REPORT ON A GEOLOGICAL MAPPING, GEOCHEMICAL AND PROSPECTING PROGRAM ON THE ARROWSMITH/SINGAPORE PROPERTY FOR BLUE SUN RESOURCE CORP. VANCOUVER, B.C.

ALBERNI & NANAIMO MINING DIVISIONS

NTS: 92F 2, 7

LAT: 49° 09'N

LONG: 124° 37'W

DATE: MAY, 1991

BY: W.C. DAY
B. Sc., P. GEOL.

TABLE OF CONTENTS

LIST OF FIGURES

APPENDICES

1. SUMMARY

1.1 The claims of subject in this report are contained in two groups; the Arrowsmith (Arrowsmith and Arrowsmith 2-4 claims) and the Singapore claim. The Arrowsmith claims comprise 76 units and are located 11 km East Southeast of Port Alberni in the Cameron River Valley and are centered at approximately 49° 13' N. lat., 124° 37' W. long. and can be found on NTS mapsheets 92F/2E and 92F/7E. The Singapore claim is comprised of 20 claim units and is located approximately 17 km southeast of Port Alberni in the China Creek Valley. This claim is centered at approximately 49° 09' N. lat. and 124° 37' W. long. on NTS mapsheet 92F/2E.

1.2 The Arrowsmith claims are underlain by Upper Palaeozoic rocks of the Sicker Group and Triassic Karmutsen Fm rocks of the Vancouver Group (which have been intruded by tertiary rocks) and Haslam/Comox Fm rocks of the Cretaceous Nanaimo Group. The Singapore claim is underlain by Nitinat Fm rocks of the Sicker Group. Sicker Group rocks host a number of important mineral occurrences on Vancouver Island.

1.3 A grid was laid out on a portion of the Arrowsmith 2 and Arrowsmith claims to further assess slightly elevated

...1

copper values detected in a prior survey by soil geochemistry. Soil samples collected on this grid were analyzed by multi element analyses as were soil samples collected from a small grid on the Singapore claim. In addition, soil samples were collected from road cuts on both the Singapore and Arrowsmith 4 claims. Rock samples were collected from selected sites on both claim groups and also subjected to multi element analysis.

1.4 Except in a couple of samples as noted in part 8.1 of this report, no significant values were detected in any of the samples collected during the program.

2. INTRODUCTION

2.1 This report documents an exploration program conducted during the period March 22, 1991 through April 14, 1991. The program was commissioned by Mr. C. Angus, President of Blue Sun Resource Corp. of Vancouver, B.C. The program was contracted to Sun Group Resource Management who utilized the following personnel:

A.E. Angus: Prospector/technician
S.E. Angus: Prospector/technician
G. Clouthier: Geologist
W.C. Day: Geologist
R. Marra: Prospector/technician

2.2 The program consisted of geological mapping, soil geochemistry surveying/silt sampling and prospecting. The objective of the program was to assess the claim areas to determine their potential for hosting gold mineralization like that recently found on nearby claims.

2.3 The geological mapping aspect of the program found that favourable rock types and structure exist on the properties for hosting gold mineralization. The geochemical survey and prospecting, however, did not

...3

locate any significant concentration of mineralization.

3. LOCATION, ACCESS, CLIMATE & PHYSIOGRAPHY (FIG. 1)

3.1 The Arrowsmith and Arrowsmith 2, 3 and 4 claims are located in the Nanaimo Mining Division of British Columbia. The claims are situated in the Cameron River Valley some 11 km east southeast of the city of Port Alberni on central Vancouver Island and are centered at approximately 49° 13' N. lat., 124° 37' W. long. on NTS mapsheets 92F/2E and 92F/7E.

3.2 The Singapore claim is located 17 km southeast of Port Alberni and spans the China Creek Valley. It is situated in the Alberni Mining Division and is centered at approximately 49° 09' N. lat., 124° 37' W. long. on NTS mapsheet 92F/2E.

3.3 The Arrowsmith group of claims can be best reached by utilizing the Mt. Arrowsmith Ski Hill road, a gravel road which exits the paved No. 4 Highway, 8 km east of Port Alberni. A network of fair to good logging roads lend good access to virtually all areas of the claims.

3.4 The Singapore claim can be reached by utilizing the China Creek road, a gravel road departing from the south end of Port Alberni and diagonally crossing the southwest third of the claim. A few logging roads lend access to this

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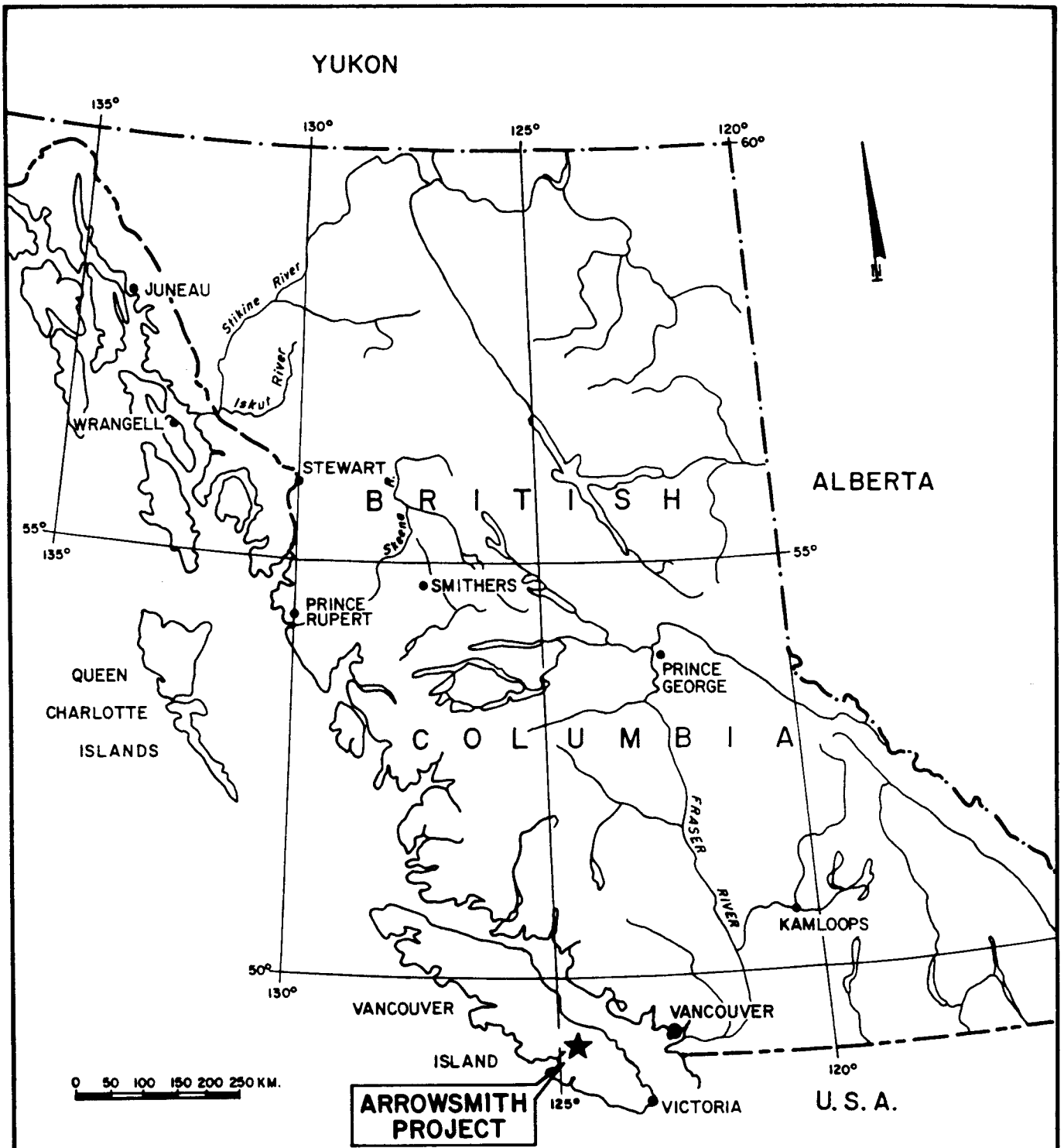


ARROWSMITH PROJECT

PROPERTY LOCATION MAP

Figure 1

area while the northern two thirds of the claim can be gained only by foot.

3.5 The climate in the area of the claims is moderate with mean annual temperatures ranging from 5° - 0° C in January to 14° - 16° C in July. Mean annual precipitation is 150 to 250 cm, most of which occurs during the winter months and will accumulate as snow at higher elevations.

3.6 The area is mountainous with steep slopes forested with hemlock, fir and cedar. Creek valleys are often deeply incised. Elevations on the Arrowsmith group range from a low of 360 meters on the Cameron River to 1280 meters while on the Singapore claim elevations rise from a low of 370 meters in the China Creek Valley to 1360 meters.

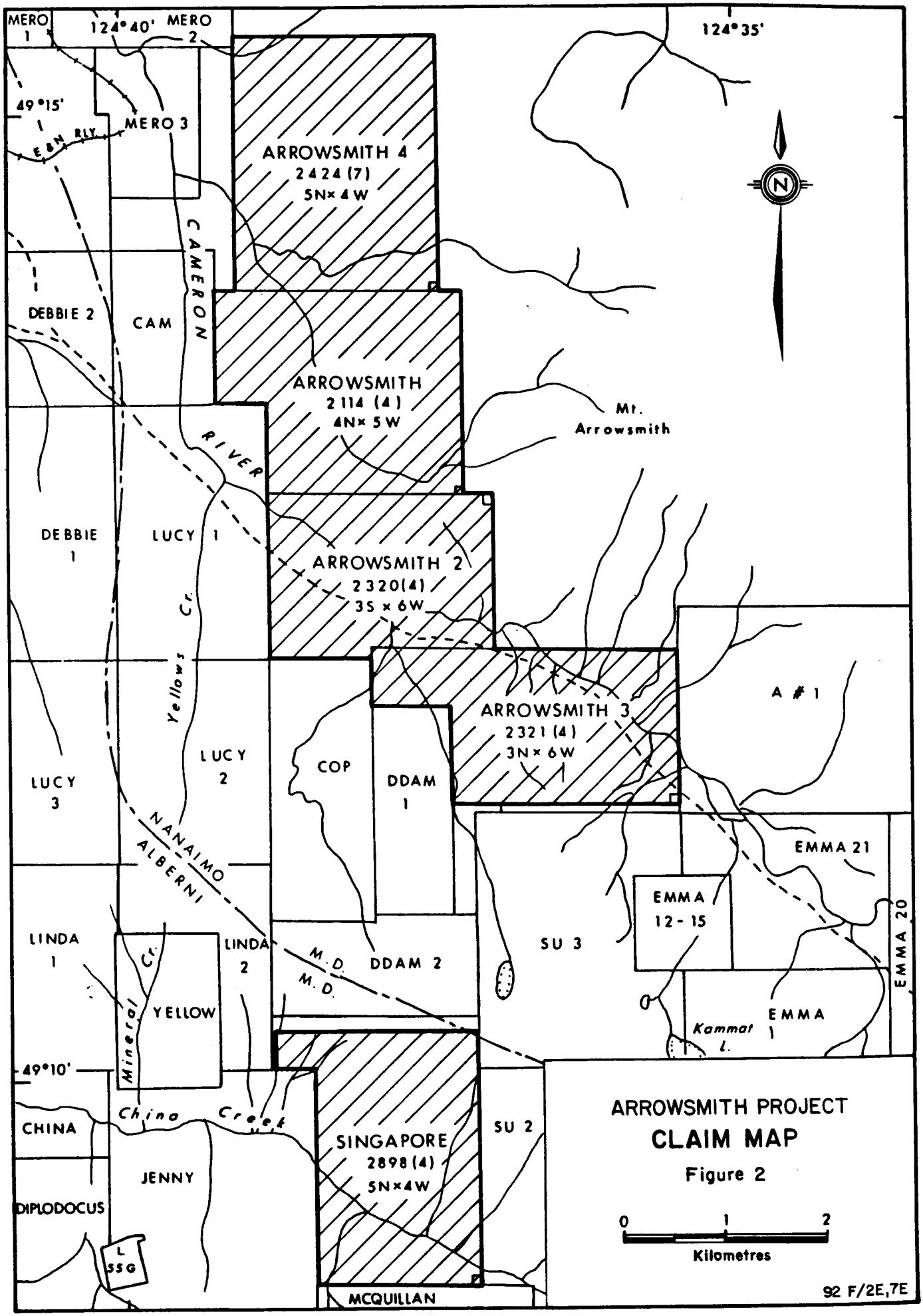
4. CLAIM DATA (FIG. 2)

4.1 Pertinent claim information is as follows:

Claim	Record#	Units	Anniversary	Yr./Record
Arrowsmith	2114(4)	20	04/11/89	1985
Arrowsmith 2	2320(4)	18	04/11/89	1986
Arrowsmith 3	2321(4)	18	04/11/89	1986
Arrowsmith 4	2424(7)	20	06/15/89	1986
Singapore	2898(4)	20	04/01/89	1986

4.2 The Arrowsmith, Arrowsmith 2 and Singapore claims are 100% owned by S.E. Angus, while the Arrowsmith 3 and Arrowsmith 4 claims are 100% owned by A.E. Angus. The various Arrowsmith claims were grouped on March 24, 1987 as the Arrowsmith Group.

4.3 Blue Sun Resource Corp. currently holds an option to explore the claims.



ARROWSMITH PROJECT
CLAIM MAP
Figure 2

92 F/2E,7E

5. HISTORY

5.1 The Arrowsmith claims were staked in 1985 and 1986. No mineral exploration is documented in the claim area prior to 1987 during which year some 373 soil samples were collected from 2 small grids. No anomalous precious or base metals were encountered during these programs save one sample which returned 606 ppm copper. In April of 1988 a subsequent program consisting of 265 soil samples collected from a grid on the Arrowsmith claim returned maximum analytical values of 35 ppb Au, 0.8 ppm Ag, 213 ppm Cu, 14 ppm Pb and 129 ppm Zn. The only work in the area prior to 1987 was governmental which includes geological mapping by C.H. Clapp (1912 and 1914), J.E. Muller and D.J.T. Carson (1969), J.E. Muller (1977 and 1980), N.W. Massey (1986) and J.S. Stevenson (1945).

5.2 The Singapore claim area has witnessed somewhat more work. This claim covers the same area as that covered by the previously existing Alberni claim which was explored by Gunnex Ltd. between 1963 and 1966. Apparently no mineralization was encountered in the Gunnex programs. An old showing, on or near the southwest corner of the claim was documented as having a 7.6 m shaft and a series of open cuts along a 3 m by 100 m zone of quartz veins carrying pyrite, chalcopyrite and galena with some silver

...8

and gold values. This showing known as the Bank Group apparently yielded a grab sample from the dump which assayed trace Au, 34 g/t Ag, and 3.2% Cu. Attempts to locate this showing have, to date, failed. Reconnaissance geological mapping and sampling conducted by MPH Consulting Ltd. in 1984 encountered a rock sample (quartz-carbonate veined, sulphide rich, volcanic rock) on the south boundary of the Singapore claim which contained 900 ppb Au. In 1987, a preliminary geochemical program was conducted by Edsons Resources Ltd. on the north side of China Creek but no significant results were encountered.

6.0 GEOLOGY (FIG. 3 & 4)

6.1 The geology of the Arrowsmith Group and Singapore claim as mapped during the program consists primarily of Upper Palaeozoic Sicker Group rocks, and Triassic Vancouver Group rocks intruded by Jurassic Island Intrusions. Nanaimo Group sediments are also present.

6.2 Sicker Group

The Nitinat Fm (PS_5) is composed mainly of mafic volcanic rocks which commonly occur as flow breccia, agglomerates, some massive flows and rare pillow basalt. This formation underlies the entire Singapore claim and a large portion of the southwestern area of the Arrowsmith Group.

The Myra Formation has been subdivided into two units in the claim area. The lower (PS_4) is comprised of volcanic sandstone, conglomerate consisting of rounded volcanic and chert material up to cobble size with a volcanic sandstone matrix and tuff and an upper unit (PS_3) which is comprised of volcanic sandstone, bedded limestone and chert.

The uppermost unit of the Sicker Group in the claim area

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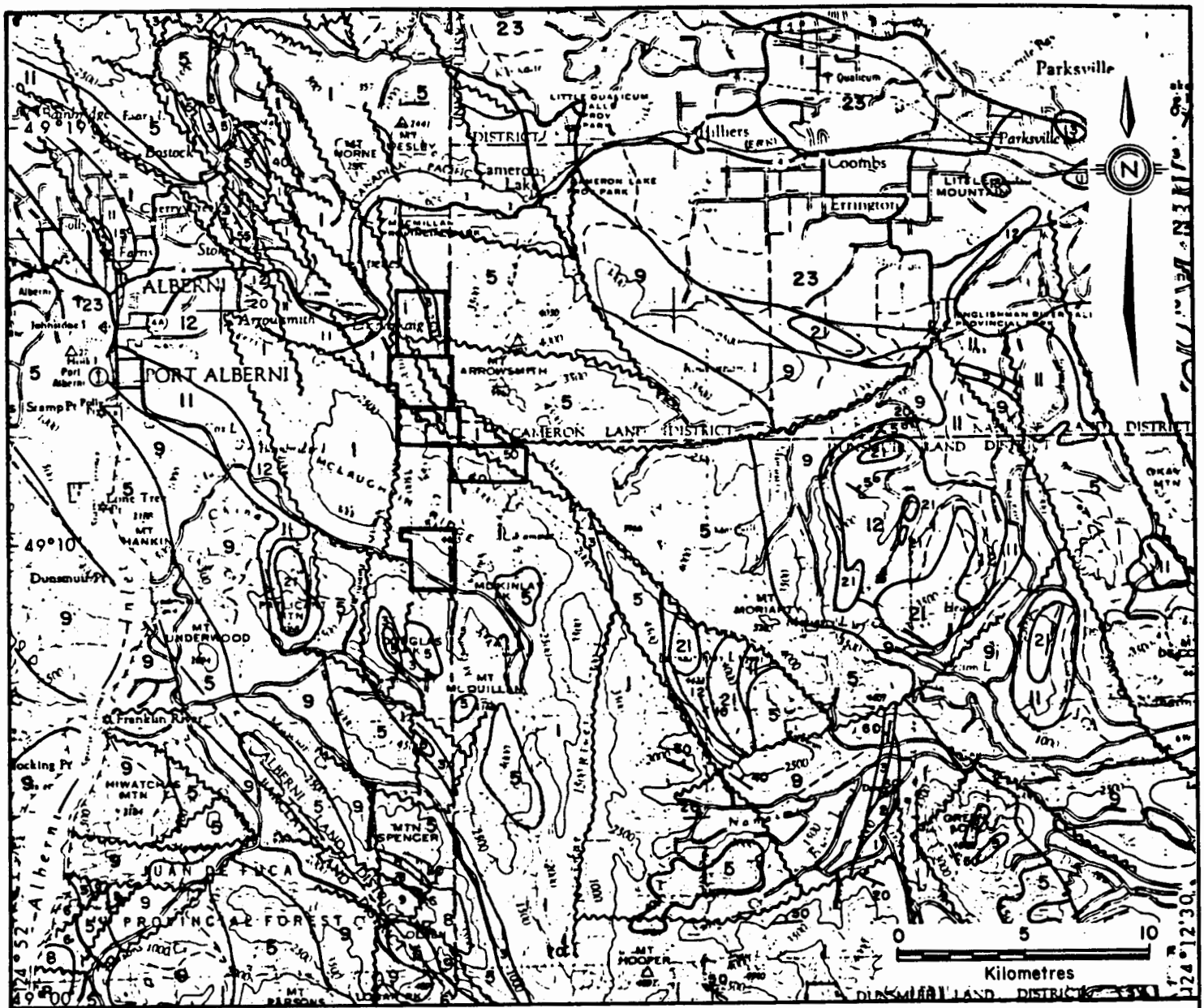


NTS 92F/2E,7E

Geology after Muller 1977

LEGEND

QUATERNARY

23 Glacial and alluvial deposits

TERTIARY

21 Hornblende quartz diorite, leucoquartz monzonite, porphyritic dacite, breccia.

UPPER CRETACEOUS
NANAIMO GROUP

13 EXTENSION-PROTECTION FM.: sandstone, conglomerate, shale, coal.

12 HASLAM FM.: shale, siltstone, fine sandstone.

11 COMOX FM.: sandstone, conglomerate, shale, coal.

MIDDLE TO UPPER JURASSIC

9 ISLAND INTRUSIONS: biotite-hornblende granodiorite, quartz diorite.

LOWER JURASSIC

8 BONANZA GROUP: andesitic to latitic breccia, tuff, and lava; minor greywacke, argillite, and siltstone.

UPPER TRIASSIC
VANCOUVER GROUP

6 QUATSINO FM.: massive to thick bedded limestone, minor thin bedded limestone.

5 KARMUTSEN FM.: pillow-basalt and pillow breccia, massive basalt flows; minor tuff, volcanic breccia; Jasperoid tuff, breccia and conglomerate at base.

TRIASSIC OR PERMIAN

4 Gabbro, peridotite, diabase.

LOWER PERMIAN TO PENNSYLVANIAN
SICKER GROUP

3 BUTTLE LAKE FM.: limestone, chert.

2 MYRA FM.: lower unit; argillite, greywacke, conglomerate, tuff, minor limestone.
Upper unit; rhyodacite to rhyolite tuff, lapilli tuff, breccia lesser siliceous siltstone, argillite, quartz porphyry and mafic flows.

1 NITINAT FM.: basaltic uralite porphyry, agglomerate, pillow lava; greenschist.

ARROWSMITH PROJECT
REGIONAL GEOLOGY MAP

Figure 3

is the Buttle Lake Formation. This formation is composed of bedded white crinoidal limestone which is often massive.

6.3 Vancouver Group

The representative rock type in the claim area of the Vancouver Group is the Karmutsen Fm, an Upper Triassic age suite of volcanic rocks which unconformably overlie the Buttle Lake Fm. It is composed of dark green to black tholeiitic pillow basalt, massive basalt and pillow breccia. The pillow lavas generally occur near the base of the section. The Karmutsen formation is generally less deformed than the underlying Sicker Group rocks.

6.4 Nanaimo Group

The two lower formations of the Nanaimo Group were found to be present in area of the Arrowsmith claims. The Comox formation consists of buff arkose and quartz pebble conglomerate having an arkosic matrix. Overlying the Comox formation is the Haslam Fm, a rock suite consisting of dark grey shale, siltstone and turbidite.

7. GEOCHEMISTRY

7.1 During the course of the program a total of 590 soil samples and 43 rock samples were collected and analyzed. Samples were analyzed by Vangeochem Lab Ltd. of Vancouver B.C. The samples were subjected to ICP for multi element analyses. Gold content was determined by atomic absorption as per Appendix A.

7.2 The soil samples collected from the grid established on the Arrowsmith, Arrowsmith 2 and Singapore claims were taken from the "B" horizon at 25m intervals along lines having a separation of 100m. Soil samples collected from road cuts on the Arrowsmith 4 and Singapore claims were also taken from the "B" horizon at 25m intervals.

Sample locations are shown in Fig 3 & 4.

...12

8. RESULTS

8.1 The results of sample analyses are tabulated in Appendix B. Virtually no significant values were found to be present in any of the samples. A few notable exceptions are as follows.

Soil sample:

Line SP 1-N - Arsenic values elevated from 2+75w to 5+00w (high of 457 ppm)

Line SP 2-N - Arsenic values elevated from 17+25w to 19+50w (high of 709 ppm)

Line SP 2-N - 10+00w Cr>1000 ppm, Mo>1000 ppm, Nickel 3840 ppm (no significant values on either side)

Line SM 3+00 - Zn 2042 ppm with values slightly elevated to either side.

Rock Sample #

#84429 As 1191 ppm

8.2 The elevated arsenic values on lines SP 1 and 2 N are intriguing, however, the paucity of any economic mineral enrichment is disappointing. The Cr, Mo, and Ni enrichment on line SP 2-N 10+00w should be checked as should the zinc enrichment at line SM 3+00. The high

...13

arsenic value given for rock sample #84429 is again, interesting, but without any other mineral enrichment it is not considered to be too significant.

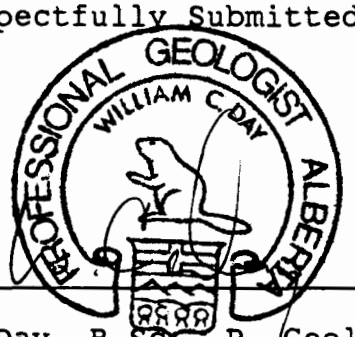
9. CONCLUSIONS AND RECOMMENDATIONS

9.1 Generally speaking the results of the exploration program on the Singapore claim and Arrowsmith Group was negative with few indications of the presence of significant economic mineral potential.

9.2 By themselves the areas of enrichment outlined in 8.1 do not warrant the cost of a follow up program, however, should personnel be in the area for other purposes then some time should be spent to determine, if possible, the cause and significance of the enrichment.

9.3 Except as outlined in 9.2 no further work is recommended on the Arrowsmith and Singapore claims.

Respectfully Submitted,



W.C. Day, B.Sc., P. Geol.

CERTIFICATE

I, William C. Day, with residence at 258 W. 24th St., North Vancouver, B.C., do hereby certify that:

a) That I have practiced my profession as a Geologist since graduation from the University of British Columbia (B. Sc., 1976).

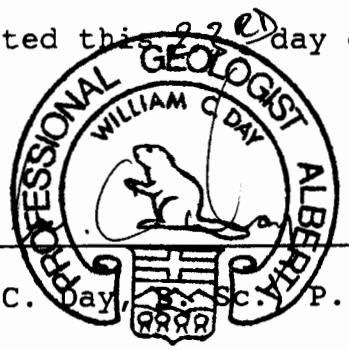
b) That I have been involved in mineral exploration since 1965.

c) That I am a member of the Association of Professional Engineers, Geologists and Geophysicists of Alberta.

d) That I was a member of the crew that conducted the program of subject in this report.

e) I have no interest, direct nor indirect, in the subject property nor in Blue Sun Resource Corp.

Dated this 22nd day of May, 1991 at Vancouver, B.C.



W.C. Day, B. Sc., P. Geol.

APPENDIX I

VGC VANGEOCHEM LAB LIMITED

MAIN OFFICE
1630 PANDORA STREET
VANCOUVER, B.C.
V5L 1L6
TEL (604) 251-5656
FAX (604) 254-5717

BRANCH OFFICES
BATHURST, N.B.
RENO, NEVADA, U.S.A.

April 30, 1991

TO: Mr. Scott Angus
SUN GROUP RESOURCE MANAGEMENT
12719 24A Avenue
White Rock, BC V4A 9H8

FROM: VANGEOCHEM LAB LIMITED
1650 Pandora Street
Vancouver, BC V5L 1L6

SUBJECT: Analytical procedure used to determine Aqua Regia soluble gold in geochemical samples.

1. Method of Sample Preparation

(a) Geochemical soil, silt or rock samples were received at the laboratory in high wet-strength, 4" x 6", Kraft paper bags. Rock samples would be received in poly ore bags.

(b) Dried soil and silt samples were sifted by hands using an 8" diameter, 80-mesh, stainless steel sieve. The plus 80-mesh fraction was rejected. The minus 80-mesh fraction was transferred into a new bag for subsequent analyses.

(c) Dried rock samples were crushed using a jaw crusher and pulverized to 100-mesh or finer by using a disc mill. The pulverized samples were then put in a new bag for subsequent analyses.

2. Method of Digestion

(a) 5.00 to 10.00 grams of the minus 80-mesh portion of the samples were used. Samples were weighed out using an electronic micro-balance and deposited into beakers.

(b) Using a 20 ml solution of Aqua Regia (3:1 solution of HCl to HNO3), each sample was vigorously digested over a hot plate.

(c) The digested samples were filtered and the washed pulps were discarded. The filtrate was then reduced in volume to about 5 ml.

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VANCOUVER, B.C.
V5L 1L6
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FAX (604) 254-5717

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(d) Au complex ions were then extracted into a di-isobutyl ketone and thiourea medium (Anion exchange liquids "Aliquot 336").

(e) Separatory funnels were used to separate the organic layer.

