**Technical Report** 

# BIG RIVER PROPERTY SASKATCHEWAN, CANADA

Prepared For

GOLDSOURCE MINES INC.



**Prepared By** 

NATHAN ERIC FIER C.P.G., P. Eng. N. RALPH NEWSON, M.Sc., P.Eng., P.Geo.

October 6, 2005

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# 1.0 SUMMARY

Nathan Eric Fier, CPG, P.Eng. a Qualified Person and N. Ralph Newson, P.Eng., P.Geo., an independent Qualified Person are providing to Goldsource Mines Inc. (TSX-"GXS") a Technical Report on the Big River property, which complies with the reporting regulations set forward in the Canadian code National Instrument 43-101, 43-101CP, and current CIM standards. The effect date of this report is October 6, 2005.

The Big River property consists of 2 claim blocks (Sturgeon Lake and Cowan Lake) totalling 235,563 hectares, which are located in central Saskatchewan, approximately 10 and 60 kilometres northwest of the community of Prince Albert, respectively. The property is easily accessed by a combination of paved roads and good gravelled roads to within metres of the main kimberlite occurrences. Driving time from Prince Alberta is less than one hour to the known kimberlites.

Recently, exploration companies in Saskatchewan have experienced success in defining diamondiferous kimberlites in the Fort à la Corne ("FalC") and Sturgeon Lake ("Big River") areas. This Saskatchewan diamond area is host to more than 70 kimberlite bodies, some of which are very large, and most of which are diamondiferous, although none has been put into production up to the date of this report. Goldsource Mines Inc. has the right to acquire an interest in this diamond area.

Little information is available on the history of the Big River property or surrounding area prior to 1988. Between 1988 and 1994, extensive geophysics and drilling was completed under the direction of Monopros (De Beers), Claude Resources Inc., Corona Corporation and Rhonda Mining Corporation within the current Sturgeon Lake block. Four core holes and 19 rotary holes were completed for a total of approximately 4,122 metres drilled. Geophysics consisted of various airborne and ground surveys totalling over 3,000 line-kilometres. Terraquest Ltd. of Toronto completed most of the airborne work in the early 1990's. This exploration work has lead to the discovery of two diamondiferous kimberlites (SL01 and SL02).

No geophysics or drilling has been completed within the Cowan Lake block.

The Big River property is underlain by 50 to 100 metres of glacial till deposits, which unconformably overly unmetamorphosed, undeformed Phanerozoic rocks including Cretaceous formations. The Phanerozoic rocks in turn unconformably overly metamorphosed and deformed rocks of the Canadian Shield, which are at an estimated depth of 650 metres. Kimberlitic diatremes of an estimated 90 to 110 million years old ("Ma") intrude the Cretaceous formations at FalC and Big River.

Four kimberlite occurrences have been identified on and one immediately adjacent to the Big River property. These kimberlite occurrences appear to be relatively high in the stratigraphy compared to the Fort à la Corne pipes. Based on the historical data available, possible explanations of this positioning may be interpreted as:

- Misinterpretation of stratigraphy below the kimberlites as glacial till with potential insitu continuous kimberlite between occurrences,
- Dragged kimberlite blocks displaced by glacial activity from an unknown location,
- Young thrust-faulted kimberlite blocks displaced from an unknown source,
- A younger kimberlitic event or,
- Ice rafted kimberlite blocks transported by glacial activity from an unknown source.

Of the five possibilities, misinterpretation of stratigraphy below insitu kimberlite or displaced kimberlite blocks from a currently unknown source appear to be the most plausible explanations. Limited sampling and analysis for micro-diamonds on one of the occurrences within the Sturgeon Lake claim block shows two samples being diamondiferous and of gem quality. Micro-diamond counts from these two samples show a range of 1 to 2 cpht (carats per hundred tonnes).

The Big River kimberlites appear to have several similarities to the FalC kimberlites including;

- The presence of diamondiferous kimberlites as crater facies pyroclastic to airfall beds.
- Rare G10 garnets with abundant G9 garnets.
- Age-dated shales associated with Big River kimberlites are from the Upper to Lower Colorado Group (approximately 90 to 110 Ma).
- Similar petrographic and mineralogical characteristics.
- Kimberlites associated with northwest-southeast trending lineaments potentially associated with deep-seated structures and parallel to the FalC lineaments.

Historically, kimberlites in the diamond area were found by drilling magnetic anomalies. However, there is significant variation in the magnetic susceptibilities of the known kimberlites and portions of many are less magnetic. Orientation surveys have shown that many of the kimberlites are also anomalously conductive, and have minor density contrasts with the enclosing rocks. Recent work at FalC suggests there may be low to non-magnetic kimberlites. Therefore, it is appropriate to explore for kimberlite occurrences at Big River using a combination of airborne magnetic and electromagnetic surveys, with subsequent ground-based gravity and detailed magnetics for confirmation.

The property is considered to be at the intermediate exploration stage. A proposed Phase 1 program of geophysics and drilling is recommended at a cost of CDN \$450,000. This program is recommended to test the current inconclusive nature of kimberlite occurrences by systematically applying recent FalC knowledge and use of current proven technologies. Contingent upon the successful completion of the Phase I program, a Phase II program may be warranted at an estimated cost of CDN \$600,000.

N. Eric Fier, CPG, P. Eng. and N. Ralph Newson, P.Eng., P.Geo, have reviewed the proposed program and budget and believe that the property is of sufficient merit to justify the recommended program.

# 2.0 INTRODUCTION AND TERMS OF REFERENCE

At the request of J. Scott Drever, President of Goldsource Mines Inc., Nathan Eric Fier, CPG, P.Eng. and N. Ralph Newson, P.Eng., P.Geo are providing a Technical Report on the Big River property for Goldsource Mines Inc. ("GXS") of Vancouver, B.C., which complies with the reporting regulations set forward in the Canadian code National Instrument 43-101 and 43-101CP.

N. Eric Fier visited the property on September 8 and 9, 2005. During the site visit, a brief review of the area including location of previous drill holes was made. No previous core, pulps or coarse rejects were available for inspection. Ralph Newson has been directly involved in the area of interest since the early 1990's and has visited the property on numerous occasions.

All measurements in the report are metric and currencies are in Canadian dollars unless otherwise stated.

# 3.0 DISCLAIMER

In preparing this report, Nathan Eric Fier, CPG, P.Eng. and N. Ralph Newson, P.Eng., P.Geo. relied on numerous reports, maps, drill logs, technical papers, and public domain information that are listed in the "References" section of this report.

This report was prepared for GXS by N. Eric Fier and N. Ralph Newson and is based in part on information not in their control. While it is believed that the information will be reliable under the conditions and subject to the limitations set forth herein, the quality, completeness and accuracy of the information cannot be guaranteed by GXS, N. Eric Fier or N. Ralph Newson. N. Eric Fier reviewed the tenure documents and agreements on file and confirmed GXS's legal rights to the claimed areas.

# 4.0 **PROPERTY DESCRIPTION AND LOCATION**

The Big River property is about 10 to 60 kilometres west of the city of Prince Albert, near the intersection of 53° 30' north latitude, and 106° 10' west longitude (Figure 4.1).

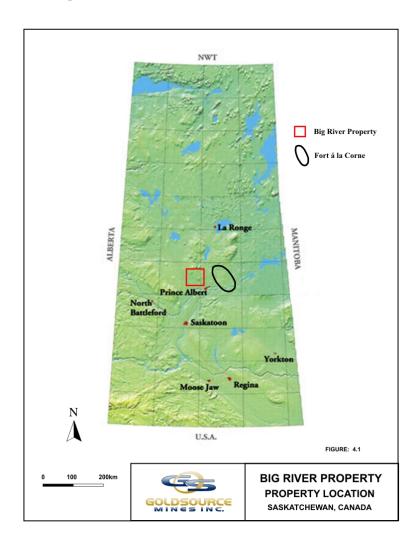
The property consists of two groups of claims, named the Sturgeon Lake and Cowan Lake blocks, which together comprise Saskatchewan mineral claims S-137928, to S-137961, S-138311 to S-138345, and S-138154 to 138273, all inclusive. All of the claims are in surveyed land, and their locations are defined by land survey descriptions, as shown in Table 4.1 and Figure 4.2. The total nominal area of the claims is 235,563 hectares ("ha"). The claims within each of the two groups are contiguous with the respective blocks approximately 15 kilometres apart. The claims are registered with Saskatchewan Industry and Resources in the name of BEC ("BEC") International Corporation, of Saskatoon, as to 100%.

Under the terms of an agreement dated August 3, 2005, GXS has the right to acquire a 90% interest in the property by carrying all costs of exploration and development on the property to the conclusion of a positive Bankable Feasibility Study. BEC may then elect to back-in to a 25% working interest in the property by reimbursing to GXS 25% of all past expenditures, or retain a 10% carried working interest in the property whereby the GXS will fund BEC's share of capital and operating costs to be recovered solely from 80% of BEC's share of cash flow from any future

production from the property. As consideration for the 90% interest in the property, GXS will, upon closing of the transaction, pay BEC \$55,000 in cash and issue an aggregate of up to 2.0 million common shares ("Purchase Shares") to BEC and such other persons as BEC shall direct at an issue price of \$0.30 per share. Of the 2.0 million Purchase Shares, 1.1 million Purchaser Shares will be issuable at Closing and the balance will be issuable only at such time as the aggregate number of Purchase Shares represents less than 20% of the issued and outstanding common shares of the GXS. There are no underlying royalties on the property.

In Saskatchewan, assessment work to the value of \$12 per hectare per year must be done from the second to the tenth anniversary date to keep mineral claims in good standing. Alternatively, a non-refundable cash payment or a deficiency cash deposit can be paid to the government in the amount of the assessment work not done. The deficiency cash deposit is refundable if, in the year immediately following the year for which the deposit was made, the owner carries out two year's worth of work.

A mineral claim in Saskatchewan does not confer any ownership of surface rights. However, use of surface rights for exploration and production can be had under the terms of various acts and regulations if the claim is on Crown Land. Many of the claims are under private land, and it will be necessary to deal with private landowners.



Work permits required for the work done to date have not yet been obtained. Saskatchewan Environment issues a Surface Exploration Permit (\$25), and a Forest Products Permit (\$50) for work on Crown land. The latter is a permit to cut trees, but must be obtained even if there are no trees to cut. Fisheries and Oceans Canada must issue a Letter of Advice if one wishes to use water from a body of water that might have fish in it. The water itself must be purchased from the Saskatchewan Watershed Authority, and a Temporary Water Rights Licence must be obtained from them. The Rural Municipalities in which the claims are situated may charge a fee for work done within their boundaries.

| Disposition Number | Effective Date | Owner(s)                     | NTS Area              | Size/Hectares |
|--------------------|----------------|------------------------------|-----------------------|---------------|
| S-138311           | 22-Apr-05      | BEC INTERNATIONAL CORP. 100% | 73-H-05               | 1024          |
| S-138312           | 22-Apr-05      | BEC INTERNATIONAL CORP. 100% | 73-H-05               | 1024          |
| S-138313           | 22-Apr-05      | BEC INTERNATIONAL CORP. 100% | 73-H-05               | 512           |
| S-138314           | 22-Apr-05      | BEC INTERNATIONAL CORP. 100% | 73-H-05               | 1024          |
| S-138315           | 22-Apr-05      | BEC INTERNATIONAL CORP. 100% | 73-H-05               | 1024          |
| S-138316           | 22-Apr-05      | BEC INTERNATIONAL CORP. 100% | 73-H-05               | 512           |
| S-138317           | 22-Apr-05      | BEC INTERNATIONAL CORP. 100% | 73-H-05               | 1024          |
| S-138318           | 22-Apr-05      | BEC INTERNATIONAL CORP. 100% | 73-H-05               | 1024          |
| S-138319           | 22-Apr-05      | BEC INTERNATIONAL CORP. 100% | 73-H-05               | 1024          |
| S-138320           | 22-Apr-05      | BEC INTERNATIONAL CORP. 100% | 73-H-05               | 1024          |
| S-138321           | 22-Apr-05      | BEC INTERNATIONAL CORP. 100% | 73-H-05               | 1024          |
| S-138322           | 22-Apr-05      | BEC INTERNATIONAL CORP. 100% | 73-H-05               | 64            |
| S-138323           | 22-Apr-05      | BEC INTERNATIONAL CORP. 100% | 73-H-05               | 384           |
| S-138324           | 22-Apr-05      | BEC INTERNATIONAL CORP. 100% | 73-H-05               | 384           |
| S-138325           | 22-Apr-05      | BEC INTERNATIONAL CORP. 100% | 73-H-05               | 1024          |
| S-138326           | 22-Apr-05      | BEC INTERNATIONAL CORP. 100% | 73-H-05               | 768           |
| S-138327           | 22-Apr-05      | BEC INTERNATIONAL CORP. 100% | 73-H-05               | 64            |
| S-138328           | 22-Apr-05      | BEC INTERNATIONAL CORP. 100% | 73-H-05               | 128           |
| S-138329           | 22-Apr-05      | BEC INTERNATIONAL CORP. 100% | 73-H-05               | 512           |
| S-138330           | 22-Apr-05      | BEC INTERNATIONAL CORP. 100% | 73-G-08 & 73-H-<br>05 | 1024          |
| S-138331           | 22-Apr-05      | BEC INTERNATIONAL CORP. 100% | 73-G-08 & 73-H-<br>05 | 910           |
| S-138332           | 22-Apr-05      | BEC INTERNATIONAL CORP. 100% | 73-G-08               | 1024          |
| S-138333           | 22-Apr-05      | BEC INTERNATIONAL CORP. 100% | 73-G-08               | 1024          |
| S-138334           | 22-Apr-05      | BEC INTERNATIONAL CORP. 100% | 73-G-08               | 1024          |
| S-138335           | 22-Apr-05      | BEC INTERNATIONAL CORP. 100% | 73-G-08               | 715           |
| S-138336           | 22-Apr-05      | BEC INTERNATIONAL CORP. 100% | 73-G-08               | 512           |
| S-138337           | 22-Apr-05      | BEC INTERNATIONAL CORP. 100% | 73-G-08               | 64            |
| S-138338           | 22-Apr-05      | BEC INTERNATIONAL CORP. 100% | 73-G-08               | 384           |
| S-138339           | 22-Apr-05      | BEC INTERNATIONAL CORP. 100% | 73-G-08               | 128           |
| S-138340           | 22-Apr-05      | BEC INTERNATIONAL CORP. 100% | 73-G-08               | 512           |
| S-138341           | 22-Apr-05      | BEC INTERNATIONAL CORP. 100% | 73-G-08               | 256           |
| S-138342           | 22-Apr-05      | BEC INTERNATIONAL CORP. 100% | 73-G-08               | 384           |
| S-138343           | 22-Apr-05      | BEC INTERNATIONAL CORP. 100% | 73-G-08               | 64            |
| S-138344           | 22-Apr-05      | BEC INTERNATIONAL CORP. 100% | 73-G-08               | 256           |
| S-138345           | 22-Apr-05      | BEC INTERNATIONAL CORP. 100% | 73-G-08               | 512           |
| S-137928           | 10-Jan-05      | BEC INTERNATIONAL CORP. 100% | 73-G-08               | 714           |

| Table 4.1 - | <b>Big River</b> | Claim  | Dispositions |
|-------------|------------------|--------|--------------|
| I UDIC III  | Dig Mitter       | Ciuiii | Dispositions |

