reclamation success would be documented through site inspections by the GNWT and/or Federal Inspectors.

Final closure and reclamation activities would be scheduled to enable movement of all necessary materials and equipment in a single winter road season.

4.2 Permanent Closure and Reclamation Requirements

Permanent closure activities are required for the following project components:

- Buildings and infrastructure at Coreland.
- Remote drill sites located within the boundary of Seabridge's mineral tenure.
- Treeline Sand and Gravel Borrow Pit.
- Fuel storage facilities at Coreland.
- Hazardous and solid waste material at Coreland.

Each component is discussed separately below.

4.2.1 Buildings and Infrastructure

Permanent closure and reclamation of buildings and infrastructure will include the following activities:

- Removal of all buildings erected at Coreland by Seabridge for re-use or disposal.
- Removal of all fixed and mobile equipment at Coreland for re-use or disposal.
- Site roads and laydown areas will be inspected for potential hydrocarbon contamination and sampled, if necessary; contaminated material will be removed from site for disposal at authorized facility.
- Bridges and culverts will be removed unless required by other local users (e.g., CIRNAC-CARD) and site roads will be left in a condition that promotes natural re-vegetation.

- At the maintenance area, garage and generator shed and other areas of elevated risk of contamination, surficial material will be inspected for hydrocarbon contamination and, if required, contaminated material will be removed from site for disposal at an authorized facility.
- Non-hazardous wood, construction materials and paper products will be burned on site and the ash will be covered in a natural depression located at least 100 m from a local high-water mark.

4.2.2 Drill Sites

Reclamation of drill sites will be completed using hand tools and in accordance with regulatory standards. Seabridge progressively reclaims each site as soon as practically possible after completing a drill hole. Progressive reclamation of drill sites is discussed further in Section 5.2.

4.2.3 Treeline Sand and Gravel Borrow Pit

The Treeline sand and gravel borrow pit has been operated since the 1970s. Seabridge has a quarry permit that authorizes the removal of up to 300 m3 of material. If the permit expires and is not renewed, Seabridge may continue to extract sand and gravel to a maximum of 50 m^3/year without a permit.

Seabridge progressively reclaims the active excavation area at the end of each season to ensure physical stability and to control/divert surface drainage to prevent ponding. At the conclusion of borrow pit activities, disturbed areas will be contoured to return the site to a stable landform that blends with local topography. Boulders that were previously separated and stockpiled within the footprint of the borrow pit will be re-used during final reclamation.

4.2.4 Fuel Storage Facilities

Fuel storage facilities at Coreland will be reclaimed as follows:

- Residual fuels will be used or removed from site via winter road backhaul.
- Containment liner materials will be removed for disposal off-site.
- Storage areas, including containment berms, will be graded consistent with local topography.
- Surficial material in the fuel storage areas will be inspected for hydrocarbon contamination, and contaminated material will be removed from site for disposal at an authorized facility.
- Empty fuel drums and other tanks/cylinders will be crushed and removed from site for disposal at an authorized facility.
- Bulk storage tanks do not require disassembly and will be removed from site for re-use or for disposal at an authorized facility.

4.2.5 Hazardous and Solid Waste Material

Hazardous and solid waste material will be reclaimed as follows:

- Combustible wastes authorized for on-site incineration will be incinerated at the Matthews Lake camp.
- Incinerator ash will be collected in sealed containers and removed from site for disposal at an authorized facility.
- Oversized combustible materials, such as wooden drill shacks and unused core boxes, or other non-hazardous combustible materials will be burned on site, and the ash covered in a natural depression at least 100 m from a local high-water mark.
- All remaining solid waste and demolition debris will be removed from site for recycle or disposal at an authorized facility.

5. PROGRESSIVE RECLAMATION

5.1 Definition of Progressive Reclamation

Consistent with the MVLWB/AANDC (2013) guidelines, Progressive Reclamation is defined as follows:

> "*Progressive reclamation takes place prior to permanent closure to reclaim components and/or decommission facilities that no longer serve a purpose. These activities can be completed during operations with the available resources to reduce future reclamation costs, minimize the duration of environmental exposure, and enhance environmental protection. Progressive reclamation may shorten the time for achieving closure objectives and may provide valuable experience on the effectiveness of certain measures that might be implemented during permanent closure.*"

5.2 Opportunities for Progressive Reclamation

The primary opportunity for progressive reclamation is the on-going reclamation of drill sites as the drilling is completed. A record of action on each site is maintained to monitor the completion of all necessary reclamation actions. The typical reclamation protocol for a drill site includes:

- Removal of all equipment, materials and disposal of waste from the site;
- Plugging the drill hole to prevent inflow of surface water or discharge of artesian water;
- Removal of drill casing from the hole or cutting off of the drill casing at ground level;
- Re-contouring of drill cutting discharge sites and stabilization of any wet drill cuttings, if required; and
- Inspection of sites by Seabridge and contractors to verify compliance with reclamation standards and, if necessary, creation of a remediation action plan for sites that require additional action.

Reclamation of drill sites is inspected and confirmed regularly by the Territorial and/or Federal Inspectors, depending on the location of the drill site. Since 2003, approximately 284 unique drill sites have been successfully reclaimed by Seabridge and accepted by Inspectors and the MVLWB. As mentioned in section 3.2, the reclamation of these sites is documented in Inspection Reports and in the Final Reports for Land Use Permits MV2003C0050 (134 drill sites, MVLWB Clearance letter dated April 28, 2011) and MV2010C0046 (150 drill sites, MVLWB Clearance letter dated February 14, 2013).

A Final Report will be submitted for MV2012C0025 detailing the remediation of a further 55 drill sites. These 55 drill sites have been remediated by Seabridge as reported in letters document on the MVLWB public registry for Land Use Permit MV2012C0025.

Immediate remediation of spills prevents short-term environmental effects and provides progressive reclamation by preventing or minimizing the quantity of contaminated soil requiring remediation for final closure and reclamation. Spill remediation is inspected by the Territorial and/or Federal Inspectors and reported through the GNWT Spills Reporting database.

Additionally, waste material and equipment that has no further use for the project are removed from site on a regular basis, reducing the quantities present at final closure and reclamation.