3. Method of Detection

The detection of Au was performed with a Techtron model AA5 Atomic Absorption Spectrophotometer with a gold hollow cathode lamp. The results were read out onto a strip chart recorder. A hydrogen lamp was used to correct any background interferences. The gold values, in parts per billion, were calculated by comparing them with a set of gold standards.

4. Analysts

The analyses were supervised or determined by Mr. Conway Chun or Mr. Raymond Chan and his laboratory staff.

Raymond Chan
VANGEOCHEM LAB LIMITED

APPENDIX II

VGC VANGEOCHEM LAB LIMITED

MAIN OFFICE
1630 PANDORA STREET
VANCOUVER, B.C.
V5L 1L6
TEL (604) 251-5656
FAX (604) 254-5717

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SAMPLE #	Au ppb
BL 0+00	10
L-00 0+25E	nd
L-00 0+50E	nd
L-00 0+75E	nd
L-00 1+25E	15
L-00 1+50E	5
L-00 1+75E	nd
L-00 2+00E	nd
L-00 2+25E	nd
L-00 2+50E	nd
L-00 2+75E	nd
L-00 3+00E	15
L0+00S 0+50W	nd
L0+00S 1+00W	nd
L0+00S 1+50W	15
L0+00S 2+00W	nd
BL 1+00N	5
1+00N 0+25E	nd
1+00N 0+50E	nd
1+00N 0+75E	5
1+00N 1+00E	5
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1+00S 0+25E	nd
1+00S 0+50E	nd
1+00S 0+75E	nd
1+00S 1+00E	nd
1+00S 1+25E	5
DETECTION LIMIT	5

nd = none detected -- = not analysed is = insufficient sample

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MAIN OFFICE
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VANCOUVER, B.C.
V5L 1L6
TEL (604) 251-5656
FAX (604) 254-5717

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SAMPLE #		Au ppb
1+00S	1+50E	15
1+00S	1+75E	nd
1+00S	2+00E	15
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BL 2+00N		5
2+00N	0+25E	nd
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2+00S	3+00E	10
2+00S	3+50E	nd
2+00S	4+00E	nd
2+00S	4+50E	nd
2+00S	5+00E	nd
2+00S	0+50W	nd
2+00S	1+00W	10
DETECTION LIMIT		5

nd = none detected -- = not analysed is = insufficient sample

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	SAMPLE #		Au ppb
	2+00S	1+50W	15
	2+00S	2+00W	nd
BL	3+00S		nd
	3+00S	0+50E	10
	3+00S	1+00E	nd
	3+00S	1+50E	5
	3+00S	2+00E	nd
	3+00S	2+50E	nd
	3+00S	3+00E	15
	3+00S	3+50E	nd
	3+00S	4+00E	10
	3+00S	4+50E	15
	3+00S	5+00E	5
	3+00S	0+50W	nd
	3+00S	1+00W	nd
	3+00S	1+50W	15
	3+00S	2+00W	15
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	5+00S	1+50E	nd
	5+00S	2+00E	nd
	5+00S	2+50E	10
	5+00S	3+00E	nd
	DETECTION LIMIT		5

nd = none detected -- = not analysed ls = insufficient sample

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TEL (604) 251-5656
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SAMPLE #		Au ppb
5+00S	3+50E	15
5+00S	4+00E	20
5+00S	4+50E	15
5+00S	5+00E	nd
5+00S	0+50W	10
5+00S	1+00W	nd
5+00S	2+00W	15
BL 6+00S		5
6+00S	0+50E	nd
6+00S	1+00E	20
6+00S	1+50E	25
6+00S	2+00E	5
6+00S	2+50E	5
6+00S	3+00E	nd
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BL 7+00S		10
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BL 8+00S		nd
8+00S	0+50E	nd
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8+00S	2+00E	nd
8+00S	2+50E	nd
DETECTION LIMIT		5

nd = none detected -- = not analysed is = insufficient sample

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RENO, NEVADA, U.S.A.

	SAMPLE #		Au ppb
	8+00S	3+00E	nd
	8+00S	3+50E	15
	8+00S	4+00E	nd
	8+00S	4+50E	10
	8+00S	5+00E	nd
	8+00S	0+50W	5
	8+00S	1+00W	nd
	8+00S	1+50W	nd
BL	9+00S		5
	9+00S	0+50E	nd
	9+00S	1+00E	nd
	9+00S	1+50E	nd
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	9+00S	1+00W	nd
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BL	10+00S		nd
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	10+00S	1+00E	nd
	10+00S	1+50E	nd
	10+00S	2+00E	nd
	10+00S	2+50E	nd
	10+00S	3+00E	nd
	10+00S	3+50E	nd
	10+00S	4+00E	15
	10+00S	4+50E	15
	10+00S	5+00E	20
	10+00S	0+50W	15
	10+00S	1+00W	20
	10+00S	1+50W	20
BL	11+00S		5
	11+00S	0+50E	nd
	11+00S	1+00E	10
	DETECTION LIMIT		5

nd = none detected -- = not analysed is = insufficient sample

VGC VANGEOCHEM LAB LIMITED

MAIN OFFICE
1630 PANDORA STREET
VANCOUVER, B.C.
V5L 1L6
TEL (604) 251-5656
FAX (604) 254-5717

BRANCH OFFICES
BATHURST, N.B.
RENO, NEVADA, U.S.A.

SAMPLE #		Au ppb
11+00S	1+50E	25
11+00S	2+00E	5
11+00S	2+50E	20
11+00S	3+00E	15
11+00S	3+50E	20
11+00S	4+00E	5
11+00S	4+50E	5
11+00S	5+00E	20
11+00S	0+50W	15
11+00S	1+00W	20
11+00S	1+50W	nd
BL 12+00S		nd
12+00S	0+50E	10
12+00S	1+00E	5
12+00S	1+50E	15
12+00S	2+00E	20
12+00S	2+50E	20
12+00S	3+00E	nd
12+00S	3+50E	10
12+00S	4+00E	5
12+00S	4+50E	15
12+00S	5+00E	15
12+00S	0+50W	15
12+00S	1+00W	10
12+00S	1+50W	15
12+00S	2+00W	20
BL 13+00S		15
13+00S	0+50E	10
13+00S	1+00E	20
13+00S	1+50E	15
13+00S	2+00E	nd
13+00S	2+50E	20
13+00S	3+00E	15
13+00S	3+50E	5
13+00S	4+00E	10
13+00S	4+50E	5
13+00S	5+00E	25
13+00S	0+50W	15
13+00S	1+00W	10
DETECTION LIMIT		5

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RENO, NEVADA, U.S.A.

SAMPLE #		Au ppb
13+00S	1+50W	20
13+00S	2+00W	nd
BL 14+00S		15
14+00S	0+50E	20
14+00S	1+00E	15
14+00S	1+50E	25
14+00S	2+00E	5
14+00S	2+50E	10
14+00S	3+00E	15
14+00S	3+50E	20
14+00S	4+00E	20
14+00S	4+50E	20
14+00S	5+00E	nd
14+00S	0+50W	15
14+00S	1+00W	15
14+00S	1+50W	nd
14+00S	2+00W	10
BL 15+00S		15
15+00S	0+50E	20
15+00S	1+00E	10
15+00S	1+50E	5
15+00S	2+00E	15
15+00S	2+50E	10
15+00S	3+00E	nd
15+00S	3+50E	20
15+00S	4+00E	25
15+00S	4+50E	nd
15+00S	5+00E	nd
15+00S	0+50W	5
15+00S	1+00W	25
15+00S	1+50W	25
15+00S	2+00W	20
BL 16+00S		15
16+00S	0+50E	15
16+00S	1+00E	15
16+00S	1+50E	5
16+00S	2+00E	15
16+00S	2+50E	20
16+00S	3+00E	5
DETECTION LIMIT		5

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SAMPLE #		Au ppb
	16+00S 3+50E	nd
	16+00S 4+00E	5
	16+00S 4+50E	10
	16+00S 5+00E	nd
	16+00S 0+50W	15
	16+00S 1+00W	10
	16+00S 1+50W	5
	16+00S 2+00W	20
BL	17+00S	10
	17+00S 0+50E	20
	17+00S 1+00E	nd
	17+00S 1+50E	nd
	17+00S 2+00E	10
	17+00S 2+50E	15
	17+00S 3+00E	5
	17+00S 3+50E	15
	17+00S 4+00E	15
	17+00S 4+50E	5
	17+00S 5+00E	5
	17+00S 0+50W	20
	17+00S 1+00W	5
	17+00S 1+50W	nd
	17+00S 2+00W	nd
SM	0+00	15
SM	0+50	20
SM	1+00	20
SM	1+50	10
SM	2+00	15
SM	2+50	20
SM	3+00	20
SM	3+50	10
SM	4+00	nd
SM	4+50	20
SM	5+00	nd
SM	5+50	nd
SM	6+00	20
SM	6+50	5
SM	7+00	10
SM	7+50	nd
DETECTION LIMIT		5

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BRANCH OFFICES
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RENO, NEVADA, U.S.A.

SAMPLE #		Au ppb
SM 8+00		15
SM 8+50		nd
SM 9+00		5
SM 9+50		5
SM 10+00		10
SM 10+50		15
SM 11+00		nd
SM 11+50		10
SM 12+00		15
SM 12+50		15
SM 13+00		10
S.P. L-1	0+00	nd
S.P. L-1	0+25E	5
S.P. L-1	0+50E	nd
S.P. L-1	0+75E	nd
S.P. L-1	1+00E	5
S.P. L-1	1+25E	nd
S.P. L-1	1+50E	10
S.P. L-1	1+75E	nd
S.P. L-1	2+00E	5
S.P. L-1	2+25E	5
S.P. L-1	2+50E	nd
S.P. L-1	2+75E	nd
S.P. L-1	3+00E	15
S.P. L-1	3+25E	nd
S.P. L-1	3+50E	nd
S.P. L-1	3+75E	10
S.P. L-1	4+00E	15
S.P. L-1	4+25E	nd
S.P. L-1	4+50E	15
S.P. L-1	4+75E	15
S.P. L-1	5+00E	nd
S.P. L-1	5+25E	nd
S.P. L-1	5+50E	nd
S.P. L-1	5+75E	5
S.P. L-1	6+00E	nd
S.P. L-1	6+25E	15
S.P. L-1	6+50E	5
S.P. L-1	6+75E	5
DETECTION LIMIT		5

nd = none detected -- = not analysed ls = insufficient sample

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BRANCH OFFICES
BATHURST, N.B.
RENO, NEVADA, U.S.A.

SAMPLE #		Au ppb
S.P. L-1	7+00E	15
S.P. L-1	7+25E	10
S.P. L-1	7+50E	nd
S.P. L-2	0+00	15
S.P. L-2	0+25E	15
S.P. L-2	0+50E	10
S.P. L-2	0+75E	10
S.P. L-2	1+00E	nd
S.P. L-2	1+25E	nd
S.P. L-2	1+50E	10
S.P. L-2	1+75E	nd
S.P. L-2	2+00E	10
S.P. L-2	2+25E	15
S.P. L-2	2+50E	15
S.P. L-2	2+75E	10
S.P. L-2	3+00E	5
S.P. L-2	3+25E	5
S.P. L-2	3+50E	5
S.P. L-2	3+75E	nd
S.P. L-2	4+00E	10
S.P. L-2	4+25E	5
S.P. L-2	4+50E	nd
S.P. L-2	4+75E	nd
S.P. L-2	5+00E	nd
S.P. L-2	5+25E	nd
S.P. L-2	5+50E	nd
S.P. L-2	5+75E	nd
S.P. L-2	6+00E	10
S.P. L-2	6+25E	5
S.P. L-2	6+50E	10
S.P. L-2	6+75E	nd
S.P. L-2	7+00E	5
S.P. L-2	7+25E	10
S.P. L-2	7+50E	nd
S.P. L-3	0+25E	nd
S.P. L-3	0+50E	5
S.P. L-3	0+75E	10
S.P. L-3	1+00E	nd
S.P. L-3	1+25E	10
DETECTION LIMIT		5

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BRANCH OFFICES
BATHURST, N.B.
RENO, NEVADA, U.S.A.

SAMPLE #	Au ppb
S.P. L-3 1+50E	10
S.P. L-3 1+75E	20
S.P. L-3 2+00E	15
S.P. L-3 2+25E	20
S.P. L-3 2+50E	10
S.P. L-3 2+75E	15
S.P. L-3 3+00E	10
S.P. L-3 3+25E	5
S.P. L-3 3+50E	15
S.P. L-3 3+75E	nd
S.P. L-3 4+00E	10
S.P. L-3 4+25E	10
S.P. L-3 4+50E	20
S.P. L-3 4+75E	nd
S.P. L-3 5+00E	5
S.P. L-3 5+25E	nd
S.P. L-3 5+50E	nd
S.P. L-3 5+75E	nd
S.P. L-3 6+00E	nd
S.P. L-3 6+25E	5
S.P. L-3 6+50E	nd
S.P. L-3 6+75E	nd
S.P. L-3 7+00E	nd
S.P. L-3 7+25E	10
S.P. L-3 7+50E	10
S.P. SILT L-3 6+25E	15
S.P. L-4 0+00	nd
S.P. L-4 0+25E	nd
S.P. L-4 0+50E	10
S.P. L-4 0+75E	10
S.P. L-4 1+00E	nd
S.P. L-4 1+25E	nd
S.P. L-4 1+50E	15
S.P. L-4 1+75E	15
S.P. L-4 2+00E	15
S.P. L-4 2+25E	nd
S.P. L-4 2+50E	15
S.P. L-4 2+75E	nd
S.P. L-4 3+00E	15
DETECTION LIMIT	5

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BRANCH OFFICES
BATHURST, N.B.
RENO, NEVADA, U.S.A.

SAMPLE #		Au ppb
S.P. L-4	3+25E	nd
S.P. L-4	3+50E	15
S.P. L-4	3+75E	nd
S.P. L-4	4+00E	10
S.P. L-4	4+25E	10
S.P. L-4	4+50E	nd
S.P. L-4	4+75E	nd
S.P. L-4	5+00E	10
S.P. L-4	5+25E	15
S.P. L-4	5+50E	15
S.P. L-4	5+75E	nd
S.P. L-4	6+00E	5
S.P. L-4	6+25E	5
S.P. L-4	6+50E	15
S.P. L-4	6+75E	nd
S.P. L-4	7+00E	15
S.P. L-4	7+25E	nd
S.P. L-4	7+50E	15
S.P. 0-N	0+00	5
S.P. 0-N	0+25W	nd
S.P. 0-N	0+50W	10
S.P. 0-N	0+75W	15
S.P. 0-N	1+00W	20
S.P. 0-N	1+25W	10
S.P. 0-N	1+50W	15
S.P. 0-N	1+75W	20
S.P. 0-N	2+00W	20
S.P. 0-N	2+25W	15
S.P. 0-N	2+50W	10
S.P. 0-N	2+75W	10
S.P. 0-N	3+00W	20
S.P. 0-N	3+25W	15
S.P. 0-N	3+50W	15
S.P. 0-N	3+75W	nd
S.P. 0-N	4+00W	15
S.P. 0-N	4+25W	10
S.P. 0-N	4+50W	5
S.P. 0-N	4+75W	15
S.P. 0-N	5+00W	nd
DETECTION LIMIT		5

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BRANCH OFFICES
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SAMPLE #	Au ppb
S.P. 0-N 5+25W	10
S.P. 0-N 5+50W	10
S.P. 0-N 5+75W	10
S.P. 0-N 6+00W	20
S.P. 0-N 6+25W	15
S.P. 0-N 6+50W	nd
S.P. 0-N 6+75W	nd
S.P. 0-N 7+00W	nd
S.P. 0-N 7+25W	5
S.P. 0-N 7+50W	5
S.P. 0-N 7+75W	15
S.P. 0-N 8+00W	5
S.P. 0-N 8+25W	15
S.P. 0-N 8+50W	nd
S.P. 0-N 8+75W	10
S.P. 0-N 9+00W	10
S.P. 1-N 0+00	10
S.P. 1-N 0+25W	10
S.P. 1-N 0+50W	15
S.P. 1-N 0+75W	20
S.P. 1-N 1+00W	nd
S.P. 1-N 1+25W	15
S.P. 1-N 1+50W	10
S.P. 1-N 1+75W	10
S.P. 1-N 2+00W	15
S.P. 1-N 2+25W	15
S.P. 1-N 2+50W	10
S.P. 1-N 2+75W	20
S.P. 1-N 3+00W	nd
S.P. 1-N 3+25W	nd
S.P. 1-N 3+50W	nd
S.P. 1-N 3+75W	15
S.P. 1-N 4+00W	nd
S.P. 1-N 4+25W	nd
S.P. 1-N 4+50W	20
S.P. 1-N 4+75W	15
S.P. 1-N 5+00W	5
S.P. 2N 0+00	nd
S.P. 2N 0+25W	20
DETECTION LIMIT	5

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SAMPLE #	Au ppb
S.P. 2N 0+50W	10
S.P. 2N 0+75W	nd
S.P. 2N 1+00W	10
S.P. 2N 1+25W	nd
S.P. 2N 1+50W	nd
S.P. 2N 1+75W	15
S.P. 2N 2+00W	nd
S.P. 2N 2+25W	nd
S.P. 2N 2+50W	15
S.P. 2N 2+75W	20
S.P. 2N 3+00W	20
S.P. 2N 3+25W	20
S.P. 2N 3+50W	10
S.P. 2N 3+75W	nd
S.P. 2N 4+00W	15
S.P. 2N 4+25W	5
S.P. 2N 4+50W	5
S.P. 2N 4+75W	nd
S.P. 2N 5+00W	nd
S.P. 2N 5+25W	5
S.P. 2N 5+50W	15
S.P. 2N 5+75W	15
S.P. 2N 6+00W	nd
S.P. 2N 6+25W	15
S.P. 2N 6+50W	5
S.P. 2N 6+75W	15
S.P. 2N 7+00W	nd
S.P. 2N 7+25W	10
S.P. 2N 7+50W	10
S.P. 2N 7+75W	10
S.P. 2N 8+00W	10
S.P. 2N 8+25W	15
S.P. 2N 8+50W	nd
S.P. 2N 8+75W	nd
S.P. 2N 9+00W	5
S.P. 2N 9+25W	5
S.P. 2N 9+50W	nd
S.P. 2N 9+75W	nd
S.P. 2N 10+00W	5
DETECTION LIMIT	5

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SAMPLE #	Au ppb
S.P. 2N 10+25W	5
S.P. 2N 10+50W	15
S.P. 2N 10+75W	15
S.P. 2N 11+00W	20
S.P. 2N 11+25W	10
S.P. 2N 11+50W	nd
S.P. 2N 11+75W	10
S.P. 2N 12+00W	5
S.P. 2N 12+25W	5
S.P. 2N 12+50W	20
S.P. 2N 12+75W	nd
S.P. 2N 13+00W	15
S.P. 2N 13+25W	15
S.P. 2N 13+50W	nd
S.P. 2N 13+75W	nd
S.P. 2N 14+00W	15
S.P. 2N 14+25W	20
S.P. 2N 14+50W	nd
S.P. 2N 14+75W	5
S.P. 2N 15+00W	10
S.P. 2N 15+25W	15
S.P. 2N 15+50W	10
S.P. 2N 15+75W	nd
S.P. 2N 16+00W	5
S.P. 2N 16+25W	nd
S.P. 2N 16+50W	5
S.P. 2N 16+75W	15
S.P. 2N 17+00W	5
S.P. 2N 17+25W	nd
S.P. 2N 17+50W	10
S.P. 2N 17+75W	15
S.P. 2N 18+00W	15
S.P. 2N 18+25W	nd
S.P. 2N 18+50W	5
S.P. 2N 18+75W	nd
S.P. 2N 19+00W	15
S.P. 2N 19+25W	10
S.P. 2N 19+50W	15
S.P. 2N 19+75W	20
DETECTION LIMIT	5

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ICAP GEOCHEMICAL ANALYSIS

A .5 gram sample is digested with 5 ml of 3:1:2 HCL to HNO_3 to H_2O at 95 °C for 90 minutes and is diluted to 10 ml with water.
This leach is partial for Al, Ba, Ca, Cr, Fe, K, Mg, Mn, Na, P, Sn, Sr and W.

ANALYST:

REPORT #: 910050 PA | SUN GROUP RES. MANAGEMENT | PROJECT: ARROWSMITH | DATE IN: APR 17 1991 | DATE OUT: APR 30 1991 | ATTENTION: MR. SCOTT ANGUS |

Sample Name	Ag	Al	As	*Au	Ba	Bi	Ca	Cd	Co	Cr	Cu	Fe	K	Mg	Mn	Mo	Na	Ni	P	Pb	Sb	Sn	Sr	U	W	Zn
	ppm	%	ppm	ppb	ppm	ppm	%	ppm	ppm	ppm	ppm	%	%	%	ppm	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
BL 0+00	0.2	7.00	<3	10	35	<3	0.75	0.9	53	381	162	7.72	<0.01	0.22	1427	112	0.02	574	0.05	22	10	<2	12	<5	<3	143
L-00 0+25E	<0.1	4.84	<3	<5	34	<3	0.59	3.1	53	154	107	7.42	<0.01	0.12	1340	<1	0.02	43	0.04	21	2	<2	13	<5	<3	148
L-00 0+50E	<0.1	6.65	<3	<5	40	<3	0.38	<0.1	56	185	120	7.55	<0.01	0.15	1023	<1	0.01	49	0.04	<2	<2	<2	11	<5	<3	148
L-00 0+75E	<0.1	6.72	<3	<5	53	<3	0.71	1.6	61	213	193	9.75	<0.01	0.25	903	<1	0.02	60	0.03	<2	6	<2	13	<5	<3	144
L-00 1+25E	<0.1	6.53	<3	15	200	<3	0.89	1.6	61	171	246	8.89	<0.01	0.29	1745	<1	0.03	72	0.03	<2	<2	<2	18	<5	<3	174
L-00 1+50E	<0.1	5.15	<3	5	100	<3	0.42	<0.1	40	126	103	6.28	<0.01	0.15	569	<1	0.03	44	0.02	<2	8	<2	13	<5	<3	125
L-00 1+75E	<0.1	4.21	<3	<5	100	<3	0.43	1.2	37	138	97	5.57	<0.01	0.18	824	<1	<0.01	45	0.02	<2	<2	<2	15	<5	<3	99
L-00 2+00E	<0.1	4.18	<3	<5	125	<3	0.64	0.6	37	120	68	5.19	<0.01	0.16	1250	<1	0.02	58	0.01	<2	4	<2	22	<5	<3	103
L-00 2+25E	<0.1	4.53	<3	<5	62	<3	0.40	3.2	44	128	75	5.88	<0.01	0.12	827	<1	0.03	38	0.02	<2	8	<2	14	<5	<3	160
L-00 2+50E	<0.1	8.06	<3	<5	72	<3	0.33	0.4	55	185	110	6.94	<0.01	0.17	1003	<1	0.01	57	0.03	<2	6	<2	11	<5	<3	200
L-00 2+75E	<0.1	6.46	<3	<5	69	<3	0.49	2.5	54	152	105	7.03	<0.01	0.18	1214	<1	0.01	52	0.03	<2	2	<2	15	<5	<3	130
L-00 3+00E	<0.1	5.93	<3	15	64	<3	0.47	<0.1	55	161	135	7.05	<0.01	0.20	725	<1	<0.01	61	0.02	<2	<2	<2	14	<5	<3	110
L0+00S 0+50W	<0.1	2.49	<3	<5	19	<3	0.41	1.5	43	104	27	5.81	<0.01	0.08	1204	<1	0.02	20	0.02	<2	<2	<2	12	<5	<3	63
L0+00S 1+00W	<0.1	5.27	<3	<5	114	<3	1.31	0.4	60	169	122	7.27	<0.01	0.27	2156	<1	0.02	69	0.03	<2	3	<2	29	<5	<3	174
L0+00S 1+50W	<0.1	2.55	<3	15	60	<3	0.67	0.7	18	88	21	3.87	<0.01	0.18	391	<1	0.04	17	0.01	<2	5	<2	81	<5	<3	68
L0+00S 2+00W	<0.1	4.52	<3	<5	89	<3	0.73	1.3	31	153	85	5.56	<0.01	0.22	1478	<1	0.03	40	0.03	4	13	<2	37	<5	<3	100
BL 1+00N	<0.1	5.40	<3	5	37	<3	0.58	0.9	55	229	119	9.69	<0.01	0.14	970	<1	0.03	45	0.02	<2	<2	<2	14	<5	<3	118
1+00N 0+25E	<0.1	5.61	<3	<5	112	<3	0.77	0.5	53	216	141	7.18	<0.01	0.26	1182	<1	0.01	60	0.02	<2	3	<2	25	<5	<3	118
1+00N 0+50E	<0.1	2.71	<3	<5	23	<3	0.43	0.4	33	128	38	6.76	<0.01	0.10	235	<1	0.01	22	0.01	<2	<2	<2	16	<5	<3	66
1+00N 0+75E	0.1	8.07	<3	5	45	<3	0.62	1.5	76	297	199	>10	<0.01	0.32	1088	<1	0.02	87	0.03	<2	3	<2	13	<5	<3	166
1+00N 1+00E	0.3	7.51	<3	5	79	<3	0.63	0.7	70	270	167	>10	<0.01	0.27	1044	<1	0.01	100	0.04	<2	4	<2	15	<5	<3	171
1+00N 1+25E	<0.1	5.07	<3	5	133	<3	1.34	0.3	56	159	171	8.01	<0.01	0.37	1859	<1	0.03	71	0.01	<2	<2	<2	19	<5	<3	120
1+00N 1+50E	0.4	5.35	<3	15	88	<3	0.58	<0.1	51	152	126	7.95	<0.01	0.21	1153	<1	0.03	48	0.03	<2	<2	<2	17	<5	<3	124
1+00N 1+75E	0.1	4.81	<3	15	84	<3	0.54	0.3	47	150	83	7.43	<0.01	0.14	2806	<1	0.01	36	0.05	<2	16	<2	16	<5	<3	114
1+00N 2+00E	<0.1	3.39	<3	<5	57	<3	0.40	<0.1	35	101	38	4.49	<0.01	0.08	858	<1	0.02	21	0.02	<2	<2	<2	16	<5	<3	82
1+00N 2+25E	<0.1	5.47	<3	<5	64	<3	0.36	1.7	52	163	89	7.17	<0.01	0.15	677	<1	0.02	46	0.02	<2	<2	<2	13	<5	<3	110
1+00N 2+50E	<0.1	6.17	<3	<5	53	<3	0.47	<0.1	57	166	125	7.99	<0.01	0.19	1019	<1	0.03	46	0.04	<2	11	<2	14	<5	<3	133
1+00N 2+75E	<0.1	4.50	<3	<5	61	<3	0.44	1.2	44	110	61	6.02	<0.01	0.09	982	<1	0.02	26	0.03	<2	<2	<2	16	<5	<3	117
1+00N 3+00E	<0.1	5.20	<3	5	124	<3	0.38	1.7	42	140	94	6.66	<0.01	0.15	802	<1	0.02	49	0.03	<2	6	<2	15	<5	<3	129
1+00N 3+25E	<0.1	4.13	<3	15	298	<3	1.01	<0.1	31	122	59	5.36	<0.01	0.12	809	<1	0.04	44	0.02	<2	9	<2	46	<5	<3	89
1+00N 3+50E	<0.1	4.99	<3	<5	147	<3	0.42	2.5	37	159	85	6.41	<0.01	0.13	373	<1	0.02	51	0.01	<2	<2	<2	19	<5	<3	104
1+00N 3+75E	<0.1	4.85	<3	<5	176	<3	0.39	1.0	38	124	84	5.63	<0.01	0.12	685	<1	0.03	51	0.02	<2	3	<2	13	<5	<3	150
1+00N 4+00E	<0.1	3.92	<3	<5	114	<3	0.45	0.2	39	108	66	4.81	<0.01	0.12	3208	<1	0.03	42	0.05	<2	<2	<2	15	<5	<3	125
BL 1+00S	<0.1	6.56	<3	<5	40	<3	1.00	<0.1	50	218	113	9.89	<0.01	0.22	1334	<1	0.01	49	0.05	2	6	<2	14	<5	<3	343
1+00S 0+25E	<0.1	3.88	<3	<5	66	<3	0.90	0.4	50	140	69	6.90	<0.01	0.14	1600	<1	0.03	24	0.04	7	5	<2	19	<5	<3	127
1+00S 0+50E	<0.1	7.99	<3	<5	63	<3	0.44	<0.1	63	251	171	9.47	<0.01	0.23	833	<1	0.02	74	0.03	<2	5	<2	12	<5	<3	145
1+00S 0+75E	<0.1	5.11	<3	<5	107	<3	1.42	0.2	56	171	170	8.40	<0.01	0.37	1455	<1	0.04	76	0.01	<2	9	<2	21	<5	<3	144
1+00S 1+00E	<0.1	4.41	<3	<5	131	<3	0.66	2.5	42	134	82	5.90	<0.01	0.18	948	<1	0.03	49	0.02	<2	2	<2	20	<5	<3	122
1+00S 1+25E	<0.1	4.14	<3	5	81	<3	0.66	0.2	58	158	78	8.78	<0.01	0.13	1418	<1	0.03	30	0.05	<2	<2	<2	15	<5	<3	165
Minimum Detection	0.1	0.01	3	5	1	3	0.01	0.1	1	1	1	0.01	0.01	0.01	1	1	0.01	1	0.01	2	2	2	1	5	3	1
Maximum Detection	50.0	10.00	2000	10000	1000	1000	10.00	1000.0	20000	1000	20000	10.00	10.00	10.00	20000	1000	10.00	20000	10.00	20000	2000	1000	10000	100	1000	20000

(- Less Than Minimum) - Greater Than Maximum is - Insufficient Sample ns - No Sample *Au Analysis Done By Aqua Regia Digestion / Solvent Extraction / AAS.

