

June 15, 2015

Pacific Trails Pipeline Management Inc.
500, 5th Avenue S.W.
Calgary AB T2P 0L7

Attention: Pacific Trails Pipeline Management Inc.

Re: Amendment of Pipeline Permit 9706585 (Administrative Section 5) (the Permit)

Date of Issuance: June 15, 2015
Commission File No: 9706585
Job No: 023541808-001

The BC Oil and Gas Commission (the Commission), under section 26(1)(d) of the *Oil and Gas Activities Act*, proposed amending Pacific Trails Pipeline Management Inc.'s permit to clarify annual reporting requirements for clearing activities conducted under this Permit. After offering an opportunity to be heard, it was indicated by Pacific Trails Pipeline Management Inc. that the permit holder has no concerns with the proposed amendment. The Commission hereby amends the Permit and the authorizations associated with the Permit, as follows:

CONDITIONS

The Permit is amended to remove condition 9:

For any period of time that clearing work has been conducted under this permit, the permit holder must:

- a. annually, on or before March 31st of each year, and*
- b. within 60 days of the date that all of the clearing work associated with the activities authorized under this permit has been completed, submit to the Commission a Post Construction Plan as an ePASS shape file identifying the location of the total area actually cleared under this permit during the time period covered by the Post Construction Plan, including a summary of timber harvested and recovered.*

to be replaced with the following:

The permit holder must:

- a. *annually, on or before March 31 of each year, submit to the Commission, on the KERMIT system, a Post Construction Plan map showing the location and nature of any construction activities completed under this permit during the previous calendar year, and*
- b. *within 60 days of completion of construction activities under this permit, submit to the Commission a Post Construction Plan as an ePASS shape file accurately identifying the location of the total area actually disturbed by construction activities under this permit.*

The permit holder must comply with all of the permissions and conditions in the Permit and associated authorizations and any additional conditions noted herein.

This amendment forms an integral part of the Permit and associated authorizations and should be attached thereto.



Authorized Signatory
Viva Wolf
Executive Director, Permitting and Authorizations and Commission Statutory
Decision Maker

Cc: Scott Land & Lease Co. Ltd.
EAO
First Nations (Haisla Nation)
Worksafe BC
FLNRO
OGC File: 9706585



May 20, 2016

Pacific Trails Pipeline Management Inc.
c/o Chevron Canada Ltd. (Attn: Land Department)
500, 5th Avenue S.W.
Calgary AB T2P 0L7

Attention: Pacific Trails Pipeline Management Inc.

**Re: Application for Crown Land Access relating to pipeline permit for
Administrative Section 5 (9706585)**

Access to Crown land held by Pacific Trails Pipeline Management Inc. (PTP) under section 14 of the *Land Act* under 9706585 has expired. PTP, as holder of the above noted pipeline permit, has applied, pursuant to section 138(1) of the *Petroleum and Natural Gas Act*, for authorization to enter, occupy or use unoccupied Crown land within the operating area, as described in the application to the Commission and in the pipeline permit, to carry out the oil and gas activity and related activities authorized under the pipeline permit.

I hereby grant PTP's application, and add the following permissions, conditions, and advisory guidance to the pipeline permit:

PERMISSIONS

3. Pursuant to Section 138(1) of the *Petroleum and Natural Gas Act*, the permit holder is authorized to enter, occupy and use any unoccupied Crown land located within the operating area to carry out the oil and gas activity and related activities authorized under this permit. The permission to occupy and use Crown land does not entitle the permit holder to exclusive possession of the area. The permission to occupy and use Crown land expires if this permits expires, or is suspended, cancelled, surrendered or declared spent.

CONDITIONS

Land Access Under Section 138 of the *Petroleum and Natural Gas Act*

1. The rights granted by this authorization are subject to all subsisting grants to or rights of any person made or acquired under the *Coal Act, Forest Act, Land Act, Mineral Tenure Act, Petroleum and Natural Gas Act, Range Act, Water Sustainability Act* or *Wildlife Act*, or any extension or renewal of the same.
2. The permit holder must not assign, sublicense or transfer this permit, or permit any person to use or occupy any Crown land within the operating area, other than its employees, contractors, or representatives, without the Commission's written consent.
3. The permit holder must ensure that the area is maintained in a condition so as to minimize hazards, including but not limited to hazards associated with storage of materials and equipment.
4. The permit holder must ensure that any Crown land within the operating area is maintained free of garbage, debris and unused equipment.

