

Nathan D. Anderson, Director Mark F. Bohrer, Assistant Director Oil & Gas Division Edward C. Murphy, Director Geological Survey, State Geologist **Michael Ziesch, Staff Officer Robyn Loumer, Finance Manager**

NORTH DAKOTA DEPARTMENT OF MINERAL RESOURCES

The Legislature created the Industrial Commission of North Dakota in 1919 to conduct and manage, on behalf of the State, certain utilities, industries, enterprises, and business projects established by state law. The Industrial Commission has jurisdiction over oil and gas resources, the investigation and publication of geological information and the regulation of coal exploration, geophysical exploration, geothermal energy, paleontology resources, subsurface minerals, and oil, gas, and carbon dioxide underground storage in North Dakota through the Department of Mineral Resources Geological Survey and Oil and Gas Division.

The Industrial Commission appoints the Director of the Department of Mineral Resources, who serves as Director of the Oil and Gas Division. The Director appoints the State Geologist and Assistant Director of the Oil and Gas Division.

North Dakota Industrial Commission Governor Attorney General Agricultural Commissioner

ND Department of Mineral Resources (DMR) Oil & Gas Division

DMR ORGANIZATIONAL STRUCTURE



OFFICE LOCATIONS AND TOTAL STAFF



DMR RETENTION & PROFESSIONAL DEVELOPMENT

Agency is in a Dynamic Position

- Leadership Transition
- Resiliency
- Succession planning
 - Deep dive summer 2025
- Key retirements likely
 - 3 manager level and up
 - 1 key finance role
- Opportunity to build
- Mentoring takes time
- Training
- Travel & collaboration
- Attract, develop, retain top tier
- Training time overlap preferred



Current Personnel as of 12/31/2024

Years of Service	0-3	4-6	7-10	11-15	16-20	21-25	26-30	30+	
FTE	39	13	19	17	8	5	3	4	
%	34%	12%	18%	16%	8%	5%	3%	4%	-
									5

Compensation Comparable - DMR & Industry Example



- Critical Field Inspector positions continue to be challenged with turnover. Positions are critical to DMR and are hard to fill due to competition with oil & gas industry
- Turnover of 1/5th of field staff in 18 months. Training intensive with staff training new hires. Must have 4-year degree. Specialized employees

Turnover	Total FTE	Total Turnover	Turnover Percent	Classified Turnover	Classified Reason	Unclassified Turnover	Unclassified Reason	Key: R=Retirement
2023-25 Biennium	108	13	13%	6	2R, 2PS, 2-0	7	4R, 2PS, 1-O	PS=Private Sector O=Other

To date there have been 13 turnovers this biennium. The total cost of leave payouts was \$77,371, Turnover rates do not include inter-agency transfers



Be Legendary.[™]

Oil & Gas Agency Overview

NORTH DAKOTA OIL AND GAS DIVISION

The Oil and Gas Division, headed by the Director of DMR, was formed in 1981 to provide the technical expertise needed for enforcement of Industrial Commission jurisdiction over statutes, rules, regulations, and orders pertaining to geophysical exploration, drilling, production of oil and gas, restoration of drilling and production sites, and proper disposal of oil field brine and other oil field wastes in North Dakota.

The Oil and Gas Division facilitates the electronic storage of and provides access to oil and gas production, reservoir, well, and geophysical log data for use by industry, royalty owners, and other governmental agencies and citizens.

In 1997, regulation of geophysical exploration (seismic) was placed under the Oil and Gas Division's jurisdiction. In 2009, regulation of carbon dioxide storage was added to the Oil and Gas Division's responsibilities. In 2013, regulation of underground gathering pipeline infrastructure was added to the Oil and Gas Division's responsibilities. In 2015, this authority was broadened to include bonding requirements on crude oil and produced water underground gathering pipelines. Also, the Oil and Gas Division has obtained primacy from the United States Environmental Protection Agency over Class II (disposal/injection) and Class VI (carbon dioxide storage) wells.



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OIL AND GAS REGULATORY PROGRAMS

Oil and Gas Exploration and Production (NDCC 38-08)

It is hereby declared to be in the public interest to foster, to encourage, and to promote the development, production, and utilization of natural resources of oil and gas in the state in such a manner as will prevent waste; to authorize and to provide for the operation and development of oil and gas properties in such a manner that a greater ultimate recovery of oil and gas be had and that the correlative rights of all owners be fully protected; and to encourage and to authorize cycling, recycling, pressure maintenance, and secondary recovery operations in order that the greatest possible economic recovery of oil and gas be obtained within the state to the end that the landowners, the royalty owners, the producers, and the general public realize and enjoy the greatest possible good from these vital natural resources.

Geophysical Exploration (NDCC 38-08.1)

Notwithstanding any other provision of this chapter, the commission is the primary enforcement agency governing geophysical exploration in this state engaged in geophysical exploration or engaged as a subcontractor of a person engaged in geophysical exploration shall comply with this chapter; provided, however, that compliance with this chapter by a crew or its employer constitutes compliance herewith by that person who has engaged the service of the crew, or its employer, as an independent contractor.

Pipeline (NDCC 38-08-27)

The application of this section is limited to an underground gathering pipeline that is designed or intended to transfer crude oil or produced water from a production facility for disposal, storage, or sale purposes and which was placed into service after August 1, 2015. Upon request, the operator shall provide the commission the underground gathering pipeline engineering construction design drawings and specifications, list of independent inspectors, and a plan for leak protection and monitoring for the underground gathering pipeline. Within sixty days of an underground gathering pipeline being placed into service, the operator of that pipeline shall file with the commission an independent inspector's certificate of hydrostatic or pneumatic testing of the underground gathering pipeline.

