



**GEOLOGICAL SURVEY OF CANADA  
COMMISSION GÉOLOGIQUE DU CANADA**

**Open File 3573**

**STRATIGRAPHIC PICKS FOR THE MANNVILLE GROUP IN SOUTHERN ALBERTA AND  
SASKATCHEWAN: TWP 1-20, RGE 13-30W3 AND TWP 1-10, RGE 1-13W4**

By

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Although every effort has been made to ensure accuracy, this Open File Report has not been edited  
for conformity with Geological Survey of Canada standards.



This disk provides stratigraphic picks utilized in a regional study of the Mannville Group in southwest Saskatchewan and southeast Alberta in the area covering Twp 1-20, Rge 13-30W3 and Twp. 1-10, Rge. 1-13W4.

Further background geological information is available in the following reports.

Leckie, D.A., Vanbeselaere, N.A., James, D.P. and Wallace-Dudley. 1997. Mayhem in the Mannville: Stratigraphic complexity in southern Alberta and Saskatchewan — resolved. Geological Survey of Canada Open File Report 3545, 74 p.

Vanbeselaere, N.A., Leckie, D.A., and James, D.P. 1997. Regional cross sections of the Mannville Group in southern Alberta and Saskatchewan: Twp 1-20, Rge 13-30W3 and Twp. 1-10, Rge. 1-13W4. Geological Survey of Canada Open File Report D3547, 11 regional cross sections on CD Rom.

Leckie, D.A., Vanbeselaere, N.A., and James, D.P. 1997. Regional sedimentology, sequence stratigraphy and Petroleum Geology of the Mannville Group: southwestern Saskatchewan, in Petroleum Geology of the Cretaceous Mannville Group, Western Canada, Edited by S.G. Pemberton and D.P. James. Canadian Society of Petroleum Geologists Memoir 18, p. 211-262.

Important Notes regarding the data set:

1. The files are in Microsoft Excel™ formats for Windows™ and MacIntosh™.
2. The table below lists the stratigraphic picks made and their abbreviations. Refer to supporting figures (enclosed) for the southwest Saskatchewan and southeast Alberta stratigraphic nomenclature.

<b><u>Abbreviation</u></b>	<b><u>Full Name</u></b>
MNT	Mannville top
UMT	Upper Mannville top
PT	Pense top
I	IHACM (Index Horizon above Cantuar Marker)
CM	Cantuar Marker
PB	Pense base
CT	Cantuar top
CCT	Chokecherry Creek top
CCB	Chokecherry Creek base
ADT	Atlas/Dimmock Creek top
ADB	Atlas/Dimmock Creek base
GLT	Glauconite top
GLB	Glauconite base

UMB	Upper Mannville base
LMT	Lower Mannville top
MCT	McCloud top
BSHT	Bantry Shale top
BSHB	Bantry Shale base
BQT	Basal Quartz top
BQB	Basal Quartz base
MCB	McCloud base
CB	Cantuar base
S2T	Success 2 (Sunburst) top
S2B	Success 2 (Sunburst) base
LMB	Lower Mannville base
MNB	Mannville base
BC	Base Cretaceous
JT	Jurassic top
VT	Vanguard top
SWT	Swift top
S1T	Success 1 (Swift Ribbon Sand) top
S1B	Success 1 (Swift Ribbon Sand) base
MT	Masefield (Swift Shales) top
MB	Masefield (Swift Shales) base
SWB	Swift base
RST	Roseray Sand top
RSB	Roseray Sand base
Rush Lake T	Rush Lake top
Rush Lake B	Rush Lake base
VB	Vanguard base
SHT	Shaunavon top
UST	Upper Shaunavon top
USB	Upper Shaunavon base
LST	Lower Shaunavon top
LSB	Lower Shaunavon base
SHB	Shaunavon base
Miss	Mississippian top

3. When manipulating this data set to produce the various isopach maps and structural maps it is important to note the following:

- if a unit is represented by an “nd” in the value column, then there was NO DATA available (i.e., logs did not go deep enough)
- if a unit is represented by an “np” in the value column, then there was NO PICKS (i.e., the formation was not present; it was eroded or never deposited).

4. Finally, it is important to note that this open file report is a data dump based on our understanding at the time of publication. Our ideas and interpretations have been evolving with each successive phase of this Mannville study. Therefore, our interpretations may change slightly over time. We have tried to correct minor data

busts that may be present due to input errors during the data entry process, however a few may have been missed.