6. TEMPORARY CLOSURE

6.1 Temporary Closure Goal and Closure Objectives

Consistent with the MVLWB/AANDC (2013) guidelines, Temporary Closure defined:

> "*occurs when an* ~~***advanced***~~ *mineral exploration* ~~***or mining operation***~~ *ceases with the intent of resuming activities in the near future*." [bolded words have been edited for the purpose of this CRP].

The Courageous Lake project operates on a planned seasonal exploration cycle with on-site activities typically occurring for two or three month duration and, as a result, temporary (seasonal) closure activities are well established. However, other unforeseen events could result in a longer period of temporary closure, in which case the required activities would be the same.

Seabridge's goals for temporary closure are to provide conditions that are safe for people and wildlife, do not cause environmental impacts, fulfill on-going regulatory requirements, and protect Company assets.

6.2 Temporary Closure Activities

The following temporary closure activities are to be implemented, as appropriate:

- Site buildings are closed and secured.
- Site equipment is parked inside secured buildings where possible and left in a secure manner that prevents unplanned start up and undue deterioration.
- Waste materials are removed from site where possible and any waste materials left on site are securely stored.
- Potential wildlife attractants (such as food) are removed or isolated in containers that do not release odors.
- Points of access to fuel storage tanks are secured to prevent unplanned releases.
- Waste materials, equipment and fuels on site are inventoried and documented.
- Continue to meet permit requirements that may extend through temporary closure.

6.3 Temporary Closure Monitoring, Maintenance, and Reporting

Facilities will be inspected by Seabridge at the time of temporary closure and as required by Seabridge or their representative to ensure the safety and security of property. Site facilities are small and readily secured, and unplanned maintenance work is not anticipated. However, unforeseen occurrences that compromise the temporary closure goals (Section 6.1) will be addressed promptly. The maintenance work required would be determined at the time to appropriately address the circumstance at hand.

All buildings and equipment are located on Territorial lands and Seabridge will report on site status to the GNWT Inspector following each site inspection.

6.4 Temporary Closure Contingency Program

Given that site facilities are small and readily secured, a temporary closure contingency program is not required. As described in Section 6.3, unforeseen occurrences that compromise the temporary closure goals (Section 6.1) will be addressed promptly.

6.5 Temporary Closure Schedule

Temporary closure activities (Section 6.2) will be carried out at the time of seasonal closure or otherwise at the time that temporary closure is announced. The scheduled on-going inspection and reporting (Sections 6.2 and 6.3) would remain constant through the period of temporary closure unless changed with authorization of the MVLWB and/or GNWT Inspector as appropriate.

7. INTEGRATED SCHEDULE OF ACTIVITIES

Exploration activities are planned to be carried out seasonally throughout the duration of the land use permit (5 to 7 years) and water licences. Seasonal site activities are typically scheduled from February through October, with brief seasonal temporary closures (Section 6) from November to January, and May to June.

Permanent closure and reclamation of the Courageous Lake property is not planned; it is anticipated that the project will continue to progress through multiple phases of exploration and may ultimately advance to an operating mine following environmental assessment approval and permitting. Nonetheless, permanent closure and reclamation activities would be implemented upon announcement of permanent closure.

8. POST-CLOSURE SITE ASSESSMENT

The post-closure condition of the remote drill holes and the Coreland site would be safe for relinquishment of Seabridge liability and return of Seabridge security. All contaminants and physical hazards for which Seabridge is accountable will have been removed from the site such that there would be no requirement for on-going monitoring or maintenance.

9. FINANCIAL SECURITY

Seabridge posted financial security of $45,000 pursuant to Land Use Permit MV2012C0025. Seabridge expects to submit a Final Plan for this expiring permit and to have the plan approved, at which time the existing security can be transferred to the new land use permit. In 2012, MVLWB staff calculated the amount of financial security using the Land Use Permit Security Worksheet prior to issuance of permit MV2012C0025. The 2012 worksheet (including assumptions) is included in Appendix B.

For the land use permit and water licence applications currently under review, Seabridge proposes a two stage security that corresponds with the Typical Drill Program (phase 1) and the Large Drill Program (phase 2) as described in Section 5.2 of the Exploration Work Plan and section 3.4 of this CRP. Seabridge has prepared two financial security estimates that align with the activities and equipment requirements for each phase.

The estimated security to be posted by Seabridge for the Typical Drill Program (phase 1) is $45,011. Prior to progressing to a Large Drill Program (phase 2), an incremental amount of $68,477 should be posted to bring the total security to $113,488 as shown in Table 2. The details of the both security calculations, including assumptions, are provided in Appendices C and D.

Table 2: Estimated Security for Typical Drill Program and Large Drill Program

	Total Security Amount	Distribution		Distribution	
		Land Liability	Water Liability	Territorial Lands	Federal Lands
Existing MV2012C0025	$45,000	$45,000	0		$45,000[1]
Phase 1	$45,011	$45,011	0	$41,520[2]	$3,490[2]
Phase 2	$113,488[3]	$113,488[3]	0	$107,941[2]	$5,546[2]

Notes:

[1] The existing security deposit for MV2012C0025 was posted prior to devolution and is held by INAC.

[2] The distribution of costs between Territorial and Federal land is approximate is based on the fact that all buildings and most of the fuel and equipment are on Territorial lands. Approximately 25% of the drill holes and remote fuel will be on federal land. See Appendix C and D for worksheet

[3] The amount of $113,488 represents the total cost to reclaim Phase 2. It includes the $45,011 amount for Phase 1 plus an incremental amount of 68,477 to be posted prior to the start of Phase 2.

Seabridge met with representatives of GNWT and CIRNAC to discuss the calculation methodology, assumptions and distribution of security estimate. Since the exploration work will be undertaken primarily on land, with little or no risk to water resources, Seabridge proposes to apply 100% of the security to land, under the land use permit. The distribution between Territorial and Federal Lands is calculated based on the location of the activity. All infrastructure is on Territorial land. It is estimated that 25% of the remote drill holes will be located on Federal land.75% will be on Territorial land, thus the bulk of the security estimate is allocated to Territorial land.

