TECHNICAL REPORT FOR THE BORDER COAL PROPERTY RESOURCE ESTIMATION

Prepared for
Goldsource Mines Inc.

Authors:
Robert J. Morris, P. Geo.
Robert F. Engler, P. Geol.
N. Eric Fier, CPG, P. Eng.

December 24, 2009

Moose Mountain Technical Services

eba

TABLE OF CONTENTS

PAGE

TABLE OF CONTENTS

PAGE

TABLES

FIGURES

PHOTOS

SUMMARY

1.1 EXECUTIVE SUMMARY

Moose Mountain Technical Services (MMTS) of Elkford, BC and EBA Engineering Consultants Ltd. (EBA) of Vancouver, BC, were retained by Goldsource Mines Inc. (Goldsource) to prepare an independent Technical Report on the Border Coal property (Border) in east central Saskatchewan. The purpose of this report is to provide in initial thermal coal resource estimate in compliance with the Canadian National Instrument 43-101 (NI 43-101) and to establish the coal ranking and the general characteristics of the coal according to ASTM Standards and the Geological Survey of Canada Paper 88-21. The effective date of this report is December 24, 2009.

Three phases of core drilling since the deposits' discovery in 2008 have been carried out at Border to establish an initial estimated coal resource. The coal resource estimation is based on 119 diamond drill holes totalling 17,361 m of core drilling. Overall, the estimated coal resources at Border consist of 63.5 million Indicated tonnes plus 89.6 million Inferred tonnes, and 18.7 million Speculative tonnes of sub-bituminous coal (Table 1). The 'Geology Type" is considered "Moderate" and the "Deposit Type" (potential extraction method) is Surface Mineable as defined in Geological Survey of Canada (GSC) Paper 88-21.

TABLE 1: SUMMARY OF BORDER COAL RESOURCES

Resource Category	In Situ (kTonnes)
Indicated	63,500
Inferred	89,600
Speculative	18,700

In MMTS's opinion the classification of the coal resource as stated is appropriate and conforms to the definitions of NI 43-101 and GSC Paper 88-21: A Standardized Coal Resource/Reserve Reporting System for Canada (Hughes et at., 1989).

The Inferred and Speculative resources are limited only by the current lack of drill hole data within an already defined geophysical anomaly. Further drilling is planned that may convert the majority, if not all, of the Inferred and Speculative tonnes into the Indicated Resource category.

The coal has been ranked according to ASTM Standards as sub-bituminous A to C. Proximate analysis of the coal indicates that it has the following general characteristics;

TABLE 1A: PROXIMATE ANALYSIS SUMMARY				
All Deposits	Moisture Content (ar)	Ash Content (ar)	Sulphur Content (ar)	Heating Value kj/kg
Weighted Average	27.33%	18.61%	2.16%	15,409

The coal is similar in quality to many of the coals currently being mined in Western Canada and is of higher rank than coals currently being mined in Saskatchewan.

MMTS views the Border coal deposits to be an important potential energy source and believes that further work to test and understand the economic viability of the coal deposits is justified and would include assessment of possible production for potential domestic and international thermal coal markets, onsite electrical power generation and potential "coal to liquids" technologies. The following budget is suggested for the Preliminary Economic Assessment at an estimated cost of Cdn$300,000. This assessment will review coal deposit mineability, washability, infrastructure requirements, permitting requirements, environmental baseline work, transport, pricing, local and export markets, preliminary capital and operating costs, on-site power plant viability and preliminary economic viability of alternative coal to liquids technologies.

1.2 TECHNICAL SUMMARY

The Border Coal property is approximately 330 km east-northeast of Saskatoon, Saskatchewan. The town of Hudson Bay is located approximately 50 km south of the property. The property consists of 183 permits covering an area of 128,352 ha (1,280 km^2), which expire in May 31 of 2011. The permits may be extended for two additional six month periods or converted to 15 year coal leases.

The government of Saskatchewan retains a 15% royalty of all coals mined in the province. This royalty is negotiable based on economic viability.

There is currently a 2% gross overriding royalty placed on the Border Coal property for all coals or minerals extracted. This royalty is held by Minera Pacific Inc. of Vancouver, BC. Fifty percent of the royalty can be purchased for $2 million.

A coal permit in Saskatchewan does not grant ownership of the surface rights. The Border Coal permits are all located on Crown land and consultation has been carried out with Environmental Saskatchewan and First Nations for access.

The Border Coal property occurs within the Phanerozoic Western Canadian Basin. Cretaceous rocks of the Colorado and Mannville groups make up the geologic framework of the property. Coal intersections on the property, termed the Durango Coal Seams occur within the Cantuar Formation of the Mannville Group. Four major coal seams (Durango Seams D to A in descending order) have been defined by drilling. Definition of the coal intervals were determined by visual assessment, analytical results and geophysical determination's from downhole geophysical logs.

Exploration diamond drilling began in 2008 and includes 119 drill holes totalling 17,361 m. Drill locations were based on the results of two airborne geophysical (EM) surveys carried out by Fugro in 2006 and 2009. Core logging and sampling was carried out in a set format and in a professional manner.

A geological model was constructed in Gemcom Gems™ software from core logs. Coal seam intervals in drill core were defined by coal quality and 3-D shapes were created based on continuity of coal within each of the deposits. The individual deposit geometry was determined from interpretation of the airborne EM survey data.

2.0 INTRODUCTION AND TERMS OF REFERENCE

At the request of Goldsource Mines Inc. (Goldsource), Moose Mountain Technical Services (MMTS) of Elkford, BC, and EBA Engineering Consultants Ltd. (EBA) of Vancouver, BC, carried out a resource estimation for the Border Coal property in eastern central Saskatchewan. EBA and MMTS have relied on Goldsource to supply the geological information, background data and drill hole database that are used in the this report. This report was prepared in accordance with the Canadian National Instrument 43-101 (NI 43-101) standards of reporting. The effective date of this report is December 24, 2009.

Goldsource is a junior Canadian resource company engaged in the exploration and development of Canada's newest coalfield in the province of Saskatchewan. The company has aggressively drilled only a portion of this new thermal coal field and has discovered 15 coal deposits of varying size with coal thicknesses up to 100 m within the permit area of the Border Coal property.

Headquartered in Vancouver, BC, Goldsource is well financed and is managed by experienced mining and business professionals. The Goldsource site includes an established leased camp site consisting of 5 modular units and approximately 100 km of exploration roads.

R.J. Morris, P.Geo. of Moose Mountain Technical Service visited the site between June 4 to 6, 2009. During the site visit Mr. Morris observed access to the site, the camp and drill core. Sampling techniques and database preparation were also observed.

N. Eric Fier, CPG, P. Eng. has visited the site on numerous occasions between 2006 and 2009.

TABLE 2: LIST OF ABBREVIATIONS

µ	Micron	km/h	kilometre per hour
°C	degree Celsius	km²	square kilometre
°F	degree Fahrenheit	kPa	kilopascal
µg	microgram	kVA	kilovolt-amperes
A	Ampere	kW	kilowatt

TABLE 2: LIST OF ABBREVIATIONS			
a	annum	kWh	kilowatt-hour
ar	as received	L	litre
ad	air dried	l/s	litres per second
bbl	barrels	M	metre
bcm	Bank cubic metre		
Btu	British thermal units	M	mega (million)
C$	Canadian dollars	m^2	square metre
Cal	Calorie	m^3	cubic metre
cfm	cubic feet per minute	Min	minute
cm	centimetre	Masl	metres above sea level
cm^2	square centimetre	Mm	millimetre
d	dry	Mph	miles per hour
d	day	MVA	megavolt-amperes
dia.	diameter	MW	Megawatt
dmt	dry metric tonne	MWh	megawatt-hour
dwt	dead-weight ton	m^3/h	cubic metres per hour
ft	toot	opt, oz/st	ounce per short ton
ft/s	foot per second	Oz	Troy ounce (31.1035g)
ft^2	Square foot	oz/dmt	ounce per dry metric tonne
ft^3	cubic foot	Ppm	part per million
g	gram	Psia	pound per square inch absolute
G	giga (billion)	Psig	pound per square inch gauge
gal	Imperial gallon	RL	relative elevation
g/l	gram per litre	S	Second
g/t	gram per tonne	St	Short ton
gpm	Imperial gallons per minute	Stpa	Short ton per year
gr/ft^3	grain per cubic foot	Stpd	Short ton per day
gr/m^3	grain per cubic metre	T	metric tonne
hr	hour	Tpa	metric tonne per year
ha	hectare	Tpd	metric tonne per day
hp	horsepower	US$	United States dollar
in	inch	USg	United States gallon
in^2	Square inch	USgpm	US gallon per minute
J	Joule	V	Volt
k	kilo (thousand)	W	Watt
kcal	kilocalorie	Wmt	wet metric tonne
kg	kilogram	yd^3	cubic yard
km	Kilometre	Yr	year

3.0 RELIANCE ON OTHER EXPERTS

This report has been prepared by MMTS and EBA for Goldsource. All of the information, conclusions, opinions, and estimates contained in this report are based on:

Information available to EBA and MMTS at the time of preparation of this report.

Assumptions, conditions, and qualifications as set forth in this report.

Data, reports, and other information supplied by Goldsource and other third party sources.

4.0 PROJECT-SITE DESCRIPTION AND LOCATION

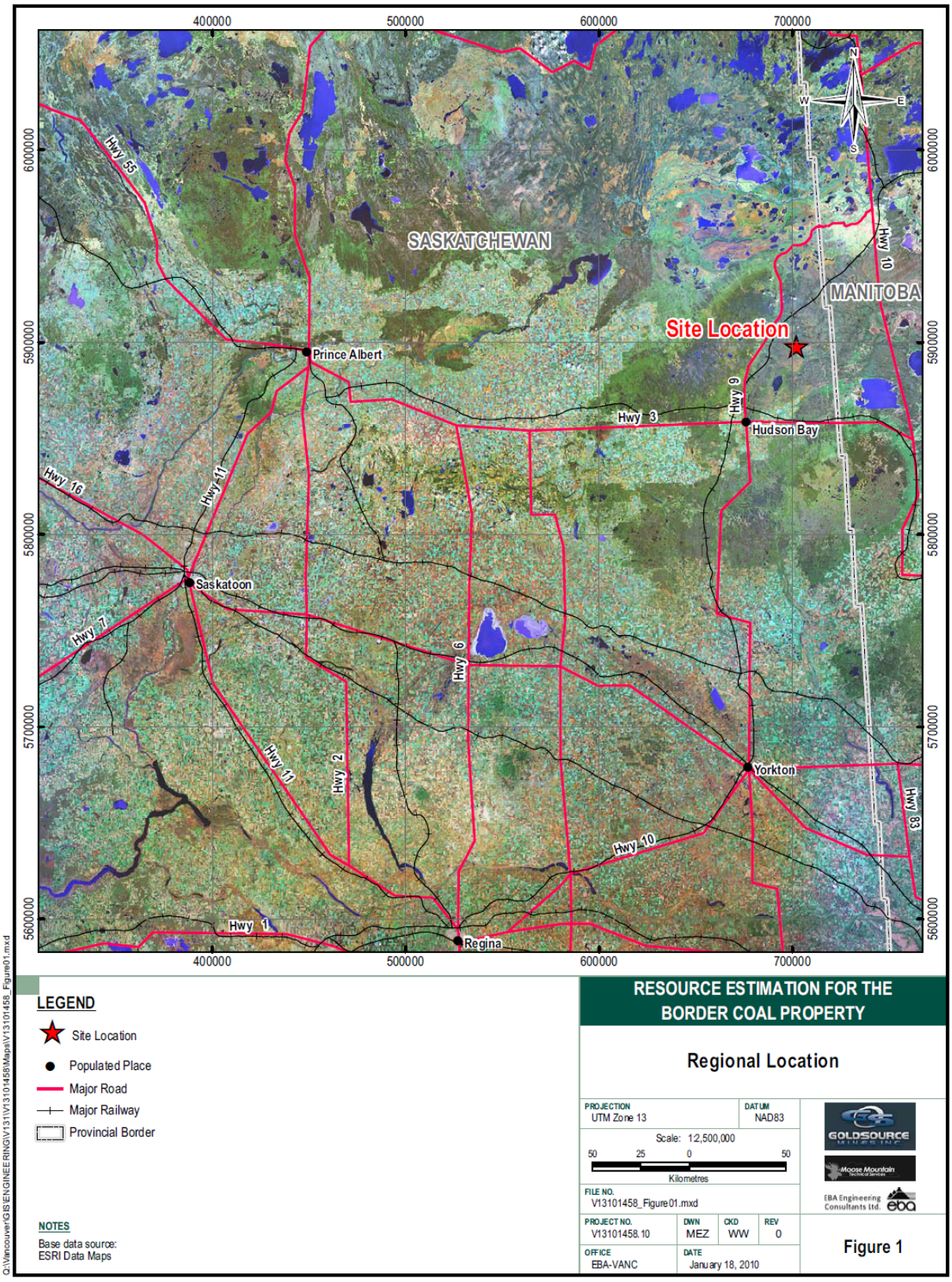
The Border Coal property is approximately 330 km east-northeast of Saskatoon, Saskatchewan, near the intersection of 53º 10' north latitude, and 102 º 00' west longitudes (Figure 1). The town of Hudson Bay is located approximately 50 km south of the property.

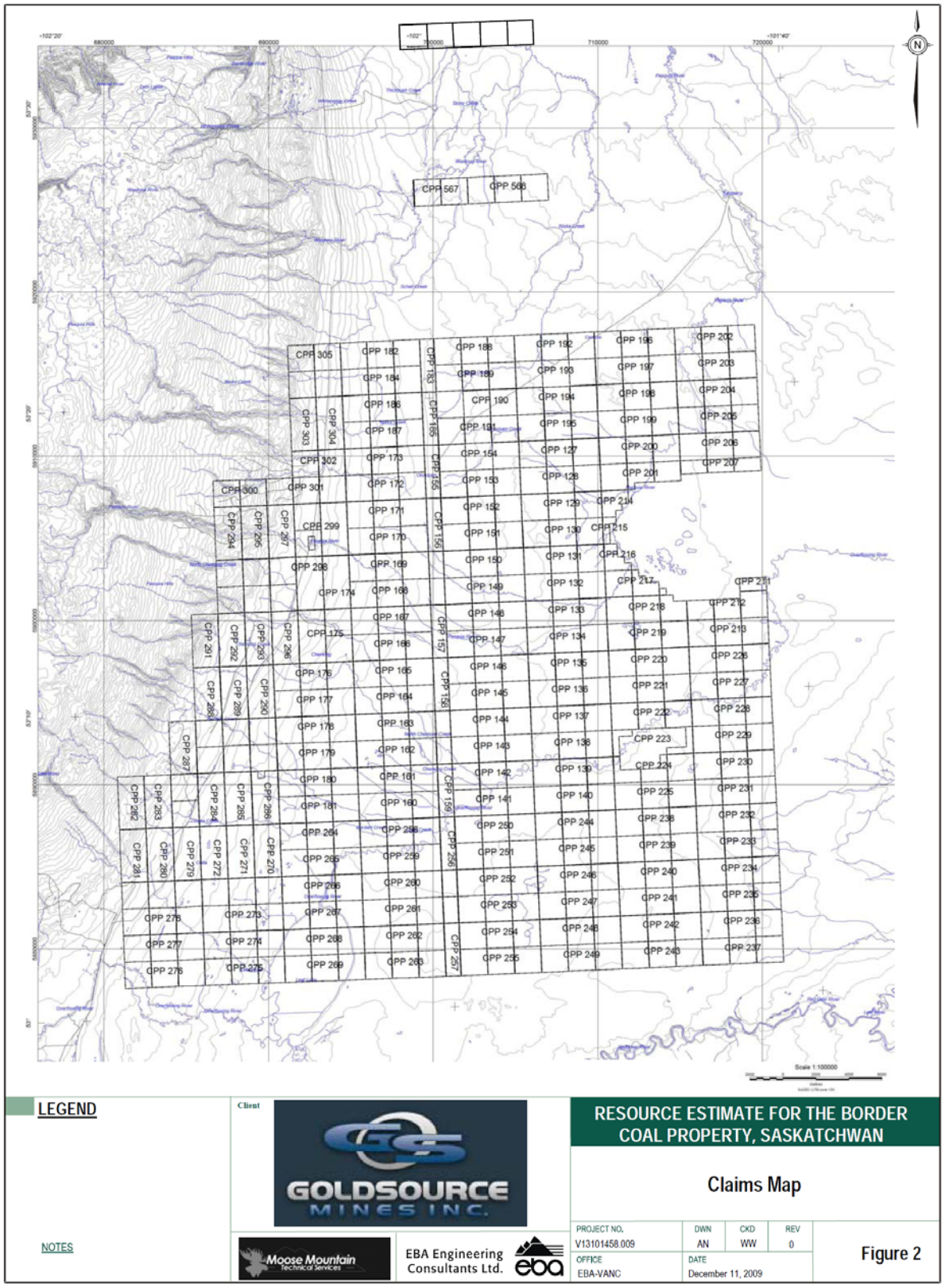
Goldsource acquired 100% interest in the property through 183 coal permits (Figure 2) that were issued by the government of Saskatchewan on May 31 2008 and covers a total area of 128,352 ha (1,280 km^2). The permits expire May 31, 2011. The permits may be extended for two additional six month periods or converted to 15 year coal leases.

The government of Saskatchewan retains a 15% royalty of all coals mined in the province. This royalty is negotiable based on economic viability.

There is currently a 2% gross overriding royalty placed on the Border Coal property. This royalty is held by Minera Pacific Inc. Fifty percent of the royalty can be purchased for $2 million.

A coal permit in Saskatchewan does not grant ownership of the mineral or surface rights only access if the land is held by the Crown. The Border Coal permits are all located on Crown land and consultation has been made with Environmental Saskatchewan and First Nations for access.


400000
500000
600000
700000
6000000
5900000
5800000
5700000
5600000
N
W
E
S
SASKATCHEWAN
MANITOBA
Site Location
Prince Albert
Hudson Bay
Saskatoon
Regina
Yorkton
Hwy 55
Hwy 10
Hwy 9
Hwy 3
Hwy 16
Hwy 11
Hwy 7
Hwy 6
Hwy 2
Hwy 83
Hwy 1
LEGEND
Site Location
Populated Place
Major Road
Major Railway
Provincial Border
NOTES
Base data source:
ESRI Data Maps
RESOURCE ESTIMATION FOR THE BORDER COAL PROPERTY
Regional Location
PROJECTION
UTM Zone 13
DATUM
NAD83
Scale: 12,500,000
50 25 0 50
Kilometres
FILE NO.
V13101458_Figure01.mxd
PROJECT NO.
V13101458.10
DWN
MEZ
CKD
WW
REV
0
OFFICE
EBA-VANC
DATE
January 18, 2010
GOLDSOURCE
Moose Mountain Technical Services
EBA Engineering Consultants Ltd.
Figure 1
Q:\Vancouver\GIS\ENGINEERING\V1311\V13101458\Maps\V13101458_Figure01.mxd


CPP 567
CPP 568
CPP 305
CPP 182
CPP 184
CPP 186
CPP 187
CPP 303
CPP 304
CPP 302
CPP 173
CPP 183
CPP 185
CPP 188
CPP 189
CPP 190
CPP 191
CPP 192
CPP 193
CPP 194
CPP 195
CPP 196
CPP 197
CPP 198
CPP 199
CPP 200
CPP 201
CPP 202
CPP 203
CPP 204
CPP 205
CPP 206
CPP 207
CPP 300
CPP 301
CPP 172
CPP 171
CPP 170
CPP 299
CPP 298
CPP 169
CPP 168
CPP 174
CPP 294
CPP 295
CPP 297
CPP 155
CPP 154
CPP 153
CPP 152
CPP 151
CPP 150
CPP 149
CPP 156
CPP 128
CPP 129
CPP 130
CPP 131
CPP 132
CPP 214
CPP 215
CPP 216
CPP 217
CPP 271
CPP 212
CPP 213
CPP 226
CPP 227
CPP 228
CPP 229
CPP 230
CPP 231
CPP 232
CPP 233
CPP 234
CPP 235
CPP 236
CPP 237
CPP 291
CPP 292
CPP 293
CPP 296
CPP 175
CPP 176
CPP 177
CPP 178
CPP 179
CPP 180
CPP 181
CPP 167
CPP 166
CPP 165
CPP 164
CPP 163
CPP 162
CPP 161
CPP 160
CPP 157
CPP 158
CPP 148
CPP 147
CPP 146
CPP 145
CPP 144
CPP 143
CPP 142
CPP 141
CPP 133
CPP 134
CPP 135
CPP 136
CPP 137
CPP 138
CPP 139
CPP 140
CPP 218
CPP 219
CPP 220
CPP 221
CPP 222
CPP 223
CPP 224
CPP 225
CPP 238
CPP 239
CPP 240
CPP 241
CPP 242
CPP 243
CPP 244
CPP 245
CPP 246
CPP 247
CPP 248
CPP 249
CPP 288
CPP 289
CPP 290
CPP 287
CPP 282
CPP 283
CPP 284
CPP 285
CPP 286
CPP 281
CPP 280
CPP 279
CPP 272
CPP 271
CPP 270
CPP 264
CPP 265
CPP 266
CPP 267
CPP 268
CPP 269
CPP 259
CPP 260
CPP 261
CPP 262
CPP 263
CPP 256
CPP 257
CPP 250
CPP 251
CPP 252
CPP 253
CPP 254
CPP 255
CPP 278
CPP 277
CPP 276
CPP 273
CPP 274
CPP 275
LEGEND
NOTES
Client
GOLDSOURCE MINES INC.
RESOURCE ESTIMATE FOR THE BORDER COAL PROPERTY, SASKATCHWAN
Claims Map
Moose Mountain Technical Services
EBA Engineering Consultants Ltd.
eba
PROJECT NO. V13101458.009
DWN AN
CKD WW
REV 0
OFFICE EBA-VANC
DATE December 11, 2009
Figure 2

5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

Accessibility

The property can be easily accessed year-round by highway from Saskatoon through Hudson Bay to the Border Camp and staging area, and then by maintained winter (ice) roads to the drill sites. During the summer the only access to drill sites from the staging area has been by amphibious vehicles and helicopter. There is also an active railroad (CNR) next to the staging area on the property.

Climate

The climate is typical of the boreal forest with the summer season from June to August. Seasonal temperatures vary from -50ºC to +35ºC. Precipitation is relatively light with an estimated average of 300 mm per year. The frost-free period in the region ranges from 100-120 days per year, which can impact access to the area.

Physiography

The property is located in a low area on the eastern margin of the Pasquia Hills in the Pasquia River drainage system. Elevations in the project area range from 300-400 masl.

Vegetation consists of very dense boreal forest, which includes: birch trees, pines trees, poplar trees, evergreen trees and muskeg. During the winter the muskeg freezes creating easier access.

Local Resources

During the summer months water is easily available for drilling on the property from the placid lake system and boggy areas. Water for a production facility could come from a local lake, groundwater, or a man-made reservoir.

Electrical power is available from a major power line that is approximately 60 km north of the property. A coal fired generator could be considered if it was decided that the mining operation is economically justifiable.

Adequate area is available within the property boundaries for waste dumps, tailings facilities, a washing plant, a rail system, and operations facilities. If it is decided that the area could support an economic industrial development, there is adequate area to place a power plant or coal to liquids facilities.

The closest major city is Saskatoon, with a population of approximately 250,000. Saskatoon is located 330 km southwest of the property. Almost all services and supplies can be obtained in Saskatoon. All items that can not be obtained in Saskatoon are easily shipped into the city's international airport. Prince Albert (population of 50,000) is about 250 km west of the property and is serviced by highway, rail and local airport.

Current lignite mines in Saskatchewan include one in south-central part of the province and two others in southeast. There are significant uranium deposits and potash deposits located in northern and central Saskatchewan respectively.

Currently there is a year-round camp facility at Border that is set up at the staging area which can accommodate 36 people. Power is supplied by portable generators set up on site.

There is approximately 100 km of winter roads built and partially reclaimed on the site not including the access road that goes into the staging area. There is also a railway that transgresses the permit area, which is owned and operated by Canadian National Rail.

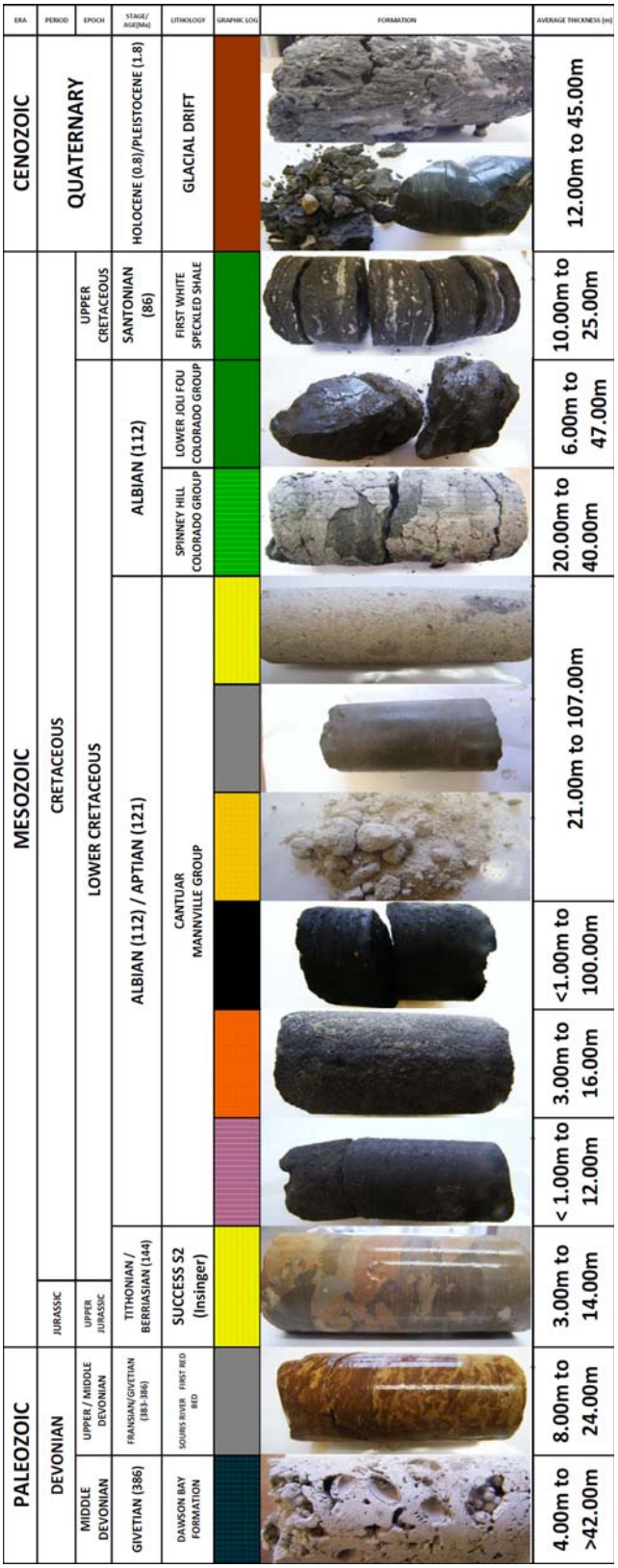
6.0 HISTORY

The Border Coal property is the first potentially economic coal deposit to be discovered in this area. There have been no previous workings in the area to suggest that there was coal exploration on or around the property. Oil and oils shale drilling have been carried out south and southwest of the property.

