December 12, 2013

Mr. Iain Mudd
County of Peterborough
470 Water Street
Peterborough, ON K9H 3M3
Email: imudd@county.peterborough.on.ca

Dear Mr. Mudd:

Re: KIN-16438-A0 **Interim - Surface Water Supply Quality Assessment Haastown Holdings (Chandos) Inc., Part Lot 25, Conc. 9, Chandos Ward, Township of North Kawartha County File No.: 15OP-12007 (Official Plan Amendment); 15T-12002 (Subdivision); & 15CD-12001 (Condominium)**

1.0 Introduction

Exp's May 2012 report entitled "Hydrogeology and Terrain Analysis – Proposed Residential Subdivision Lot 25, Concession 9, Geographic Township of Chandos, Township of North Kawartha, County of Peterborough", made recommendations regarding precautions associated with the use of well water supplies. Based on peer review comments from the County of Peterborough's peer reviewer Stantec Consultant's Ltd. (Stantec) dated November 16, 2012 and during follow up teleconferences, **exp** prepared five Work Plans to address the outstanding items which were presented with our minutes from the January 17, 2013 teleconference with the representatives from the County of Peterborough Planning Department and Stantec, North Kawartha Township and the Developer, Haastown Holdings (Chandos) Inc., and exp Services Inc**. (exp)**.

Of the five Work Plans presented by **exp,** Work Plan Item #3, Resampling to verify reproducibility of **exp**'s water quality data relative to compliance with Provincial Drinking Water Standards and to address water quality variations, was considered critical to the use of groundwater supply for the proposed development. In response to this concern **exp** collected a series of six water samples from static to four casing volumes of pumping from test well TW-2 on June 5, 2013.

In a June 25, 2013 letter to the County of Peterborough, **exp** acknowledged that analysis of all the water samples collected indicated exceedance of the Ontario Drinking Water Standard for uranium of 0.02 mg/L. Since treatment for compliance of Health-related chemical parameters such as uranium is not permitted under the MOE Procedure D-5-5 "Technical Guideline for Private Wells: Water Supply Assessment", **exp** recommended no further consideration of groundwater as a water supply for the proposed development. **Exp**'s letter of September 12, 2013 proposed a Work Plan for characterizing a surface water supply quality from a point source location in nearby Winter's Bay on Lake Chandos at two different depths (near bottom and near surface) over two seasons (late Summer and late Fall). The subject of this interim report is the October 3, 2013 **i.e.,** late Summer sampling results. The final report will be issued following receipt of the Laboratory analysis results for the late Fall sampling event.

2.0 Scope of Work

It is our client's intent is to provide a single surface water taking location for the seven separate water supply intakes, for the seven seasonal residential dwellings. Our Client has chosen this approach since a communal waterworks including communal treatment is too costly. We note also that individual surface water supply systems are not regulated under any Provincial legislation. Stantec indicated that **exp** should produce a servicing option report in accordance with the County's servicing requirements for a subdivision or condominium.

Servicing Options

There are five options for water supply in the County's servicing requirements for a subdivision or condominium: 1) public piped water; 2) public or private communal wells; 3) individual wells; 4) communal surface water; and, 5) individual surface water.

Based on the information provided to date, the first three options are not viable. For option 1, a public piped water system does not exist in the area of the proposed development and any municipal water servicing is at too great a distance away to be considered reasonable for extension of services. For option 2, public communal wells and for option 3, private individual wells, both have been ruled by the findings of **exp**'s studies which document the presence of uranium in the local groundwater supply at concentrations which exceed the Ontario Drinking Water Standard.

The remaining two options are from surface water supplies, being either a communal supply or individual surface water supplies for each property. The current study is to assess the water quality over two seasons and assess the viability of using a surface water supply from Chandos Lake. Knowledge of the surface water quality over two seasons is necessary to determine treatment requirements and costs for either communal or individual surface water supplies.

On behalf of our client, and assuming Chandos Lake water quality is viable, **exp** has proposed the option of individually privately owned surface water supply systems and has taken the approach that the key components for maintaining an on-going quality control and assurance of the effective functioning of **Small (Public) Drinking Water Systems**, **regulated by the Ministry of** Health and Long-Term Care (MHLTC), could be applied to individual privately owned water supply systems. As e**xp** indicated, this involves five key components: **protection, monitoring, treatment, maintenance, and notification to the public**.

