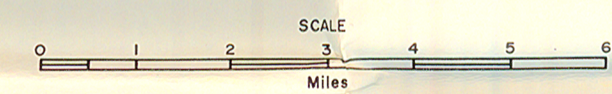


EXPLANATION

- GLACIAL LANDFORMS**
- END MORAINES.** Ridgeline accumulation of drift (chiefly till), moderate to high local constructional relief generally exceeding 30 feet, overall and internal linear pattern (lines represent individual crests), deposited at the margins of an active glacier.
 - Eg Grenora end moraine.** An accumulation of stony drift, high local relief, a band of linear and knobby hills with overall and sinuous internal linear pattern.
 - Eap Appam end moraine.** An accumulation of drift with local relief over 100 feet, steep slopes, and internal linear pattern.
 - Eh Hamlet end moraine.** An accumulation of stony drift, high local relief, a band of knobby hills and overall linear pattern.
 - Ef Fertile Valley end moraine.** An accumulation of drift as a band of knobby hills with high local relief, overall linear pattern.
 - Es Smoky Butte end moraine.** An arcuate accumulation of bouldery drift, high local relief, steep slopes, pronounced internal linear pattern.
 - Ep Plumer end moraine.** An arcuate accumulation of drift, steep slopes and an internal linear pattern, moderate local relief.
 - Eal Alkabo end moraine.** A looped segment of bouldery drift accumulation, steep slopes, very high local relief, and a very pronounced internal linear pattern.
 - Ec Collapsed end moraine.** Similar to dead-ice moraine but retains some of the end moraine ridging. A part of the Alkabo end moraine.
 - G GROUND MORAINE.** A gently undulating accumulation of drift, chiefly till, low local relief generally not exceeding 10 feet.
 - D DEAD-ICE MORAINE.** A hummocky accumulation of drift, chiefly till, lacking linear trends, generally high local relief that exceeds 30 feet, numerous kettles, non-integrated drainage, ice-disintegration features, deposited by a stagnant glacier.
 - Ocl COLLAPSED OUTWASH TOPOGRAPHY.** A hummocky accumulation of drift, chiefly glaciofluvial, moderate to high local relief, numerous depressions.
 - Lc COLLAPSED LAKE SEDIMENT TOPOGRAPHY.** An undulating accumulation of drift, chiefly glaciofluvial, generally stratified, may have ice-contact faces and flat areas.

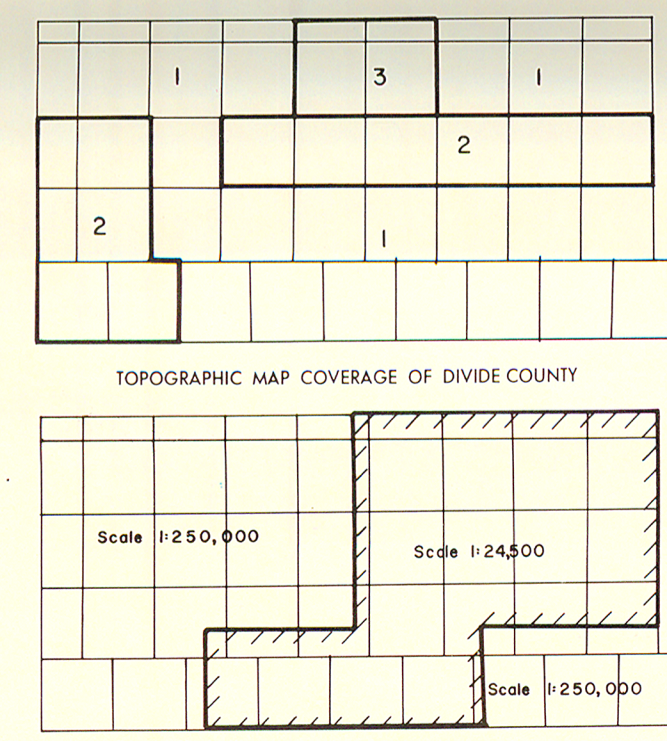
- NONGLACIAL LANDFORMS**
- Lpr ICE-RESTRICTED LAKE PLAIN.** Flat and undulating accumulation of drift, chiefly glaciofluvial, that has ice-contact faces.
 - Kt KAME TERRACE.** A bench like accumulation of drift, chiefly glaciofluvial, has ice-contact faces.
 - ESKER OR DISINTEGRATION RIDGE.** Elongate and narrow ridge of drift, chiefly glaciofluvial, generally stratified, sinuous or straight.
 - ICE-CONTACT OUTWASH, UNDIFFERENTIATED.** Deposits of drift, chiefly glaciofluvial, irregular landform, ice-contact faces.
 - K KAME.** Low mound of drift, chiefly glaciofluvial, deposited in contact with glacial ice.
 - LINEAR DISINTEGRATION RIDGE.** A narrow, straight or arcuate linear ridge of drift, till and glaciofluvial.
 - PARTLY-BURIED CHANNEL.** Shallow, till bottomed linear depression.
 - MORAINE TROUGH.** A chain of closed depressions.
 - ICE-CONTACT FACE.** A prominent steep slope of drift; arrowheads point downslope.
 - MELT-WATER CHANNEL.** Valley or channel used to transport glacial meltwater (direction of flow shown by arrow).

