



ASSESSMENT REPORT **091388**
GEOCHEMICAL SAMPLING
NEVE CLAIMS
(NEVE 1-35, YA 76449 - YA 76483)
MAYO MINING DISTRICT
NTS 105-0-7

LATITUDE: 63°17'N
LONGITUDE: 130°55'W

JUNE 19 TO AUGUST 15, 1982

By: T. Garagan

TABLE OF CONTENTS

1. INTRODUCTION
 - 1.1 General Statement
 - 1.2 Location, Access and Physiography
2. GEOLOGY
3. WORK PROGRAM
 - 3.1 General Statement
 - 3.2 Geochemical Sampling
4. DISCUSSION
5. REFERENCES

APPENDICES

- Appendix A Claim Name and Grant Numbers
- Appendix B Analytical Results and Methods
- Appendix C Statement of Costs
- Appendix D Statement of Qualification

LIST OF FIGURES

- Figure 1 Distribution of NEVE Claims 1-35
- Figure 2 NEVE Claims: Sample Location Map

1. INTRODUCTION

1.1 General Statement

This report describes the work carried out by Agip Canada Ltd. on the NEVE claims (NEVE 1-35, YA 76449-76483) in June, July and August, 1982. This work program consisted of prospecting and geochemical sampling. Field work was carried out using daily helicopter setouts from a base camp at Emerald Lake.

A Hughes 500D helicopter, contracted from Canwest Aviation, Calgary, Alberta, was based at Emerald Lake for all of the program.

1.2 Location, Access and Physiography

The NEVE claims are located in the Mayo Mining District (claim sheet 105 0/7, latitude 63°17'N and longitude 130°55'W), approximately 35 kilometers south of Emerald Lake and 50 kilometers west of MacMillan Pass. The location of the claims with respect to local topography is shown in Figure 1.

Access to the claim block is by helicopter from Emerald Lake which in turn can be serviced by float plane from Ross River or Whitehorse. Supplies can also be trucked along the North Canol Road or flown from Whitehorse or Ross River to MacMillan Pass. A tote road leads from the North Canol Road to the Plata airstrip passing approximately 10 kilometers southwest of the claim group; the present condition of this road is not known.

The relief in the area is moderate with rounded mountains covered by talus, felsenmeer, with some outcrop and sparse vegetation. Most of the NEVE claim group lies just above the local treeline. Talus slopes are steep in part of the interest area.

2. GEOLOGY

The NEVE claims are situated on the western part of an east-west-trending turbidite-filled graben which developed in Devonian time (Abbott, 1981). The graben may have been active into the Mississippian and possibly the Pennsylvanian. The turbidite sediments were derived by the uplift and erosion of Lower Proterozoic to Silurian shales, siltstones and cherts. The major sedimentary unit in the graben is the Canol Formation (or "Devonian Clastic Unit", Abbott, 1981) which consists of siliceous shales and coarse chert-pebble conglomerate. The Tom and Jason lead-zinc-silver deposits and several barite deposits also occur within this unit. Overlying Mississippian shales and sandstones may represent the last period of turbidite deposition in the graben. These units are overlain by U. Carboniferous limestones, shales and cherts which represent more stable depositional environments.

Within the NEVE claims, a unit of silty limestone and alkalic volcanic flows and sediments underlie the Devonian Clastic unit. In this area, the volcanics occur as a single unit within the silty limestones.

Deformation includes isoclinal to open folds and thrusts which developed during the Cretaceous Period (Gabrielse et al, 1980); at this time the sedimentary rocks were intruded by stocks ranging in composition from quartz monzonite to syenite.

A north-south-trending right lateral fault system displaces all units on the western side of the claim group. Evidence for faulting is indicated by fault gouge, slickensides and locally extensive quartz veining.

3. WORK PROGRAM

3.1 General Statement

Work described here covers the geochemical sampling carried out on the NEVE 1-35 claims during the months of June, July and August, 1982.

3.2 Geochemical Sampling

Sampling was carried out in three separate areas which are discussed separately below.

Samples of soil and the fine fraction of talus were collected at 40 meter intervals along two traverse lines in the south central part of the claim group. These samples were analysed for gold, silver, mercury, lead, zinc and barium (analytical results are shown in Appendix B and samples locations are shown in Figure 2). Two soil samples contain anomalous Hg (greater than 5 ppm). These are the only significant anomalies in this area and no further work is planned.