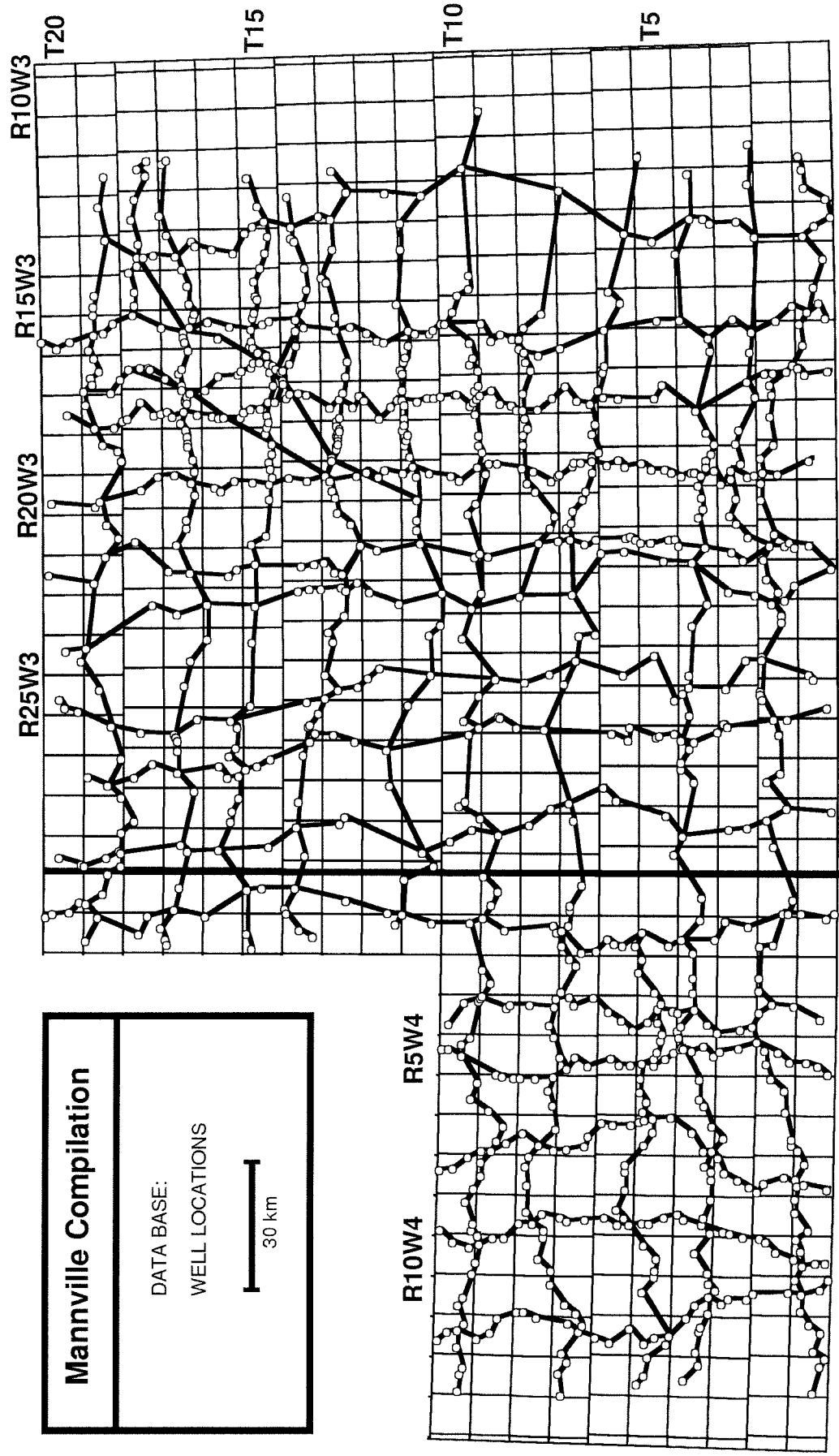
## SUPPORTING FIGURES

1. Location map.
2. Stratigraphic nomenclature
3. Evolution of Mannville paleogeography.
4. Mannville play types.

