

K-MEEVOY CR. 79(1)A.
GEOLOGICAL REPORT

ON 346
MEEVOY CREEK COAL PROPERTY
OPEN FILE

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C.L. NOS. 4190-4200.

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

00 346

August 1979

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for: BP Exploration Canada
Limited,
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1. INTRODUCTION

This report describes the exploration work carried out in July and August 1979 on the McEvoy Creek coal property of BP Exploration Canada Limited.

The work consisted of geological mapping, section measuring and the sampling of one coal outcrop immediately adjacent to the property. The field data was compiled into a geological map on a new topographic base. Geological cross-sections were constructed and an economic assessment of the potential of the area was made.

The topographic base was prepared by McElhanney Surveying and Engineering Ltd. who also supplied an orthophoto mosaic with contours of the area at the same scale (1:5000).

The geological data was field plotted onto the orthophotos and transferred via the orthophoto mosaic to the topographic base. Unfortunately, the new topography was limited strictly to the property of BP and data immediately

1. INTRODUCTION (Cont'd.)

outside the property boundaries had to be utilized as best as possible.

Those portions of the property that were within a limited distance of wheeled access were mapped using a four wheel drive truck, but a helicopter was used for the more inaccessible areas. The field work occupied a total of ten days.

The economic assessment was made following the completion of the geological map and cross-sections.

The report is accompanied by a topographic map (1:250,000) showing the relationship of the property to existing infrastructure, a published topographic map (1:50,000), a published geological map (1:50,000), a new geological map two sheets (1:5,000) and four cross-sections (1:5,000).

2. PREVIOUS WORK

Published geological mapping for the area at a scale of 1:50,000 is available from the Geological Survey of Canada. The map - Flathead, Map 1154A - is accompanied by a memoir*.

The map and the memoir provided valuable assistance in the overall interpretation of the area and, in fact, proved to be remarkably accurate. The general stratigraphic data presented below (4.1) is taken basically from this memoir with a few comments based on personal observations in the field.

Coal exploration has been carried out by other companies on nearby properties and some data was available from this work in interpreting the geology.

* Memoir 336
R. A. Price, 1965: Flathead Map-Area,
British Columbia and Alberta;
GSC Mem. 336

2. PREVIOUS WORK (Cont'd.)

 Additionally the British Columbia Government in February 1979 published a preliminary map of the Crowsnest coal field.* While the map sheets for this project do not cover the McEvoy Creek property, they do extend to the north boundary of the property. The report contains some coal quality data and stratigraphic sections.

* Gigliotti, F.B. and Pearson, D.E., 1979:
 Geology of Crowsnest Coalfield,
 Northeast Part, Prelim. Map 31

3. LOCATION AND ACCESS

The property is situated in southeast British Columbia approximately 50 km north of the Canada-U.S. border. It is 25 km east southeast of Fernie and 30 km southwest of Blairmore, Alberta (Fig. 1).

The property extends south from the divide between Leach Creek on the north and McEvoy Creek on the south. Several tributaries of McEvoy Creek cross the property and these have been informally named Creek "A", Creek "B", etc. for the purposes of this report (Fig. 4 and 5).

Ground elevations in the area vary from about 2100 m above sea level down to less than 1550 m above sea level in the Flathead River valley at the south end of the property.

The property can be reached by two alternate routes. The north end of the property can be reached by four wheel drive vehicle from Highway #3 via a road up Leach Creek. The first 10 to 15 km are excellent - they serve the mine at Corbin - but from this point to the property is very poor. Over 1 1/2 hours are

3. LOCATION AND ACCESS (Cont'd.)

required from the Highway #3 to the property - a distance of about 30 km. Kaiser are presently constructing access roads on their acreage immediately north and west of the property and these roads permit a four wheel drive vehicle to reach the extreme northwest corner of the property in dry weather.

Access to the south end of the property is via Corbin and the Flathead Pass (Fig. 1). In dry weather a four wheel drive vehicle is able to reach the abandoned Barnes Ranch - SL 37 on Fig. 2.

A trail was cut at one time along McEvoy Creek from the Barnes Ranch connecting with the pipeline right-of-way where McEvoy Creek turns west. From here the pipeline can be followed to join the road at the headwaters of Leach Creek. This trail up McEvoy Creek is now impassable even in dry weather being washed out in numerous places.

Should the property ever be developed a relatively easy access route up Leach Creek is available from the Canadian Pacific railway

3. LOCATION AND ACCESS (Cont'd.)

which serves Corbin. Its length would be about 12 to 15 km. The south end of the property is less accessible.

While no towns or settlements exist in the area, the distances to Fernie and/or Sparwood are not great (about 35 to 40 km). It is likely that these centres could supply labour for any project in the area avoiding the need for new townsites.

4. GEOLOGY

This section of the report briefly describes the general stratigraphy and structure of the property.

4.1. Stratigraphy

The general stratigraphic column as recognized in the McEvoy Creek area is shown on Table 1. This table is taken from Price (1965) without modification and the thicknesses given will be discussed below.

TABLE ITABLE OF FORMATIONS - McEVOY CREEK AREA

Lower Cretaceous	Blairmore Group	550 m - 1145 m
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Disconformity ?

Jurassic and (?) Cretaceous	Kootenay Formation	150 m - 520 m
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Jurassic	Fernie Group	380 m
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Disconformity

Triassic	Spray River Formation	100 m
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Pennsylvania and (?) Permian	Rocky Mountain Formation	200 m
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Mississippian	Rundle Group - Etherington Formation	135 m
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4. GEOLOGY (Cont'd.)

4.1. Stratigraphy (Cont'd.)

While this report does not concern itself with details of the stratigraphy of the area, a general appreciation of the rock units is essential for mapping and interpreting the area. With this in mind a few comments on the various groups/formations follow.

Mississippian - Rundle Group

The Rundle group was not mapped at surface in the area, but is shown on some of the cross-sections. It is described as a light grey crinoidal limestone; grey sandy and silty limestone, cherty dolomite and green shale.

Rocky Mountain Formation

The Rocky Mountain formation is the oldest rock unit mapped in the McEvoy Creek area. It is described as sandstone, quartzite, dolomite and dolomitic sandstone. However, in the field the most significant unit was near the top of the formation and consisted of grey silty dolomite with lenses and blobs of grey chert less than 6"

4. GEOLOGY (Cont'd.)

4.1. Stratigraphy (Cont'd.)

Rocky Mountain Formation (Cont'd.)

thick. This unit was readily mappable and everywhere weathered to a striking very light grey in direct contrast with the overlying Spray River formation.

Spray River Formation

The Spray River formation is generally poorly exposed. Apparently two units are present in the formation - a lower part consisting of rust brown and dark grey colour laminated platy siltstone and silty shale and an upper part consisting of light grey dolomite, argillaceous siltstone and fine grained sandstone.

The lower unit was seen at only one location on Creek "B" while the upper unit formed topographic highs, e.g. the ridge on the west valley slope west of Creek "B". In general, the Spray River formation has a rusty maroon to chocolate appearance on the weathered surface and is a fine grained unit. Spray River "debris" is readily recognizable.