1630 Pandora Street, Va. ..er, B.C. V5L 1L6
Ph:(604)251-5656 Fax:(604)254-5717

ICAP GEOCHEMICAL ANALYSIS

A .5 gram sample is digested with 5 ml of 3:1:2 HCL to HNO_3 to H_2O at 95 °C for 90 minutes and is diluted to 10 ml with water.
This leach is partial for Al, Ba, Ca, Cr, Fe, K, Mg, Mn, Na, P, Sn, Sr and W.

ANALYST:

REPORT #: 910050 PA | SUN GROUP RES. MANAGEMENT | PROJECT: ARROWSMITH | DATE IN: APR 17 1991 | DATE OUT: APR 30 1991 | ATTENTION: MR. SCOTT ANGUS |

Sample Name	Ag	Al	As	*Au	Ba	Bi	Ca	Cd	Co	Cr	Cu	Fe	K	Mg	Mn	Mo	Na	Ni	P	Pb	Sb	Sn	Sr	U	W	Zn
	ppm	%	ppm	ppb	ppm	ppm	%	ppm	ppm	ppm	ppm	%	%	%	ppm	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
1+00S 1+50E	0.1	4.79	<3	15	100	<3	0.41	5.0	38	36	110	4.61	<0.01	0.14	820	<1	0.01	30	0.02	<2	16	<2	20	<5	<3	108
1+00S 1+75E	0.1	4.23	<3	<5	68	<3	0.37	3.3	30	24	77	4.67	0.15	0.10	913	<1	0.02	8	0.02	5	3	<2	15	<5	<3	108
1+00S 2+00E	<0.1	7.76	<3	15	155	<3	0.35	0.1	49	78	175	7.23	<0.01	0.19	713	<1	<0.01	42	0.03	<2	9	<2	13	<5	<3	169
1+00S 2+25E	<0.1	4.72	<3	15	118	<3	0.22	0.9	22	28	97	5.27	1.11	0.09	714	<1	0.02	16	0.02	5	13	<2	10	<5	<3	125
1+00S 2+50E	0.1	3.76	<3	20	70	<3	0.41	0.9	29	29	71	5.15	0.35	0.12	418	<1	0.01	15	0.01	<2	<2	<2	16	<5	<3	85
1+00S 2+75E	<0.1	6.43	<3	15	98	<3	0.43	<0.1	48	82	191	6.68	<0.01	0.23	948	<1	<0.01	47	0.02	<2	6	<2	14	<5	<3	107
1+00S 3+00E	<0.1	4.22	<3	<5	89	<3	0.34	1.8	30	34	90	5.41	0.07	0.10	300	<1	0.02	11	0.01	<2	7	<2	15	<5	<3	103
1+00S 0+50W	<0.1	4.65	<3	15	59	<3	0.41	0.5	35	62	89	6.04	<0.01	0.16	586	<1	0.01	12	0.02	<2	7	<2	15	<5	<3	83
1+00S 1+00W	<0.1	2.26	<3	15	42	<3	0.26	0.5	17	4	23	3.14	<0.01	0.07	627	<1	0.01	<1	0.02	<2	6	<2	20	<5	<3	48
BL 2+00N	0.3	5.48	<3	5	242	<3	1.26	1.4	34	63	100	5.45	<0.01	0.18	2370	<1	0.03	21	0.02	5	11	<2	30	<5	<3	115
2+00N 0+25E	<0.1	7.80	<3	<5	129	<3	0.35	2.0	46	101	176	6.67	<0.01	0.29	677	<1	0.01	51	0.01	<2	7	<2	17	<5	<3	114
2+00N 0+50E	<0.1	4.20	<3	10	92	<3	0.66	1.1	34	48	130	4.98	<0.01	0.22	903	<1	0.01	20	0.01	<2	2	<2	21	<5	<3	85
2+00N 0+75E	<0.1	4.21	<3	10	75	<3	0.58	0.4	31	35	108	5.08	0.15	0.18	772	<1	0.01	15	0.01	3	8	<2	17	<5	<3	93
2+00N 1+00E	0.1	1.81	<3	<5	31	<3	0.60	0.2	31	22	20	5.60	<0.01	0.06	375	<1	0.01	<1	0.04	6	8	2	13	<5	<3	68
2+00N 1+25E	0.1	7.28	<3	<5	35	<3	0.48	<0.1	56	91	171	7.58	0.01	0.20	1496	<1	<0.01	31	0.03	<2	6	<2	10	<5	<3	174
2+00N 1+50E	<0.1	7.18	<3	15	121	<3	0.63	0.6	51	104	242	8.88	<0.01	0.28	1115	<1	0.02	47	0.01	<2	12	<2	15	<5	<3	128
2+00N 1+75E	<0.1	4.40	<3	15	80	<3	0.46	1.0	32	38	130	5.13	<0.01	0.20	506	<1	0.01	16	0.01	<2	8	<2	13	<5	<3	80
2+00N 2+00E	<0.1	4.61	<3	<5	54	<3	0.41	0.2	35	43	115	5.61	<0.01	0.15	570	<1	<0.01	12	0.02	<2	5	<2	12	<5	<3	108
2+00N 2+25E	<0.1	3.86	<3	<5	108	<3	0.33	<0.1	23	11	90	4.98	0.35	0.10	588	<1	<0.01	4	0.01	<2	8	<2	15	<5	<3	78
2+00N 2+50E	0.1	5.25	<3	<5	85	<3	0.25	0.3	28	44	107	6.67	0.75	0.10	592	<1	0.01	7	0.02	4	3	<2	11	<5	<3	146
2+00N 2+75E	<0.1	1.99	<3	10	41	<3	0.31	0.5	14	<1	31	3.20	1.04	0.04	494	<1	0.02	<1	0.02	<2	2	<2	14	<5	<3	64
2+00N 3+00E	0.3	5.89	<3	<5	75	<3	0.30	0.7	34	41	109	6.09	<0.01	0.11	817	<1	<0.01	10	0.02	<2	10	<2	12	<5	<3	138
2+00N 3+25E	<0.1	5.49	<3	5	152	<3	0.62	0.8	44	42	174	6.44	<0.01	0.22	1643	<1	0.02	29	0.02	<2	13	<2	22	<5	<3	144
2+00N 3+50E	0.1	7.82	<3	<5	121	<3	0.40	1.2	52	55	219	7.50	<0.01	0.20	1887	<1	0.01	36	0.03	<2	5	<2	14	<5	<3	159
2+00N 3+75E	<0.1	3.64	<3	<5	75	<3	0.39	1.0	31	8	63	4.63	<0.01	0.10	1252	<1	0.01	1	0.03	4	3	<2	14	<5	<3	126
2+00N 4+00E	<0.1	3.67	<3	<5	112	<3	0.83	1.5	41	24	119	5.04	0.43	0.23	1324	<1	0.04	27	0.01	<2	13	<2	43	<5	<3	122
BL 2+00S	0.1	7.14	<3	<5	69	<3	0.38	0.9	40	101	137	6.13	<0.01	0.22	1137	<1	0.01	25	0.03	3	11	<2	18	<5	<3	119
2+00S 0+50E	0.1	0.95	<3	15	28	<3	0.10	1.7	21	10	86	5.98	0.24	0.02	388	<1	0.04	20	0.02	<2	29	<2	5	<5	<3	85
2+00S 1+00E	<0.1	4.32	<3	5	51	<3	0.52	<0.1	45	48	80	6.38	<0.01	0.12	829	<1	0.02	<1	0.03	<2	6	<2	11	<5	<3	131
2+00S 1+50E	<0.1	5.05	<3	<5	124	<3	0.64	0.3	39	66	140	5.95	0.33	0.23	952	<1	0.03	33	0.01	<2	3	<2	23	<5	<3	111
2+00S 2+00E	<0.1	5.25	<3	<5	96	<3	0.46	1.8	51	46	95	5.03	0.33	0.14	2750	<1	0.03	28	0.02	<2	10	<2	19	<5	<3	142
2+00S 2+50E	<0.1	5.32	<3	5	70	<3	0.43	0.2	41	56	99	6.45	<0.01	0.14	707	<1	<0.01	25	0.01	<2	<2	<2	16	<5	<3	110
2+00S 3+00E	<0.1	3.68	<3	10	78	<3	0.36	3.9	28	19	49	3.93	0.52	0.12	753	<1	0.02	7	0.01	<2	5	<2	15	<5	<3	104
2+00S 3+50E	0.1	3.53	<3	<5	95	<3	0.38	0.3	27	16	48	4.11	<0.01	0.11	1488	<1	0.01	<1	0.02	<2	<2	<2	15	<5	<3	91
2+00S 4+00E	<0.1	4.40	<3	<5	209	<3	0.50	<0.1	30	41	90	4.62	0.29	0.23	750	<1	0.02	48	0.01	<2	6	<2	22	<5	<3	97
2+00S 4+50E	<0.1	3.75	<3	<5	120	<3	0.16	2.8	17	<1	27	3.14	0.05	0.08	288	<1	0.02	<1	0.01	<2	9	<2	9	<5	<3	86
2+00S 5+00E	<0.1	4.71	<3	<5	98	<3	0.31	1.0	31	40	87	5.19	1.09	0.13	555	<1	0.03	22	0.02	<2	12	<2	14	<5	<3	116
2+00S 0+50W	<0.1	4.60	<3	<5	58	<3	0.29	0.2	30	197	53	6.47	<0.01	0.24	529	<1	0.01	49	0.03	3	4	<2	16	<5	<3	112
2+00S 1+00W	<0.1	2.85	<3	10	72	<3	0.39	0.3	26	962	38	4.01	<0.01	0.13	374	794	0.02	3293	0.01	<2	<2	<2	24	<5	<3	64
Minimum Detection	0.1	0.01	3	5	1	3	0.01	0.1	1	1	1	0.01	0.01	0.01	1	1	0.01	1	0.01	2	2	2	1	5	3	1
Maximum Detection	50.0	10.00	2000	10000	1000	1000	10.00	1000.0	20000	1000	20000	10.00	10.00	10.00	20000	1000	10.00	20000	10.00	20000	2000	1000	10000	100	1000	20000

(- Less Than Minimum) - Greater Than Maximum is - Insufficient Sample ns - No Sample *Au Analysis Done By Aqua Regia Digestion / Solvent Extraction / AAS.

1630 Pandora Street, Va r, B.C. V5L 1L6
Ph:(604)251-5656 Fax:(604)254-5717

ICAP GEOCHEMICAL ANALYSIS

A .5 gram sample is digested with 5 ml of 3:1:2 HCL to HNO_3 to H_2O at 95 °C for 90 minutes and is diluted to 10 ml with water.
This leach is partial for Al, Ba, Ca, Cr, Fe, K, Mg, Mn, Na, P, Sn, Sr and W.

ANALYST:

REPORT #: 910050 PA | SUN GROUP RES. MANAGEMENT | PROJECT: ARROWSMITH | DATE IN: APR 17 1991 | DATE OUT: APR 30 1991 | ATTENTION: MR. SCOTT ANGUS |

Sample Name	Ag	Al	As	*Au	Ba	Bi	Ca	Cd	Co	Cr	Cu	Fe	K	Mg	Mn	Mo	Na	Ni	P	Pb	Sb	Sn	Sr	U	W	Zn
	ppm	%	ppm	ppb	ppm	ppm	%	ppm	ppm	ppm	ppm	%	%	%	ppm	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
2+00S 1+50W	0.5	6.19	<3	15	186	<3	0.87	5.4	50	43	140	4.63	0.27	0.15	5869	<1	0.06	45	0.03	3	10	<2	39	<5	<3	118
2+00S 2+00W	<0.1	3.55	<3	<5	57	<3	0.42	1.5	25	13	70	4.29	<0.01	0.15	1063	<1	0.02	<1	0.03	11	<2	<2	21	<5	<3	91
BL 3+00S	<0.1	3.56	<3	<5	79	<3	0.44	1.5	36	87	138	6.55	<0.01	0.15	1509	<1	0.02	80	0.02	<2	14	<2	16	<5	<3	108
3+00S 0+50E	0.3	4.41	<3	10	52	<3	0.39	2.1	32	35	135	4.49	<0.01	0.22	467	<1	0.03	20	0.01	<2	<2	<2	12	<5	<3	79
3+00S 1+00E	<0.1	6.45	<3	<5	64	<3	0.34	0.8	35	65	130	5.73	<0.01	0.20	651	<1	0.02	18	0.02	<2	7	<2	11	<5	<3	105
3+00S 1+50E	<0.1	2.50	<3	5	59	<3	0.41	0.4	17	<1	31	3.39	<0.01	0.08	280	<1	0.02	<1	0.01	<2	<2	<2	11	<5	<3	86
3+00S 2+00E	0.2	5.07	<3	<5	66	<3	0.48	1.3	36	40	140	7.18	<0.01	0.14	810	<1	0.02	13	0.02	<2	<2	<2	15	<5	<3	127
3+00S 2+50E	<0.1	3.19	<3	<5	46	<3	0.36	0.3	23	<1	50	4.25	<0.01	0.08	583	<1	0.04	4	0.01	3	6	<2	14	<5	<3	89
3+00S 3+00E	0.1	7.40	<3	15	126	<3	0.33	1.3	44	60	172	6.26	<0.01	0.19	694	<1	0.01	35	0.02	<2	<2	<2	14	<5	<3	129
3+00S 3+50E	<0.1	3.43	<3	<5	65	<3	0.33	<0.1	24	22	51	3.82	<0.01	0.12	559	<1	0.02	11	0.01	<2	<2	<2	15	<5	<3	86
3+00S 4+00E	0.1	4.47	<3	10	91	<3	0.33	0.3	30	23	96	4.57	<0.01	0.19	1011	<1	0.02	18	0.01	<2	<2	<2	12	<5	<3	116
3+00S 4+50E	<0.1	3.42	<3	15	102	<3	0.42	0.4	25	<1	60	3.25	<0.01	0.15	1386	<1	0.03	6	0.02	<2	<2	<2	17	<5	<3	101
3+00S 5+00E	<0.1	5.75	<3	5	135	<3	0.27	0.2	29	14	89	4.78	<0.01	0.19	725	<1	0.03	18	0.01	4	<2	<2	13	<5	<3	99
3+00S 0+50W	<0.1	4.01	<3	<5	60	<3	0.43	0.3	34	41	92	4.56	<0.01	0.21	534	<1	0.03	19	0.01	<2	<2	<2	17	<5	<3	69
3+00S 1+00W	0.2	3.80	<3	<5	72	<3	0.40	1.3	37	70	66	5.12	<0.01	0.16	1267	<1	0.04	23	0.02	4	<2	<2	27	<5	<3	133
3+00S 1+50W	0.2	3.37	<3	15	59	<3	0.45	0.3	29	28	40	4.13	<0.01	0.15	621	<1	0.02	6	0.02	<2	<2	<2	23	<5	<3	90
3+00S 2+00W	0.3	2.98	<3	15	65	<3	0.28	4.0	35	17	28	3.29	<0.01	0.11	1732	<1	0.03	<1	0.01	<2	<2	<2	35	<5	<3	102
BL 4+00S	0.2	3.74	<3	5	84	<3	0.77	0.4	35	139	124	4.58	<0.01	0.39	1526	<1	0.01	58	0.01	<2	<2	<2	21	<5	<3	92
4+00S 0+50E	0.1	4.01	<3	5	85	<3	0.76	0.8	30	57	87	4.75	<0.01	0.18	941	<1	0.02	21	0.01	<2	<2	<2	21	<5	<3	73
4+00S 1+00E	<0.1	1.76	<3	<5	58	<3	0.41	0.4	18	11	16	2.43	<0.01	0.11	1294	<1	0.03	<1	0.01	6	<2	<2	19	<5	<3	57
4+00S 1+50E	<0.1	4.31	<3	15	64	<3	0.45	0.6	35	46	122	5.18	<0.01	0.20	600	<1	0.03	34	0.01	<2	3	<2	12	<5	<3	89
4+00S 2+00E	0.3	3.88	<3	<5	144	<3	0.86	0.2	31	23	126	4.33	<0.01	0.22	758	<1	0.02	13	0.01	<2	<2	<2	30	<5	<3	78
4+00S 2+50E	0.2	3.05	<3	<5	57	<3	0.40	1.5	22	<1	51	5.22	<0.01	0.13	589	<1	0.02	<1	0.02	8	<2	<2	12	<5	<3	122
4+00S 3+00E	0.2	5.35	<3	<5	143	<3	0.86	0.3	43	52	187	7.24	<0.01	0.23	704	<1	0.03	21	0.01	6	<2	<2	22	<5	<3	144
4+00S 3+50E	<0.1	3.91	<3	10	108	<3	0.79	0.2	43	20	98	5.55	<0.01	0.16	3691	<1	0.02	14	0.03	3	<2	<2	22	<5	<3	143
4+00S 4+00E	<0.1	5.30	<3	<5	60	<3	0.67	1.0	48	52	226	6.51	<0.01	0.26	853	<1	0.03	33	0.01	<2	<2	<2	14	<5	<3	116
4+00S 4+50E	<0.1	4.40	<3	<5	122	<3	0.52	1.4	32	27	107	4.83	<0.01	0.20	870	<1	0.03	17	0.01	<2	<2	<2	19	<5	<3	105
4+00S 5+00E	<0.1	5.62	<3	<5	293	<3	0.20	<0.1	27	<1	101	4.38	<0.01	0.17	563	<1	0.02	9	0.01	3	<2	<2	13	<5	<3	86
4+00S 0+50W	<0.1	5.75	<3	<5	173	<3	0.64	0.1	35	106	132	6.47	<0.01	0.19	494	<1	0.03	15	0.01	<2	3	<2	30	<5	<3	87
4+00S 1+00W	<0.1	2.37	<3	10	37	<3	0.14	1.7	17	137	16	3.49	<0.01	0.22	246	<1	0.03	72	0.01	<2	<2	<2	14	<5	<3	59
4+00S 1+50W	0.1	2.27	<3	<5	37	<3	0.33	2.8	18	34	16	3.02	0.33	0.11	429	<1	0.03	5	0.01	<2	2	<2	23	<5	<3	60
4+00S 2+00W	0.1	7.89	<3	<5	269	<3	1.03	2.3	43	132	201	6.61	<0.01	0.17	16240	<1	0.11	52	0.04	10	3	<2	38	<5	<3	172
BL 5+00S	0.1	5.59	<3	5	98	<3	0.40	1.4	36	88	208	6.11	<0.01	0.25	1038	<1	0.03	25	0.02	6	11	<2	14	<5	<3	119
5+00S 0+50E	0.3	5.62	<3	<5	76	<3	0.40	1.1	33	64	106	6.63	<0.01	0.15	555	<1	0.02	6	0.03	<2	<2	<2	14	<5	<3	119
5+00S 1+00E	0.1	4.88	<3	<5	68	<3	0.22	1.4	34	175	139	6.15	<0.01	0.24	643	<1	0.02	52	0.01	<2	2	<2	12	<5	<3	108
5+00S 1+50E	0.1	6.62	<3	<5	79	<3	0.67	0.8	53	377	153	7.26	<0.01	0.23	841	<1	0.03	148	0.02	4	<2	<2	22	<5	<3	107
5+00S 2+00E	<0.1	5.27	<3	<5	73	<3	0.24	0.8	26	37	96	5.44	<0.01	0.13	356	<1	0.02	2	0.01	<2	<2	<2	11	<5	<3	80
5+00S 2+50E	0.1	5.10	<3	10	50	<3	0.27	0.8	30	146	80	5.20	<0.01	0.13	348	<1	0.01	39	0.01	<2	<2	<2	10	<5	<3	94
5+00S 3+00E	0.1	4.28	<3	<5	67	<3	0.32	0.3	25	88	91	4.78	<0.01	0.13	492	<1	0.02	31	0.01	<2	4	<2	11	<5	<3	90
Minimum Detection	0.1	0.01	3	5	1	3	0.01	0.1	1	1	1	0.01	0.01	0.01	1	1	0.01	1	0.01	2	2	2	1	5	3	1
Maximum Detection	50.0	10.00	2000	10000	1000	1000	10.00	1000.0	20000	1000	20000	10.00	10.00	10.00	20000	1000	10.00	20000	10.00	20000	2000	1000	10000	100	1000	20000

< - Less Than Minimum > - Greater Than Maximum is - Insufficient Sample ns - No Sample *Au Analysis Done By Aqua Regia Digestion / Solvent Extraction / AAS.

[illegible]
1630 Pandora Street, Va[illegible]ver, B.C. V5L 1L6
Ph:(604)251-5656 Fax:(604)254-5717

ICAP GEOCHEMICAL ANALYSIS

A .5 gram sample is digested with 5 ml of 3:1:2 HCL to HNO_3 to H_2O at 95 °C for 90 minutes and is diluted to 10 ml with water.
This leach is partial for Al, Ba, Ca, Cr, Fe, K, Mg, Mn, Na, P, Sn, Sr and W.

ANALYST: [signature]

REPORT #: 910050 PA | SUN GROUP RES. MANAGEMENT | PROJECT: ARROWSMITH | DATE IN: APR 17 1991 | DATE OUT: APR 30 1991 | ATTENTION: MR. SCOTT ANGUS |

Sample Name	Ag	Al	As	*Au	Ba	Bi	Ca	Cd	Co	Cr	Cu	Fe	K	Mg	Mn	Mo	Na	Ni	P	Pb	Sb	Sn	Sr	U	W	Zn
	ppm	%	ppm	ppb	ppm	ppm	%	ppm	ppm	ppm	ppm	%	%	%	ppm	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
5+00S 3+50E	0.1	4.33	<3	15	120	<3	0.78	5.8	42	<1	127	5.50	<0.01	0.21	887	<1	0.06	12	0.01	8	5	<2	28	<5	<3	120
5+00S 4+00E	0.1	6.74	<3	20	53	<3	0.53	0.4	52	21	190	7.57	<0.01	0.23	752	<1	0.04	13	0.02	5	5	<2	11	<5	<3	138
5+00S 4+50E	0.1	5.50	<3	15	158	<3	0.49	<0.1	35	<1	168	5.84	<0.01	0.26	765	<1	0.06	13	0.02	6	7	<2	13	<5	<3	121
5+00S 5+00E	0.1	5.20	<3	<5	127	<3	0.37	1.2	34	<1	83	4.83	0.65	0.20	1165	<1	0.07	<1	0.02	5	6	<2	15	<5	<3	108
5+00S 0+50W	0.2	5.56	<3	10	116	<3	0.43	0.5	34	44	132	6.95	<0.01	0.19	439	<1	0.06	<1	0.03	6	4	<2	19	<5	<3	88
5+00S 1+00W	0.1	4.65	<3	<5	90	<3	0.32	1.8	27	10	97	5.37	0.42	0.20	416	<1	0.06	<1	0.02	6	<2	<2	18	<5	<3	84
5+00S 2+00W	0.1	4.72	<3	15	101	<3	0.21	1.6	44	105	181	8.07	<0.01	0.15	723	<1	0.08	57	0.03	4	4	<2	16	<5	<3	149
BL 6+00S	0.1	2.77	<3	5	51	<3	0.03	2.5	19	15	245	5.55	0.62	0.18	393	<1	0.04	<1	0.01	<2	10	<2	2	<5	<3	86
6+00S 0+50E	0.1	3.11	<3	<5	72	<3	0.49	0.7	20	<1	48	3.77	<0.01	0.10	924	<1	0.06	<1	0.02	4	6	<2	22	<5	<3	103
6+00S 1+00E	0.1	6.16	<3	20	102	<3	0.59	0.5	38	25	140	6.24	<0.01	0.24	645	<1	0.06	7	0.02	5	6	<2	18	<5	<3	110
6+00S 1+50E	<0.1	5.94	<3	25	215	<3	0.73	0.6	35	11	105	5.51	0.35	0.17	2478	<1	0.07	<1	0.01	6	7	<2	20	<5	<3	108
6+00S 2+00E	0.1	3.33	<3	5	57	<3	0.25	0.7	18	<1	47	3.64	0.55	0.11	478	<1	0.06	<1	0.01	2	2	<2	12	<5	<3	78
6+00S 2+50E	0.1	1.51	<3	5	51	<3	0.42	0.3	5	<1	7	1.88	0.72	0.06	660	<1	0.07	<1	0.01	3	3	<2	14	<5	<3	52
6+00S 3+00E	0.2	4.66	<3	<5	74	<3	0.27	1.0	26	<1	76	4.62	0.89	0.10	475	<1	0.06	<1	0.02	8	2	<2	11	<5	<3	117
6+00S 3+50E	0.2	4.09	<3	<5	89	<3	1.39	0.5	43	<1	182	5.87	<0.01	0.31	1438	<1	0.07	7	0.01	<2	4	<2	23	<5	<3	151
6+00S 4+00E	0.1	5.38	<3	<5	76	<3	0.53	1.3	45	<1	164	6.21	<0.01	0.21	2001	<1	0.06	3	0.03	<2	<2	<2	11	<5	<3	141
6+00S 4+50E	<0.1	5.19	<3	15	84	<3	0.79	1.1	45	<1	132	5.96	0.13	0.20	3456	<1	0.06	<1	0.03	5	2	<2	13	<5	<3	147
6+00S 0+50W	0.1	5.72	<3	<5	106	<3	0.40	0.9	36	45	150	5.69	0.41	0.25	675	<1	0.06	6	0.01	2	8	<2	17	<5	<3	85
6+00S 1+00W	0.1	5.02	<3	10	69	<3	0.28	<0.1	31	22	136	5.06	0.53	0.24	858	<1	0.05	<1	0.02	2	<2	<2	19	<5	<3	83
6+00S 1+50W	0.1	4.09	<3	<5	56	<3	0.05	1.9	36	282	80	4.77	0.82	0.45	3940	<1	0.05	125	0.02	<2	4	<2	3	<5	<3	116
BL 7+00S	0.2	2.97	<3	10	46	<3	0.36	<0.1	19	35	96	4.45	0.30	0.22	492	<1	0.07	15	0.01	5	7	<2	18	<5	<3	92
7+00S 0+50E	0.2	5.01	<3	<5	97	<3	0.48	<0.1	32	23	106	5.61	<0.01	0.15	430	<1	0.05	<1	0.01	8	7	<2	18	<5	<3	73
7+00S 1+00E	0.1	4.12	<3	<5	167	<3	0.43	0.3	31	<1	95	4.73	<0.01	0.18	589	<1	0.05	<1	0.01	7	<2	<2	15	<5	<3	83
7+00S 1+50E	0.3	3.89	<3	10	76	<3	0.27	<0.1	23	<1	51	4.80	0.34	0.11	292	<1	0.05	<1	0.01	4	2	<2	12	<5	<3	82
7+00S 2+00E	0.3	4.25	<3	<5	59	<3	0.28	0.6	24	<1	65	3.98	0.19	0.11	932	<1	0.05	<1	0.01	5	<2	<2	13	<5	<3	107
7+00S 2+50E	0.2	4.78	<3	10	54	<3	0.21	<0.1	27	8	100	5.02	1.07	0.16	484	<1	0.05	<1	0.01	5	5	<2	9	<5	<3	97
7+00S 3+00E	0.3	4.06	<3	<5	54	<3	0.27	0.6	19	40	89	4.66	<0.01	0.15	296	<1	0.05	<1	0.02	5	<2	<2	10	<5	<3	89
7+00S 3+50E	0.3	3.40	<3	<5	106	<3	0.44	1.8	26	<1	81	4.18	0.32	0.18	1142	<1	0.05	<1	0.02	2	6	<2	19	<5	<3	102
7+00S 4+00E	0.1	3.25	<3	10	130	<3	0.69	<0.1	34	<1	105	4.66	<0.01	0.20	1038	<1	0.06	4	0.01	<2	4	<2	27	<5	<3	114
7+00S 4+50E	0.1	3.42	<3	15	124	<3	0.24	0.9	17	<1	54	3.59	<0.01	0.16	406	<1	0.06	<1	0.01	<2	<2	<2	12	<5	<3	98
7+00S 0+50W	0.1	2.07	<3	<5	74	<3	0.24	2.7	14	1	4	2.07	1.51	0.21	5458	<1	0.07	<1	0.02	4	<2	<2	11	<5	<3	66
7+00S 1+00W	0.1	2.09	<3	5	94	<3	0.32	2.5	14	<1	26	2.82	0.41	0.17	3401	<1	0.05	<1	0.02	4	<2	<2	23	<5	<3	96
7+00S 1+50W	0.2	2.98	<3	15	62	<3	0.28	1.3	15	<1	18	2.97	0.45	0.18	769	<1	0.05	<1	0.01	<2	2	<2	29	<5	<3	72
BL 8+00S	0.1	4.88	<3	<5	68	<3	0.37	<0.1	30	45	89	4.95	<0.01	0.23	613	<1	0.05	10	0.01	<2	5	<2	21	<5	<3	95
8+00S 0+50E	0.1	2.29	<3	<5	32	<3	0.35	1.1	13	<1	43	3.19	0.61	0.10	444	<1	0.05	<1	0.02	<2	<2	<2	17	<5	<3	66
8+00S 1+00E	0.1	4.91	<3	10	76	<3	0.29	<0.1	23	<1	91	4.59	0.24	0.16	700	<1	0.06	<1	0.02	<2	<2	<2	17	<5	<3	94
8+00S 1+50E	0.1	7.61	<3	<5	108	<3	1.55	0.5	33	28	147	5.54	<0.01	0.26	1068	<1	0.04	28	0.02	2	<2	<2	23	<5	<3	277
8+00S 2+00E	0.2	3.47	<3	<5	57	<3	0.36	0.6	25	<1	40	4.12	<0.01	0.10	617	<1	0.06	<1	0.01	6	2	<2	15	<5	<3	91
8+00S 2+50E	0.1	2.91	<3	<5	36	<3	0.24	0.1	14	<1	45	3.87	0.66	0.08	185	<1	0.07	<1	0.01	3	6	<2	11	<5	<3	65
Minimum Detection	0.1	0.01	3	5	1	3	0.01	0.1	1	1	1	0.01	0.01	0.01	1	1	0.01	1	0.01	2	2	2	1	5	3	1
Maximum Detection	50.0	10.00	2000	10000	1000	1000	10.00	1000.0	20000	1000	20000	10.00	10.00	10.00	20000	1000	10.00	20000	10.00	20000	2000	1000	10000	100	1000	20000

< - Less Than Minimum > - Greater Than Maximum is - Insufficient Sample ns - No Sample *Au Analysis Done By Aqua Regia Digestion / Solvent Extraction / AAS.