In the southwest part of the claim group, samples of soil and talus fines were collected at 50 meter intervals along one traverse below outcrops of the volcanic unit. Several grab samples of quartz-barite vein material and volcanics were also collected. Soil samples were analysed for gold, silver, mercury and antimony. The rock samples were analysed for gold, silver and mercury. One rock sample was also analysed for lead, zinc and barium. Soil sample data is listed in Appendix B with sample locations shown in Figure 2. The rock sample data and sample locations are shown in Figure 2. The soil samples appear to be slightly enriched in mercury which may be in part due to an increased mercury content of the volcanics or silty limestones, although this is not evident in the few rock samples that were taken. Two consecutive soil samples (0231003, 0231004) contain anomalous silver (4.6 and 11.5 ppm) and antimony (121 and 131 ppm). The source of the anomaly may be minor veining within the volcanic rocks. Limited follow-up work should be carried out to locate the source of these values.

One rock sample of calcite-barite vein material was sent for analysis and was found to contain 20,000 ppm barium. This result is not considered to be significant in view of the limited extent of veining and no additional work will be carried out here.

Three soil lines were run parallel to the north-south fault zone discussed earlier. Two sample lines were run within the fault zone and one was run upslope from the fault zone. All soil samples were collected at 50 m intervals and analyzed for gold, silver, arsenic, mercury, lead and zinc. Some samples were also analysed for antimony and barium. Sample locations are shown in Figure 2 and the data is listed in Appendix B. Two samples were found to contain slightly anomalous gold (240 and 105 ppb). These samples also have an associated high arsenic and mercury content. Both samples occur below outcrops of highly fractured quartzite within the zone of faulting. Several grab and chip samples were taken at both these outcrops and samples were analyzed for gold, silver and mercury (results are shown in Figure 2). One grab sample of quartzite with several quartz-filled fractures contains 160 ppb gold. One chip sample across 3 m of veined quartzite contains greater than 5 ppm mercury. None of the other rock samples carried anomalous metal values. More rock sampling may be necessary to explain the soil gold anomaly although slight gold enrichment within the fault zone is the most probable explanation.

4. DISCUSSION

Soil sampling and minor rock sampling was carried out within 3 areas in the NEVE claims. Only a few weak anomalies were found and these can probably be explained by local veining. Some follow-up work may be carried out to confirm the source of these values.

5. REFERENCES

Abbott, G.,

1981: "Geological Setting of Stratiform Shale-Hosted Pb-Zn-Ba Deposits, MacMillan Pass Area, Eastern Yukon"; Unpublished Paper presented at Yukon Geoscience Forum, Calgary, Alberta, November, 1981.

Gabrielse, H., Templeman-Kluit, D.J., Blusson, S.L., and Campbell, R.B.

1980: MacMillan River, Yukon, Sheet 105, 115, GSC Map 1398A.

APPENDIX A

LIST OF CLAIM NAMES AND GRANT NUMBERS

<u>CLAIM NAME</u>	<u>GRANT NUMBER</u>
NEVE 1	YA 76449
NEVE 2	YA 76450
NEVE 3	YA 76451
NEVE 4	YA 76452
NEVE 5	YA 76453
NEVE 6	YA 76454
NEVE 7	YA 76455
NEVE 8	YA 76456
NEVE 9	YA 76457
NEVE 10	YA 76458
NEVE 11	YA 76459
NEVE 12	YA 76460
NEVE 13	YA 76461
NEVE 14	YA 76462
NEVE 15	YA 76463
NEVE 16	YA 76464
NEVE 17	YA 76465
NEVE 18	YA 76466
NEVE 19	YA 76467
NEVE 20	YA 76468
NEVE 21	YA 76469
NEVE 22	YA 76470
NEVE 23	YA 76471
NEVE 24	YA 76472
NEVE 25	YA 76473
NEVE 26	YA 76474
NEVE 27	YA 76475
NEVE 28	YA 76476
NEVE 29	YA 76477
NEVE 30	YA 76478
NEVE 31	YA 76479
NEVE 32	YA 76480
NEVE 33	YA 76481
NEVE 34	YA 76482
NEVE 35	YA 76483

APPENDIX B
NEVE CLAIMS: SOIL GEOCHEMISTRY
 (Values in ppm except Au and Hg in ppb)

