

MAP No.

105 D 2

ASSESSMENT REPORT
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MINING DISTRICT: WHITEHORSE
TYPE OF WORK: GEOLOGICAL, GEOCHEMICAL,

GEOPHYSICAL

REPORT FILED UNDER: Omni Resources Inc.

DATE PERFORMED: August 25 - September 12, 1987

DATE FILED: October 22, 1987

LOCATION	LAT.	60°06'N
	LONG.	134°44'W

AREA: MONTANA MOUNTAIN

CLAIM NAME & NO.	AFI	37-44	YB07855-862
	AFI	45-126	YA85697-778

VALUE \$ 5,500.00

WORK DONE BY: H.F. MacKinnon

WORK DONE FOR: Omni Resources Inc.

REMARKS:

~~#13 COLLEGE GREEN~~
~~#105 BRUTE~~
271 BRUTE

ASSESSMENT REPORT

**GEOLOGICAL MAPPING, GEOCHEMICAL SAMPLING
AND GEOPHYSICAL SURVEYING**

**Afi 37-44 Claims (YB07855-YB07862) and
Afi 45-126 Claims (YA85697-YA85778)
Whitehorse Mining District**

105D/2

Latitude 60°06'N

Longitude 134°44'W

August 25 - September 12, 1987

For

**Omni Resources Inc.
706, 595 Howe Street
Vancouver, B.C. V6C 2T5**

By

**Hugh F. MacKinnon, B.Sc.
October 11, 1987**



This report has been examined by
the Geological Evaluation Unit
under Section 53 (4) Yukon Quartz
Mining Act and is allowed as
representative work in the amount
of \$ 5500.00.

for *DAEmond*
Regional Manager, Exploration and
Geological Services for Commissioner
of Yukon Territory.

SUMMARY

Omni Resources Inc.'s Afi 37-126 property consists of 90 contiguous claims located on Brute Mountain, 70 kilometers south of Whitehorse. Access is provided by gravel road from Carcross.

The property is underlain by a thick Mesozoic sedimentary-volcanic succession, of the Whitehorse trough, which has been intruded by Coast Plutonic Complex granitoid rocks. Rhyolite to felsite and andesite porphyry dykes of the Mount Nansen Group(?) were emplaced into the Mesozoic Strata during the Cretaceous. Precious metal-bearing veins and structures including those of the Pride of Yukon, Peerless and Arctic Caribou mines occur adjacent to the property.

Geological mapping, prospecting, geochemical sampling and geophysical surveying has delineated several targets for further work. These include:

Altered shears and quartz veins in quartz monzonites, in a gully in the eastern portion of the property, with gold and silver values up to 970 ppb and 22.1 ppm respectively and anomalous indicator element values. Chalcedonic quartz + carbonate breccias with gold values up to 56 ppb, arsenic values up to 3280 ppm, and antimony values up to 36 ppm were found in the southwest corner of the property. The lithologic and geochemical character of both of these areas suggests there is potential for finding a epithermal type ore shoot(s).

Anomalies along VLF test lines indicate that geophysics is a viable exploration tool in the area. In particular the correlation of air photo lineaments, and/or anomalous soil

geochemistry with the VLF anomalies may indicate potential targets in the southeastern corner of the claims.

A program of geochemical sampling, geological mapping, prospecting, geophysical surveying and cat trenching is proposed for the 1988 field season.

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1.0 INTRODUCTION

This report describes the exploration program carried out on the Afi 37-126 claims by Omni Resources Inc. during August 25 to 29, 1987, and September 10 to 12, 1987. Exploration work consisted of prospecting; geological mapping; geochemical rock, stream sediment, talus fines and soil sampling; and geophysical surveying. Selected areas of interest delineated in the 1985 survey and additional areas not previously examined were covered during the course of the 1987 field work.

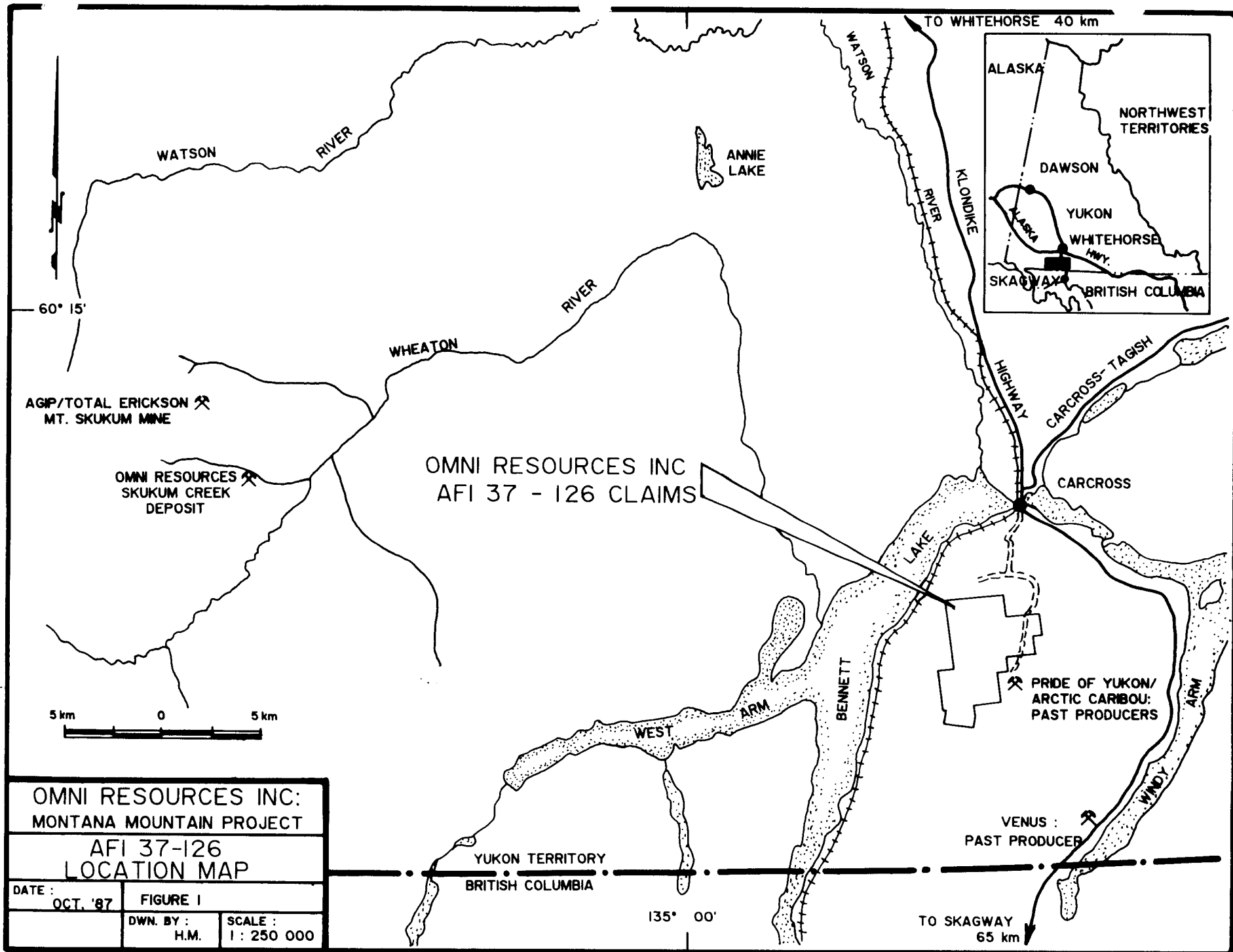
1.1 Location and Access

The Afi 37-127 claim group is located on Brute Mountain in southwestern Yukon Territory, approximately 70 kilometers south of Whitehorse (Figure 1). Centered at latitude 60°06'N and longitude 134°44'W, the property is 1.5 kilometers east of the former Arctic Caribou and Pride of Yukon mine sites and north of Montana Mountain.

Access to the property is by gravel road from Carcross. One section of this road has recently been washed out requiring access via secondary 4 x 4 "cart" road to the southeastern (higher elevation) portions of the property. The main road will need to be upgraded next summer if heavy equipment is to be brought in. Alternate access is provided by helicopters based in Whitehorse, the Wheaton River Valley or Atlin, B.C.

1.1 Claim Status

The Afi property consists of 90 contiguous two-post mineral claims staked under the Quartz Mining Act within



OMNI RESOURCES INC:
 MONTANA MOUNTAIN PROJECT
 AFI 37-126
 LOCATION MAP
 DATE: OCT. '87 FIGURE 1
 DWN. BY: H.M. SCALE: 1:250 000

the Whitehorse Mining District (Figure 2). Claim status is tabulated below:

Claim Name	Grant Numbers	Recording Date	Expiry Date
Afi 37-44	YB07855-YB07862	Sept. 4/87	Sept. 4/89*
Afi 45-64	YA85697-YA85716	Oct. 12/84	Oct. 15/88*
Afi 65-84	YA85717-YA85736	Oct. 12/84	Oct. 15/87
Afi 85-92	YA85737-YA85744	Oct. 12/84	Oct. 15/88*
Afi 93-98	YA85745-YA85750	Oct. 12/84	Oct. 15/87
Afi 99-106	YA85751-YA85758	Oct. 12/84	Oct. 15/88*
Afi 107-112	YA85759-YA85764	Oct. 12/84	Oct. 15/87
Afi 113-118	YA85765-YA85770	Oct. 12/84	Oct. 15/88*
Afi 119-120	YA85771, 772	Oct. 12/84	Oct. 15/87
Afi 121-125	YA85773-YA85777	Oct. 12/84	Oct. 15/88*
Afi 126	YA85778	Oct. 12/84	Oct. 15/87

