

REPORT ON STREAM SEDIMENT SURVEY

BAT 1 TO 22 CLAIMS

LIARD MINING DIVISION

NTS 104G/8

LAT 57°19'

LONG 130°26'

LOG NO: 07-01	RD.
ACTION:	
FILE NO:	

LOG NO: May 6/91	RD.
ACTION: Date received back from amendment	
FILE NO:	

OWNER

CHRIS W. GRAF, P. ENG.

WORK PERFORMED FROM JULY 31st TO AUGUST 12th 1990

REPORT BY

M. WASKETT-MYERS  
GEOCHEMIST

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**20,757**

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LOCATION MAP  
OF  
BRITISH COLUMBIA

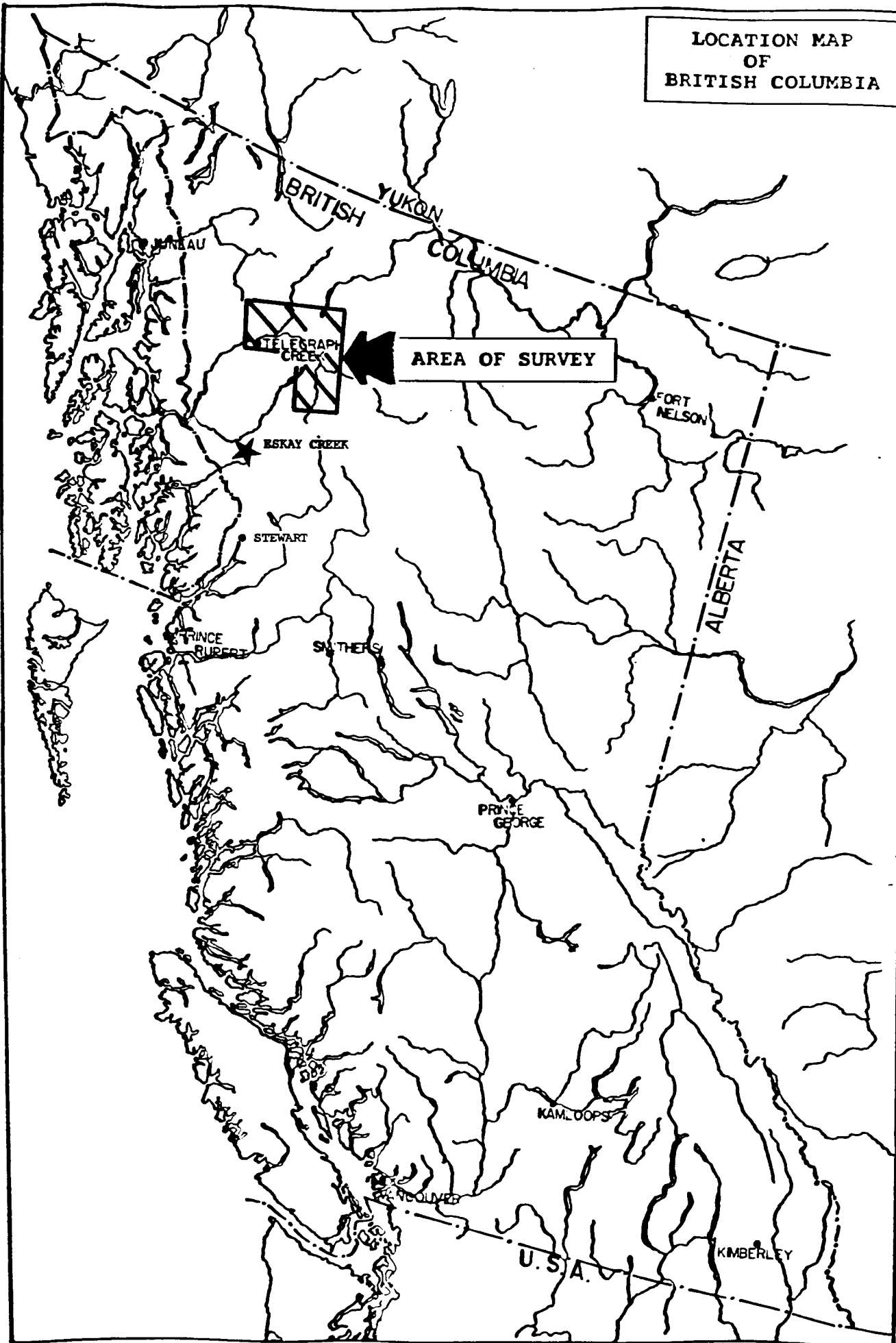


Plate 1

REPORT ON STREAM SEDIMENT GEOCHEMISTRY

BAT MINERAL CLAIMS

LIARD MINING DIVISION

1.00 SUMMARY

A helicopter supported, silt and heavy mineral sampling program was carried out on creeks flowing on and around the property.