Protection would involve appropriate location of an intake to minimize the risk of being impacted by sources of contamination. An initial representative water quality analysis would be required to design an appropriate treatment system including appropriate schedules for system performance monitoring and routine maintenance. The routine water quality monitoring plan must be designed to incorporate trigger levels, typically health related Ontario Drinking water Standards (ODWS) i.e., Table one, two or three, or lower, for notification of water consumers. Notification of consumers must be arranged upon receipt of routine water quality sampling analysis which does not meet the pre-arranged trigger levels. An annual report on the above by a Qualified Professional should be provided routinely to the appropriate agency i.e. local municipality and/or the County of Peterborough.

Exp contacted Ministry of Environment (MOE) Surface Water Group Leader, Victor Castro, in the Kingston Regional Office on September 3, 2013 and Mr. Castro indicated that he had no concerns relative to installing individual lake water supply lines from Chandos Lake but that we should contact Rudy Pirosko, MOE Safe Drinking Water Act (SDWA) Inspector in Peterborough

and the Ministry of Natural Resources (MNR) Fisheries Biologist, Erin MacDonald in the Bancroft District Office to determine if they have any concerns or requirements. Rudy Pirosko indicated that unless the intakes are in a cluster or served by a single treatment system they do not fall under the jurisdiction of the Safe Drinking Water Act or MOE. In regards to MNR's interest, especially fisheries habitat, Erin MacDonald indicated in a telephone call on November 15, 2013 that she could foresee no issues relative to residential lake water supply lines and MNR's interests.

In a telephone conversation with Susan Shea, Navigable Waters Protection Officer with Transport Canada, she indicated that Chandos Lake was not on the list of designated Lakes for which new development would require Transport Canada's Approval under a new provision of the Navigational Waters Act., effective April 1, 2014. She also indicated that she did not foresee any issues of interest to Transport Canada with the proposed development.

3.0 Methodology

The proposed target location for the water supply intake is the deeper i.e., 6.0 to 9.1 metres (20 to 30 feet) water of Winter's Bay on Chandos Lake just west of proposed Lot 7. **Exp** proposes that if water quality testing over two seasons is considered representative of this location *only*, the water intake lines for the seven lots will be extended to take water from the same tested location.

Since **exp** proposes a minimum separation distance of 30 metres from known sources of contamination **exp** suggests that locating the sampling zone 50 metres from shore should provide ample separation from shoreline contamination (the exact GIS location is provided).

On October 3, 2013 i.e., late Summer sampling, **exp** staff collected samples of the Chandos Lake water for analysis at two different depths i.e., 1 metre above bottom and 3 metres below water surface). The water was collected at the two discrete depths by way of a discrete depth water sampler (Kemmerer). One additional (fifth) sample (duplicate) at the deepest location was be collected for field filtration prior to analysis. Having water samples at this location analyzed as filtered and unfiltered will assist in determining the effect of particulates on concentrations of heavy metals including uranium. Water access and transportation for this study was provided by Haastown Holdings Inc. Surface location of the sample collection point i.e., proposed water supply intake location, was identified by means of a GPS Instrument i.e., Garmin GPS 76, as N:4967508 and E:265841. The water depth at this location as determined with a Pirhana 4 Depth Finder was 8.2 meters (27 feet).

When discrete samples are desired from a specific depth in surface water a Kemmerer sampler is used. A Kemmerer sampler is a brass cylinder with rubber stoppers that leave the ends of the sampler open while being lowered in a vertical position, thus allowing free passage of water through the cylinder. Then a metal messenger is sent down a rope when the sampler is at the designated sampling depth, to cause the stoppers to close the water filled cylinder, which is then raised. Water is removed through a valve to fill respective sample containers for water quality analysis. Care was taken not to stir up the bottom sediment for the lowest sample i.e. approximately one metre from the bottom, and thus bias the sample. The water samples were then transferred to the appropriate sample analysis container.