1630 Pandora Street, Vanc..r, B.C. V5L 1L6
Ph:(604)251-5656 Fax:(604)254-5717

ICAP GEOCHEMICAL ANALYSIS

A .5 gram sample is digested with 5 ml of 3:1:2 HCL to HNO_3 to H_2O at 95 °C for 90 minutes and is diluted to 10 ml with water.
This leach is partial for Al, Ba, Ca, Cr, Fe, K, Mg, Mn, Na, P, Sn, Sr and W.

ANALYST:

REPORT #: 910050 PA | SUN GROUP RES. MANAGEMENT | PROJECT: ARROWSMITH | DATE IN: APR 17 1991 | DATE OUT: APR 30 1991 | ATTENTION: MR. SCOTT ANGUS |

Sample Name	Ag	Al	As	*Au	Ba	Bi	Ca	Cd	Co	Cr	Cu	Fe	K	Mg	Mn	Mo	Na	Ni	P	Pb	Sb	Sn	Sr	U	W	Zn
	ppm	%	ppm	ppb	ppm	ppm	%	ppm	ppm	ppm	ppm	%	%	%	ppm	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
8+00S 3+00E	<0.1	3.98	<3	<5	55	<3	0.48	4.9	44	<1	95	5.32	<0.01	0.19	642	<1	0.06	10	0.01	<2	14	<2	21	<5	<3	132
8+00S 3+50E	<0.1	4.08	<3	15	74	<3	0.23	0.6	22	<1	83	3.84	1.00	0.15	452	<1	0.04	<1	0.01	2	2	<2	10	<5	<3	115
8+00S 4+00E	<0.1	4.83	<3	<5	80	<3	0.54	0.4	58	<1	152	6.72	<0.01	0.19	1789	<1	0.05	1	0.03	2	5	<2	11	<5	<3	168
8+00S 4+50E	<0.1	3.12	<3	10	46	<3	0.40	<0.1	40	<1	75	4.53	0.87	0.12	868	<1	0.05	<1	0.02	4	5	<2	9	<5	<3	111
8+00S 5+00E	0.1	1.68	<3	<5	26	<3	0.26	<0.1	14	<1	30	2.25	0.45	0.06	696	<1	0.04	<1	0.02	<2	3	<2	9	<5	<3	57
8+00S 0+50W	0.1	1.23	<3	5	47	<3	0.32	<0.1	14	<1	9	1.64	0.75	0.09	5512	<1	0.05	<1	0.01	2	4	<2	58	<5	<3	51
8+00S 1+00W	<0.1	4.18	<3	<5	67	<3	0.35	0.6	26	2	86	4.85	0.01	0.27	689	<1	0.05	<1	0.02	<2	4	<2	35	<5	<3	99
8+00S 1+50W	<0.1	2.60	<3	<5	141	<3	0.19	<0.1	40	<1	108	5.15	0.22	0.09	900	<1	0.06	<1	0.02	<2	8	<2	12	<5	<3	69
BL 9+00S	<0.1	3.81	<3	5	55	<3	0.29	0.3	29	211	76	4.63	0.17	0.26	450	<1	0.05	18	0.01	<2	<2	<2	17	<5	<3	68
9+00S 0+50E	<0.1	8.31	<3	<5	216	<3	0.39	0.5	54	49	192	6.95	<0.01	0.20	695	<1	0.05	27	0.02	5	12	<2	16	<5	<3	124
9+00S 1+00E	0.1	7.46	<3	<5	177	<3	0.25	0.2	38	46	137	6.93	0.33	0.24	531	<1	0.05	11	0.02	<2	10	<2	12	<5	<3	130
9+00S 1+50E	0.1	3.87	<3	<5	149	<3	0.76	<0.1	27	<1	66	3.97	0.08	0.18	1213	<1	0.06	<1	0.01	<2	6	<2	21	<5	<3	104
9+00S 2+00E	<0.1	6.42	<3	<5	122	<3	0.44	<0.1	42	2	152	5.33	<0.01	0.25	807	<1	0.05	19	0.02	2	12	<2	14	<5	<3	157
9+00S 2+50E	<0.1	4.07	<3	<5	90	<3	0.18	1.9	16	<1	45	2.74	0.19	0.10	402	<1	0.05	<1	0.01	<2	8	<2	10	<5	<3	108
9+00S 3+00E	<0.1	4.31	<3	<5	88	<3	0.23	<0.1	36	<1	99	4.62	<0.01	0.15	1065	<1	0.04	<1	0.02	5	3	<2	10	<5	<3	150
9+00S 3+50E	<0.1	1.95	<3	<5	48	<3	0.17	2.0	14	<1	26	2.19	1.34	0.08	542	<1	0.05	<1	0.01	<2	<2	<2	9	<5	<3	71
9+00S 4+00E	<0.1	3.61	<3	<5	68	<3	0.30	<0.1	32	<1	84	4.17	<0.01	0.18	558	<1	0.04	<1	0.01	4	<2	<2	8	<5	<3	128
9+00S 4+50E	0.1	3.28	<3	<5	84	<3	0.34	0.1	53	112	59	5.11	0.81	0.15	2967	99	0.05	498	0.02	7	4	<2	9	<5	<3	166
9+00S 5+00E	<0.1	6.43	<3	<5	83	<3	0.19	1.7	30	<1	161	5.71	0.28	0.20	550	<1	0.06	19	0.02	<2	11	<2	7	<5	<3	139
9+00S 0+50W	<0.1	2.48	<3	<5	68	<3	0.28	2.1	12	<1	13	2.55	0.58	0.12	3766	<1	0.05	<1	0.02	<2	4	<2	18	<5	<3	68
9+00S 1+00W	<0.1	2.57	<3	<5	137	<3	0.23	<0.1	11	<1	19	2.10	0.72	0.06	787	<1	0.07	<1	0.01	<2	6	<2	22	<5	<3	68
9+00S 1+50W	<0.1	4.82	<3	<5	206	<3	0.84	1.7	32	<1	189	4.85	<0.01	0.26	3396	<1	0.05	<1	0.03	5	10	<2	40	<5	<3	137
BL 10+00S	<0.1	5.11	<3	<5	151	<3	0.33	<0.1	29	<1	112	5.54	<0.01	0.17	1028	<1	0.04	<1	0.02	2	12	<2	19	<5	<3	134
10+00S 0+50E	<0.1	6.59	<3	<5	295	<3	1.35	0.4	37	33	98	6.30	<0.01	0.18	2695	<1	0.07	6	0.02	<2	6	<2	43	<5	<3	121
10+00S 1+00E	<0.1	4.64	<3	<5	228	<3	0.79	1.2	31	<1	81	4.63	<0.01	0.20	868	<1	0.06	<1	0.01	<2	6	<2	26	<5	<3	110
10+00S 1+50E	<0.1	4.61	<3	<5	156	<3	0.70	<0.1	33	<1	101	4.83	0.93	0.24	1095	<1	0.05	4	0.01	<2	10	<2	22	<5	<3	112
10+00S 2+00E	<0.1	7.44	<3	<5	97	<3	0.31	0.4	39	4	129	5.70	<0.01	0.19	1027	<1	0.04	23	0.03	3	11	<2	11	<5	<3	227
10+00S 2+50E	<0.1	6.42	<3	<5	135	<3	0.27	<0.1	34	<1	120	5.57	0.51	0.20	552	<1	0.04	5	0.02	5	13	<2	12	<5	<3	152
10+00S 3+00E	<0.1	2.06	<3	<5	75	<3	0.46	<0.1	56	<1	34	4.73	0.40	0.11	4110	<1	0.06	<1	0.02	7	5	<2	10	<5	<3	108
10+00S 3+50E	<0.1	3.14	<3	<5	89	<3	0.15	2.5	19	<1	50	2.90	<0.01	0.16	731	<1	0.05	<1	0.01	<2	5	<2	9	<5	<3	124
10+00S 4+00E	<0.1	5.79	<3	15	63	<3	0.52	<0.1	61	<1	168	8.01	<0.01	0.21	2037	<1	0.06	2	0.04	5	9	<2	10	<5	<3	207
10+00S 4+50E	<0.1	3.42	<3	15	66	<3	0.69	<0.1	54	<1	94	6.92	0.30	0.19	4266	<1	0.05	<1	0.04	9	8	<2	12	<5	<3	152
10+00S 5+00E	<0.1	6.31	<3	20	120	<3	0.26	1.4	37	<1	187	6.19	<0.01	0.27	732	<1	0.06	19	0.02	<2	8	<2	9	<5	<3	165
10+00S 0+50W	<0.1	5.36	<3	15	84	<3	0.31	<0.1	26	54	90	6.47	<0.01	0.27	634	<1	0.05	<1	0.02	<2	13	<2	27	<5	<3	116
10+00S 1+00W	<0.1	5.18	<3	20	54	<3	0.31	0.5	34	92	84	6.24	<0.01	0.40	1000	<1	0.06	4	0.04	9	17	<2	39	<5	<3	121
10+00S 1+50W	<0.1	5.67	<3	20	114	<3	0.43	1.1	38	77	173	5.99	<0.01	0.31	1100	<1	0.05	6	0.03	2	5	<2	37	<5	<3	118
BL 11+00S	<0.1	5.32	<3	5	91	<3	0.50	<0.1	42	71	72	5.70	<0.01	0.26	998	<1	0.06	14	0.02	2	12	<2	33	<5	<3	127
11+00S 0+50E	<0.1	3.59	<3	<5	89	<3	0.34	0.6	21	<1	56	4.23	0.24	0.11	526	<1	0.05	<1	0.01	<2	4	<2	19	<5	<3	98
11+00S 1+00E	<0.1	3.80	<3	10	85	<3	0.61	<0.1	23	<1	64	4.16	0.29	0.14	349	<1	0.06	<1	0.01	<2	8	<2	16	<5	<3	82
Minimum Detection	0.1	0.01	3	5	1	3	0.01	0.1	1	1	1	0.01	0.01	0.01	1	1	0.01	1	0.01	2	2	2	1	5	3	1
Maximum Detection	50.0	10.00	2000	10000	1000	1000	10.00	1000.0	20000	1000	20000	10.00	10.00	10.00	20000	1000	10.00	20000	10.00	20000	2000	1000	10000	100	1000	20000

< = Less Than Minimum > = Greater Than Maximum is - Insufficient Sample ns - No Sample *Au Analysis Done By Aqua Regia Digestion / Solvent Extraction / AAS.

[illegible]
1630 Pandora Street, Van[illegible]er, B.C. V5L 1L6
Ph:(604)251-5656 Fax:(604)254-5717

ICAP GEOCHEMICAL ANALYSIS

A .5 gram sample is digested with 5 ml of 3:1:2 HCL to HNO_3 to H_2O at 95 °C for 90 minutes and is diluted to 10 ml with water.
This leach is partial for Al, Ba, Ca, Cr, Fe, K, Mg, Mn, Na, P, Sn, Sr and W.

ANALYST:

REPORT #: 910050 PA | SUN GROUP RES. MANAGEMENT | PROJECT: ARROWSMITH | DATE IN: APR 17 1991 | DATE OUT: APR 30 1991 | ATTENTION: MR. SCOTT ANGUS |

Sample Name	Ag ppm	Al %	As ppm	*Au ppb	Ba ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	K %	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P %	Pb ppm	Sb ppm	Sn ppm	Sr ppm	U ppm	W ppm	Zn ppm
11+00S 1+50E	<0.1	3.08	<3	25	70	<3	0.35	5.5	25	<1	49	3.22	<0.01	0.10	626	<1	0.02	1	0.02	2	2	<2	22	<5	<3	88
11+00S 2+00E	<0.1	2.57	<3	5	50	<3	0.22	<0.1	12	<1	26	2.52	<0.01	0.06	338	<1	0.02	<1	0.01	8	<2	<2	12	<5	<3	71
11+00S 2+50E	<0.1	2.47	<3	20	58	<3	0.20	<0.1	11	<1	32	2.65	<0.01	0.08	322	<1	0.03	<1	0.01	3	<2	<2	10	<5	<3	87
11+00S 3+00E	<0.1	4.25	<3	15	122	<3	0.26	<0.1	19	<1	54	3.63	<0.01	0.14	563	<1	0.02	<1	0.01	4	<2	<2	14	<5	<3	126
11+00S 3+50E	0.2	4.20	<3	20	107	<3	0.24	<0.1	27	<1	91	3.99	<0.01	0.17	1372	<1	0.02	<1	0.01	5	2	<2	11	<5	<3	158
11+00S 4+00E	0.2	6.08	<3	5	82	<3	0.62	<0.1	62	67	146	7.01	<0.01	0.21	2596	<1	0.04	23	0.03	10	4	<2	16	<5	<3	210
11+00S 4+50E	0.2	5.85	<3	5	59	<3	1.28	0.8	53	107	156	6.11	<0.01	0.28	4022	<1	0.04	39	0.02	<2	<2	<2	24	<5	<3	189
11+00S 5+00E	0.1	8.91	<3	20	40	<3	0.59	1.2	63	121	325	8.66	<0.01	0.40	1181	<1	0.04	51	0.03	<2	5	<2	12	<5	<3	210
11+00S 0+50W	0.3	4.60	<3	15	165	<3	0.82	<0.1	30	65	93	4.71	<0.01	0.25	846	<1	0.04	8	0.01	5	2	<2	27	<5	<3	99
11+00S 1+00W	<0.1	5.12	<3	20	71	<3	0.43	1.9	41	348	66	5.19	<0.01	0.62	1325	<1	0.02	45	0.01	3	<2	<2	87	<5	<3	101
11+00S 1+50W	<0.1	3.06	<3	<5	33	<3	0.37	0.3	24	137	25	3.72	<0.01	0.35	867	<1	0.04	10	0.01	4	3	<2	66	<5	<3	59
BL 12+00S	<0.1	0.60	<3	<5	14	<3	0.26	<0.1	7	<1	<1	1.01	<0.01	0.02	129	<1	0.04	<1	<0.01	6	<2	<2	24	<5	<3	21
12+00S 0+50E	<0.1	3.64	<3	10	59	<3	0.44	<0.1	23	<1	52	4.15	<0.01	0.15	847	<1	0.03	<1	0.02	6	<2	<2	22	<5	<3	97
12+00S 1+00E	<0.1	1.84	<3	5	37	<3	0.34	<0.1	11	<1	9	1.90	<0.01	0.06	495	<1	0.03	<1	0.01	4	<2	<2	19	<5	<3	48
12+00S 1+50E	<0.1	4.04	<3	15	77	<3	0.36	<0.1	31	<1	85	3.96	<0.01	0.10	992	<1	0.02	<1	0.02	11	<2	<2	17	<5	<3	125
12+00S 2+00E	<0.1	2.80	<3	20	62	<3	0.22	1.6	15	<1	28	2.39	<0.01	0.10	575	<1	0.03	<1	0.01	6	4	<2	12	<5	<3	86
12+00S 2+50E	<0.1	3.72	<3	20	68	<3	0.19	<0.1	20	<1	62	3.76	<0.01	0.11	790	<1	0.01	2	0.02	4	<2	<2	10	<5	<3	137
12+00S 3+00E	<0.1	1.69	<3	<5	39	<3	0.28	<0.1	16	<1	29	2.31	<0.01	0.07	795	<1	0.03	<1	0.01	10	4	<2	11	<5	<3	77
12+00S 3+50E	<0.1	3.49	<3	10	73	<3	0.63	0.5	36	4	108	4.52	<0.01	0.21	1337	<1	0.03	7	0.01	9	<2	<2	16	<5	<3	127
12+00S 4+00E	<0.1	3.44	<3	5	46	<3	0.56	<0.1	39	<1	105	4.76	<0.01	0.18	1058	<1	0.03	1	0.01	8	4	<2	14	<5	<3	121
12+00S 4+50E	<0.1	6.76	<3	15	42	<3	0.62	<0.1	52	109	176	8.01	<0.01	0.23	1573	<1	0.02	42	0.02	9	<2	<2	14	<5	<3	181
12+00S 5+00E	<0.1	7.03	<3	15	41	<3	0.57	<0.1	51	104	194	7.58	<0.01	0.23	2335	<1	0.03	28	0.02	8	5	<2	12	<5	<3	141
12+00S 0+50W	<0.1	3.17	<3	15	62	<3	0.40	2.1	22	<1	41	3.22	<0.01	0.14	713	<1	0.03	<1	0.01	8	8	<2	23	<5	<3	76
12+00S 1+00W	<0.1	5.41	<3	10	116	<3	0.38	<0.1	39	90	164	5.80	<0.01	0.32	1173	<1	0.03	29	0.02	3	13	<2	20	<5	<3	118
12+00S 1+50W	<0.1	3.30	<3	15	96	<3	0.44	<0.1	19	<1	43	3.10	<0.01	0.16	1262	<1	0.04	<1	0.01	10	<2	<2	44	<5	<3	94
12+00S 2+00W	<0.1	5.28	<3	20	206	<3	0.30	<0.1	34	1	59	4.30	<0.01	0.30	3128	<1	0.03	<1	0.01	9	<2	<2	21	<5	<3	128
BL 13+00S	<0.1	3.89	<3	15	94	<3	0.45	<0.1	34	59	52	6.47	<0.01	0.21	1755	<1	0.03	<1	0.02	13	<2	<2	45	<5	<3	103
13+00S 0+50E	<0.1	2.65	<3	10	71	<3	0.47	<0.1	20	<1	34	3.34	<0.01	0.13	765	<1	0.03	<1	0.02	2	<2	<2	31	<5	<3	74
13+00S 1+00E	<0.1	2.83	<3	20	116	<3	0.25	<0.1	11	<1	52	3.41	<0.01	0.10	468	<1	0.05	<1	0.01	5	6	<2	13	<5	<3	78
13+00S 1+50E	<0.1	2.70	<3	15	116	<3	0.46	0.3	21	<1	33	2.91	<0.01	0.12	2098	<1	0.04	<1	0.02	4	<2	<2	21	<5	<3	114
13+00S 2+00E	<0.1	3.87	<3	<5	83	<3	0.25	2.8	18	<1	61	3.33	<0.01	0.18	441	<1	0.02	3	0.01	3	6	<2	11	<5	<3	109
13+00S 2+50E	<0.1	4.03	<3	20	126	<3	0.66	<0.1	21	<1	90	4.65	<0.01	0.15	1155	<1	0.03	13	0.02	10	<2	<2	14	<5	<3	148
13+00S 3+00E	<0.1	4.58	<3	15	154	<3	0.33	0.6	27	3	148	5.22	<0.01	0.21	1180	<1	0.02	11	0.01	10	<2	<2	12	<5	<3	161
13+00S 3+50E	0.1	1.85	<3	5	53	<3	0.17	1.7	7	<1	13	1.80	<0.01	0.06	267	<1	0.02	<1	0.01	5	<2	<2	8	<5	<3	56
13+00S 4+00E	<0.1	8.03	<3	10	67	<3	0.46	1.2	62	87	324	8.46	<0.01	0.31	1101	<1	0.03	40	0.03	6	2	<2	9	<5	<3	257
13+00S 4+50E	<0.1	3.81	<3	5	45	<3	0.47	0.1	36	3	82	4.84	<0.01	0.13	1253	<1	0.03	<1	0.01	3	2	<2	11	<5	<3	138
13+00S 5+00E	<0.1	7.30	<3	25	63	<3	0.42	<0.1	66	71	364	8.63	<0.01	0.33	1210	<1	0.04	24	0.03	12	<2	<2	8	<5	<3	159
13+00S 0+50W	<0.1	4.85	<3	15	86	<3	0.55	<0.1	37	21	120	5.11	<0.01	0.25	1051	<1	0.04	11	0.02	<2	<2	<2	20	<5	<3	105
13+00S 1+00W	<0.1	3.23	<3	10	73	<3	0.46	<0.1	24	<1	36	3.78	<0.01	0.13	1088	<1	0.03	<1	0.02	7	<2	<2	24	<5	<3	87
Minimum Detection	0.1	0.01	3	5	1	3	0.01	0.1	1	1	1	0.01	0.01	0.01	1	1	0.01	1	0.01	2	2	2	1	5	3	1
Maximum Detection	50.0	10.00	2000	10000	1000	1000	10.00	1000.0	20000	1000	20000	10.00	10.00	10.00	20000	1000	10.00	20000	10.00	20000	2000	1000	10000	100	1000	20000

[illegible] Than Minimum | > = Greater Than Maximum | ic - Insufficient Sample | ns - No Sample | *Au Analysis Done By Aqua Regia Digestion / Solvent Extraction / AAS.

1630 Pandora Street, Va. r, B.C. V5L 1L6
Ph:(604)251-5656 Fax:(604)254-5717

ICAP GEOCHEMICAL ANALYSIS

A .5 gram sample is digested with 5 ml of 3:1:2 HCL to HNO_3 to H_2O at 95 °C for 90 minutes and is diluted to 10 ml with water.
This leach is partial for Al, Ba, Ca, Cr, Fe, K, Mg, Mn, Na, P, Sn, Sr and W.

