MAR 20130016: HIGH DIVIDE RIDGE

High Divide Ridge- A report on conglomerate exploration near Hinton, West-Central Alberta.

Received date: May 02, 2013

Public release date: Jan 13, 2015

ATHABASCA MINERALS INC.

2012 EXPLORATION
HIGH DIVIDE RIDGE PROJECT, WEST CENTRAL ALBERTA

Mineral Assessment Report

Metallic and Industrial Minerals Permits
9312010565

Geographic Coordinates
53° 16' 46"N to 53° 27' 8"N
117° 13' 10"W to 117° 31' 9"W

NTS 83F05 and 83F06

March 2013

Completed by:
Parallax Resources Ltd.
Box 88 Site 270 RR2
Stony Plain, AB T7Z 1X2

Athabasca
MINERALS INC.

9524 27 AVENUE EDMONTON, ALBERTA T6N 1B2
PHONE (780) 465-5696 FAX (780) 430-9865

April 29, 2013

Coal and Mineral Development
Alberta Energy
11th Floor, 9945 108 Street
Edmonton, Alberta T5K 2G6

Attention: Jennifer Oleksiw

RE: CONSENT LETTER FOR THE HIGH DIVIDE RIDGE PROJECT

Dear Jennifer,

Athabasca Minerals Inc. has filed an assessment report entitled: **2012 Exploration High Divide Ridge Project, West Central Alberta.** This report is for Metallic and Industrial Mineral Permit 9312010565.

Athabasca Minerals Inc. hereby consents to the duplication and use of this assessment report after the one year confidentiality period.

If further clarification is required, please contact the writer at 780-465-5696.

Sincerely,
Athabasca Minerals

[redacted]

Brian Hudson, P. Geol.
VP, Athabasca Minerals

Cc. Darrell Cotterill, P. Geol.
Parallax Resources Ltd.

Part A
Statement of Expenditures

Metallic and Industrial Mineral Permit 9312010565

Salary and Wages

Company geologist	10,925.00	
Geological technician	6275.99	
GIS technologist	1391.52	
Sub-total		**18,592.51**

Field costs

Accommodations/meals	1476.29	
Vehicle rentals	473.00	
Fuel	337.14	
Land searches	135.00	
Sub-total		**2,421.43**

Contracted Services

Parallax Resources Ltd.	15,875.00	
Rocky Mountain Drilling Inc.	7,530.60	
Hinton Wood Products	725.13	
Sub-total		**24,130.73**
Accumulated total		**45,144.67**
10% administrative allowance		**4,514.46**
Grand total		**49,659.13**

[redacted]

Brian Hudson, VP
Athabasca Minerals Inc.

Darrell Cotterill
Parallax Resources Ltd.
Box 88 Site 270 RR2
Spruce Grove, Alberta
T7Z 1x2

Telephone: 780-800-2595
Cell: 780-293-8140
Email: parallax@xplornet.com

CERTIFICATE of AUTHOR

I, Darrell Cotterill, P. Geol., do hereby certify that:

1. I am president of:
   Parallax Resources Ltd.
   Box 88 Site 270 RR2
   Spruce Grove, Alberta, Canada
   T7Z 1X2

2. I graduated with a Bachelor of Science (with Distinction) degree in geology from the University of Alberta in 1989. Previously, I obtained a technical diploma in Petroleum Technology from the Northern Institute of Technology in 1977.
3. I am a member of the Association of Professional Engineers, Geologists and Geophysicists of Alberta.
4. I have worked continuously as a geologist for a total of twenty-four years since my graduation from university.
5. I am not aware of any material fact or material change with respect to the subject matter of the Report that is not reflected in the Report, or the omission to disclose, which makes the Report misleading.

Dated this 29th Day of April 2013.

[redacted]

Darrell Cotterill, P. Geol

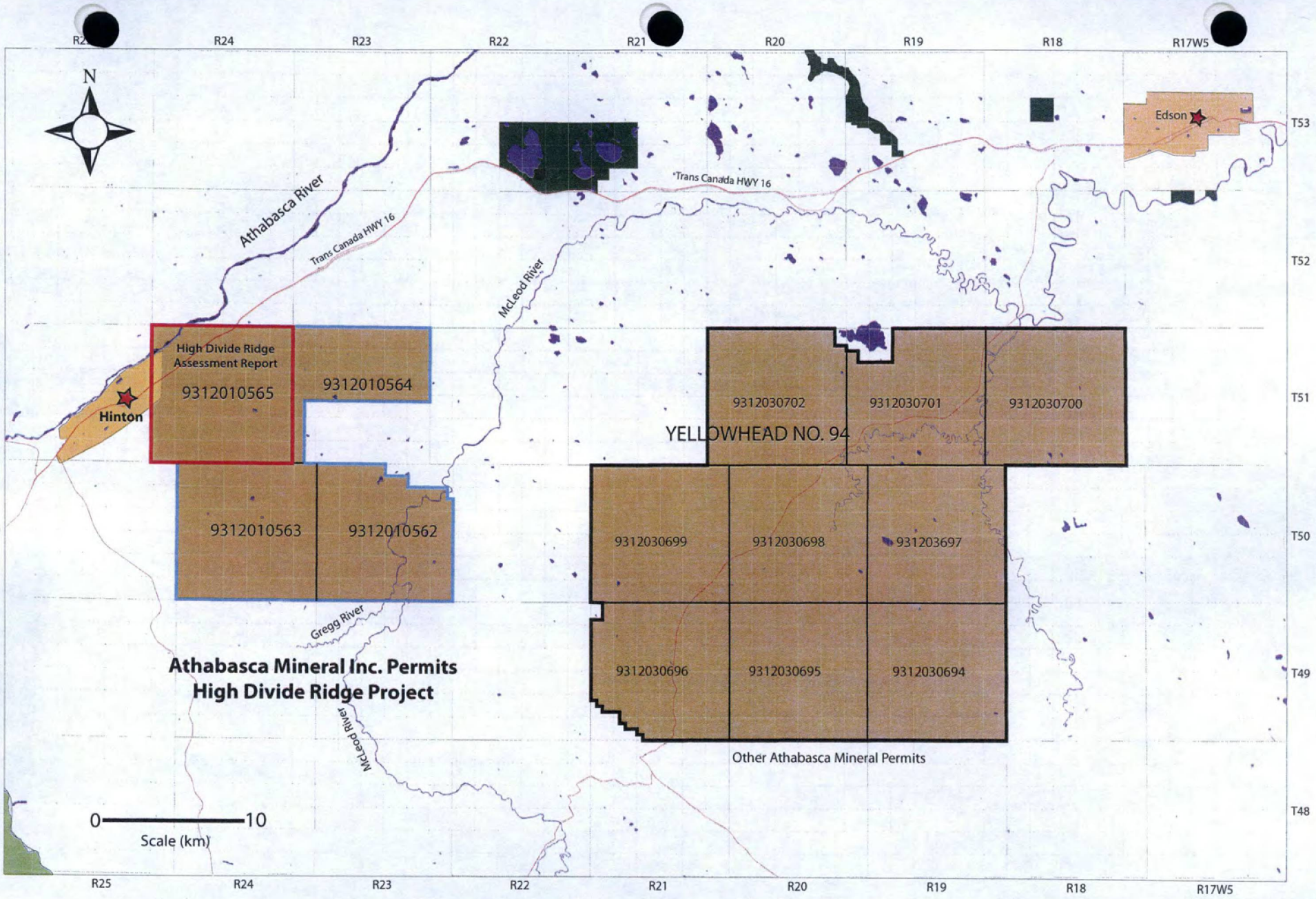

Figure 2: Athabasca Minerals Metallic and Industrial Mineral Permits-Hinton area (west-central Alberta).

Part B

ATHABASCA MINERALS INC.

2012 EXPLORATION
HIGH DIVIDE RIDGE PROJECT, WEST CENTRAL ALBERTA

Mineral Assessment Report

Metallic and Industrial Minerals Permits
9312010565

Geographic Coordinates
53° 16' 46"N to 53° 27' 8"N
117° 13' 10"W to 117° 31' 9"W

NTS 83F05 and 83F06

March 2013

Completed by:
Parallax Resources Ltd.
Box 88 Site 270 RR2
Stony Plain, AB T7Z 1X2

MINERAL ASSESSMENT
EXPENDITURE BREAKDOWN BY TYPE OF WORK

Actual Expenditure (**for Part B of Report**; Must match total filed in Part A)

Project Name: High Divide Ridge Project

	AMOUNT
1. Prospecting	$ **8088.94**
2. Geological Mapping & Petrography	$ **28,800.00**
3. Geophysical Surveys	
a. Airborne	$
b. Ground	$
4. Geochemical Surveys	$
5. Trenching and Stripping	$
6. Drilling	$ **7862.60**
7. Assaying & whole rock analysis	$
8. Other Work:	$
SUBTOTAL	$ **44,751.54**
9. Administration (up to 10% of subtotal)	$ **4475.15**
10. Aboriginal Consultations (up to 20% of subtotal)	$
TOTAL	$ **49,226.69**

Darrell Cotterill — **April 20, 2013**

SUBMITTED BY (Print Name) — DATE

SIGNATURE

FIGURE PAGE

APPENDIX

SUMMARY

Athabasca Minerals Inc. (AMI), a mineral exploration company based in Edmonton, was established in April of 2006. AMI has significant Metallic and Industrial Mineral Permits within the Province of Alberta. Most of the permits are held within the Athabasca Oil Sands region and along the Alberta-Northwest territories border. Exploration on the northern permits has focused on deposits of limestone, salt, frac sand and rare-earth elements. Athabasca Minerals manages the Susan Lake gravel pit for the Government of Alberta and has three additional operating gravel pits, one north and two south of Fort McMurray.

In January of 2012, Athabasca Minerals expanded its mineral permit holdings to the Hinton area, located in the west-central foothills of the Province. Four permits were acquired totaling 32, 167 ha. In March of 2012, AMI assimilated another 81,000 ha within the same region. The first four parcels potentially contain large, near surface volumes of conglomerate bedrock. The conglomerate is targeted as a local source of aggregate for the Hinton area.

Two Surface Material Leases (SMLs) exist within the permit block. Both are located in Township 51, Range 24W5. A minor volume of conglomerate has been excavated and processed into an aggregate product for use on local logging and oilfield roads. The two leases contain thick, poor to moderately consolidated, conglomerate with discontinuous sandstone interbeds. Other conglomerate bedrock exposures were identified near the SMLs. In the spring of 2012 surface samples were collected from exposed conglomerate near the two SML sites.

In October 2012, AMI conducted a limited drill program in the area near the active SMLs. Six test holes were drilled to a maximum depth of 15 m. Five of the six test holes intersected conglomerate. Two test holes intersected continuous conglomerate exceeding 11 m thick. Results from the test holes show significant conglomerate at shallow depths, but also some vertical and lateral lithologic variability. This assessment report is an evaluation of the High Divide Ridge Conglomerate based upon exploration carried out in 2012.

1.0 INTRODUCTION

1.1 PURPOSE AND SCOPE

Athabasca Minerals has acquired permits in the west-central foothills of Alberta (**Figure** 1). Four mineral permits (totaling 32,167 ha) were acquired near the Town of Hinton in January of 2012 (**Figure** 2, High Divide Ridge Project).

The four High Divide Ridge permits (**Figure** 3, Appendix 1) are located in townships 50 and 51, ranges 23 and 24 West of the Fifth Meridian (NTS map sheets 83F05 and 83F06). The Athabasca River and the Yellowhead Highway cross the project area on the northeast permit, and the McLeod River dissects the southeast permit. Nearly half of Township 51, Range 23 has been designated Reserved/Withdrawn land (3872 ha) by the Alberta Government which limits exploration to the northern half of the township. The southeast (T50R23W5) permit also has a surface restriction in place along the McLeod River. The restriction continues west from the river, into the southwest permit (**Figure** 3).

The High Divide Ridge assessment report includes exploration dating back to the spring of 2012 and extends through to October of 2012. Exploration on the Property includes surface reconnaissance and a small drill program. The company's primary mineral interest on the Property is the High Divide Ridge Conglomerate. The bedrock is a locally mappable stratigraphic unit within Paskapoo Formation and is chiefly comprised of conglomerate and sandstone. The conglomerate and associated sandstones unconformably overlie the Coalspur, a thick formation containing several economically important coal seams. The Vista Coal Project is under development the permit area and is scheduled to begin mining coal from the uppermost seams in 2014. Athabasca Minerals intends to excavate and crush the conglomerate into road aggregate for use at the future mine and other resource-based projects near Hinton.

1.2 ACCESSIBILITY, CLIMATE AND PHYSIOGRAPHY

1.2.1 Topography, Elevation and Vegetation

The High Divide Ridge Project is located within the Upper Foothills Region of west-central Alberta, within the deformed Cordilleran belt (**Figure** 4). In general, the surface topography is comprised of a series of west-northwest trending ridges and valleys. Elevations range from a low of 950 m in the Athabasca River valley to a high of 1725 m on the ridge system located in the southwest corner of the Project area (**Figure** 5). A complex, dendritic drainage network consisting of 1st to 3rd order streams feed the northeast flowing McLeod and Athabasca rivers. McPherson and Quigley creeks drain the main southeast trending valleys, and both

Title: Alberta Road Map-High Divide Ridge Project				Date: April 2013
Project: High Divide Ridge	Drawn By: DKC	Checked By: BH	Coordinate System: NA	Figure: 1

Athabasca MINERALS INC.