ADVISORY GUIDANCE

12. Appropriate *Land Act* tenure will be issued upon acceptance of the post construction plan. Submission of the original application and submission of the post construction plan is considered application for all subsequent *Land Act* tenures; no further applications for replacement tenure is required.

Please include this letter as part of your permit documentation for this pipeline. All other permissions and conditions in the original permit will continue to apply.

I would encourage you to contact me at (250) 794-5318 or email should you have any questions regarding this matter.

Respectfully,



Lori Phillips
Authorizations Manager, Applications and Operations Division



September 13, 2013

PACIFIC TRAIL PIPELINES MANAGEMENT INC.
Suite 2800, 421 – 7th Ave SW
Calgary, AB T2P 4K9

Attention: Pacific Trail Pipelines Management Inc.

RE: Pipeline Permit

Date of Issuance: September 13, 2013
Commission File No: 9706585
Job No.: 009019902-001

PERMISSIONS

1. The BC Oil and Gas Commission (the “Commission”), under section 25(1) of the *Oil and Gas Activities Act*, hereby permits for the holder to construct and operate a pipeline for the purpose of conveying natural gas subject to the following conditions, any applicable exemptions and authorizations:
 - a. The permissions and authorizations granted under this permit are limited to the piping, installations and facilities associated with the pipeline and the areas described in the following construction plans by CAN-AM Geomatics as submitted to the Commission in the permit application dated March 28, 2013:

CAN-AM File: N20120168, CAD File: N20120168PL-Sec5_Pg1-2_rev3 sheets 1 to 2, revision 3, dated December 10, 2012.

2. This permit expires two years from the date of issuance as per section 8 of the *Oil and Gas Activities Act* General Regulation if the permit holder has not begun the construction of the pipeline permitted unless the permit has been extended.

CONDITIONS

General

1. The permit holder must not undertake:

- a. any construction work other than clearing and geotechnical investigation work, until it has filed with the Commission a constructability assessment for such work that is satisfactory to the Commission in form and content;
 - b. any pipe installation and/or pipe construction work under this permit until it has filed with the Commission final engineering submissions and a constructability assessment that are satisfactory to the Commission in form and content; or
 - c. any pipeline stream crossing work, excluding the installation of crossings for mechanical access, until it has filed with the Commission a pipeline crossing construction plan for such work that is satisfactory to the Commission in form and content.
2. The constructability assessment referenced in general condition 1, above, must include a report of slope stability and geotechnical analysis that has been completed by a Qualified Specialist and that contains recommendations, endorsed by the Qualified Specialist, for excavation methods and for addressing any difficult slope areas and other hazards,
3. The final engineering submissions referenced in general condition 1, above, must include:
- a. Piping and instrumentation diagrams;
 - b. Design basis documentation;
 - c. Final (isolation) valve location and design;
 - d. Final riser location and design;
 - e. Over pressure protection design;
 - f. Leak detection design details;
 - g. Fracture design and mitigation, including material analysis and fracture arrest methods, if applied;
 - h. Seismic loading calculations;
 - i. Detailed alignment drawings showing both horizontal and vertical alignment of the pipeline within the right of way;
 - j. Final material details/specifications for the pipeline and all appurtenances, including coatings;
 - k. Pipeline corrosion protection design;
 - l. Final welding procedures;
 - m. Construction methods for pipeline support where the pipeline will be installed above grade;
 - n. Plans for maintenance of cover, and/or runoff and washout mitigation plans during and post construction; and
 - o. Avalanche and rockslide protection/mitigation strategies.
4. The pipeline crossing construction plan referenced in general condition 1, above, must include a stress analysis for all directionally drilled crossings, support design and analysis for all aerial crossings, and a report containing recommendations for maintaining pipeline integrity at the crossing locations, that have been completed and endorsed by a Qualified Specialist.

