

REPORT OF GEOLOGICAL SURVEY OF THE
PIP 1 GROUP, PIP 8 GROUP, BET 1 GROUP,
Kamloops M.D.

By F. H. Mylrea,
July 1 - Sept. 15, 1949.

Supervised by C. Riley, P. Eng.

82M/3W

CLAIMS PIP 1-14, PIP 17 FR., BET 1-5, W
BET 1-2, ADAMS PLATEAU 51° 119° S. N.

0046

GEOLOGY OF THE PIP, BET, AND BEL CLAIMS
HELD BY PIONEER GOLD MINES OF B. C. LTD.
ON THE ADAM'S PLATEAU, B. C.

INTRODUCTION

Pioneer Gold Mines of B. C. Ltd. carried out an exploration program on the Adam's Plateau, B. C. during the summer of 1949. Twenty-five mineral claims were geologically mapped in detail.

For assessment work the claims were grouped as follows:

Pip 1 Group: Pip claims Nos. 1 to 7 inclusive, and Pip 17 Fraction.

Pip 8 Group: Pip claims Nos. 8 to 15 inclusive.

Bet 1 Group: Bet claims Nos. 1 to 5 inclusive, and Bel claims Nos. 1 and 2.

The Pip 1 and Pip 8 Groups lie to the east of the headwaters of Gold Creek and the Bet 1 Group lies to the west of the headwaters of Gold Creek.

MAPS

The maps accompanying this report are as follows:

#1 Map No. 1: Generalized map showing Geology and Properties, Adam's Plateau, B.C.

This map, made on the scale 1" = $\frac{1}{2}$ mile, shows the general location and ownership of some mineral claim groups on Adam's Plateau and the general geological formations underlying the area.

#2 Map No. 2: Composite Map of the Pip Claims and Adjoining Claims, Adam's Plateau.

This map, made on the scale 1" = 200', is a detailed map showing outcrops, claim boundaries, and topography on the Pip 1 Group, Pip 8 Group, and adjoining claims.

Survey control was performed by the use of transit and chain on the Pioneer and Westville claims and by compass and chain on the C.M. and S. claims.

113 Map No. 3: Composite Map of the Bet 1 Group, Elk 6 and Elk 7.

This map, made on the scale 1" = 200', is a detailed map showing the outcrops, claim boundaries, and topography of the Bet 1 Group held by Pioneer Gold Mines of B. C. Ltd. and the Elk 6 and 7 claims held by Westville Mining Company.

Survey control was performed by the use of transit and chain and compass and chain.

TOPOGRAPHY

Low north-south trending ridges paralleled by shallow stream valleys are characteristic of this portion of Adam's Plateau. The Mosquito King silver-lead-zinc pits, at approximately 7500 feet elevation, are near the highest point of land and the valley of the main drainage system, Gold Creek, is at approximately 5200 feet in this vicinity.

The area has a forest cover of balsam and spruce except in the meander belt of Gold Creek where beautiful, grassy slopes relieve the monotony of the landscape.

Overburden is extensive and averages in depth from ten to twenty feet over large areas. It presents a great obstacle to prospecting and geological mapping.

AREAL GEOLOGY

The Pioneer claims and the adjoining claim groups lie within the Eagle Bay Formation (Proterozoic or Palaeozoic) as described by Rice and Jones of the G.S.C. in their work on the Salmon Arm sheet (Preliminary Map 48 - 4A).

Stratified Rocks

In general the bedded rocks on the Plateau strike in the northeast quadrant and dip northwest. The dip angles

increase northward suggesting that much of the Plateau forms a limb of a large anticlinal or synclinal structure.

The Tshinakin limestone (Daly, G.S.C. Mem. 68) extends across the north part of the area (Map No. 1). It forms Mt. Pisima, and from there can be seen outcropping westward across the canyon of Spillman Creek and across Adam's Lake where it forms great cliffs running up to the crest of the Samatosum Mountain (Daly, Map 14 3 A). In the east, however, it is eliminated in some manner before reaching Scotch Creek where a quartz-mica schist was observed in line with the apparent trend of the limestone.

Stratigraphically below the Tshinakin limestone and thus to the south of it (Map No. 1) is a band of greenstone which could be more specifically named a bedded, chlorite-magnetite schist. It contains an appreciable percentage of scattered magnetite octahedra. The bedded appearance and composition suggest that this rock is an altered tuff.

