

North Dakota Geological Survey

Edward C. Murphy - State Geologist
Department of Mineral Resources
Lynn D. Helms - Director

North Dakota Industrial Commission
www.state.nd.us/ndgs



May 9, 2019

Geri Schmaltz
ND Public Service Commission
600 E. Boulevard Ave, Dept. 408
Bismarck, ND 58505-0840

Re: Belle Fourche Pipeline Company Skunk Hill – DPR Pipeline Conversion Project - Corridor Review Comments

The North Dakota Geological Survey appreciates the notification and opportunity to review and provide comment on the proposed oil and gas energy infrastructure development project. The Notice of Filing and Public Hearing for Case No. PU-18-405 of May 1, 2019 was reviewed by our office on May 9, 2019. We dropped in the alignment of the existing pipeline route on our landslide base maps and compared it to the locations of landslides that have been identified by detailed mapping work previously completed by our office summarized in the attached map. Additionally, the entire existing pipeline route was evaluated by reviewing contemporary National Agriculture Imagery Program (NAIP) aerial imagery from 2018 for the identification of any more recent landslide areas.

We noted that the proposed pipeline route generally passes along areas that are generally topographically flat with little relief and consequently are generally free of landslides. However, two locations of interest were noted where the pipeline route passes near cutbank meanders along the Green River in the NW1/4 of Sec. 15, T. 141 N., R. 98 W., in eastern Billings County where slumping has occurred along these cutbanks. The locations of these areas are listed below in Table 1:

Table 1. Locations of Interest along Pipeline Route

No.	County	Description	Longitude	Latitude
1	Billings	NE Facing Cutbank Meander Slope along Green River	-103.085559	47.029751
2	Billings	NE Facing Cutbank Meander Slope along Green River	-103.091181	47.033791

Landslide maps and data, along with LiDAR elevation data sets and mapping products for the project area are available on our website at: <https://www.dmr.nd.gov/ndgs/SurfaceMap/SurfaceMap.asp?source=landslide24k>

Careful examination of existing and proposed pipeline routes in North Dakota, along with applicable engineering evaluations of locations of concern and adherence to appropriate construction practices should be continued. You may also contact our offices directly, with any additional questions or comments, at (701) 328-8000.

Sincerely,

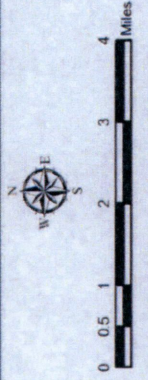
North Dakota Geological Survey:

Fred Anderson
Geologist
fjanderson@nd.gov

FJA\Attachment

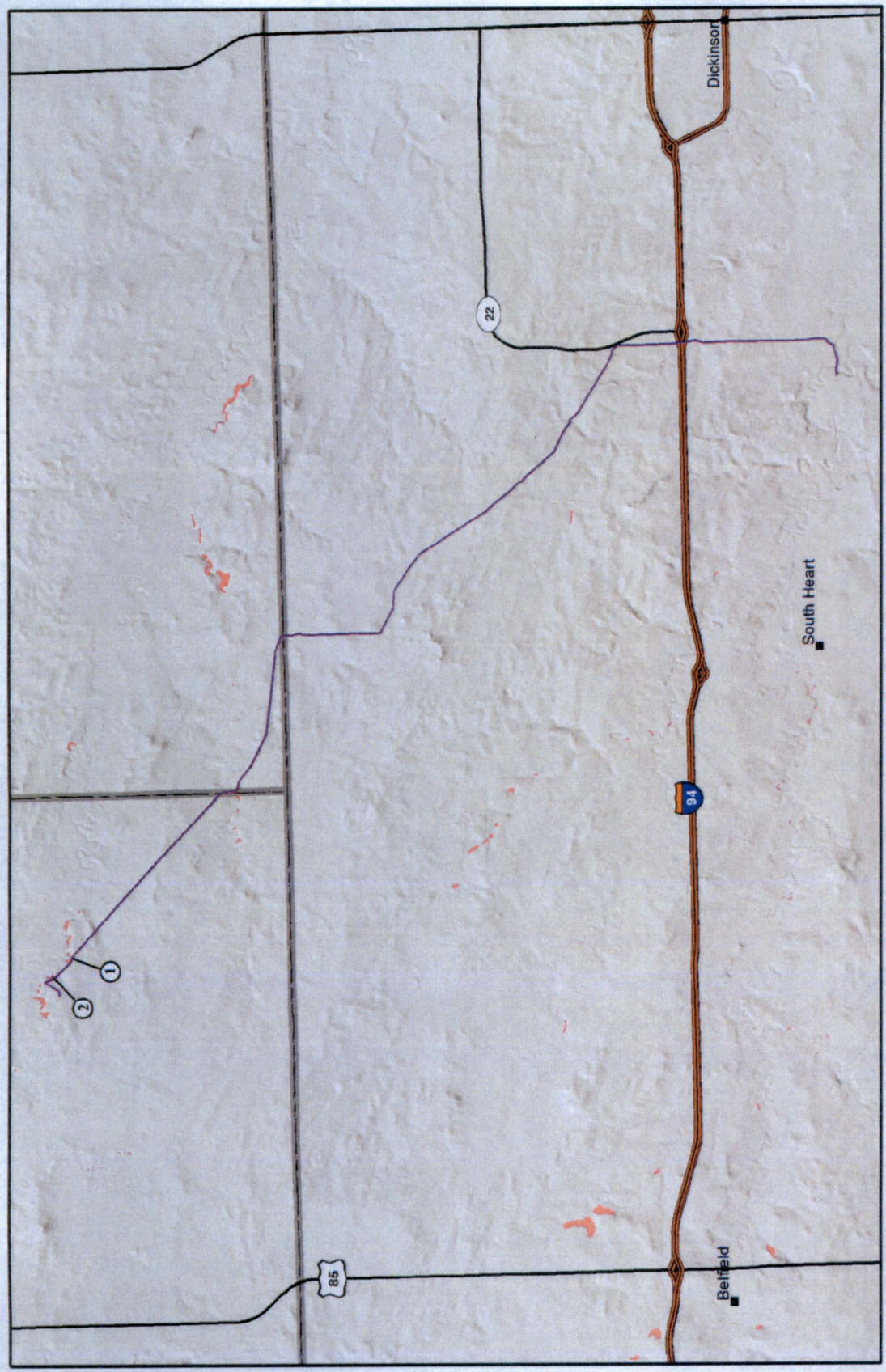
48 PU-18-405 Filed: 6/10/2019 Pages: 7
Exhibit 3 - Agency Correspondence

Belle Fourche Pipeline Company



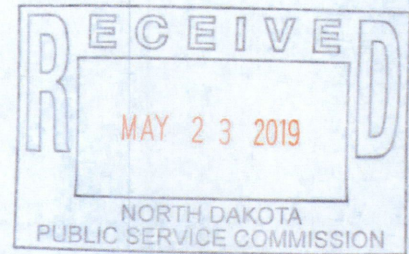
Skunk Hill to DPR 6" Pipeline

- Legend**
- Proposed Pipeline
 - Landslides
 - Pipeline Corridor (200 ft)



May 14, 2019

Ms GERALYN Schmaltz
Administrative Officer
ND Public Service Commission
600 E Boulevard Ave, Dept 408
Bismarck, ND 58050-0480:



Re: Belle Fourche Pipeline Company 6-inch Skunk Hill-DPR Pipeline Conversion Project Siting
Application Case No. PU-18-405 - Stark County

Dear Ms Schmaltz:

This North Dakota Department of Environmental Quality has reviewed the information concerning the above-referenced project submitted under date of May 2, 2019, with respect to possible environmental impacts.

This department believes that environmental impacts from the proposed construction will be minor and can be controlled by proper construction methods. With respect to construction, we have the following comments:

1. All necessary measures must be taken to minimize fugitive dust emissions created during construction activities. Any complaints that may arise are to be dealt with in an efficient and effective manner.
2. Aggregate to be used for road construction should not contain any erionite. Aggregate sources should be tested for erionite following guidelines found at <https://deq.nd.gov/erionite>. For questions regarding erionite testing, please call Sandi Washek at 701-328-5188.
3. Care is to be taken during construction activity near any water of the state to minimize adverse effects on a water body. This includes minimal disturbance of stream beds and banks to prevent excess siltation, and the replacement and revegetation of any disturbed area as soon as possible after work has been completed. Caution must also be taken to prevent spills of oil and grease that may reach the receiving water from equipment maintenance, and/or the handling of fuels on the site. Guidelines for minimizing degradation to waterways during construction are attached.
4. Projects disturbing one or more acres are required to have a permit to discharge storm water runoff until the site is stabilized by the reestablishment of vegetation or other permanent cover. Further information on the storm water permit may be obtained from the department's website or by calling the Division of Water Quality (701-328-5210). Also, cities may impose additional requirements and/or specific best management practices for construction affecting their storm drainage system. Check with the local officials to be sure any local storm water management considerations are addressed.
5. The proposed pipeline may overlie sensitive groundwater areas, glacial drift aquifers, or wellhead/source water protection areas. Care should be taken to avoid spills of any materials that may have an adverse effect on groundwater quality. All spills must be immediately reported to this department and appropriate remedial actions performed.