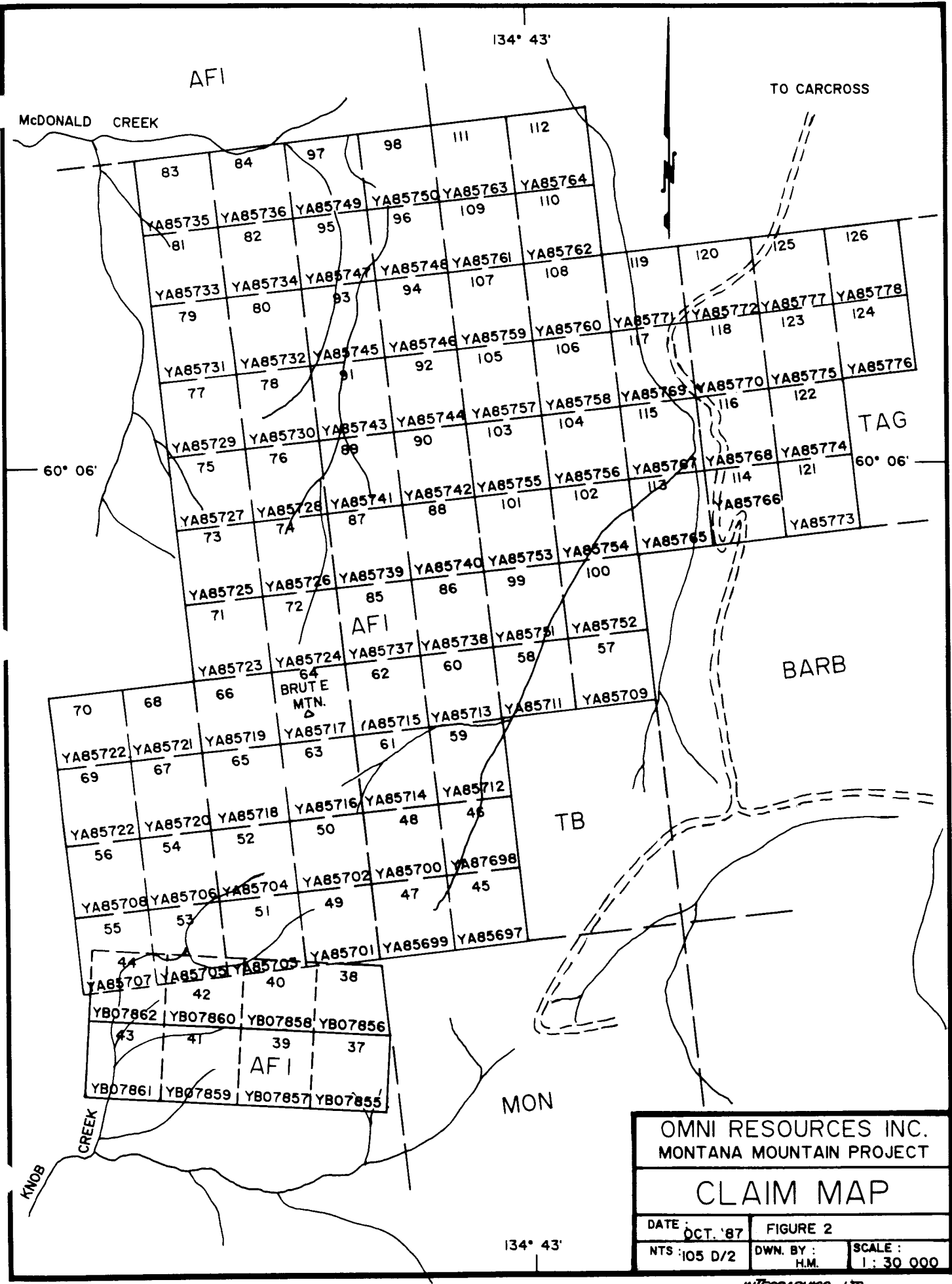
*Pending acceptance of Assessment Report.

All the claims are 100 percent owned by Omni Resources Inc. of Vancouver, B.C.

1.3 Climate, Topography and Vegetation

The climate of the Montana-Brute Mountain area is variable with warm summers and long, cold winters. Precipitation is moderate (approximately 60 cm annually), with heavy snowfalls during the winter months. The area is susceptible to periodic high winds, and extensive cloud cover due to moist Pacific systems rising over the nearby Coast Mountains. The exploration season extends from mid-June to September/October but much of the steeper terrain and gullies remain snow-covered year round, or until early September.

The topography of the Afi property is generally moderate to steep with elevation varying between 975m (3200') and



OMNI RESOURCES INC.
 MONTANA MOUNTAIN PROJECT

CLAIM MAP

DATE: OCT. '87 FIGURE 2

NTS: 1:105 D/2 DWN. BY: H.M. SCALE: 1:30 000

MTEGRAPHICS LTD.

2140m (7020'). The eastern and southern portions of the property consist of rugged and steep mountain sides surrounding glacial cirques and runoff gullies. The western and northern half of the property is composed of felsenmeer, moraine and outwash-covered plateaus and ridges dissected by creek gullies. Water in the creeks runs until mid to late October.

Most of the property is above the treeline, with talus and felsenmeer covering the higher elevations; alpine shrubs and grasses on the ridges and plateaus; and stunted spruce and poplar areas below 1450m (4750').

1.4 History

Montana Mountain has been the site of mineral exploration and mining activity since the discovery of gold and silver-bearing quartz veins west of Windy Arm, in 1901. At least 19 showings have been worked of which the Pride of Yukon and Arctic Caribou Mines, adjacent to the Afi property, have reportedly produced 16,900 oz Au and 495,904 oz Ag to 1968 (Roots, 1981).

The Afi 47-126 claims were staked by Omni Resources Inc. in 1984, and the Afi 37-44 claims were restaked in 1987 by Omni Resources Inc. An exploration program consisting of prospecting, geological mapping, geochemical sampling and air photo interpretation was carried out in the summer of 1985 by Aurum Geological Consultants Inc. for Omni Resources Inc. The 1985 program delineated several areas of anomalous geochemical samples (Keyser, 1985). No previous work is known prior to 1985.

2.0 GEOLOGY

2.1 Regional Geology

The Afi 37-126 claims are situated on the boundary between the Coast Plutonic Complex to the west and the Intermontane Belt to the east. The Belt consists of Mesozoic volcanic and sedimentary rocks of the Whitehorse trough within the property area. Wheeler (1961) and Roots (1981) have adequately described the regional geology of the area.

Basement rocks in the region are mafic volcanic flows and breccias and serpentized gabbros of the upper Paleozoic Atlin Terrane. These rocks are unconformably overlain by north to northwesterly-trending, northeast steep to moderately-dipping low grade upper Triassic Lewes River Group volcanics and sediments and Jurassic Laberge Group sediments. Middle to late Cretaceous volcanic rocks of the Mount Nansen Group (Hutshi Group), to the south of the property, unconformably overlie, and in certain areas intrude the Mesozoic strata. Early Tertiary granitoid rocks of the Coast Plutonic Complex intrude and underlie the older strata. Faulting, lithologic attitudes and other regional trends are generally northwest.

Gold, silver and base metal mineralization is hosted in quartz veins and shears within the Mount Nansen Group volcanic and volcanoclastic sediments and adjacent granitoid rocks. Several of these showings (deposits) have been significant past producers including the Venus, Arctic Caribou and Pride of Yukon mines. Additional gold-silver deposits like the Omni-Skukum Creek and AGIP-Mount Skukum occur in the nearby Wheaton River district.

2.2 Geology of the Afi 37-126 Claims

The majority of the Afi property is overlain by Pleistocene glacial moraine and glaciofluvial deposits. Geological mapping (Figure 3) was therefore limited to higher ridge flanks and gullies, as such, interpretations are generalizations of overall trends.

The Afi 37-126 claims are underlain by early Tertiary granodiorites, quartz monzonite and granite of the Coast Crystalline Complex which intrudes lower Jurassic Laberge Group sediments and upper Triassic Lewes River Group volcanics and sediments. North to northwest-trending, steep north to east-dipping rhyolite and porphyritic andesite dykes possibly of the late Cretaceous Mount Nansen Group intrude the Mesozoic strata. These dykes may have intruded along zones of weakness as they are coincident with many of the airphoto lineaments.

The Lewes River Group (TrL) andesite, basalt, pyroclastics, limestone and limestone breccia are the oldest exposed lithologies. They only outcrop in the south-western portion of the claims and were not examined during the 1987 exploration program.

Sediments of the Laberge Group (JL) disconformably overlie the Lewes River Group along a north-trending contact. Polymictic pebble conglomerate (JLpc) forms the most distinctive unit of the Group and occurs as 1-2m thick layers or as lenses interbedded and/or interfingered with greywackes and siltstones. Clasts are predominately rounded mafic porphyritic volcanic and granitoid pebbles up to 35 cm wide. Well layered to massive, dark grey to mauve weathered greywackes (JLgw) commonly grade into siltstones or conglomerates. Dark

grey to black, commonly rusty weathering, siltstones and argillites (JLss) comprise the remainder of the Laberge Group sedimentary strata. Siltstones and argillites generally are more abundant toward the western margins of the property, the conglomerates occur mostly as bands across the center of the property and greywackes are more abundant to the east. These Jurassic rocks strike roughly north to northwest and dip at roughly 45-90° east. Although data is limited at this time the changes in dip suggest the sediments are synformally deformed. The sediments are generally metamorphosed to low grades, except adjacent to the granitoid rock contacts where upon they become rusty weathered hornfels.

Leucocratic coarse to medium grained granitoid rocks occur in the northern and eastern portions of the property. Contacts with the overlying sedimentary rocks are generally irregular and igneous in character. Granitoid rocks of quartz monzonitic (Tgm) composition occur in the northeastern portion of the property while those of granodioritic to granitic composition occur to the south and west. Hornblende and/or biotite comprise up to 15 percent of the composition of the granitoid rocks and are most abundant in the granodiorites. Fine grained mafic rich granodiorite dykes were observed in the quartz monzonite and Laberge Group sediments, suggesting that the quartz monzonite is older than the granodiorite. Aplitic dykes up to 5 m wide, with up to 20 percent black acicular crystals, are possibly related to the Coast Plutonic Complex granitoid rocks which crosscut the Laberge Group sediments in the northwestern portion of the property. Mauve to grey quartz crystals predominate in the granodiorites to the southeast, and along with weak to moderate chloritization of the mafic minerals may indicate hydrothermal alteration within the area (Roots, 1981.)

Laberge Group sediments are occasionally intruded by north to northeast trending steeply eastward dipping rhyolite to felsite and rhyolite porphyry dykes of the Mount Nansen Group(?). These dykes are usually very fine grained, silicified, bleached white and/or rusty weathered. Minor andesite plagioclase porphyry dykes also of the Mount Nansen Group(?) intrude the sediments but trend northeastward with dips to the west.

No major faults were mapped, however numerous small shears and faults were principally observed in the granitic rocks. Trends on the shears are variable with roughly east-west moderate north-dipping being most common, and northwest-trending south-dipping and northeast-trending north-dipping being less common.

2.2.1 Mineralization and Alteration

Mineralization and alteration observed in the map area can be divided into two main types:

1. altered sediments and sediment hosted quartz and/or carbonate breccias and veins;
2. granite hosted altered shears and veins.

The former is observed over much of the property while the latter was principally observed in the northeastern portion of the property.

2.2.2 Sediment Hosted

Pyrite, malachite and chalcocite in amounts up to 1 percent occur in vuggy quartz lenses, near the summit of Brute Mountain, occurs at the footwall contact of a weakly carbonatized andesite plagioclase porphyry dyke

and pebble conglomerate. Although the zone was difficult to trace and therefore fully examine (due to cliff exposure) its small width (<10cm) suggests it is of little economic value.

Numerous argillite, siltstone and/or greywacke calcite breccias were observed in the southwestern portions of the property. Coarse calcite crystals, up to 8 cm, form a vuggy matrix (with minor chlorite patches) supporting angular clasts of generally unaltered to weakly altered sediments. These breccias may have originated from:

1. regional metamorphism;
2. faulting and alteration associated with Montana Mountain volcanic activity or granodiorite intrusion; or
3. later hydrothermal activity.