Bordering the greenstone on the south is a formation observed by Mr. James of Westville Mining Company and stated to be a thin-bedded quartzite with argillaceous partings and some argillite.

The argillite-limestone-sericite formation (Map No. 1) is very monotonous and extensive. This formation consists of thin-bedded, silicified argillite, silicified limy argillite, limestone, and thin sericite layers. Extensive lead-zinc mineralization has taken place in this formation probably by replacement of the limy argillite beds.

The lowest bedded rocks observed (Map No. 1) are green, schistose sediments which are possibly altered through chloritization from a rock type similar to the overlying argillaceous sediments. This chloritization may be attributed to the numerous intrusives cutting the sediments in this area.

Intrusive Rocks

Large outcrops of igneous rocks are very numerous, especially on the Scotch Creek slope and near the West Fork of Gold Creek (Map No. 1). Small dykes and sills of acid

composition are common throughout the bedded rocks. Basic intrusives are far less common in the district and are more restricted in size.

Structure

All that is definitely known about the large-scale structure of the area is that northwest-dipping beds are cut by north-south trending dykes and sills. Small north-south faults have been observed in the Mosquito King ore pits and it is suspected that a large north-south fault has caused the termination of the greenstone on its west border (Map No. 1).

CLAIM GEOLOGY

Pip 1 Group and Pip 8 Group

These claims are underlain by northwest-dipping argillite-limestone beds. These sediments are thin-bedded, consistently silicified, pyritized and pyrrhotized and mica partings are common.

Three types of intrusive rocks were observed on the Pip 1 and Pip 8 groups. A muscovite-granite sill, medium to coarsely crystalline and thus somewhat pegmatitic in appearance, was observed on Pip 17 Fraction (Map No. 2). Large north-south trending porphyritic granite dykes were observed on Pip claims Nos. 2, 3 and 4. A hornblende-diorite intrusive was observed on Pip 1.

No variation in sediment alteration was observed on the boundaries of the acid intrusives. The boundaries of the hornblende-diorite intrusive were not open to view but a similar intrusive on C.M. and S. ground graded through a hornblende alteration into the argillaceous sediments.

The Mosquito King lead-zinc deposits outcrop on the up-dip side of the Pip 1 and Pip 8 Groups. The theoretical projection of the Mosquito King lead-zinc mineralized beds shows a possibility of these beds outcropping on the eastern and western extremities of the Pip claims. Intensive prospecting and trenching revealed a small amount of zinc mineralization on Pip 1 (Map No. 2). No lead or zinc minerals were discovered on the western extremity of the Pip claims.

If projected on the constant dip the favourable lead-zinc horizon of the Mosquito King Group would occur at a depth of approximately 500 feet at the southern boundary of Pip 5.

Bet 1 Group

This group of mineral claims is underlain by limestone, argillite, limestone-mica schist and numerous intrusive bodies (Map No. 3).

The limestone is black, thin-bedded, and veined by calcite and quartz.

The argillite is similar to that on the Pip claims and is thin-bedded, limy, silicified, pyritized and pyrrhotized.

The limestone-mica schist is a thin-bedded rock consisting of layers of silicified limestone and plates of mica which give a schistose appearance.

In general the bedded rocks strike in the northeast quadrant and dip gently to the northwest. The great number of intrusive bodies, however, have caused local deviations from the normal attitude of the bedding.

The intrusives are nearly all of the acid type and vary in texture from medium-grained granite to porphyritic rhyolite. They occur as dykes and sills and frequently have withstood erosion sufficiently to stand up as low ridges.

Quartz lenses occur concordant with the black limestone on Bet claims Nos. 1 and 2. A small amount of galena was observed with the quartz on Bet 1.

A zone of limy argillite four inches thick and highly mineralized with sphalerite was discovered on Bet 2. This discovery is in line with the surface trend of the lead-zinc showings on the Elk 6 claim of the Westville Mining Company.

← Bet 2
see map 3

SUMMARY

The Pip claims of Pioneer Gold Mines of B. C. Ltd. are located in an area of shallow-dipping altered argillite and limestone sediments. These claims are approximately 1900 feet down-dip from the Mosquito King Group pits where a zone of bedding has been partially replaced by silver-lead-zinc mineralization.

The Bet 1 Group of Pioneer Gold Mines of B. C. Ltd. is located in an area underlain by a formation of altered argillite and limestone intruded extensively by acid igneous bodies. Only sparse lead-zinc mineralization has been discovered so far on these claims.