All of the samples were analyzed for *all* of the drinking water quality standards, including but not limited to:

pH, Colour, Alkalinity, Turbidity, Total Dissolved Solids (TDS), Conductivity, Harness including Calcium and Magnesium, Sodium, Chloride, Fluoride, Sulphate, Hydrogen Sulphide, Nitrate-Nitrite, Ammonia and Total Kjeldahl Nitrogen (TKN), Copper, Iron, Lead, Arsenic, Mercury, Manganese, Zinc, Barium, Boron, Cadmium, Chromium, Total Phosphorous, Dissolved Reactive Phosphorous (DRP), Potassium, Dissolved Organic Carbon (DOC), Volatile Organic Compounds (VOCs), Petroleum Hydrocarbons (F1-F4), BTEX, Phenols (4-AAP), Chemical Oxygen Demand (COD), Total coliform and E. coli Bacteria, Radiological parameters including uranium and radon.

4.0 Surface Water Quality Results

Tables 1 and 2 (attached) depict the water quality analysis for the above noted samples i.e., near surface (1.8 to 2.1 metres from surface) to near bottom (6.6 to 7.0 metres from surface). An additional near bottom sample was filtered before analysis (to simulate water quality after filtration and indicate what chemicals adhere to fine particulates). The near surface and near bottom samples indicated bacteriological water quality i.e., 2 and 1 CFU/100 mL. E. Coli bacteria, respectively, which exceeded the ODWS of 0 CFU/100 mL.; and 17,400 and 180 CFU/100 mL. Total Coliform bacteria respectively which exceeded the ODWS of 0 CFU/100 mL. The filtered near bottom sample met the E. Coli and Total Coliform bacteria criteria.

The near surface, near bottom and filtered near bottom samples i.e., 6, 7 and 7 TCU colour respectively, exceeded the ODWS Table 4, Aesthetic Objective of 5 TCU.

All of the remaining water quality analysis for the near surface, near bottom and near bottom filtered samples met their respective ODWS water quality criteria. Of interest was the detection of the 1.4 ug/L toluene near bottom filtered sample which was within the ODWS aesthetic objective i.e., ODWS of 24 ug/L.

5.0 Discussion

From the above noted surface water quality results i.e., late Summer sample, it is apparent that both E. Coli and Total Coliform bacteria have an affinity for adhering to particulates since the filtered sample indicated both bacteria were non-detected after filtration. This illustrates the need for effective mechanical filtration and disinfection for the surface water supply. The elevated colour noted above is readily treatable with relatively low costs treatment systems. To avoid the risk of producing unwanted taste issues associated with chlorination, **exp** recommends the use of ultra-violet (UV) light disinfection. If undesirable taste issues arise, granulated activated charcoal (GAC) filters are an effective way of removing unwanted tastes. A qualified water treatment professional should be consulted for final treatment options.

The toluene detected in the near bottom filtered sample was not likely present in the sample since neither the near surface or near bottom unfiltered samples detected the presence of toluene (Method Detection Limit 0.20 ug/L.). It may have been an artifact of sample handling and shipping.

The uranium and radon previously detected in the groundwater supply on the subject site were not detected in the surface water samples.

All of the wells constructed in an attempt to prove potable groundwater supplies are obtainable i.e., test wells 1,2,3,4 and 5, under the Ontario Water Resources Act Regulation 903 (Water Well Construction, maintenance and abandonment) must be abandoned and sealed to prevent access and migration of undesirable water quality.

6.0 Summary

Based on the initial, late Summer sampling, the surface water quality at the locations noted above, as shown by our sample analysis, appears suitable as a domestic water supply with the addition of effective mechanical filtration and subsequent precautionary disinfection. The second sampling period, late Fall, should provide more insight into seasonal water quality variability. A qualified water treatment professional should be consulted for final treatment options.

7.0 Recommendations

1) Based on the initial, late Summer sampling, the surface water quality at **exp**'s sampling location appears suitable as a source of water for the subject proposed residential subdivision. However, this should be substantiated by a second seasonal sample collected during the late Fall of 2013.

2) As a minimum mechanical filtration and disinfection (ultra violet) treatment should be incorporated into the individual water supply systems. A qualified treatment professional should be consulted for final treatment options and design. The treatment consultant should also advise on the pro's and con's and financial aspects of individual versus communal surface water supply.