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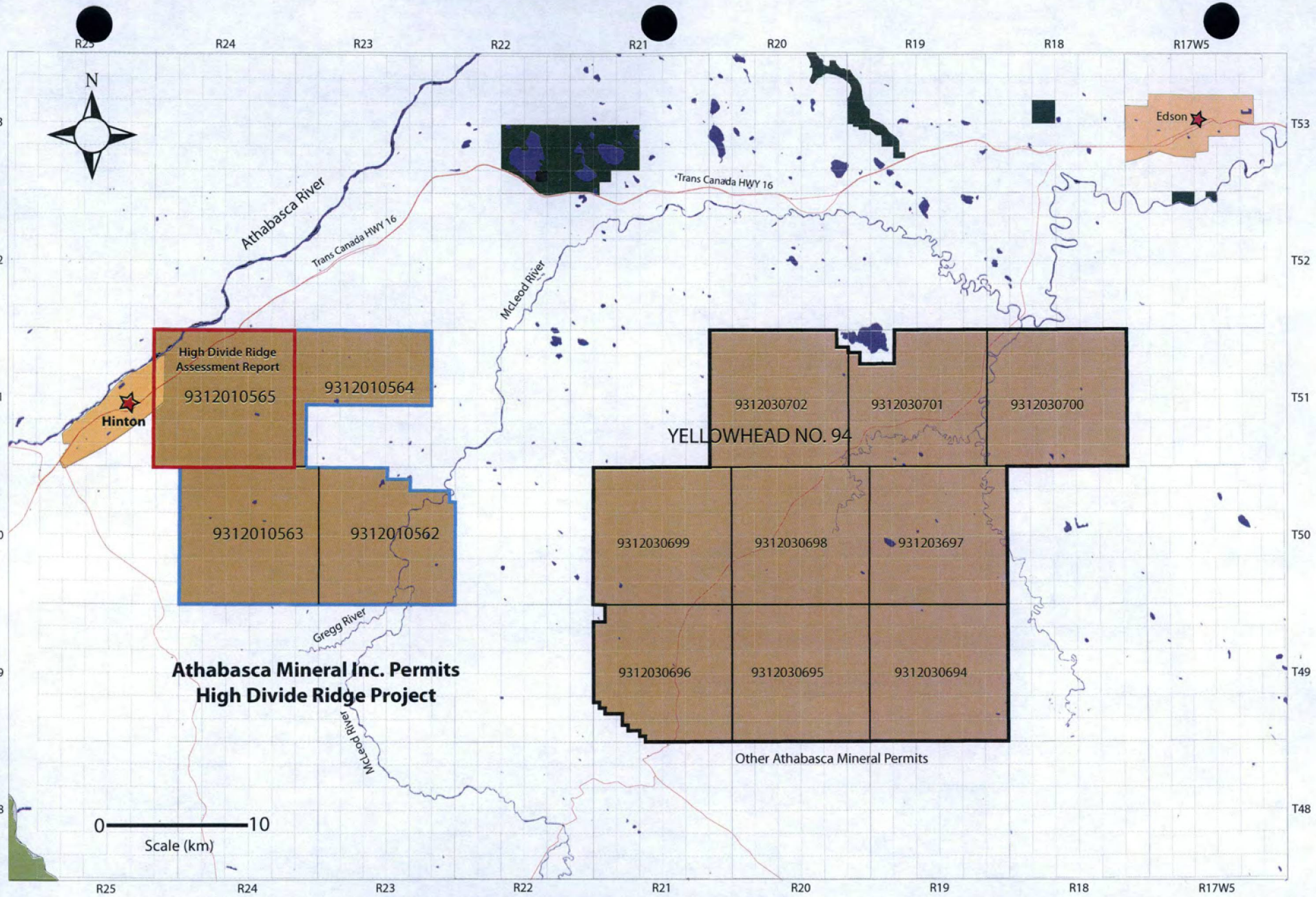


Figure 2: Athabasca Minerals Metallic and Industrial Mineral Permits-Hinton area (west-central Alberta).

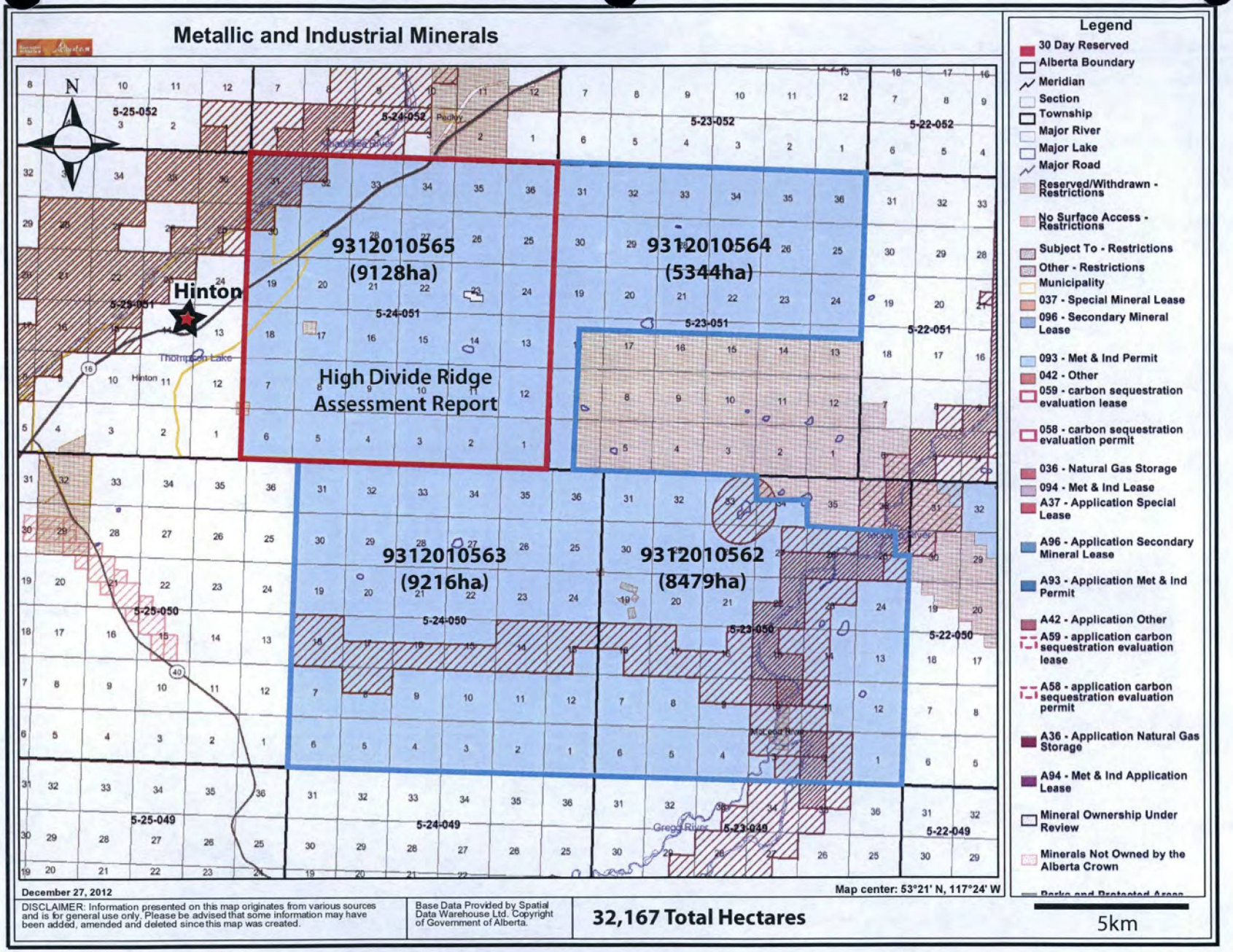
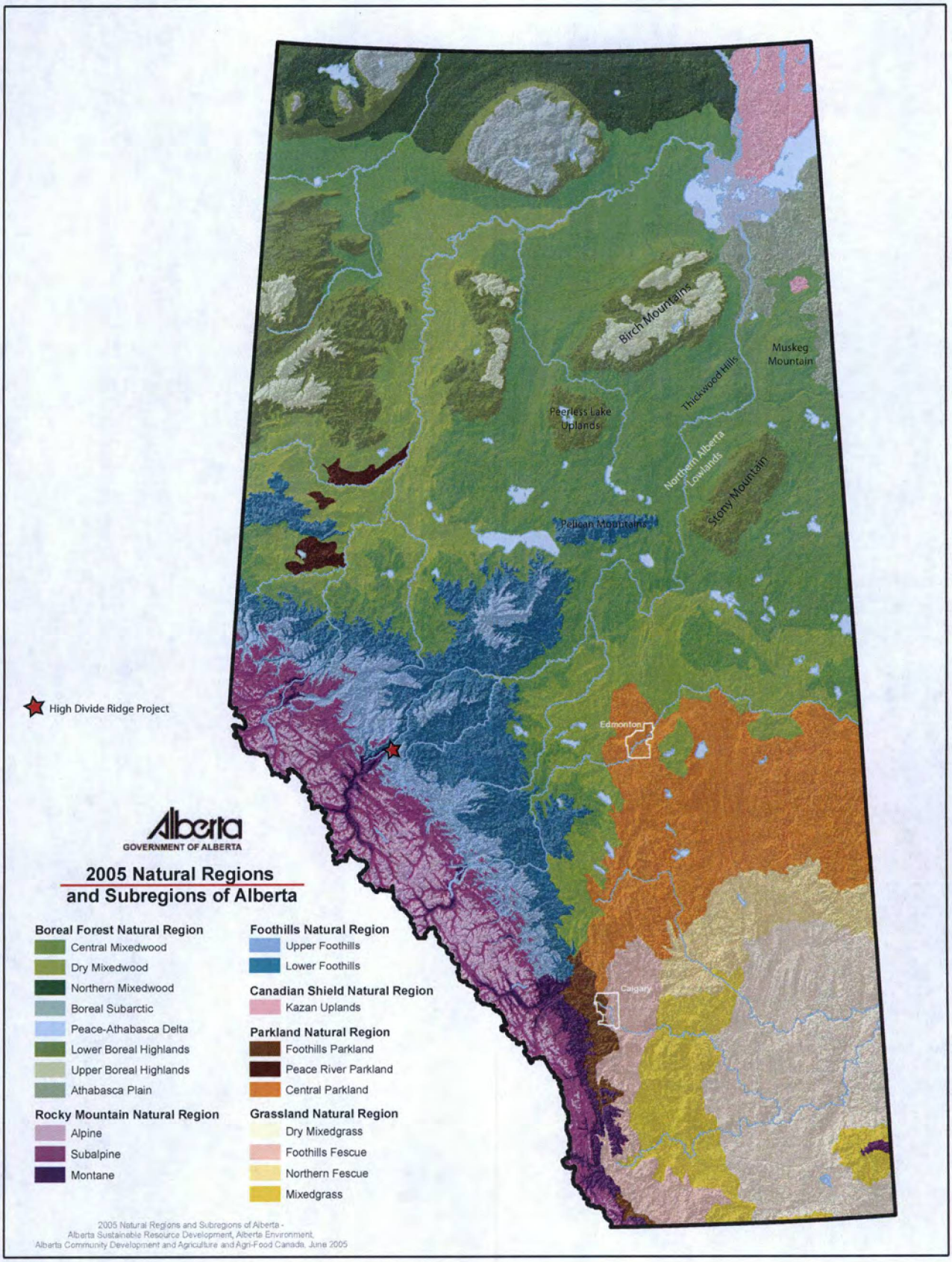


Figure 3: Athabasca Minerals Metallic and Industrial Mineral Permits-High Divide Ridge (modified after Alberta Energy, Interactive Map)



0 90
Scale (km)

Athabasca MINERALS INC.

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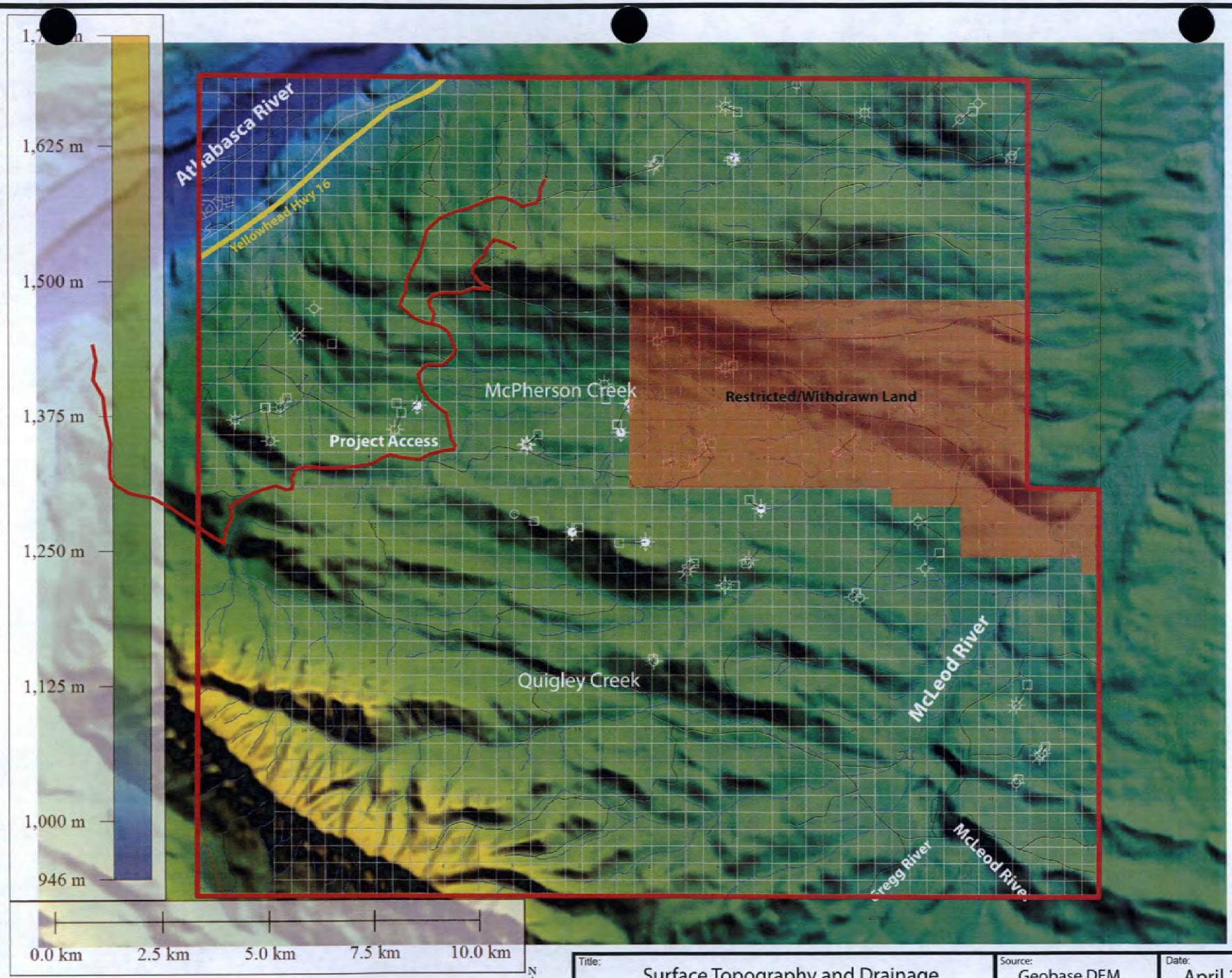
Title: Natural Regions and Subregions of Alberta			Source: Downing and Pettipiece, 2006	Date: April 2013
Project: High Divide Ridge	Drawn By: DKC	Checked By: BH	Coordinate System: NA	Figure: 4



Athabasca MINERALS INC.

Title:		Source:	Date:
Surface Topography and Drainage		Geobase DEM	April 2013
Project:	Drawn By: / Checked By:	Coordinate System:	Figure:
High Divide Rdige	DKC / BH	DLS	5

eventually empty into the McLeod River. The ridges and valleys consist of variably resistive Cretaceous and Tertiary bedrock comprised mostly of sandstone and shale with interbedded coal seams and local conglomerate.

Vegetation within the project area is principally made up of large spruce forest interspersed with mature poplar stands. Except for of the southwest corner of the Property, the region has been actively logged as shown by the tightly spaced patchwork of harvested forest blocks (**Figure** 6). A regional soil map indicates the soil horizon to be dominantly Luvisolic (**Figure** 7, Downing and Pettapiece, 2006).

