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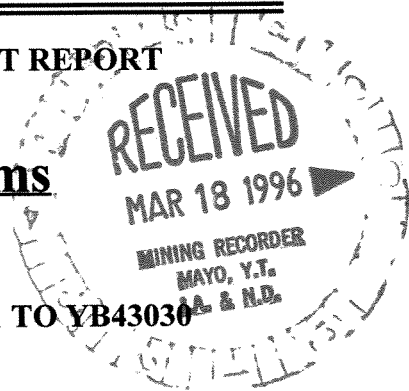
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**GEOLOGICAL AND GEOCHEMICAL ASSESSMENT REPORT**

for the

**Weas 1-4; 25-40; 43-52 Claims**

**YB42979 TO YB43982; YB43003 TO YB43018; YB43021 TO YB43030**



**N.T.S.**  
**105 O 3**

**131' 10" WEST (LONGITUDE), 63' 12" NORTH (LATITUDE)**

**Mayo Mining Division**

**Yukon Territory**



**AUTHOR: B.A.Lueck**

**WORK PERFORMED: JULY 1 to SEPT. 1, 1995**

**093407**

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## **INTRODUCTION**

The Weas 1-30 Claims, record numbers YB42979 TO YB43982; YB43003 TO YB43018; YB43021 TO YB43030(Mayo Mining District), are located in the Mayo Mining Division, at the headwaters of the Gold River, on map sheet 105 O 3. The claims are owned by Brian Lueck (50%) and Ann Mark (50%).

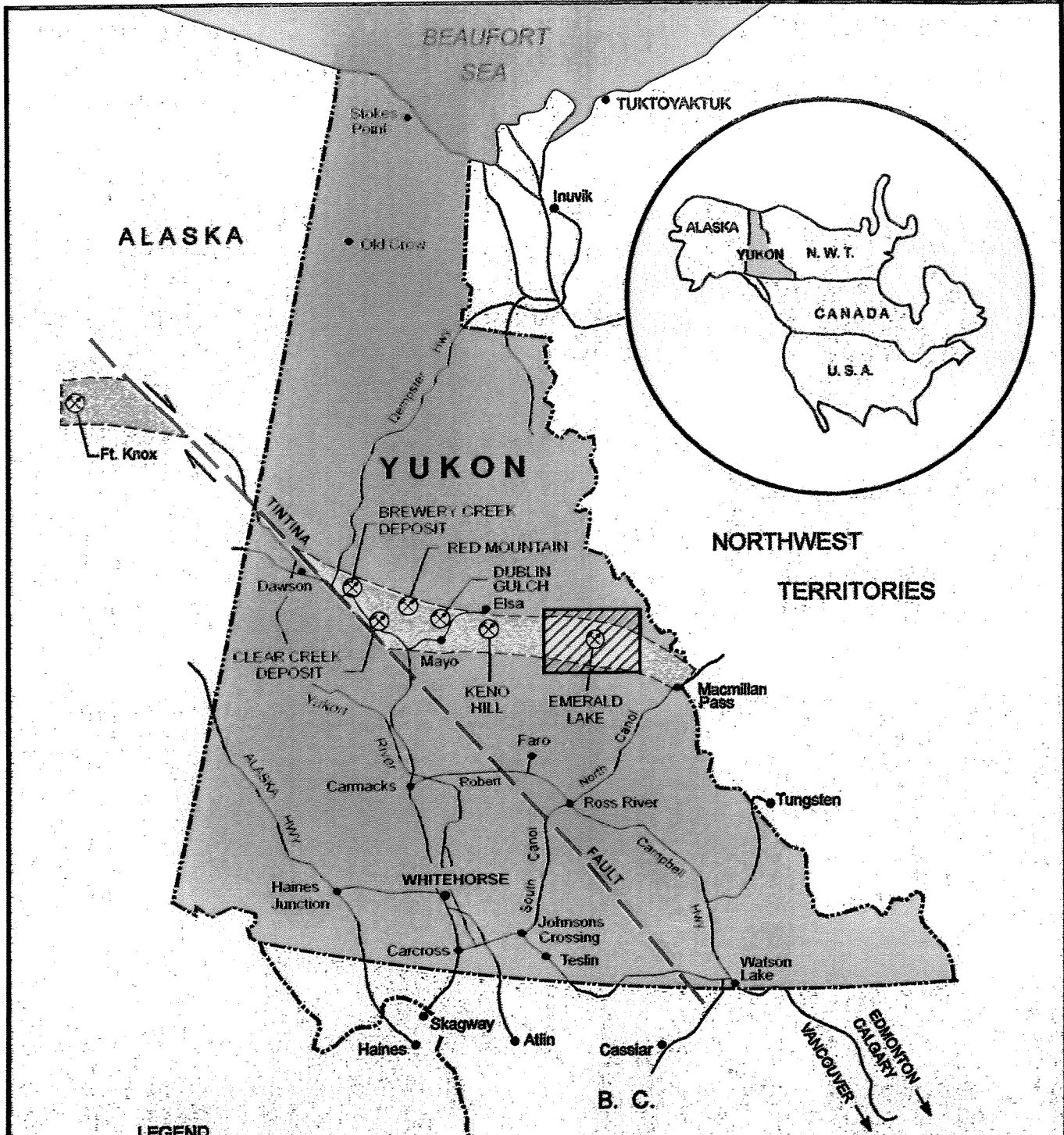
The Weas claims were staked to cover a region underlain by a Cretaceous stock which intrudes Devonian sedimentary rocks of the Selwyn Basin. Current exploration in this region is focusing on bulk tonnage gold deposits associated with a suite of Cretaceous plutonic rocks known as the Tombstone Suite.