7.0 GEOLOGICAL SETTING

7.1 REGIONAL GEOLOGY

The Border Coal property occurs within the Phanerozoic Western Canadian Basin, a vast sedimentary basin underlying 1.4 million km^2 of western Canada. Cretaceous rocks of the Colorado and Mannville groups make up the Border Coal property. The Mannville Group unconformably overlies Devonian carbonate rocks, and conformably underlies Late Cretaceous shale of the Colorado Group. A simplified stratigraphy of the region is summarized in Table 3.


ERA
PERIOD
EPOCH
STAGE/ AGE(MA)
LITHOLOGY
GRAPHIC LOG
FORMATION
AVERAGE THICKNESS (m)
PALEOZOIC
MESOZOIC
CENOZOIC
DEVONIAN
JURASSIC
CRETACEOUS
QUATERNARY
MIDDLE DEVONIAN
UPPER / MIDDLE DEVONIAN
UPPER JURASSIC
LOWER CRETACEOUS
UPPER CRETACEOUS
GIVETIAN (386)
FRASNIAN/GIVETIAN (383-386)
TITHONIAN / BERRIASIAN (144)
ALBIAN (112) / APTIAN (121)
ALBIAN (112)
SANTONIAN (86)
HOLOCENE (0.8)/PLEISTOCENE (1.8)
DAWSON BAY FORMATION
SOURIS RIVER FIRST RED BED
SUCCESS S2 (Insinger)
CANTUJAR MANNVILLE GROUP
SPINNEY HILL COLORADO GROUP
LOWER JOLI FOU COLORADO GROUP
FIRST WHITE SPECKLED SHALE
GLACIAL DRIFT
4.00m to >42.00m
8.00m to 24.00m
3.00m to 14.00m
< 1.00m to 12.00m
3.00m to 16.00m
<1.00m to 100.00m
21.00m to 107.00m
20.00m to 40.00m
6.00m to 47.00m
10.00m to 25.00m
12.00m to 45.00m

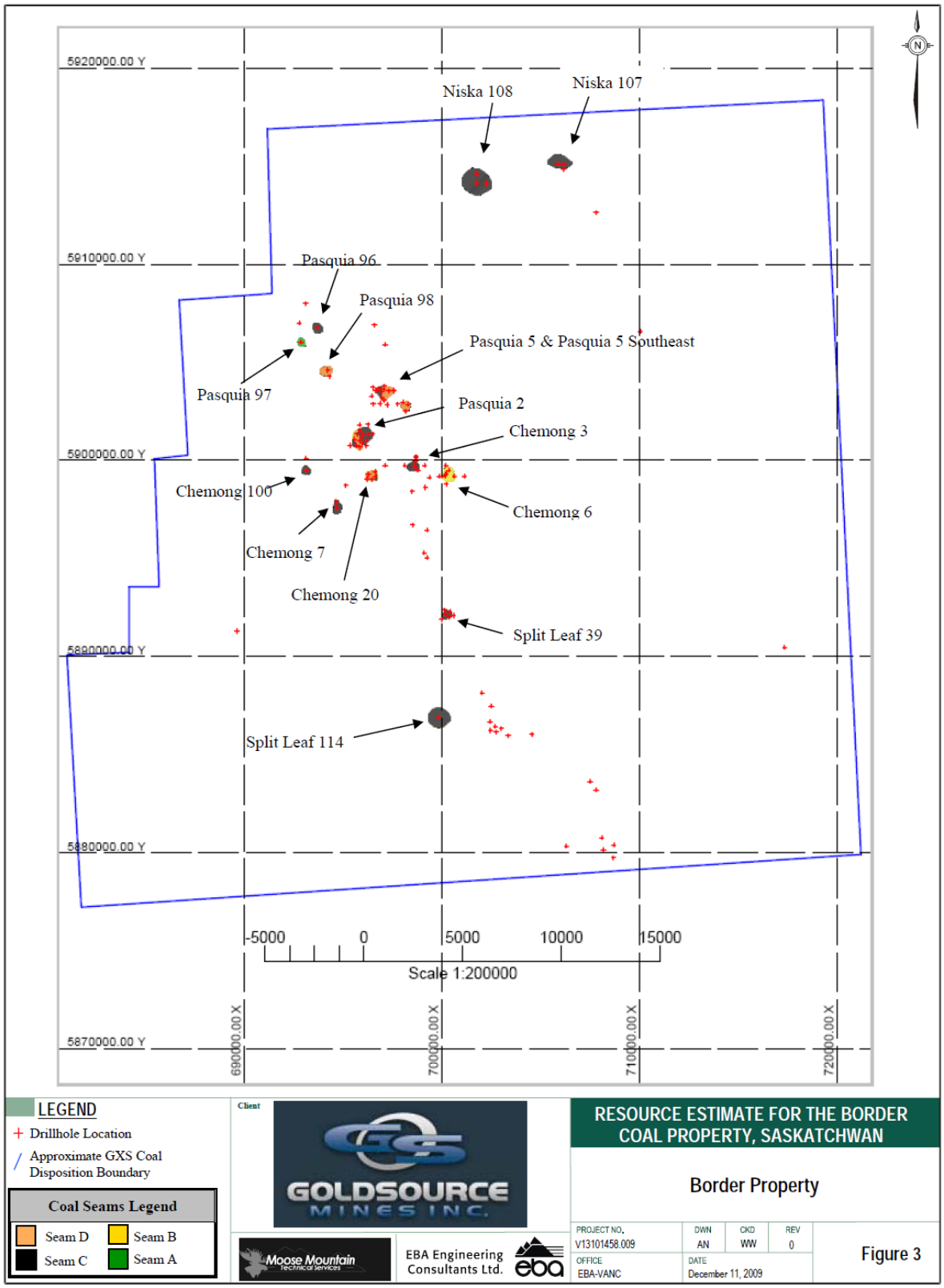
The "Durango Trend" is a term coined by Goldsource to identify a NW to SE trending zone of similar geology containing geophysical signatures indicative of basinal settings conducive to coal deposition. The Durango Trend stretches from northeast Alberta to Dauphin, Manitoba and is approximately 800 km in length. Coal intersections on the property, termed the Durango Coal Seams within the Cantuar Formation, are part of this trend.

7.2 LOCAL GEOLOGY

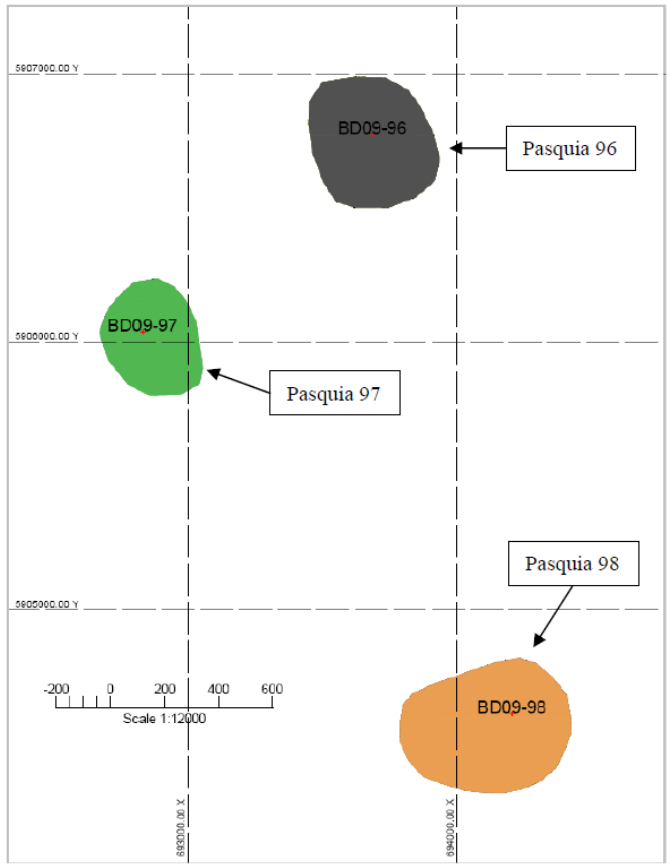
Minor outcrop is found in the project area and government maps are based on scattered historic drill holes, geophysical interpretation and extrapolation of known area geology. Local geology described herein is based on core holes drilled by Goldsource. Approximately 10-40 metres of glacial till occur as overburden. Eight distinct geological units (numbered below) are defined on the property through inspection of drill core. Contacts range from sharp to gradational and are approximately horizontal. Stratigraphy, as observed in drill core below glacial till and from top to bottom is as follows: varying proportions of interlayered (1) mudstone and (2) siltstone, with mudstone commonly predominating, particularly near the coal zone. Unconsolidated to semi-consolidated (3) sand and glauconitic sand commonly occur above the coal zone. The coal zone consists of (4) sub-bituminous coal, (5) carbonaceous mudstone, mudstone and sand. Semi-consolidated (6) carbonaceous sand/sandstone commonly underlies the coal zone. Siltstone and sandstone are, in places, interlayered beneath the coal zone with siltstone predominating. Massive to brecciated (7) limestone occurs within this sequence of reworked limestone or massive (8) dolostone interlayered in the upper siltstone/mudstone assemblage but is rare.

Four major coal seams (Durango Seams D to A in descending order) have been defined by drilling. Of these seams, "C" is the most important with an average thickness estimated at 20 m. The greatest thickness of continuous coal drilled to date is approximately 100 m.

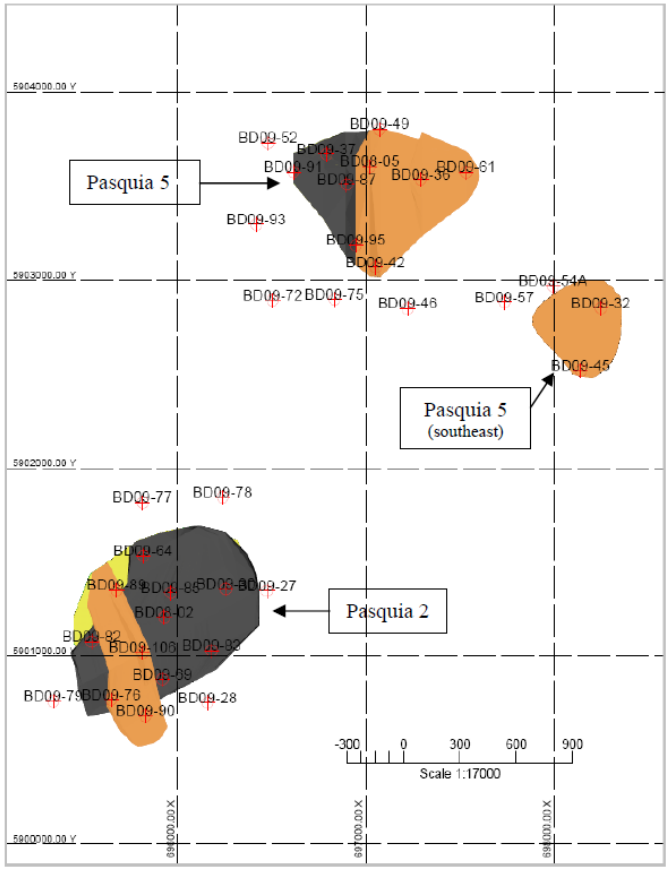
Electro-magnetic surveys and regional geological maps indicate several large structural lows (e.g. sub-basins) occur within the project area that contains coal. Minor faulting has been identified in drill core. Figure 3 provides an overview of the Border Coal property area and shows the location of the fourteen near surface coal deposits and one potential underground target. Detailed plans of some coal deposits are presented in Figures 4-7.


5920000.00 Y
5910000.00 Y
5900000.00 Y
5890000.00 Y
5880000.00 Y
5870000.00 X
690000.00 X
700000.00 X
710000.00 X
720000.00 X
Niska 108
Niska 107
Pasquia 96
Pasquia 98
Pasquia 5 & Pasquia 5 Southeast
Pasquia 97
Pasquia 2
Chemong 3
Chemong 100
Chemong 6
Chemong 7
Chemong 20
Split Leaf 39
Split Leaf 114
-5000
0
5000
10000
15000
Scale 1:200000
LEGEND
Drillhole Location
Approximate GXS Coal Disposition Boundary
Coal Seams Legend
Seam D
Seam B
Seam C
Seam A
Client
GOLDSOURCE MINES INC.
RESOURCE ESTIMATE FOR THE BORDER COAL PROPERTY, SASKATCHWAN
Border Property
Moose Mountain Technical Services
EBA Engineering Consultants Ltd.
PROJECT NO. V13101458.009
DWN AN
CKD WW
REV 0
OFFICE EBA-VANC
DATE December 11, 2009
Figure 3


BD09-107
BD09-109
BD09-112
-160
0
160
320
480
Scale 1:7000
Niska 107
BD09-111
BD09-108
BD09-110
-160
0
160
320
480
Scale 1:9000
Niska 108
Coal Seams Legend
Seam D
Seam C
Seam B
Seam A
Drillhole Location
Client
GOLDSOURCE MINES INC.
RESOURCE ESTIMATE FOR THE BORDER COAL PROPERTY, SASKATCHWAN
Niska Areas
Moose Mountain Technical Services
EBA Engineering Consultants Ltd.
eba
PROJECT NO. V13101458.009
DWN AN
CKD
REV 0
OFFICE EBA-VANC
DATE December 1, 2009
Figure 4



Pasquia 96, 97 and 98 Areas



Pasquia 2, 5 and 5 Southeast Areas

Coal Seams Legend

- Seam D
- Seam C
- Seam B
- Seam A

Drillhole Location

Client

GOLDSOURCE MINES INC.

RESOURCE ESTIMATE FOR THE BORDER COAL PROPERTY, SASKATCHWAN

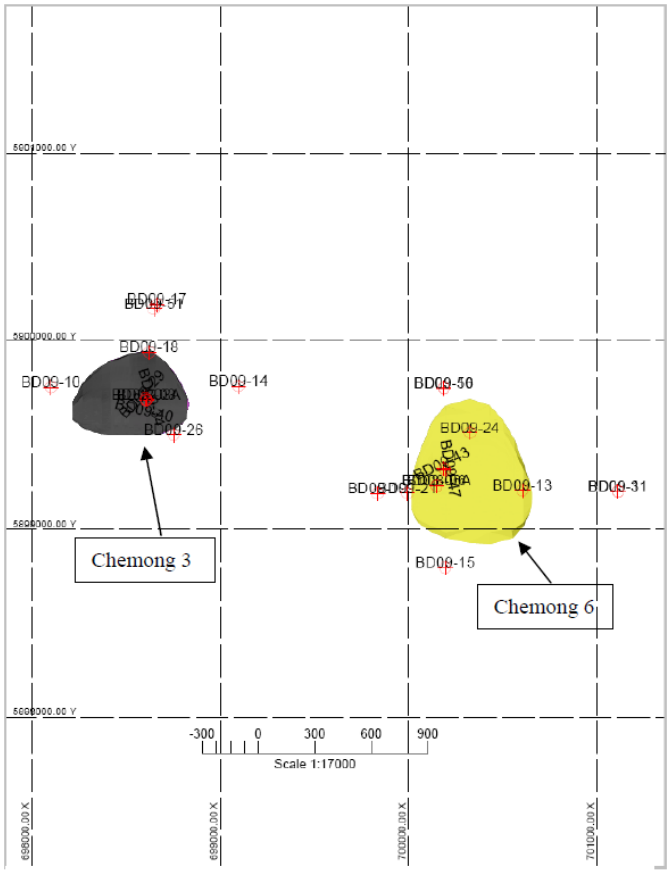
Pasquia Areas

Moose Mountain Technical Services

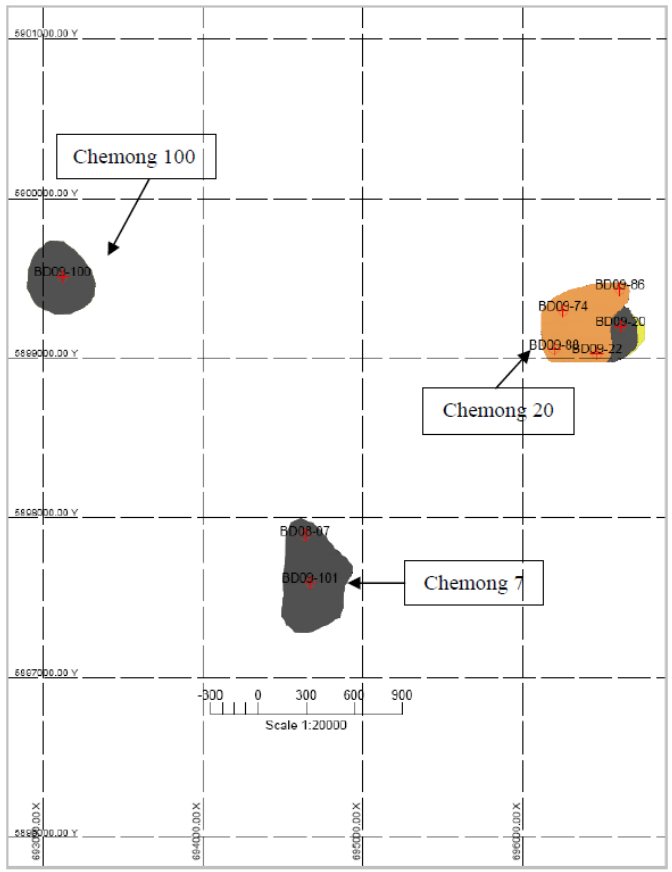
EBA Engineering Consultants Ltd.

PROJECT NO.	DWN	CKD	REV
V13101458.009	AN		0
OFFICE: EBA-VANC	DATE: December 1, 2009		

Figure 5



Chemong 3 and 6 Areas



Chemong 7, 20 and 100 Areas

Coal Seams Legend

- Seam D
- Seam C
- Seam B
- Seam A

Drillhole Location

Client

GOLDSOURCE MINES INC.

RESOURCE ESTIMATE FOR THE BORDER COAL PROPERTY, SASKATCHEWAN

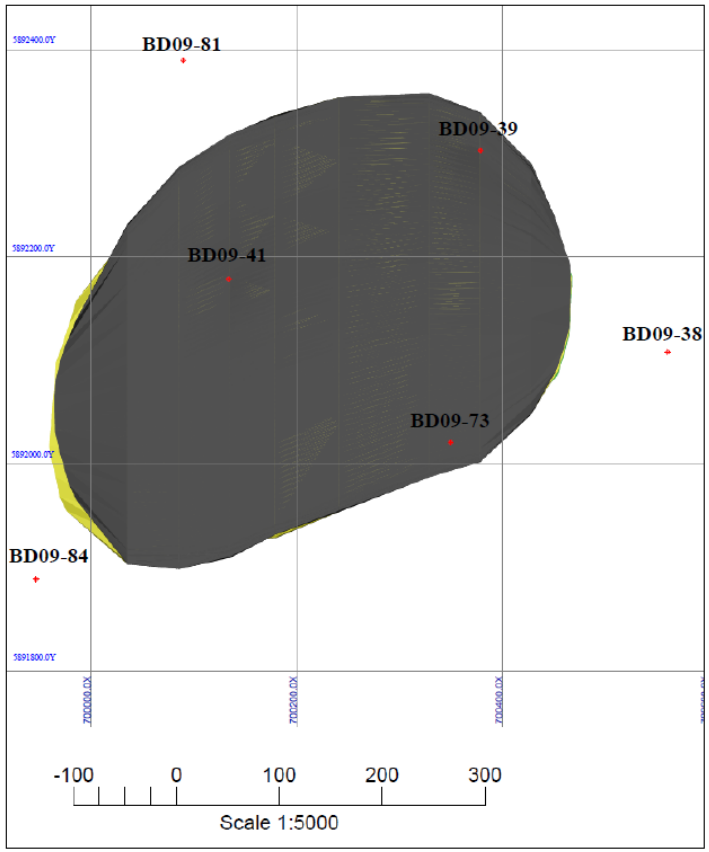
Chemong Areas

Moose Mountain Technical Services

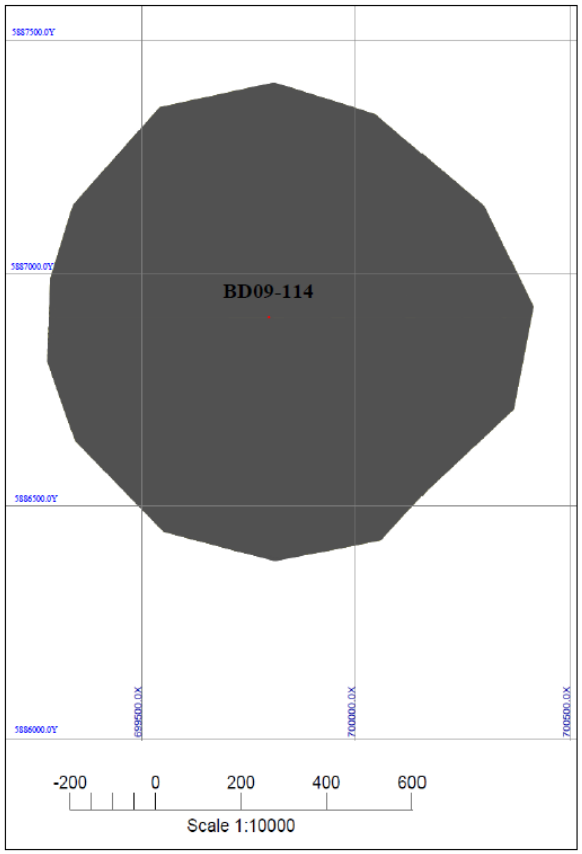
EBA Engineering Consultants Ltd.

PROJECT NO.	DWN	CKD	REV
V13101458.009	AN		0
OFFICE: EBA-VANC	DATE: December 1, 2009		

Figure 6



Split Leaf 39



Split Leaf 114

Coal Seams Legend

- Seam D
- Seam C
- Seam B
- Seam A

Drillhole Location

Client

GOLDSOURCE MINES INC.

RESOURCE ESTIMATE FOR THE BORDER COAL PROPERTY, SASKATCHWAN

Split Leaf Areas

Moose Mountain Technical Services

EBA Engineering Consultants Ltd.

PROJECT NO.	DWN	CKD	REV
V13101458.009	AN		0
OFFICE: EBA-VANC	DATE: December 1, 2009		

Figure 7

7.3 DEPOSIT TYPE

Coal deposit classifications include both "Geology-Type" and "Deposit-Type" as defined in Geological Survey of Canada Paper 88-21 (Hughes et al., 1989), which is a reference for coal deposits as specified in NI 43-101. These classifications determine the range of limiting criteria that may be applied during the estimation of resources and reserves.

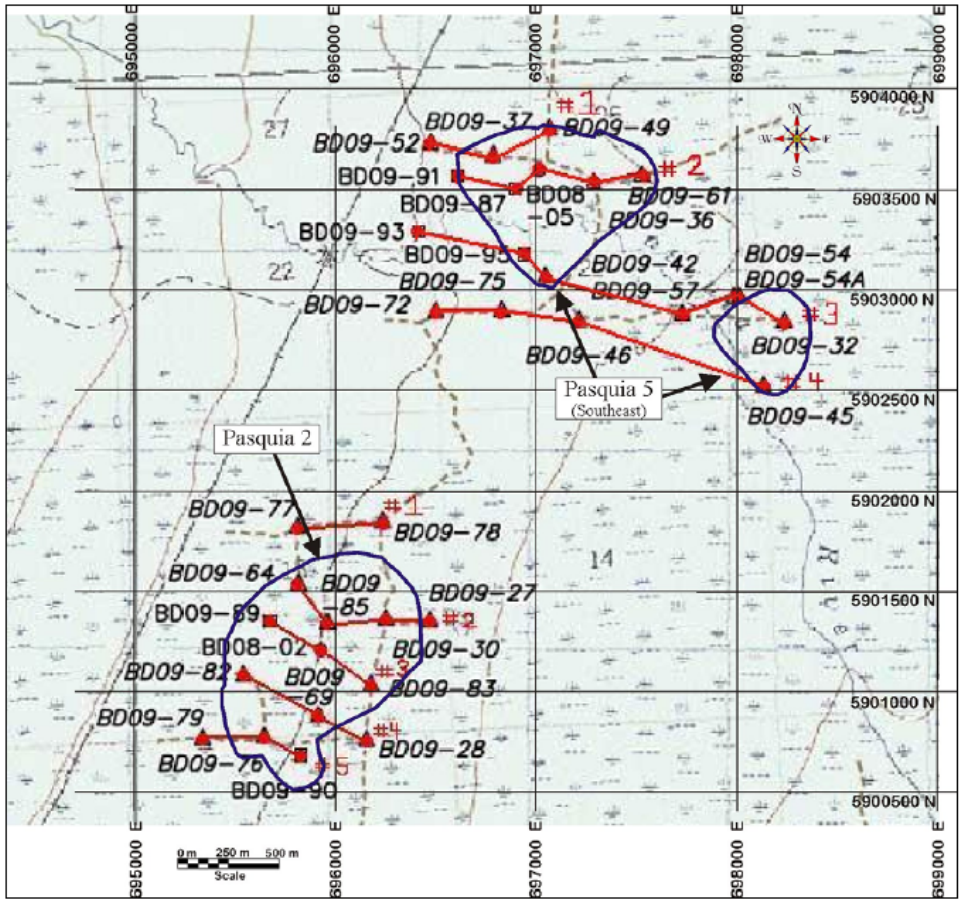
Geology-Type refers to the level of complexity of seam geometry within coal deposits and determines the approach to be used for the resource/reserve estimation with limits applied to certain key estimation criteria. The identification of a particular Geology-Type for a coal property determines the confidence that can be placed in extrapolation of data values away from a particular point of reference (i.e. drill hole). There are four catergories; Simple, Moderate, Complex, and Severe. These range from the lowest complexity for deposits of the Plains type with low tectonic disturbance (Simple), to the fourth for Rocky Mountains type deposits such as that of Byron Creek, which is classed as "Severe". The second class is "Moderate" and the deposits in this category have been affected to some extent by tectonic deformation. They are characterized by homoclines or broad open folds with bedding inclinations of generally less than 30°. Faults may be present, but are relatively uncommon and generally have displacements of less than ten metres. MMTS has determined that the Border property is a "Moderate" geology type typical of this class.

