GEOLOGICAL AND GEOCHEMICAL REPORT

ON THE

EAGL CLAIM GROUP
RECORD NO. 2912, 2917

LATITUDE: 59°04'N Longitude: 129°28'W

NTS 104P/3W

LIARD MINING DIVISION
BRITISH COLUMBIA

by

A.E. HEAGY

Work Done: July 24-29, August 20-26, 1983
By: J.C. Stephen Explorations Ltd.
Funded by: Newmont Exploration of Canada Limited
Report Submitted: September, 1983

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SUMMARY AND CONCLUSIONS

The 40 unit EAGL claim group is located about thirty-five kilometres southeast of Cassiar B.C. The EAGL 1 and EAGL 2 claims were staked in July and August 1983 and a total of 28 man days were spent on the claims. Preliminary geological mapping, intensive prospecting and geochemical sampling of rock and talus material from numerous alteration zones were carried out at a total cost of $6,391.00.

The geology of the claim group consists largely of structureless, epidote-chlorite-calcite altered, andesitic tuffs and breccias. Considerable argillite occurs interbedded with tuffs on the EAGL 1 claim and minor siltstone, chert, chert arenite limestone and serpentinite are also locally present. All lithologies belong to the allocthonous Upper Devonian to Mississippian Sylvester Group.

The structural geology of the area is complex and poorly understood. The air photo of the area shows a striking pattern of intersecting lineaments. The ground expression of these lineaments are walled linear gullies typically floored by glacial drift and often containing small ponds. Numerous areas of iron carbonate alteration, with traces of pyrite, arsenopyrite and mariposite; and quartz veins with traces of pyrite, chalcopyrite, galena or sphalerite; occur along the base of the outcrops on either side of these linears and along steep, northeast striking joints adjacent to the gullies.

Eight poorly exposed areas of manganese stained float are associated with the significant mineralized showings so far located.

The showings consist of fine drusy quartz-pyrite veins and vein breccias and colloform textured iron carbonate vein breccias with minor to massive amounts of stibnite, arsenopyrite, sphalerite, galena and chalcopyrite mineralization. Geochemical sampling of these zones returned values of 150 to 1080 ppm gold as well as strongly anomalous arsenic and zinc values. A rock sample from a sphalerite-galena breccia showing contained 220 ppb gold and greater than 100 ppm Ag.

A total of some three hundred rock, talus, soil and silt samples were collected and analysed for gold, arsenic and usually zinc geochemistry. Only a few silver analyses were run. Values of 50 ppb gold or higher were found in 16 rock, 24 talus and 3 soil samples. In addition to the twelve samples taken from the anomalous manganese-stained zones, twenty seven anomalous rock and talus samples were collected elsewhere on iron carbonate zones. One sample of silicified andesite with traces of pyrite and pyrrhotite ran 500 ppb gold.

The anomalous gold values and visible mineralization and alteration zones are clearly controlled by the recessive-weathering linear fracture sets. Very little frost-heaved material has been observed in the glacial drift which floors these linear gullies. The mineralization and anomalous gold values found to date strongly suggests that these gullies might cover an extensive quartz vein system with significant gold and/or silver mineralization.

A two phase program of exploration work is recommended on the EAGL group in 1984. Phase One would consist of intensive prospecting along the gullies, detailed mapping of lithology and alteration types, thorough analysis of the structural geology of the claim area and further selective geochemical sampling. Phase Two would involve trenching to expose the bedrock in selected parts of the linear gullies associated with mineralized showings. Selection of specific trenching targets is

dependent on the results of the first phase of the program. The relative merits of mechanical trenching versus hand trenching and blasting will depend on the number of targets selected and their suitability to either method of trenching.

INTRODUCTION

The 40 unit EAGL claim group was staked in two stages in July and August 1983. The claims cover mineralized zones of iron carbonate-silica alteration and quartz veining within highly fractured volcanic and sedimentary rocks of the Sylvester Group. The initial prospecting and subsequent work were part of a precious metal exploration program in the Cassiar region of British Columbia.

Scope and Purpose

Subsequent to staking, two one week fly camps were established on the claims. A total of 28 man days were spent carrying out intensive prospecting, geochemical sampling of rock, talus, soil and stream silt material, and preliminary geological mapping.

The purpose of this work was to determine:

1. The location, extent, mineralogy and geochemical character of the numerous zones of alteration and mineralization
2. The relationship of these zones to the property geology.
3. The potential of these zones for hosting gold mineralization.

CLAIM REGISTER

NAME	RECORD NUMBER	RECORD DATE
EAGL 1 (20 units)	2912 (7)	July 25, 19, 1983
EAGL 2 (20 units)	2917 (9)	Sept. 2, 19, 1983

SEE FIGURE 2 CLAIM MAP

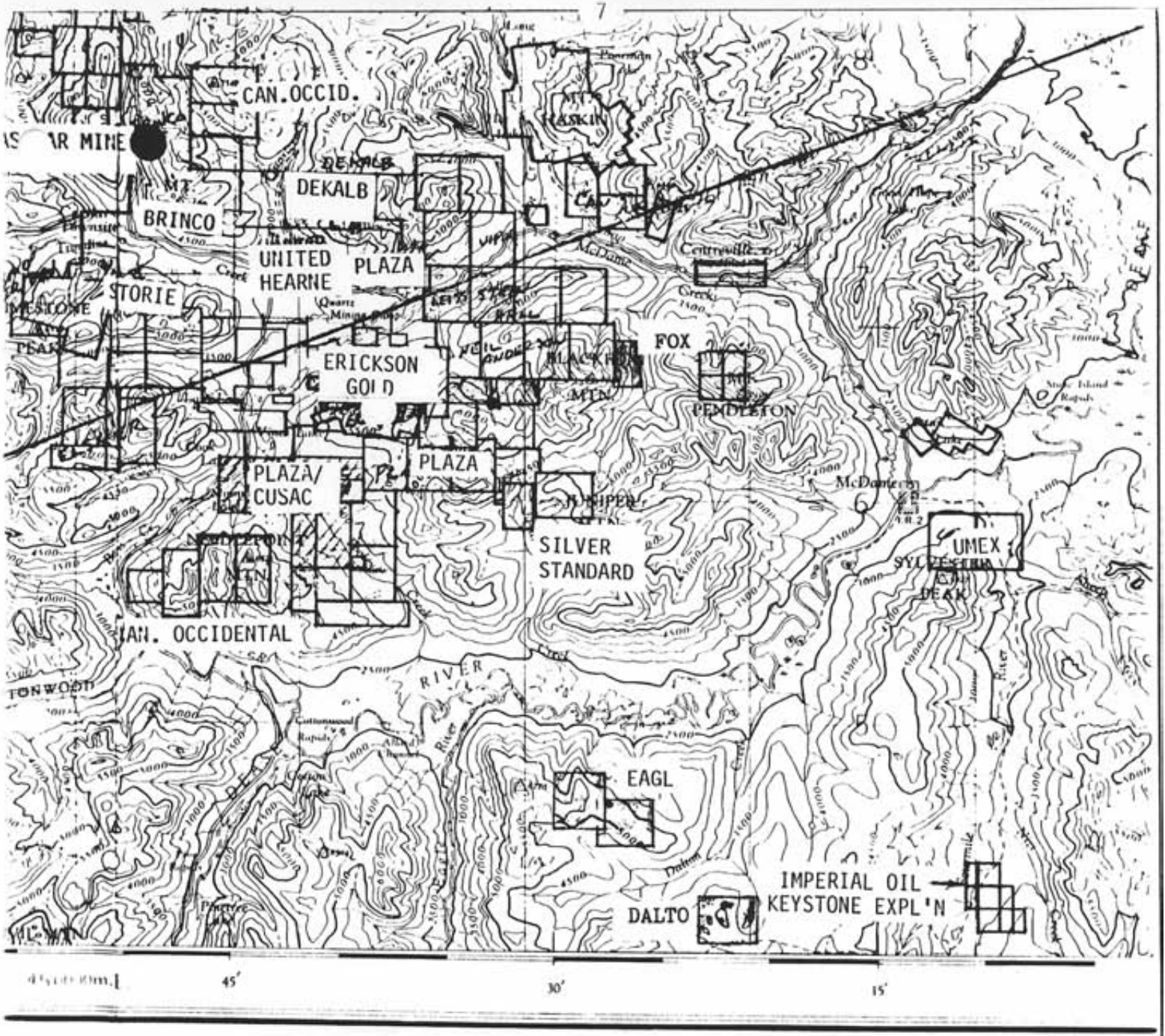
LOCATION, ACCESS AND TOPOGRAPHY

The EAGL claim group is located in the Liard Mining Division, B.C. and is some 35 kilometres southeast of Cassiar B.C., as shown in Figure 1. The junction of the Eagle River with the Dease River lies 5 kilometres northwest of the property.

Access to the claims has been by helicopter. The closest helicopter ferrying site is on the Stewart-Cassiar Highway, 15 kilometres west of the claims. Helicopter bases are located in Dease Lake, B.C. and Watson Lake, Y.T.

Elevations on the property range from 4600 feet (1400 metres) to 5900 feet (1800 metres). The claim area is on a gently rolling grassy plateau with numerous small ponds. Scrubby timber is present in the northerly draining creek valleys which cut the plateau Several suitable camp sites are present along the creeks or by the ponds.

Much of the area has a thin mantle of glacial drift but small "roche moutonee" outcrops and frost-heaved subcrop are common. Low lying depressions and gullies are filled with glacial boulders.



