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GEOLOGICAL AND GEOCHEMICAL REPORT

on the

TWIN 1-2 AND WIN 3, 5, 6

MINERAL CLAIMS

ISKOT RIVER AREA, N.W. BRITISH COLUMBIA

SEP 2 6 1989

SUB-RECORDER

RECEIVED

LIARD MINING DIVISION

M 4.# 5 VARCONSE, 5.C.

N.T.S. 104-B/14

SUB-RECORDER BECEMED

St 2 0 1089

VARCE 18 30, 3.C.

Lat. 56°49'N Long. 131°12'W

Claims owned by:

WESTERN INFORMATIONAL SERVICES

1140 - 625 Howe Street Vancouver, B.C. V6C 2T6

Report Prepared for:

CORONA CORPORATION

1440 - 800 West Pender Street

Vancouver, B.C. V6C 2V6

Report Prepared by:

Bruce Goad, B.Sc (Hon), MSc, F.G.A.C.

Date Submitted:

September 26, 1989

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TABLE OF CONTENTS

			<u>Page No.</u>
SUMM	ARY		1
CONC	LUSION	s	1
RECO	MMENDA	TIONS	2
1.0	INTR	ODUCTION	3
	1.1	LOCATION AND ACCESS	3
	1.2	TOPOGRAPHY AND PHYSIOGRAPHY	3
	1.3	CLAIMS	3
	1.4	REGIONAL GEOLOGY	5
	1.5	EXPLORATION HISTORY OF THE HOODOO PROPERTY	10
2.0	PROP	ERTY GEOLOGY	10
	2.1	MINERALIZATION	11
3.0	GEOC	HEMICAL SURVEY	11
	3.1	ROCK DESCRIPTIONS	13
4.0	STAT	EMENT OF EXPENDITURES	14
5,0	STAT	16	
6.0	BIBL	IOGRAPHY	17
		<u>APPENDICES</u>	
APPE	NDIX	I ASSAY CERTIFICATES	
APPE	NDIX	II ANALYTICAL PROCEDURES	
		<u>LIST OF_FIGURES</u>	
			Page No.
Figu	re 1	Property Location Map 1:100,000	4
11	2	Claim Location Map 1:50,000	6
#	3	Geology Map inc. Sample Locations 1:10,000	In Pocket
tí	4	Au, Ag Geochemical Results 1:10,000	tt
tī	5	Pb, Zn, Cu Geochemical Results 1:10,000	es
		LIST OF TABLES	
TABL	E 1	Summary Table of Formations - Iskut River Area	7

SUMMARY

A programme of geological mapping, prospecting and stream sediment sampling was undertaken in mid June, 1989. At this time much of the claims were covered with snow and the lower elevations were covered by thick accumulations of avalanche snow and accompanying debris.

Stream sediment from the creeks draining the property was sampled and in addition, stream sediment concentrate samples were panned where they could be obtained. A total of four silt, seven panned silt concentrate, and sixteen rock chip samples were taken on the property and analyzed for gold and multi-element geochemistry. Results are listed in Appendix I.

None of the geochemical results were highly anomalous; however, upstream prospecting from sample sites 54051 and 54057 is recommended to locate the source of very weak Pb and Cu anomalies.

The reconnaissance geological prospecting traverses did not locate significant gold mineralization. A reconnaissance scale (1:10,000) geological map of the property was generated covering the HOODOO property (2,600 ha).

CONCLUSIONS

Geological and prospecting traverses failed to locate significant gold mineralization on the property. In addition, none of the stream sediment samples were highly anomalous. Weak Pb and Cu anomalies were reported in samples 54051 and 54057. It is concluded that pending an examination of the lower elevations and/or follow up of the above weak anomalies, the rock exposures examined and sediment samples taken to date indicate that the property has a low economic potential.

RECOMMENDATIONS

It is recommended that geological prospecting traverses be undertaken to examine the lower rock exposures on the claims when the snow cover recedes. Prospecting upstream of samples 54051 and 54057 is warranted to determine the source of the weak Cu and Pb anomalies. If significant mineralization is not located, then the claims should be allowed to elapse.

1.0 INTRODUCTION

1.1 Location and Access

The HOODOO property is located in the Iskut River area of northwesern British Columbia on the eastern edge of the Coast Range Mountains, approximately 115 kms northwest of Stewart, B.C. (figure 1). The property lies immediately northeast of Hoodoo Mountain, a prominent Quaternary volcano situated on the north side of the Iskut River. The centre of the property is approximately at 56°49' North latitude and 131°12' West longitude (N.T.S. 104-B/14).

Access to the property is via helicopter based at Bronson airstrip, located approximately 15 km to the southeast of the claims. Bronson airstrip is serviced by scheduled air service three times a week from Smithers. Surface exploration on the property is somewhat limited by extreme topography and extensive ice cover.