A total of 58 sites were sampled, at which a silt and a heavy mineral sample were taken in each case for a total of 116 samples.

Quite a large number of anomalous values in gold, zinc, cadmium, arsenic and silver, were detected in both the silts and heavy mineral samples.

The Bat claims cover the source area of several Au and Zn silt anomalies detected by government geochemical stream sediment surveys released in 1988. The claims are underlain by Lower Jurassic black clastics and marine volcanics including pillow basalts, that the G.S.C. interprets as belonging to the "Eskay Creek Facies", which hosts the 21 zone deposit mineralization at Eskay Creek.

Total expenditure for this survey was \$20,328.55.

2.00 INTRODUCTION

2.10 Property Definition

The Bat property is 100% owned by Chris W. Graf of Vancouver, British Columbia and consists of 340 units, 21,005.20 acres. The work was performed by M. Waskett-Myers and N. Leach.

<u>Claim Name</u>	<u>Record No.</u>	<u>Number of Units</u>	<u>Expiry Date</u>
Bat 1	6752	20	February 21, 1991
Bat 2	6753	15	February 21, 1991
Bat 3	6754	20	February 21, 1991
Bat 4	6755	12	February 21, 1991
Bat 5	6756	12	February 21, 1991
Bat 6	6757	20	February 23, 1991
Bat 7	6758	20	February 23, 1991
Bat 8	6759	20	February 23, 1991
Bat 9	6760	20	February 23, 1991
Bat 10	6761	15	February 23, 1991
Bat 11	6762	10	February 21, 1991
Bat 12	6763	15	February 21, 1991
Bat 13	6764	4	February 21, 1991
Bat 14	6765	6	February 21, 1991
Bat 15	6766	9	February 21, 1991
Bat 16	6767	15	February 21, 1991
Bat 17	6768	18	February 21, 1991
Bat 18	7031	20	March 07, 1991
Bat 19	7032	20	March 07, 1991
Bat 20	6770	20	February 21, 1991
Bat 21	6772	20	February 21, 1991
Bat 22	7033	9	March 07, 1991

#### 2.20 Location and access

The Bat property is located between the Iskut and Little Iskut Rivers west of the Stewart/Cassiar Highway at Burrage.

Access is by helicopter.

#### 2.30 Topography and Vegetation

The property is in an area of varied topography, ranging from flat swampland to vertical cliffs. Elevations range from 790 to 1900 metres.

The vegetation varies from swamp grassland to dense forest of jack pine, alder, birch and scrub brush. At the higher elevations it is mainly alpine grassland.

#### 2.40 Objectives

The geochemical survey was undertaken to assess the potential for base and precious metal mineralization within the survey area.

### 3.00 GEOCHEMISTRY

#### 3.10 Sampling Procedure

Sample sites were preselected in the office and 58 silt samples and 58 heavy mineral samples were taken in the field. At the sample site a sample of the stream silt was collected and put into a kraft paper bag. The heavy mineral sample was collected by screening, to -20 mesh, enough material to give a 3-5 kg sample.

The heavy mineral samples were collected from parts of the stream where the water flow tended to slow down i.e. from high to low energy. Once collected, the heavies sample was put into a 6 mil plastic bag.

#### 3.20 Heavy Mineral Concentration

To eliminate sample prep and reduce transportation costs; the heavies were concentrated at the helicopter base in Dease Lake. The concentration was carried out by use of a Gold Genie spiral concentrator. The resulting concentrate was sieved to - 40 mesh, dried, the magnetics were removed and the remaining sample placed in a plastic vial.

#### 3.30 Analytical Procedure

All samples were sent to Min-En Labs in North Vancouver for analysis.

The samples were analyzed for gold by means of fire assay with atomic absorption finish. Following the gold assay, the samples were run for 12 elements (Ag,As,Cd,Co,Cu,Fe,Mn,Ni,Pb,Sb,Zn,Sn) using inductively coupled plasma (I.C.P.).

### 4.00 CONCLUSIONS

The property appears to be divided into two parallel anomalous zones, which run in a north westerly direction from Ball Creek in the south for a distance of approximately 12 km. From the heavy mineral results, the zone to the west of the main Ball Creek valley is anomalous in gold (values up to 940 ppb), arsenic (values up to 210 ppm) and zinc (values up to 596), though the zinc anomaly is not as extensive as on the east side of the valley. The anomaly to the east of the main Ball Creek valley is made up mainly of high zinc values (up to 1436 ppm), there is one high gold (1700 ppb) and one high arsenic (26 ppm), the gold and arsenic anomalies are from separate sites.


