

higher sandstones of the Rocky Mountain formation and suggested a redefinition of the Tunnel Mountain formation.

Douglas and Raasch presented their final conclusions at this meeting.

R. J. W. DOUGLAS and P. HARKER, Geological Survey of Canada, Ottawa, Ontario
Mississippian Succession in Mount Head Area, Alberta*

The Mississippian rocks of Mount Head area in the Southern Foothills of Alberta are included in the standard formations of the Alberta Rocky Mountains, the Banff, Rundle, and Rocky Mountain formations. The succession differs in several respects from that of the type region at Banff, these variations being, in part, of economic interest.

The Banff formation is Kinderhookian in age. The Rundle formation is raised to group status to include two formations, the Livingstone and Mount Head. The Livingstone formation, of Osagian age, is divided into two members, Pekisko and Turner Valley, and the latter member into the following groups of beds: Banner, Dark Lime, Lower Porous, Middle Hard, and Upper Porous beds. The Mount Head formation of Meramecian age contains the following members: Wileman, Bari, Salter, Loomis, Marston, and Carnarvon. The Rocky Mountain formation is divided into a lower or Etherington member, Chesterian in age, and an Upper member of Pennsylvanian or Permian age.

The Mississippian succession throughout the Southern Foothills of Alberta resembles that of the Mount Head area. Its division into several formations and members permits detailed correlation and study of the lateral variations of the beds.

G. O. RAASCH, Canadian Stratigraphic Service, Calgary, Alberta
Carboniferous Section at Highwood Pass, Alberta

The upper 605 feet is assigned to the Rocky Mountain formation, which is here amended to comprise strata of Permian age. The formation is divided into an upper quartzitic sandstone member, 503 feet thick, for which the term Storm Creek is proposed. The lower member is believed to be the equivalent of Warren's (unpublished) Norquay member of the Banff region, on both faunal and lithologic grounds.

The name Tunnel Mountain is redefined to cover the underlying 602 feet of resistant dolomite and limestone with interbedded gray and green shale, of Chester age. Below this, a topographically weak unit comprises 557 feet of Meramecian strata and is correlative with Douglas' (1953) Mt. Head formation. Its upper 188 feet is interbedded black bituminous shale and black bituminous dense limestone, while *Lithostroton*-bearing biostromes are intercalated in the lower portion. Finally some 300 feet of resistant Livingstone (Osage) strata intervene between the base of the Mt. Head and the thrust which terminates the section below.

Two major faunal zones have been discriminated in the Tunnel Mountain and three in the Mt. Head. Indicated affinities of these are with the late Chester, Ste. Genevieve, St. Louis, and Salem units of the standard Mississippi Valley section. Corals in the Mt. Head also permit correlations with the Brazer limestone of Utah. More locally, lithologic and faunal evidence indicates a close correlation with type sections at Mt. Head and Banff.

P. HARKER and D. J. MCLAREN, Geological Survey of Canada, Ottawa, Ontario
Devonian-Mississippian Boundary in Canadian Rocky Mountains*

Over most of the Alberta Rocky Mountain region, the Palliser formation, containing an Upper Devonian fauna, is overlain with disconformity by the Exshaw formation. The Exshaw, consisting of a lower black shale and an upper calcareous siltstone, has been considered to be Devonian but the faunal evidence of Devonian age is inconclusive. The Exshaw, though widespread, is not present throughout the region and in some sections the Mississippian Banff formation rests disconformably on the Palliser. The Exshaw occupies the same stratigraphic position and is lithologically similar to the Bakken of Saskatchewan. The Sappington of Montana which is reported to contain an early Mississippian fauna bears some lithological resemblance to the siltstone member of the Exshaw. It is suggested that the Devonian-Mississippian boundary be placed at the base of the Exshaw formation in the Alberta Rocky Mountains.

W. H. H. PATTON, Canadian Gulf Oil Company, Calgary, Alberta
Mississippian Succession in South Nahanni River Area, Northwest Territories

A thick section of Mississippian rocks is exposed west of Jackfish River in the LaBiche Range of the MacKenzie Mountains near South Nahanni River, Northwest Territories.

From fossil evidence rocks of Kinderhook, Osage, Meramec, and Chester ages are known to be present.

* Published by permission of the Acting Deputy Minister, Department of Mines and Technical Surveys, Ottawa.