	LOG NO: IMAR O 2 1992 RD. ACTION:
Geological and Geochemic	al Report
on	FILE NO:
Condor 1	
Record # 11795	
Omineca Mining Divis	sion
NTS 93K/6W	

Latitude: 54 28.5' N

Longitude: 125 28.5' W

Author: Arthur A.D. Halleran

January 9, 1992

GEOLOGICAL BRANCH ASSESSMENT REPORT

22,157

#### SUMMARY

Between July 10th and July 15th 1991 a geological investigation was conducted on the Condor property. The intent was evaluate the quartz-carbonate veins for high grade Ag and Au potential. The veins were located, plotted relative to the adit by distance, compass bearing and elevation and sampled. Both the west and east adits were explored and sampled. The 1930's Silver pit; reported to have had \$1000 (1930's prices) worth of Ag mined, was dug out to study the veining and high grade material.

The numerous quartz-carbonate veins with open space filling and drusy textures are mineralized with galena and sphalerite + tetrahedrite and + chalcopyrite. The mineralization occurs as pods or as disseminated zones. These veins have from 1 to 82 opt Ag and 0.008 opt Au. The veins are from 5cm to 1 metre wide and can be followed for 10s of metres before they pinch out or are covered by overburden.

The adits have similar types of veins as found on the surface. The west adits 1930's reported 4 foot wide vein with an 8 inch paystreak was found to be really <0.25 metres wide with only sporadic pods of sulphide mineralization (5.16 oz/tonne Ag).

Reopening the Silver Pit confirmed the 1930's report of highgrade rock with native silver, additionally sulfosalts were found. The silver pit veins indicate more then one episode of veining with the native silver occurring in later widely space ladder fracture veins in the larger, 23 cm wide, brecciated quartz-carbonated vein. The black sulfosalt? are part of the brecciated quartz-carbonate vein. The highest assay from the silver pit was 761.16 opt Ag and 0.024 opt Au. A graphitic shear zone 10s of cm wide crosscuts the veins.

There is good potential for high grade Ag and Au on the Condor. Geophysics is needed to delineate the veins through overburden and define trenching targets.

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#### **1.0 INTRODUCTION**

This report describes the results of the geological and geochemical investigation of the Ag, Pb, and Zn containing quartz-carbonate veins on the Condor. The 1991 programme was designed to evaluate the veins for high grade Ag and Au potential. This work consisted of locating and sampling veins, remapping and sampling the adits and digging out and sampling the Silver pit.

This report discusses the results of the geological and geochemical investigation and makes recommendations.

#### 1.1 Location, Access and Physiography

The Condor 1 claim is just east of Boling Point on the northside of Babine Lake. It is situated in the Omineca Mining Division on NTS map sheet 93K 16W, 32 kilometres northeast of the town of Burnslake.

Best access to the claim is by boat across Babine Lake. The nearest boat lauch is from the Pinkut Fisheries station directly south across the lake from the claim. The nearest place to rent a boat is Pendleton Bay 16 kilometres northwest on Babine Lake. Both places are accessable from highway 16 and Burnslake by good gravel roads.

Elevations range from 712 metres along the lake to a high point of about 1050 metres within the claims. The elevation rises quickly from the lake shore then levels off. Rock exposure is good along the lake shore and on the steep portions of the slope but almost nonexistent elsewhere.

Vegetation is open on south facing slopes ranging from meadows to open aspen and spruce forests. Gullies and north facing slopes have thick underbrush of rose bushes, saskatoon bushes and willow.

