REPORT ON THE SEDIMENT SAMPLING PROGRAM

HORSE RANCH RANGE

COVERING CLAIMS:

A-1 Tenure 353901
A-2 Tenure 353902
A-3 Tenure 353903
A-4 Tenure 353904
B-1 Tenure 353905
B-2 Tenure 353906
D-3 Tenure 353907
H-1 Tenure 353908
C-1 Tenure 353909
C-2 Tenure 353910
C-3 Tenure 353911
C-4 Tenure 353912
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H-3 Tenure 353915
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D-5 Tenure 353917
D-6 Tenure 353918
E-1 Tenure 353919
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E-4 Tenure 353922
F-1 Tenure 353923
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G-1 Tenure 353925
G-2 Tenure 353926
G-3 Tenure 353927
G-4 Tenure 353928
G-5 Tenure 353929
G-6 Tenure 353930
G-7 Tenure 353931
G-8 Tenure 353932
G-9 Tenure 353933
ACE-1 Tenure 353934
ACE-2 Tenure 353935
ACE-3 Tenure 353936
ACE-4 Tenure 353937
ACE-5 Tenure 353938
ACE-6 Tenure 353939
LIARD MINING DISTRICT 104-P-07W

GLORY (12 UNITS) Tenure 353940
LIARD MINING DISTRICT 104-P-10 W

OWNED AND OPERATED BY ESMERALDA EXPLORATION INC.

REPORT PREPARED BY ESMERALDA EXPLORATION INC.
UNDER THE SUPERVISION OF BRUNO WISKE, P.Geo.

SUBMITTED MAY 22, 1998
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ITEMIZED COST STATEMENT

HORSE RANCH RANGE SEDIMENT SAMPLING PROGRAM
September 25-October 2, 1997

Field Expenses
Bradley S. Wilson, BSc. Geol. (Consultant) 2 days @ $500.00 1,000.00
Cloyd A. Lowie, field assistant 6 days @ $100.00 600.00

Accommodations
Wilson 3 days, Watson Lake @ $150 450.00
Lowie 6 days, Watson Lake @ $150 900.00
Stewart 6 days, Watson Lake @ $150 900.00

Transportation
Trans-North Helicopters 8,900.00
Misc. Transportation (Fuel, Auto expenses) 300.00

Sample Analysis
Loring Laboratories
Sample Preparation 39 samples @ 3.00 117.00
Sample Handling 39 samples @ 0.50 19.50
32-element ICP Analysis 39 samples @ 10.00 390.00
Subtotal 526.50
GST 36.86 563.36

Report Preparation
Bruno Wiskel 1 day @ $350.00 350.00

TOTAL 13,963.36
HORSE RANCH RANGE
EMERALD PROJECT,
BRITISH COLUMBIA

SEDIMENT SAMPLING PROGRAM
SEPTEMBER 25 - OCTOBER 2, 1997
INTRODUCTION

Ultramafic rocks within the Horseranch Range located in northern British Columbia have been targeted by Esmeralda Exploration International for their potential to host emerald and platinum group element deposits. This report documents the sediment sampling program conducted throughout the Horseranch Range between September 25, 1997 and October 2, 1997 by Esmeralda personnel.

Emerald is one of the most valued gemstones known. Retail prices range from $10.00 to in excess of $10,000 per carat (200 mg), depending on size and quality. Emeralds are rich with history and mystique and are essential to the jewellery industry, and their high demand is in large part due to widespread consumer recognition. Much has been written concerning the lore and history of emeralds. A good treatise on the subject is *Emeralds and Other Beryls* by John Sinkankas, 1989.

Emerald is the bright green gem-quality variety of the mineral beryl. It is usually coloured by minor amounts of chromium, which substitutes for aluminum in the beryl crystal structure. Emerald is known to occur in many regions of the world; for example, Pakistan, Zimbabwe, Zambia, Brazil, Russia; associated with ultramafic and felsic intrusive rocks (granites and/or granite pegmatites) (Walton, 1996). Felsic intrusive rocks are inferred to be the source of beryllium necessary to form beryl crystals, and the ultramafic rocks are the inferred source of chromium required to colour the beryl emerald green.

