

BY E-MAIL ONLY

October 27, 2016

Ms. Laurie Friesen

Email: l_d_f@telus.net

**APPLICATION NO. 1858864 (B140 WELL) &
APPLICATION NO. 001-00360116 (PIPELINE)
TIDEWATER MIDSTREAM AND
INFRASTRUCTURE LTD.
STATEMENT OF CONCERN NO. 30352 & 29456**

Dear Ms. Friesen,

You are receiving this letter because you filed a statement of concern (SOC) on the applications listed above. The Alberta Energy Regulator (AER) has reviewed your SOC along with the applications, the applicable requirements, and other submissions or information about the applications and has decided that a hearing is not required under an enactment or otherwise necessary to consider the concerns outlined in your SOC.

In its review of your concerns, the AER considered the following:

Pipeline Application 001-00360116

- You do not own the lands upon which the pipeline has been proposed, and the nearest segment of the pipeline will be located approximately 605 m from the nearest boundary of your property.
- The pipeline has already been licensed pursuant to a *Pipeline Act* application. You were part of a group of residents that filed a statement of concern on that application which the AER considered prior to deciding to license the pipeline without a hearing.
- You have already filed a statement of concern in relation to the facility to which the pipeline will connect. Any concerns about the facility were previously considered by the AER prior to its approval, and are outside the scope of the current pipeline application.

- In addition to the requirement for license approval under *Pipeline Act*, Tidewater was required pursuant to the requirements of *Environmental Protection and Enhancement Act (EPEA)* to apply for a separate pipeline approval. The purpose of the *EPEA* pipeline review process is to ensure land used for or in connection with the pipeline will be conserved and reclaimed to meet equivalent land capability. The AER has completed this review and is satisfied that the pipeline will meet all requirements under *EPEA* and its regulations.
- Regarding your concerns about noise and increases in traffic, please note that construction of the pipeline is a temporary activity. Once constructed, the pipeline will not be a significant source of noise or increased traffic.
- Regarding your concerns about lifestyle, safety, health, air and water quality, Tidewater must comply with a number of operational requirements and technical specifications in the design, construction, and operation of its pipeline. Compliance with many of these requirements, including the *Pipeline Act*, the *Pipeline Regulation*, the Canadian Standards Association *CSA Z662: Oil and Gas Pipeline Systems*, *Directive 056: Energy Development Applications and Schedules* and *Directive 077: Pipelines— Requirements and Reference Tools* would have been assessed by the AER at the time of the *Pipeline Act* application. Tidewater is also required to develop a corporate emergency response plan in accordance with the requirements of *Directive 071: Emergency Preparedness and Response Requirements for the Petroleum Industry* to ensure it is prepared to effectively respond to incidents that present significant hazards to the public and the environment. In addition, there will be standard conditions in the *EPEA* pipeline approval that address and are protective of water quality. The AER is satisfied that these requirements address your concerns, and notes that the pipeline will not impact groundwater sources and will not be a source of emissions to the environment.
- The pipeline will parallel previous pipeline development, will be buried underground and will not be visible after construction is complete. Given this fact, and your distance to the pipeline, it is not clear how it will result in a decrease to your property value.

Well Application 1858864

- You do not own the lands upon which the well has been proposed, and the well will be located approximately 1,481 m from your lands.
- Your statement of concern does not contain a concise statement indicating or explaining the nature of your concerns about the application or why you believe you may be directly and adversely impacted by the AER's decision on Tidewater's well application, as required by Rule 6(1)(a) of the AER's *Rules of Practice*.
- You have attached to your statement of concern a number of other documents, including statements of concern that relate to other applications previously filed by Tidewater or its predecessor. Some of these concerns relate to a proposed facility that is not associated with or located in proximity to the proposed well, which will be tied into a different pre-existing facility. These concerns were previously expressed by you in a separate statement of concern, which was considered by the AER prior to its approval of that application without a hearing, and are outside the scope of the current application.
- To the extent that your concerns from previous statements of concern relate generally to wells, the AER has specific environmental requirements regarding the drilling and operation of wells which are protective of the environment, including surface and ground water sources, and with which Tidewater must comply. This includes setting and cementing casing in accordance with Directive 008: *Surface Casing Depth Requirements* and Directive 009 – *Casing Cementing Minimum Requirements*. In operating its injection well, Tidewater must comply with the requirements pertaining to gas injection and storage in Directives 051, 055, and 065. It must also comply with the limits on injected volumes of gas and reservoir pressures and the monitoring and reporting requirements set out in its gas storage scheme approval. The AER has reviewed the application and related submissions, has determined that the application meets all regulatory

requirements, and is satisfied that these requirements address your concerns.