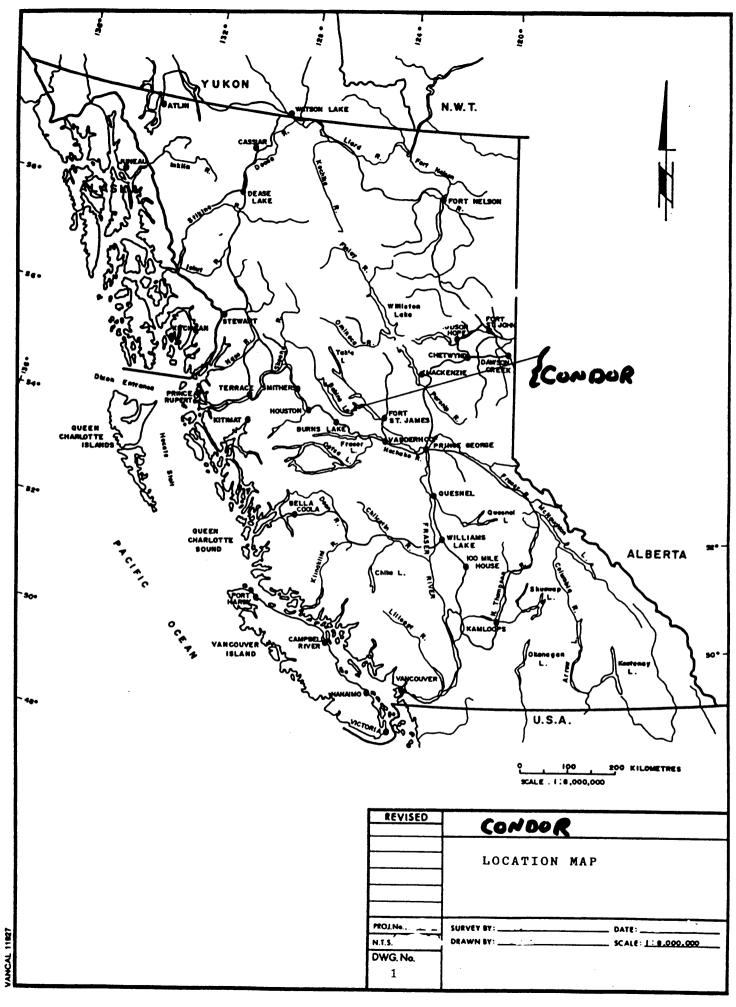
#### 1.2 Property

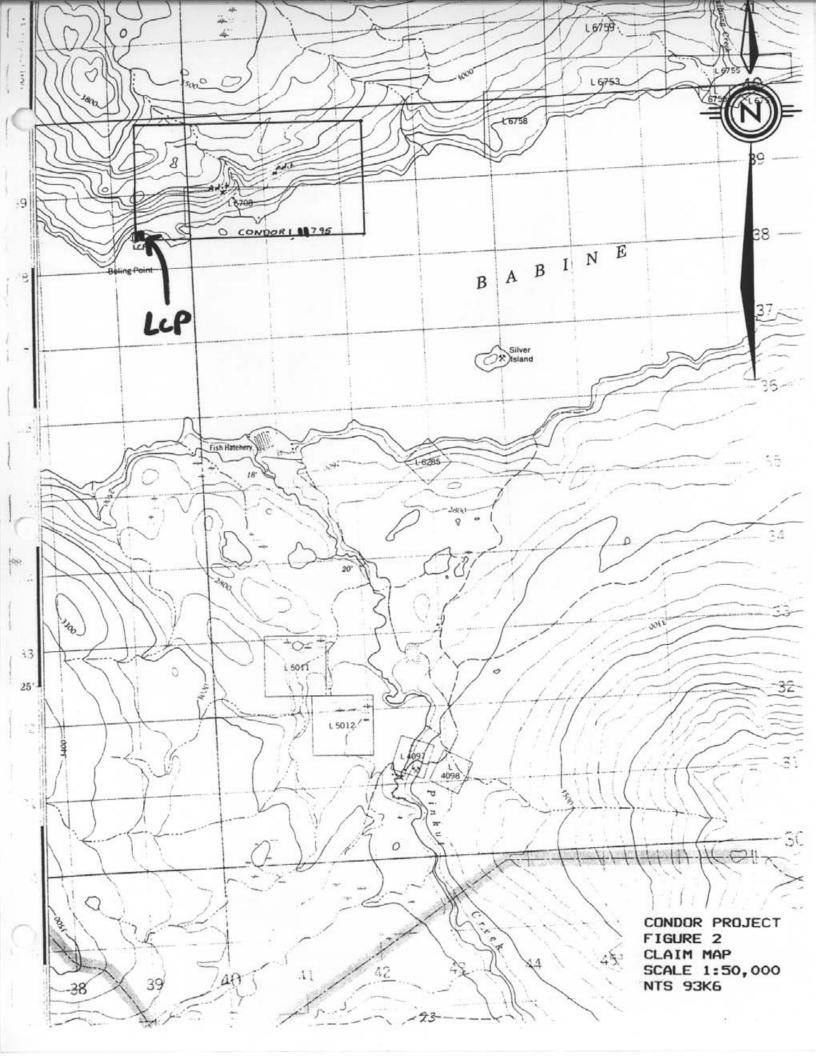
The Condor property consists of one 18 unit 4-poster claim.