The silt sampling indicated the same two parallel anomalies as described above, but the chemical composition of each, is different. The west anomaly is composed mainly of gold values (up to 207 ppb) with only one high arsenic (68 ppm) and no zinc anomalies. For the east anomaly the silts zinc trend sample is present, as in the heavies, however, there is an accumulation of both gold values (mainly in the 15-17 ppb range) and arsenic (up to 22 ppm). The zinc values on the east anomaly are mainly in the 200-500 ppm range, with the highest value of 1176 ppm.


Without further work, the significance of these anomalies is impossible to define, however there is no doubt that there is some sort of base/precious metals mineralization present on the property.


Since there is strong indication of potential mineralization, further work is recommended in the form of follow-up geochem, prospecting and geological mapping.

## LEGEND FOR GEOCHEMICAL MAPS


### HEAVIES


 Au Greater than 20 ppb


 As Greater than 10 ppm

 Zn Greater than 200 ppm

### SILTS

 Au Greater than 10 ppb

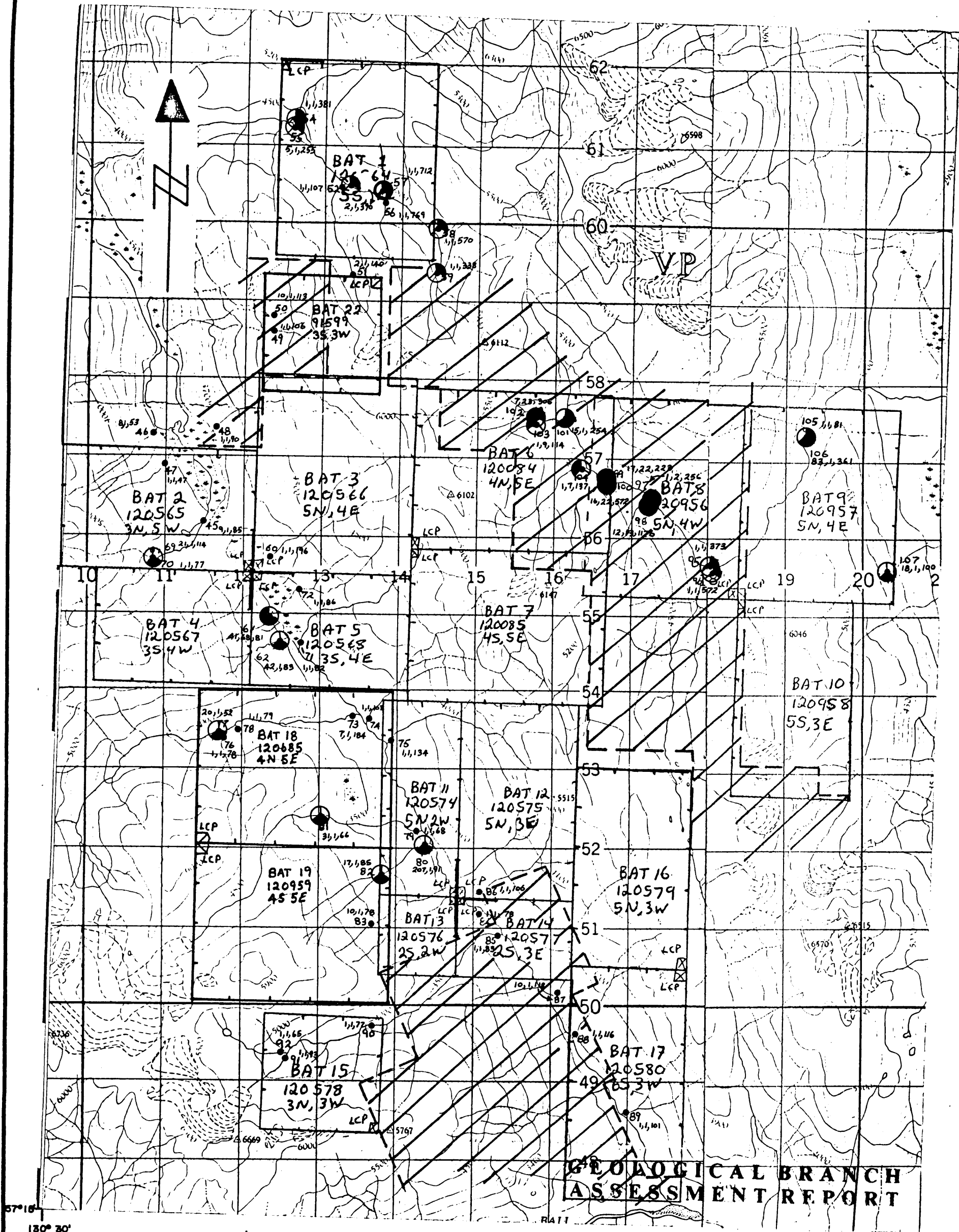
 As Greater than 4 ppm

 Zn Greater than 200 ppm



Alienated claims



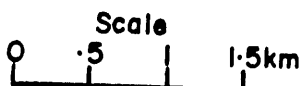


57° 18' 130° 30'