<u>Sample</u>	<u>Au</u>	<u>Ag</u>	<u>As</u>	<u>Hg</u>	<u>Sb</u>	<u>Pb</u>	<u>Zn</u>	<u>Ba</u>
0230086	10	0.8	7	450	11	16	11	1910
0230087	10	0.9	25	50	12	16	56	4700
0230088	<5	0.7	7	170	10	8	7	1310
0230089	5	0.6	32	110	13	13	72	4520
0230090	20	2.1	60	650	18	18	51	4980
0230091	30	1.7	20	1100	27	11	17	2120
0230092	15	2.7	30	1900	22	16	44	2110
0230093	40	13.2	160	1900	34	77	186	3980
0230094	20	1.4	60	825	10	17	112	7920
0230095	25	1.9	80	450	11	20	122	8190
0230096	40	1.8	120	800	16	16	112	6320
0230097	30	1.7	230	470	5	22	120	8420
0230098	30	1.0	62	900	9	15	113	4760
0230099	75	1.5	180	3700	5	14	252	1180
0230200	25	0.8	27	750		12	178	4350
0230243	10	0.4	15	525	<2	9	25	
0230244	5	0.5	12	335	<2	12	22	
0230245	25	1.4	60	2100	17	13	115	
0230246	<5	0.5	5	85	<2	4	11	
0230247	15	0.5	5	340	<2	6	12	
0230248	<5	0.4	2	120	6	4	7	
0230249	<5	1.0	23	55	8	5	37	
0230250	25	1.0	52	3450	<2	12	72	
0230251	15	0.9	15	925	4	6	50	
0230252	15	0.9	6	600	<2	6	40	
0230253	15	2.0	22	1700	14	16	112	
0230254	15	1.5	16	440	<2	18	116	
0230255	10	0.4	21	310	6	14	97	
0230256	10	1.9	33	295	7	24	80	
0230257	10	0.9	18	480	<2	14	1011	
0230258	25	2.2	22	650	3	16	132	
0230259	25	1.3	12	700	13	12	98	
0230260	15	0.9	25	1175	2	12	96	
0230261	25	1.6	16	1000	8	14	89	

<u>Sample</u>	<u>Au</u>	<u>Ag</u>	<u>As</u>	<u>Hg</u>	<u>Sb</u>	<u>Pb</u>	<u>Zn</u>	<u>Ba</u>
0230262	40	1.3	55	2250	16	18	201	
0230300	30	0.7	23	230		6	118	3700
0230301	60	2.0	33	1200		12	49	5470
0230302	20	1.5	60	140		22	51	5610
0230303	15	2.1	80	430		12	163	5790
0230304	25	1.9	65	750		12	159	6250
0230305	30	0.9	110	370		12	97	5840
0230306	240	2.1	100	2000		22	126	10840
0230307	40	1.1	40	1550		8	108	4660
0230308	20	0.4	85	185		8	92	3930
0230309	45	0.9	75	190		14	78	5540
0230310	105	0.6	110	>5000		16	94	3180
0230311	20	1.1	25	150		12	98	3220
0230312	<5	2.8	50	290	<2	27	161	
0230313	10	0.6	60	900	4	18	87	
0230314	<5	0.3	42	105	<2	19	32	
0230315	<5	1.4	42	175	<2	18	104	
0230316	<5	1.8	5	335	3	7	60	
0230317	<5	0.9	21	130	18	18	102	
0230318	<5	2.2	10	185	<2	17	119	
0230319	<5	0.7	2	125	9	11	82	
0230320	<5	0.2	18	55	9	15	90	
0230321	<5	1.2	15	185	28	14	170	
0230322	<5	1.8	16	275		12	80	
0230323	<5	0.8	20	130	10	16	123	
0230324	<5	1.0	30	360	21	19	216	
0230325	<5	0.3	23	80	4	20	95	
0230326	<5	1.2	13	160	2	16	87	
0230327	<5	0.7	12	150	3	12	70	
0230328	5	1.7	21	330	13	14	228	
0230400	10	0.4	75	95		24	275	
0230401	10	1.9	45	470	7	15	210	
0230402	10	1.6	25	380	4	20	152	
0230403	5	0.9	21	340	8	15	171	
0230404	15	1.6	40	475	5	14	172	
0230405	45	1.0	145	750	10	11	48	
0230406	<5	1.2	33	160	<2	19	123	
0230407	<5	1.2	23	280	<2	20	101	

