



**Forest
Practices
Board**

Audit of Forest Planning and Practices

*Ka-Bar Resources Limited
Forestry Licences to Cut A83972, A83973,
A85053, A88604, A88605, A88606, A88607,
A88608, A88609, A88610*

FPB/ARC/157

November 2013

Table of Contents

| | |
|--|----------|
| Board Commentary | 1 |
| Audit Results | 2 |
| Background..... | 2 |
| Audit Approach and Scope..... | 2 |
| Planning and Practices Examined..... | 3 |
| Findings..... | 5 |
| Audit Opinion..... | 7 |
| Appendix 1: Forest Practices Board Compliance Audit Process | 8 |

Board Commentary

This audit examined the activities of Ka-Bar Resources Limited (Ka-Bar) on 10 cutblocks located northeast of Princeton, near the community of Bankeir in the Cascades District, from September 1, 2012, to September 16, 2013.

In 2006, government created a new category of forest licence to enable harvesting of trees to protect communities from wildfire. Five of Ka-Bar's forestry licences to cut were issued for that purpose—to protect local residents from wildfire. This is the first time the Board has audited this type of tenure.

Ka-Bar was responsible for consulting with the public, as well as planning and carrying out the harvesting near homes and recreation sites in the area. Overall, the harvesting conducted by Ka-Bar has reduced the wildfire risk to the community by reducing the frontal intensity of a potential fire, as well as reducing the potential for crown fires and associated long-range spotting (embers carried by wind that start new fires well beyond the main fire). The Board would like to acknowledge the work done by Ka-Bar in helping to reduce the risk to the community.

Audit Results

Background

As part of its 2013 compliance audit program, the Forest Practices Board selected Ka-Bar Resources Limited's (Ka-Bar) activities near the community of Bankeir for audit. Bankeir is in the Cascades District, approximately 45 kilometres northeast of Princeton on the Princeton-Summerland road. Nearby lakes include Chain Lake, Link Lake and Osprey Lake. A map of the audit area is on page 3.

Ka-Bar's harvesting activities were authorized in 10 forestry licences to cut (FLTC). FLTCs are tenures issued for a small area and a limited time, for purposes that cannot normally be addressed by major licensees or the timber sales program. These purposes include small scale salvage, intermediate salvage, fuel reduction, pulpwood agreements, scientific investigation, controlled recreation areas and direct awards to First Nations. In Ka-Bar's case, five FLTCs (A83972, A88604, A88605, A88606 and A88607) were aimed at salvaging pine trees killed by the mountain pine beetle and five (A83973, A85053, A88606, A88609, and A88610) were aimed at protecting local residents from wildfire.

