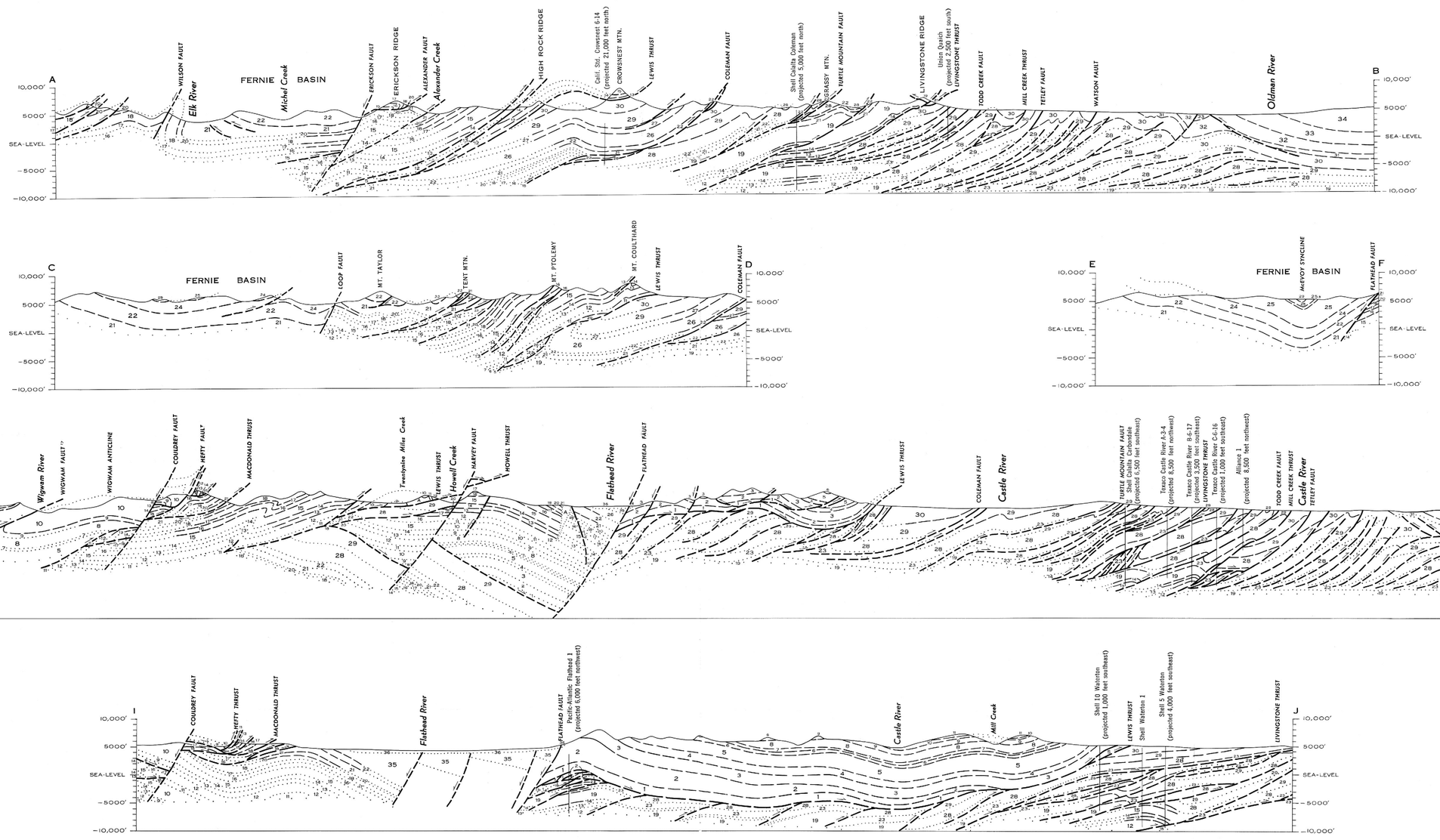
GEOLOGICAL SURVEY OF CANADA
DEPARTMENT OF MINES AND TECHNICAL SURVEYS



SECTIONS ALONG LINES A-B, C-D, E-F, G-H, I-J

PRELIMINARY SERIES

SHEET 82 $\frac{G}{NE}$ AND 82 $\frac{G}{SE}$

LEGEND

CENOZOIC

QUATERNARY
PLEISTOCENE AND RECENT
36 — Till, gravel, sand, silt, alluvium

TERTIARY
EOCENE AND OLIGOCENE
35 — KISHENEHN FORMATION: grey, green, and yellow mudstone, marl, siltstone, sandstone, conglomerate and breccia