<u>Sample</u>	<u>Au</u>	<u>Ag</u>	<u>As</u>	<u>Hg</u>	<u>Sb</u>	<u>Pb</u>	<u>Zn</u>	<u>Ba</u>
0230408	<5	1.2	14	175	7	19	98	
0230409	<5	0.5	15	100	16	14	76	
0230410	<5	0.6	15	95	<2	40	157	
0230411	<5	2.5	26	185	<2	41	160	
0230412	10	0.3	20	310	5	18	151	
0230413	10	2.2	17	310	6	17	87	
0230414	<5	1.6	22	80	17	16	14	
0230415	5	0.5	40	90	4	20	178	
0230416	<5	0.6	22	120	7	12	88	
0230417	<5	0.6	I.S.	I.S.		12	60	
0230418	10	0.9	14	75	10	14	130	
0230419	30	0.4	25	70	11	17	78	
0230420	10	1.1	18	95	<2	12	138	
0230421	10	2.0	14	180	7	21	90	
0230422	<5	0.3	21	85	18	18	217	
0230500	20	0.7		270		20	310	4960
0230501	20	1.6		145		15	110	8570
0230502	25	0.9		440		24	100	7790
0230503	25	0.9		400		23	98	7690
0230504	10	1.1		540		18	45	6660
0230505	15	0.6		55		18	99	3560
0230506	5	0.6		130		15	85	3380
0230507	10	0.6		100		18	93	2440
0230508	10	1.0		325		13	20	1440
0230509	25	0.7		>5000		15	112	1880
0230510	15	0.5		1200		15	275	2750
0230511	5	0.2		140		14	120	1440
0230512	5	0.3		215		14	250	1620
0230513	5	0.3		320		18	235	1950
0230514	<5	0.5		50		27	220	3420
0230515	15	0.5		365		20	123	3050
0230516	10	2.0		950		16	125	I.S.
0230517	20	1.0		2700		15	109	5150
0230518	105	1.4		520		32	120	2440
0230519	15	1.3		210		12	87	6140
0230520	5	1.2		565		22	160	6540
0230521	5	0.5		90		13	120	1900
0230522	<5	0.4		150		14	180	2130

Analytical Methods

Soil samples are dried and sieved to minus 80 mesh. Rock chip samples are pulverised and a split of the minus 200 mesh fraction is analysed.

Silver, lead, zinc analyses: the sample is dissolved in hot aqua regia and analysed by atomic absorption spectrophotometry. Silver analyses require a correction for background.

Arsenic analyses are by perchloric-nitric acid digestion and colorimetric determination.

Gold analyses are by fire assay techniques, but after preparation of the bead, the bead is dissolved in acid and the gold content determined by atomic absorption spectrophotometry.

Antimony and barium analyses are by x-ray diffraction using a pressed pellet of pulverized rock.

Mercury analyses are by flameless atomic absorption spectrophotometry after sample digestion.

<u>Sample</u>	<u>Au</u>	<u>Ag</u>	<u>As</u>	<u>Hg</u>	<u>Sb</u>	<u>Pb</u>	<u>Zn</u>	<u>Ba</u>
0230523	5	1.4		115		25	195	6730
0230524	<5	1.2		65		16	138	7270
0230525	15	1.0		180		22	200	6480
0230526	20	0.4		135		14	99	4220
0230527	25	0.8		290		24	115	8050
0230528	<5	0.7		75		10	75	8400
0230529	165	1.8		>5000		22	5	3150
0230530	30	2.0		1050		61	21	3730
0230531	<5	0.4		380		24	40	2040
0231000	5	6.8		>5000	<1			
0231001	<5	0.6		1380	<1			
0231002	<5	0.7		530	<1			
0231003	10	4.6		3240	121			
0231004	10	11.5		1320	131			
0231005	<5	1.4		4000	6			
0231006	<5	0.5		1940	8			
0231007	25	0.5		780	20			
0231008	<5	0.6		700	<1			
0231009	<5	0.7		395	<1			
0231010	<5	0.7		400	<1			
0231011	<5	1.2		1380	<1			
0231012	<5	0.8		960	8			
0231013	10	0.4		455	4			
0231014	10	0.5		680	<1			
0231015	10	0.6		680	<1			
0231016	<5	0.8		980	<1			
0231017	10	1.0		1640	<1			
0231018	<5	0.8		480	<1			
0231019	<5	0.6		500	<1			
0231020	<5	0.4		940	<1			
0231021	20	1.3		3160	20			

