



Duz Cho Logging LP

October 31, 2015

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Re: Amendment for Duz Cho Logging LP – FLNRO File No. 7405923/License of Occupation No. 706363

Duz Cho Logging LP (Duz Cho) hereby submits the following management plan with an amended License of Occupation (LoO) Application dated October 31, 2015. The application is for an aggregate extraction operation located on unsurveyed crown land in the vicinity of Mischinsinlika Creek, Cariboo District, having a NW point of reference of 55° 12' 42" N and -123° 03' 48" E and/or UTM 10U: 495978E and 6118332N, and is 53.7 ha in size more or less (Figures 1 and 2).

It regards to LoO No. 706363, there was some discrepancies between the lmap line work and the area of the original LoO. In 2003, Land and Water BC incorporated two (2) different land files No. 7405923 and No. 7406172 into a single FLNRO No. 7405923, then produced a new tenure boundary (line work). This LoO amendment is to correct the tenure boundary produced in 2003. The existing and proposed LoO boundary is shown on Figure 3.

This Management Plan is intended to meet the requirements of the General Application for Aggregates and Quarry Materials, dated February 2007, as required by FLNRO.

Section A – Project Overview

The area of interest herein called "Mischinsinlika Creek Pit" is a parcel is located ~16.3km south of the center of Mackenzie by using existing access roads including Hwy 39. From the center of MacKenzie travel ~14.4km south along Hwy 39, then turn right onto an existing site access and cross over the railway tracks (~400m) and then go another ~200m to the property gate (Figure 1).

This amended LoO Application as indicated is for a parcel area of approximately 53.7 ha more or less, which has already been cleared (logged) due to pine beetle infestation.

The existing disturbances on the property are divided into two (2) mining areas, one (1) soil stockpiles area and the required access networks, which result in approximately 16.1 ha of total disturbance. The disturbances are defined as the following: 0.6 ha of access network, 2.5 ha of topsoil/mineral soil stockpiles, 2.0 ha of other cleared areas and 11.0 ha of mining areas. **Note:** The two (2) mining areas are "noted" as the north and south pits (Figure 3).

The operational intent of Duz Cho will be to locate (mining) equipment to the site during the work (summer) season (March to November), with the purpose of extracting approximately 50,000 tonnes per year of aggregate materials (pit run, crushed and/or screened materials) over the long-term (20 to 30 years). There will be no washing of aggregate materials from this development. The aggregate materials will be made available for local industrial uses.

The project is expected to be developed in an environmentally sensitive manner, and Duz Cho proposes to accomplish this by implementing plans, utilizing technology and using industry standard “best management practices” (BMP’s) such as following the guidelines set forth by the “*Aggregate Operators Best Management Practices Handbook for British Columbia (April, 2002)*”

<http://www.empr.gov.bc.ca/Mining/Aggregate/BMP/Pages/default.aspx>.

The purpose of the BMP’s will be to either eliminate or minimize potential environment impacts associated with the project. It is expected that standard BMP’s for sediment and erosion control procedures for aggregate operations in BC, will be more than adequate for this particular site.

Duz Cho has recently submitted a updated mine plan to the Ministry of Energy and Mines as a requirement of the *Mines Act, RSBC 1996, Chapter 293* and the *Health, Safety and Reclamation Code for Mines in BC, 2008* (HSRC), in regards to the Mischinsinlika Creek Pit - Mine No. 1101358.

Section B – Project Description

Part I. – Description of Work

The previous and proposed mining (development) areas have been cleared due to the pine beetle infestation. Other than some minor site grubbing there will be no additional development required for the next five (5) years.

The updated mine plan submitted consists of operations, decommissioning of components and associated activities that would be typical for any small to medium sized (aggregate) sand and gravel operation in BC.

The operation will be in compliance with the HSRC, and will utilize the following equipment – loaders, excavators, tandem dump trucks, crushing and screening plants (when required) for the excavation of pit run, crushing & mechanical screening operations. The operation currently uses typical equipment similar to the Cat 966E or IT62 - Front End Loader, Cat D7 or D8 - dozer, Cat 320C or Hitachi 210 – excavator, tandem dump trucks and crusher/screening units.

