

**ENBRIDGE GAS DISTRIBUTION INC.
POST-CONSTRUCTION
ENVIRONMENTAL MONITORING REPORT NO.2**

**TECUMSEH GAS STORAGE WELL TKC#61H
EB-2007-0891 and EB-2008-0387**

Prepared by
Enbridge Gas Distribution Inc.
July 12, 2010

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1.0 Introduction

On June 2, 2008 the Ontario Energy Board (the “Board”) under docket number EB-2007-0891 issued the Decision with Reasons and issued a favorable report to the Ministry of Natural Resources (“MNR”), recommending the approval of the application to drill and operate a natural gas storage well (TKC#61H) in the Kimball-Colinville Storage Pool. On July 29, 2008 the Board issued an amendment to the Report of the Board to the MNR and recommended approval of the revised application to relocate the TKC#61 storage well. On July 29, 2008 the MNR issued the Well Licence for the TKC#16

Prior to obtaining approval, Enbridge conducted the following studies to identify potential impacts resulting from construction, and prepare mitigative measures to minimize environmental and socio-economic impacts.

Report Title	Conducted by:	Date
Environmental Report: Tecumseh Storage Enhancement Project – Storage Infill Drilling	Stantec Consulting Limited	March 2008

Construction began on July 2, 2008 and all clean up activities were completed by August 6, 2009.

The TKC#61H storage well was commissioned on February 9, 2009.

The Final Post Construction Monitoring Report has been prepared in accordance with the Board’s EB-2007-0891 and EB-2008-0387 Board Staff Proposed Conditions of Approval as described below:

- 4.1 Both during and after construction, Enbridge shall monitor the impacts of construction, and shall file four copies of both an interim and a final monitoring report with the Board and the Ministry of Natural Resources. The interim monitoring report shall be filed within six months of the in-service date, and the final monitoring report shall be filed within fifteen months of the in-service date. Enbridge shall attach a log of all comments and complaints to the interim and final monitoring reports. The log shall record the times of all comments and complaints received, the substance of each comment and complaint, the actions taken in response, and the reasons underlying such actions.

- 4.2 The interim monitoring report shall confirm Enbridge's adherence to Condition 1.1 and shall include a description of the impacts noted during construction and the actions taken or to be taken to prevent or mitigate the long-term effects of the impacts of construction. This report shall describe any outstanding concerns identified during construction.
- 4.3 The final monitoring report shall describe the condition of the rehabilitated land and the effectiveness of the mitigation measures undertaken. The results of the monitoring programs and analysis shall be included and recommendations made as appropriate. Any deficiency in compliance with any of the Conditions of Approval shall be explained.

This report is limited to items that have been identified prior to June 2010. This report will summarize actual construction procedures and identify any significant deviations from proposed construction activities.

2.0 Project Description

Tecumseh Kimball-Colinville #61H storage well is one component of the Storage Infill Drilling Project which is one part of the Tecumseh Storage Enhancement Project designed to meet demand for high deliverability storage services in Ontario. The Kimball-Colinville Storage Pool is located primarily under Lots 17, 18 and 19 and Concessions V, VI, VII and VIII in St. Clair Township. TKC#61H is located approximately 950 m south of Rokeby Line, and 750 m west of Kimball Road in St. Clair Township in the County of Lambton. Appendix A shows the storage well within a regional context.

3.0 Environmental Inspection

In order to ensure that environmental commitments were honoured and that the best industry practices were used, a full time inspector was onsite. In general, the duties of the inspector included the following items:

- provide advice to the Project Manager and all construction personnel regarding compliance with environmental legislation, regulations and industry standards;

- provide advice regarding adherence to environmental specifications and commitments made in the previously mentioned documents and to regulatory agencies, including the OEB and Ministry of Natural Resources;
- act as a liaison with environmental regulators, government agencies and interest groups;
- provide immediate advice regarding spill prevention and contingency; and,
- ensure appropriate waste disposal of any hazardous construction wastes.