3) A qualified treatment expert should be consulted to provide appropriate schedules for system performance monitoring and routine maintenance. The routine water quality monitoring plan must be designed to incorporate conservative trigger levels based on health related Ontario Drinking water Standards (ODWS) i.e., Table one, two and three, for notification of water consumers. Notification of consumers must be arranged upon receipt of routine water quality sampling analysis which does not meet the pre-arranged trigger levels. An annual report on the above by a Qualified Professional should be provided routinely to the appropriate agency i.e., the County of Peterborough.

4) All existing test wells on the subject site, including test wells 1,2,3,4 and 5, should be abandoned and sealed in accordance with Ontario Water Resources Act Regulation 903 (Water Well Construction, maintenance and abandonment) to prevent access and migration of undesirable water quality.

8.0 Limitations

The information, conclusions and recommendations in this Surface Water Supply Quality assessment report are specifically for the work conducted at the Lot 25, Concession 9, Geographic Township of Chandos, Township of North Kawartha County of Peterborough, Ontario.

Virtually no scope of work, no matter how exhaustive, can identify all constraints and issues. For example, conditions elsewhere within the study area may differ from those encountered, and conditions may change with time. Therefore, no warranty is provided that all site conditions are represented by those identified at specific locations.

It is possible that unexpected conditions may be encountered on the site which has not been explored within the scope of the study. Should such an event occur, **exp** should be notified in order that we may determine if modifications to our conclusions are necessary.

Achieving the objectives stated in this report has required us to arrive at conclusions based upon the best information presently known to us. No investigative method can completely eliminate the

possibility of obtaining partially imprecise or incomplete information; it can only reduce the possibility to an acceptable level. Professional judgement was exercised in gathering and analysing the information obtained and in the formulation of the conclusions. Like all professional persons rendering advice, we do not act as absolute insurers of the conclusions we reach, but we commit ourselves to care and competence in reaching those conclusions.

It should also be noted that current applicable guidelines and regulations are subject to change, and such changes, when put into effect, could alter the conclusions and recommendations noted throughout this report.

The conclusions and recommendations noted throughout this report reflect existing site conditions with respect to the current conditions of the subject site at the time of this evaluation.

This report has been prepared by **exp** Services Inc. for the exclusive use of Haastown Group of Companies, in accordance with accepted environmental study and/or engineering practices. No other warranties, either expressed or implied, are made as to the professional services provided under the terms of this Report. Any use which a third party makes of this report, or any part hereof, or any reliance on or decisions to be made based on it, are the responsibility of such third parties. **Exp** accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report.

We trust this report is satisfactory for your purposes. If you have any questions regarding our submission, please do not hesitate to contact this office.

Respectfully submitted,

exp Services Inc.