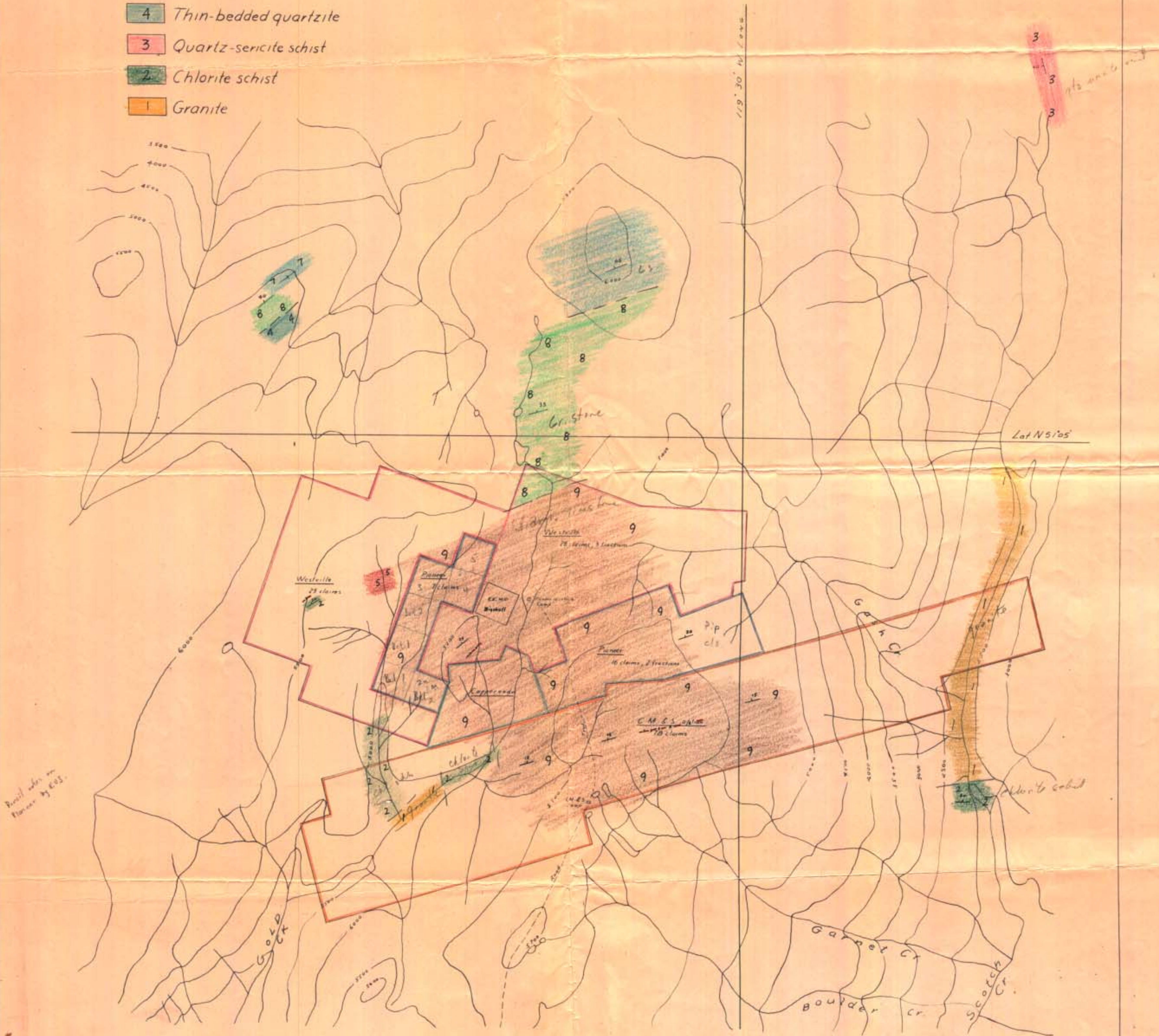


F. H. Mylrea

September 1949.

