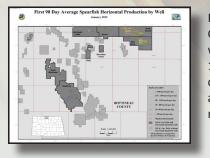
# NEW PUBLICATIONS

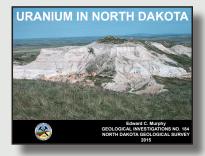
# **Geological Investigations**



First 90 Day Average Spearfish Horizontal Production by Well: North Dakota Geological Survey, Geological Investigations No. 182. Over 100 horizontal wells have been drilled and completed within the Spearfish Formation in north-central North Dakota through the end of 2014. GI-182 displays the locations of horizontal Spearfish wells that were drilled, completed, and off-confidential status at the end of 2014. Each horizontal Spearfish well is color coded based on the average daily oil production during the first 90 days of production. Price: \$20 for traditional paper map format or \$5 on CD with shape files.



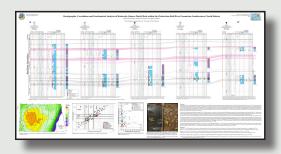
Anderson, F.J., 2015, Geochemical Characterization of Natural Gas Occurrences in Selected Ground-Water Wells in North Dakota, Geologic Investigation No. 183. Methane isotope and ground-water geochemistry characterization analysis was conducted on six wells of interest located in north-central and eastern North Dakota in order to investigate possible methane sourcing. Reported anecdotal shallow natural gas occurrences received by the NDGS from across the state are also included on this 1:1,000,000 map poster. Available in traditional paper map format \$15.00 or on CD \$5.00.



Murphy, E.C., 2015, Uranium in North Dakota: North Dakota Geological Survey, Geological Investigations No. 184. Little or no information was recorded at the state level regarding uranium exploration and mining during the 1950s and 1960s due to national security and the lack of state oversight. This PowerPoint presentation is a variation on a dozen or so uranium presentations given in North Dakota from 2008 – 2012. 47 slides. Price: \$5 on CD.

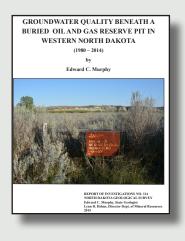


LeFever, J.A., 2015, Isopach Map of the Cretaceous Inyan Kara Formation in North Dakota: North Dakota Geological Survey, Geological Investigation No. 185. GI-185 is a statewide isopach map of the Inyan Kara with contour interval of 50 feet. Price: \$10 for traditional paper map format or \$5 on CD with shape files.



Nesheim, T.O., Nordeng, S.H., and Bader, J.W., 2015, Stratigraphic Correlation and Geochemical Analysis of Kukersite (Source Rock) Beds within the Ordovician Red River Formation, Southwestern North Dakota: North Dakota Geological Survey, Geologic Investigations No. 186. The Red River Formation has previously been described to contain relatively thin beds of organic-rich mudstone referred to as both kerogenites and kukersites. GI-186 briefly reviews the stratigraphic correlations and geochemical data for Red River source beds within five cores that form a north-south transect within southwestern North Dakota. Price: \$10 for traditional paper map format or \$5 on CD with shape files.

# **Reports of Investigation**



Murphy, E.C., 2015, Groundwater Quality Beneath a Buried Oil and Gas Reserve Pit in Western North Dakota (1980-2014): North Dakota Geological Survey, Report of Investigations No. 114. The Apache Corporation drilled the Federal 1-5 in 1979. The well is located on the floodplain of the Little Missouri River in northern Billings County, less than 1,000 feet from the boundary of the Elkhorn Ranch Unit of the Theodore Roosevelt National Park. This location was one of four sites chosen in 1980 to study the impact of buried oil and gas drilling mud on shallow groundwater in western North Dakota. Fourteen monitoring wells and four lysimeters were installed at the site. Six sets of water samples were taken from the Apache Federal 1-5 site over a span of 34 years (September 3, 1980; January 1, 1981; June 29, 1981; October 12, 1981; April 24, 1986; and September 17, 2014). Price: \$5 as pdf document on CD.

### Landslide Maps

McDonald, M.R., 2015, Areas of landslides Carpio, ND Quadrangle: North Dakota Geological Survey 24K Map Series No. Crpo – I.



