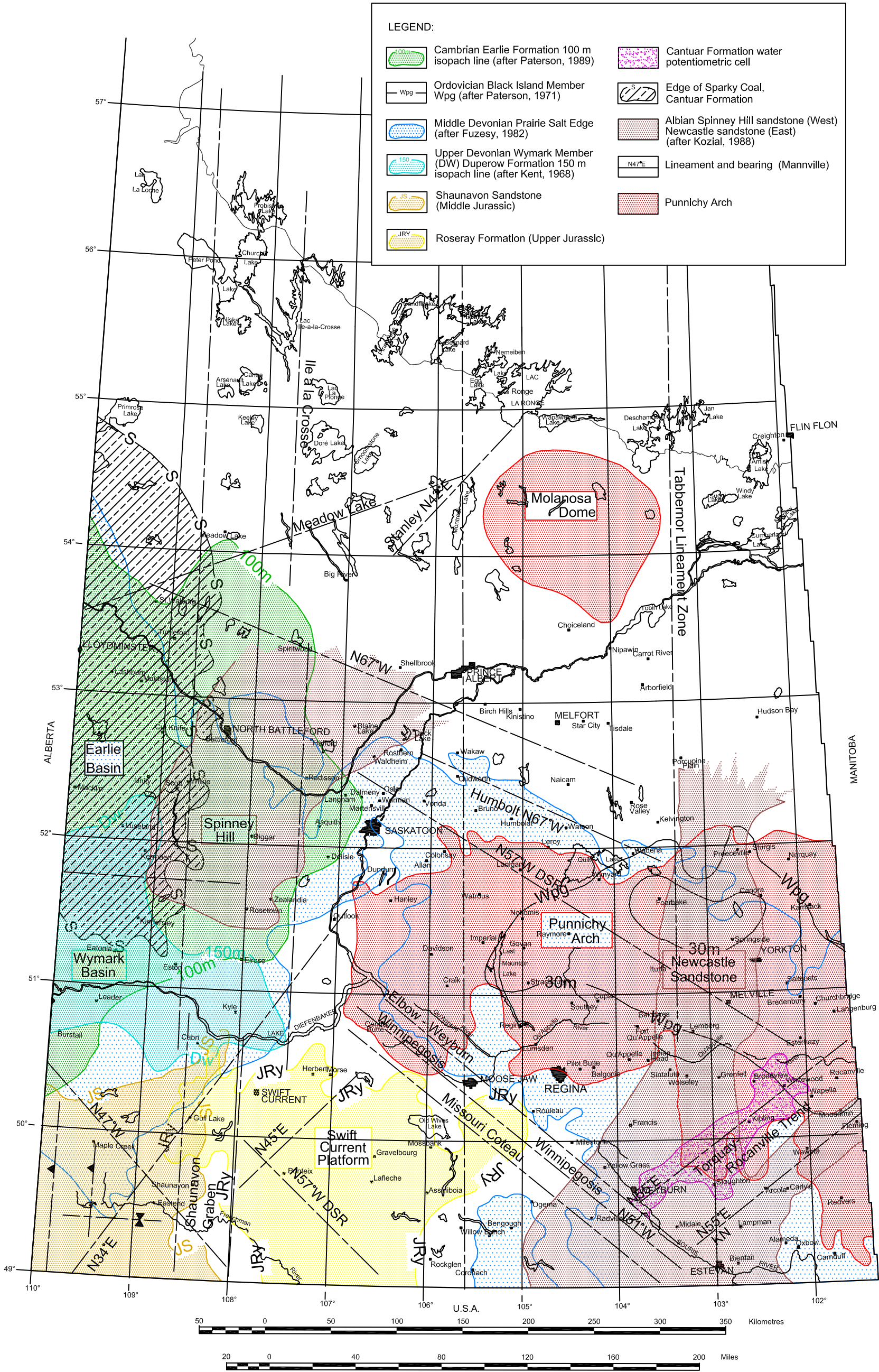




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Figure 50 - Major Phanerozoic lineaments and related structural
and sedimentary features, Saskatchewan