Claim Name	units	Record#	Staking date	Owner
Condor 1	18	11795	May 8, 1990	A.A.D. Halleran

#### 1.3 History

Mineralization was first discovered in the 1920's and was subsequently worked by Silver Island Mining from the late 1920's to 1930's. It's been reported that a series of hand trenches were completed over lead-zinc-silver veins. One





trench was mined for \$1000 of native silver (1930's prices). Two adits were also driven, the Sunrise (west) and the Sunrise #1 (east) adits. The west adit was 473 feet long and it was reported that at 400 feet a 4 foot vein with an eight inch paystreak was intersected. The east adit was driven at 335 and placed to intersect the vein from which the native silver had been mined. After 185 feet the company was forced out of business by the depression.

No further work was conducted on these claim. Cash in lieu of work was payed until 1983, the claims were then allowed to lapse.

In 1985 Eric A. Shaede and Lorne B. Warren staked the Babine Claim, covering the same ground now held by the Condor claim. They conducted a prospecting, geochemical and geophysical program. Four widely spaced north-south soil lines were surveyed totaling 1.9 Km on which 80 soil samples were collected and a VLF E.M. was run. A total of 56 rock samples were collected and analyzed. They investigated some to the surface veins but did not dig out the silver pit and only the east adit was mapped and results reported. Refer to assessment report 15,358 for more detail.

In 1990 the Condor was staked and prospected by the Hallerans. The 1991 exploration work is covered in this report.

#### 2 GEOLOGY

The Condor is mainly underlain by amphibolite with minor amounts of thinly laminated cherts with some occurences of a black phyllite. Struik and Erdmer (1990) place these rocks into the Upper Paleozoic Cache Creek metasediment package. The northern part of the claim is underlain by a Mesozoic age dioritic Topley intrusion (Struik and Erdmer, 1990). Numerous dioritic dikes were also observed usually associated with the quartz-carbonate veining.

#### 2.1 Veins by West Adit

The Cache Creek package is cut by numerous quartz, quartzcarbonate veins. The veins sometimes have open spaces, drusy filling and cockscomb and are mineralized with varing amounts of galena, sphalerite, tetrahedrite, chalcopyrite and pyrite. The veins vary from 1 cm to 1 metre in width and can be greater than 20 metres long before they pinch out or are covered by overburded. Some veins follow foliation striking northeast and dipping around 40 to 60 to the north. They also crosscut the foliation and appear to be fault related in some cases. Often diorite dikes are associated with the veins. The highest Ag, 81.69 opt, was from a 3-5 cm wide quartzcarbonate vein (con-10-91) associated with a diorite dike. The mineralization in this vein consists of, 20% by volume, pods of galena and sphalerite suggesting the Ag is most likely with the galena. Other galena-sphalerite mineralized veins returned 0.82 opt and 1.08 opt Ag, (Con-14-91 and Con-13-91).

Con-11-91 and Con-W-C-2 are samples of a drusy cockscomb quartz-carbonate vein which contain tetrahedrite, up to 5% vol, 0.5% chalcopyrite, galena, sphalerite, malachite and azurite. This vein is up to 0.3 metres wide and has a minimum strike length of 20 metres. An old 2 metre adit was found on this vein. Ag content was 9.63 to 54.62 opt with the higher Ag associated with the tetrahedrite.

#### 2.2 West Adit

The west adit was 144.7 metres long. The first 50 metres from the port hole was not mapped due to deep water but no veins were observed anyways. The next 75 metres consisted mainly of diorite with small unmineralized anastomosing quartz veins. The remaining distance had Cache Creek cherts and amphibolites and diorite dikes. Additionally 3 mineralized quartz-carbonate veins were found. The best vein (sample Con-12-91) was 2 to 25 cm wide and consisted of vuggy quartzcarbonate ganque with large galena and sphalerite crystals in pods and vugs (couple of cms in size). The vein is within dark green chloritic amphibolites. This vein was assummed to be the 1930's rumored 4 foot vein with 8 inch paystreak. The assay was 5.13 opt Ag from a very rich select sample of 40% galena and 20% sphalerite.