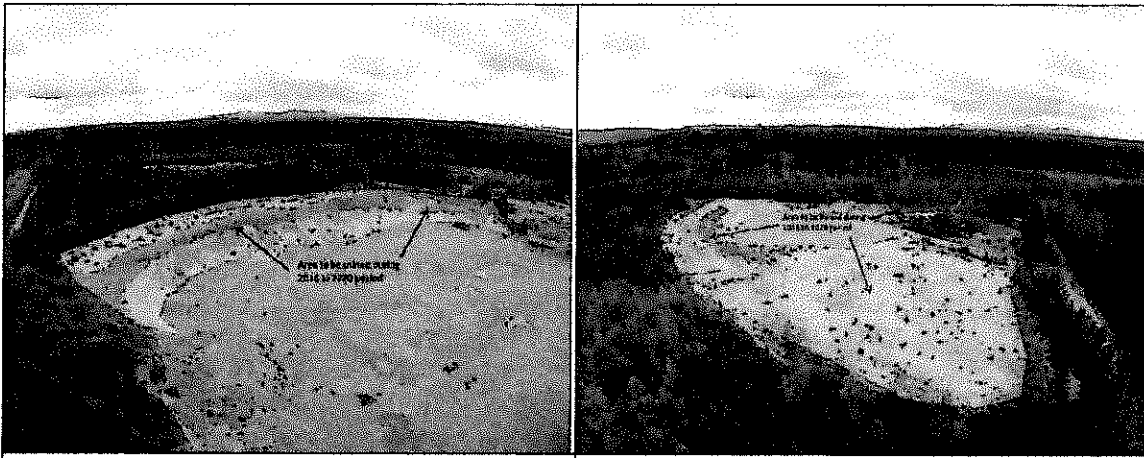
As indicated above, the existing operation is comprised of two (2) mining areas, the north and south pits. The current mine plan anticipates development to a 2:1 mining highwall for all final slopes during the 2016 to 2020 mining period, with the interim floor level of the pit being at 700 masl. The mining faces are currently only four to five (4 to 5) meters in height, and they can be mined using the existing equipment which meets the requirements of **Part 6.23.4** of the HSRC.

Some exploration work has been undertaken within the floor of the existing operational areas, and it was determined that there still remains an extensive resource of aggregate materials below the 700 masl elevation. It is anticipated that in the future, that the company may look at these materials to be mined instead of developing more surface areas.

The mining and pit operations will be seasonal between March and November, with activities driven by demand for the final products. The required operating areas for this development consist of stockpiles, washing, crushing, screening and mine production areas. The pit will most likely operate between 7:00 am to 7:00 pm during Monday to Saturday of the work season on a 10 hr day, when crushing and/or screening are required for upgrading of the materials for commercial use.



Below are photos showing the two (2) pit areas that are to be mined during the 2016 to 2020 period. Note: Areas have already been cleared.



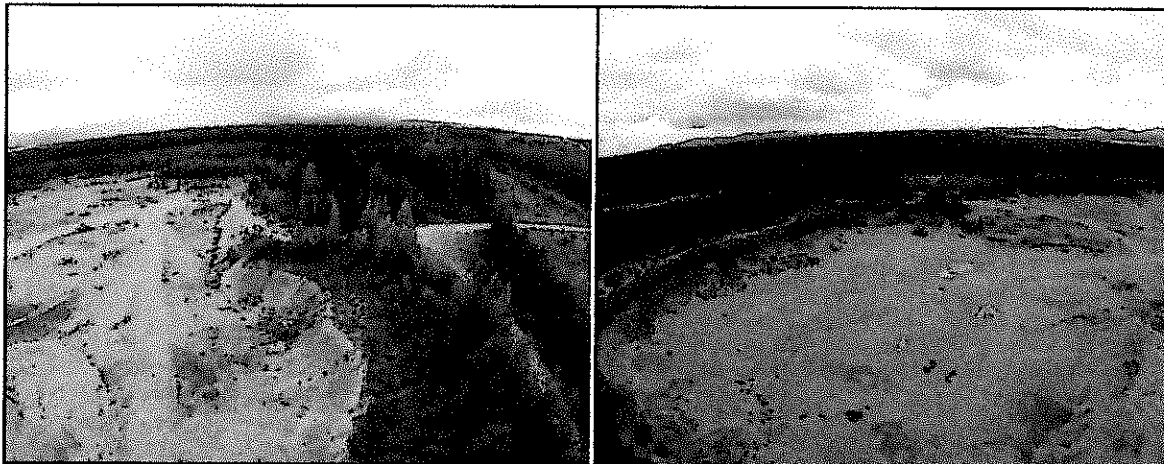
Looking at proposed mining area in the north pit