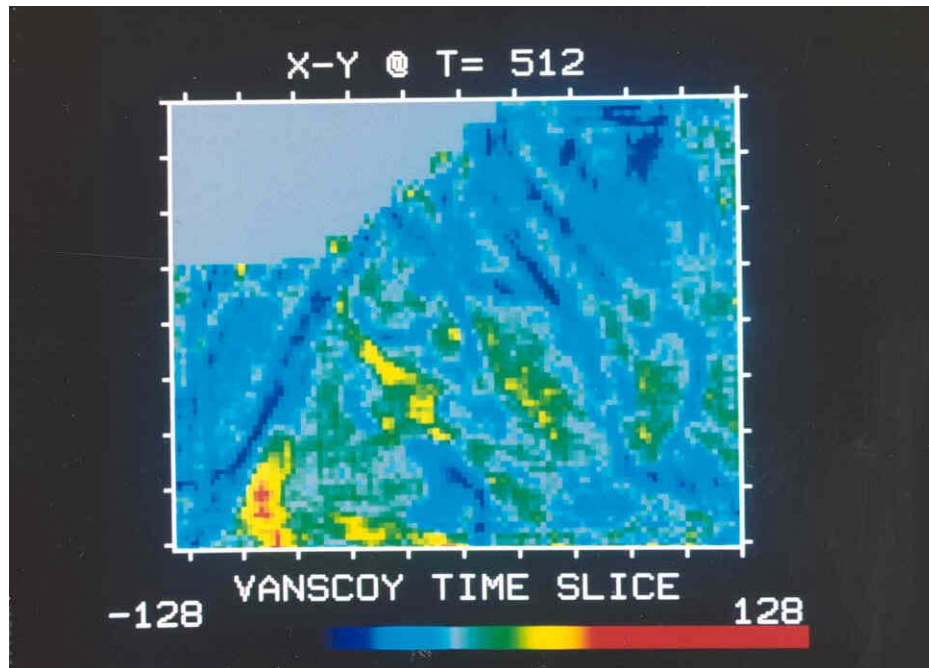
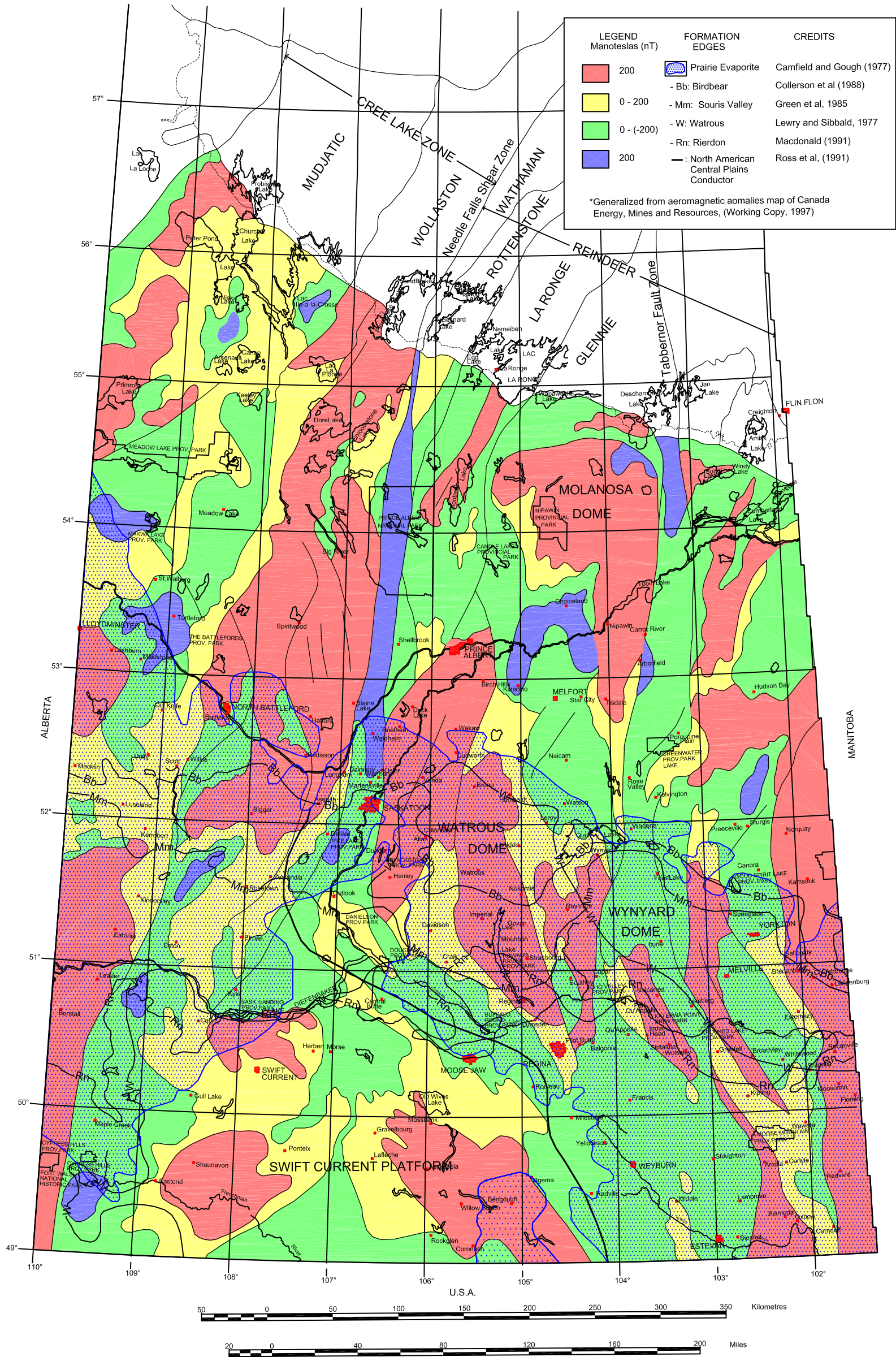


Figure 51 – Three-dimensional seismic time slice of the Cantuar Formation, bordering halves of Twp. 35 and 36, Rge. 8, W 3rd Mer., Saskatchewan; bearings depicted are 319°, 318°, 317°, 316°, and 028° (by permission of Cominco Ltd.).