#### 2.3 Silver Pit Veins

The silver pit was dug out and revealed a multi-stage veining history crosscut by a graphitic shear zone.

The first stage of veining consists of vuggy, quartz-calcite drusy filled, brecciated quartz-ankerite with fragments of phyllite. Handspecimens indicate fracturing, veining, fracturing, veining, etc. Mineralization consists of large centimetres long and wide zones of a black shiny sulfosalts? (Con-4-91) which assayed 237.45 opt Ag. This vein is up to 25 cm wide.

The next stage of veining or fracturing appears as later ladder structures mineralized with native silver all contained within the brecciated quartz-ankerite vein. Often the fractures, 10s of cms long, have alteration envolopes 1 cm wide. This later native silver mineralization is sporadic but returns very high results, 761.16 opt Ag for a fist size sample (Con-1-91) with a single fracture. A sample with only a trace amount of visible silver returned 21.58 opt Ag and samples with no visible mineralization returned 3.93 opt Ag.

Also within the new trench is a zone of pyritic, (up to 5% pyrite) rusty, sheared phyllite (Cache Creek) in contact with the quartz-carbonate vein and graphitic shear zone. The pyrite occurs in small elongated, 10 cm, 1mm wide seams. This pyritic phyllite assayed 3.52 opt Ag (Con-2-91). It is not known if the Ag mineralization is due to the quartz-carbonate vein or graphitic fault zone. A representative sample of the graphitic fault zone (Con-5-91) did assay 1.06 opt Ag.

A small trench was dug 10 metres west on strike with the silver pit vein. Encountered in this trench was a very hard quartz breccia vein with drusy quartz matric supported rock clasts, some open spaces were observed. The rock is predominantly angular to subangular clasts. Sulphide mineralization was only trace pyrite. Assays returned 0.22 to 0.45 opt Ag (Con-8-91 and Con-9-91).

#### 2.4 East Adit

Nothing knew to add to what Shaede and Warren reported in 1986. Two samples Con-17-91 and Con-18-91 returned 0.001 opt Ag.

#### 2.5 Creek

One vein was sampled in the creek (Con-14-91) and returned 0.82 opt Ag, 0.40% Pb and 2.48% Zn. The vein was 0.25 metres wide and consisted of quartz-carbonate matrix with altered rock fragments. Mineralization consisted of large crystals of sphalerite and galena. This vein is associated with shearing and the mariposite altered wall rock, with minor disseminated galena and sphalerite, returned 0.01 opt Ag, 0.20% Pb and 0.07% Zn (Con-15-91).

#### **3 CONCLUSIONS**

The Condor contains numerous Ag, Pb, and Zn mineralized quartz-carbonate veins. Mineralogy varies from Ag rich galena and sphalerite (0.82 to 81.69 opt Ag), tetrahedralsphalerite-galena (9.63 to 54.62 opt Ag), black shiny sulfosalts? (237.45 opt Ag) and native silver veins (761.16 opt Ag). The native silver confirms old reports of the native silver pit. The veins have widths from 2 centimetres to 1.0 metres. The native silver veins form 1 to 3 centimetre wide ladder veins within the larger sulfosalt containing veins. The 1930's reported 4 foot wide vein with an 8 inch paystreak in the west adit was found not to exist.

The silver mineralization might be inpart related to the graphitic shear. If it is the graphitic shear is very easily defined by geophysics.

Potential exists for additional veins as outcrop is limited. There is good potential for high grade Ag mineralization on the Condor property.

#### **4** RECOMMENDATIONS

It is recommended that the following be carried out on the Condor:

1. Continue to map the property to see what is the main hosting unit and what is the relationship of the diorite stock and dikes.

2. Use geophysics to delineate the veins and define hand trenching targets. Initial focus should be on the silver pit vein and its extensions.

3. Use geophysics to delineated the graphitic shear zone to define hand trenching targets. The main question to answer is if the graphitic shear zone is somehow related to the silver mineralization. If the shear zone is even just spacially related to the veining it will provide a geophysical marker (graphite) to locate prospective areas for vein development.