4. GEOLOGY (Cont'd.)

4.1. Stratigraphy (Cont'd.)

Fernie Group

The Fernie group is frequently exposed in the McEvoy Creek area. It was measured by Price (1965) 2.5 km north of the property and is reported to be 377 m thick. There are three units - the Middle and Lower Fernie, the Grey Beds and the Passage Beds with unit thicknesses of 88 m, 195 m and 94 m respectively.

The Lower and Middle Fernie consists of black and brownish grey shales with black limestone bands. They are poorly exposed and were not positively recognized in the McEvoy Creek area.

The Grey Beds consist of argillaceous, silty and sandy fine crystalline limestone with calcareous shale. They weather to a prominent light grey to white. The contact with the Lower Fernie is gradational whereas the contact with the overlying Passage Beds is sharp.

They, the Passage Beds, consist predominantly of black shale. They grade upwards into the basal part of the Kootenay formation. The base of the Kootenay formation is picked at the base of the lowest cliff forming sandstone.

4. GEOLOGY (Cont'd.)

4.1. Stratigraphy (Cont'd.)

Fernie Group (Cont'd.)

The Grey Beds form prominent topographic features in the area and are easily identified and mapped. While Price (1965) suggests that the 195 m thickness for the Grey Beds may be excessive there is no real reason for this.

Kootenay Formation

The Kootenay formation consists of grey and black, carbonaceous sandstones, siltstones, mudstones and shales with interbeds of coal and minor conglomeratic sandstone.

The lower contact has been described above and the upper contact with the Blairmore group is marked by a change from dark grey carbonaceous rocks to the lighter quartz pebble conglomerates and sandstone of the lowermost Blairmore group.

Various authors have attempted to measure the Kootenay formation in the Fernie area. The nearest measurements to the McEvoy Creek property suggest a normal section is about 500 m to 550 m.

4. GEOLOGY (Cont'd.)

4.1. Stratigraphy (Cont'd.)

Kootenay Formation (Cont'd.)

In general, the lower part of the formation is comprised of a medium to even coarse series of resistive sandstones with carbonaceous and coal interbeds. The basal sandstone forms a prominent and easily mappable unit and is overlain a second resistive sandstone. The two are usually separated by a coal seam or at least a carbonaceous zone. Above the lowermost 250 m, the Kootenay formation generally becomes finer grained and is characterized by a series of siltstones and mudstone. This part of the formation is conspicuous in the field by the lack of cliff forming sandstones so easily recognized in the lower Kootenay formation.

Blairmore Group

The base of the Blairmore group is marked by a non-carbonaceous quartzitic pebble-conglomerate and sandstone unit. It grades

4. GEOLOGY (Cont'd.)

4.1. Stratigraphy (Cont'd.)

Blairmore Group (Cont'd.)

upwards into coarse grained sandstones, in part conglomeratic. The total unit is about 100 m thick. In this report the base of this prominent mappable unit has been referred to as the base of Cadomin formation. No argument is made to support this terminology but to the field geologist the use of this nomenclature readily and rapidly describes the unit.

Above this basal unit is a typical Blairmore sequence of interbedded sandstone and mudstone frequently colored dark red, maroon and green.

In summary, the prominent mappable field units are the Rocky Mountain formation, the Grey Beds of the Fernie group, the basal sandstone of the Kootenay formation and the Cadomin formation of the lower Blairmore group.

4. GEOLOGY (Cont'd.)

4.2. Structure

The area of the McEvoy Creek property has been subjected to folding and faulting as is common to all areas of the Rocky Mountains.

East of Creek "A" a prominent anticline/syncline feature has been mapped and minor thrusting has been recognized in the Grey Beds where these structures die out south of Creek "B".

However, the most prominent structural feature of the area is the Flathead Fault* - a southwest dipping gravity fault. There has been much discussion in the literature regarding the exact nature of this fault from a regional point of view. This, however, is not pertinent to the evaluation of the McEvoy Creek property and only the local effects of the fault are discussed here.

The Flathead fault can be traced from the north edge of the property south to a point on the east side of Creek "A" about 1.5 km north of the south boundary of the property. Over this portion of the fault its position is relatively well defined but further south its position is only implied.

* This is termed the "East Crop Fault: by Gigliotti and Pearson, 1979.

4. GEOLOGY (Cont'd.)

4.2. Structure (Cont'd.)

At the north end Upper Kootenay strata are downfaulted onto Low Kootenay strata. South of Creek "C" near the headwaters of Creek "B" the displacement results in uppermost (the upper 25 m) of Kootenay strata being in direct contact with the Upper Fernie group. By the time the fault enters the upper portion of Creek "A" the displacement is Blairmore Group (Cadomin formation) overlying the Fernie Grey Beds. When last seen the fault has placed Kootenay formation in contact with Triassic rocks.

In the poorly exposed area near the Flathead River at the south end of the property it appears likely that the Kootenay formation may be in contact with the Permian but this is purely conjectural in view of the very poor exposure.

One of the uncertain factors with regard to the fault is the angle at which it dips. The only good exposures of the fault, where it can be located within a few meters, are on the ridge tops. There are no good exposures in the valleys. The best information is in the vicinity of Creek "C"

4. GEOLOGY (Cont'd.)

4.2. Structure (Cont'd.)

where it is at least apparent that the fault dips to the west. Using all the available information an arbitrary dip of 45° to the west was chosen for the fault. This dip has been incorporated into the cross-sections.

5. COAL

This section of the report analyses the likely coal stratigraphy for the area and reviews the observed coal in the light of this.

5.1. Distribution and Occurrences

There is no complete section of the Kootenay formation present on the property. However, exploration on nearby properties does give some information regarding the section. These areas are:

Marten Creek	(12 km NW)
McLatchie Creek	(5 km S)
Lodgepole Creek	(12 km SW)

5. COAL (Cont'd.)

5.1. Distribution and Occurrences (Cont'd.)

The available stratigraphic data for these three areas has been plotted (Fig. 6). It appears from this figure that the normal section of the Kootenay formation in the area would be in excess of 500 meters. There are apparently about eight significant coal zones of varying thicknesses. The exact correlation of the seams is unknown but it is assumed that #7 seam at Marten Creek is generally equivalent to #7 seam at Lodgepole Creek. Similarly L2 Seam at McLatchie Creek is probably equivalent to #1 Seam at Lodgepole Creek.

Bearing in mind these stratigraphic sections, the coal occurrences seen on the McEvoy Creek property can be assessed.