ANALYST:

REPORT #: 910050 PA | SUN GROUP RES. MANAGEMENT | PROJECT: ARROWSMITH | DATE IN: APR 17 1991 | DATE OUT: APR 30 1991 | ATTENTION: MR. SCOTT ANGUS | PAGE 7 OF 16

Sample Name	Ag	Al	As	*Au	Ba	Bi	Ca	Cd	Co	Cr	Cu	Fe	K	Mg	Mn	Mo	Na	Ni	P	Pb	Sb	Sn	Sr	U	W	Zn
	ppm	%	ppm	ppb	ppm	ppm	%	ppm	ppm	ppm	ppm	%	%	%	ppm	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
13+00S 1+50W	<0.1	4.56	<3	20	153	<3	0.83	<0.1	34	143	104	6.23	0.60	0.24	696	<1	<0.01	75	0.02	<2	8	<2	29	<5	<3	93
13+00S 2+00W	<0.1	4.11	<3	<5	112	<3	0.56	0.1	29	107	91	6.44	0.62	0.21	893	<1	<0.01	37	0.02	<2	9	<2	28	<5	<3	88
BL 14+00S	<0.1	3.27	<3	15	122	<3	0.42	<0.1	23	72	48	4.75	0.62	0.10	759	<1	<0.01	21	0.02	3	9	<2	20	<5	<3	65
14+00S 0+50E	<0.1	4.92	<3	20	134	<3	0.50	<0.1	28	120	101	7.49	1.03	0.20	487	<1	<0.01	34	0.02	<2	17	<2	15	<5	<3	80
14+00S 1+00E	<0.1	3.45	<3	15	85	<3	0.23	0.7	18	77	62	4.64	0.34	0.13	433	<1	<0.01	31	0.01	<2	9	<2	11	<5	<3	68
14+00S 1+50E	<0.1	3.41	<3	25	227	<3	0.41	0.4	19	53	64	4.19	0.74	0.15	527	<1	0.01	32	0.01	<2	18	<2	20	<5	<3	90
14+00S 2+00E	<0.1	3.25	<3	5	90	<3	0.15	<0.1	9	60	76	4.48	0.42	0.10	399	<1	<0.01	26	0.01	<2	12	<2	8	<5	<3	68
14+00S 2+50E	<0.1	4.07	<3	10	93	<3	0.14	0.4	16	83	93	5.15	0.43	0.12	726	<1	<0.01	29	0.01	<2	13	<2	7	<5	<3	85
14+00S 3+00E	<0.1	3.67	<3	15	70	<3	0.19	<0.1	17	65	64	4.05	0.46	0.13	285	<1	<0.01	37	0.02	<2	11	<2	9	<5	<3	86
14+00S 3+50E	<0.1	4.97	<3	20	54	<3	0.34	<0.1	39	116	84	6.24	0.65	0.12	494	<1	<0.01	43	0.02	<2	14	<2	10	<5	<3	100
14+00S 4+00E	<0.1	6.55	<3	20	96	<3	0.40	<0.1	50	152	226	7.92	0.81	0.30	1201	<1	<0.01	64	0.03	<2	8	<2	11	<5	<3	138
14+00S 4+50E	<0.1	8.05	<3	20	50	<3	0.56	1.0	71	215	175	9.11	1.43	0.22	4380	<1	<0.01	67	0.06	<2	15	<2	12	<5	<3	176
14+00S 5+00E	<0.1	7.02	<3	<5	34	<3	0.52	0.2	57	229	172	>10	1.33	0.16	3556	<1	<0.01	57	0.06	<2	11	<2	11	<5	<3	175
14+00S 0+50W	<0.1	4.92	<3	15	133	<3	0.35	<0.1	29	145	94	5.58	0.51	0.18	651	<1	<0.01	40	0.02	<2	5	<2	19	<5	<3	83
14+00S 1+00W	<0.1	5.10	<3	15	156	<3	0.54	0.4	35	126	110	5.43	0.69	0.22	3150	<1	<0.01	42	0.03	<2	7	<2	23	<5	<3	107
14+00S 1+50W	<0.1	4.24	<3	<5	157	<3	0.27	<0.1	15	96	68	5.30	0.90	0.13	1191	<1	<0.01	25	0.02	<2	11	<2	16	<5	<3	89
14+00S 2+00W	<0.1	3.25	<3	10	116	<3	0.55	<0.1	26	73	46	4.43	0.76	0.16	1096	<1	<0.01	26	0.02	<2	10	<2	28	<5	<3	84
BL 15+00S	<0.1	3.84	<3	15	72	<3	0.49	<0.1	36	95	60	5.51	0.74	0.18	807	<1	<0.01	35	0.02	<2	6	<2	23	<5	<3	83
15+00S 0+50E	<0.1	5.35	<3	20	153	<3	0.56	0.1	28	133	103	6.62	1.09	0.18	981	<1	<0.01	58	0.01	<2	8	<2	25	<5	<3	105
15+00S 1+00E	<0.1	3.42	<3	10	171	<3	0.51	0.3	37	104	125	6.58	0.90	0.17	1904	<1	<0.01	49	0.02	<2	16	<2	25	<5	<3	112
15+00S 1+50E	<0.1	3.47	<3	5	192	<3	0.20	<0.1	30	96	145	6.42	0.67	0.13	1677	<1	0.01	58	0.02	<2	13	<2	11	<5	<3	70
15+00S 2+00E	<0.1	4.30	<3	15	120	<3	0.42	<0.1	34	93	81	5.00	0.46	0.15	1078	<1	<0.01	49	0.02	<2	12	<2	19	<5	<3	136
15+00S 2+50E	<0.1	3.98	<3	10	125	<3	0.27	<0.1	29	88	93	5.03	0.71	0.17	2545	<1	<0.01	43	0.02	<2	5	<2	11	<5	<3	126
15+00S 3+00E	<0.1	5.50	<3	<5	82	<3	0.57	0.3	63	146	133	7.39	0.87	0.18	2832	<1	<0.01	48	0.03	<2	9	<2	14	<5	<3	147
15+00S 3+50E	<0.1	3.83	<3	20	56	<3	0.35	<0.1	27	77	59	4.59	0.51	0.14	834	<1	<0.01	31	0.02	<2	<2	<2	12	<5	<3	91
15+00S 4+00E	<0.1	7.76	<3	25	81	<3	0.53	<0.1	73	235	294	>10	1.57	0.44	1400	<1	<0.01	99	0.02	<2	23	<2	18	<5	<3	160
15+00S 4+50E	<0.1	6.15	<3	<5	34	<3	0.63	<0.1	65	181	118	8.30	1.31	0.16	963	<1	<0.01	59	0.04	<2	8	<2	13	<5	<3	182
15+00S 5+00E	<0.1	5.46	<3	<5	66	<3	0.86	<0.1	65	168	150	8.54	0.89	0.25	4843	<1	<0.01	65	0.03	<2	5	<2	14	<5	<3	166
15+00S 0+50W	<0.1	3.05	<3	5	48	<3	0.43	<0.1	23	78	38	4.81	0.33	0.10	1078	<1	<0.01	16	0.03	<2	5	<2	22	<5	<3	67
15+00S 1+00W	<0.1	2.63	<3	25	86	<3	0.53	0.3	25	82	28	4.75	0.14	0.11	659	<1	<0.01	17	0.01	2	9	<2	28	<5	<3	70
15+00S 1+50W	<0.1	6.87	<3	25	99	<3	0.53	<0.1	42	180	109	8.37	0.91	0.27	1260	<1	<0.01	49	0.06	3	13	<2	24	<5	<3	161
15+00S 2+00W	<0.1	4.03	<3	20	82	<3	0.38	<0.1	15	62	71	5.51	0.47	0.08	659	<1	<0.01	13	0.03	7	16	<2	25	<5	<3	138
BL 16+00S	<0.1	5.78	<3	15	85	<3	0.44	<0.1	38	125	117	6.70	1.14	0.21	1461	<1	<0.01	41	0.03	<2	17	<2	13	<5	<3	105
16+00S 0+50E	<0.1	5.40	<3	15	111	<3	0.37	<0.1	33	127	101	6.67	0.56	0.19	647	<1	<0.01	52	0.01	2	12	<2	16	<5	<3	99
16+00S 1+00E	0.1	3.94	<3	15	132	<3	0.17	0.4	23	88	79	5.63	0.75	0.13	1546	<1	0.01	38	0.02	3	7	<2	9	<5	<3	131
16+00S 1+50E	<0.1	4.62	<3	5	193	<3	0.26	<0.1	61	114	149	8.78	1.18	0.19	2228	<1	<0.01	56	0.04	<2	12	<2	15	<5	<3	150
16+00S 2+00E	<0.1	3.91	<3	15	205	<3	0.53	<0.1	26	62	66	5.55	0.67	0.18	1580	<1	0.01	33	0.03	3	12	<2	34	<5	<3	107
16+00S 2+50E	<0.1	4.67	<3	20	120	<3	0.24	0.3	33	96	77	5.28	0.53	0.15	1079	<1	0.01	55	0.02	<2	11	<2	12	<5	<3	174
16+00S 3+00E	<0.1	3.77	<3	5	125	<3	0.15	<0.1	20	71	67	3.94	0.37	0.15	474	<1	<0.01	39	0.01	<2	14	<2	10	<5	<3	114
Minimum Detection	0.1	0.01	3	5	1	3	0.01	0.1	1	1	1	0.01	0.01	0.01	1	1	0.01	1	0.01	2	2	2	1	5	3	1
Maximum Detection	50.0	10.00	2000	10000	1000	1000	10.00	1000.0	20000	1000	20000	10.00	10.00	10.00	20000	1000	10.00	20000	10.00	20000	2000	1000	10000	100	1000	20000

< - Less Than Minimum > - Greater Than Maximum is - Insufficient Sample ns - No Sample *Au Analysis Done By Aqua Regia Digestion / Solvent Extraction / AAS.

1630 Pandora Street, ...ver, B.C. V5L 1L6
Ph:(604)251-5656 Fax:(604)254-5717

ICAP GEOCHEMICAL ANALYSIS

A .5 gram sample is digested with 5 ml of 3:1:2 HCL to HNO_3 to H_2O at 95 °C for 90 minutes and is diluted to 10 ml with water.
This leach is partial for Al, Ba, Ca, Cr, Fe, K, Mg, Mn, Na, P, Sn, Sr and W.

ANALYST:

REPORT #: 910050 PA | SUN GROUP RES. MANAGEMENT | PROJECT: ARROWSMITH | DATE IN: APR 17 1991 | DATE OUT: APR 30 1991 | ATTENTION: MR. SCOTT ANGUS |

Sample Name	Ag	Al	As	*Au	Ba	Bi	Ca	Cd	Co	Cr	Cu	Fe	K	Mg	Mn	Mo	Na	Ni	P	Pb	Sb	Sn	Sr	U	W	Zn
	ppm	%	ppm	ppb	ppm	ppm	%	ppm	ppm	ppm	ppm	%	%	%	ppm	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
16+00S 3+50E	<0.1	4.12	<3	<5	325	<3	0.21	<0.1	10	<1	14	2.61	0.46	0.16	562	<1	0.02	10	0.01	<2	14	<2	12	<5	<3	66
16+00S 4+00E	<0.1	7.04	<3	5	345	<3	0.67	<0.1	66	<1	239	7.42	1.33	0.14	3900	<1	0.01	84	0.06	2	12	<2	43	<5	<3	255
16+00S 4+50E	<0.1	7.78	<3	10	80	<3	1.00	<0.1	71	35	232	9.69	0.99	0.33	3234	<1	<0.01	47	0.04	<2	15	<2	18	<5	<3	175
16+00S 5+00E	<0.1	8.86	<3	<5	62	<3	0.88	0.3	77	70	268	>10	1.66	0.36	2056	<1	<0.01	49	0.03	<2	13	<2	17	<5	<3	167
16+00S 0+50W	<0.1	4.98	<3	15	74	<3	0.55	<0.1	43	<1	121	6.91	1.12	0.28	907	<1	0.02	13	0.02	<2	18	<2	17	<5	<3	102
16+00S 1+00W	0.2	4.36	<3	10	107	<3	0.73	<0.1	32	<1	61	6.07	0.62	0.15	590	<1	0.03	<1	0.01	<2	16	<2	29	<5	<3	71
16+00S 1+50W	<0.1	4.60	<3	5	151	<3	1.19	<0.1	38	<1	90	6.32	0.66	0.25	1577	<1	0.04	2	0.02	<2	9	<2	48	<5	<3	102
16+00S 2+00W	<0.1	3.18	<3	20	62	<3	0.60	<0.1	26	<1	44	5.51	0.64	0.17	500	<1	0.02	<1	0.01	<2	16	<2	30	<5	<3	75
BL 17+00S	<0.1	5.00	<3	10	121	<3	0.29	<0.1	25	<1	128	7.79	1.17	0.16	528	<1	0.02	1	0.02	<2	12	<2	13	<5	<3	131
17+00S 0+50E	<0.1	5.14	<3	20	74	<3	0.49	<0.1	38	<1	84	6.86	1.00	0.16	939	<1	0.02	<1	0.03	<2	17	<2	18	<5	<3	104
17+00S 1+00E	<0.1	5.85	<3	<5	175	<3	0.41	<0.1	36	<1	131	7.59	1.18	0.24	988	<1	0.01	24	0.03	<2	14	<2	16	<5	<3	124
17+00S 1+50E	<0.1	4.44	<3	<5	151	<3	0.45	<0.1	33	<1	92	5.95	0.95	0.18	1092	<1	0.02	22	0.02	<2	17	<2	17	<5	<3	116
17+00S 2+00E	<0.1	3.26	<3	10	116	<3	0.49	<0.1	22	<1	58	5.28	0.62	0.13	956	<1	0.02	<1	0.02	<2	16	<2	19	<5	<3	109
17+00S 2+50E	<0.1	4.63	<3	15	111	<3	0.31	<0.1	33	<1	108	6.80	0.96	0.22	1405	<1	0.01	6	0.02	<2	10	<2	14	<5	<3	131
17+00S 3+00E	<0.1	3.34	<3	5	72	<3	0.32	0.1	23	<1	45	3.77	0.70	0.12	881	<1	0.03	<1	0.02	<2	4	<2	13	<5	<3	101
17+00S 3+50E	<0.1	4.06	<3	15	119	<3	0.42	<0.1	26	<1	70	4.34	0.49	0.19	1180	<1	0.01	<1	0.02	<2	12	<2	18	<5	<3	88
17+00S 4+00E	<0.1	>10	<3	15	137	<3	0.80	<0.1	84	53	343	>10	2.05	0.42	2022	<1	<0.01	51	0.04	<2	16	<2	16	<5	<3	199
17+00S 4+50E	0.2	8.39	<3	5	44	<3	0.75	<0.1	70	67	185	9.69	1.70	0.32	2332	<1	<0.01	35	0.05	<2	13	<2	14	<5	<3	228
17+00S 5+00E	<0.1	4.53	<3	5	61	<3	0.93	<0.1	73	<1	74	6.96	0.77	0.15	5241	<1	0.01	<1	0.04	<2	12	<2	20	<5	<3	129
17+00S 0+50W	<0.1	6.21	<3	20	87	<3	0.56	<0.1	39	<1	156	8.90	1.45	0.26	779	<1	<0.01	8	0.04	<2	15	<2	15	<5	<3	137
17+00S 1+00W	0.1	4.49	<3	5	55	<3	0.66	0.3	32	<1	78	7.53	1.28	0.20	414	<1	0.02	14	0.01	<2	12	<2	24	<5	<3	83
17+00S 1+50W	<0.1	5.82	<3	<5	141	<3	1.07	<0.1	51	32	153	8.59	1.16	0.44	1246	<1	0.02	17	0.02	<2	13	<2	39	<5	<3	120
17+00S 2+00W	<0.1	7.11	<3	<5	66	<3	0.56	<0.1	50	<1	158	7.23	1.00	0.30	1058	<1	0.02	17	0.03	<2	16	<2	25	<5	<3	114
SM 0+00	0.4	2.13	<3	15	127	<3	1.68	<0.1	10	<1	44	3.32	0.49	0.22	2188	<1	0.07	<1	0.03	<2	12	<2	21	<5	<3	167
SM 0+50	0.3	5.54	<3	20	157	<3	1.53	<0.1	50	<1	298	>10	1.25	0.37	1723	<1	0.03	30	0.03	<2	15	<2	36	<5	<3	194
SM 1+00	0.2	6.79	<3	20	97	<3	1.04	0.2	40	<1	214	9.69	1.06	0.32	1202	<1	0.02	42	0.05	<2	20	<2	25	<5	<3	249
SM 1+50	<0.1	4.61	<3	10	147	<3	1.77	<0.1	44	<1	226	8.26	0.84	0.48	2374	<1	0.04	25	0.02	<2	16	<2	61	<5	<3	194
SM 2+00	0.2	5.79	<3	15	135	<3	3.22	1.6	52	<1	252	8.73	1.21	0.71	1750	<1	0.06	146	0.02	<2	9	<2	41	<5	<3	453
SM 2+50	0.5	3.30	24	20	88	<3	1.68	0.8	28	<1	143	5.61	0.63	0.42	1355	<1	0.03	67	0.02	<2	19	<2	26	<5	<3	364
SM 3+00	0.7	1.59	244	20	77	<3	0.59	5.1	35	<1	250	>10	0.81	0.08	1857	<1	<0.01	77	0.02	<2	27	<2	13	<5	<3	2042
SM 3+50	0.4	3.40	49	10	106	<3	1.31	<0.1	28	<1	132	5.73	0.17	0.26	1684	<1	0.02	46	0.03	<2	9	<2	27	<5	<3	326
SM 4+00	0.4	2.38	<3	<5	90	<3	1.02	0.8	13	<1	58	3.66	0.20	0.26	1498	<1	0.03	15	0.02	<2	9	<2	16	<5	<3	286
SM 4+50	0.7	2.92	<3	20	91	<3	1.24	0.4	19	<1	86	4.54	0.16	0.36	1164	<1	0.03	59	0.01	<2	11	<2	43	<5	<3	311
SM 5+00	0.6	2.30	<3	<5	105	<3	0.55	0.2	19	<1	76	4.32	0.51	0.18	1980	<1	0.05	38	0.02	<2	16	<2	23	<5	<3	214
SM 5+50	0.5	3.28	<3	<5	135	<3	1.06	0.7	30	<1	127	6.09	1.01	0.33	3416	<1	0.05	52	0.02	<2	18	<2	41	<5	<3	258
SM 6+00	0.3	3.78	<3	20	100	<3	0.88	<0.1	22	<1	89	5.25	0.42	0.44	2164	<1	0.03	27	0.03	<2	9	<2	38	<5	<3	238
SM 6+50	0.3	3.57	<3	5	113	<3	0.42	1.2	16	<1	76	4.74	0.33	0.44	2440	<1	0.03	29	0.01	<2	9	<2	27	<5	<3	188
SM 7+00	0.9	4.02	<3	10	128	<3	0.48	0.6	25	<1	99	5.36	0.60	0.49	6138	<1	0.04	40	0.03	<2	17	<2	28	<5	<3	258
SM 7+50	0.3	2.44	<3	<5	121	<3	0.65	<0.1	10	<1	44	3.30	0.62	0.16	2230	<1	0.04	19	0.03	<2	7	<2	33	<5	<3	177
Minimum Detection	0.1	0.01	3	5	1	3	0.01	0.1	1	1	1	0.01	0.01	0.01	1	1	0.01	1	0.01	2	2	2	1	5	3	1
Maximum Detection	50.0	10.00	2000	10000	1000	1000	10.00	1000.0	20000	1000	20000	10.00	10.00	10.00	20000	1000	10.00	20000	10.00	20000	2000	1000	10000	100	1000	20000

...Greater Than Maximum is - Insufficient Sample ns - No Sample *Au Analysis Done By Aqua Regia Digestion / Solvent Extraction / AAS.

VANGEOCHEM LAB LTD.
1630 Pandora Street, Vancouver, B.C. V5L 1L6
Ph:(604)251-5656 Fax:(604)254-5717

ICAP GEOCHEMICAL ANALYSIS

A .5 gram sample is digested with 5 ml of 3:1:2 HCL to HNO_3 to H_2O at 95 °C for 90 minutes and is diluted to 10 ml with water.
This leach is partial for Al, Ba, Ca, Cr, Fe, K, Mg, Mn, Na, P, Sn, Sr and W.

ANALYST:

REPORT #: 910050 PA | SUN GROUP RES. MANAGEMENT | PROJECT: ARROWSMITH | DATE IN: APR 17 1991 | DATE OUT: APR 30 1991 | ATTENTION: MR. SCOTT ANGUS |

Sample Name	Ag	Al	As	*Au	Ba	Bi	Ca	Cd	Co	Cr	Cu	Fe	K	Mg	Mn	Mo	Na	Ni	P	Pb	Sb	Sn	Sr	U	W	Zn
	ppm	%	ppm	ppb	ppm	ppm	%	ppm	ppm	ppm	ppm	%	%	%	ppm	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
SM 8+00	0.6	1.70	<3	15	103	<3	0.39	3.4	18	49	48	3.50	<0.01	0.10	2128	<1	0.02	68	0.02	3	<2	<2	16	<5	<3	216
SM 8+50	0.2	2.08	<3	<5	95	<3	0.59	3.2	16	43	45	3.17	<0.01	0.19	2143	<1	0.02	54	0.02	<2	8	<2	24	<5	<3	170
SM 9+00	0.4	3.16	<3	5	125	<3	0.31	2.3	25	54	56	4.36	<0.01	0.19	6460	<1	0.02	88	0.02	3	<2	<2	14	<5	<3	274
SM 9+50	0.3	3.15	<3	5	105	<3	0.40	3.1	28	77	77	4.49	<0.01	0.20	1600	<1	0.03	49	0.01	<2	3	<2	21	<5	<3	156
SM 10+00	0.2	2.71	<3	10	100	<3	0.51	3.6	23	72	76	4.56	<0.01	0.21	2642	<1	0.02	60	0.02	<2	3	<2	19	<5	<3	199
SM 10+50	0.1	3.74	<3	15	72	<3	0.36	4.1	18	92	48	5.10	<0.01	0.30	1371	<1	0.02	51	0.03	<2	9	<2	13	<5	<3	293
SM 11+00	0.1	3.95	<3	<5	114	<3	0.41	2.7	26	100	86	4.69	<0.01	0.19	670	<1	0.03	43	0.01	<2	9	<2	28	<5	<3	112
SM 11+50	0.3	2.55	<3	10	114	<3	0.96	2.7	22	44	55	3.62	<0.01	0.20	2182	<1	0.04	46	0.03	8	4	<2	24	<5	<3	204
SM 12+00	0.3	2.26	<3	15	93	<3	0.20	3.3	15	39	33	2.74	<0.01	0.14	1494	<1	0.02	42	0.02	2	<2	<2	10	<5	<3	176
SM 12+50	0.4	2.68	<3	15	82	<3	0.41	3.0	22	119	103	4.39	<0.01	0.20	1145	<1	0.01	42	0.02	8	4	<2	12	<5	<3	208
SM 13+00	0.3	1.98	<3	10	68	<3	0.23	3.0	12	36	26	2.25	<0.01	0.14	442	<1	0.02	34	0.02	<2	2	<2	9	<5	<3	136
S.P. L-1 0+00	0.1	3.39	<3	<5	251	<3	0.99	3.8	26	136	39	4.65	<0.01	0.28	1229	<1	0.03	27	0.03	<2	2	<2	45	<5	<3	79
S.P. L-1 0+25E	0.1	5.13	<3	5	155	<3	0.87	2.6	27	156	70	5.52	<0.01	0.32	1399	<1	0.04	34	0.07	<2	<2	<2	37	<5	<3	110
S.P. L-1 0+50E	0.1	3.81	<3	<5	140	<3	1.02	2.5	19	90	17	3.69	<0.01	0.15	983	<1	0.03	13	0.03	<2	9	<2	52	<5	<3	63
S.P. L-1 0+75E	0.1	6.22	<3	<5	184	<3	0.82	3.1	28	146	68	5.88	<0.01	0.26	1138	<1	0.03	25	0.06	<2	<2	<2	38	<5	<3	120
S.P. L-1 1+00E	<0.1	5.34	<3	5	163	<3	0.89	2.4	27	140	59	5.43	<0.01	0.28	1095	<1	0.04	33	0.05	<2	6	<2	39	<5	<3	105
S.P. L-1 1+25E	<0.1	5.38	<3	<5	115	<3	0.90	0.9	27	161	67	6.57	<0.01	0.31	906	<1	0.02	29	0.10	<2	4	<2	35	<5	<3	128
S.P. L-1 1+50E	<0.1	5.50	<3	10	145	<3	0.70	1.6	26	144	54	4.67	<0.01	0.24	809	<1	0.02	34	0.04	<2	<2	<2	40	<5	<3	115
S.P. L-1 1+75E	<0.1	4.98	<3	<5	144	<3	0.65	2.2	20	134	47	4.55	<0.01	0.21	804	<1	0.03	25	0.06	<2	8	<2	35	<5	<3	91
S.P. L-1 2+00E	<0.1	3.57	<3	5	71	<3	0.66	3.1	11	97	25	3.82	<0.01	0.13	339	<1	0.02	6	0.03	<2	6	<2	42	<5	<3	63
S.P. L-1 2+25E	<0.1	5.60	<3	5	96	<3	0.59	0.1	31	226	104	6.52	<0.01	0.42	1239	<1	0.03	78	0.06	2	7	<2	26	<5	<3	137
S.P. L-1 2+50E	<0.1	5.50	<3	<5	171	<3	0.72	3.6	37	214	107	7.01	<0.01	0.45	2135	<1	0.03	61	0.10	<2	2	<2	30	<5	<3	144
S.P. L-1 2+75E	<0.1	5.61	<3	<5	155	<3	0.64	2.2	24	187	67	6.14	<0.01	0.29	1090	<1	0.03	39	0.08	<2	5	<2	37	<5	<3	139
S.P. L-1 3+00E	0.2	6.46	<3	15	289	<3	0.80	1.7	36	194	96	6.90	<0.01	0.41	2887	<1	0.03	50	0.08	<2	7	<2	34	<5	<3	151
S.P. L-1 3+25E	0.1	5.87	<3	<5	390	<3	1.10	3.7	38	194	82	6.68	<0.01	0.31	4277	<1	0.06	40	0.11	4	5	<2	54	<5	<3	161
S.P. L-1 3+50E	0.1	6.52	<3	<5	210	<3	0.82	2.5	43	236	162	6.99	<0.01	0.48	1870	<1	0.04	59	0.05	<2	6	<2	41	<5	<3	137
S.P. L-1 3+75E	0.1	5.27	<3	10	129	<3	0.63	2.4	15	137	46	5.66	<0.01	0.23	522	<1	0.02	21	0.06	<2	4	<2	36	<5	<3	95
S.P. L-1 4+00E	<0.1	4.92	<3	15	84	<3	0.47	1.8	17	138	49	4.37	<0.01	0.20	446	<1	0.02	32	0.10	<2	8	<2	29	<5	<3	97
S.P. L-1 4+25E	<0.1	6.49	<3	<5	157	<3	0.57	1.5	38	238	127	6.93	<0.01	0.42	1875	<1	0.05	57	0.09	2	11	<2	26	<5	<3	130
S.P. L-1 4+50E	0.1	4.51	<3	15	73	<3	0.58	1.1	22	374	63	5.87	<0.01	0.24	426	<1	0.03	65	0.04	<2	4	<2	36	<5	<3	83
S.P. L-1 4+75E	0.2	3.03	<3	15	53	<3	0.69	2.7	10	68	15	2.93	<0.01	0.09	237	<1	0.02	6	0.02	5	<2	<2	42	<5	<3	57
S.P. L-1 5+00E	<0.1	1.42	<3	<5	43	<3	0.38	2.5	8	43	8	1.50	<0.01	0.03	159	<1	0.04	4	0.01	3	<2	<2	46	<5	<3	25
S.P. L-1 5+25E	<0.1	5.16	<3	<5	71	<3	0.74	0.9	22	206	37	6.12	<0.01	0.27	544	<1	<0.01	29	0.07	<2	<2	<2	31	<5	<3	88
S.P. L-1 5+50E	<0.1	3.44	<3	<5	50	<3	0.57	3.3	16	163	24	4.13	<0.01	0.18	409	<1	0.03	25	0.04	3	8	<2	39	<5	<3	61
S.P. L-1 5+75E	<0.1	1.77	<3	5	41	<3	0.52	2.0	15	90	9	2.00	<0.01	0.08	280	<1	0.04	12	0.02	<2	<2	<2	39	<5	<3	41
S.P. L-1 6+00E	<0.1	6.55	<3	<5	74	<3	0.42	2.2	40	415	66	7.16	<0.01	0.48	895	<1	0.01	104	0.06	<2	3	<2	26	<5	<3	121
S.P. L-1 6+25E	0.1	4.64	<3	15	61	<3	0.50	1.8	24	275	36	5.05	<0.01	0.22	818	<1	0.04	41	0.05	<2	9	<2	35	<5	<3	88
S.P. L-1 6+50E	0.1	5.26	<3	5	183	<3	0.84	1.6	36	379	63	6.21	<0.01	0.32	2872	<1	0.04	90	0.06	13	4	<2	46	<5	<3	171
S.P. L-1 6+75E	0.1	5.42	<3	5	94	<3	0.59	1.8	36	427	55	6.76	<0.01	0.44	1273	<1	0.02	110	0.08	<2	5	<2	27	<5	<3	118
Minimum Detection	0.1	0.01	3	5	1	3	0.01	0.1	1	1	1	0.01	0.01	0.01	1	1	0.01	1	0.01	2	2	2	1	5	3	1
Maximum Detection	50.0	10.00	2000	10000	1000	1000	10.00	1000.0	20000	1000	20000	10.00	10.00	10.00	20000	1000	10.00	20000	10.00	20000	2000	1000	10000	100	1000	20000

< - Less Than Minimum > - Greater Than Maximum is - Insufficient Sample ns - No Sample *Au Analysis Done By Aqua Regia Digestion / Solvent Extraction / AAS.

VANGEOCHEM LAB LIMITED
1630 Pandora Street, Vancouver, B.C. V5L 1L6
Ph:(604)251-5656 Fax:(604)254-5717

ICAP GEOCHEMICAL ANALYSIS

A .5 gram sample is digested with 5 ml of 3:1:2 HCL to HNO_3 to H_2O at 95 °C for 90 minutes and is diluted to 10 ml with water.
This leach is partial for Al, Ba, Ca, Cr, Fe, K, Mg, Mn, Na, P, Sn, Sr and W.

