



CERTIFICATE GC-127

IN THE MATTER OF the *National Energy Board Act* (NEB Act) and the regulations made thereunder;

IN THE MATTER OF an application by NOVA Gas Transmission Ltd. (NGTL) dated 2 September 2015 under section 52 of the NEB Act, for a Certificate of Public Convenience and Necessity authorizing the construction and operation of the NGTL Towerbirch Expansion Project (Project), filed with the National Energy Board (NEB or Board) under File OF-Fac-Gas-N081-2015-16 02.

BEFORE the Board on 8 September 2016.

WHEREAS the Project includes the proposed construction and operation of approximately 87 km of new gas pipelines and associated facilities in northwest Alberta and northeast British Columbia (Section 52 Facilities), in addition to right-of-way preparation activities in certain specified locations, the temporary infrastructure required for pipeline construction, including stockpile sites, contractor yards, access roads and borrow pits/dugouts and all activities related to the construction of the proposed meter stations (Section 58 Activities);

AND WHEREAS the Section 52 Facilities are fully described in the attached Schedule A;

AND WHEREAS the Project has an estimated capital cost of approximately \$439 million;

AND WHEREAS the Board reviewed NGTL's application and all subsequent submissions made by NGTL and the participants in the proceeding, and conducted an environmental assessment of the Project;

AND WHEREAS the Board held a public hearing in respect of the Project pursuant to Hearing Order GH-003-2015, as amended, during which the Board heard from NGTL and the participants in the proceeding;

AND WHEREAS the Board had regard to all considerations that were directly related to the Project and were relevant, pursuant to Part III of the NEB Act;

AND WHEREAS the Board prepared and submitted to the Minister of Natural Resources the *National Energy Board Report for NOVA Gas Transmission Ltd.'s Towerbirch Expansion Project* (Report) setting out the Board's recommendation for the Section 52 Facilities;

.../2

AND WHEREAS the Board concluded that the Project, constructed and operated in full compliance with the terms and conditions recommended by the Board in Appendices II and III of the Report, and with the implementation of NGTL's environmental protection procedures and mitigation measures, is not likely to cause significant adverse environmental effects;

AND WHEREAS the Board recommended that a Certificate of Public Convenience and Necessity be issued for the construction and operation of the Section 52 Facilities;

AND WHEREAS the Board has issued Order XG-N081-025-2016 pursuant to section 58 of the NEB Act, exempting NGTL from the requirements of subsections 31(c), 31(d), and section 33 of the NEB Act in relation to the Section 58 Activities;

AND WHEREAS the Governor in Council has decided, taking into account the implementation of the mitigation measures specified in the Report with respect to the environmental assessment, that the Project is not likely to cause significant adverse environmental effects;

AND WHEREAS the Governor in Council by Order in Council No. P.C. 2017-231, dated 10 March 2017, directed the Board to issue Certificate of Public Convenience and Necessity GC-127 for the Section 52 Facilities, subject to the terms and conditions contained in Appendix II of the Report;

NOW THEREFORE, pursuant to section 54 of the NEB Act, the Board hereby issues this Certificate in respect of the Section 52 Facilities.

This Certificate is subject to the terms and conditions outlined below. In this document, the terms and expressions below (in bold) have the following meaning:

Certificate: Certificate of Public Convenience and Necessity authorizing the construction and operation of the Section 52 Facilities, pursuant to section 54 of the NEB Act.

Section 58 Order: the Exemption Order applied for by NGTL under Section 58 of Part III of the NEB Act, authorizing the construction and use of the Section 58 Activities.

commencing construction: the clearing of vegetation, ground-breaking and other forms of right-of-way (RoW) preparation that may have an impact on the environment (activities associated with normal surveying do not constitute commencing construction).

post-construction: activities to take place once construction is complete, following final clean-up through to the completion of reclamation activities; including monitoring to evaluate the success of reclamation activities, compliance with commitments and the stability of disturbed lands.

Conditions

General

1. Condition Compliance

NGTL shall comply with all of the conditions contained in this Certificate unless the Board otherwise directs.

2. Design, Construction and Operation

NGTL shall cause the Section 52 Facilities to be designed, located, constructed, installed and operated in accordance with the specifications, standards, commitments made and other information referred to in its application, subsequent filings or as otherwise agreed to during the hearing process.