5. The constructability assessment, final engineering submissions (including but not limited to piping and instrumentation diagrams) and pipeline crossing construction plan, satisfactory to the Commission in accordance with general condition 1, above, will form a part of this permit and the construction and operation of a pipeline under this permit must be completed in accordance with the terms, conditions, and recommendations included therein.
6. Prior to commencing any clearing, geotechnical investigation or other construction work for the following District Lots under this permit, the permit holder must provide Rio Tinto Alcan with engineering design drawings for these District Lots in order to facilitate reasonable efforts by Rio Tinto and permit holder to further assess the impact of the pipeline on Rio Tinto Alcan's use of these District Lots.
 - a. District Lots:
 - DL 6071 except plan 3648
 - DL 6069 except plan 3648
 - DL 6068 except plans 3648 and 12071
 - DL 6066 except plans 6961 and 12008
 - DL 6065 except plans 3648 and 12071
 - DL 6062 except plans 3648, 3702 and 6961
 - Block 1241 DL 6062, 6064 and 6066 Plan 6961
 - Block 1515 DL 6057 and 6267 Plan 11647
 - Block 1519 DL 6267 Plan 11767
7. Prior to commencing any clearing, geotechnical or other construction work under this permit, the permit holder must provide a schedule of such work to the Haisla Nation Council in order to facilitate representatives of the Haisla Nation to attend and monitor work at times scheduled.
8. Prior to commencing any clearing, geotechnical investigation or other construction work under this permit on an area that is subject to a right of a Rights Holder, the permit holder must provide a schedule of such work to the Rights Holder.
9. For any period of time that clearing work has been conducted under this permit, the permit holder must:
 - a. annually, on or before March 31st of each year, and
 - b. within 60 days of the date that all of the clearing work associated with the activities authorized under this permit has been completed,submit to the Commission a Post Construction Plan as an ePASS shape file identifying the location of the total area actually cleared under this permit during the time period covered by the Post Construction Plan, including a summary of timber harvested and recovered.
10. The permit holder must not undertake any clearing, geotechnical or other construction work under this permit until it has completed a pre-work meeting, in person or by teleconference, with the Commission.

Engineering

1. Upon completing construction of the pipeline, the permit holder must conduct a baseline assessment of the pipeline condition and location using intelligent inspection devices, prepare a summary report of the findings of the baseline assessment, and submit the report to the Commission.
2. Prior to pressure testing the permit holder must prepare a pressure test plan and submit it to the Commission for approval. The permit holder must complete all pressure testing in accordance with the terms, conditions and recommendations contained in a pressure test plan that has been approved by the Commission.
3. Prior to Leave to Open being granted, the pipeline authorized by this permit must be included in the permit holders Integrity Management Plan and Damage Prevention Program.

Archaeology

1. If artifacts, features, materials or things protected under section 13(2) of the *Heritage Conservation Act* are identified the permit holder must, unless the permit holder holds a permit under section 12 of the *Heritage Conservation Act* in respect of that artifact, feature, material or thing:
 - a. immediately cease all work in the vicinity of the artifacts, features, materials or things;
 - b. immediately notify the Archaeology Branch of BC Ministry of Forests, Land and Natural Resource Operations and the Commission; and
 - c. refrain from resuming work in the vicinity of the artifacts, features, materials or things except in accordance with an appropriate mitigation plan that has been prepared in accordance the *Heritage Conservation Act*, endorsed by a Qualified Specialist, and approved by the Archaeology Branch.
2. If a Culturally Modified Tree, other than a Culturally Modified Tree that is considered an artifact, feature, material or thing protected under section 13(2) of the *Heritage Conservation Act*, is identified, the permit holder must:
 - a. immediately cease all work in the vicinity of the Culturally Modified Tree;
 - b. immediately notify the Archaeology Branch and the Commission; and
 - c. refrain from resuming work in the vicinity of the Culturally Modified Tree except in accordance with an appropriate mitigation plan that has been approved by the Archaeology Branch.

Environment

1. The permit holder must, as soon as practicable, restore streambeds and banks to pre-construction conditions in accordance with the Environmental Management Plan 5.0 dated July, 2013 submitted by the permit holder to the Commission.
2. PTP must retain streamside vegetation and minimize disturbance and construction activities in all streams in accordance with the Environmental Management Plan 5.0 dated July, 2013 submitted by the permit holder to the Commission.