ANALYST:

REPORT #: 910050 PA | SUN GROUP RES. MANAGEMENT | PROJECT: ARROWSMITH | DATE IN: APR 17 1991 | DATE OUT: APR 30 1991 | ATTENTION: MR. SCOTT ANGUS |

Sample Name	Ag	Al	As	*Au	Ba	Bi	Ca	Cd	Co	Cr	Cu	Fe	K	Mg	Mn	Mo	Na	Ni	P	Pb	Sb	Sn	Sr	U	W	Zn
	ppm	%	ppm	ppb	ppm	ppm	%	ppm	ppm	ppm	ppm	%	%	%	ppm	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
S.P. L-1 7+00E	<0.1	4.00	<3	15	75	<3	0.48	2.1	26	260	38	4.28	<0.01	0.28	501	<1	0.02	81	0.04	3	7	<2	30	<5	<3	94
S.P. L-1 7+25E	<0.1	4.15	<3	10	67	<3	0.43	1.0	26	278	41	5.28	<0.01	0.24	559	<1	0.01	61	0.04	5	7	<2	27	<5	<3	94
S.P. L-1 7+50E	0.1	4.30	<3	<5	73	<3	0.52	0.9	27	289	40	5.43	<0.01	0.24	627	<1	0.02	70	0.06	<2	5	<2	29	<5	<3	110
S.P. L-2 0+00	0.3	6.43	<3	15	112	<3	0.61	0.8	22	94	43	4.72	<0.01	0.20	1449	<1	0.02	22	0.17	<2	10	<2	24	<5	<3	146
S.P. L-2 0+25E	<0.1	3.40	<3	15	81	<3	0.73	0.1	16	50	19	3.46	<0.01	0.13	823	<1	0.02	14	0.02	5	14	<2	36	<5	<3	64
S.P. L-2 0+50E	<0.1	2.85	<3	10	40	<3	0.76	3.0	12	48	11	2.70	<0.01	0.11	487	<1	0.03	14	0.02	<2	7	<2	38	<5	<3	50
S.P. L-2 0+75E	<0.1	4.18	<3	10	63	<3	0.85	1.7	18	80	30	3.42	<0.01	0.20	576	<1	0.01	16	0.02	6	<2	<2	45	<5	<3	82
S.P. L-2 1+00E	<0.1	5.01	<3	<5	99	<3	0.66	<0.1	18	125	38	3.94	<0.01	0.19	1057	<1	0.03	25	0.04	7	16	<2	38	<5	<3	100
S.P. L-2 1+25E	0.1	4.72	<3	<5	65	<3	0.70	1.0	17	144	47	4.64	<0.01	0.23	689	<1	0.01	30	0.03	<2	6	<2	39	<5	<3	89
S.P. L-2 1+50E	<0.1	3.55	<3	10	45	<3	0.66	1.5	11	85	27	3.65	<0.01	0.14	305	<1	0.02	14	0.02	4	10	<2	41	<5	<3	60
S.P. L-2 1+75E	<0.1	5.52	<3	<5	62	<3	0.67	0.8	17	169	47	5.18	<0.01	0.23	495	<1	0.03	27	0.04	<2	10	<2	37	<5	<3	108
S.P. L-2 2+00E	<0.1	4.98	<3	10	84	<3	0.81	2.0	13	101	38	3.91	<0.01	0.15	893	<1	0.02	18	0.07	<2	11	<2	43	<5	<3	99
S.P. L-2 2+25E	0.3	3.71	<3	15	66	<3	0.66	0.3	13	96	27	3.96	<0.01	0.19	539	<1	<0.01	19	0.03	4	3	<2	39	<5	<3	77
S.P. L-2 2+50E	0.4	6.58	<3	15	77	<3	0.60	<0.1	23	195	75	6.50	<0.01	0.32	882	<1	<0.01	37	0.08	4	9	<2	28	<5	<3	132
S.P. L-2 2+75E	0.2	2.28	<3	10	32	<3	0.72	1.7	14	54	9	2.08	<0.01	0.08	260	<1	0.04	11	0.02	9	4	<2	41	<5	<3	38
S.P. L-2 3+00E	0.1	2.96	<3	5	47	<3	0.64	0.5	12	58	10	2.46	<0.01	0.10	270	<1	0.02	11	0.02	<2	<2	<2	39	<5	<3	47
S.P. L-2 3+25E	0.3	4.95	<3	5	205	<3	0.63	0.7	31	206	64	5.63	<0.01	0.35	1954	<1	0.02	52	0.04	8	10	<2	31	<5	<3	118
S.P. L-2 3+50E	0.1	4.65	<3	5	305	<3	0.80	0.5	35	235	73	5.67	<0.01	0.41	2358	<1	0.02	55	0.04	8	11	<2	28	<5	<3	126
S.P. L-2 3+75E	0.2	5.24	<3	<5	151	<3	0.58	0.6	24	184	60	5.96	<0.01	0.28	801	<1	0.04	44	0.11	4	13	<2	23	<5	<3	129
S.P. L-2 4+00E	<0.1	5.37	<3	10	238	<3	0.68	1.1	42	215	101	6.20	<0.01	0.41	5765	<1	0.04	63	0.09	9	13	<2	29	<5	<3	153
S.P. L-2 4+25E	<0.1	3.86	<3	5	246	<3	1.53	0.3	34	185	59	5.32	<0.01	0.42	1818	<1	0.03	67	0.04	6	9	<2	44	<5	<3	128
S.P. L-2 4+50E	<0.1	4.76	<3	<5	220	<3	1.21	1.3	34	307	81	5.82	<0.01	0.29	912	<1	0.03	68	0.02	6	12	<2	55	<5	<3	101
S.P. L-2 4+75E	0.1	5.64	<3	<5	126	<3	0.55	2.2	27	226	71	6.03	<0.01	0.29	716	<1	0.02	54	0.06	4	9	<2	32	<5	<3	105
S.P. L-2 5+00E	0.2	5.61	<3	<5	124	<3	0.52	1.3	29	199	67	5.64	<0.01	0.31	759	<1	0.03	65	0.08	9	6	<2	28	<5	<3	126
S.P. L-2 5+25E	0.2	5.29	<3	<5	117	<3	0.46	<0.1	33	223	100	6.12	<0.01	0.42	1033	<1	0.01	72	0.05	<2	4	<2	23	<5	<3	124
S.P. L-2 5+50E	0.2	3.69	<3	<5	129	<3	0.54	1.7	30	322	78	5.65	<0.01	0.30	731	<1	0.02	82	0.03	8	<2	<2	24	<5	<3	104
S.P. L-2 5+75E	0.2	2.89	<3	<5	76	<3	0.69	2.5	12	103	14	2.46	<0.01	0.12	263	<1	0.02	27	0.02	2	2	<2	35	<5	<3	63
S.P. L-2 6+00E	0.1	5.79	<3	10	102	<3	0.44	<0.1	36	195	71	5.70	<0.01	0.41	1118	<1	0.01	68	0.06	<2	4	<2	21	<5	<3	143
S.P. L-2 6+25E	0.1	2.40	<3	5	42	<3	0.58	0.5	19	157	12	2.65	<0.01	0.15	318	<1	0.02	24	0.02	<2	<2	<2	42	<5	<3	49
S.P. L-2 6+50E	0.1	3.56	<3	10	49	<3	0.66	0.3	26	218	17	3.29	<0.01	0.23	423	<1	0.02	56	0.02	2	<2	<2	37	<5	<3	62
S.P. L-2 6+75E	0.2	3.15	<3	<5	59	<3	0.66	1.5	19	189	20	3.28	<0.01	0.18	471	<1	0.02	39	0.02	4	5	<2	45	<5	<3	73
S.P. L-2 7+00E	0.4	4.82	<3	5	166	<3	0.76	0.1	37	351	57	5.44	<0.01	0.36	3799	<1	0.03	96	0.06	<2	<2	<2	42	<5	<3	120
S.P. L-2 7+25E	<0.1	2.64	<3	10	109	<3	0.80	0.5	23	243	17	3.37	<0.01	0.21	527	<1	0.03	56	0.02	<2	4	<2	46	<5	<3	70
S.P. L-2 7+50E	<0.1	4.45	<3	<5	129	<3	0.61	0.8	34	277	59	4.95	<0.01	0.33	1114	<1	0.02	82	0.04	6	9	<2	42	<5	<3	86
S.P. L-3 0+25E	<0.1	5.69	<3	<5	144	<3	0.62	1.7	29	137	86	5.19	<0.01	0.36	1663	<1	0.02	38	0.07	4	13	<2	27	<5	<3	108
S.P. L-3 0+50E	<0.1	3.01	<3	5	111	<3	0.87	0.9	14	36	14	2.49	<0.01	0.11	846	<1	0.03	8	0.01	5	7	<2	39	<5	<3	58
S.P. L-3 0+75E	0.1	6.69	<3	10	130	<3	0.70	0.1	27	142	68	5.45	<0.01	0.33	1235	<1	0.02	36	0.10	3	2	<2	26	<5	<3	134
S.P. L-3 1+00E	0.1	2.64	<3	<5	84	<3	0.71	1.9	12	83	11	2.24	<0.01	0.12	528	<1	0.01	14	0.02	3	2	<2	41	<5	<3	49
S.P. L-3 1+25E	0.3	4.67	<3	10	132	<3	0.81	1.6	26	96	50	4.10	<0.01	0.27	690	<1	0.03	25	0.03	<2	8	<2	44	<5	<3	87
Minimum Detection	0.1	0.01	3	5	1	3	0.01	0.1	1	1	1	0.01	0.01	0.01	1	1	0.01	1	0.01	2	2	2	1	5	3	1
Maximum Detection	50.0	10.00	2000	10000	1000	1000	10.00	1000.0	20000	1000	20000	10.00	10.00	10.00	20000	1000	10.00	20000	10.00	20000	2000	1000	10000	100	1000	20000

(= Less Than Minimum) = Greater Than Maximum is - Insufficient Sample ns - No Sample *Au Analysis Done By Aqua Regia Digestion / Solvent Extraction / AAS.

VANGEOCHEM LAB LIMITED
1630 Pandora Street, Vancouver, B.C. V5L 1L6
Ph:(604)251-5656 Fax:(604)254-5717

ICAP GEOCHEMICAL ANALYSIS

A .5 gram sample is digested with 5 ml of 3:1:2 HCL to HNO_3 to H_2O at 95 °C for 90 minutes and is diluted to 10 ml with water.
This leach is partial for Al, Ba, Ca, Cr, Fe, K, Mg, Mn, Na, P, Sn, Sr and W.

ANALYST:

REPORT #: 910050 PA | SUN GROUP RES. MANAGEMENT | PROJECT: ARROWSMITH | DATE IN: APR 17 1991 | DATE OUT: APR 30 1991 | ATTENTION: MR. SCOTT ANGUS | PAGE 11 OF 16

Sample Name	Ag	Al	As	*Au	Ba	Bi	Ca	Cd	Co	Cr	Cu	Fe	K	Mg	Mn	Mo	Na	Ni	P	Pb	Sb	Sn	Sr	U	W	Zn
	ppm	%	ppm	ppb	ppm	ppm	%	ppm	ppm	ppm	ppm	%	%	%	ppm	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
S.P. L-3 1+50E	0.2	2.28	<3	10	60	<3	0.73	<0.1	9	<1	16	1.91	<0.01	0.09	369	<1	0.02	2	0.01	3	<2	<2	41	<5	<3	47
S.P. L-3 1+75E	0.2	4.00	<3	20	141	<3	0.87	<0.1	17	16	29	3.46	<0.01	0.20	506	<1	0.03	2	0.02	<2	<2	<2	39	<5	<3	82
S.P. L-3 2+00E	0.1	5.06	<3	15	269	<3	0.79	2.6	23	76	53	4.78	<0.01	0.23	807	<1	0.01	39	0.06	<2	<2	<2	37	<5	<3	96
S.P. L-3 2+25E	0.1	4.10	<3	20	163	<3	0.69	<0.1	15	57	42	4.21	<0.01	0.14	588	<1	0.02	17	0.04	<2	<2	<2	32	<5	<3	84
S.P. L-3 2+50E	0.1	1.84	<3	10	79	<3	0.80	<0.1	6	<1	7	1.58	<0.01	0.05	219	<1	0.02	3	0.01	<2	<2	<2	41	<5	<3	46
S.P. L-3 2+75E	0.2	3.91	<3	15	86	<3	0.63	<0.1	16	23	51	3.94	<0.01	0.20	839	<1	0.01	12	0.05	<2	<2	<2	28	<5	<3	87
S.P. L-3 3+00E	0.1	4.66	<3	10	107	<3	0.68	<0.1	15	40	43	4.33	<0.01	0.18	614	<1	0.01	12	0.08	3	<2	<2	26	<5	<3	109
S.P. L-3 3+25E	0.3	3.10	<3	5	60	<3	0.65	<0.1	10	14	21	2.57	<0.01	0.12	680	<1	0.03	10	0.03	<2	<2	<2	34	<5	<3	63
S.P. L-3 3+50E	0.4	4.40	<3	15	114	<3	0.48	2.3	19	72	62	5.00	<0.01	0.27	1105	<1	0.02	23	0.06	3	<2	<2	22	<5	<3	105
S.P. L-3 3+75E	0.4	3.74	<3	<5	191	<3	0.56	<0.1	20	82	44	4.61	<0.01	0.24	1379	<1	0.03	25	0.03	3	<2	<2	26	<5	<3	92
S.P. L-3 4+00E	0.3	4.25	104	10	232	<3	0.54	2.1	22	175	49	5.71	0.10	0.18	796	<1	0.02	26	0.01	5	<2	<2	29	<5	<3	94
S.P. L-3 4+25E	0.5	3.81	<3	10	259	<3	0.94	2.9	25	91	40	4.84	<0.01	0.32	1569	<1	0.02	28	0.04	4	<2	<2	29	<5	<3	110
S.P. L-3 4+50E	0.1	3.96	<3	20	211	<3	0.68	<0.1	18	45	36	4.23	<0.01	0.18	1339	<1	0.02	7	0.06	<2	<2	<2	28	<5	<3	98
S.P. L-3 4+75E	<0.1	5.03	<3	<5	152	<3	0.49	2.9	23	92	85	5.36	<0.01	0.34	1074	<1	0.02	39	0.06	<2	3	<2	22	<5	<3	109
S.P. L-3 5+00E	<0.1	4.49	<3	5	402	<3	0.62	3.6	36	161	62	5.85	<0.01	0.36	2699	<1	0.02	55	0.04	4	<2	<2	28	<5	<3	121
S.P. L-3 5+25E	0.2	3.37	<3	<5	276	<3	0.93	<0.1	32	149	68	4.77	<0.01	0.24	2375	<1	0.03	38	0.02	6	<2	<2	44	<5	<3	106
S.P. L-3 5+50E	<0.1	5.80	<3	<5	221	<3	0.54	<0.1	32	142	90	6.02	0.18	0.31	1374	<1	0.03	60	0.09	<2	<2	<2	26	<5	<3	134
S.P. L-3 5+75E	0.2	3.93	<3	<5	190	<3	0.59	2.2	23	199	54	4.86	<0.01	0.22	1119	<1	0.01	38	0.03	<2	2	<2	34	<5	<3	81
S.P. L-3 6+00E	<0.1	3.69	<3	<5	152	<3	0.79	<0.1	18	75	31	3.94	<0.01	0.19	830	<1	0.03	27	0.04	<2	<2	<2	31	<5	<3	84
S.P. L-3 6+25E	0.1	4.85	<3	5	141	<3	0.42	<0.1	25	98	78	5.52	<0.01	0.29	1055	<1	0.02	43	0.06	<2	<2	<2	18	<5	<3	100
S.P. L-3 6+50E	0.2	4.41	<3	<5	320	<3	0.95	0.2	38	240	71	6.21	<0.01	0.38	2245	<1	0.03	115	0.05	<2	<2	<2	36	<5	<3	128
S.P. L-3 6+75E	<0.1	4.38	<3	<5	187	<3	0.54	2.9	23	137	41	5.38	0.02	0.29	958	<1	0.02	49	0.05	2	2	<2	27	<5	<3	104
S.P. L-3 7+00E	0.1	2.04	<3	<5	92	<3	0.64	<0.1	12	24	5	1.76	<0.01	0.11	650	<1	0.02	7	0.01	<2	<2	<2	34	<5	<3	39
S.P. L-3 7+25E	0.1	3.42	<3	10	79	<3	0.60	<0.1	20	100	23	3.67	0.26	0.19	835	<1	0.04	32	0.03	<2	<2	<2	37	<5	<3	77
S.P. L-3 7+50E	0.3	4.51	<3	10	78	<3	0.50	<0.1	22	91	62	4.21	<0.01	0.28	656	<1	0.03	55	0.03	<2	<2	<2	34	<5	<3	94
S.P. SILT L-3 6+25E	0.1	4.86	<3	15	269	<3	2.02	0.1	44	269	108	6.86	<0.01	0.51	2972	<1	0.04	120	0.03	16	<2	<2	57	<5	<3	147
S.P. L-4 0+00	<0.1	6.61	<3	<5	200	<3	0.66	<0.1	39	354	112	6.67	<0.01	0.47	912	<1	0.04	119	0.02	2	4	<2	35	<5	<3	95
S.P. L-4 0+25E	0.1	3.57	<3	<5	167	<3	0.53	<0.1	17	139	54	4.09	<0.01	0.23	511	<1	0.03	50	0.01	3	<2	<2	27	<5	<3	68
S.P. L-4 0+50E	<0.1	4.63	<3	10	266	<3	1.19	<0.1	32	33	102	5.61	<0.01	0.36	2663	<1	0.03	21	0.03	<2	<2	<2	31	<5	<3	131
S.P. L-4 0+75E	0.1	6.23	<3	10	173	<3	0.88	0.9	28	68	94	5.78	<0.01	0.40	1217	<1	0.02	30	0.06	<2	3	<2	28	<5	<3	119
S.P. L-4 1+00E	<0.1	3.16	<3	<5	137	<3	0.96	<0.1	20	39	15	2.79	<0.01	0.17	2030	<1	0.03	18	0.03	<2	<2	<2	48	<5	<3	81
S.P. L-4 1+25E	<0.1	3.77	<3	<5	115	<3	0.86	2.9	23	57	38	4.69	<0.01	0.30	952	<1	0.01	27	0.03	3	<2	<2	35	<5	<3	95
S.P. L-4 1+50E	<0.1	5.12	<3	15	275	<3	0.97	3.7	28	95	48	5.21	<0.01	0.27	1355	<1	0.02	24	0.03	<2	7	<2	44	<5	<3	93
S.P. L-4 1+75E	<0.1	5.16	<3	15	232	<3	1.03	<0.1	25	31	51	5.31	<0.01	0.27	1550	<1	0.03	15	0.03	<2	<2	<2	45	<5	<3	94
S.P. L-4 2+00E	<0.1	4.70	<3	15	237	<3	0.91	3.0	25	27	35	4.23	<0.01	0.18	2426	<1	0.02	11	0.06	<2	<2	<2	44	<5	<3	97
S.P. L-4 2+25E	<0.1	4.55	<3	<5	170	<3	0.70	<0.1	19	40	32	4.42	0.16	0.17	619	<1	0.03	9	0.03	2	<2	<2	38	<5	<3	96
S.P. L-4 2+50E	<0.1	4.89	<3	15	204	<3	0.66	<0.1	26	96	54	4.79	<0.01	0.24	1461	<1	0.02	32	0.03	<2	<2	<2	33	<5	<3	94
S.P. L-4 2+75E	<0.1	3.39	<3	<5	193	<3	0.80	<0.1	19	37	26	3.51	<0.01	0.14	2863	<1	0.02	10	0.03	7	<2	<2	40	<5	<3	80
S.P. L-4 3+00E	0.1	6.37	<3	15	309	<3	0.50	<0.1	29	324	114	5.99	0.10	0.32	841	<1	0.02	45	0.02	<2	<2	<2	24	<5	<3	98
Minimum Detection	0.1	0.01	3	5	1	3	0.01	0.1	1	1	1	0.01	0.01	0.01	1	1	0.01	1	0.01	2	2	2	1	5	3	1
Maximum Detection	50.0	10.00	2000	10000	1000	1000	10.00	1000.0	20000	1000	20000	10.00	10.00	10.00	20000	1000	10.00	20000	10.00	20000	2000	1000	10000	100	1000	20000

- Sample Type: Soil. Au Analysis Done By Aqua Regia Digestion / Solvent Extraction / AAS.

1630 Pandora Street, Van. ..r, B.C. V5L 1L6
Ph:(604)251-5656 Fax:(604)254-5717

ICAP GEOCHEMICAL ANALYSIS

A .5 gram sample is digested with 5 ml of 3:1:2 HCL to HNO_3 to H_2O at 95 °C for 90 minutes and is diluted to 10 ml with water.
This leach is partial for Al, Ba, Ca, Cr, Fe, K, Mg, Mn, Na, P, Sn, Sr and W.

ANALYST: _____

REPORT #: 910050 PA | SUN GROUP RES. MANAGEMENT | PROJECT: ARROWSMITH | DATE IN: APR 17 1991 | DATE OUT: APR 30 1991 | ATTENTION: MR. SCOTT ANGUS | PAGE 12 OF 16

Sample Name	Ag	Al	As	*Au	Ba	Bi	Ca	Cd	Co	Cr	Cu	Fe	K	Mg	Mn	Mo	Na	Ni	P	Pb	Sb	Sn	Sr	U	W	Zn
	ppm	%	ppm	ppb	ppm	ppm	%	ppm	ppm	ppm	ppm	%	%	%	ppm	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
S.P. L-4 3+25E	<0.1	6.59	35	<5	258	<3	0.71	<0.1	30	262	105	7.19	0.69	0.36	819	8	0.02	239	0.02	<2	17	<2	33	<5	<3	126
S.P. L-4 3+50E	<0.1	5.49	<3	15	192	<3	0.79	<0.1	24	37	75	6.15	0.78	0.30	1038	<1	0.03	18	0.03	6	7	<2	40	<5	<3	118
S.P. L-4 3+75E	<0.1	4.92	<3	<5	185	<3	0.97	<0.1	27	34	37	4.24	0.67	0.19	2016	<1	0.04	16	0.05	9	13	<2	49	<5	<3	132
S.P. L-4 4+00E	<0.1	5.64	<3	10	216	<3	0.72	<0.1	29	121	88	6.49	0.72	0.35	1542	<1	0.02	51	0.08	3	11	<2	31	<5	<3	158
S.P. L-4 4+25E	<0.1	5.85	<3	10	227	<3	0.88	<0.1	50	350	63	8.41	1.14	0.42	1254	<1	0.02	105	0.04	<2	15	<2	51	<5	<3	140
S.P. L-4 4+50E	<0.1	6.74	288	<5	504	<3	1.02	<0.1	36	378	68	8.50	0.90	0.25	2582	<1	0.02	44	0.03	5	18	<2	47	<5	<3	221
S.P. L-4 4+75E	<0.1	4.04	<3	<5	241	<3	0.88	0.9	29	66	39	5.45	0.80	0.25	2318	<1	0.03	23	0.04	8	9	<2	46	<5	<3	118
S.P. L-4 5+00E	<0.1	4.28	<3	10	367	<3	1.09	<0.1	33	84	71	6.34	0.66	0.34	2408	<1	0.02	35	0.07	10	16	<2	40	<5	<3	119
S.P. L-4 5+25E	<0.1	5.06	<3	15	336	<3	0.82	<0.1	46	206	132	7.72	1.23	0.49	2813	<1	0.04	78	0.04	8	14	<2	31	<5	<3	139
S.P. L-4 5+50E	<0.1	6.00	<3	15	275	<3	0.84	<0.1	32	82	90	7.07	0.83	0.37	1776	<1	0.02	29	0.06	4	13	<2	39	<5	<3	121
S.P. L-4 5+75E	<0.1	6.03	<3	<5	355	<3	0.91	0.4	32	31	60	6.40	0.61	0.27	2523	<1	0.02	22	0.08	<2	10	<2	43	<5	<3	142
S.P. L-4 6+00E	<0.1	4.98	<3	5	110	<3	0.56	<0.1	44	326	99	6.61	0.79	0.49	956	<1	0.03	120	0.02	<2	11	<2	32	<5	<3	81
S.P. L-4 6+25E	<0.1	6.41	<3	5	311	<3	0.65	<0.1	32	88	127	7.40	0.42	0.42	1938	<1	0.03	33	0.03	<2	9	<2	37	<5	<3	104
S.P. L-4 6+50E	<0.1	5.44	<3	15	289	<3	0.79	<0.1	31	73	95	6.91	0.83	0.43	2350	<1	0.03	36	0.05	<2	18	<2	39	<5	<3	111
S.P. L-4 6+75E	<0.1	4.88	<3	<5	233	<3	0.64	<0.1	26	42	59	5.40	0.47	0.29	3574	<1	0.03	23	0.05	5	6	<2	36	<5	<3	102
S.P. L-4 7+00E	<0.1	6.32	<3	15	234	<3	0.70	<0.1	30	73	70	6.77	0.68	0.33	1388	<1	0.02	26	0.10	2	5	<2	38	<5	<3	119
S.P. L-4 7+25E	<0.1	4.47	<3	<5	495	<3	0.74	<0.1	39	203	68	6.72	0.76	0.32	2261	<1	0.03	82	0.02	17	3	<2	36	<5	<3	99
S.P. L-4 7+50E	<0.1	4.94	<3	15	181	<3	0.53	0.3	32	118	71	6.47	0.51	0.32	1032	<1	0.02	39	0.02	<2	6	<2	35	<5	<3	86
S.P. 0-N 0+00	<0.1	5.98	<3	5	104	<3	0.52	<0.1	40	199	110	7.14	0.97	0.40	993	<1	0.01	79	0.05	<2	9	<2	26	<5	<3	120
S.P. 0-N 0+25W	0.4	5.54	<3	<5	93	<3	0.54	<0.1	25	158	69	6.62	0.86	0.22	722	<1	0.02	29	0.08	7	14	<2	31	<5	<3	99
S.P. 0-N 0+50W	<0.1	5.27	<3	10	91	<3	0.92	0.6	49	204	172	7.31	0.57	0.54	1803	<1	0.05	120	0.06	9	8	<2	31	<5	<3	136
S.P. 0-N 0+75W	<0.1	7.11	<3	15	97	<3	0.71	<0.1	44	212	122	8.14	1.13	0.41	1451	<1	0.03	85	0.09	4	20	<2	27	<5	<3	137
S.P. 0-N 1+00W	<0.1	5.97	<3	20	124	<3	0.57	<0.1	34	122	111	8.17	1.28	0.31	1114	<1	0.02	58	0.07	<2	14	<2	26	<5	<3	149
S.P. 0-N 1+25W	0.1	7.60	<3	10	113	<3	0.47	<0.1	29	140	84	8.83	1.00	0.22	1343	<1	0.03	41	0.15	6	12	<2	22	<5	<3	128
S.P. 0-N 1+50W	0.1	4.08	<3	15	98	<3	0.35	<0.1	14	46	45	6.16	0.42	0.11	352	<1	0.03	15	0.04	2	7	<2	22	<5	<3	65
S.P. 0-N 1+75W	0.2	8.35	<3	20	88	<3	0.46	<0.1	34	224	82	8.31	0.65	0.33	769	<1	0.01	65	0.09	<2	12	<2	21	<5	<3	149
S.P. 0-N 2+00W	0.2	4.89	<3	20	69	<3	0.75	<0.1	46	183	154	6.94	0.94	0.54	1242	<1	0.02	87	0.05	4	17	<2	28	<5	<3	128
S.P. 0-N 2+25W	0.1	5.69	<3	15	83	<3	0.65	<0.1	46	212	134	7.76	1.27	0.49	1340	<1	0.03	87	0.05	<2	18	<2	28	<5	<3	136
S.P. 0-N 2+50W	0.4	6.15	<3	10	69	<3	0.59	<0.1	38	245	103	7.89	0.93	0.43	824	<1	0.03	80	0.06	5	19	<2	25	<5	<3	127
S.P. 0-N 2+75W	<0.1	4.62	<3	10	94	<3	0.74	<0.1	49	180	68	6.96	0.57	0.43	1564	<1	0.02	108	0.03	3	7	<2	25	<5	<3	144
S.P. 0-N 3+00W	<0.1	5.51	<3	20	90	<3	0.71	<0.1	52	209	130	7.16	1.00	0.46	996	<1	0.04	123	0.03	4	21	<2	24	<5	<3	131
S.P. 0-N 3+25W	0.3	7.82	<3	15	66	<3	0.48	0.7	47	271	100	7.83	1.31	0.38	1139	<1	0.02	92	0.11	3	13	<2	16	<5	<3	135
S.P. 0-N 3+50W	<0.1	6.97	<3	15	83	<3	0.51	<0.1	52	257	77	7.86	0.52	0.40	1099	<1	0.02	103	0.06	2	13	<2	20	<5	<3	144
S.P. 0-N 3+75W	<0.1	6.30	<3	<5	74	<3	0.63	<0.1	56	312	93	7.98	1.04	0.54	948	<1	0.02	141	0.04	<2	13	<2	18	<5	<3	144
S.P. 0-N 4+00W	<0.1	5.00	<3	15	62	<3	0.82	<0.1	57	258	144	7.48	0.97	0.55	1356	<1	0.02	129	0.05	<2	15	<2	20	<5	<3	127
S.P. 0-N 4+25W	<0.1	6.31	<3	10	103	<3	1.24	<0.1	62	346	140	8.15	0.60	0.59	1585	<1	0.02	145	0.06	<2	11	<2	28	<5	<3	149
S.P. 0-N 4+50W	<0.1	5.01	<3	5	103	<3	0.78	<0.1	39	254	81	7.55	0.65	0.34	806	<1	0.02	73	0.05	2	13	<2	29	<5	<3	126
S.P. 0-N 4+75W	<0.1	4.72	<3	15	106	<3	1.09	<0.1	60	308	145	7.31	0.82	0.63	1681	<1	0.03	155	0.03	5	<2	<2	27	<5	<3	120
S.P. 0-N 5+00W	<0.1	4.64	<3	<5	89	<3	0.89	<0.1	53	254	128	6.85	0.68	0.57	1386	<1	0.02	136	0.04	8	7	<2	25	<5	<3	144
Minimum Detection	0.1	0.01	3	5	1	3	0.01	0.1	1	1	1	0.01	0.01	0.01	1	1	0.01	1	0.01	2	2	2	1	5	3	1
Maximum Detection	50.0	10.00	2000	10000	1000	1000	10.00	1000.0	20000	1000	20000	10.00	10.00	10.00	20000	1000	10.00	20000	10.00	20000	2000	1000	10000	100	1000	20000

(- Less Than Minimum) - Greater Than Maximum is - Insufficient Sample ns - No Sample *Au Analysis Done By Aqua Regia Digestion / Solvent Extraction / AAS.