1) I.S. means insufficient sample for analysis

APPENDIX C

STATEMENT OF COSTS

1. Surface Work

Analytical Costs: Analyses by Bondar-Clegg Co. Ltd.
Whitehorse and Vancouver

14 soil samples @ 24.15	\$ 338.10
70 soil samples @ 21.15	\$ 1,480.50
32 soil samples @ 18.15	\$ 580.80
2 soil samples @ 17.15	\$ 34.30
22 soil samples @ 16.35	\$ 359.70
1 soil sample @ 10.40	\$ 10.40
1 rock sample @ 16.45	\$ 16.45
31 rock samples @ 14.40	\$ 446.40
1 rock sample @ 10.65	\$ <u>10.65</u>
Total Analytical Costs for NEVE 1-35	\$ 3,277.30

2. Helicopter Costs

June 19, 20, July 9, 10, August 10, 15 - Hughes 500 D on
contract from Canwest Aviation, Okotoks, Alberta

0.7 hours

1.1 hours

1.2 hours

1.0 hours

0.5 hours

1.8 hours

Total 6.3 hours at \$450 per hour = \$2,835.00

plus fuel at 25 gallons per hour and \$2.77 per gallon = \$ 436.27

Total Helicopter Costs \$3,271.27

3. Labour Costs

T. Garagan, Project Geologist, 2 days @ \$110/day	\$ 220.00
R. Hulstein, Senior Assistant, 2 days @ \$95/day	\$ 190.00
I. Cadieux, Geologist, 4 days @ \$100/day	\$ 400.00
S. Seto, Senior Assistant, 2 days @ \$87/day	\$ 174.00
L. Lalonde, Senior Assistant, 3 days @ \$87/day	\$ 261.00
S. Barnhill, Senior Assistant, 1 day @ \$90/day	\$ 90.00
J. Wegenast, Intermediate Assistant, 1 day @ \$75/day	\$ 75.00
S. Corden, Intermediate Assistant, 1 day @ \$75 day	\$ 75.00
G. Brown, Junior Assistant, 3 days @ \$58/day	\$ <u>174.00</u>
Total Labour Costs	\$ 1,659.00

4. Food Costs

Estimated at \$20/man-day for 19 man-days =	\$ 380.00
Total cost of surface work for assessment purposes	\$ <u>8,587.57</u>

APPENDIX D

STATEMENT OF QUALIFICATIONS

I, THOMAS GARAGAN, of the City of Calgary, in the Province of Alberta, hereby certify:

That I am a geologist employed by Agip Canada Ltd. and that I caused to be performed the work described in this report.

That I obtained a Bachelor of Science degree with Honours in Geology from the University of Ottawa, Ontario in 1980.

That I have been engaged in mineral exploration and geological survey mapping on a full and part-time basis for six years of which three have been on mineral exploration programs in the Yukon Territory.

That I am an associate member of the Geological Association of Canada and the Mineralogical Association of Canada.