In the Horseranch Range, both ultramafic and beryllium bearing granitic rocks are known to occur in close proximity (Gabrielse, 1963), and hence, emerald mineralization is possible if other conditions are ideal. Pale blue beryl, some of which is gem quality, has been identified in the granitic rocks of the Horseranch Range (Holland, 1956 and Wilson, 1997) although to date, no emeralds have been found. However, some of the beryl has produced pale blue aquamarine gems.
LOCATION AND ACCESS

Esmeralda Exploration International has staked all areas covering known occurrences of ultramafic rocks within the Horseranch Range, Northern BC as outlined by Flint, 1991. These claims extend south from Harvey Lake along the Horseranch Range for approximately 12 miles. These claim blocks are located between 70 and 85 km. South of Watson Lake, Yukon, the nearest town of significant size, and are easily accessible by helicopter from there. All claims examined in this report are located on Map Sheets M104-P07W and M104-P10W (Glory Block).
FIELD ACTIVITIES
September 25 - October 2, 1997

Due to the small, scattered and isolated nature of the ultramafic bodies represented by the various claim groups in this study, it was considered essential to conduct a regional geochemical stream sediment study covering a large portion of the Horseranch Range, both the western and eastern slopes. As a result, samples were collected from a large area rather than the individual claims.

Between September 25, 1997 and October 2, 1997, a helicopter-based sampling program was conducted by Ron Stewart, Brad Wilson and Cloyd Lowie, under the supervision of Brad Wilson, B.Sc. Geol. The sampling program was designed in such a way that Stewart and Wilson, leapfrogging by helicopter along the eastern and western slopes of the Horseranch Range, collected stream sediment samples, from a number of target localities based on the recommendations of Brad Wilson, B.Sc. Geol. This program was recommended by Wilson in Esmeralda Assessment Report 3114314: “A soil sediment program covering the MRX and Harvey Lake areas would be useful in outlining potentially hidden emerald mineralization and should be conducted if emeralds are found; however, the effectiveness of using this tool in the geochemical search for emerald is unknown in the Horseranch Range. Beryllium is the obvious element to analyse for. Mo, W, Bi and F are associated with emerald deposits elsewhere in the world, and should be considered elements that are potentially indicative of emerald mineralization here.”

REGIONAL GEOLOGICAL SETTING

The geology of the Horseranch Range (Fig. 1) is best summarized by Simandl et. al., 1997, who state:

“The general geology of the Horseranch Range (Fig. 1) is best described by Gabrielse (1963, 1985), Plint and Erdmer (1988, 1989) and Plint (1991) and detailed geology is given by Plint, 1991. The Horseranch Range is underlain by the proterozoic and/or Cambrian Ingenika Group, Cambrian Atan Group, Cambrian and Ordovician Kechika Group and Ordovician and Silurian Sandpile Group. The Ingenika Group consists mainly of medium to high grade schists, quartzite, marbles, and minor orthogneiss. The overlying Atan Group consists mainly of quartzite. The Kechika Group is composed mainly of chloritic phyllite and schists and the Sandpile Group of dolostones and dolomitic limestones. Foliation and synchronous early Cretaceous or younger regional
metamorphism was followed by mesoscopic to macroscopic, upright folding about northwst and southeast-plunging axes that define the overall structure of the range. Rapid Eocene uplift and cooling occurred during dextral, oblique-slip mylonitization along the western margin of the range that is believed to be related to regional mid-Cretaceous to Tertiary strike-slip motion along the nearby Kechika fault (Plint, 1991; Plint and Parrish, 1994).

The igneous rocks in the Horseranch Range consist of granite dikes, pegmatites and ultramafic and mafic rocks. Granites are dated by U-Pb zircon to be mid-Cretaceous and Eocene age. These granitic dikes occur in the Ingenika Group and Eocene granite is mylonitized in the mylonite zone.