3. Implementation of Environmental Protection

NGTL shall implement or cause to be implemented all of the policies, practices, programs, mitigation measures, recommendations, procedures and its commitments for the protection of the environment included in or referred to in its application, subsequent filings or as otherwise agreed to during the hearing process.

Prior to Construction

4. Right-of-Way Regeneration Plan in Old Growth Forest Bird Habitat

NGTL shall file with the Board, **at least 60 days prior to commencing construction of the Section 52 Facilities**, a Plan to enhance the regeneration of vegetation on the construction right-of-way within or adjacent to old growth forest bird habitat such that the width of the operating right-of-way is reduced as much as possible, and that habitat functionality of disturbed areas is returned as soon as possible.

The Plan shall include:

- a. a description of the goals of the Plan, including the condition to which NGTL intends to return all or part of the construction right-of-way;
- b. a description of the strategies for regeneration of the right-of-way (method, measures, tree and shrub planting plans, and application criteria);
- c. the procedures for right-of-way width reduction and vegetation management on the right-of-way during operation of the Project (e.g., minimize brushing), including a decision-making framework for selecting the appropriate maintenance measures, and how environmental sensitivities and land use will be considered;
- d. a discussion of how the regeneration strategies are anticipated to return the construction right-of-way to pre-construction functionality, in particular for old growth forest birds, using the goals and targets provided in a);

- e. a summary of NGTL's consultation concerning a) to d) with appropriate federal and provincial authorities, landowners and any potentially affected Aboriginal groups, including any issues or concerns raised and how NGTL has addressed or responded to them; and,
- f. confirmation that the status of regeneration, including right-of-way width, will be reported in the Post-Construction Environmental Monitoring Reports required by Condition 23.

5. Quality Management Plan

NGTL shall file with the Board, **at least 60 days prior to commencing construction of the Section 52 Facilities**, a description of its corporate Quality Management Plan for pipe and components greater than NPS 16, including:

- a. material/vendor qualification requirements;
- b. quality control and assurance programs for all pipe and components greater than NPS 16, that ensure all materials meet NGTL's specifications (i.e. processes, procedures, specifications, testing, inspection and test report(s));
- c. mandatory documentation of the process conditions during manufacture and verification of the conformance of manufacturer material test reports with NGTL's requirements;
- d. mandatory inspection requirements, inspection competency training, and qualifications; and
- e. non-conformance reporting and correction procedures.

6. Commitments Tracking Table

NGTL shall:

- a. file with the Board and post on its Project website, **at least 30 days prior to commencing construction of the Section 52 Facilities**, a table listing all commitments made by NGTL in the Project application, subsequent filings or as otherwise agreed to during the hearing process, and the conditions included in this Certificate (Commitments Tracking Table), including reference to:
 - i. the documentation in which reference to the commitment is made (e.g., the Project application, responses to information requests, hearing transcripts, authorization or approval requirements, condition filings, or other); and
 - ii. the timelines associated with the fulfillment of each commitment;
- b. file with the Board and post on the Project website an update on the status of the commitments in a) **monthly until the last Order is issued for leave to open**;
- c. maintain at its construction office(s):
 - i. the Commitments Tracking Table listing all commitments and conditions described in a) and their completion status;

- ii. copies of any permits, approvals or authorizations for the Project issued by federal, provincial or other permitting authorities, which include environmental conditions or site-specific mitigation or monitoring measures; and
- iii. any subsequent variances to any permits, approvals or authorizations referred to in c) ii); and
- d. notify all interested parties that have expressed an interest in receiving such notifications of filings and Commitments Tracking Table updates that NGTL has been required by the Board to file pursuant to this Certificate.

7. Environmental Protection Plan (EPP)

NGTL shall file with the Board for approval, **at least 60 days prior to commencing construction of the Section 52 Facilities**, an updated project specific Environmental Protection Plan (EPP), which NGTL shall implement. The EPP shall describe all environmental protection procedures, and mitigation and monitoring commitments, as set out in NGTL's application, subsequent filings or as otherwise agreed to during the hearing process. The EPP shall also include updated Environmental Alignment Sheets.