inquiries 1-855-297-8311
24-hour
emergency 1-800-222-6514

Based on the above, you have not demonstrated that you may be directly and adversely impacted by the applications. The AER has issued the applied-for licenses and this is your Notice of that decision. Copies of the licenses are attached. Under the *Responsible Energy Development Act* an eligible person may file a request for a regulatory appeal on an appealable decision. Eligible persons and appealable decisions are defined in section 36 of the *Responsible Energy Development Act*. If you wish to file a request for regulatory appeal, you must submit your request in the form and manner and within the timeframe required by the AER. You can find filing requirements and forms on the AER website www.aer.ca under Applications & Notices: Appeals.

If you have any questions about Application No. 1858864, please contact Mr. David Miles at 403-297-3582 or e-mail david.miles@er.ca.

If you have any questions about Application No. 001-00360116, please contact Ms. Nadia Cruickshank at 780-642-9217 or e-mail nadia.cruickshank@er.ca.

Sincerely,

[Original Signed By]

Shelley Youens
Director, Infrastructure Authorizations

Enclosures (2): EPEA Approval No. 00360116-020-00, Licence No. 0480964

cc: Scott Aycock, Tidewater Midstream and Infrastructure
Ltd., saycock@tidewatermidstream.com
AER Grande Prairie Field Centre, grandeprairie.fieldcentre@er.ca

APPROVAL

ALBERTA ENERGY REGULATOR

ENVIRONMENTAL PROTECTION AND ENHANCEMENT ACT **R.S.A. 2000, c.E-12, as amended**

APPLICATION NO.: 001-360116

APPROVAL NO.: 00360116-00-00

EFFECTIVE DATE: October 25, 2016

EXPIRY DATE: October 31, 2021

APPROVAL HOLDER: Terado Gas Storage Corporation

Pursuant to Division 2, Part 2, of the *Environmental Protection and Enhancement Act*, R.S.A. 2000, c.E-12, as amended, approval is granted subject to the attached terms and conditions for the following activity:

the construction and reclamation of a pipeline being the Terado Gas Storage Corporation Pipeline Construction Alignment 08-25-071-07 W6M to 12-32-071-09 W6M.



Gary Sasseville
Approvals Manager, Authorizations Branch
Alberta Energy Regulator

October 25, 2016

TERMS AND CONDITIONS ATTACHED TO APPROVAL

PART 1: DEFINITIONS

SECTION 1.1: DEFINITIONS

- 1.1.1 All definitions from the Act and the regulations apply except where expressly defined in this approval.
- 1.1.2 In all PARTS of this approval:
- (a) “**Act**” means the *Environmental Protection and Enhancement Act*, R.S.A. 2000, c.E-12, as amended;
 - (b) “**application**” means the written submissions to the Director in respect of application number 001-360116 and any subsequent amendments of approval number 00360116-00-00;
 - (c) “**Director**” means an authorized employee of the Alberta Energy Regulator;
 - (d) “**domestic wastewater**” means any water or materials produced by the collection and containment of sanitary sewage and effluent;
 - (e) “**grab sample**” means an individual sample collected in less than 30 minutes and which is representative of the substance sampled;
 - (f) “**industrial wastewater**” means the water and water-carried wastes produced by any industrial process for construction or reclamation carried on, within or immediately adjacent to the pipeline alignment, including captured surface runoff from adjacent undisturbed areas or any water that accumulates in the pipe trench, but does not include domestic wastewater;
 - (g) “**Inspector**” means an employee of the Alberta Energy Regulator designated as an inspector or an investigator under the Act;
 - (h) “**overstrip**” means a soil handling procedure where topsoil and upper subsoil are removed together;
 - (i) “**pipeline alignment**” means the approved route and all surface disturbances resulting from the construction or reclamation of the pipeline;
 - (j) “**problem soils**” means a soil map unit where there is a significant difference in soil quality between the upper subsoil and the spoil;
 - (k) “**regulations**” means the regulations issued pursuant to the Act, as amended;
 - (l) “**spoil**” means any material below the topsoil and upper subsoil layers removed during excavation of the trench;