Ultramafic and mafic rocks are exposed as undeformed bodies in the mylonite zone (Plint 1997, personal communication). They are undated but assigned an Eocene age (Plint, 1991) based on their field relations with the mylonite zone. Plint (1991) reports sharp but ambiguous contacts between granite and the mafic to ultramafic rock in the MRX area. A mylonite zone, trending northwest-southeast (Fig. 1) is interpreted to be a Riedel shear or splay of the mid-Cretaceous dextral slip Kechika fault. Radiometric and fission tracks record Eocene mylonitization and cooling (Plint, 1991; Plint and Parish, 1994). The field relationships between felsic dikes and mafic and ultramafic rocks in the Harvey Lake and MRX areas [and] the age of these rocks relative to mylonitization are important criteria for emerald exploration.”
DETAILED TECHNICAL DATA AND INTERPRETATION

GEOCHEMICAL WORK

Thirty-nine samples were collected from the eastern and western slopes of the Horseranch Range. Samples collected were approximately 4 kg. in size, and approximately 1 kg. of each sample was forwarded for analysis to Loring Labs in Calgary. The remainder of each sample is being held by Esmeralda for possible future petrographic or geochemical analysis.

Samples were sent to Loring Labs in Calgary, Alberta, where a 0.500 gram portion of each sample was digested with aqua regia at 95° C for one hour, and was bulked to 10 ml. with distilled water. Partial dissolution for Al, B, Ba, Ca, Cr, Fe, K, La, Mg, Mn, Na, P, Sr, Ti and W. A 32-element ICP analysis was performed. The results of this analysis are contained in Appendix A.

INTERPRETATION OF RESULTS

The purpose of this sediment sampling program was to delineate possible targets with elevated beryllium values which may indicate beryl bearing pegmatites in the areas drained by the sampled streams. Also, chromium values were analyzed to indicate possible concentrations of mafic or ultramafic outcrops which may have provided chromium for colourization of beryls and possible targets for detailed emerald exploration.

Unfortunately, none of the samples collected and analyzed showed beryllium or chromium values of any statistical significance.

The 39 sediment samples analyzed showed values ranging from below 1 ppm in some samples to an average of 1 ppm in most, while sample 97SH-124 showed a value of 2 ppm beryllium.

Chromium values in the 39 samples analyzed ranged from a low of 45 ppm in sample 97SH-106 to a high of 167 ppm in sample 97SH-012.

None of these values was outside of the statistical norm. Rose, Hawks and Webb, Geochemistry in Mineral Exploration, give values for average concentrations of Be in igneous rocks (granites) as 3 ppm as cited by Turekian (1977); average chromium concentrations for igneous rocks is
given as 170 ppm.

None of the samples showed any significant amounts of beryllium or chromium above the values that were to be expected in granites or mafic rocks; therefore, no targets could be inferred from this initial data.

RECOMMENDATIONS

Based on the previous section, the author concludes the potential for emerald mineralization in the Horseranch Range is still largely unknown. If exploration is to be continued it is recommended that Esmeralda:

1. conduct a detailed geological mapping program to delineate and define the nature of the mafic and ultramafic rocks;

2. conduct a geochemical sampling program in the small ultramafic bodies outlined by Plint;

3. continue work on currently-available samples, possibly petrographic examination of the sediment samples collected thus far for aquamarine or emerald fragments;