#### 5 REFERENCES

- Halleran, W.H. (1991) Prospecting Report on Condor 1. Ministry of Energy, Mines and Petroleoum Resources, Assessment Report #21284.
- Shaede, E. (1986) Geochemical, Geophysical and Prospecting Report on Babine Claim. Ministry of Energy, Mines and Petroleum Resources, Assessment Report #15,358.
- Struik, L.C. and Erdmer, P. (1990) Metasediments, granitoids, and shear zones, souther Babine Lake, British Columbia. Geological Survey of Canada, Current Research, Part E, Paper 90-1E, Page 59-63.

#### 6 STATEMENT OF QUALIFICATIONS

- I, Arthur A.D. Halleran, do certify that:
- 1 I am a geologist residing at 6533 Lipsett Cresent, Summeraland, B.C.
- 2 I am a graduate of the University of British Columbia with a BSc (Honours) in Geology (1980) and MSc in Geology (1991).
- 3 I have practised my profession as an exploration geologist continuously since 1980.
- 4 This report is based on the work conducted by A.A.D. Halleran, W.H. Halleran and A.D. Halleran and available assessment reports.

Arthur A.D. Halleran January 14, 1992

### APPENDIX I - COST STATEMENT

## Field Costs

1)	Labour 6 days x \$950/day A.A.D. Halleran @ \$350/day W.H. Halleran @ \$350/day A.D. Halleran @ \$250/day July 10, 11, 12, 13, 14, 15	\$5700.00
2)	Room and Board 18 mandays x \$40/manday	\$720.00
3)	Truck rental 6 days x \$45/day	\$270.00
4)	Boat rental 6 days x \$15/day	\$90.00
5)	Geochemical Invoice # 91-3738 ACME Invoice # 91-2669 ACME	\$117.43 \$243.42
6)	Supplies and gas	\$200.00
Offic	ce <u>Costs</u>	
1)	Labour 2.5 DAYS x \$350/day A.A.D. Halleran January 10, 13, 14, 1992	\$875.00
2)	Photocopy, office supplies	\$150.00
TOTAI		.\$8365.85

#### APPENDIX II - LIST OF SAMPLES AND ASSAY

Sample#

**Con-1-91** Silver pit: 1cm wide vein crosscutting larger quartz-breccia vein. Both veins crosscut black platly phyllites. Sample sent in consisted of qtz+ankerite drusy ganque with 1-2% native silver and 25% blk shiny metal. Sample size = 1/2 fist: 761.16 opt Ag, 0.024 opt Au

Con-2-91 Silver pit: pyritic, sheared phyllite, 5% pyrite as small seams Cm long by mm wide: 3.52 opt Ag, 0.001 opt Au

Con-3-91 Silver pit: Average vein material near Con-1-91, drusy, breccia, quartz-ankerite vein with phyllite fragments. Very trace native silver and black metal: 21.58 opt Ag, 0.002 opt Au.

Con-4-91 Silver pit: Near Con-3-91, 50% black graphitic and shiny sulfosalts? plus 50% vuggy quartz-ankerite: 237.45 opt Ag, 0.059.

Con-5-91 Silver pit: Graphitic shear in Silver pit trench, contains trace <mm veins quartz: 1.06 opt Ag, 0.001 opt Au.

Con-6-91 Silver pit: Near Con-1-91, sample with no visible mineralization, quartz-carbonate vein with phyllite clasts: 3.93 opt Ag, 0.001 opt Au.

Con-7-91 Silver pit: quartz vein from the top of the trench, massive quartz: 0.46 opt Ag, 0.001 opt Au.

Con-8-91 Trench west of silver pit, along strike of silver pit vein. Quartz breccia vein with drusy matrix supported rock clasts, some open spaces: 0.45 opt Ag, 0.001 opt Au.

Con-9-91 As Con-8-91 but with trace pyrite: 0.22 opt Ag, 0.001 opt Au.

Con-10-91 Above west adit, small 3-5 cm wide quartz-carbonate vein (shear) in diorite (dike?). Pods of galena + sphalerite along 8 metres of strike. Representative sample of pods with 20% galena: 81.69 opt Ag, 0.008 opt Au.