Chalcedonic and saccharoidal to vuggy/drusy quartz veins and breccias occur (commonly as float) in the southwestern areas of the property. The breccias are usually composed of weakly chloritized, carbonatized, hematized and/or sericitized angular greywacke to argillaceous fragments. Limonite, wad (Mn oxides) and hematite often coat the vuggy spaces. Fine grained subhedral pyrite rarely accompanies the veins. Pervasive weak to moderate chloritization and/or hematization of the pebble conglomerate or other sediments usually occurs in the areas adjacent to veins/breccias or vein float. Thin grey quartz stringers within the white quartz suggest several generations of hydrothermal fluid influxes. The character of the veins and breccias is indicative of epithermal type deposits. Since similar veins/breccias

occurring elsewhere in the Montana Mountain complex (Roots, 1981) carry economic Au and Ag values this area warrants further follow up next year.

Gossanous, silicified (almost cherty) greywackes with up to 10 percent fine grained pyrite along veinlets or disseminated through the rock occur as float in the northeast slope of Brute Mountain. Several of these rocks had sericitic haloes around the veinlets.

2.2.3 Granite Hosted

Three areas of potential economic interest with the granitoid rocks have been located on the property:

1. the major gully in the eastern portion of the property contains numerous alteration zones around shears, gossanous quartz veins and fault breccias;
2. the Laberge Group - granodiorite contact in a gully in the northwestern portion of the property is altered with the alteration being strongest along and adjacent to numerous shears;
3. the granodioritic rocks of the southeastern area of the property are weakly altered and have compositions similar to those found adjacent to economic quartz veins elsewhere on the Montana Mountain Complex.

Alteration of the quartz monzonites in the major gully varies from weak to strong as the distance to the veins and/or shears decreases. Shears are commonly chloritized and/or hematized, weak to moderately carbonate and clay altered, and silicified (cherty to crystalline quartz). With the adjacent alteration these

zones range up to 4 m in width. Quartz veins are usually limonite and hematite stained, very vuggy with drusy quartz infilling, sericitized and bleached. Drusy quartz-encrusted, tabular barite was observed in one very vuggy quartz vein. A chalcedonic quartz-hematite breccia in a shear along strike with this vein suggests that the zone may be a leached silica cap at the margins of an epithermal system. The vein systems and associated alteration haloes ranges in width from 1 to 2.5 m with the actual veins (or vein stockwork) being up to 1 m wide. The veins and shears have variable orientations with roughly east-west trending moderately north-dipping and north to northwest-trending steep northeasterly-dipping being the most common. The geochemical anomaly outlined in 1985 (Keyser, 1986) occurs southwest of the gully and generally trends toward the gully suggesting a possible continuation along strike of the alteration and veins for 1 kilometer or more. Further work in this area is recommended for next year.

Clay, Fe carbonate and limonite alteration occurs at the Laberge Group-granodiorite contact. Gossanous alterations are concentrated along shears, fractures and pyritic-hornfelsed xenoliths in the granodiorite. The shears range up to 0.5 m and trend similar to those to the east.

3.0 GEOCHEMICAL EXPLORATION

A total of 32 rock samples, 22 stream sediment samples, 9 talus fine samples and 1 soil sample were collected for geochemical analyses during the 1987 exploration program on the Afi 37-126 claims. All samples were analyzed for total gold, silver, arsenic, lead, zinc and antimony by Acme Analytical Laboratories Ltd. of Vancouver, B.C. Analytical methods are described with the analytical reports (Appendix B). Insufficient data was collected to statistically determine threshold anomalous values, therefore these values have been somewhat arbitrarily determined and are summarized in Table 1.

Table 1 : Interpretation of Geochemical Sample Data

	Range	Background	Possibly Anomalous	Anomalous
1. Rock:				
Au (ppb)	1-970	1-6	7-18	19+
Ag (ppm)	0.1-22.1	0.1-0.5	0.6-1.5	1.6+
Pb (ppm)	2-4061	2-30	31-49	50+
Zn (ppm)	2-2154	2-70	71-99	100+
As (ppm)	2-3280	2-25	26-39	40+
Sb (ppm)	2-36	2-6	7-18	19+
2. Stream Sediments, Talus Fines, Soils:				
Au (ppb)	1-275	1-6	7-18	19+
Ag (ppm)	0.1-0.6	0.1-0.3	0.4-0.5	0.6+
Pb (ppm)	14-61	14-35	36-49	50+
Zn (ppm)	52-202	52-110	111-149	150+
As (ppm)	2-402	2-33	34-49	50+
Sb (ppm)	2-14	2-4	5-10	11+

All sample locations and their corresponding gold and silver values are shown on Figure 4. Anomalous lead, zinc, arsenic and antimony geochemical samples are plotted on Figure 5.

3.1 Litho-geochemistry

Of the thirty-two rocks sampled six were anomalous in gold and an additional three were possibly anomalous (Table 2). Most of these samples were also anomalous in silver, lead, zinc, and/or arsenic. Three additional samples were anomalous or possibly anomalous in lead and/or zinc. Anomalous amounts of arsenic occurred in six other samples. Only two samples were considered anomalous in antimony, with an additional five being possibly anomalous.

In general, the anomalous samples occur in either:

1. the gully in the eastern portion of the claim block;
2. the gully in the northwestern part of the property;
or
3. in the southwestern claim group.

Those samples that are anomalous in one or more elements tend to be concentrated in the eastern gully. The concentration of anomalous samples may in part be an artifact of outcrop exposure or due to selected sampling.

Table 2 : Anomalous Rock Samples

Sample Number	Area	Width (m)	Au (ppb)	Ag (ppm)	Pb (ppm)	Zn (ppm)	As (ppm)	Sb (ppm)
Anomalous Gold and/or Silver								
8745b1030	East Gully	1.0	970	8.8	1704	492	842	5
87421020	East Gully	1.5	890	6.7	211	31	73	3
8745b1034	East Gully	1.2	95	22.1	4061	1661	356	26
8745b2006*	N.W. Gully	-	59	0.5	8	9	42	3
8745b2023*	S.W. Claims	-	56	0.2	15	27	339	8
8745b1036	East Gully	1.0	51	4.3	652	2145	294	6
8745b1035	East Gully	0.5	1	3.2	665	1656	30	2
Anomalous Lead and/or Zinc (Additional to samples above)								
8745b1037	East Gully	0.5	1	1.5	115	487	25	2
8745b1024	S.W. Claims	2.5	1	0.9	100	30	91	8
Anomalous Arsenic and/or Antimony (Additional to samples above)								
8745b2027*	S.W. Claims	-	8	0.2	14	31	3280	36
87422008*	N.W. Gully	-	18	0.3	11	19	145	10
8745b1012	N.W. Gully	0.5	1	0.2	9	22	80	2
87452074*	S.E. Claims	-	5	0.4	30	11	74	2
87421009	N.W. Gully	0.5	9	0.2	29	68	68	3
8745b1033	East Gully	0.05	6	0.2	25	17	54	2
8745b1015	S.W. Claims	1.0	1	0.3	30	23	48	2

*Float Samples

3.2 Stream Sediment Geochemistry

Stream sediment samples were taken from the active portions of creek bed loads on selected creeks as an aid in determining or defining anomalous areas. Only one sample was considered anomalous in gold (Table 3) and one other considered possibly anomalous (Figure 4). Four samples were anomalous in arsenic, and of these, two were also anomalous in silver, lead, zinc and antimony. With the raising of the threshold value for zinc to 150 ppm, the effect of zinc enrichment in the Laberge Group argillites, as inferred by Keyser (1986), decreases the number of anomalous zinc samples to two.

As in the lithogeochemistry, anomalous samples are concentrated in the eastern gully and southwestern claims group. Gold appears to be the best pathfinder for gold.

Table 3 : Anomalous Stream Sediment Samples

Sample Number	Area	Au (ppb)	Ag (ppm)	Pb (ppm)	Zn (ppm)	As (ppm)	Sb (ppm)
87425024	East Gully	275	0.3	25	85	26	2
8745b5026	S.W. Claims	6	0.6	56	186	402	14
8745b5025	S.W. Claims	4	0.6	61	202	277	11
8745b5029	S.W. Claims	5	0.4	30	115	142	7
8745b5028	S.W. Claims	3	0.3	24	113	111	6

3.3 Talus Fines Geochemistry

Talus fine samples were collected by hand from small pits dug in finer sediment accumulations on talus slopes. No samples were considered anomalous, although 8745b6011 was possibly anomalous in silver, 8745b6013

was possibly anomalous in silver and zinc and 8745b6013 was possibly anomalous in zinc. All of these samples are from the gully in the northwestern area of the property.

3.4 Soil Geochemistry

One soil sample was collected from the BK horizon of a gossanous soil over a shear(?) in the eastern gully. It was not anomalous in any elements.

4.0 GEOPHYSICAL EXPLORATION

Three VLF-EM test lines totalling 2.5 km were run adjacent to the TB and MON claims boundary in the southeast corner of the Afi claim group. A GEONICS EM-16 unit was used for the survey, with 25 m spacing between stations on the initial line and 50 m spacings on subsequent lines. Seattle was selected as the transmitter station, as it represented a strong signal roughly perpendicular to the general trend of the known veins in the Montana Mountain area. The inphase data readings were filtered and contoured in accordance with the method outlined by Fraser (1969). All results are plotted on Figure 6.

The contoured VLF data show several distinct crossovers:

Baseline/O+85N, 4+50N, 5+30N, 6+75N, 7+50N and 8+00N;

8+50N/O+25W, 1+80E, 6+00E.

Quadrature tends to follow the inphase trend (positive quadrature) suggesting that the electromagnetic sources are poorly conductive shears or faults. The overall influence of topography on the data is unknown.

The strong, steep-shouldered, negative trough centered on 4+70N roughly corresponds with an air photo lineament, and as such may represent a conductive shear zone. The anomalies centered on 7+20N and 8+50N trend east-west and northeast-southwest respectively and may represent the intersection of two structures. As these

two anomalies occur at the junction of two creek gullies they may be topographic artifacts rather than true anomalies. A high positive peak centered at 4+25E corresponds to a 1985 gold, lead, zinc, arsenic soil geochemistry anomaly. The angle of the crossover suggests that the source may be weakly conductive shear, possibly hosting, mineralized veins. Further VLF-EM surveying using both Seattle and Cutler, Maine; or Hawaii, is recommended for next year with the addition of survey lines to the north and west.

5.0 DISCUSSION

5.1 Eastern Gully

The majority of the anomalous geochemical samples occur in the 'eastern gully', and correspond with alteration and veining in the quartz monzonites. High litho-geochemical values of gold are all associated with high arsenic values. This suggests that gold is associated with arsenopyrite in the shears and veins, and that arsenic is useful as a pathfinder element for gold mineralization. Mineralogy of the veins/shears, as implied by the geochemistry, is variable with some being either galena (Pb), sphalerite (Zn) or arsenopyrite (As)-rich and possibly tetrahedrite (Sb, As)-bearing. Similar mineralogies are documented by Roots (1981) for economic mineral deposits to the south of the gully.