Clyde K. Hammond, B.Sc., P.Geo., Q.P.
Sr. Hydrogeologist

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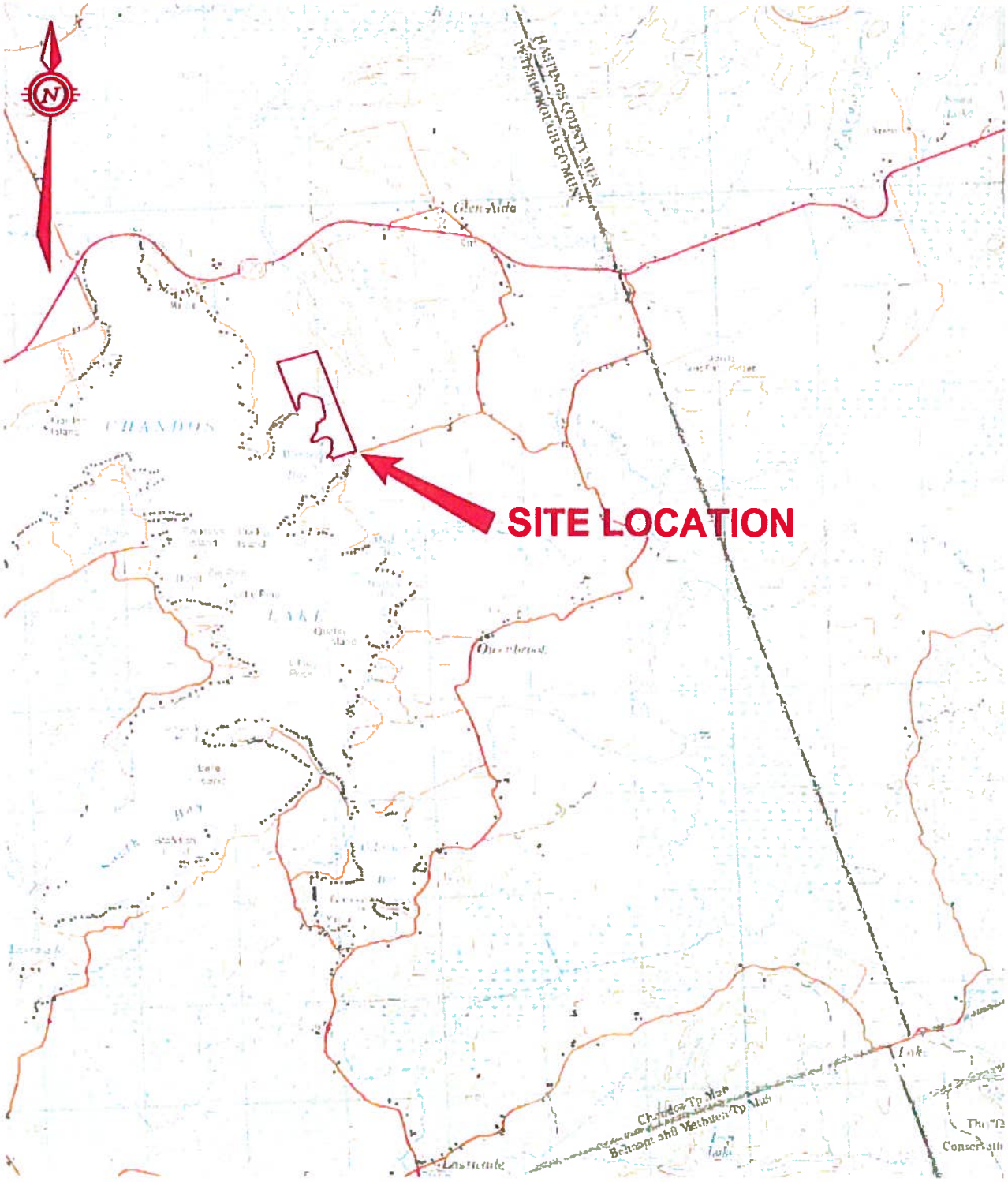
Attachments: 4

Figure 1: Subdivision Location Plan



Source: Department of Energy, Mines and Resources Canada - NTS Map 31 C/13 "Coe Hill", 1994

exp Services Inc.

315-4 Cataraqui Street, Kingston, Ontario K7K 1Z7

DATE	CLIENT	DRAWING NO
Jan. 2011	Haastown Group of Companies	KIN-16438
SCALE	TITLE	Fig. 1
N.T.S.	Location Plan Proposed Subdivision Development Chandos Lake, Ontario	

Figure 2: Site Plan and Proposed Development

LAKE

CHANDOS

Approximate location of Surface Water Sample Collection (October 3, 2013) GPS Easting 0265841, Northing 4967508

PRELIMINARY

DATED OF ISSUE - 21 MARCH 2012

Elevation Survey Benchmark Top of Iron Bar, Elevation 1033.4' (314.98m)

TP-22 TP-37 TP-19 TW-5 TP-21 (P5) TP-20

TP-25 TP-32 TP-6 (P2) TP-5 (P1) TW-2 TP-24 TP-33 TP-7 TP-8 TP-38

TP-36 TP-14 TP-27 TW-3 TP-9 TP-10 TP-12 TP-13 TW-4 TP-34 TP-35 TP-40

TP-39 TP-41 TP-11 TP-15 (P3) TP-16 (P4)

TP-1 TP-31 TW-1 TP-2 TP-26 TP-42 TP-28 TP-17 TP-29 TP-23 TP-18 TP-30

BLOCK 8

ALLOWANCE

WINTERS LANE

Sources: - Beninger Surveying Ltd. - Job No. 24829, File Chandos 112, 2008 (Plan Showing Topographic Detail)
- Peter A. Josephs & Associates - Lot Sketch - Part of Lot 25, Concession 9, Township of North Kawartha
- Beninger Surveying Ltd. - Job No. 25681-M, File Chandos 112, 2011 (Plan of Condominium)
- Beninger Surveying Ltd. - Job No. 25681-M, File Chandos 112, 2011 (Plan of Survey)