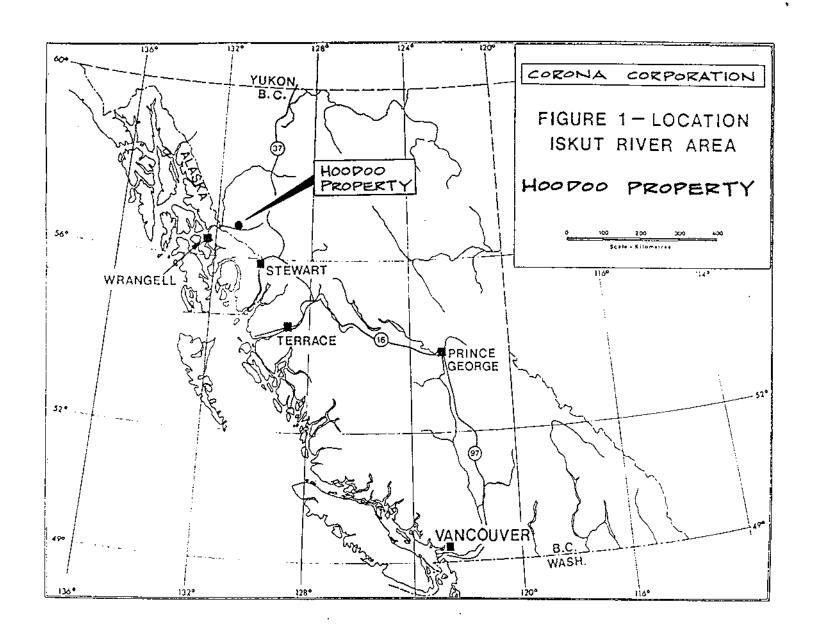
1.2 Topography and Physiography

Elevations on the property range from 1800 metres to 550 metres in the creek draining the TWIN 1 and 2 claims. Most of the property is at or near treeline; however, the lower slopes are covered with a dense growth of alder and devil's club.

Summer and winter temperatures are moderate, and the area receives over 200 centimeters of precipitation annually.

1.3 Claims

The HOODOO property consists of the six claims listed below, totalling 104 units. Title to the property is held by Western Informational Services Ltd. and is currently under option to Corona Corporation of 1440 - 800 West Pender Street, Vancouver, B.C.



<u>Claim Name</u>	Record No.	No. of Units	Record Date	Expiry Date*
TWIN 1	4754 (06)	20	28/06/88	28/06/90
TWIN 2	4755 (06)	20	28/06/88	28/06/90
WIN 3	3944 (03)	16	10/03/87	10/03/90
WIN 4	3945 (03)	16	10/03/87	10/03/90
WIN 5	3946 (03)	16	10/03/87	10/03/90
WIN 6	3947 (03)	16	10/03/87	10/03/91

TWIN 1, 2, WIN 3, 5 and 6 were grouped on June 28, 1989 as 'GREEN' Group. All the claims are in the Liard Mining Division.

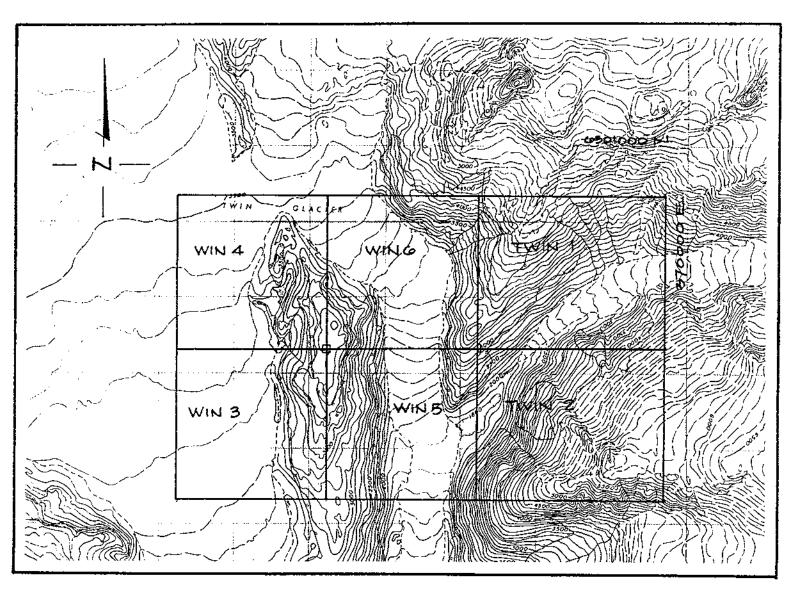
1.4 Regional Geology

Dewonck & McCrossan (1989) compiled a concise summary of the regional geology. Regional geological mapping of the Iskut River area (Kerr, 1948, GSC Memoir 246.9-1957 and GSC Map 1418 - 1979) has been expanded by Grove in two recent works which includes this area as part of the Stewart Complex (Grove, 1971, 1986).

The Stewart Complex, lies south of the Iskut River and north of Alice Arm. It is bounded by the Coast Plutonic Complex on the west and the Bowser Basin to the east. It is composed of Late Paleozoic and Early Mesozoic volcanics and sediments which were intruded during Mesozoic and Tertiary times.