8. Aboriginal Monitoring Plan

NGTL shall file with the Board, and serve a copy on those Aboriginal groups identified in a), **at least 60 days prior to commencing construction of the Section 52 Facilities**, a plan describing participation by Aboriginal groups in monitoring during construction and post-construction of the Project. The plan shall include:

- a. a list of the Aboriginal groups consulted concerning participation in monitoring during construction and/or post-construction;
- b. a list of those Aboriginal groups, if any, who have reached agreement with NGTL to participate as monitors during construction and/or post-construction; and
- c. a description of the scope, methodology, and measures for monitoring activities to be undertaken by each participating Aboriginal group identified in b), including:
 - i. a summary of consultations undertaken with participating Aboriginal groups to determine the proposed scope, methodology, and measures for monitoring;
 - ii. those elements of construction and geographic locations that will involve Aboriginal monitoring;
 - iii. a description of how information gathered through the participation of Aboriginal monitors will be used by NGTL; and
 - iv. a description of how information gathered through the participation of Aboriginal monitors will be provided to participating Aboriginal groups.

9. Outstanding Traditional Land Use Investigations

NGTL shall, **at least 60 days prior to commencing construction of the Section 52 Facilities**, file with the Board for approval, and serve a copy on all participating Aboriginal groups, a plan to address outstanding traditional land use (TLU) investigations for the Section 52 Facilities. The plan must include, but not be limited to:

- a. a summary of the status of TLU investigations undertaken for the Section 52 Facilities, including Aboriginal group-specific TLU studies or planned supplemental surveys;
- b. a description of any outstanding concerns raised by potentially-affected Aboriginal groups regarding potential effects of the Section 52 Facilities on the current use of lands and resources for traditional purposes, including a description of how these concerns have been or will be addressed by NGTL;
- c. a summary of any outstanding TLU investigations or supplemental surveys, and follow-up activities that will not be completed prior to commencing construction, including an explanation for why these will not be completed prior to commencing construction, an estimated completion date, if applicable, and a description of how any additional information provided by Aboriginal groups has been considered and addressed to the extent possible in the EPP or other mitigation measures for the Section 52 Facilities; and
- d. a description of how NGTL has incorporated any revisions into the final EPP and Environmental Alignment Sheets.

10. Construction Schedule

NGTL shall file with the Board, **at least 30 days prior to commencing construction of the Section 52 Facilities**, a detailed construction schedule(s) identifying major construction activities, and shall notify the Board of any modifications to the schedule(s) as they occur.

11. Heritage Resources

NGTL shall file with the Board, **at least 30 days prior to commencing construction of the Section 52 Facilities**:

- a. confirmation, signed by an Officer of the company, that it has obtained all of the required archaeological and heritage resource clearances and authorizations from the Alberta Department of Culture and the British Columbia Ministry of Forests, Lands and Natural Resource Operations;
- b. a description of how NGTL will meet conditions and respond to comments and recommendations contained in the clearances and authorizations referred to in a); and
- c. a description of how NGTL has incorporated additional mitigation measures as applicable, into its Environmental Protection Plans as a result of conditions or recommendations referred to in b).

During Construction

12. Breeding Bird Surveys and Protection Plans

In the event of construction activities within the breeding and nesting period for migratory birds or restricted activity periods for non-migratory birds protected under provincial jurisdiction, NGTL shall retain a qualified avian biologist to carry out a pre-construction non-intrusive survey to identify any birds and active nests in areas immediately surrounding the construction activities and shall file the following with the Board **as part of the Construction Progress Reports required by Condition 13 b)**:

- a. the results of the survey;
- b. mitigation, including monitoring, developed in consultation with Environment and Climate Change Canada and the appropriate provincial government authorities, to protect any identified migratory and non-migratory birds and their nests;
- c. mitigation, including monitoring, developed in consultation with Environment and Climate Change Canada to protect any identified *Species at Risk Act* listed birds and their nests;
- d. and evidence to confirm that the appropriate provincial and federal government authorities were consulted, on the proposed methodology for the survey, the results from the survey and the mitigation and monitoring to be used, and a description of any outstanding concerns they may have.