The Weas claims are surrounded by a regional stream silt anomaly which shows anomalous gold, arsenic, antimony and copper. Follow up silt, soil and rock sampling in 1994 confirmed the presence of gold mineralization on the Weas claims and further work was recommended to establish the nature and extent of the mineralization associated with this stock.



The 1995 program on the Weas claims consisted of geologic mapping and reconnaissance soil, silt, and rock chip sampling. Results from the 1995 season indicate the presence of a large bulk tonnage deposit known as the 'Ann Mark Zone'.

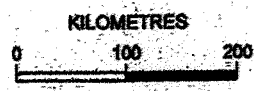
## **SUMMARY**

Geologic mapping on the Weas claims has established the presence of a granitic intrusive stock which is well exposed in the central portions of the claim block. This geochemically anomalous region hosts significant potential for a major gold deposit of the 'Fort Knox Type' associated with Tombstone Suite Intrusives, as this area of the Selwyn Basin has recently been recognized to host intrusions dated between 87 ma and 94 ma. The use of soil sampling and silt sampling in 1994 confirmed the widespread nature of the gold, arsenic and antimony geochemical anomaly.

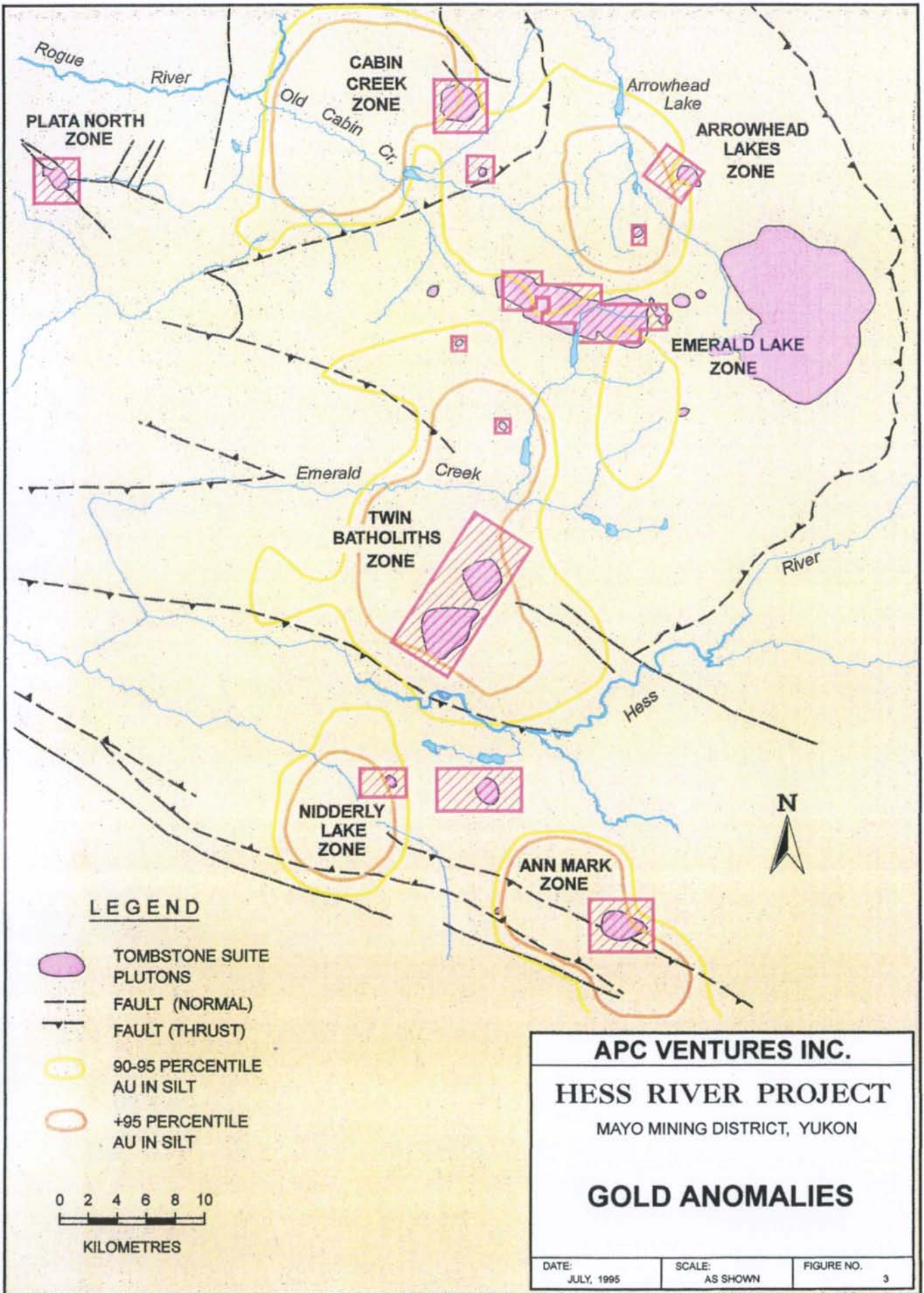


**LEGEND**

-  TOMBSTONE SUITE PLUTONIC BELT
-  HESS RIVER GOLD PROJECT



<b>APC VENTURES INC.</b>		
MAYO MINING DISTRICT, YUKON		
<b>LOCATION MAP</b>		
DATE: JULY, 1995	SCALE: AS SHOWN	FIGURE NO. 1