The source of one anomalous stream sediment (8725024) is unknown. In this sample the high gold value is not associated with any other anomalous element, suggesting that native gold may be present in the veins or shears.

Mineralization appears to be structurally controlled as all the anomalous gold samples are associated with hematite, Fe oxide, carbonate, carbonate, clay and/or sericite altered shears (with or without contained quartz veins). Trends on the shears and veins correspond with trends of mineralized veins southeast of the property.

Textures and geochemistry of the veins suggest that they may have developed within the silica cap or down into the boiling level at the margins of an epithermal system. Soil geochemistry anomalies, from 1985, suggest

that the system may continue to the south and east. A more detailed soil geochemistry survey, and further mapping is required to better define the anomalies.

5.2 Southwestern Claim Group

Chalcedonic + carbonate breccias and veins within the Laberge Group sediments in the region may indicate the potential for epithermal style mineralization. Arsenic* values within the area are elevated as are antimony* and occasionally lead, zinc and silver. The elevated levels are believed to correspond to hydrothermal fluid influxes rather than sediment enrichment. Gold* values, including those from 1985 work, although not high (up to 56 ppb) suggest some enrichment within the hydrothermal system. Therefore a detailed soil grid, further mapping and possibly a VLF-EM survey are recommended for next year.

5.3 Other Areas

The gully in the northwestern portion of the claims, although anomalous in many elements and possibly gold, may be of little economic significance. Gold values correspond with aplite dyke and breccia float, and thus may be difficult to trace to source. A pair of east-west and north-south geochemical test lines with 25 m station spacing could be run to determine if the area warrants further work.

Geophysical survey results from the southeastern corner of the property are encouraging. The presence of both high positive and negative anomalies suggest that the

*These elements were also anomalous in the GSC (1985) regional geochemistry survey.

VLF survey can be useful in delineating unexposed structures within the area. In particular the correlation of a VLF high with the 1985 geochemistry anomaly suggests mineralized zones may be detected by VLF-EM. Therefore, further VLF-EM survey work over all geochemical anomalies is recommended for next year.

6.0 CONCLUSION

The Afi 37-126 claim group is underlain by a thick succession of lower Jurassic Laberge Group sediments which have been intruded by early Tertiary quartz monzonites, granodiorites and granites. Middle or late Cretaceous(?) rhyolite to felsite and andesite porphyry dykes possibly belonging to the Mount Nansen Group, were emplaced in the Mesozoic strata. Upper Jurassic Lewes River Group volcanic rocks are exposed on the southwest corner of the property. Economic gold-silver deposits including the past producing Venus and Pride of Yukon mines and numerous other showings are indicative of the mineral potential of the area.

Anomalous gold and silver values, up to 970 ppb AU and 22.1 ppm Ag, occur in sheared, variably altered and quartz veined quartz monzonites in an eastern gully. Lead, zinc, arsenic and antimony values are also anomalous in the same area. Arsenic and occasionally zinc, antimony, gold and silver are anomalous in the southwestern claims group area. Both areas have rock lithologies and geochemical signatures indicative of epithermal type hydrothermal systems.

VLF-EM geophysical surveying located several anomalies, one of which coincides with a 1985 soil geochemistry anomaly. As only three test lines were run the extent and nature of these anomalies remains undetermined. However, precious metal mineralization is known on the adjoining ground so the potential for finding mineralized zones is good.

7.0 RECOMMENDATIONS

Results of the 1987 exploration program on the Afi 37-126 claims are encouraging and warrant additional work. It is recommended that further work include:

Afi 45-126

1. Detailed gridded soil geochemistry, at a station spacing of 25 x 100 meters over areas of anomalous 1985 and 1987 results, and fill in areas not covered in 1985. The main area of interest is the eastern gully.
2. VLF-EM surveying over the same gridded areas using two transmitter stations (Seattle and Cutler or Hawaii) 12.5 meter station spacing and possibly intermediate fill-in lines to delineate smaller conductors. Surveying should include the southeastern claim group.
3. Further mapping (1:5000) and prospecting over anomalous grid areas, and areas not covered in 1985 and 1987.
4. Road construction and cat trenching, to fulfill physical work assessment requirement, over geochemical and/or geophysical anomalies outlined by the above surveys.

Afi 37-44

1. Regional 1:5000 mapping and sampling with emphasis placed on determining the source of previously outlined geochemical anomalies.

2. Follow up geochemical survey over interesting areas with a 25 x 100 meters or 50 x 100 meters grid spacing.
3. Follow up 1:2000 or 1:1000 detailed mapping and sampling over anomalous areas delineated in the above surveys.
4. VLF-EM survey over the soil grid using 12.5 meter spacing between stations.

The program should commence in mid to late July in order to take advantage of minimal snow cover.

Respectfully submitted,



October 11, 1987

Hugh F. MacKinnon, B.Sc.

8.0 REFERENCES

- Fraser, D.C., 1969. Contouring of VLF-EM data. *Geophysics*, Vol. 34, No. 6, p. 958 - 967
- GSC, 1985. Stream Sediment and Water Geochemical Survey Southern Yukon Territory, Map 83-1985. GSC Open File 1218.
- Keyser, H.J., 1986. Geological, Geochemical and Air Photo Interpretation Report on the Afi 45-182 claims, Whitehorse, M.D., Yukon. For Omni Resources Inc., 16 pp.
- Roots, C.F., 1981. Geological setting of Gold-Silver veins on Montana Mountain : In Yukon Geology and Exploration 1979-80, Geology Section, Department of Indian and Northern Affairs, Whitehorse, Y.T., p. 116 - 122.
- Wheeler, J.O., 1961. Whitehorse Map Area, Yukon Territory 105D. Geological Survey of Canada, Memoir 312, 156 pp.

LEGEND :

QUATERNARY

Q/B Glacial till, moraine, glaciofluvial sediments, felsenmeer, talus

LATE CRETACEOUS - EARLY TERTIARY

Coast Range Intrusions

Tgd Coarse to medium grained granodiorite to granite
minor aplite, fine grained granodiorite

Tqm Coarse grained quartz monzonite

MIDDLE OR LATE CRETACEOUS

Mount Nansen Group (?)