13. Construction Progress Reports

NGTL shall file progress reports with the Board **on the 1st and 16th of each month during construction** of the Section 52 Facilities. Each report shall include:

- a. information on the activities carried out during the reporting period;
- b. an update on the extent to which construction activities overlap with environmentally sensitive periods (e.g., the migratory bird nesting period, Western Toad breeding period, restricted activity periods for watercourses) and any mitigation measures required and implemented to reduce the risk of adverse impacts during the environmentally sensitive periods;
- c. any environmental, socio-economic, safety and security issues and issues of non-compliance; and
- d. the measures undertaken for the resolution of each issue and non-compliance for environmental, socio-economic and safety issues, and confirmation that identified security issues have been addressed.

14. Watercourse Crossing Inventory

NGTL shall file with the Board, **at least 60 days prior to commencing construction of any watercourse crossing**, the following:

- a. an updated inventory of all watercourses to be crossed, including, for each crossing:
 - i. the name of the watercourse being crossed and an identifier for the crossing;
 - ii. the location of the crossing;
 - iii. the primary and contingency crossing methods;
 - iv. information on the presence of fish and fish habitat;
 - v. a description of the composition of the riparian habitat at the crossing location and an indication if the riparian habitat has a limiting effect on the productive capacity of the watercourse, and if its removal or disturbance represents a potential influence on fish communities;
 - vi. the provincial instream work window or timing restrictions (i.e., window of least risk or restricted activity period);
 - vii. planned construction timing; and
 - viii. an indication of whether any of the applicable Fisheries and Oceans Canada's "Measures to Avoid Causing Harm to Fish and Fish Habitat" cannot be implemented;
- b. detailed generic design drawings of trenchless, dry open-cut, frozen open-cut, and isolation crossings of various watercourse types;
- c. site-specific information for each watercourse crossing where any of the applicable Fisheries and Oceans Canada's "Measures to Avoid Causing Harm to Fish and Fish Habitat" cannot be implemented for the primary watercourse construction method, including:
 - i. crossing-specific engineered design drawings;
 - ii. photographs up-stream, down-stream, and at the crossing location;
 - iii. a description of the fish species and habitat that is present at the crossing location, and if fish spawning is likely to occur within the immediate area;
 - iv. the site-specific mitigation and habitat enhancement measures to be used to minimize impacts;
 - v. any potential residual effects;
 - vi. proposed reclamation measures;
 - vii. a discussion of the potential impacts to commercial, recreational and Aboriginal fishery resources within the immediate area as a result of the crossing's construction; and

- viii. a self-assessment of the risk of serious harm;
- d. a summary of consultations with appropriate government authorities, potentially affected Aboriginal groups and affected landowners/tenants. In its summary, NGTL shall provide a description and justification for how NGTL has incorporated the results of its consultation, including any recommendations from those consulted.

15. Contingency Watercourse Crossings

- a. For any watercourse crossing where NGTL will employ a contingency crossing method instead of its proposed primary method, and where any of the applicable Fisheries and Oceans Canada's "Measures to Avoid Causing Harm to Fish and Fish Habitat" cannot be implemented, NGTL shall file with the Board **at least 30 days prior to commencing construction of the contingency watercourse crossing**:
 - i. confirmation of the contingency watercourse crossing method that will be employed, the rationale for employing that method, and a summary of the differences between the primary and contingency watercourse crossing methods; and
 - ii. the following site-specific information:
 - a) detailed crossing-specific engineered design drawings;
 - b) photographs up-stream, down-stream, and at the crossing location;
 - c) a description of the fish species and habitat that is present at the crossing location, and if fish spawning is likely to occur within the immediate area;
 - d) a description of the composition of the riparian habitat at the crossing location and an indication if the riparian habitat has a limiting effect on the productive capacity of the watercourse, and if its removal or disturbance represents a potential influence on fish communities;
 - e) the site-specific mitigation and habitat enhancement measures to be used to minimize impacts;
 - f) any potential residual effects;
 - g) proposed reclamation measures; and
 - h) a discussion of the potential impacts to commercial, recreational and Aboriginal fishery resources within the immediate area as a result of the crossing's construction.
- b. For all other instances where a contingency crossing method will be employed and all of the applicable Fisheries and Oceans Canada's "Measures to Avoid Causing Harm to Fish and Fish Habitat" will be implemented, NGTL shall file with the Board, **at least 15 days prior to commencing construction of the contingency watercourse crossing**, a notification that the contingency method

will be employed. With this notification, NGTL must explain why the contingency method is being employed and provide a summary of the differences between the primary and contingency watercourse crossing methods.