Deposit Type refers to the probable extraction method most suited to the coal deposit. There are four categories: surface, underground, non-conventional and sterilized. This determines the mining method and may dictate the manner of calculating seam thickness and other parameters for estimating reserves. MMTS has determined that the Border property should be classified as potentially surface mineable and of immediate interest.

7.4 MINERALIZATION

There are four major definable seams at the project site, termed the Durango D, C, B, and A seams in descending order. Two minor seams, D1 and A1 have also been identified locally. The coal in the Durango seams ranges from dull to very lustrous. There are small amounts of visible pyrite throughout the seams. Commonly carbonaceous mudstone and siltstone occurs between coal horizons. The age of this coal is thought to be 90-120 million years old.

Two of the deposits, Pasquia 2 and Pasquia 5, have been drilled in sufficient detail to allow for a high confidence of correlation of the coal seams. Figure 8 shows the generally east-west drillhole lines used for the correlation work. Figure 9 shows the four correlations for Pasquia 2 while Figure 10 shows the four correlation lines for Pasquia 5.



Legend

- Drillhole Location
- Drillhole Correlation Lines

NOTES

Client

GOLDSOURCE MINES INC.

RESOURCE ESTIMATE FOR THE BORDER COAL PROPERTY, SASKATCHEWAN

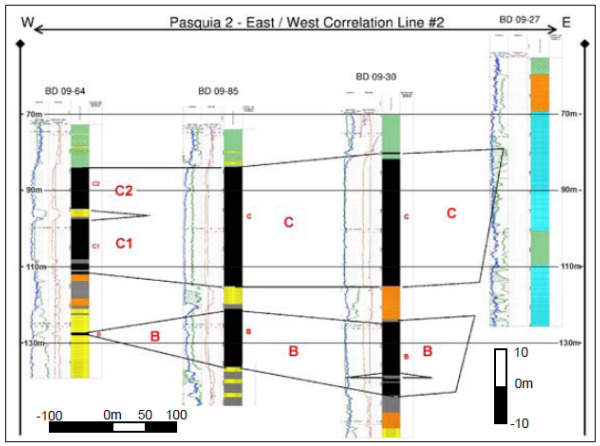
Pasquia 2 and 5 Deposits

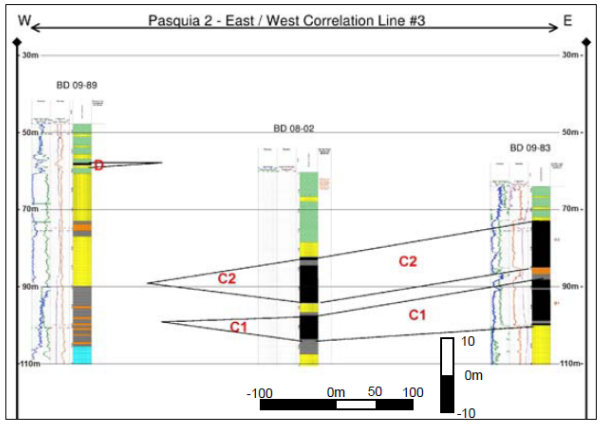
Moose Mountain Technical Services

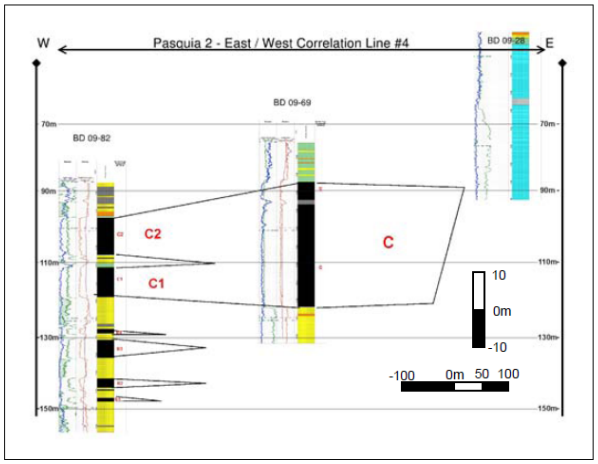
EBA Engineering Consultants Ltd.

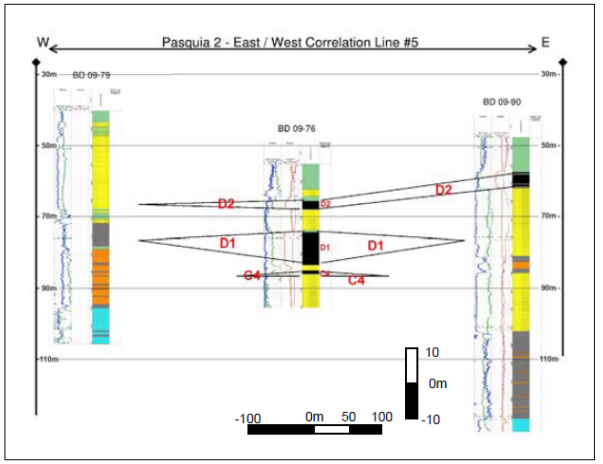
PROJECT NO.	DWN	CKD	REV
V13101458.009	AN		0
OFFICE: EBA-VANC	DATE: December 1, 2009		

Figure 8









Legend

- Claystone/Shale
- Coal
- Limestone
- Mudstone
- Sandstone
- Siltstone
- Downhole Geophysics

Client

GOLDSOURCE MINES INC.

RESOURCE ESTIMATE FOR THE BORDER COAL PROPERTY, SASKATCHWAN

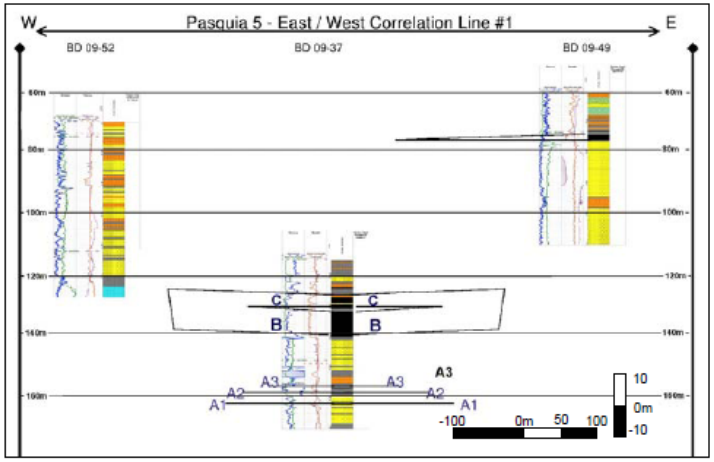
Pasquia 2 Correlation Lines 2 - 5

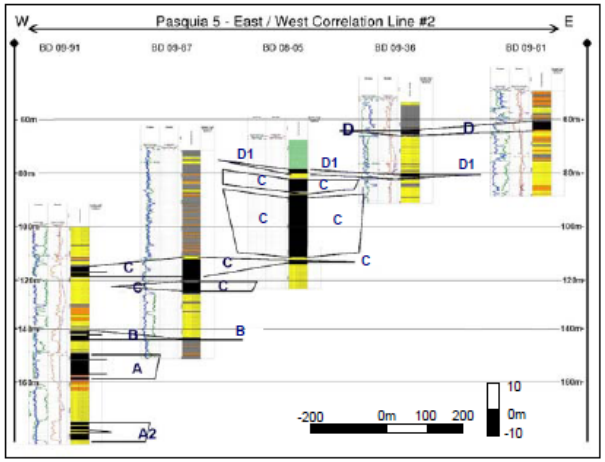
Moose Mountain Technical Services

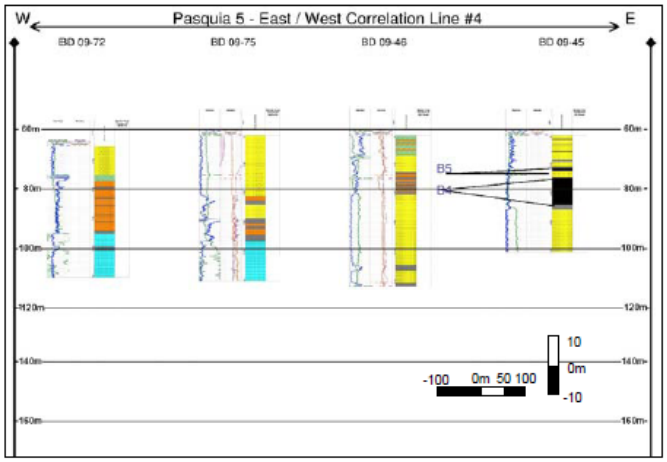
EBA Engineering Consultants Ltd.

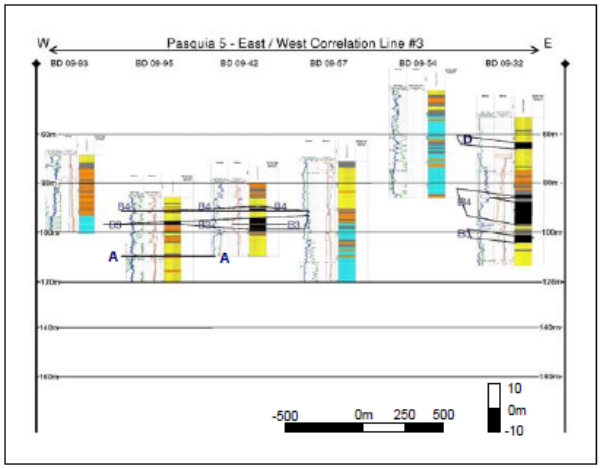
PROJECT NO.	DWN	CKD	REV
V13101458.009	AN		0
OFFICE: EBA-VANC	DATE: December 1, 2009		

Figure 9









Legend

- Claystone/Shale
- Coal
- Limestone
- Mudstone
- Sandstone
- Siltstone

Downhole Geophysics

Client

GOLDSOURCE MINES INC.

RESOURCE ESTIMATE FOR THE BORDER COAL PROPERTY, SASKATCHWAN

Pasquia 5 Correlation Lines 1 - 4

Moose Mountain Technical Services

EBA Engineering Consultants Ltd.

PROJECT NO.	DWN	CKD	REV
V13101458.009	AN		0
OFFICE: EBA-VANC	DATE: December 1, 2009		

Figure 10

Seam A is the first coal deposited in Pasquia 2 and is present as thin intercepts in drillhole 09-82 only. Seam B was intercepted in drill holes 09-82, 09-64, 09-85, and 09-30 such that it forms a continuous body in the north western part of the deposit. Seam C is the most important, and is present throughout the deposit. The upper most, Seam D has been intercepted in drill holes 09-90, 09-76, and 09-89, and forms a narrow body occupying the west side of the deposit.

The Pasquia 5 deposit is more complex and shows less coal development than Pasquia 2. Seam A has been intercepted in DH 09-37, 09-91, and 09-87 forming a lens in the northwest part of the deposit. Seam B is again only present in the north-western part of the deposit, though slightly more extensive than Seam A. Seam C has been intercepted in the western half of the deposit and forms the most important seam. Seam D occupies the eastern portion of the deposit and Pasquia 5 southeast.

Photos 1 to 7 show various details of the coal, the sampling techniques, as well as the roof and floor contacts. There have been three sampling techniques used during the various drill programs (see table 5): split core sampling, whole core sampling and disk sampling with selective whole core.

Photo 1: **Drillhole BD 08-03, showing the roof contact at 80.3m, and the split core sampling method applied to the initial discovery holes.**

Photo 2: **Drillhole BD 09-22, showing a claystone/bentonite parting at 91.49m, and the disc sampling and selective whole core method applied to holes during the January –June 2009 program.**

Photo 3: **Drillhole BD 09-30, showing the roof contact at 79.8m, and the disc and selective whole core sampling method applied during January –June 2009 program.**

Photo 4: **Drillhole BD 09-40, showing several mudstone partings at 147.2m and 150.6m, as well as the disc and selective whole core sampling method applied to holes during the January-June, 2009 program.**

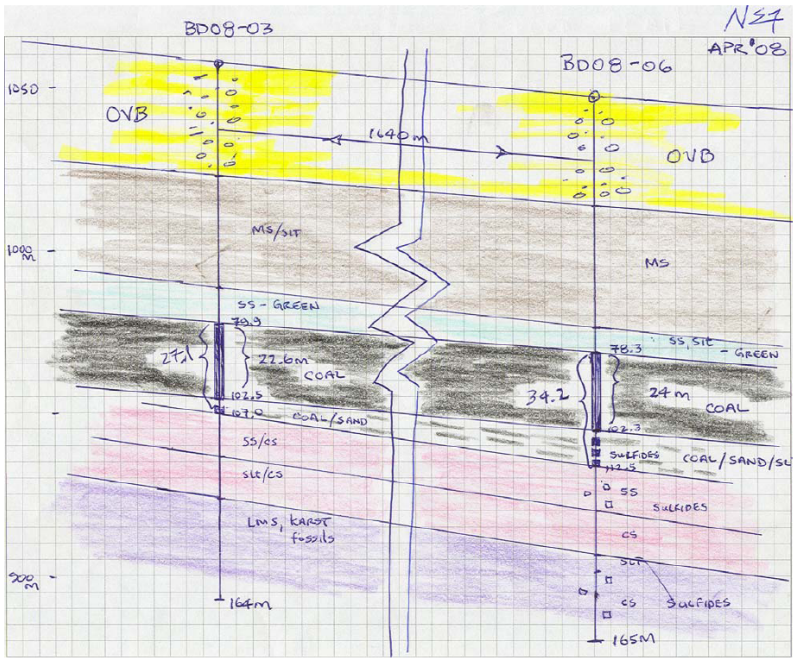
Photo 5: **Drillhole BD 09-41, showing fine clay interbeds within the coal, and the sampling method applied to holes during the January – June, 2009 program.**

Photo 6: **Drillhole BD 09-95, showing slaking mudstones in the upper parts of the hole.**

Photo 7: **Drillhole BD 09-95, showing the floor contact at 96.12m, the disc and selective whole core sampling method applied to holes during the January-June, 2009 program, as well as the "water sands" (unconsolidated quartz rich sand) below the coal.**

8.0 EXPLORATION

There was no exploration for coal carried out in the area prior to Goldsource acquiring the property. In the summer of 2007 preliminary exploration was conducted in the area. In the winter of 2008 two (discovery) diamond drill holes, BD08-03 and BD08-06 approximately 1.6 km apart, intersected coal with thicknesses of 22.6 m and 24 m, respectively (Figure 11) in two discretely separate deposits. In the summer of 2008 further exploration included nine diamond drill holes and two twin holes of the previous discovery holes. Two 2009 diamond drill programs consisting of 106 additional drill holes brought total drilling on the property to 17,361 m in 119 holes.



Border Cross Section Looking North

Client

GOLDSOURCE MINES INC.

RESOURCE ESTIMATE FOR THE BORDER COAL PROPERTY, SASKATCHWAN

Cross Section Thought Discovery Holes (Two Separate Deposits)

NOTES

Moose Mountain Technical Services

EBA Engineering Consultants Ltd.

PROJECT NO.	DWN	CKD	REV
V13101458.009	AN		0
OFFICE: EBA-VANC	DATE: December 1, 2009		

Figure 11

8.1 SURFACE SAMPLING

No surface sampling was carried out since there is no exposure in the area.

8.2 DRILLING

Goldsource carried out a diamond drill program in the summer of 2008 consisting of 11 (NQ) holes totalling over 1,300 m. Drilling was carried out by Eagle Vision Mulching of Big River, Saskatchewan using a Boart Longyear 38 drill and all associated support equipment.

Core holes (HQ) were drilled based on airborne geophysical data previously collected. All the holes were drilled vertically. Down hole geophysics was completed by DGI Geophysics of Ontario on each hole to obtain specific geophysical information and to test for hole deviation. All of the holes were between 60 m and 120 m in length/depth and showed little to no change in orientation.

Goldsource completed a winter and spring 2009 diamond drill program consisting of 106 additional drill holes totalling over 16,000 m. Drilling was carried out by Foraco Drilling and Silverado Drilling, both of Kamloops, BC, using a Boart Longyear 38 diamond drills and associated support equipment. Downhole geophysics was completed by Century Wireline services of Edmonton, Albert. This program is considered the Phase II drill program. The purpose of the program was to better define the potential resource. Core holes (HQ) were drilled based on the same airborne geophysical data that was used to drill the holes in the summer 2008 program. Five holes were inclined at 50º while the rest were vertical. Down hole geophysics was performed on each hole to obtain specific information on coal intercepts, formation densities and resistivities as well as to test for hole deviation. All of the holes are between 60 m and 250 m in length and showed minimal change in hole orientation. Density, gamma neutron and dip meter including deviation data were collected.

Coal intercepts for the entire program to date total 1,613 m in 56 holes. A summary of the most significant drill hole intercepts are presented in Table 4.

TABLE 4: MOST SIGNIFICANT COAL INTERCEPTS

Hole ID	Thickness (m)	Seam
BD08-02	14.6	Seam C
BD08-03	21.2	Seam C
BD08-03A	22.6	Seam C
BD08-05	4.9	Seam D1
BD08-05	23.5	Seam C
BD08-06	9.8	Seam B
BD08-06A	9.8	Seam B
BD08-06A	3.4	Seam A
BD09-13	12.5	Seam B
BD09-13	5.5	Seam A
BD09-30	32.9	Seam C
BD09-30	13.9	Seam B
BD09-30	4.3	Seam A
BD09-34	63.7	Seam C
BD09-36	1.4	Seam D
BD09-36	2.9	Seam D1
BD09-39	4.6	Seam C
BD09-39	0.5	Seam B
BD09-39	1.5	Seam A

TABLE 4: MOST SIGNIFICANT COAL INTERCEPTS		
Hole ID	Thickness (m)	Seam
BD09-40	94.7	Seam C
BD09-40	5.2	Seam A2
BD09-40	3.4	Seam A1
BD09-41	13.4	Seam C
BD09-41	18.9	Seam B
BD09-41	1.4	Seam A
BD09-61	3.3	Seam D
BD09-69	33.5	Seam C
BD09-69	28.6	Seam C
BD09-73	4.0	Seam C
BD09-73	30.5	Seam B
BD09-85	31.8	Seam C
BD09-85	13.4	Seam B
BD09-85	2.9	Seam A
BD09-107	10.9	Seam C
BD09-107	13.2	Seam B
BD09-107	37.4	Seam A
BD09-108	49.7	Seam C
BD09-109	22.0	Seam C
BD09-110	8.5	Seam C
BD09-111	32.1	Seam C

MMTS believes that drilling was conducted to NI 43-101 standards.

8.3 GEOPHYSICS

Airborne and down-hole geophysics are critical to defining coal deposits at Border. Goldsource has developed intellectual (proprietary) information that continues to accurately determine the location of coal deposits. This geophysical tool is coined with the name Coal Identification Matrix (CIM) and uses electromagnetic data to pinpoint sub-basins which contain coal.

Fugro Airborne Surveys conducted an airborne electromagnetic and magnetic survey of the area from April 11th to June 15th, 2006. Traverse lines over Border were flown N-S 300 m apart, and tie lines flown E-W 3,000 m apart using a Casa 212 modified aircraft. Survey results were used to identify targets for drilling.

A second airborne electromagnetic and magnetic survey was flown by Fugro using the same aircraft between July 13th and July 27th, 2009. This second survey was an extension to the Border block flown in 2006. It consisted of 111 traverse lines ranging in length from 6 km to 42 km, and 8 tie lines, totalling 1,551 km. Traverse line spacing was 1,000 m with infill lines, flown with a spacing of 333 m, in portions of the area.

Downhole geophysics was completed on most of the 119 core holes. Typical geophysical data was collected including gamma, neutron, calliper, density and resistivity which were used to further define coal intercept locations (Figure 11a).

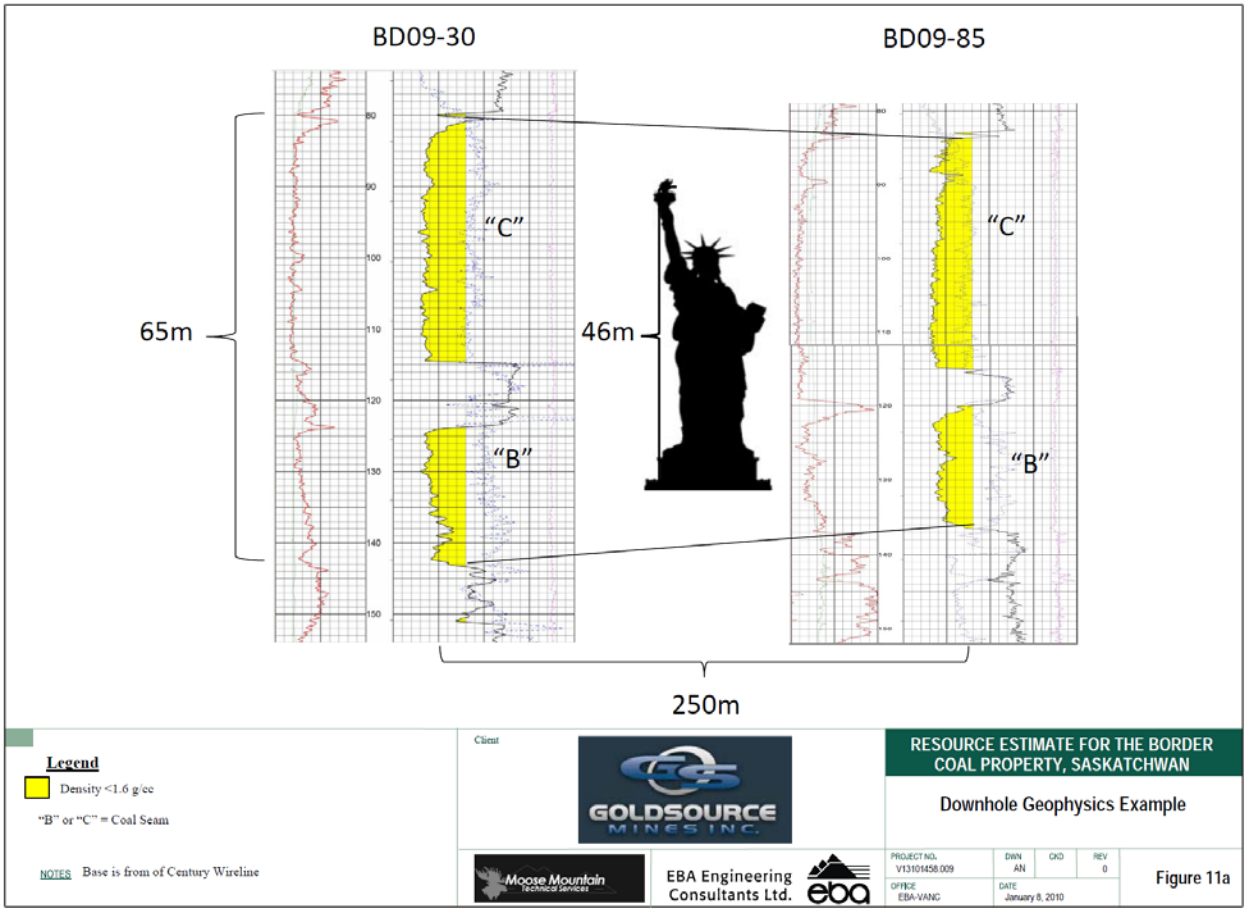


Figure 11a

9.0 SAMPLING METHOD AND APPROACH

All of the core samples were handled using field processes as described below. Goldsource used Norwest Corp. of Calgary, Alberta, for sampling protocols and QA/QC for phases I and II programs. MMTS replaced Norwest as independent qualified persons in the spring of 2009.

For all drill programs, the drillers placed all recovered core in boxes that have two, 1.5 m long rows. For each drill run the starting and ending points were marked with wooden blocks that were placed between the runs. The most common core size used was HQ (63.5 mm) but a smaller core size of NQ (47.6 mm) was used for the two discovery holes (BD08-03 and 06).

For the summer 2008 program, plastic tubing was placed inside the drill rods to protect the coal from the environment and drilling process. Once the tubing was removed from the

rod, both ends were capped, securely tapped and labelled with the hole number and the drill run.

The first two discovery holes (BD08-03 & 06) were split and half core was sampled. Holes drilled in summer 2008 were whole-core sampled, with minor core remaining in the boxes. All but three holes (BD09-64 & 67 & 74, which were whole-core sampled, with a small rep sample left behind) drilled in winter 2009 were disc sampled such that 50% of the core is taken from each major geological interval. Since July 2009, all core was whole-core sampled over coal intervals. After MMTS reviewed the disc sampling procedure setup by Norwest, it was decided to whole core-sample the remaining core for a more accurate sample. Coal quality results for the selective disc versus whole-core sampling methods showed comparable results as presented in Tables 5 and 6.

TABLE 5: SUMMARY OF EXPLORATION DRILL PROGRAMS AND SAMPLING PROCUDURES

Program Timeframe	Number of Holes Drilled	Hole IDs	Sample Procedure
April 2008	2	BD08-03 & 06	split-core sampled
July – August 2008	9	BD08-01, 2, 3A, 4, 5, 6A, 7, 8 & 9	whole-core sampled
January – April 2009	87	BD09-10 to 53, 44A, 54A, 55 to 95	disc sampled & selective whole-core
Summer 2009	11	BD09-96 to 115	whole-core sampled

MMTS believe that whole-core sampling is an appropriate procedure for obtaining a good quality coal sample.

9.1 SAMPLE PREPARATION ANALYSIS AND SECURITY

Sample preparation before May 2009 was under the direction of Norwest Corp. of Calgary, Alberta. Once the drillers boxed the core, it was sent to the core logging shed so it could be logged and sampled. At the core shed, the plastic was removed and the core was lightly washed to remove any drill mud. The core was then placed back into its original box and photographed. The on-site geologist then gave a specific coal grade to each section. Coal grade was determined by using a lustre parameter based on dull to bright coal. These sections were placed in plastic bags, tied with a zip tie and duct-taped to ensure preservation and prevent oxidation of the coal. The samples were shipped immediately to Loring Laboratories in Calgary, Alberta for analysis. Samples were tagged and tracked until delivered to the laboratory. All analyses were completed by Loring Laboratories Ltd. (Loring) in Calgary, Alberta, to obtain the moisture content, ash, sulphur, calorific value and other physical properties including weight, bulk density and specific gravity.