**Mannville Compilation**

DATA BASE:  
WELL LOCATIONS

30 km



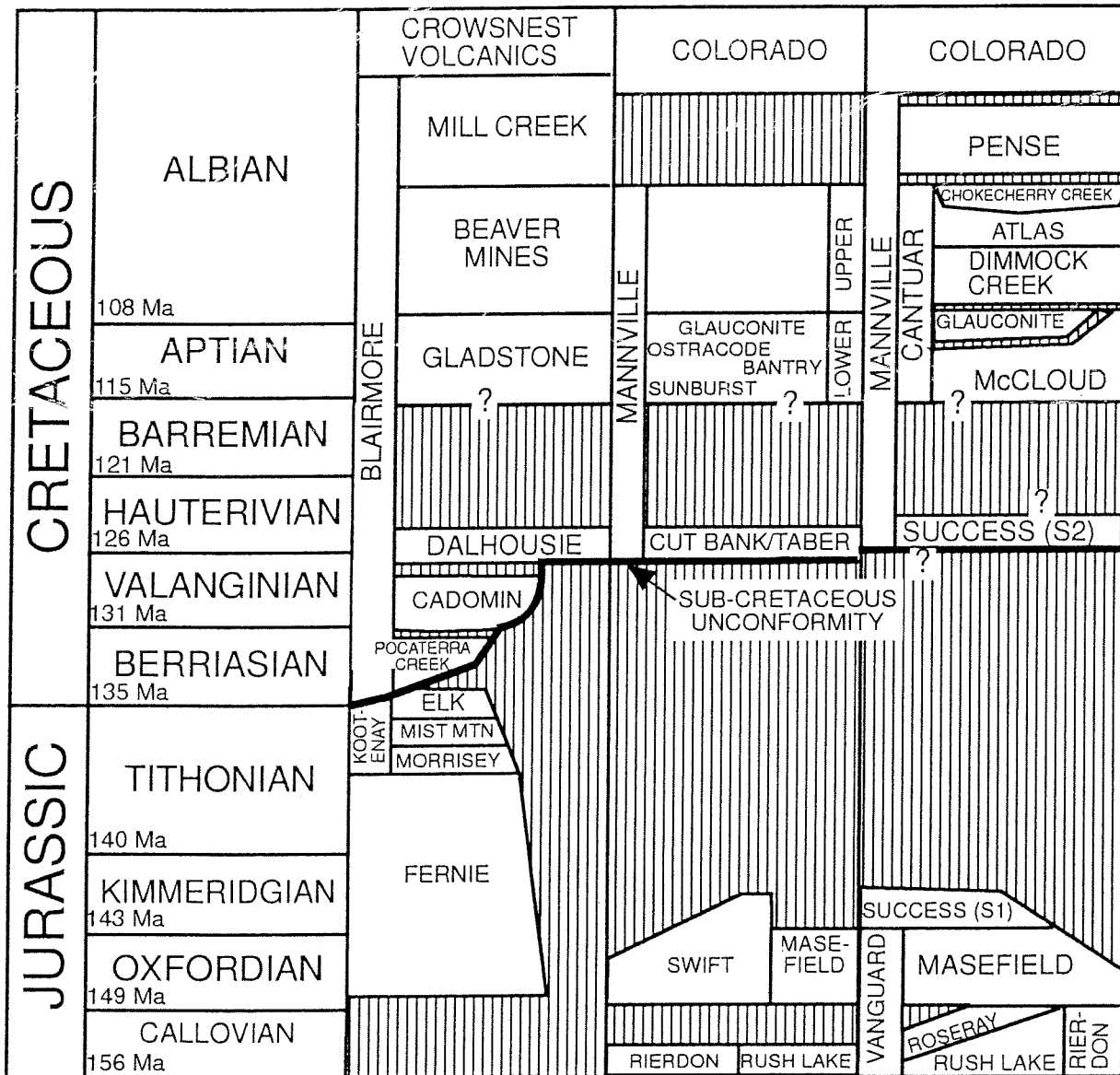
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Alberta