3. Prior to undertaking any construction work, including clearing and geotechnical investigation work, the permit holder must take all reasonable steps to:
 - a. verify and record the location of and information about potential waterworks related features, including but not limited to septic systems, water wells, and private water systems, located within 200 meters of the approved right of way area; and
 - b. notify owners of downstream licensed water intakes of proposed construction work, other than clearing of vegetation and geotechnical investigation work, and proposed schedules for such work.
4. Subject to obtaining any required land owner permission, the permit holder must, before and after conducting construction work, have the water in each water well systems located within 100 meters of the approved right of way area sampled under the direction of a Qualified Specialist and analyzed by an accredited laboratory facility using standard and accepted field sampling and analyzing procedures, and provide a report that includes the complete test results and analysis of the test to the Commission and to any land owner of the land on which the water well system is located. For each test, the analysis must include:
 - i. well yields and water level responses, as applicable;
 - ii. basic water chemistry, including anions, cations, pH, alkalinity, SO₄;
 - iii. turbidity, total dissolved solids, total suspended solids, and true colour of water well user's water;
 - iv. BTEX (benzene, toluene, ethylbenzene, and xylene);
 - v. dissolved methane and higher chain hydrocarbons, if such substances are detected; and
 - vi. isotope analysis of dissolved methane, if methane is detected.
5. In addition to water testing and reporting required by environment condition 4, above, and subject to obtaining any required land owner permission, the permit holder must, before and after any blasting operations, have the water in each water well systems located within 200 meters of the blasting area sampled under the direction of a Qualified Specialist and analyzed by an accredited laboratory facility for nitrate levels, and provide a report that includes the complete test results and analysis of the test to the Commission and to any land owner of the land on which the water well system is located.
6. In all locations where run-off from the area of the pipeline right of way may flow into a watercourse, the permit holder must contour and stabilize banks and approach slopes and install temporary berms, silt fences, or cross ditches as appropriate.
7. A qualified environmental monitor must be on site during all construction activities within the riparian reserve zone (RRZ), as defined in the Environmental Protection and Management Regulation, of a stream. This individual must have the authority to stop or modify all construction operations within the RRZ as necessary to minimize impact to aquatic habitat.

8. The permit holder must ensure that soil cut slopes greater than 10 metres in height, or where fine-grained soils are anticipated, soil cut slope design and support provisions must be designed and implemented at the direction of a Qualified Specialist.
9. If the potential for acid rock drainage or metal leaching has been identified, the permit holder must implement a construction stage monitoring and/or mitigation plan as necessary to minimize impacts to the surrounding environment.
10. A qualified environmental monitor must be on site during all construction activities within the high water mark of any stream. This individual must have the authority to stop or modify all construction operations within the high water mark as necessary to minimize impact to aquatic habitat.
11. Upon completion of construction, the permit holder must plant all temporary campsite, storage areas, workspace areas, and areas cleared for, but not used as pipeline corridor, using appropriate seed and vegetative lots registered with BC Ministry of Forest, Land and Natural Resource Operations.
12. The permit holder must maintain open communication with the BC Ministry of Forests, Land, and Natural Resource Operations and adhere to any restrictions imposed by that Ministry pertaining to the management of beetle-killed wood.
13. For all fish bearing streams and where operationally feasible, the permit holder must postpone clearing of slopes and banks within 10 metres of the stream high water mark until immediately prior to construction. If merchantable timber must be cleared in advance of construction activities, the vegetation ground mat and root structure must remain intact until immediately prior to construction.
14. Where practicable, the permit holder must maintain vegetation and/or root structure within 10 metres of the high water mark of a fish bearing watercourse.
15. New cut for temporary workspace is not permitted within the riparian reserve zone, as defined in the Environmental Protection and Management Regulation, of any stream.
16. No clearing or construction activities are permitted to occur within 200 meters of an active grizzly bear or black bear den between November 1 and May 31.
17. No clearing activities are permitted to occur within the migratory bird nesting period, April 1 to July 31, unless the area has been previously logged, brushed or mowed.
18. The permit holder must implement measures to ensure that wildlife movement is not impeded across the pipeline right of way during construction activities.