As of July 2009, sampling was carried out under the direction of Moose Mountain Technical Services (MMTS) of Elkford, BC. Coal intervals were retrieved in soft plastic tubing and the ends sealed by twisting them shut. When deemed necessary and when practical, coal may be washed off and towelled dry prior to sampling. Coal was whole-core sampled based on elog densities (with <1.6 cc/g identified as coal) leaving small (10-20 cm) representative samples

behind in the core box. Samples were labelled and bagged in the same way they were previously. Sample tags included in the bags contained only the sample number. Tags were stapled to the bottom of the core box at the end of the sample interval. The samples were shipped to Loring in Calgary, Alberta for analysis.

MMTS believes that samples were stored and secured to NI 43-101 standards.

9.2 BLANKS, STANDARDS AND DUPLICATES

Six holes that were disc sampled (BD09-20, 24, 34, 37, 42 and 73) in early 2009 were re-sampled in summer 2009 using all remaining core as duplicates. A comparative analysis demonstrates that the original sampling program was not biased and produced representative results (Table 6). The analysis compares dry ash values for each of the cored coal sections. The results show a very good correlation between the two data sets. While there is variation between each corresponding sample zone; the differences in ash content do not appear to be biased. To further verify the results, the individual samples were composited into total seam packages and compared. The differences in the composites are less than 1% ash in three of the six holes, less than 2.0% in two holes and 4.65% in one hole.

Drill hole BD09-42 shows the most variation (the new samples are 4.65% higher in ash than the original). This appears to be driven primarily by sample interval 94.6 m to 95.1 m, which is transitional between coal and sandstone. If this 0.5 m zone is discarded, the difference between the new and old sample results is less than 1% ash.

TABLE 6: COAL RE-SAMPLE ANALYSIS SUMMARY

Hole ID	Sample No.	Sample Interval		Disc Sample		Whole-Core Sample		Whole-Core – Disc Ash % Difference	Whole-Core Composite Ash %	Disc Composite Ash %	Whole-Core Comp. - Disc Comp. Ash % Difference
		From (m)	To (m)	Dry Ash %	Dry Sul %	Dry Ash %	Dry Sul %				
BD09-20	13752	96.53	100.50	42.2	2.4	48.08	1.87	5.88			
	13754	102.00	105.60	27.5	2.6	28.51	2.49	1.01	24.75	24.15	0.60
	13755	105.60	109.20	20.8	3.6	20.99	2.78	0.19			
	13757	113.40	118.00	17.4	3.7	15.25	3.70	-2.15	20.15	18.45	1.70
	13758	118.00	122.60	22.4	3.5	29.54	3.11	7.14			
	13759	122.60	127.20	13.4	3.6	12.01	3.69	-1.39			
	13760	127.20	131.80	11.2	3.1	11.60	3.77	0.40			
	13761	131.80	136.40	12.3	3.7	12.57	4.66	0.27			
	13762	136.40	141.00	34	2.8	39.91	2.93	5.91			
	13764	142.87	147.40	50.1	2.1	46.31	2.81	-3.79			

TABLE 6: COAL RE-SAMPLE ANALYSIS SUMMARY

Hole ID	Sample No.	Sample Interval		Disc Sample		Whole-Core Sample		Whole-Core – Disc Ash % Difference	Whole-Core Composite Ash %	Disc Composite Ash %	Whole-Core Comp. - Disc Comp. Ash % Difference
		From (m)	To (m)	Dry Ash %	Dry Sul %	Dry Ash %	Dry Sul %				
BD09-24	13778	89.00	93.81	20.5	3.1	20.24	3.41	-0.26	21.80	20.48	1.33
	13779	93.81	98.62	19.5	2.8	20.65	3.33	1.15			
	13780	98.62	103.43	20.1	2.3	17.98	2.71	-2.12			
	13781	103.43	108.04	21.8	2.4	28.33	2.77	6.53			
	13784	121.15	124.86	17.4	2.9	19.31	2.89	1.91	20.46	19.18	1.28
	13785	124.86	128.57	14.3	3.5	16.37	3.28	2.07			
	13786	128.57	132.28	15.9	2.6	18.91	2.75	3.01			
	13787	132.28	134.46	29.1	2.7	27.23	5.51	-1.87			
BD09-34	11857	109.30	111.50	18.30	2.4	23.81	5.88	5.51	21.31	20.85	0.46
	11858	111.50	115.50	30.40	2.8	28.68	1.25	-1.72			
	11859	115.50	118.00	17.80	1.2	17.50	1.08	-0.30			
	11860	118.00	123.90	16.90	2.9	15.23	2.23	-1.67			
	11862	124.40	127.50	18.80	2.1	20.68	2.76	1.88	15.89	15.73	0.16
	11863	127.50	128.80	14.70	1.7	14.38	1.97	-0.32			
	11864	128.80	134.60	21.20	2.3	19.78	2.40	-1.42			
	11865	134.60	140.00	15.90	2.3	16.13	2.61	0.23			
	11866	140.00	145.00	13.80	2.2	13.72	2.34	-0.08			
	11867	145.00	150.00	13.50	2.1	13.36	2.41	-0.14			
	11868	150.00	155.00	14.20	2.1	14.16	2.32	-0.04			
	11869	155.00	160.00	14.00	2.4	15.06	2.49	1.06			
	11870	160.00	165.00	11.10	2.6	11.28	3.09	0.18			
	11871	165.00	170.00	11.20	2.7	11.38	3.19	0.18			
	11872	170.00	175.00	11.50	3	11.33	3.46	-0.17			
	11873	175.00	180.00	19.40	2.3	18.78	2.58	-0.62			
	11874	180.00	182.20	25.20	2.4	26.47	2.43	1.27			
BD09-37	11894	126.2	131	34.2	3.5	30.19	3.22	-4.01			
	11896	131.7	136	24.4	3.9	21.95	3.58	-2.45	23.95	25.85	-1.90
	11897	136	140.2	27.3	3.7	25.96	3.37	-1.34			
	13654	161.5	162.4	30.4	3.1	47.97	5.21	17.57			
BD09-42	13724	89.6	91.5	46	2.6	52.12	1.94	6.12			
	13726	94.6	95.1	22.7	2.4	34.99	2.53	12.29	34.58	29.93	4.65

TABLE 6: COAL RE-SAMPLE ANALYSIS SUMMARY

Hole ID	Sample No.	Sample Interval		Disc Sample		Whole-Core Sample		Whole-Core – Disc Ash % Difference	Whole-Core Composite Ash %	Disc Composite Ash %	Whole-Core Comp. - Disc Comp. Ash % Difference
		From (m)	To (m)	Dry Ash %	Dry Sul %	Dry Ash %	Dry Sul %				
	13727	95.1	96.9	39.4	2.3	36.58	2.71	-2.82			
	13728	96.9	98.3	27.7	3.2	32.16	3.29	4.46			
	13730	99.1	99.8	40.1	1.8	35.25	2.37	-4.85			
BD09-73	13829	118.1	121.9	34.2	0.8	34.35	0.91	0.15			
	13831	124.48	129.24	28.9	1.6	26.99	1.50	-1.91	25.64	25.19	0.46
	13832	129.48	132.8	19.9	1.7	19.62	2.01	-0.28			
	13833	132.8	137.5	16.1	2.2	16.39	2.29	0.29			
	13834	137.5	142.5	17.9	1.6	17.21	1.89	-0.69			
	13835	142.5	148.31	19.1	1.8	19.12	1.75	0.02			
	13836	148.31	155.8	23.7	1.9	24.40	2.12	0.70			
	13837	155.8	156.3	40.6	3.1	29.53	3.83	-11.07			
	13838	156.3	158.6	35.3	2.4	51.90	1.78	16.60			

MMTS believes that the sampling method and approach used by Goldsource is compliant to the NI 43-101 standard of reporting.

10.0 DATA VERIFICATION

Two twin holes (denoted with the suffix "A") were drilled for BD08-03 and BD08-06. Core from the twin holes was sent to Loring Laboratories to be analyzed. Results are similar to analysis results obtained from holes BD08-03 and BD08-06. Table 7 shows the comparison:

TABLE 7: COMPARISON OF TWINNED DISCOVERY HOLES

	From	To	Calorific Value*		Sulphur
Hole ID	(m)	(m)	kJ/kg (d)	BTU (d)	% (ar)
BD08-03	79.9	101	23,000*	9,890*	1.3
BD08-03A	80	101	19,000	8,170	1.5
BD08-06	101	107	13,700*	5,891*	1.2
BD08-06A	101	118.5	10,100	4,343	1.2

* potential impact from drill fluids on hole 03 and 06

The change in Calorific Value could be due to the improper handling and sampling of the core in the original drill holes. As the discovery holes, there were no preservation precautions taken for holes BD 08-03 and BD08-06.

MMTS believes that the quality control procedures that were employed by Goldsource are to the NI 43-101 standard and in keeping with practices standard to coal industry norms.

11.0 ADJACENT PROPERTIES

The majority of the property holdings adjacent to the property are held by several different companies who have commenced only early stage coal exploration or evaluation programs. Currently none of the adjacent land holdings are affecting Goldsource's exploration plans at Border.

12.0 MINERAL PROCESSING AND METALLURGICAL TESTING

12.1 OVERVIEW

Four hundred and seventy individual coal analyses from the Border Project in eastern Saskatchewan were evaluated to characterize the coal type and quality characteristics of the newly discovered lower Cretaceous Mannville Formation deposits. The core intervals were composited into logical seams and correlated within individual deposit boundaries.

The coal occurs in 6 sub-basins ranging in size from 0.5 to 4 square kilometres containing fifteen discrete deposits. The depositional environment of the lower Cretaceous Mannville Formation coals appears to be controlled by the irregular paleotopography of the underlying Devonian age carbonate rocks. The coal forming materials accumulated in sink areas which may have been caused by karst erosion in the Devonian age carbonates or fault collapse by dissolution of underlying evaporite deposits.

While the areal extent of these deposits is somewhat restricted, the coal accumulation is incredibly thick, in some instances in excess of 100 meters. The coal is thickest in the central part of each deposit and thins out at the margins. The coal type is unique compared to other upper Cretaceous/Tertiary coal deposits mined in western Canada. Petrographic analysis and Ultimate Analysis confirm the coal rank as Sub-bituminous A to C which is the same as coals mined in Alberta. However these Manville coals contain high levels of inert material (Semifusinite, Fusinite) and higher sulphur than the Alberta coals and the Ash Chemistry shows high alkaline mineral content and sulphates. This indicates considerable periods of peat accumulation under aerobic conditions in a brackish water/marine marginal environment versus the fresh water depositional environment associated with upper Cretaceous/Tertiary coals.

The ash content of the coal is variable, with higher ash content near the seam floor and roof rock margin transition zones. The basal zones contain higher proportions of carbonaceous rock partings. These are less prevalent in the upper, more uniform sections of the coal

deposit and the overall ash content is more consistent; averaging 17% on an As Received basis.

The coal deposits are locally water saturated and this affects the total moisture content on an As Received basis as seen in the core samples.

The average As Received Moisture content from the core samples is 27.33% while the average Equilibrium Moisture content from selected core intervals is 21.95%. The "as mined" moisture content will be greater than the Equilibrium value and at this point, assumed to approximate the As Received value. Since moisture content directly affects calorific value, this becomes a key parameter for further investigation. A determination of the actual "as mined" moisture content would have to be established by bulk sampling methods.

The weighted average core assay values to date have an overall 27.33% Moisture content, 18.61% Ash content, a 2.16% Sulphur content and a calorific value of 15,409 kj/kg (6,626 BTU).

The high amount of alkaline minerals present in the ash will result in ash fouling characteristics in a conventional power station boiler and the sulphur content is higher than current Saskatchewan coals which would cause SO_2 emissions which would require standard collection methods.

The trace element analyses show low levels of arsenic, cadmium and selenium which are acceptable. Mercury levels are within the range of other western Canadian power plant coals.

12.2 PROXIMATE ANALYSIS

The following table illustrates the variation in moisture, ash, sulphur and heating value in each individual deposit and the thickness weighted average value. All values are on an "As Received" basis.

TABLE 8: PROXIMITY ANALYSIS

Deposit	Hole No	Coal Interval Meters	Moisture Content % (ar)	Ash Content % (ar)	Sulphur Content % (ar)	Heating Value (ar) kJ/kg
Pasquia 02	BD O8 O2	1.25	30.1	13.3	1.5	15726
		10	30.6	12.62	1.37	15810
		6.52	27.3	19.99	1.17	13684
	BD 09 30	34.62	34.77	12.13	1.06	15086
		19.16	23.3	23.3	1.4	13979
	BD 09 64	11.1	28.5	21.2	1.6	14362
		9.1	31.5	11.7	2.0	16445
	BD 09 69	35.4	26.41	16.31	1.3	15922
		4	27.3	29.8	1.5	10927

TABLE 8: PROXIMITY ANALYSIS

Deposit	Hole No	Coal Interval Meters	Moisture Content % (ar)	Ash Content % (ar)	Sulphur Content % (ar)	Heating Value (ar) kJ/kg
		13	31.51	15.23	2.06	15521
	BD 09 82	11.4	29.87	14.47	1.57	15679
		9.1	27.27	19.99	2.9	14470
		3.6	27.72	26.49	2.09	12424
		1.5	27.06	30.62	2.16	11900
	BD 09 83	10.5	35.93	21.19	2.03	16589
		13	28.18	18.91	1.5	14385
	BD 09 85	31	28.59	13.01	1.42	16461
		16.5	28.79	18.91	1.87	14316
	BD 09 106	21.1	25.45	15.10	1.45	16941
Weighted Average			29.41	16.66	1.53	15333
Pasquia 5	BD O8 O5	5.45	24.16	17.89	2.1	13305
		5.6	26.38	28.5	2.69	12956
	BD 09 32	1.3	31.4	21.6	1.5	13925
		9.6	32.66	16.82	1.66	14357
		4.1	28.5	32	1.9	10825
	BD 09 36	3.5	26.6	30.5	1.4	12105
		2	26.5	31.7	1.1	11400
	BD 09 37	4.5	28.6	24.4	2.5	14103
		8.5	30.97	17.88	2.65	14508
		1.2	22.80	24.80	1.9	14556
		0.9	23.6	23.2	2.4	14707
	BD O9 42	1.9	24.8	34.9	1.9	11186
		3.7	31.02	22.74	1.79	12897
		0.7	24.4	30.4	1.3	12100
	BD 09 45	10.3	29.2	21.35	2.62	13941
	BD 09 49	2.2	28.5	23.8	4	13757
	BD 09 61	4	32.1	21.1	1.2	13259
	BD 09 87	15.3	29.73	18.95	2.43	14329
	BD 09 91	4.6	32.5	20.6	1.7	12327
		4.5	29.2	28.5	1.5	10745
		5.7	39.1	15.8	2.1	12424
	BD 09 95	1.3	25.4	27.2	1.6	13345
Weighted Average			29.74	22.08	2.13	13335

TABLE 8: PROXIMITY ANALYSIS

Deposit	Hole No	Coal Interval Meters	Moisture Content % (ar)	Ash Content % (ar)	Sulphur Content % (ar)	Heating Value (ar) kJ/kg
Pasquia 96	BD 09 96	9.1	24.30	15.55	1.53	16886
		3.6	23.69	14.05	2.33	17702
		5.1	23.54	24.91	2.23	14369
Pasquia 97	BD 09 97	1.5	27.15	9.05	2.54	19011
		8.0	24.70	18.36	1.95	15888
Pasquia 98	BD 09 98	8.3	24.53	17.73	2.67	16342
		1.5	22.07	20.75	2.54	16632
		4.1	17.47	26.08	3.38	17723
Weighted Average			23.62	18.54	2.25	16459
Chemong 3	BD O8 3A	11.35	25.32	13.66	1.65	17537
		9.85	23.5	16.4	2.45	17049
	BD 09 18	0.9	24.1	20.9	1.7	15479
		1.1	26.3	32	1.4	11781
	BD 09 29	6.5	31.1	14.7	2.1	15609
		7.5	27	24.3	1.6	14127
	BD 09 34	14.6	31.68	14.43	1.69	15172
		57.8	34.24	10.16	1.56	16185
	BD 09 40	28.1	33.49	11.69	1.13	15506
		82.4	35.88	8.73	1.49	15129
		4.9	37.8	16.5	1.8	13101
		3	38.7	20.2	2.4	11623
		2.6	33.8	27.8	2.5	10677
Weighted Average			33.40	11.74	1.58	15470
Chemong 6	BD 08 6A	20.3	37.82	11.93	1.63	14353
		2.1	36.85	26.05	1.91	14325
	BD 09 13	12.5	32.6	11.40	1.4	16386
		1.5	30.8	16.1	2.4	15964
	BD 09 24	19.04	30.16	14.31	1.85	16026
		13.31	32.18	12.31	1.98	16243
	BD 09 43	17.50	25.85	22.67	1.79	14306
		14.85	31.33	13.17	2.83	16550
	BD 09 47	12.6	23.45	25.75	1.8	13943

TABLE 8: PROXIMITY ANALYSIS

Deposit	Hole No	Coal Interval Meters	Moisture Content % (ar)	Ash Content % (ar)	Sulphur Content % (ar)	Heating Value (ar) kJ/kg
Weighted Average			30.91	15.98	1.90	15333
Chemong 7	BD O9 101	5.8	17.73	22.16	4.06	17049
		3.8	17.66	18.99	2.85	18221
Weighted Average			17.70	20.91	3.20	17513
Chemong 20	BD 09 20	3.92	29.8	29.6	1.7	11416
		7.2	33	16.2	2.1	14727
		27.6	37.37	11.58	2.1	15063
	BD 09 22	5.19	27.7	24.8	3.8	13701
		12.49	29.41	19.35	1.85	13981
		5.5	25.43	19.93	1.99	16564
	BD 09 74	4.3	28.6	28.5	1.3	11410
Weighted Average			32.77	17.44	2.10	14387
Chemong 100	BD O9 100	0.6	23.98	21.84	2.63	15585
		2.4	23.46	21.90	2.57	14267
		2.0	24.56	22.53	2.77	14486
Weighted Average			23.96	22.14	2.66	14513
Niska 5	BD 09 105	10.8	21.17	15.33	3.40	18237
		1.6	19.76	17.02	2.64	18328
		5.5	23.03	11.29	2.89	19266
		2	21.27	17.69	3.14	17842
		1	17.71	35.26	3.00	13401
		9.2	22.77	13.08	3.22	19522
Niska 105	BD 09 105	10.8	21.17	15.33	3.40	18237
		1.6	19.76	17.02	2.64	18328
		5.5	23.03	11.29	2.89	19266
		2	21.27	17.69	3.14	17842

TABLE 8: PROXIMITY ANALYSIS						
Deposit	Hole No	Coal Interval Meters	Moisture Content % (ar)	Ash Content % (ar)	Sulphur Content % (ar)	Heating Value (ar) kJ/kg
		1	17.71	35.26	3.00	13401
		9.2	22.77	13.08	3.22	19522
Niska 107	BD 09 107	9.0	27.64	11.20	2.75	17728
		10.3	22.09	26.84	2.42	15266
		25.90	27.77	12.68	2.50	17535
Niska 108	BD 09 108	25.50	25.50	17.96	2.41	17229
		23.10	21.54	16.37	2.62	17987
Niska 108	BD 09 109	4.0	24.98	23.86	3.14	14584
		16.80	24.88	25.81	2.45	13981
Weighted Average			23.64	17.31	2.65	17047
Split Leaf	BD 09 39	8.6	25.71	27.83	3.56	12871
Split Leaf	BD 09 41	11.3	25.64	21.41	1.86	14792
		22.5	28.62	17.36	1.43	15131
Split Leaf	BD 09 73	4	25.4	25.5	0.6	13041
		34.3	29.63	15.95	1.34	15051
Split Leaf 119	BD 09 114	6.8	31.95	20.02	2.43	13808
Weighted Average			28.37	18.94	1.70	14632

The Following table summarizes the above proximity analysis.

TABLE 9: PROXIMATE ANALYSIS SUMMARY				
Deposits	Moisture Content % (ar)	Ash Content % (ar)	Sulphur Content % (ar)	Heating Value KJ/Kg
Pasquia 2	29.41	16.66	1.53	15333
Pasquia 5	29.74	22.08	2.13	13335
Pasquia New Deposits (various)	23.62	18.54	2.25	16459
Chemong 3	33.40	11.74	1.58	15470
Chemong 6	30.91	15.98	1.90	15333
Chemong 7	17.70	20.91	3.20	17513
Chemong 20	32.77	17.44	2.10	14387
Chemong 100	23.96	22.14	2.66	14513
Niska New Deposits	23.64	17.31	2.65	17047

TABLE 9: PROXIMATE ANALYSIS SUMMARY				
Deposits	Moisture Content % (ar)	Ash Content % (ar)	Sulphur Content % (ar)	Heating Value KJ/Kg
(107 & 108)				
Spit Leaf	28.37	18.94	1.70	14632
Weighted Average	27.33	18.61	2.16	15409

The results show significant variation in moisture content (17.7% to 39.0%) and ash content (11.7% to 34.9%) within each deposit and between individual core holes. The ash variability is attributed to the amount of non coal parting material present and typically the higher values are in thinner seam sections near the top or base of major coal intervals, reflecting the transition zones in the deposits. The thicker coal zones have more consistent lower ash ranging from 12% to 24%. The weighted average value ash content for each deposit is a reasonable expectation for the actual mined product Border area. Careful selective mining of the transition zones should allow for production of a fairly uniform ash product and potential ash reduction.

The moisture variability is most likely due to the saturated nature of these deposits and clearly suggests that dewatering will be required ahead of open pit mining. The weighted average value of 27.3% is comparable to other Mannville coals deposits (29.9% moisture content reported in Westcore Energy Ltd's Black Diamond property in Manitoba and the 30.0% moisture content reported by NLP on their Firebag deposit in Alberta) in similar geologic configurations.

Estimating the moisture content of the as mined coal after dewatering is a subjective comparison between the current average *in-situ* total moisture content of 27.33% and the weighted average Equilibrium Moisture content of 21.95% determined on selected coal core intervals. The Equilibrium Moisture content of low rank coals is the absolute lower limit of "stable moisture content" and drying below this level triggers spontaneous combustion. Data from operating Alberta Sub-bituminous surface mines comparing Equilibrium Moisture content to actual "as mined" Moisture content is shown in the following table:

TABLE 10: EQUILIBRIUM MOISTURE CONTENT VS. ACTUAL "AS MINED" MOISTURE CONTENT			
Mining Operation	Coal Zone	Equilibrium Moisture	As mined Moisture
Highvale/Whitewood	Ardley	14%	18.5%
Paintearth/Sheerness	Horseshoe Canyon	19.8%	26.5%
Border Coal	Mannville	21.95%	pending

Typically, the "as mined" moisture value is higher than the Equilibrium value. The data from the table suggests the Border Coal "as mined" moisture level could be near 28% after

mine dewatering. Equilibrium moisture is the approximate inherent moisture content of the coal which may be achieved with dewatering and practical stockpile drying over time.

DETAILED COAL ANALYSIS

Eleven composite core samples were selected from four representative holes to evaluate the ultimate analysis, forms of sulphur, petrography, ash chemistry and ash fusion characteristics in four of the main deposits. Coal petrography and Ultimate Analysis are an established, precise method of determining the Rank of coal through Vitrinite Random Reflectance. In addition, identification of the type and proportion of individual coal macerals provides insight into depositional history of the coal seams.

Ash chemistry and resultant ash fusion are important parameters in understanding how coal will behave in a combustion furnace (slagging/fouling characteristics) and what types of off gases will be evolved. It is also important to understand the chemical composition for safe ash disposal design.

Trace element analysis identifies potential environmentally harmful metals that could escape in the flue gases or may be leachable from the coal ash material.

The results of the test work undertaken are discussed and shown in the sections below.

Ultimate Analysis

The following table shows the ultimate analysis for select deposits. The Niska deposits have not had Ultimate or geochemistry analysis completed on them.

TABLE 11: ULTIMATE ANALYSIS

Deposit	Hole/ Interval	Dry Basis							
		%Carbon	%Hydrogen	%Nitrogen	%Ash	%Sulphur	%Oxygen	Daf Oxygen	Daf Carbon
Pasquia 2	08 02/5-13	63.78	3.39	1.17	14.60	2.54	14.51	16.99	74.68
	08 02/14-17	61.16	2.46	0.95	20.42	1.36	13.66	17.17	76.85
	08 02/21-27	55.22	2.50	0.88	26.48	1.58	13.34	18.15	75.11
Chemong 3	08 03A/35-39	62.11	2.18	1.15	17.30	2.99	14.27	17.26	75.10
	08 09/41-47	63.65	2.39	1.04	15.24	1.86	15.81	18.65	75.09
	08 09/50-63	58.60	1.92	1.01	22.12	3.30	13.04	16.74	75.24
Pasquia 5	08 05/97-115	42.20	2.22	0.65	40.94	3.25	10.75	18.20	71.45
Chemong 6	0806A/141-	61.65	2.48	1.05	19.06	2.39	13.37	16.52	76.17

TABLE 11: ULTIMATE ANALYSIS									
Deposit	Hole/ Interval	Dry Basis							
		%Carbon	%Hydrogen	%Nitrogen	%Ash	%Sulphur	%Oxygen	Daf Oxygen	Daf Carbon
	151								
	0806A/152-162	64.28	2.89	1.02	16.77	3.18	11.86	14.25	77.23
	0806A/169-170	56.02	2.70	0.83	25.81	2.68	11.97	16.13	75.50
Average		58.51	2.51	0.98	21.87	2.513	13.25	17.01	75.24
Std		6.56	0.39	0.15	7.44	0.67	1.39	1.19	1.49

The dry, ash free Carbon and Oxygen values confirm the rank of Sub-bituminous A to C similar to Alberta Sub-bituminous coals which average 75% Carbon and 19% Oxygen content. Lignite coals in southern Saskatchewan contain 73% Carbon and 20% Oxygen.

Forms of Sulphur

The Following table shows the sulphur forms.