1.2.2 Property Access

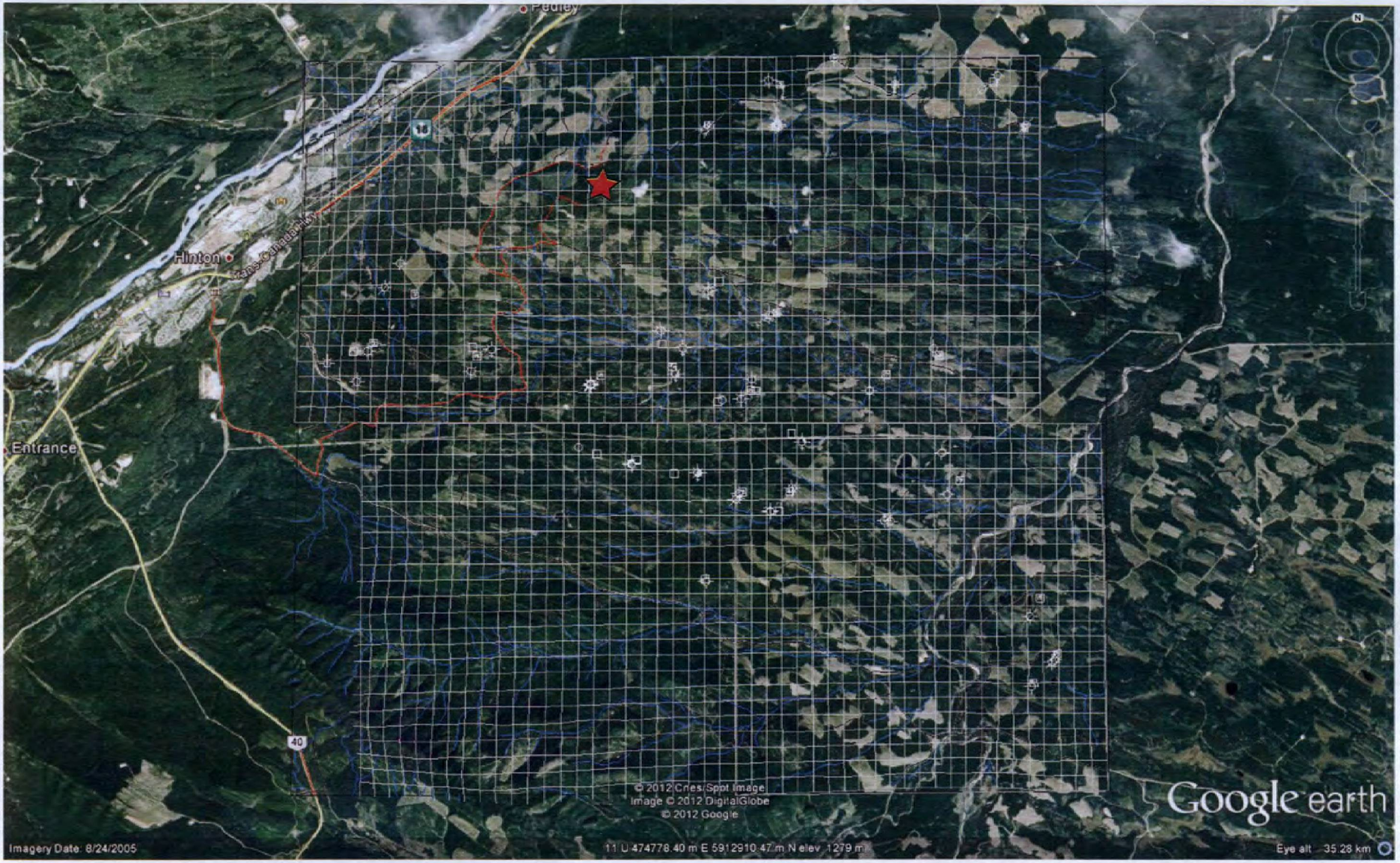
Athabasca Minerals is focusing exploration within the northwest township (**Figure** 3, Permit 9312010565). Within this permit aggregate has been processed from the High Divide Ridge Conglomerate within two SMLs located in sections 23 and 26. The aggregate has been primarily used for local logging and oilfield road maintenance (**Figure** 8). The present road network within the permit allows for year-round access, is a short distance from the Vista Coal Project and is near the Yellowhead Highway and rail facilities in Hinton.

The two aggregate pits and nearby exposed bedrock sections are accessed by logging roads, associated trails and cutlines that support both the logging and petroleum industry. The primary access to the exploration area starts at the Yellowhead highway that passes through Hinton. From Hinton, head south on the forestry trunk road for 7km. From the forestry trunk road continue northeast on the Hargwen logging road for 11km. The first pit (SML 800048) is located at the highest point on an east-west oriented ridge, just north of the proposed Vista Coal Mine. The second aggregate pit is located further north, down the west-facing flank of the ridge (**Figure** 8). To access the first pit turn right off the Hargwen Road at kilometer 11 and proceed about 4.5 km to a dead-end. To access the second pit (SML 990048) continue past kilometer 11 on the Hargwen road for an additional 4 km.

1.2.3 Proximity and Transport

Current exploration activities are ongoing in Township 51, Range 24W5 (Permit 9312010565). In sections 23 and 26 the High Divide Ridge Conglomerate is exposed at the surface within the active SMLs (**Figure** 8). The two existing pits have mined the conglomerate for aggregate for use on local roads. The exposed conglomerate is located near the Vista Coal Mine Project. Coalspur Mines intends to begin extracting coal from the mine in 2014. The current exploration area is roughly 17 km east of Hinton allowing quick access to railway infrastructure and the Yellowhead Highway. A 1:50,000 topographic map of the area indicates an existing road/trail extends from one of the aggregate pits to a point on the railway that parallels the Yellowhead Highway. The measured distance along the road is roughly 7 km. Produced aggregate would be transported by truck for shorter haul distances and possibly moved by rail to more distal markets.

The intended local market for the processed aggregate is Coalspur's Vista Project currently under development within the valley, just south AMI's exploration area.



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Scale (km)

High Divide Ridge Project

Scale (km)

Athabasca MINERALS INC.

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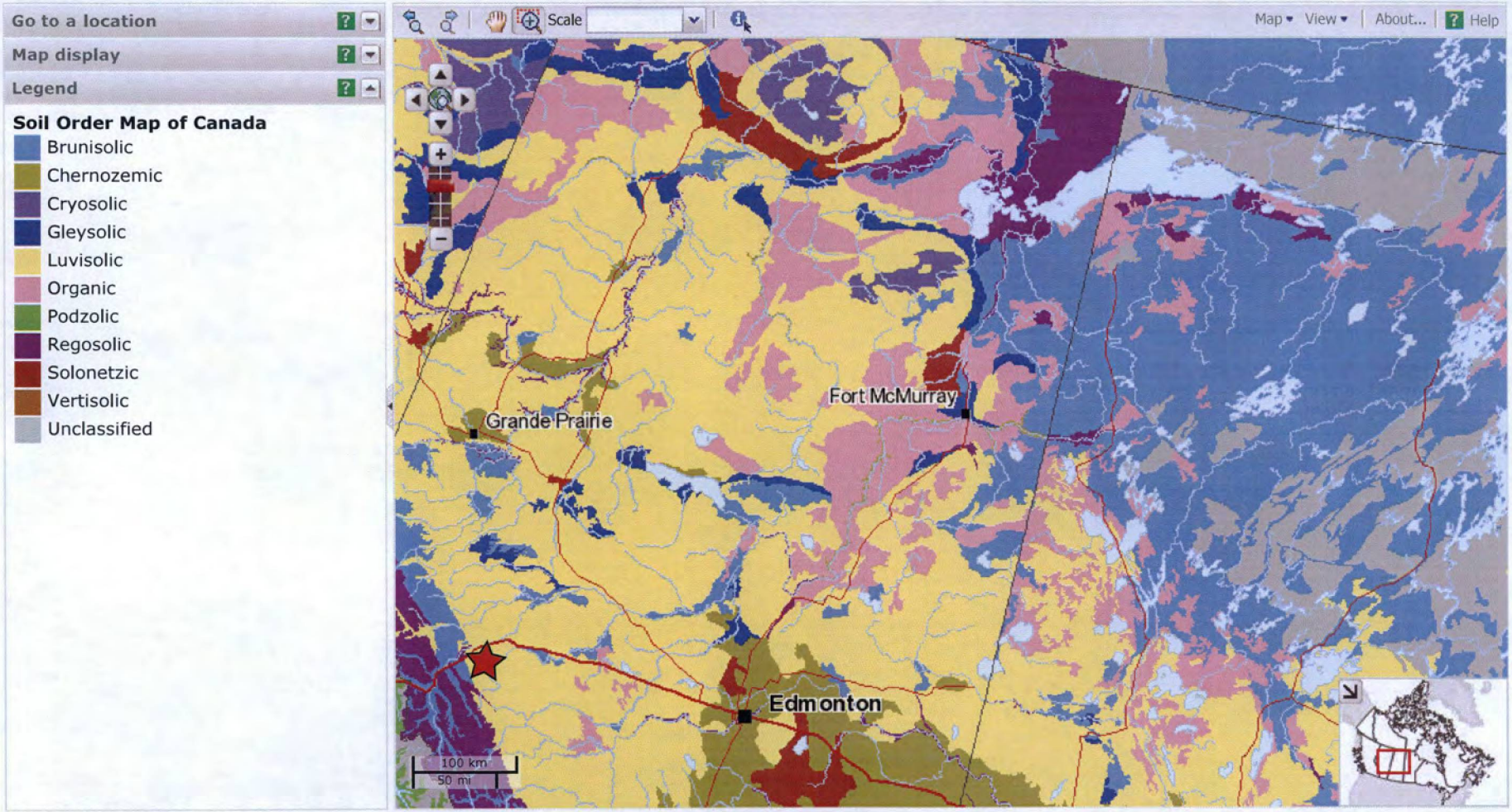
Title: ABM Permits and Logged Areas			Source: Google Earth	Date: April 2013	
Project: High Divide Ridge	Drawn By: DKC	Checked By: BH	Coordinate System: DLS	Figure: 6	

Soils of Canada



High Divide Ridge Project

Scale (km)

Athabasca MINERALS INC.

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Title: Soil Map of Northern Alberta and Saskatchewan			Source: Alberta Energy	Date: April 2013
Project: High Divide Ridge	Drawn By: DKC	Checked By: BH	Coordinate System: DLS	Figure: 7

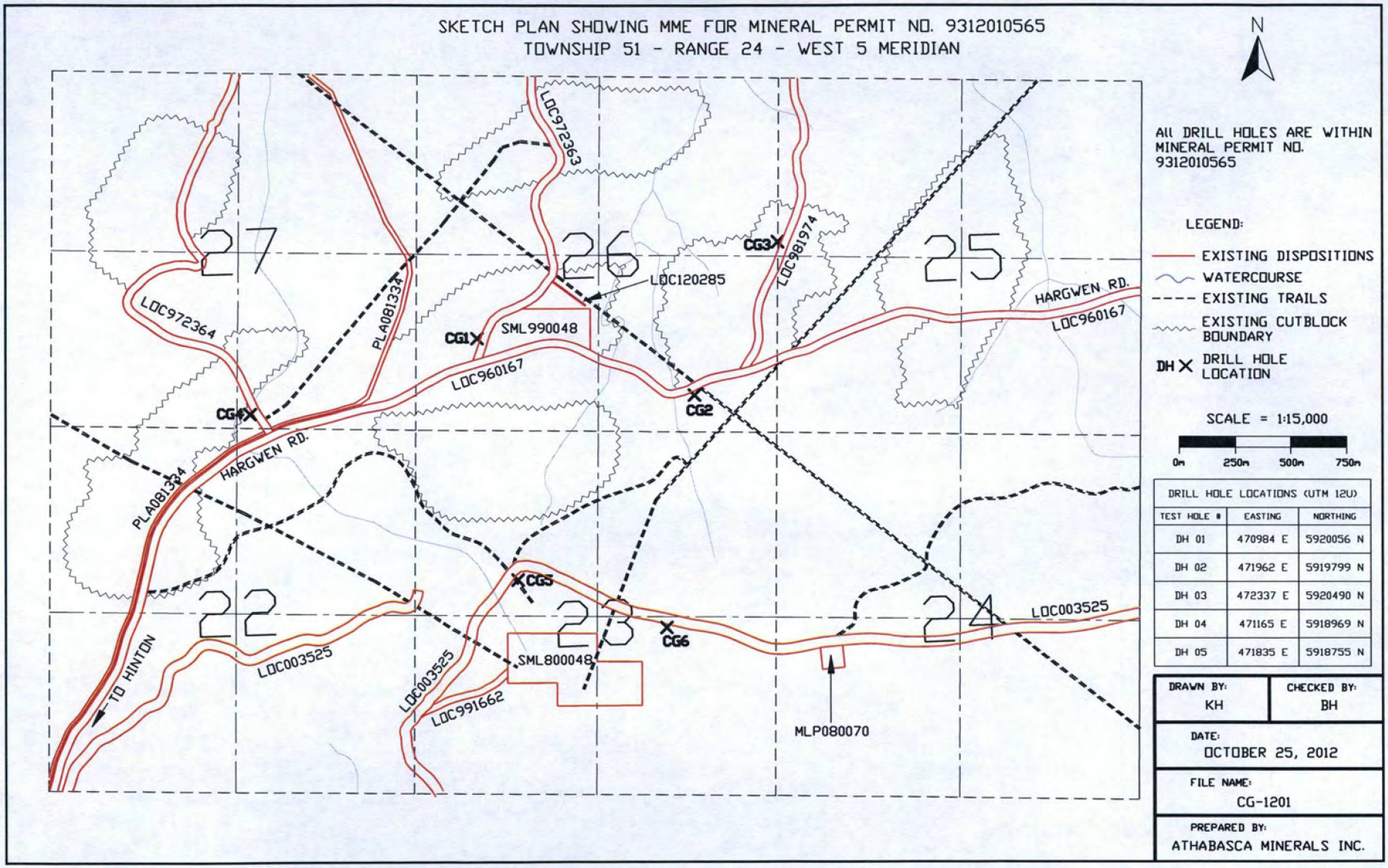


Figure 8: Athabasca Minerals MME plan, drillhole locations and the location of existing SML's operated by West Fraser Timber Co. Ltd.