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Figure 52 - Cantuar and other Phanerozoic structural and topographic
elements on a background of Precambrian basement aeromagnetic
patterns, Saskatchewan



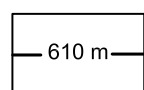


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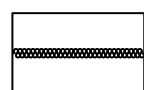
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Figure 53 - Structure contour map on the Upper Devonian Souris River Formation in the southwestern portion of the Mannville-Success Meadow Lake Basin, west-central Saskatchewan

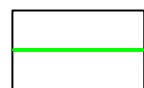
Legend:



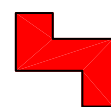
610 m
Holocene topographic
contour



Edge of Success Formation

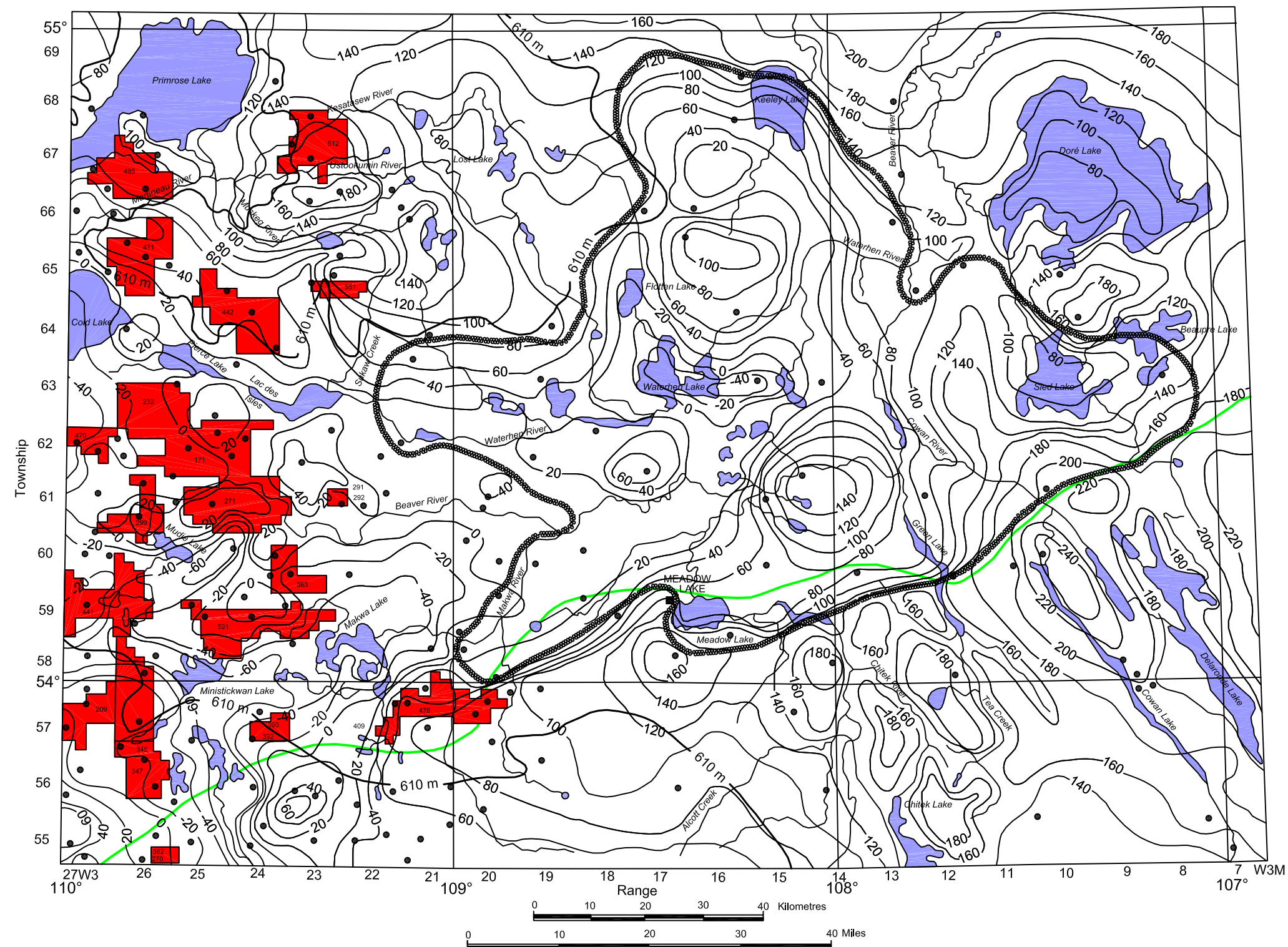


Meadow Lake Escarpment
(after Haidl, 1989, Kreis and Haidl,
2002)



Mannville natural gas fields
(Saskatchewan Energy and Mines
Reservoir Annual, 1999)

Contour Interval: 20 m



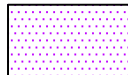
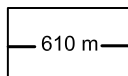
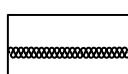
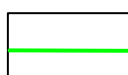