PALEOCENE
34 — PORCUPINE HILLS FORMATION: grey and green sandstone; massive, rubbly, grey and brown shales

CRETACEOUS AND TERTIARY
UPPER CRETACEOUS AND PALEOCENE
33 — WILLOW CREEK FORMATION: grey, medium-grained sandstone; grey, green, and pink clayey shales

MESOZOIC

CRETACEOUS
UPPER CRETACEOUS
32 — ST. MARY RIVER FORMATION: grey sandstone, grey and green shale, freshwater limestone, ironstone, coal seams, oyster coquinas

31 — BEARPAW FORMATION: dark grey shale and concretionary shale, grey sandstone

30 — BELLY RIVER FORMATION: green, yellowish grey, and green sandstone, silty shale, and argillaceous limestone; carbonaceous shale; coal seams

29 — ALBERTA GROUP: dark grey shale, silty shale, concretionary shale, siltstone, and sandstone

LOWER CRETACEOUS (?)
27 — CROWSNEST FORMATION: trachyte and phonolite volcanic breccia, crystal and lithic tuff, volcanic sandstone and mudstone

LOWER CRETACEOUS
25 / 25a — BLAIRMORE GROUP (MIDDLE AND UPPER PARTS): green, yellow, and grey feldspathic sandstone; red, green, yellow and grey mudstone and siltstone; 25a, pebble and cobble conglomerate
24 — BLAIRMORE GROUP (LOWER PART): non-feldspathic conglomerate, sandstone and siltstone; grey, green, and red mudstone; argillaceous
26 — Undivided
28 — Undivided (in structure sections only)

JURASSIC AND CRETACEOUS
22 — KOOTENAY FORMATION: grey and black carbonaceous sandstone, siltstone and mudstone; coal; pebble and cobble conglomerate

JURASSIC
21 — FERNIE GROUP: grey, brownish grey, and black shale, siltstone and sandstone; limestone; glauconitic sandstone and shale
23 — Undivided (in structure sections only)

TRIASSIC
20 — SPRAY RIVER FORMATION: dark grey silty shale, siltstone, and shale; light grey dolomitic or sideritic argillaceous siltstone

PALAEOZOIC

PENNSYLVANIAN AND PERMIAN
18 — ROCKY MOUNTAIN FORMATION: light grey quartzitic, dolomitic, and calcareous sandstone; dark grey sandstone; dolomite; cherty dolomite; chert

MISSISSIPPIAN
RUNDLE GROUP (15-17)
17 — ETHERINGTON FORMATION: light grey limestone, cherty limestone, and calcarenitic limestone; dolomite; cherty dolomite; green and red shale; siltstone; breccia; anhydrite
16 — MOUNT HEAD FORMATION: dense dark grey and black limestone and argillaceous dolomite; grey limestone and calcarenitic limestone; cherty and silty dolomite
15 — LIVINGSTONE FORMATION: light grey skeletal calcarenite and calcarenitic limestone; cherty limestone; dolomite
19 — Undivided (in structure sections only)
14 — EXSHAW AND BANFF FORMATIONS: black shale; dark grey, cherty, argillaceous limestone. black chert, calcarenitic limestone

DEVONIAN
13 — PALLISER FORMATION: dark grey, fine-crystalline limestone and dolomitic limestone

12 — FAIRHOLME GROUP AND ALEXO FORMATION: dark grey limestone, argillaceous limestone, and silty limestone; dark grey dolomite, light grey dolomite, siltstone, silty dolomite, quartzitic sandstone

CAMBRIAN
11 — FLATHEAD FORMATION: light brown and grey quartz sandstone and pebble conglomerate
Cambrian shale unit: green and grey shale
ELKO FORMATION: grey dolomite, black dolomitic mottled limestone

PRECAMBRIAN

PURCELL
10 — ROOSVILLE FORMATION (Kintla Formation, Member D): green and grey argillite, siltstone and sandstone; light coloured argillaceous and stromatolitic dolomite

9 — PHILLIPS FORMATION (Kintla Formation, Member C): red and purplish red sandstone, siltstone and argillite

8 — GATEWAY FORMATION, UPPER MEMBER: (Kintla Formation, Members A and B): red, purplish red and grey argillaceous siltstone and argillite; green and greenish grey argillite, dolomitic argillite and sandstone; dolomite; dolomitic sandstone