The oldest units in the complex are Mississippian or Permian carbonates and other marine sediments, overlain by Upper Triassic epiclastic volcanics, marbles, sandstones and siltstones, and Jurassic Hazelton Group volcanic rocks which are lithologically similar to the Triassic section. The Hazelton Group has been subdivided (Grove 1986) into the Early Jurassic Unuk River Formation, the Middle Jurassic Betty Creek and Salmon River Formations, and the Upper Jurassic Nass Formation.

^{*} After application of current assessment to TWIN 1-2 and WIN 6 Claims.



CORONA CORPORATION

HOODOO PROPERTY

CLAIM LOCATION MAP

Flaure 2

LABLE I

SUMMARY TABLE OF FORMATIONS - ISKUT RIVER AREA SEDIMENTARY AND VOLCANIC ROCKS

 Lu	: (: 	PERIOD/EPOCH	: : FORMATION	: £1THOLOGY
Č E H	:		: Lava fork	; ; hotspring, ash, basalt flows
j) e	:	Recent	: Iskut	: basalt flows, ash
n 1 C	:	•	: Haadaa :	: basalt fipus
	: : : : {	: Upper : Jurassic	Unconformi : : Nass Formation :	: siltstone, sandstone,
	: A : 2 : G	: nigale :	Salman River Formation	siltstone, greywacke, sand- stone, conglomerate, carbonate
5 0	: t	; Jurassic ;	Betty Creek : Formation	rnyolite breccia, sandstone tuff, volcaniclastics, conglomerate, carbonate, volcanics
n 1	. a . a . a	: : Lower : : Jurassic :	4 Mariall P	volcaniclastics, siltstone, greywacke, porphyry, carbonate, rhyolite
c	p	: upper : : Triassic :	Unconformit Stuhini : Formation : Equivalent :	volcaniclastics, volcanics, siltstone, sandstone, chect carbonate
		Permian 1	Unconformit	crinoidal limestone
- 6 - 1, - 6 - 1)		Pennsylvanian:	not yet : recognized :	?
1 11 1		: Mississippian:	:	crinoidal limestone, clastic sediments, volcanic
C,		nainovad.	. 6	Oray limestone

Gasement Unknown

After: Grove (1986)

TABLE I CONTINUED

SUMMARY TABLE OF FORMATIONS - ISKUT RIVER AREA

PLUTONIC ROCKS

COAST PLUTONIC COMPLEX

ERA	: PERIOO	: LITHOLOGY ?
C E N	: Late : Tertiary :	: granodiorite, diorite, basalc :
. C	: Early : Tertiary :	-Intrusive Contacts
	: Hiddle : Jurassic :	Intrusive Contact
E S O 2	: Lower : Jurassic :	Intrusive Contact
i C	i	Intrusive Contact
P A L E O Z O 1 C	: ? : NOT : DETERMINED . :	quartz diorite, ? ! ! ! ! ! !

After: Grave (1986)

The Unuk River Formation lies unconformably on Late Triassic rocks and consists of volcanic rocks and sediments which include lithic tuffs, pillow lavas with carbonate lenses and some thin bedded siltstones. Betty Creek rocks unconformably overlie the Unuk River Formation and are characterized by bright red and green volcaniclastic agglomerates with sporadic, intercalated andesitic flows, pillow lavas, chert and carbonate lenses. The Salmon River Formation is a thick assemblage of colour banded andesitic siltstones and lithic wackes that form a conformable to disconformable contact with the underlying Betty Creek Formation. The Nass Formation consists of weakly deformed argillites, siltstones and greywackes which unconformably overlie the Salmon River Formation.

These volcanic and sedimentary successions were intruded by the Coast Plutonic Complex during the Mesozoic and Tertiary periods. A wide variety of intrusive phases are present including granodiorite, quartz monzonite and diorite. Small satellitic subvolcanic acidic porphyry plugs and dyke systems may be important in localizing metallic mineralization.

Major structural features of the Stewart Complex include the western boundary contact with the Coast Intrusive Complex and the northern thrust fault along the Iskut River where Paleozoic strata has been translated southward across Middle Jurassic and older units. Regional tectonic normal faults also border the complex to the south and east (Grove, 1986).

Quaternary Volcanics outcrop to the east of the property exposed in the Iskut River Canyon and the Snippaker River, and to the west on Hoodoo Mtn.

1.5 Exploration History of the Hoodoo Property

The property has very little recorded history. It was staked in 1987 (WIN 1-4) and 1988 (TWIN 1-2). Prior to staking Kerr (1948) had regionally mapped the area. Fillipone and Ross (1988) mapped the WIN 1-4 claims in detail as part of a study for the B.C. government.

A helicopter-borne magnetic, electromagnetic and VLF-EM survey was conducted over the property (de Carle, 1988). Ikona (1988) reported a structural and geological interpretation from an orthophoto of the property. Dewonck (1988) compiled a report partially dealing with the HOODOO property for Link Resources Ltd. The G.S.C./BCMEMPR Open File 1645 reconnaissance stream geochemical program (1988) covered the area; however, no samples were taken on the property.

No sample flags, trenches or drill holes were noted on the property.