OIL AND GAS REGULATORY PROGRAMS

Carbon Dioxide Geological Storage (NDCC 38-22-01)

It is in the public interest to promote the geologic storage of carbon dioxide. Doing so will benefit the state and the global environment by reducing greenhouse gas emissions. Doing so will help ensure the viability of the state's coal and power industries, to the economic benefit of North Dakota and its citizens. Further, geologic storage of carbon dioxide, a potentially valuable commodity, may allow for its ready availability if needed for commercial, industrial, or other uses, including enhanced recovery of oil, gas, and other minerals. Geologic storage, however, to be practical and effective requires cooperative use of surface and subsurface property interests and the collaboration of property owners. Obtaining consent from all owners may not be feasible, requiring procedures that promote, in a manner fair to all interests, cooperative management, thereby ensuring the maximum use of natural resources.

Underground Storage of Oil and Gas (NDCC 38-25-08) *Includes all natural gas, including hydrogen, and all other fluid hydrocarbons not defined as oil.

If a storage operator does not obtain the consent of all persons owning a pore space and of mineral interest owners when required by this chapter, the commission may require the interest owned by the nonconsenting owners be included in an approved storage facility and subject to geologic storage if the minimum percentage of consent is obtained as specified in this chapter. Any pore space owner who does not have responsibility over the construction, management, supervision, or control of the storage facility operations is not liable for money damages for personal or other property damages proximately caused by the operations.

Underground Storage of Oil and Gas (NDCC 38-25-11)

This chapter does not apply to applications filed with the commission which propose to use produced gas for an enhanced oil or gas recovery project. Those applications must be processed under chapter 38-08.







Statistics	2022	2023	2024 *Jan-Oct 2024
Wells Waiting on Completion	470	415	345*
Inactive Wells	1992	1770	1687*
Wells Completed	768	1089	757*
Producing Wells	17,230	18,753	19,334*

Reclamation

Current Wells/Permits in Reclamation Status	3544
Average wells plugged per year since 2020	380

	2022	2023	2024
Releases	545	219	165



Well Construction

















Pipeline Construction



Pipeline Miles Constructed

#3509

CATERPILLAR

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D4H LGP





Geological Survey Overview

GEOLOGICAL SURVEY

The North Dakota Geological Survey was created by an act of the North Dakota Legislature in 1895. After 130 years, the Survey still serves as the primary source of geological information in the state. Its mission over the years has grown and is now three-fold: to investigate the geology of North Dakota, to administer regulatory programs and act in an advisory capacity to other state agencies, and to provide public service to the people of North Dakota.

The Geological Survey publishes maps and reports on the mineralogical, paleontological, and geochemical resources of North Dakota, including oil and gas, coal, uranium, critical minerals (including the rare earth elements), clay, sand and gravel, volcanic ash, potash, and other salts, etc. In addition to the mapping of subsurface resources such as the shallow salts for hydrocarbon storage, the Survey is actively mapping landslides throughout the state. Survey publications support the regulatory programs of the Industrial Commission, as well as other state and federal agencies, and assist mineral companies, geotechnical consulting firms, city and county governments, landowners, and citizens of the state.

The Geological Survey and the Oil and Gas Division are in the Department of Mineral Resources and under the North Dakota Industrial Commission. The main office of the Department of Mineral Resources is located at 1016 East Calgary Avenue in Bismarck. The paleontology program of the Geological Survey is housed in the Clarence Johnsrud Paleontology Laboratory in the North Dakota Heritage Center (state museum) on the State Capitol grounds in Bismarck. The North Dakota State Fossil Collection, as well as the State Rock and Mineral Collection, are also housed in the Heritage Center. The North Dakota Geological Survey's Wilson M. Laird Core and Sample Library is located on the University of North Dakota campus in Grand Forks. The facility currently houses 486,000 feet of core (170,000 core boxes) and 59,000 boxes of drill cuttings obtained from oil and gas wells.

GEOLOGICAL SURVEY REGULATORY PROGRAMS

Regulation, Development, and Production of Subsurface Minerals (NDCC 38-12)

The exploration, development and production of subsurface minerals requires a permit, basic data to be provided to the state geologist. These regulations cover minerals not included in the oil & gas and coal regulatory programs.

Subsurface Mineral Exploration and Development (NDAC 43-02-02) Underground Injection Control Program (NDAC 43-02-02.1) In Situ Leach Mineral Mining Rules (NDAC 43-02-02.2) Surface Mining–(Non-Coal) (NDAC 43-02-02.3) Solution Mining (NDAC 43-02-02.4)

Coal Exploration (NDCC 38-12.1)

Drilling for coal exploration or evaluation requires a permit and a report of findings must be filed with the state geologist. Collectively, these reports comprise a database useful to private and government coal researchers and provide information necessary for geologic correlations and economic forecasting.

Coal Exploration (NDAC 43-02-01)

Geothermal Resource Development Regulation (NDCC 38-19)

Geothermal (ground source) heating and cooling systems require a permit. The permit review process helps to ensure that geothermal systems are properly designed and constructed, in order to minimize the risk of groundwater contamination or other environmental problems.

Geothermal Energy Production (NDAC 43-02-07) Geothermal Deep Energy Production (NDAC 43-02-07.1)

GEOLOGICAL SURVEY REGULATORY PROGRAMS

Paleontological Resource Protection (NDCC 54-17.3)

Paleontological resources, on land owned by the State of North Dakota and its political subdivisions, are protected. A permit is required from the state geologist to investigate, excavate, collect, or otherwise record paleontological resources on these lands.

Paleontological Resource Protection (NDAC 43-04-02)

High-Level Radioactive Waste Disposal (NDCC 38-23)

The exploration, testing, placement, storage, or disposal of high-level radioactive waste is prohibited in North Dakota. If this prohibition is struck from the law, a permit is required before any testing, exploring, excavating, drilling, boring or operating of a high-level radioactive waste facility can commence.

High-Level Radioactive Waste (NDAC 43-02-13)

Underground Storage and Retrieval of Nonhydrocarbons (NDCC 38-24)

A permit is required for the testing, storage, or retrieval of nonhydrocarbons and other gases not regulated by title 38.

LANDSLIDE PROGRAM

Phase III

Two years ago, the Geological Survey completed a Phase II landslide mapping program (1:24,000) in North Dakota, one of the first states in the nation to do so. We are now a third of the way into a Phase III project where we are identifying active landslides by comparing two LiDAR coverages which were flown roughly 10 years apart. We identified <u>65,000 landslides</u> during the Phase I and II projects and have identified <u>12,000 active landslides</u> under Phase III. We anticipate completing Phase III mapping in the areas that contain oil and gas fields by June of 2025.