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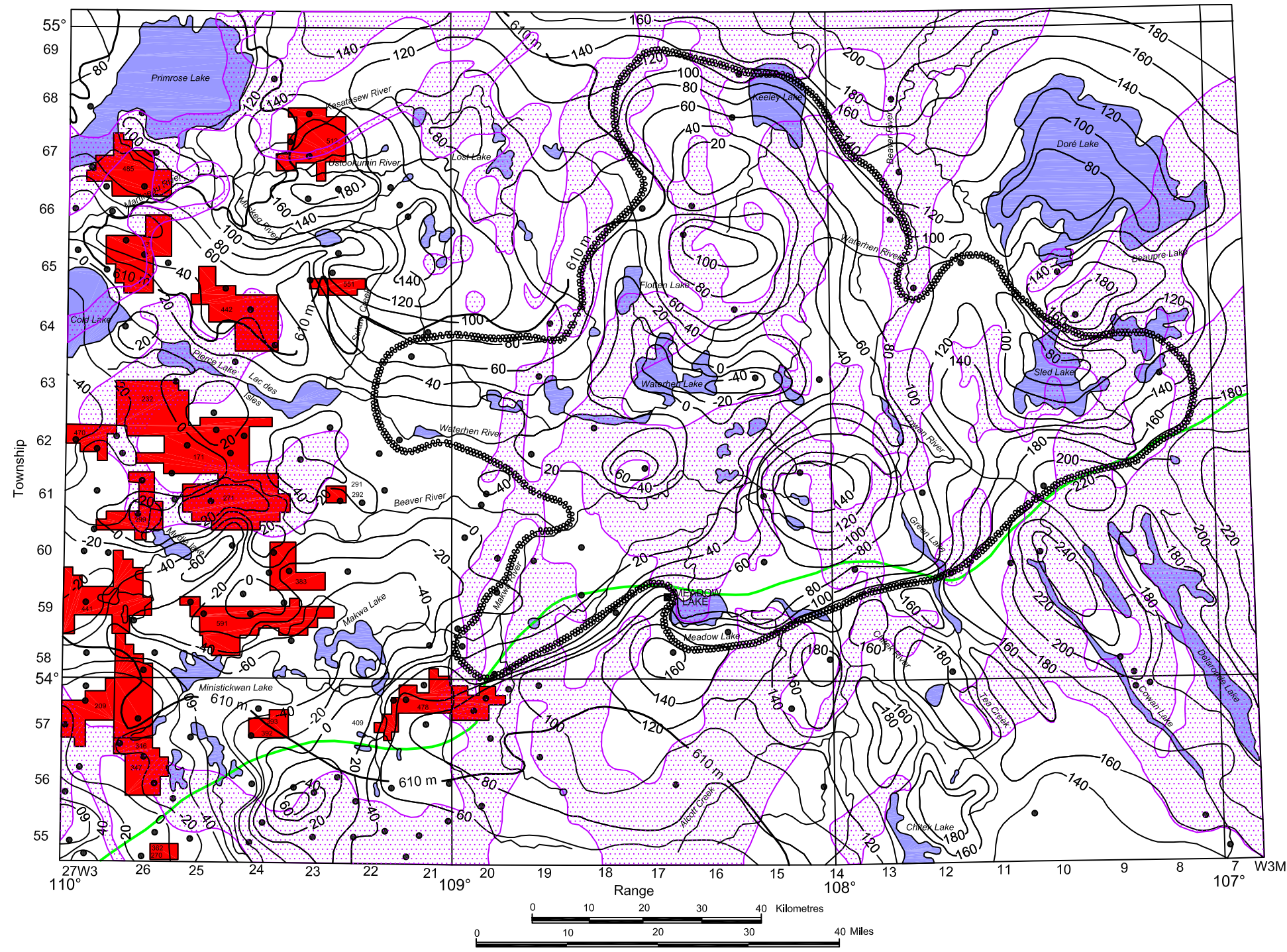
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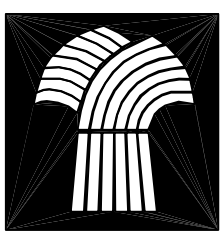
Figure 54 - Overlay of Precambrian basement
aeromagnetic patterns on structure contour map of the
Upper Devonian Souris River Formation in the
southwestern part of the Mannville-Success Meadow
Lake Basin, west-central Saskatchewan

Legend:

-  Magnetically high areas
-  Holocene topographic
contour
-  Edge of Success Formation
-  Meadow Lake Escarpment
(after Haidl, 1989, Kreis and Haidl,
2002)
-  Mannville natural gas fields
(Saskatchewan Energy and Mines
Reservoir Annual, 1999)