ADVISORY GUIDANCE

1. The term "Qualified Specialist" means a member in good standing of a profession regulated in British Columbia and who is recognized by that profession as being qualified to work in an area of practice for which an opinion or advice is required. A Qualified Specialist must possess an appropriate combination of formal education, knowledge, skills, and experience to conduct a technically sound and rationally assessment for the area of practice, and be familiar with applicable regulation, standards, policies, protocols and guidelines.

2. The term "Rights Holder" has the same meaning as in section 1 of the Consultation and Notification Regulation.
3. As required by section 4(1)(a) of the Pipeline and Liquified Natural Gas Facility Regulation, the permit holder must notify the Commission at least 2 days before beginning construction of a pipeline of its intention to begin construction.
4. As required under section 6 of the Pipeline and Liquified Natural Gas Facility Regulation, the permit holder must give at least 48 hours notice to the owner of or authority responsible for the public place, highway, road, railway underground communication line, power line or pipeline before beginning the work unless the permit holder and the owner or authority have agreed that the notice is to be provided by another time.
5. As required by section 3 of the Pipeline and Liquified Natural Gas Facility Regulation, the permit holder must design, construct, operate and maintain the pipeline in accordance with CSA Z662.
6. As required by section 4(1)(b) of the Pipeline and Liquified Natural Gas Facility Regulation, the permit holder must notify the Commission at least 2 days before beginning a pressure test of a pipeline of its intention to begin testing.
7. As required by section 4(1)(c) of the Pipeline and Liquified Natural Gas Facility Regulation, the permit holder must notify the Commission before beginning operation of a pipeline of its intention to begin operation.
8. As required by section 4(2) of the Pipeline and Liquified Natural Gas Facility Regulation, the permit holder must submit to the Commission the pipe and component specifications and the as-built drawings for the pipeline within 3 months after completion of construction of a pipeline.
9. As required by section 24(1) of the Oil and Gas Activities Act General Regulation, the permit holder must complete the surveying and posting of the pipeline right of way within 16 months after completing construction of the pipeline.
10. Following a request made by the Commission, failure to provide notification of the flagging of a known archaeological site will result in intervention by the Commission, Compliance and Enforcement. Destruction of archaeological sites is considered a contravention of the Heritage Conservation Act and is subject to penalty.
11. The permit holder is advised that a Conservation Data Centre (CDC) rare species occurrence polygon (blue/red listed vascular plant/animal species) exists within the program area. Polygon data can be viewed on the Terrestrial Information of BC website at:

<http://www.env.gov.bc.ca/cdc/access.html>.

Questions about the polygon information presented on this website can be directed to the Conservation Data Centre at 1-800-663-7867.

AUTHORIZATIONS ASSOCIATED WITH THE PERMIT

Temporary Permit under Section 14 of the *Land Act*

1. Subject to 2 through 8 below, the Commission, under section 14 of the *Land Act* and pursuant to Authorization Number 938746, hereby authorizes the permit holder to occupy and use Crown

land limited to the areas described in the following construction plans by Can-Am Geomatics as submitted to the Commission in the permit application dated March 28, 2013:

CAN-AM File: N20120168, CAD File: N20120168PL-Sec5_Pg1-2_rev3 sheets 1 to 2, revision 3, dated December 10, 2012.

