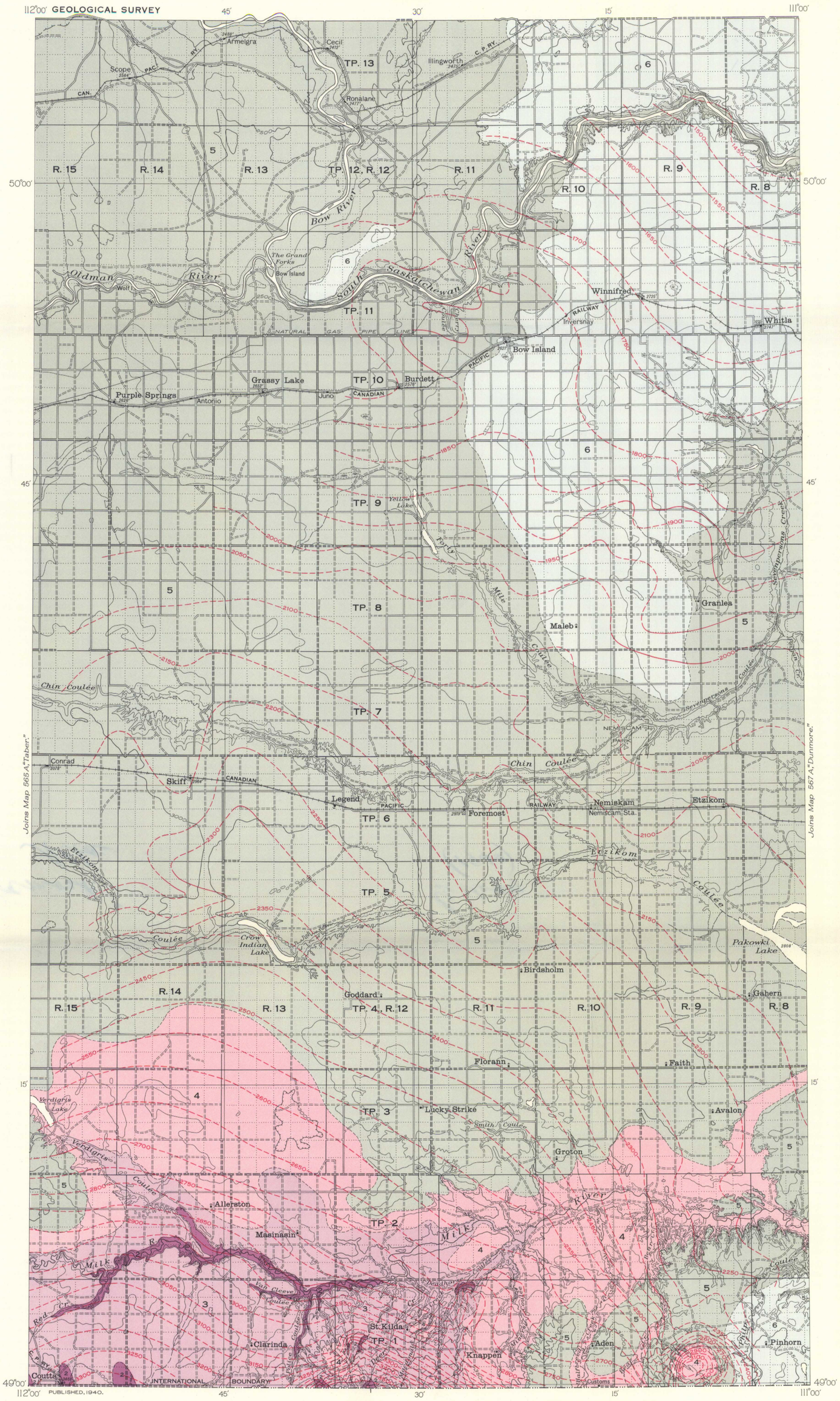
CANADA

DEPARTMENT OF MINES AND RESOURCES

MINES AND GEOLOGY BRANCH

BUREAU OF GEOLOGY AND TOPOGRAPHY

GEOLOGICAL SURVEY



PUBLISHED, 1940.