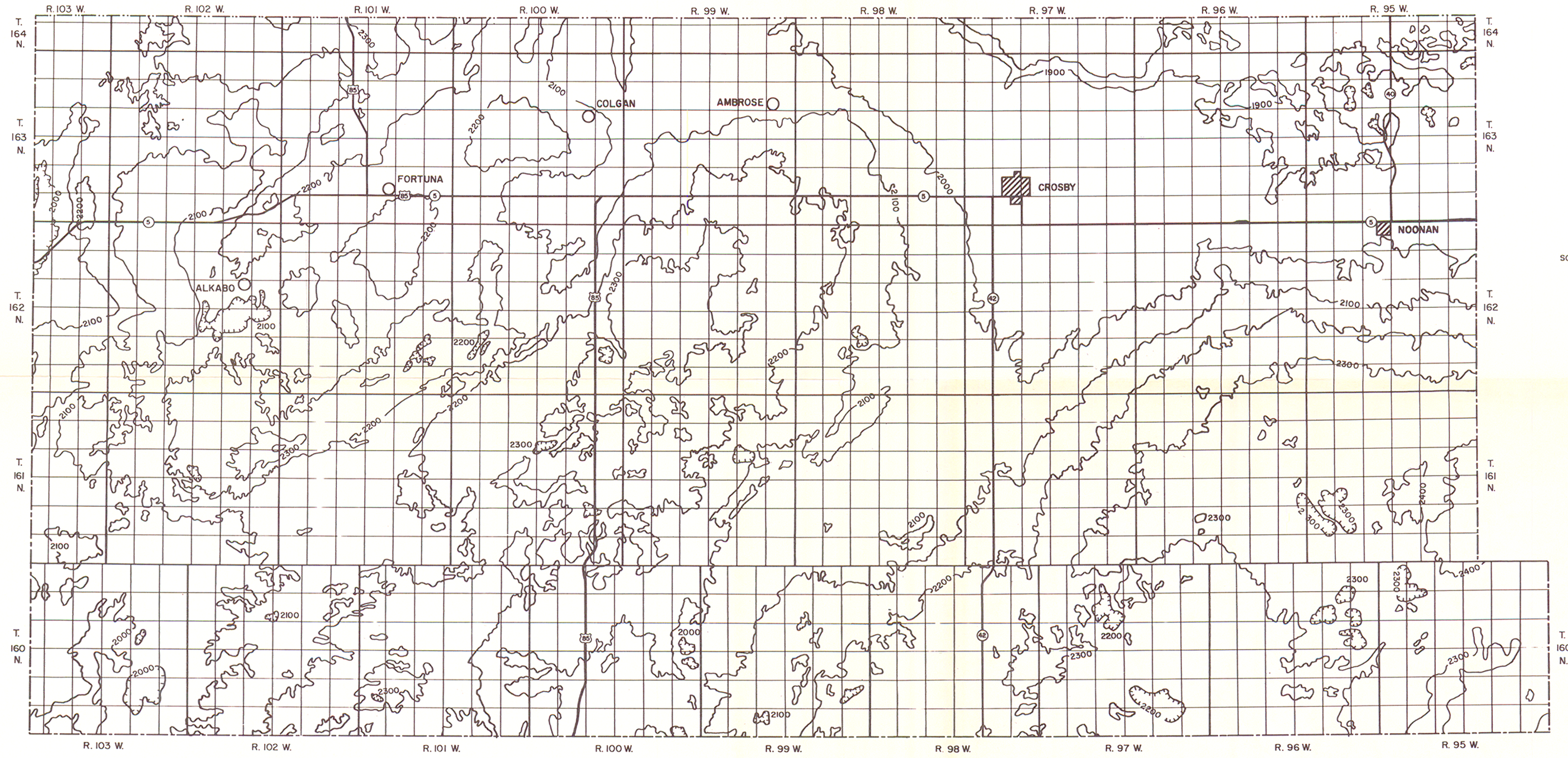
- NONGLACIAL LANDFORMS**
- Ds DUNE SAND.** Windblown sand deposits characterized by low dune topography.
 - PERMANENT AND INTERMITTENT LAKES.**
 - INTERMITTENT STREAMS.**
 - BEDROCK GEOLOGY**
 - Ttr TONGUE RIVER FORMATION.** Claystone, siltstone, sandstone, and lignite. Chiefly exposed near Noonan.
 - ISOLATED BEDROCK EXPOSURE.** Isolated exposures of the Tongue River. Formation and possible equivalents of the Flaxville gravel.
- MAP SYMBOLS**
- Federal Highway.**
 - State Highway.**
 - Railroad.**
 - Lignite strip mine, abandoned.**
 - Lignite underground mine, abandoned.**
 - Gravel pit.**
 - Contacts, dashed where approximately located.**