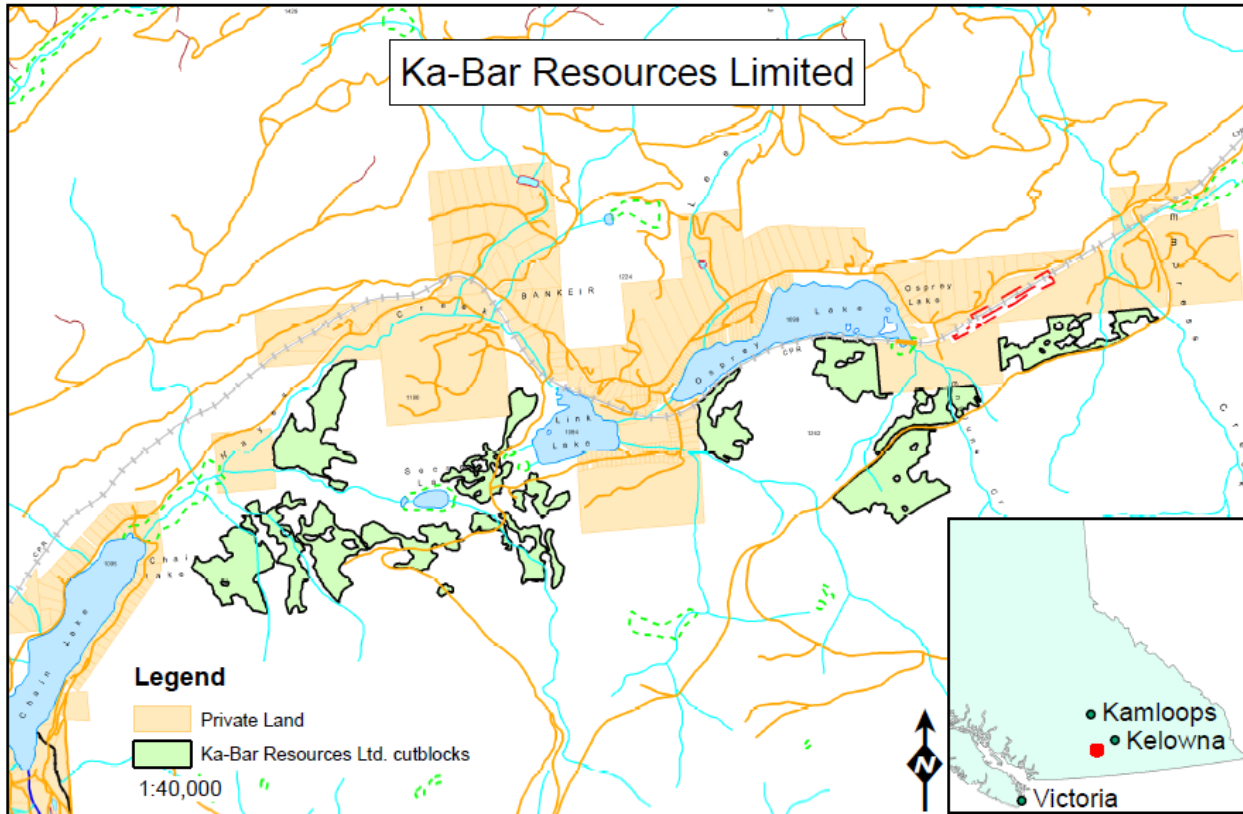
Two professional foresters and a chartered accountant made up the audit team. Field work was carried out on September 16, 2013. Further information about the Board's compliance audit process is provided in Appendix 1.

Audit Approach and Scope

The Board conducted a full scope compliance audit, which included any harvesting, roads, silviculture and protection activities and associated planning done between September 1, 2012, and September 16, 2013. These activities and associated planning were assessed for compliance with the *Forest and Range Practices Act* (FRPA), the *Wildfire Act* (WA) and related regulations.

The Board's audit reference manual, *Compliance Audit Reference Manual, Version 7.0, September, 2012*, set out the standards and procedures that were used to carry out this audit.

Map of the Audit Area



Planning and Practices Examined

Operational Planning

There are no legislated planning requirements for minor tenures, including forestry licences to cut. This means that a forest stewardship plan is not required. However, the district manager is responsible for ensuring that the activities will not prevent other agreement holders from exercising their rights and obligations. In this case, the district manager required Ka-Bar to prepare professional site plans, consult with First Nations and other agencies and prepare an archaeological overview assessment, among other things. Because these planning requirements were specified in the licence documents under the authority of the *Forest Act*, the Board does not have the jurisdiction to audit them. However, the forest practice requirements of FRPA do apply to Ka-Bar's activities and those were examined during harvest and road field sampling.

Timber Harvesting

Ka-Bar harvested approximately 150 hectares of timber in 10 cutblocks, using conventional ground-based equipment, during the audit period. Some harvest areas were beside private land, homes, recreation sites and the Kettle Valley Railway trail, which is part of the Trans-Canada trail. Auditors examined all of the harvest areas on the ground.



Harvesting adjacent to Osprey Lake – Forestry Licence to Cut A88605.

Road Maintenance and Deactivation

Ka-Bar holds permits for 6.35 kilometres of road in the Osprey Lake area. Approximately 5 kilometres of that total provided access to the blocks harvested during the audit period, and auditors examined those roads on foot and by vehicle.

Temporary roads and bladed trails were constructed within cutblocks and subsequently deactivated. Auditors examined all temporary access structures in conjunction with harvest auditing.

Silviculture Activities and Obligations

The government is responsible for all silviculture obligations associated with the licences and, as a result, no silvicultural activities or obligations were audited.