LEGEND (All Locations Approximate)

- TW-1 — Test Well Location and Number
- TP-2 (P1) — Test Pit Location and Number Piezometer Number
- 1 — Proposed Lot Number
- BLOCK 8 — Exclusive Use Common Element Area
- Dwelling (Proposed)
- Sewage Disposal System (Proposed)
- Water Well (Proposed)
- 20m Road Allowance
- 30m Water Front Set Back

No.	DESCRIPTION	DATE	BY	APP'D
REVISIONS				

exp. exp Services Inc.
315 The Woolen Mill, 4 Cataraqui Street Kingston, ON K7K 1Z7
Tel:(613)542-1253 Fax:(613)547-3787

CLIENT
Haastown Group of Companies

PROJECT
Proposed Development

TITLE
SITE PLAN AND PROPOSED DEVELOPMENT

design by		project	RGEN16438
drawn by	J.S	drawing no.	FIG 2
checked by	PAF		
date	18/04/12		
scale	1:2,500		

Tables 1 and 2, Surface Water Quality

Table 1
Surface Water Analysis - Chandos Lake (Winter's Bay)
Proposed Development - Haastown Group of Companies
Chandos Lake, Ontario

exp.
KIN-16438

PARAMETER	MDL	UNITS	Criteria ODWS/ ODWQS/D-5-5	Winter's Bay		
				03-Oct-13 (~1.8 to 2.1m depth)	03-Oct-13 (~6.7 to 7.0m depth)	03-Oct-13 (~6.7 to 7.0m depth) FILTERED
E.Coli	1	CFU/100mL	0	**2**	**1**	0
Total Coliforms	1	CFU/100mL	0, <6**	**17,400**	**180**	0
pH	-	pH Units	6.5-8.5 (OG)	7.73	7.70	7.44
Alkalinity (as CaCO3)	5	mg/L	30-500 (OG)	54	53	53
Bicarbonate (as CaCO3)	5	mg/L	-	54	53	53
Carbonate (as CaCO3)	5	mg/L	-	<5	<5	<5
Electrical Conductivity	2	uS/cm	-	152	152	154
Total Hardness (as CaCO3)	0.5	mg/L	80-100 (OG)	58.3	64.4	63.1
Total Dissolved Solids	20	mg/L	500 (AO)	74	76	76
Fluoride	0.05	mg/L	1.5 (MAC)	<0.05	<0.05	<0.05
Chloride	0.10	mg/L	250 (AO)	7.88	8.00	7.91
Nitrate as N	0.05	mg/L	10 (MAC)	<0.05	<0.05	<0.05
Nitrite as N	0.05	mg/L	1 (MAC)	<0.05	<0.05	<0.05
Sulphate	0.10	mg/L	500 (AO)	4.97	4.97	5.05
Ammonia as N	0.02	mg/L	-	<0.02	<0.02	<0.02
Total Kjeldahl Nitrogen	0.10	mg/L	-	0.90	0.87	0.38
Total Phosphorus	0.02	mg/L	-	<0.02	<0.02	<0.02
Dissolved Reactive Phosphorus	0.05	mg/L	-	<0.05	<0.05	<0.05
Dissolved Organic Carbon	0.5	mg/L	5 (AO)	4.4	4.6	4.3
Chemical Oxygen Demand	5	mg/L	-	<5	6	<5
Sulphide	0.05	mg/L	0.05 (AO)	<0.05	<0.05	<0.05
Hydrogen Sulphide	0.05	mg/L	0.05 (AO)	<0.05	<0.05	<0.05
Phenols	0.001	mg/L	-	<0.001	<0.001	<0.001
Colour	5	TCU	5	**6**	**7**	**7**
Turbidity	0.5	NTU	1, 5	0.6	0.7	<0.5
Calcium	0.05	mg/L	-	21.3	23.5	23.0
Magnesium	0.05	mg/L	-	1.23	1.39	1.37
Sodium	0.05	mg/L	20*, 200	4.25	4.15	4.21
Potassium	0.05	mg/L	-	0.95	0.97	0.95
Arsenic	0.003	mg/L	0.025 (IMAC)	<0.003	<0.003	<0.003
Barium	0.002	mg/L	1 (MAC)	0.018	0.018	0.017
Boron	0.010	mg/L	5 (IMAC)	<0.010	<0.010	<0.010
Cadmium	0.0001	mg/L	0.005 (MAC)	<0.0001	<0.0001	<0.0001
Chromium	0.003	mg/L	0.05 (MAC)	<0.003	<0.003	<0.003
Copper	0.002	mg/L	1 (AO)	<0.002	<0.002	<0.002
Iron	0.01	mg/L	0.3 (AO)	<0.01	<0.01	<0.01
Lead	0.001	mg/L	0.01 (MAC)	<0.001	<0.001	<0.001
Manganese	0.002	mg/L	0.05 (AO)	0.006	0.008	<0.002
Mercury	0.0001	mg/L	0.01 (MAC)	<0.0001	<0.0001	<0.0001
Uranium	0.002	mg/L	0.02 (MAC)	<0.002	<0.002	<0.002
Zinc	0.005	mg/L	5 (AO)	0.016	0.035	0.123
Cation Sum	-	meq/L	-	1.37	1.49	1.47
Anion Sum	-	meq/L	-	1.41	1.39	1.39
% Difference/ Ion Balance	0.1	-	-	1.1	3.6	2.8
Radon	0.3	Bq/L	-	<0.3	<0.3	<0.3