TERMS AND CONDITIONS ATTACHED TO APPROVAL

- (m) **“three-lift”** means a soil handling procedure for problem soils where the topsoil, upper subsoil and spoil are individually salvaged, stored and replaced in three separate layers;
- (n) **“topsoil”** means the uppermost layer of soil that:
 - (i) is normally referred to as the plough layer in agricultural soils,
 - (ii) is typically darker in colour than the upper subsoil layer, and
 - (iii) consists of the A horizons as defined in *The System of Soil Classification for Canada, Second Edition, 1987*;
- (o) **“two-lift”** means a soil handling procedure where the topsoil is salvaged, stored and replaced separately from the upper subsoil and spoil which are salvaged, stored and replaced together;
- (p) **“upper subsoil”** means, in problem soils, the layer of soil directly below the topsoil layer that:
 - (i) contains roots or the root zone,
 - (ii) is typically lighter in colour than the topsoil layer,
 - (iii) consists of the B horizons as defined in *The System of Soil Classification for Canada, Second Edition, 1987*, and
 - (iv) extends no more than 50 centimetres below the topsoil layer; and
- (q) **“waste”** means any solid or liquid material or product or combination of them that is intended to be treated or disposed of or that is intended to be stored and then disposed of, but does not include recyclables.

PART 2: GENERAL

SECTION 2.1: GENERAL

- 2.1.1 The approval holder shall immediately report by telephone any contravention of the terms and conditions of this approval to the Director at 1-780-422-4505.
- 2.1.2 The approval holder shall submit a written report to the Director within 7 days of the reporting pursuant to 2.1.1.
- 2.1.3 Any conflict between the application or any document and the terms and conditions of this approval shall be resolved in favour of the approval.

TERMS AND CONDITIONS ATTACHED TO APPROVAL

- 2.1.4 The terms and conditions of this approval do not affect any rights or obligations created under any other approval issued by the Alberta Energy Regulator.
- 2.1.5 The mention of trade names, commercial products or named technologies in this approval does not constitute an endorsement or recommendation for general use by the Alberta Energy Regulator, its employees or agents.
- 2.1.6 The terms and conditions of this approval are severable. If any term or condition of this approval or the application of any term or condition is held invalid, the application of such term or condition to other circumstances and the remainder of this approval shall not be affected thereby.
- 2.1.7 The approval holder shall immediately notify the Director in writing if any of the following events occurs:
- (a) the approval holder is served with a petition into bankruptcy;
 - (b) the approval holder files an assignment in bankruptcy of Notice of Intent to make a proposal;
 - (c) a receiver of receiver-manager is appointed;
 - (d) an application for protection from creditors is filed for the benefit of the approval holder under any creditor protection legislation; or
 - (e) any of the assets which are the subject matter of this approval are seized for any reason.
- 2.1.8 If the approval holder monitors for any substance or parameters which are the subject of operational limits as set out in this approval more frequently than is required and using procedures authorized in this approval, then the approval holder shall provide the results of such monitoring as an addendum to the reports required by this approval.
- 2.1.9 All abbreviations used in this approval follow those given in Standard Methods for the Examination of Water and Wastewater published jointly by the American Public Health Association, the American Water Works Association, and the Water Environment Federation, as amended, or as otherwise specified in this approval.
- 2.1.10 Where the approval holder contracts for the provision of services during construction and reclamation of the pipeline, the approval holder shall ensure that:
- (a) contractors and sub-contractors are provided with a copy of the approval terms and conditions that are pertinent to the service provided by the contractor or sub-contractor;

TERMS AND CONDITIONS ATTACHED TO APPROVAL

- (b) contractors and sub-contractors are provided with a copy of the section of the environmental protection plan pertinent to the service provided by the contractor or sub-contractor; and
- (c) contractors and sub-contractors authorize a person or persons to halt a construction or reclamation activity in circumstances where, in the judgement of that person or persons, the construction or reclamation activity is not being conducted in accordance with the approval terms and conditions or sections of the environmental protection plan as described in the application.

2.1.11 At least seven days prior to the commencement of construction, the approval holder shall notify the Inspector(s) of the commencement of construction.

SECTION 2.2: RECORD KEEPING

2.2.1 The approval holder shall record and retain all the following information for a minimum of ten years:

- (a) the names and addresses of all persons who discover any contravention of the Act, the regulations or this approval;
- (b) the names and addresses of all persons who take any remedial action arising from the contravention of the Act, the regulations or this approval; and
- (c) a detailed description of any remedial measures taken in respect of a contravention of the Act, the regulations or this approval.