**PLATA NORTH ZONE**

**CABIN CREEK ZONE**

**ARROWHEAD LAKES ZONE**






**EMERALD LAKE ZONE**

**TWIN BATHOLITHS ZONE**

**NIDDERLY LAKE ZONE**

**ANN MARK ZONE**

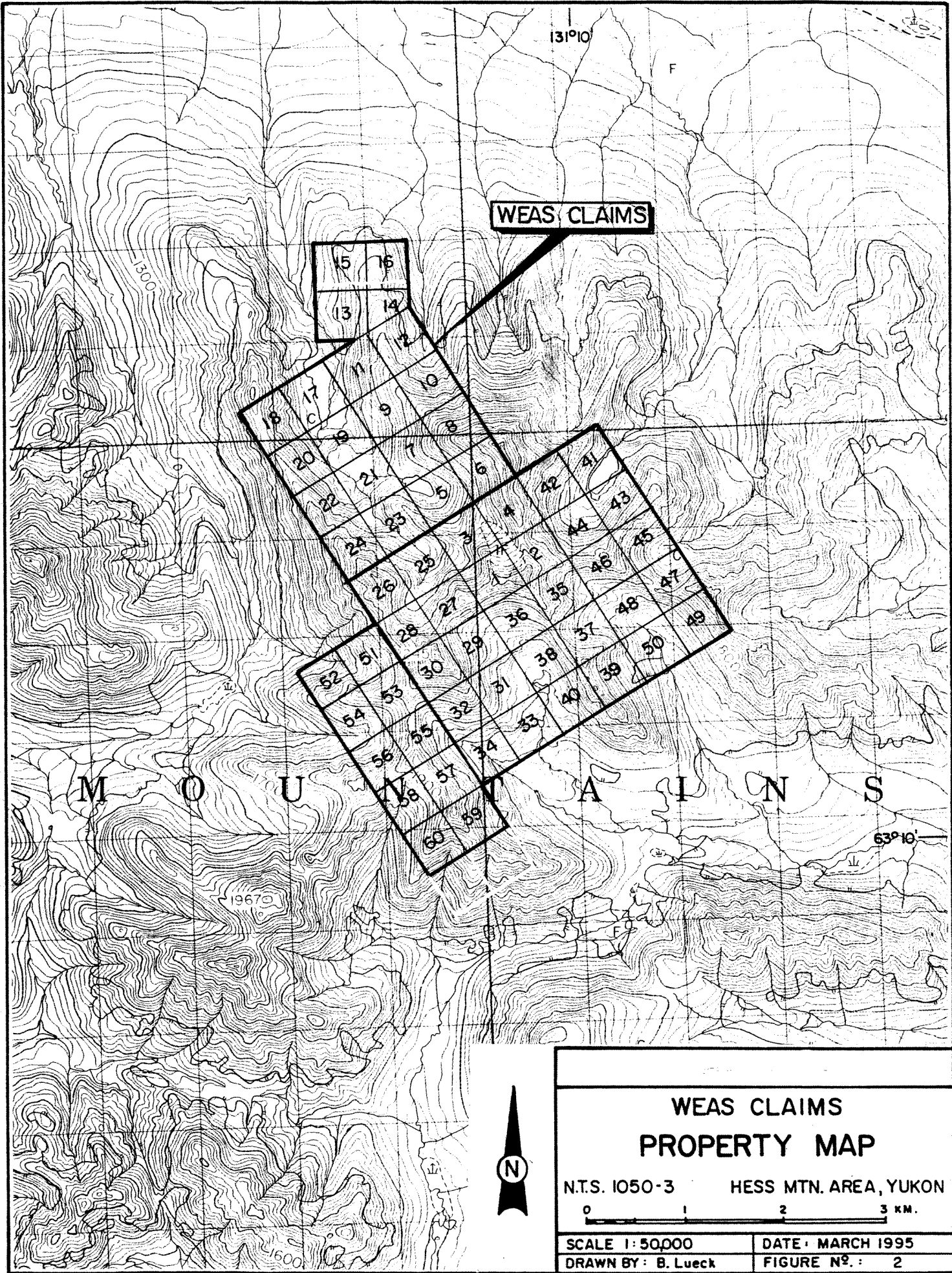
**LEGEND**

-  TOMBSTONE SUITE PLUTONS
-  FAULT (NORMAL)
-  FAULT (THRUST)
-  90-95 PERCENTILE AU IN SILT
-  +95 PERCENTILE AU IN SILT



<b>APC VENTURES INC.</b>		
<b>HESS RIVER PROJECT</b>		
MAYO MINING DISTRICT, YUKON		
<b>GOLD ANOMALIES</b>		
DATE: JULY, 1995	SCALE: AS SHOWN	FIGURE NO. 3





**WEAS CLAIMS**

M O U N T A I N S



**WEAS CLAIMS  
PROPERTY MAP**

N.T.S. 1050-3 HESS MTN. AREA, YUKON



SCALE 1: 50,000	DATE: MARCH 1995
DRAWN BY: B. Lueck	FIGURE N <sup>o</sup> . : 2

The 1995 work program consisted of 20 mandays of helicopter supported exploration consisting of detailed prospecting and rock chip sampling within the intrusion. Professional climbers were employed for some of the chip sampling due to the extreme topography. The best results came from a glacially scoured bowl which has excellent exposure and exhibits intense parallel fracturing within the granodiorite, accompanied by quartz sulfide veinlets and fracture coatings. Sulfides include arsenopyrite, pyrrhotite, pyrite, molybdenite and bismuthinite. Chip samples ranging in width from 3 meters to 20 meters were taken randomly within the glacial bowl and perpendicular to the fracture system. These samples ranged in grade from 15.3 grams gold/tonne to .585 grams gold per tonne. The results are considered positive and a drill program designed to test the size and grade of this porphyry zone is proposed for 1996. An initial program of 10 diamond drill holes with an average length of 200 meters each will be sufficient to test the continuity of mineralization. Positive results will establish the basis for an intensive drill program to delineate a proven mineral reserve.