# 20,757

As >4  
 Zn >200  
 Au >10

• Sample site Au,As,Zn



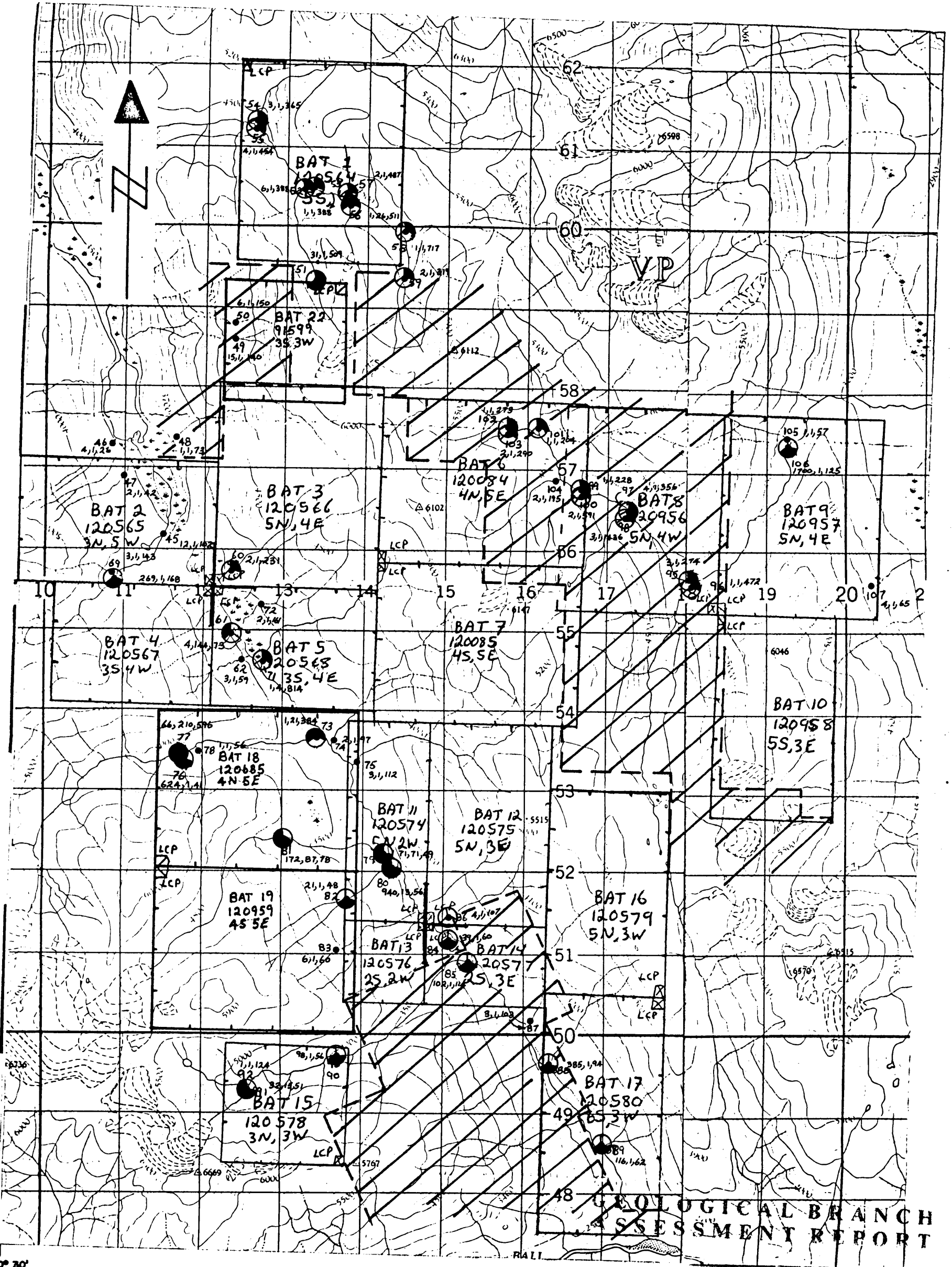
**ACTIVE MINERALS LTD**

**STIKINE GOLD PROJECT  
BAT CLAIMS  
STREAM SILT GEOCHEM**

Scale: 1:50,000


Date: SEP 1990

Plate: 2

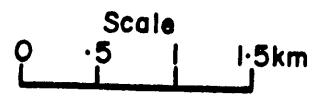


GEOLOGICAL BRANCH  
ASSESSMENT REPORT

# 20,757

As >10  
  
 Zn >200  
 Au >20

• Sample site Au,As,Zn



<b>ACTIVE MINERALS LTD</b>		
STIKINE GOLD PROJECT		
BAT CLAIMS		
HEAVY MINERAL GEOCHEM		
Scale: 1:50,000	Date: SEP 1990	Plate: 3

STREAM SILT ASSAY RESULTSBAT CLAIMS

SAMPLE NAME	AG PPM	AS PPM	CD PPM	CO PPM	CU PPM	FE PPM	MN PPM	NI PPM	PB PPM	SB PPM	ZN PPM	SN PPM	AU PPB
DS045	0.9	1.0	0.1	24.0	43	59950	1040	16	26	1.0	85	1.0	9
DS046	1.1	1.0	0.1	17.0	69	42220	1011	6	18	1.0	53	1.0	8
DS047	0.9	1.0	0.1	13.0	42	33730	767	3	20	1.0	47	1.0	1
DS048	1.1	1.0	0.1	17.0	40	49720	922	1	26	1.0	90	1.0	1
DS049	0.8	1.0	0.1	15.0	66	41120	675	9	36	1.0	106	1.0	1
DS050	0.6	1.0	0.1	15.0	65	40540	642	7	28	1.0	113	1.0	10
DS051	0.6	1.0	0.1	18.0	57	49640	749	10	34	1.0	140	1.0	2
DS052	0.7	1.0	0.1	15.0	49	42290	677	4	30	1.0	107	1.0	1
DS053	0.5	1.0	4.4	9.0	34	27940	504	16	21	1.0	390	1.0	2
DS054	1.1	1.0	1.6	18.0	37	48800	904	21	17	1.0	381	1.0	1
DS055	0.7	1.0	1.7	14.0	45	39330	666	11	30	1.0	255	1.0	5
DS056	0.9	1.0	8.2	10.0	55	32230	791	65	33	1.0	769	1.0	1
DS057	0.9	1.0	9.7	13.0	35	37430	1148	28	28	1.0	712	1.0	1
DS058	1.2	1.0	9.2	14.0	48	34170	789	29	30	1.0	570	1.0	1
DS059	0.9	1.0	3.1	10.0	32	28240	567	15	29	1.0	338	2.0	1
