

GEOLOGICAL SURVEY BRANCH
ASSESSMENT REPORTS

DATE RECEIVED
OCT 25 1996

Assessment Report on Prospecting

PMR 8-14 Claims, Alki Creek Area

Fort Steele Mining Division
British Columbia

082
NTS 089F09E
49°38'N Latitude
116°12'W Longitude

Owner:

Hastings Management Corp.
1000-675 W. Hastings Street
Vancouver, B.C., V6B 1N2

Operator:

Sedex Mining Corp.
Cranbrook Project
3380 Wilks Road
P.O. Box 215
Cranbrook, B.C., V1C 4H7

Report By:

Craig Kennedy, Prospector
2290 DeWolfe Avenue
Kimberley B.C., V1A 1P5

FILMED

GEOLOGICAL SURVEY BRANCH
ASSESSMENT REPORT

October 15, 1996

24,596

WP7 File: Assrpt.1

Cranbrook Field Office

Table of Contents

	<u>Page</u>
1.00 Introduction.....	1
1.10 Location and Access.....	1
1.20 History.....	1
1.30 Property.....	1
1.40 Scope of Present Work.....	1
2.00 Prospecting Data.....	4
2.10 Alki Creek West.....	4
2.20 Alki Creek East, North to Murphy Creek.....	5
2.30 Alki--Murphy Creek North.....	6
3.00 Conclusions.....	7
4.00 Statement of Costs.....	8
5.00 Author's Qualifications.....	8

List of Illustrations

Figure 1.	Location map.....	2
Figure 2.	Claim map.....	3
Figure 3.	Prospecting Map (1:5000 scale).....	(in pocket)
Figure 4.	Prospecting Traverse Map (1:5000 scale).....	(in pocket)

1.00 INTRODUCTION

1.10 Location and Access

The PMR 8-14 mineral claims are located approximately 17 km west of Kimberley, B.C. See the index map (figure 1) for the location of the claims block. The claims are located along Alki Creek, a tributary of the St. Mary River, in the Fort Steele Mining Division on reference map NTS 089F09E and centered near 49°38'N latitude, 116°12'W longitude.

The property is accessed from Highway 3/95 south of Kimberley, up the St. Mary River paved road to St. Mary Lake and then on improved dirt and unimproved logging roads to the mouth of Alki Creek. Most of the property can be reached only by foot or helicopter support to the top of Alki or Murphy Creek.

1.20 History

The PMR 8-14 claims surround Crown Grant Claims Lots 4058, 4059 and 7213 which were staked over copper mineralization associated with gabbro intrusives. Cominco has done prospecting and drilling on the Clair claims to the west.