Contour Interval: 20 m

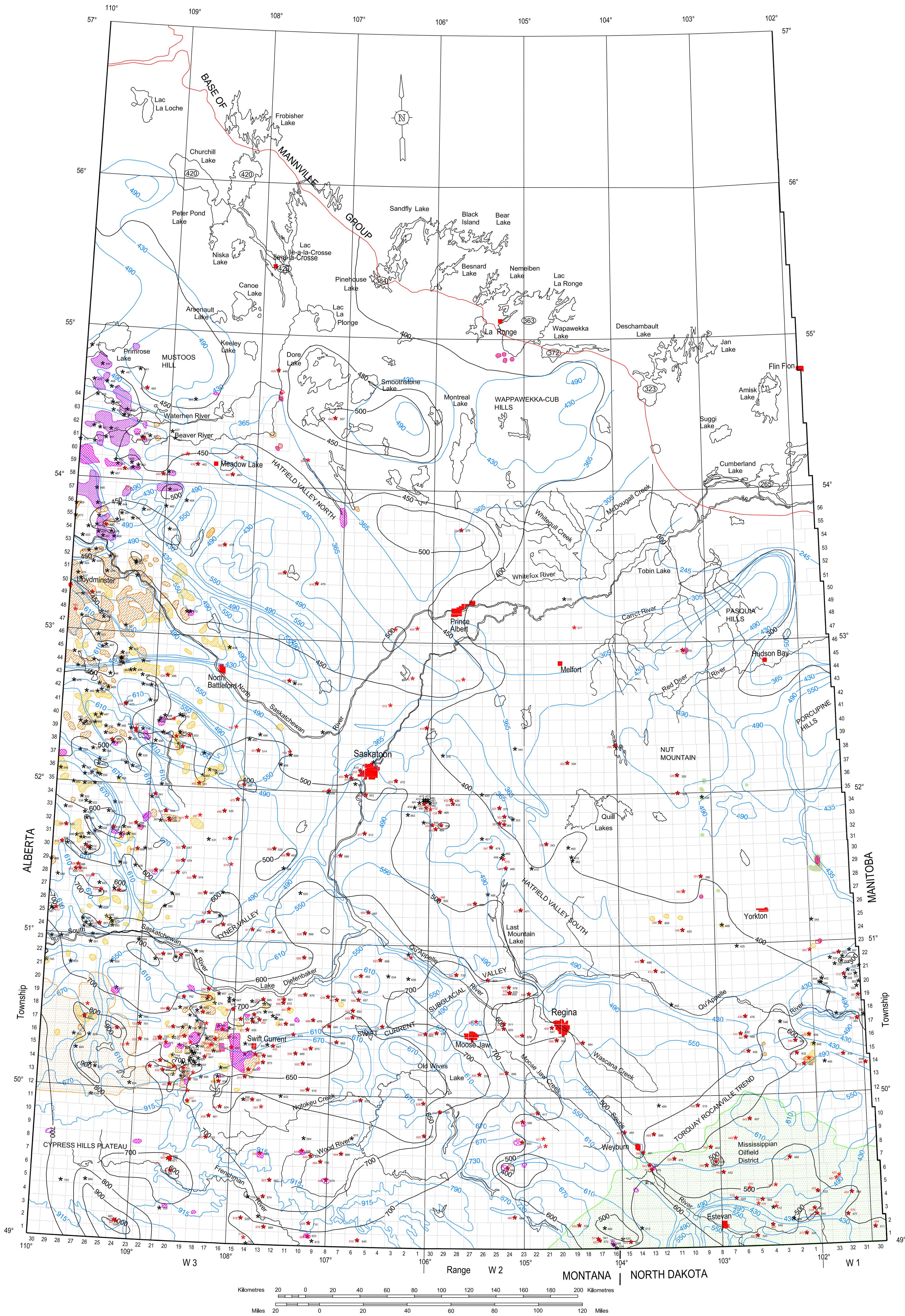




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Figure 55 - Formation-water potentiometric map
of the Mannville Group and elements of the
subglacial aquifer system, Saskatchewan