Fire Protection Activities

All harvesting activity was completed at the time of the field visit, so the fire preparedness requirements of the *Wildfire Act* were not audited. However, fire hazard assessment and abatement activities were examined as part of harvest sampling.

Findings

The audit found the forest activities undertaken by Ka-Bar complied with the requirements of *Forest and Range Practices Act*, the *Wildfire Act* and related regulations.

Operational Planning

Although operational planning was not within the jurisdiction of the Board to audit, auditors used the site plans as a basis for harvest sampling. As expected in professional plans, the maps accurately identified forest resources, legal boundaries, the general location of roads and trails, and the location of old-growth management areas and planned wildlife tree patches. The site plans also provided measures to protect forest resources, including soil, riparian features, cultural heritage resources, wildlife and biodiversity, visuals and recreation.

The site plans also referred to an archaeological overview assessment and an extensive First Nations and stakeholder consultation effort.

Timber Harvesting

Harvesting practices were consistent with the site plans. Soil disturbance was managed within FRPA limits and natural drainage patterns were maintained. Wildlife tree patches and reserves were retained as planned and adequate coarse woody debris was left on site.

Some of the cutblocks are easily visible from the community and are in areas with established visual quality objectives. Ka-Bar attempted to mitigate the visual impact of cutblocks using wildlife tree patches, reserves, retaining live pine and non-pine species and prescribing irregular cutblock boundaries.



Forestry Licence to Cut A85053
south of Osprey Lake

Road Maintenance and Deactivation

No concerns were identified with road maintenance or in-block road deactivation. Road permit roads were stable and natural drainage patterns were maintained. Deactivation of in-block roads and trails was carried out by decompacting the soil, scattering coarse woody debris and grass seeding before equipment left the area. One road accessing three FLTCs was partially deactivated to the width of an all-terrain vehicle to permit future access for tree planters.



Rehabilitated trail in Forestry Licence to Cut A83973 northeast of Chain Lake

Fire Protection Activities

After harvesting, logging debris was piled away from standing timber on all cutblocks. A professional forester documented the number and location of the piles and burning is planned for the fall or winter of 2013-14.

On two FLTCs adjacent to each other, there were very high slash loads remaining after the logging slash had been piled. Auditors estimated that 30 percent of the pine trees in these blocks were partially elevated or on the ground before harvesting began. The licensee piled the logging slash it created, but did not pile the slash that was already on the ground. The auditors believe that these sites will require further treatment to abate the natural hazard.

The *Wildfire Regulation* requires the licensee to abate the hazard it created, and Ka-Bar did, so is in compliance with hazard abatement requirements. No concerns were identified with respect to hazard assessment and abatement.

Audit Opinion

In my opinion, the timber harvesting, road maintenance and deactivation, and fire protection activities carried out by Ka-Bar Resources Limited on forestry licences to cut A83972, A83973, A85053, A88604, A88605, A88606, A88607, A88608, A88609 and A88610 between September 1, 2012, and September 16, 2013, complied in all significant respects with the requirements of the *Forest and Range Practices Act*, the *Wildfire Act* and related regulations, as of September 2013. No opinion is provided with respect to operational planning, road construction or silviculture.

In reference to compliance, the term “in all significant respects” recognizes that there may be minor instances of non-compliance that either may not be detected by the audit, or that are detected but not considered worthy of inclusion in the audit report.

The *Audit Approach and Scope* and the *Planning and Practices Examined* sections of this report describe the basis of the audit work performed in reaching the above conclusion. The audit was conducted in accordance with the auditing standards of the Forest Practices Board. Such an audit includes examining sufficient forest planning and practices to support an overall evaluation of compliance with FRPA and WA.



Christopher R. Mosher CA, EP(CEA)
Director, Audits

Victoria, British Columbia
November 18, 2013

Appendix 1: Forest Practices Board Compliance Audit Process

Background

The Forest Practices Board conducts audits of government and agreement-holders under the *Forest and Range Practices Act* (FRPA), section 122, and the *Wildfire Act* (WA). Compliance audits examine forest or range planning and practices to determine whether or not they meet FRPA and / or WA requirements.