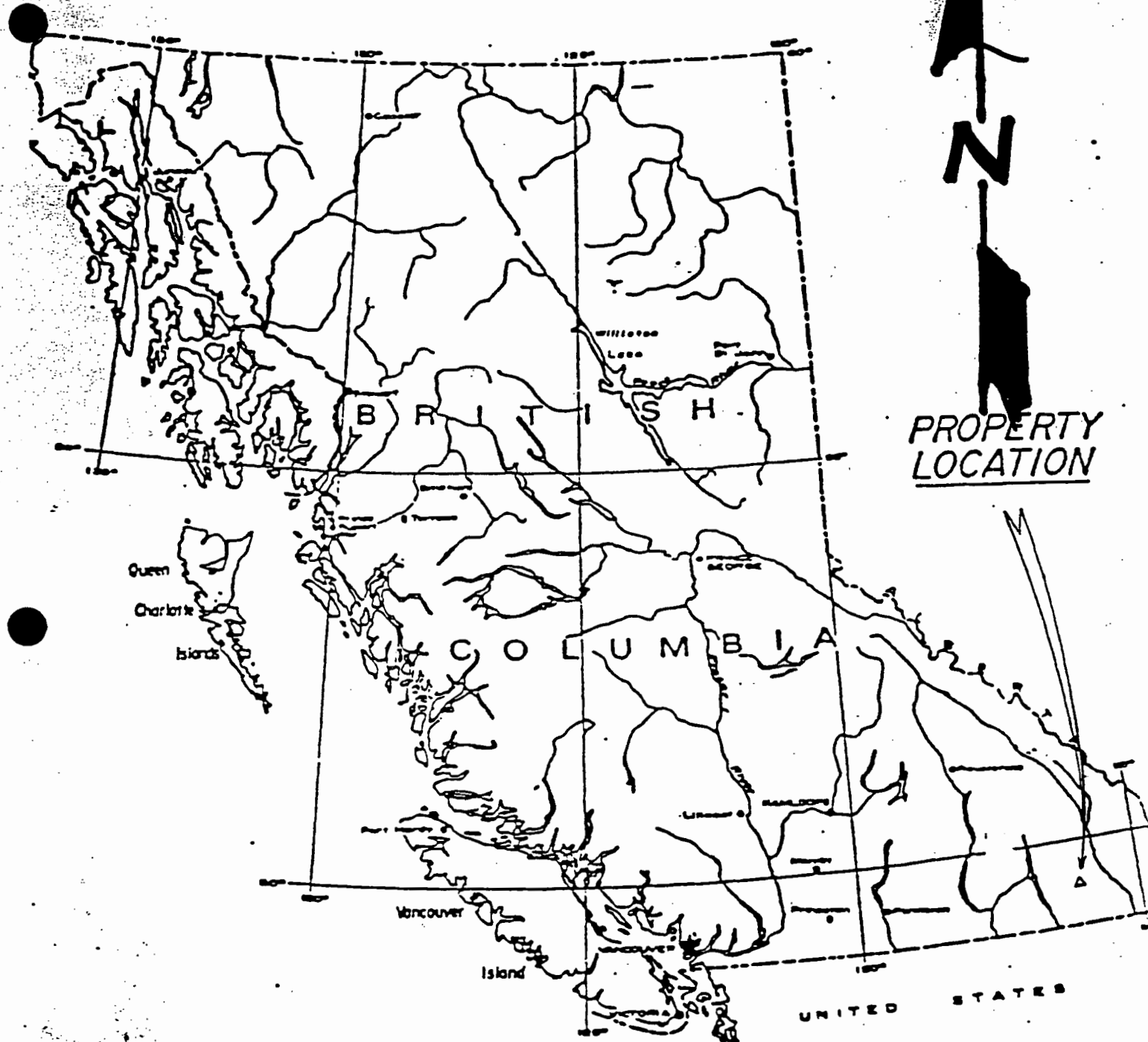
1.30 Property

The PMR 8-14 claims (figure 2) are a contiguous block of claims owned by Abitibi Mining Corp., 1000-675 West Hastings Street, Vancouver, B.C. with the following subdivision:

<u>Claim Name</u>	<u>Tenure No.</u>	<u>No. Units</u>	<u>Current Expiry Date</u>
PMR-8	338368	9	24-Jul-96
PMR-9	338369	16	26-Jul-96
PMR-10	338370	8	26-Jul-96
PMR-11	338373	1	24-Jul-96
PMR-12	338374	1	24-Jul-96
PMR-13	338375	1	25-Jul-96
PMR-14	338376	1	25-Jul-96

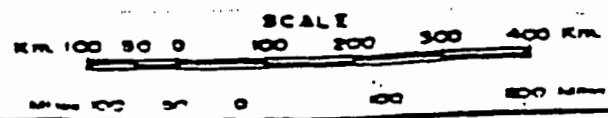
1.40 Scope of Present Work

The objective of the 1996 prospecting program was to establish a reconnaissance level 1:5000 scale geologic map of the area consisting of the major rock types, stratigraphic units and structures while noting any mineralization that might be found. Prospectors Craig Kennedy, Tom Kennedy and Mike Kennedy each spent 7-days in the area between June 1 and July 22, 1996 collecting samples and recording geologic data on maps. A prospecting map (figure 3, in pocket) and a traverse map (figure 4, in pocket) at 1:5000 scale is a summary of the work.



PROPERTY LOCATION

Figure 1
LOCATION MAP



16°15'00"