| S-137929  | 10-Jan-05   | BEC INTERNATIONAL CORP. 100%   | 73-G-08   | 825  |
|---|---|--|---|--|
| S-137930  | 10-Jan-05   | BEC INTERNATIONAL CORP. 100%   | 73-G-08   | 386  |
| S-137931  | 10-Jan-05   | BEC INTERNATIONAL CORP. 100%   | 73-G-08   | 93   |
| S-137932  | 10-Jan-05   | BEC INTERNATIONAL CORP. 100%   | 73-G-08   | 711  |
| S-137933  | 10-Jan-05   | BEC INTERNATIONAL CORP. 100%   | 73-G-08   | 568  |
| S-137934  | 10-Jan-05   | BEC INTERNATIONAL CORP. 100%   | 73-G-08   | 512  |
| S-137935  | 10-Jan-05   | BEC INTERNATIONAL CORP. 100%   | 73-G-08   | 1024   |
| S-137936  | 10-Jan-05   | BEC INTERNATIONAL CORP. 100%   | 73-G-08   | 1024   |
| S-137937  | 10-Jan-05   | BEC INTERNATIONAL CORP. 100%   | 73-G-08   | 1024   |
| S-137938  | 10-Jan-05   | BEC INTERNATIONAL CORP. 100%   | 73-G-08 & 73-G-<br>09   | 1024   |
| S-137939  | 10-Jan-05   | BEC INTERNATIONAL CORP. 100%   | 73-G-08 & 73-G-<br>09   | 1024   |
| S-137940  | 10-Jan-05   | BEC INTERNATIONAL CORP. 100%   | 73-G-08   | 1024   |
| S-137941  | 10-Jan-05   | BEC INTERNATIONAL CORP. 100%   | 73-G-08   | 1024   |
| S-137942  | 10-Jan-05   | BEC INTERNATIONAL CORP. 100%   | 73-G-08   | 1024   |
| S-137943  | 10-Jan-05   | BEC INTERNATIONAL CORP. 100%   | 73-G-08   | 991  |
| S-137944  | 10-Jan-05   | BEC INTERNATIONAL CORP. 100%   | 73-G-08   | 1024   |
| S-137945  | 10-Jan-05   | BEC INTERNATIONAL CORP. 100%   | 73-G-08   | 1024   |
| S-137946  | 10-Jan-05   | BEC INTERNATIONAL CORP. 100%   | 73-G-08   | 1280   |
| S-137947  | 10-Jan-05   | BEC INTERNATIONAL CORP. 100%   | 73-G-08   | 1024   |
| S-137948  | 10-Jan-05   | BEC INTERNATIONAL CORP. 100%   | 73-G-08   | 1024   |
| S-137949  | 10-Jan-05   | BEC INTERNATIONAL CORP. 100%   | 73-G-08   | 1024   |
| S-137950  | 10-Jan-05   | BEC INTERNATIONAL CORP. 100%   | 73-G-08   | 1024   |
| S-137951  | 10-Jan-05   | BEC INTERNATIONAL CORP. 100%   | 73-G-08   | 1024   |
| S-137952  | 10-Jan-05   | BEC INTERNATIONAL CORP. 100%   | 73-G-08   | 1024   |
| S-137953  | 10-Jan-05   | BEC INTERNATIONAL CORP. 100%   | 73-G-08 & 73-G-<br>09   | 1024   |
| S-137954  | 10-Jan-05   | BEC INTERNATIONAL CORP. 100%   | 73-G-08 & 73-G-<br>09   | 1024   |
| S-137955  | 10-Jan-05   | BEC INTERNATIONAL CORP. 100%   | 73-G-08 & 73-G-<br>09   | 1024   |
|   |   |  |   |  |
| S-137956  | 10-Jan-05   | BEC INTERNATIONAL CORP. 100%   | 73-G-08   | 512  |
| S-137957  | 10-Jan-05   | BEC INTERNATIONAL CORP. 100%   | 73-G-08   | 512  |
| S-137958  | 10-Jan-05   | BEC INTERNATIONAL CORP. 100%   | 73-G-08   | 512  |
| S-137959  | 10-Jan-05   | BEC INTERNATIONAL CORP. 100%   | 73-G-08   | 512  |
| S-137960  | 10-Jan-05   | BEC INTERNATIONAL CORP. 100%   | 73-G-08<br>73-G-08 & 73-G-  | 512  |
| S-137961  | 10-Jan-05   | BEC INTERNATIONAL CORP. 100%   | 09  | 512  |
| S-138154  |   |  |   |  |
|   | 25-Feb-05   | BEC INTERNATIONAL CORP. 100%   | 73-G-14   | 1024   |
| S-138155  | 25-Feb-05<br>25-Feb-05  | BEC INTERNATIONAL CORP. 100%<br>BEC INTERNATIONAL CORP. 100%   | 73-G-14<br>73-G-14  | 1024<br>1024   |
| S-138155<br>S-138156  |   |  |   |  |
|   | 25-Feb-05   | BEC INTERNATIONAL CORP. 100%   | 73-G-14   | 1024   |
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| S-138156<br>S-138157  | 25-Feb-05<br>25-Feb-05<br>25-Feb-05   | BEC INTERNATIONAL CORP. 100%<br>BEC INTERNATIONAL CORP. 100%<br>BEC INTERNATIONAL CORP. 100%   | 73-G-14<br>73-G-14<br>73-G-14   | 1024<br>1024<br>1024   |
| S-138156<br>S-138157<br>S-138158  | 25-Feb-05<br>25-Feb-05<br>25-Feb-05<br>25-Feb-05  | BEC INTERNATIONAL CORP. 100%<br>BEC INTERNATIONAL CORP. 100%<br>BEC INTERNATIONAL CORP. 100%<br>BEC INTERNATIONAL CORP. 100%   | 73-G-14<br>73-G-14<br>73-G-14<br>73-G-14  | 1024<br>1024<br>1024<br>1024<br>1024   |
| S-138156<br>S-138157<br>S-138158<br>S-138159  | 25-Feb-05<br>25-Feb-05<br>25-Feb-05<br>25-Feb-05<br>25-Feb-05   | BEC INTERNATIONAL CORP. 100%<br>BEC INTERNATIONAL CORP. 100%<br>BEC INTERNATIONAL CORP. 100%<br>BEC INTERNATIONAL CORP. 100%<br>BEC INTERNATIONAL CORP. 100%   | 73-G-14         73-G-14         73-G-14         73-G-14         73-G-14         73-G-14   | 1024<br>1024<br>1024<br>1024<br>1024<br>1024   |
| S-138156<br>S-138157<br>S-138158<br>S-138159<br>S-138160  | 25-Feb-05<br>25-Feb-05<br>25-Feb-05<br>25-Feb-05<br>25-Feb-05<br>25-Feb-05  | BEC INTERNATIONAL CORP. 100%<br>BEC INTERNATIONAL CORP. 100%<br>BEC INTERNATIONAL CORP. 100%<br>BEC INTERNATIONAL CORP. 100%<br>BEC INTERNATIONAL CORP. 100%   | 73-G-14         73-G-14         73-G-14         73-G-14         73-G-14         73-G-14         73-G-14   | 1024<br>1024<br>1024<br>1024<br>1024<br>1024<br>512  |
| S-138156           S-138157           S-138158           S-138159           S-138160           S-138161           S-138162                    | 25-Feb-05<br>25-Feb-05<br>25-Feb-05<br>25-Feb-05<br>25-Feb-05<br>25-Feb-05<br>25-Feb-05<br>25-Feb-05              | BEC INTERNATIONAL CORP. 100%<br>BEC INTERNATIONAL CORP. 100%   | 73-G-14   | 1024<br>1024<br>1024<br>1024<br>1024<br>1024<br>512<br>512   |
| S-138156           S-138157           S-138158           S-138159           S-138160           S-138161           S-138162           S-138163 | 25-Feb-05<br>25-Feb-05<br>25-Feb-05<br>25-Feb-05<br>25-Feb-05<br>25-Feb-05<br>25-Feb-05<br>25-Feb-05<br>25-Feb-05 | BEC INTERNATIONAL CORP. 100%BEC INTERNATIONAL CORP. 100% | 73-G-14         73-G-14 | 1024           1024           1024           1024           1024           512           512           1024           1024 |
| S-138156           S-138157           S-138158           S-138159           S-138160           S-138161           S-138162                    | 25-Feb-05<br>25-Feb-05<br>25-Feb-05<br>25-Feb-05<br>25-Feb-05<br>25-Feb-05<br>25-Feb-05<br>25-Feb-05              | BEC INTERNATIONAL CORP. 100%<br>BEC INTERNATIONAL CORP. 100%   | 73-G-14   | 1024<br>1024<br>1024<br>1024<br>1024<br>1024<br>512<br>512<br>512<br>1024  |

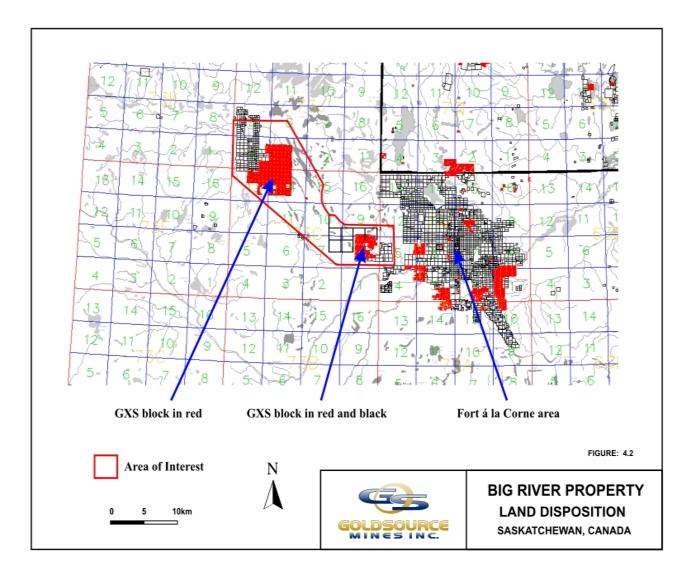
| S-138167             | 25-Feb-05              | BEC INTERNATIONAL CORP. 100% | 73-G-14               | 1024 |
|----------------------|------------------------|------------------------------|-----------------------|------|
| S-138168             | 25-Feb-05              | BEC INTERNATIONAL CORP. 100% | 73-G-14               | 1024 |
| S-138169             | 25-Feb-05              | BEC INTERNATIONAL CORP. 100% | 73-G-14               | 1024 |
| S-138170             | 25-Feb-05              | BEC INTERNATIONAL CORP. 100% | 73-G-14               | 1024 |
| S-138171             | 25-Feb-05              | BEC INTERNATIONAL CORP. 100% | 73-G-14               | 1024 |
| 0.400470             |                        | DECINITEDNATIONAL CODD 4000  | 73-G-14 & 73-J-       | 4004 |
| S-138172             | 25-Feb-05              | BEC INTERNATIONAL CORP. 100% | 03<br>73-G-14 & 73-J- | 1024 |
| S-138173             | 25-Feb-05              | BEC INTERNATIONAL CORP. 100% | 03                    | 1024 |
| S-138174             | 25-Feb-05              | BEC INTERNATIONAL CORP. 100% | 73-G-14 & 73-J-<br>03 | 1024 |
| S-138174             | 25-Feb-05              | BEC INTERNATIONAL CORP. 100% | 73-J-03               | 1024 |
| S-138176             | 25-Feb-05              | BEC INTERNATIONAL CORP. 100% | 73-J-03               | 1024 |
| S-138170             | 25-Feb-05              | BEC INTERNATIONAL CORP. 100% | 73-J-03               | 1024 |
|                      | 25-Feb-05<br>25-Feb-05 |                              |                       | 1024 |
| S-138178<br>S-138179 | 25-Feb-05<br>25-Feb-05 | BEC INTERNATIONAL CORP. 100% | 73-J-03<br>73-J-03    | 1024 |
| S-138179             |                        | BEC INTERNATIONAL CORP. 100% |                       |      |
|                      | 25-Feb-05              | BEC INTERNATIONAL CORP. 100% | 73-J-03               | 1024 |
| S-138181             | 25-Feb-05              | BEC INTERNATIONAL CORP. 100% | 73-J-03               | 1024 |
| S-138182             | 25-Feb-05              | BEC INTERNATIONAL CORP. 100% | 73-J-03               | 1024 |
| S-138183             | 25-Feb-05              | BEC INTERNATIONAL CORP. 100% | 73-J-03               | 1024 |
| S-138184             | 25-Feb-05              | BEC INTERNATIONAL CORP. 100% | 73-J-03               | 1024 |
| S-138185             | 25-Feb-05              | BEC INTERNATIONAL CORP. 100% | 73-J-03               | 1024 |
| S-138186             | 25-Feb-05              | BEC INTERNATIONAL CORP. 100% | 73-J-03               | 1024 |
| S-138187             | 25-Feb-05              | BEC INTERNATIONAL CORP. 100% | 73-J-03               | 1024 |
| S-138188             | 25-Feb-05              | BEC INTERNATIONAL CORP. 100% | 73-J-03               | 1024 |
| S-138189             | 25-Feb-05              | BEC INTERNATIONAL CORP. 100% | 73-J-03               | 1024 |
| S-138190             | 25-Feb-05              | BEC INTERNATIONAL CORP. 100% | 73-J-03               | 1024 |
| S-138191             | 25-Feb-05              | BEC INTERNATIONAL CORP. 100% | 73-J-03               | 1024 |
| S-138192             | 25-Feb-05              | BEC INTERNATIONAL CORP. 100% | 73-J-03               | 1024 |
| S-138193             | 25-Feb-05              | BEC INTERNATIONAL CORP. 100% | 73-J-03               | 768  |
| S-138194             | 25-Feb-05              | BEC INTERNATIONAL CORP. 100% | 73-J-03               | 768  |
| S-138195             | 25-Feb-05              | BEC INTERNATIONAL CORP. 100% | 73-G-14               | 640  |
| S-138196             | 25-Feb-05              | BEC INTERNATIONAL CORP. 100% | 73-G-14               | 128  |
| S-138197             | 25-Feb-05              | BEC INTERNATIONAL CORP. 100% | 73-G-14               | 640  |
| S-138198             | 25-Feb-05              | BEC INTERNATIONAL CORP. 100% | 73-G-14               | 640  |
| S-138199             | 25-Feb-05              | BEC INTERNATIONAL CORP. 100% | 73-G-14               | 640  |
| S-138200             | 25-Feb-05              | BEC INTERNATIONAL CORP. 100% | 73-G-14               | 640  |
| S-138201             | 25-Feb-05              | BEC INTERNATIONAL CORP. 100% | 73-G-14               | 128  |
| S-138202             | 25-Feb-05              | BEC INTERNATIONAL CORP. 100% | 73-G-14               | 640  |
| S-138203             | 25-Feb-05              | BEC INTERNATIONAL CORP. 100% | 73-G-14               | 1024 |
| S-138204             | 25-Feb-05              | BEC INTERNATIONAL CORP. 100% | 73-G-14               | 1024 |
| S-138205             | 25-Feb-05              | BEC INTERNATIONAL CORP. 100% | 73-G-14               | 1024 |
| S-138206             | 25-Feb-05              | BEC INTERNATIONAL CORP. 100% | 73-G-14               | 768  |
| S-138207             | 25-Feb-05              | BEC INTERNATIONAL CORP. 100% | 73-G-14               | 768  |
| S-138208             | 25-Feb-05              | BEC INTERNATIONAL CORP. 100% | 73-G-14               | 1024 |
| S-138209             | 25-Feb-05              | BEC INTERNATIONAL CORP. 100% | 73-G-14               | 1024 |
| S-138210             | 25-Feb-05              | BEC INTERNATIONAL CORP. 100% | 73-G-14               | 1024 |
| S-138211             | 25-Feb-05              | BEC INTERNATIONAL CORP. 100% | 73-G-14               | 1024 |
| S-138212             | 25-Feb-05              | BEC INTERNATIONAL CORP. 100% | 73-G-14               | 1024 |
| S-138213             | 25-Feb-05              | BEC INTERNATIONAL CORP. 100% | 73-G-14               | 1024 |