2.2.2 The approval holder shall record and retain all of the following information in respect of any sampling for a minimum of ten years:

- (a) the place, date and time of sampling;
- (b) the dates the analyses were performed;
- (c) the analytical techniques, methods or procedures used in the analyses;
- (d) the names of the persons who collected and analyzed each sample; and
- (e) the results of the analyses.

SECTION 2.3: ANALYTICAL REQUIREMENTS

2.3.1 Collection and analysis of samples shall be conducted in the following manner, unless otherwise specified in writing by the Director:

- (a) for industrial wastewater, groundwater, waterworks and domestic wastewater parameters:

TERMS AND CONDITIONS ATTACHED TO APPROVAL

- (i) *Standard Methods for the Examination of Water and Wastewater*, American Public Health Association, American Water Works Association, Water Environment Federation, as amended, or
- (ii) *Methods Manual for Chemical Analysis of Water and Wastes*, Alberta Environmental Centre, as amended;
- (b) for soils:
 - (i) *Soil Sampling and Methods of Analysis*, Lewis Publishers, 1993; as amended,
 - (ii) the *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods*, USEPA, SW-846; September 1986, as amended,
 - (iii) the *Soil Quality Criteria Relative to Disturbance and Reclamation*, Alberta Agriculture, March 1987, as amended,
 - (iv) the *Guidance Manual on Sampling, Analysis and Data Management for Contaminated Sites – Volume I: Main Report*, CCME EPC-NCS62E, 1993, as amended, and
 - (v) the *Guidance Manual on Sampling, Analysis and Data Management for Contaminated Sites – Volume II: Analytical Method Summaries*, CCME EPC-NCS66E, 1993, as amended.

PART 3: CONSTRUCTION**SECTION 3.1: LAND CONSERVATION****SOIL CONSERVATION**

- 3.1.1 The approval holder shall construct and reclaim the pipeline alignment as described in the application and this approval.
- 3.1.2 The approval holder shall salvage soil materials from the pipeline alignment using one or more of the following soil handling procedures:
 - (a) a two-lift soil handling procedure with topsoil salvage depths and widths as described in the application; or
 - (b) a three-lift soil handling procedure with topsoil and upper subsoil salvage depths and widths as described in the application; or
 - (c) an overstrip soil handling procedure with combined topsoil and upper subsoil salvage depths and widths as described in the application; or

TERMS AND CONDITIONS ATTACHED TO APPROVAL

- (d) any other soil handling procedures with topsoil or upper subsoil salvage depths and widths as described in the application; or
- (e) any other soil handling procedures with topsoil or upper subsoil salvage depths and widths as directed in writing by an Inspector.

SUSPENSION OF SOIL HANDLING

- 3.1.3 The approval holder shall immediately suspend the salvage or replacement of any topsoil and upper subsoil when:
 - (a) wet or frozen field conditions would result in the degradation or loss of topsoil or upper subsoil; or
 - (b) wind velocity creates the potential for loss of topsoil or upper subsoil; or
 - (c) any other field condition or pipeline construction method could result in the degradation or loss of topsoil or upper subsoil; or
 - (d) an Inspector provides written direction to do so.
- 3.1.4 The approval holder shall only recommence the salvage or replacement of topsoil or upper subsoil when the conditions specified in 3.1.3 no longer exist or when directed in writing by an Inspector.

STOCKPILING SOIL MATERIAL

- 3.1.5 The approval holder shall, when using an overstrip soil handling procedure, stockpile all salvaged topsoil admixed with upper subsoil separately from spoil.
- 3.1.6 The approval holder shall, when using two-lift soil handling procedures, stockpile separately all salvaged topsoil and spoil.
- 3.1.7 The approval holder shall, when using three-lift soil handling procedures, stockpile separately all salvaged topsoil, upper subsoil and spoil.
- 3.1.8 The approval holder shall stockpile salvaged topsoil, upper subsoil and spoil on the pipeline alignment at the locations described in the application or at any alternative locations, when directed in writing by an Inspector.
- 3.1.9 The approval holder shall stockpile salvaged topsoil, upper subsoil and spoil as follows:
 - (a) all stockpiles shall be separated from each other as described in the application;
 - (b) all stockpile foundations shall be stable; and

TERMS AND CONDITIONS ATTACHED TO APPROVAL

- (c) all stockpiles shall be stabilized to prevent wind and water erosion.