The difference between the existing $45,000 security and the first phase security is $11 and will be posted by Seabridge once the new land use permit and water licences are issued and the distribution of security is confirmed between Territorial and Federal jurisdictions.

Prior to commencing phase 2 activities (i.e., the use of three or more drills) Seabridge will post the difference between phase 2 security and phase 1 security. Seabridge may choose to prepare a revised cost estimate for phase 2 activities, for submission to and approval by the MVLWB, if Seabridge anticipates there will be a significant difference (reduction) in the actual equipment that will be used in phase 2 compared to what was included in the cost estimate for phase 2.

9.1 Security Estimate Methodology

Seabridge has chosen to use the MVLWB Land Use Permit Security Worksheet to calculate security.

9.1.1 Background and Context

In 2002, INAC issued the Mine Site Reclamation Policy - NWT which defined four key objectives related to reclamation planning and the provision of security deposits in NWT. The policy explicitly excluded activities such as prospecting and exploration activities.

In 2007 INAC issued the follow-up Guidelines for Mine Site Reclamation Policy - NWT. The guidelines were applicable to mines in NWT. The guidelines necessitated that reclamation estimates be undertaken for mines but did not specify a format to be used, only that it be at an appropriate level of detail for the stage of the mine,

In 2013, the MVLWB issued a set of guidelines for closure planning (MVLWB, 2013) which were intended to complement the 2002 Policy and supersede the 2007 INAC guidelines. These Guidelines introduced the concept of "Advanced Mineral Exploration" as "any appurtenant undertaking in which the proponent requires a type A or type B water licence in order to carry out the proposed activities." In addition to setting out requirements for the content of closure plans, the Guidelines state that a "security estimate should be at a level of detail reflective of the available information" and further state that "Proponents should use the RECLAIM model to estimate security or contact Board staff if planning to use another model*".*

By this definition, the exploration activities proposed by Seabridge are subject to the Guidelines because a type B water licence is required to use >100 m3/day of water.

In 2017, the *MVLWB/GNWT/INAC Guidelines for Closure and Reclamation Cost Estimates for Mines* (2017) were issued which further defined "advanced exploration" as:

> *"mineral exploration typically marked by the start of bulk sampling. It typically consists of large diameter drilling and trenching, and in larger-scale projects, development of declines or adits, and some onsite ore processing. Roads are often built, field camps can increase in size and heavy equipment may be brought in. The activities associated with advanced exploration typically trigger a land use permit and water licence."*

With this definition, the original intent of the 2002 INAC Policy was revived and affirmed, and the scope of Seabridge's exploration activities no longer meet the threshold of advanced exploration.

The *2017 Guidelines* state that:

> "*In general, these Guidelines apply to new and existing mining, milling, and advanced mineral exploration projects that require a type A or type B water licence. For mineral exploration projects that require only a land use permit and no water licence, the Boards generally use their security estimating template, not RECLAIM*."

The 2017 Guidelines also anticipate situations where applicants for a water licence may propose another method of cost estimate, and section 2.2 of the 2017 Guidelines provides directions to achieve this:

> *"Should a proponent or reviewer wish to use an alternate method for estimation of closure costs, the onus is on the proponent or reviewer to propose an alternate method prior to submitting the estimate. Requests to use a different method must be accompanied by: a) a description of how the proposed method works; b) a description of how the method reflects the principles in the INAC (2002) Reclamation Policy; and c) rationale for why a different cost estimating method is being proposed. The alternate method should be discussed with the GNWT, INAC, or other landowners, prior to requesting the Board's approval."*

Following the above guidance, Seabridge offers the following explanation for why it has chosen to utilize the MVLWB Land Use Permit Security Worksheet rather than the RECLAIM method:

Since the MVLWB continues to utilize the Land Use Permit Worksheet method for other projects including exploration, Seabridge assumes the method is acceptable and there is no need to answer (a) and (b) about how the method works or how it reflects INAC policy. The rationale for item (c) is detailed below:

- The Land Use Permit Worksheet method aligns with the scope and type of exploration activities that will be undertaken over the next five to seven years.
- The scope of exploration activities remain unchanged from the three previous land use permits (MV2003C0050, MV2010C0046 and MV2012C0025) when the worksheet method was used by the MVLWB.
- The scope of work does not include advanced exploration activities as defined by the 2017 Guidelines.
- The scope of work requires the use of water for exploration activities such as drilling, winter road and camp uses. application for water use is pursuant to Schedule H (Column III) of the Waters Regulations (R-19-2014), for Miscellaneous Undertakings. The water licences are not required for Schedule E: Mining and Milling Undertakings.
- There will be no waste disposal facilities established during the term of the permit and licences.
- Impacts to land and water associated with the proposed exploration activities will continue to be negligible and short term.
- The only reclamation activities that could reasonably be attributable to water are the removal of two culverts and two bridges.
- The RECLAIM model, by its own defined purpose, is intended for mines and advanced exploration situations. The complexity and detailed nature of RECLAIM is clearly more appropriate for activities that involve large land use disturbances associated with bulk sampling or mining, including the deposit of wastes on land or into water that require water management and/or water treatment or other activities, which contribute to longer-term impacts that require more extensive remediation activities and financial security. None of which will be undertaken by Seabridge at Courageous Lake during the next five to seven year permit term.

For the reasons listed above, Seabridge believes that the use of the Land Use Permit Worksheet is appropriate for this situation.

9.2 Scope of Security Estimate

The security estimate is consistent with the scope of the CRP as described previously. The costs associated with removal and/or reclamation of the following components are included in the security estimate:

- Temporary tents and structures established by Seabridge at Coreland
- Equipment and drills
- Remote drill sites
- Treeline Sand and Gravel Borrow Pit
- Fuel storage facilities at Coreland
- Hazardous and solid waste material

- Pre-existing disturbances that Seabridge continues to utilize such as bridges, culverts

Details are included in Appendix B and C.

Reclamation costs associated with the following components are excluded:

- Matthews Lake Camp
- Gravel airstrip
- Two pre-existing metal buildings at Coreland (former Salmita mine)
- Other land disturbances within the permit area that existed prior to Seabridge's acquisition of the property, such as waste rock piles, laydown areas, and bulk sample pits that were created by previous owners.