4. conduct literature research for possible improved methodology for emerald exploration and/or sample handling.
| Sample | Ag ppm | Al ppm | As ppm | Au ppm | B ppm | Ba ppm | Be ppm | Br ppm | Ca ppm | Cd ppm | Co ppm | Cr ppm | Cu ppm | Fe ppm | K ppm | La ppm | Mn ppm | Mo ppm | Na ppm | Ni ppm | P ppm | Pb ppm | Sb ppm | Se ppm | Sr ppm | Th ppm | Ti ppm | U ppm | V ppm | W ppm | Zn ppm |
|--------|--------|--------|--------|--------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 97SH-011 | 3.3 <1          | 1.33 174 <1        | 750 123 <1     | 0.50 0.41 <1 | 0.42 164 <1 | 1.89 192 <1 | 0.74 17 <1 | 3.02 47 <1 | 0.10 24 <1 | 44 25 <1 |
| 97SH-012 | 0.5 <1          | 1.29 31 <1        | 10 <1         | 0.34 213 <1 | 0.03 75 <1 | 0.66 14 <1 | 2.03 <1 | 1.28 <1 | 1.11 14 <1 | 1.10 18 <1 | 0.10 18 <1 |
| 97SH-013 | 0.5 125 <1 | 1.03 48 <1 | 12 <1 | 1.18 41 <1 | 8.33 170 <1 | 0.03 66 <1 | 12 2 <1 | 17 <1 | 0.10 18 <1 | 1.10 18 <1 | 0.10 18 <1 |
| 97SH-014 | 0.5 <1          | 1.06 44 <1        | 109 <1        | 1.18 23 <1 | 1.03 20 <1 | 0.10 18 <1 | 0.10 18 <1 | 11 <1 | 11 <1 | 0.10 18 <1 | 1.10 18 <1 | 0.10 18 <1 |
| 97SH-015 | 0.5 228 <1 | 1.29 41 <1 | 281 <1       | 0.23 155 <1 | 0.72 32 <1 | 0.07 65 <1 | 0.10 18 <1 | 11 <1 | 11 <1 | 0.10 18 <1 | 1.10 18 <1 | 0.10 18 <1 |
| 97SH-044 | 0.5 <1          | 1.18 39 <1        | 118 <1        | 0.12 39 <1 | 0.49 225 <1 | 0.03 65 <1 | 10 <1 | 13 <1 | 0.10 18 <1 | 1.10 18 <1 | 0.10 18 <1 |
| 97SH-045 | 0.5 <1          | 1.27 39 <1        | 98 <1         | 0.18 50 <1 | 0.53 180 <1 | 0.35 53 <1 | 13 <1 | 18 <1 | 0.12 18 <1 | 1.10 18 <1 | 0.12 18 <1 |
| 97SH-046 | 0.5 <1          | 1.32 42 <1        | 84 <1         | 0.21 29 <1 | 0.53 180 <1 | 0.35 53 <1 | 13 <1 | 18 <1 | 0.12 18 <1 | 1.10 18 <1 | 0.12 18 <1 |
| 97SH-047 | 0.5 <1          | 1.64 39 <1        | 118 <1        | 0.12 39 <1 | 0.49 225 <1 | 0.03 65 <1 | 10 <1 | 13 <1 | 0.10 18 <1 | 1.10 18 <1 | 0.10 18 <1 |
| 97SH-048 | 0.5 <1          | 1.27 38 <1        | 94 <1         | 0.18 50 <1 | 0.53 180 <1 | 0.35 53 <1 | 13 <1 | 18 <1 | 0.12 18 <1 | 1.10 18 <1 | 0.12 18 <1 |
