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# SURVEY HOMEPAGE

By Ed Murphy

The Geological Survey has made a concerted effort over the past several years to place pertinent geologic information on North Dakota's fossil and mineral resources, landforms, geologic hazards, etc., on our website. We not only place our newsletter articles on line, but have also created articles, such as mineral chapters, North Dakota Notes, and the Geologic Investigations publication series, primarily for website distribution. The Survey website currently contains more than 3,000 downloadable files. Our effort has been rewarded because people are finding the Survey homepage on the world wide web and obtaining answers to routine geological enquiries.

The North Dakota Information Technology Department (ITD) counts hits to our website on a monthly basis. Through Webtrends, ITD reports the 50 files that received the most hits that month and also lists the top ten most downloaded (the opening of a file for printing or file copying) files. In November 2005, ITD began tracking the top 30 most downloaded sites. For the past eleven months, there has been an average of 55,000 hits per month to the Survey website, or about 1,800 hits per day (Figure 1). From December 2001 to December 2004, we averaged more than 130,000 hits per month on our website. We likely have not

experienced the threefold decrease in the hits to our website that these numbers suggest. In fact, our hits may very well have increased in 2005 over the previous three years. The drastic drop in counts is a result of a change in the way that the ITD counts hits, a change that took place in January 2005. Although this change makes a comparison of 2005 and pre-2005 web hits meaningless, overall trends are still visible on a graph of these numbers. For example, web hits can fluctuate as much as 50% from month to month.

The monthly download count provides insight into what topics are of additional interest to people visiting our website. For most of the last 15 months, Julie LeFever's articles, posters, and PowerPoint presentations on the Middle Bakken Formation have been the most downloaded files on the Survey site (Figure 2). These Bakken files have been downloaded more than 43,000 times as compared to 27,000 downloads of other Survey files during this same time period. Randy Burke's posters and PowerPoint presentation on the Birdbear and Mission Canyon (Ratcliffe Interval) Formations (two important oil plays currently ongoing in the Williston Basin, but overshadowed by the Middle Bakken play) were downloaded more than 4,200 times during this same interval (Figure 3).

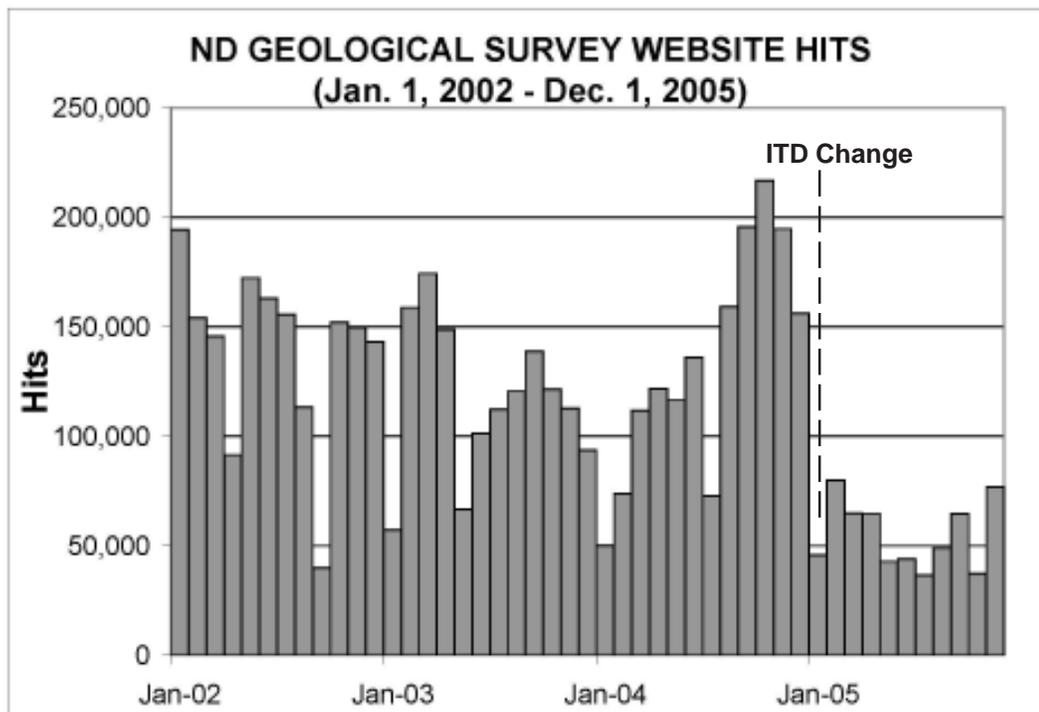


Figure 1. Hits or visits to the North Dakota Geological Survey website from January 1, 2002 to December 1, 2005. The drastic drop in hits from January 2005 to the present is due to a change in the way that the North Dakota Information Technology Department (ITD) counts hits.