Seabridge believes the phase 1 and phase 2 estimates described herein are accurate and reasonable for the proposed exploration activities that will be conducted under the land use permit and water licences. As described elsewhere in the Plan, Seabridge has excluded reclamation activities and costs associated with Surface Lease 76D/3-6, for the Matthews Lake Camp, and is currently engaged in discussions with GNWT regarding security for the lease.

10. REFERENCES

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APPENDIX A SEABRIDGE ENVIRONMENTAL POLICY

ENVIRONMENTAL POLICY

The Company strives to be an exemplary leader in environmental management. We intend to meet or surpass existing regulatory standards and minimize undesirable impacts on the environment to the extent possible. To meet this objective we will:

- At a minimum, meet all regulatory requirements;
- Recognize environmental management as an important corporate priority and integrate environmental considerations into all mine exploration, development, operational and closure planning;
- Assess the potential environmental risks of project design so that effective preventive measures can be established;
- Use industry leading practices and technologies that are aimed to improve environmental performance intended to enhance quality of water, air, vegetation and wildlife;
- Continuously improve the efficient use of resources, processes and materials;
- Participate in recycling programs to the extent possible and commercially feasible;
- Optimize the use of resources to ensure the conservation of natural resources and consumer goods such as energy;
- Require contractors and suppliers to provide operational guidelines and procedures which meet their environmental responsibilities, as part of the bid and procurement process;
- Consider environmental guidelines when purchasing equipment and materials;
- Communicate environmental information to our employees including changes and potential changes to environmental regulations as well as technological developments that may mitigate impacts;
- Develop guidelines for training and education of employees;
- Work with government agencies, the public, Treaty Nations, First Nations and stakeholders to develop open communications for a shared understanding of the Company's environmental protection programs and responsibilities;
- To the extent that is practical and commercially reasonable, work to remediate disturbed ecosystems to enable them to revert to their original state or an alternative sustainable state which optimizes biodiversity and benefits to the wider community.

It is the responsibility of every employee of Seabridge to carry out their daily activities in accordance with this Environmental Policy.

APPENDIX B SECURITY ESTIMATE FOR EXISTING LAND USE PERMIT MV2012C0025

Land Use Permit Security Worksheet

Application Number: MV2012C0025 (included with LUP Reasons)

	Input Amount	Multiplier		
Camp (C1)				
Temporary Structures				
Input number of tent frames or weatherhaven (3.5m x 4.2m)	0	$200.00	$0.00	
Input number of trailers (3.5m x 15.2m)	0	$300.00	$0.00	
Input total square metres of other temporary structures (i.e. core shacks)	350	$2.50	$875.00	
Fixed Structures				
Input total square metres of fixed structures	0	$25.00	$0.00	
Solid Waste				
For non-burnable material, input # of person days per season	0	$1.00	$0.00	
For burnable material, input # of person days per season	0	$0.50	$0.00	
Total C1			$875.00	
Regulated / Hazardous Materials (R1)				
Based upon on site volume				
Explosives; up to 500 kg (~pallet) dry explosives input 1, if none, input 0	0	$500.00	$0.00	
Additional Explosives; input total kg >500	0	$0.50	$0.00	
Drilling Muds (oil based); enter number of 63 m^3 (or equivalent) containers	0	$1,000.00	$0.00	
Used Oil, Lubes and Antifreeze: enter number of pieces of heavy equipment	9	$500.00	$4,500.00	9 pieces of heavy equip
Other;				
Total R1			$4,500.00	
Hydrocarbon Storage and Transfer (H1)				
Based upon on site volume				
Gasoline and Diesel				
Enter total volume of gasoline&diesel <25,000 L	25000	$0.50	$12,500.00	
Enter total volume of gasoline&fuel > 25,000 L	50000	$0.25	$12,500.00	up to 75,000L
Total Gasoline and Diesel			$25,000.00	
When fuel is within bermed site or has other safety feature, enter 1, otherwise e	1	25%	-$6,250.00	
Aviation Fuel				
Enter total volume of aviation fuel < 25,000 L	0	$0.50	$0.00	
Enter total volume of aviation fuel > 25,000 L	0	$0.25	$0.00	
Total Aviation Fuel	0		$0.00	
When fuel is within bermed site or has other safety feature, enter 1, otherwise e	0	25%	$0.00	
Total H1			$18,750.00	
Land Disturbance (L1)				
Disturbed Surface Area				
(Developed surface area that may require restoration through the use of scarification, reseeding, fertilizing or other similar techniques)				
Enter number of hectares disturbed	4	$1,000.00	$4,000.00	
Other Land Disturbances				
Creek Crossings; enter number of creek crossings	0	$500.00	$0.00	
Off-Road Activities; if any activities are likely, enter 1	1	$500.00	$500.00	quads and snowmobiles
Sump Factor; enter total area occupied by sumps in m^2	0	$10.00	$0.00	
Well Factor; enter number of wells (OIL and GAS ONLY)	0	$25,000.00	$0.00	
Total L1			$4,500.00	
Equipment (E1)				
Based upon type of equipment				
Enter number of pieces of heavy equipment (i.e. dozer, forklift, large gensets)	9	$1,000.00	$9,000.00	bus, 2 cats, water truck, 1 dozer, 2 grader, 1 plough truck, 1 snow blower
Enter number of drills	5	$1,000.00	$5,000.00	1-5 drills
Enter number of light vehicles (trucks, atvs, snowmobiles, boats)	15	$250.00	$3,750.00	3 atvs, 2 trucks, 10 snowmobiles
Enter number of small generators or pumps	5	$100.00	$500.00	
Enter number of empty fuel storage tanks (propane)	0	$500.00	$0.00	
Total E1			$18,250.00	

Land Use Permit Security Worksheet (continued)

Application Number: MV2012C0025 (included with LUP Reasons)