Looking at proposed mining area in the south pit

Part II. - Present State of Land

This particular site has seen (aggregate) sand and gravel extraction operation for several decades, and consists of approximately 16.1 ha of disturbance within FLNRO LoO No. 706363 as shown in the following photographs. The site was previously mined by Lee-Vine Holdings of Mackenzie, BC; however all future mining will be undertaken by Duz Cho who is the current tenure holder. The existing status of the site (property) is shown in the following photographic collage taken recently (August 2015).

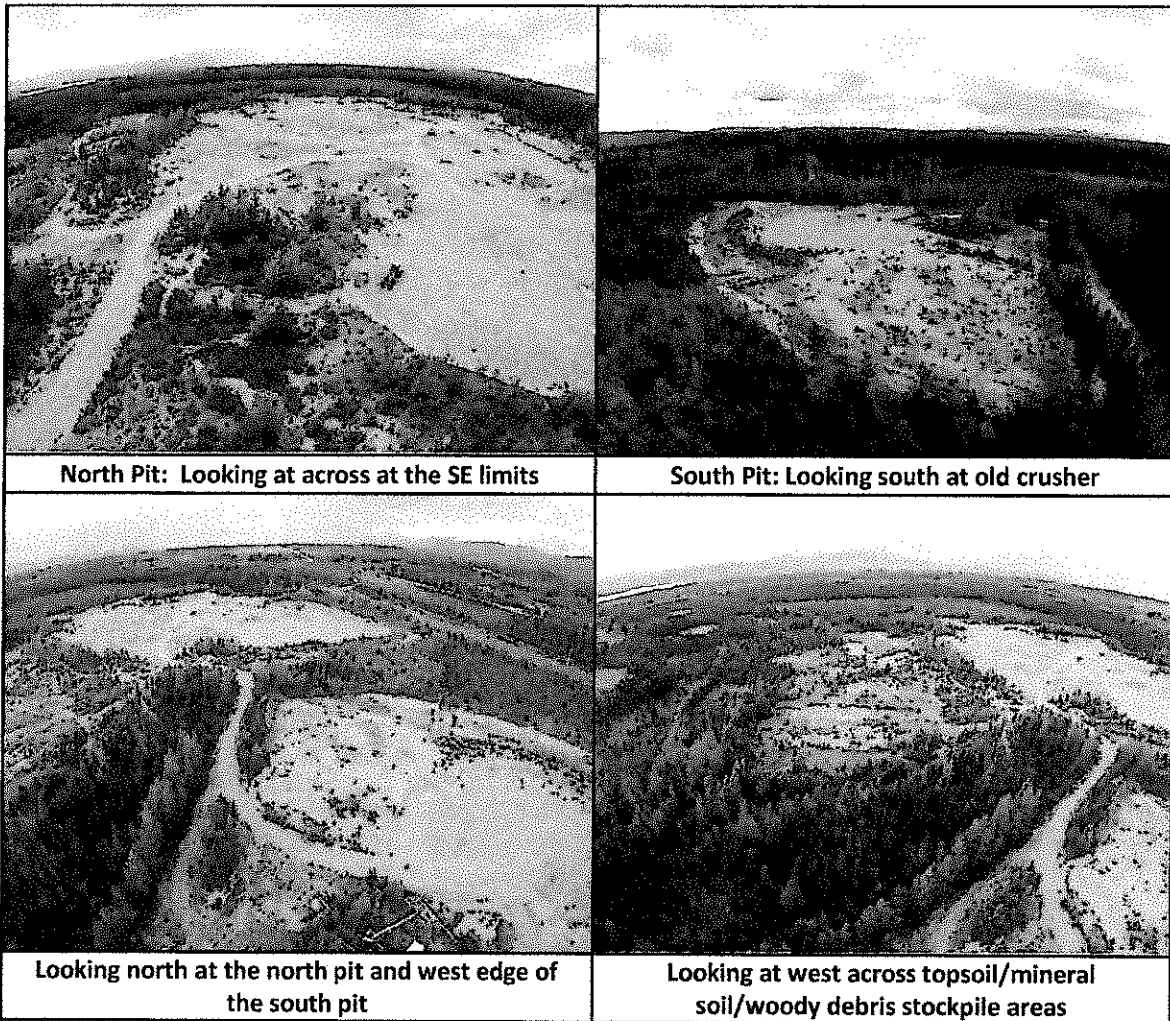
The permit area is outside the District of Mackenzie boundary, is on unsurveyed crown land within the Regional District of Fort George and is outside any ALR boundary. The area is within the Mackenzie Forest District and is part of the Mackenzie Timber Supply Area.