Miles 5 0 5

Kilometres 5 0 5

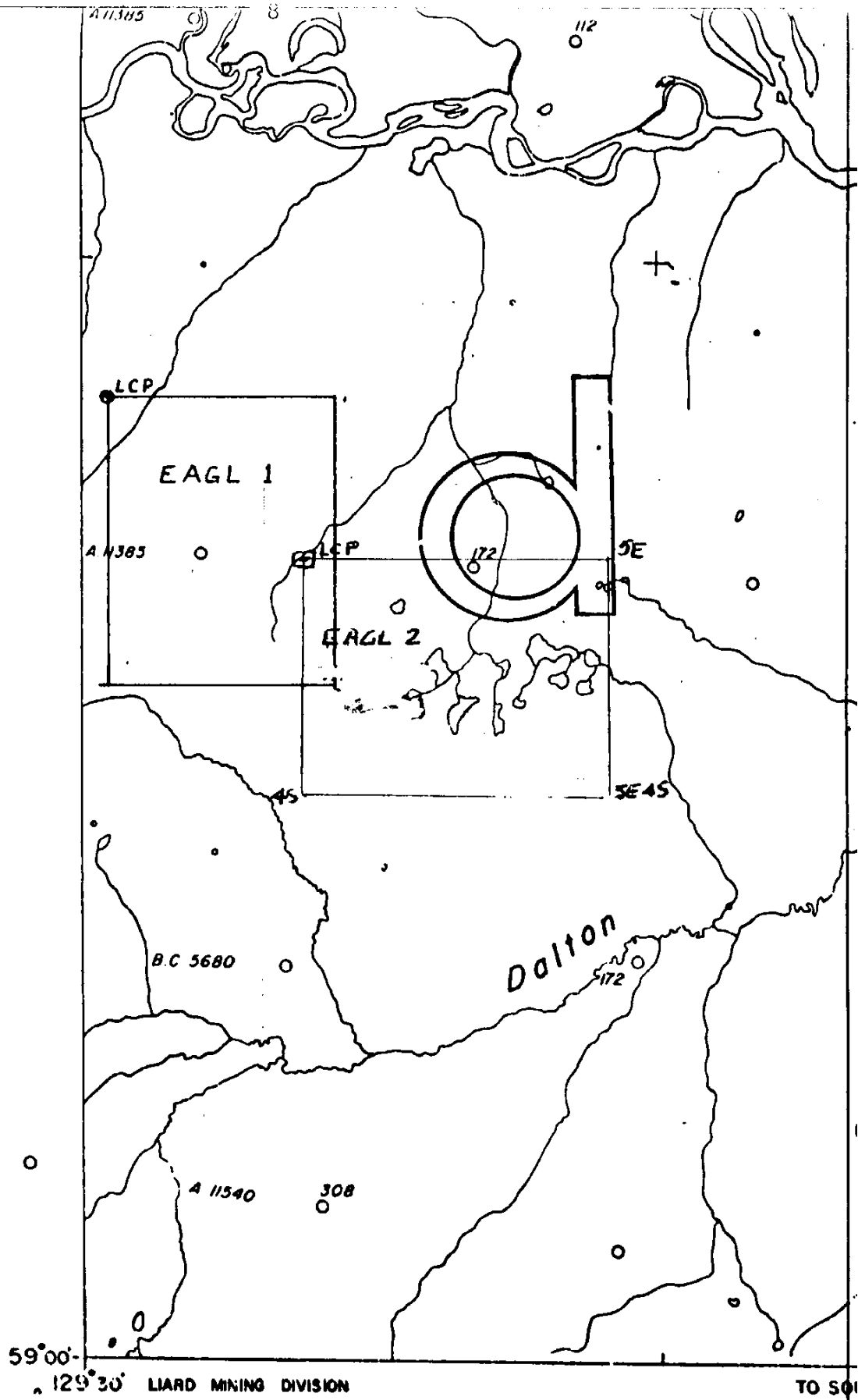
FIGURE 1

CASAU SURVEY

LOCATION MAP

104P/3

1:250,000 Sept.1983


A11385
8
112
LCP
EAGL 1
A 11385
LCP
172
5E
EAGL 2
45
5E45
B.C 5680
Dalton
172
A 11540
308
59°00'
129°30'
LIARD MINING DIVISION
TO SO
Mining Division Boundary
Indian Reservation
Mineral and Placer Reserve
Ecological Reserve
Park Boundary
Crown Granted
CASAU SURVEY
CLAIM MAP
104P/3W
Scale 1:50,000 FIGURE 2

REGIONAL GEOLOGY

The regional geology as shown in Figure 3 is taken from GSC Map 1110A (Gabrielse, 1963) which accompanies Memoir 361 McDame and from GSC Map 29-1962 Cry Lake.

The EAGL claims lie entirely within Gabrielse's Unit 8, the Sylvester Group, consisting of Upper Devonian to Mississippian greenstone, chert arenite, chert, argillite, slate and quartzite. This package is now considered to be an allocthonous oceanic terrane which has been thrust onto the late Precambrian to Devonian platformal carbonate and clastic rocks (Monger, 1977).

The property lies just west of the axial trace of the southeast plunging McDame synclinorium. Quartz monzonite and granodiorite of the Cretaceous Cassiar Batholith outcrops about four kilometres southwest of the EAGL 1 claim while the Four Mile River Batholith, of similar composition and age, outcrops about ten kilometres east of the EAGL 2 claim.

A small rusty weathering pyritic felsic porphyry stock of uncertain age outcrops in Dalton Creek just east of the EAGL 2 claim.

The geological setting of the EAGL claims is very similar to that of the lode gold deposits in the Cassiar (McDame) gold mining camp located twenty kilometres to the north. The Sylvester Group also hosts several other precious metal and base metal prospects including the Midway deposit.


ERICKSON
CUSAC
EAGL
McDame
Centerville
BLACKFOX MTN
JUNIPER MTN
PENDLETON
NEEDLEPOINT MTN
EAGLE MOUNTAIN
CASSIAR STEWART ROAD
EDITONWOOD
RIVER
McDame Lake
Vines Lake
Quartz Mining Camp
SPHINX MTN
PYRAMID MTN
CHICKENS NECK MTN
SPIKE MTN
DEASE RANGE
15a
11a
8c
11
8
CASAU SURVEY
REGIONAL GEOLOGY
1"- 4mi.
FIGURE 3

PROPERTY GEOLOGY

A preliminary geological map at a 1:5000 scale was prepared by enlarging a 1:50,000 scale topographic map and is located as Map 1 (see pocket at back).

Lithology

Unit Vx - Volcanic Rocks

Unit Vx, the commonest rock type seen in outcrop, is a light-brown weathering, gray-green fragmental volcanic rock of andesitic (and/or basaltic or dacitic) composition. It typically appears to be a poorly sorted fine to coarse grained tuff, often containing large angular fragments of similar composition and texture. In some outcrops the abundance of these fragments suggests that this unit includes some flow breccias. A few small outcrops of a finely banded silicious blue grey rock may represent dacitic flows or tuffaceous chert.

Epidote, chlorite, calcite and albite alteration is ubiquitous. On the EAGL 1 claim the volcanic rocks often contain small pods or irregular n dules of grey limestone.

Occasionally the rocks show a weak foliation but are generally massive. Individual beds and/or flows appear to be two to thirty(?) metres thick.

Unit Ct - Chert

The main lithology in this unit is a light weathering, black to light gray chert. This rock type was seen only in the southwest area of the claims.

Some confusion occurs in distinguishing this unit from silicified argillite and volcanics which are also present.

Subunits Ct-SS and Ct-Sr are respectively, dark chert-quartz arenite and light gray sericite schist. They both occur as single outcrops on the western edge of the property.

The sericite schist is unusual and may be an exhalative horizon or an altered felsic volcanic flow or tuff.

Unit Um - Ultramafic Rocks

This unit occurs only as a few very small outcrops on the EAGL 1 claim. It is a black highly sheared serpentinite and is generally found associated with a characteristic alteration to talc schist and talc-carbonate-mariposite schist.

The unit may be related to the large ultramafic bodies found elsewhere within the Sylvester Group rocks or it may be a metasomatic rock related to the other alteration types.

STRUCTURE

Bedding attitudes were rarely observed and varied from flat lying to steeply dipping with no discernable overall trends.

On the EAGL 1 claim Units Vx, Ar and Ct are interbedded and are also highly faulted and disrupted. The outcrop on EAGL 2 is entirely of the unit Vx volcanic rocks but also appears to be structurally complex.

The regional structural and stratigraphic trends would suggest that the EAGL 2 volcanic rocks lie stratigraphically above the mixed volcanic and sedimentary package exposed on the EAGL 1 claim.

The disrupted bedding, local shearing and brecciation, slickensides and general outcrop pattern indicate a complex history of faulting, fracturing and jointing.

Air Photo Lineaments Figure 4

The half mile air photo of the EAGL claim area, BC 5732 No. 018, shows a striking pattern of cross cutting lineaments. To facilitate correlation with the geological and geochemical maps, these air photo lineaments have been plotted at a 1:5000 scale on Map III.

Preliminary examination of the lineament pattern suggests that the lineaments may be subdivided into three sets on the basis of lateral continuity and orientation.

There are a number of strong linears extending for distances of several kilometres. These regional lineaments are variable in their orientation but generally lie in the NW - SE quadrants. These lineaments appear to be major lateral faults.

CASAU SURVEY

EAGL CLAIM GROUP

AIRPHOTO LINEAMENTS

1 31,680 FIGURE 4

The second group of lineaments extend for one hundred to a thousand metres and trend either easterly, 070° to 090°, or northerly, 350° to 020°. The two trends appear to be a conjugate set of fractures.

The third set of lineaments is seen only locally on the air photo and have not been shown on Map III. They are short closely spaced conjugate lineaments with either north and northeast or east and northeast trends. These short lineaments are related to jointing within the volcanic rocks.

The ground expression of these lineaments are flat bottomed, sharp walled linear gullies generally filled with glacial debris and often containing small ponds. The geometry of the intersections of the various lineaments is not clear and in some cases involve minor offsets and elsewhere appear to be splays. More detailed structural information is needed to decipher the tectonic history of the area.

Alteration and Mineralization

Numerous small zones of altered rock were noted during the reconnaissance prospecting in the area. These zones vary greatly in size, mineralogy, litholigic association and intensity of alteration The EAGL group covers the area with the highest density of strong alteration zones as well as encompassing all significant mineralization located to date.

Various alteration types with characteristic mineralogies have been recognized and many of the larger alteration zones are indicated on the geology map, Map I.

Iron Carbonate Alteration

The commonest alteration type seen on the claims occurs as distinctive, orange, buff or reddish weathering areas, ranging from one metre square patches of altered gravel, to linear zones, 1 to 15 metres wide and traceable in outcrop, float and/or recessive weathering habit for up to one hundred metres.

This alteration type is characterized by pervasive addition of iron carbonate, often accompanied by weak to moderate silification. Minor amounts of sericite, clay, mariposite, pyrite and/or arsenopyrite are commonly, but not always, present.

Primary textures and mineralogy are usually destroyed and the fresh surface of the carbonatized rock has a granular to cherty appearance depending on the degree of silicification. The iron carbonate zones most commonly occur (and are best developed) in the volcanic tuffs, but were also recognized as alteration of the argillite (Ar) and serpentinite (Um) lithologies. In several outcrops on EAGL 1 the iron carbonate zones were observed preferentially following the tuff-argillite contacts. (It was not clear however whether these were bedding or fault contacts).

Manganese Oxide Stained Zones

The best mineralization seen on the claims to date was found to be directly associated with black manganese oxide stained zones within a few of the iron carbonate alteration zones. Manganese oxides were noted in seven scattered locations on the EAGL 1 and 2 claims. Drusy quartz veins, colloform iron carbonate-quartz banding and vuggy tectonic breccias were noted at several of these occurrences but were rarely seen elsewhere.

Stibnite Lake Showing

The most impressive of these mineralized showings is located on the south shore of a small pond in the northwest area of the EAGL 2 claim. This pond is herein referred to as Stibnite Lake since the massive coarse stibnite was found within a manganese-stained two metre wide fine-grained drusy quartz-pyrite vein which can be traced southwest from the lakeshore for approximately fifty metres. In addition to the stibnite mineralization the vein contains 1 to 3% black sphalerite and minor arsenopyrite, pyrite, galena and chaclopyrite. Extensive iron carbonate alteration and milky barren quartz veins are exposed on either side of the mineralized vein. Immediately to the west of Stibnite Lake is another small patch of manganese oxide stained float of similar pyrite sphalerite galena stibnite arsenopyrite mineralized drusy quartz.