Phase II Landslide Maps: Interpreted from stereopair aerial photographs, LiDAR, and Google Earth imagery.

Phase III Landslide Maps: LiDAR coverages circa 2008 compared and contrasted to those circa 2018 (8 – 10 years apart).

PHASE III LANDSLIDE MAPS

Landslides in Eastern North Dakota



Left: Slumping (2019-2022) along the Wild Rice River encroaching upon utility corridor and South University Drive, South Fargo. The elevation change from the top of the slide to the river is approximately 30 feet. Landslide mitigation occurred at the site in 2023. Upper Right: A Phase III landslide map of the South Fargo area, the arrow points to the landslide on the left. Light pink areas are landslides, dark pink area are landslides with movement that occurred roughly between 2008 and 2019. Lower Right: A LiDAR map of the area, the yellow arrow points to the slide in the photograph. The red is negative elevation change and green denotes positive elevation changes.



MAPPING LAKE AGASSIZ DEPOSITS

Sherack Formation Laminated silt and clay in the Red River Valley



Formation Extent, Depth & County Scale 1:125,000 Grand Forks County Completed



MAPPING LAKE AGASSIZ DEPOSITS

Brenna Formation <u>Massive clay in the near surface in the Red River Valley</u>



Formation Extent, Depth & County Scale 1:125,000 NDGS GI-271



PROPPANT SAND PROJECTS (2009-2011, 2018-2024)



Position Conversion to a Geologist to Assist with Geologic Reviews of Infrastructure Projects

Since the April 1, 2024, retirement of the Geological Survey's Administrative Services II person, that position has been held open in the hope that we could obtain the additional funding to convert it to a Geologist in the upcoming legislative session. There has been a 3.5fold increase in the number of requests for geologic reviews of proposed infrastructure projects since 2016, a 2-fold increase since 2021. The revised position would assist with this expanding program as well as the landslide and critical minerals programs. In the meantime, we have been using the salary from that open position to cover a shortfall in funds to support students photographing core in the core library.

Geologic Reviews 2023 – 2025 Biennium



Review Location

25-27 Biennium

Requested Burgum Budget

\$182,059 to convert Admin Services II position to a geologist \$182,059 in salaries and operating for the conversion







PERIODIC TABLE



Department of Energy - National Energy Technology Laboratory (October 2022)

CRITICAL MINERALS PROJECT (2015 – present)

2,175 rock samples collected

1,829 rocks analyzed



321 geologic sections measured





CRITICAL MINERALS PROJECT (2015 to present)



Bear Den Mbr. PETM 55.8 mya **Rhame bed** 61 mya

CRITICAL MINERALS DRILILNG PROJECT

Phase I Drilling Project



CRITICAL MINERALS PROJECT -- Phase I Drilling Project



CRITICAL MINERALS PROJECT -- Phase I Drilling Project



CRITICAL MINERALS PROJECT Phase II -- Proposed 50-hole Drilling Program



\$500,000 \$400,000 (*53 holes, drilled 8,600 ft, cored 1,040 ft*) \$100,000

\$500,000 (can do it for \$400,000) \$100,000

Paleontology Section of the Geological Survey

The Paleontology Section of the Geological Survey is housed in the ND Heritage Center – State Museum. The Paleontology Area consists of four offices, a library, a dirty lab, a clean lab, and the State Fossil Collection. The Paleontology Section designed the Geologic Time Gallery in the State Museum that opened in 2014 and routinely gives tours of the gallery, our labs, and the State Fossil Collection.



Expansion of Public Fossil Digs Program

Requesting an Additional Paleontology Technology Position

The Geological Survey's Public Fossil Dig Program is extremely popular, all of the available registration slots sell out within minutes. Every year, this results in hundreds of disappointed North Dakotans as well as people throughout the U.S. Last Legislative Session, we were able to add a paleontology technician to help us with the backlog of 750 fossil field jackets that has resulted from the Public Fossil Dig Program. An additional paleontology technician would enable us to expand the fossil dig program by 40% (from 600 available slots to 840).



Excavation of a Woolly Mammoth in Northwestern North Dakota

In 1988, the Geological Survey was asked to investigate woolly mammoth bones that were discovered while excavating for a house and garage addition in southwestern Burke County. By the time we got the message, the slab and apron had been poured and the addition had been completed. We went back in 2024 and excavated and area on the northside of the garage and found numerous mammoth bones and parts of teeth. We are requesting funds to excavate the bones under the garage. This will require removing the slab and part of the apron, possibly hoisting field jackets through the roof, backfilling, pouring a new slab and apron, and compensating the homeowner for the inconvenience.



25-27 Biennium Requested Burgum Budget

\$300,000 \$300,000

Paleontology Viewing Laboratory (Heritage Center)

Viewing laboratories afford the public the opportunity to see paleontologists preparing fossil specimens to go on display and are very popular in museums around the country. The State Historical Society of North Dakota supports this project. The preliminary estimate total is \$319,000 with costs likely closer to \$250,000 if it could be rolled in with the military wing due to the economy of scale with the much larger project.





25-27 Biennium

Requested Burgum Budget \$250,000 (capital asset) \$0

Wilson M. Laird Core & Sample Library

Situated on the University of North Dakota campus, the Wilson M. Laird Core and Sample Library consists of a warehouse (41,000 ft²) and five laboratories (5,000 ft²) for core and sample studies. The original core warehouse was constructed in 1980 and the rest of the building was constructed in 2016. The facility houses 487,000 feet of core (170,000 core boxes) and 59,000 boxes of oil and gas drill cuttings.





Lower left: This biennium, we have pulled 50,000 feet of core off the shelves, an amount equal to three of these shelving units.