North Pit: Looking NW along eastern limits

North Pit: Looking SE at proposed mining area





Part III. - Reclamation

The reclamation and closure of the Mischinsinlika Creek aggregate operations will follow the general guidelines recommended by Part 10.7.1 to 10.7.10 of the HSRC. It will be the intent of Duz Cho, to prevent long-term environmental impacts at the site and eliminate potential health and safety issues, as required. It is expected that the end land use for this site will be wildlife/forestry. It is expected that in the end, the reclamation plan will foster return to appropriate and functional values on the site.

The objectives of the reclamation plan will be to create a physically stable environment, and to ensure that there are no impacts to aquatic and/or terrestrial resources from the development activities. It is expected that the salvaged topsoil/mineral soil will be replaced and assist in regeneration of the site. These objectives are consistent with the requirements of the HSRC.

The long-term stability of the post-mine site will be an important consideration during reclamation planning for the project. However, with no settling or tailings ponds, dams or waste dumps there will not be a requirement for additional maintenance to ensure long-term physical stability on the site. With all physical



structures being removed from the property during final reclamation, it can be appropriately decommissioned and reclaimed for long-term stability as required under the *Mines Act*.

The reclamation measures and schedule proposed for the site are aimed at achieving end land use objectives as required by **Part 10.7.4** and **10.7.5** of the HSRC. For the end land use the reclamation will consist of the following activities:

- During operations, stripping and stockpiling of topsoil/sub-grade soil will be undertaken. The soil stockpiles will have an application of erosion control grass seeding to reduce erosion and noxious weed invasion. Noxious weeds will be controlled by spraying with approved weed control products that are acceptable for this area;
- Establishment of ultimate pit walls at a 2:1 slope angle during operations;
- Decommissioning and removal of all mine site infrastructure;
- Re-contouring of sediment basins, diversion & ditch channels and roads;
- Soil replacement onto the resloped pit faces and onto the developed pit floor areas will be completed;
- Hydro seeding, fertilizing, application of a mulch application, if required to enhance revegetation and/or prevent erosion;
- Planting of appropriate tree species, as required;
- Placement of signage and marker berms to indicate potential hazards;
- Completion of a soil sampling and testing program that will delineate any contaminated areas as required by the *Contaminated Site Remediation, Environmental Management Act*; and
- Conducting post-closure maintenance and monitoring programs, as necessary

It has been concluded that progressive reclamation is an appropriate procedure to follow to ensure not only limited reclamation requirements at the end of mine life, but to be most cost effective through use of the operational budget, and thus minimize requirements for a large reclamation security. During the next five (5) year period, progressive reclamation will be concentrated on the final (ultimate) pit walls. However, due to the potential development below the 700 masl floor elevation, the company is considering no progressive reclamation on the floor until it has been determined that the floor will not be mined to a lower elevation.

It should be noted that Duz Cho Logging LP, reserves the right to have an opportunity for the reclamation plan to be refined during the operational period of the project. After closure, the site will be left in a safe and secure manner for the long-term with no projected maintenance. The final site reclamation will meet the requirements of the HSRC, using available growth medium and resloping requirements.

Section C – Additional Information

The development is not expected to have any environmental or socio-community impacts given its relatively small size and/or location. The company will have in-place; plans regarding archaeological chance find procedures, sediment and erosion control, fuel management and spill contingencies, and noise and dust prior to start of operations. **Note:** Most of these particular plans are part of the Updated Mine Plan recently submitted to the Ministry of Energy and Mines.