- Ag-Pb-Zn showings
- 9 Argillite, limestone, sericite
- 8 Greenstone
- 7 Limestone
- 6 Green schistose sediment with acid intrusives
- 5 Paragneiss
- 4 Thin-bedded quartzite
- 3 Quartz-sericite schist
- 2 Chlorite schist
- 1 Granite

SCALE 1" = 1/2 Mile

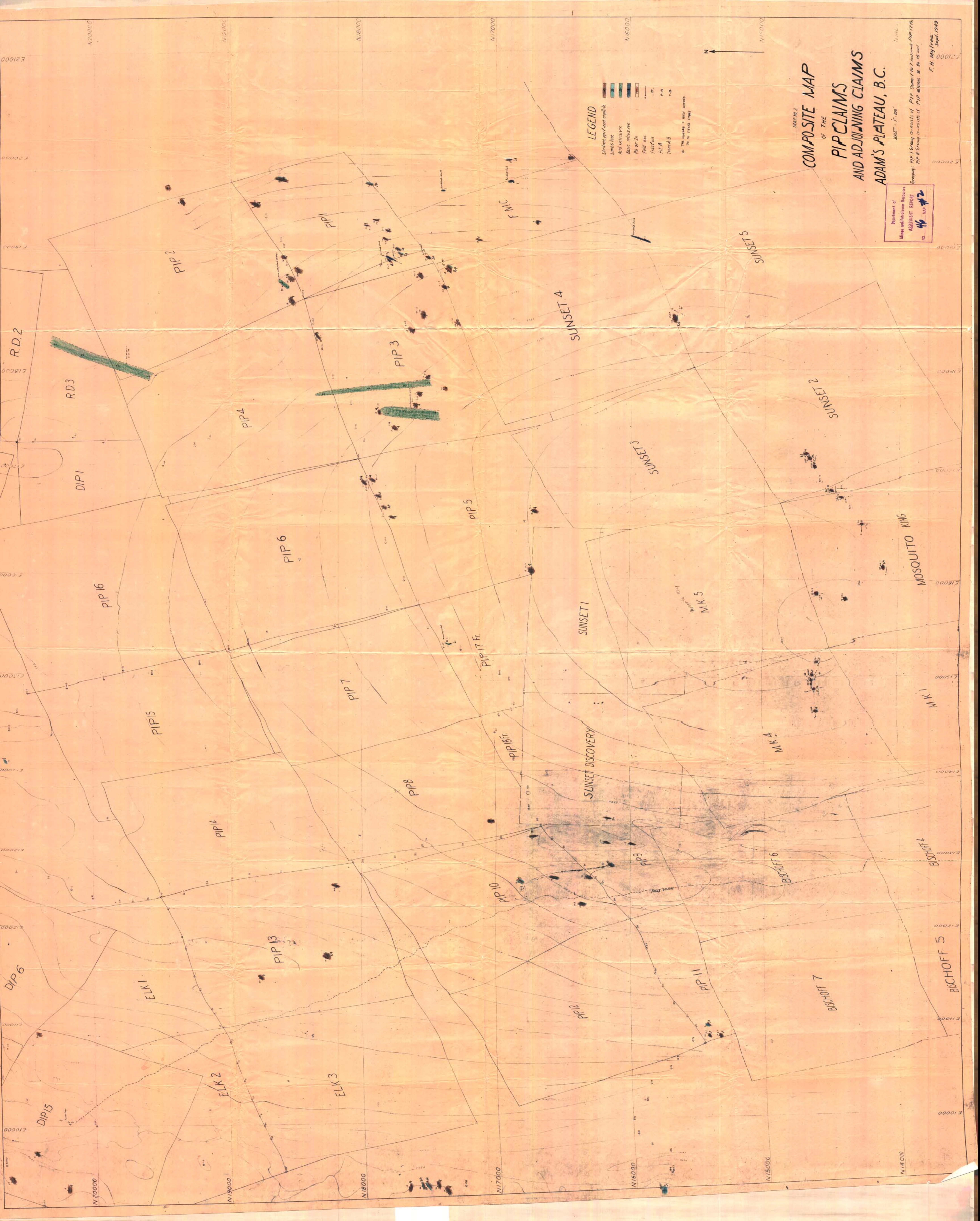


MAP NO. 1

GENERALIZED MAP
 SHOWING GEOLOGY AND PROPERTIES
ADAMS PLATEAU, B.C.