1.2.4 Climate and Operating Season

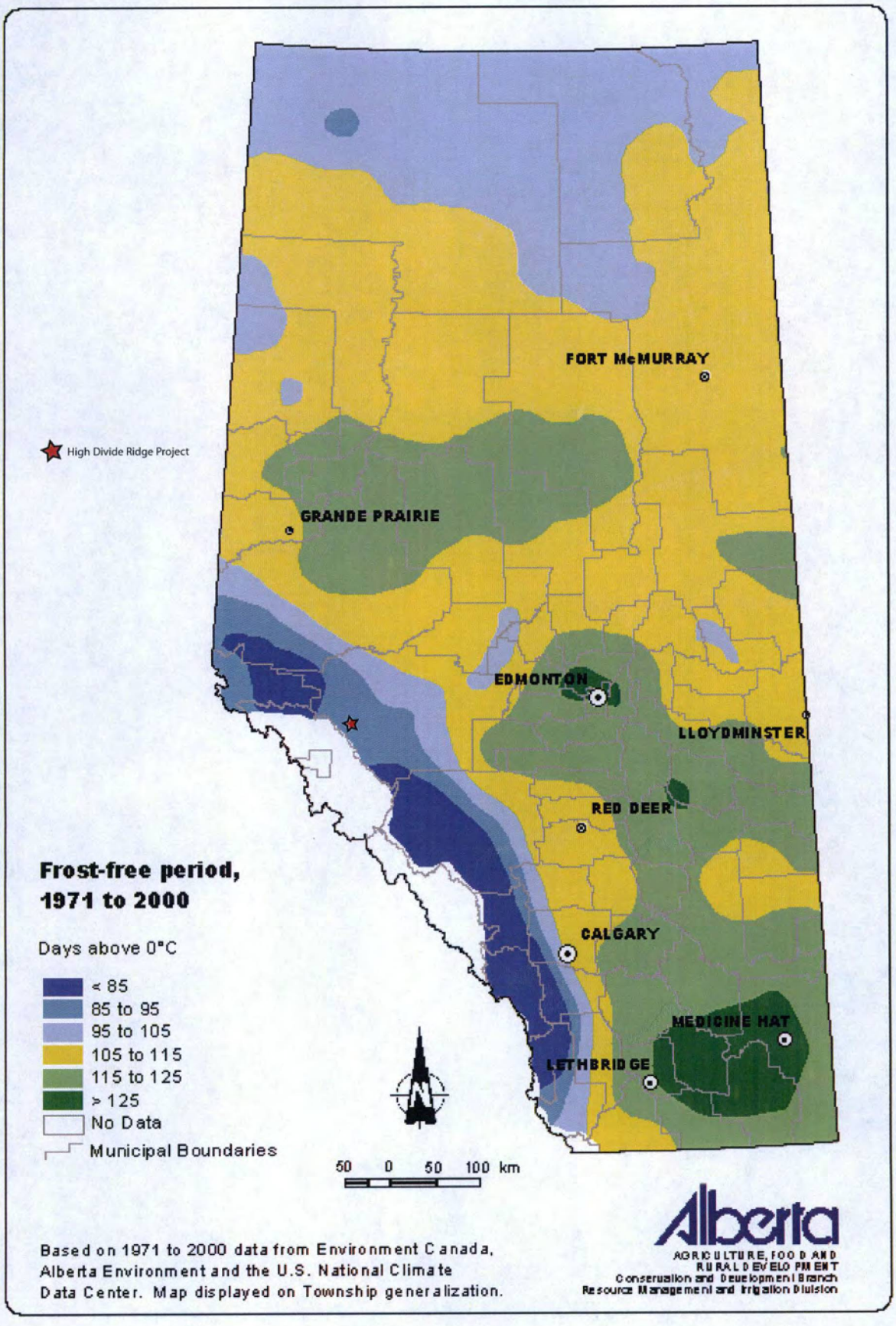
The High Divide Ridge Project is 17 km east of Hinton, within the west-central foothills region of Alberta (designated the Upper Foothills Natural Region, **Figure** 4). The area is considered to have cold, dry winters and warm summers. Environmental data suggests that the area is frost-free for 85-95 days during the year (days above 0^{o} C), and the annual total precipitation falls between 550 to 600mm (**Figures** 9 and 10). The average annual daily temperature in the area is around 8^{o} C. July daily mean temperatures run above 13^{o} C and January daily mean temperatures typically fall below -10^{o} C. Average annual snowfall in the area is roughly 175cm. The general climate within the region and local road access allow for year-round operations.

1.3 REGIONAL BEDROCK GEOLOGY

The High Divide Ridge Project is situated in the west-central foothills of Alberta, less than 40 km from Jasper National Park (**Figure** 11and 12). Cretaceous and Tertiary strata crop out at the surface within the Property boundary. Jurassic, Triassic, Mississippian and Devonian strata is preserved within the subsurface and have been mapped with reasonable accuracy from oil and gas exploration data (**Figure** 13). The Jurassic, Cretaceous and Tertiary strata are dominated by thick intervals of sandstone, siltstone and shale. Devonian, Mississippian and Triassic sequences are mainly comprised of carbonate (primarily limestone). Natural gas is produced from the Jurassic Nikanassin Formation and Cretaceous formations that include the Gladstone, Mountain Park, Cadomin and Cardium. For this report, the Cretaceous and Tertiary stratigraphic packages will be discussed at the regional scale. Stratigraphic units relevant to current exploration will be expanded upon in detail at the local scale (**Figure** 13).

Roughly, 4000 m of Jurassic, Cretaceous and Tertiary strata is preserved within the Hinton area. Data from geophysical well logs indicate the Cordilleran deformation edge is present just east of Hinton (**Figure** 14). Structural complexity in the region increases from east to west where the foothills pass into the front ranges of the Rocky Mountains (**Figure** 11). Several well-defined structural features have been mapped between Hinton and the Jasper National Park boundary. From east to west, the main structures include the Alberta Syncline, the Pedley Thrust, the Coalspur Triangle Zone, the Entrance Anticline, the Mercoal Thrust, the Brazeau Thrust and the Nikanassin Thrust (Langenberg and Skupinski, 1996). The Nikanassin Thrust marks the boundary with the Front Ranges. A report that evaluates the coal bed methane potential within the foothills region clearly identifies the stratigraphy, and main structural features present throughout the Hinton area (**Figures** 14 and 15, Langenberg et al. 2002).

The Lower Cretaceous Luscar Group is comprised of the Cadomin, Gladstone, Moosebar and Gates formations. The entire succession is roughly 600m thick and consists of siliciclastic



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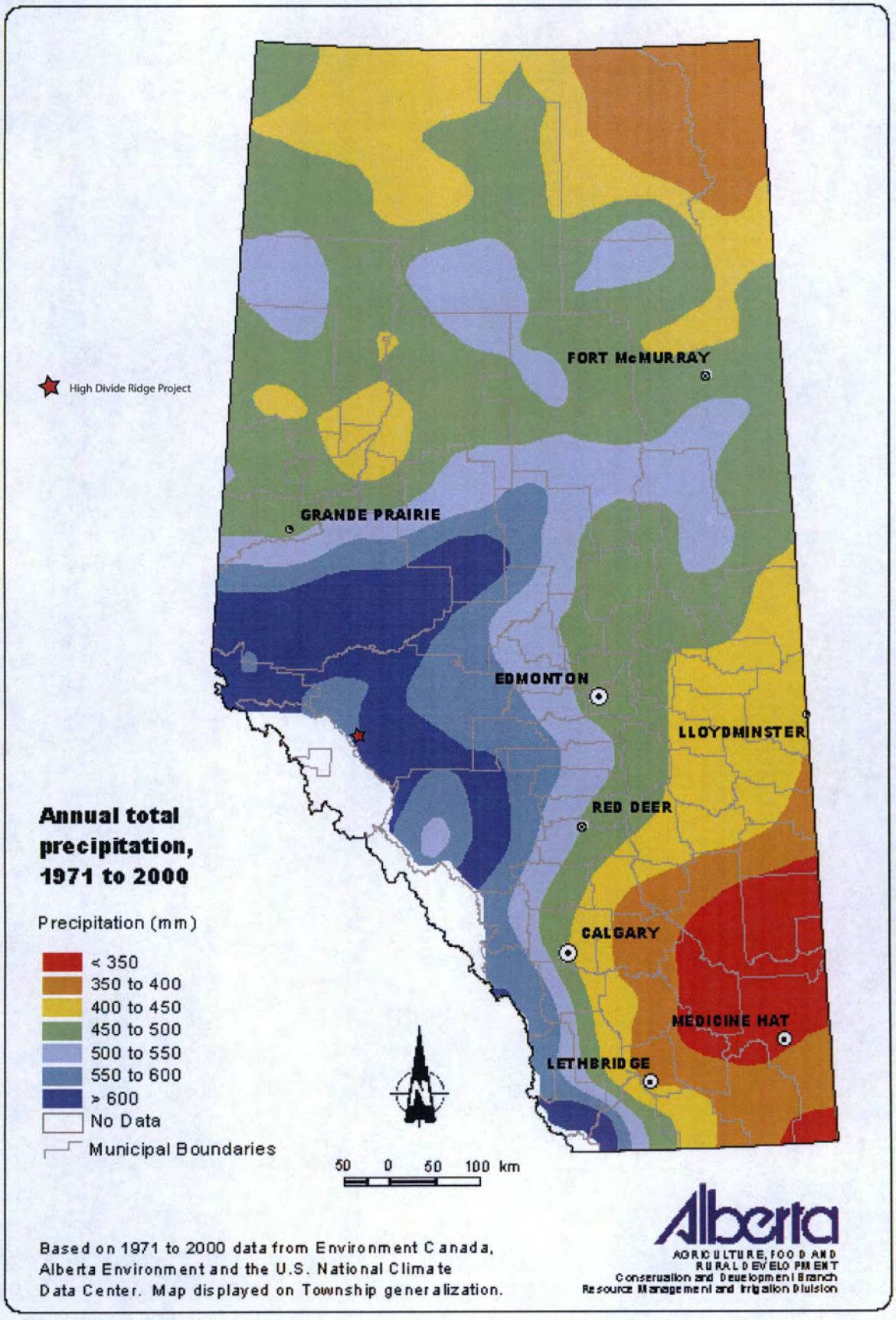
Title:		Source:	Date:
Frost-free Period 1971-2000		Government of Alberta	April 2013
Project:	Drawn By: / Checked By:	Coordinate System:	Figure:
High Divide Ridge	DKC / BH	NA	9



Athabasca MINERALS INC.

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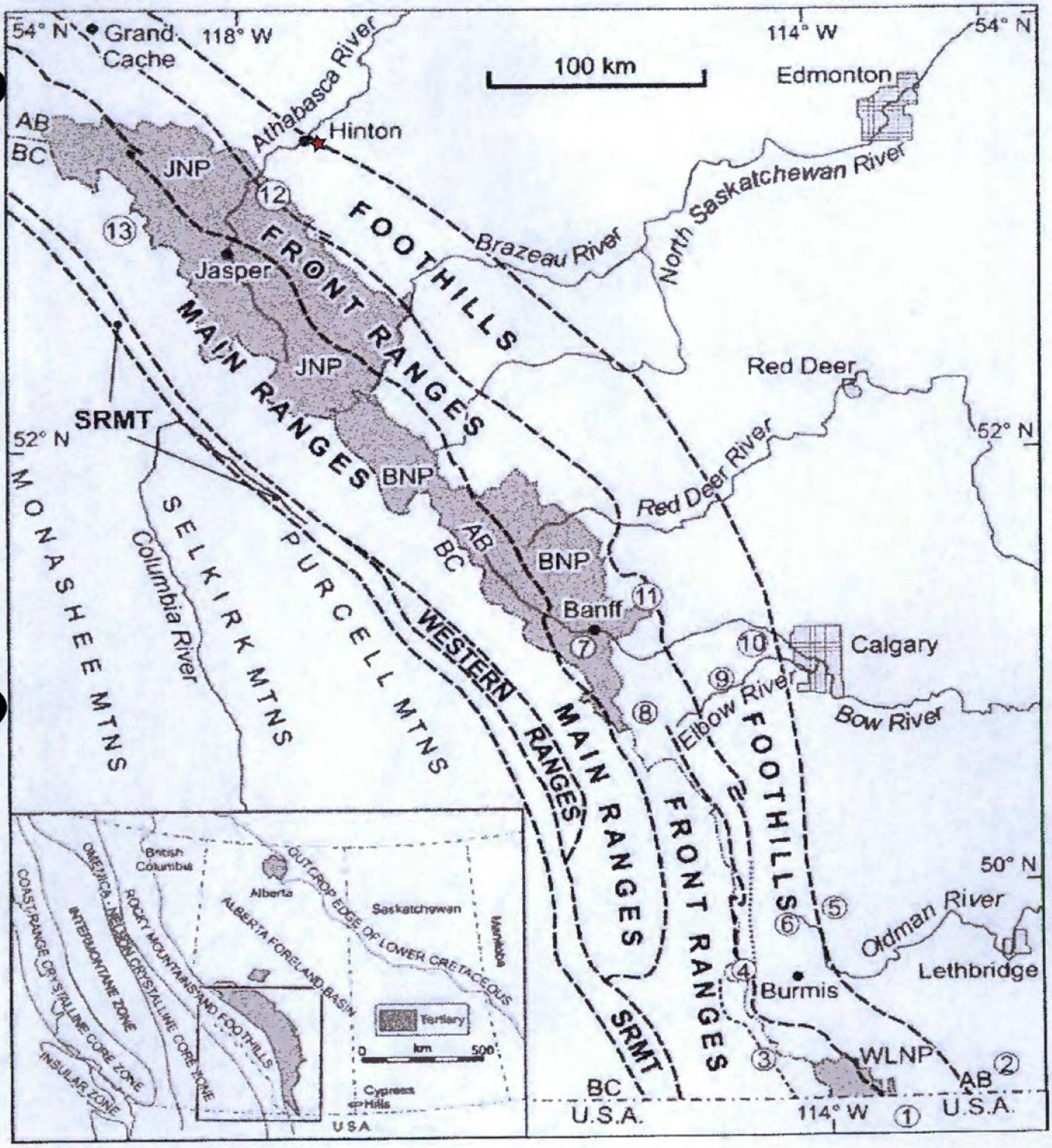
Title:		Source:	Date:
Annual Total Precipitation 1971-2000		Government of Alberta	April 2013
Project:	Drawn By: / Checked By:	Coordinate System:	Figure:
High Divide Ridge	DKC / BH	NA	10



High Divide Ridge Project

Athabasca MINERALS INC.