TABLE 12: SULPHUR FORMS*					
Deposits	Hole/ Interval	Air Dry Basis			
		%Total Sulphur	%Sulphate	%Pyritic	%Organic
Pasquia 2	08 02/5-13	2.42	0.03	0.63	1,76
	08 02/14-17	1.28	0.03	0.91	0.34
	08 02/21-27	1.50	0.02	0.15	1.33
Chemong 3	08 03A/35-39	2.54	0.05	1.07	1.42
	08 09/41-47	1.61	0.01	0.07	1.53
	08 09/50-63	2.79	0.02	0.48	2.29
Pasquia 5	08 05/97-115	3.01	0.07	0.82	2.12
Chemong 6	0806A/141-151	2.14	0.02	0.46	1.66
	0806A/152-162	2.85	0.02	0.29	2.54
	0806A/169-170	2.51	0.02	0.05	2.44
Average		2.17	0.03	0.49	1.75
Standard Deviation		0.63	0.02	0.34	0.65

* % are by weight

The Sulphur form data show an average of 80% bound organic sulphur and 20% pyritic sulphur. Total sulphur content above 0.5% in coals typically is the result of sea water saturation during periods of swamp inundation by high tidal water as well as post depositional saturation of the final buried swamp. The amount of pyrite formed relates to the amount of iron in solution. Evaluation of individual core samples shows that pyrite occurrence is erratic and not constant throughout the deposits.

Petrography

The Following table shows petrographic analysis.

TABLE 13: PETROGRAPHIC ANALYSIS

Deposits	Hole/ Interval	Reactive Macerals						
		Ro Random	Vitrinite	Liptinite	Inert Semifusinite	Fusinite	Inerto Detrinite	Macrinite
Pasquia 2	08 02/5-13	0.47	51.4	5.8	15.9	10.8	15.5	0.4
	08 02/14-17	0.52	35.4	3.4	26.6	25.8	5.8	0.4
	08 02/21-27	0.41	24.8	1.6	40	26.6	6.8	0.2
Chemong 3	08 03A/35-39	0.44	53.6	1.6	23.4	10.6	10.8	0
	08 09/41-47	0.46	51.4	2.5	22	17.9	6.2	0
	08 09/50-63	0.48	70.6	1.4	9.2	13.4	5.2	0.2
Pasquia 5	08 05/97-115	0.43	52.4	5	13.6	16.4	12.2	0.2
Chemong 6	0806A/141-151	0.44	47.2	1.8	20.4	12.2	17.6	0.8
	0806A/152-162	0.42	36.2	3.0	22.8	32.2	5.6	0.2
	0806A/169-170	0.42	28.4	2.8	29.4	25	14.4	0
Average		0.45	46.6	2.8	21.3	18.7	10.0	0.2
Std		0.03	14.0	1.4	8.8	7.5	4.4	0.2

The Border Coals show rank Reflectance ranging from Sub-bituminous C (Ro 0.42) to Sub-bituminous A (Ro 0.52) and average Sub-bituminous B (Ro 0.45) which is similar to the power station coals mined in Alberta

The Border Coals show a unique petrographic composition in that they have a much lower content of Reactive Macerals (49.4%) in comparison with other western Canadian coals. Alberta Sub-bituminous coals typically show from 76% to 96% Reactives and southern Saskatchewan lignites average around 80%. The high inert maceral content shows that significant aerobic alteration of the original peat took place during deposition. The high Fusinite content (which is essentially charcoal) indicates periods of oxidation or perhaps fires in the paleo-swamp.

The Pasquia 2 and Chemong 6 sample series show a gradational increase in Reactive macerals versus Inert macerals moving up section from the base of the coal succession, suggesting more stable swamp conditions near the top. It is possible that some of the original organic material was originally transported and redeposited at the beginning of the coal forming sequence.

Ash Characteristics

The following table shows ash chemistry.

TABLE 14: ASH CHEMISTRY

		Acidic Oxides			Basic Oxides							
Deposits	Hole Interval	SiO_2	Al_2O_3	TiO_2	Fe_2O_3	CaO	MgO	Na_2O	K_2O	P_2O_5	SO_3	Und
Pasquia 2	08 02/5-13	9.98	22.49	0.86	6.27	13.72	2.68	11.01	0.63	0.35	29.17	2.84
	08 02/14-17	42.15	21.92	0.33	3.46	9.33	1.40	3.96	0.16	0.02	14.40	2.87
	08 02/21-27	35.66	29.96	1.06	0.99	9.60	1.83	5.48	0.38	0.33	12.29	2.41
Chemong 3	08 03A/35-39	34.09	18.79	0.25	7.45	8.65	1.71	7.26	0.48	0.01	19.18	2.14
	08 09/41-47	28.08	22.13	0.60	0.80	12.74	2.28	9.15	0.62	0.83	20.20	2.57
	08 09/50-63	28.14	26.76	0.75	3.55	11.36	1.75	6.63	0.42	0.34	18.16	2.14
Pasquia 5	08 05/97-115	42.82	30.94	1.17	3.82	3.89	0.90	3.14	0.90	1.00	8,60	2.83
Chemong 6	0806A/141-151	31.07	23.31	1.05	3.13	9.76	1.81	7.57	0.56	0.14	19.39	2.21
	0806A/152-162	26.06	23.41	0.56	2.60	11.63	1.97	7.94	0.47	0.54	21.83	2.97
	0806A/169-170	28.80	30.17	0.82	1.00	11.13	1.96	5.75	0.42	4.41	13.21	2.33

TABLE 14: ASH CHEMISTRY

		Acidic Oxides			Basic Oxides							
Deposits	Hole Interval	SiO_2	Al_2O_3	TiO_2	Fe_2O_3	CaO	MgO	Na_2O	K_2O	P_2O_5	SO_3	Und
Average		30.69	24.99	0.75	3.31	10.18	1.83	6.91	0.50	0.80	17.64	2.53
Std		8.84	3.97	0.29	2.09	2.58	0.45	2.32	0.18	1.24	5.51	0.31

The following table shows ash fusion.

TABLE 15: ASH FUSION

Deposits	Hole Interval	Reducing Atmosphere C				Oxidizing Atmosphere C			
		IDT	ST	HT	FT	IDT	ST	HT	FT
Pasquia 2	08 02/5-13	1165	1173	1181	1208	1305	1391	1407	1426
	08 02/14-17	1154	1173	1176	1178	1326	1399	1402	1418
	08 02/21-27	1299	1316	1337	1359	1305	1334	1342	1402
Chemong 3	08 03A/35-39	1127	1133	1165	1181	1181	1294	1321	1342
	08 09/41-47	1162	1168	1172	1178	1294	1364	1380	1399
	08 09/50-63	1133	1246	1251	1273	1230	1251	1262	1326
Pasquia 5	08 05/97-115	1219	1396	1420	1455	1297	1442	1458	1426
Chemong 6	0806A/141-151	1149	1208	1219	1219	1259	1316	1329	1364
	0806A/152-162	1176	1184	1206	1206	1307	1391	1396	1434
	0806A/169-170	1184	1320	1342	1342	1305	1326	1364	1426
Average		1177	1231	1247	1272	1281	1351	1366	1396
Std		48	81	84	101	42	54	52	37

The Ash Chemistry results show high levels of calcium, sodium and sulphur in the ash which indicate the presence of significant amounts of carbonate and sulphide minerals ($CaCO_3$, $CaS0_4$, Na_2SO_4). The presence of these minerals and the proportion they

contribute to the overall base/acid ratio of 0.40 suggest that these Border Coals will exhibit fouling characteristics in a conventional pulverized fuel power station. The calcium and in particular sodium elements volatize in the boiler and precipitate out as slag deposits on the convective heat exchangers in the boilers, causing operational problems. Saskatchewan coal-fired power plants burns high sodium coal which causes fouling. The boiler can be designed for this problem at the outset. A new Fluidized bed type furnace would solve this problem and high sulphur too, therefore, this parameter is manageable.

The Ash Fusion Reducing values confirm the low ash melting and fluid temperatures as predicted from the Ash Chemistry.

The predominance of carbonate and sulphate oxides in the ash again confirms a marine influenced depositional environment and likely post depositional saturation of alkaline rich water sourced from the underlying Devonian carbonate rocks.

Trace Element Analysis

The following table shows trace metals.

TABLE 16: TRACE METALS (PPM)

Deposits	Hole Interval	As	B	Ba	Be	Cd	Cl	Co	Cr	Cu	F	Li
Pasquia 2	08 02/5-13	3	341	172	<1	<1	501	63	9	52	13	283
	08 02/14-17	3	320	166	<1	<1	307	17	6	9	9	135
	08 02/21-27	7	293	146	<1	<1	294	9	32	42	9	320
Chemong3	08 03A/35-39	3	319	133	<1	<1	69	77	<1	18	7	109
	08 09/41-47	5	341	157	<1	<1	106	11	<1	33	7	282
	08 09/50-63	<1	187	96	<1	<1	64	28	11	49	3	364
Pasquia 5	08 05/97-115	6	130	651	<1	<1	289	34	40	39	15	84
Chemong 6	0806A/141-151	8	336	168	<1	<1	48	29	7	54	9	355
	0806A/152-162	4	364	155	<1	<1	33	26	14	57	11	401
	0806A/169-170	2	221	250	<1	3	62	10	60	48	13	137
		Mn	Mo	Ni	Pb	Se	Sb	Sr	U	V	Zn	Hg
Pasquia 2	08 02/5-13	414	10	36	32	3	4	2660	25	110	36	0.45
	08 02/14-17	66	<1	9	5	1	<1	924		14	16	0.68
	08 02/21-	109	7	18	20	2	<1	1890	140	61	21	0.44

TABLE 16: TRACE METALS (PPM)

Deposits	Hole Interval	As	B	Ba	Be	Cd	Cl	Co	Cr	Cu	F	Li
	27											
Chemong 3	08 03A/35-39	317	5	39	12	1	3	1430		88	48	0.62
	08 09/41-47	240	5	14	1340	1	<1	3050	97	47	21	0.15
	08 09/50-63	227	7	17	1690	1	<1	1800	71	47	52	0.40
Pasquia 5	08 05/97-115	25	9	34	35	2	<1	1800	121	150	104	0.31
Chemong 6	0806A/141-151	123	8	18	25	1	<1	1840	125	71	32	0.25
	0806A/152-162	133	6	20	19	2	<1	2710	61	54	26	0.36
	0806A/169-170	35	8	25	63	1	<1	6390	87	92	45	0.19

The trace elements of general concerns in industrial coals are arsenic (As), cadmium (Cd) selenium (Se), mercury (Hg), chlorine (Cl), and fluorine (F) as these will volatilize in the combustion process and can escape into the environment with the flue gas. The concentration of As, Cd and Se are low and are within the range of values seen in other Canadian thermal coals. The Cl values are high for Border Coals and reflect a marine influenced depositional environment. Similarly, the boron content (B) is very high compared to other western Canadian coals which confirm a brackish, marine influenced deposition.

The mercury content is comparable to other western coals. By convention, mercury is reported in parts per billion (ppb) on a whole coal basis. The Border samples range from a low of 23 to a high of 140 ppb, with an average value of 75 ppb. This compares with values 40 to 70 ppb reported for Alberta Sub-bituminous coals and values of 112 to 139 for Saskatchewan lignites. The conclusion is that Border Coals are therefore similar to existing power plant coals.

Newly adopted mercury emission regulations call for the capture of 70% to 90% of the elemental mercury in flue gas. The presence of high Cl in Border Coals may be beneficial in capturing this mercury as these elements have an affinity for each other and form compounds that can be captured in an electrostatic precipitator rather than more exotic sorbent based filters.

There are two high lead (Pb) values in the Chemong 3 samples. While lead is normally captured in the coal ash, high lead levels could lead to groundwater leaching concerns from

this ash material. This needs further evaluation to determine if it's anomalous or persistent in the ash material.

MMTS believes that analytical testing on the Border Coal resource is sufficient to preliminarily characterize the coal as a Sub-bituminous thermal coal. Preliminarily, the coal quality appears to be compatible for use as a product for coal-fired power generation.

13.0 MINERAL RESOURCE ESTIMATES

Resources have been estimated for the Border coal deposits for those areas that potentially could be mined by open pit methods. Resources that could be mined using underground methods have not been analyzed in this report.

The geological modeling portion of the project was completed by EBA though MMTS reviewed the available data, assisted in the geological interpretation, and reviewed the final 3D resource model.

13.1 DATABASE

The geological database for the 2009 model was developed from previous exploration records by MMTS and Goldsource, and includes 119 drill holes for a total of 17,361 m. The geologic structure was developed by EBA, and considers bedding to core angles logged in drill core.

Data from Excel spreadsheets containing geological core logs and coal seam "picks" based on coal quality was imported in Gemcom Gems™ software. Solids representing coal seams were created based on continuity of coal within each of the deposits. Volumetrics were determined using Gems™ software to output volumes for each of these 3-D solids. Table 17 summarized the data contained within the database.

TABLE 17: DATABASE STATISTICS

Number of Drill Holes	119
Number of Coal Intercepts	111
Number of Samples Assayed includes Non-Coal Intercepts	706

13.1.1 Modelling

Model Extent

The model area is approximately 15km east to west by 30km north to south. There is a general trend of 140º for most of the deposits, though there are numerous offsets to this trend (Figure 12).

Model Geometry

The model comprises a series of 3D solids (shapes) representing individual coal seams in each deposit. The individual deposit geometry has been determined from airborne EM surveys, which has been effective in outlining the maximum extent of each deposit. In total 15 deposits have been modeled to date. One deposit is considered potentially underground mineable and is not addressed in this section.

Two of the deposits, Pasquia 2 and 5 have considerable drilling; eight holes in Pasquia 2 and eleven in Pasquia 5. As well, the deposits Chemong 3, 6, and 20 each host five holes, while Split Leaf 39 and Niska 108 each have three holes and Chemong 7 and Niska 107 each have two holes. Pasquia 96, 97, 98, Chemong 100, and Split Leaf 114 each have only one drillhole each.

Correlation of coal seams has been completed on all deposits with Pasquia 2 and 5 showing the highest degree of confidence due to a drill hole spacing of approximately 250 metres.

Topography

A digital elevation model for the project area was obtained from Goldsource, and a Saskatchewan Government 1:20,000 DEM map, which included an elevation datum on a 100m grid with accuracy within 5m, surface feature break lines. The drillhole data was not 'draped' to the digital data to fit the topography at this point, but with further modeling this should be completed. Since the topography is relatively flat, there is suggested minimal impact to the resource estimation.

Overburden Surface

At this point an overburden thickness map has not been created. With further modeling, an overburden surface should be built.

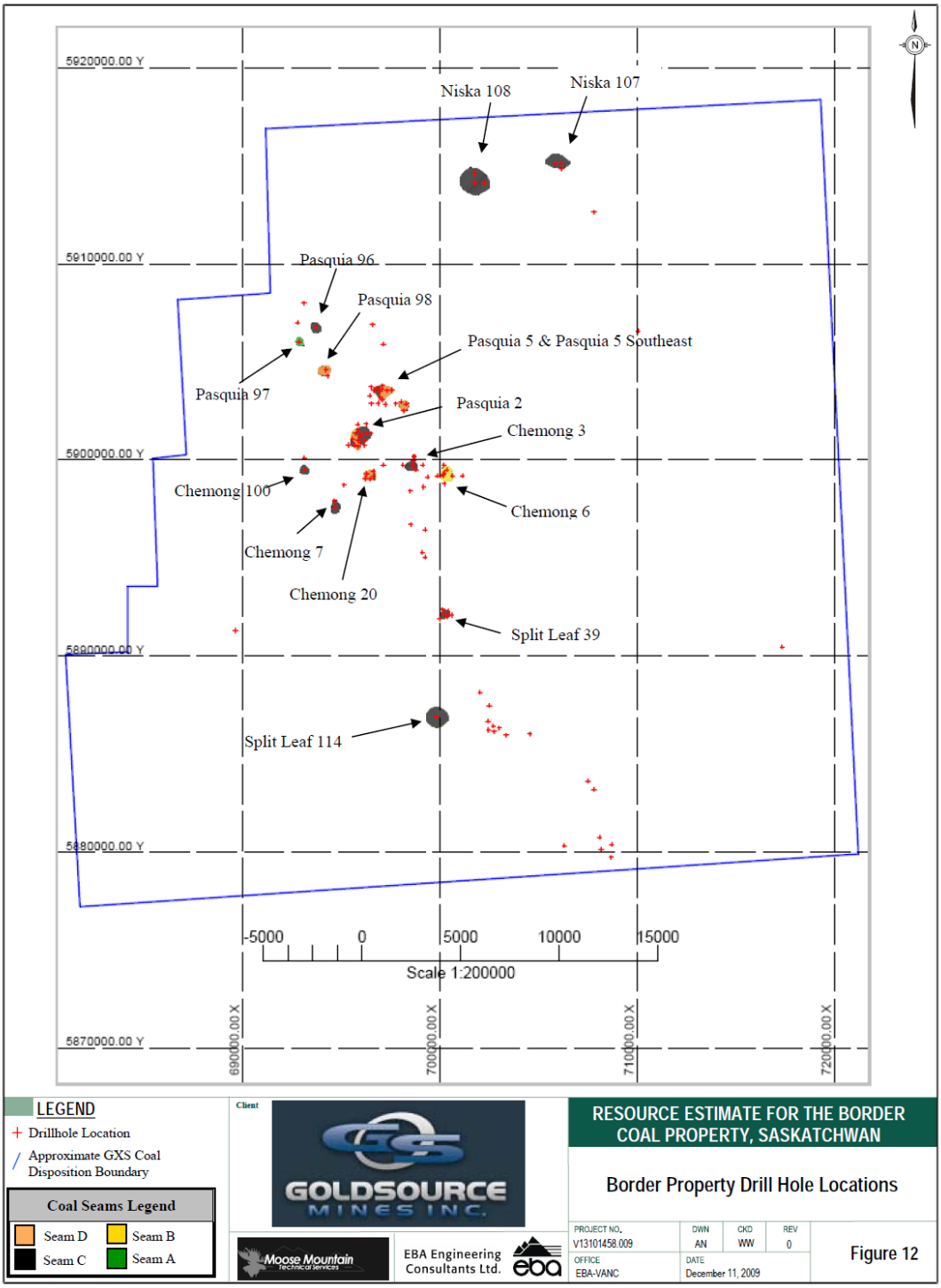
Oxide Horizon

At this point oxidized or weathered coal has not been defined. With further modeling, a weathered coal surface should be built. Visual observations show only minor oxidation of pyrite.

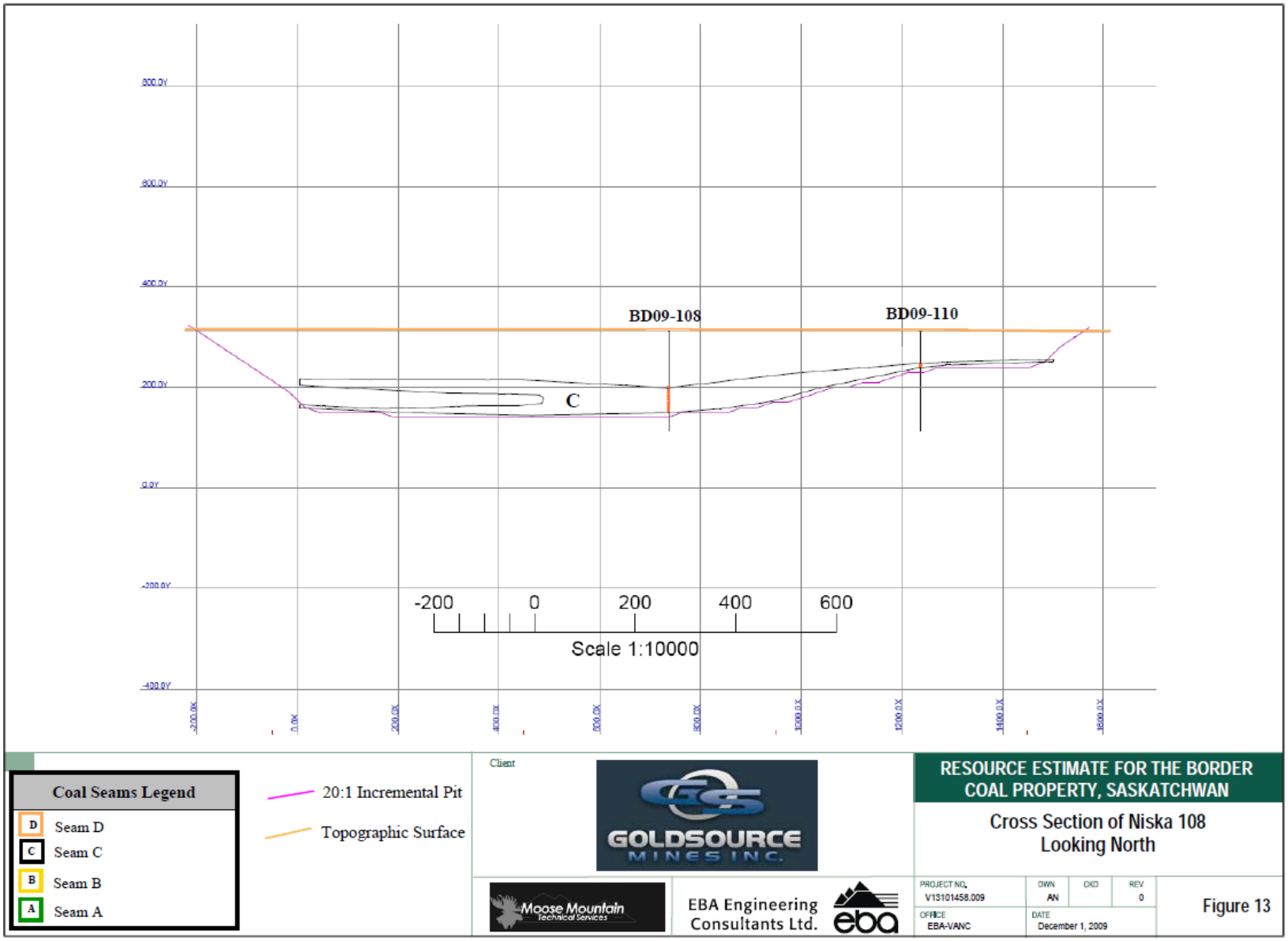
Mineable Thickness

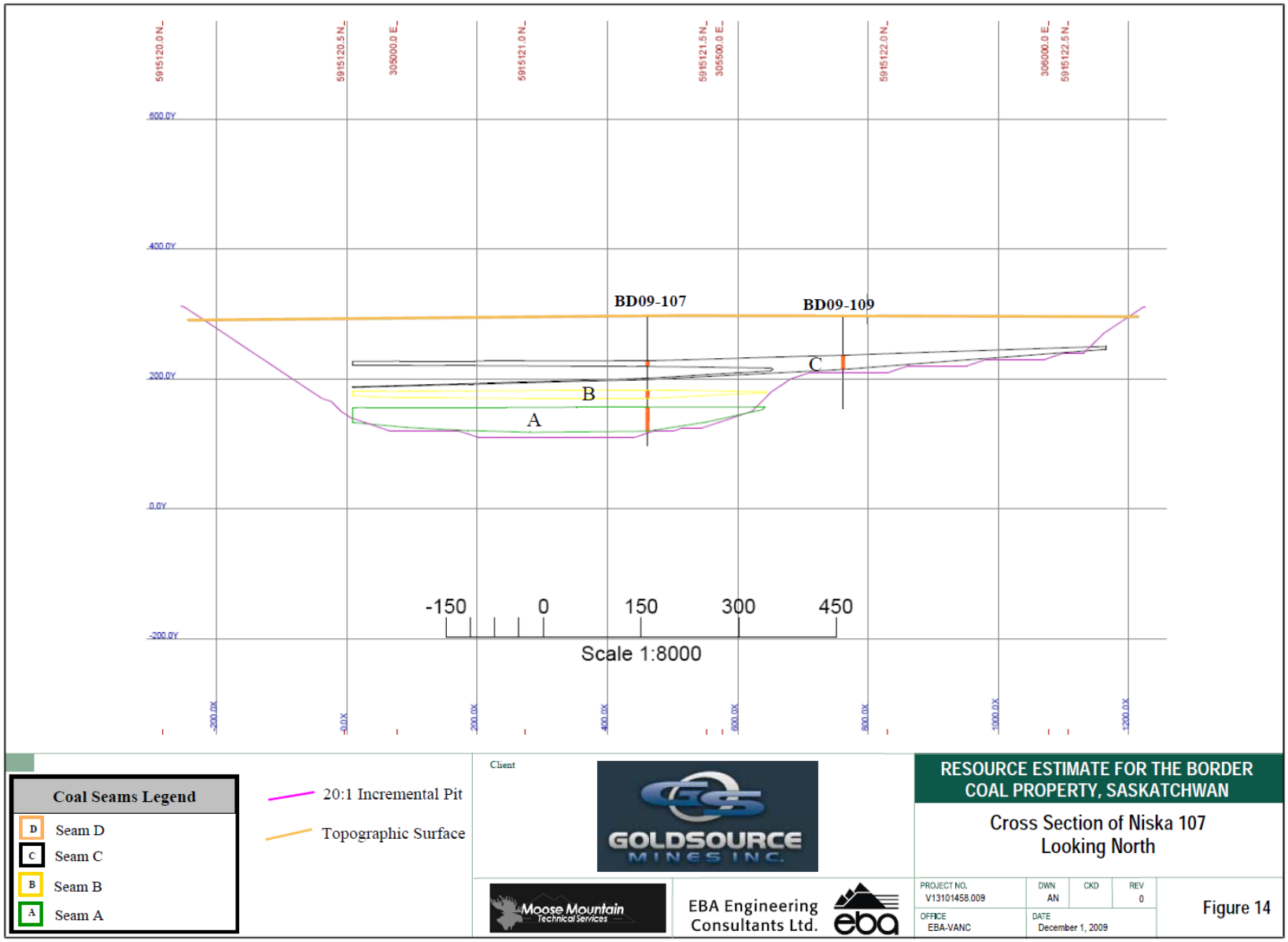
On the basis of the current interpretation, the Border deposits are classified as Moderate, potentially surface mineable deposits. Sample analysis shows the coals to be sub-bituminous A to C in rank. Resource assumptions for potential mineable coal seam thicknesses conform to GSC Paper 88-21 guidelines at a thickness of 0.6 metres. Mineable thickness represents drilled coal thickness where the coal is at least 0.6m thick. All solids and portions of solids less than 0.6 m thick were excluded from the model with minimal impact on the resource.