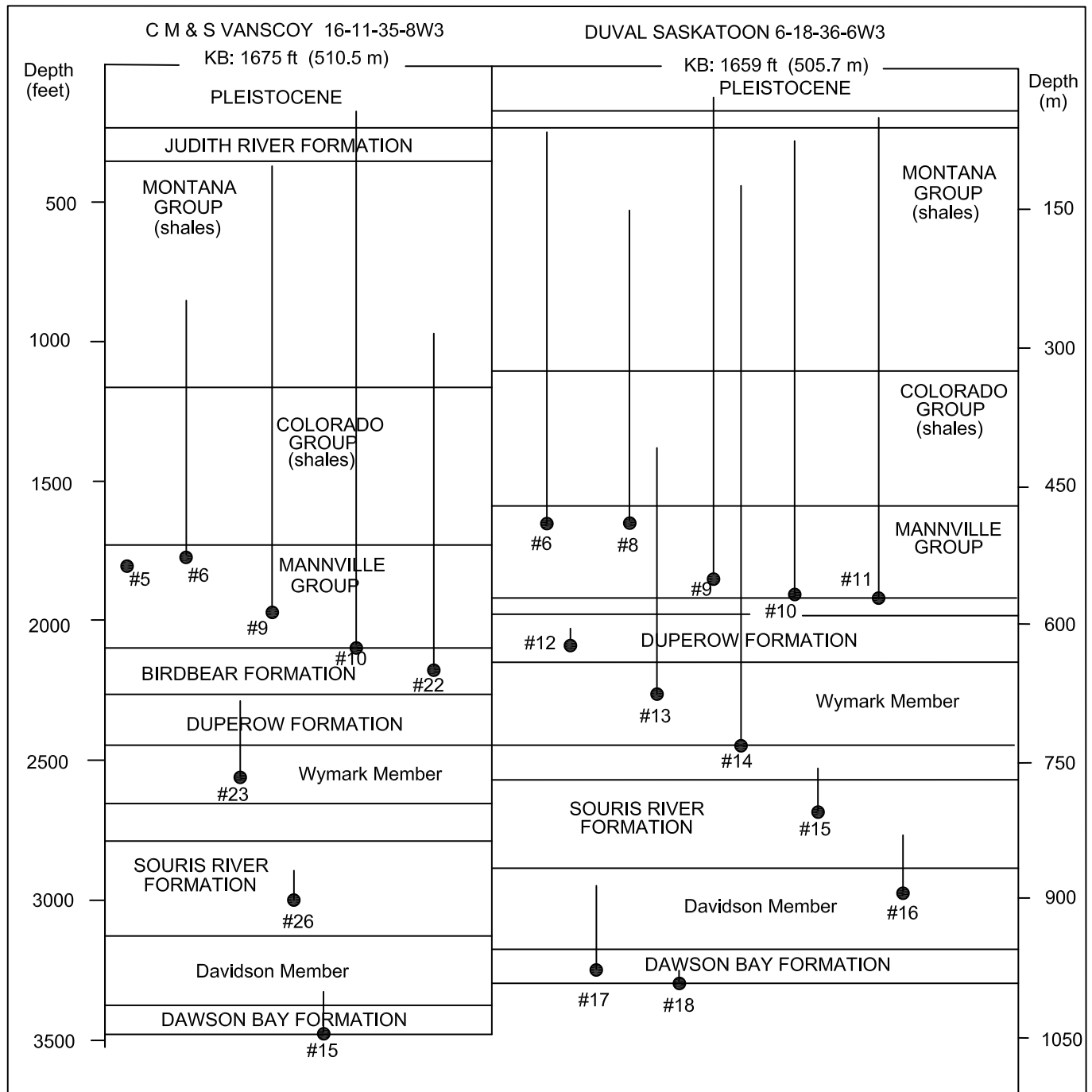
- Legend:
- Gas pool
 - Gas show
 - Colorado gas and oil shows
 - Devonian oil shows in central eastern Saskatchewan
 - Oil pool
 - Oil show (Success-Mannville)
 - Oil and gas show
 - Potentiometric contours (calculated to fresh water values, metres a.s.l.)
 - Subglacial topographic form lines(elevation in metres, a.s.l.) (after Whitaker, S.H. and Pearson, D.E., 1972)
 - Outline of Hatton gas-field district
 - Outline of Mississippian oilfield district
 - Potentiometric elevation - fresh water (metres, msl)
 - Elevation of water in drill stem (metres, msl)
 - Lake elevation





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Figure 56 - Rise of formation water in drill-stem tests of the Mannville and Devonian strata