FROZEN OR UNFROZEN SOIL CONDITIONS

- 3.1.10 The approval holder shall only use the appropriate soil handling procedures for frozen or unfrozen ground conditions, as described in the application, unless otherwise authorized in writing by the Inspector.

PROBLEM SOILS

- 3.1.11 The approval holder shall determine the appropriate soil handling procedures for any problem soils encountered along the pipeline alignment that were not described in the application by:
- (a) consulting the *Salt Contamination Assessment and Remediation Guidelines*, Alberta Environment, May 2001, as amended, for issues pertaining to salts; and
 - (b) consulting the *Guidelines for Alternative Soil Handling Procedures During Pipeline Construction*, Alberta Pipeline Environmental Steering committee, June 1996, as amended for issues not pertaining to salts; and
 - (c) obtaining written direction from an Inspector before changing any soil handling procedures described in the application.
- 3.1.12 The approval holder shall ensure that the appropriate soil handling procedures are utilized for salt-affected soils, which will result in compliance with the *Salt Contamination Assessment and Remediation Guidelines*, Alberta Environment, May 2001, as amended.

EROSION CONTROL

- 3.1.13 The approval holder shall use all necessary erosion control measures to prevent the loss of topsoil and upper subsoil during construction and reclamation.

WATER CROSSINGS

- 3.1.14 The approval holder shall ensure that the flow of water, if present in a watercourse, is maintained during the construction and reclamation of any water crossing.
- 3.1.15 The approval holder shall, unless otherwise authorized in writing by the Inspector, maintain an undisturbed buffer strip of at least thirty metres from:
- (a) the top of the bank of the watercourse or water body; or
 - (b) the watercourse or water body edge, if the banks are poorly defined.

TERMS AND CONDITIONS ATTACHED TO APPROVAL

- 3.1.16 The approval holder shall, when using any open-cut water crossing procedure, stockpile all salvaged topsoil, upper subsoil or spoil at least three metres from:
- (a) the watercourse top of bank; or
 - (b) the watercourse edge, if the drainage channel is poorly defined.
- 3.1.17 The approval holder shall, when making any open-cut water crossing, ensure that all stockpiled spoil is contained, by using berms or a similar isolation technique.
- 3.1.18 The approval holder shall not clear, grub or excavate within an undisturbed buffer strip or any other setback described in the application, except as follows:
- (a) when required along the pipe trench and travel lane; or
 - (b) when directed in writing by an Inspector.
- 3.1.19 The approval holder shall use existing water crossings for equipment and vehicles, unless otherwise directed in writing by an Inspector.
- 3.1.20 The approval holder shall not allow any equipment or vehicles to enter a watercourse before a temporary water crossing is in place.
- 3.1.21 The approval holder shall follow:
- (a) the *Code of Practice for Pipelines and Telecommunication Lines Crossing a Water Body*, Alberta Environment, May 2000, as amended; and
 - (b) the *Code of Practice for Watercourse Crossings*, Alberta Environment, May 2000, as amended.
- 3.1.22 The approval holder shall obtain a Temporary Diversion Licence as required pursuant to the *Water Act*, for any activity requiring the diversion of water.
- 3.1.23 The approval holder shall obtain authorization as required pursuant to the *Water Act* for any activity in or under a wetland.

CLEARING AND TIMBER SALVAGE

- 3.1.24 The approval holder shall salvage timber on public land as described in the application or as directed in writing by an Inspector.
- 3.1.25 The approval holder shall dispose of all non-merchantable timber and brush as described in the application or as directed in writing by an Inspector.
- 3.1.26 The approval holder shall conduct clearing procedures and timber salvage operations during construction in a manner that minimizes:

TERMS AND CONDITIONS ATTACHED TO APPROVAL

- (a) surface soil loss and degradation;
- (b) the disturbance of adjacent, undisturbed forest cover; and
- (c) the loss of merchantable timber.

WILDLIFE

- 3.1.27 The approval holder shall conduct pre-construction wildlife surveys for pipeline activities occurring in areas of natural habitat including wetlands, and shall implement setbacks and timing constraints, or other mitigation measures as outlined in the application.

NATIVE PRAIRIE

- 3.1.28 The approval holder shall construct the pipeline in a manner that minimizes the surface disturbance on native prairie and shall reclaim the pipeline alignment in a manner that minimizes the degradation or loss of adjacent, undisturbed native prairie.