### **LOCATION , ACCESS and PHYSIOGRAPHY**

The property is located at the headwaters of the Gold River, within the Selwyn Basin on map sheet 105 O 3. The claim block can be accessed by helicopter. An old tote trail passes within 3 miles of the claim block. The topography is very steep and rugged making traversing difficult and limiting access to some of the more rugged areas on the property. The 'Ann Mark Zone' fortuitously occurs in a topographically gentle area which allows for relatively easy drill moves within the glacial bowl.

The Weas claim block covers a sparsely timbered, recently glaciated and oversteepened region of the Selwyn Basin within the Hess Mountains. The availability of outcrop exposure varies from 5% to 100%. Mountain slopes are steep and outcrop well except on talus slopes. Blocky talus of unknown depth covers 90% of the slope area .

## **REGIONAL GEOLOGY and MINERALIZATION**

The claim block is located within the Selwyn Basin, and covers a Cretaceous stock which is intrusive into Devonian-Mississippian basinal sedimentary rocks consisting of black shales, chert, laminated quartzite and chert-pebble conglomerate. Regionally, these rocks are intruded by numerous stocks and dikes of the Tombstone Suite and later intruded to the south by large batholiths of the Selwyn Suite.

The Selwyn basin hosts the Fort Knox deposit, an intrusive hosted gold deposit of large tonnage and low grade. This deposit occurs in Alaska within a region of the Selwyn Basin that has been offset to the northwest by the Tintina Trench.