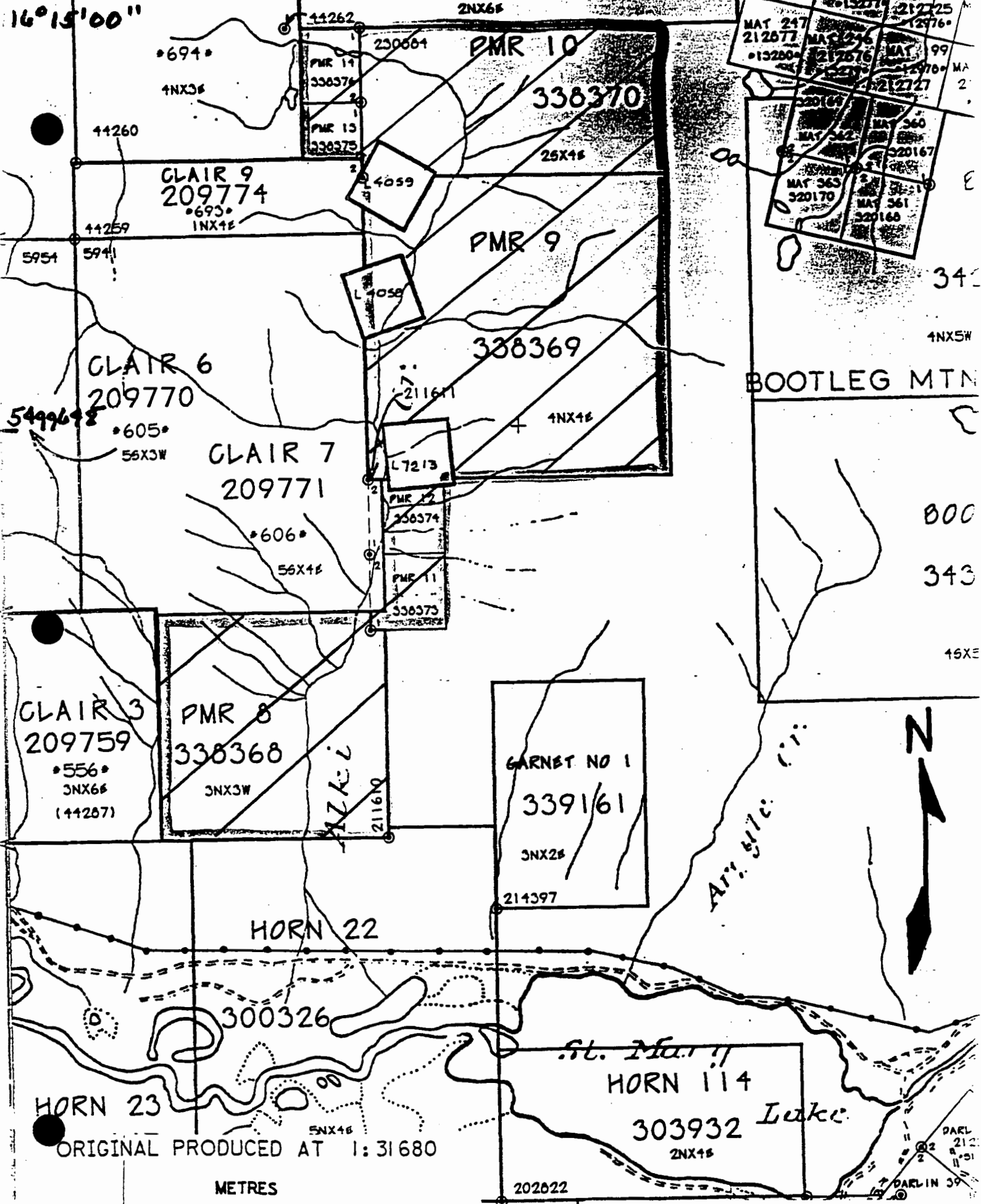


FIG. 2. CLAIM MAP (082F09E)

2.00 PROSPECTING DATA

For the purpose of this report the prospecting information on the PMR 8-14 mineral claim block has been subdivided into three sections and their location is noted on the prospecting map (figure 3, in pocket) and a traverse map (figure 4, in pocket);

Section #1	2.10 Alki Creek West
Section #2	2.20 Alki Creek East, North to Murphy Creek
Section #3	2.30 Alki--Murphy Creek North

2.10 Alki Creek West

This part of the claim block adjoins Cominco's Clair-3 claim which overlays the Clair conglomerate. The conglomerate unit occupies a stratigraphic package in excess of 150 m. The unit is projected to sit near or at the same stratigraphic position as the Sullivan ore body. The Sullivan Corridor which hosts the Sullivan ore body is underlain by a similar massive conglomerate.

Stratigraphically below the Clair fragmental in the Alki Creek west area may lie a gabbro sill (?). This gabbro also has erratically developed pods of conglomerate underneath it.

Associated with the conglomerate are narrow quartz veins which have abundant tourmaline needles. Tourmaline needle beds are also noted on the hanging wall of the gabbro within the conglomerate zone. In this area the conglomerate is quite talc-rich in nature. As you head due east from the last exposure of gabbro, you find only overburden with occasional pieces of conglomerate float. These pieces may be from a close source or from the large outcrop to the northwest.