4.0 Construction Effects and Mitigation Measures

Construction effects and mitigation measures which were implemented to minimize the potential effects the construction of the TKC#61H are summarized in Table 1. Photos of TKC#61H taken in June 2010 are found in Appendix B. All activities were conducted in adherence to the contract documentation and Enbridge Construction Policies and Procedures.

Table 1.
Construction Effects and Mitigation Measures

Activity	Duration	Potential Effect	Mitigation Measures
Vegetation Cover	Throughout Construction/Drilling (July 2008– August 2009)	Permanent removal of vegetation. Aesthetic degradation. Changes in surface drainage patterns affecting amount of water available. Changes to sunlight or wind exposure regimes.	Limits of work area marked to minimize encroachment into vegetated areas.
Topsoil Handling	Throughout Construction/Drilling	Disruption of surface and subsurface soils. Soil mixing may result in loss of productivity.	Contractor stripped topsoil and stockpiled separately from subsoil. Mixing of soils was minimized. Segregated topsoil was replaced on surface following construction. Topsoil was tilled prior to cultivation.

Table 1.

Construction Effects and Mitigation Measures

Activity	Duration	Potential Effect	Mitigation Measures
Bedrock	Throughout Construction/Drilling	Large amounts of drill cuttings and fluids are encountered and removed from the drill hole. Rock materials in drill cuttings are mostly limestone and dolomite with some shale and salt.	Remaining drill fluids and cuttings were collected in holding tanks and allowed to settle. Fluid was recycled and used again. Remaining fluid was solidified with a bonding agent and disposed of according to MOE Regulations.
Climate	Throughout Construction/Drilling	Heavy rainfall may result in flooding of adjacent lands, erosion and compaction and rutting (if construction persists). High winds may erode loose soil material, including topsoil and create nuisance dust.	During wet soil conditions construction on agricultural lands were suspended. Work resumed only upon approval by Chief Inspector. Nuisance dust was controlled by applying water to work area (if required).
Groundwater	Throughout Construction/Drilling	During well drilling the water table may be breached and the supply of water to adjacent water wells be affected temporarily.	A cable tool rig was used to drill through fresh water horizons to reduce potential for contamination from drilling fluid. Enbridge was prepared too but did not have to implement its' Water Well Monitoring program and retain a hydrogeologist to assess the need for monitoring wells proximal to the work area. Enbridge did not need to implement the Water Well Monitoring program.
Noise	Throughout Construction/Drilling	Disturbances to sensitive receptors (i.e. residents).	Construction equipment conformed to guidelines for sound and emission levels.
Spills	Throughout Construction/Drilling	Contamination of air, soil, surface water or ground water. Inconvenience to landowners and public	As required, contractor had spill containment kits at the project site. There were no reportable spills during the construction of the well.

Table 1.
Construction Effects and Mitigation Measures

Activity	Duration	Potential Effect	Mitigation Measures
Pipe Energizing	February 2009	Inconvenience and/or negative health effects to nearby landowners and the public.	Energizing was completed in accordance with Enbridge Policies and Procedures.
Clean-Up	July 2008– August 2009	Restores the storage well easement to pre-construction conditions.	Clean up activities were conducted in accordance with the Enbridge Construction Manual.

5.0 Residual Issues

Overall, construction activities were carried out with a high level of respect for the environment. There are no unresolved issues that remain at the time of completion of this report (June 2010) for the TKC#61H storage well.

6.0 Landowner Comments and Complaints

Several complaints were communicated by Tom Wilson, the landowner, to Enbridge Gas Storage regarding the drilling of the TKC#61H storage well. The nature of the complaints included landowner notification, compensation and lease agreement. As described in the Interim Post Construction Monitoring Report (“Interim Report”), on July 8, 2009 Enbridge and the Wilson family entered into a mutually satisfactory compensation agreement that addressed all issues. A record of the Registered Complaint perilously filed in the Interim Report can be found in Appendix C.

7.0 Summary

In conclusion, the mitigation measures implemented during and after construction to minimize the environmental and socio-economic impacts have been successful. Landowner complaints have been addressed and any issues have been resolved.