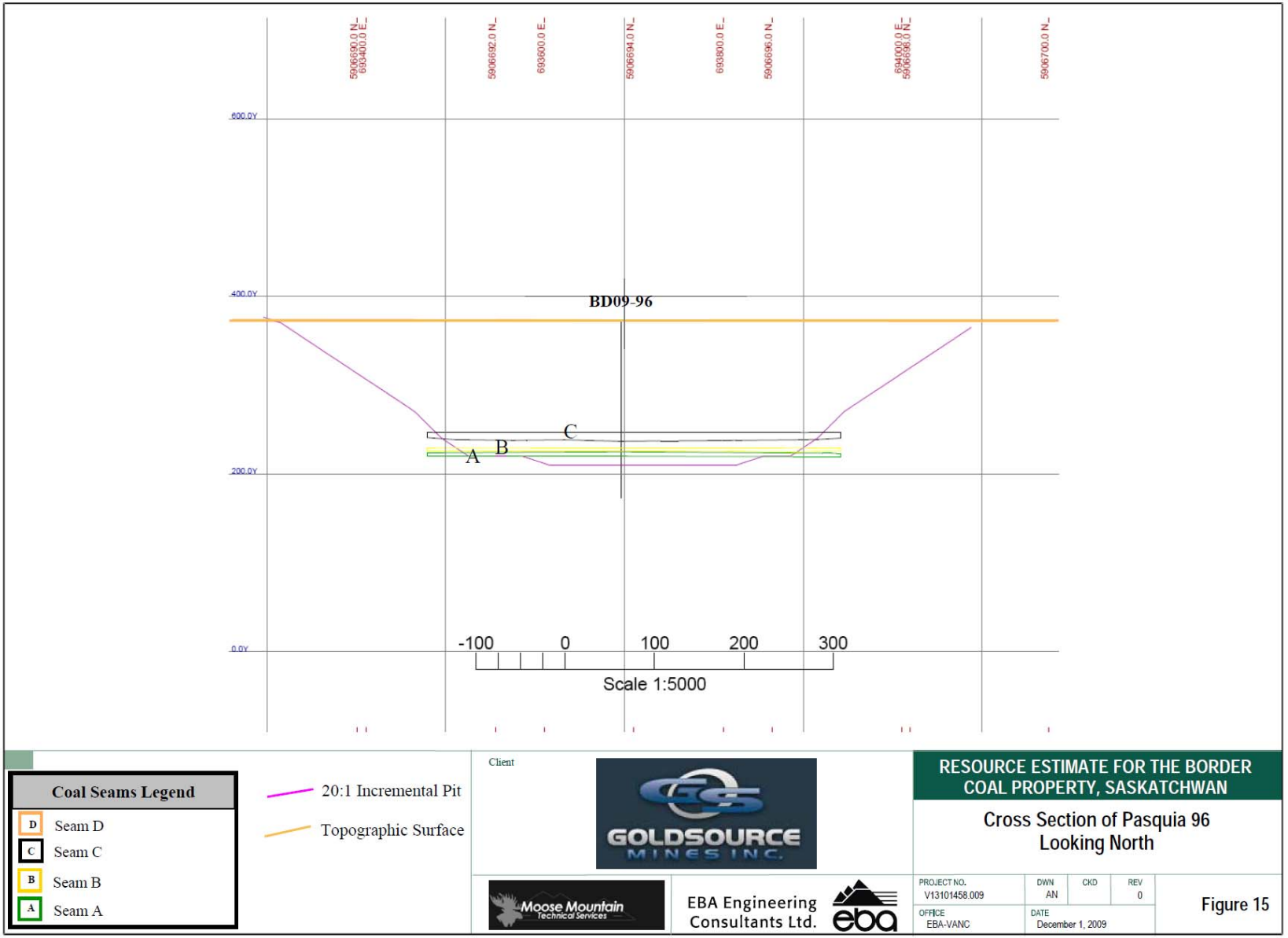
Figure 12 shows the distribution of the 15 deposits and drill holes on the Border property.

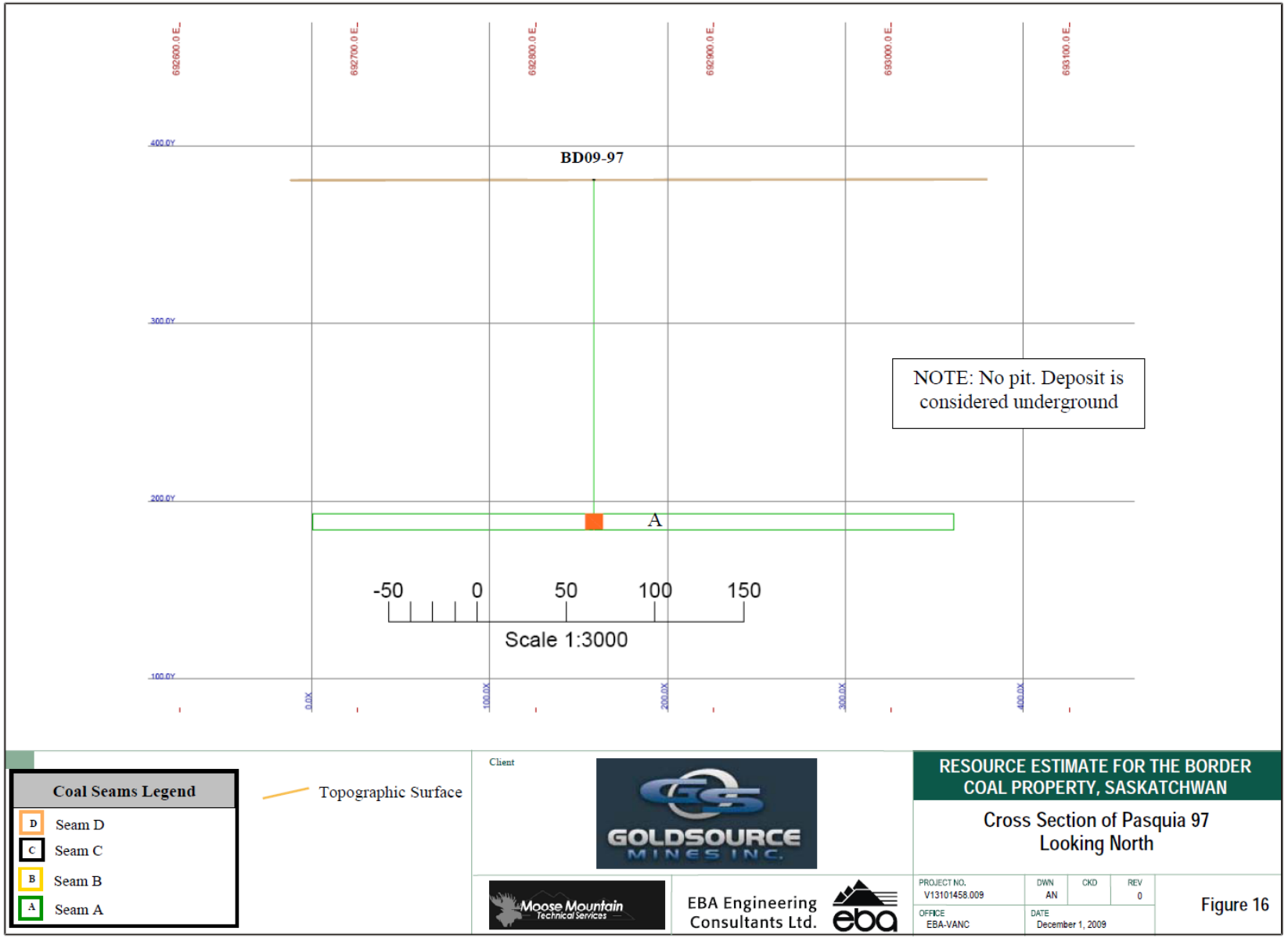


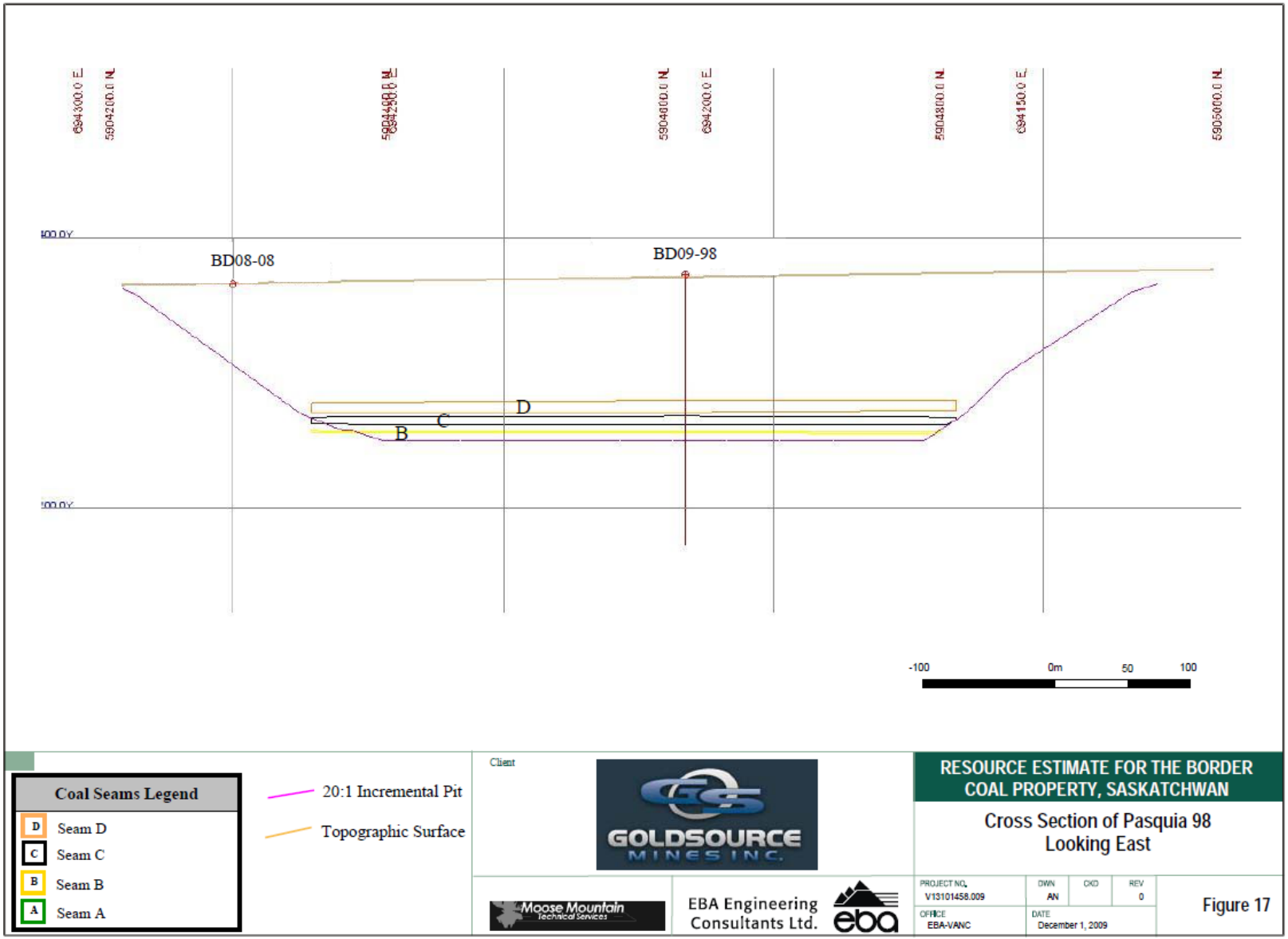
Figures 13 to 27 show selected cross-sections through each of the deposits with a maximum 20:1 incremental strip ratio pit. The sections are arranged generally from north to south and are views looking north.

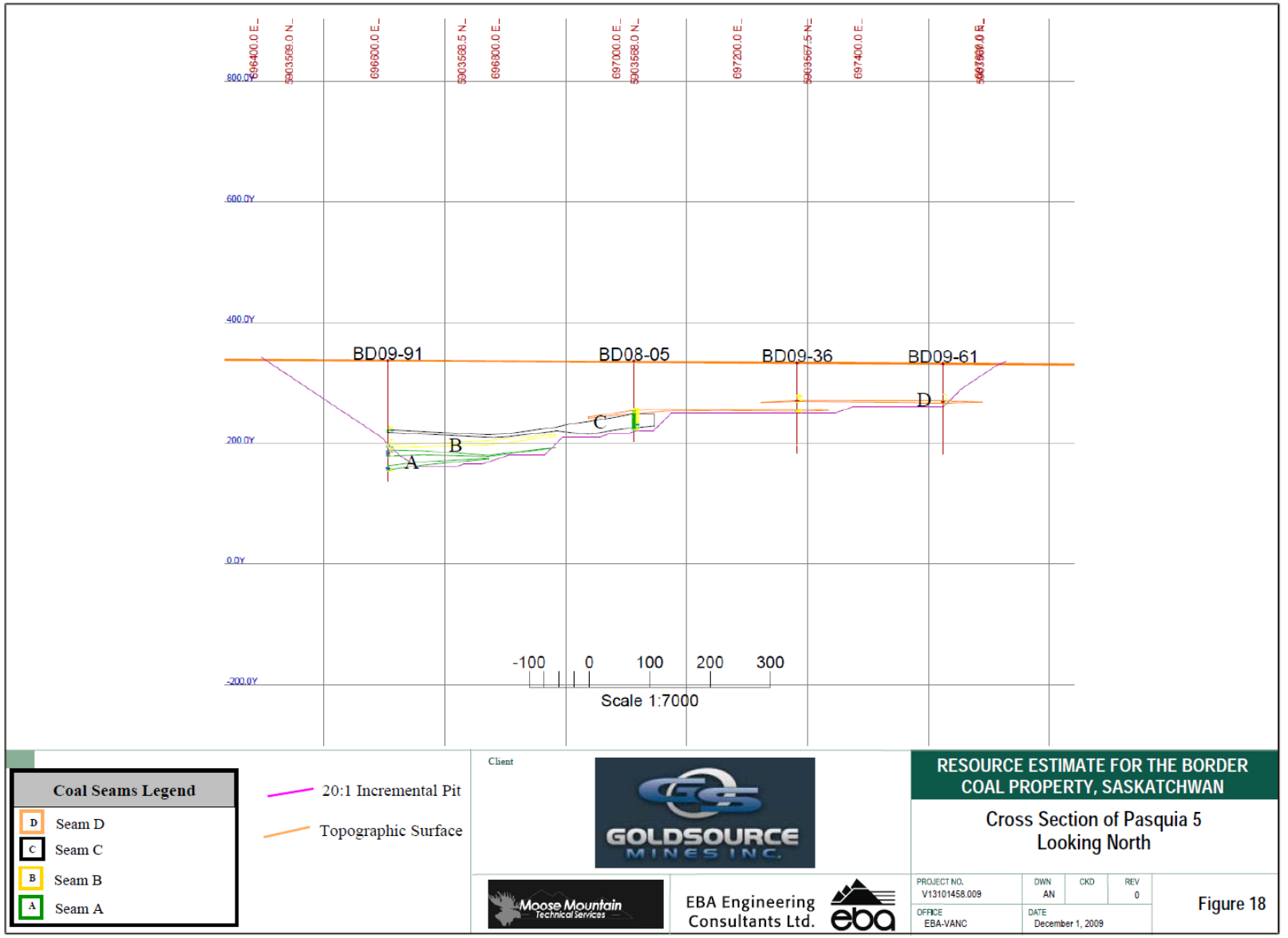

BD09-108
BD09-110
C
-200
0
200
400
600
Scale 1:10000
Coal Seams Legend
D Seam D
C Seam C
B Seam B
A Seam A
20:1 Incremental Pit
Topographic Surface
Client
GOLDSOURCE MINES INC.
RESOURCE ESTIMATE FOR THE BORDER COAL PROPERTY, SASKATCHWAN
Cross Section of Niska 108
Looking North
Moose Mountain Technical Services
EBA Engineering Consultants Ltd.
eba
PROJECT NO. V13101458.009
DWN AN
CKD
REV 0
OFFICE EBA-VANC
DATE December 1, 2009
Figure 13

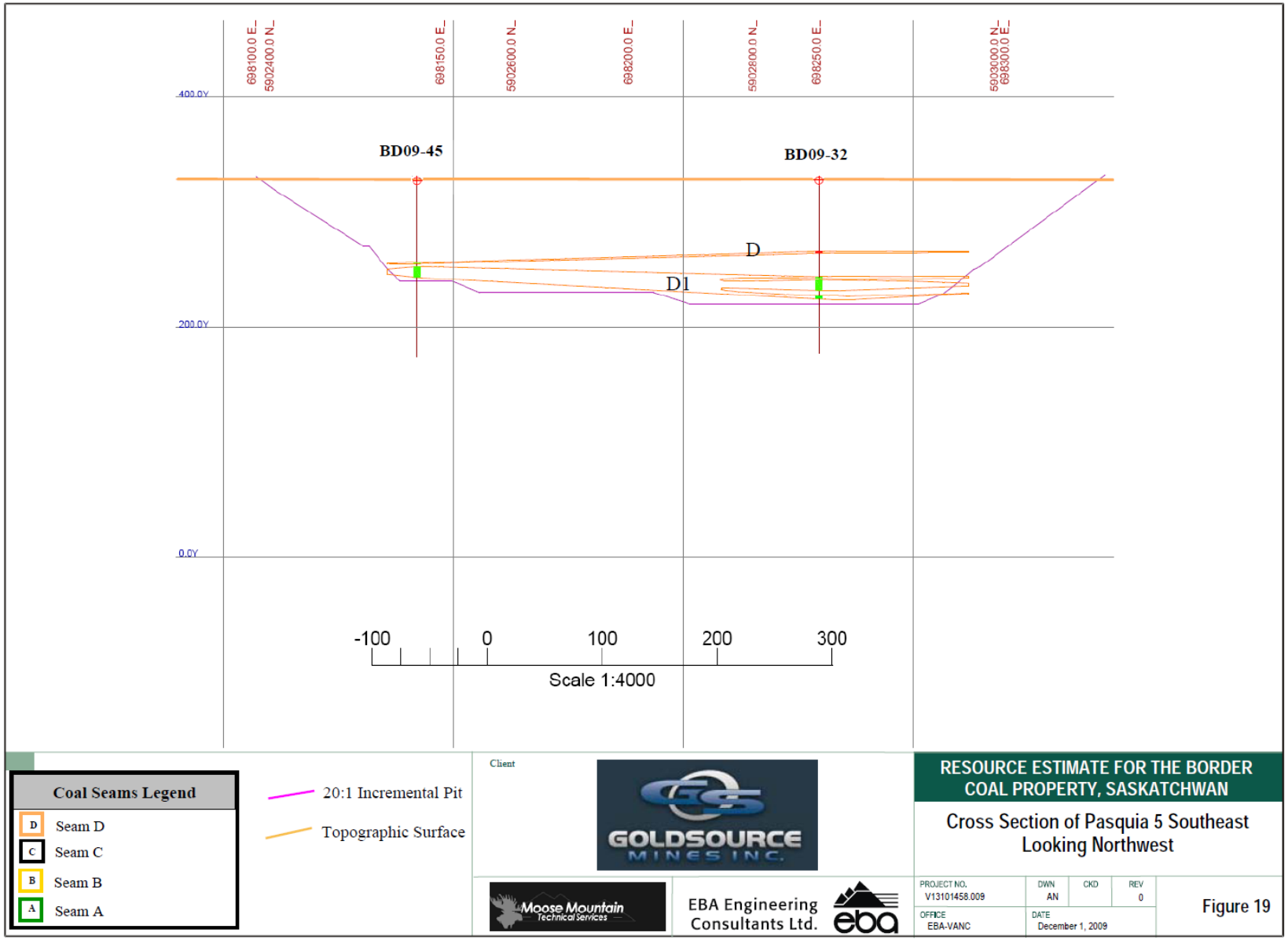

5915120.0 N
5915120.5 N
305000.0 E
5915121.0 N
5915121.5 N
305500.0 E
5915122.0 N
306000.0 E
5915122.5 N
600.0Y
400.0Y
200.0Y
0.0Y
-200.0Y
BD09-107
BD09-109
C
B
A
-150
0
150
300
450
Scale 1:8000
-200.0X
0.0X
200.0X
400.0X
600.0X
800.0X
1000.0X
1200.0X
Coal Seams Legend
D Seam D
C Seam C
B Seam B
A Seam A
20:1 Incremental Pit
Topographic Surface
Client
GOLDSOURCE MINES INC.
RESOURCE ESTIMATE FOR THE BORDER COAL PROPERTY, SASKATCHWAN
Cross Section of Niska 107
Looking North
Moose Mountain Technical Services
EBA Engineering Consultants Ltd.
eba
PROJECT NO. V13101458.009
DWN AN
CKD
REV 0
OFFICE EBA-VANC
DATE December 1, 2009
Figure 14

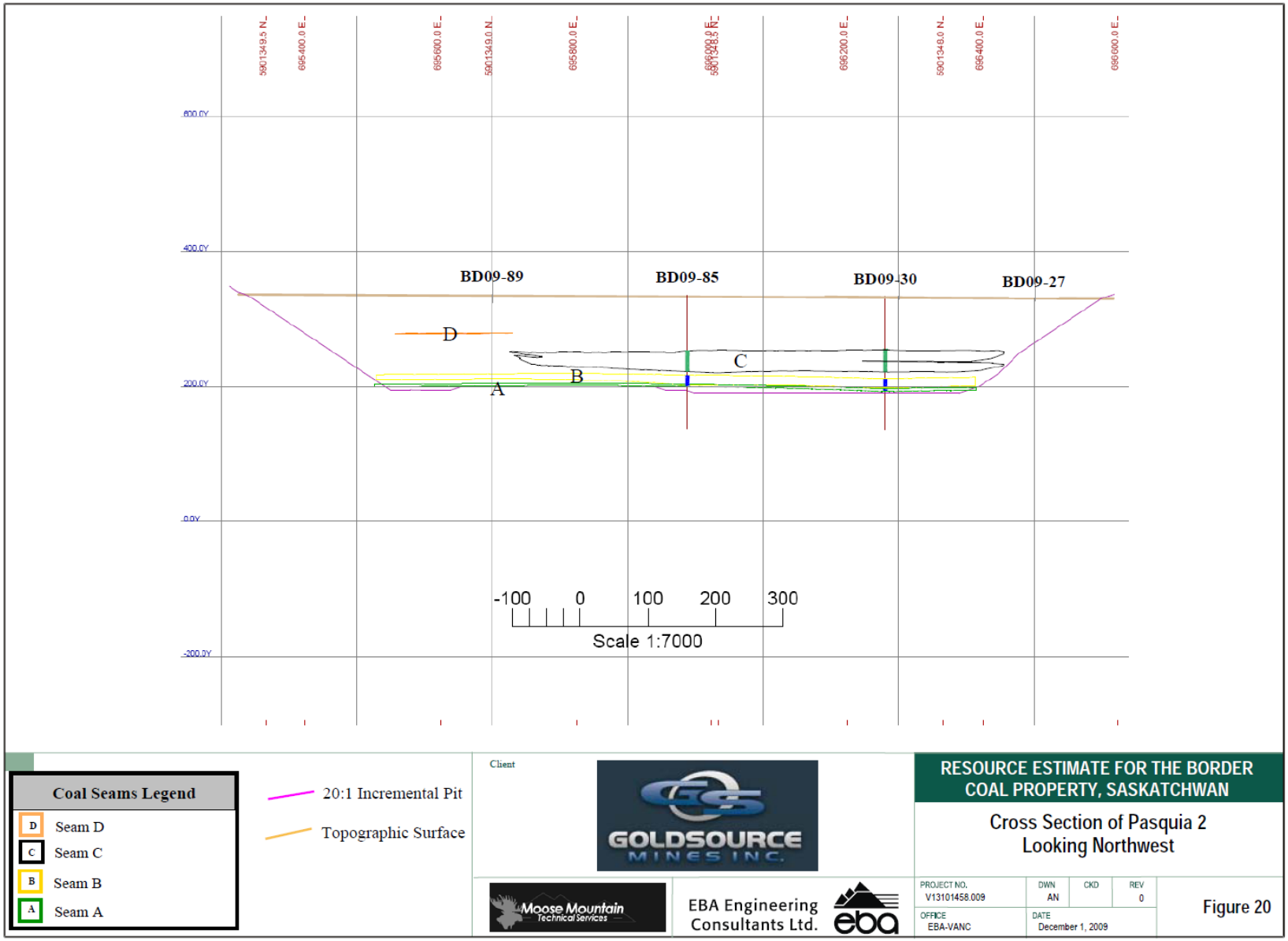

5906690.0 N
693440.0 E
5906692.0 N
693600.0 E
5906694.0 N
693800.0 E
5906696.0 N
694000.0 E
5906698.0 N
5906700.0 N
600.0Y
400.0Y
200.0Y
0.0Y
BD09-96
C
B
A
-100
0
100
200
300
Scale 1:5000
Coal Seams Legend
D Seam D
C Seam C
B Seam B
A Seam A
20:1 Incremental Pit
Topographic Surface
Client
GOLDSOURCE MINES INC.
RESOURCE ESTIMATE FOR THE BORDER COAL PROPERTY, SASKATCHWAN
Cross Section of Pasquia 96 Looking North
Moose Mountain Technical Services
EBA Engineering Consultants Ltd.
eba
PROJECT NO. V13101458.009
DWN AN
CKD
REV 0
OFFICE EBA-VANC
DATE December 1, 2009
Figure 15