SE Lake and Shark Lake Showings

Three other showings of very similar mineralization were located to the southeast of the Stibnite Lake showing. They include a ≃ 3m x 5m weakly mineralized showing on the east shore of SE Lake, a zone of frost heaved stained mineralized float in a small gully on the west side of SE Lake, and a ≃ 2m x 5m zone located 200 metres south of Shark Lake.

Sphalerite Galena Breccia Showing

The first of these mineralized zones to be located and sampled is on the southern plateau area of the EAGL 1 claim. It consists of a 5m x 10m zone of manganese stained rubble. Mineralization consists of fine grained drusy quartz pyrite veins and a colloform textured cemented breccia where both the breccia fragments and the cementing material consists of sphalerite-galena-iron carbonate and minor quartz.

Other Zones

The two other manganese stained showings are poorly exposed. A few talus blocks of a drusy quartz manganese oxide cemented vuggy breccia were found associated with iron carbonate altered float at the base of a silicified outcrop of volcanic and ultramafic rocks near the south saddle on the EAGL 1 claim.

The other showing consisted of black stained gravel on an outcrop of unaltered andesitic tuff.

All of these manganese stained zones are poorly exposed and their extent is open along strike or in all directions.

Quartz Veining

Many of the larger iron carboate zones contain a variety of quartz veins. The most common vein type is milky white massive quartz vein from a few centimetres to a few metres in width. These veins are usually discontinuous and often pinch out or horse-tail. Fine anastomosing networks, stockworks and quartz +/- carbonate-cemented tectonic breccias are also common. Chalcedonic quartz and drusy quartz veins were less commonly seen.

The quartz veining within the iron carbonate zones often carried minor carbonate, chlorite and sericite as well as traces of pyrite and occasionally chalcopyrite, galena and/or sphalerite.

In several outcrops which massive quartz veins with no iron carbonate alteration envelopes are present. The veins are up to a few metres in width but generally pinch out over 10 to 25 metres. These quartz veins are generally barren but occasionally carry traces of pyrite, chalcopyrite or galena.

Silicified Alteration Zones

A number of areas of subtle but pervasive silicification were observed in the tuffs, argillites and limestones. Where only moderately developed the primary rock textures and colour can be seen on fresh surfaces. The outcrops weather a chalky to cherty gray or white colour and in areas of intense silicification confusion arises in distinguishing silicified rocks from weakly sheared cherts or dacitic flows.

In contrast to the sharp edged carbonate alteration zones, the zones of silicification have diffuse boundaries. In some areas minor disseminated pyrite, pyrrhotite and/or arsenopyrite is associated with the silicification.

Alteration Associated with Unit Um

A number of distinctive alteration types are associated with the small serpentinite bodies. In general, alteration of the ultramafic rock has retained the planar fabric caused by shearing within the serpentinite, so the secondary alteration type has a schistose appearance. The alteration types associated with the serpentinites include white talc schist, talc iron carbonate schist, iron carbonate mariposite schist, serpentine graphite schist and a highly altered quartz - iron carbonate - manganesite (?) - mariposite rock similar to the listwanite rock type described in the Cassiar Gold District. (Panteleyev and Diakow 1981). Each of the above alteration types was seen in only one or two localities, generally in close spatial association with a serpentinite body/

As noted in the section on geology, the serpentinite lithology is present only on the EAGL 1 claim.

GEOCHEMISTRY

General

Geochemical sampling of the EAGL claim group was concentrated on the zones of visible alteration and mineralization. In addition to this selective sampling, a one kilometer line of soil samples and some stream silt samples were collected.

Procedure

Where possible soil samples were collected from the B soil horizon but limited soil development generally meant that soil and talus samples consisted of a mixture of finely broken rock and talus fines.

Since the zones of interest typically occur as frost heaved material, no systematic rock chip sampling was attempted. In some cases random grab samples of rock material were collected across an alteration zone but generally, rock samples were selected from the most altered and mineralized material present.

Details of sample preparation, analytical methods and sample data sheets are attached in Appendix II.

All samples were analysed for gold and arsenic and many were also analysed for zinc, copper, silver and/or lead. All geochemical sample preparation and analyses were done by Chemex Labs Ltd, North Vancouver, B.C.

Results

A total of 25(10) stream silt, 48(44) soil, 90(69) talus and 129(85) rock samples were collected from the EAGL claims.

Numbers in parentheses are those samples collected on the claims following staking and therefore included in the cost statement. Samples were analysed for gold, arsenic and zinc or copper values. A few rock samples were also analysed for silver and lead.

All sample locations and geochemical results are plotted on Map II. (in back pocket)

Selective Sampling of Alteration Zones

The results of the sampling program were disappointing. The highest gold analysis in the rock geochemistry was 1080 ppb Au (approx 0.03 ox/ton Au) while a value of 3450 ppb Au was obtained in a talus sample (from a different area). Values of 50 ppb Au or higher were found in 16 rock, 24 talus and 3 soil samples.

1. Manganese Oxide Zones

Eight rock samples were collected from six of the zones where manganese oxide staining was noted. As seen in Table I, all eight samples carried anomalous gold values ranging from 110 to 1080 ppb Au. Talus samples collected from these zones carried 70 to 680 ppb Au and a seventh zone was sampled only with one talus sample which contained 280 ppb Au.

As expected from the visible mineralization these zones are also strongly anomalous in arsenic up to 6400 ppm As, and zinc, up to >10,000 ppm Zn. Only one rock sample, from the sphalerite galena showing, was analysed for silver and lead. It contained greater than 10,000 ppm Pb and Zn, greater than 100.0 ppm Ag and 220 ppb gold. The sample has not yet been assayed.

2. Iron Carbonate Zones

Although a majority of the samples from the iron carbonate zones carried <10 to 30 ppb Au; seven rock and twenty talus and soil samples ran 50 ppb Au or greater.

The highest value, 3450 ppb Au, was found in a talus sample collected on the southernmost of two strong, 10 - 15 m wide near vertical E-W striking iron carbonate zones exposed in a large outcrop near the creek on the west side of the EAGL 1 claim. Two other samples taken along this same zone ran 100 and 140 ppb Au while two selected rock samples carried anomalous gold values. A sample of carbonatized silicified volcanic with disseminated pyrite mineralization and fine stockwork of quartz veins ran 800 ppb Au and 380 ppb As. A sample of a 0.5 m wide, massive gray quartz vein with ≈5% galena and chalcopyrite mineralization ran 120 ppb Au, 22.0 ppm Ag, >10,000 ppm Pb and 2000 ppm Cu.

Talus samples and a composite rock sample from the second alteration zone to the north carried only 10 ppb Au but a sample of a talus block of chalcedonic quartz vein with white clay "knots" ran 320 ppb Au.

3 talus and a rock sample from the strong northeast striking carbonatized zone along the east side of Shark Lake host anomalous values of 40 to 160 ppb Au and 63 to 560 ppm As.

Seven talus samples from iron carbonate zones on the south plateau area of the EAGL 1 claim ran 60 to 320 ppb Au and 260 to 3700 ppm As.

A few of the other anomalous talus samples came from the vicinity of the manganese oxide stained areas within iron carbonate zones while the remainder are isolated anomalies.

TABLE I

ROCK GEOCHEM WITH >50 ppb AU

(ppm)

Sample No	Location	Rock Type	Alteration	Mineralization	Au	As	Zn	Ag	Pb	Cu
Manganese Oxide Zones										
41091C	gully west of Stibnite Lake	drusy quartz breccia	Mn Fe stained carbonate altn	pyrite, traces galena, sphal	1080	2150	3250			
41092C	Stibnite Lake showing	drusy quartz pyrite vein/bx	Mn stain/ coating	stibnite, sphal py, aspy, gal	680	5650	7200			
41093C	Stibnite Lake showing (S)	quartz-pyrite-stibnite vein	Mn stain	massive stibnite py, aspy, sphal,gal	110	980	6650			
41076C	S of Shark Lake	drusy quartz vein in carb	Mn oxide stain..	py, stibnite, aspy, sphal, gal, <py	480	2900	2800			
41079C	SE Lake east shore	Colloform Fe carb drusy quartz	Black weathering	minor py, gal.	150	200	74			
41099C	SE Lake west gully	drusy quartz-py vein/bx	Mn oxide stain	py-stibnite-aspy-sphalerite-galena -cpy	260	6400	8650			
96795B	S Saddle Eagle 1	breccia with drusy quartz	Mn stain frags silicified	traces py, aspy galena	300	1150				
32923C	S plateau Eagle 1	Fe-carbonate zinc	Mn-Fe stained	massive sphal, gal breccia f.g. pyrite veins	220	-	>10000	>100.0	>10000	500
Iron Carbonate Zones										
32918C	West outcrop (South) Eagl 1	volcanic w quartz stockwork	silicification, Fe-carbonate	diss pyrite	800	380				
32912C	West outcrop (North)	chalcedonic quartz-clay	in Fe-carb zone	-	320	10				
41424C	Eagl 1 - 2 joint boundary	Volcanic	Silicified Fe - carbonate	mariposite, py, arsenopyrite	120	980				

Sample No.	Location	Rock Type	Alteration	Mineralization	Au	As	Zn	Ag	Pb	Cu
Iron Carbonate Zones cont'd										
96780B	South plateau Eagl l	Volcanic	silicified Fe-carbonate	traces py, aspy	80	300		0.1		
96794B	South saddle Eagl l	Volcanic quartz stockwork	silicified	mariposite, py arsenopyrite	80	1150				
32915C	West outcrop (South)	Vein in Fe-carb zone		quartz-galena cpy vein	120	-		22.0	10000	2000
41035C	Shark Lake east shore	Fe-carbonate zone	silicified quartz veining	traces pyrite	160	285	43			
Silicified Zones										
41081C	North of Shark Lake	dark green volcanics	silicified	pyrite, pyrrhotite	500	11	785			

Stream Silt Sampling

No significant gold values were present on the 25 stream silt samples collected. Arsenic values ranged from 7 to 125 ppm. The highest value was in a sample taken near the top of a creek draining east from Stibnite Lake. This anomaly is very likely related to the arsenic-bearing mineralized showing on the south shore of Stibnite Lake. This correlation is supported by the presence of a black manganese stain on the gravels in the creek. This staining may provide a visual guide to similar manganese-stained mineralized showings elsewhere.

The second highest arsenic value of 57 ppm was found in a tributary of the creek draining east from the south saddle area of EAGL 1. There are several iron carbonate and silicified zones in this drainage area any or all of which may contain arsenopyrite mineralization.