Enbridge does not foresee any future issues in relation to the construction of the TKC#61H storage well.

APPENDIX A
STORAGE WELL LOCATION MAP



File: V:\active\60960381\graphics\GISMX\DX62960381_07.mxd

Source: GoogleEarthPro; Enbridge.

-  Study Area
-  Proposed Well Location
-  Existing Access Road
-  Proposed Temporary Access Road



PREPARED FOR:
TECUMSEH STORAGE ENHANCEMENT PROJECT
STORAGE INFILL DRILLING

FIGURE NO. 2.1

PROPOSED WELL DEVELOPMENT LOCATIONS NORTH SECTION

Initiated: March, 2008
Revised:

APPENDIX B

**PHOTO LOG
(JUNE 2010)**



Photo 1 – TKC#61H looking east



Photo 2 – Looking northeast



Photo 3: Looking northeast



Photo 4: Looking east

APPENDIX C

**LANDOWNER COMPLAINT AND COMMENT LOG
(FEBURARY 2008 – AUGUST 2009)**

**ENBRIDGE WELL DRILLING PROGRAM – KIMBALL COLINVILLE POOL
EB-2007-0891**

REGISTERED COMPLAINTS

BY:	Terry Chupa	NUMBER:	001
		DATE:	Various
		MADE TO:	Terry Chupa, and other Enbridge Personnel
NATURE OF THE COMPLAINT			
I (Terry Chupa) contacted Tom Wilson on February 13, 2008 to let him know that we were proposing to drill well TKC61H on his property. Tom made it clear that he had concerns about our proposal and let me to believe that he wondered what was in it for him, meaning how Enbridge intended on compensating him. The underlying issue related to Tom's compensation concern is that he owns the property but not the mineral rights. Tom's deed from Bruce Jarvis contains a provision that all right and benefit from Enbridge's operations are to go to Bruce Jarvis. Enbridge's understanding of that provision is that Bruce is to continue to receive all lease rental payments and annual payments for surface facilities, including any and all facilities after his sale of the property to Wilsons. <u>Complaint #1</u> My understanding of the position of the Wilson family is that: • Wilsons should receive payments for surface facilities installed after they bought the property • Enbridge has the right to conduct operations as set out in the lease agreements, however, it seems that Wilsons' approval of the scope of the project and acceptance of a level of compensation is required over and above the lease obligations for compensation for damages and restoration • There is a fundamental difference in how Enbridge and Wilsons are interpreting the lease agreements and the rights and obligations contained therein and that the Wilson family does not agree that they are subrogated to the lease agreements. <u>Complaint #2</u> The Wilson family said that Enbridge had not provided notice to the Wilsons of the name of the Project Manager as required by the OEB Decision with Reasons – Conditions of Approval, Clause 5.2			

	<u>Complaint #3</u> In mid June, the Wilson family said that Enbridge did not present the Wilson family with a formal Letter of Understanding (LOU) outlining the proposed well drilling operations that had to be agreed to by the Wilson family. <u>Complaint #4</u> In mid June, the Wilson family said that Enbridge did not present the Wilson family with a formal compensation offer for the proposed well drilling operations that had to be agreed to by the Wilson family. <u>Complaint #5</u> In mid June, the Wilson family said that they felt that Enbridge ceased negotiations after the 30 day time period for them to send a letter with comments to the board ended. <u>Complaint #6</u> In mid June, the Wilson family said that Enbridge did not present the Wilson family with a formal site plan for the proposed well drilling operations that had to be agreed to by the Wilson family, and that at no time to Enbridge indicate to them that the proposed site was going to be as extensive as the site already prepared for TKC62H. <u>Complaint #7</u> In mid June, the Wilson family said that Enbridge installed the lateral for the proposed well on their property on, or about June 12, 2008 without notice to them, or receiving their approval and under unfavourable ground and soil conditions. <u>Complaint #8</u> In mid June, the Wilson family said that the timing of the commencement of the proposed well drilling operations was not to their satisfaction and that operations on their land should be deferred until after the wheat was harvested and/or surface conditions were drier.
RESOLUTION	
	Complaint #1 – from the first contact on February 13, 2008 and continuing on into the fall of 2008, I, and other Enbridge personnel, had many meetings, phone conversations, proposals, offers and other communications with the Wilson family to reach a mutually satisfactory arrangement for the drilling of the well and the removal of the pipeline lateral that was installed in anticipation of the drilling of the well. This agreement was not achieved and Enbridge applied to the Board and received approval from the Board for the drilling of the well at an alternate location on land owned by Enbridge that abuts the east limit of the Wilson property.
	Complaint #2 – On July 15, 2008 I mailed a letter to Wilsons advising them