| S-138214 | 25-Feb-05 | BEC INTERNATIONAL CORP. 100% | 73-G-14                                     | 1024  |
|----------|-----------|------------------------------|---|-------|
| S-138215 | 25-Feb-05 | BEC INTERNATIONAL CORP. 100% | 73-G-14                                     | 1024  |
| S-138216 | 25-Feb-05 | BEC INTERNATIONAL CORP. 100% | 73-G-14                                     | 1024  |
| S-138217 | 25-Feb-05 | BEC INTERNATIONAL CORP. 100% | 73-G-14 & 73-J-<br>03                       | 1024  |
| S-138218 | 25-Feb-05 | BEC INTERNATIONAL CORP. 100% | 73-G-14 & 73-J-<br>03                       | 1024  |
| S-138219 | 25-Feb-05 | BEC INTERNATIONAL CORP. 100% | 73-G-14 & 73-J-<br>03                       | 1024  |
| S-138220 | 25-Feb-05 | BEC INTERNATIONAL CORP. 100% | 73-J-03                                     | 1024  |
| S-138221 | 25-Feb-05 | BEC INTERNATIONAL CORP. 100% | 73-J-03                                     | 1024  |
| S-138222 | 25-Feb-05 | BEC INTERNATIONAL CORP. 100% | 73-J-03                                     | 1024  |
| S-138223 | 25-Feb-05 | BEC INTERNATIONAL CORP. 100% | 73-J-03                                     | 1024  |
| S-138224 | 25-Feb-05 | BEC INTERNATIONAL CORP. 100% | 73-J-03                                     | 1024  |
| S-138225 | 25-Feb-05 | BEC INTERNATIONAL CORP. 100% | 73-J-03                                     | 1024  |
| S-138226 | 25-Feb-05 | BEC INTERNATIONAL CORP. 100% | 73-J-03                                     | 1024  |
| S-138227 | 25-Feb-05 | BEC INTERNATIONAL CORP. 100% | 73-J-03                                     | 1024  |
| 0.400000 |           | DEC INTERNATIONAL CODE 400%  | 73-J-03 & 73-J-                             | 100.1 |
| S-138228 | 25-Feb-05 | BEC INTERNATIONAL CORP. 100% | 04  | 1024  |
| S-138229 | 25-Feb-05 | BEC INTERNATIONAL CORP. 100% | 73-J-03                                     | 1024  |
| S-138230 | 25-Feb-05 | BEC INTERNATIONAL CORP. 100% | 73-J-03<br>73-J-03 & 73-J-                  | 1024  |
| S-138231 | 25-Feb-05 | BEC INTERNATIONAL CORP. 100% | 04  | 1024  |
| S-138232 | 25-Feb-05 | BEC INTERNATIONAL CORP. 100% | 73-J-03                                     | 1024  |
| S-138233 | 25-Feb-05 | BEC INTERNATIONAL CORP. 100% | 73-J-03                                     | 1024  |
| S-138234 | 25-Feb-05 | BEC INTERNATIONAL CORP. 100% | 73-J-03 & 73-J-<br>04                       | 1024  |
| S-138235 | 25-Feb-05 | BEC INTERNATIONAL CORP. 100% | 73-J-03                                     | 1024  |
| S-138236 | 25-Feb-05 | BEC INTERNATIONAL CORP. 100% | 73-J-03                                     | 1024  |
| S-138237 | 25-Feb-05 | BEC INTERNATIONAL CORP. 100% | 73-J-03 & 73-J-<br>04                       | 1024  |
| S-138238 | 25-Feb-05 | BEC INTERNATIONAL CORP. 100% | 73-J-03                                     | 768   |
| S-138239 | 25-Feb-05 | BEC INTERNATIONAL CORP. 100% | 73-J-03 & 73-J-<br>04                       | 744   |
| S-138240 | 25-Feb-05 | BEC INTERNATIONAL CORP. 100% | 73-G-13                                     | 208   |
| S-138241 | 25-Feb-05 | BEC INTERNATIONAL CORP. 100% | 73-G-13                                     | 1024  |
| S-138242 | 25-Feb-05 | BEC INTERNATIONAL CORP. 100% | 73-G-13 & 73-G-<br>14                       | 512   |
| S-138243 | 25-Feb-05 | BEC INTERNATIONAL CORP. 100% | 73-G-13                                     | 1024  |
| S-138244 | 25-Feb-05 | BEC INTERNATIONAL CORP. 100% | 73-G-13                                     | 768   |
| S-138245 | 25-Feb-05 | BEC INTERNATIONAL CORP. 100% | 73-G-13 & 73-G-<br>14                       | 1024  |
| S-138246 | 25-Feb-05 | BEC INTERNATIONAL CORP. 100% | 73-G-13                                     | 1024  |
| S-138240 | 25-Feb-05 | BEC INTERNATIONAL CORP. 100% | 73-G-13                                     | 1024  |
| 0 100277 | 20100-00  |                              | 73-G-13 & 73-G-                             |       |
| S-138248 | 25-Feb-05 | BEC INTERNATIONAL CORP. 100% | 14  | 1024  |
| S-138249 | 25-Feb-05 | BEC INTERNATIONAL CORP. 100% | 73-G-13                                     | 1024  |
| S-138250 | 25-Feb-05 | BEC INTERNATIONAL CORP. 100% | 73-G-13                                     | 1024  |
| S-138251 | 25-Feb-05 | BEC INTERNATIONAL CORP. 100% | 73-G-13 & 73-G-<br>14                       | 1024  |
| S-138252 | 25-Feb-05 | BEC INTERNATIONAL CORP. 100% | 73-G-13                                     | 1024  |
| S-138253 | 25-Feb-05 | BEC INTERNATIONAL CORP. 100% | 73-G-13                                     | 1024  |
| S-138254 | 25-Feb-05 | BEC INTERNATIONAL CORP. 100% | 73-G-13, 73-G-<br>14, 73-J-03 & 73-<br>J-04 | 1024  |
| 0 100204 | 25-Feb-05 | BEC INTERNATIONAL CORP. 100% | 73-G-13 & 73-J-<br>04                       | 1024  |

| S-138256 | 25-Feb-05 | BEC INTERNATIONAL CORP. 100% | 73-G-13 & 73-J-<br>04 | 1024 |
|----------|-----------|------------------------------|-----------------------|------|
| S-138257 | 25-Feb-05 | BEC INTERNATIONAL CORP. 100% | 73-J-03 & 73-J-<br>04 | 1024 |
| S-138258 | 25-Feb-05 | BEC INTERNATIONAL CORP. 100% | 73-J-04               | 1024 |
| S-138259 | 25-Feb-05 | BEC INTERNATIONAL CORP. 100% | 73-J-04               | 1024 |
| 0 100200 | 2010000   |                              | 73-J-03 & 73-J-       | 1021 |
| S-138260 | 25-Feb-05 | BEC INTERNATIONAL CORP. 100% | 04                    | 1024 |
| S-138261 | 25-Feb-05 | BEC INTERNATIONAL CORP. 100% | 73-J-04               | 1024 |
| S-138262 | 25-Feb-05 | BEC INTERNATIONAL CORP. 100% | 73-J-04               | 1024 |
| S-138263 | 25-Feb-05 | BEC INTERNATIONAL CORP. 100% | 73-J-04               | 1024 |
| S-138264 | 25-Feb-05 | BEC INTERNATIONAL CORP. 100% | 73-J-04               | 1536 |
| S-138265 | 25-Feb-05 | BEC INTERNATIONAL CORP. 100% | 73-G-13               | 1024 |
| S-138266 | 25-Feb-05 | BEC INTERNATIONAL CORP. 100% | 73-G-13               | 1024 |
| S-138267 | 25-Feb-05 | BEC INTERNATIONAL CORP. 100% | 73-G-13               | 1024 |
| S-138268 | 25-Feb-05 | BEC INTERNATIONAL CORP. 100% | 73-G-13               | 512  |
| S-138269 | 25-Feb-05 | BEC INTERNATIONAL CORP. 100% | 73-G-13               | 1024 |
| S-138270 | 25-Feb-05 | BEC INTERNATIONAL CORP. 100% | 73-G-13               | 1024 |
| S-138271 | 25-Feb-05 | BEC INTERNATIONAL CORP. 100% | 73-G-13               | 1024 |
| S-138272 | 25-Feb-05 | BEC INTERNATIONAL CORP. 100% | 73-G-13               | 960  |
| S-138273 | 25-Feb-05 | BEC INTERNATIONAL CORP. 100% | 73-G-13               | 984  |
| S-138369 | 7-Jul-05  | BEC INTERNATIONAL CORP. 100% | 73-H-05               | 256  |
| S-138370 | 7-Jul-05  | BEC INTERNATIONAL CORP. 100% | 73-H-05               | 512  |
| S-138371 | 7-Jul-05  | BEC INTERNATIONAL CORP. 100% | 73-H-05               | 512  |
| S-138372 | 7-Jul-05  | BEC INTERNATIONAL CORP. 100% | 73-H-05               | 768  |
| S-138373 | 7-Jul-05  | BEC INTERNATIONAL CORP. 100% | 73-G-08               | 1024 |
| S-138374 | 7-Jul-05  | BEC INTERNATIONAL CORP. 100% | 73-G-08               | 1024 |
| S-138375 | 7-Jul-05  | BEC INTERNATIONAL CORP. 100% | 73-G-08               | 1024 |
| S-138376 | 7-Jul-05  | BEC INTERNATIONAL CORP. 100% | 73-G-09               | 512  |
| S-138377 | 7-Jul-05  | BEC INTERNATIONAL CORP. 100% | 73-G-09               | 1024 |
| S-138378 | 7-Jul-05  | BEC INTERNATIONAL CORP. 100% | 73-G-09               | 1024 |
| S-138379 | 7-Jul-05  | BEC INTERNATIONAL CORP. 100% | 73-G-09               | 512  |
| S-138380 | 7-Jul-05  | BEC INTERNATIONAL CORP. 100% | 73-G-08               | 1024 |
| S-138381 | 7-Jul-05  | BEC INTERNATIONAL CORP. 100% | 73-G-08               | 1024 |
| S-138382 | 7-Jul-05  | BEC INTERNATIONAL CORP. 100% | 73-G-08               | 1024 |
| S-138383 | 7-Jul-05  | BEC INTERNATIONAL CORP. 100% | 73-G-08               | 1024 |
| S-138384 | 7-Jul-05  | BEC INTERNATIONAL CORP. 100% | 73-G-08               | 1024 |
| S-138385 | 7-Jul-05  | BEC INTERNATIONAL CORP. 100% | 73-G-08               | 1024 |
| S-138386 | 7-Jul-05  | BEC INTERNATIONAL CORP. 100% | 73-G-08               | 512  |
| S-138387 | 7-Jul-05  | BEC INTERNATIONAL CORP. 100% | 73-G-09               | 512  |
| S-138388 | 7-Jul-05  | BEC INTERNATIONAL CORP. 100% | 73-G-09               | 768  |
| S-138389 | 7-Jul-05  | BEC INTERNATIONAL CORP. 100% | 73-G-09               | 768  |
| S-138390 | 7-Jul-05  | BEC INTERNATIONAL CORP. 100% | 73-G-09               | 768  |
| S-138391 | 7-Jul-05  | BEC INTERNATIONAL CORP. 100% | 73-G-09               | 768  |
| S-138392 | 7-Jul-05  | BEC INTERNATIONAL CORP. 100% | 73-G-09               | 768  |
| S-138393 | 7-Jul-05  | BEC INTERNATIONAL CORP. 100% | 73-G-09               | 768  |
| S-138394 | 7-Jul-05  | BEC INTERNATIONAL CORP. 100% | 73-G-09               | 768  |
| S-138396 | 22-Jul-05 | BEC INTERNATIONAL CORP. 100% | 73-G-08               | 512  |
| S-138397 | 22-Jul-05 | BEC INTERNATIONAL CORP. 100% | 73-G-08               | 512  |
| S-138398 | 22-Jul-05 | BEC INTERNATIONAL CORP. 100% | 73-G-08               | 512  |
| 3-130390 | ZZ-JUI-UƏ | DEC INTERNATIONAL CORP. 100% | 13-0-00               | 512  |

| S-138399 | 22-Jul-05 | BEC INTERNATIONAL CORP. 100% | 73-G-08                    | 768 |
|----------|-----------|------------------------------|----------------------------|-----|
| S-138400 | 22-Jul-05 | BEC INTERNATIONAL CORP. 100% | 73-G-08                    | 512 |
| S-138401 | 22-Jul-05 | BEC INTERNATIONAL CORP. 100% | 73-G-08                    | 768 |
| S-138402 | 22-Jul-05 | BEC INTERNATIONAL CORP. 100% | 73-G-08                    | 512 |
| S-138403 | 22-Jul-05 | BEC INTERNATIONAL CORP. 100% | 73-G-08                    | 512 |
| S-138404 | 22-Jul-05 | BEC INTERNATIONAL CORP. 100% | 73-G-08                    | 512 |
| S-138405 | 22-Jul-05 | BEC INTERNATIONAL CORP. 100% | 73-G-08                    | 512 |
| S-138406 | 22-Jul-05 | BEC INTERNATIONAL CORP. 100% | 73-G-08                    | 512 |
| S-138407 | 22-Jul-05 | BEC INTERNATIONAL CORP. 100% | 73-G-08                    | 512 |
| S-138408 | 22-Jul-05 | BEC INTERNATIONAL CORP. 100% | 73-G-08                    | 512 |
| S-138409 | 22-Jul-05 | BEC INTERNATIONAL CORP. 100% | 73-G-08                    | 512 |
| S-138410 | 22-Jul-05 | BEC INTERNATIONAL CORP. 100% | 73-G-08                    | 768 |
| S-138411 | 22-Jul-05 | BEC INTERNATIONAL CORP. 100% | 73-G-08                    | 768 |
| S-138412 | 22-Jul-05 | BEC INTERNATIONAL CORP. 100% | 73-G-08                    | 512 |
| S-138413 | 22-Jul-05 | BEC INTERNATIONAL CORP. 100% | 73-G-08                    | 512 |
| S-138414 | 22-Jul-05 | BEC INTERNATIONAL CORP. 100% | 73-G-08                    | 768 |
| S-138415 | 22-Jul-05 | BEC INTERNATIONAL CORP. 100% | 73-G-08 & 73-G-<br>09      | 768 |
| 0-100+10 | 22 301 03 | BEO INTERNATIONAE CORT. 1007 | 73-G-08 & 73-G-            | 100 |
| S-138416 | 22-Jul-05 | BEC INTERNATIONAL CORP. 100% | 09                         | 512 |
| S-138417 | 22-Jul-05 | BEC INTERNATIONAL CORP. 100% | 73-G-09                    | 512 |
| S-138418 | 22-Jul-05 | BEC INTERNATIONAL CORP. 100% | 73-G-09                    | 768 |
| S-138419 | 22-Jul-05 | BEC INTERNATIONAL CORP. 100% | 73-G-09                    | 768 |
| S-138420 | 22-Jul-05 | BEC INTERNATIONAL CORP. 100% | 73-G-09                    | 512 |
| S-138421 | 22-Jul-05 | BEC INTERNATIONAL CORP. 100% | 73-G-09                    | 768 |
| S-138422 | 22-Jul-05 | BEC INTERNATIONAL CORP. 100% | 73-G-09                    | 768 |
| S-138423 | 22-Jul-05 | BEC INTERNATIONAL CORP. 100% | 73-G-09                    | 768 |
| S-138424 | 22-Jul-05 | BEC INTERNATIONAL CORP. 100% | 73-G-09                    | 768 |
| S-138425 | 22-Jul-05 | BEC INTERNATIONAL CORP. 100% | 73-G-09                    | 768 |
| S-138426 | 22-Jul-05 | BEC INTERNATIONAL CORP. 100% | 73-G-08                    | 512 |
| S-138427 | 22-Jul-05 | BEC INTERNATIONAL CORP. 100% | 73-G-07 & 73-G-<br>08      | 768 |
| S-138428 | 22-Jul-05 | BEC INTERNATIONAL CORP. 100% | 73-G-07 & 73-G-<br>08      | 768 |
| S-138429 | 22-Jul-05 | BEC INTERNATIONAL CORP. 100% | 73-G-08                    | 512 |
| S-138430 | 22-Jul-05 | BEC INTERNATIONAL CORP. 100% | 73-G-08                    | 512 |
| S-138431 | 22-Jul-05 | BEC INTERNATIONAL CORP. 100% | 73-G-07 & 73-G-<br>08      | 768 |
| 0.400400 | 00.101.05 |                              | 73-G-07 & 73-G-            | 700 |
| S-138432 | 22-Jul-05 | BEC INTERNATIONAL CORP. 100% | 08                         | 768 |
| S-138433 | 22-Jul-05 | BEC INTERNATIONAL CORP. 100% | 73-G-08                    | 512 |
| S-138434 | 22-Jul-05 | BEC INTERNATIONAL CORP. 100% | 73-G-08<br>73-G-07 & 73-G- | 512 |
| S-138435 | 22-Jul-05 | BEC INTERNATIONAL CORP. 100% | 08<br>73-G-07 & 73-G-      | 768 |
| S-138436 | 22-Jul-05 | BEC INTERNATIONAL CORP. 100% | 08                         | 768 |
| S-138437 | 22-Jul-05 | BEC INTERNATIONAL CORP. 100% | 73-G-08                    | 512 |
| S-138438 | 22-Jul-05 | BEC INTERNATIONAL CORP. 100% | 73-G-07 & 73-G-<br>08      | 768 |
| S-138439 | 22-Jul-05 | BEC INTERNATIONAL CORP. 100% | 73-G-07                    | 512 |
| S-138440 | 22-Jul-05 | BEC INTERNATIONAL CORP. 100% | 73-G-07                    | 512 |
| S-138441 | 22-Jul-05 | BEC INTERNATIONAL CORP. 100% | 73-G-07 & 73-G-<br>08      | 768 |
| S-138442 | 22-Jul-05 | BEC INTERNATIONAL CORP. 100% | 73-G-07 & 73-G-<br>08      | 768 |

