BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF SOUTH DAKOTA

IN THE MATTER OF THE APPLICATION : OF NAVIGATOR HEARTLAND GREENWAY, LLC FOR A PERMIT UNDER : THE SOUTH DAKOTA ENERGY CONVERSION AND TRANSMISSION FACILITIES ACT TO CONSTRUCT THE : HEARTLAND GREENWAY PIPELINE IN SOUTH DAKOTA, :

SUPPLEMENTAL DIRECT TESTIMONY OF STEPHEN LEE

HP 22-002

1. Please state your name and address for the record.

Answer: My name is Stephen Lee. My business address is 2626 Cole Avenue, Dallas, Texas.

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2. Have you previously provided testimony in this proceeding?

Answer: Yes, I submitted prefiled testimony dated September 26, 2022. This supplemental testimony provides updated information on some of the subjects covered in my previous testimony, addresses some issues raised during discovery, and adopts portions of David Giles's prefiled testimony as explained below.

3. Have the route maps been updated since they were submitted with the

Application?

Answer: Yes. The process of refining the route is ongoing based on survey results and consultation with landowners. To date, route changes have been minor, without affecting any new landowners. They have been based on landowner preferences and/or constructability factors. Updated route maps are attached as Exhibit B to Brandi Naughton's Supplemental

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Testimony. Route maps that are current as of the deadline for filing hearing exhibits will also be filed as a hearing exhibit.

4. Has Navigator determined the number and location of access roads needed during construction of the pipeline?

Answer: The process is ongoing based on survey work, but Navigator has identified approximately 14 temporary access roads planned for use during construction. Navigator expects to obtain necessary access roads by voluntary agreement and is not aware of any locations where that may be problematic. Navigator will provide further evidence on the number and location of access roads before the hearing.

5. Has Navigator completed the formal Geohazard Analysis discussed in paragraph 42 of your direct testimony?

Answer: Navigator retained Terracon to provide an overview of the expected geotechnical conditions along and in proximity to the route using publicly available data and inhouse database information. Terracon completed a Phase I Geological and Geohazard Desktop Study Report that was previously provided to Staff in discovery. Terracon will also complete a Phase II study using field verification and additional due diligence, which may include sitespecific assessments documented by geotechnical observations, field notes, photographs, measures, and GPS location of features at areas of interest identified in the Phase I report. Based on the information gathered during the Phase II study, Navigator will identify areas of potential risk for geohazards and develop appropriate risk-mitigation measures. This work should be completed by the end of Q1 2024. Where there may be a risk of landslides during construction, Navigator will use the erosion and sediment control devices in these areas. If landslide prone areas

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are identified during the Phase II study, mitigation measures could include, but are not limited to, a change in construction methodology to an HDD or avoidance of the area.

6. Has Navigator identified the location of mainline valves?

Answer: Determining the number and location of mainline valves is an iterative process. Navigator has determined the preliminary placement of mainline valves and shared their location with Commission Staff through discovery. There are currently 18 mainline valves in South Dakota, all of which will be remotely operated. Additional valve placement may occur as a result of Emergency Flow Restrict Device analysis, and additional review of HCA and ESA analysis as a result of additional survey work. The spacing of mainline valves is determined based on 49 CFR Par 195, CO2 dispersion modeling, and will account for HCAs, populated areas, ESAs, and unusually sensitive areas. Landowner negotiations may also affect the placement of mainline valves. If a landowner has concerns about placement of a mainline valve, Navigator will work that landowner and adjacent landowners to find an appropriate location.

7. Will the pipeline have pressure release valves?

Answer: Yes. They will be located at booster stations and launcher/receiver sites. They act as a secondary measure of protection. The primary safety for pressure is automated controls for the compression equipment that will shut down the equipment in case of abnormal operations. A pressure release valve would only release CO2 if pressure exceeded the defined maximum operating limit, and a release would be limited to the volume necessary to return pressure to below the defined maximum limit, which would be limited to several seconds and a temporary release of negligible volume.

8. Please describe the carbon dioxide monitoring devices mentioned in Paragraph 23 of your direct testimony.

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Answer: These devices would be redundant systems to offer increased reliability in leak detection. They would be located on the pipeline system at above-ground facilities, which in South Dakota includes mainline valve sites. They would be connected to the pipeline SCADA system and alert the OCC in the event CO2 is detected in the atmosphere above ambient/present threshold in the vicinity of the device's location. This sensor technology is similar to a 5-gas monitor for personal protection, which Navigator will also employ for mobile use.

9. Are you adopting part of the previously submitted prefiled testimony of David Giles?

Answer: Yes. David Giles's wife recently passed away and he is unable to travel due to family obligations, so he is unable to attend the evidentiary hearing scheduled in this docket.

10. Which portions are you adopting?

Answer: I have sufficient knowledge of and sufficient education, training, and experience to testify to the following subjects from Giles's prefiled testimony:

- Paragraph 10—the purpose and need for the Project;
- Paragraph 11—an overview of the Pipeline in South Dakota;
- Paragraph 12—demand for the Project;
- Paragraph 13—permits being sought from other state siting authorities;
- Paragraph 19—the Project schedule;
- Paragraph 20—expansion opportunities.

I adopt these questions and answers from Giles's prefiled testimony as my own and will be able to answer questions about these subjects at the evidentiary hearing.

11. Does this conclude your supplemental testimony?

Answer: Yes.

Dated this 25th day of May, 2023.

/s/Stephen Lee Stephen Lee