2.0 Property Geology

The WIN 1-4 claims were mapped in detail by Fillipone and Ross (1988). These claims and the TWIN 1 Claims are underlain by Stuhini Group volcanics and sediments. The volcanics are predominantly andesitic tuff, tuff-breccia and crystal tuff. These units are cut by numerous diorite and quartz-feldspar porphyry dykes. A black (tuffaceous?) slate outcrops on the west facing slope of WIN 3.

The TWIN 2 claim is underlain by a large dioritic to granodioritic intrusion. Most of this claim is inaccessible due to topography.

Areas inferred by the 1988 Aerodat geophysical survey to be anomalous were examined. No obvious surface source for these anomalies was noted.

A gossanous area exposed in a dry creek near the northeast corner of the TWIN 1 claim was examined. It appears to have been caused by the intrusion of a quartz-feldspar porphyry dyke into the andesite lapilli tuffs. Pyrite disseminated in the dyke and along fractures is common. No other sulfide mineralization was noted.

2.1 Mineralization

No in-situ mineralization was located on the property.

3.0 Geochemical Survey

A program of stream sampling of heavy sediments was initiated June 19, 1989 to cover assessment on the TWIN 1-2 and WIN 3, 5 and 6 claims and in an attempt to delineate areas of mineralization. At this time of year, snow presented a major obstacle to overcome in order to obtain sufficient amounts of stream silt. A sampler was teamed up with a prospector/geologist.

To obtain a heavy sediment sample, silt from traps in the active area of the creek, above the level where the stream cuts the valley till, was screened to 20 mesh. Two pans of this screened sediment were panned, to reduce the volume by 50%, and put into 3" x 5" standard Kraft bags (approx. 800-1,000 gm/sample). Each sample was submitted to Vangeochem Labs of Vancouver, B.C.

At each heavy sediment sample location an unscreened silt sample was also obtained from the creek. This was bagged in a 3" x 5" standard Kraft bag and also submitted to Vangeochem Labs Ltd.

The entire volume (800-1,000 gm) of the first 20 panned silt samples were floated in the heavy liquid until it was determined that the average size of heavy minerals in the samples was in the 60-70 mesh size fraction. All remaining samples were then sieved to 30 mesh and the -30 mesh fraction was subjected to heavy liquid (SG 2.95, S-tetrabromethane) separation. The magnetic and non-magnetic fractions in the resulting sample were not separated.

A 10 gm portion of the heavy mineral separate and of the silt sample were both analyzed geochemically for Au by AAS. Detection limit for Au is 5 ppb.

Ag, Cu, Pb and Zn (in addition to the other 24 other elements listed in Appendix I) were analyzed by I.C.A.P.

Assay certificates are included as Appendix I. Analytical methods are described in Appendix II.

A total of four silt, seven panned concentrate and sixteen rock chip samples were collected during this program.

The four silt samples carried gold content that varied from below detection to 15 ppb. None of the individual Au or I.C.A.P. results listed in Appendix I are considered to be anomalous.

The seven panned concentrates carried gold contents that varied from 5-40 ppb Au. These values are not considered anomalous. No major I.C.A.P. anomalies were observed, however, sample 54057 is weakly elevated in Pb (105 ppm) and is supported by Cu (205 ppm).

Gold values in rock chips vary from below detection limited to 80 ppb. A high Ag value of 29.7 ppm was obtained from a float boulder of quartz vein.

Silt, panned concentrate and rock chip sample locations are presented on Figure 3. Au, Ag geochemical results are presented in Figure 4. I.C.A.P. results for Cu, Pb, Zn are shown on Figure 5.

3.1 Rock Chip Descriptions

Sample Nos.	<u>Descriptions</u>
55001	Rusty weathering, fine-grained, dark grey, pyritic andesite tuff-breccia.
55002	Same unit as 55001 with minor (<0.5%) fine-grained specular hematite.
55003	Pyritic andesitic lapilli tuff with trace disseminated pyrrhotite.
55051	Quartz stringer (0.5 cm \times 1.0 m) in andesite tuff. Minor pyrite and specular hematite in stringer.
55052	Quartz breccia stringer. No sulfides. Float/talus sample.
55053	Sheared andesite tuff. Minor py shear zone 1-2 m wide.
55054	Quartz-ankerite vein in andesite tuff. Vein 0.5 m wide and structure can be followed for 120 m. Trace pyrite.
55055	Sample as per 55054.
55056	Quartz stringers (5-10 cm wide) in andesite lapilli tuff. Quartz vuggy and well oxidized. Talus sample.
55057	As per 55056 in outcrop. Vein 0.3 m long.
55058	Rusty pyritic andesite tuff cut by numerous quartz stringers in gossanous zone adjacent to quartz-feldspar porphyry dike.
55059	Quartz-feldspar porphyry dike. Abundant pyrite on fractures.
55060	Rusty pyritic andesite lapilli tuff adjacent to quartz-feldspar porphyry dike. Minor quartz stringer in tuff.
55061	Quartz vein 0.3 m wide containing trace pyrite.
55062	Quartz vein 12 metres wide. Minor pyrite disseminated in vein and on fractures.
55063	Quartz vein float. Minor pyrite and specular hematite.