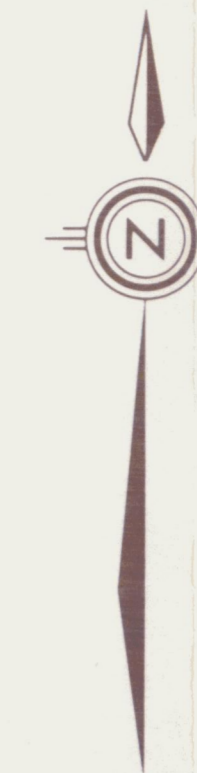
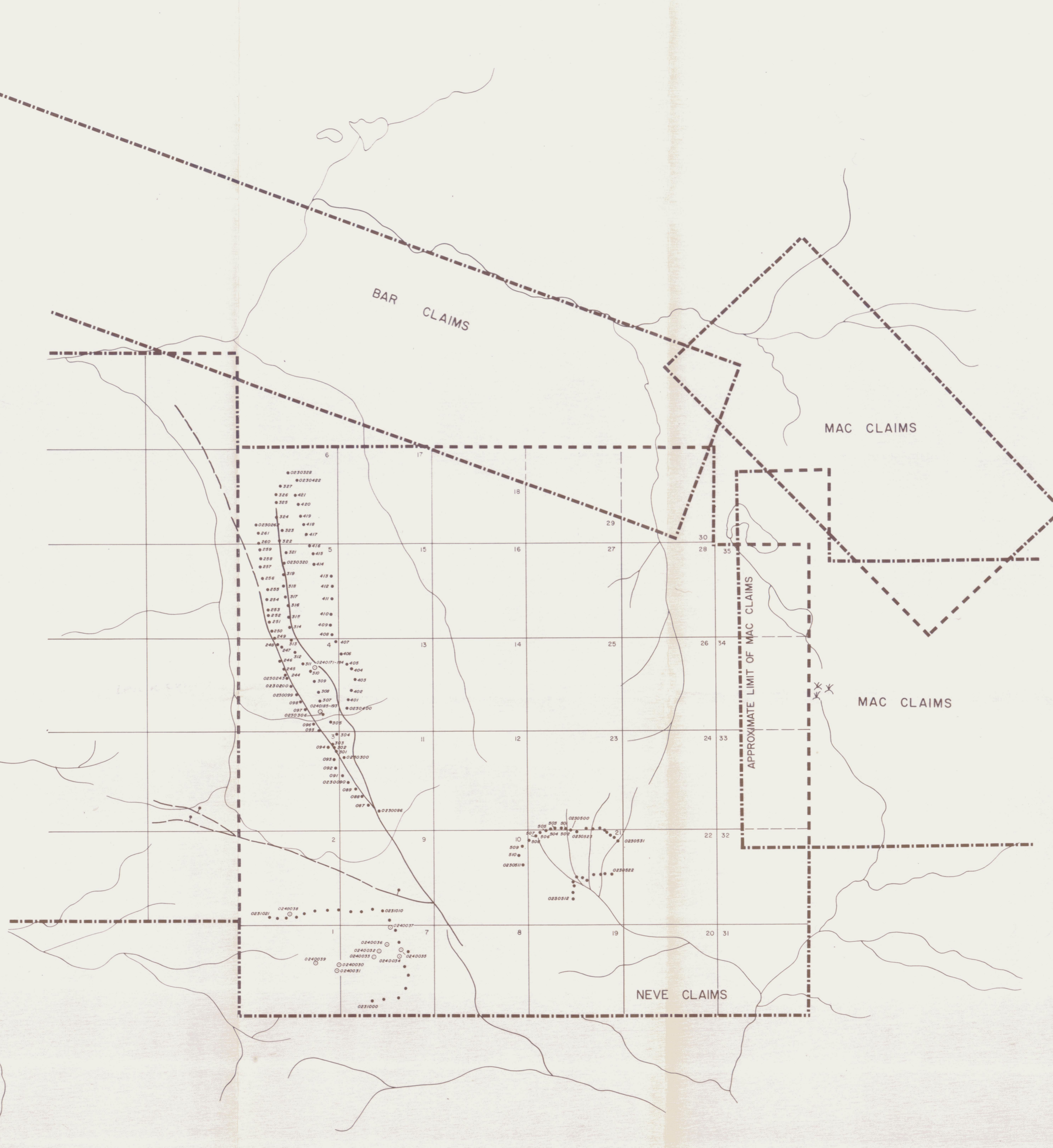
Signed at Calgary, Alberta, this 19th day of November, A.D., 1982.