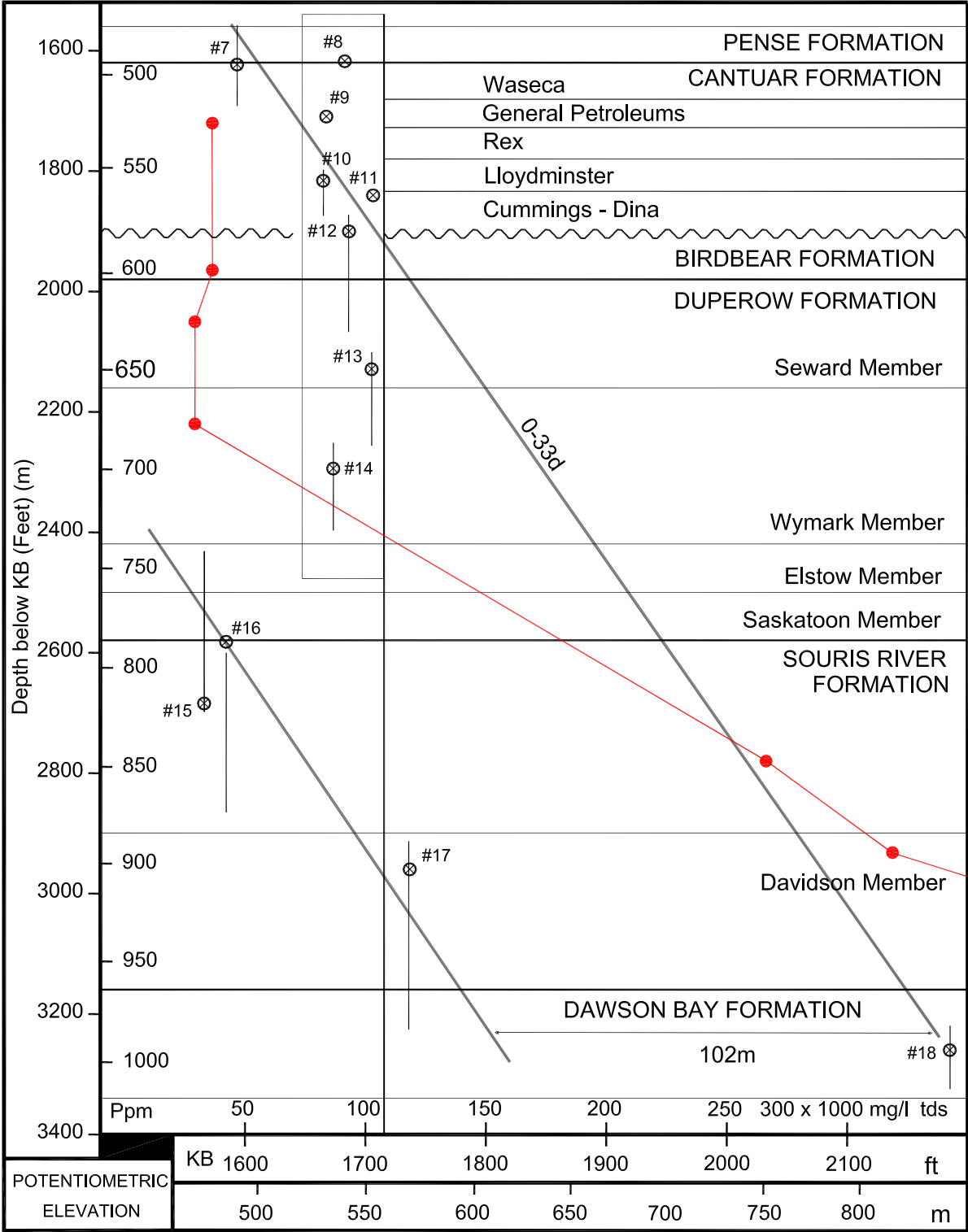
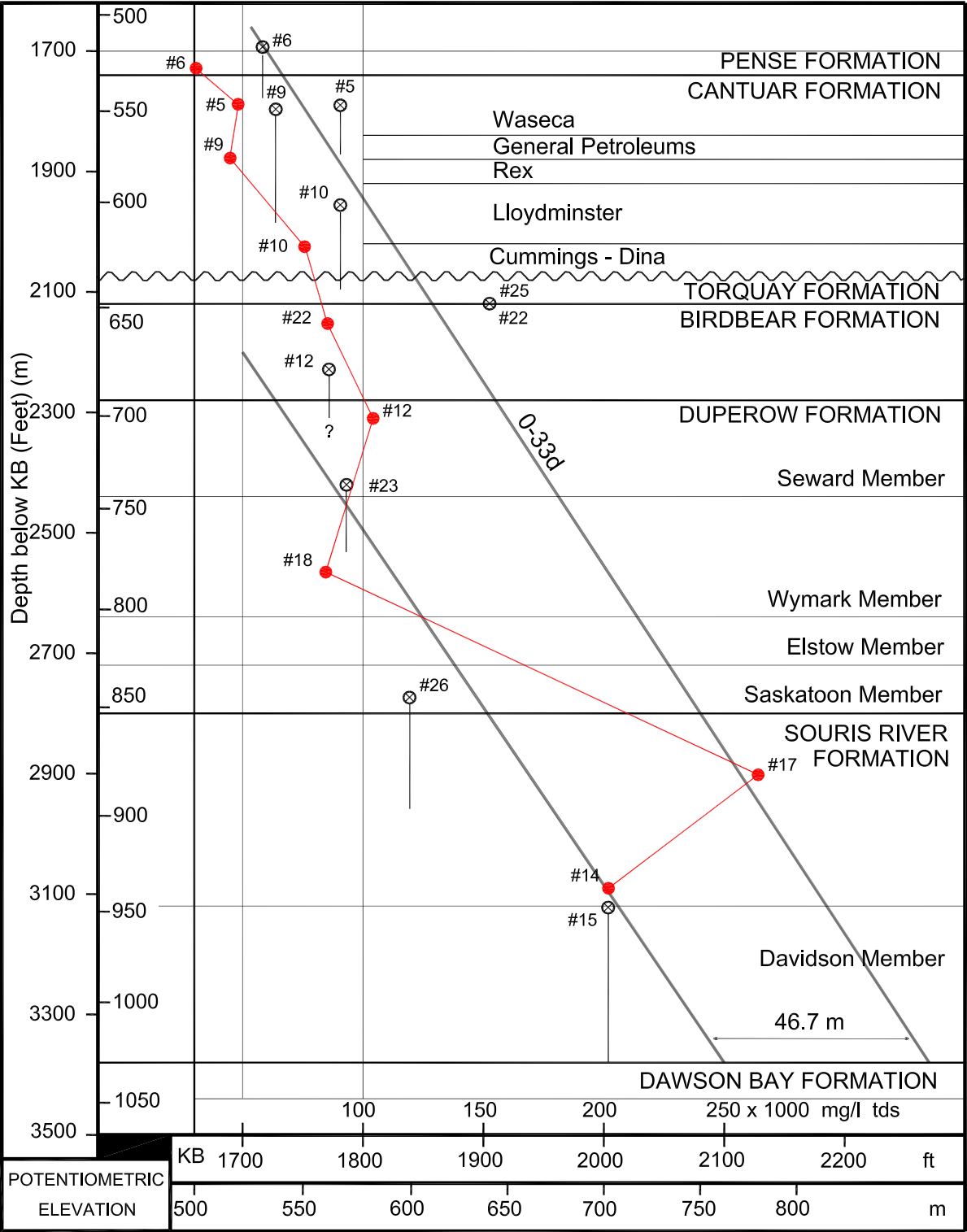