2. The permit holder will:
 - a. indemnify the Province of British Columbia (the "Province") and the Commission against all losses, damages, costs, and liabilities arising out of any breach or non-performance of any condition or agreement set out in this permit, and any personal injury, death or property damage occurring on the site or happening by virtue of the permit holder's occupation of the site, and the amount of such losses, damages and costs shall be payable to the Province or the Commission immediately.
 - b. immediately effect, and keep in force while occupying the site, insurance of an amount not less than \$1,000,000 protecting the Province, the Commission and the permit holder (without any rights of cross-claim or subrogation) against claims for personal injury, death, property damage, or third party or public liability claims arising from any accident or occurrence on the site.
3. The authorization to occupy and use Crown land does not entitle the permit holder to exclusive possession of the area. The permit holder will not interfere with the activities of another person entering on and using the area under a prior or subsequent *Land Act* disposition.
4. The rights granted by this permit are subject to all subsisting grants to or rights of any person made or acquired under the *Coal Act*, *Forest Act*, *Mineral Tenure Act*, *Petroleum and Natural Gas Act*, *Range Act*, *Water Act* or *Wildlife Act*, or any extension or renewal of the same, any prior dispositions made under the *Land Act*, and the exceptions and reservations of rights and interests under section 50 of the *Land Act*.
5. The permit holder will acknowledge and agree that any interference with rights granted under this permit by virtue of the exercise or operation of the rights or interests set out in 3 or 4 above shall not constitute a breach of the Province's or the Commission's obligations under this permit and the permit holder will release and discharge the Province and/or the Commission from any claim for loss or damage arising directly or indirectly out of any such interference. The permit holder will also agree to pay all costs and expenses that arise out of the permit holder's interference with the rights or interests set out in 3 and 4, above, and that the permit holder will not commence or maintain proceedings under section 65 of the *Land Act* with respect to interference with the permit holder's rights arising out of exercise or operation of the rights set out in 3 or 4, above.
6. The permit holder must pay, when due, the Fees to the address set out in the attached covering letter.
7. The permit holder must not assign, sublicense or transfer this Permit or permit any person to use or occupy the land, without the Commission's written consent.

8. This authorization of a permit to occupy and use Crown land expires two years from the date of issuance.

Changes in and about a Stream Authorization under section 9 of the Water Act

1. Subject to 2, 3 and 4, below, the Commission hereby authorizes the permit holder, under section 9 of the *Water Act*, to make changes in and about streams located in the areas described in the following construction plans by Can-Am Geomatics as submitted to the Commission in the permit application dated March 28, 2013:

CAN-AM File: N20120168, CAD File: N20120168PL-Sec5_Pg1-2_rev3 sheets 1 to 2, revision 3, dated December 10, 2012.

2. The permit holder may undertake the changes in and about a stream authorized by 1, above, for the purpose of constructing mechanical stream crossings to facilitate crossing of vehicles and equipment used for clearing and geophysical investigation work.
3. The permit holder must not undertake the changes in and about a stream authorized by 1, above, for the purpose of constructing any pipeline stream crossing.
4. With respect to any change in and about a stream conducted pursuant to 1, above, the permit holder must ensure that:
 - a. the stream crossing is constructed and maintained at all times and in a manner that will not harm fish, or destroy, damage or harmfully alter fish habitat;
 - b. the stream crossing does not prevent the movement of fish, nor impede the movement of fish to the extent that it is harmful to the survival of the fish;
 - c. the sides of the stream are protected at the stream crossing location;
 - d. any disturbance to the stream channel and stream bank is mitigated; and
 - e. the oil and gas activity does not result in any deleterious materials being deposited into the stream.

Cutting Permit Authorization

1. Pursuant to section 47.4 of the *Forest Act*, the Commission hereby issues Cutting Permit No. 12, under Master License to Cut number M02280, Kalum Forest District, to cut and remove timber from the areas of Crown land within the area within the Site subject to the following conditions:
 - a. This Cutting Permit expires 2 years from the date of issuance of the permit or the revised date should this permit be extended.
 - b. This Cutting Permit is subject to the terms and conditions in the Master Licence to Cut.
 - c. All harvested Crown timber must be marked with Timber Mark Number MSZ 826.

- d. The felling, bucking and utilization specifications in the Master License to Cut apply to this Cutting Permit.
- e. Stumpage under this cutting permit is required to be paid to the Crown and will be determined with the Ministry of Forests Interior Appraisal Manual.
- f. In accordance with the Master Licence to Cut referenced above, "Within 60 days of completing operations on a cutting permit, the Licensee shall submit to the Commission a map showing all disturbances that have occurred pursuant to that Cutting Permit, at a scale of 1:20,000 or 1:50,000."
- g. Prior to harvesting, any clearing authorized by this Cutting Permit must be clearly defined on the ground by ribboning or blazing.
- h. This permit authorizes a maximum total new cut area of 15.03Ha within the Site.



Paul Jeakins, Commissioner
Authorized Signatory
Commission Statutory Decision Maker

pc: Scott Land & Lease Co. Ltd.
OGC: 9706585
MoFLNRO, Kalum Forest District
OGC, First Nations (Haisla Nation)
WorkSafe BC