	Input Amount	Multiplier	
Security Calculation			
Preliminary Calculation			
Enter amount from C1			$875.00
Enter amount from R1			$4,500.00
Enter amount from H1			$18,750.00
Enter amount from L1			$4,500.00
Enter amount from E1			$18,250.00
Preliminary Calculation, total of above		**A**	$46,875.00
Multipliers			
Site Access Multiplier. If the project has all weather road access enter 1, if ice road access enter 1.5, if air access enter 2		**B**	1.5
Performance Multiplier. If applicant has succssfully completed the terms of a LUP enter 0.85, otherwise enter 1		**C**	0.85
Environmental Risk Factor. If location has high environmental value or unusual environmental risk enter 2. If location is previously disturbed enter 0.75. Otherwise enter 1.		**D**	0.75
Calculated Security			
Multiply preliminary calculation (A) by performance multipliers (B, C and D)		**E**	$44,824.22
Existing Securities			
List existing associated permits and amount of overlapping security			
Permit:			
Permit:			
Permit:			
Permit:			
Overlapping Securities, total of above		**F**	$0.00
Final Security Determination			
Subtract overlapping securities (F) from calculated security (E)			**$44,824.22**

previously permitted for same activities by same company, area has been a historical location for mining activities

Comments

Original Security	
Current Security	$44,824
Additional Amount Required	$44,824
Additional Amount Rounded	**$45,000**

APPENDIX C SECURITY ESTIMATE FOR PHASE 1 – TYPICAL DRILL PROGRAM

Appendix C - Security Estimate Phase 1

Land Use Permit Security Worksheet

Application Number: PHASE 1 - TYPICAL PROGRAM	Input Amount	Multiplier		Comments / Notes from Seabridge
Camp (C1)				
Temporary Structures				
Input number of tent frames or weatherhaven (3.5m x 4.2m)	0	$200.00	$0.00	
Input number of trailers (3.5m x 15.2m)	0	$300.00	$0.00	
Input total square metres of other temporary structures (i.e. core shacks)	699	$2.50	$1,747.50	See list of structures below
Fixed Structures				
Input total square metres of fixed structures	0	$25.00	$0.00	*Excludes two large metal buildings from Salmita*
Solid Waste				
For non-burnable material, input # of person days per season	0	$1.00	$0.00	not a camp, waste generation is minimal
For burnable material, input # of person days per season	0	$0.50	$0.00	
Total C1			$1,747.50	All structures are located at Coreland on Territorial Land
Regulated / Hazardous Materials (R1)				
Based upon on site volume				
Explosives; up to 500 kg (~pallet) dry explosives input 1, if none, input 0	0	$500.00	$0.00	
Additional Explosives; input total kg >500	0	$0.50	$0.00	
Drilling Muds (oil based); enter number of 63 m^3 (or equivalent) containers	0	$1,000.00	$0.00	no oil based muds
Used Oil, Lubes and Antifreeze: enter number of pieces of heavy equipment	7	$500.00	$3,500.00	See list below
Other;				
Total R1			$3,500.00	Most equipment are located at Coreland on Territorial Land; 1 drills on Federal Land (approx $500)
Hydrocarbon Storage and Transfer (H1)				
Based upon on site volume				
Gasoline and Diesel				
Enter total volume of gasoline&diesel <25,000 L	5960	$0.50	$2,980.00	See list below: daytanks for building heat and portable tanks for drill
Enter total volume of gasoline&diesel > 25,000 L	75000	$0.25	$18,750.00	Coreland one 75,000L tank
Total Gasoline and Diesel			$21,730.00	
When fuel is within bermed site or has other safety feature, enter 1, otherwise enter 0	1	25%	-$5,432.50	All tanks have secondary or tertiary containment
Aviation Fuel				
Enter total volume of aviation fuel < 25,000 L	24600	$0.50	$12,300.00	Assumes 120 drums at Coreland (capacity of berm)
Enter total volume of aviation fuel > 25,000 L	0	$0.25	$0.00	
Total Aviation Fuel			$12,300.00	
When fuel is within bermed site or has other safety feature, enter 1, otherwise enter 0	1	25%	-$3,075.00	All drums in lined bermed containment area
Total H1			$25,522.50	Bulk fuel located at Coreland on Territorial Land; 25% of drill holes (fuel) will be on Federal land (approx $2000)
Land Disturbance (L1)				
Disturbed Surface Area				
(Developed surface area that may require restoration through the use of scarification, reseeding, fertilizing or other similar techniques)				*Exclude existing disturbed footprint from Salmita*
Enter number of hectares disturbed	0.8	$1,000.00	$800.00	assume 15 drill sites (20x20m) that require remediation; plus 0.2 ha active area at Borrow Pit
Other Land Disturbances				
Creek Crossings; enter number of creek crossings	4	$500.00	$2,000.00	2 creek crossings/bridges + 2 culverts
Off-Road Activities; if any activities are likely, enter 1	1	$500.00	$500.00	snowcats, snowmobiles
Sump Factor; enter total area occupied by sumps in m^2	25	$10.00	$250.00	Core saw cutting sump at Coreland (5x5m)
Well Factor; enter number of wells.	0	$25,000.00	$0.00	
Total L1			$3,550.00	Most disturbances are on Territorial Land; 25% of drill sites will be on Federal land ($150)

Appendix C - Security Estimate Phase 1

Land Use Permit Security Worksheet (continued)

Application Number: **PHASE 1 - TYPICAL PROGRAM**

	Input Amount	Multiplier		
Equipment (E1)				
Based upon type of equipment				
Enter number of pieces of heavy equipment (i.e. dozer, forklift, large gensets)	7	$1,000.00	$7,000.00	See equipment list below
Enter number of drills	3	$1,000.00	$3,000.00	Phase 1 - Typical program will have 2-3 drills
Enter number of light vehicles (trucks, atvs, snowmobiles, boats)	9	$250.00	$2,250.00	See list below
Enter number of small generators or pumps	5	$100.00	$500.00	See list below
Enter number of empty fuel storage tanks	0	$500.00	$0.00	All empties demobed annually
Total E1			$12,750.00	Most equipment is on Territorial Land; one of the drills might be on Federal ($1000)