Approximately 100 m short of the PMR claim line, you come into contact with a massive quartzite-rich unit. This unit exhibits a very homogeneous texture with no continuous bedding planes. Where bedding planes exist, they show a high-degree of slumping and disruptive character. The rocks are quite crystalline looking with abundant biotite and rare tourmaline needle development.

As you continue north up a small creek from these outcrops, you begin to encounter thinner "po"-rich rocks. The creek crosses the west boundary line approximately 300 m up above the quartzite-rich outcrop. In this area the formations begin to get a little thicker in nature with more quartzite beds evident. Although this facies change occurs, the rocks remain relatively iron-rich with the siltstone zones showing much greater amounts of iron. Further up the hill you come in contact with some very iron-rich quartzite units which are cut by a 25° fault zone occupied by two lamprophyre dykes. This structure dips to the east approximately 60° and is in excess of 10 m wide.

North and east of here, you come into contact with some gabbro outcrops. The gabbro can be traced in a northeasterly direction for over 150 m before you lose outcrop as you drop back down into the creek draw. The gabbro does not outcrop along strike on the east side of the draw. The rocks here are moderately bedded quartzites and the siltstone is noticeably more grey in color with less iron staining. As you travel north from this point, the rocks maintain their formational character but become quite a bit less iron-rich with only narrow siltstone zones showing staining.

Of interest in this area is a population of Clair-type conglomerate float. This float can be found about 300 m north of the north PMR boundary line. It is quite prevalent in a 200 m square area, although no outcrop source was found. It would be reasonable to believe it has a close source. This assumption is backed up by narrow black, biotite-rich disrupted beds which are seen in this area.

As you traverse southeast from this point the terrain becomes very steep with many cliff sections. The sediments are standard Aldridge looking with grey to dark grey siltstone and quartzites. Along this line approximately 250 m above Alki Creek, you cross a noticeable change in iron content within the sediments. At this time the formation also becomes noticeably thinner bedded. These changes may represent crossing from the Middle Aldridge to the Lower Aldridge. In this zone about 100 m above the creek a 20 m wide wacke zone is encountered. The zone is very mica-rich and contains abundant iron. The zone seems to be bedding parallel and it can be traced along strike for over 150 m.

Along the southern boundary of PMR-8 you find abundant conglomerate float. Most of this float is of the same character as the Clair conglomerate, although some coarse quartzite with fragments is also seen. Up slope from some of this float, a series of massive looking outcrops can be found. One of these outcrops has a zone of Clair-type conglomerate, altered fragments within a grey siltstone matrix. Within this zone of conglomerate, you find disrupted beds with tourmaline needles. Of further interest is that the more massive rocks are crystalline quartzite with fragments altered to biotite. Some of the quartzites show patchy increases in silicification and with this increase comes more iron. In one of these zones, a few grains of ZnS were seen. Where the claim line crosses Alki Creek, a number of pieces of conglomerate float were found. One of these pieces had all iron fragments with a tourmaline and sericite matrix. This may be coming from the massive zones up slope.

2.20 Alki Creek East, North to Murphy Creek

As you traverse up Alki Creek on the east side, you are paralleled by a steep slope with abundant cliff sections. For the first 250 meters the formations are all thin-bedded siltstone and quartzite. These formations show varying degrees of foliation and are iron-rich. The talus slopes at the base of the cliffs contain abundant tourmaline needle float. The float is of two types: 1) needle beds with no quartz veining and 2) quartz vein material with tourmaline needles and associated tourmaline needle beds.

When you get above the cliff section, you still continue to see tourmaline needle float. This indicates the possibility of a number of sources for this material. Up slope further, you come in contact with a large gabbro which generally trends north-south along the eastern edge of PMR-8 claim. Occasional pieces of quartz float with weak chalcopyrite are seen but the majority of quartz contains only biotite and chlorite.

South along the gabbro, below the claim line on the southeast corner of PMR-8 a strong fault exists. This fault trends slightly east of north and has a strong breccia zone associated with it. The breccia is chlorite- and albite-rich with some quartz veining with limonite. The fault also forms the hanging wall for a 30 m wide gabbro body.

East of this fault zone approximately 25 m, there is a tourmaline needle-rich outcrop. When you head east across the gabbro, you come in contact with a large talus in which some of the sheared quartz float encountered contains traces of chalcopyrite and malachite. Further east, you cross another gabbro. This one is only 5 m in width and beyond this point another talus is encountered. In this talus a large number of pieces of conglomerate float can be found. This float has identical character to that of the Clair conglomerate. Along with this float tourmaline needle float is also found.