CORE AND THIN SECTION PHOTOGRAPHY PROGRAM Wilson M. Laird Core and Sample Library Temporary Salaries



otal core (one set) in the core library =	487,000 feet (92 mi.)
otal photographed =	263,000 feet (54%)
core photographs =	402,000
otal thin sections in the core library =	20,000
hin section photographs =	151,000
otal photographs on website =	553,000



21-23 Biennium Reservoir Data

23-25 Biennium

Reservoir Data HB 1014 Admin Services II salary

\$0 temp salaries \$45,000 temp salaries

25-27 Biennium

Reservoir Data Requested additional **Burgum Budget**



\$120,000 temp salaries

\$96,000 temp salaries

\$0 temp salaries \$45,000 in temp salaries \$0 in temp salaries

SHALLOW SALTS FOR HYDROCARBON STORAGE - Opeche Salt







BAKKEN PETROLEUM SYSTEM – Middle Three Forks



Three Year Cumulative Oil Production, Estimated Ultimate Recovery, and Well Count by Formation for Five Drilling Spacing Units in Northeastern McKenzie County



Drilling Spacing Units with middle + ~1.4 MMBO addition with 2-3 MTF wells Three Forks are top performers

Walls in Data Sat	Middle Three Forks Estimated Ultimate Recovery (EUR)						
wells in Data Set	10th Percentile	50th Percentile	90th Percentile				
70	274,111	430,262	682,608				
Potential Remaining	Prospective Area* middle Three Forks EUR						
Drilling Locations	10th Percentile	50th Percentile	90th Percentile				
600	164,466,600	258,157,200	409,564,800				
~165 - 410 Million Barrels of Recoverable Oil 46							

NONBAKKEN- Madison Group (GI 272)







Funding For Rock and Mineral Analysis An Ongoing Appropriation

Geological Survey geologists routinely send off samples to laboratories for a variety of analyses. For core samples, these typically include core total organic carbon, volatile organic compounds, RockEval, X-ray diffraction, vitrinite reflectance, etc. For coal samples, these typically include determinations of the rare earth element concentrations along with other critical minerals, and occasionally the major ions.







23-25 Biennium Requested Received 25-27 Biennium Requested Burgum Budget

\$100,000 on-going for rock analyses \$100,000 one-time rock analyses

\$100,000 on-going for rock analyses \$100,000 one-time rock analyses

Portable X-Ray Fluorescence (XRF) Machine

The Geological Survey has a portable x-ray fluorescence machine that was purchased with donated funds to be used in the core library. We have found it to be a very beneficial investigative analytical tool in the field with the critical minerals project as well as in the paleontology laboratory evaluating the mineralogy of mummified skin, etc. All of these other uses have put a strain on the machine and have taken it away from the core library. It would be very beneficial to have two portable machines.



Left to right: a surface geologist using the portable xrf to analyze for yttrium in lignite, a subsurface geologist using the xrf to analyze for iron concentrations in the skin of Dakota the dinomummy.

25-27 Biennium

Requested Burgum Budget \$45,000 (capital asset) \$0

OUTREACH



Audit | Budget Overview

RECENT AUDIT FINDINGS

A biennial audit of the Industrial Commission was conducted by the State Auditor's Office in accordance with generally accepted government auditing standards for the three-year period ending June 30, 2023.

The audit included the following entities and programs under the direction and control of the Commission:

- Department of Mineral Resources (Geological Survey and Oil and Gas Division)
- Lignite Research, Development, and Marketing Program
- Oil and Gas Research Program
- Outdoor Heritage Fund
- Pipeline Authority
- Renewable Energy Program
- Transmission Authority

The audit did not have any findings.

AGENCY FEES

47400 - Department of Mineral Resources Agency Fees

						Required			
Fee Description	Fee	Authority Reference (Statute or Administrative Rule)	Date Established	Actual 2021-23 Biennial Pevenue	Estimated 2021-23 Biennial Cost	by Statute to cover	Is use of fee revenue restricted	ls fee appropriate and affordable?	Recommendations to change or
Geophysical Permit Application Fee	up to \$100	NDCC 38-08.1-04 NDAC 43-02-12-04 NDCC 38-21-01	1981	\$1,500.00	\$2,500.50	No	Yes	Fee appropriately generates significant revenue for established purpose and seems affordable as negative feedback from stakeholders has not been received.	DMR proposes no changes at this time but will contine to evaluate.
Geothermal Commercial Permit Application Fee	\$100	NDCC 38-19-04 NDAC 43-02-07-06 NDCC 38-21-01	1981	\$1,900.00	\$2,064.16	No	Yes	Fee appropriately generates significant revenue for established purpose and seems affordable as negative feedback from stakeholders has not been received.	DMR proposes no changes at this time but will contine to evaluate.
Geothermal Residential Permit Application Fee	\$20	NDCC 38-19-04 NDAC 43-02-07-06 NDCC 38-21-01	1981	\$460.00	\$1,249.36	No	Yes	Fee appropriately generates significant revenue for established purpose and seems affordable as negative feedback from stakeholders has not been received.	DMR proposes no changes at this time but will contine to evaluate.
Coal Exploration Permit Application Fee	\$100	NDCC 38-12.1-05 NDAC 43-02-01-18 NDCC 38-21-01	1975	\$500.00	\$543.20	No	Yes	Fee appropriately generates significant revenue for established purpose and seems affordable as negative feedback from stakeholders has not been received.	DMR proposes no changes at this time but will contine to evaluate.
Subsurface Mineral Exploration Permit Application Fee	\$100	NDCC 38-12-03 NDAC 43-02-02-12 NDCC 38-21-01	1967	\$100.00	\$108.64	No	Yes	Fee appropriately generates significant revenue for established purpose and seems affordable as negative feedback from stakeholders has not been received.	DMR proposes no changes at this time but will contine to evaluate.
Case Continuance Fee	\$25	NDCC 38-08-11 NDCC 38-08-04.5(1)(a) NDAC 43-02-03-90	1990	\$5,075.00	\$7,720.09	No	Yes	Fee appropriately generates significant revenue for established purpose and seems affordable as negative feedback from stakeholders has not been received.	DMR proposes no changes at this time but will contine to evaluate.
Drilling Permit Application Fee (new)	\$100	NDCC 38-08-05 NDAC 43-02-03-16 NDCC 38-08-04.5(1)(a)	1953	\$161,600.00	\$210,500.16	No	Yes	Fee appropriately generates significant revenue for established purpose and seems affordable as negative feedback from stakeholders has not been received.	DMR proposes no changes at this time but will contine to evaluate.
Renewal Permit Application Fee	\$100	NDCC 38-08-05 NDAC 43-02-03-16 NDCC 38-08-04.5(1)(a)	1953	\$244,200.00	\$318,094.92	No	Yes	Fee appropriately generates significant revenue for established purpose and seems affordable as negative feedback from stakeholders has not been received.	DMR proposes no changes at this time but will contine to evaluate.
Temporary Abandoned Renewal Fee	\$100	NDCC 38-08-04 NDAC 43-02-03-55(2) NDCC 38-08-04.5(1)(a)	2007	\$37,300.00	\$27,242.06	No	Yes	Fee appropriately generates significant revenue for established purpose and seems affordable as negative feedback from stakeholders has not been received.	DMR proposes no changes at this time but will contine to evaluate.