| S-138443 | 22-Jul-05  | BEC INTERNATIONAL CORP. 100% | 73-G-07                    | 768        |
|----------|------------|------------------------------|----------------------------|------------|
| S-138444 | 22-Jul-05  | BEC INTERNATIONAL CORP. 100% | 73-G-07 & 73-G-<br>10      | 768        |
|          |            |                              | 73-G-07, 73-G-             |            |
| S-138445 | 22-Jul-05  | BEC INTERNATIONAL CORP. 100% | 08, 73-G-09 &<br>73-G-10   | 768        |
| 0.400440 | 00, 1-1,05 | DECINITEDNATIONAL CODD 4000  | 73-G-08 & 73-G-            | 700        |
| S-138446 | 22-Jul-05  | BEC INTERNATIONAL CORP. 100% | 09<br>73-G-10              | 768<br>768 |
| S-138447 | 22-Jul-05  | BEC INTERNATIONAL CORP. 100% |                            |            |
| S-138448 | 22-Jul-05  | BEC INTERNATIONAL CORP. 100% | 73-G-10<br>73-G-09 & 73-G- | 768        |
| S-138449 | 22-Jul-05  | BEC INTERNATIONAL CORP. 100% | 10                         | 768        |
| S-138450 | 22-Jul-05  | BEC INTERNATIONAL CORP. 100% | 73-G-09 & 73-G-<br>10      | 768        |
| S-138451 | 22-Jul-05  | BEC INTERNATIONAL CORP. 100% | 73-G-10                    | 768        |
| S-138452 | 22-Jul-05  | BEC INTERNATIONAL CORP. 100% | 73-G-10                    | 768        |
| S-138453 | 22-Jul-05  | BEC INTERNATIONAL CORP. 100% | 73-G-09 & 73-G-<br>10      | 768        |
| S-138454 | 22-Jul-05  | BEC INTERNATIONAL CORP. 100% | 73-G-09 & 73-G-<br>10      | 768        |
| S-138455 | 22-Jul-05  | BEC INTERNATIONAL CORP. 100% | 73-G-10                    | 768        |
| S-138456 | 22-Jul-05  | BEC INTERNATIONAL CORP. 100% | 73-G-10                    | 512        |
| S-138457 | 22-Jul-05  | BEC INTERNATIONAL CORP. 100% | 73-G-10                    | 469        |
| S-138458 | 22-Jul-05  | BEC INTERNATIONAL CORP. 100% | 73-G-10                    | 236        |
| S-138459 | 22-Jul-05  | BEC INTERNATIONAL CORP. 100% | 73-G-10                    | 24         |
| S-138460 | 22-Jul-05  | BEC INTERNATIONAL CORP. 100% | 73-G-07                    | 768        |
| S-138461 | 22-Jul-05  | BEC INTERNATIONAL CORP. 100% | 73-G-07 & 73-G-<br>10      | 768        |
| S-138462 | 22-Jul-05  | BEC INTERNATIONAL CORP. 100% | 73-G-10                    | 768        |
| S-138463 | 22-Jul-05  | BEC INTERNATIONAL CORP. 100% | 73-G-10                    | 768        |
| S-138464 | 22-Jul-05  | BEC INTERNATIONAL CORP. 100% | 73-G-10                    | 768        |
| S-138465 | 22-Jul-05  | BEC INTERNATIONAL CORP. 100% | 73-G-10                    | 768        |
| S-138466 | 22-Jul-05  | BEC INTERNATIONAL CORP. 100% | 73-G-10                    | 768        |
| S-138467 | 22-Jul-05  | BEC INTERNATIONAL CORP. 100% | 73-G-10                    | 768        |
| S-138468 | 22-Jul-05  | BEC INTERNATIONAL CORP. 100% | 73-G-10                    | 768        |
| S-138469 | 22-Jul-05  | BEC INTERNATIONAL CORP. 100% | 73-G-10                    | 768        |
| S-138470 | 22-Jul-05  | BEC INTERNATIONAL CORP. 100% | 73-G-10                    | 745        |
|          |            |                              | TOTAL<br>HECTARES          | 235,563    |



# 5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE, PHYSIOGRAPHY

The Sturgeon Lake claim block can be accessed by paved Provincial Highway Number 3 westward from Prince Albert to Holbein, a distance of about 30 km, then northwards along a paved secondary road and gravelled grid roads. The Cowan Lake claim block can be accessed by continuing westward from Holbein to Shellbrook, an additional distance of about 13 km, then north-westerly on paved highway #55 about 100 km. Some grid roads exist north of the town of Big River, but most of the land in this claim block is not cleared, so access is limited compared to Sturgeon Lake.

Average elevation is about 500 metres above sea level on both groups. The climate is a typical mid-continental type, dry (averaging 405mm rainfall), with extreme seasonal temperature variations, commonly from  $-35^{\circ}$ C to  $+35^{\circ}$ C. Work can be carried out all year round, but in the spring, half-load restrictions on the roads apply to heavy trucks.

Sufficient area is available for a processing plant, waste dumps and tailings disposal on the property, provided that the surface rights can be obtained from the current owners with private land.

Water for drilling is not readily available on most of the property, and will likely have to be trucked from a source. Water for a production facility may have to come from the Saskatchewan River, about 35 km south of the centre of the Sturgeon Lake area or potentially a groundwater resource.

The City of Prince Albert ("PA") is the closest urban area of any size, and is about 40 km by road to the east of the centre of the Sturgeon Lake block or about 125 km by road from the centre of the Cowan Lake block. Most services and supplies are available in PA, but it may be necessary to go to Saskatoon, 150 km south of PA, for heavier machine shop, fabrication, and engineering services.

Saskatchewan has some of the largest potash and uranium mines in the world, and there are numbers of people with experience in mining and processing of those commodities. Many of the trades and skills learned there would be transferable to a diamond operation. Development in the FalC area of diamondiferous kimberlites is expected to attract personnel with diamond related experience.

# 6.0 **PROPERTY HISTORY**

On Sept 20, 1961, an article in the Star Phoenix states:

"Pr. Albert, GEOLOGIST CHECKS CLAIMS OF DIAMONDS - Dr. JT Kirkland, resident geologist for the Provincial Dept of Mineral Resources, was in the Nesbit Forest Reserve near here on Tuesday, checking property on which it is rumoured industrial diamonds may be located.

Provincial mines officials said it would be unusual if there was anything to the report but instructed the geologist to make the examination. A Winnipeg man, Max Pellack, started a claims staking rush in the area last week when he said he found two diamonds about one-quarter inch in diameter. He staked 30 claims last June and since then has shipped two tons of the gravel soil to Winnipeg for testing. The forest reserve area is 4 miles west of Pr Albert."

Between April 1988 and June 1989, fieldwork was carried out at the Monopros discovery site (SL01) and included ground magnetics, mapping, trenching, rotary drilling and bulk sampling. Gravel cover was thin over the kimberlite ( $\leq 1$  m). An estimated 550 cubic metres of material was excavated from 11 trenches. Ten rotary holes were drilled in a local gravel pit. The kimberlite body was revealed to be approximately 180m by 110m. No contacts with the country rock were observed, only sharp dipping contacts with glacial till. All kimberlite types present were considered Group 1 kimberlites and are extensively altered (carbonatized and clay mineralized). They were considered to be hypabyssal facies macrocrystic kimberlite. More than one intrusive phase is indicated by the presence of autoliths (kimberlite fragments). Two types of weathered kimberlites occur: one very friable, the other more resistant (doleritic) and forms boulders. Surface weathering of the kimberlite produces a deep yellow colour, several centimetres thick, and renders the rock very soft and friable (clay-like).

The bulk sampling material extracted from the 11 trenches was crushed to -6 mm using a "jaw and roll" type crusher. The different sized material was then fed to 3 jigs. Undersized material

was piped to a tailings pit. An estimated 188 cubic meters were processed, and 61 cubic metres of tailings were re-processed. All kimberlite concentrates were shipped to Thunder Bay to be treated over a grease table. Three macro-diamonds were recovered (0.183, 0.074 and 0.011 carats) all over gem quality.

The ground magnetic anomaly defined the SL01 kimberlite body but proved to be somewhat smaller in area than the known extent of the kimberlite. Magnetic readings were 1700 nT above background.

Between Nov. 18 and 25, 1988, Corona Corporation conducted an airborne magnetometer and VLF/EM survey over the Sturgeon Lake area, contracting Terraquest Ltd. of Toronto at 150 m spacings, N-S lines. Conclusion was that the only magnetic high in the area was right over the Monopros gravel pit site (>50 gammas) and there was nothing else this high in the survey area. VLF conductors didn't point to anything significant. They concluded that any further exploration for kimberlite pipes in the area has to assume the pipes contain significantly lower concentrations of magnetic minerals.

Terraquest also produced an interpretive map for each half of the survey area (an East Half and a West Half) identifying all the small wavelength magnetic features with responses ranging from 1.5-15 gammas in magnitude.

In early 1989, ground magnetic surveys of selected Terraquest anomalies (68 in total) were carried out. Several of these anomalies were determined to be caused by some cultural or topographic feature.

Between May 8 to 13, 1989, Corona drilled hole LK-1 a total of 476' (NQ core) at an angle of -60 degrees due south into a magnetic anomaly (SL02), five kilometres northwest of the Monopros gravel pit (SL01). Corona shipped 11 core samples (LK 1-11) to Lakefield Research for extraction of diamonds using caustic fusion. Samples LK1 & 2 were samples above the kimberlite, LK 3 & 4 were within kimberlite, LK 5-11 were below the kimberlite. One micro-diamond (white, irregular, gem quality) from sample LK-3 located at 70 to 81 metres downhole was found in a sample weighting 9.3 kilograms. This represented a projected grade of close to 2 cpht for the selected kimberlite sampled.

In May 1989, three vertical rotary holes (SL-11, 12, and 13) were drilled northwest of the Monopros gravel pit near SL02. One hole was drilled on the prominent topographic knoll north of Sturgeon Lake, and two holes were drilled north of the Corona hole on a small magnetic anomaly, along the same north-south grid road. Holes SL-12 and 13 intercepted 11 to 15 metres of kimberlite, which appears to be a continuation from the kimberlite intercept in hole LK-1. The holes were exploratory only, and none of the cuttings were analyzed.

During the summer of 1989, Claude Resources completed a field program to follow up on some of the anomalies indicated on Terraquest's interpretive map. As of June 1989, over 50 anomalies had been investigated with ground surveys. Claude discovered that some of the Terraquest anomalies that were marked as topographic and cultural features were in fact strong magnetic signatures suggesting potential kimberlite targets. One such anomaly that was marked as a topographic feature was the target Corona drilled in their core hole LK-1 that intersected significant kimberlite.

In July 1989, Corona terminated their option with Claude for unknown reasons.

In October 1989, Cameco optioned approximately 100,000 acres from Claude and conducted a ground magnetic survey (18 line km) and drilled one rotary hole (SL-1-90) adjacent to Corona's LK-1 core hole. Two surveys were conducted over the known kimberlite (1 line km each) to test for secondary EM or resistivity responses. An airborne magnetic survey was conducted in February 1990, over a grid area immediately south of Prince Albert National Park. An elliptical magnetic high showed up over Corona's LK-1 hole. Modeling of the magnetic data showed a shallow depth to the kimberlite. Magnetic susceptibility measurements were conducted on the rotary cuttings sample bags. The kimberlite section was clearly delineated by a high magnetic response.

Samples from SL-1-90 were sent to C.F. Mineral Research in Kelowna for processing. Five micro-diamonds were found in 118 kg sample ranging in size from .191 mm to .478 mm. Chromites and peridotite garnets did not forecast a peridotite source. An eclogite source was suggested. Petrography studies indicated a remarkable similarity to the nearby Monopros kimberlite. All five diamonds were gem quality ranging from unresorbed to moderately resorbed octahedrons.

C.F. Minerals and the University of Saskatchewan conducted studies on garnets and ilmemites from SL-1-90. Eclogite garnets were sent to Capetown for more detailed analyses. The reported results were as follows; diamond forecast from a peridotitic source is poor based on garnet and chromite compositions. The diamond forecast from an eclogitic source is poor to moderate, and the degree of diamond preservation based on ilmenite compositions is good in both cases. This suggests that the diamond source is of an eclogitic-type similar to recent results reported from FalC.

Cameco's conclusions were that potential diamond forecasts (quantity and source) based on limited test work for the SL01 kimberlite were low and the option was terminated.

In early 1990, ground geophysics, rotary drilling and trenching were carried out by Claude Resources in a joint venture with Celtic Gold in the Mayview, Bell Lake and Alingly areas. This was follow-up work designed to test indicated targets outlined by the Terraquest airborne magnetic survey.

The Mayview program, located an estimated 8 kilometres north of the SL02 kimberlite occurrence, consisted of a ground magnet survey, which did not define any sharp circular anomalies but suggested an east-west trending magnetic high. Two rotary holes (DL-1&2) were drilled. DL-1 was drilled through glacial overburden to 260', and DL-2 to 340'. The top 40' of overburden was sent to SRC (Saskatchewan Research Centre) for garnet analysis. Three garnets of kimberlite affinity (G9 & G10's) were collected in DL-2. The top 40' in both holes were anomalous in Ni, Cr, Mg indicating a possible nearby source of kimberlite. Two trenches were dug in July near DL-2 to better understand the surficial geology and obtain deeper samples.

The Bell Lake program, located just east of the Mayview area, consisted of five rotary holes (Bell 1 - 5), which were drilled to test circular anomalies defined by lakes and swamps near holes DL1&2 in search of the source of garnets. All holes encountered glacial till until bedrock (Upper Colorado Group) was intersected at various depths (180-300').

The Alingly program, located an estimated 8 kilometres southeast of SL02, consisted of testing two targets defined by a MAG/VLF survey conducted by Newson Management & Consulting Ltd., of Saskatoon (a private contracting company then owned by N. Ralph Newson) in the Nesbit Forest south of Alingly. Rotary hole AL-1 was drilled to 260' depth. The hole was abandoned

after encountering high-pressure water. The top 10 feet of the hole intersected red sand with 10 feet of yellow sand below this. A 3-foot layer of clay was intersected below this to 23'. Blue clay was intersected from 120-130'and more blue clay from 210-240'. The blue clay in these holes was considered typical glacial clay. Rotary hole AL-2 didn't intersect red sand but the rest was very similar to AL-1. The red sand in hole AL-1 was sent to the Saskatchewan Research Council ("SRC") and returned anomalous quantities of magnetite possibly sourced from kimberlite.