Twenty of the silt samples were also analysed for zinc and results ranged from 53 to 250 ppm Zn. Although not strongly anomalous the zinc values show a good correlation with the arsenic geochemistry.

Soil Line

Purpose The soil line was intended as an orientation survey to determine the usefulness of contour or grid soil sampling in locating alteration zones.

Procedure Twenty-three soil samples were collected at fifty metre intervals along approximately the 5250 foot contour on the west side of the central hill on the EAGL 1 claim. This contour

cuts across the strike of several poorly exposed, one to five metre wide zones of weakly mineralized carbonate-quartz alteration.

Results Except for one sample running 80 ppb gold and another sample containing 61 ppm arsenic, all soil samples from the soil line ran <10 ppb or less gold and less than 30 ppm arsenic. Copper values ranged from 19 to 92 ppm and showed no correlation with the gold and arsenic values.

Neither of the anomalous samples is associated with known alteration zones.

Sample B33, taken approximately 30 metres upslope (and along strike?) of a small outcrop with iron carbonate alteration, ran 10 ppb Au, 11 ppm As and 49 ppm Cu. Sample BT69 taken directly on this alteration ran 100 ppb Au, 71 ppm As and 75 ppm Cu.

Interpretation Considering the narrow widths of the exposed alteration zones, the erratic and generally low gold, arsenic and copper values found in direct sampling of those zones, the poor soil development, and the mantle of glacial material; the results of the soil line are not surprising. Systematic soil sampling does not appear to be an effective means of delineating alteration zones in the EAGL claim area.

The conclusion is supported by the presence of a large soil sampling grid located in the area of EAGL 2 claim. This work was performed by an unknown company earlier in 1983 and apparently failed to indicate the mineralization later found by this company.

DISCUSSION

A comparison of Maps I, II and III indicates a very strong correlation between the iron carbonate alteration zones, manganese-stained mineralization, the anomalous gold values and the air photo lineaments. All three mineral parameters are spatially associated with the drift-filled linear gullies.

The anomalous iron carbonate zones and mineralized showings typically occur as discontinuous talus along the base of the outcrop along either wall of the easterly and northerly trending gullies. Alteration and mineralization in outcrop is typically localized along near vertical northeast striking joints adjacent to these gullies.

Further work on the property should concentrate on determining if the glacial drift in the recessive gullies is covering a precious metal mineralized, fracture-controlled, vein system.

RECOMMENDATIONS

A two phase program is recommended on the EAGL group for the 1984 season.

Phase One would sonsist of:

1) intensive prospecting and sampling of the float material in the linear gullies.

2) Geological mapping of lithology and alteration types using a 1: 5000 air photo enlargement or orthophoto as control.

3) Detailed mapping and sampling in the vicinity of the known showings and in areas of geological complexity e.g. - the south saddle area on EAGL 1.

4) intensive structural analysis of the geometry of the fault, fracture and joint patterns as well as bedding, foliation and cleavage orientations.

5) Further reconnaissance prospecting and sampling in the area bounded by the Eagle River, Dease River and Dalton Creek. Particular attention should be given to areas showing strong air photo lineaments such as the area immediately north of Eagle Mountain

6) Selection of targets for trenching.

Phase Two of the work program is dependent on the results of Phase One. It would involve either mechanical trenching or hand trenching and blasting to expose the mineralized showings and obtain information on the bedrock underlying the recessive gullies.

Respectfully submitted,
J.C. Stephen Explorations Ltd.

A.E. Heagy

A.E. Heagy

STATEMENT OF EXPENDITURES

WAGES AND BENEFITS

A.E. Heagy	July 23 - 29, August 21 - 27	@ $85.	$1,190.00
M. Webster	July 23 - 29,	@ 75.	525.00
J. Lawton	August 21 - 27	@ 60.	420.00
			$2,135.00

FOOD AND CAMP SUPPLIES

28 man days @ $12.	336.00

GEOCHEMISTRY

Invoice				
14472	29	Rock for Au, As, Zn @ $10.15		
14471	33	Talus and soil	Au, As, Zn @ $10.15	
14471	4	Silt	Au, As, Zn @ $10.15	
13290	43	Soil	Au, As, Cu @ $10.15	
13290	14	Talus	Au, As, Cu,@ $10.15	
13290	23	Talus	Au, As, Zn @ $10.15	
13291	62	Rock	Au, As, @ $10.15	
		(Also 6xZn, 17xAg, 5xPb, 14xCu)		
13290	2	Silt	Au, As, Zn @ $10.15	
13290	4	Silt	Au, As, Cu,@ $10.15	
	214		@ $10.15	$2,172.10

TRANSPORTATION

Capital Helicopters

Flight Ticket		Hours	
1572	July 23	0.9	
1575	July 29	0.7	
0797	August 19	1.1	
0029	August 26	1.0	
	Total Hours	3.7	
Cost 3.7 hours and fuel @ 472.50			$1,748.25

$6,391.35

REFERENCES

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APPENDIX I

SAMPLE DATA SHEETS

J.C. STEPHEN EXPLORATIONS LTD.

GEOCHEMICAL DATA SHEET - ROCK GEOCHEM SAMPLING

NTS 104G 3W

SAMPLER Weber

LINE

PROJECT CASAU - EAGLE

DATE July 23 -

AIR PHOTO No.

	SAMPLE NUMBER	LOCATION	ROCK TYPE	ALTERATION	MINERALIZATION	STRIKE / DIP	ADDITIONAL REMARKS	APPARENT WIDTH	TRUE WIDTH	ASSAYS Au.	As.	Zn / Pb	Ag / Cu
1)	96773 B	north of 55 46 east of stream	DACITE TUFF	SILICIFIED	MASSIVE PY	—	py cubes in masses in [illegible] // zones			<10	14		0.1/
2)	96774 B		DACITE TUFF-BRECC	SILICIFIED/CARBONATE	CPY/PY DISS.	—	cpy flakes & py, [illegible] brown			<10	9		0.1/
3)	96775 B		LIGHT GREY DACITE	SILICIFIED/FOLIATED	PY DISS c SILICA	—	mineral/silica [illegible] // foliation			<10	2		0.3/
4)	96776 B	N side [illegible]	TUFF	FE-CARB/SILICA/	MINOR DISS PY CUBES	—	above FE-CARB zone 2 [illegible] taken from Fe Carb zone			<10	4		0.1/
5)	96777 B	SE side [illegible]	DAC[illegible]	FE-CARB/SILICA	LARGE PY CUBES	—	zone outcrops at base of [illegible] dac. tuff			<10	2		0.5/
6)	96778 B		DACITE(?)	FE-CARB [illegible]	[illegible] FINE D[illegible]		[illegible] highly [illegible] altered & [illegible]			20	90		/
7)	96779 B	NE side of [illegible]	DACITE TUFF	SILICA/HEMATITE	FINE PY/ HEMATITE CRYSTALS	—	fine dacite tuff - highly siliceous [illegible] alt zone			<10	6		0.1/
8)	96780 B	[illegible]	[illegible] DACITE TUFF	SILICA/FE-CARB	DISSEM ARSENO PY PY	—	min. tends along silica stringers			80	300		0.1/
9)	96781 B	"	QTZ CARB VEIN	CARBONATE	MINOR PY DISS.	76/82°S	one of 5-6 small [illegible] vein width 15cm strike 2m			<10	5		0.1/
10)	96782 B	"	DACITE TUFF	FE-CARB/SILICA	MINOR PY DISS	—	next to stream - rock highly siliceous, [illegible]			<10	4		0.1/
11)	96783 B	E of Eagle	FE-CARB ZONE	FE-CARB/PY	PY CUBES DISS	—	zone 40m strike py min. [illegible] [illegible] stream.			<10	81		0.1/
12)	96784 B	"	QTZ VEINING	CARB.	1 PY SPECK	STRIKES VARY DIPS STEEP TO SOUTH	- DACITE TUFF HOST.			<10	2		0.1/
13)	96785 B	E of Eagle 1	Dacite tuff	Chl / Py	py - minor diss	—	massive mult - type sample			<10	3		/
14)	96786 B	South Knoll	ASPY QTZ VEIN		ARSENOPY, GALENA	—	4cm x 1m strike			<10	3	510/4000	116/1050
15)	96787 B	"	QTZITE	ASPY/YELLOW STAIN	ASPY	—	next to vein			<10	2		1.8/
16)	96788 B	"	QTZITE	"	"	—	south side of knoll			<10	2		0.4/
17)	96789 B	"	QTZITE	"	"	—	fractures coated c aspy			<10	3	56/34	0.9/121
18)													
19)													
20)													

J.C. STEPHEN EXPLORATIONS LTD.

GEOCHEMICAL DATA SHEET ROCK GEOCHEM SAMPLING

NTS 104P3

SAMPLER Heagy

PROJECT CASAU - EAGLE

LINE

DATE July 1983

AIR PHOTO No.

	SAMPLE NUMBER	LOCATION	ROCK TYPE	ALTERATION	MINERALIZATION	STRIKE / DIP	ADDITIONAL REMARKS	APPARENT WIDTH	TRUE WIDTH	ASSAYS Au.	As.	~~Pb~~ Ag / Zn	Ag / Cu
(1)	41420 C	4E 4S zone	tuff + breccia	Fe-carb, silica	mar, py, aspy, cpy, gal	float zone	grab sample of altn zone 15m x 50m downslope			<10	39		
(2)	21	"	qtz-carb vein	—	mod galena diss		- 10cm wide vein sampled from several float blocks	10cm		<10	24	1200/	2.3/
(3)	22	"	tuff	Fe-carb+silicif	traces of gal, cpy, py, sphal?	1x10m zone	trend ~150°			<10	38	485/	0.7/
(4)	23	SE corner	5mm veinlet w/ 1 in dark flow	mod Fe-carb	~5% cpy in qtz veinlet	float	'high grade' vein sampled	.5cm	.5 cm	<10			.2/.5
(5)	24	"	tuff	silic ± Fe-carb	mar, py, aspy?	float	selected sample from 2m wide Fe-carb zone.			120	980		
(6)	25	Ed camp	tuff?	mod Fe-carb altn minor silicif	traces py	cleavage 150/V	~5x10m o/c w pervasive altn.			<10	53		
(7)	26	immediately W of camp	Ultramafic!	pervasive Fe carb-qtz-mar	bk 2° Cu spots, py	float	30cm orange weathering boulder			<10	1300		6.4/16
(8)	27	west side of hill	argillite - tuff contact	Fe carb/silica	mariposite, cpy, aspy, 2° Cu?	talus.	BT 67 grab sample of talus zone			<10	59		/96
(9)	28	"								<10	35		/57
(10)	29	"	Volcanic tuff	purple + green Fe-carb altn						<10	6		/42
(11)	30									<10	24		/36
(12)	41431C									<10	24		/22
(13)	41450C									<10	4		/29
(14)													
(15)	967800B	South saddle area	sheared qtz vein	slickensided	minor cpy, malachite; py	float				20	19		5.9/1550
(16)	799B	"	Fe-carb-qtz-talc schist	highly alt'd, veined volc ?	traces py, aspy, dendritic Mn oxides	"	in situ? → small zone			<10	9		
(17)	798	just south of S saddle	yellow-green volc	silicified, fine gr qtz stwk	aspy, yw stain	o/c + talus at base of o/c	~2m wide area of altn at base of o/c of tuff plus U-m			30	330		
(18)	797	"	Volc tuff	highly silicified cherty	—					10	36		
(19)	796	"	"	silicified, grey mod alt'd	chl-aspy-py on fractures					10	46		
(20)	967958	"	"	1cm frags and breccia with	drusy qtz + open spaces ~15% + traces sulfides Fe,Mn oxides		Fe-Mn stained breccia			300	1150	/	

J.C. STEPHEN EXPLORATIONS LTD.