DS060	0.2	1.0	0.1	16.0	40	52530	784	8	31	1.0	196	1.0	1
DS061	1.5	68	0.1	14.0	56	37490	1020	2	36	3.0	81	1.0	41
DS062	0.6	1.0	0.1	14.0	63	37440	1005	6	25	1.0	83	4.0	42
DS069	2.3	1.0	0.1	38.0	58	85290	1383	34	11	1.0	114	1.0	21
DS070	0.7	1.0	0.1	18.0	35	32690	652	66	21	1.0	77	1.0	1
DS071	0.8	1.0	0.1	10.0	21	30350	530	2	23	1.0	82	1.0	1
DS072	1.2	1.0	0.1	12.0	30	36630	764	1	27	1.0	86	3.0	1
DS073	1.9	1.0	0.1	16.0	50	39140	741	19	14	1.0	184	1.0	7
DS074	1.4	1.0	0.1	15.0	24	45270	595	1	15	1.0	103	1.0	1
DS075	0.9	1.0	0.1	14.0	36	42000	649	1	25	1.0	134	1.0	1
DS076	1.0	1.0	0.1	22.0	101	53530	1183	1	26	1.0	78	1.0	1
DS077	2.5	1.0	0.1	20.0	55	48480	735	27	13	1.0	152	1.0	20
DS078	1.7	1.0	0.1	22.0	75	52930	1007	5	20	1.0	79	1.0	1
DS079	1.2	1.0	0.1	21.0	59	59350	1218	1	26	1.0	68	2.0	1
DS080	1.3	1.0	0.1	21.0	81	55380	1074	1	21	1.0	91	1.0	207
DS081	1.1	1.0	0.1	18.0	49	49190	1327	1	28	1.0	66	2.0	31
DS082	1.4	1.0	0.1	21.0	101	52470	1141	1	20	1.0	85	1.0	17
DS083	0.8	1.0	0.1	17.0	73	44540	985	1	22	1.0	78	1.0	10
DS084	0.7	1.0	0.1	15.0	50	41840	1260	2	23	1.0	78	1.0	1
DS085	1.2	1.0	0.1	19.0	74	62550	1182	1	20	1.0	83	3.0	1
DS086	0.6	1.0	0.1	12.0	39	40220	753	7	23	1.0	106	1.0	1
DS087	1.3	1.0	0.1	18.0	35	45950	995	8	21	1.0	118	1.0	10
DS088	1.9	1.0	0.1	22.0	67	59920	1038	11	21	1.0	116	1.0	1
DS089	2.3	1.0	0.1	21.0	58	52990	1173	9	23	1.0	101	1.0	1
DS090	0.9	1.0	0.1	21.0	104	68760	1264	4	84	1.0	77	1.0	1
DS091	1.5	1.0	0.1	19.0	78	63610	1107	1	24	4.0	93	1.0	1
DS092	1.2	1.0	0.1	16.0	69	42010	1024	1	23	3.0	65	1.0	1