Two sections of Kootenay formation were measured - one about 500 m immediately north of the property boundary (Section 79-1) and one on the ridge north of Creek "C" (Section 79-2). Both sections were less than 200 m thick from the top of the basal sandstone of the Kootenay formation

5. COAL (Cont'd.)

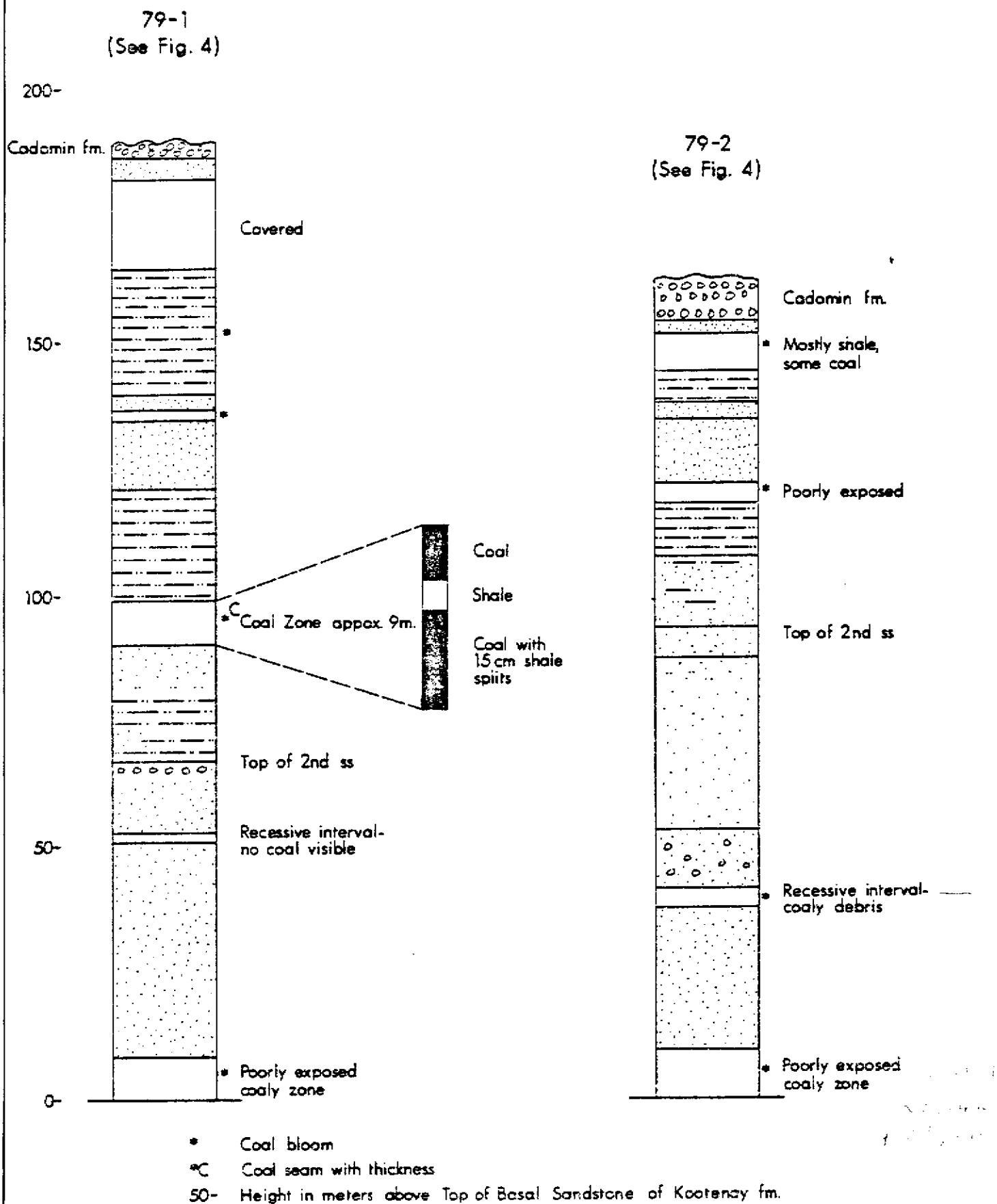
5.1. Distribution and Occurrences (Cont'd.)

up to the Cadomin formation (base of Blairmore Group). The geological mapping shows that the Flathead Fault must pass through the Kootenay formation in this area and the thin Kootenay formation is the result of the Flathead Fault cutting out 300 m+ of section. The problem is to decide exactly at what stratigraphic level the section is cut so that the potential for the occurrence of various seams can be assessed.

The two measured sections are plotted (Fig. 7). As can be seen, the basal sandstone is easily recognizable in both sections. Above it in both cases is a poorly exposed coaly zone probably equivalent to Seam #1 or #L1. From examining the outcrops at McEvoy Creek the seam has a maximum thickness of perhaps 3 m. However, the amount of coal in this covered interval may well be less - perhaps only 2 m as there is much sandstone and siltstone debris as well as coal bloom in the interval.*

About 38 m higher in the section coaly debris is present over a 4 m interval in Section 79-2,

* Gigliotti and Pearson, 1979, report two 3.6 m coal intervals for this zone 2.5 km north of the McEvoy Creek property.



Scale: 1:1000

Figure 7

5. COAL (Cont'd.)

5.1. Distribution and Occurrences (Cont'd.)

but it is not apparent in 79-1. In 79-2 there is apparently no other significant (2 m+) coal zone. However, in 79-1 the thickest coal zone seen was found about 81 m above the basal sand and about 84.5 m below the Cadomin formation. It appears that it could thus be either the #3 seam of the Lodgepole Creek section or the #7 seam.

The #7 seam at Lodgepole Creek is very clean with a raw ash of 7.3% in the outcrop. The equivalent seam at Marten Creek has a raw ash of 22.7%. Simple extrapolation would suggest that the #7 Seam in the McEvoy Creek area would have an ash of less than 20%. The #3 Seam at Lodgepole Creek is described as having several splits of dark grey siltstone and a raw ash of 22.5%. This description better fits the seam exposed in Section 79-1 and it is believed to be the #3 Seam. Analytical data may confirm this as the #7 Seam has a volatile content of about 25% whereas the #3 Seam has a volatile content in excess of 30%.

Gigliotti and Pearson (1979) report a reflectance value of 1.61 for a coal seam apparently equivalent to this interval 2.5 km north of the McEvoy Creek property whereas reflectances of 1.2 to 1.3 would be more in line for the upper seams.

5. COAL (Cont'd.)

5.1. Distribution and Occurrences (Cont'd.)

As can be seen from the measured sections there are no other significant coal seams exposed although some coaly intervals are present in predominantly carbonaceous shale and silt zones close to the Kootenay/Blairmore contact. These are believed to be Upper Kootenay formation.

On the geological map (Figs. 4 and 5) there is a large belt of Kootenay formation extending from Creek "A" across the southern portion of the property in a southeasterly direction. Only one actual outcrop of Kootenay formation was recognized in this area (just southeast of Creek "A" near the Flathead Fault), but Kootenay formation debris could be seen at many localities. The published map (Map 1154A) shows both a strike and dip in the Kootenay formation and a coal show north of the Barnes Ranch. Despite extensive ground traversing and checking from the helicopter neither a coal show nor a Kootenay formation outcrop could be located in the area. Other geologists are also known to have searched for this coal show without success. If indeed it did exist it would probably have been in the middle of the Kootenay formation.