SECTION 3.2: HISTORICAL RESOURCES

- 3.2.1 The approval holder shall not commence construction until authorization is obtained from Alberta Culture, Historical Resources Management Branch.

SECTION 3.3: WASTE MANAGEMENT

- 3.3.1 The approval holder shall ensure that all waste is disposed of in an approved waste management facility during construction or stored safely on the pipeline alignment and removed for disposal to an approved waste management facility.
- 3.3.2 The approval holder shall not bury any waste within or adjacent to the pipeline alignment.

SECTION 3.4: DOMESTIC WASTEWATER

- 3.4.1 The approval holder shall collect, contain and remove all domestic wastewater for disposal using:
- (a) an approved municipal domestic wastewater system; or
 - (b) any other manner authorized in writing by the Director.

SECTION 3.5: INDUSTRIAL WASTEWATER

- 3.5.1 The approval holder shall only discharge industrial wastewater directly to a water body or watercourse or onto adjacent undisturbed land in accordance with this approval.

TERMS AND CONDITIONS ATTACHED TO APPROVAL

- 3.5.2 The approval holder shall use energy dissipaters or other erosion control methods when discharging industrial wastewater onto adjacent undisturbed land.
- 3.5.3 The approval holder shall not exceed the limits described in TABLE 3-1 when discharging or releasing any industrial wastewater directly to a water body or a watercourse, or indirectly by release or discharge onto undisturbed land that will reach a water body or watercourse.
- 3.5.4 The approval holder shall monitor all discharges or releases of industrial wastewater to a water body or a watercourse as described in TABLE 3-1.

TABLE 3-1: Limits and Monitoring - Industrial Wastewater

Parameter	Limits (maximum daily)	Sample Type	Frequency	Sample Location
Total Suspended Solids	≤ 50 mg/L	Grab	Prior to discharge and weekly	release point
pH	≥ 6.0 and ≤ 9.5 pH units	Grab	Prior to discharge and weekly	release point
Oil or other substances	no visible sheen	Visual Observation	Daily	release point
Floating Solids	None – except in trace amounts	Visual Observation	Daily	release point
Visible Foam	None – except in trace amounts	Visual Observation	Daily	release point

- 3.5.5 The approval holder shall control the discharge or release of any industrial wastewater from the pipeline alignment to the surrounding watershed in such a manner that the discharge or release does not result in the erosion or flooding of:
- (a) adjacent undisturbed land;
 - (b) the bed and banks of a receiving watercourse;
 - (c) the shoreline of a receiving water body; and
 - (d) the discharge water channel.
- 3.5.6 The approval holder shall construct any temporary bulk fuel storage or transfer area, within or adjacent to the pipeline alignment, in accordance with the *Guidelines for Secondary Containment for Above Ground Storage Tanks*, Alberta Environmental Protection, 1997, as amended.

TERMS AND CONDITIONS ATTACHED TO APPROVAL

HYDROSTATIC TEST WATER

- 3.5.7 The approval holder shall follow the *Code of Practice for the Release of Hydrostatic Test Water from Hydrostatic Testing of Liquid Petroleum and Natural Gas Pipelines*, Alberta Environmental Protection, September 1996, as amended.

PART 4: RECLAMATION

SECTION 4.1: GENERAL

- 4.1.1 The approval holder shall make every effort to progressively reclaim the pipeline alignment when pipeline construction is completed, unless the timing of clean-up and reclamation has been scheduled in the application to accommodate frozen or unfrozen ground conditions.
- 4.1.2 The approval holder shall dismantle and remove all works, buildings, structures, facilities, equipment, apparatus or machinery used during construction or reclamation that will not be used for the operation of the pipeline.
- 4.1.3 The approval holder shall reclaim all constructed access roads for the pipeline alignment that are not remaining as surface improvements or as a designated property access.
- 4.1.4 The approval holder shall place rollback for access management and erosion control as specified in the application or as directed in writing by an Inspector.

SECTION 4.2: LANDSCAPE

- 4.2.1 The approval holder shall contour the pipeline alignment so that it is comparable with pre-disturbance conditions and the adjacent undisturbed land, unless otherwise directed in writing by an Inspector.
- 4.2.2 The approval holder shall establish drainage on the pipeline alignment that is compatible with existing drainage on the adjacent undisturbed land.