Up hill from the talus the outcrops of siltstone and quartzite show obvious disruption. A narrow bed was noted which contained some patches of fragmental. Of further interest is a swarm of pegmatite dykes 500 m east and north of this point. These dykes trend northwest and are very similar material to that of the Hellroaring Creek stock. The Hellroaring Creek stock is age dated as Precambrian and these dykes are possibly occupying an old structure.

2.30 Alki-Murphy Creek North

From the mouth of Murphy Creek north through PMR-9 and PMR-10, the most anomalous geologic feature is a 20°-trending, wide gabbro body. This gabbro has a number of old showings within it. All the mineralization noted was on 270°- to 300°-trending vein systems and completely hosted within the gabbro. The exception to this may be a strong 300° structure near the north termination of this gabbro. Here, shearing in the 300° range can be seen cutting the adjoining sediments.

Also, at this point, a large amount of tourmaline needle float can be found coming out of the sediments. The mineralization in all of the showings seen is also quite unique for the gabbros. It consists of Cupy, ZnS, PbS and Aspy. This suite of minerals also is quite prevalent in the sediments within the Mathew and Pyramid Creek areas. The gabbro seems to terminate before it reaches Alki Creek and sediments are seen along strike in the creek bank. It's possible there is a structure of 300° attitude which parallels the northwest trending section of Alki Creek.

Just northwest of the termination point of the gabbro, a northeast-trending shear is encountered in the creek bank. This shear has narrow quartz veining with limonite and dissemination of sparse ZnS. Further up Alki Creek on the north bank a few pieces of narrow quartz vein float are seen. This float contains rare blebs of coarse galena with abundant arsenopyrite.

Along the edge of the east boundary of PMR-14 and above three small lakes, an iron-rich zone of argillite is encountered. Within this zone there are some narrow quartz veins which contain massive pyrrhotite but no base metals were noted. South of this area, you follow a large talus which has an abundance of large pieces of quartz. The quartz contains biotite, chlorite and sericite with varying amounts of pyrrhotite and rare chalcopyrite.

East of Alki Creek a number of gabbros are encountered and some can be followed for a few hundred meters before they are lost in overburden. None of the gabbros encountered had any old workings in them. A number of pieces of quartz float were found which contained minor amounts of chalcopyrite and malachite. A lot of the sediments on this side are quite different. They are medium-grained, blocky quartzites, grey and white in color and quite clean. Of most interest on this side of the Alki Creek is the existence of an abundant amount of Clair-type conglomerate float. There also is one fairly large outcrop of conglomerate on the ridge crest just off the northeast corner of PMR-9. Because of the amount of float encountered, it would be reasonable to think this zone to be quite extensive along strike. This zone may represent another Clair conglomerate horizon and therefore more work is required in this area.

3.00 CONCLUSIONS

The geology underlying the PMR 8-14 mineral claims appears to be Lower and Middle Aldridge sedimentary rocks with gabbro intrusives. Abundant conglomerate float material suggests that the Clair conglomerate, present on Cominco's Clair claims to the west, may be present on the PMR claims. Tourmaline needle beds were found in talus slopes. Isolated occurrences of pyrrhotite, arsenopyrite, chalcopyrite, pyrite and malachite are associated with the gabbro intrusives. Minor lead and zinc minerals are sometimes associated with the iron sulfides and with quartz veining.

Complex folding and shearing of the sediments and intrusives occurs at the mouth of Murphy Creek.

Geologic mapping and geochemical sampling are recommended for the area.

4.00 STATEMENT OF COSTS

Prospecting (Craig Kennedy, Tom Kennedy and Mike Kennedy) 7-days each @ \$500/day including truck.....	\$3500.00
Report writing (Craig Kennedy) 2-days @ \$250/day.....	500.00
Typing and supplies.....	50.00
Total Cost.....	<u>\$4050.00</u>

5.00 STATEMENT OF QUALIFICATIONS

As the author of this report, I Craig Kennedy, certify that:

1. I am an independent prospector with offices at 2290 DeWolfe Avenue, Kimberley, B.C.
2. I have been actively prospecting the East and West Kootenay districts of British Columbia for the past 10 years and have made my living by prospecting for the past 8 years.
3. I have been employed as a professional prospector by both major and junior mineral exploration companies.
4. I own and actively maintain numerous mineral claim properties in British Columbia and have optioned many of these properties to various exploration companies over the past 8 years.