5. COAL (Cont'd.)

5.2. Quality

There is no analytical information available from the coal seams found on or near the property. Gigliotti and Pearson (1979) sampled the seam immediately overlying the basal sandstone 350 m north of the property. In fact, the sample was apparently acquired from the outcrop on Section 79-1. They provide no data on seam thickness but report the mean maximum reflectance of vitrinite in oil to 1.68. They also sampled a seam close to the top of the section (40 to 50 m below the Cadomin formation) and report the reflectance to be 1.62.

In general, regional consideration would suggest that the coals would be medium to high volatile coking coals with high calorific content.

However, in view of the general economic assessment a detailed discussion of the hypothetical coal quality is not believed worthwhile.

5. COAL (Cont'd.)5.3. Reserves

For the purposes of reserve assessment, two distinct areas of the property can be discussed. They are the area north of Creek "C" and the area southeast of Creek "A". These are referred to as the north area and the south area respectively.

5.3.1. North Area

In the north area the Kootenay formation is present both above and below the Flathead Fault. Above the Flathead Fault within the McEvoy Creek property there are no coal reserves. Below the fault some reserves do exist. Reserves (in situ) can be assigned to the seam which occurs above the basal sandstone.

Area of Reserve (m ²)	Seam Thickness (m)	* Reserves (tonnes)
425,000	3	1,912,000

This reserve is dependent on

- a seam thickness which averages 3 m,
- the Flathead Fault not truncating the seam east of the property boundary.

* At 1.5 S.G.

5. COAL (Cont'd.)

5.3.1. North Area (Cont'd.)

No other coal seam of economic thickness was seen in section 79-2, but even if another 3 m seam were present additional reserves would probably be only about 50% of the above because of the reduced area.

An optimistic interpretation is that the north area may contain up to 3 mm tonnes of coal in situ. No open pit possibilities are seen so clean saleable tonnes are unlikely to exceed 1 mm tonnes at best - based on 50% underground recovery and 70% wash plant yield.

5.3.2. South Area

To estimate the reserves for this area is more difficult as both boundaries of the Kootenay formation are assumed and no data regarding the coal seam sequence in the upper Kootenay formation is available close to the area.

5. COAL (Cont'd.)5.3.2. South Area (Cont'd.)

If the section is similar to the Lodgepole Creek section a total coal thickness of 25 m in the 300 to 400 m of Kootenay formation present would not be unrealistic.

If this is the case, the reserves in situ may be estimated as follows:

Dip Length* (m)	Strike Length (m)	Coal Thickness (m)	Reserves+ (tonnes)
750	2,000	25	56,250,000

* to a depth of 500 m

+ at 1.5 S.G.

This is indeed an optimistic figure and represents the maximum potential in situ reserve for the area. In view of the likely heavy alluvial cover over much of the area and the dip of the beds in relatively flat topography open pit reserves can be discounted.

In theory with 50% underground recovery and 70% washing recovery the clean coal yield would be about 16 mm tonnes. This is not, however, believed to be a realistic figure because

5. COAL (Cont'd.)

5.3.2. South Area (Cont'd.)

- a. the thickness of the coals may not be 25 m
 - b. even if it is 25 m, some seams will be too thin to mine underground at that dip,
 - c. geological problems will further limit the reserve,
 - d. 95% of the reserves are to the dip or below drainage,
 - e. 500 m is an optimistic cover limit for the area.
- In conclusion, the property contains no open pit reserves. There may be almost 1 mm tonnes of clean coal available by underground methods at the north end and an additional 10 to 12 mm tonnes available at the south end.

6. CONCLUSIONS

It is concluded that only very limited potential for the recovery of coal exists in the area of the McEvoy Creek coal licences. Reserves at the north end are small (3 mm tonnes in situ) even by the most optimistic interpretation. Furthermore, they are not amenable to open-pit mining, are probably structurally disturbed and of doubtful quality (high ash).

In the south the reserve potential is much greater (56 mm tonnes in situ). However, essentially all these reserves are below drainage making either an open-pit or underground operation more costly. Additionally, this portion of the property is not readily accessible by rail because of the divide between McEvoy and Leach Creeks. It is not believed to be a worthwhile project.

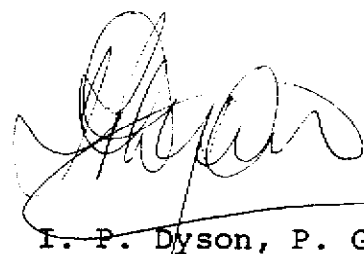
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RECOMMENDATIONS

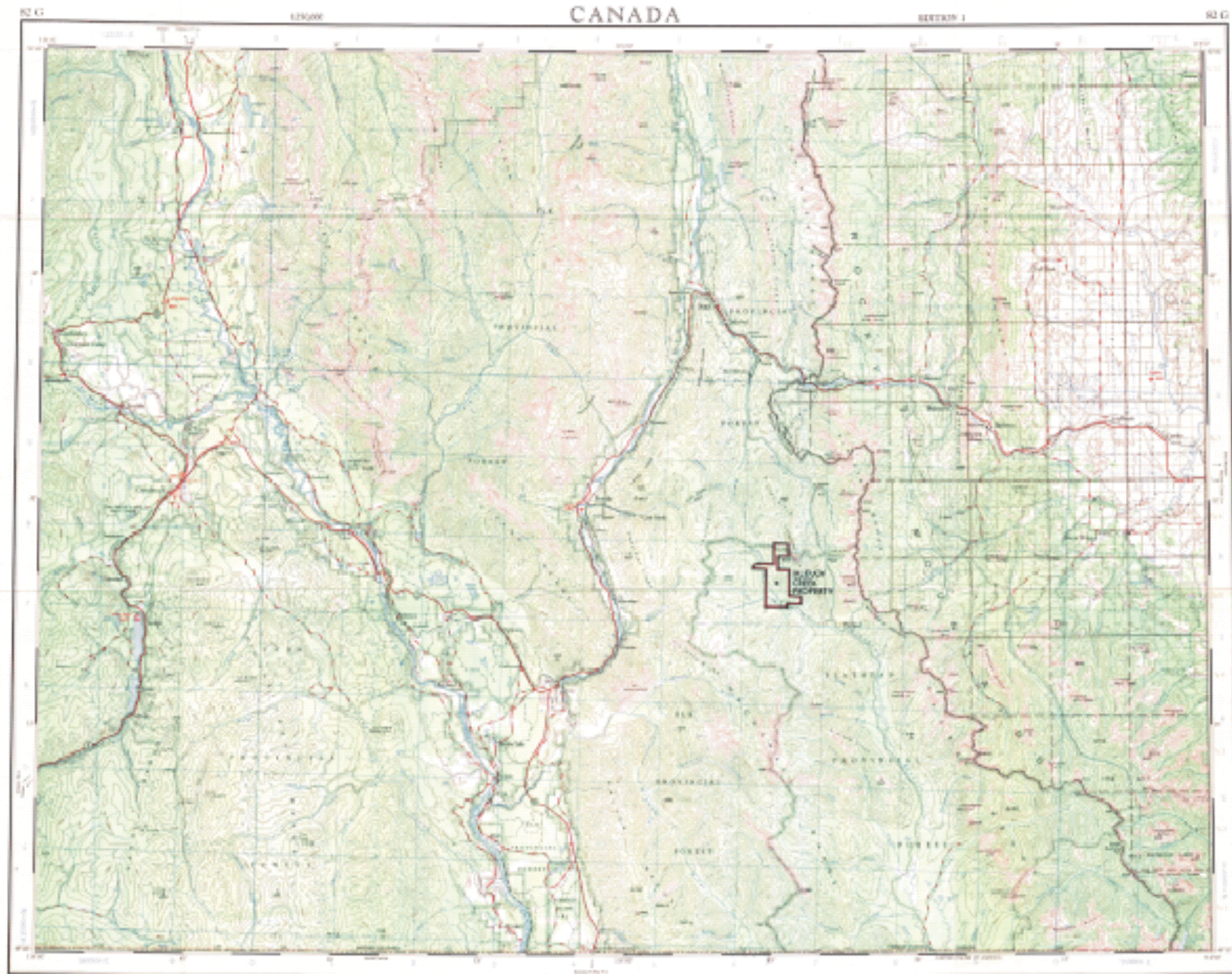
It is recommended that BP surrender the McEvoy Creek property back to the Government of British Columbia without the expenditure of additional funds.