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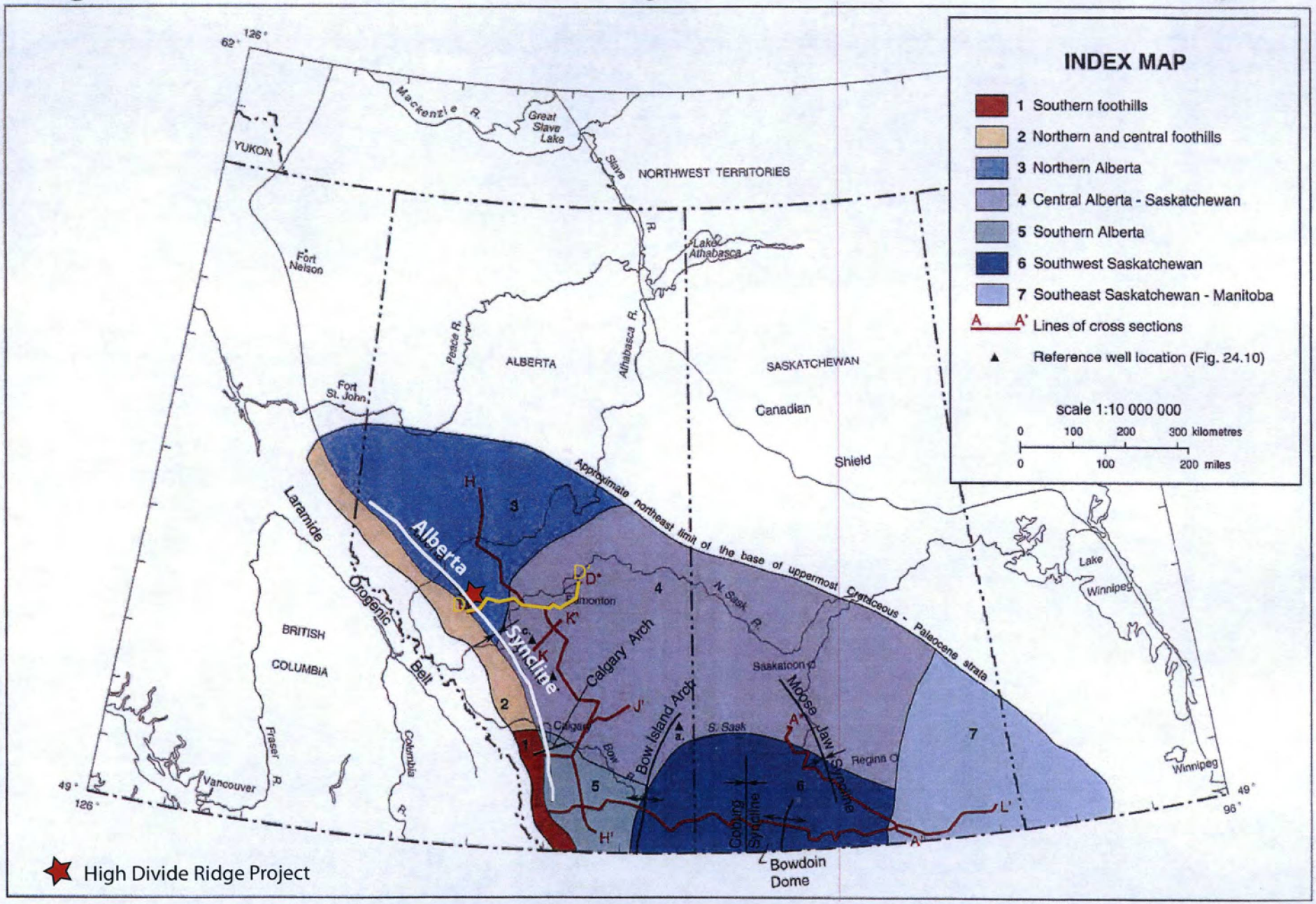
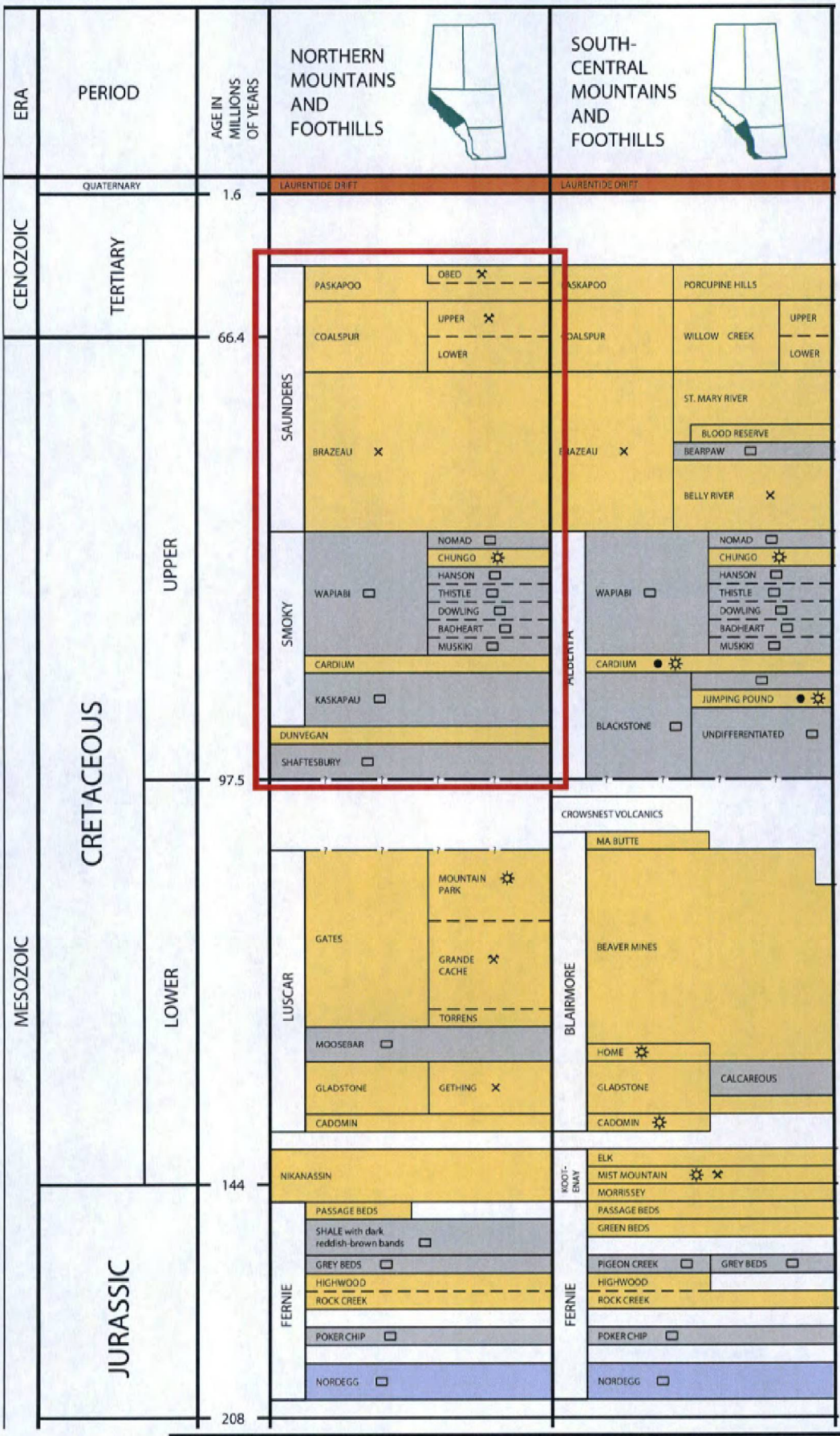
Title:			Source:	Date:
Cordilleran Structure Elements			Osborn et al., 2006	April 2013
Project:	Drawn By:	Checked By:	Coordinate System:	Figure:
High Divide Ridge	DKC	BH	NA	11



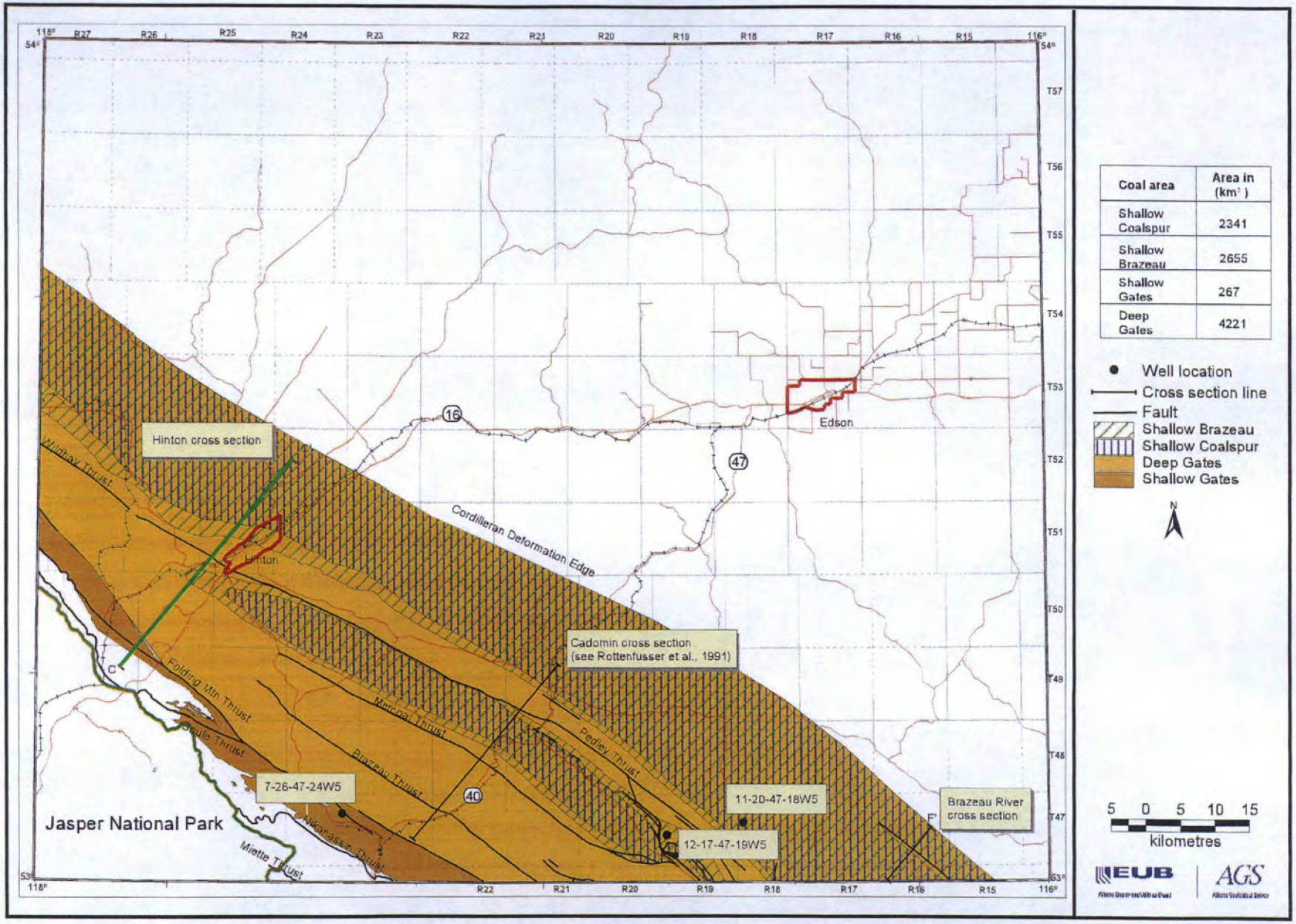
Title: Major Structural Features and Geographic Areas			Source: modified after WCSB Atlas 1995 (F24.2)	Date: April 2013
Project: High Divide Ridge	Drawn By: DKC	Checked By: BH	Coordinate System: NA	Figure: 12

Athabasca MINERALS INC.



Title: Stratigraphic Column Central Foothills			Source: modified after ERCB 2009 Table of Formations	Date: April 2013
Project: High Divide Ridge	Drawn By: DKC	Checked By: BH	Coordinate System: NA	Figure: 13

Athabasca MINERALS INC.



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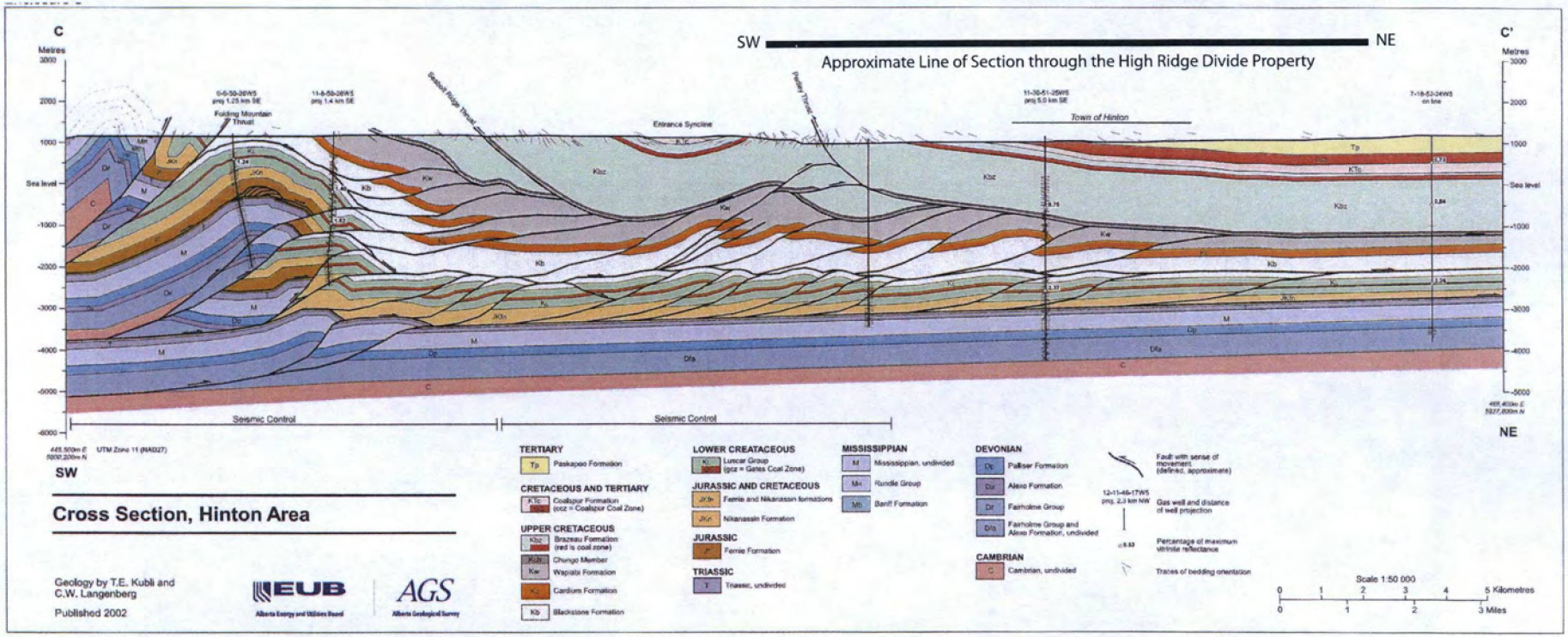
Title: Structural Elements and Extent of Coal Zones			Source: modified after EUB/AGS ESR 2002-05	Date: April 2013
Project: High Divide Ridge	Drawn By: DKC	Checked By: BH	Coordinate System: NA	Figure: 14



Athabasca MINERALS INC.

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Title: Structural Cross Section--Hinton Area			Source: modified after EUB/AGS ESR 2002-05	Date: April 2013
Project: High Divide Ridge	Drawn By: DKC	Checked By: BH	Coordinate System: NA	Figure: 15

intervals of sandstone, shale and minor conglomerate of both marine and non-marine origin (Langenberg and Skupinski, 1996).