Con-11-91 Sample of vein by 2 metre adit. Quartz-carbonate vein up to 1 metre wide with tetrahedrite, 0.5% chalcopyrite, galena, malachite, and azurite. Tetrahedrite is in sporadic pods. Hanging wall is diorite and foot wall is banded siliceous amphibolites. Representative sample of vein: 9.63 opt Ag, 0.002 opt Au.

Con-12-91 Inside west adit, the 1930's rumored 4 foot vein with 8 inch paystreak. Vuggy quartz-calcite vein with large galena and sphalerite crystals. Vein is 2 to 25 cm wide. Hanging wall is dark green chloritic amphibolite. Sample sent in was 40% quartz, 40% galena and 20% sphalerite: 5.13 opt Ag and 0.006 opt Au.

Con-13-91 Old trench 10 metres above short adit. 5 metres long outcrop of quartz-carbonate vein, 0.5 metres wide. Pinch and swell ankerite pods with galena, sphalerite and chalcopyrite. Random sample consisting of 80% quartzcarbonate with 20% galena and trace sphalerite and chalcopyrite: 1.08 opt Ag, 0.001 opt Au.

Con-14-91 Vein in Creek, 0.25 metres wide, carbonate + quartz matrix (cockscomb) with altered fragments. Large crystals of sphalerite and galena: 0.82 opt Ag, 0.005 opt Au, 0.40% Pb, 2.48% Zn.

Con-15-91 Mariposite altered wall rock from vein in Creek. Contains small quartz-calcite veins (mm-cm in size) with minor disseminated galena and sphalerite: 0.01 opt Ag, 0.001 opt Au, 0.20% Pb, 0.07% Zn.

Con-16-91 Chip sample across 0.23 metres of average vein in Silver pit. Sample consisted of hard quartz-carbonate breccia and dark graphitic rock: 0.22 opt Ag, 0.001 opt Au.

Con-17-91 East adit: sample of black graphitic fault rock with minor pyrite: 0.01 opt Ag, 0.001 opt Au.

Con-18-91 East adit: random chip of a quartz- calcite + graphitic zone with minor pyrite: 0.01 opt Ag, 0.001 opt Au, 0.01% Cu.

Con-W-C-2 Samle from 2 Metre adit: drusy cockscomb of quartzcarbonate vein with tetrahedrite (4-5%), malachite, azurite, galena. 20 metres long and up to 0.3 metres wide. Tetrahedrite is in sporadic pods: 54.62 opt Ag, 0.001 opt Au. APPENDIX III - ANALYTICAL RESULTS

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716 PHONE (604) 253-3158 FAX (604) 253-1716