GEOCHEMICAL DATA SHEET ROCK GEOCHEM SAMPLING

NTS 104 P3

SAMPLER Henry

PROJECT CASAU - EAGLE

LINE

DATE July 8 83

AIR PHOTO No.

	SAMPLE NUMBER	LOCATION	ROCK TYPE	ALTERATION	MINERALIZATION	STRIKE / DIP	ADDITIONAL REMARKS	APPARENT WIDTH	TRUE WIDTH	Au	As	Pb/Zn	Ag/Cu
1)	96799B	S saddle area	volc tuff	strongly silicified (vein?)	mariposite, py aspy?	talus	yellowish stain			80	1150		
2)	793	SW of S saddle	volcanics			float	grab samples from along [illegible]			<10	25		
3)	792	"	qtz vein	qtz-clay	limonite weathering	"	Fe-carb zone			10	36		
4)	791	"	drusy qtz vein	silicified volc	/	"				10	110		
5)	96790B	west side of hill	volc	purple + green alt'n Fe-carb-silica	traces fine py ± aspy??	1m wide	Fe-carb zone [illegible] downslope?	1.2m		<10	35		
6)													
7)	32901C	gully – N saddle	edge of lst portion volc by	Fe-carb, dk matrix to bx	chl/serpentine possibly trace ??		~2m sq area			10	24		
8)	2	N end of claims	hblde andesite dyke	/	v.f. diss py [illegible] weathering	o/c ~ 3×4m				<10	16		
9)	3	W of N saddle	bx arg	Fe-carb matrix	/		edge of area of angular gravel			<10	9		
10)	4	N end of o/c by W ck	volc tuff	purple-green Fe-carb alt'n	traces of fine py	talus	10m wide vertical zone			<10	5		
11)	5	W of 2394E	qtz vein w volc frags	silic – dk grey	cpy, py	"	talus boulder of volc tuff (as epidote)			<10	103		
12)	6	"	volc tuff	green grey Fe-carb-sil	diss py	"	Fe-carb alt'n down o/c but faint zone			<10	27		
13)	7	"	"	sil, qtz stwk trace mariposite	diss py, aspy	"				<10	27		
14)	8	by N saddle (in fault)	highly altered	Fe-carb-qtz-mariposite, py	few bk "Cu" spots	float	few lg pieces in float			<10	1100		60/10
15)	9	west side of N plateau	sericite schist	/	/		3×5m o/c tuff & basalt immediately underlying.			<10	22		
16)	10	N Fe-carb zone o/c by W CK	volc	Fe-carb-silica or weath			grab sample of random talus pieces			<10	59	3/82	/33
17)	11	"	volc breccia	silicified	bk [illegible] mineral in fine thru qtz	talus				20	9		
18)	12	"	chalcedonic [illegible] qtz vein	with [illegible] clay "knots"	—	talus				320	10		
19)	13	"	volcanic	purple (hematite?) alt'n adj. to [illegible]	—	"				<10	6		
20)	32914C	"	"	green silicif.	py aspy	"				<10	17		

J.C. STEPHEN EXPLORATIONS LTD.

GEOCHEMICAL DATA SHEET ROCK GEOCHEM SAMPLING

NTS 104 P3

SAMPLER Hrogy

PROJECT CASAU - EAGLE 1

LINE

DATE July 83

AIR PHOTO No.

	SAMPLE NUMBER	LOCATION	ROCK TYPE	ALTERATION	MINERALIZATION	STRIKE / DIP	ADDITIONAL REMARKS	APPARENT WIDTH	TRUE WIDTH	ASSAYS ppb Au.	ASSAYS ppm As.	Pb/Zn	Ag/Cu
1)	32915C	South Zone o/c by WCK	banded grey-green-wt [illegible]	Silicified	py in dk green band (tourmaline?)	talus				<10	16		
2)	16	"	vein	ferruginous qtz rock	diss cpy + galena	^ vertical	exposed over a 5 m wide also in talus	~20 cm.		120	–	?1000/	22.9/2000
3)	17	"	brecciated volcanics	dk gy matrix, qtz stwk	fine py cubes	talus				20	103		
4)	18	"	volc	sil - Fe carb, qtz stwk	diss py	"				800	380		
5)	19	east side of Hill	highly altered	Fe carb - qtz - mariposite + qtz stwk	bx unknown? [illegible]	"	finely banded			10	710		20/12
6)	20	west of [illegible]	brecciated volc	Fe carb matrix + alt'n	—		Small zone			<10	63		
7)	21	"	volc tuff	Fe-carb	traces py aspy??	sub vertical	base of volc above argillite	~1m		<10	83	/64	
8)	22	"	altered gry rx Fe-carb?	hornfelsed	Pyrite (sphal??)	float	- glacial float - w/ local Fe carb zone??			<10	4		
9)	23	South plateau	Brown volc,	Fe-carb alt'n, brecciated	massive sph, minor gal, cpy, py, in breccia	~4 x 10 cm wide?	Fe-carb stwk + mineralized veining [illegible]					?1000/>10000	>100/50[illegible]
10)	24	ck by camp	alt'd u-m	dk red-br zone in Fe-carb alt'n	mariposite		} 15 x 5 m or weathered			<10	170		
11)	25	"	"	qtz - carb - mariposite	red-br mineral?		} zone along creek			<10	75	/345	
12)	26	N end of alt'd o/c by WCK	qtz vein	—	coarse-grained brown [illegible] mineral	talus	- tourmaline/sphalerite?			<10	6		
13)	32927C	"	alt'd volc	sil - Fe carb w qtz-ser stwk	—	talus				<10	930		
14)													
15)													
16)													
17)													
18)													
19)													
20)													

J.C. STEPHEN EXPLORATIONS LTD.

GEOCHEMICAL DATA SHEET ROCK GEOCHEM SAMPLING

NTS 104 P3

SAMPLER HERCY

PROJECT CASAM - EAGL 2

LINE

DATE AUG 19-26/83

AIR PHOTO No.

	SAMPLE NUMBER	LOCATION	ROCK TYPE	ALTERATION	MINERALIZATION	STRIKE / DIP	ADDITIONAL REMARKS	APPARENT WIDTH	TRUE WIDTH	ASSAYS Au.	As.	Zn	
1)	41076C	S of Shark LK. (E of LK to S)	hosted by int. volc tuffs	qtz-Fe carb breccia with Mn oxides	minor gal, sphal, cpy, ~~[illegible]~~, stibnite?	talus	- fine needles silver gyth bluish grey	3.5m		480	2900	2800	
2)	41077C	tiered Knoll to SE	rusty volcs	rusty qtz vein (py) [illegible] in pyritic sil volc	py-aspy-gal. erratic dist	?	talus ET 12, 13	3m		<10	23	63	
3)	41078C	SE	volc tuff	qtz vein - sil volc.	rare Mn oxides, py, cpy	vein ~ 050°/V	vein 0+0 25cm wide py [illegible] associated?			<10	33	1950	
4)	41079C	SE of Shark LK.	vein - FeC/Si alt of volcs	bk weathering siderite-drusy qtz	minor gal, sphal(?) py	-	colloform texture +10m wide altn zone			150	200	74	
5)	41080C	SE area	chert or volc?	highly silicified lt grey	2cm py-sphal vein	glacial float.	float: Subrounded with [illegible] lt.			<10	45	>1000	
6)	41081C	N of Shark LK.	green volc breccia	dk green, siliceous rusty weathering	PO, py dist in fracture		adj to small F-C zone. CT16,17.			500	11	785	
7)	41082C	CK N of Shark LK.	Fe-carb alt'd volc.	qtz-Fe carb vein.	py, limonite.		in gravel slide			<10	9	155	
8)	41083C.	CK N of Shark LK	Fe alt'd volc w mariposite	qtz-carb vein in	py, traces of galena.	talus below O/C				20	19	82	
9)	41084C	CK North of Shark LK.	volcs w po.	FC altn w qtz-carb veins	~~[illegible]~~ py cubes	float in talus	in talus below by ore on east side of CK.			<10	12	59	
10)	41085C	Northeast of Shark LK.	qtz vein		trace py	n050/V?	strike ~10m,	1m	1m	<10	19	15	
11)	41086C	east end of north ridge	argillite?	highly silicified +[illegible] veins	pyrite.	150/15°NE	folded highly siliceous finely laminated			<10	19	30	
12)	41087C	"	"	"	pyrite	variable	" white to black			<10	15	35	
13)	41088C	W of Dalton Creek	Feldspar porphyry intrusive?	silicified,	pyritic					<10	29	79	
14)	41089C	East of Shark LK.	qtz vein in FC alt'd vx	FC alt'd + silic vx w py	15cm qtz vein traces scratchy pyrite	float	several bks in float CAC of qtz vein + FC altn 07 adj			<10	17	52	
15)	41090C	NW of Stibnite LK.	mod Fe-carb zone	qtz-carb-ser veins	minor to trace pyrite		veins 1cm-20cm wide rarely w pyrite			<10	10	55	
16)	41091C	west of Stibnite LK.	drusy qtz breccia	± colloform [illegible] texture Mn oxide	pyrite, limonite.	talus	selected talus of by from Fe carb zone.			1080	2150	3250	
17)	41092C	S shore Stibnite LK	drusy qtz bx in Fe-carb zone	yw, red, bk stains, bk Mn coating	Stibnite-sphal-py-gal	050/V	CT-26, talus, generally coated w bk Mn oxide (to 1cm)	1-2m		680	5650	7200	
18)	41093C	"	"	"	massive stibnite " diss as above	"	~50m S (along strike) (CT-27)			110	980	6650	
19)	41094C	"	qtz-Fe carb breccia veins	ser, carb.	minor pyrite		1m west of 41092C-93C zone.			40	88	1550	
20)	41095C	~~[illegible]~~ S shore of Stibnite LK	qtz vein	in Fe-carb zone, weak	traces of galena, pyrite	060° [illegible]		.2m		<10	17	195	

J.C. STEELEN EXPLORATIONS LTD.