| 97SH-049 | 0.5 156 <1 | 1.17 39 <1 | 109 <1       | 0.13 34 <1 | 0.49 180 <1 | 0.35 53 <1 | 13 <1 | 18 <1 | 0.12 18 <1 | 1.10 18 <1 | 0.12 18 <1 |
| 97SH-050 | 0.5 144 <1 | 1.44 33 <1 | 121 <1       | 0.85 30 <1 | 0.49 208 <1 | 0.09 53 <1 | 13 <1 | 18 <1 | 0.12 18 <1 | 1.10 18 <1 | 0.12 18 <1 |
| 97SH-051 | 0.5 <1          | 1.10 14 <1        | 40 <1         | 0.23 30 <1 | 0.30 241 <1 | 0.03 53 <1 | 13 <1 | 18 <1 | 0.12 18 <1 | 1.10 18 <1 | 0.12 18 <1 |
| 97SH-052 | 0.5 <1          | 1.45 39 <1        | 114 <1        | 0.31 31 <1 | 0.45 236 <1 | 0.09 53 <1 | 13 <1 | 18 <1 | 0.12 18 <1 | 1.10 18 <1 | 0.12 18 <1 |
| 97SH-053 | 0.5 <1          | 1.74 36 <1        | 88 <1         | 1.08 35 <1 | 0.71 236 <1 | 0.09 53 <1 | 13 <1 | 18 <1 | 0.12 18 <1 | 1.10 18 <1 | 0.12 18 <1 |
| 97SH-054 | 0.5 <1          | 1.95 39 <1        | 110 <1        | 0.26 29 <1 | 0.53 208 <1 | 0.09 53 <1 | 13 <1 | 18 <1 | 0.12 18 <1 | 1.10 18 <1 | 0.12 18 <1 |
| 97SH-055 | 0.5 <1          | 1.68 36 <1        | 174 <1        | 0.98 41 <1 | 0.53 236 <1 | 0.09 53 <1 | 13 <1 | 18 <1 | 0.12 18 <1 | 1.10 18 <1 | 0.12 18 <1 |
| 97SH-056 | 0.5 <1          | 1.60 35 <1        | 112 <1        | 0.90 37 <1 | 0.93 236 <1 | 0.09 53 <1 | 13 <1 | 18 <1 | 0.12 18 <1 | 1.10 18 <1 | 0.12 18 <1 |
| 97SH-057 | 0.5 <1          | 1.82 39 <1        | 55 <1         | 0.36 38 <1 | 0.49 236 <1 | 0.09 53 <1 | 13 <1 | 18 <1 | 0.12 18 <1 | 1.10 18 <1 | 0.12 18 <1 |
| 97SH-058 | 0.5 <1          | 1.91 33 <1        | 78 <1         | 2.11 33 <1 | 1.15 262 <1 | 0.22 64 <1 | 0.09 53 <1 | 13 <1 | 18 <1 | 0.12 18 <1 | 1.10 18 <1 | 0.12 18 <1 |
| 97SH-060 | 0.5 <1          | 2.22 32 <1        | 149 <1        | 0.49 44 <1 | 0.26 208 <1 | 0.09 53 <1 | 13 <1 | 18 <1 | 0.12 18 <1 | 1.10 18 <1 | 0.12 18 <1 |
| 97SH-061 | 0.5 <1          | 0.34 30 <1        | 70 <1         | 1.28 19 <1 | 0.48 236 <1 | 0.09 53 <1 | 13 <1 | 18 <1 | 0.12 18 <1 | 1.10 18 <1 | 0.12 18 <1 |
### 32 ELEMENT ICP ANALYSES