LANDFORM AND GEOLOGIC MAP, DIVIDE COUNTY, NORTH DAKOTA.

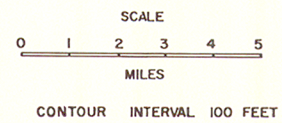
Geology by:
 Dan E. Hansen (1)
 Theodore F. Freers (2)
 Clarence A. Armstrong (3)
 and Dan E. Hansen

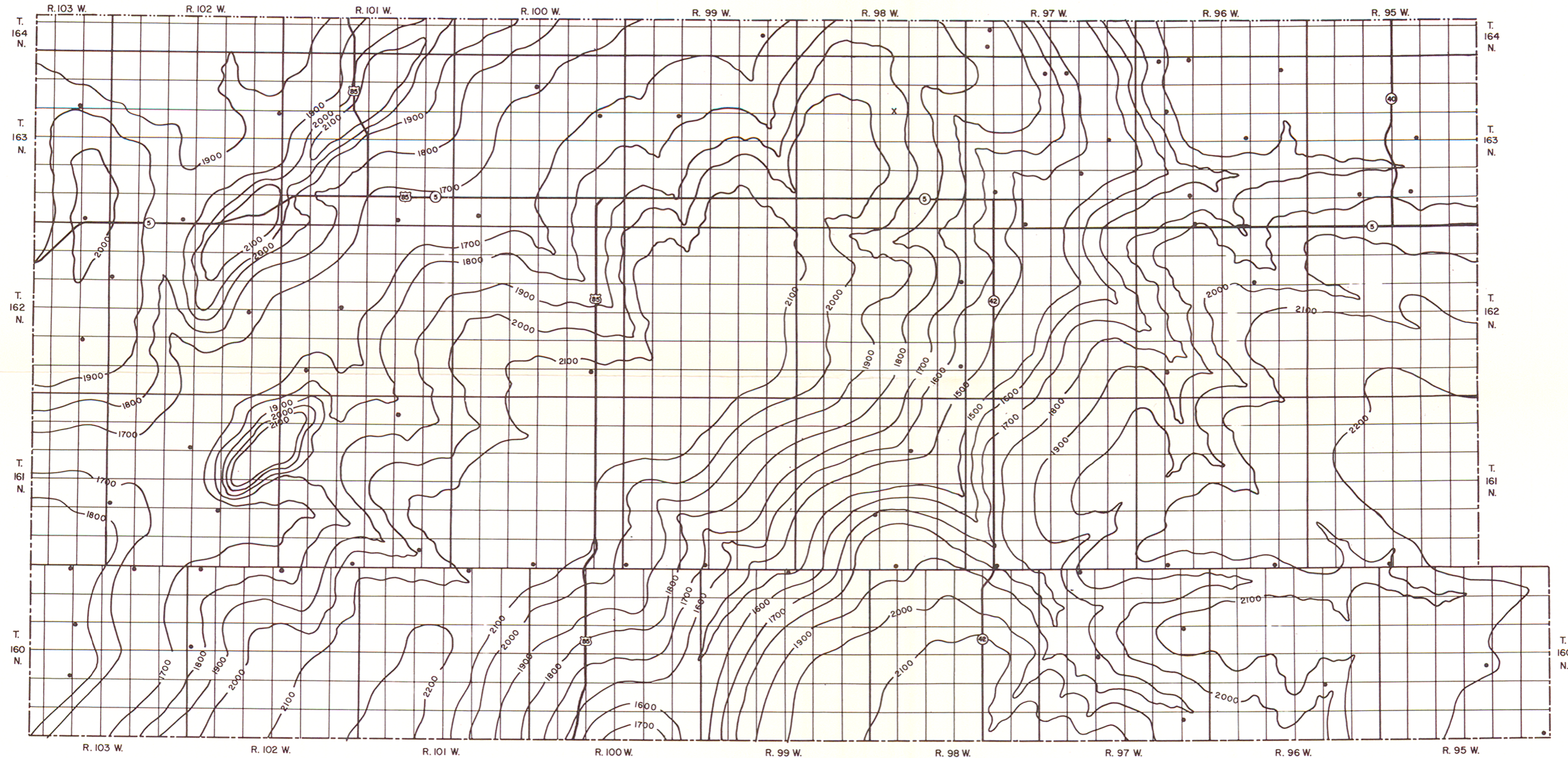




TOPOGRAPHY
FROM
ARMY MAP SERVICE SHEETS
NM 13-11 AND NM 13-12
WOLF POINT AND WILLISTON.
SCALE OF THE SHEETS IS 1:250,000

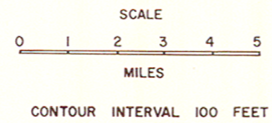
TOPOGRAPHIC MAP, DIVIDE COUNTY, NORTH DAKOTA.