STREAM SILT ASSAY RESULTS

BAT CLAIMS

SAMPLE NAME	AG PPM	AS PPM	CD PPM	CO PPM	CU PPM	FE PPM	MN PPM	NI PPM	PB PPM	SB PPM	ZN PPM	SN PPM	AU PPB
DS093	0.6	1.0	0.1	9	30	22560	479	15	16	2	146	1.0	1
DS094	0.7	1.0	0.3	11	39	31330	482	14	18	2	164	1.0	1
DS095	1.2	1.0	2	14	42	39490	787	27	23	3	373	1.0	1
DS096	1.9	1.0	2.7	18	49	48850	876	30	17	3	572	1.0	1
DS097	0.9	5.0	1.8	10	29	27920	450	17	23	4	256	1.0	1
DS098	1.3	13.0	15.5	16	71	49070	1266	70	24	10	1176	1.0	12
DS099	0.8	22.0	0.9	8	25	24750	336	15	17	4	223	1.0	17
DS100	0.9	22.0	5.7	14	44	44050	1007	32	30	10	572	1.0	16
DS101	1	1.0	1.7	12	34	28170	565	17	17	4	254	1.0	15
DS102	0.9	23.0	3	9	28	24860	478	16	21	5	306	1.0	7
DS103	0.4	9.0	0.5	8	14	20020	448	9	23	4	114	1.0	1
DS104	0.5	7.0	1.1	9	22	22880	457	14	20	3	137	1.0	1
DS105	2.7	1.0	0.1	23	30	53050	802	12	12	1	81	1.0	1
DS106	1.9	1.0	1.9	17	40	42260	837	25	25	4	361	1.0	83
DS107	3.1	1.0	0.1	31	39	70460	1206	7	21	1	100	1.0	18
DS108	2.1	1.0	0.1	19	28	48950	1320	26	22	1	166	1.0	10