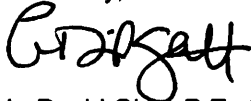
6. Noise from construction activities may have adverse effects on persons who live near the construction area. Noise levels can be minimized by ensuring that construction equipment is equipped with a recommended muffler in good working order. Noise effects can also be minimized by ensuring that construction activities are not conducted during early morning or late evening hours.
7. All solid waste materials must be managed and transported in accordance with the state's solid and hazardous waste rules. Appropriate efforts to reduce, reuse and/or recycle waste materials are strongly encouraged. As appropriate, segregation of inert waste from non-inert waste can generally reduce the cost of waste management. Further information on waste management and recycling is available from the department's Division of Waste Management at (701) 328-5166.
8. Projects that involve construction, drilling, completion and/or production of crude oil or natural gas wells should select locations that minimize the potential for environmental damage during development of the well and in the event of a spill, restrict fluids from reaching surface waters. Well placement should avoid close proximity to drainage areas and steep slopes. Environmental damage can be reduced by developing a spill response plan that emphasizes rapid deployment of prepositioned assets necessary to contain spills and subsequent cleanup. Proper surveillance and monitoring of pipelines is necessary for the early detection of leaks.
9. Projects that involve construction of pipelines should select locations that minimize the potential for impacts to human health and the environment during and after construction by avoiding, when possible, source water protection areas and sensitive surface and groundwater environments. Additionally, when possible, pipeline routes should select areas with natural barriers to both surface and ground waters. Human health and the environment should be further protected by developing a spill response plan that emphasizes rapid deployment of prepositioned assets necessary to contain spills and subsequent cleanup. Proper surveillance and monitoring for early detection of leaks should be required.

These comments are based on the information provided about the project in the above-referenced submittal. The U.S. Army Corps of Engineers may require a water quality certification from this department for the project if the project is subject to their Section 404 permitting process. Any additional information which may be required by the U.S. Army Corps of Engineers under the process will be considered by this department in our determination regarding the issuance of such a certification.

The department owns no land in or adjacent to the proposed improvements, nor does it have any projects scheduled in the area. In addition, we believe the proposed activities are consistent with the State Implementation Plan for the Control of Air Pollution for the State of North Dakota.

If you have any questions regarding our comments, please feel free to contact this office.

Sincerely,



L. David Glatt, P.E., Director
North Dakota Department of Environmental Quality

LDG:dlp
Attach.

Construction and Environmental Disturbance Requirements

The following are the minimum requirements of the North Dakota Department of Environmental Quality for projects that involve construction or environmental disturbance in or near waters of the State of North Dakota. They ensure that minimal environmental degradation occurs as a result of construction or related work which has the potential to affect waters of the state. All projects must be constructed to minimize the loss of soil, vegetative cover, and pollutants (chemical or biological) from a site.

Soils

Prevent the erosion of soil and sediment loss using erosion and sediment controls. Fragile and sensitive areas such as wetlands, riparian zones, delicate flora, and land resources must be protected against compaction, vegetation loss, and unnecessary damage.

Surface Waters

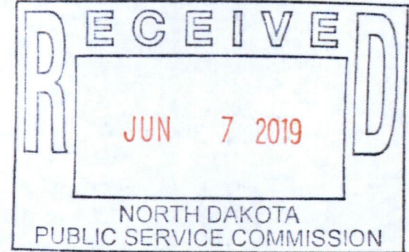
All construction must be managed to minimize impacts to aquatic systems. Follow safe storage and handling procedures to prevent the contamination of water from fuel spills, lubricants, and chemicals. Stream bank and stream bed disturbances must be controlled to minimize silt movement, nutrient upsurges, plant dislocations, and any physical, chemical, or biological disruption. The use of pesticides or herbicides in or near surface waters is allowed under the department's pesticide application permit with notification to the department.