McDonald, M.R., 2015, Areas of landslides Carpio NE, ND Quadrangle: North Dakota Geological Survey 24K Map Series No. Crpo NE – I. Ten landslides were mapped within the Carpio NE Quad. The slides principally occur along the banks of Lake Darling and along the sides of the valleys (outside the floodplain) of the Souris and Des Lacs Rivers. These landslides occupy a total area of 385 acres with the largest covering 74 acres. Price: \$5.00 for traditional paper map and \$25 for 100k shape file CD.

McDonald, M.R., 2015, Areas of landslides Des Lacs, ND Quadrangle: North Dakota Geological Survey 24K Map Series No. DsLc – I.

McDonald, M.R., 2015, Areas of landslides Hartland, ND Quadrangle: North Dakota Geological Survey 24K Map Series No. HInd - I.

McDonald, M.R., 2015, Areas of landslides Minot NW, ND Quadrangle: North Dakota Geological Survey 24K Map Series No. Mnot NW – I.



McDonald, M.R., 2015, Areas of landslides Niobe, ND Quadrangle: North Dakota Geological Survey 24K Map Series No. Nobe – I. Thirty-eight landslides were mapped within the Niobe Quad. The slides primarily occur along the sides of the valley occupied by the Upper Des Lacs Lake, and along Ankenbauer Coulee and Niobe Coulee. The largest slide covers an area of approximately 43 acres and the total area of slides was 554 acres. Price: \$5.00 for traditional paper map and \$25 for 100k shape file CD.

McDonald, M.R., 2015, Areas of landslides Northgate, ND Quadrangle: North Dakota Geological Survey 24K Map Series No. Nrgt – I.

McDonald, M.R., 2015, Areas of landslides Sawyer, ND Quadrangle: North Dakota Geological Survey 24K Map Series No. Swyr - I.

McDonald, M.R., 2015, Areas of landslides Sawyer SW, ND Quadrangle: North Dakota Geological Survey 24K Map Series No. Swyr SW – I.



McDonald, M.R., 2015, Areas of landslides Surrey, ND Quadrangle: North Dakota Geological Survey 24K Map Series No. Srry – I. Eight landslides were mapped within the Surrey Quad. The slides primarily occur along the sides of the valley (outside the flood plain) of the Souris River. These landslides occupy a total area of 488 acres with the largest covering an area of 225 acres. Price: \$5.00 for traditional paper map and \$25 for 100k shape file CD.

Murphy, E.C. 2015, Areas of landslides Leith, ND Quadrangle: North Dakota Geological Survey 24K Map Series No. Leth - I.

Murphy, E.C. 2015, Areas of landslides New Leipzig South, ND Quadrangle: North Dakota Geological Survey 24K Map Series No. NwLp S – I.

Murphy, E.C. 2015, Areas of landslides Paradise Flats, ND Quadrangle: North Dakota Geological Survey 24K Map Series No. PrdF – I.



Murphy, E.C. 2015, Areas of landslides Sheep Creek Dam, ND Quadrangle: North Dakota Geological Survey 24K Map Series No. ShCD – I. A total of 30 landslides were mapped in this quadrangle. These landslides occupy an area of 78 acres (314,000 square meters) or 0.2 % of the Sheep Creek quadrangle. The largest landslide or landslide complex mapped in this quadrangle was 14 acres (56,000 square meters) and the smallest was 0.1 acres (483 square meters). Landslides were mapped off of 1:20,000 scale aerial photographs. Price: \$5.00 for traditional paper map and \$25 for 100k shape file CD.

Murphy, E.C. 2015, Areas of landslides Shields, ND Quadrangle: North Dakota Geological Survey 24K Map Series No. ShId – I.

#### **Miscellaneous Maps**

Anderson, F.J., 2015, Index Map of Ground-Water Well Locations in North Dakota Investigated for Shallow Natural Gas Occurrence, Miscellaneous Map No. 41. Data from 9,390 Ground-water wells that were investigated for occurrences of shallow natural gas across North Dakota from 2006 to 2013 are provided on this well index map at a scale of 1:400,000. Available in traditional paper map format \$25.00 or on CD \$5.00.

#### **Outside Publications**

Hoganson, J.W., Erickson, J.M., and Everhart, M.J., 2015, *Ischyodus rayhaasi* (Chimaeroidei; Callorhynchidae) from the Campanian-Maastrichtian Fox Hills Formation of northeastern Colorado, USA, Transactions of the Kansas Academy of Science, v. 118, no. 1-2, p. 27-40.