AGENCY FEES (CONT'D)

						Required			
Fee Description	Fee Amount	Authority Reference (Statute or Administrative Rule)	Date Established	Actual 2021-23 Biennial Revenue	Estimated 2021-23 Biennial Cost Incurred	by Statute to cover costs?	Is use of fee revenue restricted by statute?	Is fee appropriate and affordable?	Recommendations to change or remove.
Operator Change Fee	\$25	NDCC 38-08-04 NDCC 38-08-04.5(1)(a) NDAC 43-02-03-13	1983	\$114,175.00	\$159,799.33	No	Yes	Fee appropriately generates significant revenue for established purpose and seems affordable as negative feedback from stakeholders has not been received.	DMR proposes no changes at this time but will contine to evaluate.
Well Name Change Fee	\$25	NDCC 38-08-04 NDCC 38-08-04.5(1)(a) NDAC 43-02-03-13	1983	\$7,800.00	\$10,916.88	No	Yes	Fee appropriately generates significant revenue for established purpose and seems affordable as negative feedback from stakeholders has not been received.	DMR proposes no changes at this time but will contine to evaluate.
Recompletion Fee	\$50	NDCC 38-08-04 NDCC 38-08-04.5(1)(a) NDAC 43-02-03-16	2000	\$500.00	\$651.30	No	Yes	Fee appropriately generates significant revenue for established purpose and seems affordable as negative feedback from stakeholders has not been received.	DMR proposes no changes at this time but will contine to evaluate.
Re-entry Fee	\$50	NDCC 38-08-04 NDCC 38-08-04.5(1)(a) NDAC 43-02-03-16	2000	\$100.00	\$173.68	No	Yes	Fee appropriately generates significant revenue for established purpose and seems affordable as negative feedback from stakeholders has not been received.	DMR proposes no changes at this time but will contine to evaluate.
Horizontal Re-entry Fee	\$50	NDCC 38-08-04 NDCC 38-08-04.5(1)(a) NDAC 43-02-03-16	2000	\$400.00	\$694.72	No	Yes	Fee appropriately generates significant revenue for established purpose and seems affordable as negative feedback from stakeholders has not been received.	DMR proposes no changes at this time but will contine to evaluate.
CO2 Storage Admin Application Fee	actual costs	NDCC 38-22-14 NDAC 43-05-01-17(1)	2010	\$55,266.77	\$55,266.77	Yes	Yes	Fee is actual cost to process application.	DMR proposes no changes at this time but will contine to evaluate.
CO2 Storage Admin Fee	1 cent/ton	NDCC 38-22-14 NDAC 43-05-01-17(1)	2010	\$820.16	\$117.54	Yes	Yes	It is too soon to tell as only 3 projects are running, and only 1 has been running long enough to pay a fee.	DMR proposes no changes at this time but will contine to evaluate.
CO2 Storage Trust Fee	7 cents/ton	NDCC 38-22-15 NDAC 43-05-01-17(2)	2010	\$5,741.09	\$117.54	Yes	Yes	It is too soon to tell as only 3 projects are running, and only 1 has been running long enough to pay a fee.	DMR proposes no changes at this time but will contine to evaluate.

This report reflects actual numbers from the 2021-2023 biennium. It provides a brief summary of each fee and comments on the appropriateness of the fee and any recommendations to change or remove the fees. None of these fees are used to support any of the costs for DMR as we are a 100% general fund agency, but the fees do support specific purposes as listed in the authority referenced. We have not received any concerns from stakeholders regarding the dollar value or process surrounding these fees. DMR does not anticipate any changes.

55

STATE FISCAL RECOVERY FUNDING

Abandoned Oil Well Conversion to Water Supply

Appropriated:	\$3,199,837.84
Turned Back:	\$2,453,615.78
Expended:	\$266,422.06
Obligated:	\$479,800.00

A large amount was transferred as per SB 2393 due to the original amount of funds requested being based on the costs to plug, reclaim, and convert the abandoned wells to freshwater wells. Since then, agreements were made with operators to do the plugging and reclamation work. With the most expensive portion of the well conversion being paid by the operators, the conversion costs to the state have been drastically reduced. Funds can be expended through 12/31/2026.