K_R Rhyolite to felsite, rhyolite porphyry

K_A Andesite plagioclase porphyry

LOWER JURASSIC

Laberge Group

J_L Layered and interdigitated mixed sediments

J_{Lpc} Polymictic pebble conglomerate with minor greywacke bands

J_{Lpw} Greywacke with minor conglomerate siltstone or argillite

J_{Lsk} Siltstone and argillite with minor greywacke bands

UPPER TRIASSIC

Lewes River Group

Tr_L Mixed mafic volcanics and sediments

--- Geologic contact (observed, assumed, inferred *)

~~~~~ Fault or shear zone (observed, assumed, inferred)

60
270 Fault or shear orientation

60
270 Bedding contact orientation

60
270 Foliation (schistosity) orientation

60
270 Dyke, vein orientation

--- Outcrop outline (where noted)

--- VLF-EM Survey line

--- Approximate claim boundary

▲ Adit, mine site

Sample Number

Symbol

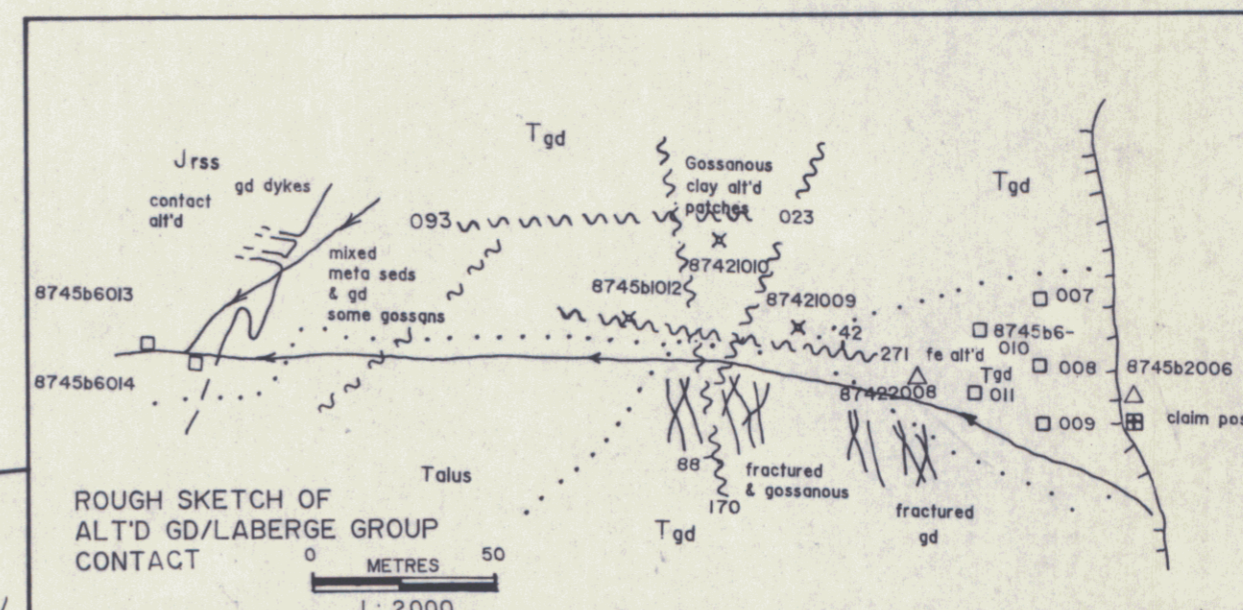
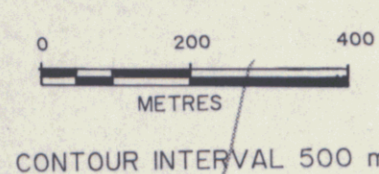
8745b1035
 x Rock (outcrop)
 Δ Rock (float)
 ● Stream sediment
 □ Talus fine
 ○ Soil

ABBREVIATIONS :

gos - gossan chl - chloritization
 bx - breccia sil - silicification
 op - oplite cc - calcite
 a.v. - quartz vein ch - chalcocite
 □ - claim post mal - malachite

* Additional information after Roots (1981), Wheeler (1961)

NOTE: All locations subject to survey



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BRUTE MOUNTAIN

LOCATION MAP

1: 50 000

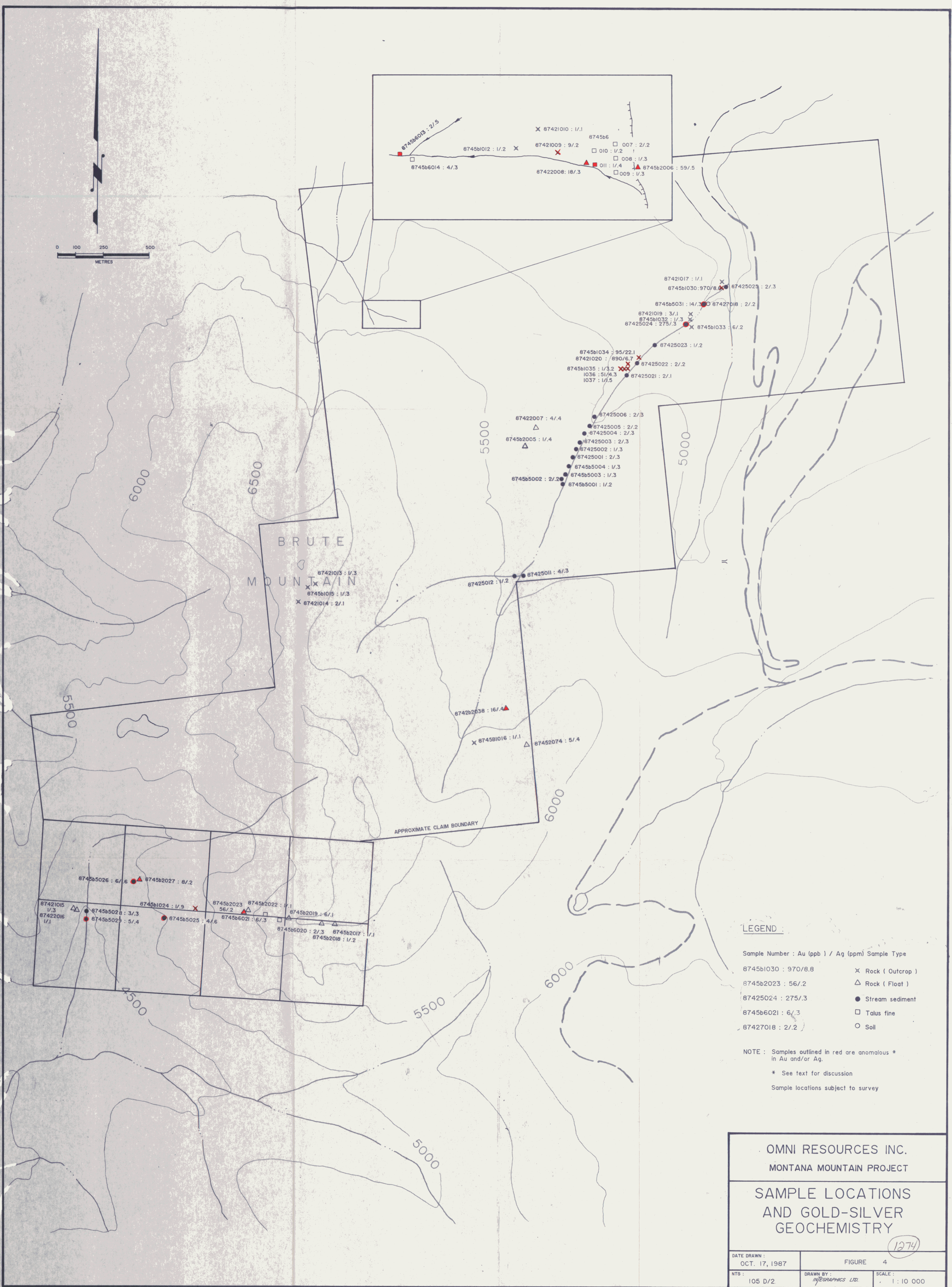
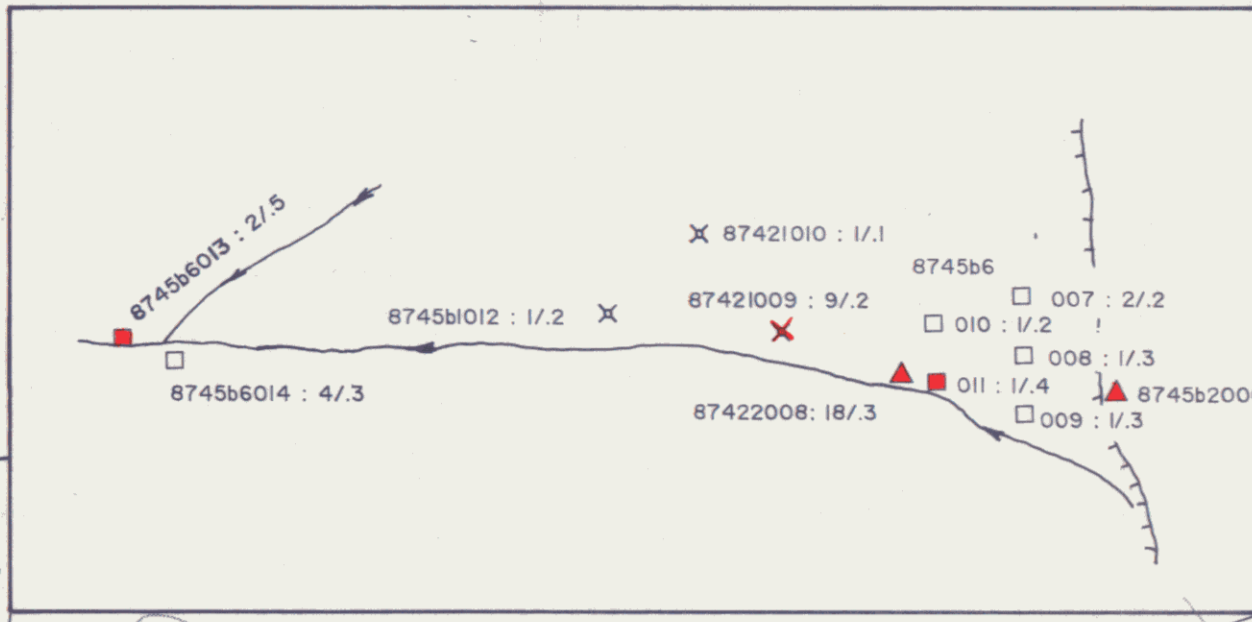
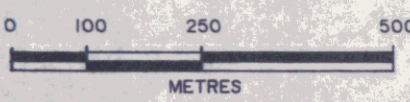
0 km

OMNI RESOURCES INC.
MONTANA MOUNTAIN PROJECT

GENERAL GEOLOGY/
PROSPECTING

DATE DRAWN: OCT. 18, 1987	FIELD WORK: H.M.V.W., A.M.	FIGURE 3
NTS: 105 D/2	DRAWN BY: HYDROGRAPHICS LTD.	SCALE: 1: 10 000

091961



LEGEND

Sample Number : Au (ppb) / Ag (ppm) Sample Type	
8745b030 : 970/8.8	✕ Rock (Outcrop)
8745b2023 : 56/2	△ Rock (Float)
87425024 : 275/3	● Stream sediment
8745b6021 : 6/3	□ Talus fine
87427018 : 2/2	○ Soil

NOTE : Samples outlined in red are anomalous *
in Au and/or Ag.
* See text for discussion
Sample locations subject to survey

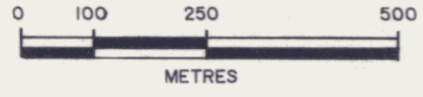
OMNI RESOURCES INC.
MONTANA MOUNTAIN PROJECT

**SAMPLE LOCATIONS
AND GOLD-SILVER
GEOCHEMISTRY**

(1274)

DATE DRAWN : OCT. 17, 1987	FIGURE : 4
NTS : 105 D/2	SCALE : 1 : 10 000

091961



BRUTE MOUNTAIN

APPROXIMATE CLAIM BOUNDARY

LEGEND :

- Anomalous Sample *
 - Pb

4061	1661
356	26

 Zn
 - As

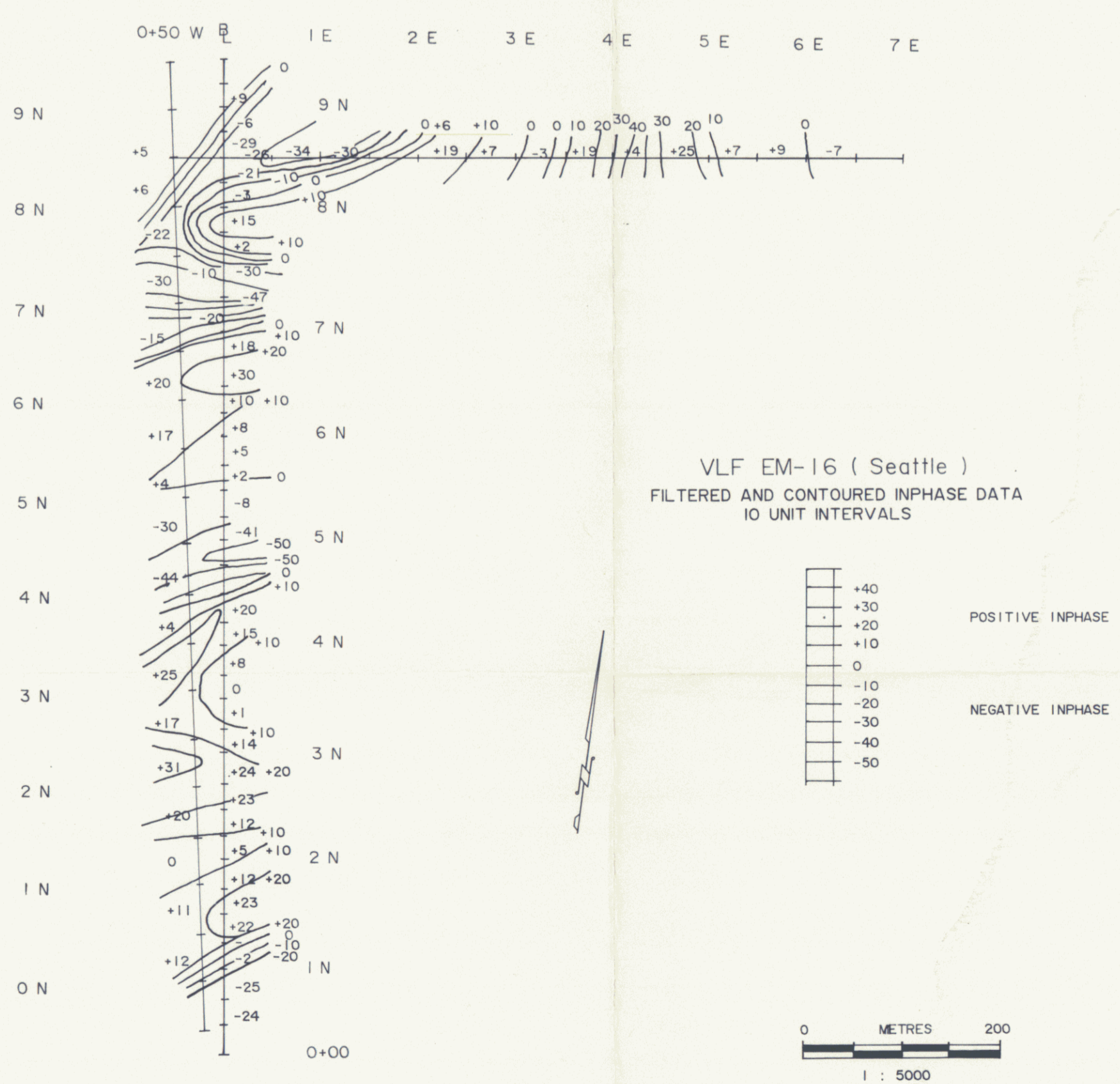
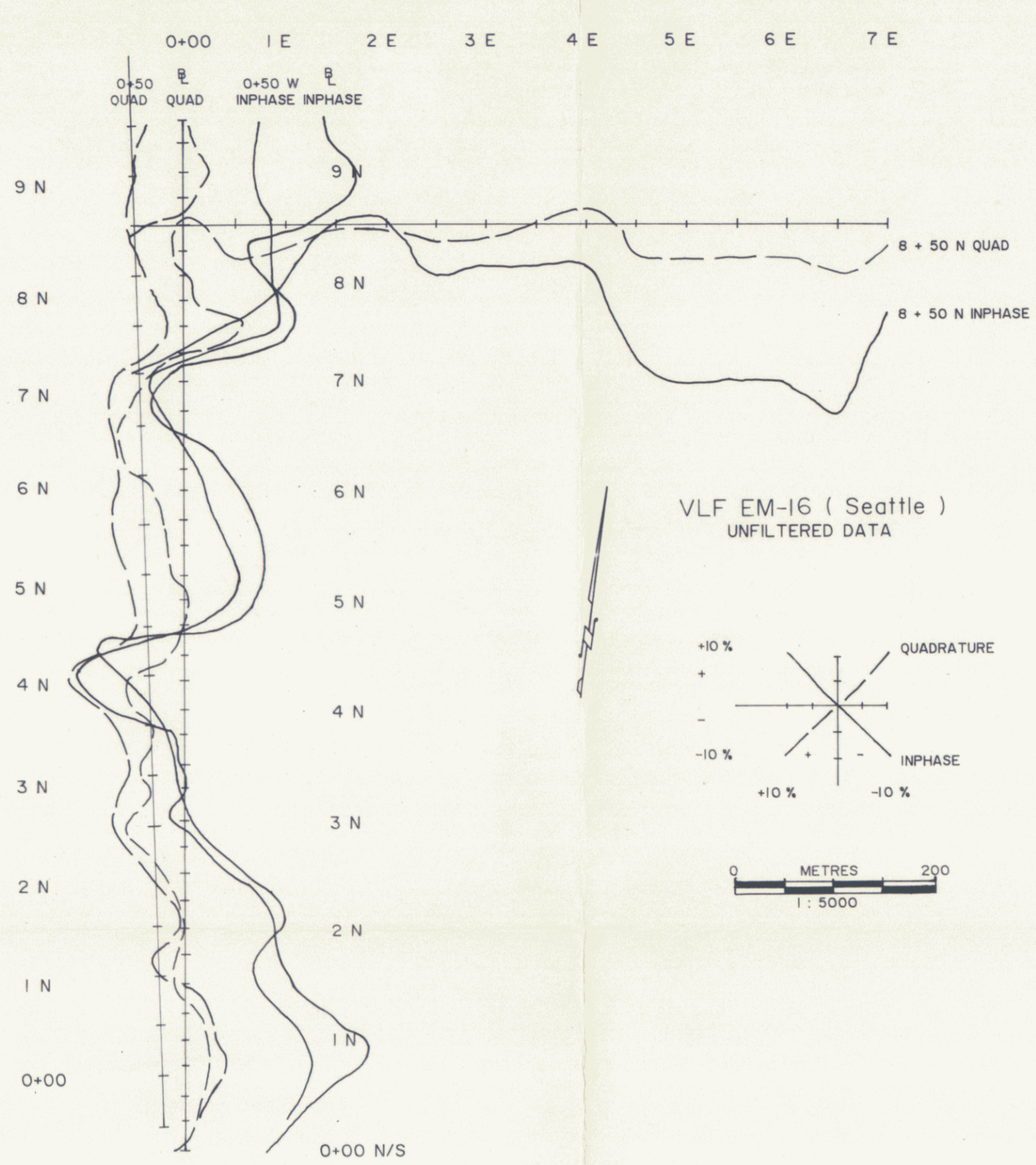
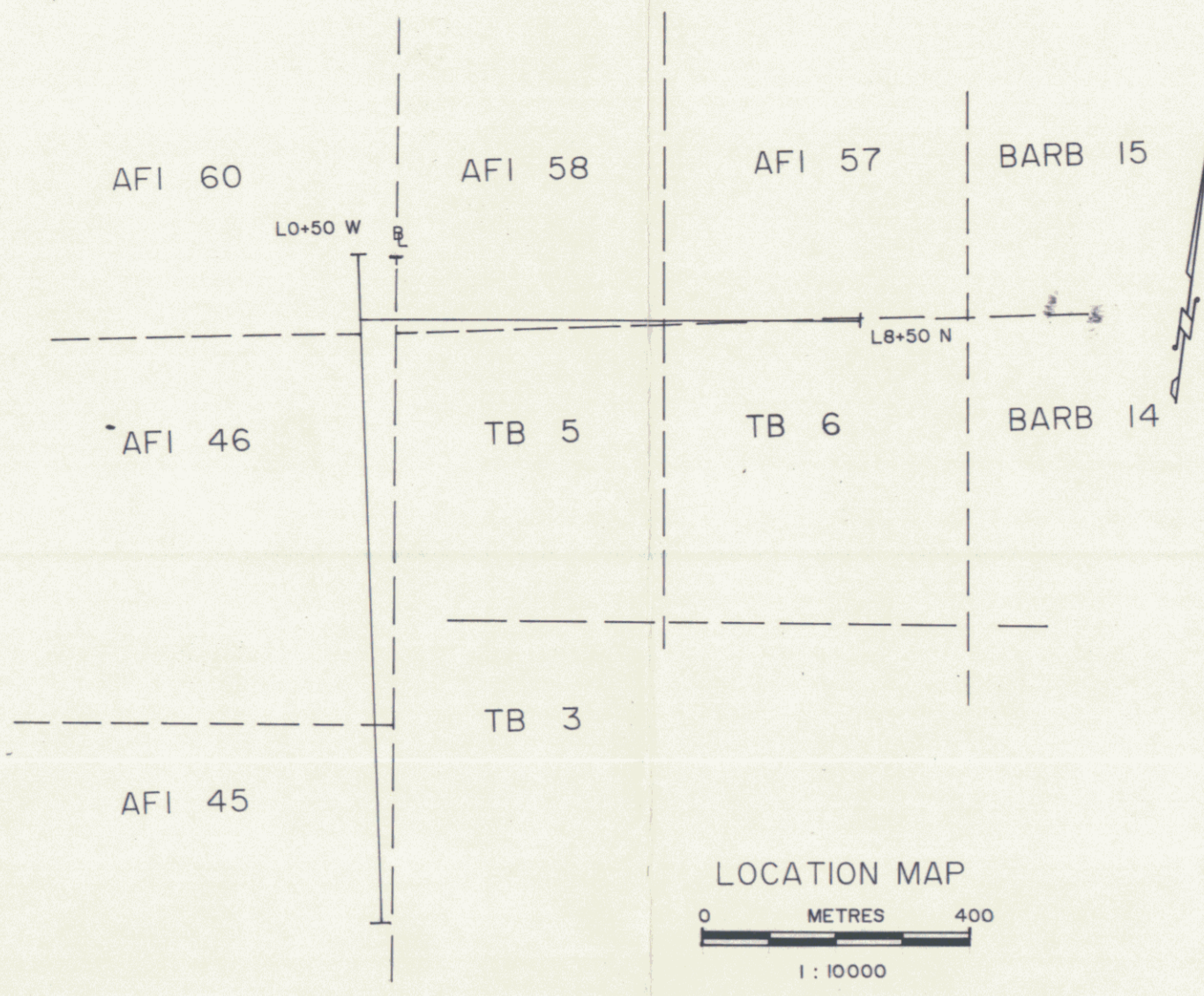
356	26
-----	----

 Sb
- All values in ppm

* NOTE : See text for discussion

OMNI RESOURCES INC.		
MONTANA MOUNTAIN PROJECT		
ANOMALOUS GEOCHEMICAL SAMPLES : Pb, Zn, As, Sb		
<i>(1273)</i>		
DATE DRAWN : OCT. 17, 1987	FIGURE 5	
NTS : 105 D/2	DRAWN BY : M/EGRAPHICS LTD.	SCALE : 1 : 10 000

091961



OMNI RESOURCES INC.
MONTANA MOUNTAIN PROJECT

VLF EM-16 SURVEY
AFI 45,46,57,58,60

(1271)

DATE DRAWN : OCT. 13, 1987	FIGURE 6
NTS : 105 D/2	FIELD WORK : H.M., A.M. Sept. 1987

091961

APPENDIX A

SAMPLE DESCRIPTIONS AND RESULTS

APPENDIX A
ROCK SAMPLE LOCATION AND DESCRIPTION RECORD

SAMPLER: Hugh MacKinnon

DATE: August 1987

PROJECT: Montana Mountain

AREA: Bennett Lake, Yukon

PAGE 1 of 6

SAMPLE NO.	LOCATION	DESCRIPTION	ATTITUDE	WIDTH	ANALYTICAL RESULTS					
					Pb	Zn	Ag	As	Sb	Au
8745b5001	Below geochem anomaly AFI	Stream sediment samples 50 m spacing			24	104	.2	33	2	1
8745b5002	99 100				20	78	.2	16	2	2
8745b5003	58 57				25	109	.3	24	2	1
8745b5004					29	104	.3	29	2	1
8745b2005	Geochem anomaly area AFI 99	Rusty weathered, mauve fresh, v. fn grained, siliceous, with thin 0.5 mm units with diss py. Sericitic alt'n around units. Meta-greywacke			26	96	.4	7	2	1
8745b2006	At AFI 89 90 87 88	Leucogranodiorite with weak graphitic texture; med. grained with elongate brown striated xtals			See sheet 30 element geochem Au <u>59</u>					
8745b6007	AFI 89 Top of	Talus fines over alt'd			17	52	.2	4	3	2
8745b6008	alt'd gully	granodiorite (Fe alt'd			18	68	.3	6	2	1
8745b6009		and bleached)			15	55	.3	4	2	1
8745b6010					16	64	.2	2	2	1
8745b6011					15	58	.4	4	2	1

APPENDIX A
ROCK SAMPLE LOCATION AND DESCRIPTION RECORD

SAMPLER: Hugh MacKinnon
DATE: August 1987

PROJECT: Montana Mountain

AREA: Bennett Lake, Yukon

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SAMPLE NO.	LOCATION	DESCRIPTION	ATTITUDE	WIDTH	ANALYTICAL RESULTS					
8745b1012	AFI 89 Gully	Saccharoidal textured leuco-granodiorite (?). Rusty weathered tr py.	35 218		Pb	Zn	Ag	As	Sb	Au
					9	22	.2	80	2	1
8745b6013	AFI 89 Gully	Talus fines at meta-sediment contact and below gully branch contact 014 013			21	119	.5	14	2	2
8745b6014	AFI 89 Gully				22	121	.3	28	5	4
8745b1015	AFI 62	Rusty to buff grey weathered, v. fn. grained; weak to conchoidal fracture; siliceous; purple to grey fresh, tr. v. fn. gr. py; alt'd greywacke in pebble conglomerate	steep 194		13	39	.3	2	5	1