Selection of auditees

The Board conducts about 8 or 9 compliance audits annually. Most of these are audits of agreement holders. The Board also audits the government's BC Timber Sales Program (BCTS). This section describes the process for selecting agreement holders to audit.

To begin with, auditors randomly select an area of the Province, such as a district. Then the auditors review the forest resources, geographic features, operating conditions and other factors in the area selected. These are considered in conjunction with Board strategic priorities (updated annually), and the type of audit is determined. At this stage, we choose the auditee(s) that best suits the selected risk and priorities. The audit selections are not based on past performance.

For example, in 2010, the Board randomly selected the Mackenzie district as a location for an audit. After assessing the activities within that area, we discovered that a large licensee had recently closed operations due to financial problems. As the Board has expressed concern in the past about financially strapped companies failing to meet outstanding obligations, such as reforestation and road maintenance, and we knew that some of the licence area is very remote, the new licence holder was selected for audit.

For BCTS audits, a district within one of the 12 business areas within the province is selected randomly for audit.

Audit Standards

Audits by the Board are conducted in accordance with the auditing standards developed by the Board. These standards are consistent with Canadian generally accepted auditing standards. The standards for compliance audits are described in the Board's *Compliance Audit Reference Manual*.

Audit Process

Conducting the Audit

Once the Board randomly selects an area or district and determines the scope of audit to be conducted and the licensee(s) to be audited, all activities carried out during the period subject to audit are identified (such as harvesting or replanting, and road construction or deactivation activities). Items that make up each forest activity are referred to as a population. For example, all

sites harvested from the timber harvesting population and all road sections constructed from the road construction population.

A separate sample is then selected for each population (e.g., the cutblocks selected for auditing timber harvesting). Within each population, more audit effort (i.e., more audit sampling) is allocated to areas where the risk of non-compliance is greater.

Audit fieldwork includes assessments of features using helicopters and ground procedures, such as measuring specific features like riparian reserve zone width. The audit teams generally spend one week in the field.

Evaluating the Results

The Board recognizes that compliance with the many requirements of FRPA and WA, is more a matter of degree than absolute adherence. Determining compliance, and assessing the significance of non-compliance, requires the exercise of professional judgment within the direction provided by the Board.

The audit team, composed of professionals and technical experts, first determines whether forest practices comply with legislated requirements. For those practices considered to not be in compliance, the audit team then evaluates the significance of the non-compliance, based on a number of criteria, including the magnitude of the event, the frequency of its occurrence and the severity of the consequences.

Auditors categorize their findings into the following levels of compliance:

Compliance – where the auditor finds that practices meet FRPA and WA requirements.

Not significant non-compliance – where the auditor, upon reaching a non-compliance conclusion, determines that one or more non-compliance event(s) is not significant and not generally worthy of reporting. However, in certain circumstances, events that are considered not significant non-compliance may be reported as an area requiring improvement.

Significant non-compliance – where the auditor determines a non-compliance event(s) or condition(s) is or has the potential to be significant, and is considered worthy of reporting.

Significant breach – where the auditor finds that significant harm has occurred, or is beginning to occur, to persons or the environment as a result of one or many non-compliance events.

If it is determined that a significant breach has occurred, the auditor is required by the *Forest Practices Board Regulation* to immediately advise the Board, the party being audited, and the Minister of Forests, Lands and Natural Resource Operations.

Reporting

Based on the above evaluation, the auditor then prepares a draft audit report. The party being audited is given a draft of the report for review and comment before it is submitted to the Board. Once the auditor submits the draft report, the Board reviews it and determines if the audit findings may adversely affect any party or person. If so, the party or person must be given an opportunity to make representations before the Board decides the matter and issues a final report. The representations allow parties that may potentially be adversely affected to present their views to the Board.

The Board then reviews the draft report from the auditor and the representations from parties that may potentially be adversely affected before preparing its final report. Once the representations have been completed, the report is finalized and released: first to the auditee and then to the public and government.



**Forest
Practices
Board**

PO Box 9905 Stn Prov Govt

Victoria, BC V8X 9R1 Canada

Tel. 250.213.4700 | Fax 250.213.4725 | Toll Free 1.800.994.5899

For more information on the Board, please visit our website at: www.fpb.gov.bc.ca