

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

**TECUMSEH GAS STORAGE WELL TKC#62H
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#62H) in the Kimball-Colinville Storage Pool. On June 9, 2008 the MNR issued the well license for TKC#62 natural gas storage well.

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 in June 12, 2008 and all clean up activities were completed July 3, 2009.

The TKC#62H storage well was commissioned on September 25, 2008.

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 #62H 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#62H is located on the north side of Moore Line, approximately 250 meters (m) east of Tecumseh 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#62H are summarized in Table 1. Photos of TKC#62H 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 (June 2008- July 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.
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.

Table 1.
Construction Effects and Mitigation Measures

Activity	Duration	Potential Effect	Mitigation Measures
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.
Well Commissioning	September 2008	Inconvenience and/or negative health effects to nearby landowners and the public.	Well Commissioning was completed in accordance with Enbridge Policies and Procedures.
Clean-Up	June 2008- July 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#62H storage well.

6.0 Landowner Comments and Complaints

Several complaints were communicated by Matt Starr, a local resident, to Enbridge Gas Storage during the drilling of the TKC#62H storage well. The nature of the complaints included noise, hours of operation and increased vehicle activity. The complaints occurred between June 20th and August 1st, 2008. As described in the Interim Post Construction Monitoring Report ("Interim Report"), each complaint was addressed immediately upon receipt to the satisfaction of Mr. Starr. A record of the Registered Complaint perilously filed in the Interim Report can be found in Appendix C.

Enbridge has determined that landowners with residences within 300 m of the well drilling, where the noise and inconvenience level are deemed to be unacceptable, will be paid a one-time payment of \$500.00. Payment was made to 5 landowners within 300 m of TKC#62H in July 2009.

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#62H 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#62H looking north



Photo 2 – Looking northwest



Photo 3: Looking north; west side of well



Photo 4: Looking north; east side of well

APPENDIX C

**LANDOWNER COMPLAINT AND COMMENT LOG
(JUNE-AUGUST 2008)**

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

REGISTERED COMPLAINTS

BY:		NUMBER:	001
		DATE:	various
		MADE TO:	various
NATURE OF THE COMPLAINT			
	Matt Starr called several times during the well drilling process to complain about the noise, hours of operations and increased vehicle activity. June 20, 2008 9:00 pm, Matt phoned the operator in the control room, who in turn phoned Ed Nicol, who in turn phoned me and I in turn called Jim McDonald seeing as Jim was the supervisor of the pad construction, which was the work going on at the time.		
	The evening of July 9, 2008, Matt phoned the operator in the control room to complain about the noise.		
	At 10:19 pm on July 16, 2008, Matt again phoned the operator with the same complaint. Matt asked the operator who my (Terry Chupa) supervisor was and his phone number. Matt left a phone message for Brad Pilon, my supervisor.		
	Matt Starr left a phone message on my answering machine at 9:00 am on August 1, 2008. He was angry about the noise.		
RESOLUTION			
	With regard to June 20th, Jim said that the crew was trying to complete the work that night, but in light of the complaint, he had them shut the work down until the next day.		
	With regard to July 9th, in the evening of July 10, 2008, I called several of the other landowners near the well drilling site and was told that for the most part, the drilling operations were not bothering them. I had left a phone message with one of the landowners. He returned my call on July 21, 2008 and said there is a noise concern and that they are keeping their windows closed and running their AC more often and that they should be compensated for the extra electricity costs. No payment has been made by Enbridge to date.		
	With regard to July 16th, Brad played Matt's phone message to me in the morning of the 17th. At 5:00 pm of July 18, 2008 I was able to reach Matt's wife LouAnne by phone. She said that they were frustrated by the noise and added it was poor timing because Matt's brother Brian, who lived right across the road from the drilling site was in extremely bad health and that they were anxious for the drilling operations to end.		

	At 5:00 pm on July 23, 2008, I was able to reach Matt by phone. Matt's concern was about the noise and lights, especially from the brine trucks in support of drilling needs. In response to the noise complaints, Enbridge had the drilling personnel take noise mitigation actions including the elimination of the use of horns that typically are used by drilling personnel as a form of communication. I pointed out to Matt that we conduct drilling operations very infrequently and that the current operations, noise and activity were typical and necessary for the drilling process, and once commenced must continue. I added that our annual payments are intended to include this type of inconvenience when it occurs from time to time. Matt said that we should have a policy and practices re compensation for noise and the inconvenience from this type of work. I told we do not have a formal policy for this type of concern.
	With regard to August 1st, I talked to our drilling supervisors and they were surprised about the complaint because they were rigging down and for the most part it should have been pretty quiet. I was able to reach Matt by phone on August 8, 2008. He had calmed down and reiterated his prior complaint that the level of noise during the drilling operations were unacceptable and that he, and the neighboring landowners should be compensated for the inconvenience. I asked him what he thought would be an appropriate compensation amount and he said that he did not know. I asked him the same question in a meeting on a different matter in December. At that time he threw out a number of \$5,000.00. I told him that we would not pay that amount, but that I would discuss his concerns with management to determine what, if anything, we would pay the landowners. We decided that the drilling operations were conducted in a reasonable and necessary manner and that there would not be any compensation payments made for this temporary inconvenience.
	During the winter months we considered these matter and I presented a policy that was approved by management whereby landowners with residences within 300 m of well drilling where the noise and inconvenience level is deemed to be unacceptable, will be paid a one time payment of \$500.00. Payment of \$500.00 to each of 5 landowners with residences within 300 m of TKC62H was made in July of 2009. All 5 landowners received the payment and seemed to be satisfied seeing as they did not ask any questions or enter into further discussion on this matter.
DATE:	August 13, 2009
MANAGER:	Ian MacRobbie
BY:	Terry Chupa
File:	 