In July 1990, a rotary hole (HS-1-90) was drilled 400 m SE of Corona's drill hole LK-1. The hole was vertical and the depth was 275', with poor recovery. No apparent kimberlite was intersected. A water aquifer was hit and the hole was abandoned. Fourteen samples sent to SRC with no kimberlite material reported.

Dr. Peter Nixon of Leeds University visited the area from July 13-18, 1990. He studied geophysical maps, borehole information and examined specimens. His visited included site investigations of the Monopro's gravel pit, Claude drill sites, Mayview and Christopher Lake (Anglin Lake.). He met with Monopros personnel, Claude & Celtic personnel, and Terraquest.

Dr. Nixon's conclusions state that a tuff ring surrounds the pipes of the area and the kimberlitic material is interlayered in glacial sediments. Evidence for these conclusions were as follows:

- Proximal welded tuff bed at (north shore, Sturgeon Lake).
- Medium distance ash fall horizons (Mayview).
- Distal erosional accumulations of magnetite-rich sands (Alingly).

Dr. Nixon predicted that pipes exist within circular topographic-magnetic ring structures, and that the mag signature within pipes would be subtle as compared to the surrounding (shallower) tuffs. The ring (or pipe) structures were not yet tested.

Dr. Nixon concluded:

- 2 holes were drilled (SL1 and LK1) near Sturgeon Lake (SL02) and intersected up to 80' of kimberlite that is sandwiched in glacial till sediments.
- 7 holes were drilled at Mayview; kimberlite there is shallow and sheet-like and contains pyrope garnets and a weak Ni-Cr anomaly. The 'ash' overlies glacial till.
- Monopros kimberlite (SL01) is bedded and dips shallowly to the north-northwest to suggest nearby vents to the southwest.
- Magnetic anomalies can result from localized accumulations of magnetite from erosion processes (Alingly area).
- The kimberlites appear to be the youngest on record, probably Pleistocene but certainly post mid-Cretaceous. The preservation of young, little-eroded kimberlite volcanic systems is a significant beneficial factor in potential reserve calculations.

Dr. Nixon studied the garnets and decided that a peridotitic source was 'not optimistic', but that eclogite garnets are present. Analysis for Na content was completed with marginal results. Some

of the mineralogy witnessed in a thin-section supplied to Dr. Nixon suggested a primary origin to the SL01 kimberlite, as opposed to a secondary origin (like re-worked and transported kimberlite sediments).

Four rock samples were sent to Leeds University and whole-rock analyses performed on them. Dr. Nixon reports that all fit with kimberlite origin, the sample from LK-1 more closely representing 'typical kimberlite.' He noted that one type of pyrope-uvarovite garnet is green in colour, not purple, and such garnets are rare in kimberlite elsewhere, but were showing up in other Saskatchewan kimberlites and may be a suitable kimberlite tracer mineral.

In August 1990, Claude completed a vertical diamond drill hole (LK-2) at the same site as Cameco's rotary hole. This NQ core hole was drilled to a depth of 324' (101 m) and hit consolidated material beginning 100' below surface. Kimberlite was intersected from 198' to 258.5'. It also intersected a thin layer of shale both above and below the kimberlite. Six samples of kimberlite were selected for geochemical analyses at SRC. The entire un-split kimberlite core section was sent to Scott-Smith Petrography for logging and examination. Mr. Pat Cashman at the University of Saskatchewan completed palynology studies on the core and identified the volcanic event as mid-Cretaceous (late Albian making the eruption generally equivalent with the Fish Scale Beds of the Lower Colorado Group).

In November of 1990, Scott-Smith examined the core from hole LK-2. The report states that the kimberlite is volcanic (extrusive), bedded tuffaceous (ash and lapilli tuffs) and basal surge-type deposits enclosed within black shales (dated as Albian in age). The rocks were classified as crater facies. She concluded that the kimberlite and associated mudstones were glacially transported blocks rather than in-situ volcaniclastic rocks.

In 1992, Rhonda Mining Corporation drilled three rotary vertical drill holes (OFS92-1, 2, and 3) on the Deer Ridge property and one rotary hole in the Cox Lake area in an attempt to locate the source beds of the kimberlite blocks at Monopros (SL01) and Claude (SL02) sites to the south. Ralph Newson (co-author of this report) carried out magnetic surveys to locate the best sites for the holes, marked the locations, and supervised the early stages of the drilling. Coring was carried out in hole OFS-92-1, from 175 metres, which was about 25 metres into Cretaceous mudstones for a total depth of 256 metres. Newson logged the core, sampled it, and delivered it to the laboratory of the SRC in Saskatoon.

Down-hole geophysics was also carried out to help fingerprint the responses from the kimberlite. In the holes that were not cored, drill cuttings for a portion of the bedrock interval were analyzed for major oxide and trace element content. All material greater than 1 mm was collected. The only kimberlite returned as cuttings was the harder blue green type. Garnets were observed. It was concluded that the kimberlite drilled was of a distal facies being composed mainly of reworked immature micaceous sedimentary kimberlite with lesser amounts of the harder more massive blue-green (more proximal?) type.

Rhonda showed that the Fish Scale Beds, with associated kimberlite volcanics, underlie the Deer Ridge property and potentially the entire Sturgeon Lake region. Rhonda concluded that kimberlite volcanoes must also be present at or immediately beneath the preglacial erosional surface.

A total of 81 rotary drill cutting samples from holes OFS92-2 & 3 were sent to SRC in Saskatoon. Hole 1 contained minor chips of kimberlite coinciding with a gamma anomaly. No kimberlite anomalies were detected from Hole 2. However, a thin 3-m interval between 106-109 metres in

Hole 2 showed values for most of the oxides and trace elements. Test work showed that chrome and nickel had elevated values but of less magnitude than the kimberlite material in hole 3. Magnetic susceptibility of Hole 2 is low and indicates that the source of the large negative elongated aeromagnetic anomaly was associated with basement rocks located more than 300 metres below surface. Hole 3 magnetics are an order of magnitude greater than the surrounding tills. Hole 3 had poor to moderate recovery through the kimberlite section. Most chips were of the bluish hard low % mica magnetite type. Several red-violet garnets with attached micaceous kimberlite were observed in this hole.

A ground magnetic survey over Hole 3 indicated that the size of the SL01 kimberlite was approximately 150 m x 100 m, trending N80E (from the total field data). A second anomaly was detected 350 metres southeast.

One rotary drill hole (OFS92-04) was drilled over a circular positive magnetic anomaly south of Cox Lake. Downhole geophysical logging and analysis of drill cuttings were also performed. No core was retrieved, only fine cuttings from the drill mud. The hole depth was 348.5 m (1143'). Thirty-five samples were sent to an unknown location for major and minor element analysis. No significant kimberlite signatures were indicated from this data. No positive magnetic values were defined, hence the source of the circular magnetic anomaly may be due to basement rocks.

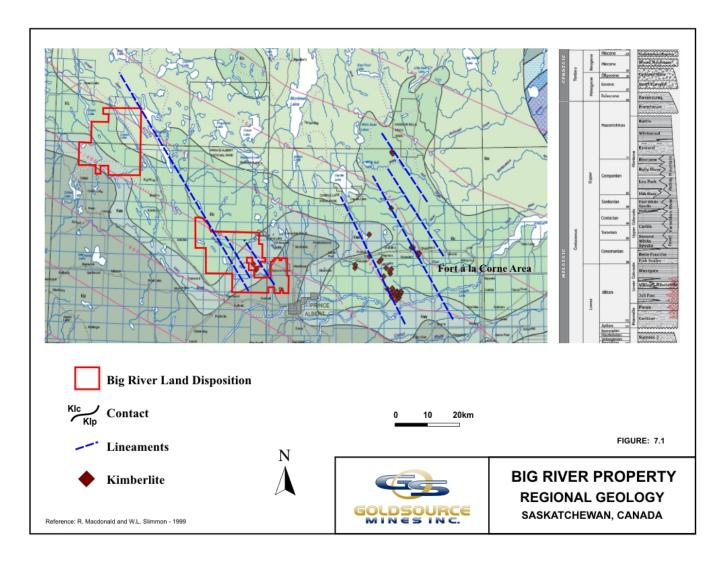
During February 1993, Rhonda drilled two HQ-sized diamond drill holes (OFS93-07 and 08) south of Sturgeon Lake to test for kimberlite in the center of 'ring' structures as defined by Dr. Nixon. No apparent kimberlite occurrences were intersected. Geochemical analysis by an undisclosed lab of selected core samples was performed to substantiate any kimberlitic influences. Five samples were collected from Hole 8 within the interval of 155.6 – 159.1 metres and four samples from Hole 7 between 109.75-112.59 metres. Rhonda dropped their option in 1993.

Between 1993 to present, no significant exploration work has been completed in the Big River property area.

# 7.0 REGIONAL GEOLOGICAL SETTING

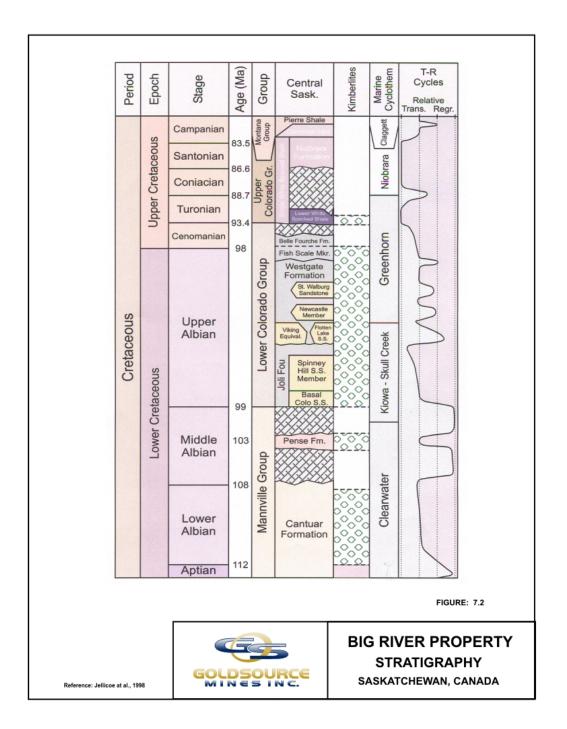
The Precambrian basement in the Saskatchewan diamond area consists of Proterozoic rocks of the Glennie Domain of the Trans-Hudson orogen (Figure 7.1). Recent work (Chiarenzelli et al, 1987, Collerson et al, 1989, Green et al, 1980) has demonstrated that this component sits on an Archean basement, which has been deformed and thickened by the collision of the crustal blocks. This means that the region satisfies Clifford's Rule, which states that economic kimberlites only occur in cratonic nuclei of Archean age. This is a statement of empirical fact based on African experience, and appears to be true of the Siberian diamond fields and others.

Overlying the Precambrian basement are the Phanerozoic rocks of the interior sedimentary basin. The Phanerozoic section in Saskatchewan is up to 3200 m thick in the southern part of the province, but thins northward, and individual units lens out to the exposed edge of the Shield. Paleozoic rocks from Cambrian to Mississippian occur, but the section is not everywhere complete. From Late Mississippian to Early Jurassic the region experienced a period of uplift, and no sedimentation occurred.



# 7.1 REGIONAL STRATIGRAPHY

Stratigraphy of the Phanerozoic section is a useful tool in exploration for kimberlites, since evidence indicates that all of the known kimberlites are about 90 to 110 million years old, so the most likely rock units in which to find kimberlite are those of that age. Figure 7.2 is a section through the relevant part of the stratigraphic column with defined current kimberlite occurrences in Saskatchewan.



The country rocks associated with kimberlites consists of the lower portion of the Upper Colorado Group and the Lower Colorado Group. These formations are not fully lithified and are underlain by Mannville Group (sands), which are water saturated. In holes that have drilled through the Mannville Group, the underlying formations are noted as carbonates and are completely dry. The Fort à la Corne kimberlites apparently owe their shape to the wet sediments in shallow seas on top of the dry carbonates. The hot kimberlitic magma passed through the dry rocks, but when they hit the water-filled sediments they caused a phreatomagmatic explosion, blowing a bowl-shaped hole in the sands and mudstones, which subsequently filled with pyroclastic kimberlite. Numerous Saskatchewan kimberlites have large surface areas because of this effect.

Bedrock units include Palaeozoic sediments disconformably overlain by the Cretaceous Manville and Lower Colorado Group sandstones, siltstones and shales. The Upper Cretaceous Lea Park Formation conformably overlays the Mannville. These units in the Sturgeon Lake and Cowan Lake areas have a combined thickness of 200 to 450 metres. In the area of interest, the uppermost bedrock unit is the Lea Park Formation and the Upper Colorado Group.

Glacial deposits in the form of predominately till overlay the bedrock and have a thickness of 50 to 200 metres. The glacial sequence shows several advances and retreats indicating periodic erosion and deposition. The glacial deposits are divided into 3 groups; the Empress Group, Sutherland Group, and the Saskatoon Group.

The Empress Group consists of stratified gravels and finer sediments located immediately above the bedrock. The Group is discontinuous having a thickness of 0 to 50 metres. The Sutherland Group consists of three till units and associated glacial sediments with a varying thickness of 0 to 150 metres. The Saskatoon Group overlies the Sutherland Group and consists of at least three till units and associated non-glacial sediments. Recorded glacial deposit thickness in the Sturgeon Lake and Cowan Lake areas ranges from 50 to 100 metres.

Distributions of kimberlites in the region are predominately found in the Fort à la Corne area located east and northeast of Prince Albert. These deposits are aligned in the northwest-southeast strike approximately 25 kilometres long. This alignment appears to be a reflection of deep-seated reactivated lineaments. Kimberlite occurrences located within the Big River property appear to be aligned in the same direction potentially parallel to the Fort à la Corne trend.

#### 7.2 **REGIONAL STRUCTURES**

Structures in the Precambrian basement and in the supracrustal Phanerozoic rocks are believed to have been important in providing conduits to the surface for the kimberlitic magmas. Gent (1989, 1992) has described a number of basement structures, interpreted from regional gravity and magnetic data produced by the Geological Survey of Canada. These include boundaries between crustal blocks, axes of gravity highs and lows, and faults with measurable horizontal separation. He refers particularly to the change in trends of gravity readings on either side of an interpreted block centered under Prince Albert and Saskatoon. The eastern boundary passes through the Fort à la Corne kimberlites. Any of these structures could provide access to diatreme intrusions.

Collerson et al (1989) suggest that kimberlitic intrusion from the Sturgeon Lake area eastwards to the Manitoba border may have been controlled by a northeasterly extension of the Great Falls Tectonic Zone ("GFTZ"), which is exposed in Montana. A comparison of many of the basement structures suggested by Ghent trend in approximately the same direction as the GFTZ, so this idea may have merit.

Major structures have been mapped in the Phanerozoic basin using extensive data accumulated by Saskatchewan Energy and Mines, including gravity, seismic and well log data. All but one of the known structures is thought to be reflections of structures in the Precambrian basement. The interpretations here are by Ghent, 1989.

The longest structure, the Shaunavon linear is defined by highly fractured calcilutites in the

Jurassic Shaunavon formation, and a depression in the Lower Cretaceous erosional surface. It aligns with the drainage divide between the South Saskatchewan River system and the Old Wives Lake- Qu'Appelle River system. Subsurface correlation of strata indicates that considerable tectonic arching has occurred along this trend, which is very close to the Big River property.

Several other regional structures not proximal to the property indicate that tectonism, which may have provided conduits to kimberlitic magma is widespread. The Punnichy Arch trends east-west, and is known to have been active during Late Albian time, during deposition of uppermost Lower Cretaceous rocks, which is the Mannville Group in the area of the Saskatchewan diamond play. The topographic high over this structure may indicate that there has been some tectonic arching since the Albian. Evidence exists that some of the kimberlites in Saskatchewan are of Albian age, or slightly younger (Upper Colorado).