- c. NGTL shall provide, **within 30 days after the date that the last Order is issued for leave to open**, confirmation that any contingency watercourse crossing(s) identified to the Board pursuant to a) and b) were the only contingency watercourse crossing(s) implemented for the construction of the Project; or that contingency watercourse crossing methods were not required for the Project.

16. Authorizations under paragraph 35(2)(b) of the Fisheries Act and Species at Risk permits

- a. For any instream activities that will require an authorization under paragraph 35(2)(b) of the *Fisheries Act*, NGTL shall file with the Board, **at least 10 days prior to commencing the respective instream activities**, a copy of the authorization under paragraph 35(2)(b) of the *Fisheries Act*;
- b. For any instream activities that will require a permit under the *Species at Risk Act*, NGTL shall file with the Board, **at least 10 days prior to commencing the respective instream activities**, a copy of the permit issued under the *Species at Risk Act*; and
- c. NGTL shall confirm, **within 30 days after the date that the last Order is issued for leave to open**, that:
 - i. any required *Fisheries Act* authorizations were obtained from Fisheries and Oceans Canada and filed with the Board pursuant to a), or notify the Board that no authorizations were required; and
 - ii. any required *Species at Risk Act* permits for instream activities were obtained from the competent minister under the *Species at Risk Act*, and filed with the Board pursuant to b), or notify the Board that no permits were required.

17. Pipeline Pressure Control and Overpressure Protection

NGTL shall file with the Board, **at the time the leave to open application for any Project segment containing a meter station is filed**, a statement by a professional engineer that the pressure control and overpressure protection provided at the receipt meter stations comply with the requirements of CSA Z662-15, including Clause 4.18, and Clause 10.9.5. The statement shall also confirm that overpressure protection meets the intent and purpose of NEB Safety Advisory [SA 2012-01](#).

18. Horizontal Drilling Execution Plan

NGTL shall file with the Board, **at least 45 days prior to performing HDD crossings**, detailed site-specific drilling execution plans in accordance with Clause 6.2.11 of

CSA Z662-15, including the site-specific mitigative measures taken to minimize the risk of potential frac-outs and other drilling failures.

Post-construction and Operations

19. Condition Compliance by the Accountable Officer

Within 30 days of the date that the last order is issued for leave to open, NGTL shall file with the Board a confirmation that the approved Project was completed and constructed in compliance with all applicable conditions in this Certificate. If compliance with any of these conditions cannot be confirmed, NGTL shall file with the Board details as to why compliance cannot be confirmed. The filing required by this condition shall include a statement confirming that the signatory to the filing is the Accountable Officer of NGTL, appointed as Accountable Officer pursuant to section 6.2 of the *National Energy Board Onshore Pipeline Regulations*.

20. Aboriginal Monitoring Report

Within 90 days of the date that the last order is issued for leave to open, NGTL shall file with the Board, and serve a copy on those Aboriginal groups identified in a), a report summarizing the participation by Aboriginal groups in monitoring during construction of the Project, as required by **Certificate Condition 8** and **Section 58 Order Condition 7**. The report shall include:

- a. a list of the Aboriginal groups who participated in monitoring during construction;
- b. a description of monitoring activities undertaken by each participating Aboriginal group during construction;
- c. a summary of consultations undertaken with participating Aboriginal groups to ascertain the success of participation in monitoring during construction of the Project;
- d. a summary of the lessons learned, including any issues that were addressed and opportunities for improvement; and
- e. any changes, modifications or updates to the Aboriginal Monitoring Plan required by **Certificate Condition 8** for the post-construction phase of the Project.

21. Employment, Contracting and Procurement Report

NGTL shall file with the Board, **within 6 months of the date that the last order is issued for leave to open**, a report on employment, contracting and procurement for the Project during the construction phase, including:

- a. A summary of Aboriginal and non-aboriginal employment by the categories of:
 - i. Local/regional;
 - ii. Provincial; and
 - iii. National.
- b. As summary of Aboriginal and non-aboriginal procurement by the categories of:
 - i. Local/regional;
 - ii. Provincial;
 - iii. National; and
 - iv. Out of country.