Security Calculation			
Preliminary Calculation			
Enter amount from C1		$1,747.50	100% Territorial
Enter amount from R1		$3,500.00	Mostly Territorial, $500 Federal
Enter amount from H1		$25,522.50	Mostly Territorial, $2000 Federal
Enter amount from L1		$3,550.00	Mostly Territorial, $150 Federal
Enter amount from E1		$12,750.00	Mostly Territorial, $1000 Federal
Preliminary Calculation, total of above	A	$47,070.00	Territorial $43,420 Federal $3,650
Multipliers			
Site Access Multiplier. If the project has all weather road access enter 1, if ice road access enter 1.5, if air access enter 2	B	1.5	Winter Road multiplier
Performance Multiplier. If applicant has successfully completed the terms of a LUP enter 0.85, otherwise enter 1	C	0.85	Three previous land use permits
Environmental Risk Factor. If location has high environmental value or unusual environmental risk enter 2. If location is previously disturbed enter 0.75. Otherwise enter 1.	D	0.75	Most activities are on previously disturbed sites
Calculated Security			
Multiply preliminary calculation (A) by performance multipliers (B, C and D)	E	$45,010.69	**Territorial $41,520** **Federal $3,490**
Existing Securities			
List existing associated permits and amount of overlapping security			
Permit:			
Permit:			
Permit:			
Overlapping Securities, total of above	F	$0.00	
Final Security Determination			
Subtract overlapping securities (F) from calculated security (E)		**$45,010.69**	

Comments

PLEASE PUT YOUR ASSUMPTIONS IN HERE SO THAT EVERYONE CAN SEE YOUR CALCS.

All winter road and snowmaking equipment demobed at end of winter road season

Assumes all fuel tanks are full

Appendix C - Security Estimate Phase 1

Land Use Permit Security Worksheet (continued)

Application Number: PHASE 1 - TYPICAL PROGRAM

	Phase 1 (max)	Phase 2 (max)		
Fuel storage capacity at Coreland				
Coreland Bulk tank - diesel	75000	75000	L	Double-walled tank within a lined/bermed facility
Coreland Bulk tank - diesel - 3 new tanks for phase 2		225000	L	Double-walled tank within a lined/bermed facility
Coreland Bulk tank - Jet B - 2 new tanks for phase 2		130000	L	Double-walled tank within a lined/bermed facility
Coreland Drum storage facility - Jet fuel for heli	24600	0	L	Replaced with bulk tanks for phase 2
Coreland Drum gasoline - for small water pump, ice auger	410	410	L	2 drums
Remote Drill Sites - three drills, each has 4 tanks plus 4 tanks at Coreland for rotation	3280	3280	L	single-wall tanks with integrated secondary containment
Remote Drill Sites - TWO more drills for phase 2 - each has 4 tanks		1640	L	single-wall tanks with integrated secondary containment
Coreland logging tent - diesel day tank/heater (2x 454L)	908	908	L	Double-walled tank
Coreland logging tent - diesel day tank/heater (2x 454L) - new for phase 2		908	L	Double-walled tank
Coreland core saw tent - diesel day tank/heater	454	454	L	Double-walled tank
Coreland garage tent - diesel day tank/heater	454	454	L	Double-walled tank
Coreland garage tent - diesel day tank/heater - new for phase 2		454	L	Double-walled tank
Coreland gen shed - diesel day tank	454	454	L	Double-walled tank
Subtotal (small fuel containers)	5960	8962		
Buildings at Coreland				
Coreland logging tent	100	100	m2	estimate from GIS
Coreland logging tent - 1 new for phase 2		100	m2	estimate from GIS
Coreland core saw tent	60	60	m2	estimate from GIS
Coreland garage tent	85	85	m2	estimate from GIS
Coreland garage tent - 1 new for phase 2		85	m2	estimate from GIS
Coreland dry storage tent	280	280	m2	estimate from GIS
Coreland gen shed - wood	26	26	m2	estimate from GIS
Drill Sheds (4) - 3 working, 1 spare for drill moves	100	100	m2	
Drill Sheds (6) - two new for phase 2		50	m2	
Drill Emergency sheds (4) - 3 working, 1 spare for drill moves	48	48	m2	
Drill Emergency sheds (6) - two new for phase 2		24	m2	
Coreland metal bldgs from Salmita (2 x 390m2)				Excluded, pre-existing
Subtotal (temporary building footprint)	699	958	m2	

Equipment at Coreland, Remote drill sites, and Mobile Equipment		Phase 1 (max)	Phase 2 (max)	Incremental	
drill	Tech 5000 Diamond Fly Drill	3	5	2	
light	F350, F450 crew cab trucks, or equivalent	3	6	3	
light	Small E350 bus or equivalent	1	1	0	
-	AS350 helicopter or equivalent	2	2	0	Not included in cost estimate
heavy	Snow cats BR2000 or similar	2	2	0	
heavy	Kubota M108S wheeled Tractor (forks, bucket, backhoe)	1	1	0	
heavy	Skid steer, Bobcat 208 or equivalent	1	3	2	
light	ATVs	3	6	3	
light	Snowmobiles	15 max	30 max	0	Count 2 in cost estimate; All others are contractor-owned and demobilized at end of winter programs
heavy	Wheeled Loader - IT28 or equivalent	1	1	0	Construction and maintenance of winter roads, ice strips. Movement of equipment and supplies
heavy	Dump truck (or dump trailer)	0	1	1	Haul gravel for maintenance of existing gravel roads
heavy	Wheeled or ski equipped flat deck trailers	2	4	2	Transport equipment and supplies on gravel or ice roads
small	18kW generator and spare	1	2	0	Power generation at Coreland
small	4 Hp (2inch) water pump or equivalent	2	2	0	Pump water at Coreland, 1 is spare
small	Stihl gas ice auger	2	2	1	
-	D6 Dozer, or equivalent	1	1	0	Not included in cost estimate - Contract equipment, demobed w/ winter road
-	Amphibious vehicle – Hagglund BV206 or equivalent	1	1	0	Not included in cost estimate - Contract equipment, demobed w/ winter road
-	Oshkosh F2346 (or equivalent) water truck	1	1	0	Not included in cost estimate - Contract equipment, demobed w/ winter road
-	Flood pumps, B55 (or equivalent)	6	6	0	Not included in cost estimate - Contract equipment, demobed w/ winter road
-	Triaxle Pow truck	1	1	0	Not included in cost estimate - Contract equipment, demobed w/ winter road
-	Grader, 14E or equivalent	1	1	0	Not included in cost estimate - Contract equipment, demobed w/ winter road
-	Snow making equipment, pumps	0	2	2	Not included in cost estimate - Contract equipment, demobed w/ winter road
-	Truck-trailer combos for freight transportation	As required	As required		Freight transport/day trips; Not included in cost estimate