ODWQS O.Reg 169/03 amended to O.Reg. 242/07 'Ontario Drinking-Water Quality Standards'
ODWS MOE 'Technical Support Document for Ontario Drinking Water Standards, Objectives and Guidelines (June 2006)
D-5-5 MOE 'Procedure D-5-5 - Technical Guideline for Private Wells: Water Supply Assessment' (August 1996)

\# Equals or exceeds ODWS, ODWQS or Procedure D-5-5 criteria
N/A Not Analyzed
\- Not Applicable
MAC = Maximum Allowable Concentration; AO = Aesthetic Objective; OG = Operational Guideline
* The aesthetic objective for sodium in drinking water is 200 mg/L. The local Medical Officer of Health should be notified when the sodium concentration exceeds 20 mg/L so that this information may be communicated to local physicians for their use with patients on sodium restricted diets
** Guideline D-5-5 rationalized a criteria of 5 Total Coliform bacteria per 100 ml for untreated drinking water supplies

Table 2
Surface Water Analysis - Chandos Lake (Winter's Bay)
Proposed Development - Haastown Group of Companies
Chandos Lake, Ontario

exp.

KIN-16438

PARAMETER	MDL	UNITS	Criteria ODWS/ ODWQS/D-5-5	Winter's Bay		
				03-Oct-13 (~1.8 to 2.1m depth)	03-Oct-13 (~6.7 to 7.0m depth)	03-Oct-13 (~6.7 to 7.0m depth) FILTERED
Petroleum Hydrocarbons F1	25	µg/L	-	<25	<25	<25
Petroleum Hydrocarbons F2	25	µg/L	-	<25	<25	<25
Petroleum Hydrocarbons F3	100	µg/L	-	<100	<100	<100
Petroleum Hydrocarbons F4	100	µg/L	-	<100	<100	<100
Dichlorodifluoromethane	0.20	µg/L	-	<0.20	<0.20	<0.20
Chloromethane	0.40	µg/L	-	<0.40	<0.40	<0.40
Vinyl Chloride	0.17	µg/L	2 (MAC)	<0.17	<0.17	<0.17
Bromomethane	0.20	µg/L	-	<0.20	<0.20	<0.20
Chloroethane	0.20	µg/L	-	<0.20	<0.20	<0.20
Trichlorofluoromethane	0.40	µg/L	-	<0.40	<0.40	<0.40
Acetone	1.0	µg/L	-	<1.0	<1.0	<1.0
1,1 Dichloroethylene	0.30	µg/L	14 (MAC)	<0.30	<0.30	<0.30
Methylene Chloride	0.30	µg/L	-	<0.30	<0.30	<0.30
trans- 1,2-dichloroethylene	0.20	µg/L	-	<0.20	<0.20	<0.20
Methyl tert-butyl ether	0.20	µg/L	-	<0.20	<0.20	<0.20
1,1-Dichloroethane	0.30	µg/L	-	<0.30	<0.30	<0.30
Methyl Ethyl Ketone	1.0	µg/L	-	<1.0	<1.0	<1.0
cis- 1,2-Dichloroethylene	0.20	µg/L	-	<0.20	<0.20	<0.20