The Molanosa Arch is near the northern edge of the Phanerozoic basin, and oil well data are scarce there. Available evidence suggests that it has been active over a long time, particularly during the Devonian and Jurassic, but also more recently. Areas near the Molanosa Arch have been the site of diamond exploration activities.

The Val Marie Arch deserves particular mention because there are kimberlitic intrusions nearby, suggesting a genetic link. It was active during late Cretaceous time. Since there is evidence of Mid-Cretaceous kimberlitic intrusion elsewhere in the province, other arch structures whose active period spans this time may have permitted the intrusion of kimberlite. The area around Val Marie was one of the areas targeted by De Beers in its early exploration activities in Saskatchewan (M. Tremblay, pers. comm.).

The Sweetgrass-North Battleford Arch is a major, complex structure. At times, it appears to have included the Swift Current Platform (including the Cypress Hills) and had a total vertical rise of about 1200 metres. The region subsided, leaving the Cypress Hills Arch and the Sweetgrass-North Battleford Arch.

# 7.3 **REGIONAL INTRUSIVES**

A number of intrusions are known in the Phanerozoic basin, and all but one are diatremes. Of the diatremes, some are kimberlitic, as at Fort à la Corne. The best description of kimberlites in the public domain are those of the FalC Joint Venture and Shore Gold Inc. Documents for both of these references can be readily found on their websites and/or SEDAR.

#### 7.4 KIMBERLITE OCCURRANCES

Jellicoe (2000, 2001) states that the FalC kimberlites are crater facies, and are composed of mixed olivine and lapilli pyroclastics, with 2 generations of olivine. The groundmass consists of monticellite, perovskite, spinel, serpentine and carbonate. Xenocrysts include olivine, garnet, ilmenite and spinel. Xenolithic fragments include eclogite, peridotite, basement rocks, Paleozoic carbonates, and Cretaceous clastic rocks.

FalC and Big River drilling results and geophysical surveys have shown the kimberlite bodies to have a very different shape from most known kimberlite bodies. In most of the well-known diamond mines in Africa, for example, and in those in the NWT in Canada, the upper portions of the kimberlite bodies have been eroded, leaving only the feeder pipe, which has a "carrot" shape,

getting smaller in diameter with depth. However, in the FalC area and potentially at Big River, the tops of the kimberlitic volcanic edifices are completely preserved, and they are shaped more or less like a soup bowl, with two larger horizontal dimensions, and one smaller vertical dimension. The bodies are at or very close to the Pleistocene erosional surface, under about 100 metres of overburden. The presence of crater facies and extra-crater rocks indicates that erosion is slight.

K/Ar dating of phlogopite in some of the FalC kimberlite, and dating by microfossils in the enclosing rocks gave an age of 94 to 96 million years, although Leahy (1996) has proposed an age of 100 Ma. Patrick (2003) reports that Kjarsgaard obtained uranium-lead ages of 102-105 Ma from perovskite from the Star kimberlite.

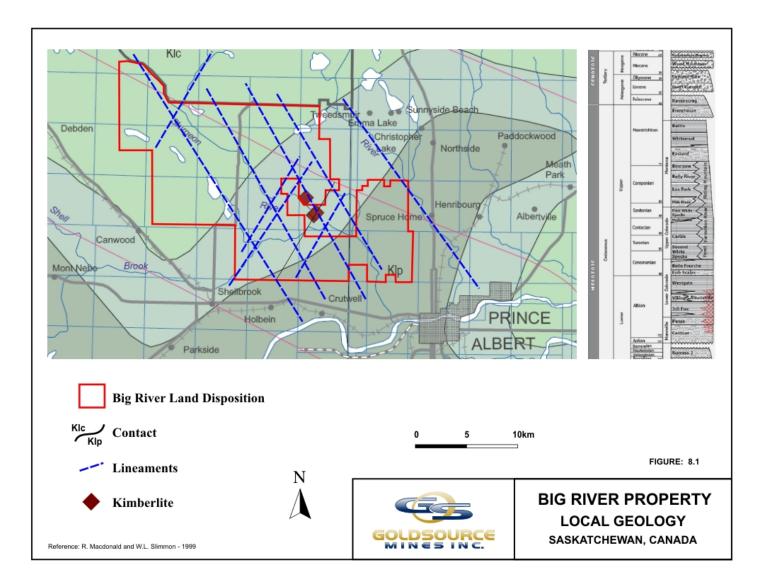
Petrographic, mineralogical and age dating of kimberlite occurrences at Big River show similar characteristics to FalC kimberlites.

# 8.0 LOCAL GEOLOGIC SETTING

To date, five occurrences of kimberlite have been discovered on or immediately adjacent to the Big River property. These occurrences are located approximately 10 to 30 kilometres northwest of Prince Albert and include;

- Sturgeon Lake 01 kimberlite (SL01), also defined as the Monopros gravel pit (not on the property).
- Sturgeon Lake 02 kimberlite (SL02), also defined as the Corona/Claude discovery.
- Sturgeon Lake outcrop.
- OFS90-1 kimberlite.
- OFS90-2 kimberlite.

These kimberlites occur near the north-eastern edge of the Phanerozoic sedimentary rocks of the North American Interior Platform. The platform sediments overlie Archean basement rocks. Preglacial bedrock consists of the Upper Colorado and Lower Colorado Groups in the area of interest (Figure 8.1).



Several other kimberlite occurrences in the province are located near Fort à la Corne, 80 kilometres east and northeast of Prince Albert. This area is currently the emphasis of several companies completing kimberlite exploration. The trend of more than 60 kimberlites within the FalC area has been established along a general NW-SE strike, which may reflect underlying deep-seated structural lineaments (Robertshaw). The kimberlite trend within the Big River area may be parallel to the FalC trend.

The deposition of the Big River kimberlite bodies is inconclusive and is described in detail in Section 8.1. The Sturgeon Lake 01 kimberlite, which lies just outside of the Big River land tenure, is exposed in a gravel pit adjacent to Sturgeon Lake and discovered by Monopros Ltd. in 1988. This deposit has been drill-defined with complementary geophysical surveys and has estimated dimensions of 200 metres long and 100 metres wide and up to 40 metres thick. The deposit is covered by approximately 1 to 10 metres of glacial till.

The Sturgeon Lake 02 (SL02) kimberlite is approximately 5 kilometres northwest of Sturgeon Lake 01 (SL01) within the land tenure and was discovered by Corona Corporation in 1989. This

kimberlite occurrence has been drill tested with complementary geophysical surveys and has estimated dimensions of 400 metres long and 200 metres wide and up to 22 meters thick. The kimberlite is covered by approximately 50 to 60 metres of glacial till.

The Sturgeon Lake outcrop is exposed in a road cut adjacent to Sturgeon Lake located between SL01 and SL02. The outcrop was discovered in the early 1990's. Photographs show the exposure to be highly weathered kimberlite at least 3 metres long in a trench.

The OFS90-1 and OFS90-2 kimberlite occurrences are located approximately four kilometres north of SL02 intersected in two rotary drill holes. Both intersections were defined by logged chips and appeared to be "minor" occurrences. Identified widths with mixed kimberlite chips were 4 to 10 metres wide.

Also noteworthy is the occurrences of pyrope garnets in the tills near Mayview approximately eight kilometres north of SL02.

The kimberlites at Big River property appear to have similar features to the pyroclastic and volcaniclastic kimberlites defined at the Star Kimberlite located within the FalC area.

The drilling at SL02 shows the overlying glacial till defined as glaciofluvial material consisting of gravels, sands and clays. Below the kimberlite, drilling also shows material consisting of gravel, sands and clays. This material has been previously defined as glacial till. Further work is required to substantiate this claim as till or as transgressive-regressive fluvial materials. Cretaceous formations underlay the kimberlite at a depth of approximately 145 metres.

Up to 5 metres of shale occurs both above and below the kimberlite in several drill holes at SL02. Palynology of one sample of shale from just below the kimberlite shows the age to be Albian (Lower Colorado) or about 98 to 105 Ma. This age is consistent with the estimated age of kimberlite deposits and associated stratigraphy located in the FalC area.

Scott-Smith Petrography completed a detailed macroscopic and microscopic examination of core from drill hole LK-2 at SL02 in 1990 (Scott-Smith, 1995). This work included the examination of a full intersection of kimberlite. Core recovery within the kimberlite was considered good. The kimberlite occurs as a lithified hard green altered material. The degree of alteration varies with some primary features completely masked. Most of the kimberlite has been replaced by a light to dark green mineral similar to mica, possibly antigorite (Nixon et al. 1993). Secondary minerals include serpentine, spinel, apatite, carbonate, clay and magnetite. The main constituents of the kimberlite are pseudomorphed olivine, phlogopite, ilmenite, garnet, igneous fragments and some xenoliths. Quantities of ilmenite and garnet vary from abundant near the top of the kimberlite to rare or absent in the more altered lower sections. All observed macro and microscopic features are characteristic of kimberlite.

The SL02 kimberlite is composed of thinly laminated to bedded pyroclastic airfall and lapilli tuffs with little to no reworking. More than one eruptive phase was involved in the formation of the kimberlite. The occurrence of vesicular lapilli suggests that some of the eruptions were sub aerial.

#### **Big River Property**

#### 8.1 **DEPOSIT TYPES**

The Big River kimberlites are interpreted to be inconclusively one of the following possibilities;

- Misinterpretation of stratigraphy below the kimberlites as glacial till with potential insitu continuous kimberlite between occurrences,
- Dragged kimberlite blocks displaced by glacial activity from an unknown location,
- Young thrust-faulted kimberlite blocks displaced from an unknown source,
- A younger kimberlitic event or,
- Ice rafted kimberlite blocks transported by glacial activity from an unknown source.

Detailed core logging of drill hole LK-2 drilled by Claude Resources in 1990 describes the intersection of the SL02 kimberlite as bedded tuffaceous and basal surge pyroclastic type volcanic rocks enclosed within black shales that Claude dated as Albian (Lower Colorado) in age. Below the kimberlite body, logging defines boulders up to 6 inches in diameter. From a single core hole, Claude stated in 1990 that the SL02 kimberlite was ice-rafted from an unknown location.

Logging of reverse circulation chips by Monopros in 1988-89 on the SL01 kimberlite suggested that glacial tills underlay the deposit concluding that it had been ice-rafted from an unknown source.

Subsequent reporting since 1990 has defined SL01 and 02 as ice-rafted kimberlites from an unknown up ice source.

The SL01 and 02 kimberlites have been selectively analyzed to show that they where formed as pyroclastics and potentially reworked volcaniclastic kimberlites consisting of sub-horizontal lenses or zones of crater facies kimberlite and potentially sub aerial fallout. Recent detailed work (Howe, 2005) on the Star Kimberlite has shown that a majority of reworked volcaniclastic kimberlites are located above, below and on the fringe of the main kimberlite horizon(s) potentially reflecting reworked kimberlite during transgression and regression events. These events may also be reflected at the Big River property.

Multi-facies kimberlites intermixed with transgressive and regressive events may explain the placement of fluvial gravels and boulders below the kimberlites at Big River. This statement is inconclusive at present and will require further exploration work.

Regional work completed by the Saskatchewan Geological Survey in an area southeast of Big River suggests potential thrust faulting of older Colorado Group formations over younger formations. No information is available on potential thrusting in Saskatchewan into recent glacial tills; therefore, the authors believe this to be a low probability for occurrence at Big River.

With the recent experience gained from kimberlite discoveries in the FalC area (i.e. Shore Gold's Star Kimberlite), interpretation of stratigraphic horizons has become critical to understanding kimberlitic deposition. During the early stages of exploration at FalC, the misinterpretation in drill hole logging of glacial tills, reworked kimberlite and nearby underlying formations was apparent. Even with current systematic logging and test work, interpretation can still be a challenge. With limited experience during early stage drilling at Big River, the misinterpretation of lithologies is a strong possibility and should be investigated.

The possible displacement and deposition of kimberlite within glacial tills by glacial action at Big River is similar to the ice-rafting theory with an unknown source but implies potential deposition within eskers or moraines, possibly from a signal glacial event. This possibility might explain the consistent nature of kimberlites located along the same elevation and trend over a large area.

Younger kimberlite diatremes (Upper Colorado) are known to occur in Montana but none are documented to be deposited with the Pleistocene. The probability of this occurring at Big River is low.

#### 8.2 MINERALIZATION

Through limited surface reconnaissance, geophysics and drilling, 5 kimberlite occurrences have been defined over an area of eight kilometres by five kilometres. All occurrences may or may not have been subject to displacement or transported into this area by glacial action.

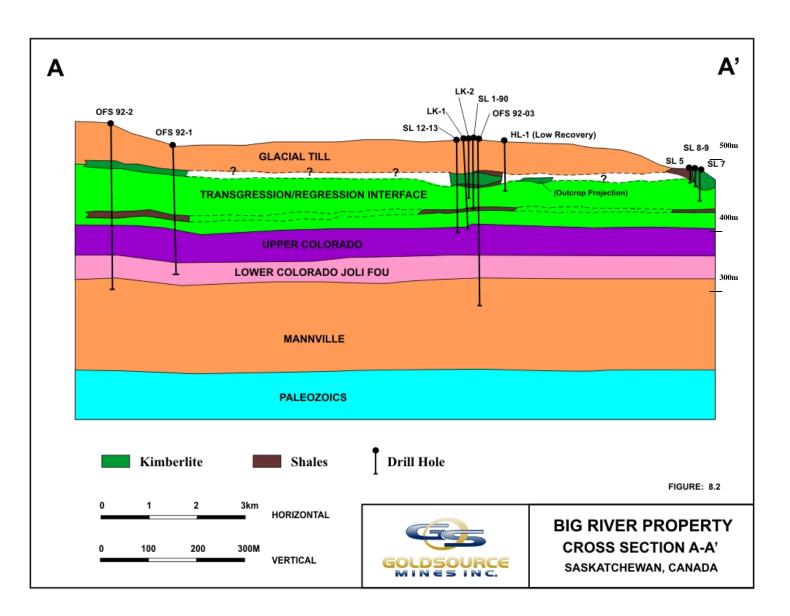
Limited inconsistent exploration and analytical test work shows both the SL01 and SL02 as diamondiferous kimberlites. Other occurrences have not been tested.

Diamondiferous mineralization at Big River has several similarities to the FalC deposits including diamond associations with multi-facies kimberlites related to pyroclastic and volcaniclastic horizons.

The underlying stratigraphic sequence at Big River is the same sequence found in the FalC area with the same host rocks found associated with diamondiferous kimberlites.

Structural influence on kimberlite placement within the Big River area is inconclusive. A northwest trend influenced by underlying deep-seated lineaments may be present and shown in local topographic relief.

All currently defined kimberlite occurrences within the Big River area are located near the same elevation of approximately 460 metres (Figure 8.2 & 9.1).



# 9.0 **PROJECT EXPLORATION**

Exploration work on the property based on private and public records has consisted of mainly geophysical surveys and drilling as discussed below in Sections 9.1 and 9.2. Due to the extensive till cover over the surface area, very limited surface sampling has been completed except at SL01.

No exploration work has been done by GSX as of the date of this report.

#### 9.1 PROJECT DRILLING

Between 1989 and 1994, a total of 4 core holes and 19 rotary holes were completed for a total of approximately 4,122 metres drilled. Drilling was completed by Monopros (De Beers), Claude Resources Inc., Corona Corporation and Rhonda Mining Corporation (Table 9.1 and Figure 9.1).

In 1988 and 1989, Monopros located the SL01 kimberlite within a local gravel pit. Subsequent trenching and drilling of 10 rotary holes (SL1-10) were completed. Drill chips from these holes were used for micro-diamond analysis. Surface bulk sampling using trench material was completed with details presented in Section 11.

In 1989 and 1990, Corona Corporation, Cameco, Monopros and Claude Resources completed geophysical surveys over the area and defined a magnetic high over the SL02 target. Corona drilled core hole (inclined  $-60^{\circ}$  hole) LK-1 and intersected kimberlite from 70 to 81 metres. Above the kimberlite intersection, between 38.1 and 70 metres, minor interbedded kimberlite layers were logged. Below the kimberlite, between 81 to 149 metres, minor kimberlite was also noted.