I. Environmental

a. Land Impacts

The LoO Application and attached information show the potential areas of impact to the land base.

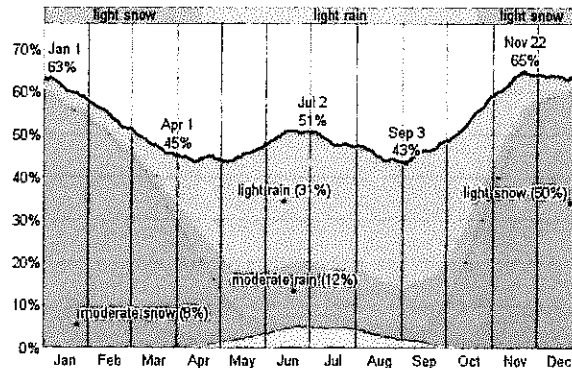
The area around the operation has been clear cut (logged), therefore use of a “treed buffered” to reduce visual and noise impacts to outside sources is not possible. However, as the pit deepens the work activities become buffered the materials that remain around the pit limits.

There are no documented archaeological sites within the proposed development area, therefore it is anticipated that no further archeological assessment is required.

b. Atmospheric Impacts

Precipitation

The probability that precipitation will be observed at this location varies throughout the year. Precipitation is most likely around November 22, occurring in 65% of days. Precipitation is least likely around September 3, occurring in 43% of days.



Over the entire year, the most common forms of precipitation are light snow, light rain, and moderate rain.

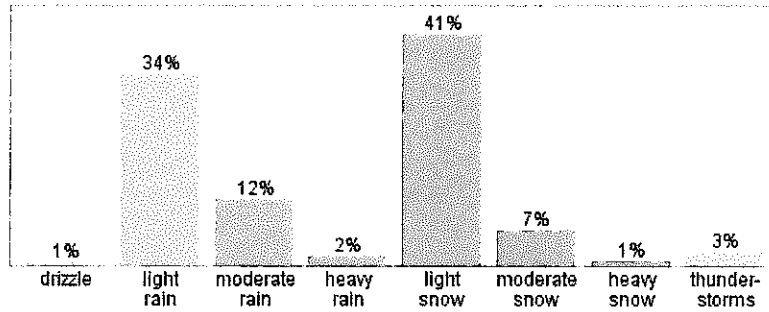
Light snow is the most severe precipitation observed during 41% of those days with precipitation. It is most likely around December 23, when it is observed during 50% of all days.

Light rain is the most severe precipitation observed during 34% of those days with precipitation. It is most likely around June 13, when it is observed during 31% of all days

Moderate rain is the most severe precipitation observed during 12% of those days with precipitation. It is most likely around June 20, when it is observed during 12% of all days



Types of Precipitation throughout the Year



During the *warm season*, which lasts from May 21 to September 8, there is a 48% average chance that precipitation will be observed at some point during a given day. When precipitation does occur it is most often in the form of light rain (62% of days with precipitation have at worst light rain), moderate rain (23%), and thunderstorms (8%).

During the *cold season*, which lasts from November 20 to February 23, there is a 61% average chance that precipitation will be observed at some point during a given day. When precipitation does occur it is most often in the form of light snow (77% of days with precipitation have at worst light snow), moderate snow (13%), and light rain (6%).

Temperature

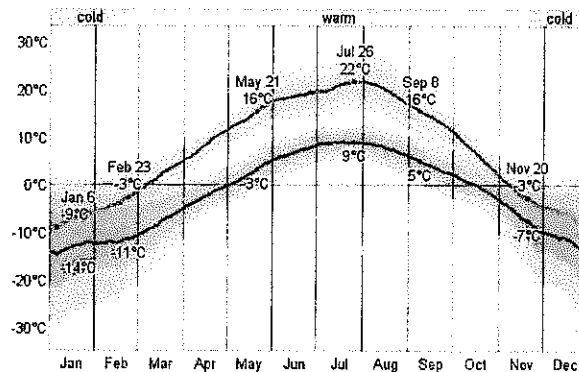
Over the course of a year, the temperature typically varies from -14°C to 22°C and is rarely below -30°C or above 28°C.