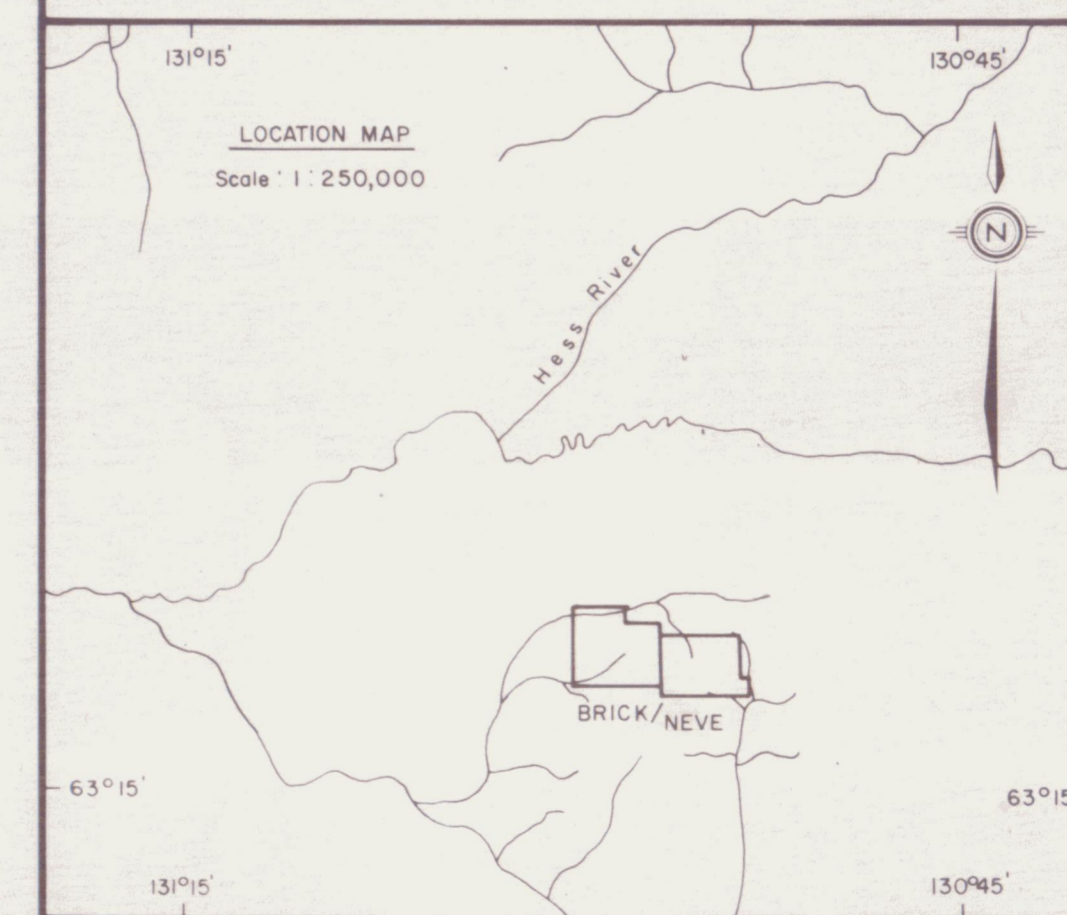
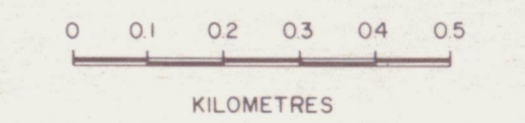
THOMAS GARAGAN

ROCK GEOCHEMISTRY							
Sample Number	Sample Type	Au	Ag	Hg	Pb	Zn	Ba
0240030	chip: 1m	<5	0.1	-	8	35	20000
0240031	grab	<5	0.1	140			
0240032	grab	<5	0.1	960			
0240033	grab	15	0.3	230			
0240034	grab	<5	0.2	40			
0240035	grab	<5	0.3	380			
0240036	grab	<5	0.1	30			
0240037	grab	<2	0.5				
0240038	grab	10	0.2	200			
0240039	grab	5	0.3	165			
0240171	chip: 2 m	<5	0.2	880			
0240172	chip: 1.6m	35	0.1	1160			
0240173	chip: 2 m	25	0.4	820			
0240174	chip: 1.8m	10	0.2	500			
0240175	chip: 3 m	25	0.2	>50000			
0240176	chip: 2 m	10	0.3	520			
0240177	chip: 3 m	20	0.3	660			
0240178	chip: 1.2m	5	0.3	3200			
0240179	chip: 1.2m	<5	0.2	660			
0240180	chip: 1 m	5	0.2	880			
0240181	grab	15	0.3	1040			
0240182	grab	10	0.5	900			
0240183	grab	160	0.3	800			
0240184	grab	15	0.3	470			
0240185	chip: 3 m	50	0.5	235			
0240186	grab	15	0.1	350			
0240187	chip: 0.4m	30	0.2	200			
0240188	chip: 2.8m	20	0.2	425			
0240189	chip: 2.4m	35	0.2	480			
0240190	chip: 1.2m	20	0.3	700			
0240191	chip: 1.75m	30	0.2	600			
0240192	chip: 2.25m	<5	0.3	600			
0240193	grab	<5	0.2	200			

All gold by Fire Assay with atomic absorption finish except * which is by Carbon Rod



- LEGEND**
- Fault (defined, approximate) dot indicates down thrown side
 - Soil samples
 - Rock sample
 - Claim boundary
 - Creek



AGIP CANADA LTD.

BRICK/NEVE PROJECT

GEOCHEMISTRY

YUKON

SCALE: 1:10,000	AUTHOR: T.G.	DATE: October/1982
DRAWN BY: J.B.	N.T.S.: 105-0-7	FIGURE: 2