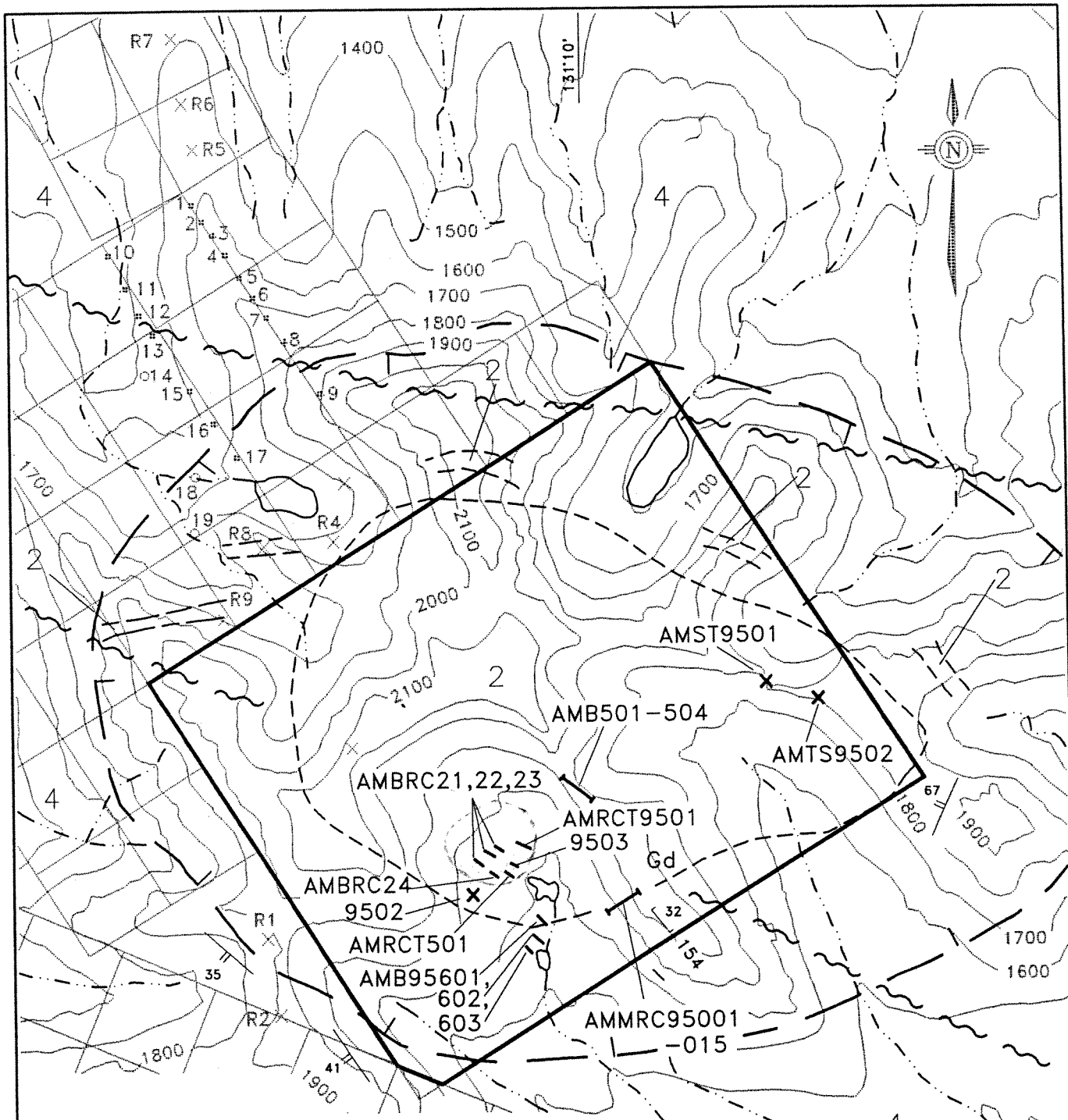
Intrusive bodies occur throughout the Selwyn Basin in the Yukon, and stocks are often associated with gold mineralization. The Brewery Creek deposit, 25 miles to the northwest, is largely intrusive hosted and hosts in excess of 17 million tons of .056 opt Au. This deposit is currently being expanded and is slated for production in 1996. Another significant intrusive hosted deposit occurs at Dublin Gulch, some 25 miles to the northeast, where a geological reserve of 100,000,000 tonnes of >.032 OPT Au has been delineated (>3 million ounces gold).

Recent work at U.B.C (Mortensen, in press) has shown that the Weas claims occur in a region of the Selwyn Basin intruded by a swarm of stocks of Tombstone age (91 ma  $\pm$  3 ma) and that these stocks are petrologically and geochemically linked with the intrusions that host known gold orebodies (i.e. Fort Knox, Brewery Creek, Dublin Gulch).