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 NO. **46** MAP **#1**

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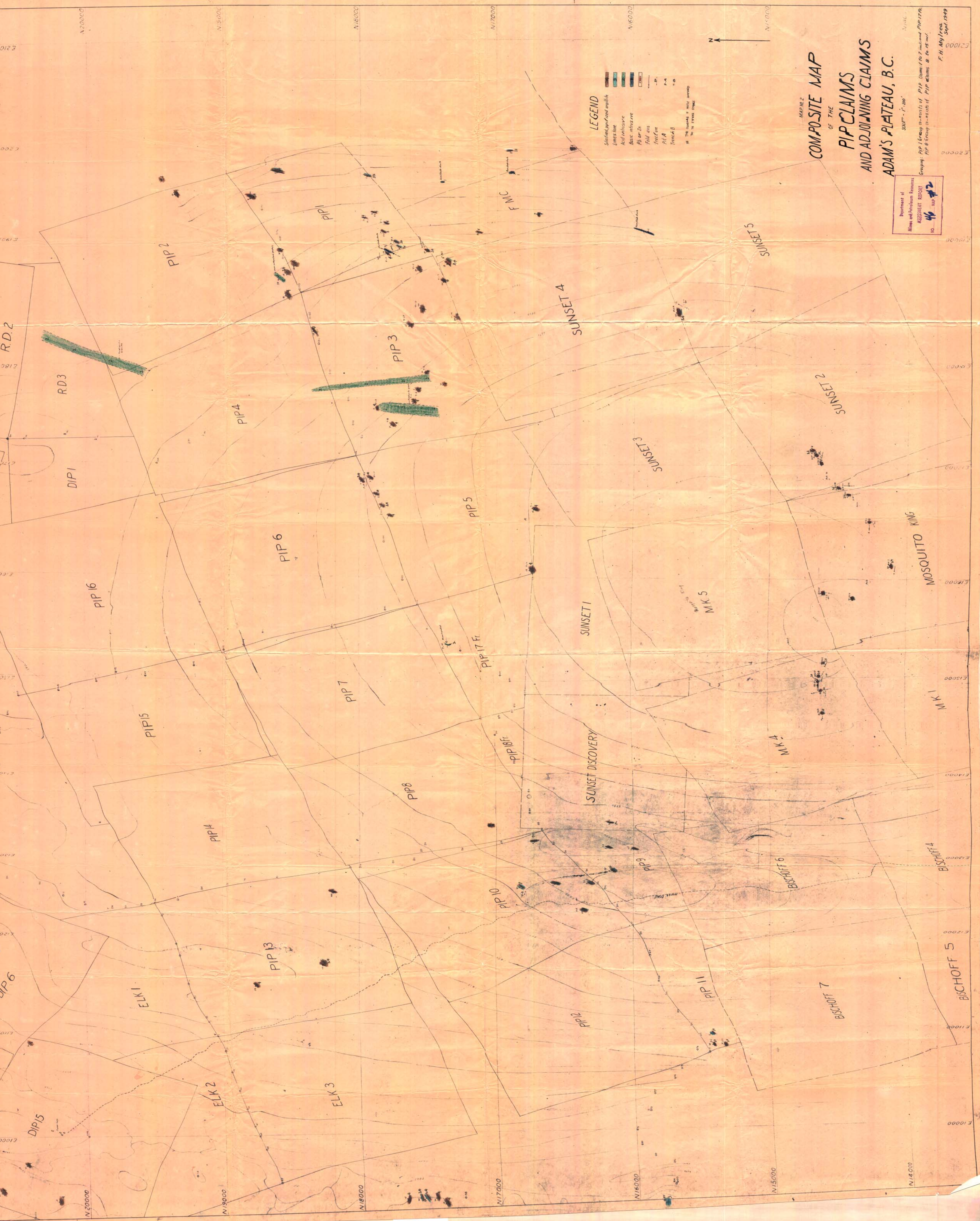