4.0 STATEMENT OF EXPENDITURES

STATEMENT OF COSTS (HOODOO PROPERTY)

June 1 - June 28, 1989

Personnel:

B. Goad (Project Geologist) June 19-20/892 days @ \$200/day	\$ 400.00									
T. Hutchings (Prospector/Sampler) June 12-13, 19-20/89 5 days @ \$175/day	875.00									
K. Wadsworth (Sampler) June 20/89 1 days @ \$225/day	225.00									
B. Girling (Prospector/Sampler) June 20, 21/89 2 days @ \$265./day	530.00									
Pamicon Developments Ltd Exploration Contractors Charges:										
Room and Board Day Charges 8 mandays @ \$125/day										
Equipment Day Charges 8 mandays @ \$25/day										
Room & Board for Northern Mtn Helicoper Pilot 3 days @ \$125/da	375.00									
Pamicon Prorate Charges	677.00									
Corona Prorate Charges	459.00									
Helicopter Charter 2.1 hrs @ \$710/hr (inc. fuel, oil) Hughes 500D	1,491.00									
Report Preparation B. Goad (Project Geologist) Sept 14/89 1 day @ \$200/day	200.00									
T. Hutchings (Draftsperson) 1 day @ \$175/day	175.00									

Statement of Costs (Hoodoo) Cont'd.

Geochemical Survey - Assays - Vangeochem Labs Ltd.

16 rocks (Au, 28 element I.C.A.P.) @ \$15/sample	\$ 240.00
4 silt samples (Au, +28 element I.C.A.P.) @ \$13/sample	52.00
<pre>7 heavy sediment samples (Au +28 element I.C.A.P.) @ \$27/sample</pre>	189.00
Eagle Mapping Invoice - Map Preparation	295.00
Total Expenditures	\$ 7,383.00

STATEMENT OF QUALIFICATIONS

I, BRUCE E. GOAD of 9331 Kingcome Place, Richmond, in the Province of British Columbia, do hereby certify that:

- I am a graduate of the University of Western Ontario with a B.Sc. (Hon) degree in Geology (1976).
- 2. I am a graduate of the University of Manitoba with a M.Sc. degree in Earth Sciences (1984).
- 3. I am a fellow of the Geological Association of Canada
- 4. My primary employment since 1976 has been in the field of mineral exploration.
- 5. I am presently employed as a Project Geologist with Corona Corporation, 1440 800 West Pender Street, Vancouver, B.C., V6C 2V6.
- 6. I consent to the use of this report for corporate purposes relating to Corona Corporation.

Signed at Vancouver, British Columbia

this 12 day of September, 1989

Bruce Goad B.Sc.(Hon), MSc, F.G.A.C

BIBLIOGRAPHY

- de Carle, R.J. (1988): Report on a Combined Helicopter-borne Magnetic, Electromagnetic and VLF Survey - Iskut River Area.
- Dewonck, B., (1988): Report on the Iskut River Claims for Link Resources Inc.
- Dewonck, B. and McCrossan, E., (1989): Report on the Zip 5-12 Mineral Claims Iskut River Area, B.C., Liard Mining Division for Link Resources Inc.
- Fillipone, J.A., and Ross, J.V., (1988): Statrigraphy and Structure in the Twin Glacier-Hoodoo Mountain Area, Northwestern British Columbia (104-B/14): BCMEMPR Paper 2989-1 pp 285-292.
- Geological Survey of Canada 1979: Map No. 1418 A: Iskut River.
- Geological Survey of Canada, British Columbia MEMPR 1988: National Geochemical Reconnaissance, 1:250,000 Map Series, Iskut River, B.C. (NTS 104-B).
- Grove, Edward W., 1986: Geology and Mineral Deposits of the Stewart Area, B.C., Dept. of Mines and Petroleum Resources, Bulletin No. 58.
- Grove, Edward W., 1986: Geology and Mineral Deposits of the UnukRiver-Salmon River- Anyox Area, B.C. MEMPR Bulleting No. 63.
- Ikona, C.K. 1988: Geological Report on the Win 3, 4, 5 and 6 Mineral Claims.
- Kerr, F.A., (1948): Lower Stikine and Western Iskut River Areas, B.C., Geological Survey of Canada, Memoir 246.

APPENDIX I



MAIN OFFICE 1988 TRIUMPH ST. VANCOUVER, B.C. V5L 1K5 • (G04) 251-5656 • FAX (604) 254-5717

BRANCH OFFICES PASADENA, NFLD. BATHURST, N.B. MISSISSAUGA, ONT. RENO, NEVADA, U.S.A.