## **LOCAL GEOLOGY**

The claim block is underlain by Proterozoic Hyland Group sediments of the Selwyn Basin, consisting of graphitic shale, carbonaceous shale, chert and quartzite. Sometime during the Mesozoic, these sediments were intruded by porphyritic stocks and dikes of granodiorite and quartz-monzonite. The zone surrounding the pluton is





LEGEND

- |       |   |      |                        |
|-------|---|------|------------------------|
| 1     | Quaternary-recent                             | 32   | Cleavage               |
| 2     | Cretaceous - quartz monzonite, granite        | 25   | Bedding (tops unknown) |
| 3     | Mississippian - quartzite                     | —    | Alteration Halo        |
| 4     | Devonian & Mississippian - shale, black chert | —    | Sample Location        |
| 5     | Devonian & Mississippian - conglomerate       | #    | Sample Location - Soil |
| ~ ~ ~ | Fault   | o    | Sample Location - Silt |
| - - - | Geological Contact                            | X, x | Sample Location - Rock |
|       |   | —    | Creek                  |

**APC VENTURES INC.**

**WEAS CLAIMS**  
HESS MTN. AREA, YUKON  
N.T.S.: 1050-3

**GEOLOGY AND  
SAMPLE LOCATIONS**

KM 0 0.5 1 KM

SCALE: 1:30000      DATE: FEBRUARY, 1996

DRAWN BY: B. LUECK      FIGURE NO.:

extensively hornfelsed and pyritized for up to 1 km from the pluton border. This intrusive zone was later cut by fracture veinlets and sheeted veins to form stockwork style mineralization.. Vein infillings are dominated by quartz with low sulfide (pyrite, arsenopyrite, molybdenite and bismuthinite).

## **PREVIOUS WORK**

This property has had little work in the past and was staked as an area of potential gold mineralization, based on the mapping of a monzonitic stock underlying the claims; the presence of a large multi-element geochemical anomaly surrounding the stock, and the similarity of the geochemical halo to that of known intrusive hosted deposits.

Previous work in the vicinity (Emerald Lake) has exposed gold mineralization in a number of stockwork zones described in reports by Agip, which are intrusive hosted disseminated gold showings.

In 1994, the work program consisted of soil sampling, silt sampling, geological mapping and prospecting of the Weas claims. Soil sampling was done in zones of oxidation to determine the nature of the geochemical signature and to confirm the presence of mineralization on the claimblock, associated with the stock. Soil samples were dug to the 'B' horizon.

The soil samples were dried, screened and pulverized, and fire assayed for gold to a detection unit of 5 ppb. Sample locations are shown on the geology map and sample values are reported in the appendix. Sampling confirmed a widespread multi-element soil anomaly, even though geochemical response may be significantly hampered by extensive frozen talus. Silt sampling also confirmed the presence of gold mineralization within the claimblock with values ranging from 116 ppb Au to 217 ppb Au; 2740 ppm As to 3440 ppm As; 44 ppm Sb to 106 ppm Sb; 1.3 ppm Ag to 2.4 ppm Ag; and 328 ppm Zn to 492 ppm Zn.

## **The 1995 Exploration Program**

The 1995 exploration season consisted of 20 mandays of helicopter supported geological mapping, prospecting and rock chip sampling. Only part of the intrusion was prospected many anomalous areas have not been well sampled. One major drill target has been outlined on the Weas Claims by rock chip sampling of a glacially scoured bowl on the south side of the claimblock (Figure 3). This area known as the Ann Mark Zone warrants drill testing due to the consistent nature of the mineralization in both grade and fracture distribution. A sheeted fracture zone with parallel quartz-sulfide veinlets outcrops continuously over an area of .5 km by .5 km.

Several 10 meter chip samples were taken randomly within the bowl across the strike of the fracture veinlets. These samples are plotted on figure 1 and indicate the presence of a large tonnage gold deposit of potentially economic grade. Assay results include:

<b>SAMPLE NUMBER</b>	<b>WIDTH</b>	<b>GRADE (GRAMS AU / TONNE)</b>
AMBRC21	10 METERS	.585
AMBRC22	10 METERS	1.07
AMBRC23	10 METERS	1.50
AMBRC24	3 METERS	15.30
AMRCT9501	10 METERS	2.02
AMRCT9503	10 METERS	.864
AMRCT501	20 METERS	.845

This zone is considered an excellent drill target due to the consistent gold grades encountered in the sampling of this area and the excellent exposure. This area has relatively easy access and low topographic relief which allows for easy drill moves and setups. There is abundant fresh water for drilling readily available at the site.

Other sampling in the area failed to show mineralization of a potentially economic size or grade. Further areas to prospect on the claimblock include the glacial bowl to the

northwest of the Ann Mark Zone, and the ridge to the north where highly anomalous gold samples were found in soil (Figure 3).

## **DISCUSSION**

The Weas claims host poorly explored gold mineralization, which has been partially delineated by rock chip sampling. The scale of the porphyry system and consistent presence of gold grades indicates that drilling of the Ann Mark Zone is warranted. The target is a large, low grade, disseminated or stockwork gold deposit hosted by the intrusive rocks. Growth fractures, fracture coatings and sheeted veins are indications of the potential for the discovery of bulk tonnage gold mineralization on the Weas claims.