Chloroform	0.20	µg/L	-	<0.20	<0.20	<0.20
1,2 - Dichloroethane	0.20	µg/L	5 (IMAC)	<0.20	<0.20	<0.20
1,1,1-Trichloroethane	0.30	µg/L	-	<0.30	<0.30	<0.30
Carbon Tetrachloride	0.20	µg/L	5 (MAC)	<0.20	<0.20	<0.20
Benzene	0.20	µg/L	5 (MAC)	<0.20	<0.20	<0.20
1,2-Dichloropropane	0.20	µg/L	-	<0.20	<0.20	<0.20
Trichloroethylene	0.20	µg/L	5 (MAC)	<0.20	<0.20	<0.20
Bromodichloromethane	0.20	µg/L	-	<0.20	<0.20	<0.20
cis-1,3-Dichloropropene	0.20	ug/L	-	<0.20	<0.20	<0.20
Methyl Isobutyl Ketone	1.0	µg/L	-	<1.0	<1.0	<1.0
trans-1,3-Dichloropropene	0.30	µg/L	-	<0.30	<0.30	<0.30
1,1,2-Trichloroethane	0.20	µg/L	-	<0.20	<0.20	<0.20
Toluene	0.20	µg/L	24 (AO)	<0.20	<0.20	1.4
2-Hexanone	0.30	µg/L	-	<0.30	<0.30	<0.30
Dibromochloromethane	0.10	µg/L	-	<0.10	<0.10	<0.10
Ethylene Dibromide	0.10	µg/L	-	<0.10	<0.10	<0.10
Tetrachloroethylene	0.20	µg/L	30 (MAC)	<0.20	<0.20	<0.20
1,1,1,2-Tetrachloroethane	0.10	µg/L	-	<0.10	<0.10	<0.10
Chlorobenzene	0.10	µg/L	-	<0.10	<0.10	<0.10
Ethylbenzene	0.10	µg/L	2.4 (AO)	<0.10	<0.10	<0.10
m & p-Xylene	0.20	µg/L	-	<0.20	<0.20	<0.20
Bromoform	0.10	µg/L	-	<0.10	<0.10	<0.10
Styrene	0.10	µg/L	-	<0.10	<0.10	<0.10
1,1,2,2-Tetrachloroethane	0.10	µg/L	-	<0.10	<0.10	<0.10
o-Xylene	0.10	µg/L	-	<0.10	<0.10	<0.10
1,3-Dichlorobenzene	0.10	µg/L	-	<0.10	<0.10	<0.10
1,4-Dichlorobenzene	0.10	µg/L	1 (AO), 5 (MAC)	<0.10	<0.10	<0.10
1,2-Dichlorobenzene	0.10	µg/L	3 (AO), 200 (MAC)	<0.10	<0.10	<0.10
1,2,4-Trichlorobenzene	0.30	µg/L	-	<0.30	<0.30	<0.30
1,3-Dichloropropene (Cis+Trans)	0.30	µg/L	-	<0.30	<0.30	<0.30
Xylene Mixture (Total)	0.20	µg/L	300 (AO)	<0.20	<0.20	<0.20
n-Hexane	0.20	µg/L	-	<0.20	<0.20	<0.20

ODWQS	O.Reg 169/03 amended to O.Reg. 242/07 'Ontario Drinking-Water Quality Standards'
ODWS	MOE 'Technical Support Document for Ontario Drinking Water Standards, Objectives and Guidelines (June 2006)
D-5-5	MOE 'Procedure D-5-5 - Technical Guideline for Private Wells: Water Supply Assessment' (August 1996)
#	Equals or exceeds ODWS, ODWQS or Procedure D-5-5 criteria
N/A	Not Analyzed
-	Not Applicable
	MAC = Maximum Allowable Concentration; AO = Aesthetic Objective; OG = Operational Guideline