GEOCHEMICAL DATA SHEET ROCK GEOCHEM SAMPLING

NTS

SAMPLER HENRY ILAUFEN PROJECT CASA - FIELD LINE

DATE AUGUST 14 '87 AIR PHOTO No.

	SAMPLE NUMBER	LOCATION	ROCK TYPE	ALTERATION	MINERALIZATION	STRIKE / DIP	ADDITIONAL REMARKS	APPARENT WIDTH / TRUE WIDTH	ASSAYS Au.	As.	Zn	
1)	41096C	SE of Shark LK	qtz vein	Ser - Chl	traces Py - Cpy		in large Fe-carb zone	4m	10	10	42	
2)	41097C	SE of Shark LK.	qtz vein	± Mn or banding ± limonite serp	Cpy, Py	talus	strike not clear EW to 050°	2m	<10	7	28	
3)	41098C	SE of Shark LK	Fe carb alt'd volcs	carb - silica (manganite traces)	pyrite, ~~cpy~~ ?		small Fe-carb zone		20	73	310	
4)	41099C	"	Fe-carb zone.	Mn or - dusty qtz - breccia/vein	silvery bk mineral ? py - stib - cpy - gal	~045°	Bone in float along gully, adj Fe-C zone	2m	260	6900	8650	
5)	41213C	NE of Shark Lake	quarte vein	minor carbonate banding		015°/22°		30cm	<10	59	130	
6)	41214C	"	brown weathered carbonate	silicified			small o/c surrounded by volcanics		<10	29	72	
7)	41215C	"	volcanics	bands of punk and white carbonate	slight pyrite		heavily foliated and folded		<10	7	97	
8)	41216C	"	quarte vien	carbonate banding	native copper			40cm	<10	90	67	
9)	41217C	"	volcanics	silicified	pyrite		rusty volcanic band approx 50m long.	1m	<10	11	80	
10)	41218C	"	quarte vien		slight pyrite	070°		40cm	<10	5	38	
11)	41219C	NNE of Shark Lake	volcanics	carbonate veining	pyrite		rusty appearance		<10	7	88	
12)	41220C	"	"	"	"		"		<10	17	16	
13)	41221C	E of Shark & E Lake	"	silicified	1% disseminated pyrite		volcanics are green		<10	9	76	
14)	41222C	NE of Shark Lake	"	carbonate veins and quarte	disseminated pyrite		rusty weathering in patches		<10	6	89	
15)	41223C	"	"	carbonate veining	"		rusty weathering		<10	20	89	
16)	41224C	"	brown weathered carbonate	quartz stringers			small o/c surrounded by volcanics		<10	10	70	
17)	41225C	"	volcanics		pyrite		rusty ~~weather~~ band in volcanics	1m	<10	6	180	
18)	41226C	E of Shark Lake	volcanics	silicified	rusty mineral ?		rusty weathering	30cm	<10	15	25	
19)	41227C	"	"	carb. & silic.	disseminated pyrite		"		<10	14	76	
20)	41228C	"	"	"	"		"		<10	12	105	

J.C. STEPHEN EXPLORATIONS LTD.

GEOCHEMICAL DATA SHEET – ROCK GEOCHEM SAMPLING

NTS 104 P 3

SAMPLER LAWTON

PROJECT CASAU - EAGL

LINE

DATE AUGUST 1983

AIR PHOTO No.

	SAMPLE NUMBER	LOCATION	ROCK TYPE	ALTERATION	MINERALIZATION	STRIKE / DIP	ADDITIONAL REMARKS	APPARENT WIDTH	TRUE WIDTH	ASSAYS Au.	As.	Zn	
1)	41229C	E of Shark Lake	quartz vein	carbonate vein nearby	silvery metallic mineral		found in float.			<10	7	32	
2)	41230C	"	volcanics	silicified	disseminated pyrite		rusty weathering			<10	6	78	
3)	41231C	"	iron carbonate zone	carb. and silic.	"		" small o/c			<10	5	73	
4)	41232C	"	"	"	"		" "			<10	7	96	
5)	41233C	SE of Shark Lake	"	"	possibly sphalerite		rusty weathering			<10	35	50	
6)	41234C	"	"	"	disseminated pyrite		"			<10	7	95	
7)	41235C	"	" volcanics	~~calc~~ "	"		~~slightly~~ rusty weathering			<10	59	35	
8)	41236C	"	volcanics	silic	"		slightly "			<10	6	98	
9)	41237C	"	"	"	"		"			<10	6	69	
10)	41238C	"	quartz vein	carb.	"		more veining ~~at~~ within 2m	30cm		<10	6	28	
11)	41239C	"	"	silic.	"			40cm		<10	17	19	
12)	41240C	"	"	silic.	pyrite and possibly sphalerite			20cm		<10	5	12	
13)													
14)													
15)													
16)													
17)													
18)													
19)													
20)													

J.C. STEPHEN EXPLORATIONS LTD.

GEOCHEMICAL DATA SHEET – SOIL SAMPLING

SAMPLER: WEBSTER

DATE: [illegible] 23 –

PROJECT: CASAL – CAGL 1

NTS: 104P [illegible]

LINE:

AIR PHOTO NO.:

SAMPLE NO.	LOCATION	Depth	Horiz	Colour	Part Size	% ORG.	Ph	SLOPE	VEG.	ADDITIONAL OBSERVATIONS OR REMARKS	Au	As	Cu	Zn
85-CAGL-201						/	/				10	101		97
85-CAGL-202											<10	300		129
203											180	2400		51
204											10	32		188
205											40	29		100
206											<10	19		98
207											60	59		114
208											<10	12		87
209											10	6		66
210											10	14		102
211	[illegible] 55 SE	surf	A	orange	[illegible]			30° N	[illegible]	glaciated [illegible] / [illegible] — [illegible]	10	29		72
212	"	"	"	"	"			[illegible]	[illegible]	[illegible] zone at [illegible] [illegible] orange	60	640		128
213	"	"	"	"	"			"		Fe [illegible] zone [illegible] small [illegible]	10	79		67
214	"	"	"	"	"			"	"	Fe [illegible] zone in [illegible] bank	10	69		210
215	"	"	"	"	"			"	"	15m wide zone E-W in [illegible] bank	<10	59		97
216	"	"	"	"	"			"	"	continuous from 215, minor py	10	97		168
217	[illegible] 55 2E	5cm	"	"	"			"		Fe [illegible] zone outcrops at base of [illegible] minor py	10	140		69
218	"	10cm	"	RED	"			"		Fe [illegible] zone 30cm NE strike, fine [illegible] py along [illegible]	260	2400		195
219		"		orange	"			"		Fe [illegible]	120	3600		72
220		"		"	"			"		Fe [illegible]	220	1900		130

J.C. STEPHEN EXPLORATIONS LTD.

GEOCHEMICAL DATA SHEET – SOIL SAMPLING

SAMPLER WEBSTER

DATE July 29/83

PROJECT CASAU - EAGLE

NTS 104P SW

LINE

AIR PHOTO NO.

SAMPLE NO.	LOCATION	Depth	Horiz	DESCRIPTION				SLOPE	VEG.	ADDITIONAL OBSERVATIONS OR REMARKS	ASSAYS			
				Colour	Part Size	% ORG.	Ph				Au	As	Cu	Zn
83-CAB-221	100m SSIE	10cm	A	red	up to 4cm	—	—	base of outcrop	—	Fe-carb zone - tabular clasts break through moss	<10	96		77
222	"	"	"	orange	"	—	—	flat	—	" - small knoll of Fe-carb alt tabular clasts	<10	65		87
223	"	"	"	"	"	—	—	base of outcrop	—	" - continuous through dacite tuff 2.5m	60	260		177
224	E end Valley	Surface	A	"	"	—	—	base of outcrop	—	" - dacite tuff outcrop above	40	610		87
225	" skarn	"	"	"	"	—	—	Step to west	—	Skarn 2M wide - Fe-carb alt breccia	10	59		115
226	E of Skarn zone	"	"	"	"	—	—		—	Fe-carb zone	<10	73		78
227	"	"	"	"	"	—	—		—	Fe-carb zone	10	57		78
228	E of Eagle	"	"	"	"	—	—	20° to North	—	Fe-carb zone, some skarn + ultrabasic (?) in dk. alt	10	24		162
229	"	"	"	brown	fine	—	—	flat	—	recently drained lake bottom - mud cracks	<10	25		109
230	"	"	"	orange	"	—	—	base of outcrop	—	Fe-carb zone	<10	180		82
231	South Knoll	3-4 cm	"	grey-black	"	—	—	Step to north	—	Arsenopyrite via fines - mostly high grade	<10	9		730
238	"	Surface	"	black-red-orange	"	—	—	"	—	Gossan below vein showing - rock crumbles to hand highly oxidized	<10	12		61
232	"	"	"	orange	med	—	—	Step to East	—	Less competent qtz vein zone - strong skarn "Skarn?"	<10	6		39
234	Eagle SE 3E 5S	"	"	orange	med	—	—	rock bank	—	Fe-carb zone next to 1m x 1m Serpentine outcrop	10	790		96

J.C. STEPHEN EXPLORATIONS LTD.

GEOCHEMICAL DATA SHEET — SOIL SAMPLING

NTS 104P3

SAMPLER Heagy

DATE July /83

PROJECT CASAU - Eagle

83CA-

LINE

AIR PHOTO NO. 1:5000 enlargement

SAMPLE NO.	LOCATION	Depth cm	Horiz	DESCRIPTION: Colour	Part Size	% ORG.	Ph	SLOPE	VEG.	ADDITIONAL OBSERVATIONS OR REMARKS	ASSAYS: Au	As	Cu	Zn
83CA BT65	9E 35N	0-10	BC	br	fines	/	/	mod	/	on Fe-carb alt'n zone Rx 41922C	<10	73	83	
66	SE corner	0-5	C	or-br	gravel + fines	/		"	/	" Rx 41923C (2% cpy violet)	10	520	195	
67	west side of hill	5-10	A	dk gy	clay to gravel	minor		"	grassy	largely drawney angellite but some Fe-carb altd float	<10	50	125	
68	"	"	A	br	fines	minor		"	"	tan to bleached gy ± limonite, silicified dacite tuff + gravel	10	69	62	
69	"	5	B	or-br	finest gravel	/		"	/	On Fe-carb zone Rx 41940 rx samples 130m below B33. Samples largely soil	100	71	75	
70	" (N end)	5-10	BC	"	gravel + fines	/		"	/	Fe-carb zone - ± trace of sulfides	10	3	129	
71	"	"	"	"	"	/		"	/	below O/C of tuff (W bet)	<10	5	140	
72	"	"	"	"	"	/		"	/		<10	5	118	
73	"	"	"	"	"	/		"	/	small washout w Fe-carb + sericite schist float - O/C ~50m upslope	40	9	151	
74	in gully from N saddle	5	"	grey	"	/		"	/	arg. illite + Fe-carb float pieces just North of gully for ~ 50 saddle	10	61	108	
75	O/C by (N) W stream	"	"	"	"	/		mod to steep	/	large O/C of tuff with Fe-carb zone	<10	30	77	
76	" (N)	"	"	or-br	"	/		"	/	tuffs include much angellite float	10	35	60	
77	" (S)	"	"	"	"	/		steep	/	Fe-carb alt'n zone w 5% cpy, gal, cpy	290	230	99	
BT78	" (S)	"	"	"	"	/	/	"	/	several rx samples	3450	200	260	
79	not used													
BT80	W of 35	5	BC	or-br	gravel + fines	/	/	mod to gentle	grassy	weak to mod Fe-carb alt'n zone no sulfide	20	160	81	
81	west of WCK	5	"	"	"	/	/	mod	"	mod Fe-carb zone, py + cpy? at VOL - arg contact	10	99	79	

J.C. STEPHEN EXPLORATIONS LTD.