In the event that for corporate reasons the property be retained then a cross-section of the Kootenay formation should be constructed by drilling across the strike in the area adjacent to the Barnes Ranch. Such a program would be relatively easy in view of the good access and low relief topography. It would give immediate data on coal quantities and qualities in this area above the Flathead fault.

August 1979

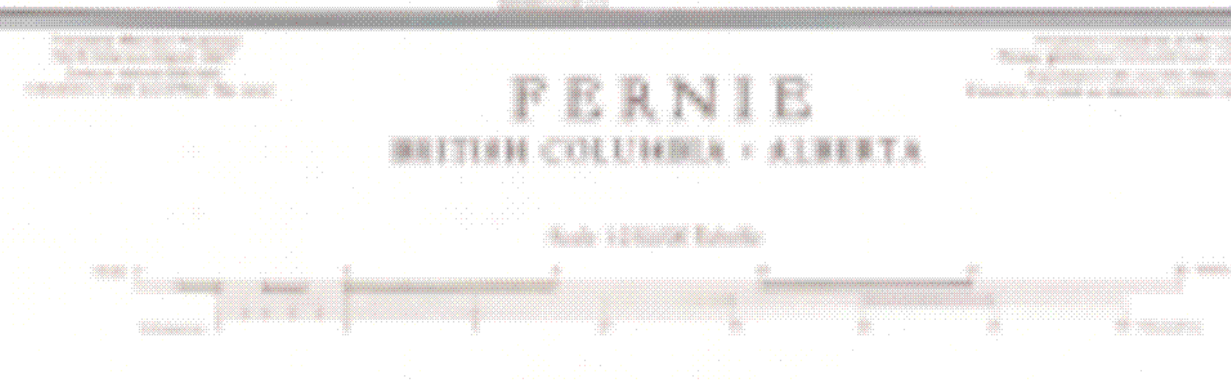


I. P. Dyson, P. Geol.



MAP SYMBOLS

Highway	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	2500	2600	2700	2800	2900	3000	3100	3200	3300	3400	3500	3600	3700	3800	3900	4000	4100	4200	4300	4400	4500	4600	4700	4800	4900	5000	5100	5200	5300	5400	5500	5600	5700	5800	5900	6000	6100	6200	6300	6400	6500	6600	6700	6800	6900	7000	7100	7200	7300	7400	7500	7600	7700	7800	7900	8000	8100	8200	8300	8400	8500	8600	8700	8800	8900	9000	9100	9200	9300	9400	9500	9600	9700	9800	9900	10000
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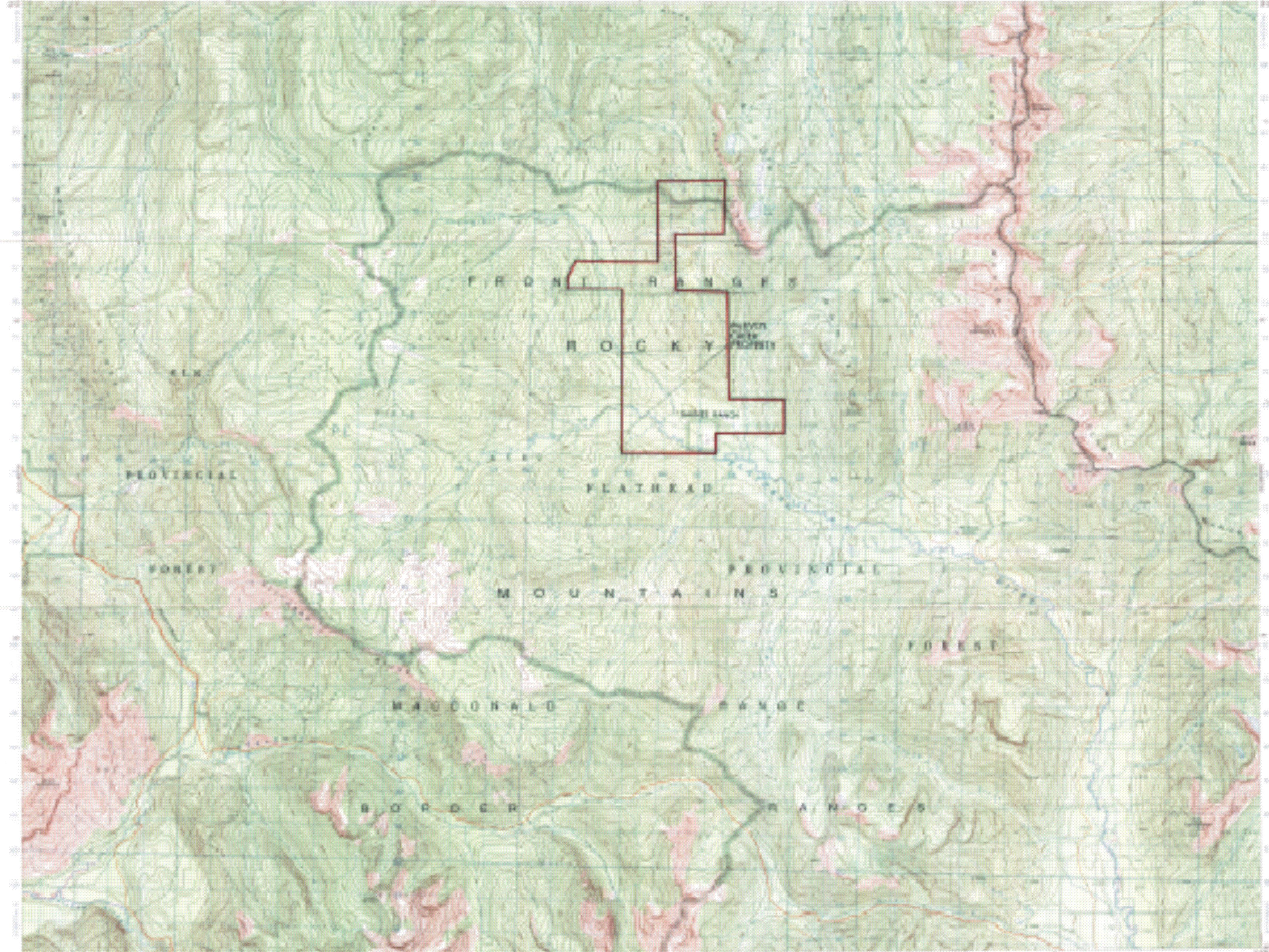