8745b1016	AFI 45	Buff white weathered, whitish grey to white fresh, hard, 5% chlorite spots, 1% to tr needles of rutite (?); bleached silicified and chloritized rhyolite porphyry. May be a quartzite?			6	11	.1	5	2	1

APPENDIX A
ROCK SAMPLE LOCATION AND DESCRIPTION RECORD

SAMPLER: Hugh MacKinnon
DATE: August 1987

PROJECT: Montana Mountain

AREA: Bennett Lake, Yukon

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SAMPLE NO.	LOCATION	DESCRIPTION	ATTITUDE	WIDTH	ANALYTICAL RESULTS					
8745b2017	AFI 37. Top of fine talus gully	8 cm saccharoidal to chalcedonic q.v. float. Weakly banded with weak to mod. carbonatization. White qtz with 2nd generation grey qtz vnlt.s. Slightly vuggy with wad staining. From pebble conglomerate.		8 cm	Pb 5	Zn 9	Ag .1	As 3	Sb 2	Au 1
8745b2018	AFI 37, top of fine talus gully	6 cm qtz-siltstone bx; angular breccia fragments.		6 cm	13	35	.2	10	2	1
8745b2019	AFI 37	Chalcedonic and saccharoidal qtz breccia in coarse pebble conglomerate, tr py.			15	36	.1	15	2	6
8745b6020	AFI 39	Talus fines, above and in chloritized pebble conglomerate, with breccia float.			15	77	.3	24	2	2
8745b6021					14	100	.3	15	2	6
8745b2022	AFI 40/39 boundary	Calcite vein, coarsely xtaline; blds up to 8 cm. Minor chlorite. In shale and greywacke talus.		8 cm	2	2	.1	4	2	1

APPENDIX A
ROCK SAMPLE LOCATION AND DESCRIPTION RECORD

SAMPLER: Hugh MacKinnon
DATE: August 1987

PROJECT: Montana Mountain

AREA: Bennett Lake, Yukon

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SAMPLE NO.	LOCATION	DESCRIPTION	ATTITUDE	WIDTH	ANALYTICAL RESULTS					
8745b2023	AFI 40/39	Chalcedonic, vuggy and xtalline qtz greywacke breccia. Angular fragments Minor limonitic staining.			Pb 15	Zn 27	Ag .2	As <u>339</u>	Sb 8	Au <u>56</u>
8745b1024	AFI 42	Silicified and weakly sericitized and banded rhyolite in shale. Tr-1% py. Scattered qtz vnlt.	80 353 irregular	2-2 1/2 m	<u>100</u>	30	<u>.9</u>	<u>91</u>	8	1
8745b5025	AFI 42. Down- stream from last sample.	Stream sediment.			<u>61</u>	<u>292</u>	<u>.6</u>	<u>277</u>	<u>11</u>	4
8745b5026	AFI 42	Stream sediment.			<u>56</u>	<u>185</u>	<u>.6</u>	<u>402</u>	<u>14</u>	6
8745b2027	AFI 42 as 5026	Chalcedonic qtz rusty shale breccia. Trace py.			14	31	.2	<u>3280</u>	<u>36</u>	8
8745b5028	AFI 44	Stream sediment samples			24	<u>113</u>	.3	<u>111</u>	6	3
8745b5029	AFI 43				30	<u>115</u>	.4	<u>142</u>	7	5
8745b1030	AFI 113. Creek gully	Gossanous and hematite stained qtz monzonite. Trace sulphide v. fn. gr. <1% py. Minor chlori- tization	65 330	1 m	<u>1707</u>	<u>492</u>	<u>8.8</u>	<u>842</u>	5	<u>970</u>

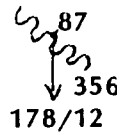
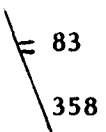

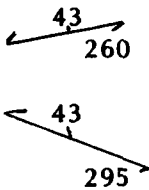
APPENDIX A
ROCK SAMPLE LOCATION AND DESCRIPTION RECORD

SAMPLER: Hugh MacKinnon
DATE: August 1987

PROJECT: Montana Mountain

AREA: Bennett Lake, Yukon

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SAMPLE NO.	LOCATION	DESCRIPTION	ATTITUDE	WIDTH	ANALYTICAL RESULTS					
					Pb	Zn	Ag	As	Sb	Au
8745b5031	AFI 113.	Stream sediment.			32	80	.3	23	3	14
8745b1032	AFI 113.	Cherty, well silicified qtz monzonite fault and slickensides. Slightly hematized.			27	40	.3	7	2	1
8745b1033	AFI 113.	Chalcedonic qtz-hematite breccia with 5-10 mm hematized fragments. Chloritized and hematized coarse gr. qtz monzonite host rock.		3-5 cm w/ 2m alt'n	25	17	.2	<u>54</u>	2	6
8745b1034	AFI 113.	Strongly gossanous; Fe alt'd; strongly sericitized and at centre bleached and vuggy. Moderately silicified. In alt'd coarse gr. qtz monzonite.		1-1.2 m	<u>4061</u>	<u>1661</u>	<u>22.1</u>	<u>356</u>	<u>26</u>	<u>95</u>
8745b1035	AFI 102 (113 boundary) creek gully	Channel samples. Alt'd, vuggy qtz veined coarse gr. qtz monzonite		0-50 cm (50 cm)	<u>665</u>	<u>1696</u>	<u>3.2</u>	30	2	1

APPENDIX A
ROCK SAMPLE LOCATION AND DESCRIPTION RECORD

SAMPLER: Hugh MacKinnon
DATE: August 1987

PROJECT: Montana Mountain

AREA: Bennett Lake, Yukon

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SAMPLE NO.	LOCATION	DESCRIPTION	ATTITUDE	WIDTH	ANALYTICAL RESULTS					
8745b1036	AFI 102 (113 boundary) creek gully	Gossanous band surrounded alt'd, vuggy qtz veined coarse gr. qtz monzonite	43 ← 260	50-150 cm (1 m) ↓	Pb <u>652</u>	Zn <u>2154</u>	Ag <u>4.3</u>	As <u>294</u>	Sb 6	Au <u>51</u>
8745b1037	AFI 102	Alt'd-chloritized, vuggy qtz monz with few q.v., abundant wad.	43 ← 295	150-200 cm (50 cm)	<u>115</u>	<u>487</u>	<u>1.5</u>	25	2	1
8745b2038	AFI 45	Rusty orange to yellow weathered, white fresh face, 5% 2mm subhedral phenocrysts all silicified in an aphanitic matrix. Silicified rhyolite porphyry.	12° trend to float		14	12	.4	26	3	<u>16</u>
87452074	AFI 45	White with rusty weathering silicious v. fn gr. rhyolite float; minor pale yellow (clay alt'd) phenos.			30	11	.4	74	2	5

APPENDIX A
ROCK SAMPLE LOCATION AND DESCRIPTION RECORD