Signed: Craig Kennedy
Craig Kennedy
October 15, 1996

FIG. 4 PROSPECTING TRAVERSE MAP

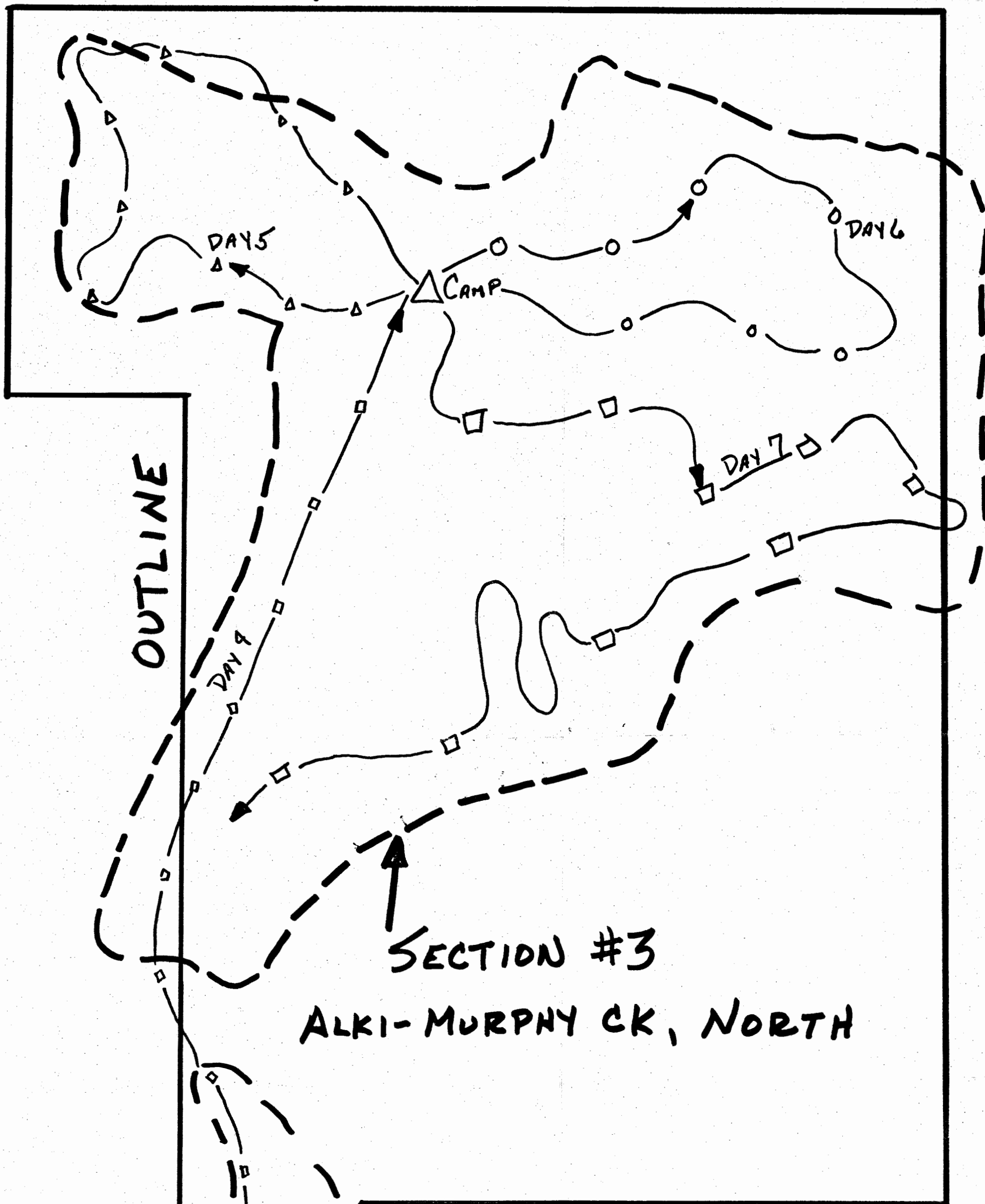
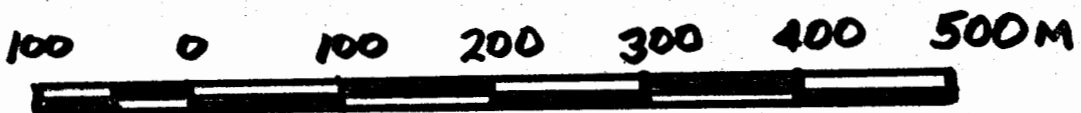
CLAIM OUTLINE