7 — SHEPPARD FORMATION (Gateway Formation, Lower Member): light grey quartzitic and dolomitic sandstone, dolomite, and oolitic dolomite; green argillite and dolomitic argillite; red siltstone and sandstone; chloritized andesite and pillowed andesite

6 — PURCELL LAVA: dark green, purplish green, and reddish green, chloritized andesite, amygdaloidal andesite, and pillowed andesite

5 — SIYEH FORMATION: grey limestone, dolomite, argillaceous dolomite, and sandy dolomite; green and red argillite, stromatolitic limestone

4 — GRINNELL FORMATION: red argillite, white and red sandstone and siltstone

3 — APPEKUNNY FORMATION: green and greenish grey argillite; white, grey, and green quartzose sandstone

2 — ALTYN FORMATION: dark grey and black argillaceous limestone and dolomite; black argillite; grey dolomitic argillite and argillaceous dolomite; sandy dolomite; stromatolitic dolomite

1 — WATERTON FORMATION: dense banded and streaked grey limestone and dolomite; green dolomite, argillaceous dolomite, and argillite; brownish red dolomite and argillaceous dolomite; dense white limestone

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A — Trachyte, syenite, latite, felsite, intrusion breccia (post Early Cretaceous, may be Tertiary)

Rock outcrop (attitude of layering not available) . . . . . ×
Geological boundary (defined, approximate, assumed) . . . . . ~ ~ ~
Bedding, tops known (horizontal, inclined, overturned) . . . . . + 60 ⊥
Lineation, axes of minor folds (inclined) 20
Thrust fault (teeth in direction of dip, defined, approximate, assumed) . . . . . ▲▲▲
Normal fault (solid circle indicates downthrown side, defined, approximate, assumed) . . . . . ●—●—
Tear fault (arrow indicates relative movement, defined, approximate, assumed) . . . . . ~~~ ~~~
Anticline (defined, approximate, arrow indicates plunge) . . . . . →
Syncline (defined, approximate, arrow indicates plunge) . . . . . →
Mineral occurrence (barite) . . . . . × ba
Gas well . . . . . ☼
Oil and Gas well . . . . . ☼
Drilling well . . . . . ○
Abandoned well . . . . . ⊘
Fault trace projected under cover of younger sediments . . . . . • • • • •

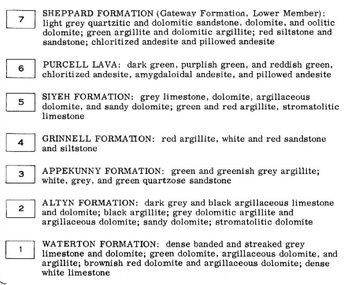
Note A: Undifferentiated Alberta Group and Belly River Formation
Note B: Undifferentiated Purcell Lava and Gateway Formation
Note C: Undifferentiated Alexo and Palliser Formations and Fairholme Group

Geology compiled by R. A. Price from published reports of the Geological Survey of Canada and from field work by R. A. Price, 1958, 1959, 1960

Main highway . . . . . ③
Other roads . . . . . = = =
Trail . . . . . — — —
Cart track . . . . . — — —
Railway . . . . . +—+—+—
Abandoned railway . . . . . +—+—+—
Power transmission line . . . . . —+—+—
Post Office . . . . . Po
International boundary . . . . . —··—··—
Provincial boundary . . . . . —·—·—·—
Township boundary (surveyed) . . . . . — — —
Township boundary (unsurveyed) . . . . . — — —
Park boundary . . . . . ····
Intermittent lake and stream . . . . . Rapids
Rapids . . . . . Rapids
Contours (interval 500 feet) 4500
Depression contour . . . . . ⊂
Height in feet above mean sea-level 6010

Approximate magnetic declination, 21° 21' East, decreasing 2, 9' annually

Cartography by the Geological Survey of Canada, 1962



INDEX MAP

PUBLISHED, 1962
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MAP 35-1961
TO ACCOMPANY PAPER 61-24
GEOLOGY
FERNIE
(EAST HALF)
BRITISH COLUMBIA - ALBERTA

Scale: One Inch to Two Miles = $\frac{1}{126,720}$
Miles
2 1 0 2 4 6

MAP 35-1961
FERNIE
BRITISH COLUMBIA – ALBERTA
SHEET 82 $\frac{G}{NE}$ AND 82 $\frac{G}{SE}$