HEAVY MINERAL ASSAY RESULTS

BAT CLAIMS

SAMPLE NAME	AG PPM	AS PPM	CD PPM	CO PPM	CU PPM	FE PPM	MN PPM	NI PPM	PB PPM	SB PPM	ZN PPM	SN PPM	AU PPB
DH45	0.8	1	0.1	44	70	120760	1464	4	29	1	102	7	12
DH46	0.8	1	0.1	11	36	26910	394	5	20	1	26	1	4
DH47	0.9	1	0.1	13	31	32680	391	1	23	1	42	1	2
DH48	1	1	0.1	23	42	72030	947	1	34	1	73	1	1
DH49	1	1	0.1	31	85	107500	729	9	54	1	140	6	15
DH50	0.1	1	0.1	19	51	57610	1104	8	36	1	150	1	6
DH51	1	1	0.1	48	115	159380	1046	39	107	1	509	1	31
DH52	0.3	1	0.1	38	85	131800	1172	16	58	1	388	1	6
DH53	1	1	2.9	15	39	47220	461	13	40	1	388	1	1
DH54	2.1	1	0.1	36	45	108670	1523	10	38	1	365	1	3
DH55	0.4	1	0.1	26	55	85200	1048	15	53	1	454	1	4
DH56	0.9	26	3.7	17	32	63200	483	25	43	1	511	1	1
DH57	3.1	1	1.1	27	27	68540	792	10	22	1	487	1	2
DH58	0.8	1	4.5	27	51	71630	1095	19	35	1	717	1	1
DH59	0.9	1	0.1	23	37	68930	625	15	36	1	319	1	2
DH60	0.1	1	0.1	39	76	161660	1497	1	48	1	231	1	2
DH61	2.9	144	0.1	30	48	80690	531	8	49	13	73	1	4
DH62	1.7	1	0.1	18	40	51840	541	4	39	4	59	1	3
DH69	0.3	1	0.1	47	46	120770	2023	53	38	1	143	2	3
DH70	0.3	1	0.1	58	48	148670	2015	30	48	1	168	2	269
DH71	0.8	4	10.8	33	74	107770	530	21	57	1	814	2	1
DH72	1.3	1	0.1	34	57	121070	1503	1	41	1	161	1	2
DH73	2.1	21	1.9	32	72	73620	776	67	76	1	384	1	1
DH74	1.6	1	0.1	42	56	168110	808	1	41	3	97	1	2
DH75	1.6	1	0.1	29	46	84310	692	1	28	1	112	1	3
DH76	0.5	1	0.1	15	60	38660	519	1	29	1	41	1	624
DH77	1.7	210	6.5	32	79	95390	556	51	55	2	596	2	66
DH78	1.4	1	0.1	21	53	51280	602	8	28	1	56	1	1
DH79	1.6	71	0.1	49	82	145480	773	1	83	1	49	1	71
DH80	1.3	13	0.1	20	73	57580	604	1	35	1	56	1	940
DH81	0.5	87	0.1	54	62	172380	529	1	86	1	78	2	172
DH82	0.7	1	0.1	17	74	49690	501	1	31	1	48	1	21
DH83	0.6	1	0.1	16	86	51230	584	1	34	1	60	1	6
DH84	1	1	0.1	15	40	47760	619	1	29	1	60	1	39
DH85	0.6	1	0.1	21	84	97210	932	1	65	1	114	1	102
DH86	0.5	1	0.1	13	35	49050	687	6	39	1	107	1	4
DH87	2.1	1	0.1	26	33	73560	824	1	26	1	103	1	3
DH88	1.6	1	0.1	25	56	80920	667	4	47	1	94	1	385
DH89	2	1	0.1	19	38	47870	676	1	37	1	62	1	116
DH90	0.1	1	0.1	21	87	100680	826	1	50	1	56	1	98

HEAVY MINERAL ASSAY RESULTS

BAT CLAIMS

SAMPLE NAME	AG PPM	AS PPM	CD PPM	CO PPM	CU PPM	FE PPM	MN PPM	NI PPM	PB PPM	SB PPM	ZN PPM	SN PPM	AU PPB
DH91	1	15	0.1	18	68	78250	916	1	40	1	51	1	32
DH92	0.8	1	0.1	23	76	69870	824	1	51	1	124	1	1
DH93	0.1	1	0.1	10	27	31930	395	9	26	1	109	1	2
DH94	0.4	1	0.1	12	30	36710	392	5	26	1	124	1	1
DH95	2	1	0.2	33	42	87180	694	7	28	1	274	1	3
DH96	2.3	1	1.4	35	52	92300	736	11	18	1	472	1	1
DH97	1	1	2	26	37	71030	779	9	32	1	356	1	4
DH98	0.6	1	13.5	21	82	93670	784	46	45	1	1436	1	3
DH99	0.4	1	1.4	14	29	34270	386	10	26	1	228	1	1
DH100	0.1	1	4	19	40	83400	995	16	44	1	591	1	2
DH101	0.3	1	0.8	16	33	39420	490	12	26	1	204	1	1
DH102	0.7	1	0.8	12	21	39150	332	6	24	1	273	1	1
DH103	0.2	1	3.5	9	14	30130	369	6	27	1	290	1	2
DH104	0.6	1	1.3	11	20	30650	281	6	27	1	195	1	2
DH105	3.3	1	0.1	29	37	60600	596	5	15	1	57	1	1
DH106	3	1	0.1	27	37	59060	551	9	19	1	125	1	1700
DH107	2.7	1	0.1	32	36	67560	750	2	39	1	65	1	4
DH108	1.4	1	0.1	21	24	62000	828	14	28	1	143	1	1