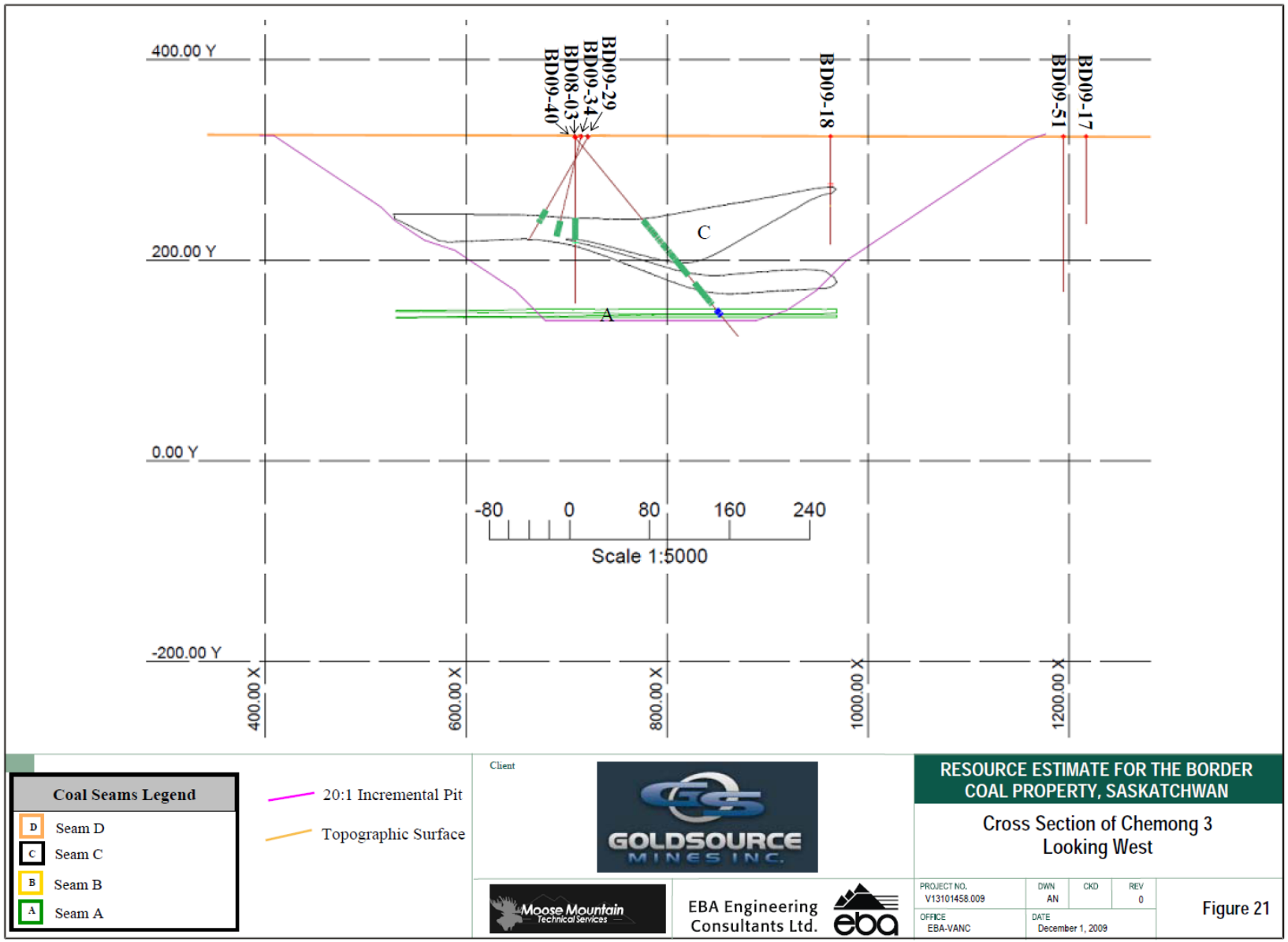

692600.0 E
692700.0 E
692800.0 E
692900.0 E
693000.0 E
693100.0 E
400.0Y
300.0Y
200.0Y
100.0Y
0.0X
100.0X
200.0X
300.0X
400.0X
BD09-97
A
NOTE: No pit. Deposit is considered underground
-50
0
50
100
150
Scale 1:3000
Coal Seams Legend
D Seam D
C Seam C
B Seam B
A Seam A
Topographic Surface
Client
GOLDSOURCE MINES INC.
RESOURCE ESTIMATE FOR THE BORDER COAL PROPERTY, SASKATCHWAN
Cross Section of Pasquia 97 Looking North
Moose Mountain Technical Services
EBA Engineering Consultants Ltd.
eba
PROJECT NO. V13101458.009
DWN AN
CKD
REV 0
OFFICE EBA-VANC
DATE December 1, 2009
Figure 16

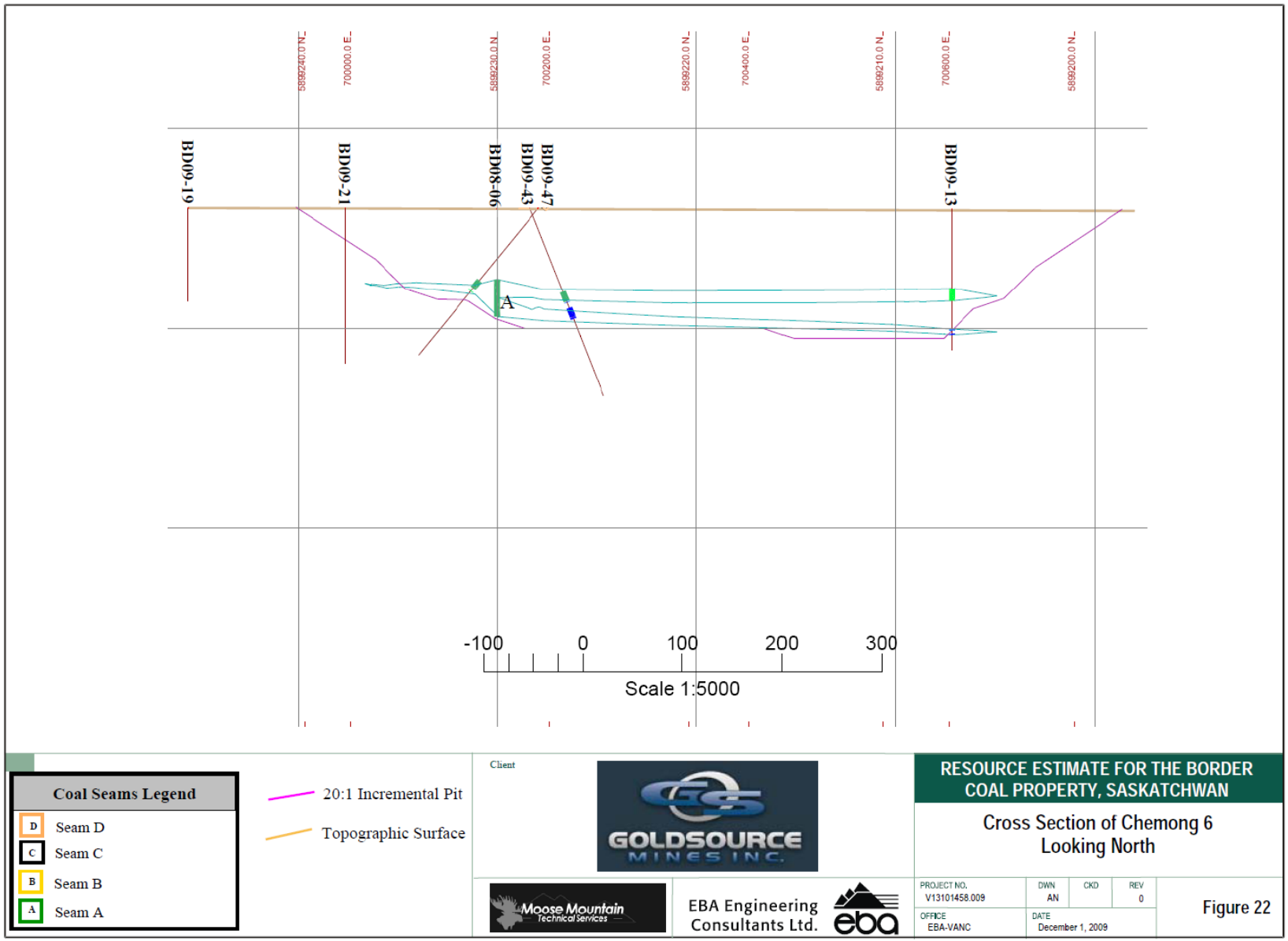

6943000.0 E.
5904200.0 N.
5904400.0 N.
6942000.0 E.
5904000.0 N.
6942200.0 E.
5904800.0 N.
6941500.0 E.
5905000.0 N.
500.0Y
BD08-08
BD09-98
D
C
B
500.0Y
-100
0m
50
100
Coal Seams Legend
D Seam D
C Seam C
B Seam B
A Seam A
20:1 Incremental Pit
Topographic Surface
Client
GOLDSOURCE MINES INC.
RESOURCE ESTIMATE FOR THE BORDER COAL PROPERTY, SASKATCHWAN
Cross Section of Pasquia 98 Looking East
Moose Mountain Technical Services
EBA Engineering Consultants Ltd.
eba
PROJECT NO. V13101458.009
DWN AN
CKD
REV 0
OFFICE EBA-VANC
DATE December 1, 2009
Figure 17

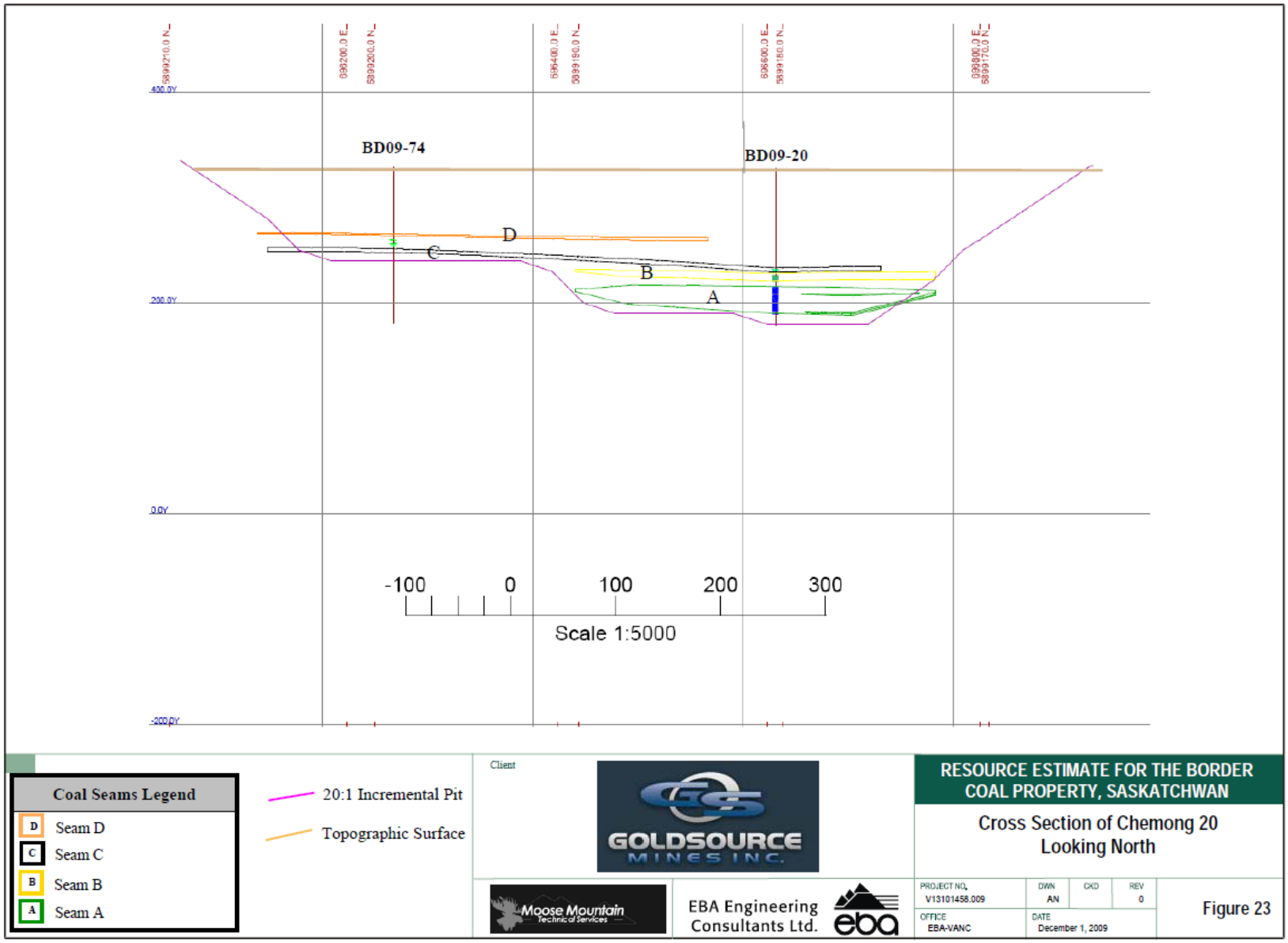

696400.0 E
5903568.0 N
696600.0 E
5903568.5 N
696800.0 E
697000.0 E
5903568.0 N
697200.0 E
5903567.5 N
697400.0 E
800.0Y
600.0Y
400.0Y
200.0Y
0.0Y
-200.0Y
BD09-91
BD08-05
BD09-36
BD09-61
A
B
C
D
-100
0
100
200
300
Scale 1:7000
Coal Seams Legend
D Seam D
C Seam C
B Seam B
A Seam A
20:1 Incremental Pit
Topographic Surface
Client
GOLDSOURCE MINES INC.
RESOURCE ESTIMATE FOR THE BORDER COAL PROPERTY, SASKATCHWAN
Cross Section of Pasquia 5
Looking North
Moose Mountain Technical Services
EBA Engineering Consultants Ltd.
eba
PROJECT NO. V13101458.009
DWN AN
CKD
REV 0
OFFICE EBA-VANC
DATE December 1, 2009
Figure 18

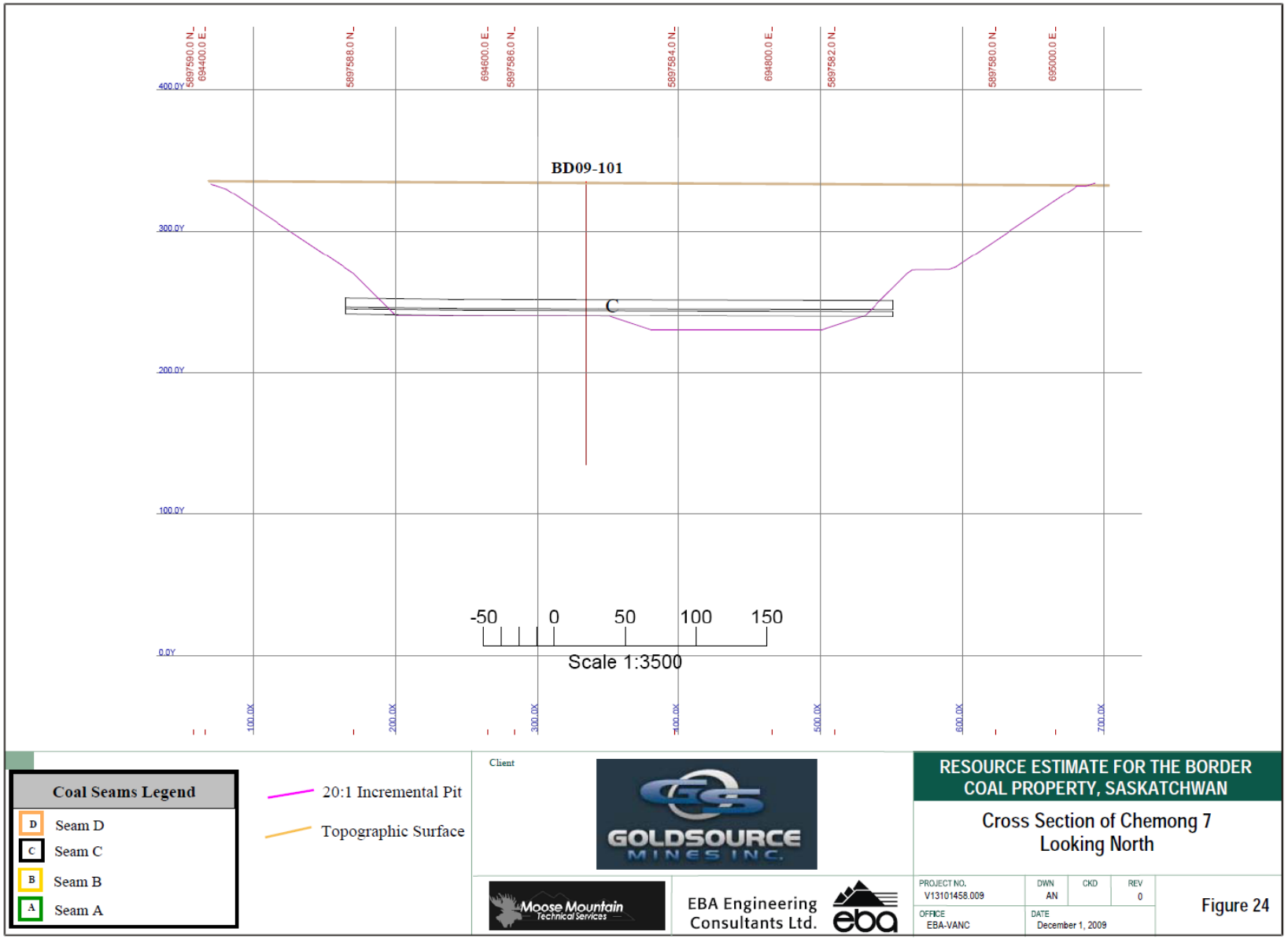

6981000 E
5902400 N
6981500 E
5902600 N
6982000 E
5902800 N
6982500 E
5903000 N
6983000 E
400.0Y
200.0Y
0.0Y
BD09-45
BD09-32
D
D1
-100
0
100
200
300
Scale 1:4000
Coal Seams Legend
D Seam D
C Seam C
B Seam B
A Seam A
20:1 Incremental Pit
Topographic Surface
Client
GOLDSOURCE MINES INC.
RESOURCE ESTIMATE FOR THE BORDER COAL PROPERTY, SASKATCHWAN
Cross Section of Pasquia 5 Southeast Looking Northwest
Moose Mountain Technical Services
EBA Engineering Consultants Ltd.
eba
PROJECT NO. V13101458.009
DWN AN
CKD
REV 0
OFFICE EBA-VANC
DATE December 1, 2009
Figure 19

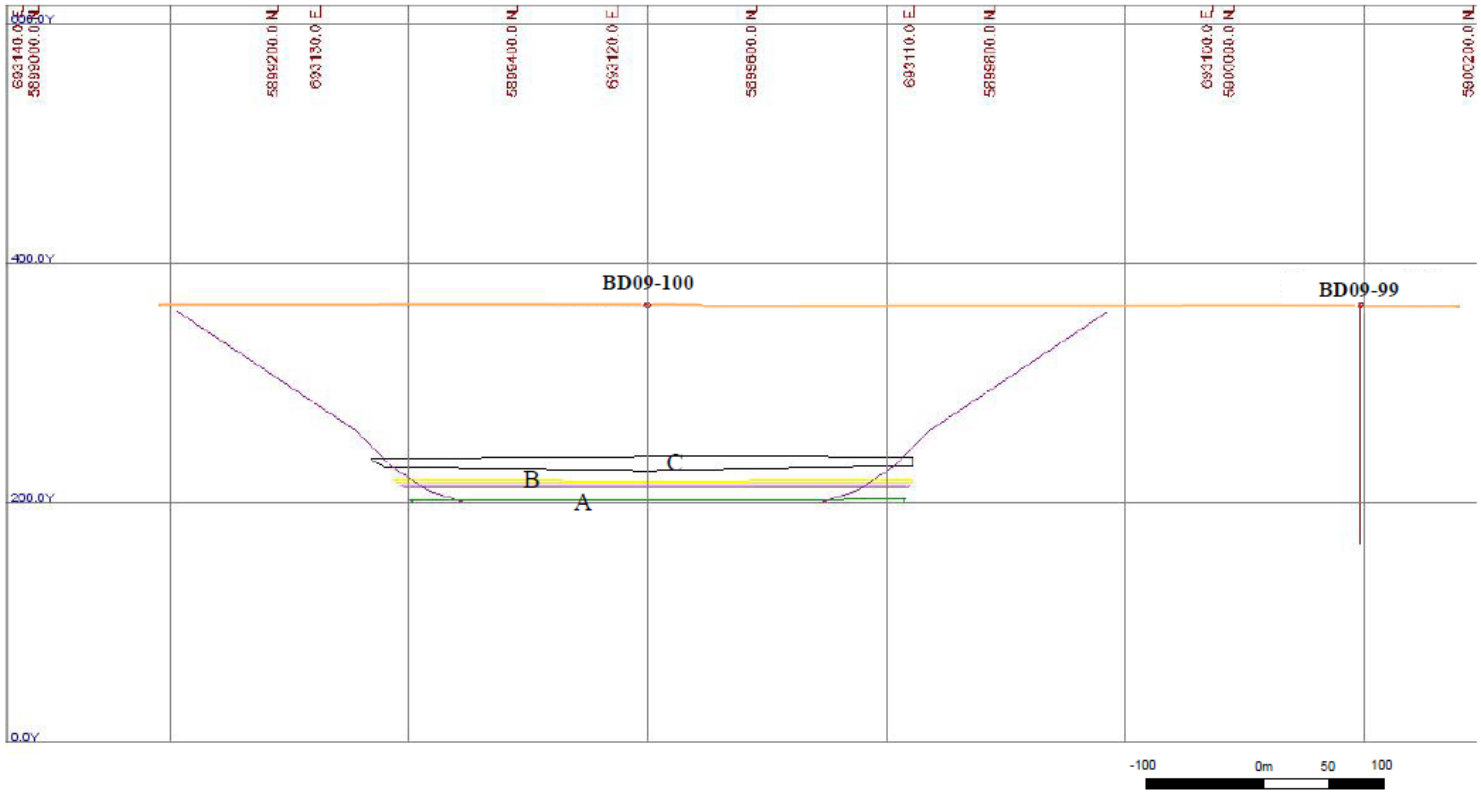

5901349.5 N
695400.0 E
695600.0 E
5901349.0 N
695800.0 E
696200.0 E
5901348.0 N
696400.0 E
696600.0 E
600.0Y
400.0Y
200.0Y
0.0Y
-200.0Y
BD09-89
BD09-85
BD09-30
BD09-27
D
C
B
A
-100
0
100
200
300
Scale 1:7000
Coal Seams Legend
D Seam D
C Seam C
B Seam B
A Seam A
20:1 Incremental Pit
Topographic Surface
Client
GOLDSOURCE MINES INC.
RESOURCE ESTIMATE FOR THE BORDER COAL PROPERTY, SASKATCHWAN
Cross Section of Pasquia 2
Looking Northwest
Moose Mountain Technical Services
EBA Engineering Consultants Ltd.
eba
PROJECT NO. V13101458.009
DWN AN
CKD
REV 0
OFFICE EBA-VANC
DATE December 1, 2009
Figure 20


400.00 Y
200.00 Y
0.00 Y
-200.00 Y
BD09-40
BD08-03
BD09-34
BD09-29
BD09-18
BD09-51
BD09-17
C
A
-80
0
80
160
240
Scale 1:5000
400.00 X
600.00 X
800.00 X
1000.00 X
1200.00 X
Coal Seams Legend
D Seam D
C Seam C
B Seam B
A Seam A
20:1 Incremental Pit
Topographic Surface
Client
GOLDSOURCE MINES INC.
RESOURCE ESTIMATE FOR THE BORDER COAL PROPERTY, SASKATCHWAN
Cross Section of Chemong 3
Looking West
Moose Mountain Technical Services
EBA Engineering Consultants Ltd.
eba
PROJECT NO. V13101458.009
DWN AN
CKD
REV 0
OFFICE EBA-VANC
DATE December 1, 2009
Figure 21


5899240.0 N
700000.0 E
5899230.0 N
702200.0 E
5899220.0 N
700400.0 E
5899210.0 N
700600.0 E
5899200.0 N
BD09-19
BD09-21
BD08-06
BD09-43
BD09-47
BD09-13
A
-100
0
100
200
300
Scale 1:5000
Coal Seams Legend
D Seam D
C Seam C
B Seam B
A Seam A
20:1 Incremental Pit
Topographic Surface
Client
GOLDSOURCE MINES INC.
RESOURCE ESTIMATE FOR THE BORDER COAL PROPERTY, SASKATCHWAN
Cross Section of Chemong 6 Looking North
Moose Mountain Technical Services
EBA Engineering Consultants Ltd.
eba
PROJECT NO. V13101458.009
DWN AN
CKD
REV 0
OFFICE EBA-VANC
DATE December 1, 2009
Figure 22


BD09-74
BD09-20
D
C
B
A
400.0Y
200.0Y
0.0Y
-200.0Y
-100
0
100
200
300
Scale 1:5000
Coal Seams Legend
Seam D
Seam C
Seam B
Seam A
20:1 Incremental Pit
Topographic Surface
Client
GOLDSOURCE MINES INC.
RESOURCE ESTIMATE FOR THE BORDER COAL PROPERTY, SASKATCHWAN
Cross Section of Chemong 20
Looking North
Moose Mountain Technical Services
EBA Engineering Consultants Ltd.
eba
PROJECT NO. V13101458.009
DWN AN
CKD
REV 0
OFFICE EBA-VANC
DATE December 1, 2009
Figure 23


5897590.0 N
694400.0 E
5897588.0 N
694600.0 E
5897586.0 N
5897584.0 N
694800.0 E
5897582.0 N
5897580.0 N
695000.0 E
400.0Y
300.0Y
200.0Y
100.0Y
0.0Y
BD09-101
C
-50
0
50
100
150
Scale 1:3500
100.0X
200.0X
300.0X
400.0X
500.0X
600.0X
700.0X
Coal Seams Legend
D Seam D
C Seam C
B Seam B
A Seam A
20:1 Incremental Pit
Topographic Surface
Client
GOLDSOURCE MINES INC.
RESOURCE ESTIMATE FOR THE BORDER COAL PROPERTY, SASKATCHWAN
Cross Section of Chemong 7
Looking North
Moose Mountain Technical Services
EBA Engineering Consultants Ltd.
eba
PROJECT NO. V13101458.009
DWN AN
CKD
REV 0
OFFICE EBA-VANC
DATE December 1, 2009
Figure 24



Coal Seams Legend

- D Seam D
- C Seam C
- B Seam B
- A Seam A

20:1 Incremental Pit

Topographic Surface

Client

GOLDSOURCE MINES INC.