The following tables are included to add clarity to the request. NGTL can provide the information in this format or in any format of its choosing.

EMPLOYMENT (person hours or number of employees)

	Local/regional	Provincial	National	Total
Aboriginal				
Non-Aboriginal				
Total				

ABORIGINAL PROCUREMENT (\$)

	Local/regional	Provincial	National	Out of country	Total
Labour					
Non-Labour					
Total					

NON-ABORIGINAL PROCUREMENT (\$)

	Local/regional	Provincial	National	Out of country	Total
Labour					
Non-Labour					
Total					

22. Pipeline Geographic Information System (GIS) Data

NGTL shall provide the Board, **within one year of the date NGTL files with the Board the confirmation letter required pursuant to Condition 19**, as-built GIS data in the form of Esri® shapefiles. This shall include:

- a. a file that contains pipeline segment centre lines identified by pipeline name, where each segment has a unique outside diameter, wall thickness, maximum operating pressure, external coating, field-applied girth weld coating, pipe

manufacturing specification and depth of cover. If the above values of the pipeline change at any point along the length of the pipeline, the pipeline should be segmented at that point. This file shall include details on the degree of accuracy of the GIS data; and,

- b. a file that depicts point locations and names of compressor stations, terminals, custody transfer meters, and block valves, as applicable.

The datum shall be NAD83 and projection shall be geographic (latitudes and longitudes). The filing required by this condition shall include a statement confirming that the signatory to the filing is the Accountable Officer of NGTL.

23. Post-Construction Environmental Monitoring Report

On or before the 31 of January following each of the first, third and fifth complete growing seasons after completing final clean-up, NGTL shall file with the Board a post-construction environmental monitoring report. Each post-construction environmental monitoring report shall address issues, progress and success of the measures implemented, including those pertaining to soils, weeds, agricultural productivity, watercourse crossings, riparian habitat, wetlands, rare plants, vegetation re-establishment, wildlife and wildlife habitat (including Western Toad), fish and fish habitat, species at risk and any identified traditional use sites or areas of cultural value for all areas of the Project footprint, including temporary work areas. Each post-construction environmental monitoring report shall:

- a. include environmental as-built information, and identification of any subsequent specialized mitigation measures employed, that are not already identified in the EPP or that may be deviations from those planned;
- b. identify on a map or diagram any environmental issues to be monitored, including but not limited to unexpected issues that arose during construction;
- c. describe the methodology used for monitoring, the accuracy of the data collected, the criteria established for evaluating success and the results found;
- d. provide an assessment of the effectiveness of the mitigation measures (planned or corrective) applied against the criteria for success;
- e. provide an assessment to verify the accuracy of the environmental assessment of the Project;
- f. describe the current status of the issues identified (resolved or unresolved);
- g. include details of Aboriginal monitoring outcomes and consultation undertaken with appropriate government authorities, and any potentially affected Aboriginal groups, landowners and stakeholders, including any issues or concerns raised and how NGTL has addressed or responded to them; and,
- h. provide proposed measures and the schedule that NGTL will implement to address any ongoing issues or concerns.

24. Sunset Clause

Unless the Board otherwise directs, this Certificate shall expire on ***16 March 2020*** unless construction in respect of the Section 52 Facilities has commenced by that date.

NATIONAL ENERGY BOARD

Original signed by L. George for

Sheri Young
Secretary of the Board

SCHEDULE A
Certificate GC-127

NOVA Gas Transmission Limited (NGTL)
Application pursuant to sections 52 and 58 of Part III;
and to Part IV of the *National Energy Board Act*
for the NGTL Towerbirch Expansion Project (Application)
Filed 2 September 2015

National Energy Board (Board or NEB)
NGTL Towerbirch Expansion Project (Project)
File OF-Fac-N081-2015-16 02
Hearing GH-003-2015