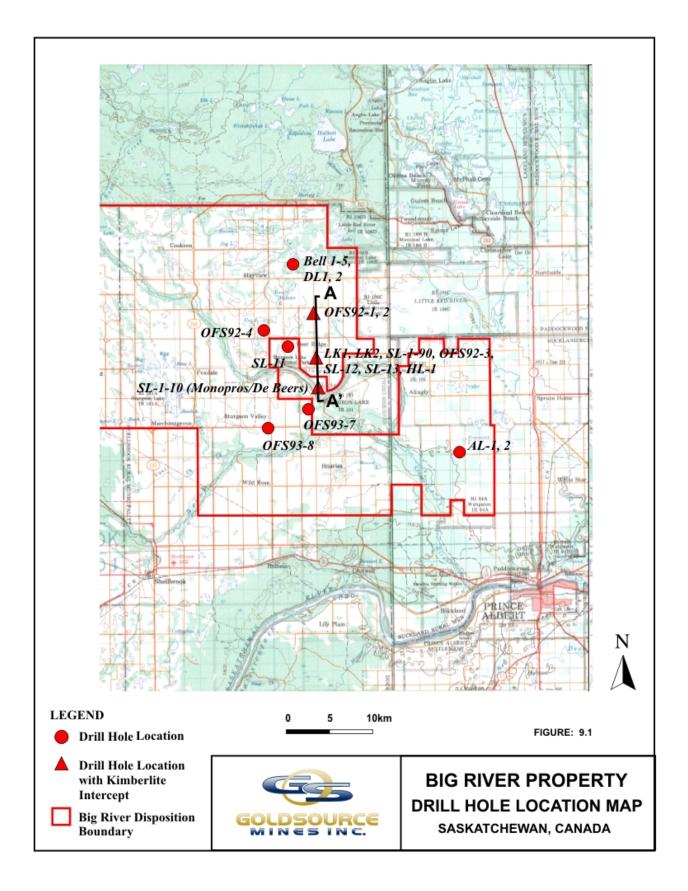
Further drill-definition in 1989 and 1990 of SL02 included hole numbers LK-2, SL-1-90, SL-11-89, and SL-12-89. Cameco completed micro-diamond analysis on Sl-1-90. No kimberlite analysis was completed on the other holes.

In 1990, Claude Resources completed geophysical surveys and defined targets north and east of SL02. Seven rotary holes were drilled in the Mayview/Bell Lake approximately 8 kilometres north of SL02 to test a geophysical target as the potential up ice source for SL02. All holes were unsuccessful in intersecting kimberlite. Most of the holes were terminated due to high water volumes. Two rotary holes (AL1 & 2) were drilled in the Alingly area approximately 15 kilometres southeast of SL02 to test a geophysical anomaly. No kimberlite was intersected. One rotary hole (HL-1) located approximately 400 metres southeast of SL02 was drilled 86 metres with no kimberlite intersected. The hole was terminated due to water table intersection.

In 1992 and 1993, Rhonda Mining Corporation optioned the property from Claude Resources and reinterpreted previous geophysical surveys and defined several targets for drilling. Rotary holes OFS92-1 and 2 tested a geophysical anomaly for potential up ice source approximately 5 kilometres north of SL02. Both holes intersected minor kimberlite from 4 to 10 metres thick. No analysis was completed. Drill hole OFS90-3 was drilled into SL02 kimberlite with no analysis completed. Drill holes OFS93-07 & 08 were drilled approximately 5 kilometres southwest of SL02 in an area interpreted as a ring structure. No kimberlite was intersected. All Rhonda core holes have down hole geophysics with kimberlites defined as magnetic highs.

| Table 9.1 | <b>Big River</b> | <b>Drill Hole</b> | Intercepts |
|-----------|------------------|-------------------|------------|
|-----------|------------------|-------------------|------------|

| Hole-ID       | Company  | Туре            | Year | Location                          | Kimb.<br>From<br>(m) | Kimb.<br>To<br>(m) | Kimberlite<br>Thickness<br>(metres) | TD<br>(m) | Results   |
|---------------|----------|-----------------|------|-----------------------------------|----------------------|--------------------|-------------------------------------|-----------|---|
| SL1 to 10     | Monopros | Rotary          | 1988 | SL01                              | various              |                    | Various – est.<br>lengths           | 750.0     | Most holes intersected<br>Kimberlite                        |
| LK-1          | Corona   | Core            | 1989 | SL02                              | 38.1                 | 70.0               | 31.9                                | 149.0     | Minor bedded<br>Kimberlite                                  |
| LK-1          |          |                 |      |                                   | 70.0                 | 81.0               | 11.0                                |           | Kimberlite –<br>1 micro-diamond in 9.3<br>kg sample, 2 cpht |
| LK-1          |          |                 |      |                                   | 81.0                 | 149                | 68.0                                |           | Minor Kimberlite  |
| SL-11-89      | Monopros | Rotary          | 1989 | NW of SL02                        |                      |                    |                                     | 186.5     | No kimb., topo high   |
| -             | Monopros | Rotary          | 1989 | NW of SL02                        | 43.3                 | 54.3               | 11.0                                | 156.1     | Alternating Kimb./till                                      |
| SL-12-89      |          |                 |      |                                   | 54.3                 | 71.0               | 15.7                                |           | Kimberlite, no analysis                                     |
|               | Monopros | Rotary          | 1989 | N of SL02                         | 53.3                 | 66.4               | 13.1                                | 114       | Kimberlite, no analysis                                     |
| SL-1-90       | Cameco   | Rotary          | 1990 | SL02 site                         | 54.3                 | 76.5               | 22.2                                | 165       | Kimberlite –<br>5 micro-diamonds in<br>118 kg sample        |
| LK-2          | Claude   | Core            | 1990 | SL02 site                         | 62.0                 | 81.0               | 19.0                                | 101.0     | Kimberlite – only<br>geochem analysis                       |
| HS-1-90       | Claude   | Rotary          | 1990 | 400m SE of<br>SL02 site           |                      |                    |                                     | 86.0      | No kimberlite,<br>geochem analysis                          |
| AL-1          | Claude   | Rotary          | 1990 | Alingly                           |                      |                    |                                     | 81.0      | No kimberlite   |
| AL-2          | Claude   | Rotary          | 1990 | Alingly                           |                      |                    |                                     | 62.5      | No kimberlite   |
| DL1           | Claude   | Rotary          | 1990 | Mayview                           |                      |                    |                                     | 81.0      | No kimberlite – garnets present in till                     |
| DL2           | Claude   | Rotary          | 1990 | Mayview                           |                      |                    |                                     | 106.0     | No kimberlite – garnets present in till                     |
| Bell 1        | Claude   | Rotary          | 1990 | Bell Lake                         |                      |                    |                                     | No data   |   |
| Bell 2        | Claude   | Rotary          | 1990 | Bell Lake                         |                      |                    |                                     | No data   |   |
| Bell 3        | Claude   | Rotary          | 1990 | Bell Lake                         |                      |                    |                                     | 10.9      | Excessive water pressure                                    |
| Bell 4        | Claude   | Rotary          | 1990 | Bell Lake                         |                      |                    |                                     | No data   | A   |
| Bell 5        | Claude   | Rotary          | 1990 | Bell Lake                         |                      |                    |                                     | No data   |   |
| OFS-92-1      | Rhonda   | Rotary/<br>Core | 1992 | 5km N. of<br>SL02                 | 44                   | 48                 | 4.0                                 | 256.0     | Minor kimberlite, no<br>analysis                            |
| OFS-92-2      | Rhonda   |                 | 1992 | 1km NE of<br>92-1                 | 61                   | 71                 | 10.0                                | 282.9     | Mixed w/kimberlite,<br>geochem analysis                     |
| OFS-92-3      | Rhonda   | Rotary          | 1992 | SL02 site                         | 44                   | 47.5               | 3.5                                 | 299.0     | Kimberlite – hard,<br>bluish, geochem<br>analysis           |
| OFS-92-4      | Rhonda   | Rotary          | 1992 | Cox Property                      |                      |                    |                                     | 348.5     | No kimberlite   |
| OFS93-<br>007 | Rhonda   | Core            | 1993 | 3.5km NE of<br>Sturgeon<br>Valley |                      |                    |                                     | 236.0     | No kimberlite,<br>geochem and XRF                           |
| OFS93-<br>008 | Rhonda   | Core            | 1993 | 8km NW of<br>Surgeon<br>Valley    |                      |                    |                                     | 161.5     | No kimberlite,<br>geochem and XRF                           |

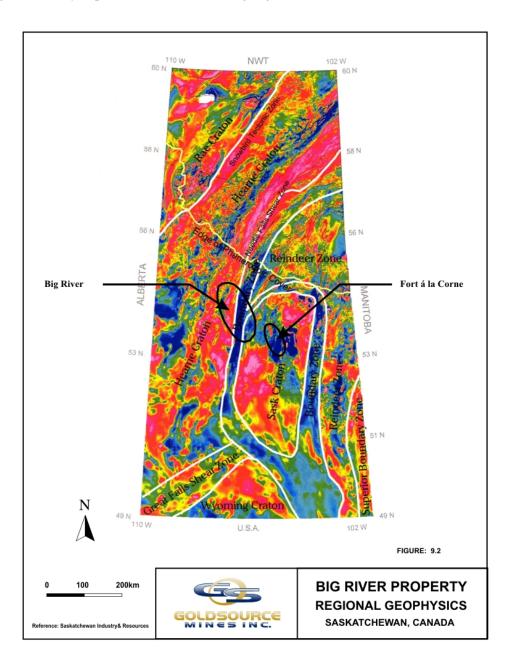


#### 9.2 **PROJECT GEOPHYSICS**

Multiple geophysical programs were completed over several parts of the Big River property during 1988 to 1992. Most of this work was discussed in Section 6.0.

Geophysics consisted of various airborne and ground surveys within the current Sturgeon Lake disposition block totalling over 3,000 line-kilometres. Terraquest completed most of the airborne work in the early 1990's. No geophysics has been completed within the Cowan Lake block.

A regional survey is presented in the following Figure 9.2.



## **10.0 SAMPLING METHOD AND APPROACH**

Sampling methods for work completed on SL01 by Monopros were not reviewed since this kimberlite is not located on the Big River property.

No surface sampling information is available on the Big River property. Information on core and rotary sampling of all holes is very limited.

In 1989, Corona Corporation completed select sampling from drill hole LK-1 of the SL02 kimberlite. No further information is available on sampling methodology.

In 1990, Cameco drilled the SL-1-90 rotary hole using a Failings 1500 rotary drill. Tray samples of till were taken every 1.5m while 2 to 5 kg samples were collected every 3m. A 118 kg composite sample of kimberlite was collected and analyzed at C. F. Mineral Research Ltd. in Kelowna, B.C. Selectively petrography work was completed by Scott-Smith Petrography on 12 polished sections. Multiple rotary samples were collected for geochemical and whole rock analysis completed by Leeds University.

In 1990, Claude Resources collected 14 cutting samples from rotary hole HL-1 for geochemical analysis. Sampling methodology is unknown. Claude core hole LK-2 was selectively sampled in the kimberlite with geochemical analysis completed. The entire kimberlite intersection (199 ft to 258 feet) was sent to Scott-Smith Petrology in Vancouver, B.C. for inspection.

In 1992, Rhonda Mining drilled 4 (OFS92-1 to 4) rotary holes using a truck mounted Gardner Denver 1700 with a hole diameter of  $5\frac{1}{2}$ ". Samples collected at the drill included materials only greater than 1mm in size. A total of 81 rotary drill samples were selected from Rhonda's OFS92-02 and 03 drill holes. Samples were sent to Technical Services Laboratories at Saskatoon for geochemical analysis.

In 1993, Rhonda Mining Corporation completed select core sampling on drill hole OFS93-07. Four samples were collected as 50 to 100 gram blocks. Systematic collection of cuttings on a 3m interval was completed at the drill and transported to Saskatoon in cloth bags for storage and possible later analysis.

N. Eric Fier, CPG, P.Eng. and N. Ralph Newson, P.Eng., P. Geo. are of the opinion that all previous sampling is acceptable and was supervised by professionals and in general appears to meet accepted industry standards.

#### 11.0 SAMPLE PREPARATION, ANALYSIS AND SECURITY

The methodology of the sample preparation and analysis of the above-mentioned programs is only documented for drill hole SL-1-90, LK-1, and OFS93-07 and 08. Security of all programs is unknown.

Sample preparation and analysis methods for the drill hole SL-1-90 was completed by C. F. Mineral Research. A composite of five pails of kimberlite totalling 118 kg was subjected to a multistage procedure involving grinding in a ball mill to 0.85mm, wet sieving, heavy media and electromagnetic separation, and fusing a diamond concentrate fraction with hydrofluoric acid.

Sample preparation and analysis methods for the drill hole LK-1 was completed by Lakefield Research. Eleven samples weighing from 1.7 to 87.9 kg were subjected to varying ranges of wash and screening with treatment by HCl leach and caustic fusion. Magnetic separation of residues was completed with examination of non-magnetics for micro-diamonds.

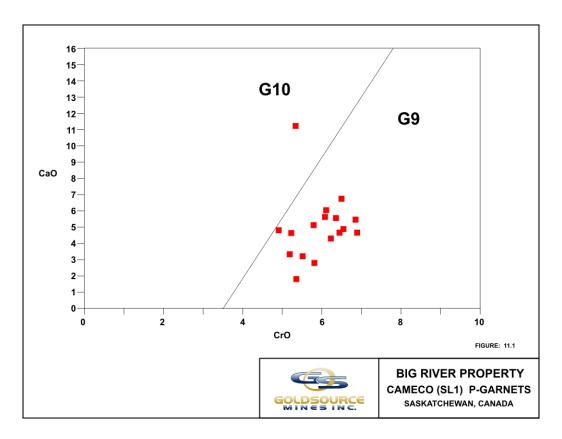
Limited samples have been collected for micro-diamond analysis. Two samples showed micro-diamonds and are presented in Table 11.1.

| Hole-ID | Company | Туре   | Year | Location  |      | Kimb.<br>To<br>(m) | Kimberlite<br>Thickness<br>(metres) | TD<br>(m) | Results   |
|---------|---------|--------|------|-----------|------|--------------------|-------------------------------------|-----------|---|
| LK-1    | Corona  | Core   | 1989 | SL02      | 70.0 | 81.0               | 11.0                                |           | Kimberlite –<br>1 micro-diamond in<br>9.3 kg sample, 2 cpht     |
| SL-1-90 | Cameco  | Rotary | 1990 | SL02 site | 54.3 | 76.5               | 22.2                                | 165       | Kimberlite –<br>5 micro-diamonds in<br>118 kg sample, 1<br>cpht |

 Table 11.1
 Micro-diamond Analysis

All recovered diamonds were considered to be of gem quality.

Mineral indicator forecasts were completed on SL-1-90 and showed an eclogitic source with rare G10 garnets and abundant G9 garnets (Figure 11.1). This is consistent with the general analysis for FalC kimberlites.



The University of Leeds completed sample preparation and analysis methods for the drill hole OFS92-07 and 08. Four samples from 07 and five from 08 were prepared in clean conditions by mortar and pestle crushing followed by pulverizing to a fine powder. The powder was split with half used for XRF analysis and half for geochemical analysis.

Geochemical analysis of kimberlite samples showed consistently higher chrome and nickel compared to shale and till samples.

For comparative purposes, results of the bulk sample from SL01 are presented. Trench sampling of SL01 kimberlite was complete by Monopros in 1989. A total of 188 m<sup>3</sup> of excavated kimberlite was processed using an on site plant. Three macro-diamonds (0.011 carats, 0.074 carats, and 0.183 carats) were collected. A micro-diamond count was not available for the bulk sample. Selective rotary chips were analyzed for micro-diamonds. Limited results showed <1 cpht.

## **12.0 DATA VERIFICATION**

During the September 2005 site visit, N. Eric Fier, CPG, P.Eng. and Qualified Person inspected very limited kimberlite outcrops. No sampling was completed on these outcrops. The authors of this report do not have access to any samples previously taken, and cannot verify any of the previous analyses by re-assaying the samples.

