

July 5, 2016

Matrix 22363-501

**Mr. Darrell Ouimet**  
**MANITOBA CONSERVATION AND WATER STEWARDSHIP**  
**ENVIRONMENTAL APPROVALS BRANCH**  
P.O. Box 80, 160 - 123 Main St.  
Winnipeg, MB R3C 1A5

**Subject: TEML Two Creeks Pipeline - Notice of Alteration (Licence 3179 - Two Creeks Pipeline File: 5809.00)**

Dear Mr. Ouimet:

Tundra Energy Marketing Limited (TEML) commissioned Matrix Solutions Inc. to complete a Notice of Alteration for the TEML Two Creeks Pipeline (Licence No. 3179). The current environmental licence allows for construction to begin on December 1, 2016. TEML is requesting the licence be amended for a start date as early as September 6, 2016.

This amendment has several benefits, including the following:

- Ensuring that the work is completed prior to March 15 will reduce impacts of break up, as well as avoid any issues with migratory birds and species at risk setbacks after March 15.
- Stripping soil in unfrozen conditions will allow for improved soil separation and reduce the potential for admixing of topsoil and subsoil.
- TEML is employing a rigorous cleaning and washing program to reduce the spread of clubroot as well as weeds and foreign plant material, which is more efficient/effective in temperatures above zero.

The following points and mitigation measures will help to reduce any concerns of an earlier start date.

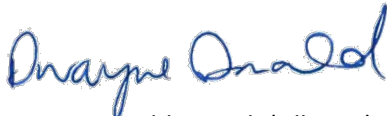
- A start date of September 6 is after the restricted activity period for migratory birds as well as outside the timing restrictions for the majority of the species at risk which have the potential to be impacted by construction.
- TEML is starting on the section of the pipeline between 05-15-011-26 W1M to 04-23-012-27 W1M, which is almost entirely cultivated land. The majority of the sensitive areas of the pipeline will be the last areas to be constructed and will most likely fall close to the original start date of December 1.

- TEML will have an environmental monitor on the project to complete the following. Monitoring will also include the following:
  - ✦ Assess all wetlands prior to the start of construction to determine if additional mitigation measures will be required due to current conditions of the wetlands (for any Class I to III wetlands with standing water construction will be delayed until dry/frozen or the line will be bored). Class IV and V wetlands will be bored.
  - ✦ A monitor will be on site for construction during stripping and trenching in any sensitive areas (wetlands/native grassland) to ensure mitigation is followed; and in the case of working in proximity to wetlands, ensure that impacts to northern leopard frogs are mitigated.

All other mitigation outlined in the environmental assessment application (Matrix 2015a) will be followed; the environmental protection plan (Matrix 2015b) will be updated with these additional mitigation measures prior to the start of the project.

It is Matrix's opinion that a start date of September 6 would allow TEML to further reduce impacts the work area (especially to soil preservation and eventual reclamation), while having minimal adverse impacts on wetlands, migratory birds, species at risk, and other wildlife. If you have any other questions or would like to discuss, please feel free to contact me at 306.891.5911. Thank you.

**MATRIX SOLUTIONS INC.**



Dwayne Donald, P.Biol. (Alberta), PAg  
Biologist

DC/lc

**DISCLAIMER**

We certify that this report is accurate and complete and accords with the information available during the site investigation. Information obtained during the site investigation or provided by third parties is believed to be accurate but is not guaranteed. We have exercised reasonable skill, care, and diligence in assessing the information obtained during the preparation of this report.

This report was prepared for Tundra Energy Marketing Limited. The report may not be relied upon by any other person or entity without our written consent and that of Tundra Energy Marketing Limited. Any uses of this report by a third party, or any reliance on decisions made based on it, are the responsibility of that party. We are not responsible for damages or injuries incurred by any third party, as a result of decisions made or actions taken based on this report.

## REFERENCES

Matrix Solutions Inc. (Matrix). 2015a. *Environmental Assessment, Two Creeks Pipeline Project*. Report prepared for Tundra Energy Marketing Limited. Virden, Manitoba. November 2015.

Matrix Solutions Inc. (Matrix). 2015b. *Environmental Protection Plan, Tundra Energy Marketing Limited, Two Creeks Pipeline Project*. Report prepared for Tundra Energy Marketing Limited. Virden, Manitoba. November 2015.