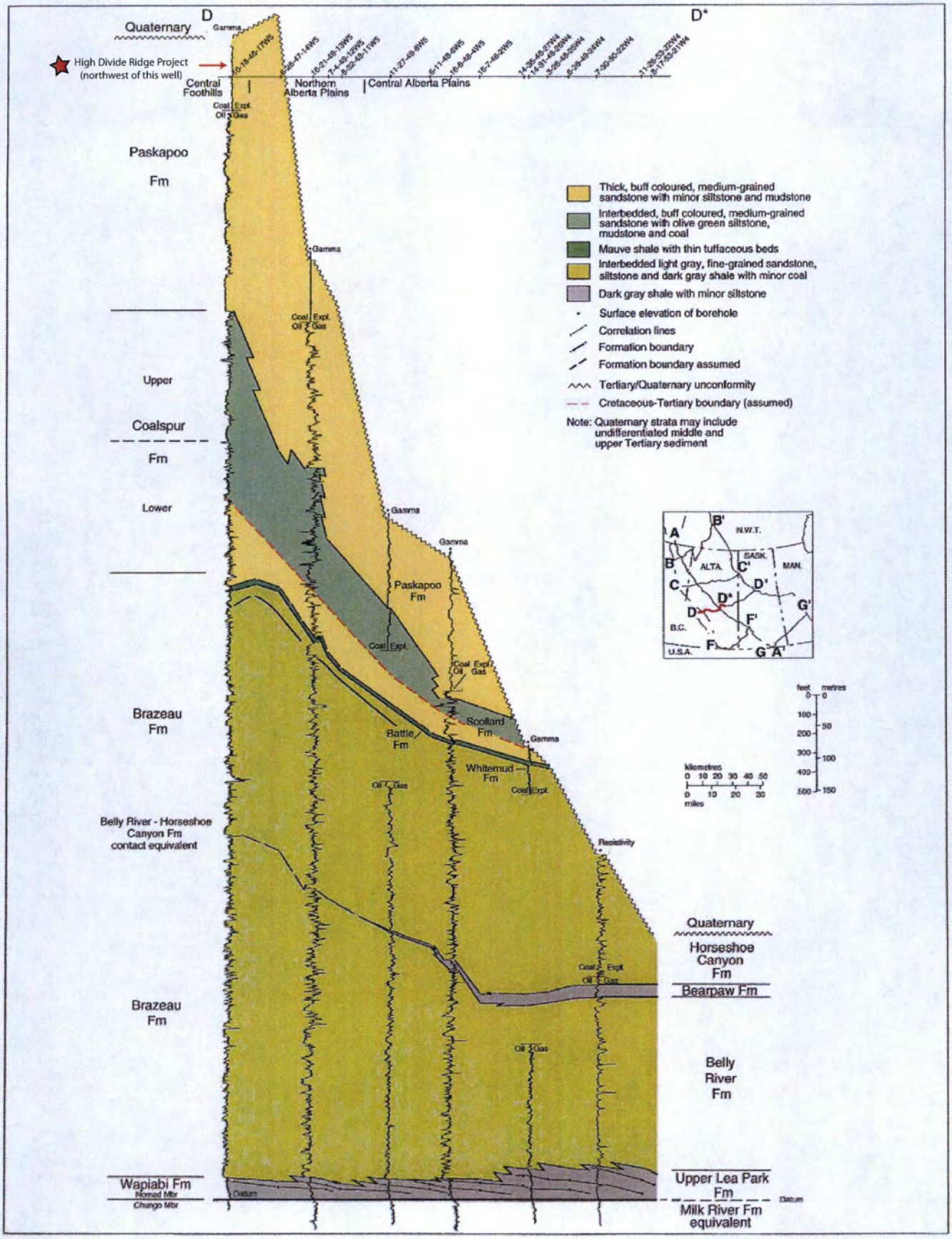
Upper Cretaceous strata has been divided into the Smoky and Saunders groups. The Smoky Group is subdivided into the Blackstone, Cardium, and Wapiabi formations (**Figure** 13). The Blackstone Formation consists of dark grey to black marine shale and siltstone with minor sandstone interbeds. The Cardium Formation is primarily made up of marine sandstones, siltstones and shales. Wells within the project area produce gas from sandstone units within the Cardium. The formation is roughly 80m thick and is a useful marker horizon within the Upper Cretaceous succession, both in outcrop and in the subsurface (Langenberg and Skupinski, 1996). The Wapiabi Formation is about 600m thick and has been divided into seven distinct members. The five lower members (designated Lower Wapiabi) are comprised of dark grey marine shales and siltstones. The upper two members (Upper Wapiabi) are comprised of fine grained sandstone and siltstone (Chungo Member) overlain by dark grey marine shale (Nomad Member). The Nomad Member passes vertically into greenish sandstones of the Brazeau Formation (Saunders Group).

The Saunders Group is made up of the Brazeau and Coalspur formations. The Brazeau Formation can be up to 1200 m thick and consists of sandstone and shale with minor interbedded coal. The Coalspur and Brazeau formations were deposited within a fluvial setting. Several conglomerate units are present near the base of the Brazeau Formation (Langenberg and Skupinski, 1996). The top of the Brazeau Formation is marked by an erosional contact with the overlying Entrance Conglomerate, a unit present at the base of the Coalspur Formation.

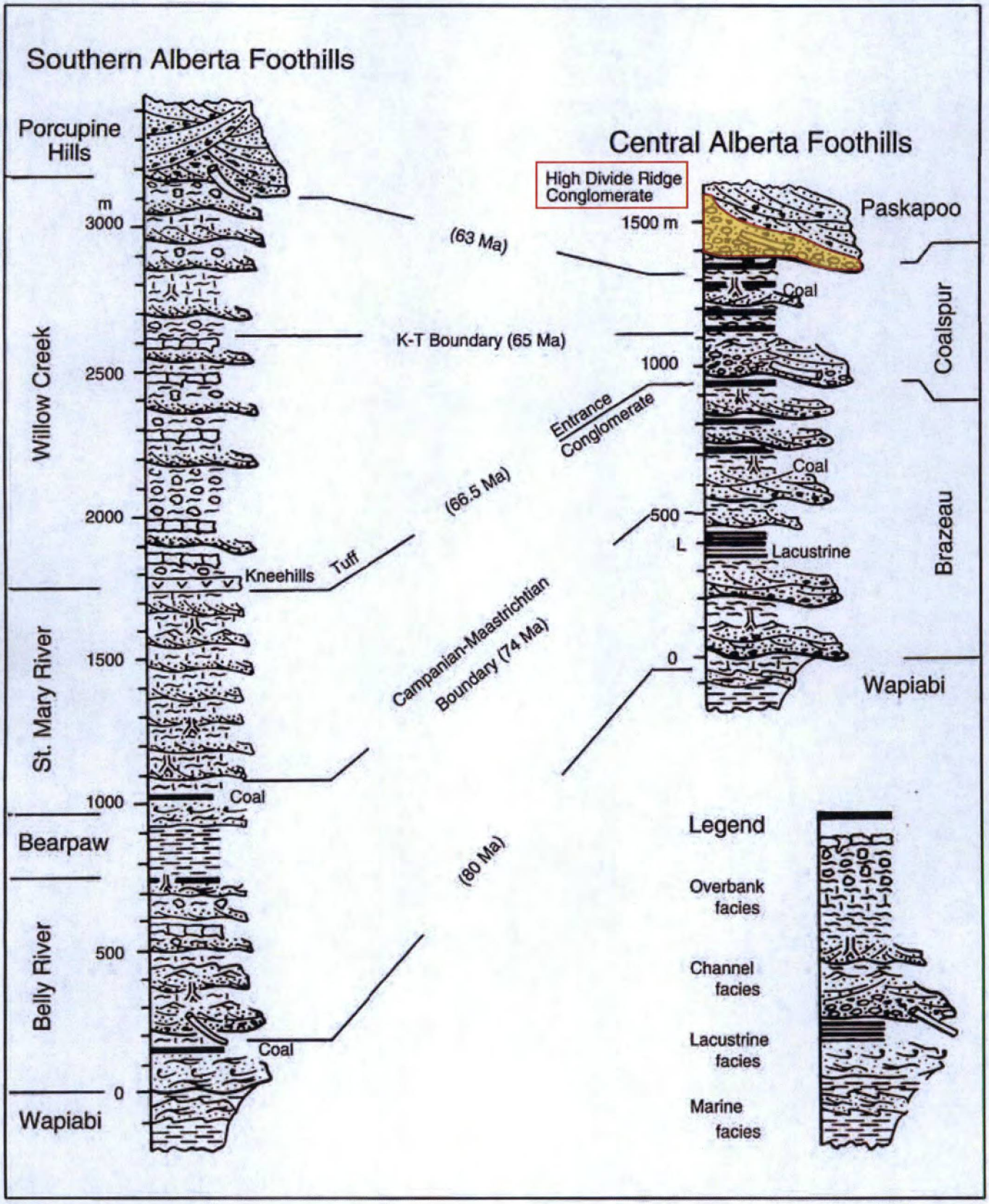
The Entrance Conglomerate is made up of well sorted and rounded pebbles averaging 5-8 cm in diameter (maximum clast size up to 20cm). At the type section, near Entrance, the conglomerate is 12 m thick. Distal from the type section the conglomerate gradually thins and eventually passes into sandstone. The Entrance Conglomerate is interpreted as an alluvial fan deposit.

The balance of Coalspur Formation is derived from continental sediment comprised of sandstone, mudstone and coal that is roughly 600 m thick. The coal seams are present in the Upper Coalspur and are interbedded with coaly shales and bentonite-rich layers (Langenberg and Skupinski, 1996). The coal-rich interval has been designated the Coalspur Coal Zone. The Coal Zone is bound at the base by the Mynheer coal seam and at the top by the Val d'Or coal. The nested coal seams can be traced in the subsurface between Hinton and Coal Valley to the southeast. The Cretaceous-Tertiary boundary is suggested to be at the base of the Mynheer coal seam (Jerzykiewicz and Sweet, 1986). The Val d'Or coal seam is the primary target for the Vista Coal Project currently under development, just south of the exploration area. The underlying McLeod and McPherson coal seams are also planned for extraction.

The overlying Paskapoo Formation contains up to 1500m of alluvial sandstones and mudstones. The formation is thickest in the central foothills and progressively thins to the east, into the northern and central plains (**Figures** 12 and 16). Near Hinton, the High Divide Ridge Conglomerate is interpreted to lie about 1000 m above the base of the Paskapoo Formation (Langenberg and Skupinski, 1996). Others place the conglomerate near the base of the Paskapoo succession (**Figure** 17). The conglomerate is loose to moderately cemented and is lithologically



Athabasca MINERALS INC.	N	Title: Stratigraphic Cross Section from the Central Foothills to the Central Plains (Upper Cretaceous-Tertiary)		Source: modified after WCSB Atlas 1995 F24.6)	Date: April 2013
		Project: High Divide Ridge	Drawn By: DKC / Checked By: BH	Coordinate System: NA	Figure: 16



Title: Correlative Stratigraphy-Central and Southern Foothills			Source: modified after WCSB Atlas 1995	Date: April 2013
Project: High Divide Ridge	Drawn By: DKC	Checked By: BH	Coordinate System: NA	Figure: 17

Athabasca MINERALS INC.

similar to the Entrance Conglomerate. One distinguishable exception is the clast size. Clasts within High Divide Ridge Conglomerate are larger, up to 40 cm (Langenberg and Skupinski, 1996).

The conglomerate is estimated to be up to 300 m thick. The shallow drill program conducted by Athabasca Minerals was not able to verify the estimated thickness within the exploration area. Significant post-Tertiary erosion may have removed most of the conglomerate from the area.

A thick succession of structurally deformed Jurassic, Cretaceous and Tertiary strata overlies relatively undisturbed Triassic, Mississippian and Devonian sedimentary successions within the west-central foothills of Alberta. Structural deformation and erosion have emplaced Cretaceous and Tertiary bedrock at or near the surface within the Hinton region. Within the permit zone, the dipping Paskapoo Formation and underlying Coalspur Formation form the shallow, eroded, western limb of the Alberta Syncline (Figure 15). The syncline is a broad, gently inclined (~7°) structure that extends from the foothills into the undeformed plains of central Alberta (**Figures** 14 and 15). Economic, near surface coal deposits are being exploited in the Hinton area, and natural gas is produced from deeper, structurally complex reservoirs within Cretaceous and Jurassic formations. The targeted High Divide Ridge Conglomerate is a mappable unit within the Tertiary aged Paskapoo Formation.

2.0 AGGREGATE

2.1 AGGREGATE USES

There are many industrial uses for raw and processed aggregate. Most aggregate is used for the manufacture of concrete and cement. The second largest use for aggregate is roadways (base, sub-base and asphalt). Aggregate is also used as low cost fill and railway ballast. Specialized aggregate is utilized for the manufacture of paint, plastics, medicine, glass and numerous other products.

The key market for aggregate will be road construction and maintenance at existing and developing resource-based ventures in the immediate area, particularly the Vista Coal Project.

2.2 PERMIT HOLDINGS

Athabasca Minerals Inc. holds Metallic and Industrial Mineral permits on over 500,000 hectares of land within the Province of Alberta. Most mineral permits are located in northeast Alberta. AMI recently acquired permits on two large tracts of land within the Hinton area of west-central Alberta. The High Divide Ridge permits are located next to the Town of Hinton, and the second, larger acquisition (nine contiguous permits) is situated 10km to the east (**Figure** 2). The High Divide Ridge permits were acquired in January of 2012 (Permits 9312010562, 9312012563, 9312012564 and 9312012565). The four permits total of 32,167 ha and are located within townships 50 and 51, ranges 23 and 24 West of the Fifth Meridian (**Figure** 3). Figure 3 highlights areas within the project that have government designated constraints (both withdrawn land and surface access restrictions). Exploration thus far has been confined to permit 9312012565 (adjacent to the Town of Hinton).

2.3 LOCAL GEOLOGY

The Project is located within the foothills belt of west-central Alberta (**Figure** 11), just west of the Cordilleran Deformation Edge (**Figures**14 and 15). The surface topography within the permit area consists of a series of densely forested ridges and valleys oriented northwest-southeast (**Figure** 3). The most prominent ridge is located in the southwest corner of the permit block. Other less prominent, discontinuous ridges are common throughout the area. Intervening valleys contain well developed drainage systems that empty into the Athabasca and McLeod rivers. The ridge and valley system forms the erosional surface expression of the Entrance and the Alberta synclines. These prevalent structures preserve formations of Cretaceous and Tertiary age.

Figure 15 outlines the stratigraphy that is exposed at the surface and at relatively shallow depths. The subsurface stratigraphy is also shown in detail on the regional cross section. Uppermost Cretaceous and Tertiary age formations crop out at the surface within the Property. Structurally, exposed bedrock units (Brazeau, Coalspur and Paskapoo formations) are present within the Entrance Syncline in the southwest and the larger, Alberta Syncline in the northeast. The Pedley Thrust separates the two syncline structures. At depth, older Cretaceous and Jurassic formations are deformed displaying increased structural complexity in the form of stacked, small-scale thrust blocks. Within the Hinton area, deeper formations of Triassic, Mississippian and Devonian age appear relatively undisturbed (**Figure** 15).

Within the subsurface, older Cretaceous formations produce gas from several structurally complex sandstone reservoirs. The Cretaceous Cardium and Mountain Park formations produce gas from a number of wells (**Figure** 5) within the current area of interest (T51R24W5). Other productive horizons include the Cretaceous Cadomin and Gates formations and the Jurassic Nikanassin Formation (**Figure** 13).

The shallow, coal-bearing Coalspur Formation (Upper Cretaceous/Tertiary) is being exploited within the Property. The Vista Coal Mine, owned by Coalspur Mines, is under development with first coal production estimated to begin in 2014.

The Coalspur Formation is a continentally derived succession that is roughly 600 m thick within the Hinton area and contains significant coal measures within the permit boundary. The coal deposits extend to the southeast, along a well-defined foothills trend. The upper portion of the Coalspur Formation contains four, distinct coal seams interbedded with sandstone and coaly mudstone. The lower portion is void of coal and is dominated by sandstone and mudstone. The Cretaceous/Tertiary Boundary has been placed at the base of the lowermost Mynheer coal seam (**Figure** 17, Jerzykiewicz and Sweet, 1986)). Locally, the base of the Coalspur Formation is defined by the Entrance Conglomerate (see Regional Geology for description).

Coal-bearing members within the Coalspur Formation include the Val d'Or, McLeod, McPherson and Silkstone members. The uppermost Val d'Or coal seam is the primary target averaging 15.4 m thick. From east to west, the four coal seams progressively crop out at the surface (youngest to oldest) near and within the proposed mine area. The Tertiary Paskapoo Formation unconformably overlies the Coalspur Formation and marks the first major sandstone interval above the Val d'Or coal seam (Langenberg and Skupinski, 1996).