Fill Material

Any fill material placed below the ordinary high-water mark must be free of topsoil, decomposable materials, and persistent synthetic organic compounds; including, but not limited to, asphalt, tires, treated lumber, and construction debris. The department may require testing of fill materials. All temporary fill must be removed. Debris and solid wastes must be properly disposed or recycled. Impacted areas must be restored to near original condition.

June 7, 2019

Public Service Commission
600 E. Boulevard, Dept. 408
Bismarck, ND 58505-0480



Reference: Public Service Commission Case No. PU-18-405 (Belle Fourche Pipeline Company 6-inch Skunk Hill-DPR Pipeline Conversion Project)

Good afternoon Chairman Kroshus and members of the Public Service Commission. My name is Karl Rockeman, and I am the director of the Division of Water Quality within the North Dakota Department of Environmental Quality. The Division of Water Quality protects and monitors the state's water resources to ensure the quality of surface and groundwater for the public's use.

We appreciate the opportunity to provide additional comment on the conversion of Belle Fourche's 6-inch Skunk Hill-DPR crude oil gathering line to a crude oil transmission line.

Today I'd like to expand upon the comments already provided to the company in our letter of July 6, 2017 and included as part of Docket #24. For the record, I'm referring to the last part of item #5 in our letter that states "Proper surveillance and monitoring for early detection of leaks should be required."

All pipelines should have adequate leak detection systems to allow for timely detection of leaks. In some cases, inadequate leak detection has resulted in significant losses of both oil and saltwater and subsequent environmental damage. Conversely, there have been other times when timely detection of leaks by the pipeline operator resulted in only small incidents.

The Department of Environmental Quality does not object to the conversion of the line with appropriate oversight. However, we believe a thorough evaluation of the monitoring, leak detection and control room management of Belle Fourche's lines should be completed. Such an evaluation will ensure that operation of the pipeline reduces the potential for adverse environmental impacts.

The basis for our concerns about the ability of Belle Fourche to detect leaks in its system can be found in Docket #26 — the 10 Year Spill History which lists, among others, the 12,615-barrel spill from a pipeline into Ash Coulee Creek first reported December 5, 2016. Staff from our agency responded to this spill that same day and continued to participate as part of the Incident Command, in cooperation with Belle Fourche and the U.S. Environmental Protection Agency.

918 East Divide Avenue | Bismarck ND 58501-1947 |

Director's Office 701-328-5150	Division of Air Quality 701-328-5188	Division of Municipal Facilities 701-328-5211	Div Waste M 701-3
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38 PU-18-405 Filed: 6/7/2019 Pages: 2
Agency correspondence - ND Department of
Environmental Quality Division of Water Quality

North Dakota Department of Environmental Quality

Karl Rockeman, Director Div. of Water Qu

Unified Incident Command directed the response and cleanup in the creek through June 2017. Oil is still being collected as it is discharged from the hillside, and Belle Fourche continues to clean up near the site of release under our oversight.

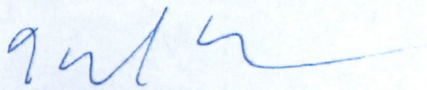
The Ash Coulee Spill was discovered by the landowner and reported to Belle Fourche on December 5, but the release had been occurring for days prior to that date. Although data collected by the leak detection technology did indicate a leak, insufficient action was taken to address the leak until its discharge into Ash Coulee Creek was reported by the landowner.

Our investigation and enforcement action continues for this specific spill and its causes, but some of the issues discovered may relate to this proposed line, as the two pipelines share a common control room. The commission should review the adequacy of the following items by requiring a third-party audit to include:

1. Collection of data from the Supervisory Control and Data Acquisition (SCADA) system, including protocols to ensure its accuracy.
2. Calculation and presentation of the data to the pipeline controllers by the computational pipeline monitoring (CPM) system, including alarm management.
3. Written control room management procedures, including the operator's authority and responsibilities.
4. Processes for tracking and approving changes to the SCADA and CPM systems.
5. Training on CPM system and control room management procedures.

As the Ash Coulee spill was caused by a landslide, we also would encourage the Commission to consider the letter from the North Dakota Geological Survey, Docket # 35.

Again, the Department of Environmental Quality thanks the Commission for this opportunity to provide comment, and I'd be happy to answer any questions.



Karl Rockeman
Director
Division of Water Quality
North Dakota Department of Environmental Quality