RESOURCE ESTIMATE FOR THE BORDER COAL PROPERTY, SASKATCHWAN

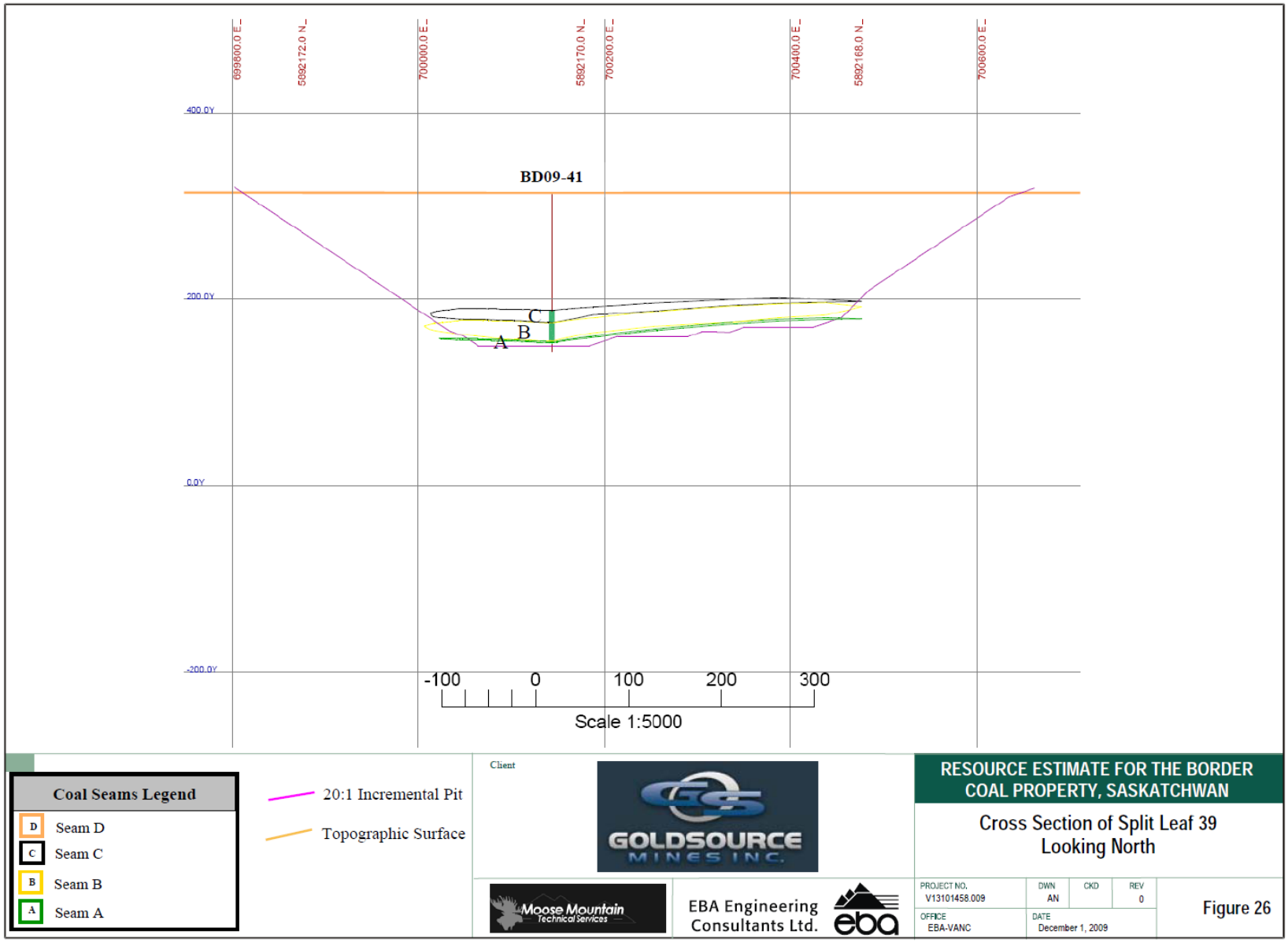
Cross Section of Chemong 100
Looking West

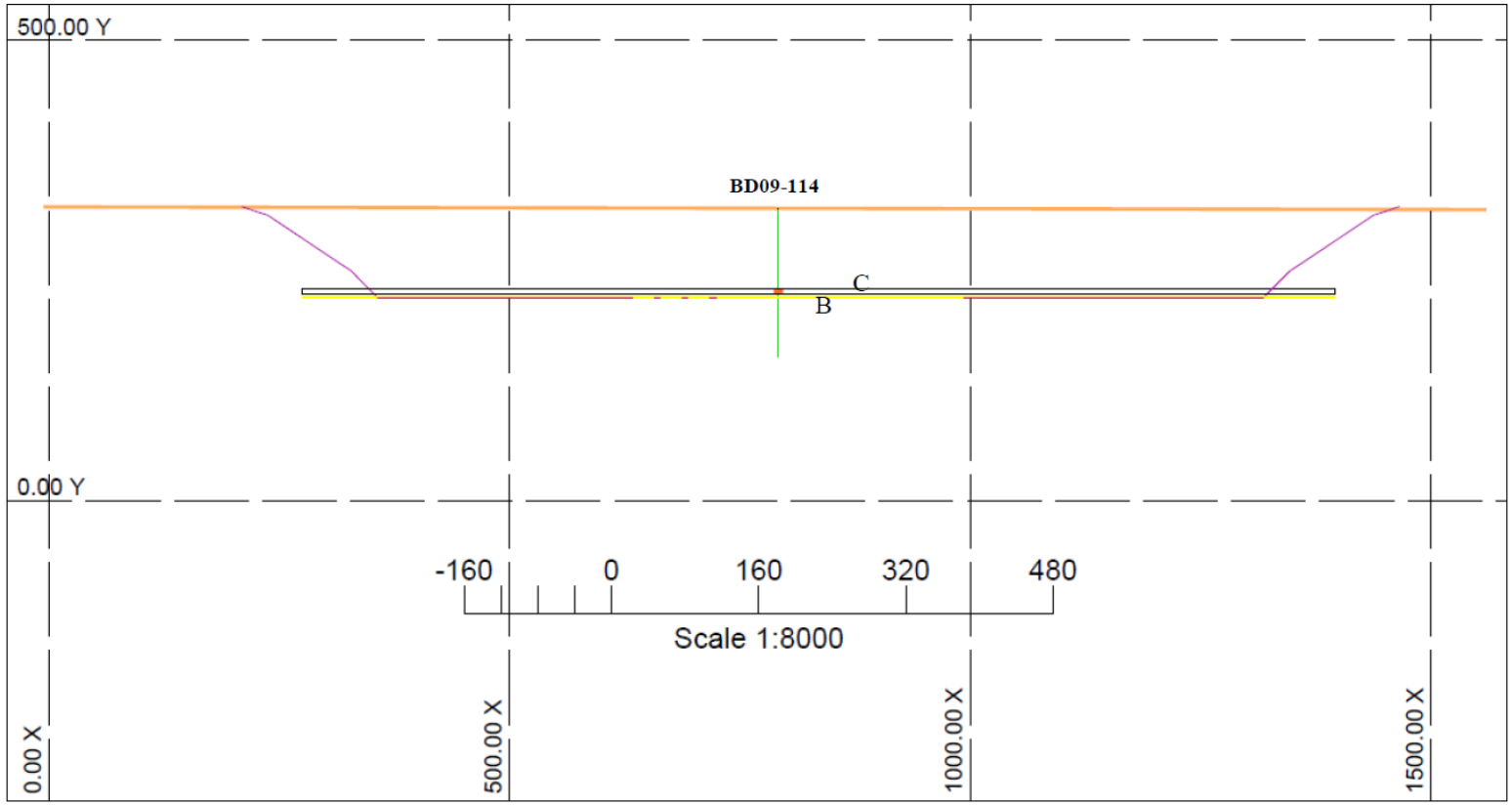
Moose Mountain Technical Services

EBA Engineering Consultants Ltd.

PROJECT NO.	DWN	CKD	REV
V13101458.009	AN		0
OFFICE: EBA-VANC	DATE: December 1, 2009		

Figure 25


699600.0 E
5892172.0 N
700000.0 E
5892170.0 N
700200.0 E
700400.0 E
5892168.0 N
700600.0 E
400.0Y
200.0Y
0.0Y
-200.0Y
BD09-41
C
B
A
-100
0
100
200
300
Scale 1:5000
Coal Seams Legend
D Seam D
C Seam C
B Seam B
A Seam A
20:1 Incremental Pit
Topographic Surface
Client
GOLDSOURCE MINES INC.
RESOURCE ESTIMATE FOR THE BORDER COAL PROPERTY, SASKATCHWAN
Cross Section of Split Leaf 39 Looking North
Moose Mountain Technical Services
EBA Engineering Consultants Ltd.
eba
PROJECT NO. V13101458.009
DWN AN
CKD
REV 0
OFFICE EBA-VANC
DATE December 1, 2009
Figure 26



Coal Seams Legend

- D Seam D
- C Seam C
- B Seam B
- A Seam A

20:1 Incremental Pit

Topographic Surface

Client

GOLDSOURCE MINES INC.

RESOURCE ESTIMATE FOR THE BORDER COAL PROPERTY, SASKATCHWAN

Cross Section of Split Leaf 114
Looking North

Moose Mountain Technical Services

EBA Engineering Consultants Ltd.

PROJECT NO.	DWN	CKD	REV
V13101458.009	AN		0
OFFICE: EBA-VANC	DATE: December 1, 2009		

Figure 27

13.1.2 Statistics

Statistical analysis for block modeling was not carried out for this report.

13.1.3 Compositing

Compositing for block modeling was not carried out for this report. Compositing was completed for coal quality review only.

13.1.4 Search Parameters

Search parameters for all coal deposit are based generally on GSC Paper 88-21 which states for a "moderate" potentially surface-mineable deposit;

Geology Type	Criteria	Assurance-of-Existence Category		
		Measured	Indicated	Inferred
Low - Type A	Distance from nearest data point (m)	0-800	800-1600	1600-4800
Low - Type B	Distance from nearest data point (m)	0-600	600-1200	1200-3600
Low - Type C	Distance from nearest data point (m)	0-450	450-900	900-2400
Moderate	Distance from nearest data point (m)	0-450	450-900	900-2400
Complex	Cross-section spacing (m)	150	300	600
	Minimum number of data points per section	3	3	3
	Mean data point spacing along section (m)	100	200	400
	Maximum data point spacing along section (m)	200	400	800
Severe	Cross-section spacing (m)	75	150	300
	Minimum number of data points per section	5	5	5
	Mean data point spacing along section (m)	50	100	200
	Maximum data point spacing along section (m)	100	200	400

13.1.5 Classification

Distance between data points (drill holes) has been used to assign a resource classification codes in a general way. The concept used is prescribed in GSC Paper 88-21. The Indicated classification is the highest level of confidence assigned at Border because continuity of the coal stratigraphy is "unknown" since this is a new type of coal model. The speculative class is assigned to deposits with only a single drill hole, while the Inferred class has been assigned to deposits with only two to three drill holes.

As stated in GSC Paper 88-21;

"Assurance-of-existence categories are intended to reflect the level of certainty with which resource quantities are known. Intuitively, one knows that the greater the distance over which seam thickness data are

extrapolated, the greater the possible error; hence, several resource classification schemes have used distance from nearest data point or distance between data points as the primary criteria for assurance-of-existence categorization.

In complex geology type deposits, it is proposed that assurance of existence be based on the availability of data points along lines of section oriented perpendicular to strike, as cross-sections form the primary means of geological interpretation for these deposits.

Four categories are used to define assurance-of-existence. In order of increasing uncertainty, these categories are: measured, indicated, inferred, and speculative. Measured resources have a high degree, indicated a moderate degree, and inferred resources a relatively low degree of geological assurance. Speculative resources are those based on extrapolation of few data points over large distances, and are confined to regions where extensive coal exploration has not yet taken place. Although the precise levels of uncertainty of these categories have not been calculated, geological experience with Canadian coal deposits suggests that measured resource quantities are known within about 10%, indicated within about 20%, and inferred within about 50%." (Moderate geology type refers to deposits characterized by homoclines or broad open folds with bedding inclinations of generally less than 30°. Faults may be present, but are relatively uncommon.)

13.1.6 Block Model Validation

Block modelling was not carried out for this report and is recommended for the Preliminary Economic Assessment.

13.1.7 Mineral Resources

The specific gravity of the coal is based on 184 determinations by Loring Laboratories in Calgary. A single, average, SG of 1.365g/cc has been used to convert volume to tonnage.

Coal resources are estimated using volumetrics on the coal seam solids. Tables 18 to 21 summarize the pit delineated resources for the Border Coal property of immediate interest. The coal, as defined, is within the limits of a hypothetical open pit with 35° walls and an incremental strip ratio of less than 20:1BCM/tonne (a pit delineated resource with an incremental strip ratio of 20 bank cubic metres of waste to one tonne of in place coal). The overall strip ratio for all combined resources is 5.34:1(BCM waste: tonnes coal). The average strip ratio is lower than the incremental strip ratio because of the favourable geology, with shallow seam dips and thick coal seams.

TABLE 18: SUMMARY OF INDICATED RESOURCES BY DEPOSIT

Deposit	Waste (kbcm)	Strip Ratio	Coal (000 tonnes)
Pasquia 5	67,400	12.5	5,400
Pasquia 5 SE	25,400	7.6	3,400
Pasquia 2	107,600	4.1	26,600
Chemong 3	41,500	4.6	9,100
Chemong 6	50,500	5.3	9,500
Chemong 20	29,500	7.4	4,000

TABLE 18: SUMMARY OF INDICATED RESOURCES BY DEPOSIT			
Deposit	Waste (kbcm)	Strip Ratio	Coal (000 tonnes)
Split Leaf 39	44,400	8.1	5,500
		Total =	**63,500**

**All numbers are rounded*

TABLE 19: SUMMARY OF INFERRED RESOURCES BY DEPOSIT			
Deposit	Waste (kbcm)	Strip Ratio	Coal (000 tonnes)
Niska 108	218,900	3.3	66,100
Niska 107	101,800	4.3	23,500
		Total =	**89,600**

**All numbers are rounded*

TABLE 20: SUMMARY OF SPECULATIVE RESOURCES BY DEPOSIT			
Deposit	Waste (kbcm)	Strip Ratio	Coal (000 tonnes)
Pasquia 96	44,400	12.7	3,500
Pasquia 97	0	-1.0	0
Pasquia 98	34,300	9.0	3,800
Chemong 7	21,600	12.3	1,800
Chemong 100	40,700	14.8	2,700
Split Leaf 114	90,100	13.1	6,900
		Total =	**18,700**

**All numbers are rounded*

TABLE 21: SUMMARY OF RESOURCES BY DEPOSIT AND SEAM		
Deposit	Seam	Coal (000 tonnes)
Niska 108	C	66,100
Niska 107	C	11,000
Niska 107	B	4,900
Niska 107	A	7,700
Pasquia 96	C	1,900
Pasquia 96	B	700
Pasquia 96	A	900
Pasquia 98	C	2,100
Pasquia 98	B	1,500
Pasquia 98	A	200

TABLE 21: SUMMARY OF RESOURCES BY DEPOSIT AND SEAM		
Deposit	Seam	Coal (000 tonnes)
Pasquia 5	D	400
Pasquia 5	D1	1,000
Pasquia 5	C	2,500
Pasquia 5	B	800
Pasquia 5	A	400
Pasquia 5	A2	300
Pasquia 5SE	D	300
Pasquia 5SE	D1	3,100
Pasquia 2	D	400
Pasquia 2	C	18,300
Pasquia 2	B	5,900
Pasquia 2	A	2,000
Chemong 3	C	8,200
Chemong 3	A2	600
Chemong 3	A1	300
Chemong 6		9,500
Chemong 20	D	600
Chemong 20	C	800
Chemong 20	B	700
Chemong 20	A	1,900
Chemong 7	C	1,800
Chemong 100	C	1,700
Chemong 100	B	200
Chemong 100	B1	400
Chemong 100	A	400
Split Leaf 39	C	1,700
Split Leaf 39	B	3,500
Split Leaf 39	A	300
Split Leaf 114	C	5,600

TABLE 21: SUMMARY OF RESOURCES BY DEPOSIT AND SEAM		
Deposit	Seam	Coal (000 tonnes)
Split Leaf 114	B	1,300
	TOTAL =	**171,800**

**All numbers are rounded*

Table 22 is a summary of resources by seam.

TABLE 22: SUMMARY OF RESOURCES BY SEAM					
Resources Category	Seam D* (Tonnes) X000	Seam C (Tonnes) X000	Seam B (Tonnes) X000	Seam A (Tonnes) X000	TOTAL (Tonnes) X000
Indicated	5,800	41,000	10,900	5,800	63,500
Inferred	0	77,100	4,900	7,600	89,600
Speculative	0	13,100	4,100	13,100	18,700

**Coal Seam nomenclature is based on A being the lowest in elevation (masl) and D being the highest. All numbers are rounded.*

MMTS believes that resources are reported in a professional manner by qualified persons and comply with NI 43-101 reporting standards.

13.2 MINERAL RESERVES

Coal reserves, which require the application of certain economic parameters, are not estimated for this report.

14.0 OTHER RELEVANT DATA AND INFORMATION

There are no current environmental liabilities on the property.

No other relevant data of information was available to EBA and MMTS at the time of this report.

15.0 INTERPRETATION AND CONCLUSIONS

Geological interpretation of the drill core and downhole geophysical logs have determined that there are three main seams at Border which have been designated Durango A, B and C. The Geology-Type as defined by GSC Paper 88-21 with respect to the complexity of the deposits is considered "Moderate" and the Deposit-Type is considered "Surface Mineable". The resources are distributed over four sub-basins which include 14 potentially surface mineable deposits ranging in size from 1.8 million tonnes to 66.1 million tonnes. The

fifteenth deposit, Pasquia 97, is currently considered too deep to be surface mineable and is not included in the resource.

Overall, the estimated coal resources at Border consist of 63.5 million Indicated tonnes plus 89.6 million Inferred tonnes, and 18.7 million Speculative tonnes. The Inferred and Speculative resources are limited only by the current lack of drill hole data within an already defined geophysical anomaly. Further drilling is planned that may convert the majority, if not all, of the Inferred and Speculative tonnes into the Indicated Resource category. As defined in GSC Paper 88-21, "Speculative resources are those based on extrapolation of few data points over large distances and are confined to regions where extensive coal exploration has not yet taken place".

16.0 RECOMMENDATIONS

MMTS views the Border Coal deposits to be an important potential energy source and believes that further work to test and understand the economic viability of the coal deposits is justified and would include assessment of possible production for potential domestic and international thermal coal markets, onsite electrical power generation and potential "coal to liquids" technologies. The following budget is suggested for the Preliminary Economic Assessment (PEA) at an estimated cost of Cdn$300,000 (Table 23). This assessment will review coal deposit mineability, washability, infrastructure requirements, permitting requirements, environmental baseline work, transport, pricing, local and export markets, preliminary capital and operating costs, on-site power plant viability, assessment of certain coal to liquids technologies and preliminary economic viability.

TABLE 23: PROPOSED PRELIMINARY ECONOMIC ASSESSMENT BUDGET

Task	Total Hours	Average Cost Per Hour	Total/Task ($CDN)
Project Management/ Meetings	120	195	23,400
Background Data Review	18	195	3,510
Property Description and Tenure	12	195	2,340
Geology Review and QA/QC of data	52	195	10,140
Processing, Washability	170	195	33,120
Mineral Resource Estimate/Block model	168	195	32,760
Preliminary Mine Plan/Schedule, Parameters	144	195	28,080
Infrastructure - Facilities list, power, water	36	195	7,020
Tailings Storage Facility Prelim design, costs	18	195	3,510
Site Water Balance, Hydrogeology	200	195	39,000
ARD Geochemistry Issues, volumetrics	36	195	7,020
Environ Issues, Permitting, Reg. Framework	12	195	2,340
Preliminary Reclaim and Closure Plan, costs	48	195	9,360
Capital & Operating Costs Audit & Revisions	72	195	14,040

Development Schedule	42	195	8,190
Preliminary Financial Analysis	38	195	7,410
Recommendations and Report Compilation	208	195	40,560
Senior/Peer Review	20	195	3,900
Sub Total	1260	195	245,700
Hour Contingency @ 10%	126	195	24,570
Total	**1386**	**195**	**300,270**

*excludes field work (drilling, instrumentation, etc.)

At the discretion of Goldsource, this preliminary estimate budget may be increased or decreased based on final request for proposals to complete the PEA.

17.0 REFERENCES

Hughes, J.D., L. Klatzel-Mudry and D.J. Nikols. 1989. A Standardized Coal Resource/Reserve Reporting System for Canada. Geological Survey of Canada Paper 88-21.

Fugro Airborne Surveys (August, 2006): Logistics and Processing Report, Airborne magnetic and Geotem® Survey, Green River, Cross Roads and Border, Saskatchewan. Job # 06408.

Fugro Airborne Surveys (October, 2006): Interpretation Report, Airborne magnetic and Geotem® Survey, Green River, Cross Roads and Border, Saskatchewan. Job # 06408.

Fugro Airborne Surveys (September, 2009): EM Overview Report, Airborne magnetic and Geotem® Survey, Swan River, Ballantyne, Border Extension, Ebb and Flow, Camperville, Pine River and Winnipegosis Blocks, Saskatchewan/Manitoba. Job # 09404.

Goldsource Mines Inc. webpage: http://www.goldsourcemines.com/ accessed in 2009.

18.0 SIGNATURE PAGE

This report titled "Technical Report for the Border Coal Property - Resource Estimation" and dated December 24, 2009, was prepared and signed by the following authors:

"Robert J. Morris"

Robert J. Morris, M.Sc., P.Geo.

Dated at Vancouver, BC
December 24, 2009

"Robert F. Engler"

Robert F. Engler, P.Geol.

"N. Eric Fier"

N. Eric Fier, C.P.G., P. Eng.

19.0 CERTIFICATE OF QUALIFICATIONS

ROBERT J. MORRIS

I, Robert J. Morris, as an author of this report entitled "Technical Report on Border Coal Property, Resource Estimation", prepared for Goldsource Mines Inc. (the "Issuer"), and dated December 24th, 2009, do hereby certify that:

1) I am a Principal Geologist for Moose Mountain Technical Services. My office address is 6243 Kubinec Road, Fernie, B.C.

2) I am a graduate of the University of British Columbia, with a Bachelor of Science degree in 1973 and a Master of Science degree from Queens University in 1978.

3) I am registered as a Professional Geoscientist in British Columbia (Reg.# 18,301). I have worked as a geologist for a total of 36 years since my graduation. My relevant experience on coal projects for the purpose of the Technical Report includes work at all five of the operating mines in southeast B.C., numerous properties and mines in northeast B.C., as well as work on resource estimates for the mines in Saskatchewan and Alberta. My international work includes coal projects in England, Iran, Colombia, Indonesia, Thailand, China, Mongolia, and Kazakhstan.

4) I have read the definition of "qualified person" set out in National Instrument 43-101 ("NI43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI43-101.

5) I am responsible for Sections 1, 9, 10, 13, 15, 16 and 17 of the Technical Report.

6) I am independent of the Issuer applying the test set out in Section 1.4 of National Instrument 43-101.

7) I have had no prior involvement with the property that is the subject of the Technical Report.

8) I have read National Instrument 43-101F1, and the Technical Report has been prepared in compliance with National Instrument 43-101 and Form 43-101F1.

9) To the best of my knowledge, information, and belief, as of the date of the report, the Technical Report contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.

10) I have visited the site between 4 and 6 June, 2009, at which time I examined drill core, coal sampling techniques, and the development of the database.

Dated the 24th day of December, 2009

"Robert J. Morris"

Robert J. Morris, M.Sc., P.Geo.

ROBERT F. ENGLER

I, Robert F. Engler, as an author of this report entitled "Technical Report on Border Coal Property, Resource Estimation", prepared for Goldsource Mines Inc. (the "Issuer"), and dated December 24th, 2009, do hereby certify that:

1) I am a Principal Geologist for Moose Mountain Technical Services. My office address is 28 Hummingbird Road, Sherwood Park, AB, T8A 0A2

2) I am a graduate of the University of Alberta in 1974 with a Bachelor of Science degree in Geology

3) I am registered as a Professional Geologist in Alberta (APEGGA Reg. # M24009). I have worked as a geologist in the Canadian Coal Industry for a total of 35 years since my graduation. I have participated in and directed coal exploration programs and mine development programs throughout western Canada, Yukon, NWT, Alaska and the western United States. I was directly responsible for coal quality forecasting from mines currently operated by Sherritt in Alberta and Saskatchewan.

4) I have read the definition of "qualified person" set out in National Instrument 43-101 ("NI43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI43-101.

5) I am responsible for Sections 12 and 17 of the Technical Report.

6) I am independent of the Issuer applying the test set out in Section 1.4 of National Instrument 43-101.

7) I have had no prior involvement with the property that is the subject of the Technical Report.

8) I have read National Instrument 43-101F1, and the Technical Report has been prepared in compliance with National Instrument 43-101 and Form 43-101F1.

9) To the best of my knowledge, information, and belief, as of the date of the report, the Technical Report contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.

10) I have not visited the site.

Dated the 24th day of December, 2009

"Robert F. Engler"

Robert F. Engler, P.Geol.

N. ERIC FIER

I, N. Eric Fier, C.P.G., P. Eng., as an author of this report entitled "Technical Report on Border Coal Property, Resource Estimation", prepared for Goldsource Mines Inc. (the "Issuer"), and dated December 24th, 2009, do hereby certify that:

1) I am the Principal Consultant for Goldsource Mines Inc. with an office address at Suite 501 - 570 Granville Street, Vancouver, BC, Canada. Also I am a Director for EBA Engineering with offices at Suite 900 – 1066 West Hastings Street, Vancouver, BC, Canada.

2) I am a graduate of Montana Tech, Butte, Montana, in 1984 and 1986 with a Bachelor of Science degree in Geological Engineering and Mining Engineering, respectively.

3) I am registered as a Certified Professional Geologist registered with the American Institute of Professional Geologists (Reg.# 10622) and a Professional Engineer in British Columbia (Reg.# 135165). I have worked as a geologist and mining engineer for a total of 24 years since my graduation. My relevant experience for the purpose of the Technical Report is:

    a) Review and report as a manager and consultant on numerous exploration and mining projects around the world for due diligence, operations and regulatory requirements, including:

        - Feasibility Study on the Coalmont Basin deposit for Compliance Coal Inc., 2003.
        - Technical Report on the Goodrich Coal Deposit, Tumberidge, BC, 2004
        - Technical review of the Decker Coal Mine, MT, 1994.

4) I have read the definition of "qualified person" set out in National Instrument 43-101 ("NI43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI43-101.

5) I am responsible for Sections 1 through 8, 11, 14, 16 and 17 of the Technical Report.

6) I am not independent of the Issuer applying the test set out in Section 1.4 of National Instrument 43-101.

7) I have prior involvement with the property that is the subject of the Technical Report.

8) I have read National Instrument 43-101F1, and the Technical Report has been prepared in compliance with National Instrument 43-101 and Form 43-101F1.

9) To the best of my knowledge, information, and belief, as of the date of the report, the Technical Report contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.

10) I have visited the site in on several occasions between 2006 to present.

Dated the 24th day of December, 2009

"N. Eric Fier"

N. Eric Fier, C.P.G., P. Eng.