1630 Pandora Street, V... ...ver, B.C. V5L 1L6
Ph:(604)251-5656 Fax:(604)254-5717

ICAP GEOCHEMICAL ANALYSIS

A .5 gram sample is digested with 5 ml of 3:1:2 HCL to HNO_3 to H_2O at 95 °C for 90 minutes and is diluted to 10 ml with water.
This leach is partial for Al, Ba, Ca, Cr, Fe, K, Mg, Mn, Na, P, Sn, Sr and W.

ANALYST:

REPORT #: 910050 PA | SUN GROUP RES. MANAGEMENT | PROJECT: ARROWSMITH | DATE IN: APR 17 1991 | DATE OUT: APR 30 1991 | ATTENTION: MR. SCOTT ANGUS |

Sample Name	Ag	Al	As	*Au	Ba	Bi	Ca	Cd	Co	Cr	Cu	Fe	K	Mg	Mn	Mo	Na	Ni	P	Pb	Sb	Sn	Sr	U	W	Zn
	ppm	%	ppm	ppb	ppm	ppm	%	ppm	ppm	ppm	ppm	%	%	%	ppm	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
S.P. 0-N 5+25W	0.2	4.52	<3	10	68	<3	0.82	0.3	49	226	125	6.57	0.72	0.51	1261	<1	0.04	126	0.05	<2	5	<2	26	<5	<3	117
S.P. 0-N 5+50W	0.2	5.54	<3	10	79	<3	0.67	<0.1	45	265	109	8.08	0.59	0.49	1194	<1	0.02	100	0.07	<2	10	<2	25	<5	<3	131
S.P. 0-N 5+75W	0.4	5.46	<3	10	93	<3	0.83	1.3	59	273	167	7.65	0.60	0.59	1804	<1	0.01	124	0.06	<2	11	<2	30	<5	<3	143
S.P. 0-N 6+00W	0.2	5.44	<3	20	70	<3	0.95	1.4	50	240	167	7.46	0.82	0.61	1653	<1	0.03	100	0.05	<2	8	<2	34	<5	<3	142
S.P. 0-N 6+25W	0.4	6.58	<3	15	159	<3	1.09	<0.1	68	774	301	7.50	0.82	0.78	2119	<1	0.03	193	0.03	<2	15	<2	43	<5	<3	136
S.P. 0-N 6+50W	<0.1	4.68	<3	<5	84	<3	0.92	0.7	49	222	117	6.76	0.72	0.49	1635	<1	0.03	101	0.04	2	17	<2	39	<5	<3	117
S.P. 0-N 6+75W	0.1	4.62	<3	<5	79	<3	0.88	1.4	46	189	131	6.39	0.98	0.50	1409	<1	0.04	98	0.05	<2	10	<2	38	<5	<3	123
S.P. 0-N 7+00W	0.3	4.93	<3	<5	75	<3	0.81	<0.1	46	175	106	6.63	0.85	0.48	1085	<1	0.04	87	0.04	4	14	<2	39	<5	<3	120
S.P. 0-N 7+25W	0.3	5.60	<3	5	75	<3	0.90	1.4	44	199	124	6.99	0.82	0.47	1168	<1	0.03	80	0.05	<2	10	<2	39	<5	<3	128
S.P. 0-N 7+50W	0.1	5.23	<3	5	69	<3	0.84	<0.1	42	185	116	6.56	0.71	0.45	1091	<1	0.02	78	0.05	<2	2	<2	36	<5	<3	121
S.P. 0-N 7+75W	<0.1	5.75	<3	15	67	<3	0.92	0.8	57	299	197	7.60	1.07	0.61	1251	<1	0.03	131	0.03	<2	24	<2	37	<5	<3	144
S.P. 0-N 8+00W	0.2	9.23	<3	5	69	<3	0.65	<0.1	46	423	115	7.83	1.00	0.34	1154	<1	0.02	71	0.07	<2	7	<2	37	<5	<3	146
S.P. 0-N 8+25W	<0.1	5.55	<3	15	56	<3	1.00	<0.1	45	378	104	6.86	1.31	0.47	1038	<1	0.05	101	0.03	<2	14	<2	64	<5	<3	122
S.P. 0-N 8+50W	<0.1	>10	<3	<5	64	<3	0.79	<0.1	93	590	247	8.09	1.27	0.70	2576	<1	0.02	151	0.06	<2	18	<2	59	<5	<3	177
S.P. 0-N 8+75W	0.1	7.35	<3	10	90	<3	0.98	0.8	68	541	356	7.59	0.72	0.81	1703	<1	0.02	154	0.02	<2	7	<2	52	<5	<3	144
S.P. 0-N 9+00W	0.1	7.29	<3	10	84	<3	0.98	<0.1	57	438	136	8.34	0.97	0.68	1314	<1	0.02	129	0.04	<2	20	<2	70	<5	<3	169
S.P. 1-N 0+00	0.1	6.70	<3	10	67	<3	0.58	<0.1	51	291	196	8.01	1.02	0.57	1424	<1	0.02	88	0.03	2	2	<2	26	<5	<3	141
S.P. 1-N 0+25W	<0.1	6.36	<3	10	70	<3	0.68	0.7	53	256	105	6.92	0.77	0.34	2049	<1	0.04	48	0.05	7	7	<2	28	<5	<3	118
S.P. 1-N 0+50W	<0.1	6.79	<3	15	93	<3	0.96	0.4	42	406	82	8.10	0.89	0.31	898	<1	0.04	67	0.04	<2	14	<2	38	<5	<3	112
S.P. 1-N 0+75W	0.2	7.40	<3	20	147	<3	1.31	1.4	55	757	162	8.95	1.11	0.53	1570	<1	0.03	140	0.03	<2	12	<2	45	<5	<3	130
S.P. 1-N 1+00W	0.4	4.27	<3	<5	164	<3	1.25	0.2	32	533	84	8.72	1.08	0.25	3490	<1	0.05	68	0.03	3	19	<2	74	<5	<3	94
S.P. 1-N 1+25W	0.6	5.62	<3	15	182	<3	1.23	<0.1	50	604	124	7.59	0.77	0.45	3619	<1	0.04	100	0.03	2	8	<2	64	<5	<3	131
S.P. 1-N 1+50W	0.2	9.93	<3	10	109	<3	0.51	0.2	71	775	215	9.68	1.18	0.55	2198	<1	0.02	162	0.07	<2	13	<2	29	<5	<3	161
S.P. 1-N 1+75W	0.2	6.82	<3	10	67	<3	0.57	0.5	41	546	116	8.58	0.86	0.41	1079	<1	0.03	97	0.07	<2	15	<2	34	<5	<3	128
S.P. 1-N 2+00W	0.2	7.21	<3	15	195	<3	0.75	<0.1	54	752	181	8.60	1.31	0.52	5283	<1	0.04	134	0.03	<2	13	<2	35	<5	<3	151
S.P. 1-N 2+25W	<0.1	5.26	<3	15	200	<3	1.43	<0.1	71	424	235	7.10	1.06	0.64	2640	<1	0.04	144	0.03	<2	6	<2	39	<5	<3	133
S.P. 1-N 2+50W	0.2	6.09	<3	10	152	<3	1.08	0.3	47	527	101	7.15	0.46	0.26	1351	<1	0.02	60	0.04	<2	5	<2	38	<5	<3	103
S.P. 1-N 2+75W	<0.1	5.23	87	20	250	<3	2.24	<0.1	46	837	156	6.99	0.86	0.39	2229	<1	0.04	123	0.03	<2	14	<2	65	<5	<3	134
S.P. 1-N 3+00W	<0.1	4.03	<3	<5	106	<3	1.45	0.5	59	404	131	5.99	0.64	0.64	1890	<1	0.04	141	0.03	<2	3	<2	38	<5	<3	105
S.P. 1-N 3+25W	0.6	5.45	201	<5	159	<3	1.16	<0.1	47	739	101	7.08	0.80	0.34	1632	<1	0.03	91	0.01	6	12	<2	46	<5	<3	104
S.P. 1-N 3+50W	0.4	4.82	<3	<5	145	<3	1.77	<0.1	65	478	167	7.98	1.20	0.76	2984	<1	0.05	183	0.03	<2	8	<2	47	<5	<3	126
S.P. 1-N 3+75W	0.2	6.18	69	15	148	<3	1.49	0.7	49	883	132	7.36	0.99	0.47	1408	<1	0.04	99	0.02	<2	13	<2	50	<5	<3	120
S.P. 1-N 4+00W	<0.1	4.59	156	<5	143	<3	1.59	1.1	51	880	104	6.35	0.91	0.47	1462	<1	0.04	118	0.02	<2	14	<2	52	<5	<3	104
S.P. 1-N 4+25W	<0.1	5.32	<3	<5	96	<3	1.39	<0.1	71	845	196	6.65	0.36	1.03	2326	<1	0.03	277	0.03	<2	13	<2	42	<5	<3	110
S.P. 1-N 4+50W	0.1	5.01	42	20	117	<3	1.39	0.4	46	634	115	6.69	0.44	0.44	887	<1	0.04	104	0.02	<2	6	<2	48	<5	<3	95
S.P. 1-N 4+75W	0.3	5.72	112	15	102	<3	1.69	<0.1	51	949	123	5.19	0.77	0.41	944	<1	0.04	91	0.03	<2	11	<2	42	<5	<3	89
S.P. 1-N 5+00W	0.2	5.03	457	5	197	<3	2.07	<0.1	53	773	221	6.58	0.78	0.46	3430	<1	0.04	103	0.03	<2	13	<2	62	<5	<3	128
S.P. 2N 0+00	0.2	4.74	<3	<5	93	<3	0.82	<0.1	53	268	266	6.33	0.90	0.60	1552	<1	0.05	95	0.03	<2	7	<2	31	<5	<3	117
S.P. 2N 0+25W	0.2	4.63	<3	20	81	<3	0.79	0.1	41	307	147	6.65	1.07	0.54	1413	<1	0.03	91	0.02	13	10	<2	29	<5	<3	141
Minimum Detection	0.1	0.01	3	5	1	3	0.01	0.1	1	1	1	0.01	0.01	0.01	1	1	0.01	1	0.01	2	2	2	1	5	3	1
Maximum Detection	50.0	10.00	2000	10000	1000	1000	10.00	1000.0	20000	1000	20000	10.00	10.00	10.00	20000	1000	10.00	20000	10.00	20000	2000	1000	10000	100	1000	20000

< = Less Than Minimum > = Greater Than Maximum is - Insufficient Sample ns - No Sample *Au Analysis Done By Aqua Regia Digestion / Solvent Extraction / AAS.

1630 Pandora Street, Va... ver, B.C. V5L 1L6
Ph:(604)251-5656 Fax:(604)254-5717

ICAP GEOCHEMICAL ANALYSIS

A .5 gram sample is digested with 5 ml of 3:1:2 HCL to HNO_3 to H_2O at 95 °C for 90 minutes and is diluted to 10 ml with water.
This leach is partial for Al, Ba, Ca, Cr, Fe, K, Mg, Mn, Na, P, Sn, Sr and W.

ANALYST:

REPORT #: 910050 PA | SUN GROUP RES. MANAGEMENT | PROJECT: ARROWSMITH | DATE IN: APR 17 1991 | DATE OUT: APR 30 1991 | ATTENTION: MR. SCOTT ANGUS |

Sample Name	Ag	Al	As	*Au	Ba	Bi	Ca	Cd	Co	Cr	Cu	Fe	K	Mg	Mn	Mo	Na	Ni	P	Pb	Sb	Sn	Sr	U	W	Zn
	ppm	%	ppm	ppb	ppm	ppm	%	ppm	ppm	ppm	ppm	%	%	%	ppm	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
S.P. 2N 0+50W	<0.1	2.02	<3	10	64	<3	0.34	1.1	10	41	39	4.29	0.42	0.09	235	<1	0.02	25	0.03	<2	<2	<2	19	<5	<3	69
S.P. 2N 0+75W	<0.1	8.63	<3	<5	59	<3	0.42	<0.1	21	243	92	>10	1.54	0.38	873	<1	0.01	41	0.06	<2	3	<2	13	<5	<3	141
S.P. 2N 1+00W	<0.1	4.29	<3	10	86	<3	1.23	1.0	32	230	99	6.41	0.59	0.41	1469	<1	0.01	82	0.03	12	<2	<2	33	<5	<3	130
S.P. 2N 1+25W	0.1	5.89	<3	<5	88	<3	0.92	2.2	33	302	128	8.09	1.11	0.45	1453	<1	0.03	80	0.04	<2	4	<2	30	<5	<3	138
S.P. 2N 1+50W	<0.1	5.59	<3	<5	100	<3	0.47	<0.1	34	284	194	6.84	0.96	0.41	1100	<1	0.01	81	0.03	<2	<2	<2	19	<5	<3	133
S.P. 2N 1+75W	0.1	4.52	<3	15	96	<3	1.53	1.6	29	226	117	5.79	0.50	0.35	1548	<1	0.01	68	0.03	4	<2	<2	34	<5	<3	132
S.P. 2N 2+00W	<0.1	4.60	<3	<5	50	<3	0.35	<0.1	13	179	59	9.26	1.17	0.12	385	<1	0.03	19	0.03	<2	4	<2	19	<5	<3	98
S.P. 2N 2+25W	<0.1	5.79	<3	<5	78	<3	0.73	0.7	34	377	128	8.02	0.76	0.46	1248	<1	0.01	92	0.03	11	5	<2	28	<5	<3	137
S.P. 2N 2+50W	<0.1	4.18	<3	15	62	<3	0.30	<0.1	17	198	92	9.42	1.25	0.16	515	<1	0.03	15	0.02	<2	12	<2	16	<5	<3	98
S.P. 2N 2+75W	0.2	6.21	<3	20	66	<3	0.35	<0.1	29	320	157	8.54	0.93	0.36	757	<1	0.01	61	0.02	<2	2	<2	19	<5	<3	141
S.P. 2N 3+00W	0.1	5.70	<3	20	84	<3	0.40	<0.1	33	349	87	8.06	1.05	0.25	834	<1	0.01	64	0.03	12	3	<2	20	<5	<3	135
S.P. 2N 3+25W	<0.1	3.97	<3	20	60	<3	0.41	0.3	20	174	71	5.81	0.28	0.23	598	<1	0.02	31	0.02	6	<2	<2	19	<5	<3	86
S.P. 2N 3+50W	<0.1	6.23	<3	10	73	<3	0.29	2.9	22	408	129	8.75	0.94	0.33	565	<1	0.01	59	0.03	3	<2	<2	17	<5	<3	125
S.P. 2N 3+75W	<0.1	3.90	<3	<5	91	<3	0.63	0.9	22	206	66	6.26	0.77	0.22	806	<1	<0.01	40	0.03	<2	<2	<2	24	<5	<3	119
S.P. 2N 4+00W	0.2	4.73	<3	15	109	<3	0.61	1.3	31	369	96	6.73	0.66	0.33	1331	<1	0.01	77	0.03	7	10	<2	26	<5	<3	126
S.P. 2N 4+25W	0.2	4.85	29	5	192	<3	0.92	<0.1	52	711	143	6.37	0.29	0.52	2984	<1	<0.01	141	0.03	<2	<2	<2	39	<5	<3	129
S.P. 2N 4+50W	<0.1	5.28	66	5	184	<3	0.90	<0.1	55	801	135	6.94	0.69	0.50	3180	<1	0.02	138	0.03	2	6	<2	40	<5	<3	162
S.P. 2N 4+75W	<0.1	5.53	<3	<5	102	<3	0.50	1.1	53	345	264	7.48	0.95	0.54	1684	<1	0.01	95	0.02	18	8	<2	23	<5	<3	218
S.P. 2N 5+00W	<0.1	6.01	<3	<5	191	<3	1.05	0.7	49	441	207	7.63	0.98	0.45	2068	<1	0.03	100	0.03	6	4	<2	33	<5	<3	153
S.P. 2N 5+25W	<0.1	5.66	<3	5	162	<3	1.06	<0.1	45	559	221	6.99	0.17	0.49	1765	<1	0.01	93	0.02	6	<2	<2	31	<5	<3	164
S.P. 2N 5+50W	0.1	5.30	8	15	126	<3	0.80	<0.1	37	442	187	6.94	0.59	0.36	1459	<1	0.01	112	0.02	2	6	<2	24	<5	<3	123
S.P. 2N 5+75W	0.5	4.39	<3	15	152	<3	1.00	0.5	39	295	127	6.72	0.73	0.45	2132	<1	0.02	73	0.02	13	8	<2	33	<5	<3	140
S.P. 2N 6+00W	0.5	6.88	<3	<5	84	<3	0.53	0.2	33	336	196	9.09	1.58	0.42	963	<1	0.03	76	0.02	11	5	<2	21	<5	<3	189
S.P. 2N 6+25W	<0.1	4.38	<3	15	186	<3	1.83	0.3	32	236	114	6.76	0.68	0.34	1796	<1	0.01	56	0.03	13	6	<2	41	<5	<3	150
S.P. 2N 6+50W	<0.1	4.77	<3	5	171	<3	2.13	0.6	39	306	160	6.63	0.50	0.44	2759	<1	0.02	83	0.04	10	<2	<2	45	<5	<3	153
S.P. 2N 6+75W	<0.1	>10	<3	15	143	<3	0.93	0.4	142	525	151	7.71	1.05	0.24	2927	<1	0.01	60	0.06	<2	7	<2	21	<5	<3	130
S.P. 2N 7+00W	<0.1	7.08	<3	<5	206	<3	0.67	0.3	46	176	154	8.74	1.17	0.30	2650	<1	0.03	75	0.05	<2	8	<2	33	<5	<3	182
S.P. 2N 7+25W	<0.1	5.09	<3	10	290	<3	0.49	0.9	37	111	155	9.33	1.31	0.26	2406	<1	0.03	83	0.05	<2	4	<2	29	<5	<3	165
S.P. 2N 7+50W	<0.1	6.17	<3	10	187	<3	0.48	<0.1	33	128	130	8.72	0.86	0.27	1009	<1	0.02	67	0.04	<2	<2	<2	30	<5	<3	140
S.P. 2N 7+75W	<0.1	5.61	<3	10	146	<3	0.58	<0.1	27	115	104	7.57	1.16	0.25	1288	<1	0.02	47	0.04	<2	2	<2	30	<5	<3	122
S.P. 2N 8+00W	<0.1	4.06	<3	10	172	<3	0.52	<0.1	31	69	78	7.23	0.61	0.22	1397	<1	0.02	38	0.04	<2	3	<2	30	<5	<3	145
S.P. 2N 8+25W	<0.1	5.34	<3	15	167	<3	0.89	<0.1	42	218	158	7.32	1.19	0.44	1145	<1	0.02	86	0.03	11	7	<2	39	<5	<3	140
S.P. 2N 8+50W	0.8	8.37	<3	<5	172	<3	1.21	0.2	43	306	101	>10	1.65	0.30	900	<1	0.01	85	0.05	<2	3	<2	39	<5	<3	176
S.P. 2N 8+75W	<0.1	5.41	<3	<5	84	<3	0.53	0.1	20	167	51	7.74	0.79	0.17	407	<1	0.02	16	0.05	<2	4	<2	37	<5	<3	85
S.P. 2N 9+00W	<0.1	7.01	<3	5	105	<3	0.85	<0.1	47	289	149	8.43	1.29	0.44	1699	<1	0.02	90	0.07	<2	3	<2	38	<5	<3	164
S.P. 2N 9+25W	<0.1	6.90	<3	5	111	<3	0.83	0.8	45	350	115	8.48	1.04	0.49	1017	<1	0.03	112	0.05	<2	<2	<2	33	<5	<3	177
S.P. 2N 9+50W	<0.1	5.67	<3	<5	125	<3	1.17	0.4	52	377	145	7.67	1.01	0.51	1762	<1	0.02	123	0.04	<2	4	<2	36	<5	<3	143
S.P. 2N 9+75W	<0.1	6.68	<3	<5	116	<3	0.90	0.7	49	348	139	7.79	1.25	0.54	1632	<1	0.02	185	0.04	<2	5	<2	31	<5	<3	160
S.P. 2N 10+00W	<0.1	4.22	<3	5	156	<3	2.08	<0.1	40	>1000	134	5.64	0.56	0.42	2013	>1000	0.03	3840	0.02	28	8	<2	47	<5	<3	153
Minimum Detection	0.1	0.01	3	5	1	3	0.01	0.1	1	1	1	0.01	0.01	0.01	1	1	0.01	1	0.01	2	2	2	1	5	3	1
Maximum Detection	50.0	10.00	2000	10000	1000	1000	10.00	1000.0	20000	1000	20000	10.00	10.00	10.00	20000	1000	10.00	20000	10.00	20000	2000	1000	10000	100	1000	20000

< = Less Than Minimum > = Greater Than Maximum is = Insufficient Sample ns = No Sample *Au Analysis Done By Aqua Regia Digestion / Solvent Extraction / AAS.

1630 Pandora Street, ...ver, B.C. V5L 1L6
Ph:(604)251-5656 Fax:(604)254-5717

ICAP GEOCHEMICAL ANALYSIS

A .5 gram sample is digested with 5 ml of 3:1:2 HCL to HNO_3 to H_2O at 95 °C for 90 minutes and is diluted to 10 ml with water.
This leach is partial for Al, Ba, Ca, Cr, Fe, K, Mg, Mn, Na, P, Sn, Sr and W.

ANALYST:

REPORT #: 910050 PA | SUN GROUP RES. MANAGEMENT | PROJECT: ARROWSMITH | DATE IN: APR 17 1991 | DATE OUT: APR 30 1991 | ATTENTION: MR. SCOTT ANGUS |

Sample Name	Ag	Al	As	*Au	Ba	Bi	Ca	Cd	Co	Cr	Cu	Fe	K	Mg	Mn	Mo	Na	Ni	P	Pb	Sb	Sn	Sr	U	W	Zn
	ppm	%	ppm	ppb	ppm	ppm	%	ppm	ppm	ppm	ppm	%	%	%	ppm	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
S.P. 2N 10+25W	0.2	4.31	<3	5	90	<3	0.53	3.6	32	213	101	5.29	0.97	0.33	918	<1	0.08	91	0.02	7	5	<2	24	<5	<3	105
S.P. 2N 10+50W	0.3	5.69	<3	15	90	<3	0.46	4.6	43	297	134	7.03	0.96	0.42	861	<1	0.03	92	0.02	<2	3	<2	24	<5	<3	110
S.P. 2N 10+75W	0.2	8.95	<3	15	152	<3	0.77	3.9	59	409	139	6.98	0.93	0.33	1258	<1	0.03	85	0.04	20	16	<2	32	<5	<3	119
S.P. 2N 11+00W	0.4	5.44	<3	20	119	<3	0.78	4.0	26	253	81	6.66	1.10	0.28	670	<1	0.05	51	0.02	<2	13	<2	37	<5	<3	93
S.P. 2N 11+25W	<0.1	5.03	<3	10	71	<3	0.52	2.6	16	150	37	7.42	0.85	0.14	337	<1	0.03	4	0.03	<2	13	<2	36	<5	<3	64
S.P. 2N 11+50W	<0.1	5.47	<3	<5	99	<3	0.61	4.0	28	97	77	5.78	0.81	0.21	1195	<1	0.03	31	0.04	<2	8	<2	30	<5	<3	105
S.P. 2N 11+75W	0.2	4.65	<3	10	194	<3	1.68	5.1	30	228	85	5.44	0.85	0.26	1435	<1	0.03	52	0.03	14	6	<2	49	<5	<3	121
S.P. 2N 12+00W	<0.1	5.76	<3	5	266	<3	1.58	3.1	44	397	133	7.42	0.74	0.50	2066	<1	0.02	109	0.03	<2	3	<2	54	<5	<3	158
S.P. 2N 12+25W	0.2	3.85	<3	5	83	<3	0.61	5.7	14	76	35	5.40	0.51	0.13	512	<1	0.04	13	0.03	3	6	<2	34	<5	<3	75
S.P. 2N 12+50W	<0.1	5.57	<3	20	64	<3	0.49	3.5	24	211	69	7.37	1.61	0.23	592	<1	0.05	30	0.04	4	5	<2	28	<5	<3	85
S.P. 2N 12+75W	0.3	5.40	<3	<5	80	<3	0.56	4.1	27	269	88	7.69	1.22	0.27	631	<1	0.02	44	0.03	<2	9	<2	36	<5	<3	103
S.P. 2N 13+00W	<0.1	6.25	<3	15	76	<3	0.47	5.9	38	419	146	>10	1.16	0.37	718	<1	0.02	73	0.05	<2	11	<2	26	<5	<3	116
S.P. 2N 13+25W	0.2	6.22	<3	15	75	<3	0.44	3.4	32	274	97	8.06	1.09	0.25	639	<1	0.03	49	0.04	<2	14	<2	27	<5	<3	142
S.P. 2N 13+50W	0.2	4.02	<3	<5	72	<3	0.65	5.0	23	211	50	6.65	0.77	0.18	517	<1	0.02	30	0.03	<2	14	<2	31	<5	<3	90
S.P. 2N 13+75W	<0.1	5.52	<3	<5	128	<3	0.56	5.4	43	431	165	6.57	1.41	0.33	4287	<1	0.05	88	0.02	<2	10	<2	32	<5	<3	132
S.P. 2N 14+00W	0.3	6.07	<3	15	214	<3	0.69	3.9	44	598	145	8.23	1.09	0.35	4210	<1	0.03	92	0.02	<2	10	<2	41	<5	<3	165
S.P. 2N 14+25W	<0.1	6.62	<3	20	100	<3	0.91	4.2	63	689	122	9.05	0.94	0.57	1302	<1	0.04	163	0.04	<2	8	<2	39	<5	<3	143
S.P. 2N 14+50W	<0.1	5.89	<3	<5	81	<3	0.63	3.4	33	551	59	9.68	1.42	0.33	809	<1	0.03	71	0.16	<2	<2	<2	34	<5	<3	107
S.P. 2N 14+75W	0.2	4.35	<3	5	144	<3	1.75	3.2	42	412	90	6.29	0.79	0.32	2993	<1	0.06	83	0.03	<2	4	<2	57	<5	<3	139
S.P. 2N 15+00W	0.1	5.90	<3	10	112	<3	0.80	4.5	54	630	172	7.41	1.08	0.57	2367	<1	0.04	166	0.04	3	15	<2	38	<5	<3	160
S.P. 2N 15+25W	0.5	5.19	<3	15	105	<3	0.76	4.0	36	567	133	7.39	1.31	0.37	994	<1	0.03	125	0.02	2	11	<2	40	<5	<3	111
S.P. 2N 15+50W	0.2	5.94	<3	10	99	<3	0.73	3.9	50	618	140	7.05	0.87	0.55	1946	<1	0.03	150	0.07	<2	17	<2	33	<5	<3	135
S.P. 2N 15+75W	0.5	8.20	<3	<5	96	<3	0.42	3.2	61	812	205	7.52	1.33	0.47	1666	<1	0.03	145	0.09	<2	6	<2	26	<5	<3	131
S.P. 2N 16+00W	0.5	5.87	<3	5	122	<3	0.59	5.0	38	757	104	9.03	1.38	0.33	1660	<1	0.04	94	0.05	<2	13	<2	42	<5	<3	137
S.P. 2N 16+25W	0.4	5.68	<3	<5	95	<3	0.49	3.6	41	455	131	6.40	0.89	0.35	1242	<1	0.04	93	0.04	<2	10	<2	30	<5	<3	112
S.P. 2N 16+50W	0.4	7.33	<3	5	94	<3	0.59	4.4	58	723	152	8.56	1.66	0.49	1580	<1	0.04	148	0.07	<2	10	<2	34	<5	<3	142
S.P. 2N 16+75W	0.3	7.17	<3	15	111	<3	0.58	3.9	55	718	160	8.24	0.99	0.41	2130	<1	0.03	138	0.07	<2	16	<2	34	<5	<3	168
S.P. 2N 17+00W	0.4	4.67	<3	5	334	<3	1.85	4.0	51	644	127	6.65	0.90	0.31	8661	<1	0.05	100	0.04	<2	5	<2	64	<5	<3	211
S.P. 2N 17+25W	<0.1	4.06	134	<5	223	<3	0.97	4.6	47	925	107	7.06	1.17	0.33	2479	<1	0.05	92	0.03	4	14	<2	48	<5	<3	130
S.P. 2N 17+50W	0.5	5.86	208	10	257	<3	1.32	1.5	61	952	169	7.43	1.37	0.56	3775	<1	0.04	167	0.02	<2	4	<2	55	<5	<3	148
S.P. 2N 17+75W	0.1	5.55	218	15	261	<3	1.35	1.8	61	925	167	7.19	1.29	0.54	3899	<1	0.04	167	0.02	3	19	<2	54	<5	<3	124
S.P. 2N 18+00W	0.3	5.80	<3	15	199	<3	1.22	3.3	60	754	164	7.76	1.22	0.64	2042	<1	0.03	190	0.03	<2	8	<2	56	<5	<3	153
S.P. 2N 18+25W	0.2	7.36	<3	<5	71	<3	0.64	4.7	37	403	111	7.31	1.72	0.34	689	<1	0.04	78	0.06	2	5	<2	37	<5	<3	144
S.P. 2N 18+50W	0.1	3.77	<3	5	62	<3	0.54	3.6	22	173	48	5.18	1.05	0.18	447	<1	0.04	23	0.03	4	15	<2	39	<5	<3	88
S.P. 2N 18+75W	0.3	6.43	387	<5	143	<3	0.61	0.9	45	866	140	9.76	1.31	0.33	1438	<1	0.02	93	0.04	9	11	<2	45	<5	<3	163
S.P. 2N 19+00W	0.6	6.98	405	15	131	<3	0.59	0.9	57	739	141	8.57	1.43	0.44	2152	<1	0.04	121	0.05	<2	15	<2	29	<5	<3	161
S.P. 2N 19+25W	0.8	5.22	709	10	195	<3	1.04	0.9	44	790	137	6.70	0.94	0.36	1595	<1	0.02	100	0.03	<2	10	<2	48	<5	<3	136
S.P. 2N 19+50W	0.6	5.49	179	15	180	<3	1.22	2.1	53	736	128	6.57	0.80	0.54	2372	<1	0.02	146	0.03	2	<2	<2	52	<5	<3	139
S.P. 2N 19+75W	0.4	5.32	<3	20	84	<3	0.63	4.6	24	253	62	7.61	1.54	0.29	754	<1	0.04	47	0.09	<2	9	<2	29	<5	<3	138
Minimum Detection	0.1	0.01	3	5	1	3	0.01	0.1	1	1	1	0.01	0.01	0.01	1	1	0.01	1	0.01	2	2	2	1	5	3	1
Maximum Detection	50.0	10.00	2000	10000	10000	1000	10.00	1000.0	20000	1000	20000	10.00	10.00	10.00	20000	1000	10.00	20000	10.00	20000	2000	1000	10000	100	1000	20000