SAMPLER: Marco Van Wermeskerken
 DATE: August 1987 PROJECT: Montana Mountain (Afi) AREA: Bennett Lake, Yukon PAGE 1 of 4

SAMPLE NO.	LOCATION	DESCRIPTION	ATTITUDE	WIDTH	ANALYTICAL RESULTS					
					Pb	Zn	Ag	As	Sb	Au
87425001		Stream sediment samples			35	95	.3	28	2	2
87425002					27	94	.3	31	2	1
87425003					31	94	.3	32	3	2
87425004					25	93	.3	28	2	2
87425005					34	97	.2	31	2	2
87425006					28	94	.3	26	2	2
87425007		Float. Very siliceous dark grey very fine grained sed. (Chert, shale?) 10% V.F.S. dissemin. py. Gossanous (dk. red-brown).			23	47	.4	3	4	4
87422008		Float. Very leached and altered (FeO, ser.) Breccia. Quartz matrix. Subangular clasts (<1/2 cm) Leached out and replaced by dk. brown. Soft limonite. Siliceous black slicks.			11	19	.3	145	10	18
87421009		Shear. Fault gauge. Footwall very gossanous (GD.) with some clay alt. Fragments of GD. and qtz. vein <2 cm.	279/42	50 cm	29	68	.2	68	3	9

APPENDIX A
ROCK SAMPLE LOCATION AND DESCRIPTION RECORD

SAMPLER: Marco Van Wermeskerken

DATE: August 1987

PROJECT: Montana Mountain (Afi)

AREA: Bennett Lake, Yukon

PAGE 2 of 4

SAMPLE NO.	LOCATION	DESCRIPTION	ATTITUDE	WIDTH	ANALYTICAL RESULTS					
					Pb	Zn	Ag	As	Sb	Au
87421010		Shear. Fault gauge N. wall seds. W. QD. dykes <1 m. (336/52) S. wall QD.	Trends 093	50 cm.	14	92	.1	12	4	1
87425011		Stream sediment.			27	107	.3	30	3	4
87425012			28	104	.2	14	2	1		
87421013		Quartz lens in plag ppy.- congl. contact. Strike length 10 m. Vuggy. TRC: py. chalcocite malch. (blebs) H.W. plag ppy. F.W. Congl.	203/43	0-10 cm	14	64	.3	15	10	1
87421014		Gossanous QD. (Fine grained). \swarrow 10% F.G. dissem. pyrite. QD. dissects seds. 1-3% EP. ABDT. FeO.	332/84 E	4 m	11	57	.1	22	2	2
87421015		V. siliceous quartzite. No visible texture. 1% F.G. EUH. Dissem. py. MnO dendrites and surface coating. Some epidote.	235/60	1 m	30	23	.3	48	2	1

APPENDIX A
ROCK SAMPLE LOCATION AND DESCRIPTION RECORD

SAMPLER: Marco Van Wermeskerken

DATE: August 1987

PROJECT: Montana Mountain (Afi)

AREA: Bennett Lake, Yukon

PAGE 3 of 4

SAMPLE NO.	LOCATION	DESCRIPTION	ATTITUDE	WIDTH	ANALYTICAL RESULTS					
87422016		Rounded clasts of very siliceous (GD?) in carbonate matrix. Qtz. stringers through clasts. Matrix v. gossanous (orange).			Pb	Zn	Ag	As	Sb	Au
					19	61	.1	13	9	1
87421017		V. sheared qtz. monzonite. Abdt. hem. altn → staining and clay altn. Non linear. Adjacent to S#874561030 (fault breccia). Qtz. and cct. fracture filling. Abdt. gauge.		↖ 3 m	11	31	.1	2	2	1
87427018		Gossanous (orange) soil. Clasts of sil. Gd. (or qtz. monz?). Some gauge.	↖ 114/80	80 cm	29	58	.2	18	2	2
87421019		Leached silica cap. Tabular barite w. drusy quartz coating. Very vuggy. 1% py. boxwork. Slightly ylw-white gossan. S.L. ↖ 10 m.	171/58	1 m	2	12	.1	18	2	3

**APPENDIX A
ROCK SAMPLE LOCATION AND DESCRIPTION RECORD**

SAMPLER: Marco Van Wermeskerken

DATE: August 1987

PROJECT: Montana Mountain (Afi)

AREA: Bennett Lake, Yukon

PAGE 4 of 4

SAMPLE NO.	LOCATION	DESCRIPTION	ATTITUDE	WIDTH	ANALYTICAL RESULTS					
					Pb	Zn	Ag	As	Sb	Au
87421020		Several gossanous qtz. veins <2 cm through qtz. monz. Hem. limonite stain. Slightly leached. Py. boxwork 1% strike length $\sqrt{25}$ m.	242/23	1.5 m	<u>211</u>	31	<u>6.7</u>	<u>73</u>	3	<u>890</u>
87425021		Stream sediments.			26	87	.1	27	2	2
87425022			25	93	.2	25	2	2		
87425023			25	91	.2	26	2	1		
87425024			25	85	.3	26	2	<u>275</u>		
87425025			29	92	.3	25	2	<u>2</u>		

APPENDIX B

ANALYTICAL REPORTS

ACME ANALYTICAL LABORATORIES
852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6
PHONE 253-3158

DATE RECEIVED: SEPT 5 1987

DATA LINE 251-1011 DATE REPORT MAILED:

Sept. 16/87.

GEOCHEMICAL ICP ANALYSIS

.500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG.C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER. THIS LEACH IS PARTIAL FOR MN FE CA P LA CR MG BA TI B W AND LIMITED FOR NA AND K. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: P1-SS P2-TALUS P3-SOIL P4 TO P5-ROCK AU* ANALYSIS BY AA FROM 10 GRAM SAMPLE.

ASSAYER: *D. Toye*. DEAN TOYE, CERTIFIED B.C. ASSAYER

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SAMPLE#	PB PPM	ZN PPM	AG PPM	AS PPM	SB PPM	AU* PPB
87425001	35	95	.3	28	2	2
87425002	27	95	.3	31	2	1
87425003	31	94	.3	32	3	2
87425004	25	93	.3	28	2	2
87425005	34	97	.2	31	2	2
87425006	28	94	.3	26	2	2
87425011	27	107	.3	30	3	4
87425012	28	104	.2	14	2	1
87425021	26	87	.1	27	2	2
87425022	25	93	.2	25	2	2
87425023	25	91	.2	26	2	1
87425024	25	85	.3	26	2	275
87425025	29	92	.3	25	2	2
8745b5001	24	104	.2	33	2	1
8745b5002	20	78	.2	16	2	2
8745b5003	25	109	.3	24	2	1
8745b5004	29	104	.3	29	2	1
8745b5025	<u>61</u>	202	<u>.6</u>	277	<u>11</u>	4
8745b5026	<u>56</u>	186	<u>.6</u>	402	<u>14</u>	6
8745b5028	24	<u>113</u>	.3	111	<u>6</u>	3
8745b5029	30	115	.4	142	7	5
8745b5031	32	80	.3	23	3	14
STD C/AU-S	41	132	7.1	40	17	52

SAMPLE#	PB PPM	ZN PPM	AG PPM	AS PPM	SB PPM	AU* PPB