## **CONCLUSIONS and RECOMMENDATIONS**

The 1994 exploration program on the Weas claims has delineated a strong gold and arsenic in soil anomaly associated with the margin of the pluton.

The 1995 rock chip sampling determined the presence of a porphyry gold deposit of unknown size and grade. It is recommended that a program of helicopter supported drilling be carried out within the glacial bowl known as the Ann Mark Zone. Diamond drilling using NQ or HQ rod is recommended. HQ is preferred, however the costs will be much higher for HQ due to transportation costs of core and rod. It is recommended that a minimum of eight 200 meter holes be drilled at a 60 degree inclination across the strike of the fracture veinlets.

**PROPOSED EXPENDITURES (STATEMENT OF COSTS)**

**Ann Mark Project, Yukon Territory**

<b>DESCRIPTION</b>	<b>EXPENSE</b>	<b>BALANCE</b>
<u>CAMP SETUP</u>		
tent frames, tents	\$6000	
lumber	\$2000	
stoves, heaters	\$2800	
plumbing	\$2000	
propane, tanks, hose fittings	\$4000	
generator, set wire, lights	\$4000	
stove, fridge, freezer	\$2500	
<b>SUBTOTAL</b>		<b>\$18,300</b>
<u>HELICOPTER FUEL</u>		
Jet 'B' fuel, delivered	160 drums @ \$450/drum	
<b>SUBTOTAL</b>		<b>\$72,000</b>
<u>MOBILIZATION</u>		
Single Otter aircraft	220 miles @ \$6.50/mile	
	~\$1500/trip for 10 trips	
<b>SUBTOTAL</b>		<b>\$15,000</b>
<u>EXPLORATION</u>		
personnel, 3 persons	45 days @ \$600/day	\$27,000
helicopter, 2 persons	90 hrs @ \$700/hr	\$63,000
camp costs, 5 persons	45 days @ \$250/day	\$11,250
expediting	45 days @ \$100/day	\$4,500



flights, supplies	5 flights @ \$1500/flight	\$7,500
<b>SUBTOTAL</b>		<b>\$113,250</b>
<b>DRILLING</b>		
Drill Mobilization	D-7 Cat - 100 hr @ \$150	\$15,000
Footage	5,000 ft. @ \$40.00/ft.	\$200,000
Drill Supplies	5,000 ft @ \$2.00/ft.	\$10,000
Mob; Drill Move time	8 days @ \$1200/day	\$9,600
fuel	30 barrels × \$250	\$7,500
Drill demob.		\$8,000
Core boxes, core mob.	200 @ \$5.00/box	\$1,000
Assays	1000 @ \$20.00/sample-----	\$20,000
Report	-----	\$15,000
<b>SUBTOTAL</b>		<b>\$286,100</b>
<b>PROJECT TOTAL</b>		<b>\$504,650.00</b>

**EXPENDITURES (STATEMENT OF COSTS)**

<b>Geologist</b>	<b>- 20 days at \$300.00/day</b>	<b>\$6000.00</b>
<b>Crew Foreman</b>	<b>- 20 days at \$250.00/day</b>	<b>\$5000.00</b>
<b>Prospector</b>	<b>- 20 days at \$200.00/day</b>	<b>\$4000.00</b>
<b>Truck and Fuel</b>	<b>- 2 days at \$100.00/day</b>	<b>\$200.00</b>
<b>Helicopter</b>	<b>25 Hrs. @ \$1000/Hr.</b>	<b>\$25,000.00</b>
<b>Camp costs</b>	<b>- flagging- tents- food- etc. - 60 mandays at \$75.00/manday</b>	<b>\$4,500.00</b>
<b>Report and Drafting</b>		<b>\$5,000.00</b>
<b>Assays</b>	<b>- as per invoice</b>	<b>\$2,100.00</b>
<b>Total</b>		<b>\$51,800.00</b>

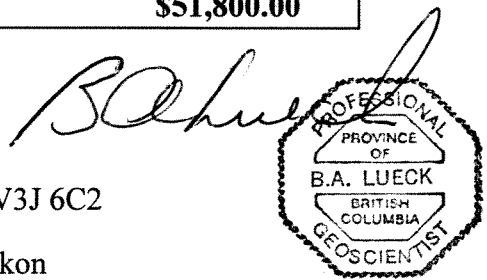
**Personnel:**

Brian Lueck; 842 Poirier St., Coquitlam, B. C., V3J 6C2

Dave Sufady, General Delivery, Whitehorse, Yukon

Tom Morgan, General Delivery, Dawson City, Yukon

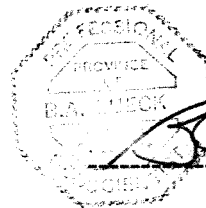
Marco Van Wermeskerken, 1210-675 W. Hastings, Van., B.C.