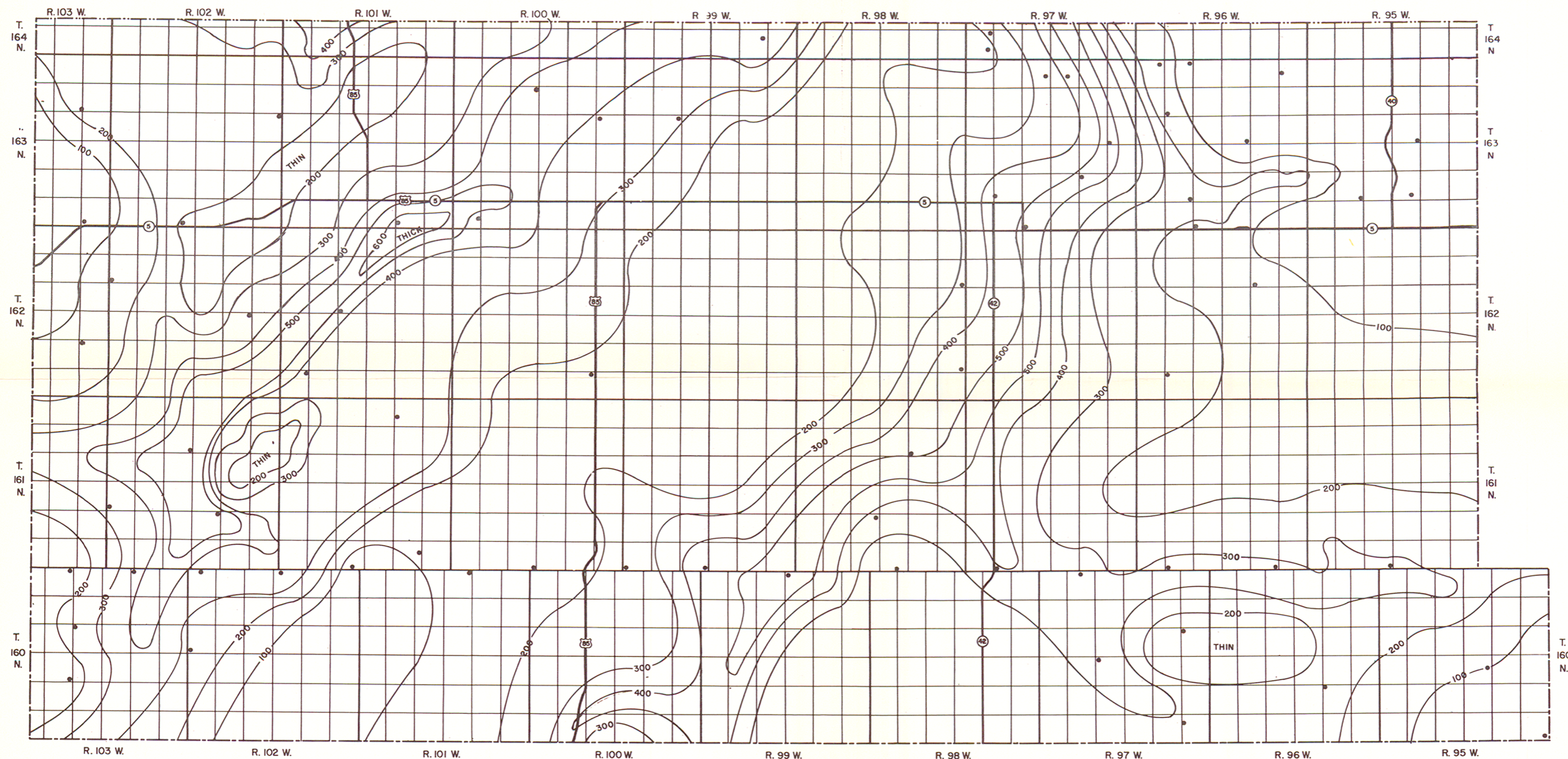




BEDROCK ELEVATION
CONTROL WELL •
EXPOSURE X

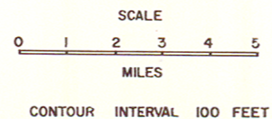
BEDROCK TOPOGRAPHIC MAP, DIVIDE COUNTY, NORTH DAKOTA.