< - Less Than Minimum > - Greater Than Maximum is - Insufficient Sample ns - No Sample *Au Analysis Done By Aqua Regia Digestion / Solvent Extraction / AAS.

VANGEOCHEM AB LIMITED
1630 Pandora Street, Vancouver, B.C. V5L 1L6
Ph:(604)251-5656 Fax:(604)254-5717

ICAP GEOCHEMICAL ANALYSIS

A .5 gram sample is digested with 5 ml of 3:1:2 HCL to HNO_3 to H_2O at 95 °C for 90 minutes and is diluted to 10 ml with water.
This leach is partial for Al, Ba, Ca, Cr, Fe, K, Mg, Mn, Na, P, Sn, Sr and W.

ANALYST:

REPORT #: 910050 PA | SUN GROUP RES. MANAGEMENT | PROJECT: ARROWSMITH | DATE IN: APR 17 1991 | DATE OUT: APR 30 1991 | ATTENTION: MR. SCOTT ANGUS |

Sample Name	Ag	Al	As	*Au	Ba	Bi	Ca	Cd	Co	Cr	Cu	Fe	K	Mg	Mn	Mo	Na	Ni	P	Pb	Sb	Sn	Sr	U	W	Zn
	ppm	%	ppm	ppb	ppm	ppm	%	ppm	ppm	ppm	ppm	%	%	%	ppm	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
S.P. 2N 20+00W	<0.1	3.52	<3	15	61	<3	0.47	<0.1	15	90	39	4.57	1.19	0.16	344	<1	0.04	35	0.04	5	13	<2	26	<5	<3	77
A-1	<0.1	4.06	<3	10	147	<3	0.27	<0.1	30	100	91	5.00	1.22	0.16	866	<1	0.05	28	0.03	12	21	<2	17	<5	<3	95
E-1	<0.1	6.63	<3	<5	51	<3	1.48	<0.1	76	96	319	9.67	1.99	0.54	2546	<1	0.08	54	0.03	<2	17	<2	32	<5	<3	192
E-2	<0.1	6.18	<3	<5	59	<3	3.01	1.5	82	118	324	9.84	2.04	0.59	3162	<1	0.08	58	0.02	2	14	<2	55	<5	<3	208
E-3	<0.1	6.22	<3	<5	55	<3	2.54	0.3	72	105	362	>10	1.99	0.72	3795	<1	0.06	68	0.02	3	12	<2	37	<5	<3	220
Minimum Detection	0.1	0.01	3	5	1	3	0.01	0.1	1	1	1	0.01	0.01	0.01	1	1	0.01	1	0.01	2	2	2	1	5	3	1
Maximum Detection	50.0	10.00	2000	10000	1000	1000	10.00	1000.0	20000	1000	20000	10.00	10.00	10.00	20000	1000	10.00	20000	10.00	20000	2000	1000	10000	100	1000	20000

< - Less Than Minimum > - Greater Than Maximum is - Insufficient Sample ns - No Sample *Au Analysis Done By Aqua Regia Digestion / Solvent Extraction / AAS.

VGC VANGEOCHEM LAB LIMITED

MAIN OFFICE
1630 PANDORA STREET
VANCOUVER, B.C.
V5L 1L6
TEL (604) 251-5656
FAX (604) 254-5717

BRANCH OFFICES
BATHURST, N.B.
RENO, NEVADA, U.S.A.

SAMPLE #	Au ppb
S.P. 2N 20+00W	15
A-1	10
E-1	nd
E-2	nd
E-3	nd

DETECTION LIMIT 5

nd = none detected -- = not analysed is = insufficient sample

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BRANCH OFFICES
BATHURST, N.B.
RENO, NEVADA, U.S.A.

REPORT NUMBER: 910049 GA JOB NUMBER: 910049 SUN GROUP RESOURCE MANAGEMENT PAGE 1 OF 1

SAMPLE #	Au ppb
84401	15
84402	20
84403	15
84404	10
84405	15
84406	20
84407	5
84408	15
84409	nd
84410	nd
84411	nd
84412	nd
84413	nd
84414	10
84416	nd
84417	nd
84418	15
84419	nd
84420	nd
84421	15
84422	5
84423	15
84424	nd
84425	10
84426	nd
84427	10
84428	nd
84429	5
84430	nd
84431	15
84431A	nd
84432	5
84433	10
84434	15
84435	nd
84436	15
84437	nd
84438	15
84439	nd
DETECTION LIMIT	5

nd = none detected -- = not analysed is = insufficient sample

VANGEOCHEM LAB LIMITED
1630 Pandora Street, Vancouver, B.C. V5L 1L6
Ph:(604)251-5656 Fax:(604)254-5717

ICAP GEOCHEMICAL ANALYSIS

A .5 gram sample is digested with 5 ml of 3:1:2 HCL to HNO_3 to H_2O at 95 °C for 90 minutes and is diluted to 10 ml with water.
This leach is partial for Al, Ba, Ca, Cr, Fe, K, Mg, Mn, Na, P, Sn, Sr and W.

ANALYST:

REPORT #: 910049 PA | SUN GROUP RES. MANAGEMENT | PROJECT: ARROWSMITH | DATE IN: APR 17 1991 | DATE OUT: APR 30 1991 | ATTENTION: MR. SCOTT ANGUS | PAGE 1 OF 1

Sample Name	Ag	Al	As	*Au	Ba	Bi	Ca	Cd	Co	Cr	Cu	Fe	K	Mg	Mn	Mo	Na	Ni	P	Pb	Sb	Sn	Sr	U	W	Zn
	ppm	%	ppm	ppb	ppm	ppm	%	ppm	ppm	ppm	ppm	%	%	%	ppm	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
84401	<0.1	1.40	<3	15	13	<3	0.24	<0.1	16	366	208	2.35	<0.01	0.32	427	<1	<0.01	47	<0.01	61	8	<2	10	<5	<3	391
84402	<0.1	0.75	<3	20	78	<3	4.48	<0.1	23	32	185	6.51	<0.01	0.16	996	<1	0.02	<1	0.03	21	55	<2	73	<5	<3	171
84403	<0.1	1.63	<3	15	83	<3	3.86	<0.1	27	115	84	5.45	<0.01	0.29	1069	<1	0.09	38	0.04	14	15	<2	77	<5	<3	88
84404	<0.1	1.68	<3	10	106	<3	2.70	<0.1	11	182	58	3.65	<0.01	0.17	788	<1	0.07	23	0.02	<2	9	<2	45	<5	<3	79
84405	<0.1	2.30	<3	15	69	<3	>10	<0.1	43	113	307	6.22	<0.01	0.54	1345	<1	0.04	88	0.04	<2	16	<2	196	<5	<3	100
84406	<0.1	0.55	<3	20	40	<3	7.99	<0.1	24	114	50	4.58	<0.01	0.43	1476	<1	0.05	30	0.01	<2	4	<2	129	<5	<3	97
84407	<0.1	1.18	<3	5	69	<3	2.80	<0.1	24	213	32	3.63	<0.01	0.31	781	<1	0.03	61	0.03	13	<2	<2	63	<5	<3	49
84408	<0.1	1.35	<3	15	26	<3	1.35	<0.1	26	189	119	>10	<0.01	0.24	904	<1	0.02	174	0.01	<2	16	<2	22	<5	<3	41
84409	<0.1	4.53	<3	<5	61	<3	4.17	<0.1	45	265	114	6.38	<0.01	0.67	1409	<1	0.03	78	0.04	<2	11	<2	64	<5	<3	87
84410	0.2	3.87	<3	<5	85	<3	2.40	<0.1	68	89	235	8.26	<0.01	0.68	1159	<1	0.07	78	0.02	<2	7	<2	19	<5	<3	110
84411	<0.1	0.57	<3	<5	43	<3	2.81	<0.1	20	218	56	4.04	<0.01	0.40	431	<1	0.04	64	0.02	7	19	<2	94	<5	<3	48
84412	<0.1	1.20	<3	<5	50	<3	8.47	<0.1	32	60	152	6.85	<0.01	0.61	1211	<1	0.05	56	0.07	<2	6	<2	162	<5	<3	87
84413	<0.1	1.12	<3	<5	462	<3	>10	<0.1	28	282	29	7.53	<0.01	1.22	3095	<1	0.03	159	0.02	<2	4	<2	423	<5	<3	65
84414	<0.1	2.12	<3	10	49	<3	6.52	<0.1	38	468	109	6.91	<0.01	0.44	2789	<1	0.03	273	0.02	<2	12	<2	105	<5	<3	114
84416	<0.1	0.33	<3	<5	6	<3	0.44	<0.1	9	366	15	0.87	0.06	0.02	206	7	0.03	14	<0.01	6	3	<2	150	<5	<3	9
84417	1.2	0.71	110	<5	62	<3	3.06	<0.1	17	118	68	5.04	<0.01	0.03	192	128	0.02	30	0.01	80	25	<2	5	<5	<3	70
84418	<0.1	4.47	<3	15	36	<3	>10	<0.1	50	971	115	7.98	<0.01	1.26	2018	<1	0.03	155	0.04	<2	4	<2	209	<5	<3	99
84419	<0.1	0.74	<3	<5	85	<3	5.33	<0.1	9	53	16	2.36	0.71	0.14	1080	<1	0.08	2	0.03	5	18	<2	194	<5	<3	85
84420	<0.1	1.30	<3	<5	286	<3	>10	<0.1	20	134	66	5.27	0.56	1.15	2878	<1	0.03	58	0.02	<2	<2	<2	482	<5	<3	64
84421	<0.1	0.73	<3	15	188	<3	>10	<0.1	34	142	119	5.77	0.08	0.88	1668	<1	0.05	59	0.04	3	11	<2	321	<5	<3	99
84422	0.1	0.82	13	5	100	<3	9.24	<0.1	34	112	106	5.68	<0.01	0.63	1369	<1	0.03	74	0.03	<2	15	<2	277	<5	<3	65
84423	0.3	1.16	35	15	475	<3	9.09	<0.1	57	270	185	6.56	<0.01	0.79	1218	<1	0.02	155	0.02	<2	43	<2	237	<5	<3	89
84424	<0.1	0.61	<3	<5	175	<3	>10	<0.1	28	104	66	5.76	<0.01	0.82	1682	<1	0.03	95	0.03	<2	15	<2	286	<5	<3	92
84425	<0.1	0.67	<3	10	123	<3	>10	<0.1	36	134	78	5.52	0.02	0.86	1479	<1	0.03	100	0.01	<2	13	<2	241	<5	<3	87
84426	0.2	2.34	<3	<5	23	<3	>10	<0.1	17	150	61	3.19	0.52	0.41	2438	<1	0.03	51	0.01	<2	2	<2	340	<5	<3	42
84427	<0.1	2.78	<3	10	11	<3	3.17	<0.1	35	249	52	3.42	<0.01	0.31	921	<1	0.06	50	0.02	6	4	<2	41	<5	<3	39
84428	0.1	1.90	<3	<5	50	<3	8.34	<0.1	29	113	135	7.22	<0.01	0.49	1552	<1	0.06	41	0.04	<2	59	<2	154	<5	<3	111
84429	0.4	3.59	1191	5	125	<3	0.77	<0.1	22	246	72	6.58	<0.01	0.45	788	<1	0.04	58	0.04	2	17	<2	17	<5	<3	88
84430	0.3	0.28	<3	<5	14	<3	0.24	<0.1	<1	306	40	>10	<0.01	0.02	181	<1	0.02	38	0.01	<2	13	<2	19	<5	<3	10
84431	<0.1	4.96	<3	15	36	<3	>10	<0.1	57	607	197	9.39	<0.01	1.15	1997	<1	0.04	233	0.03	<2	8	<2	118	<5	<3	155
84431A	<0.1	2.31	<3	<5	105	<3	0.51	<0.1	19	264	82	6.25	<0.01	0.37	541	<1	0.05	64	0.02	28	11	<2	10	<5	<3	117
84432	<0.1	1.04	<3	5	76	<3	0.19	<0.1	15	64	27	3.36	<0.01	0.07	776	<1	0.07	18	0.02	3	5	<2	8	<5	<3	64
84433	<0.1	1.24	68	10	106	<3	>10	<0.1	42	212	89	5.51	<0.01	0.64	1131	<1	0.04	165	0.04	<2	10	<2	283	<5	<3	62
84434	<0.1	1.04	<3	15	22	<3	>10	<0.1	36	222	15	6.49	<0.01	1.31	1886	<1	0.07	165	0.03	<2	<2	<2	214	<5	<3	102
84435	<0.1	0.39	11	<5	39	<3	3.65	<0.1	16	267	54	2.35	0.05	0.12	426	<1	0.03	33	0.03	4	4	<2	55	<5	<3	27
84436	<0.1	6.85	<3	15	50	<3	2.50	<0.1	78	335	225	>10	<0.01	0.69	1653	<1	0.06	87	0.02	<2	6	<2	31	<5	<3	155
84437	0.1	1.83	<3	<5	26	<3	0.70	<0.1	15	295	55	7.55	<0.01	0.17	445	<1	<0.01	23	0.02	44	10	<2	77	<5	<3	157
84438	0.1	0.09	<3	15	22	<3	0.10	<0.1	26	320	56	>10	<0.01	0.01	267	<1	0.04	79	0.01	<2	31	<2	4	<5	<3	31
84439	0.1	1.78	87	<5	37	<3	>10	<0.1	3	55	60	>10	0.32	0.06	19029	<1	0.05	25	0.15	<2	<2	<2	532	<5	<3	89
Minimum Detection	0.1	0.01	3	5	1	3	0.01	0.1	1	1	1	0.01	0.01	0.01	1	1	0.01	1	0.01	2	2	2	1	5	3	1
Maximum Detection	50.0	10.00	2000	10000	1000	1000	10.00	1000.0	20000	1000	20000	10.00	10.00	10.00	20000	1000	10.00	20000	10.00	20000	2000	1000	10000	100	1000	20000

> - Greater Than Maximum | < - Less Than Minimum | ns - Insufficient Sample | ng - No Sample | *Au Analysis Done By Aqua Regia Digestion / Solvent Extraction / AAS

APPENDIX III

STATEMENT OF COSTS

Personnel		
W.C. Day, P.Geol., 24 days at $450	$10,800.00	
G.A. Cloutier, P.Geol., 24 days at $450	10,800.00	
S.E. Angus, Project Supervisor, Prospector, 24 days at $450	10,800.00	
A.E. Angus, Prospector/Technician, 24 days at $325	7,800.00	
R. Marra, Prospector/Technician, 24 days at $325	7,800.00	
	48,000.00	
G.S.T. at 7%	3,360.00	$51,360.00
Equipment Rental		
Four-wheel drive trucks, 50 days at $125	6,250.00	
Off-road motor bike, 24 days at $25	600.00	
Field support, 115 mandays at $70	8,050.00	
	14,900.00	
G.S.T. at 7%	1,043.00	15,943.00
Disbursements		
Travel	870.56	
Fuel	866.75	
Equipment and supplies	1,217.58	
Geochemical analyses	8,832.85	
Drafting, typing and report reproduction	977.33	
	12,765.07	
Administration at 15%	1,914.76	14,679.83
Report Cost		3,000.00
TOTAL		$84,982.83

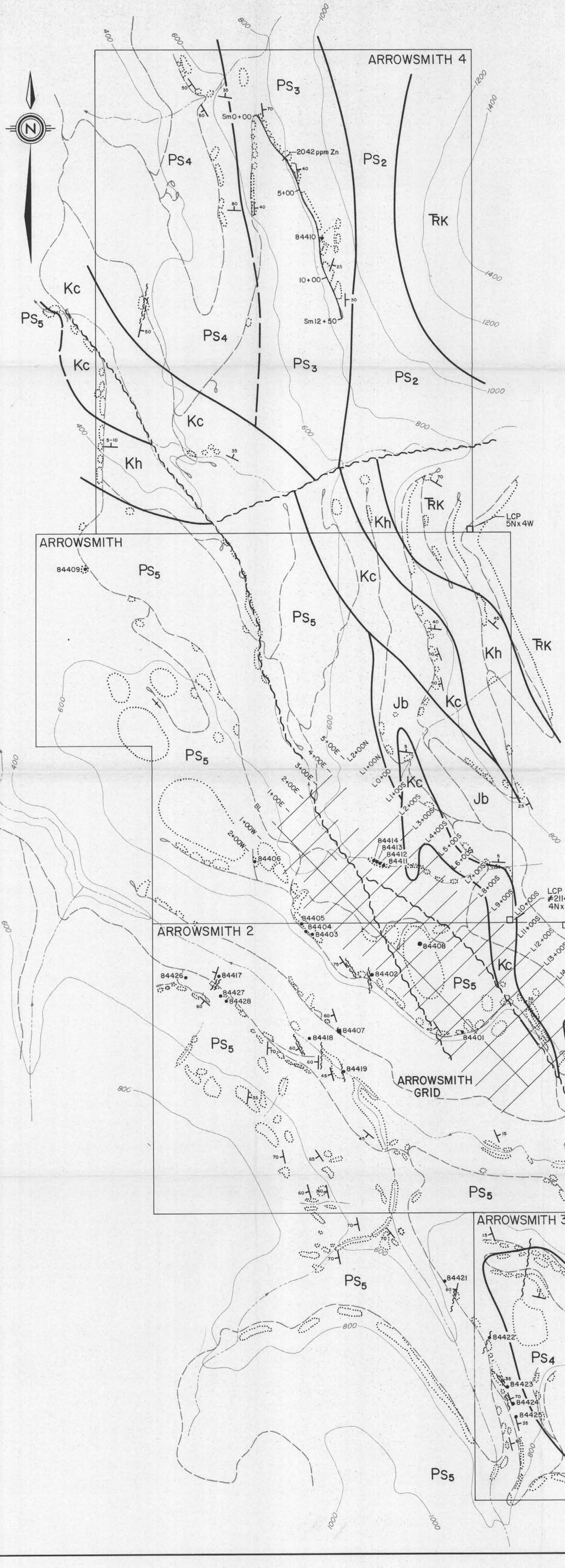
BLUE SUN RESOURCE CORP.

ARROWSMITH PROJECT
ARROWSMITH CLAIMS

GEOLOGY

DATE: APRIL, 1991	BY: W. D. & G. C.
NTS: 92F/2E,7E	FIGURE: 4
SCALE: 1:10,000	0 100 200 300 400 500 Metres

A.R. 21439



LEGEND

GEOLOGY

CRETACEOUS

- Kh — Haslam Fm. - dark grey shale, sandstone and turbidites, volcanic/chert pebble conglomerate
- Kc — Comox Fm. - buff arkosic sandstone to quartz cobble conglomerate with arkosic matrix

JURASSIC (Island Intrusions)

- Jb — Feldspar porphyry

TRIASSIC

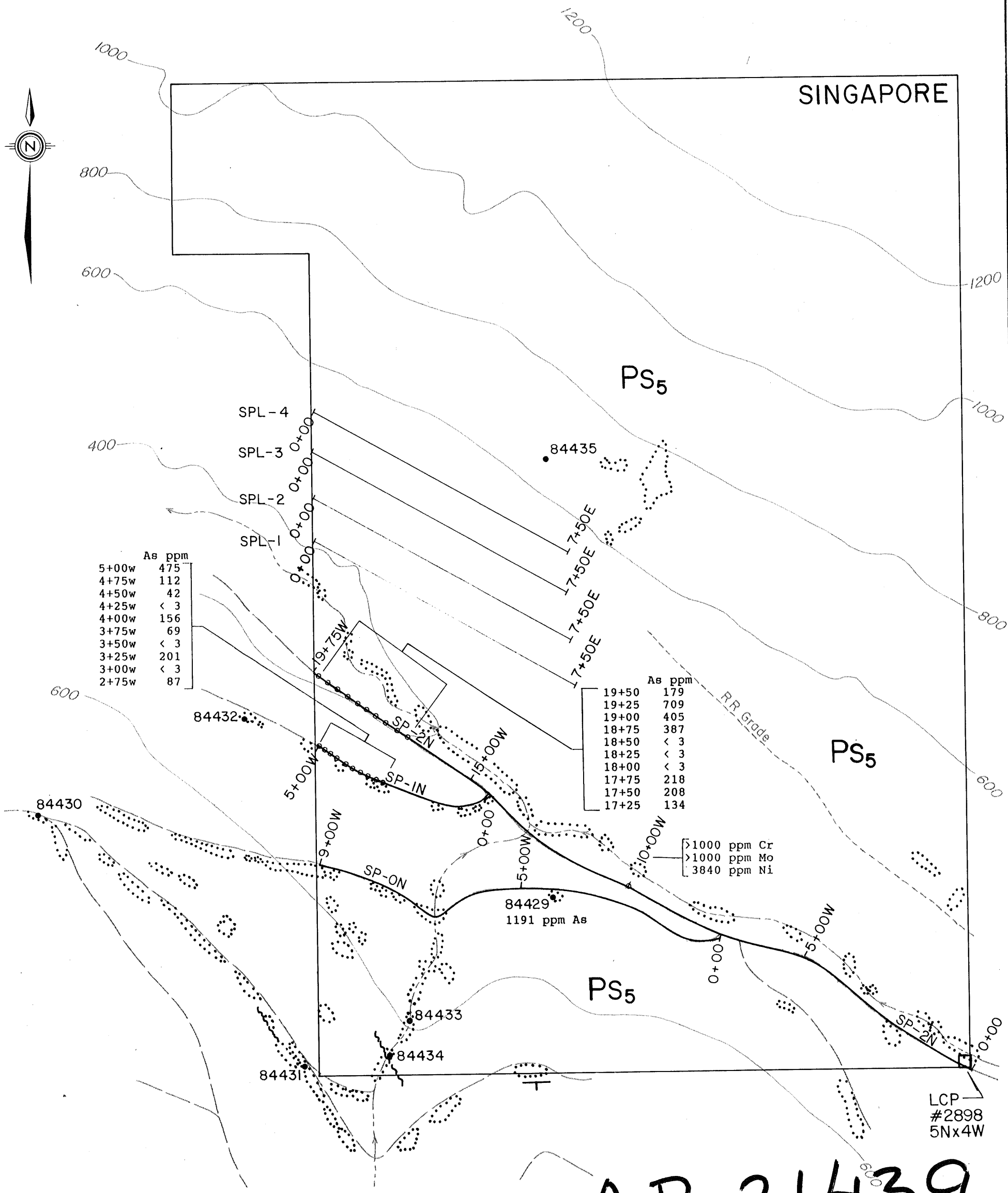
- TRK — Karmutsen Fm. - ferrothoeiite lava suite

UPPER PALEOZOIC (Sicker Group)

- PS1 — Turbidite, siltstone, sandstone, chert (not seen within claim area)
- PS2 — Buttle Lake Fm. - bedded white crinoidal limestone
- PS3 — Upper Myra Fm. - volcanic sandstone, limestone, chert
- PS4 — Lower Myra Fm. - volcanic sandstone, conglomerate, tuff
- PS5 — Nitinat Fm. - pyroxene porphyry, agglomerate, tuff breccia sandstone, chert

SYMBOLS

- Geological contact
- Outcrop
- Bedding
- Fault
- Shear
- 84401 — Rock sample location
- Sm 0+00 — Soil sample line along road
- 600 — Topographic contour (meters above sea level)
- Road
- Water course



A.R. 21439

LEGEND

GEOLOGY

UPPER PALEOZOIC (Sicker Group)

PS5 Nitinat Fm. - pyroxene porphyry, agglomerate, tuff breccia sandstone, chert

SYMBOLS

- Outcrop
- Shear
- 84431 Rock sample location
- SP-ON Geochemical sampling along road
- SPL-1 Geochemical sampling on grid
- 400 Topographical contour (meters above sea level)
- Road
- Water course
- Soil sample location

BLUE SUN RESOURCE CORP.	
ARROWSMITH PROJECT SINGAPORE CLAIM GEOLOGY	
DATE: APRIL, 1991	BY: W.D. & G.C.
NTS: 92F/2E,7E	FIGURE: 5
SCALE: 1:10,000 0 100 200 300 400 500 Metres	