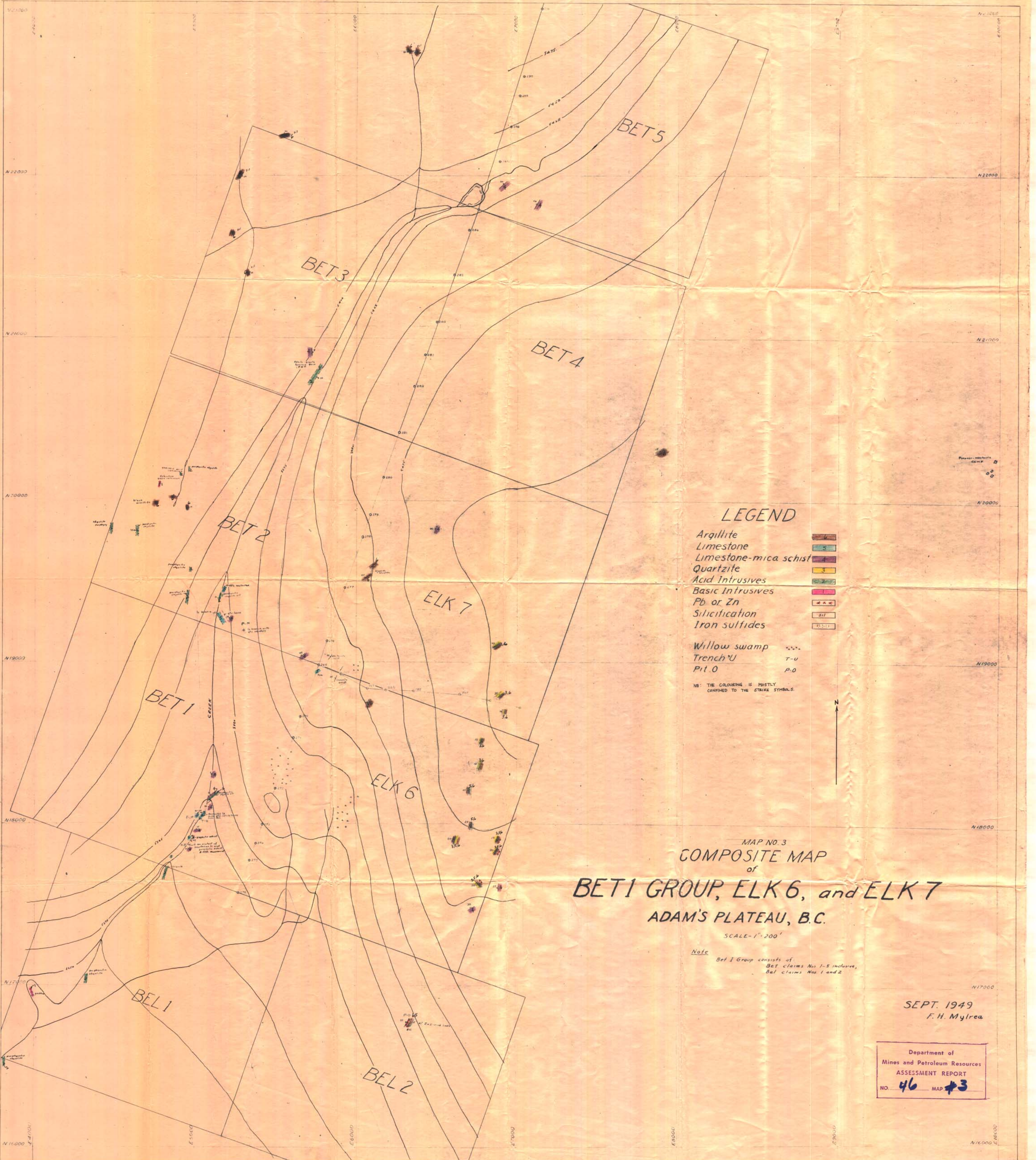
MAP NO. 2
COMPOSITE MAP
 OF THE
PIP CLAIMS
 AND ADJOINING CLAIMS
ADAM'S PLATEAU, B.C.

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ASSESSMENT REPORT
 NO. 46
 1957

Scale - 1" = 100'
 Grouping: PIP Group consists of PIP Claims to PIP 176.
 Grouping: PIP Group consists of PIP Claims 8 to 15.
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 Sept. 1949

- LEGEND**
- Sulphide mineralization
 - Limes line
 - Acid sulfate
 - Basic intrusion
 - Placer Inland Prospect
 - Old area
 - Trace line
 - Pl. A
 - Trace B
- ALL THE CLAIMS ARE FULLY OWNED
 AS TO THE SURFACE RIGHTS





LEGEND

- Argillite
- Limestone
- Limestone-mica schist
- Quartzite
- Acid Intrusives
- Basic Intrusives
- Pb or Zn
- Silicification
- Iron sulfides
- Willow swamp
- Trench 'U'
- Pit 'O'

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NOTE: THE COLOURING IS MOSTLY CONFINED TO THE STRIKE SYMBOLS.



MAP NO. 3
COMPOSITE MAP
 of
BET 1 GROUP, ELK 6, and ELK 7
ADAM'S PLATEAU, B.C.

SCALE - 1" = 200'

Note: Bet 1 Group consists of:
 Bet claims Nos 1-5 inclusive,
 Bet claims Nos 1 and 2

SEPT. 1949
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Department of
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 ASSESSMENT REPORT
 NO. **46** MAP **#3**