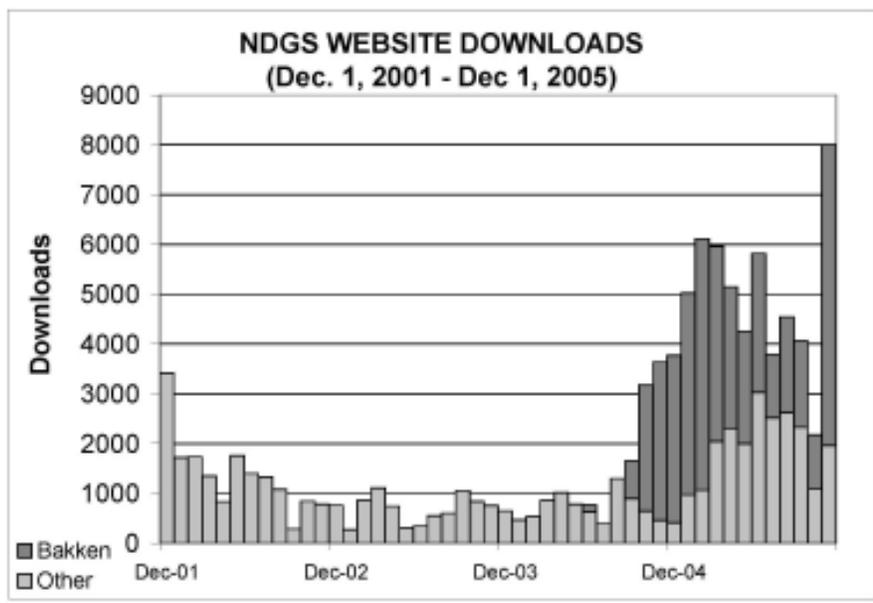
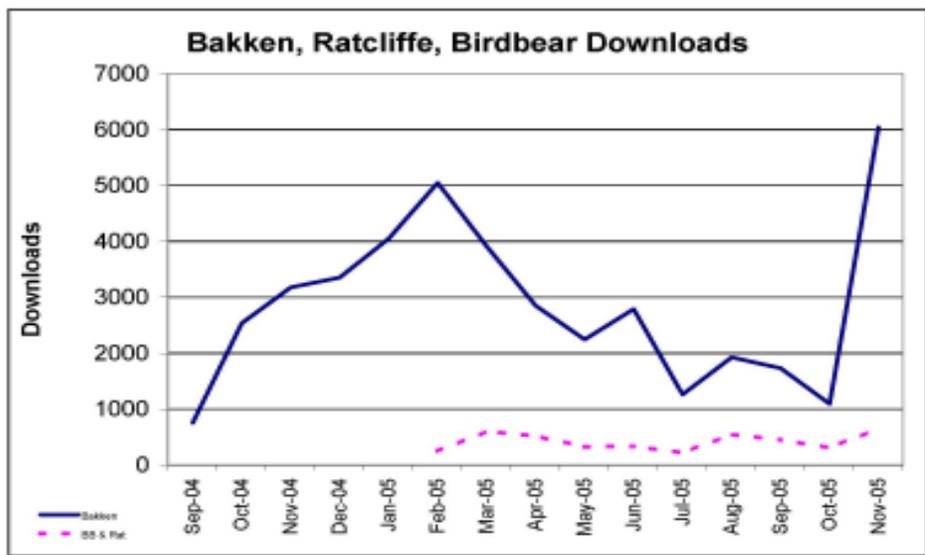


Figure 2. The number of file downloads from the Geological Survey website greatly increased in 2005 and the last quarter of 2004. Most of this increase was attributable to files on the Middle Bakken Formation.

Figure 3. Numbers of Bakken, Birdbear, and Ratcliffe files on the ND Geological Survey website downloaded from September 1, 2004 to December 1, 2005. A peak of Bakken downloads came in February 2005, the month preceding the 2005 National American Prospect Expo in Houston, Texas. Survey geologists promoted current oil plays in the Williston Basin at that expo. Bakken, Birdbear, and Ratcliffe downloads were at historic levels in November 2005 as a result of the posting of links to these articles on the ND Oil and Gas Division website.



In November 2005, the ND Oil and Gas Division posted a link on their website (under *hot plays*) to Survey articles on the Bakken, Birdbear, and Ratcliffe. We wanted to advertise the existence of this information to individuals that visited the Oil and Gas webpage, but not the Survey's. As a result of this posting, Bakken downloads increased from 1,100 in October to over 6,000 in November while Birdbear and Ratcliffe downloads doubled from 300 to 600 (Figures 2 and 3). We were able to confirm that these downloads were attributable to the Oil and Gas link because referrals from that site increased from 30 to 530 during that two-month interval. While we were thrilled to reach that many more people, we were somewhat disappointed that they had previously been unaware of the Survey website.

Given the recent price of crude oil, the high level of interest in these hot oil play files is not surprising. What is surprising is that a file announcing the July 2005 Public Dig near Medora was downloaded more than 9,400 times from March to September of 2005. At least some of these

downloads can be attributed to a nationwide story of the fossil dig that was reported on National Public Radio on April 4, 2005. In addition to oil, other energy-related files, such as those on the State's coal reserves and an article on wind energy have been heavily utilized. As an example of the diversity on our website, an article on the giant Ice Age bison (*Bison latifrons*) and one on the continental divide in North Dakota have also been very popular.

A perusal of the top hits on our website uncovers articles ranging from mineral and energy related information to such things as North Dakota's landforms, how concretions and nodules are formed, a description of North Dakota caves, scientific observations by Lewis and Clark in North Dakota, meteorites, petrified wood, the paleontology of the Theodore Roosevelt National Park, clinker, and geologic curiosities. These hits, along with the downloads on the Survey website discussed earlier, demonstrate the variety of geologic information that visitors to our website are seeking.