SOUTHERN  
ROCKY MOUNTAIN  
FOOTHILLS

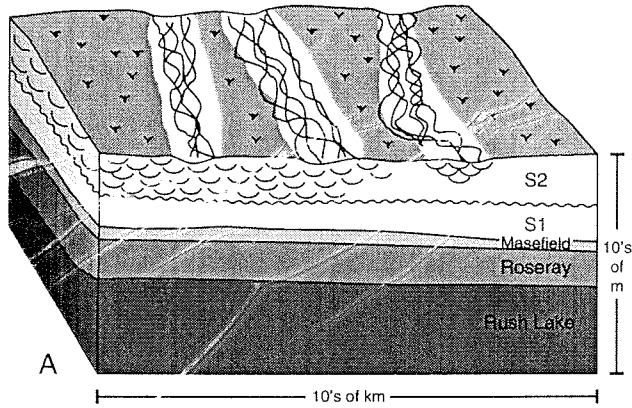
SOUTHERN  
ALBERTA

SOUTHWEST  
SASKATCHEWAN

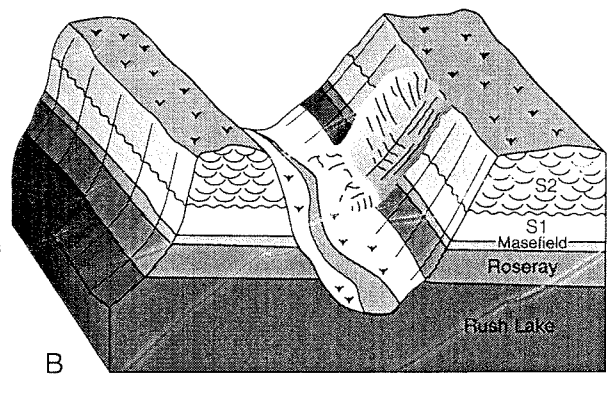




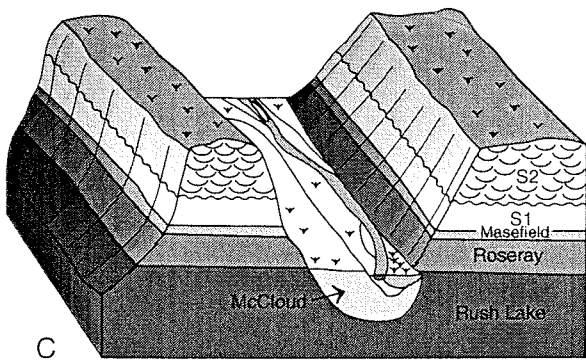
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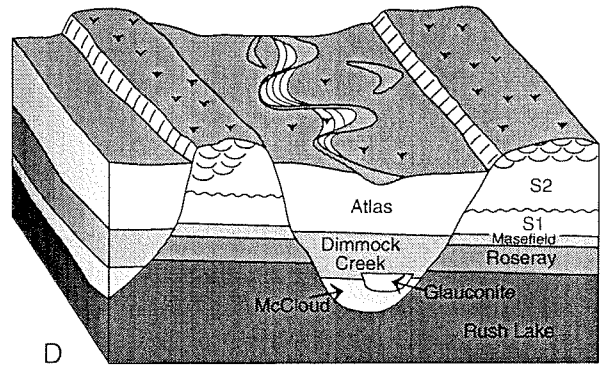
McCLOUD



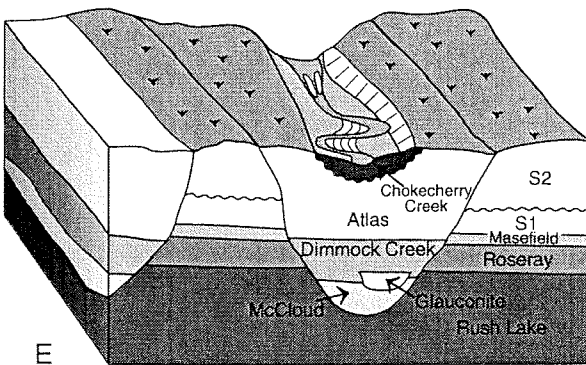
GLAUCONITE



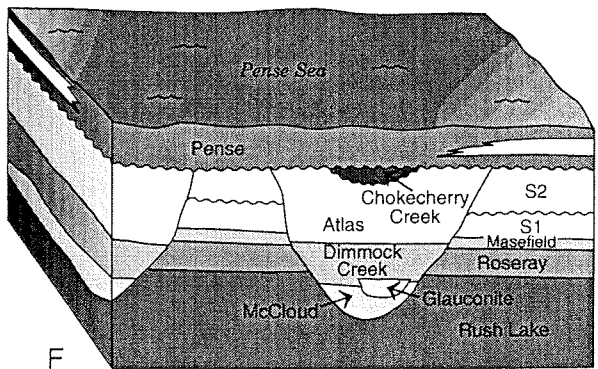
ATLAS



CHOCKECHERRY CREEK



PENSE



# MANNVILLE PLAY TYPES SOUTHWEST SASKATCHEWAN