	that Paul Druet is the Project Manager for the project.
	Complaint #3 – On April 1, 2008 I mailed a letter to the Wilson family with a very high level overview of the proposed drilling operations. The letter contained references to future communications with the landowner to provide more information and address landowner concerns. Enbridge did not, and does not, consider entering into a LOU as an obligation that it is required to perform and is not aware of that being a Condition of Approval required by the Board. I personally have the view that the Gas Storage Lease agreement and the Board Order designating Enbridge as the operator for the storage pool, constitute the framework of a LOU. However, in response to the request of the Wilson family for a LOU, I had several communications with them about the details that would typically be included in a LOU. These communications ceased when Enbridge received approval to drill the well on the alternate site that was not on the Wilson property.
	Complaint #4 – from the first contact on February 13, 2008 and continuing well into the summer months, I, and other Enbridge personnel, had many meetings, phone conversations, proposals, offers and other communications with the Wilson family trying to arrive at a mutually satisfactory compensation package. This was not achieved and ceased when Enbridge received approval to drill the well on the alternate location.
	Complaint #5 – Negotiations with the Wilson family continued well past May 28, 2008, being the date until which the Wilson family could submit a letter with comments to the Board. Please note that the extensive time period of the negotiations were a result of the actions of both parties, not just Enbridge.
	Complaint #6 – On June 17, 2008 I prepared a letter to the Wilson family that addressed complaints numbered 3, 4 and 6. This letter was not mailed on that date due to the evolving differences at that time. On June 19, 2008 Tom Wilson came to my office. My recollection is that I showed him the letter and we talked about it and it is possible that he took his copy with him. The meeting ended rather abruptly and I am not certain of that fact.
	Complaint #7 – When Tom Wilson talked with me about his concerns about the installation of the lateral, I told him that Brad Pilon had told me that he spoke with Tom on the phone on May 27, 2008 and that at the conclusion of the conversation that he and Tom had reached an agreement that provided for the commencement of drilling operations and that the lateral was installed pursuant to that understanding. Tom said if Brad thought this was the agreement they had reached, then Brad is sadly mistaken. In subsequent conversations with both Brad and Tom, both of them were convinced that their respective, yet opposing, understanding is correct and that the other party has misunderstood their agreement. Without interference from, but without approval from, the Wilson family, Enbridge completed removal of the lateral on, or about, December 24, 2008, subject to final restoration and placement of the top soil that was deferred at the request of Tom Wilson.

	Prior to the removal of the lateral, Enbridge and the Wilson family had been communicating to arrive at a mutually satisfactory arrangement regarding the removal of the lateral, restoration of the lands and reasonable compensation for the work done on the Wilson property. Eventually these communications digressed and both parties sought legal counsel. This process is currently on going.		
	Complaint #8 - I, and other Enbridge personnel, had many meetings, phone conversations, proposals, offers and other communications with the Wilson family to reach a mutually satisfactory arrangement for the timing and conditions for the commencement of drilling operations. We also talked about the time lines that Enbridge faced and that were becoming more of an issue as time went on. This issue was not resolved and further communications ceased when Enbridge received approval to drill the well on the alternate location.		
	On July 8, 2009 Enbridge and the Wilson family entered into a mutually satisfactory compensation agreement that addressed all issues.		
DATE:	August 13, 2009	BY: Terry Chupa	<i>TC</i> Aug 13/09
MANAGER:	<i>JMK</i> 5/13/09	IAN UH20331E	

File: