

MUSKWA-KECHIKA ADVISORY BOARD

MUSKWA-KECHIKA ADVISORY REPORT ON MINERAL EXPLORATION AND DEVELOPMENT POTENTIAL IN THE MUSKWA-KECHIKA MANAGEMENT AREA



REPORT

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EXECUTIVE SUMMARY

EBA, A Tetra Tech Company (EBA) was retained by the Muskwa-Kechika Advisory Board (M-KAB) to develop an advisory report for mineral exploration and development in the Muskwa-Kechika Management Area (M-KMA).

The M-KMA was established in the 1998 with the goal of being a world class management model that accommodates both environmental conservation and resource development objectives. The M-KMA area covers 6.4 million hectares, with approximately 25% of the management area (1.6 million hectares) designated as Parks and Protected Areas. The remaining 75% (4.8 million hectares) is composed of resource management zones within which the M-KAB would like to better understand and review possible opportunities for mineral exploration and development. Any such activities would be conducted in accordance with the *Muskwa-Kechika Management Act* and, where applicable, the M-KAB Operational Wilderness Definition.

A review of the regional geology and mineralization trends within and surrounding the location of the M-KMA, identified several discrete belts of stratiform-stratabound type (and breccia-type) deposits that contain a variety of metals and minerals such as zinc, lead, copper, silver and barite. The areas of metal endowment are generally related to deep structural features that run parallel to the accreted terranes that define the geologic architecture of the region. Reviewing this geological information in relation to the mineralization identified at various in the area provides information on potential areas of mineral potential and subsequent mineral tenure acquisitions.

Mineral tenure history indicates that interest in the area, as a function of mineral tenure staking, is increasing. A map of mineral tenures created in August 2004 shows sparse coverage, with the bulk of the interest lying outside the boundaries of the M-KMA. Current mineral tenure holdings are also concentrated outside of the M-KMA boundary along its western edge, with increased interest throughout the central portion of the area along trend of the ancestral North American basinal terrane. The amount of mineral tenure staking between these dates is variable, with the greatest level of activity occurring over the last two years.

The most promising prospects and projects identified are advanced stage projects that have identified SEDEX style lead-zinc-silver deposits along a trend of mineralization aligned with the Kechika Trough.

A review of all applicable mining and M-KMA specific legislation was conducted. No gaps among provincial mining legislation and legislation specific to the M-KMA were identified during this study. All mineral exploration and development in the M-KMA is subject to the provincial regulatory process while adhering to requirements outlined in the M-KMA Management Plan.

Based on the findings of this report, recommendations are provided to encourage, manage, and sustain mineral exploration and development in the M-KMA.



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ACRONYMS & ABBREVIATIONS

%	Percent
AMEBC	Association of Mineral Exploration British Columbia
ARIS	Assessment Report Indexing System
ATV	All Terrain Vehicle
BC	British Columbia
BCEAA	British Columbia Environmental Assessment Act
BCGS	Geological Survey of British Columbia
CN	Canadian National
EA	Environmental Assessment
EAC	Environmental Assessment Certificate
EAO	Environmental Assessment Office
EBA	EBA Engineering Consultants
FN	First Nations
FMC	Free Miner Certificate
IBA	Impact Benefit Agreement
km	Kilometer
LRMP	Land and Resource Management Plan
NI 43-101	National Instrument 43-101
NNW	North-northwest
NW	Northwest
m	Meter
M-KMA	Muskwa-Kechika Management Area
M-KAB	Muskwa-Kechika Advisory Board
MOU	Memorandum of Understanding
Mt	Millions of Tonnes
MTO	Mineral Titles Online
PEA	Preliminary Economic Assessment
PFS	Pre-feasibility study
MVT	Mississippi Valley Type Deposit
REE	Rare Earth Element
VMS	Volcanogenic Massive Sulphide
VTEM	Versatile Time Domain Electromagnetic Surveying

1.0 INTRODUCTION

EBA, A Tetra Tech Company (EBA), was retained by the Muskwa-Kechika Advisory Board (M-KAB) to develop an advisory report for mineral exploration and development in the Muskwa-Kechika Management Area (M-KMA).

This report addresses specific objectives requested by the M-KAB including:

- Summarization of historical mineral exploration and development both in the M-KMA and adjacent areas;
- Description of the mineral tenure and regulatory process in BC;
- Evaluation of the potential for mineral development in the M-KMA;
- Description and mapping of the constraints and restrictions to mineral exploration and development in the M-KMA;
- Description and assessment of the socio-economic opportunities for mineral exploration and development in the M-KMA; and
- Recommendations to encourage, manage, and sustain mineral exploration and development in the M-KMA.

The M-KMA was established in the 1998 with the goal of being a world class management model that accommodates both environmental conservation and resource development objectives. The M-KMA area covers 6.4 million hectares, with approximately 25% of the management area (1.6 million hectares) designated as Parks and Protected Areas. The remaining 75% (4.8 million hectares) is composed of resource management zones within which the M-KAB would like to better understand and review possible opportunities for mineral exploration and development. Any such activities would be conducted in accordance with the *Muskwa-Kechika Management Act* and, where applicable, the M-KAB Operational Wilderness Definition.


This report outlines potential opportunities for mineral exploration and development in the M-KMA and identifies how opportunities might be developed in ways that are compliant with the *Muskwa-Kechika Management Area Act* and Regulations.

2.0 LOCATION AND GEOLOGICAL SETTING

The Muskwa-Kechika Management Area is located in north-eastern BC on the western edge of the Northern Rocky Mountains. It is located in close proximity to the Yukon-British Columbia border and to the west of the community of Fort Nelson (Figure 1). The M-KMA is situated in the Cordilleran Region along the Omineca and Foreland belts (Figure 2). The study area for this project is defined in Figure 2, and is represented in subsequent figures created for this report as the extent the map.

The Foreland and Omineca belts are subdivided into geological terranes characterized as fault bounded crustal blocks that each host a distinct geological record from its adjacent block. The terranes trend roughly NNW to SSE and this is reflected in both the lithology and structure bounding each terrane. The terranes

are characterized by varying age, environment of deposition/formation, location of formation and rock type. Due to the unique characterization of each terrane, they define and limit the range of mineralization styles that may occur.

The M-KWA from west to east overlies the Quesnellia, Cassiar, Slide Mountain, Cache Creek, Yukon-Tanana terranes, and the basin and platform section of ancestral North America (Figure 3A). 

The regional geology report for the Omineca Region (Ministry of Energy, Mines and Natural Gas, 2012) presents the following description of the geology and mineralization of the area. Within the Muskwa-Kechika Management Area (MKMA) there are several discrete belts of stratiform-stratabound type (and breccia-type) deposits that contain a variety of metals and minerals including zinc, lead, copper, silver, and barite. These are sedimentary exhalative (SEDEX) and Mississippi valley-type (MVT) deposits. Locally, copper bearing quartz-carbonate veins, and syenite-carbonatite intrusives enriched in strategic metals (rare-earth metals and Yttrium) have been identified. The geologic belts follow the 320-140° (northwest-southeast) structural grain of the province implying that the areas of metal endowment are generally related to deep structural features that run parallel to the accreted terrane geological architecture. The easternmost mineralized belt within the ancestral platform of North America appears to be kinked from the NW-SE trend south of HWY 97 into a more N-S trend in the southern part of the M-KMA. Strategic metals prospects are identified within the more westerly mineralized belts in the M-KMA. Furthest west, in the Toodoggone Region, a belt of copper-gold-molybdenum porphyry deposits and gold-silver epithermal deposits overlaps with the western margin of the MKMA. These mineralization trends are presented in Figure 3B.

3.0 SUMMARY OF MINERAL EXPLORATION AND DEVELOPMENT WITHIN AND ADJACENT TO THE M-KMA

3.1 Introduction



Mineral exploration and development activities within and adjacent to the M-KMA were summarized by compiling current mineral, coal and placer tenures (Figures 4 and 5). The mineral tenures by issue date from pre-2004 to 2013 are shown in Figure 6. The map focuses on the entirety of the M-KMA area, and also tenures that are located within and in close proximity to its boundaries. It is important to consider exploration and development work outside of the M-KMA area boundary when considering the economic potential of the deposits and associated potential socio-economic benefits. The projects that are located outside of the M-KMA boundary could also offer socio-economic benefits to the local stakeholders within and around the M-KMA. Furthermore, mineral resources or mineralization trends often span the boundary.

3.2 Information Sources

The compilation of historical and current mineral exploration and development activities in the area relied on several sources, which are listed below:

- BC MINFILE Database and accompanying assessment reports, for information pertaining to mineral occurrences and showings.

- Company websites, technical reports and press releases related to historical, current, and planned mineral exploration and development activities.
- Geological Survey of British Columbia (BCGS) for information related to the regional and local geology of the area surrounding the M-KMA.

3.3 Mineral Exploration and Development Survey

A brief survey was developed by EBA and distributed to tenure holders with land packages within and near the M-KMA. The survey served to assist in obtaining information on historical, current, and future exploration plans for the present tenures, including prospecting, geochemical soil surveys, mapping, drilling, and geophysics work. The survey also provided respondents with the opportunity to discuss their current relationship with government, First Nations, and other stakeholder groups. In addition, the survey served to collect information on what attracted companies or individuals to the area, what their experience of working in the area has been, and what they have found to be encouraging or discouraging in continuing work in the area. A copy of the survey is provided in Appendix A.

The survey was distributed to tenure holders representing a mix of small to large scale corporations, as well as individuals, who hold land packages of various sizes. A diverse mix of respondents was surveyed to gain a representative understanding of their experiences, including challenges, working within or near the M-KMA.

A total of 17 surveys were distributed to tenure holders located within the M-KMA boundary. An additional 34 surveys were distributed to tenure holders located beyond the M-KMA boundary. The list of tenure holders who received a survey is provided in Appendix B. Tenure holders were asked to reply via email or by telephone. EBA followed up with a phone call one week after the survey was distributed. Tenure holder information, including number of tenures held, size in hectares of the land package, and contact information, was exported from the Mineral Titles Online (MTO) website.

3.3.1 Survey Response

The response to the surveys, likely due to the limited time available, was low. Two completed survey responses were received by email. The following observations were made in regards to the acceptance and response to the surveys:

- Several tenure holders stated that they were unaware of the location and intent of the M-KMA. This is particularly the case with tenure holders located outside of the M-KMA boundary, but also includes tenure holders within the M-KMA.
- Five respondents interviewed during follow-up phone calls requested that the survey be resent via email, and that they would be filling it out, indicating a preference for email communication. These responses remain outstanding.
- Tenure holders beyond the boundary of the M-KMA generally responded that the survey was not applicable to them because of their location.
- One respondent expressed concern that this work was not communicated to their company by the M-KAB.

One respondent indicated that they were attracted to the area by superior geologic prospects in a relatively narrow corridor that had been identified by previous exploration activities. They had elected to stake and explore with-in the M-KMA due to its relatively underexplored nature and highly prospective mineral belt trend, as well as the relatively low competition for land access from First Nations and other stakeholder groups.

This respondent indicated that they were encouraged to continue their current exploration plans, which includes airborne surveys and geological mapping, but they understand that they may be facing some difficulties if the Province extinguishes mineral rights to mineral resources later in the discovery or development process, which has been known to occur.

The second respondent indicated that communications with government, First Nations, and other local area stakeholders had been “clear and constructive”, and stressed the importance of developing “mutually beneficial agreements with local area stakeholders” in order to move a project forward if ongoing exploration proved to be successful.

Both responses indicated that the remoteness of the area and limited existing infrastructure (e.g., roads) has been a challenge, and will likely continue to be, moving forward. The answers provided to the survey for both respondents are presented in Appendix C for reference.

3.4 Mineral, Coal, and Placer Tenures

The location and history of mineral, coal and placer tenure acquisition is well correlated with prospective mineralized zones according to historic showings and occurrences and driven in part by global commodity markets. Spatial mineral occurrences are well correlated to the underlying geological terranes, and identified mineralization trends (Figure 7).

Within the confines of the M-KMA boundary there are 1,084 mineral tenures covering a combined area of 385,232 ha. Beyond the M-KMA boundary and within the study area selected for consideration in this report, there are 3,678 tenures covering a combined land area of 1,192,098 ha. There are no existing coal holdings within the boundary of the M-KMA. There are 21 placer claims located within the M-KMA that cover an area of 10,605 ha. There are 119 coal licenses held outside of the M-KMA that total 46,268 ha, and 561 placer claims covering an area of 84,687 ha. Individual land packages range from a single tenure to several hundred tenures. The list of tenure holders is a mix of large-scale producers, junior exploration companies, and individuals. Appendix B provides a breakdown of mineral, coal and placer tenures by holder and includes contact information where available.

Mineral exploration expenditures incurred in 2012 for projects located within the M-KMA totalled approximately \$464,000. In 2011, the annual expenditure for projects located within the M-KMA was approximately \$327,500. These amounts reflect mainly exploration activities associated with International Samuel Exploration’s Frog project and the Kechika Trough projects. These projects both represent advanced stage exploration. Significant deposits and projects are discussed in the proceeding sections, and represent everything from grassroots exploration through development and operational mine projects.



The ongoing and historical mineral exploration and development activity within and surrounding the M-KMA are summarized below based on commodity type. The area is host to a wide variety of base and precious metals, as well as industrial minerals. The location of noteworthy projects and prospects is shown in Figure 8. This figure also indicates the location of the historical Churchill mine.


The information presented below was derived from the sources listed in Section 3.1, and primarily from company websites accessed over the course of this study from January to March 2013. Resource and Reserve estimates presented herein have not been checked or validated by the author.


3.5 Base and Precious Metals

3.5.1 Lead-Zinc-Silver

The Kechika Trough is an elongate southern extension of the Paleozoic Selwyn Basin of the Yukon and Northwest Territories, a prolific sedimentary basin for Ordovician to Early Devonian SEDEX deposits

The Middle to Late Devonian Gunsteel Formation shale forms part of the Lower Earn Group of the North American basin strata that extends across the M-KMA area. Mineralization is hosted with carbonaceous cherty argillites and siliceous shales known to host SEDEX style mineralization, formed in a deep basinal marine setting by metal laden fluid circulation. This style of deposit hosts zinc and lead with co-occurring silver and barite associated directly with or in the near vicinity. The M-KMA has an 80 kilometre long belt of these basinal facies sedimentary rocks of the Kechika Trough that includes the historical Akie River area. Prospects and showings such as Akie have been known for over 30 years and have now been incorporated into large mineral tenures. The Akie River area is said to have "...the potential to be one of the most important future Zn-Pb-Ag producing mineral districts in British Columbia." (D. G. MacIntyre, 1998).


 Canada Zinc Metal Corp. has amalgamated a large package of contiguous mineral tenures following the regional geologic trend along the Kechika Trough named the Kechika Project. An NI 43-101 mineral resource for the Akie property has been developed and includes an indicated resource of 12.7 million tonnes grading 8.4% zinc, 1.7% lead and 13.7 g/t silver (at a 5% zinc cut-off grade) and an inferred resource of 16.3 million tonnes grading 7.4% zinc, 1.3% lead and 11.6 g/t silver (at a 5% zinc cut-off grade).

 Canada Zinc Metal Corp. has also completed an NI 43-101 mineral resource for their Cardiac property, also part of the Kechika Project. An indicated resource of 12.7 million tonnes grading 8.4% zinc, 1.7% lead and 13.7 g/t silver (at a 5% zinc cut-off grade) with inferred resources of 16.3 million tonnes grading 7.4% zinc, 1.3% lead and 11.6 g/t silver (at a 5% zinc cut-off grade) is reported. In total, based on this estimate, the deposit is estimated to contain 2.4 billion pounds of zinc, 472 million pounds of lead, and 5.6 million ounces of silver in the indicated category, and 2.6 billion pounds of zinc, 482 million pounds of lead and 6.1 million ounces of silver in the inferred category (at 5% zinc cut-off).

In 2012, Canadian Zinc Metals Corp released a technical report on the Mt. Alcock property that summarized mapping, prospecting and geochemical survey results from their 2011 exploration program. The targeted prospects include two parallel Zn-Ag ± Pb anomalies along the Nod-Seep panel extending up to 3 km of strike, anomalous Zn-Ag ± Pb southeast of the Seep grid, and a new target southwest of the main barite showing (Jago, 2013)

Other properties in the Kechika Project area have significant Pb and Zn intercepts. Work conducted to date within the main properties of the Kechika Project area includes extensive Versatile Time Domain Electromagnetic Surveying (VTEM) surveys, geochemistry, soil and silt sampling and drilling.

In 1992, Curragh Resources was issued a Mine Development Certificate for the Cirque property by the BC Government for a mine/mill complex with a milling rate of 3,500 tonnes per day. Curragh Resources did not develop the mine although mineable reserves of the Cirque Main deposit were estimated at 24.7 million tonnes grading 8.5 % zinc, 2.3 % lead, and 50.8 g per tonne silver. The company estimated that the project could produce about 250,000 tonnes of zinc and lead sulphide concentrates yearly. Development of Cirque did not proceed and the property was subsequently acquired and is now operated by Teck (50%) and Korea Zinc Company (50%) through a joint venture.

 The Tech-Korea Zinc JV Cirque property, located along strike from Canada Zinc Metal Corp., extends into the same lithology of the Kechika Trough. A NI 43-101 resource estimate was released in 1998 indicating 35 million tonnes averaging 10% combined lead-zinc and 47 grams per tonne silver.

Other potentially significant showings and properties in the Kechika Trough include Driftpile Creek, Bear, Fluke, Pie and Elf (Figure 9).


3.5.2 Gold-Copper

International Samuel Exploration Corp's Frog project (MINFILE 094E 030; N 57.94 W 127.21), is located 107 km north of the past producing Kemess South mine. They conducted a grassroots exploration program of geochemical sampling and prospecting that followed up a 2011 airborne magnetic survey and sampling program. The 2011 program identified copper and copper-molybdenum anomalies in two zones. 430 rock chip samples collected from the Forex zone (6 x 4.6 km), and 25% of these samples had >0.1% copper, and up to 4 g/t gold. Historically, gold-silver enriched quartz veins with copper sulfide have been reported to occur in quartz diorite-granodiorite of the Early Jurassic Pitman Batholith (Jago, 2013)

Precipitate Gold Corp. is exploring on its Gemini Project, located within the Kechika Trough, for sedimentary hosted gold mineralization. Their claims cover clusters of gold, silver, arsenic based on silt and soil anomalies from historic work. These mineralized zones are related to extensive northwest trending regional structures.

Colorado Resources Ltd. is exploring for Carlin-Type gold (fine grained disseminated gold, usually hosted sediments especially carbonates) and zinc-lead-silver SEDEX-style deposits within the Kechika Basin in the northwestern area of the M-KMA.

The Lunar property of Stratton Resources Inc. is a copper-gold project located outside the M-KMA to the northwest and is in an early stage of exploration. The mineral tenures were acquired in 2011, with mapping, prospecting, and silt and rock sampling completed in 2012. Additional tenures bordering the property boundary were acquired in 2012.

 The Kutcho Project of Kutcho Copper Corp., (Capstone Mining Corp.), located on the western M-KMA boundary, is an advanced stage, high grade copper-zinc-gold-silver deposit with three known Kuroko-type volcanogenic massive sulphide (VMS) deposits located within the Kutcho Formation of the Cache Creek Terrane. A mineral reserve estimate from two of the three deposits, of 10.4 million tonnes and averaging

grades of 2.01% copper and 3.19% zinc offers an expected mine life of 12 years and an average throughput of 2,500 tonnes per day. This project has entered the BC Environmental Assessment process and will require an environmental assessment certificate in order to proceed.

Cascadero Copper Corp. is exploring the Toodoggone district of the Stikinia and Quesnellia terranes on their Toodoggone Project that has potential to host various intrusion and volcanic related mineralization such as porphyry copper-gold systems (magma intruding basement rock with hydrothermal fluid circulation depositing metals), epithermal gold-silver with base metals (purely hydrothermal fluid circulation depositing metals), and iron skarn with gold-silver and base metals (hydrothermal fluids depositing metals in carbonate rocks). Of eight target areas, one is stated to be at an advance stage.

Sable Resources is currently mining at the Shasta Mine, a historic open pit and underground operation that was initiated in 1989. Gold and silver mineralization is hosted within structurally controlled quartz-carbonate breccia veins occurring from a low-sulphidation epithermal style of deposit. The Shasta Property is within Toodoggone volcanic rocks of the Takla Formation within the Quesnellia terrane. This terrane broadly parallels the M-KMA western boundary.

AuRico is conducting exploration work on the Kemess Underground project, 5.5 km to the North of the past producing Kemess mine. A preliminary economic assessment (PEA) for the project is available which outlined an average annual production of 95,000 ounces of gold and an average annual copper production of 41.4 million pounds, with an estimated mine life of 12 years.

3.5.3 Nickel



Nickel properties occur along the western flanks of the M-KMA, associated with the structural bounded ultramafic Turnagain complex that abuts the Earn Group to the east. Nickel exploration in 2010-2011 along the western margins of the M-KMA by First Point Minerals Corp. in the Cache Creek Terrane discovered nickel mineralization on their Wale and Klow properties. The nickel-iron alloy mineralization is hosted in a moderately serpentinized, fine-grained ultramafic that is bounded by the major Nahlin and Eaglehead faults. Work by First Point on these properties includes mapping, rock sampling, and preliminary exploratory drilling (10 diamond drill holes on the Wale and 5 diamond drill holes on the Klow property). A 14.5 km strike length of mineralization is reported.



The Turnagain Nickel property, owned by Hard Creek Nickel, covers the known extent of a zoned, Alaskan-type ultramafic intrusion. The intrusion is within the Turnagain ultramafic complex fault bounded and hosted in the Yukon-Tanana or Quesnel terrane. Using a cut-off grade of 0.1% Ni, a NI-43 101 resource (issued in December 2011) of the property estimates 865 million tonnes of measured and indicated resources at 0.21% Ni and 0.013% Co. An additional 976 Mt at 0.20% Ni and 0.013% Co is inferred. A variety of work has been conducted on the property including drilling, mapping, geochemical rock sampling, geophysical survey, and a seismic survey to test locations for tailings and waste dump sites.

3.5.4 Rare Earth Elements (REE) / Niobium


The Tasekos' Aley project is focusing on niobium outside the south eastern boundary of the M-KWA. The eight (8) niobium showings are associated with the 3-3.5 km diameter Mississippian Aley Carbonatite complex and its contact aureole. This intrusive has intruded into the Kechika Group and Skoki Formation

carbonate and clastic rocks and the associated carbonatite dykes contain REE. Current measured and indicated resources is 286 million tonnes with an average grade of 0.37% Nb₂O₅ plus 144 million tonnes of Inferred Resource with an average grade of 0.32% Nb₂O₅ with a 0.2% cutoff. Combined measured and indicated resource is 739 million kilograms. Taseko completed a diamond drill hole program in 2011 and reported near surface mineralization.

Raraterre Mineral Corp. is exploring their Xeno property for REE metals in intrusive alkaline igneous rocks; syenites, carbonatites and their related dykes and tuff breccias hosted within the Kechika Group, with showings associated with numerous strongly sheared and altered rocks. Portions of their claim group have been explored for Yttrium and REE potential. Recent work on the property included a 691 line km airborne survey consisting of 691 km of survey lines flown, mapping, continuous chip sampling, and grab sampling.


3.5.5 Industrial Minerals

3.5.5.1 Barite

 Barite mineralization occurs in similar depositional settings to SEDEX style mineralization within the Kechika Basin. A number of showings are reported to lie along strike within the same sequence lithology as the SEDEX base metal deposits. Barite has become a desirable industrial mineral over the recent years as an additive to drilling fluid in the oil and gas industry. Fireside Minerals Ltd. currently have a mining operation on the eastern boundary of the M-KMA (MINFILE 94M 003), south of Muncho Lake Park, targeting a deposit in the North American platform sediments. The Fireside Minerals website reports an overall reserve in the 'millions of tonnes' providing a mine life of over 100 years. The barite mined is processed at the company's grinding and milling facility in Watson Lake, Yukon, and sold to the oil and gas markets in Canada and Alaska.

3.5.5.2 Fluorspar

In September 2012, Camisha Resources Corp entered into an agreement to acquire Prima Fluorspar Corp and the Liard Fluorspar property. The project is located just outside the northern boundary of the M-KMA, north of the Liard River Corridor Park. Target formations that outcrop on their property include carbonates of the Middle Devonian Dunedin Formation that are overlain by Late Devonian to early Mississippian siltstone sequences of the Besa River Formation. Mineralization occurs near the contact between the Dunedin limestone and the Besa River shales. Regional geological mapping indicates these formations occur along strike within the M-KMA. The Liard Property has a historic non-compliant NI-43 101 mineral resource of approximately 3.2 million tonnes averaging 32% fluorite with mineralization reported to be close to surface. Recent work includes channel and grab sampling and general mapping of the property.

 The company plans to confirm and expand the historical resource with up to 100 shallow drill holes in 2013, and a PEA for an open pit operable resource is anticipated for fourth quarter 2013.

Depending on the quality of the fluorspar it can be used to manufacture hydrofluoric acid (HF) used primarily in aluminum production and fluorocarbons (refrigerants, fluoropolymers, etc.) for aerosols, refrigeration, Teflon, and foam products. Ceramic grade and metallurgical grade fluorspar are used for flux in aluminum and steel production, and in the manufacture of ceramics and enamels.

3.5.5.3 Quartz Arenite

The Nonda Creek claims are held by Stikine Gold Corp., and are located to the north west of the M-KMA in an unnamed Cambrian aged lithology that hosts quartz arenite, a quartz rich sandstone used in the shale gas industry. Traits of this industrial mineral include grain size and purity suitable for a variety of end uses including fracking. Results from a 2009, nine (9) diamond drill hole program totalling 934 meters indicated that the appropriate materials were likely present.

3.5.5.4 Coal

No current coal tenures are held within the M-KMA. Current coal tenures are concentrated along the southern edge of the Spatsizi Plateau Wilderness Park. This area is defined as the northern extent of the Bowser Basin, which is the host of anthracite coal, and is being explored for coal bed methane. The Bowser Basin extends to the south to the community of Terrace, BC.



The Arctos Antracite Project is owned by the Arctos Antracite Joint Venture, a joint venture between Fortune Minerals Limited and Posco Canada Ltd. The four resource areas identified at Arctos are referred to as the Lost Fox, Hobbit-Broatch, Summit and Lost Fox Extension deposits. Collectively, they contain Measured and Indicated Resources of 231 million tonnes and Inferred Resources of 359 million tonnes, as reported in NI43-101 compliant Mineral Resource and Reserve statements prepared in 2002, 2005, and 2007. In excess of \$90 million of work has already been conducted at Arctos by Fortune, POSCAN and the previous owner Gulf Canada Resources Limited (“Gulf”) prior to its takeover by ConocoPhillips in 2002.

Atrum Coal’s Groundhog Project is located approximately 30km to the SE of the Arctos project. This project has potential for ultra-low volatile metallurgical coal. The company lists a JORC Resource of 338 Mt of metallurgical coal. Atrum is working on updating the resource estimate in March 2013.

Just outside the eastern boundary of the M-KMA in map grid 094G/02, Anglo American PLC and contractor Plateau Minerals Ltd conducted a 2012 mapping and prospecting program at Williston North (Pink Mountain; MINFILE 094G 021), the northernmost prospect of the Peace River Coalfield, 160 km northwest of Fort St. John. Gething Formation coal seams, 1 - 2 m thick, were identified in the southeastern part of the property, warranting further work. Historically, 19 coal seams have been reported in the area, with 4 main seams averaging about 7 m cumulative thickness (Jago, 2013)

3.6 Historical Past Producing Mines

Only one significant metal mine operation within the M-KMA boundary is noted in the BC Ministry of Energy, Mines, and Natural Gas Assessment Report Indexing System (ARIS) reports. This is the Magnum Mine owned by Churchill Copper Corp. Other, older and non-regulated artisan-style small scale mining may have occurred historically.

From 1967-1969, Churchill Copper Corp. conducted exploration programs that defined ore reserves (pre-NI 43 101) considered sufficient for production. The 1969 estimates for the Magnum Mine (MINFILE 094K 003) were 1,178,000 tons proven and probable, with ore grading 3.92% copper, including a 20% dilution factor (InfoMine, accessed March 2013). Production reportedly commenced in April 1970 at a rate of 750 tons per day. Between 1970 and 1974, Churchill Copper milled 598,000 tons averaging over 3% Cu.

The Cu mineralized structures have been explored over a length of 1,370 m and depth of 365 m and are composed of chalcopyrite and pyrite in 10 cm to 35 cm thick quartz-ankerite shear zone hosted veins with most of the documented veins described as small and discontinuous. High grade copper mineralization is generally erratic. Mineralized replacement masses occur in limestone adjacent to the veins. Mineralization occurs in the sedimentary Helikian Aida Formation shale and dolostone. A number of similar vein/shear zone mineralization have been explored the area.



The historic Kemess mine was located to the east of the Tatlatui Provincial Park. The deposit mined was a copper-gold porphyry. The deposit is part of the northwest-trending Quesnel Trough, and consists of Upper Triassic to Lower Jurassic Takla Group rocks. The Kemess mine produced close to 3 million ounces of gold and over 300 million pounds of copper. It was operated by Royal Oak Mines from 1998-1999, and then by Northgate Minerals until its closure in 2011. AuRico Gold Inc. currently owns the project and is working on a reclamation plan.

4.0 MINERAL TENURE AND REGULATORY PROCESS IN BC

The development of promising exploration properties into operating mines involves the participation of numerous provincial and federal regulatory agencies whose decisions regarding the advancement of a project are guided by key pieces of legislation. Development within the M-KMA results in an additional set of *Acts* and Regulations that must be adhered to. Federal and provincial *Acts* and Regulations that are commonly considered during the regulatory process for mines in BC include (but are not limited to) the following:

- **Federal:**
 - Canadian Environmental Assessment Act
 - Fisheries Act
 - Navigable Waters Protection Act
 - Explosives Act
- **Provincial:**
 - BC Environmental Assessment Act
 - Minerals Tenure Act
 - Mines Act
 - Water Act
 - Water Regulation
 - Forest Act
 - Provincial Forest Use Regulation
 - Land Act
 - Environmental Management Act
 - Health Act
 - Drinking Water Protection Act
 - Fire Services Act
 - Highway Act

Properties located within the M-KMA that may be planning to progress towards development would also have to consider the following:

- **Muskwa-Kechika Management Area Act**
 - Muskwa-Kechika Management Plan Regulation
- **Wildlife Act**
 - Public Access Prohibition Regulation, Section 2 (M-KMA Access Management Area Regulation)

In addition to provincial and federal regulatory agencies participating in the review process, the M-KAB would also be involved by providing advice on the management of M-KMA resources.

4.1 Muskwa-Kechika Management Area Legislation

Legislation specific to the M-KMA was established by the provincial government to ensure the management objectives and intent of the M-KMA are maintained in perpetuity. As stated in M-KMA Act, 1998:

“the management intent for the Muskwa-Kechika Management Area is to maintain in perpetuity the wilderness quality, and the diversity and abundance of wildlife and the ecosystems on which it depends while allowing resource development and use in parts of the Muskwa-Kechika Management Area designated for those purposes including recreation, hunting, trapping, timber harvesting, mineral exploration and mining, oil and gas exploration and development.”

The structure of the M-KMA legislation is presented in Figure 10.

4.1.1 Muskwa-Kechika Management Area Act

In 1998 the *M-KMA Act* was established as the primary piece of legislation that provides support to the M-KMA. The *M-KMA Act* requires that all resource management be conducted according to the M-KMA Management Plan. Development of local strategic plans are required to preserve the intent of the M-KMA and an Advisory Board, appointed by the Premier, is required to advise on natural resource management in the M-KMA (M-KAB 2013).

4.1.2 M-KMA Management Plan Regulation

Under the *M-KMA Act* the M-KMA Management Plan Regulation (2010) “identifies objectives for the management of the Muskwa-Kechika Management Area and specifies an integrated and coordinated planning structure to meet these objectives”.

Within the management plan, the roles and responsibilities of the Advisory Board, the Inter-Agency Management Committee and First Nations are identified. The direction for local strategic plans and operational activity are specified and the general management direction is described. Under the Management Plan, one key responsibility of the Advisory Board in cooperation with the Inter-Agency Management Committee is to produce an annual monitoring report to assess if and how objectives in the Management Plan are being met and to recommend any proposed amendments to the Plan (M-KMA Management Plan Regulation 2010).

4.1.2.1 Land and Resource Management Plans (LRMP's)

Land and Resource Management Plans (LRMP's) from Fort Nelson, Fort St. John and Mackenzie were used to develop the general management direction. Each LRMP provides management direction for various resources management zones within the M-KMA. Plans for each resource management zone are described in its respective LRMP and all zones have been grouped into the following categories:

- Protected Areas
- Special Wildland Resource Management Zones
- Special Resource Management Zones
- Enhanced Resource Management Zones

Mineral exploration and development activities are not permitted in protected areas. Definitions for each management zone vary slightly among LRMP documents (M-KAB 2013). All planning and permitting of mineral exploration and development projects, where practicable, should be consistent with the resource management zone specific to the location of the mineral claim(s).

4.1.2.2 Local Strategic Plans

Local strategic plans are required under the *M-KMA Act* and must be consistent with the Muskwa-Kechika Management Plan. Enacted by the Minister responsible for the respective legislation (*M-KMA Act, Park Act or Wildlife Act*), the following local strategic plans and landscape unit objectives apply to the M-KMA:

- Landscape Unit Objective, for the management of forest and range;
- Pre-tenure Plan, for the management of oil and gas exploration and development;
- Recreation Management Plan, for the management of recreation;
- Park Management Plan, for the management of parks, ecological reserves and recreation areas;
- Wildlife Management Plan, for the management of wildlife (M-KMA Management Plan Regulation 2010).

As defined in the *M-KMA Act*, 1998 all local strategic plans must do the following:

- *"specify boundaries of the area within the management area to which the local strategic plan applies;*
- *be consistent with the management plan;*
- *apply measures to achieve the provisions of the management plan."*

Section 7(1) of the *M-KMA Act*, 1998 states

"If there is no local strategic plan or landscape unit objective and no local strategic plan or landscape unit objective is required under section 8 (1), the issuance, approval, permitting or authorization of an operational instrument affecting or respecting Crown land or a natural resource by a minister or other agent of the government must be consistent with the management plan."

As no local strategic plan or landscape unit object exist for mineral development and exploration those activities fall under Section 7(1) of the legislation. All permitting and planning relating to mineral exploration and development must be consistent with the M-KMA management plan.

4.1.3 Access Management Area Regulation

As stated in the *M-KMA Act*, 1998

“the integration of management activities especially related to the planning, development and management of road accesses within the Muskwa-Kechika Management Area is central to achieving this intent and the long-term objective is to return lands to their natural state as development activities are completed.”



A contributing factor to the unique character of the M-KMA is that large areas remain unchanged by roads and other forms of linear transportation. Access management in the M-KMA is legislated by the Access Management Area Regulation under the BC *Wildlife Act*. Under this legislation motor vehicle traffic in the M-KMA is limited to specific routes established based on environmental sensitivity, public recommendation and historic use.

Road construction and access into undeveloped areas for the purpose of mineral exploration and development is subject to all applicable legislation. Within mineral tenures, trails and road access is administered under the *Mines Act*. Outside mineral tenures, road access and proposed infrastructure requires the issuance of a special-use permit regulated under the *Forest Practices Code of British Columbia Act*. All proposed activities must be conducted in accordance with the Muskwa-Kechika Management Plan (Integrated Land Management Bureau 2013).

4.2 Mineral Tenure in British Columbia

The *Mineral Tenure Act* is the legislation governing mineral tenure acquisition and management in the BC. It is under this legislation that the two-zone system for mineral exploration and development has been established. The two-zone system identifies packages of land as closed or open for mineral exploration and development (Integrated Land Management Bureau 2013).

Mineral lands within the M-KMA that are not currently claimed and are held in good standing may be acquired as mineral or placer claims using Mineral Titles Online (MTO), a system by which clients can search and purchase mineral titles online. In order to purchase a mineral title the client needs to have both a BCeID and a Free Miner Certificate (FMC). Both these items can be obtained on the BC Ministry of Energy, Mines and Natural Gas and Responsible for Housing website.

A claim is valid for one year from the date of registration. To maintain a claim past the one-year expiry date, the recorded holder (or representative agent) must register any exploration or development work performed on the claim. If no work was completed a payment must be made instead. Work or cash requirements vary per claim as well as by anniversary of the claim (Ministry of Energy, Mines and Natural Gas and Responsible for Housing 2013).

4.2.1 Mineral Exploration and Development in the M-KMA

Mineral exploration and development in the M-KMA is subject to all regular legislative requirements. All permitting and planning relating to mineral exploration and development must be consistent with the M-KMA management plan and more specifically the management directions of the individual resource management zones.

Each development stage of a project is subject to specific statutory requirements. Major mine development stages include:

- Prospecting and Grassroots Exploration
- Advanced Stage Exploration
- Feasibility and Planning
- Environmental Assessment
- Coordinated Authorizations
- Construction and Operation
- Reclamation and Closure

The Ministry of Energy and Mines in cooperation with the Ministry of Forests, Lands and Natural Resource Operations developed the coordinated authorizations process to allow major mine projects to efficiently navigate the permitting process. The “Guide to Coordinated Authorizations for Major Mines” was released in 2012 to lead developers through the regulatory framework in BC for major mines.

Figure 11 is taken from the Guide and outlines the regulatory framework for major mines in BC. The Guidelines found in Appendix D of this document further detail the statutory requirements for major mining projects in BC.

4.3 British Columbia Environmental Assessment Process

Major projects proposed in the M-KMA are subject to the same review process as all other major projects in BC. Major projects are reviewed through the Environmental Assessment (EA) process under the *Environmental Assessment Act*, which provides for the review of potential impacts of a project on the biophysical and social environment while meeting the province’s goals of environmental, economic, and social sustainability. The process is managed by the Environmental Assessment Office (EAO) and considers concerns of the public, First Nations, interested stakeholders, and government agencies.

The EA process in BC can be broken into three major stages:

- Pre-Application
- Application Review
- Post-Certification

Figure 12 outlines the process which is typically linear, however some steps can occur concurrently and in some situations a project can return to an earlier step (Environmental Assessment Office, 2010). The complete Environmental Assessment Office User Guide can be found in Appendix E of this report.

4.3.1 The Pre-Application Stage

The Pre-Application stage involves a number of steps that are taken to determine the requirements, scope, and overall path of the project assessment. Provided an EA is required, project-specific environmental assessment procedures (Application Information Requirements) are outlined during this stage, and

describe what information should be provided in the proponent's application for an EA certificate. The proponent prepares and submits their application, and once that is deemed complete, the Pre-Application Stage is finished. Opportunities for public comment are afforded during this stage.

4.3.2 The Application Review Stage

Once an application has been accepted as complete it passes into the Application Review Stage. During this time the EAO has up to 180 days to complete its review. At this same time, the public is also provided an opportunity to comment on the application. Once the review is complete, the EAO drafts an assessment report documenting their findings of the assessment, the degree to which issues or concerns have been addressed, and whether any sections are outstanding. The draft assessment report and recommendations from the Executive Director are presented to the responsible ministers who then have 45 days to make a final decision on the issuance of an environmental assessment certificate.

4.3.3 Post-Certification

During an EA procedures are established by the EAO to ensure a proposed project transitions efficiently to post-certification permitting and other follow-up activities. Details of these activities can be found in the Environmental Assessment Office User Guide (Environmental Assessment Office, 2010).

4.4 Summary of Findings

All mineral exploration and development in the M-KMA is subject to the provincial regulatory process while adhering to requirements outlined in the M-KMA Management Plan. This was further re-enforced after speaking with Diane Howe, Deputy Chief Inspector, Reclamation and Permitting with the Ministry of Energy, Mines and Natural Gas and Responsible for Housing.

5.0 EVALUATION OF MINERAL DEVELOPMENT POTENTIAL IN THE M-KMA AND SURROUNDING AREA

The characterization of mineral exploration and development potential within the M-KMA has considered current exploration activities on active tenures, as well as unexplored areas and previously staked tenures which have lapsed. Current exploration activity and expenditures need to be evaluated in light of current and forecasted metal prices.

Ongoing exploration and subsequent development of the prospects and targets summarized in Section 3.0 will be dependent on a number of factors. The realization of economic potential from these prospects and projects will be governed by the same factors that govern all mineral exploration projects across the world. This includes:

- The ability to generate investment for the project;
- Current metal prices;
- Satisfying environmental permitting requirements, and ultimately;
- Establishing a proven economic resource.

This report evaluates mineral exploration and development potential specific to the M-KMA irrespective of external factors and focuses specifically on the geological potential of the area and the known resources and reserves. Precious and base metals are directly affected by markets while industrial metal and coal are secondary, and more influenced by other industrial sectors.

5.1 Historic and Current Tenures

The mineral tenures by issue date from pre-2004 to 2013 are shown in Figure 6. This map was created to indicate the fluctuations in historical staking, and provide insight into the possible trends of tenure staking. A review of the mineral tenure history indicates that interest in the area, as a function of mineral tenure staking, has been increasing. A map of mineral tenures created in August 2004 (Figure 13) shows sparse coverage, with the bulk of the interest lying outside the M-KMA. Current mineral tenure holdings (Figure 4) are also concentrated outside of the M-KMA boundary along its western edge, with increased interest throughout the central portion of the area along trend of the ancestral North American basinal terrane. The amount of mineral tenure staking between these dates is variable, with the greatest amount of activity occurring over the last two years.

The history of tenure staking also shows that certain areas may have been staked, and subsequently explored, but that the tenures have been allowed to lapse for a variety of reasons. It is important to review these areas to determine the history of exploration and evaluate the possibility of renewed interest in the future. A map of mineral tenure holdings for 2006 is presented in Figure 14. There is a large block of claims present in 2006 at the southern tip of Muncho Lake Park that are not present in 2004 or 2013, as shown on those respective maps. These tenures are in the same location as the current mineral tenures held by Fireside Minerals where they have a barite mine in production.



The compilation of information from company websites, technical and assessment reports, and survey responses suggests that the majority of tenures host unexplored prospects or projects in the stage of grassroots exploration. There are few established resources and reserves upon which to base economic estimates. Furthermore, past and future exploration expenditures are unknown.

5.2 Geologic Trends and Prospects

A review of the geology and mineralization styles for current projects in relation to the mineralization trends in the geological terranes that make up the area of the M-KMA, provides information on potential areas of mineral potential, and subsequent mineral tenure acquisitions.

The advanced exploration projects identified in the Kechika Basin targeting SEDEX type deposits (lead-zinc-silver) represent the strongest potential for future development. There are several occurrences of the clastic-sediment hosted exhalative deposits located along the trend of the ancestral North American basinal sediments terrane which underlies the central M-KMA (Figure 15). The development of these SEDEX-style deposits broadly coincides with the trend in lead and zinc prices (Figure 16) over the past 10 years. For example, staking by Canada Zinc Metal Corp for their Kechika property occurred in 2006-2007 which coincided with a period of above average lead and zinc prices. The ten-year silver price is presented in Figure 17. The occurrence of SEDEX deposits by terrane type and host rock type is presented in Figure 18.

Future barite showings have been noted to be present within the M-KMA directly with or in similar areas with SEDEX deposits outside the M-KMA boundary. The Gunsteel Formation as well as other formations of the Lower Earn Group could host other unknown accumulations of barite. Future exploration will determine if these recognized showings are economic. Figure 19 shows world and Canadian barite production and the increase in Canadian production since the advent of oil sand exploration and production around 2005.

Figure 20 shows the steadily increasing fluorspar global production tonnage. Canadian production figures are unavailable, but known to be limited. The current fluorspar showings claimed under Prima Fluorspar are on the northern boundary of the M-KMA. Similar deposits may occur along the geological trend within the M-KMA area.

On the western flank of the M-KMA a diverse package of lithologies of the Quesnellia and Cache Creek terranes prospectively host a variety of mineral deposits. The Cassiar gold camp hosts the historical Erickson and Taurus gold deposits that occur in mesothermal quartz veins, with silver-lead-zinc, tungsten skarns and porphyry molybdenum deposits. The Erickson gold mine is in a sequence of upper Paleozoic to lower Mesozoic mafic volcanic, ultramafic, and sedimentary rocks of the Sylvester allochthon within the Cassiar. A number of placer operations, both historic and current, explore drainages from this area. The Cassiar terrane makes up a significant portion of the land underlying the western third of the M-KMA. This may represent a zone of increased potential because the rocks of Cassiar terrane dip below the western extent of the M-KMA.



5.3 Mineral Tenure Location

The location of the mineral exploration projects discussed above may be a factor regarding their potential to move into development. Their location impacts the infrastructure and accessibility requirements for developing a project. **The current mineral tenures and prospects are concentrated along the boundaries of protected park lands.** Their close proximity to these areas may influence the speed and timing of permitting applications, as well as limit the existing and potential access routes and physical space required to establish a mine. The SEDEX style deposits extending along length of the Kechika Trough zone are bordered to the west by the Kechika River, and lie adjacent to the Dune Za Keyih park on their east side. To the west of the M-KMA the tenures which include a large land package owned by Canada Rockies International is bordered by the Spatsizi Plateau Wilderness Park on their southern extent.



5.4 Access and Transportation

The M-KMA is located in a relatively remote area of the province. The town of Fort Nelson, BC is located approximately 40km from the easternmost extent of the M-KMA. The Alaska Highway, Hwy 97, parallels the eastern side of the M-KMA before passing through Fort Nelson and cutting to the west through Muncho Lake Park. The highway continues along the northern edge of the M-KMA and to the west. The Liard Highway, Hwy 77, extends to the north from Fort Nelson.

There are some local roads and ATV trails which have been mapped in the area, including to the east of Redfern-Kelly and Graham Laurier Parks, and south of Muncho Lake Park.



Canadian National Railway Limited (CN) operates a railway line that originates in Fort St. James and terminates at the Minaret Station, located 20km NW of Bear Lake, and 30km south of the Tatlatui Provincial Park. This railway line was commissioned in the 1960's and was originally planned to extend from Fort St. James to Dease Lake. The extension to Dease Lake was deemed uneconomical at the time due to decreasing global demand for asbestos and copper, as well as the upgrades to the Cassiar Highway that serves Dease Lake. The railway line connects at Fort St. James with a network of CN railway lines, including a route to the west towards the port of Prince Rupert.