Pipeline Specifications – Groundbirch Mainline Loop

Project Type	New construction
Location	From SE 12-79-12 W6M in AB to NE 27-78-17 W6M in BC
Approximate Length	55 km
Outside Diameter	914 mm (NPS 36)
Minimum Wall Thickness	Line Pipe (Class 1): 11.8 mm Heavy Wall (Class 1): 15.9 mm Line Pipe (Class 2): 13.3 mm Heavy Wall (Class 2) (including HDD pipe): 22.2 mm
Pipe Material	Carbon steel
Pipe Grade	Grade 483
External Coating Type	Fusion-bond epoxy Fusion-bond epoxy (Abrasion) for heavy wall
Internal Coating Type	None
Maximum Operating Pressure	9930 kPa
Product	Non-Sour Natural Gas

Pipeline Specifications – Tower Lake Section

Project Type	New construction
Location	From NE 27-78-17 W6M in BC to SW 7-81-17 W6M in BC
Approximate Length	32 km
Outside Diameter	762 mm (NPS 30)
Minimum Wall Thickness	Line Pipe (Class 1): 10.0 mm Heavy Wall (Class 1): 15.9 mm Line Pipe (Class 2): 10.9 mm Heavy Wall (Class 2) (including HDD pipe): 18.8 mm
Pipe Material	Carbon steel
Pipe Grade	Grade 483
External Coating Type	Fusion-bond epoxy Fusion-bond epoxy (Abrasion) for heavy wall
Internal Coating Type	None
Maximum Operating Pressure	9930 kPa
Product	Non-Sour Natural Gas

Facilities Specifications – Tower Lake Receipt Meter Station

Project Type	New construction
Facility Type	Metering station
Location	SW 7-81-17 W6M in BC
Description	<ul style="list-style-type: none"> • Two NPS 8 ultrasonic meter runs. • One NPS 4 buy-back meter run. • Associated facility piping, valves, instrumentation, controls, communications devices, and pipeline appurtenances. • Three new buildings including two skid-mounted meter run buildings and a skid-mounted instrumentation building. • The station will be tied into the NPS 30 Tower Lake Section.
Product	Non-Sour Natural Gas
Maximum Operating Pressure	9930 kPa

Facilities Specifications – Dawson Creek North Receipt Meter Station

Project Type	New construction
Facility Type	Metering station
Location	SE 27-79-17 W6M in BC
Description	<ul style="list-style-type: none"> • Two NPS 8 ultrasonic meter runs. • One NPS 4 buy-back meter run. • Associated facility piping, valves, instrumentation, controls, communications devices, and pipeline appurtenances. • Three new buildings including two skid-mounted meter run buildings and a skid-mounted instrumentation building. • The station will be tied into the NPS 30 Tower Lake Section.
Product	Non-Sour Natural Gas
Maximum Operating Pressure	9930 kPa

Facilities Specifications – Dawson Creek North No. 2 Receipt Meter Station

Project Type	New construction
Facility Type	Metering station
Location	SE 27-79-17 W6M in BC
Description	<ul style="list-style-type: none"> • Two NPS 8 ultrasonic meter runs. • One NPS 4 buy-back meter run. • Associated facility piping, valves, instrumentation, controls, communications devices, and pipeline appurtenances. • Three new buildings including two skid-mounted meter run buildings and a skid-mounted instrumentation building. • The station will be tied into the NPS 30 Tower Lake Section.
Product	Non-Sour Natural Gas
Maximum Operating Pressure	9930 kPa

Facilities Specifications – Dawson Creek East Receipt Meter Station

Project Type	New construction
Facility Type	Metering station
Location	SE 4-79-15 W6M in BC
Description	<ul style="list-style-type: none"> • One 882 orifice meter station with one NPS 8 meter run and one NPS 2 return run. • Associated facility piping, valves, instrumentation, controls, communications devices, and pipeline appurtenances. • The station will be tied into the NPS 36 Groundbirch Mainline and NPS 36 Groundbirch Mainline Loop.
Product	Non-Sour Natural Gas
Maximum Operating Pressure	9930 kPa

Facilities Specifications – Groundbirch East Receipt Meter Station

Project Type	Expansion
Facility Type	Metering station
Location	SW 2-79-19 W6M in BC
Description	<ul style="list-style-type: none">• One 1-2412U ultrasonic meter station, with one NPS 12 meter run.• Associated facility piping, valves, instrumentation, controls, communications devices, and pipeline appurtenances.• The station expansion will utilize the existing tie-in, into the NPS 36 Groundbirch Mainline.
Product	Non-Sour Natural Gas
Maximum Operating Pressure	9930 kPa