	REPORT NUMBER: 890283 GA	JOB NUMBER: 890283	CORONA CORPORATION MESTERN	PAGE 1 OF 1
	SAMPLE 1	Au		
	Caroni	ppb		
-t	\$55001 55002 55003	80		
102	55002	50		
	€ 55003	40		
	√ 55051	20		
	\ 55052	40		
	\ 55053	40		
	55054	30		
ا وريس	J 55055	40		
Iwa I.	\ 55056	70		
Twin 1.	55057	70		
	55058	20		
-	55059	10		
		30		
	55061	10		
	55061 55062	••		
	55062	nd		
	55063			
	Gives	ពថ		

VANGEOCHEM LAB LIMITED

1988 Triusph Street, Vancouver, B.C. V5L 1K5 Ph: (604)251-565& Fax: (604)254-5717

ICAP GEOCHEMICAL ANALYSIS

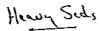
A .5 gram sample is digested with 5 al of 3:1:2 HCl to HHO, to H₂O at 95 °C for 90 ainutes and is diluted to 10 al with water.

This leach is partial for Al, Ba, Ca, Cr, Fe, K, Ng, Nn, Na, P, Pd, Pt, Sn, Sr and N.

ANALYST: Date In: 89/06/26 Date Out:89/07/10 REPORT 1: 190283 PA CORDNA CORP. WESTERN Proj: 1057 Att: 8 60A0 Page 1 of 1 Al Вı Bi. €a Cđ Ĉ٥ Ĉ٢ £υ fе Жo Na Pb Sb Sn St Santle Macer Α¢ Àŧ ìn 1 998 1 000 996 008 008 I 1 pge 000 1 900 1 004 991 00¢ 998 994 994 DOM 000 994 993 127 3.85 0.22 0.01 (1 0.01 12 60 2 0.18 46 69 (3 0.12 <0.1 1) 0,29 43 (2 (2 31 (5 (3 33 55001 2.6 91 3.80 0.15 52 10.0 55002 158 45 (3 0.28 3.0 19 43 0.16 18 0.21 31 <2 (2 ₹3 833 2.1 0.23 43 (5 0.08 72 5.37 0.20 1.48 400 (1 0.04 137 37 70 (3 (0.1 50 1 0.07 (2 ₹2 (5 (3 147 55003 0.7 1.69 7 468 (3 0.69 20 92 182 3.03 0.06 2.63 (1 0.03 10 0.22 53 0.5 2.32 44 55 (0.1 {2 32 53 (5 <3 391 55651 315 (1 0.01 55052 10 (3 1.37 0.2 1 96 49 0.32 0.01 0.09 2 0.01 33 <2 (2 (5 (3 59 0.3 0.14 5 74 (3 0.07 (0.1 56 60 5.10 0.71 1.72 452 (1 0.03 380 55053 1.3 2.06 29 162 1 1 0.05 (2 (2 3 (5 (3 180 226 (3 1.58 **(0.1** 36 2.74 0.19 1.06 1391 (1 0.01 9 0.07 33 55054 0.3 0.30 (3 <2 (2 ₹5 {3 147 54 99 3.20 (3 1.65 (0.1 Ħ 49 0.23 2.81 956 (1 0.03 55055 0.5 1.00 ⟨3 858 18 0.06 26 (2 12 150 {5 (3 87 0.45 (3 0.07 <0.1 38 30 4.64 0.06 0.39 65 (1 0.03 273 70 1 1 0.05 135 (3 43 \$5005 3.1 <2 (2 10 (5 (0.1 159 94 0.23 0.01 0.02 51 (1 0.01 3 (0.01 55057 0.5 0.03 £ 10 (3 0.04 7 <2 12 2 (5 (3 7 27 4 4,73 0.07 1.10 469 (1 0.01 ₹3 0.03 (0.1 1 0.03 55058 0.2 2.16 49 36 15 (2 {2 (5 ₹3 143 (0.1 1 25 5 2.84 0.48 2.99 856 (1 0.03 1 0.07 18 55009 51 175 (3 0.14 <2 (2 **(5** (3 101 0.1 2.60 30 \$ 2.51 0.10 0.03 2 (1 0.02 ₹3 93 (3 (0.01 (0.1 į 1 (0.01 11 (? 12 (5 (3 55000 (0.1 0.17 14 177 10 0.94 0.01 0.01 96 (1 0.01 55061 0.1 0.04 (3 12 (3 0.05 (0.1 1 3 (0.01 8 (2 <2 14 (5 (3 5 231 (3 0.04 (0.1 2 65 6 1.84 0.07 0.41 104 (1 0.02 1 0.03 55062 0.2 0.49 11 12 (2 11 (5 () 25 3 76 114 33 3.35 0.02 0.01 14 (1 0.01 29.7 0.02 (3 (0.01 228 55763 446 24 1.4 14 (0.01 ₹2 (2 1.2 ⟨5 (3 132

1 0.01 0.01 0.01 1 0.01 1 0.01 2 3 3 0.01 0.1 2 2 Misiaga Estection 0.1 0.01 1009 20000 10.00 10.00 10.00 20000 1000 10.00 20000 10.00 Masiaus latection 50.0 10.00 2000 1000 1000 10.00 1000.0 20000 20000 2000 1000 10060 100 1000 20000 (= tess than Minimum is = Insufficient Sample ins = No sample) = Greater than Maximum AufA = Fire assay/AAS

ANOMALOUS RESULTS:
FURTHER ANALYSES
BY ALTERNATE
METHODS SUGGESTED





MAIN OFFICE 1988 TRIUMPH ST, VANCOUVER, B.C. V5L 1K5 ● (604) 251-5656 ● FAX (604) 254-5717 BRANCH OFFICES PASADENA, NELD. BATHURST, N.B. MISSISSAUGA, ONT. RENO, NEVADA, U.S.A.