- DAY 1 - 2
- 2 - - - - - 4
- 3 - - - - - 5
- 4 - - - - - 9
- 5 - - - - - 6
- 6 - - - - - 9
- 7 - - - - - 6

GEOLOGICAL SURVEY BRANCH
ASSESSMENT REPORT



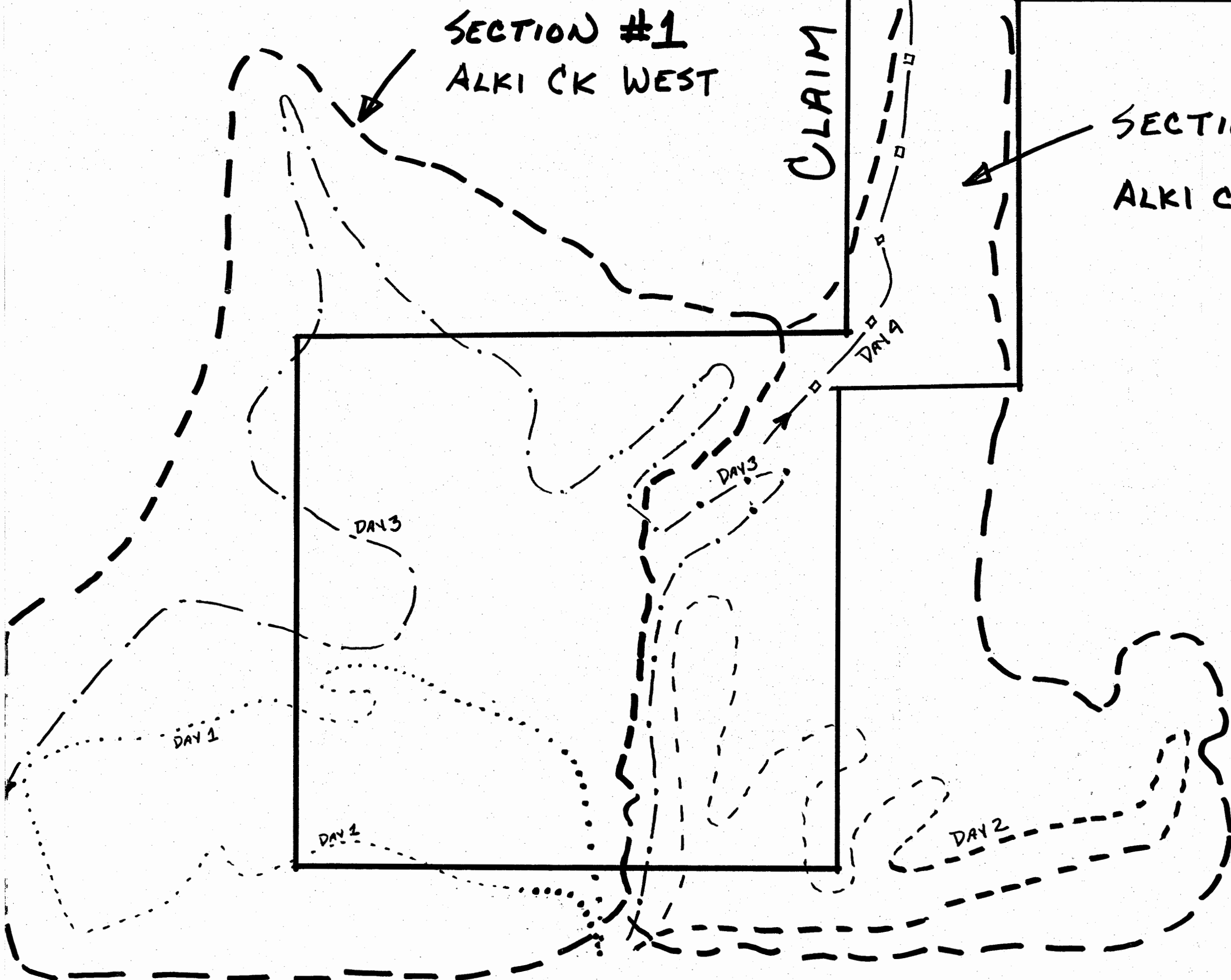
SCALE: 1:5,000



SECTION #1
ALKI CK WEST

SECTION #2
ALKI CK EAST

CLAIM



LEGEND

- VA GABBRO
- CG CONGLOMERATE

- FLOAT
- △ CONGLOMERATE