*Statement of Qualifications:*

I, Brian A. Lueck, of the City of Whitehorse, Yukon Territory do hereby certify that:

1. I am a graduate of the University of British Columbia and posses a B. Sc. (honours) in Geology.
2. I have been employed as a consulting geologist or a government geologist since June of 1985.
3. I am currently enrolled in a M. Sc. program in geology at U. B. C.
4. I am a member in good standing of *The Association of Professional Engineers and Geoscientists of the Province of British Columbia*, and am currently registered as a **P. Geo.**
5. I have reviewed the data and inspected the field work and I believe this report to be an accurate reflection of the work performed on the property during 1995.



Brian A. Lueck

P. Geo.

Geologist



## Ann Mark Zone

SAMPLE #	DESCRIPTION	WIDTH	Au-ppb	Ag-ppm	Cu-ppm	As-ppm	Bi-ppm	Sb-ppm	Mo-ppm	W-ppm
AMMRC95001	Medium grained granodiorite with a few quartz veins up to 2 cm along fracture @ 152/76NE. Trace of py.	10.0	20				<2			
AMMRC95002	Granodiorite with fracture set @ 154?38 NE.	10.0	<5				<2			
AMMRC95003	As -002 with a few quartz veins.	10.0	<5				<2			
AMMRC95004	Dense fracture set (006/80W) in granodiorite.	6.0	30				<2			
AMMRC95005	Dense fracture set (140/32NE) in granodiorite.	10.0	<5				<2			
AMMRC95006	Dense fracture set with quartz veins up to 2 cm (012/70W) in granodiorite.	2.5	<5				<2			
AMMRC95007	Fracture set (010/79W) with quartz veins and pods up to 10 cm of up to 20% py. in granodiorite.	10.0	15	1.8			<2			
AMMRC95008	Dense fracture set (094/65N) in limonitic granodior.	5.5	<5				<2			
AMMRC95009	Dense fracture set (010/77W) in gd.	5.0	<5				<2			
AMMRC95010	As -009. Includes -011.	5.0	10				<2			
AMMRG95011	1 metre by 40 cm pod of bleached and argillically altered granodiorite with 30% disseminated pyrite. Abundant limonite and jarosite.	Grab.	45	10.6	320	798	<2			
AMMRC95012	Dense fracture set (000/82W). As -009.	10.0	<5				<2			
AMMRC95013	Fracture set (147/38 NE).	6.0	<5				<2			
AMMRC95014	Two intersecting sets (147/38NE and 010/75W) fracture sets with few pods (up to 20%) of pyrite.	10.0	<5				<2			
AMMRC95015	As -014.	6.0	<5				<2			
AMM-95001-95015	quartz biotite granite									
AMB501	altered quartz diorite	0-15	65	<.2	7	936	<2	16	4	<10
AMB502	altered quartz diorite	15-35	80	<.2	12	666	2	28	12	<10
AMB503	altered quartz diorite	35-50	110	<.2	8	620	2	12	7	10
AMB504	altered quartz diorite	65-80	155	<.2	6	594	2	10	9	10
AMRCT9501	altered quartz diorite	10.0	2021	4.3	14	>10000	52	345	3	
AMRCT9502		10.0	26	<.1	10	1010	1	2	7	
AMRCT9503		20.0	864	1.4	15	>10000	20	61	4	
AMBRC95601	quartz on fracture in granodiorite	grab	120	0.2	6	12950	248	34	1	120
AMBRC95602	qtz vein material	grab	20	<.2	7	96	<2	<2	1	90
AMBRC95603	pegmatitic qtz-feldspar vein	grab	90	<.2	4	6060	20	14	<1	<10
AMBS95001	silt - glacial lake	silt	125	0.6	83	1280	14	22	4	<10
AMB.RC21	Ann Mark Zone - qtz, arsenopyrite veinlets	10.0	585	<.2	9	3130	16	2	1	110
AMB RC22	" "	10.0	1070	0.4	6	1515	88	2	<1	20

## Ann Mark Zone

AMB.RC23	arsenopyrite bearing fractures	10.0	1500	1.2	8	866	110	12	<1	20
AMB.RC24	qtz veins in sericite altered diorite	3.0	15.3 g/T	2.8	12	>10000	414	48	1	20
AMRCT 501	Qtz veins and fracture coatings of sulphide	20.0	845	0.4	21	5000	48	4	20	
AM-ST-9501	soil	soil	570	3	25	>10000	26	60	<1	<10
AM-ST-9502	soil	soil	280	18	45	>10000	36	12	<1	<10