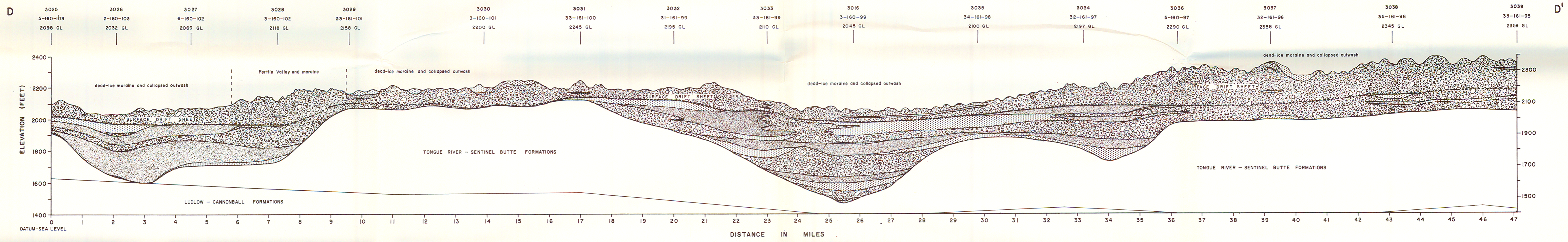
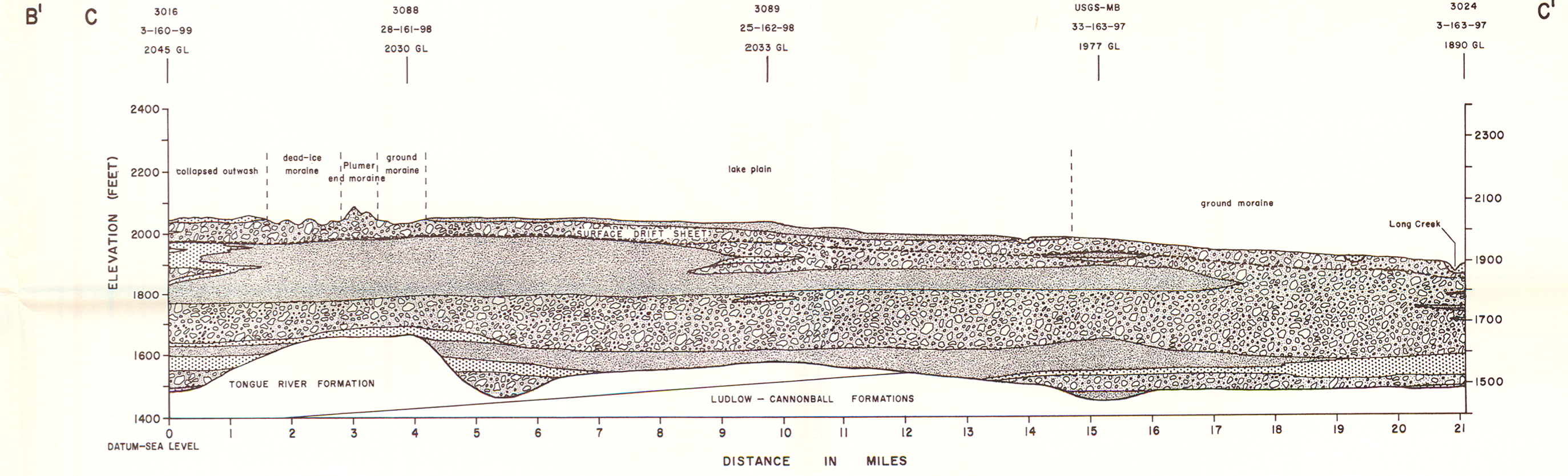