- △ TOURMALINE NEEDLES
- △ QUARTZ

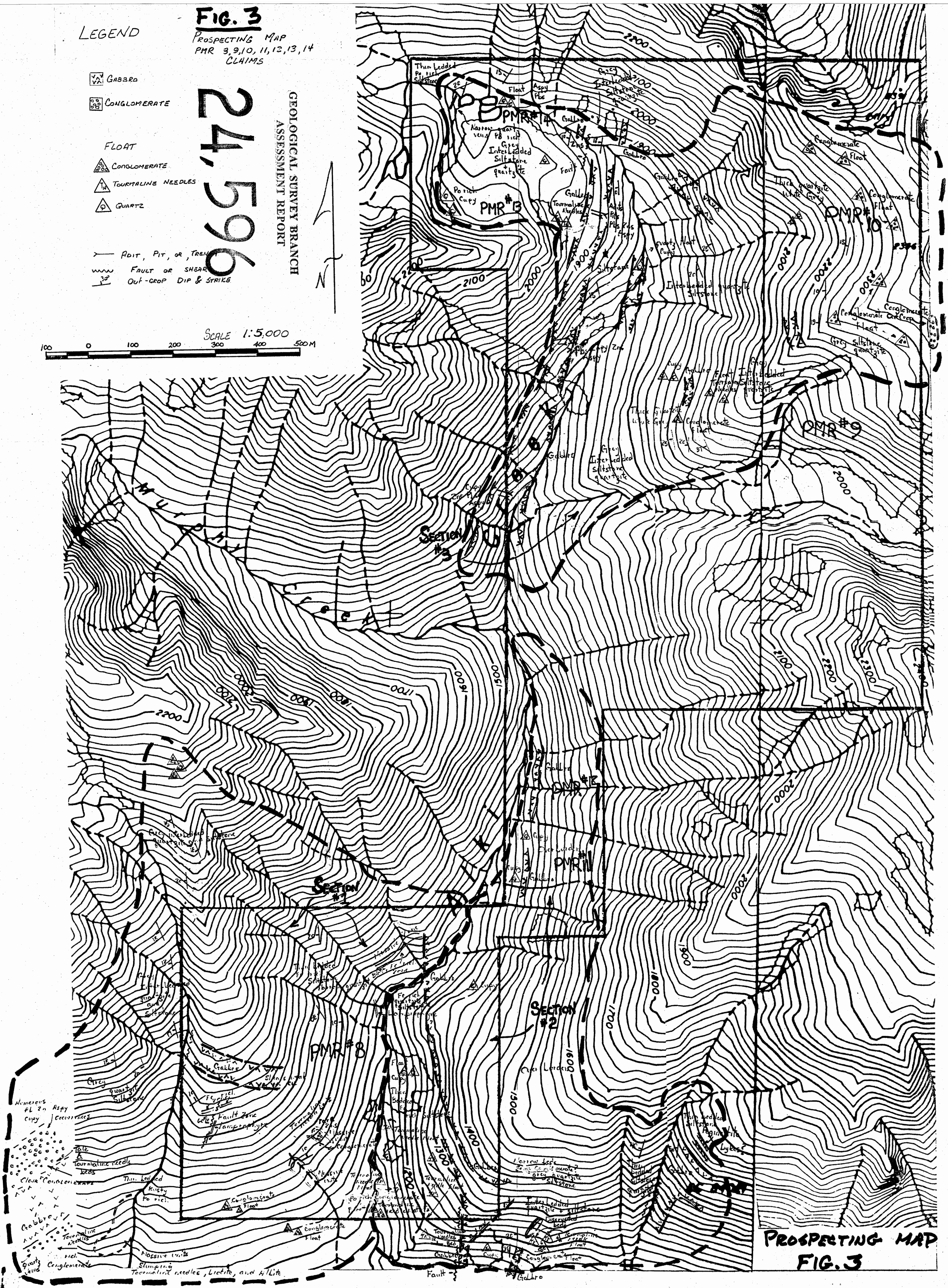
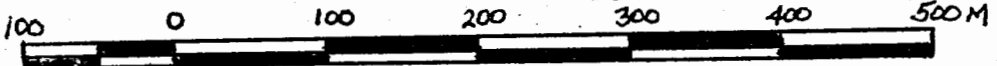
- ROAD, PIT, OR TRENCH
- FAULT OR SHEAR
- 30° OUT-CROP DIP & STRIKE

FIG. 3
PROSPECTING MAP
PMR 3, 9, 10, 11, 12, 13, 14 CLAIMS

24,596

GEOLOGICAL SURVEY BRANCH
ASSESSMENT REPORT

SCALE 1:5,000



**PROSPECTING MAP
FIG. 3**