SECTION 4.3: SOIL RECONSTRUCTION AND COMPACTION

- 4.3.1 The approval holder shall replace all salvaged soil materials from the pipeline alignment as follows, unless otherwise authorized by the Inspector:
- (a) all spoil shall be replaced in the trench and contoured over the trench;
 - (b) all upper subsoil shall be spread evenly over the replaced spoil; and
 - (c) all topsoil shall be spread evenly and contoured over the replaced upper subsoil or spoil.

TERMS AND CONDITIONS ATTACHED TO APPROVAL

- 4.3.2 The approval holder shall alleviate compaction in all replaced upper subsoil or spoil before topsoil replacement. Compacted upper subsoil or spoil shall be mechanically broken, fractured or shattered to the depth of compaction or 30 centimetres, whichever depth is greater.
- 4.3.3 The approval holder shall alleviate any compaction in replaced topsoil. Depth of cultivation or other mechanical treatments shall be controlled to avoid topsoil mixing with upper subsoil or spoil.

SECTION 4.4: WATER CROSSINGS

- 4.4.1 The approval holder shall ensure that the profile of any watercourse crossed by the pipeline alignment is restored to profiles similar to pre-disturbance conditions.
- 4.4.2 The approval holder shall ensure that the water crossing approaches for the pipeline alignment and the banks of all watercourses open-cut with trenches are contoured comparable with adjacent undisturbed land.
- 4.4.3 The approval holder shall ensure that any constructed pipeline water crossings on watercourses identified in the application as having high erosion potential are properly armoured and stabilized or otherwise protected from erosion.

SECTION 4.5: FINAL RECLAMATION

- 4.5.1 The approval holder shall ensure that the size and density of coarse fragments (i.e. gravel, rock or stones) within the reclaimed soil profile and on the contoured surface of the pipeline alignment are comparable with the adjacent undisturbed land.
- 4.5.2 The approval holder shall revegetate and stabilize the contoured surface of the pipeline alignment with a suitable seed mixture and fertilizer. Other forms of revegetation that are not described in the application shall only be applied when directed in writing by an Inspector.
- 4.5.3 The approval holder shall revegetate and stabilize all riparian and wetland areas on the pipeline alignment with native riparian and wetland vegetation species.
- 4.5.4 The approval holder shall maintain a weed control program until new vegetation on the pipeline alignment is re-established and is self-sustaining.
- 4.5.5 The approval holder shall conduct a Post-Construction Reclamation Assessment on the pipeline alignment, within one year following the completion of construction and after one full growing season and an overwintering period.
- 4.5.6 The Post-Construction Reclamation Assessment specified in 4.5.5 shall include an assessment of landscape, soils and vegetation on the pipeline alignment to verify the completion of the requirements specified in Sections 4.1, 4.2, 4.3, 4.4 and 4.5.

TERMS AND CONDITIONS ATTACHED TO APPROVAL

- 4.5.7 The approval holder shall submit a Post-Construction Reclamation Assessment Report that describes the results of the assessment pursuant to condition 4.5.5, and condition 4.5.6, to the Director, on or before December 31, 2018 unless otherwise authorized in writing by Alberta Environment and Sustainable Resource Development.



Gary Sasseville
Approvals Manager, Authorizations Branch
Alberta Energy Regulator

October 25, 2016



WELL LICENCE

Licence No. 0480964
Well Name TIDEWATER DIMSD 13-25-71-7
Licensee TIDEWATER MIDSTREAM AND INFRASTRUCTURE LTD.
Well Type STORAGE
Substance Name GAS
Formation Name PADDY MBR

Surface Location LSD 05-36-071-07 W6M

Surface Co-ordinates 744.9 metres North 40.0 metres East

(As measured or calculated from the exterior boundaries of the quarter section)

Unique ID	100/13-25-071-07W6/0	Surface Rights	FREEHOLD
Field	DIMSDALE	Mineral Rights	ALBERTA CROWN
Lahee / Confidential Status	OTH(NC)	Projected Depth	1675 metres
Field Centre	GRANDE PRAIRIE	Terminating Zone	PADDY MBR
	1-800-222-6514 (toll free)	Ground Elevation	665.6 metres
Emergency Planning Zone	N/A km		

Number of occupied dwellings, public facilities, and/or places of business inside the EPZ N/A

This licence expires on 27th day of October 2017 if well has not been spudded.

Dated at Calgary, Alberta this

27th day of October 2016.

Application Number 1858864

For Alberta Energy Regulator