REPORT NUMBER: 890285 GA

JOB NUMBER: 890285

CORDNA CORPORATION WESTERN

PAGE 1 OF 2

SAMPLE #

Αt

ppb

54051 54053

54053 54055

54055

54057 54059 54060

54061

25

40 5

15 10

10 15

DETECTION LIMIT
nd = none detected

5

-- = not analysed

is = insufficient sample

PANGEOCHEM LAB LIMITED

1988 Triumph Street, Vancouver, B.C. V5L 1K5 Phr(604)251-5656 Faxt(604)254-5717

ICAP GEOCHEMICAL ANALYSIS

A .5 gram sample is digested with S ml of 3:1:2 HCl to HNO₃ to H₂O 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, Pd, Pt, Sn, Sr and H.

																				Al	NALYS	T: _/	0	2	
REPORT #: B90285	PA	C	ORONA COR	P. WESTE	RN	Proj:	1057		Date	In: 89	/06/27	Dat	e Out:89	/07/12	Att:	B GGAD						·	Page	1 of	2
Sample Number	Ag pps	Al I	Ås pps	ga gp e	Bi P p e	Ca Z	Cd ppp	Co	Cr ppe	Co poa	Fe	K	Kg I	Kn pp∎	No ppe	Na Y	Ni gen	P I	Pb gp∎	St ppe	Sn pgø	Sr pp∎	U pps .	N ppe	In ppm
54051	1.2	1,29	118	77	3	0.34	2.7	41	169	103	9.10	0.32	0.98	804	3	0.02	99	0.17	110	⟨2	7	44	(\$	(3	109
54053	1.5	0.58	69	298	(3	0.46	1.7	21	47	68	6.64	0.27	0.60	596	4	0.02	30	0.28	44	<2	5	41	₹5	₹3	77
\$4055	1.1	1.03	156	258	₹3	0.40	1.1	2 2	210	80	4.89	0.20	1.08	426	5	0.01	110	0.20	49	<2	•	37	(5	(3	93
54057	2.5	1.47	169	95	3	0.B3	2.5	28	124	205	8.91	0.40	1.00	587	8	0.63	50	0.32	105	₹2	8	132	(5	₹3	139
54059	2.7	0.58	124	960	4	0.64	2.2	20	108	84	>10.00	9.40	0.45	853	8	0.03	119	0.22	75	₹2	9	52	⟨\$	₹3	76
54060	2.1	0.76	165	316	5	.0.98	3.2	24	176	113	>10.00	0.55	0.34	911	12	0.04	386	0.19	64	₹2	13	53	₹5	₹3	58
54061	1.5		<u>£3</u>	651	4	0.68	2.2	23	97	50	9.83	0.40	0.72	521	5	6,63	. 23	0.17	57	- <3	9	77	₹5	(<u>3</u>	74



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REPORT NUMBER: 890284 GA	JOB NUMBER: 890284	CORONA CORPORATION WESTERN	PAGE	1	OF	ł
SAMPLE #	Au ppb					
54052	10					
54054	nd					
54056	15					
54058	\$					

VANGEOCHEM LAB LIMITED

1988 Triumph Street, Vancouver, B.C. V5L 1K5 Ph:(604)251-5656 Fax:(604)254-5717

ICAP GEOCHEMICAL ANALYSIS

A .5 gram sample is digested with 3 ml of multi acid HCl:HClQ.:HNO.:HF at 95°C for 90 minutes and is diluted to 10 ml with water.

(TOTAL DIGESTION)

										ANALYST:															
REPORT \$: 890284 PA Sample Mumber	CORONA CORP				Proj: 1057				Date In: 83/05/27			Sati	Date Out:89/07/07			Att: B GOAD							Page	lof	1
	Ag pp#	Al 1	Ås ppn	Ba Spa	Bi ppa	Ca I	Cd ppa	Co ppm	Cr ppm	Cu pps	fe 1	r I	Mg I	Mn ppa	No pps	Ka I	Ni pp a	P I	Pb ppa	Sb pp∎	Sn ¢p a	12 20 12	ს •0e	ppa B	Zn ppa
\$4052 \$4054	(0.1 0.2	3.26 2.12	95 68	290 373		0.29 0.57	(0.1 0.8	53 20	\$4 7	41 45	4.38 3.03	0.42	1.58 1.05	1902 1615	(l	0.03 0.04	3† 16	0.16	16 18	(2	(2 (2	27 \$1	(5 (5	(3	163
54058 54059	<0.1 0.3	2,38	101 64	246 148	(3		1,0>	15 12	77 9	50 64	3.82 3.80	0.38 0.12	1.95	1082 719	(1	0,03 0,02	61 2B	0.20 0.31	21 21	(2	<2 {2	37 42	(5	(3	142 144

(= Less than Minimum is = Insufficient Sample os = No sumple) = Greater than Maximum AufA = Fire assay/AAS





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BRANCH OFFICES PASADENA, NFLD. BATHURST, N.B. MISSISSAUGA, ONT. RENO, NEVADA, U.S.A

June 29 1989

MEMO

To:

Mr. Bruce Goad

Corona Corp.

c/o Pamicon Development Ltd.