Regionally, the Paskapoo Formation can be up to 1500 m thick and forms the central core of the western flank of the Alberta Syncline (**Figure** 15). The Paskapoo thins to a zero-edge along the southwest termination of the Alberta Anticline, near the Town of Hinton. Alluvial sandstone and mudstone intervals make up the dominant lithologies. The Paskapoo succession commonly consists of repetitive cycles of tabular sandstone beds exceeding 15m thick. Stacked cycles may exceed 60 m thick. The sand-dominated cycles are often overlain by interbedded siltstone and mudstone. The succession is typically barren of coal. Clastic deposition of the Paskapoo Formation buried preexisting coal swamps of the Coalspur Formation, forming an extensive, tapering, regional wedge of sandstone extending from the foothills into the plains (**Figure** 16). The Paskapoo Formation is stratigraphically equivalent to the Porcupine Hills Formation within the Southern Alberta Foothills (**Figure** 17).

The High Divide Ridge Conglomerate forms a prominent, resistive, ridge within the exposed Paskapoo succession. A discrepancy regarding the stratigraphic positioning of the conglomerate may exist in published literature. **Figure** 17 schematically places the High Divide Ridge Conglomerate near the base of the Paskapoo while others place the conglomerate roughly 1000 m above the base. Where fully preserved, the conglomerate is estimated to be as thick as 300 m.

Limited exploration conducted by Athabasca Minerals cannot confirm the stratigraphic position of the conglomerate nor the projected thickness. Fieldwork suggests the conglomerate is partially eroded within the Project area, and the bedrock unit is unlikely to be positioned 1000 m above the base of the Paskapoo Formation. Initial work places the conglomerate on a ridge about 300 m above the adjoining valley bottom to the south where the Val d'Or coal seam is present near the surface. The Val d'Or coal, within the underlying Coalspur Formation, is the primary target of the Vista Coal Project. If regional dip is similar for both formations, then the conglomerate is unlikely positioned 1000 m above the base of the Paskapoo. Surface elevation data indicates the top of the ridge to the adjacent valley bottom is no more than 300 m. This would suggest the conglomerate may be 300 m above the base of the Paskapoo Formation rather than 1000 m. In Project area the conglomerate crops out at the surface along the erosional, western flank of the Alberta Syncline. It is conceivable most of the conglomerate has been eroded and removed by post-Tertiary events (**Figure** 15). Tracing the conglomerate into the subsurface would help to delineate the stratigraphic position and thickness of the unit.

The High Divide Ridge Conglomerate is loose to moderately consolidated in outcrop and is lithologically similar to the Entrance Conglomerate that is present at the base of the underlying Coalspur Formation. The main difference between the two conglomerates is the overall clast size, which tends to be larger in the High Divide Ridge Conglomerate (clast sizes up to 40cm, Langenberg and Skupinski, 1996). Thick conglomerate is exposed in two SMLs operated by West Fraser Timber. The bedrock unit is comprised of a matrix to clast-supported conglomerate that is lithified with siliceous cement. Typically, the clasts range from 1 to 15 cm in diameter, are rounded and comprised of quartzite (dominant) and chert. The matrix consists of medium to coarse grained, lithic sandstone. Exposed conglomerate is often interbedded with sandstone lenses. The sandstone beds are typically less than 2 m thick and have a limited lateral extent.

The High Divide Ridge Conglomerate was likely deposited within an alluvial fan environment similar to the depositional setting of older Entrance Conglomerate. The overall thickness and lateral extent of conglomerate and sandstone within the interpreted fan complex are expected to vary significantly. The upper portion of the fan may contain thick, aerially confined conglomerate. The lower part of the alluvial fan might consist of thinner, laterally extensive conglomerate beds with common sandstone interbeds. With limited drill holes, it is difficult to interpret what part of the fan the intersected conglomerate resides, but the distal portion of an alluvial fan seems more likely.

2.4 PREVIOUS WORK

Previous exploration resulted in published reports and databases that contain important information useful to AMI's evaluation of the area. Most data sets are sourced from the oil and gas industry, government surveys, the coal-mining industry and limited mineral exploration programs.

Oil and gas exploration drilling dates back to the late seventies and continues to present day within the project area. Over 30 wells have been drilled in the region, and many produce gas from Cretaceous and Jurassic sandstone reservoirs. Numerous intersecting cutlines suggest significant seismic exploration within the Project boundary. Well logs and seismic surveys contribute critical data for use in stratigraphic correlation and to identify key geologic structures.

Regional coal-bed methane studies, sponsored by the Alberta Government, rely heavily on past petroleum exploration data. The studies provide new insights on the potential of producing methane from shallow and deep seated coal deposits within the foothills of Alberta (Langenberg et al. 2002). Such studies include detailed subsurface and surficial mapping, both of which are critical to understanding the geology of the area. Test hole data from developing (Coalspur's Vista Coal Project) and producing coal mines along the foothills trend are also valued geological information.

In the mid- to late-nineties exploration for diamondiferous kimberlite pipes was active throughout the Province. The discovery of the kimberlite pipes in the Peace River, Buffalo Head Hills and the Birch Mountains regions of Alberta, fueled expanding exploration programs within Alberta. Cameco Corporation conducted an extensive exploration program in the Hinton area from 1992 to 1994 (Alberta Diamond Project, 1995). Langenberg and Skupinski (1996) completed a diamond indicator study that complimented diamond exploration activities directed by Cameco. Surficial geological mapping completed by both studies will be critical to Athabasca Minerals future expansion of work within the area.

The first phase of exploration, conducted by AMI, focused on a small region surrounding active SML pits. High Divide Ridge Conglomerate exposed within the pits and near-by outcrops served as the initial starting point for assessment of the Project area. Future exploration will expand outwards from the pits within the northwest permit and eventually into the remaining three townships that make up the High Ridge Divide Project. As exploration expands a full review of previous work will be crucial.

3.0 FIELD PROGRAM

3.1 INTRODUCTION

High Divide Ridge mineral permits were acquired in January of 2012 (**Figure** 3). Exploration thus far has been focused in Township 51, Range 24W5. The area has excellent road access constructed by ongoing logging projects and active gas exploration. A series of cross cutting trails and seismic lines commonly intersect the main roadways. The road network leads to two active SMLs that have processed aggregate from exposed conglomerate bedrock. Activities conducted by Athabasca Minerals thus far include site visits to the Property, bedrock sample collection and a shallow drill program consisting of six test holes.

3.2 DATA CONTROL

Data control in the area consists of 31 gas exploration wells, coal exploration holes and exposed bedrock (**Figure** 5). Although the gas exploration wells accurately define the deeper seated stratigraphy, the wells are of limited use for near surface bedrock delineation because most wells have surface casing set over the near-surface stratigraphy. Well logs have not been studied in detail, but subsurface analysis is scheduled for next year.

Coal test holes are confined to the Vista Coal Mine Project. The mine site is located just south of the east-west trending ridge where the High Divide Ridge Conglomerate is best exposed. The series of shallow test holes intersect coal bearing units within the Coalspur Formation. The coal seams are situated at elevations much lower than the targeted conglomerate so the test hole data is of limited use at this time.

Existing gas wells and coal data are not relevant to the current working area, but the subsurface data will become increasingly important as exploration expands to three remaining permits (**Figure** 3). The data may provide insight into discovering additional, unmapped, near surface conglomerate exposures.

Bedrock exposures, at this stage of appraisal, are critical to evaluating and delineating the conglomerate. Conglomeratic bedrock units within the High Divide Ridge crop out at a number of locations near the active Surface Mineral Leases (**Figure** 8). The best exposures occur within the two SMLs, which in the recent past, have processed the conglomerate into high quality aggregate for use on existing logging and gas well roads. Other conglomerate exposures exist along local roadways, trails and seismic lines; however, the outcrops display limited vertical thickness and lateral extent. To date exposed conglomerate bedrock outside of the SML pits have not been adequately documented and mapped. These exposures will be identified, described and evaluated during the next phase of exploration that will expand outwards from the active pits and immediate surrounding area.

3.3 AERIAL RECONNAISSANCE

Digital elevation data and satellite images were utilized to review the surface topographic features, the drainage network and to identify access to the area (**Figures** 5 and 6). The surface

elevation data reveals a series west-northwest trending ridges and valleys. Ridge topography is variable, and individual ridges are commonly laterally discontinuous. The topography of the ridges and valleys suggest differential erosion of siliciclastic Cretaceous and Tertiary formations that crop out at the surface throughout the High Divide Ridge Project area.

The series of ridges and valleys highlight the interbedded complexity of the Cretaceous and Tertiary stratigraphy, particularly the coal bearing Coalspur Formation (**Figure** 5). Cemented sandstone and conglomerate, rich in quartzite and chert, are more resistant to erosion than shale, mudstone and coal. The resistive sandstone and conglomerate units are more likely to form the series of oriented ridges, and the less resistive units (mudstone and coal) are likely to crop out within the intervening valleys.

The ridge and valley network highlights the surface expression of Cretaceous and Tertiary strata preserved within the Entrance Syncline and the Alberta Syncline (**Figure** 15). The structural cross section shows the two synclines separated by the Pedley Fault. In the southwest, the smaller Entrance Syncline preserves the lower portion of the Coalspur Formation along the central axis of the structure (**Figure** 13). In the northeast, the cross section shows the broad, western flank Alberta Syncline. Eroded stratigraphic units within the Brazeau, Coalspur and Paskapoo formations, exposed at the surface, gently dip into the subsurface to the east.

The mature drainage network, emanating from the ridges and coalescing in the valleys, will be studied as exploration expands in the area. Stream and river erosional cuts are likely to expose bedrock sections that are otherwise covered by vegetation and recent Quaternary sediment. A small creek, within the exploration area, does reveal the High Divide Ridge Conglomerate. The outcrop consists of interbedded conglomerate and sandstone. Bedrock sections along existing rivers, streams, and roads will assist in mapping the conglomerate and will aid in selecting future drill locations.

3.4 GROUND INVESTIGATION AND DRILLING

After acquiring the mineral permits, company staff visited the two active SML pits (**Figure** 8) to review excavated sections of the conglomerate and prospect the forestry roads for further exposures. Photographs were taken of both pits, and conglomerate samples were collected from outcrops near the SMLs (**Figures** 18A, 18B and 19). The two existing pits combined with other bedrock exposures in the area suggested the potential for significant volumes of conglomerate bedrock that could be converted into high-quality aggregate.

In the fall of 2012, an exploration program was completed that involved drilling several shallow test holes near the two existing SMLs. For the initial program a local drilling company was contracted for two days in October of 2012. Rocky Mountain Drilling was selected based on their drilling experience in the Hinton area. The contractor has been involved in several long term drill programs for various coal mining operations. The company uses a hammer drill (**Figure** 20) that can penetrate significant thicknesses lithified sedimentary rock with relative

Figure 18A: Clast- to matrix-supported High Divide Ridge Conglomerate (photo from the SML 800048).

Figure 18B: High Divide Ridge Conglomerate showing matrix-supported conglomerate with intervening, discontinuous sandstone lenses.

Figure 19: Photos of matrix- and clast-supported conglomerates (High Ridge Divide Project, SML (800048).

Figure 19: Photos of matrix- and clast-supported conglomerates (High Ridge Divide Project, SML (800048).

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N

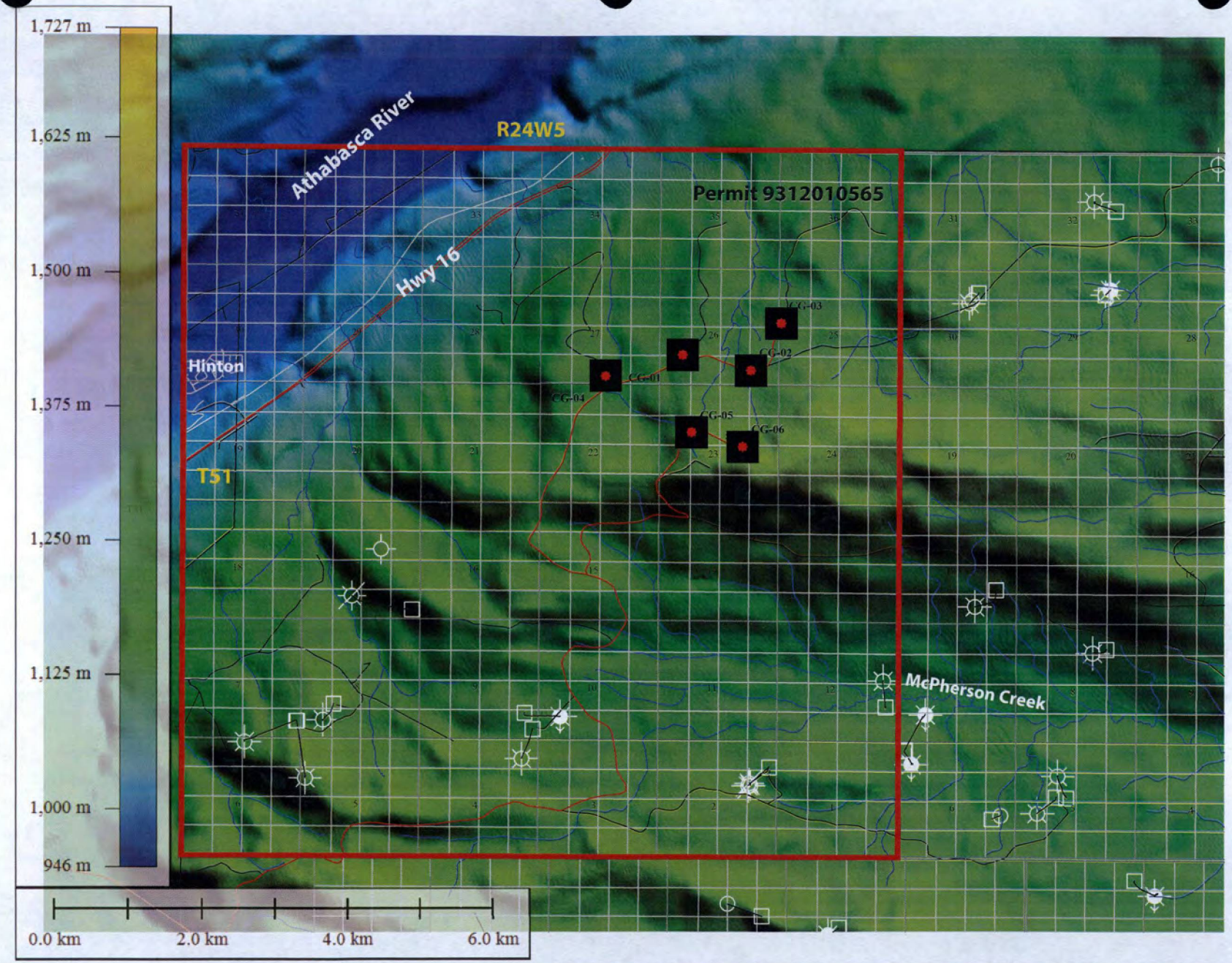
Title: Hammer Drill			Source: ABM	Date: April 2013
Project: High Divide Ridge	Drawn By: DKC	Checked By: BH	Coordinate System: NA	Figure: 20

ease and efficiency. Drill cuttings are carried to surface by a high-powered air compressor. The drawback to using the hammer drill is that representative samples are not readily available as the rock is pulverized by the hammer mechanism and then transported to surface as small chips and dust. For accurate depth tracking and lithologies encountered Athabasca Mineral staff had to rely heavily on the drilling companies experience in the area.