APPENDIX D SECURITY ESTIMATE FOR PHASE 2 – LARGE DRILL PROGRAM

Appendix D - Security Estimate Phase 2

Land Use Permit Security Worksheet

Application Number: PHASE 2 - LARGE PROGRAM	Input Amount	Multiplier		Comments / Notes from Seabridge
Camp (C1)				
Temporary Structures				
Input number of tent frames or weatherhaven (3.5m x 4.2m)	0	$200.00	$0.00	
Input number of trailers (3.5m x 15.2m)	0	$300.00	$0.00	
Input total square metres of other temporary structures (i.e. core shacks)	958	$2.50	$2,395.00	Phase 1 footprint PLUS 2 new tents (core handling) and PLUS 3 additional drills - See Below for details
Fixed Structures				
Input total square metres of fixed structures	0	$25.00	$0.00	*Excludes two large metal buildings from Salmita and Matthews Camp*
Solid Waste				
For non-burnable material, input # of person days per season		$1.00	$0.00	
For burnable material, input # of person days per season	0	$0.50	$0.00	not a camp, waste generation is minimal
Total C1			$2,395.00	All structures are located at Coreland on Territorial Land
Regulated / Hazardous Materials (R1)				
Based upon on site volume				
Explosives; up to 500 kg (~pallet) dry explosives input 1, if none, input 0	0	$500.00	$0.00	
Additional Explosives; input total kg >500	0	$0.50	$0.00	
Drilling Muds (oil based); enter number of 63 m^3 (or equivalent) containers	0	$1,000.00	$0.00	no oil based muds
Used Oil, Lubes and Antifreeze: enter number of pieces of heavy equipment	12	$500.00	$6,000.00	See list below
Other;				
Total R1			$6,000.00	Territorial Land; 2 drills on Federal Land (approx $1000)
Hydrocarbon Storage and Transfer (H1)				
Based upon on site volume				
Gasoline and Diesel				
Enter total volume of gasoline&diesel <25,000 L	8962	$0.50	$4,481.00	See list below: Phase 1 volume, plus new daytanks for new buildings and 2 additional drills
Enter total volume of gasoline&diesel > 25,000 L	300000	$0.25	$75,000.00	Coreland 75,000L tank x 4 (1 exist, 3 new); lined/bermed area
Total Gasoline and Diesel			$79,481.00	
When fuel is within bermed site or has other safety feature, enter 1, otherwise enter 0	1	25%	-$19,870.25	All tanks have secondary or teritary containment
Aviation Fuel				
Enter total volume of aviation fuel < 25,000 L		$0.50	$0.00	
Enter total volume of aviation fuel > 25,000 L	130000	$0.25	$32,500.00	Coreland 65,000L tank x 2 (new) in lined/bermed area
Total Aviation Fuel			$32,500.00	
When fuel is within bermed site or has other safety feature, enter 1, otherwise enter 0	1	25%	-$8,125.00	All drums in lined berm
Total H1			$83,985.75	Bulk fuel located at Coreland on Territorial Land; 25% of drill holes (fuel) will be on Federal land (approx $2300)
Land Disturbance (L1)				
Disturbed Surface Area				
(Developed surface area that may require restoration through the use of scarification, reseeding, fertilizing or other similar techniques)				*Exclude existing disturbed footprint from Salmita*
Enter number of hectares disturbed	2.2	$1,000.00	$2,200.00	assume 50 drill sites require remediation (20x20m each) plus 0.2 ha active area at Borrow Pit
Other Land Disturbances				
Creek Crossings; enter number of creek crossings	4	$500.00	$2,000.00	2 creek crossings/bridges and 2 culverts
Off-Road Activities; if any activities are likely, enter 1	1	$500.00	$500.00	snowcats, snowmobiles
Sump Factor; enter total area occupied by sumps in m^2	25	$10.00	$250.00	Core saw cutting sump at Coreland (5x5m)
Well Factor; enter number of wells.	0	$25,000.00	$0.00	
Total L1			$4,950.00	Most disturbances are on Territorial Land; 25% of drill sites will be on Federal land ($500)

Appendix D - Security Estimate Phase 2

Land Use Permit Security Worksheet

Application Number: PHASE 2 - LARGE PROGRAM	Input Amount	Multiplier		Comments / Notes from Seabridge
Equipment (E1)				
Based upon type of equipment				
Enter number of pieces of heavy equipment (i.e. dozer, forklift, large gensets)	12	$1,000.00	$12,000.00	See list below
Enter number of drills	5	$1,000.00	$5,000.00	Large program has 5 drills, assume 2 drills on Federal land
Enter number of light vehicles (trucks, atvs, snowmobiles, boats)	15	$250.00	$3,750.00	See list below
Enter number of small generators or pumps	6	$100.00	$600.00	See list below
Enter number of empty fuel storage tanks	0	$500.00	$0.00	All empties demobed annually
Total E1			$21,350.00	Most equipment is on Territorial Land; two of the drills might be on Federal ($2000)
Security Calculation				
Preliminary Calculation				
Enter amount from C1			$2,395.00	100% Territorial
Enter amount from R1			$6,000.00	Mostly Territorial, $1000 Federal
Enter amount from H1			$83,985.75	Mostly Territorial, $2300 Federal
Enter amount from L1			$4,950.00	Mostly Territorial, $500 Federal
Enter amount from E1			$21,350.00	Mostly Territorial, $2000 Federal
Preliminary Calculation, total of above		A	$118,680.75	Territorial $112,880 Federal $5,800
Multipliers				
Site Access Multiplier. If the project has all weather road access enter 1, if ice road access enter 1.5, if air access enter 2		B	1.5	Winter Road multiplier
Performance Multiplier. If applicant has succssfully completed the terms of a LUP enter 0.85, otherwise enter 1		C	0.85	Three previous land use permits
Environmental Risk Factor. If location has high environmental value or unusual environmental risk enter 2. If location is previously disturbed enter 0.75. Otherwise enter 1.		D	0.75	Most activities are on previously disturbed sites
Calculated Security				
Multiply preliminary calculation (A) by performance multipliers (B, C and D)		E	$113,488.47	**Territorial $107,941** **Federal $5,546**
Existing Securities				
List existing associated permits and amount of overlapping security				
Permit: Surface Lease - not overlapping				
Permit: Previously posted security for Phase 1 Typical Drill program			$45,010.69	Already posted for phase 1
Permit:				
Overlapping Securities, total of above		F	$45,010.69	
Final Security Determination				
Subtract overlapping securities (F) from calculated security (E)			**$68,477.78**	

Comments

PLEASE PUT YOUR ASSUMPTIONS IN HERE SO THAT EVERYONE CAN SEE YOUR CALCS.