# ASSAY CERTIFICATE

A.D. Halleran FILE # 91-2669



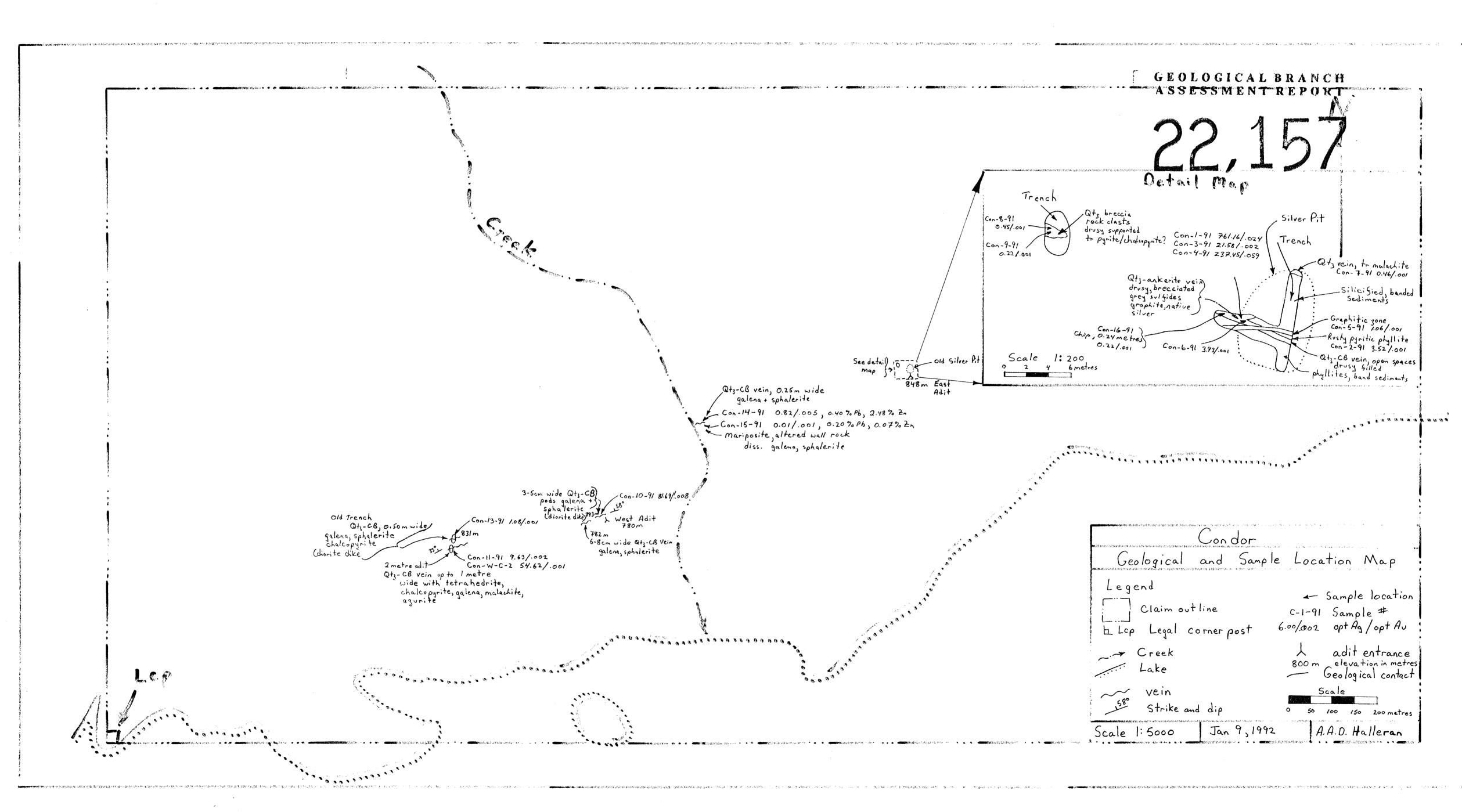
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	Box 793, Fort St.	James BC VOJ	1P0	
	SAMPLE#	Ag**	Au**	
		oz/t	oz/t	
···· ··· ··· ··· ··· ··· ··· ··· ··· ·	CON-1-91	761.16	.024	
	CON-2-91	3.52	.001	
	CON-3-91	21.58	.002	
	CON-4-91	237.45	.059	
	CON-5-91	1.06	.001	
	CON-6-91	3.93	.001	
	CON-7-91	.46	.001	
	CON-8-91	.45	.001	
	CON-9-91	.22	.001	
	CON-10-91	81.69	.008	
	CON-11-91	9.63	.002	
	CON-12-91	5.13	.006	
	CON-13-91	1.08	.001	
	CON-W-C-2	54.62	.001	
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	STANDARD AU-1	.98	.098	

AG\*\* & AU\*\* BY FIRE ASSAY FROM 1 A.T. SAMPLE - SAMPLE TYPE: ROCK

25/91. DATE REPORT MAILED: DATE RECEIVED: JUL 18 1991 SIGNED BY. . D. TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

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	SAMPLE#	Cu \$	Pb \$	Zn %	Ag** oz/t		
······································	CON-14-91			2.48			<u>,</u>
	CON-15-91	-	.20	.07	.01		
	CON-16-91	-	-	-	.22		
	CON-17-91 CON-18-91	.01	-	-	.01 .01		
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°°°, ^^ Drusy 1tz vein with quartzite breccia IZCM wide with large urgs Chert -36 600 Chert Mariposite alteration, Qtz-CB vein with large vvgs, galena + sphalerite in bolite vvgs + pods. Vein 2 to 25cm wide diorite dikes Amphibolites Amphibolite Con-12-91 5.13/0.006 Diorite Cm wide qtz vein with sphalerite Mustly diorite with small anastomosing gtz veins Deep water Scale 1:500 20 metres 5 15 10 Ò » G らぼ S O s o