MAP SYMBOLS

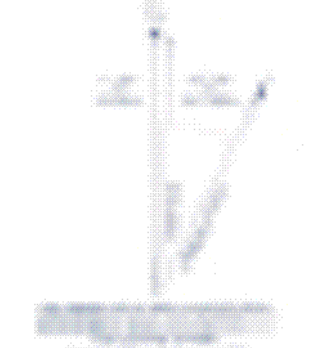
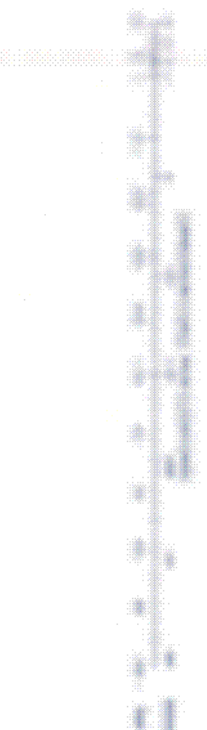
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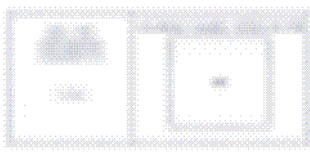
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346
FERNIE
BRITISH COLUMBIA - ALBERTA



Scale 1:50,000



ONE INCH TO ONE MILE



SYMBOLS	
[Symbol]	Water
[Symbol]	Forest
[Symbol]	Settlement
[Symbol]	Transportation
[Symbol]	Relief
[Symbol]	Vegetation
[Symbol]	Soils
[Symbol]	Geology
[Symbol]	Boundaries

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UPPER FLATHEAD
SOUTHERN ALBERTA