All winter road and snowmaking equipment is demobed each winter road season

The amount of phase two estimate can be revisted prior to commencement

Assumes all fuel tanks are full

Appendix D - Security Estimate Phase 2

Land Use Permit Security Worksheet (continued)

Application Number: PHASE 2 - LARGE PROGRAM

Fuel storage capacity at Coreland	Phase 1 (max)	Phase 2 (max)		
Coreland Bulk tank - diesel	75000	75000	L	Double-walled tank within a lined/bermed facility
Coreland Bulk tank - diesel - 3 new tanks for phase 2		225000	L	Double-walled tank within a lined/bermed facility
Coreland Bulk tank - Jet B - 2 new tanks for phase 2		130000	L	Double-walled tank within a lined/bermed facility
~~Coreland Drum storage facility - Jet fuel for heli~~	24600	0	L	Replaced with bulk tanks for phase 2
Coreland Drum gasoline - for small water pump, ice auger	410	410	L	2 drums
Remote Drill Sites - three drills, each has 4 tanks plus 4 tanks at Coreland for rotation	3280	3280	L	single-wall tanks with integrated secondary containment
Remote Drill Sites - TWO more drills for phase 2 - each has 4 tanks		1640	L	single-wall tanks with integrated secondary containment
Coreland logging tent - diesel day tank/heater (2x 454L)	908	908	L	Double-walled tank
Coreland logging tent - diesel day tank/heater (2x 454L) - new for phase 2		908	L	Double-walled tank
Coreland core saw tent - diesel day tank/heater	454	454	L	Double-walled tank
Coreland garage tent - diesel day tank/heater	454	454	L	Double-walled tank
Coreland garage tent - diesel day tank/heater - new for phase 2		454	L	Double-walled tank
Coreland gen shed - diesel day tank	454	454	L	Double-walled tank
Subtotal (small fuel containers)	5960	8962	L	

Buildings at Coreland				
Coreland logging tent	100	100	m2	estimate from GIS
Coreland logging tent - 1 new for phase 2		100	m2	estimate from GIS
Coreland core saw tent	60	60	m2	estimate from GIS
Coreland garage tent	85	85	m2	estimate from GIS
Coreland garage tent - 1 new for phase 2		85	m2	estimate from GIS
Coreland dry storage tent	280	280	m2	estimate from GIS
Coreland gen shed - wood	26	26	m2	estimate from GIS
Drill Sheds (4) - 3 working, 1 spare for drill moves	100	100	m2	
Drill Sheds (6) - two new for phase 2		50	m2	
Drill Emergency sheds (4) - 3 working, 1 spare for drill moves	48	48	m2	
Drill Emergency sheds (6) - two new for phase 2		24	m2	
Coreland metal bldgs from Salmita (2 x 390m2)				Excluded
Subtotal (temporary buildling footprint)	699	958	m2	

Equipment at Coreland, Remote drill sites, and Mobile Equipment		Phase 1 (max)	Phase 2 (max)	Incremental	
drill	Tech 5000 Diamond Fly Drill	3	5	3	
light	F350, F450 crew cab trucks, or equivalent	3	6	3	
light	Small E350 bus or equivalent	1	1	0	
-	AS350 helicopter or equivalent	2	2	0	Not included in cost estimate
heavy	Snow cats BR2000 or similar	2	2	0	
heavy	Kubota M108S wheeled Tractor (forks, bucket, backhoe)	1	1	0	
heavy	Skid steer, Bobcat 208 or equivalent	1	3	2	
light	ATVs	3	6	3	
light	Snowmobiles	10 max	30 max	0	Count 2 in cost estimate; All others are contractor-owned and demobilized at end of winter programs
heavy	Wheeled Loader - IT28 or equivalent	1	1	0	Construction and maintenance of winter roads, ice strips. Movement of equipment and supplies
heavy	Dump truck (or dump trailer)	0	1	1	Haul gravel for maintenance of existing gravel roads
heavy	Wheeled or ski equipped flat deck trailers	2	4	2	Transport equipment and supplies on gravel or ice roads
small	18kW generator and spare	1	2	0	Power generation at Coreland
small	4 Hp (2inch) water pump or equivalent	2	2	0	Pump water at Coreland, 1 is spare
small	Stihl gas ice auger	2	2	1	
-	D6 Dozer, or equivalent	1	1	0	Not included in cost estimate - Contract equipment, demobed w/ winter road
-	Amphibious vehicle – Hagglund BV206 or equivalent	1	1	0	Not included in cost estimate - Contract equipment, demobed w/ winter road
-	Oshkosh F2346 (or equivalent) water truck	1	1	0	Not included in cost estimate - Contract equipment, demobed w/ winter road
-	Flood pumps, B55 (or equivalent)	6	6	0	Not included in cost estimate - Contract equipment, demobed w/ winter road
-	Triaxle Pow truck	1	1	0	Not included in cost estimate - Contract equipment, demobed w/ winter road
-	Grader, 14E or equivalent	1	1	0	Not included in cost estimate - Contract equipment, demobed w/ winter road
-	Snow making equipment, pumps	0	2	2	Not included in cost estimate - Contract equipment, demobed w/ winter road
-	Truck-trailer combos for freight transportion	As required	As required		Freight transport/day trips; Not included in cost estimate