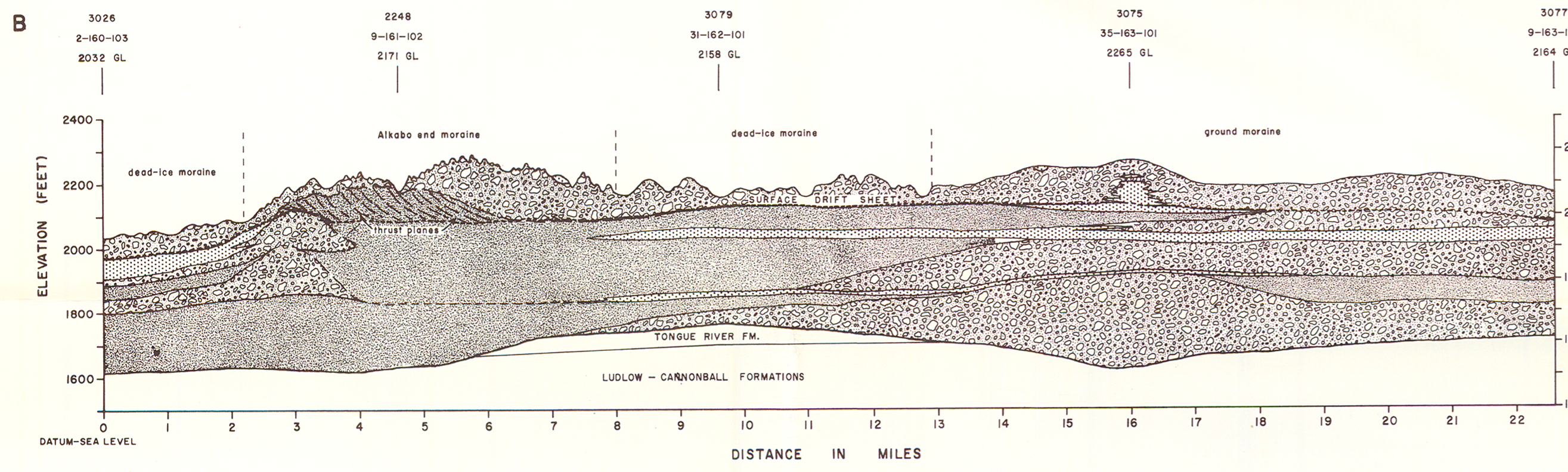
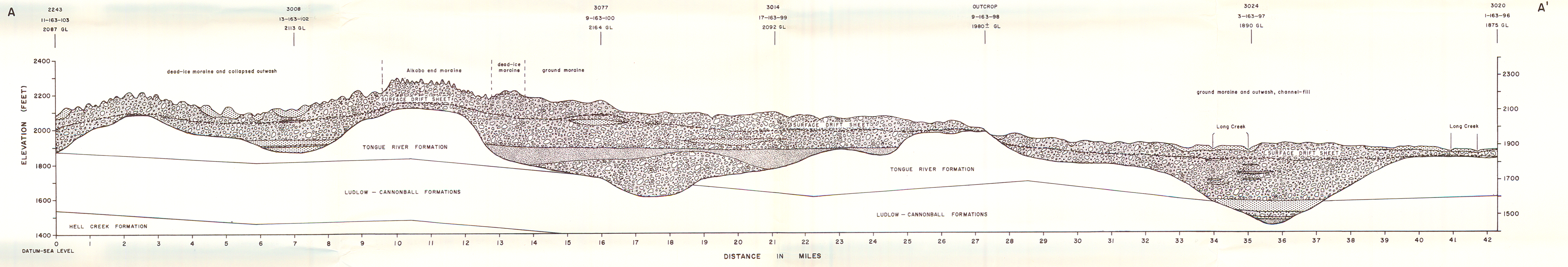