The current mineral tenures and location of key projects are predominantly concentrated along the western edge of the M-KMA, or along the Kechika Basin trend through the center of the M-KMA. The majority of key projects discussed above are accessed by helicopter. The survey responses that were received both noted the remoteness of the area and accessibility as a key challenge moving forward. The economic feasibility of projects in the area, if they are to proceed to development, will depend on establishing transportation routes to move material and equipment to and from site. The proximity of key projects to parks and protected areas may influence the routing or feasibility of transportation routes.

There may be existing access trails that have not been mapped. Additionally, there are proposed roads that may provide proximal access to the projects discussed in this report. There is currently an ongoing socio-economic and environmental review underway for the proposed Stewart Omineca Resource Road. This road would connect the community of Stewart, located on the tidewater, and to the location of the historical Kemess Mine located to the east of the Tatlatui Provincial Park. This proposed road involves improving several sections, accelerating and extending planned forestry roads, and constructing new roads to complete the connection. This road may represent the most suitable access point for projects along the Kechika Basin trend.



This report has not considered proposed transportation or access routes that are may be being developed in support of oil and gas projects in the area.

6.0 SOCIO-ECONOMIC SURVEY AND POTENTIAL OPPORTUNITIES

6.1 Socio-Economic Survey

A survey was prepared and distributed to First Nations members of the M-KAB with the intent of gaining an understanding of what opinions exist regarding potential mineral exploration and development in the M-KMA. Any information obtained would then be used to help guide the development of recommendations encouraging sustainable and responsible mineral exploration and development in the M-KMA. The survey focused on past experience with mineral exploration and development and areas where these activities would be acceptable to future and preferred mining practices. The complete survey can be found in Appendix A of this report.

Unfortunately, the general response from surveyed Board members was that there was a lack of comfort in speaking on behalf of potentially affected First Nations in this context. As a result, the survey was not pursued further at this time.

6.2 Potential Socio-Economic Opportunities

Mineral exploration and development activities have the potential to yield a variety of socio-economic opportunities for local stakeholders. Maximizing these opportunities can be facilitated through transparent and meaningful consultations between developers, local stakeholders, government and First Nations.

A structure for consultations and negotiations will need to be established early on in developer and stakeholder interactions as a means of reaching mutually beneficial relationships. Establishing “precursor agreements” including exploration or staking agreements and memorandums of understandings (MOUs) are examples of agreement options. These types of agreements should be developed prior to formal negotiations leading to Community Benefit Agreements, to establish a viable working relationship early on in the process and to determine the manner in which the developer and stakeholder agree to proceed with negotiations (Gibson and O’Faricheallaigh 2010).

The following is a list of potential socio-economic opportunities for local First Nations and/or non-aboriginal communities that may arise from mineral exploration and development activities:

- Reduction of unemployment in the region, in local communities directly through mining employment and related positions (e.g., technical and labor positions directly related to mineral exploration and development, service industries supporting mineral exploration and development);
- Economic development stimulus for local businesses including contract opportunities for both existing and new businesses;
- Infrastructure improvements for local communities;
- Professional development for members of local communities, including:
 - incorporation of training for professional and technical positions associated with mining operations into education programs, local First Nation Human Resource Programs, and Regional Post-Secondary Institutions; and
 - Proponent support for First Nations education initiatives.
- Proponent support for First Nation Research Projects associated with mining operations, such as:
 - mapping projects that identify traditional places and names; and
 - archaeological surveys and impact assessments within the development area.
- Negotiation of Accommodation Agreements between developers and stakeholders; and
- Financial opportunities for First Nations through revenue sharing and equity interests in projects.

7.0 RECOMMENDATIONS

7.1 Mineral Exploration and Development

One of the reasons for increased claim activity in the area may be due to evolving comfort levels associated with exploring in the area. It may be that initial staking in the area was slow due to discomfort with working in a new management area. That concern may have diminished slightly over the years as the regulatory framework has become clearer, and the government has encouraged and welcomed investment in mineral exploration and development projects.

The following recommendations are provided to encourage, manage and sustain future mineral exploration and development in the M-KMA:

- Communicate the spirit and intent of the M-KMA to all developers and potential developers with interest in the area. This could be achieved through:
 - Having a presence at public and industry events to provide opportunities to learn about the M-KMA and the possibilities for mineral exploration and development within it.
 - Support research in the area including Geoscience BC and BCGS.
 - Provide a welcome document as part of a larger expectations document to corporations that acquire tenures in the M-KMA that outlines the spirit and intent of the M-KMA while providing resource documents outlining the permitting processes and management zones specific to the M-KMA.
 - Publicize and promote exploration success to date on a poster or presentation at a conference such as the AMEBC Mineral Exploration Roundup.
- Maintain a database of resources and reserves as they are identified on the prospects listed within this report to establish an estimated economic value of the resources.
- Produce a report summarizing the regional geology and geological trends of the M-KMA.
- Work with local stakeholders, government and First Nations to communicate the intentions of this report and the development of documents promoting mineral exploration and development in the M-KMA.
- Complete a transportation and access survey to summarize existing and potential land, water and air access routes.

7.2 Regulatory Recommendations

No gaps were identified during the review of provincial mining and M-KMA legislation however it was determined that efforts could be made to more clearly communicate the application of the M-KMA legislation throughout the mine permitting process. In order to accomplish this, the following is recommended:

- If possible coordinate with Mineral Titles Online to establish and post an information document to explorers that acquire mineral claims within the M-KMA. Such a document would introduce the

developer to the M-KMA outlining the intent of the management area and the legislation specific to that area. This document would provide links to establish a government guidance documents for mine permitting in BC as well as a link to the “Muskwa-Kechika Management Area Expectations Document” - see the following recommendation for further description of this recommended document.

- It is recommended that the M-KAB develop an expectations document that clearly outlines the following for potential mineral developers in the M-KMA:
 - The spirit and intent of the M-KMA;
 - Information on all local stakeholders, government and First Nations;
 - Information on all applicable M-KMA legislation and how it connects to provincial mining legislation;
 - Links to already established provincial guidance documents;
 - Contacts for assistance throughout the process.

It is recommended that input from local stakeholders, government and First Nations be included in the development of this document.

- It is recommended that there is clear communication among all Board members in establishing a vision for mineral exploration and development within the M-KMA.
 - Further to this recommendation, it is important to work openly and transparently with local First Nations to further cultivate strong working relationships.

8.0 CLOSURE

We trust this report meets your present requirements. If you have any questions or comments, please contact the undersigned.

Sincerely,
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MINERAL AND SOCIO-ECONOMIC SURVEY

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EBA'S GENERAL CONDITIONS