Legend

Water

Forest

Settlement

Transportation

Relief

Vegetation

Soils

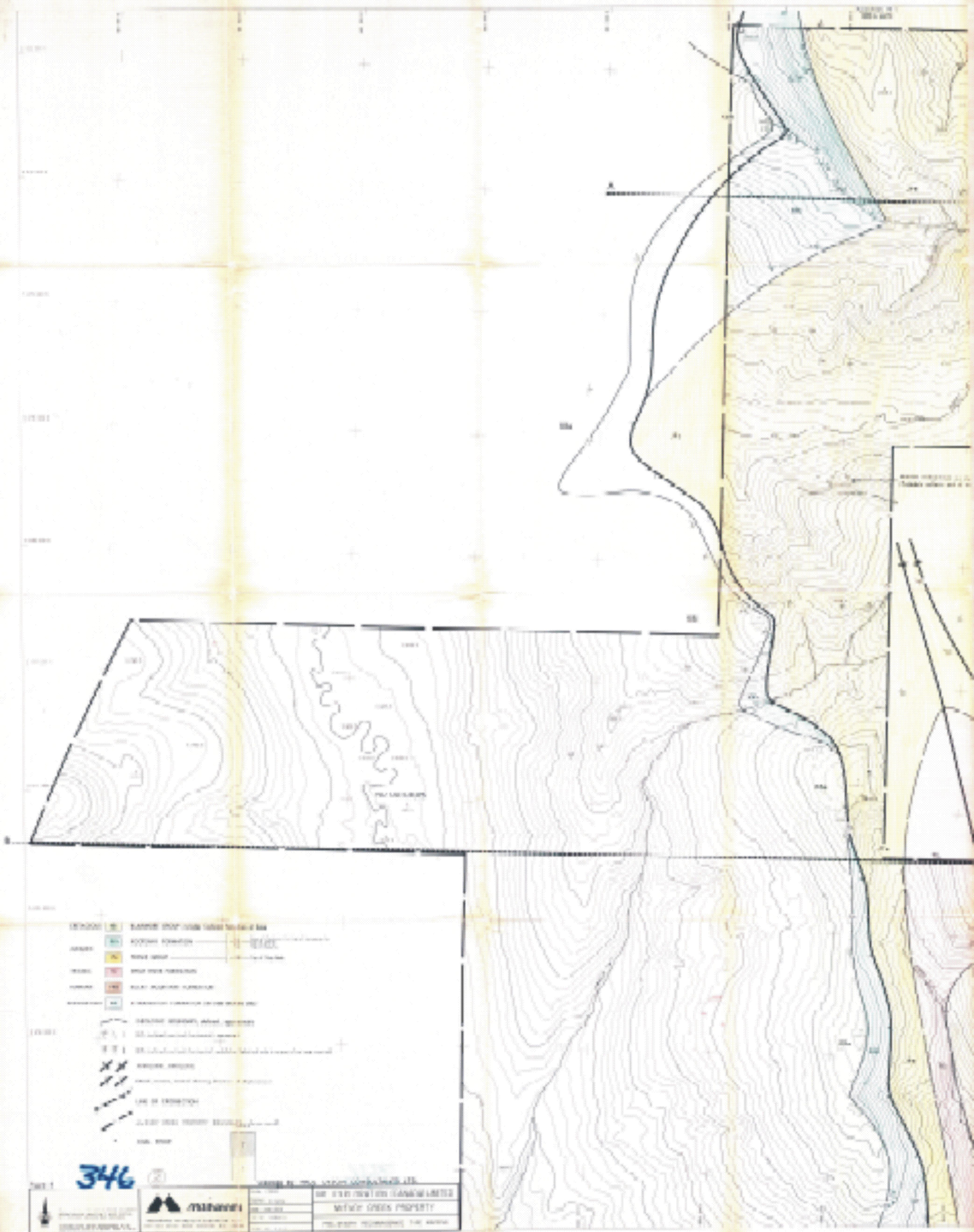
Geology

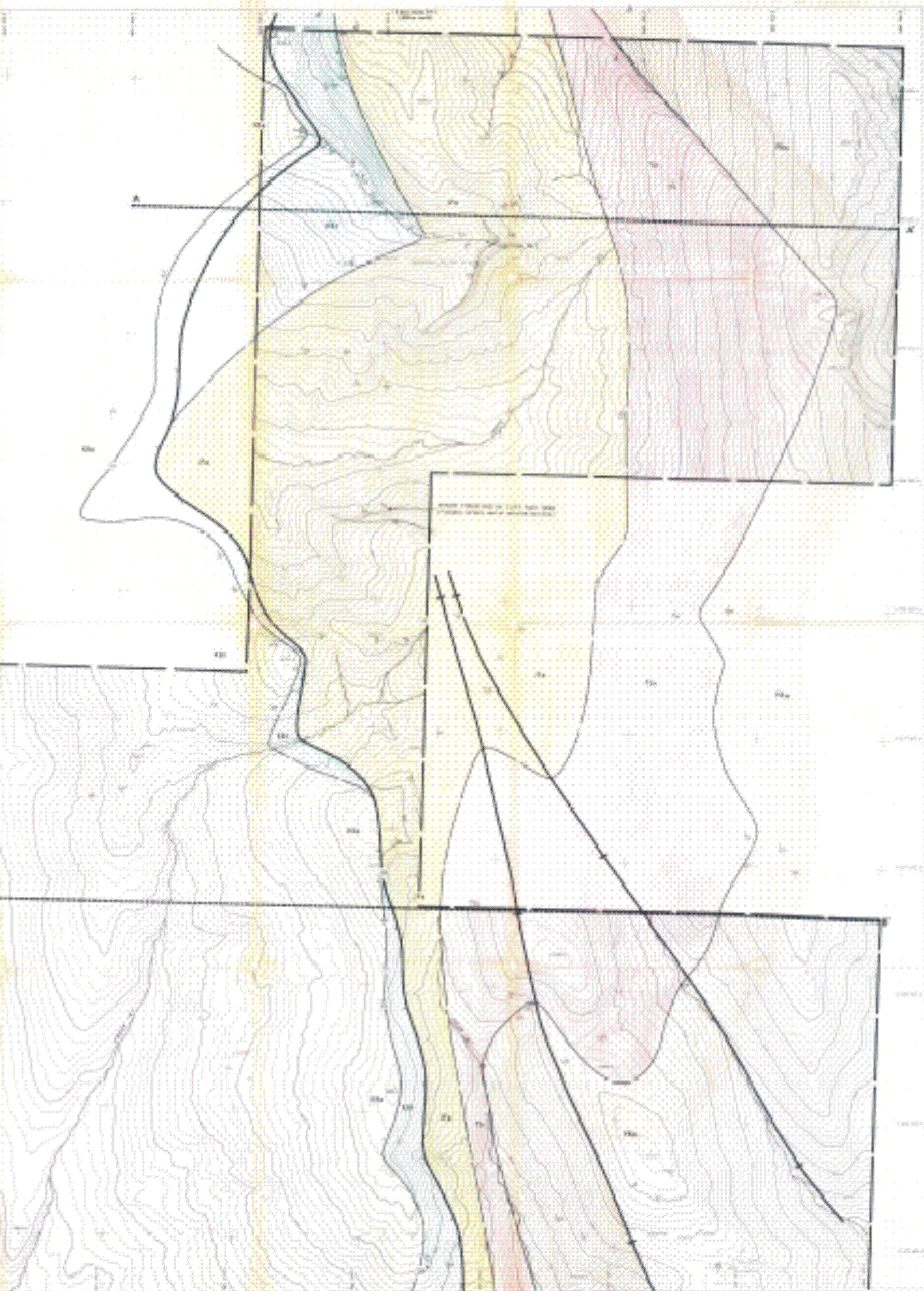
Boundaries

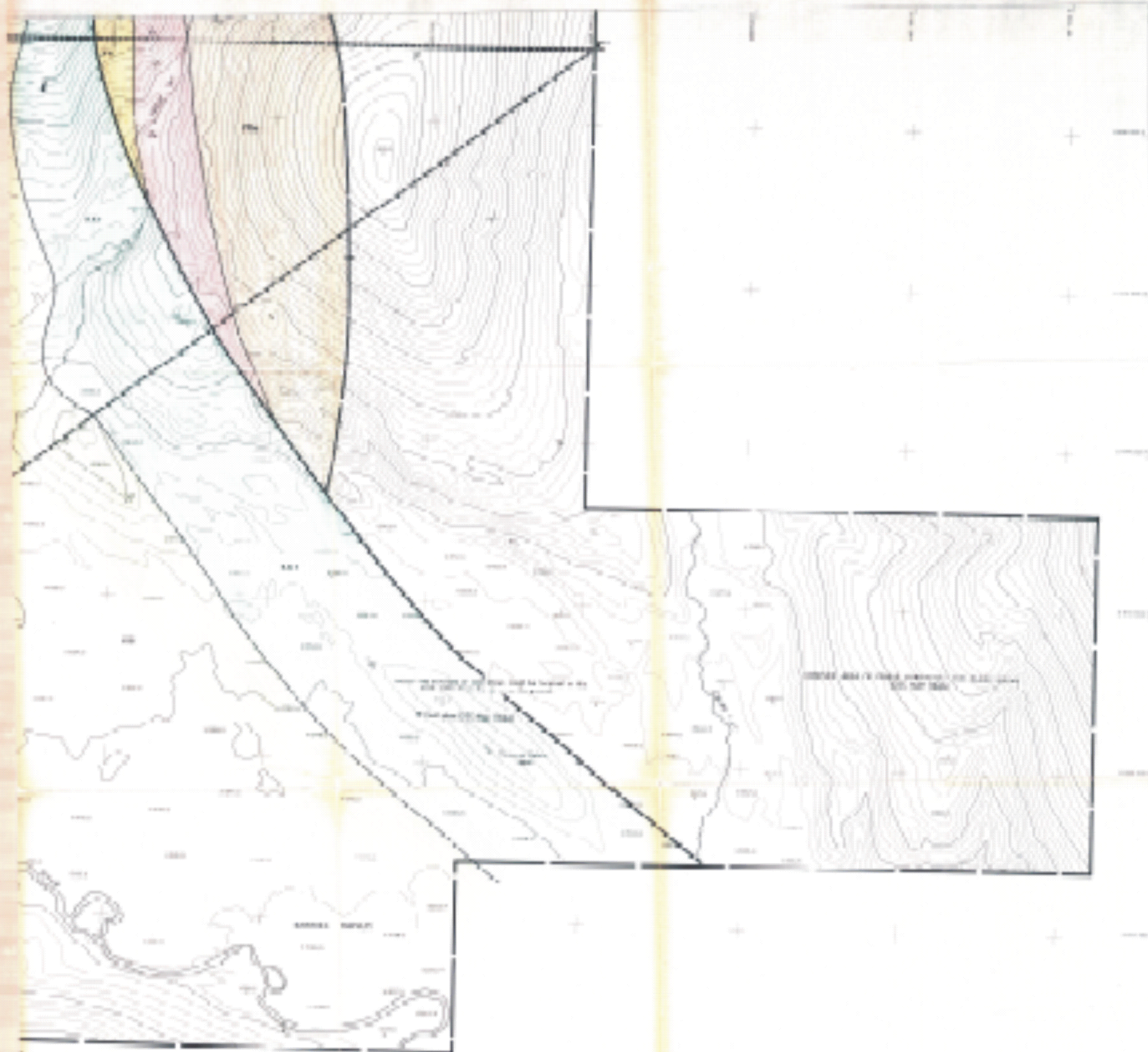
Map of Upper Flathead, Alberta, Canada

Scale 1:50,000

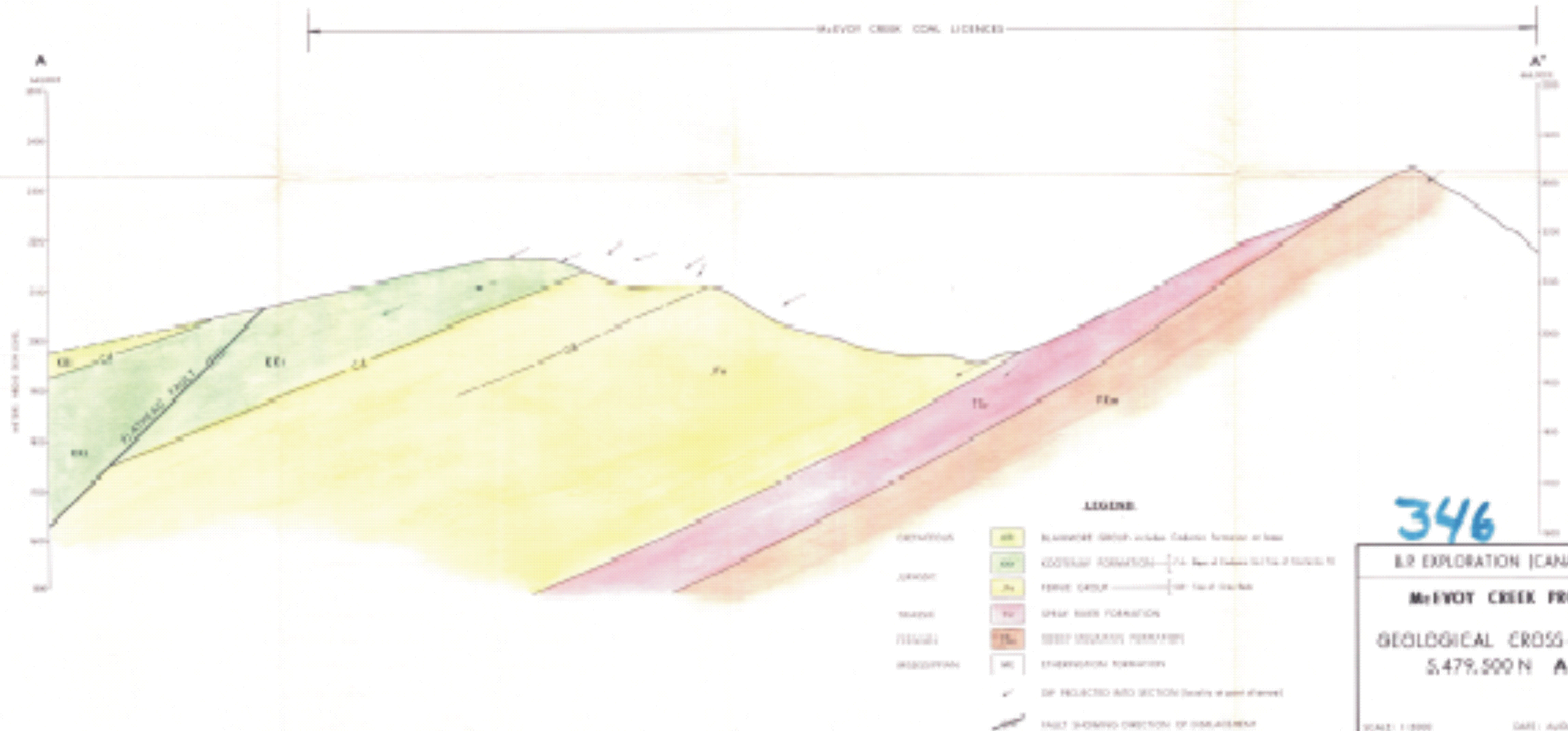
Map of Upper Flathead, Alberta, Canada







- (1) Contour interval: 100 feet (30 m)
 (2) Contour interval: 50 feet (15 m)
 (3) Contour interval: 25 feet (7.5 m)
 (4) Contour interval: 10 feet (3 m)
 (5) Contour interval: 5 feet (1.5 m)
 (6) Contour interval: 2 feet (0.6 m)
 (7) Contour interval: 1 foot (0.3 m)
 (8) Contour interval: 0.5 foot (0.15 m)
 (9) Contour interval: 0.2 foot (0.06 m)
 (10) Contour interval: 0.1 foot (0.03 m)
 (11) Contour interval: 0.05 foot (0.015 m)
 (12) Contour interval: 0.02 foot (0.006 m)
 (13) Contour interval: 0.01 foot (0.003 m)
 (14) Contour interval: 0.005 foot (0.0015 m)
 (15) Contour interval: 0.002 foot (0.0006 m)
 (16) Contour interval: 0.001 foot (0.0003 m)
 (17) Contour interval: 0.0005 foot (0.00015 m)
 (18) Contour interval: 0.0002 foot (0.00006 m)
 (19) Contour interval: 0.0001 foot (0.00003 m)
 (20) Contour interval: 0.00005 foot (0.000015 m)