Six shallow holes (CG-01 to CG-06) were drilled near the two existing Surface Material Leases (**Figure** 21 and **Appendix** 2). A total length of 81.5 m was drilled into Tertiary bedrock of the Paskapoo Formation. Hole depths averaged 13.5 m, and all holes were terminated within a mudstone that could not be penetrated by the hammer drill. Test holes CG-01 and CG-02 were drilled near SML 990048. Holes CG-05 and CG-06 were completed close to SML 800048, which is roughly 1.4 km south of SML 990048. The two drill locations are about 100 m higher in elevation than CG-01 and CG-02 (**Figure** 8). All four holes intersected High Divide Ridge Conglomerate of varying thickness and quality (**Figure** 22). Drill hole CG-05 was positioned about 500 m northeast of CG-02 and intersected thick conglomerate capped by sandstone. CG-04 was drilled southwest of CG-01 to test the lateral extent of the conglomerate west of SML 990048. The test hole intersected sandy clay interpreted as a glacial till. Conglomerate was not penetrated in CG-01.

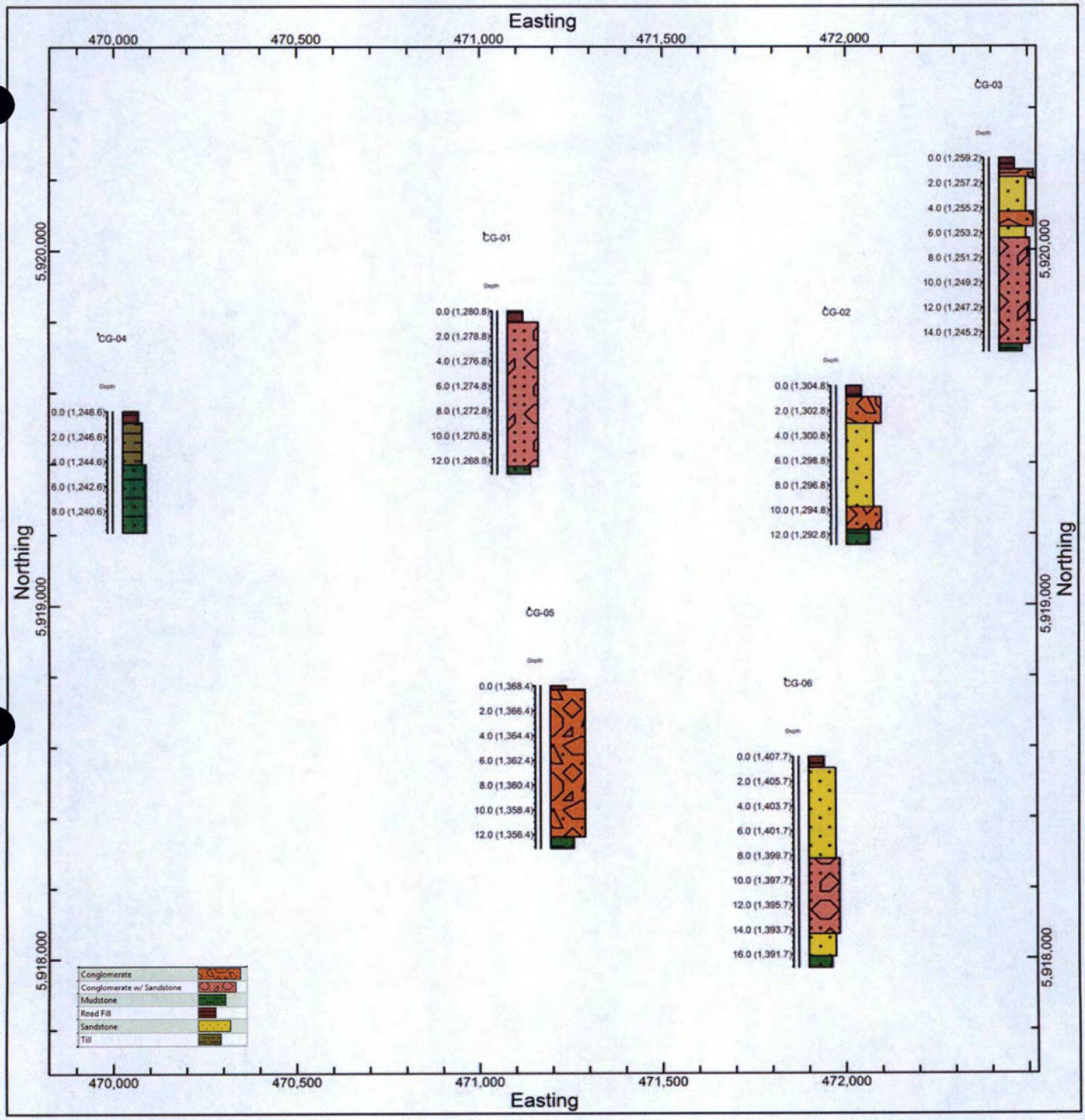
Drill hole CG-05 intersected the thickest, continuous conglomerate at nearly 12 m. CG-01 also penetrated a thick conglomeratic interval (11.6 m), but the drillers interpreted the section to contain several sandstone interbeds (**Figure** 22). CG-03 and CG-06 also drilled through relatively thick sections of interbedded conglomerate and sandstone (8.5 m and 6.1 m). Both holes intersected sandstone above the conglomeratic units. CG-02 penetrated two thin conglomerate beds separated by thick sandstone. As mentioned previously, the drilling results are based on experienced drillers that are familiar with lithologies encountered in the area. Drilling results suggest that conglomerate thicknesses penetrated are comparable with the thickness and lithologic composition of exposed conglomerate in both Surface Mineral Leases.

Based on test hole spacing and conglomerate thicknesses intersected it is likely that a considerable source of potential aggregate is present within the exploration area. In addition, the two Surface Mineral Leases and local bedrock exposures substantiate the quality and prospective quantity of exploitable conglomerate.



Athabasca MINERALS INC.

Title:		Source:	Date:
Drill Hole Locations		NA	April 2013
Project:	Drawn By: / Checked By:	Coordinate System:	Figure:
High Divide Ridge	DKC / BH	DLS	21



0 500

Scale (m)

N

Athabasca MINERALS INC.

Title: Drill Hole Lithology Logs			Source: Rockworks 15	Date: April 2013
Project: High Divide Ridge	Drawn By: DKC	Checked By: BH	Coordinate System: UTM N83	Figure: 22

4.0 CONCLUSIONS AND RECOMMENDATIONS

4.1 CONCLUSIONS

- The High Divide Ridge Project is located near the Town of Hinton, within the west-central foothills of Alberta. The High Divide Ridge Conglomerate is exposed at the surface and is structurally positioned at the erosional, western flank of the Alberta Syncline.
- The conglomerate is a mappable unit within the Paskapoo Formation. The conglomerate thickness and stratigraphic position within the Paskapoo is not well understood.
- Conglomerate, from two existing Surface Mineral Leases, has been processed into road aggregate for local use within the Project area. Based on exposed conglomerate within the SMLs and surrounding area, Athabasca Minerals conducted a limited drill program to confirm the thickness and lateral extent of the rock unit in the shallow subsurface.
- Six holes were drilled utilizing a hammer drill from a local contractor (CG-01 to GC-06). The average depth hole was 13.5 m.
- Five of six test holes intersected High Divide Ridge Conglomerate. The holes penetrated variably thick conglomerate, and conglomerate interbedded with sandstone. The thickest, continuous conglomerate interval was 11.90 m (CG-05). Two holes (CG-03 and CG-01) intersected conglomerate and sandstone intervals 8.5 m and 11.6 m thick. The six exploration holes suggest the conglomerate is variable in vertical thickness and lateral extent. These results are expected in tectonically active, coarse grained alluvial settings.
- Exposed High Divide Ridge bedrock combined with AMI's drill results indicates the potential for significant volumes of high-grade conglomerate within the area.

4.2 RECOMMENDATIONS

- Additional surficial work will establish a better understanding of the deposit and likely extend the lateral extent of the conglomerate. This work will also aid in selecting new drill locations for the next phase of exploration.
- A second drilling program should extend beyond the depth limits of the initial testing. Drilling should be extended to a depth of 25 m in most holes and up to 50 m deep within a few holes. The second test program should infill areas within the existing drilled area and a set of holes should be drilled outside the boundaries of the initial program to test the deposits maximum lateral extent. A regular drill grid should be established so an effective mine plan can be developed for extracting both the conglomerate and sandstone.
- The resulting drill data from both drill programs should be combined with surficial bedrock mapping to generate a more definitive map of the High Divide Ridge succession. At that point, accurate volumes can be calculated, and extraction methods can be confirmed.

- Geophysical well logs should be reviewed and correlated to establish a maximum conglomerate thickness within a non-eroded setting and confirm the stratigraphic position of the High Divide Ridge Conglomerate within the Paskapoo Formation.

5.0 REFERENCES

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Appendix 1-Metallic and Industrial Mineral Permits

Agreement Number: 093 9312010562

Status: ACTIVE
Term Date: 2012/01/12
Agreement Area: 8479.0000
Continuation Date:

DESIGNATED REPRESENTATIVE

Client Id: 8082863
Client Name: ATHABASCA MINERALS INC.
Address: 9524 27 AVE NW
EDMONTON, AB
CANADA T6N 1B2

LAND / ZONE DESCRIPTION

5-23-050: 01-2;03L9,L10SE,L10SW,L11-L13,L14SWL14NW,L14NE,L16,SE,SWL10NWP PORTION(S)
MCLEOD RIVER PROVINCIAL RECREATION AREA.

5-23-050: 03L10NEP
PORTION(S) LYING OUTSIDE MCLEOD RIVER PROVINCIAL RECREATION AREA.

5-23-050: 03L14SEP
PORTION(S) LYING OUTSIDE MCLEOD RIVER PROVINCIAL RECREATION AREA.

5-23-050: 03L15SEP
PORTION(S) LYING OUTSIDE MCLEOD RIVER PROVINCIAL RECREATION AREA.

5-23-050: 03L15SWP
PORTION(S) LYING OUTSIDE MCLEOD RIVER PROVINCIAL RECREATION AREA.

MINERAL AGREEMENT DETAIL REPOR

Report Date: December 20, 2012 9:22:53 PM

Agreement Number: 093 9312010563

Status: ACTIVE
Term Date: 2012/01/12
Agreement Area: 9216.0000
Continuation Date:

DESIGNATED REPRESENTATIVE

Client Id: 8082863
Client Name: ATHABASCA MINERALS INC.
Address: 9524 27 AVE NW
EDMONTON, AB
CANADA T6N 1B2

LAND / ZONE DESCRIPTION

5-24-050: 01-36

METALLIC AND INDUSTRIAL MINERALS

MINERAL AGREEMENT DETAIL REPORT

Report Date: December 20, 2012 9:22:16 PM

Agreement Number: 093 9312010564
Status: ACTIVE
Term Date: 2012/01/12
Agreement Area: 5344.0000
Continuation Date:

DESIGNATED REPRESENTATIVE

Client Id: 8082863
Client Name: ATHABASCA MINERALS INC.
Address: 9524 27 AVE NW
EDMONTON, AB
CANADA T6N 1B2

LAND / ZONE DESCRIPTION

5-23-051: 06SW,NW;07SW,NW;13L13-L16;14L13-L16;15L13-L16;16L13-L16;17L13-L16;18L15- L16,S

METALLIC AND INDUSTRIAL MINERALS

MINERAL AGREEMENT DETAIL REPORT

Report Date: December 20, 2012 9:20:58 PM

Agreement Number: 093 9312010565
Status: ACTIVE
Term Date: 2012/01/12
Agreement Area: 9128.0000
Continuation Date:

DESIGNATED REPRESENTATIVE

Client Id: 8082863
Client Name: ATHABASCA MINERALS INC.
Address: 9524 27 AVE NW
EDMONTON, AB
CANADA T6N 1B2

LAND / ZONE DESCRIPTION

5-24-051: 01-5;06L11-L12,L13SE,L13SW,L13NE,L14SE,SW,NE;07L3,L4SE,L4NW,L4NE,L5-L6SE,NW,
08-16;17L11SE,L11NE,L12SW,L12NW,L13-L14SE,SW,NE;18-22;
23L1-L5,L6SWSE,L6SWSW,L6NWNW,L6NWNEL6NENW,L6NENE,L7SE,L7NW,L7NEL8,N
24-32;33SEP
PORTION(S) LYING OUTSIDE PEDLEY PROPOSED FOREST RECREATION AREA.

5-24-051: 33SWP
PORTION(S) LYING OUTSIDE PEDLEY PROPOSED FOREST RECREATION AREA.

5-24-051: 33NEP
PORTION(S) LYING OUTSIDE PEDLEY PROPOSED FOREST RECREATION AREA.

5-24-051: 33NW;34-36

MINERAL AGREEMENT DETAIL REPORT

Report Date: December 20, 2012 9:21:38 PM

Appendix 2-Drill Hole Lithology Logs

CG-01		
11 U 471014 5920050		Elevation = 1278 m DEM Elevation = 1280.8 m
Feet	**Meters**	
0 – 3 ft	0 - 0.91 m	Road fill
3 – 41 ft	091 - 12.50 m	Conglomerate with lenses of light brown sandstone
41 - 43	12.50 - 13.11 m	Mudstone and drill refusal
CG-02		
11 U 471946 5919838		Elevation = 1305 m DEM Elevation = 1304.8 m
0 – 3 ft	0 - 0.91 m	Road fill
3 – 10 ft	0.91 - 3.05 m	Conglomerate
10 – 32 ft	3.05 - 9.75 m	Light brown Sandstone
32 – 38 ft	9.75 - 11.58 m	Conglomerate
38 – 42 ft	11.58 - 12.80 m	Mudstone and drill refusal
CG-03		
11 U 472365 5920478		Elevation = 1261 m DEM Elevation = 1259.2 m
0 – 3 ft	0 - 0.91 m	Road fill
3 – 5 ft	0.91 - 1.52 m	Conglomerate
5 – 14 ft	1.52 - 4.27 m	Light brown Sandstone
14 – 18 ft	4.27 - 5.49 m	Conglomerate
18 – 21 ft	5.49 - 6.40 m	Fine light grey to light brown Sandstone
21 – 49 ft	6.4 - 14.94 m	Conglomerate with abundance of light brown sandstone lenses
49 – 51 ft	14.94 - 15.54 m	Mudstone and drill refusal
CG-04		
11 U 469960 5919769		Elevation = 1247 m DEM Elevation = 1248.6
0 – 3 ft	0 - 0.91 m	Road fill
3 – 14 ft	0.91 - 4.27 m	Glacial till – mixture of sandy - clay
14 – 32 ft	4.27 - 9.75 m	Mudstone and drill refusal
CG-05		
11 U 471136 5918993		Elevation = 1372 m DEM Elevation = 1368.4 m
0 – 1 ft	0 - 0.30 m	Road fill
1 – 40 ft	0.30 - 12.19 m	Conglomerate with minor sandstone lenses (highest amount of rock content in all test holes)
40 – 43 ft	12.19 - 13.11 m	Mudstone and drill refusal
CG-06		
11 U 471835 5918792		Elevation = 1401 m DEM Elevation = 1407.7 m
0 – 3 ft	0 - 0.91 m	Road fill
3 – 27 ft	0.91 - 8.23 m	Light brown sandstone with minor lenses of light grey sandstone throughout
27 – 47 ft	8.23 - 14.33 m	Conglomerate with abundant lenses of light brown sandstone
47 – 53 ft	14.33 - 16.15 m	Light grey sandstone
53 – 56 ft	16.15 - 17.07 m	Mudstone and drill refusal

*** Elevations are recorded from GPS value at waste height ***