GEOCHEMICAL DATA SHEET – SOIL SAMPLING

SAMPLER Heagy

DATE July 1983

PROJECT CASAU - Eagle 1
83 CA

NTS 104P3

LINE 1 5000 topo enlargement

AIR PHOTO NO.

SAMPLE NO.	LOCATION	Depth	Horiz	DESCRIPTION				SLOPE	VEG.	ADDITIONAL OBSERVATIONS OR REMARKS	ASSAYS			
				Colour	Part Size	% ORG.	Ph				Au	As	Cu	Zn
83CA B16	East side of hill	10	BC	or-br	fines	/	/	mod	/	below 41936, 31C sample Fe-rich zone w minor asbestiform sulphides	<10	27	57	
17	"	"	A?	br	clayey soil	/		"	grassy	edge of o/c (quick tuff) with weak Fe-carb alt'n on edge	<10	96	34	
18	"	"	"	dk br	"	minor		"	"	no B horizon (PA, APy) Fe-carb altd gravel above B17	40	29	34	
19	south Saddle area	15	AC	br	gravel/ soil	/		mod to gentle	/	Fe-carb altd frag zone above silicified tuff "lower zone" 41950 - Rx samples	<10	16	84	
20	"	5-10	B	red to or-br	soil + gravel	/		mod	grassy	patch of or weathering gravels } lower zone 40783, 84	40	170	68	
21	"	"	B	"	"	/		"	"	"	<10	71	77	
22	"	10	B	or-br	"	/		"	"	"	20	50	54	
23	"	5	BC	"	talus fines	/		"	/	weak orange zone on Fe-carb composite schist above serpentinite + talc schist elt	<10	12	87	
24	Soil Line west side of Hill	15-25	BC	br	fines ± gravel	minor rootlets		mod to gentle	grassy	start of soil line, no good B horizon	80	12	23	
25	"	"	"	"	"	"		"	"		10	19	20	
26	"	"	"	gy-br	"	"		"	"	argillite gravel	10	16	26	
27	"	"	"	"	"	"		"	"	"	<10	19	50	
28	"	"	"	"	"	"		"	"	"	40	15	58	
29	"	"	"	br	"	"		"	"	} o/c of tuff 250m upslope	<10	15	39	
30	"	"	"	"	"	"		"	"		<10	61	80	
31	"	"	"	"	"	"		"	"		<10	20	27	
32	"	30	"	dk gy	"	"		"	"	argillite?	10	19	69	
33	"	15	"	br	"	"		"	"	below tuff o/c with weak Fe-carb zone	<10	11	99	
34	"	"	"	dk gy	"	"		"	"	argillite	<10	19	58	
83CA B35	"	"	"	"	"	"		"	"	"	<10	11	39	

J.C. STEPHEN EXPLORATIONS LTD.

GEOCHEMICAL DATA SHEET – SOIL SAMPLING

NTS 109 P 3

SAMPLER Heagy

PROJECT CASAN - EAGLE

LINE

DATE July 83

AIR PHOTO NO.

SAMPLE NO.	LOCATION	Depth cm	Horiz	DESCRIPTION				SLOPE	VEG.	ADDITIONAL OBSERVATIONS OR REMARKS	ASSAYS			
				Colour	Part Size	% ORG.	Ph				Au	As	Cu	Zn
83 CA B 36	Soil line cont'd	15-25	BC	dk gy	fines + gravel	some rootlets	/	mod to gentle	grassy	argillite gravel + talus	<10	27	92	
37	"	"	"	"	"	"		"	"		<10	25	77	
38	"	"	"	"	"	"		"	"		<10	7	26	
39	"	"	B:C	cr br to br	"	"		"	"	OK + talus of tuff upslope ~100m	10	10	19	
40	"	"	"	"	"	"		"	"		<10	12	21	
41	"	"	"	"	"	"		"	"		<10	11	27	
42	"	"	"	"	"	"		"	"		<10	15	22	
43	"	"	"	"	"	"		"	"		10	12	52	
44	"	"	"	"	"	"		"	"		<10	9	19	
45	end of line by N saddle	"	"	"	"	"		"	"		<10	9	29	
46	east end of N saddle gully	"	"	"	"	"		"	"	Small Fe-carb zone adj to OK of tuff	10	9	31	
47		10	B	or-br	"	✓		gentle	"	"	<10	27	65	
48	west of N saddle	"	"	"	"	/		mod	"	Small Fe-carb zones at base	<10	11	173	
49	small hollow NE corner of N plateau	5-10	BC	"	"	/		gentle	more pebbly gravels	of tuff OC's on either	<10	7	135	
50		"	"	"	"	/		"		side of linear gully	10	10	67	
51		"	"	"	"	/		"	"		<10	9	131	
52		"	"	"	"	/		"	"		<10	9	95	
53	NW side of N plateau area	"	"	"	"	/		"	"	Small Fe-carb zones weak alt'n	<10	45	200	
54		"	"	"	"	/		"	"	"	<10	5	149	
B 55	West of 35	"	"	"	"	/	/	"	"	"	<10	41	55	

J.C. STEPHEN EXPLORATIONS LTD.

GEOCHEMICAL DATA SHEET – SOIL SAMPLING

NTS 104P3

SAMPLER Heagy

LINE

PROJECT CASAU - EAGLE 1

DATE July 23-28/83

AIR PHOTO NO.

SAMPLE NO.	LOCATION	Depth	Horiz	DESCRIPTION Colour	Part Size	% ORG.	Ph	SLOPE	VEG.	ADDITIONAL OBSERVATIONS OR REMARKS	ASSAYS Au	As	Cu	Zn
B56	[illegible]	510	BC.	or-br	fines + gravel	/	/	mod	grassy	small [illegible] blue patch wk F-C [illegible]	20	350	235	
57	"	"	"	"	"	/	/	"	"	"	10	310	136	
58	"	"	"	"	"	/	/	gentle	"	[illegible] 1K [illegible]	320	3100	148	
B59	"	"	"	"	"	/	/	gentle	"	F-C [illegible] zone [illegible] above	40	170	43	

J.C. STEPHEN EXPLORATIONS LTD.

GEOCHEMICAL DATA SHEET – ~~SOIL~~ TALUS SAMPLING

SAMPLER: HEALY + LAWTON
DATE: AUGUST 1983
PROJECT: CASAU - EAGLE 2
NTS: 104 P3
LINE:
AIR PHOTO NO.:

SAMPLE NO.	LOCATION	Depth cm	Horiz	DESCRIPTION Colour	Part Size	% ORG.	Ph	SLOPE	VEG.	ADDITIONAL OBSERVATIONS OR REMARKS	ASSAYS Au	As	Zn	
83CA CT 12	traced knoll to SE	5	BC	dark or-br	fine talus	/	/	mod	spruce-brush	Rx 41077C rusty pyritic volc w qtz vein	<10	190	2350	
CT 13	"	5	BC	"	"	/	/	flat	"	rusty zone above CT 12 area	<10	57	2100	
CT 14	lake SE of camp	"	"	brown	soil + fine talus	/	/	mod	grassy	Fe-carb zone - broad, mod-strong siliceous	20	79	115	
CT 15	"	"	"	"	"	/	/	mod	"	Rx 41079C, Fe carb zone 1.0m wide wk Mn	70	100	220	
CT 16	top of ck N of Stark L	5	BC	~~or-green~~ or-br	"	/	/	"	/	small wk Fe-carb zone in talus below u/c of volc ± po, py	<10	32	170	
CT 17	"	5	BC	"	"	/	/	"	/	mod strong Fe-carb-sil zone	<10	36	240	
CT 18	above camp	5	BC	red-br	talus fines	/	/	mod	grassy	Fe-carb zone - small [illegible]	20	33	82	
CT 19	gravel slide of ck N of LK	5	BC	brown	talus fines	/	/	steep	/	Rx 41082C - qtz-py vein, wk Fe-carb altn. in volc breccia/tuff	<10	22	125	
CT 20	sw of line 1-4+45	5	BC	or-br	talus fines	/	/	mod	/	strongly altered Fe-carb zone py, asp? ~1m wide dipping steeply	<10	20	90	
CT 21	1.5E on line	5	BC	red to or-br	"	/	/	flat	grassy	mod Fe-carb zone, no sulfides	<10	33	127	
CT 22	east of 15	"	"	"			/	"	"	"	20	30	150	
CT 23	N of Stibnite LK	"	"	"			/			wk to mod Fe-carb zones along valley edge	20	30	115	
CT 24	"	"	"	"			/			" rare pyrite in qtz-carb veins (41090C)	<10	22	80	
CT 25		"	"	"			/			mod Fe carb zone, (qtz-Mn oxide bx minor 41091C)	160	500	380	
CT 26	Stibnite Lk	"	"	"			/	steep	/	on stibnite-Mn oxide-clay qtz bx zone (41092C)	680	5300	3200	
CT 27	"	"	"	"			/	mod	grassy	" adj to o/c w massive stibnite (41093C)	300	1250	2250	
CT 28	"	"	"	"			/	steep	/	along base of slope @ above Fe-carb z qtz-py vein	80	630	400	
CT 29	"	"	"	"			/	"	/	Fe carb zone ~15m East of above	10	99	110	
CT 30	East of Stark LK.	"	"	"			/	mod	grassy	mod Fe-carb zone, no sulfides	10	81	174	
CT 31	Stibnite Lake	"	"	"			/	mod	/	(labelled CT 26 on flag) mod-strong Fe-carb zone minor pyrite	20	360	210	

J.C. STEPHEN EXPLORATIONS LTD.

GEOCHEMICAL DATA SHEET — ~~SOIL~~ TALUS SAMPLING

NTS 104 P 3

SAMPLER HEAGY & LAWTON

LINE

PROJECT CASAU - EAGL

DATE AUGUST 1983

AIR PHOTO NO.