 (21) Contour interval: 0.00002 foot (0.000006 m)
 (22) Contour interval: 0.00001 foot (0.000003 m)
 (23) Contour interval: 0.000005 foot (0.0000015 m)
 (24) Contour interval: 0.000002 foot (0.0000006 m)
 (25) Contour interval: 0.000001 foot (0.0000003 m)
 (26) Contour interval: 0.0000005 foot (0.00000015 m)
 (27) Contour interval: 0.0000002 foot (0.00000006 m)
 (28) Contour interval: 0.0000001 foot (0.00000003 m)
 (29) Contour interval: 0.00000005 foot (0.000000015 m)
 (30) Contour interval: 0.00000002 foot (0.000000006 m)
 (31) Contour interval: 0.00000001 foot (0.000000003 m)
 (32) Contour interval: 0.000000005 foot (0.0000000015 m)
 (33) Contour interval: 0.000000002 foot (0.0000000006 m)
 (34) Contour interval: 0.000000001 foot (0.0000000003 m)
 (35) Contour interval: 0.0000000005 foot (0.00000000015 m)
 (36) Contour interval: 0.0000000002 foot (0.00000000006 m)
 (37) Contour interval: 0.0000000001 foot (0.00000000003 m)
 (38) Contour interval: 0.00000000005 foot (0.000000000015 m)
 (39) Contour interval: 0.00000000002 foot (0.000000000006 m)
 (40) Contour interval: 0.00000000001 foot (0.000000000003 m)



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