CHANGES TO FEDERAL FUNDING

Federal Funding Program	2023-2025 Anticipated Award	2023-2025 Anticipated Change	2025-2027 Anticipated Award
UIC Oil & Gas (EPA)	\$240,000	\$16,000	\$256,000
PSC Coal (OSM-DOI)	\$15,000	\$O	\$15,000
Statemap (USGS-DOI)	\$13,000	\$O	\$13,000
IIJA Initial Grant (ECRP-DOI) \$2,300,000	\$O	\$0
IIJA Formula Grant (ECRP-D		\$1,444,377	

ONE TIME FUNDING 23-25 BIENNIUM

	<u>Amount</u>		<u>Status</u>
Equipment for new FTE positions	\$	68,335	Purchased \$57,492
Inflationary Expenses	\$	886,868	Used \$665,151 as of 12/31/24
Drones & Computers	\$	83,648	Purchased/seeking bids
Core & Mineral Analysis	\$	100,000	Purchased/ordered
Computer Server Transition	\$	80,000	Used \$60,047 as of 12/31/24
IIJA abandoned well reclamation	\$2	,300,000	Used \$2,050,000 as of 12/31/24
Oil & Gas Litigation	\$3	,000,000	Used \$1,532,372 as of 12/31/24
Transfer to Paleo fund	\$	250,000	Transferred

ONE TIME FUNDING 25-27 BIENNIUM

	<u>Amount</u>	Burgum Executive Budget
Equipment for new FTE positions	\$ 99,460	Allowed \$34,440
Drilling Project (phase 2)	\$ 350,000	Allowed \$100,000
Noolly Mammoth Excavation	\$ 300,000	Allowed \$300,000
Paleontology Viewing Lab	\$ 250,000	Allowed \$0
Portable XRF (capital asset)	\$ 45,000	Allowed \$0
IJA Formula Grant	\$2,400,000	Allowed \$1,444,377
Oil & Gas Litigation	\$3,000,000	Allowed \$3,000,000
OHWM Witness Fees	\$ 342,000	Allowed \$342,000
Core & Mineral Analysis (requested \$100,000 on-going)	\$ 0	Allowed \$100,000 one-time

2023-25 NEW POSITIONS APPROPRIATED

Number	Position Title	Date Filled	Transferred from Pool	Appropriated before Pool	Spent for Biennium
31511	Carbon Capture	5/9/2023	\$253,726.00	\$253,726.00	\$296,335.00
31512	Carbon Capture	5/9/2023	\$253,726.00	\$253,726.00	\$296,335.00
31513	Carbon Capture	n/a	\$0.00	\$207,682.00	\$0.00
31514	Paleontology Lab Tech	8/30/2023	\$160,116.00	\$167,102.00	\$160,141.00
31515	Subsurface Geologist	9/9/2024	\$119,695.00	\$119,695.00	\$119,695.00
31516	Critical Minerals	10/16/2023	\$192,600.00	\$216,028.00	\$192,600.00
28402	Records Management	11/1/2023	\$60,005.00	\$66,334.00	\$61,273.00
	Number 31511 31512 31513 31513 31514 31515 31515 31516 28402	NumberPosition Title31511Carbon Capture31512Carbon Capture31513Carbon Capture31514Paleontology Lab Tech31515Subsurface Geologist31516Critical Minerals28402Records Management	NumberPosition TitleFilled31511Carbon Capture5/9/202331512Carbon Capture5/9/202331513Carbon Capturen/a31514Paleontology Lab Tech8/30/202331515Subsurface Geologist9/9/202431516Critical Minerals10/16/202328402Records Management11/1/2023	NumberPosition TitleFilledfrom Pool31511Carbon Capture5/9/2023\$253,726.0031512Carbon Capture5/9/2023\$253,726.0031513Carbon Capturen/a\$0.0031514Paleontology Lab Tech8/30/2023\$160,116.0031515Subsurface Geologist9/9/2024\$119,695.0031516Critical Minerals10/16/2023\$192,600.0028402Records Management11/1/2023\$60,005.00	NumberPosition TitleFilledfrom PoolAppropriated before Pool31511Carbon Capture5/9/2023\$253,726.00\$253,726.0031512Carbon Capture5/9/2023\$253,726.00\$253,726.0031513Carbon Capturen/a\$0.00\$207,682.0031514Paleontology Lab Tech8/30/2023\$160,116.00\$167,102.0031515Subsurface Geologist9/9/2024\$119,695.00\$119,695.0031516Critical Minerals10/16/2023\$192,600.00\$216,028.0028402Records Management11/1/2023\$60,005.00\$66,334.00

Amount

DMR VACANCY SAVINGS & POOL ACTIVITY

\$1,284,293.00

\$1,389,856.00

\$2,674,149.00

(\$1,039,868.00)

(\$975,185.71)

(\$67,798.00)

\$591,297.29

(\$1,063,339.34)

Estimated Vacancy Savings:

Appropriation deducted for new FTE pool Appropriation deducted for vacant FTE pool

Total deducted from appropriation Amount transferred to date for new FTE Amount transferred to date for vacant FTE Expected tranfers from pool

Total unfunded salary appropriation Estimated Vacancy Savings as of 12/31/2024 Use of savings:

Anticipated Vacancy Savings	(\$79,135.04)
Other - temporary employee costs	\$57,911.00
Extra temporary salary funding	\$8,199.00
Bonuses	\$39,378.00
Extra salary increases	\$209,489.00
Accrued leave payments	\$77,930.00

OMB Funding Pools Activity:

Balance available in OMB pool	\$45,911.29
Estimated future tranfers from pool	(\$67,798.00)
Funding remaining in pool	\$113,709.29
Amount transferred to date for vacant FTE	(\$975,185.71)
Amount transferred to date for new FTE	(\$1,039,868.00)
Funding available in OMB pool	\$2,128,763.00

Agency concerns with the FTE funding pools:

- extra work required when positions are vacant and no funding available to compensate the coworkers who pick up the workload;
- no allowance in the budget for annual leave and sick leave payouts; and
- tracking changes to all positions and requesting draw downs and reporting amounts to OMB is very time-consuming and burdensome.

2025-2027 DMR BUDGET

The Department of Mineral Resources (DMR) budget is **95% general funds**, **4.2% federal funds**, **and 0.8% special funds**.

Federal funds include \$1.4 million in IIJA grants.

Budget costs are primarily salary and benefits (69%).

The **Operating Budget** consists of travel (26%), primarily state fleet vehicle mileage for fieldwork. Other operating items of significant costs include Litigation costs (24%); Lease, Rent, Facilities costs (12%) for the Bismarck office, warehouse, and three field offices; and IT costs (12%), two-thirds of which are ITD data processing, Telephone, and Contractual Services.