Bronson Camp Iskut River BC Fax 662-0211

From:

Conway Chun - Vangeochen Lab Limited.

Subject:

Heavy Metal Separation - S.G. 2.95.

We are now working on the H.M. samples for S.G. 2.95 separation. Your H.M. samples wt. is 800-1000g. The average recovery rate for the S.G. 2.95 is Your H.M. about 1%. The average size of the 500- \$.05 15 40- 70- master

Our Lab cost usually based on 10% recovery on 100g of sample. We like to have 10g of H.M. for analysis.

Due to such small recovery (< 1%) we have to use the whole sample or 8-10 times more chemicals and labour to obtain sufficient H.M. > S.G. 2.95 (10g) for S.G. separation is about \$22.50/sample and we can do about 10-15 samples per day.

I will be calling you either tonight or tomorrow by phone.

Allem

Regards.

Cónway Chun.



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BRANCH OFFICES PASADENA, NFLD. BATHURST, N.B. MISSISSAUGA, ONT. RENO, NEVADA, U.S.A.

September 5, 1989

16:26

TO:

Mr. Bruce Goad

Corona Corp. Western

Bronson Camp

FROM:

Vangeochem Lab Limited

1988 Triumph Street

Vancouver, British Columbia

V5L 1K5

SUBJECT:

Analytical procedure used to determine hot acid soluble for 25 element scan by Inductively Coupled Plasma Spectrophotometry in geochemical silt and soil samples.

Method of Sample Preparation

- Geochemical soil, silt or rock camples -wore roceived -at -the laboratory in high wet-strength, 4" x 6", Kraft paper bags. Rock samples would be received in poly ore bags.
- (a) Dried soil and silt samples were sifted by hand 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.
- 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 baq for subsequent analyses.

2. Method of Digestion

- 0.50 gram portions of the minus 80-mesh samples were used. Samples were weighed out using an electronic balance.
- (b) Samples were digested with a 5 ml solution of HCL:HN03:H20 in the ratio of 3:1:2 in a 95 degree Celsius water bath for 90 minutes.
- The digested camples are then removed from the bath and (□) bulked up to 10 ml total volume with demineralized water and thoroughly mixed.

Method of Analyses

The ICP analyses elements were determined by using a Jarrel-Ash ICAP model 9000 directly reading the



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spectrophotometric emissions. All major matrix and trace elements are interelement corrected. All data are subsequently stored onto disk.

4. Analysts

The analyses were supervised or determined by either Mr. Conway Chun or his laboratory staff.

Conway Chun VANGEOCHEM LAB LIMITED



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BRANCH OFFICES
PASADENA, NFLD.
BATHURST, N.B.
MISSISSAUGA, ONT.
RENO, NEVADA, U.S.A.

September 5,1989

TO:

Mr. Bruce Goad

Corona Corp. Western

Bronson Camp

FROM:

Vangeochem Lab Limited 1988 Triumph Street

Vancouver, British Columbia

V5L 1K5

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 hand 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) <u>Dried rock samples</u> 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.

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

16:31



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

3. Method of Detection

The detection of Au was performed with a Techtron model AAS 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 and his laboratory staff.

Conway Chun

VANGEOCHEM LAB LIMITED

VGC VANGEOCHEM LAB LIMITED

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RENO, NEVADA, U.S.A.

September 5, 1989

TO:

Mr. Bruce Goad

Corona Corp. Western

Bronson Camp

FROM:

Vangeochem Lab Limited

1988 Triumph Street

Vancouver, British Columbia

V5L 1K5

SUBJECT:

Analytical procedure used to determine hot acid soluble for Cu, Pb, Zn and Ag in geochemical silt and soil

samples.

·1. <u>Method of Sample Preparation</u>

- (a) Geochemical soil, silt or rock-samples were secsived 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 hand 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) 0.50 gram portions of the minus 80-mesh samples were used. Samples were weighed out using an electronic balance.
- (b) Samples were digested with a 5 ml solution of HCL:HNO3:H20 in the ratio of 3:1:2 in a '95 degree Celsius water bath for 90 minutes.
- (c) The digested samples are then removed from the bath and bulked up to 10 ml total volume with demineralized water and thoroughly mixed.

Method of Analyses

Cu ,Pb ,Zn and Ag concentrations were determined using a Techtron Atomic Absorption Spectrophotometer Model

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AA5 with their respective hollow cathode lamps. The digested samples were directly aspirated into an air and acetylene mixture flame. The results, in parts per million, were calculated by comparing them to a set of standards used to calibrate the atomic absorption units.

4. Background Correction

A hydrogen continuum lamp was used to correct the Ag background interferences.

5. Analysts

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

Convay Chun VANGEOCHEM LAB LIMITED