Daily High and Low Temperature

The daily average low (blue) and high (red) temperature with percentile bands (inner band from 25th to 75th percentile and outer band from 10th to 90th percentile).

The *warm season* lasts from May 21 to September 8 with an average daily high temperature above 16°C. The hottest day of the year is July 26, with an average high of 22°C and low of 9°C.

The *cold season* lasts from November 20 to February 23 with an average daily high temperature below -3°C. The coldest day of the year is January 6, with an average low of -14°C and high of -9°C.



Atmospheric Effects

It is expected that potential atmospheric impacts will come from equipment emissions and fugitive dust during mobilization, demobilization, land clearing, excavating and haulage operations.

It is expected that there will be minimal (insignificant effects) impacts (such as deterioration or air quality and lower visibility due to diesel and fugitive dust emissions) on and from the site during construction and operations.

To assist with reducing atmospheric effects Duz Cho will undertake the following:

- Use modern construction equipment that meets latest applicable Canadian emission standards;
- Ensure proper inspection and maintenance of equipment;
- Operate equipment within specifications and capacity;
- Limit vehicle and construction equipment idling;
- Use low sulphur fuels for all diesel equipment;
- Through a planned site layout (minimize creation), operational controls (control escape); air quality (dust removal) and cessation, the company can manage and mitigate any generated fugitive dust; and
- Maximize use and commit to Best Management Practices such as following the guidelines set forth by the "Aggregate Operators Best Management Practices Handbook for British Columbia (April, 2002)" <http://www.empr.gov.bc.ca/Mining/Aggregate/BMP/Pages/default.aspx>

c. Aquatic Impacts

For the development, it is expected that there will be insignificant changes to any surface water quality and quantity. It is expected; that given the projects location and the fact that they will not be operating continuously, potential aquatic impacts should not occur. As well, there are no observed creeks and/or ephemeral creeks within the proposed development area. Mischinsinlika Creek the closest creek is located approximately 500m southwest of the operation.

Duz Cho will utilize mitigation and monitoring as tools to minimize aquatic impacts, as necessary. The operation will use water management structures, and appropriate erosion and sediment control strategies such as managing sediment mobilization and erosion by installing sediment controls prior to land disturbance, limiting land disturbance to the minimum practicable extent, reducing water velocities across the ground, progressively rehabilitating disturbed land, ripping areas to promote infiltration, and restricting access to rehabilitated areas, and installing appropriate temporary erosion and sediment control measures or "Best Management Practices" prior to, and during, construction and operations activities.

Maintaining buffer zones between the operation and any water source, and a well planned and operated operation, impacts to the aquatic resources will be minimized.

d. Fish and Wildlife Habitat

Given the relative small size of the proposed project, fish and wildlife habitats baseline studies were not undertaken as part of this application. At this time, there have been no literature reviews of management plans specific to the region, no identification of species at risk and/or no field surveys completed by the Duz Cho.

As a means to minimize potential impacts to fish and wildlife habitat, it is expected that Duz Cho, will utilize "Best Management Practices" as noted in the "Handbook for Mineral and Coal Exploration in BC, 2008/09" and the "Health, Safety and Reclamation Code for Mines in BC, 2008".



Duz Cho will have as well strict enforcement on removal of garbage, etc. on a daily basis in order to minimize attractants at the site.

II. Socio-Community

a. Land Use

The proposed project will not affect existing land uses in the area, as the land is remote from residential zoning.

There are no known designated National Parks, National Historic Sites, National Marine Conservation Areas, National Wildlife Areas, Migratory Bird Sanctuaries or Marine Wildlife Areas within the development area.

There are currently no active forestry operations within the area.

Given that no environmental baseline work was undertaken on the site to date, the recreation values cannot be substantiated. However, the values are probably low sensitivity and low significance given the site's distance from MacKenzie.

b. Socio-Community Conditions

The project will not affect or influence any community services or infrastructure requirements due to it being a smaller operation that will operate intermittently.

c. Public Health

The project will not affect public health, again due to it being a limited size operation.

d. First Nations

The project site is within the traditional territories of several First Nations.

If you have any questions, please contact the undersigned by email drbresourceconsulting@gmail.com or (250) 997-4420 or our consultant Bruce Graff at bdgraff@telus.net.

Regards,



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Attachments