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Figure 57 - Potentiometric
heads versus depth, and
salinity versus depth

Legend:

- Tds
- ⊗ Drill stem test intervals













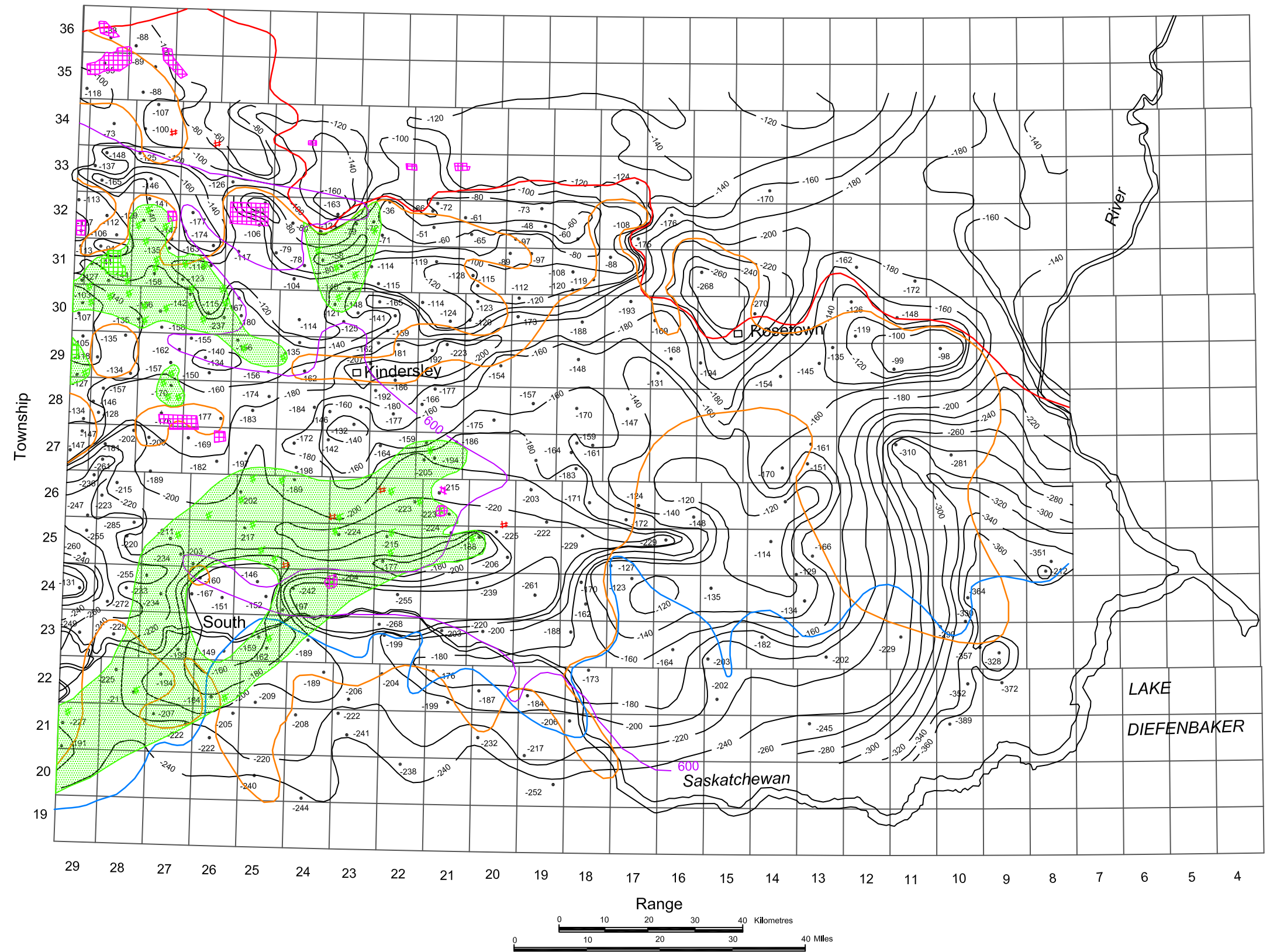
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Figure 58 - Distribution of oil shows in the
Success and Mannville formations on the
Kindersley structural terrace, Saskatchewan

Legend:

-  Erosional edge middle Jurassic Shaunavon-Gravelbourg formations
-  Erosional edge Jura-Cretaceous Success formation
-  Erosional edge Mississippian Madison formation
-  Oil show distributions in Success formation
-  Cretaceous Mannville oil pools and shows
-  Mississippian oil shows
-  -600 Potentiometric contours
-  Contours on the Paleozoic and Jurassic erosion surface; Contour Interval 20 m





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Figure 59 - Location of Mannville heavy-oil fields, Lloydminster area of Alberta and Saskatchewan