| Sample | Ag | Al | As | Au | B | Be | Bi | Ca | Cd | Co | Cr | Cu | Fe | K | La | Mg | Mn | Mo | Na | Ni | P | Pb | Sb | Se | Sr | Th | Ti | U | V | W | Zn |
|--------|----|----|----|----|---|----|----|----|----|----|----|----|----|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 97SH-106 | 0.5 | 1.97 | <1 | 38 | 123 | 1 | <1 | 1.07 | <1 | 33 | 117 | 5 | 12 | 0.69 | 14 | 0.59 | 230 | 2 | 0.08 | 62 | 0.70 | 19 | 2 | <1 | 79 | <1 | 0.13 | <1 | 26 | 7 | 32 |
| 97SH-109 | 0.5 | 1.80 | <1 | 38 | 78 | 1 | <1 | 1.70 | <1 | 33 | 126 | 8 | 20 | 0.48 | 16 | 0.56 | 241 | 3 | 0.10 | 68 | 0.79 | 17 | 3 | <1 | 108 | <1 | 0.13 | <1 | 28 | 3 | 23 |
| 97SH-110 | 0.5 | 1.84 | <1 | 38 | 100 | 1 | <1 | 0.34 | <1 | 36 | 79 | 11 | 2.29 | 0.56 | 11 | 0.64 | 225 | 2 | 0.03 | 77 | 0.75 | 17 | 1 | <1 | 31 | <1 | 0.11 | <1 | 27 | 2 | 41 |
| 97SH-111 | 0.5 | 0.84 | <1 | 38 | 55 | <1 | <1 | 0.14 | <1 | 20 | 103 | 3 | 1.21 | 0.56 | 7 | 0.22 | 165 | 3 | 0.04 | 30 | 0.31 | 10 | 2 | <1 | 7 | <1 | 0.07 | <1 | 9 | 12 | 3 | 99 |
| 97SH-112 | 0.5 | 1.12 | <1 | 38 | 80 | <1 | <1 | 0.27 | <1 | 24 | 120 | 3 | 1.47 | 0.42 | 9 | 0.33 | 215 | 3 | 0.04 | 48 | 0.49 | 14 | 3 | <1 | 17 | <1 | 0.09 | <1 | 5 | 16 | 2 | 24 |
| 97SH-113 | 0.5 | 1.44 | <1 | 38 | 77 | <1 | <1 | 0.88 | <1 | 20 | 108 | 4 | 1.90 | 0.41 | 13 | 0.65 | 248 | 3 | 0.04 | 58 | 0.40 | 15 | 1 | <1 | 25 | <1 | 0.08 | <1 | 20 | 6 | 26 |
| 97SH-114 | 0.5 | 1.55 | <1 | 39 | 102 | 1 | <1 | 0.60 | <1 | 33 | 93 | 7 | 1.92 | 0.33 | 10 | 0.57 | 210 | 2 | 0.08 | 65 | 0.12 | 15 | <1 | <1 | 45 | <1 | 0.10 | <1 | 32 | 3 | 26 |
| 97SH-115 | 0.5 | 1.70 | <1 | 37 | 121 | 1 | <1 | 0.35 | <1 | 49 | 86 | 8 | 3.37 | 0.26 | 2 | 0.50 | 626 | 2 | 0.04 | 83 | 0.60 | 17 | 2 | <1 | 29 | <1 | 0.10 | <1 | 43 | 26 | 6 | 46 |
| 97SH-116 | 0.5 | 1.61 | <1 | 38 | 106 | 1 | <1 | 0.37 | <1 | 37 | 149 | 7 | 2.58 | 0.95 | 3 | 0.31 | 527 | 3 | 0.04 | 69 | 0.30 | 15 | <1 | <1 | 19 | <1 | 0.06 | <1 | 4 | 18 | 2 | 36 |
| 97SH-117 | 0.5 | 3.43 | 2 | 40 | 113 | 1 | <1 | 1.79 | <1 | 42 | 104 | 17 | 2.67 | 0.43 | 7 | 0.70 | 318 | 3 | 0.19 | 80 | 0.62 | 31 | 4 | <1 | 134 | <1 | 0.17 | <1 | 32 | 4 | 36 |
| 97SH-118 | 0.5 | 1.68 | <1 | 32 | 140 | 1 | <1 | 0.44 | <1 | 34 | 116 | 5 | 1.63 | 0.69 | !4 | 0.54 | 260 | 2 | 0.07 | 64 | 0.57 | 18 | 2 | <1 | 45 | <1 | 0.12 | <1 | 7 | 28 | 2 | 29 |
| 97SH-120 | 0.5 | 1.62 | <1 | 38 | 51 | <1 | <1 | 0.17 | <1 | 34 | 128 | 4 | 2.12 | 0.80 | 11 | 0.45 | 379 | 3 | 0.04 | 88 | 0.43 | 15 | 1 | <1 | 12 | 6 | 0.12 | 21 | 22 | 6 | 38 |
| 97SH-121 | 0.5 | 1.36 | <1 | 38 | 100 | 1 | <1 | 0.32 | <1 | 23 | 128 | 7 | 1.45 | 0.47 | 7 | 0.28 | 174 | 3 | 0.07 | 47 | 0.35 | 15 | 2 | <1 | 19 | <1 | 0.06 | <1 | 4 | 18 | 2 | 23 |
| 97SH-122 | 0.5 | 1.56 | <1 | 38 | 103 | 1 | <1 | 0.00 | <1 | 37 | 62 | 6 | 2.31 | 0.85 | 9 | 0.52 | 243 | 2 | 0.03 | 86 | 0.26 | 16 | 2 | <1 | 8 | 8 | 0.15 | 23 | 21 | 2 | 40 |
| 97SH-123 | 0.5 | 1.00 | <1 | 36 | 88 | <1 | <1 | 0.06 | <1 | 182 | 86 | 2 | 1.30 | 0.44 | 4 | 0.26 | 190 | 2 | 0.02 | 806 | 0.15 | 15 | 12 | <1 | 3 | <1 | 0.05 | <1 | 14 | 4 | 1 | 27 |
| 97SH-124 | 0.5 | 1.10 | <1 | 33 | 81 | 2 | <1 | 0.18 | <1 | 30 | 122 | 6 | 1.71 | 0.53 | 10 | 0.31 | 174 | 3 | 0.05 | 52 | 0.25 | 15 | <1 | <1 | 24 | <1 | 0.09 | <1 | 14 | 3 | 26 |
| 97SH-125 | 0.5 | 1.67 | <1 | 35 | 113 | <1 | <1 | 0.10 | <1 | 36 | 91 | 4 | 2.33 | 0.75 | 11 | 0.49 | 261 | 2 | 0.03 | 86 | 0.32 | 18 | 2 | <1 | 9 | 4 | 0.13 | 19 | 21 | 4 | 39 |