EXHIBIT "A"  
STATEMENT OF EXPENDITURES  
STREAM SEDIMENT GEOCHEMISTRY  
BAT 1-22 CLAIMS  
LIARD MINING DIVISION

Salaries	M. Waskett-Myers	\$ 1,767.10
	N. Leach	906.20
Transportation	Air Fare	690.50
	Helicopter	12,841.50
	Car (incl. Gas)	495.99
Room and Board	Motel, Food	528.16
Analysis	Heavies (Prep., Gold, I.C.P.) 58 samples @ \$16.75/sample	971.50
	Silts (Prep., Gold, I.C.P.) 58 samples @ \$13.00/sample	754.00
	Field Supplies	Sample Bags, Vials, etc.
Miscellaneous	Radios, Maps, Cab Fares, etc.	229.44
Report Preparation	Chris Graf	453.00
	M. Waskett-Myers	595.00
	Supplies, Photocopying	<u>35.81</u>
	<b>TOTAL</b>	<b><u>\$20,328.55</u></b>

M. WASKETT-MYERS, Geochemist

IN THE MATTER OF THE

B.C. MINERAL ACT

AND

IN THE MATTER OF A SOIL GEOCHEMISTRY PROGRAM

CARRIED OUT ON THE BAT 1 - 22 MINERAL CLAIMS

in the Liard Mining Division of the  
Province of British Columbia

AFFIDAVIT

I, M. Waskett-Myers, of Delta in the Province of British Columbia, make oath and say:

1. That I am a Consultant Geochemist and as such, have a personal knowledge of the facts to which I hereinafter depose;
2. That annexed hereto and marked as Exhibit "A" to this my Affidavit is true copy of expenditures incurred on a Soil Geochemistry program, on the Bat mineral claims.
3. That the said expenditures were incurred between the 31st day of July, 1990 and the 12th day of August, 1990, for the purpose of mineral exploration on the above-noted claims.



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M. WASKETT-MYERS  
Geochemist

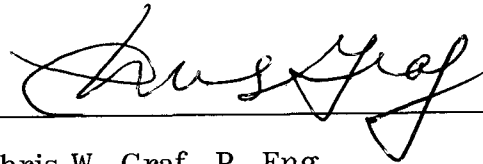


ACTIVE MINERALS LTD.

STATEMENT OF QUALIFICATIONS

M. D. Waskett-Myers has worked in Mineral Exploration for the past twenty five years, principally in the field of geochemistry.

I consider him qualified to prepare this report.

A handwritten signature in cursive script, reading "Chris W. Graf", written over a horizontal line.

Chris W. Graf, P. Eng.  
President

## BAT CLAIMS

The Bat claims (340 units, 21,005.20 acres) cover the source area of several Au and Zn silt anomalies detected by government geochemical stream sediment surveys released in 1988. The claims as shown on the GSC NTS 104G 11-1971 geological map are underlain by Lower Jurassic black clastics and marine volcanics including pillow basalts, that the GSC now interprets as belonging to the "Eskay Creek Facies", which hosts the 21B zone gold polymetallic strataform deposit mineralization at Eskay Creek. Large, prominent gossans straddle the pillowed andesite-black clastics contact. The gossans are exposed intermittently for over 16 km and result from weathering of a stringer pyrite zone within the pillowed andesites. Significant Zn in silt anomalies (up to 2,100 ppm) as well as Au (up to 200 ppb) originate from this large untested zone. A smaller, paralleling structure associated with intense quartz-carbonate alteration and brecciation shows as a distinct orange gossan. Stibnite has been reportedly observed in this zone. Numerous small felsite and rhyolite bodies have been mapped on the claims as well.

Noranda Ltd. is exploring a large block of claims underlain by Eskay Creek facies rocks along the east boundary of the Bat claims, and in 1990 Placer Dome Ltd. explored Chevron Minerals Ltd. Ball Creek porphyry copper-gold deposit which adjoins the south boundary of the Bat claims. A significant amount of previous exploration work, including diamond drilling, has been carried out on Chevron's Ball Creek porphyry copper-gold deposit which occurs along the west contact of a quartz-diorite to monzonitic stock that intrudes upper Triassic age volcanics and sediments. In 1990, Placer Dome drilled 4 holes totalling 400m to test targets outside the classic alteration core potassic zone where all previous drilling was concentrated.

A total of 58 silt samples and 58 heavy mineral samples were collected from the Bat claims. A large number were significantly anomalous in gold, zinc, arsenic and cadmium. As well, several samples were moderately anomalous in silver and antimony.

The highest gold values were found in three panned concentrate samples which contained 1,700 ppb gold, 940 ppb gold and 624 ppb gold respectively. In separate samples, the highest zinc values ranged up to 1,436 ppm. Generally, samples with high zinc contents also had high cadmium contents.