N. Eric Fier, CPG, P.Eng. and N. Ralph Newson, P.Eng., P. Geo. are of the opinion that all previous preparation and analysis is acceptable and was supervised by professionals and in general appears to meet accepted industry standards.

#### **13.0 ADJACENT PROPERTIES**

There are no adjacent properties as defined by NI 43-101.

#### **14.0 MINERAL RESOURCES**

No resources have been estimated for the Big River property.

#### **15.0 INTERPRETATION AND CONCLUSIONS**

The Big River property contains five kimberlite occurrences with their origins currently inconclusive. Of the limited analysis completed for micro-diamonds, two samples from SL02 were diamondiferous and of gem quality and having a range of 1 to 2 cpht.

The property appears to have several similarities to the FalC kimberlites that include;

- The presence of diamondiferous kimberlites as crater facies pyroclastic to airfall beds.
- Rare G10 garnets with abundant G9 garnets.
- Age-dated shales associated with Big River kimberlites are from the Upper to Lower Colorado Group (approximately 90 to 110 Ma).
- Similar petrographic and mineralogical characteristics.

#### **Big River Property**

• Kimberlites associated with northwest-southeast trending lineaments potentially associated with deep-seated structures

Most of the discoveries of kimberlites to date in the main FalC area and on the Big River property were made by defining and drilling magnetic anomalies. However, there are non-magnetic phases of kimberlite known on the FalC Joint Venture. As well, the Star Kimberlite of Shore Gold Inc., which is at the most advanced stage of exploration of any kimberlite in the area, does not have as strong a magnetic signature as the other known kimberlites. The Sturgeon Lake block has been surveyed with low-level magnetics in the past by former operators, and most of the obvious magnetic targets have been examined.

Based on recent experience in the FalC area, the writers have concluded that there is a clear opportunity to look for kimberlites which are only weakly magnetic, have some magnetic phases and some non-magnetic phases, or are completely non-magnetic. If the magnetic properties of the kimberlites cannot be counted on as the only geophysical indicator of their presence, then other physical properties should also be used. The obvious alternative methods for use are conductivity and density. Both of these methods have been successfully tested. The preferred method to explore the Big River property is an airborne survey, which measures conductivity. This would be less expensive than a gravity survey and has a proven track record (e.g. Jellicoe et al. 1998), whereas airborne gravity has not, in this area. Ground-based gravity does not appear to work well with some kimberlite bodies due to the small density contrasts and, therefore, is not a recommended method for this property.

An airborne electromagnetic survey may be deficient due to other features such as drainage systems at the base of overburden. These drainage systems have eroded the underlying bedrock. Increased conductivity appears to be due to the deeper overburden filling in the depressions in bedrock. These depressions often have conductivity similar to that of the kimberlites. Sometimes their long and sinuous shapes are indicative of the drainage system but others cannot be eliminated by their shape.

Kimberlites, which are virtually non-magnetic, may still have some small magnetic response, and this may be detectable by the airborne magnetic survey flown at the same time as the electromagnetic survey. However, all potential targets should also be surveyed with ground-based magnetics at a closer spacing than is recommended for the airborne work. An airborne conductor or resistor, which shows no airborne magnetic correlation, may have magnetic correlation revealed by a detailed ground survey. Any magnetic correlation would tend to indicate that the conductive anomaly was due to a kimberlite, rather than a zone of deep overburden. A coincident magnetic anomaly would thus be a positive indicator, but the absence of one would not be a negative indicator, since there may be kimberlites, which show no magnetic contrast at all with the enclosing rocks.

Ground gravity surveys should also be carried out over promising airborne electromagnetic anomalies as a screening tool. As with the magnetics, the presence of a coincident gravity anomaly would be a positive indicator, but the absence of one would not be a negative indicator. Ralph Newson (co-author of this report) has drilled one magnetic anomaly with no gravity correlation, which turned out to be a kimberlite, and concludes that there may be other such situations.

The airborne geophysical survey should use a combination of aeromagnetics and EM on a 300metre line spacing. Fugro's "GeoTem" system is the preferred choice due to its success in locating kimberlites at Fort à la Corne. The 300-metre line spacing is proposed as the appropriate line spacing, since kimberlite bodies small enough to remain undetected at this spacing are not likely to be economic.

Additional geophysical work using recent technologies with subsequent interpretation and follow up drilling is required to further define the current diamondiferous kimberlites as transported blocks or insitu deposits. If they are determined to be transported blocks, then part of the proposed program should be to test potential up-ice locations for the source of these blocks.

The property is considered to be at an intermediate exploration stage. The following proposed Phase 1 budget for Big River is based on further defining the kimberlites and expanding exploration to find the location of the source of current kimberlites.

An independent consultant will complete interpretation, further investigate deposit stratigraphy using systematic logging of drill holes, evaluate potential kimberlite locations associated with the Lower Colorado Group, and carry out a review of deep-seated lineaments and structural controls.

The recommended proposed Phase 1 budget is shown in Table 15.1

| Task                       | Number | Amount        | Cost Per Unit | Cost CDN \$ |
|----------------------------|--------|---------------|---------------|-------------|
| Geophysics – GeoTem        | 1      | 2,000 line-km | 100           | 200,000     |
| Drilling                   | 10     | 1,000 m       | 100           | 100,000     |
| Analysis                   | 150    |               | 20            | 30,000      |
| Survey                     | 1      |               | Lump sum      | 10,000      |
| Roads and Drill Pads       | 10     |               | Lump sum      | 10,000      |
| Geologist, consultant      | 1      |               | 10k/month     | 30,000      |
| Geophysical Interpretation | 1      |               |               | 20,000      |
| Supplies and Expenses      |        |               |               | 10,000      |
| Contingency @ 10%          |        |               |               | 40,000      |
| TOTAL                      |        |               |               | \$ 450,000  |

#### Table 15.1 Big River Proposed Budget

Contingent upon the successful completion of the Phase I program, a Phase II program may be warranted at an estimated cost of \$600,000.

The proposed program is subject to variation, depending on results encountered by GXS in the course of the program. GXS may determine that increased spending is warranted if favourable results are encountered and may conclude that less spending or discontinuation of the program is appropriate if unfavourable results are encountered.

N. Eric Fier, CPG, P.Eng. and N. Ralph Newson, P.Eng., P.Geo., have reviewed the proposed program and budget and believes that the property is of sufficient merit to justify the recommended program as proposed.

## 16.0 REFERENCES

Chiarenzelli, J.R., Lewry, J.F., and Landon, M., 1986. Bedrock geology, Iskwatikan Lake area: evidence for Hudsonian juxtaposition of Proterozoic and Archean rocks along a ductile detachment surface. IN Summary of investigations, 1987, Sask. Geol. Surv. Special report 87-4

Collerson, K.D., Lewry, J.F., Bickford, M.E., and Van Schmus, W.R., 1989. Crustal evolution of the buried Precambrian of southern Saskatchewan: implications for diamond exploration., IN Modern exploration techniques: proceedings of a symposium held in Regina, Saskatchewan, 20-21 November 1989. Sask. Geol. Soc. Special Publication Number 10

De Carle, A.L.; Jellicoe, B.C., August 1994, *Report on 1992 Drilling Program, Cox Property, Sturgeon Lake Area, Central SK.;* Rhonda Mining Ass. Rep. #73G08-NE-0010R.

De Carle, A.L.; Jellicoe, B.C., Sept 1994, *Report on 1994 Exploration Program, Deer Ridge Property, Sturgeon Lake Area, Central SK;* Rhonda Mining Ass. Rep. #73G08-NE-0011R.

Drever, G., Nimeck, G., McHardy, S., Sopuck, V. April 1990, *Sturgeon Lake Project;* Cameco Ass. Rep. #73G08-NE-0005.

Gent, M.R., 1989. Regional Phanerozoic anomalies in Saskatchewan. IN Summary of investigations, 1989, Sask. Geol. Surv., Sask. Energy and Mines, Misc. Rpt. 89-4.

Gent, M.R., 1992. Diamond exploration in Saskatchewan. Bull.Can.Inst.of Min. and Met. Vol. 84, No. 956. January, 1992.

Green, A.G., Stephenson, O.G., Mann, G.D., Kanasewich, E.R., Cumming, G.L., Hajnal, Z., Mair, J.A., and West, G.F., 1980. Co-operative seismic surveys across the Superior-Churchill boundary zone in southern Canada. Canadian Journal of Earth Sciences, Vol. 17, no. 5, pp. 617-632.

Gummer, P. and McGowan, S., April 1990, *Summary Report of Claude Resource's Activities, Sturgeon Lake Area, SK, Canada;* in-house report for Claude Resources.

Gummer, P., Dec 1990, *Report to Celtic Gold PLC on Diamond Exploration in Prince Albert Area by Claude Resources Inc., Saskatoon, SK;* in-house report for Celtic Gold.

Gummer, P., June 1991, *Report on Diamond Exploration on Mining Claim S124481 at Sturgeon Lake, SK, during 1990*; in-house report for Claude Resources.

Gummer, P., Sep 1991, *Claude Resources Inc. Assessment Report Claim S124487, Sturgeon Lake, SK;* Claude Resources Ass. Report #73G08-NE-0004.

Gummer, P., Jan 1993, *Operation Fish Scale, Deer Ridge Property, Sturgeon Lake, SK*, Filed assessment report on 5 mineral claims.

Jellicoe, B.C., Robertshaw, P., Williamson, P., and Murphy. J., 1998. Summary of exploration activities and results for the Fort à la Corne diamond project, Saskatchewan. IN summary of investigations, 1998, Sask. Geol. Surv., Sask. Energy and Mines Misc. Rep. 98-4.

Jellicoe, B., 2000, 2001. Diamonds in Saskatchewan, 2001. Talks given to CIM Geology Division, Saskatoon, Nov. 28, 2000 and May 3, 2001.

Keough, L., June 1990, *Report on 1989 Field Work, Sturgeon Lake, SK;* Corona Ass. Rep.#73H-05-0002.

Letendre, J., Sep 1989, *Drilling and Field Work Results, Sturgeon Lake, SK*; Monopros Ass. Rep. #73G-08-NE-0001.

Nixon, P., July 1990, *Report on a Visit to Kimberlites of the Prince Albert Region, SK, Canada;* in-house report for Celtic Gold/Claude Resources joint venture.

MacDonald, R., 1988, Public release by the SEM concerning the Monopros activity at Sturgeon Lake, Regina, Nov 24, 1988.

McGowan, S., 1989, *Progress Report on Diamond Exploration in Pr.Albert Area*; two inhouse reports for Claude Resources, one dated June 25 and the other Sept 27, 1989.

Scott-Smith, B., March 1990, *Petrography of some Thin Sections From Northern Saskatchewan;* Report SSP-90-4/3 prepared for Cameco.

Scott-Smith, B., Nov 1990, Logging and Macroscopic Investigation of some Drillcore from the Claude-Corona Discovery, near Sturgeon Lake, SK; Claude Resources in-house report, number SSP-90-17/3.

Shore Gold Inc., 2005, Company website and personal communications.

Star Phoenix, 1961, Geologist Checks Claim of Diamonds; Sept. 20, 1961

Strand, J. G., 1991. *The Prairie Province of Diamondiferous Kimberlites – A Model for Future Discoveries*; unpublished report.

Terraquest Ltd., 1989, *Report on an Airborne Magnetic and VLF-EM Survey, Sturgeon Lake Area*; report for Corona Corporation. (Ass.Rep #73H-05-0002)

Woodward, R. and Halabura, S.P., 1993, *Report on Activities, Sturgeon Lake Area; Rhonda Mining Corporation Ass. Report #73G08NE-0009R.* 

# 17.0 CERTIFICATES OF QUALIFICATIONS

#### CERTIFICATE

I, Nathan Eric Fier, of 33608 11<sup>th</sup> Avenue, Mission, British Columbia, do hereby certify as follows:

I am a professional geoscientist providing consulting services to the mining industry.

I am a graduate of the Montana College of Mineral Science and Technology and hold degrees in B.S. Geological Engineering granted in 1984 and B.S. Mining Engineering granted in 1986.

I have practiced my profession continuously for 20 years and have examined and reported on numerous epithermal precious metal deposits throughout the world. I have 15 years experience in estimating Mineral Resources and Reserves.

I am a member of the Association of Professional Engineers and Geoscientists of British Columbia as a Professional Engineer and the American Institute of Professional Geologists as a Certified Professional Geologist.

As a result of my experience and qualifications I am a Qualified Person as defined in National Instrument 43-101 ("NI 43-101"). I am a co-author of the technical report titled "Big River Property, Saskatchewan, Canada" and dated October 6, 2005 (the "Technical Report"). I am responsible for the preparation of sections 1.0 through 4.0, 6.0, 7.1, 8.0 through 16.0 of the Technical Report. I have read the entire report, and accept responsibility for the opinions attributed to me in it.

The information contained in the Technical Report was obtained from reports provided by BEC International Corporation ("BEC") and Goldsource Mines Inc. and other public documents. This information is to the best of my knowledge and experience correct. I was involved in the acquisition of an interest in the property (the "Property") that is the subject of the Technical Report from BEC by Goldsource Mines Inc.

I visited the property on September 8, 2005. I have read NI 43-101 and Form 43-101F1 and the Technical Report has been prepared in compliance with National Instrument 43-101 and Form 43-101F1.

I am not independent from Goldsource Mines Inc. within the meaning of NI 43-101 applying the tests set out in section 1.5 of NI 43-101 as I have a direct interest in Goldsource Mines Inc. I am independent from BEC within the meaning of NI 43-101 applying the tests set out in section 1.5 of NI 43-101.

I certify that I have read the Technical Report and I do not have any reason to believe that there are any misrepresentations in the information derived from the Technical Report and I am not aware of any material fact or material change with respect to the subject matter of the Technical Report, which is not reflected in the Technical Report, the omission to disclose which would make such report misleading.

Dated at Vancouver, BC this 6th day of October, 2005

"Nathan Eric Fier"

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

#### CERTIFICATE

I, Norman Ralph Newson, of 3142 Eastview, Saskatoon, Saskatchewan, do hereby certify as follows:

That I am a graduate geologist, with B.Sc. and M.Sc. degrees from Queen's University at Kingston, Ontario, received in 1964 and 1970 respectively. I have practised my profession continuously since receiving my undergraduate degree, except for the time spent on course and thesis work for my graduate degree.

That my qualifications to write a report of this nature derive not only from my academic qualifications, but from increasingly responsible positions in the mining industry, including senior management. I have worked extensively on many properties in the Saskatchewan diamond play since 1990, including some areas now part of the subject properties. I have not visited the property for the purpose of co-authoring this report.

That I am a Member of the Association of Professional Engineers & Geoscientists of Saskatchewan (with Permission to Consult), a Licensee of the Association of Professional Engineers & Geoscientists of New Brunswick, and a Member of the Association of Professional Engineers & Geoscientists of Manitoba.

That I believe that I am a "qualified person" as defined in National Instrument 43-101. I am independent of Goldsource Mines Inc. and of BEC International Corp. I have read the Instrument and Form 43-101F1, and believe that this report has been prepared in compliance with the Instrument and with Form 43-101F1.

That I am a co-author of the report entitled <u>Technical Report, Big River Property, Saskatchewan,</u> <u>Canada prepared for Goldsource Mines Inc.</u> I wrote all of sections 5.0, 7.2, 7.3, and 7.4. I wrote approximately half of each of sections 4.0, 7.1 and 15.0. I contributed a small amount of data from personal knowledge to section 6.0. I have read the entire report, and accept responsibility for the opinions attributed to me in it.

That I am not aware of any material fact or material change with respect to the subject matter of this report which is not reflected in this report, the omission to disclose which would make the report misleading.

The effective date of this report is October 6, 2005. Signed at Saskatoon, Saskatchewan, October 20, 2005.

"N. Ralph Newson"

N. Ralph Newson, M.Sc., P.Eng., P.Geo.