DMR Budget Comparison

	2023-25	2025 27	2025-27 Recommonded	2025-27
	Budget	Base Budget	Burgum Budget	DMR Budget
47410 Salaries & Benefits	\$23,123,267	\$23,261,532	\$28,690,812	\$28,605,637
47430 Operating Expense	\$11,541,104	\$5,120,253	\$11,175,591	\$12,617,545
47450 Capital Assets	\$98,000	<u>\$0</u>	\$0	<u>\$295,000</u>
Total Expenditures	\$34,762,371	\$28,381,785	\$39,866,403	\$41,518,182
Less Federal Income	\$2,568,000	\$268,000	\$1,728,377	\$1,728,377
Less Special Income	<u>\$0</u>	<u>\$0</u>	<u>\$342,000</u>	<u>\$342,000</u>
Total General Fund	\$32,194,371	\$28,113,785	\$37,796,026	\$39,447,805
FTE	108	108	110	116

Notes:

Federal Funds include \$1,444,377 in IIJA Formula Grant.

Special Funds are related to OHWM ongoing litigation that requires expert witness testimony.

Essential DMR budget does not include Burgum recommended compensation adjustments.

DMR BUDGET COMPARISON

47410 Salaries & Benefits:

- Base budget provides the 2023-25 salary appropriation for 108 appropriated FTE less the FTE funding pool deductions.
- Burgum recommendation is the base budget plus: \$2,674,149 for the FTE funding pools; \$1,850,970 for compensation adjustments of 4%/3% raises and health insurance increases; \$464,089 for optional request of 2.0 new FTEs (reclamation tech and permitting tech) and 1.0 FTE conversion (administrative converted to geologist position); \$250,000 for optional request of equity adjustment (non-classified employees were not included in last session equity adjustments); and \$138,265 for cost to continue adjustments for equity and retirement.
- DMR budget is the Burgum recommendation plus optional requests of: \$1,138,927 for 6 new FTEs (executive administrator, professional services II, class 6 programmer, paleontology technician, and two reclamation technicians; \$555,800 for equity adjustments (non-classified employees were not included in last session equity adjustments); and \$45,000 for temporary employee salaries. The DMR budget does not include the Burgum recommended compensation adjustments for raises and health insurance increase.

47430 Operating

- Base budget provides the 2023-25 operating appropriation less one-time funded items.
- Burgum recommendation is the base budget plus: \$108,065 for ITD data processing increases; \$172,916 for optional request of 2.0 new FTEs (reclamation tech and permitting tech) and 1.0 FTE conversion (administrative converted to geologist position); \$1,500,000 for optional request to adding back one-time inflationary costs and required 3% cuts; \$100,000 for mineral analysis optional request; \$100,000 for drilling project (phase 2) optional request; \$300,000 for woolly mammoth optional request; \$3,000,000 for litigation costs; \$115,000 for estimated cost of NDIC assessment; and \$342,000 for ordinary high water mark witness fees.
- DMR budget is the Burgum recommendation plus optional requests of: \$735,400 for rest of inflationary and restoration costs; \$234,553 for 6 new FTEs (executive administrator, professional services II, Class VI programmer, paleontology technician, and two reclamation technicians; \$400,000 for rest of drilling project (phase 2) costs; \$57,000 for professional development costs; and \$15,000 for EOR project costs.

DMR BUDGET COMPARISON (continued)

47450 Capital Assets

- Base budget does not provide for any capital assets.
- Burgum recommendation does not provide for any capital assets.
- DMR budget adds optional requests of \$250,000 for the paleontology viewing lab and \$45,000 for a portable XRF machine.

FTE Count

- Base budget is the 2023-25 appropriated FTE count of 108.
- Burgum recommendation increases the base budget count by 2.0 bringing the total count to 110 FTE.
- DMR increases the Burgum recommendation count by 6.0 bringing the total count to 116 FTE.

REQUESTED CHANGES TO BURGUM RECOMMENDED BUDGET

- Restore full inflation and restoration costs \$735,401: This would bring the total to \$2,235,401 which would fully fund DMR's essential operating costs. program but DMR 2023-25 biennium inflation items were given a one-time funding status. For this reason, the prior inflationary amounts were deducted in creating the 2025-27 base budget. With the continued inflationary increase, there is now an even greater request to cover the total inflationary amounts. The biggest portion of the request is for the Fleet Services budget guidelines requiring budgeting for \$0.69/mile which equates to an increase of \$1,293,362. This amount includes \$811,342 for inflation from the 2023-25 biennium (change from \$0.23/mile to \$0.56/mile) and \$482,020 for the 2025-27 biennium (change from \$0.56/mile to \$0.69/mile). Other inflationary items include lease payments \$75,022, ITD costs \$199,598, fire resistant safety clothing \$28,250, and other smaller increases for supplies, postage, and printing costs.
- New FTE executive administration position \$183,659: This position is needed to assist the DMR director and the leadership team on all administrative duties which will allow all team leaders to spend less time on scheduling and more time focusing on leadership needs.
- New FTE paleontology technician position \$216,472: A new paleontology technician assigned to the Public Fossil Dig Program would enable us to
 increase the number of available registration spots from 600 to 840 (a 40% increase) increasing the number of tourists traveling within North Dakota as well
 as bringing in additional out-of-state tourists. Additional costs associated with expanding the Public Fossil Dig Program will be covered by registration fees
 collected from the additional 240 spots.
- Equity adjustment for field inspectors \$555,800: This would bring the total to \$805,800 which allows for an estimated \$700/month increase for the 40 field inspector positions. This optional request is due to a great need to pay competitive salaries for experienced personnel. There exists a tremendous inequity between the salaries paid by our agency and the salaries paid by the oil and gas industry. The Oil and Gas Division continues to see field inspection turnover and a lack of applicants due to the lower salary amount. It should be noted that these positions are non-classified and therefore were not included in the prior session HRMS equity calculations.
- Drilling project (phase 2) \$400,000: This would bring the total to \$500,000 which would enable the Geological Survey to complete a Phase II drilling program by utilizing the tracts that were not drilled on during the Phase I drilling program.
- New FTE class VI programming position \$225,123: With North Dakota being the first state to receive Class VI primacy and the only state to have active Class VI injection projects, it is imperative to develop a database to monitor and manage Class VI wells and facilities. The United States Environmental Protection Agency has made available to North Dakota a \$1,930,000 grant to be used for operation of a Class VI primacy program. The Oil and Gas Division intends to apply for this grant and pool a portion of it with other states through the Ground Water Protection Council to develop a Class VI database.