**STD LLL-2** 1.34 648 134 <1 37 80 | 1 | <1 | 1.84 | 3 | 71 | 77 | 84 | 5.19 | 0.20 | 22 | 1.62 | 581 | 4 | 0.31 | 277 | 0.09 | 130 | 46 | <1 | 91 | <1 | 0.08 | <1 | 91 | 3 | 193

0.500 Gram sample is digested with Aqua Regia at 95 C for one hour and boiled to 10 ml with distilled water.
Partial dissolution for Al, B, Ca, Cr, Fe, K, La, Mg, Mn, Na, P, Sr, Ti, and W.
REFERENCES


Gabrielse, H. (1963); McDame Map-Area, Cassiar District, British Columbia; G.S.C. Memoir 319.


Sinkankas, J. (1989); Emerald and other beryls; Geoscience Press, Prescott, Arizona.

Walton, L (1996); Exploration criteria for gemstone deposits and their application to Yukon geology; Indian and northern affairs Canada, Northern affairs: Yukon region, Open File 1996-2(G).

Wilson, B. S. (1997); Gemstone occurrences in British Columbia; Canadian Gemmologist, Vol. 18, pp. 74-86.
May 22, 1996

Ron Stewart
Esmeralda Exploration Ltd.
Edmonton, Alberta

Dear Mr. Stewart:

I, Bruno Wiskel, P.Geo of P.O. Box 194 Colinton, Alberta TOG OR0, do hereby state that I:

1) Graduated from the University of Alberta in 1983 with BSc. (Honors Geology)

2) Worked for twelve years as an independent consultant in mineral exploration, petroleum exploration, and exploration of precious metals.

3) Hold no interest either directly or indirectly in the mineral claims described in this report.

4) Was employed by Esmeralda Exploration International, Inc. as an independent consultant to perform the review of the results and oversee the preparation of this report. I concur with the conclusions which were reached and the recommendations presented.

Sincerely,

Bruno Wiskel

Bruno Wiskel, BSc. P.Geo.
Environmental Geologist
PENDIX 3

ATEMENT OF QUALIFICATIONS

Bradley S. Wilson of P.O. Box 352, Kingston, Ontario, K4L 4W2, do hereby state that I:

1/ graduated from Queen's University in 1982 with an Honours B.Sc. degree in Geology.

2/ graduated from Carleton University in 1987 with a M.Sc. degree in Geology.

3/ received a degree in gemmology in 1991 from the Canadian Gemmological Association (F.C.Gm.A).

4/ worked as an independent consultant on eleven coloured gemstone projects since 1991.

5/ worked for mineral exploration companies during 13 of the last 20 years either as a consultant or as a seasonal employee.

6/ worked on M.Sc. related field work and mapping during the summers of 1983, 1984 and 1985 for Carleton University.

7/ conducted gemstone exploration on my own behalf during part or all of every field season, except one, since 1982.

8/ hold no interest either directly or indirectly in the mineral claims described in this report.

9/ was employed by Esmeralda Exploration International Inc. as an independent consultant to perform the fieldwork described in this report.

Bradley S. Wilson

March 23, 1998