CONTROL WELL •

DRIFT ISOPACH MAP, DIVIDE COUNTY, NORTH DAKOTA.



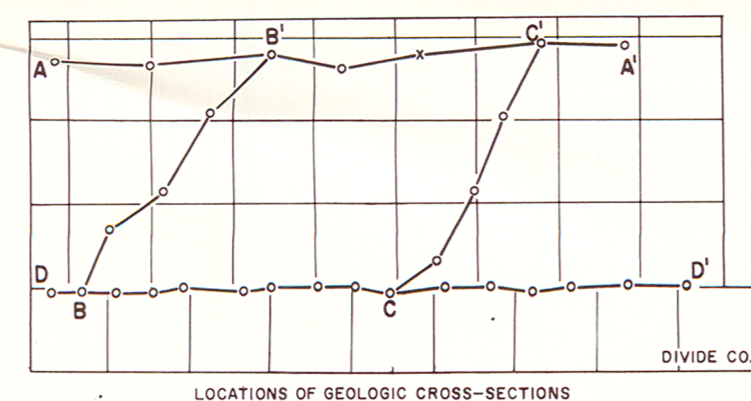


EXPLANATION

WELL NUMBER	3016
LOCATION	3-160-99
ELEVATION	2045 GL

GLACIAL DRIFT LITHOLOGY

- CLAY-SILT
- SAND-GRAVEL
- TILL



STRATIGRAPHIC CROSS-SECTIONS OF GLACIAL DRIFT, DIVIDE COUNTY, NORTH DAKOTA.