REQUESTED CHANGES TO BURGUM BUDGET CONTINUED

- 2 new FTE reclamation technicians \$519,211: This would bring the total to \$799,925 allowing for one reclamation technician in each district. There has been increased demand for reclamation oversight due to recent funding from federal grants and the Oil and Gas Division's efforts to plug orphan wells. While the federal grant money covers the cost of the reclamation, Oil and Gas Division personnel must inspect the process as it is being performed, conduct a final inspection for bond release, as well as process Notices of Intent to Reclaim and Final Reclamation reports. The newly acquired Infrastructure Investment and Jobs Act Phase 1 Formula Grant covers five years and will allow for restoration of legacy brine ponds. During winter months, when reclamation work is put on hold, these positions will work as field inspectors conducting well and facility inspections.
- Paleontology viewing laboratory \$250,000: This would be a capital asset line item. The Geologic Time Gallery in the Heritage Center opened to the public in 2014. In the years since, we have received numerous requests to place a laboratory in the gallery where visitors could watch paleontologists prepare fossil specimens. These viewing laboratories are present in paleontological museum galleries around the World and are always very popular attractions.
- Professional land/legal assistant \$241,216: This position will report directly to the Oil & Gas Assistant Director and will take on the legal load of processing orders of complex cases while bringing in critical land-based knowledge. Thus, allowing the Oil & Gas Assistant Director more time to address field needs.
- Temporary employee funding \$45,000: Since 2004, we have been hiring students at UND to photograph core and thin sections for the Oil and Gas Subscription site. So far, we have photographed 256,000 feet (52% of the core in the Wilson M. Laird Core and Sample Library) and generated 393,000 photographs for the subscription site. We have also photographed 19,600 thin sections generating 151,000 photomicrographs for the web site. During the last legislative session, we were given a permanent infusion of \$45,000 in temporary salaries to help offset our source of funding to pay college students to photograph core. An additional \$45,000 in temporary salaries to being fully funding for the core and thin section photography project.
- Professional development \$57,000: The Interstate Oil and Gas Compact Commission (IOGCC) serves as the collective voice of member states on oil and gas issues and initiates innovative projects to advance our nation's energy future. The Ground Water Protection Council (GWPC) serves as the collective voice of member states on underground injection issues and promotes research and the use of best management practices and fair but effective laws regarding comprehensive ground water protection. It is critical that the State of North Dakota participates in these organizations, and the participants from the Oil and Gas Division are considered national experts, serving in leadership roles. It is necessary to cross-train Oil and Gas Division cut funds for meetings during budget cuts a couple of bienniums ago. Prior to that, Geological Survey geologists routinely presented the results of their work at regional and national meetings where they could learn from the presentations of other scientists, attend special training classes, core workshops, and fieldtrips. The funding would enable Survey geologists to attend national or regional scientific meetings presenting on their work. These presentations can encourage other scientists to do an expanded study on a North Dakota topic which will often bring them to North Dakota to do fieldwork or visit our core and sample library.

REQUESTED CHANGES TO BURGUM BUDGET CONTINUED

- Portable XRF machine (capital asset) \$45,000: This would be a capital asset line item. A portable X-ray fluorescence machine (XRF) was purchased in 2022 so that Survey personnel and industry scientists could use it to analyze for elements in rock core in the Wilson M. Laird Core and Sample Library. The XRF was purchased using donations from the ND Petroleum Council. Geological Survey geologists in the surface and paleontology sections have since demonstrated the analyzer is very useful in their work on critical minerals and dinosaur skin evaluation. This piece of equipment would be used to supplement the analytical work that could be generated by the analytical fund.
- Enhanced oil recovery project \$15,000: This request is for well data evaluation, database modification, presentations, conference attendance, ongoing software costs, and publications to promote the feasibility of enhanced oil recovery. In addition to the Bakken play, North Dakota has many conventional reservoirs that are suitable for enhanced oil recovery but the operators that would be candidates to implement such projects are often small and may not have the resources to perform evaluations.

OTHER DMR BUDGET SECTIONS

SB 2014 – Carryover Items:

- The Abandoned Oil Well Conversion to Water Supply program funds can continue to be expended through 12/31/2026. For this reason, a carryover of unexpended funds to the 2025-27 biennium has been requested. The remaining obligated amount is \$479,800.
- The 65th Legislative Session SB 2134 Ordinary High Water Mark litigation is nearing the end, but it is still possible for expert witness testimony yet to be required. For this reason, a carryover of unexpended funds to the 2025-27 biennium has been requested. The remaining available amount is \$342,000.
- The IIJA Initial Grant funds received an extension and can continue to be expended through 09/30/2025. For this reason, a carryover of unexpended funds to the 2025-27 biennium is being requested. The remaining available grant amount is \$225,500.

• Note: the \$2.5 million Formula Grant funds have a project period through 07/31/2029. Because the funds were appropriated via the Budget Section, the funds need to have a full legislative appropriation. For this reason, unexpended funds were included in Section 1, Subdivision 2, and not treated as a carryover in this section.

OTHER LEGISLATIVE BILLS IMPACTING

Not aware of any at this time.

NORTH Dakota Mineral Resources Be Legendary.[™]

Nathan D. Anderson, Director Mark F. Bohrer, Assistant Director of Oil & Gas Edward C. Murphy, Director of Geological Survey, State Geologist Michael Ziesch, Staff Officer Robyn Loumer, Finance Manager **ND Department of Mineral Resources** 600 E Boulevard, Dept 474 **Bismarck, ND 58505** https://www.dmr.nd.gov/ (701) 328.8020