SAMPLE NO.	LOCATION	Depth cm	Horiz	DESCRIPTION				SLOPE	VEG.	ADDITIONAL OBSERVATIONS OR REMARKS	ASSAYS			
				Colour	Part Size	% ORG.	Ph				Au	As	Zn	
CT32	post-end stibn-tetk	5	BC	or-br	talus fines	/	/	mod	/	Mod Fe-carb zone, py. qtz veins 17, 9-1.	<10	32	120	
33	25 post	"	"	"	"	"	X	"	"	Strong Fe-carb zone py, spy, mar, aspy	10	210	125	
34	North of 45 1E post	"	"	dk red-br	"	"	X	"	"	Mn oxide coated talus gravel.	260	3250	1350	
35	SE of Shark LK	"	"	or-br	"	"	/	minor	grassy	frost-heaved mod Fe-carb zone, py.	20	92	130	
36	"	"	"	"	"	"	/	X	/	Fe carb zone py, meripostite	50	500	93	
37	"	"	"	"	"	"	/	"	"	"	30	22	120	
38	SE of Shark LK	"		"	"	"	/	"	"	large Fe carb - qtz vein zone 41096C, 41235C. - qtz veins cm	20	90	270	
39	"	"		"	"	"	/	"	"	" across base of u/c.	10	185	224	
40	"	"		"	"	"	/	"	"	Fe carb zone w large qtz-cpy-py ± Mn oxide py, mar, aspy veins	80	230	115	
41	"	"		"	"	"	/	"	"	Fe carb zone py, mar	60	115	210	
42	"	"		"	"	"	/	"	"	"	110	455	195	
CT43	"	"		"	"	"	/	"	"	Fe-carb zone, py, mar, aspy?	30	51	125	
83 CA-CT 201	NNE of Shark lake	surface	C	rusty red-brown	fine → medium	0%		medium	no. veg	2m from iron carbonate zone, mineralization slight some small stones.	260	64	105	
202	NE of Shark Lake	"	"	rusty brown	"	5%		flat	"		10	12	133	
203	NE of Shark Lake	"	"	"	medium	0%		slight	"	1m from iron carbonate zone, mineralization medium some small stones	120	560	150	
204	"	"	"	"	"	"		"	"	" "	190	63	280	
205	E of Shark Lake	"	"	brown	fine → medium	"		medium	moss	" "	40	165	102	

J.C. STEPHEN EXPLORATIONS LTD.

GEOCHEMICAL DATA SHEET – SOIL SAMPLING

NTS 104P3

SAMPLER HEAGY

LINE

PROJECT CASAU- EAGL

DATE AUGUST 1983

AIR PHOTO NO.

SAMPLE NO.	LOCATION	Depth	Horiz	DESCRIPTION				SLOPE	VEG.	ADDITIONAL OBSERVATIONS OR REMARKS	ASSAYS			
				Colour	Part Size	% ORG.	Ph				Au	As	Zn	
83CAC05	above Dalton CK	10	B	brown	soil loam ~~sand~~	/	/	gentle	grassy	Chips of pyritic porphyry	<10	7	95	
83CAC06	〃	10	B	or-br	sandy soil	/	/	mod	〃	O/C + float of sil porphyry, (also K-feldspar float)	10	12	63	
83CAC07	1k east of Shark LK	5	BC	red-br	gravel + fines	/	/	mod	/	small Fe-carb zone talus below w 41089C etc. chl-ser-py vein	10	30	125	

J.C. STEPHEN EXPLORATIONS LTD.

GEOCHEMICAL DATA SHEET – STREAM SILTS

SAMPLER HEAGY + LAWTON

DATE AUGUST 1983

PROJECT CASAU - EAGLE

NTS 104 P3

CREEK

AIR PHOTO NO.

SAMPLE NO.	VOLUME Width m	VOLUME Depth cm	VELOCITY	Ph	TYPE OF SAMPLE	COLOUR	TEXTURE	% ORGANIC MATERIAL	PETROLOGY OF BEDROCK AND/OR FLOAT	ADDITIONAL OBSERVATIONS OR REMARKS	ASSAYS Au	As	Zn	
ESCAX 17	.5	5	mod	/	silt	brown	silt + sand	minor	volc, qtz.	minor qtz vein float west side shack CK	10	35	225	
CAX 18	.5	10	fast	/	"	assorted	unsort	/	volc		<10	20	150	
CAX 19	2	20	"	/	"	"	"	/	volc	main CK	<10	25	155	
CAX 20	.5	10	"	/	"	"	"	/	volc, qtz		<10	17	135	
CAX 21	dry	/	/	/	"	"	"	/	volc, —	minor Fe-carb altd float.	<10	16	152	
CAX 22	2	25	fast	/	"	assorted	unsort	/	lgely volc		10	12	108	
CAX 23	2	20	fast	/	"	"	"	/	volc	minor Fe-carb alt'd float.	20	19	62	
ESCAX 24	.2	15	"	/	"	bk	"	minor	volc, FeC, qtz	black stain on gravel	<10	125	250	
BS CA CX 201	1	10	slow	/	silt	brown	unsorted	/	volcanic		<10	17	178	
BS CA CX 202	.30	10	slow	/	silt	brown	unsorted	5-10%	volcanic		<10	12	100	

J.C. STEPHEN EXPLORATIONS LTD.

GEOCHEMICAL DATA SHEET – STREAM SILTS

SAMPLER WEBSTER + HEAGY

DATE July 29/83

PROJECT CASAL - EAGLE

NTS 104P 3W

CREEK

AIR PHOTO NO.

SAMPLE NO.	VOLUME Width	VOLUME Depth	VELOCITY	Ph	TYPE OF SAMPLE	COLOUR	TEXTURE	% ORGANIC MATERIAL	PETROLOGY OF BEDROCK AND/OR FLOAT	ADDITIONAL OBSERVATIONS OR REMARKS	ASSAYS Au	As	Cu	Zn
83-CAY-233	6cm	2.5cm	slow	–	SILT	ORANGE	FINE	–	FE-CARB ALT. DACITE	Below snowbank covering Fe-carb zone	<10	9		118
83-CAY-234	20cm	10cm	med	–	SILT	GREY	FINE	–	DACITE TUFF	N. of Central Hill	<10	29		128
83-CAY-235	15cm	10cm	mod to slow	–	SILT	RED	FINE	–	–	Swamp to S Knoll – red oxide coating all silts across stream	10	370		210
											<10	29	25	
83 CAY 52	1m	15cm	med	/	Silt	light brown	sandy silt	/	Largely glacial →	Kzm, hornfels float plus local tuffs + argillite	<10	29	69	
-53	.5m	15	"	/	"	"	"	/	"	"	10	57	33	
-54	.5m	10	"	/	"	"	"	/	"	"	<10	30	34	
-55	5m	10	"	/	"	"	"	/	"	"	<10	12	54	
-56	.3m	10	slow	/	"	brown	gravel to silt	/	"	mixed float, Fe-carb altd dike, silicified tuff, unaltered tuffs	<10	29	116	
83 CAY-57	5m	15cm	med	/	"	"	clay to gravel	/	"	drains south side of Eagle Mtn				

APPENDIX II

SAMPLE PREPARATION AND ANALYTICAL METHODS

GEOCHEMICAL PREPARATION
AND
ANALYTICAL PROCEDURES

1. Geochemical samples (soils, silts) are dried at 50°C for a period of 12 to 24 hours. The dried sample is sieved to -80 mesh fraction through a nylon and stainless steel sieve. Rock geochemical materials are crushed, dried and pulverized to -100 mesh.

2. A 1.00 gram portion of the sample is weighed into a calibrated test tube. The sample is digested using hot 70% $HClO_4$ and concentrated HNO_3. Digestion time = 2 hours.

3. Sample volume is adjusted to 25 mls. using demineralized water. Sample solutions are homogenized and allowed to settle before being analyzed by atomic absorption procedures.

4. Detection limits using Techtron A.A.5 atomic absorption unit.

Copper	1 ppm
Molybdenum	1 ppm
Zinc	1 ppm
*Silver	0.2 ppm
*Lead	1 ppm
*Nickel	1 ppm
Chromium	5 ppm

*Ag, Pb & Ni are corrected for background absorption.

5. Elements present in concentrations below the detection limits are reported as one half the detection limit, ie. Ag - 0.1 ppm

APPENDIX III

STATEMENT OF QUALIFICATIONS

STATEMENT OF QUALIFICATIONS

AUDREY E. HEAGY

ACADEMIC

1981 Graduated from Queen's University at Kingston Ontario.
B.Sc. Honors Geology, First Class
Medalist in Geological Sciences

EXPERIENCE

1979 Assistant geologist on traverse, drafting, cooking
Ontario Geological Survey

1980 Detailed geological mapping, reconnaissance, prospecting and sampling on Queen Charlotte Islands, Vancouver Island
J.C. Stephen Explorations Ltd.

1981
1982 Reconnaissance exploration, primarily for tungsten, also molybdenum and base metals, northern B.C. and Yukon
Amax Mineral Exploration Ltd.

1983 Petrographic descriptions, data compilation and minor research related to tungsten, tin and molybdenum deposits in Canada
Geological Survey of Canada

May
1983 to Present - Reconnaissance exploration for precious metals in the Cassiar district, B.C.
J.C. Stephen Explorations Ltd.

LCP-EAGL 1

LCP-EAGL 2

Stibnite Lake

Shark Lake

SE Lake

DALTON CREEK

N

LEGEND

- Vx — ANDESITIC TUFF
- Ar — ARGILLITE
- Ct — CHERT
- Ct-ss — CHERT SANDSTONE
- Ct-sr — SERICITE SCHIST
- Um — SERPENTINITE
- CARBONATIZED ZONE
- Sil — SILICIFICATION
- qv — QUARTZ VEIN

aspy	arsenopyrite
gal	galena
mn	manganese oxides
po	pyrrhotite
py	pyrite
sb	stibnite
sp	sphalerite
cpy	chalcopyrite

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CASAU

EAGL CLAIM GROUP
104 P/3

GEOLOGY

100 50 0 100 200 300 METRES

1:5000 JULY-AUGUST 1983

MAP I

LCP-EAGL 1

LCP-EAGL 2

Stibnite Lake

Shark Lake

SE Lake

DALTON CREEK

N

LEGEND

· Au, As, Zn, Ag, Pb, Cu

41425C · ROCK SAMPLE

X230 / Y30 · SILT SAMPLE

CT21 / BT205 · TALUS SAMPLE

B34 · SOIL SAMPLE

GEOLOGICAL BRANCH
ASSESSMENT REPORT

12,218

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EAGL CLAIM GROUP

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GEOCHEMISTRY

100 50 0 100 200 300 METRES

1:5000 JULY-AUGUST 1983

MAP II

LCP-EAGL 1

LCP-EAGL 2

Slibnite Lake

Shark Lake

SE Lake

DALTON CREEK

N

Lineaments taken from air photo BC-5732 No. 018, 1:31,680.

GEOLOGICAL BRANCH
ASSESSMENT REPORT

12,218

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EAGL CLAIM GROUP

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AIR PHOTO LINEAMENTS

100 50 0 100 200 300 METRES

1:5000 SEPTEMBER 1983

MAP III