8745b6007	17	52	.2	4	3	2
8745b6008	18	68	.3	6	2	1
8745b6009	15	55	.3	4	2	1
8745b6010	16	64	.2	2	2	1
8745b6011	15	58	.4	4	2	1
8745b6013	21	119	.5	14	2	2
8745b6014	22	121	.3	28	5	4
8745b6020	15	77	.3	24	2	2
8745b6021	14	100	.3	15	2	6
STD C/AU-S	40	130	7.1	42	17	49

SAMPLE#	PB PPM	ZN PPM	AG PPM	AS PPM	SB PPM	AU* PPB
87427018	29	58	.2	18	2	2

SAMPLE#	FB PPM	ZN PPM	AG PPM	AS PPM	SB PPM	AU* PPB
87421009	29	68	.2	<u>68</u>	3	<u>9</u>
87421010	14	92	.1	<u>12</u>	4	1
87421013	14	64	.3	15	<u>10</u>	1
87421014	11	57	.1	22	2	2
87421015	30	23	.3	48	2	1
87421017	11	31	.1	2	2	1
87421019	2	12	.1	18	2	3
87421020	<u>211</u>	31	<u>6.7</u>	73	3	<u>890</u>
87422007	23	47	.4	<u>3</u>	4	<u>4</u>
87422008	11	19	.3	<u>145</u>	<u>10</u>	<u>18</u>
87422016	19	61	.1	13	9	1
8745b1012	9	22	.2	<u>80</u>	2	1
8745b1015	13	39	.3	<u>2</u>	5	1
8745b1016	6	11	.1	5	2	1
8745b1024	<u>100</u>	30	<u>.9</u>	<u>91</u>	8	1
8745b1030	1707	492	<u>8.8</u>	<u>842</u>	5	<u>970</u>
8745b1032	27	40	.3	7	2	1
8745b1033	25	17	.2	<u>54</u>	2	6
8745b1034	4061	1661	22.1	<u>356</u>	<u>26</u>	<u>95</u>
8745b1035	665	<u>1656</u>	3.2	<u>30</u>	2	1
8745b1036	652	2154	4.3	294	6	<u>51</u>
8745b1037	115	487	1.5	25	2	1
8745b2005	26	96	.4	7	2	1
8745b2017	5	9	.1	3	2	1
8745b2018	13	35	.2	10	2	1
8745b2019	15	36	.1	15	2	6
8745b2022	2	2	.1	4	2	1
8745b2023	15	27	.2	<u>339</u>	<u>8</u>	<u>56</u>
8745b2027	14	31	.2	<u>3280</u>	<u>36</u>	<u>8</u>
STD C/AU-R	41	131	7.1	38	17	<u>480</u>

SAMPLE#	MO PPM	CU PPM	PB PPM	ZN PPM	AG PPM	NI PPM	CO PPM	MN PPM	FE %	AS PPM	U PPM	AU PPM	TH PPM	SR PPM	CD PPM	SB PPM	BI PPM	V PPM	CA %	P %	LA PPM	CR PPM	MG %	BA PPM	TI %	B PPM	AL %	MA %	K %	N PPM	AU# PPB
8745b2006	1	5	8	9	.5	2	1	197	.90	42	10	ND	33	2	1	3	2	4	.03	.002	26	1	.02	5	.01	4	.25	.06	.10	4	59

APPENDIX C
STATEMENT OF QUALIFICATIONS

I, HUGH FRANCIS MACKINNON, hereby certify that:

1. I am a geologist with OMNI Resources Inc. of 706, 595 Howe Street, Vancouver, British Columbia, and that I caused to be performed the work described in this report.
2. I am a graduate of Carleton University, Ottawa, Ontario, with a Bachelor of Science degree with Honours in Geology obtained in 1986.
3. I have been practising my profession on a full and part time basis in Canada for seven (7) years.

Dated this 11th day of October, 1987, Whitehorse, Yukon.



Hugh F. MacKinnon, B.Sc.

APPENDIX D
STATEMENT OF COSTS

Labour Costs:

H. MacKinnon, 7 days field work, 11 days data compilation, drafting and report writing: 18 days at \$90/Day	\$1620.00
M. Van Wermeskerken, 4 days field work at \$100/Day	400.00
A. Montgomery, 3 days field work at \$100/Day	<u>300.00</u>
Total Labour Costs	<u>\$2320.00</u>

Analytical Costs:

Analyses by ACME Analytical of Vancouver, B.C.

Rock Samples: 31 sample analyses for Pb,Zn,As,Sb,Ag and Au by A.A.:	
31 samples at \$11.00/Sample	\$ 356.50
1 sample analysed for 30 elements by ICP with Au by A.A.:	
1 sample at \$10.25/Sample	10.25
Stream Sediment Samples: 22 samples for Pb,Zn,As,Sb,Ag by ICP analyses and Au by A.A.:	
22 samples at \$9.25/Sample	203.50
Talus Fine Samples: 9 samples for Pb,Zn,As, Sb,Ag analyses and Au by A.A.:	
9 samples at \$9.25/Sample	83.25
Soil Sample: 1 sample for Pb,Zn,As,Sb,Ag analyses and Au by A.A.:	
1 sample at \$9.25/Sample	9.25
Sample Shipping: 62 kg at 1.33/kg + delivery (\$87.46) and 6 kg at 22.00/kg + delivery (\$27.00)	
Total Shipping Costs	<u>114.46</u>
Total Analytical Costs	<u>\$ 777.21</u>

STATEMENT OF COSTS continued

Helicopter Costs:

September 10, 1987: Bell 206B charter from
Frontier Helicopters Ltd., Wheaton
River Airstrip - 1.1 hours at
\$450/Hour \$ 495.00

Fuel: 119.9 liters JP-4 at .75/l, 1.1
hours oil at \$3.00/Hour 93.22

Total Helicopter Costs \$ 588.22

Camp Costs:

Vehicle: 7 days at \$60.00/Day \$ 420.00

Gas and Camp Fuel 155.52

Food estimated at \$25.00/Man Day in
the field - 14 Man Days 350.00

Accommodation at Spirit Lake Lodge,
September 10, 11 and 12, 1987 80.00

Expediting: 1 man day at \$90.00/Day 90.00

Total Camp Costs \$1095.52

Report Costs:

Typing: Estimated \$ 150.00

Drafting: Estimated 500.00

Base Map: Underhill and Underhill Invoice
No. 7621 109.00

Photocopying, Binding, Map Copying 2 Reports
Estimated \$20.00/Report 40.00

Total Report Costs \$ 799.00

**Total 1987 Expenditures for Assessment on the
Afi 37-126 claims**

\$5579.95

APPENDIX E
PERSONNEL

Hugh Mackinnon, B.Sc., Omni Resources Inc., 706, 595 Howe Street, Vancouver, B.C. : Project supervision, geological mapping and prospecting, geochemical sampling, geophysical surveying.

Marco Van Wermeskerken, B.Sc., Omni Resources Inc., 706, 595 Howe Street, Vancouver, B.C. : Geological mapping and prospecting, geochemical sampling.

Allan Montgomery, B.Sc., OBI Resource Management Inc., 706, 595 Howe Street, Vancouver, B.C. : Prospecting, geochemical sampling, geophysical surveying.