LEGEND

CRETACEOUS

UPPER CRETACEOUS

MESOZOIC

- 6 — *OLDMAN FORMATION: light-coloured shale and sandstone*
- 5 — *FOREMOST FORMATION: sombre-coloured shale and sandstone; coal seams*
- 4 — *PAKOWKI FORMATION: dark shale, some sandy beds*
- 3 — *MILK RIVER FORMATION, upper part: argillaceous sandstone and sandy shale; lenticular sandstone beds; streaks of lignite*
- 2 — *MILK RIVER FORMATION, lower part: mainly sandstone; lower part of shaly sandstone and sandy shale*
- 1 — *ALBERTA FORMATION: dark shale*

Geological boundary (defined, assumed)

Structure contour, on top of Alberta shale, interval 50 feet (determined, assumed)

Road

Road not well travelled

Road along township boundary

Post Office

Railway Station and Post Office

International boundary

Township boundary

Section line

Park boundary

Irrigation canal (abandoned)

Intermittent lake and stream

Marsh

Contours (interval 100 feet)

Depression contour

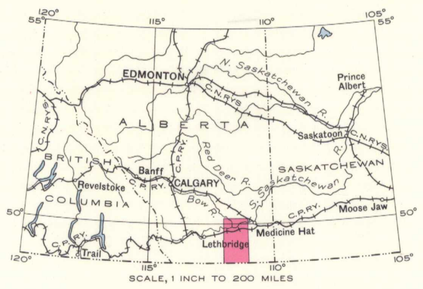
Height in feet above Mean sea-level ..... 3678′

Geology and structure contours by L.S. Russell, 1934, 1935, 1936, and 1937.

Base-map prepared from surveys and topography by the Topographical Survey, 1937, and from Federal Government maps published in 1914, and 1924. Cartography by the Drafting and Reproducing Division, 1940.

DIAGRAM OF TOWNSHIP
SHOWING NUMBERING OF SECTIONS

31	32	33	34	35	36
30	29	28	27	26	25
19	20	21	22	23	24
18	17	16	15	14	13
7	8	9	10	11	12
6	5	4	3	2	1



SCALE, 1 INCH TO 200 MILES

DESCRIPTIVE NOTES

The oldest formation exposed is the Alberta (1) consisting of dark, marine shale, with ironstone concretions. The Milk River formation is sharply divided into lower and upper parts. The lower (2) consists of about 100 feet of light-coloured, massive sandstone underlain by 50 or more feet of beds transitional to the Alberta shale. The upper (3) part of the Milk River formation is of fresh-water deposition, is 130 feet or less in thickness and consists of sombre, grey shale and buff sandstone, with thin lignite and ironstone beds. The Pakowki formation (4) is of marine origin. Its thickness increases from west to east; it is about 500 feet in the southeast. At the base is a persistent bed of black chert pebbles. The formation is mostly dark shale, especially in the lower part. The upper part contains well developed sandstone beds, and also much silt interbedded with the shale. The lower part of the Foremost (5) resembles the upper Pakowki, but the Foremost formation is of brackish water deposition and the upper part carries numerous coal seams. The thickness is about 370 feet in the north, nearly 500 feet in the central district, and about 270 feet in the southeast. The Oldman (6) formation is of fresh-water deposition. In townships 1 and 2, ranges 8 to 11 inclusive, are a few outcrops of light coloured porphyries or dark minettes, mainly in the form of dykes. These are evidently offshoots from the igneous masses of the Sweetgrass hills of northern Montana. They are presumed to be of Tertiary age, Eocene or perhaps younger.

The area lies on the axis and east flank of the Sweetgrass arch. The regional dip is to the north and northeast, at an average of 20 to 30 feet to the mile. Subsidiary folds of complex nature occur at several places. On the extreme south the northern edge of the Sweetgrass hills uplift appears; here the dips are relatively steep, and sharp plunging folds are developed.

Coal seams in the upper Foremost beds are mined north of Bow Island, and in the lower Foremost beds south of Lucky Strike. Heavy petroleum occurs in basal Jurassic strata south of Skiff. Natural gas occurs in lower Alberta beds at Bow Island, Foremost, and elsewhere. Accumulations of gas are also found in the basal Jurassic and the top of the Carboniferous. In the central part of the area artesian water in large quantities is obtained from the sandstone in the lower part of the Milk River formation.

MAP 566A

FOREMOST

ALBERTA

Scale, 1/253440 or 1 Inch to 4 Miles

Miles 4 0 4 8 12

Approximate magnetic declination, 21° East.