



August 12, 2020

Via: Email <mike@kearnspaara.com>

Mr. Mike Kearns
102 Hoggard Court
Thornbury ON N0H 2P0

Dear Mr. Kearns:

**Re: Guideline D-4 Study for 114 John Street, Clarksburg, Ontario
Regarding h3 Holding Provision
Project No.: 300051999.0000**

1.0 Introduction

Further to our telephone conversation on July 24, 2020 and your signed Approval to Proceed dated July 27, 2020, R.J. Burnside & Associates Limited (Burnside) is pleased to provide a summary of the Guideline D-4 Study for the property at 114 John Street in Clarksburg, ON (Site) located adjacent to the closed Clarksburg Landfill Site (Landfill). See the attached Site Plan for location details.

2.0 Scope of Work

2.1 Purpose

The Town of the Blue Mountains has placed a holding provision (h3) on the Site because it is within the Assessment Areas as defined in the Environmental Impact Study, Clarksburg Closed Landfill Site, prepared by Burnside in July 2010. Excerpts from the official plan are attached. As such, the purpose of this D-4 Study is to assess the potential for landfill related impacts to affect the Site in accordance with the Ministry of Environment, Conservation and Parks (MECP) Guideline D-4: Land Use on or Near Landfills and Dumps.

This study incorporates both a desktop evaluation and inspection of the Site to determine the potential for impacts from the Landfill on the Site. The information has been used to:

- Assess whether the Site is within the Landfill impact zones for groundwater, surface water, landfill gas, and nuisance impacts (odours); and,
- Assess the potential for the Landfill to impact the Site while taking into consideration groundwater flow, surface water drainage, topography, soils, depth to water table, landfill gas migration, noise, wind, and nuisance impacts.

2.2 Desktop Evaluation

The desktop evaluation considered:

- Geological and topographic mapping;
- MECP water well records;
- Historical Air photos to assess historical site alterations;
- Freedom of Information (FOI) request to obtain MECP records regarding the Landfill¹;
- Interpreted groundwater/surface water flow directions;
- Soil and water table conditions;
- Wind directions; and,
- Source water protection considerations.

Most of the information available regarding the Landfill was presented in the Environmental Impact Study completed by Burnside in July 2010. The report was completed for planning purposes and the assumptions made were conservative. The following conditions were noted in the report and have been assessed relative to the Site:

- The Closed Clarksburg Landfill was not listed in the Ministry of the Environment (MOE)² Regional Inventory of Closed Waste Disposal Sites and there were no records available in their files in 2010;
- The Landfill is situated upon alluvial deposits of sand and silt (moderately permeable) that follow the Beaver River;
- The water table at the Landfill ranged from 0.9 m to 2.3 m below ground surface;
- The groundwater impact zone was conservatively set as being 150 m downstream of the Landfill (toward the Beaver River) and 100 m in all other directions to account for possible mounding effects that could drive contaminants in other directions away from the waste. Given that the Site is higher than the top of the waste and groundwater is flowing north/westerly, leachate mounding effects at the Site are considered highly unlikely;
- No surface water features were identified at the Landfill, however, areas down gradient of the landfill were highlighted along the Beaver River as a possible (abeyt unlikely) groundwater discharge/surface water impact zones;

¹ An FOI request for the Landfill was made as part of the 2010 Study. No site-specific records were found. An updated FOI search has been requested as part of this investigation in the unlikely event that new information becomes available. No activity is known to have taken place at the Landfill since 2010.

² The MOE is now referred to as the Ministry of Environment, Conservation and Parks (MECP).

- A 100 m landfill gas impact zone was conservatively set around the waste fill area. Typically landfill gas is inferred to migrate up to ten times the depth to groundwater (i.e. thickness of unsaturated waste). The water table at the Landfill was between 0.9 and 2.3 m which means that landfill gas impacts are unlikely to be present beyond a conservative 25 m radius. The Landfill is small and has been closed for many years. The Site is 28 m away from the Landfill which is beyond this inferred impact zone and the properties are separated by a permeable road base. Landfill gas impacts at the Site are highly unlikely;
- Nearby wells draw water from confined sand and gravel resources at depths of approximately 20 m deep. the four closest wells are shown in the excerpts from the 2010 Impact Study. The well records are also attached. If a well is to be drilled to supply future development of 114 John Street, the well records suggest that a confined aquifer (i.e. protected from surface activities such as landfills) is available;
- Winds are typically from the west with some variation, as such it is inferred that the Site is not downwind of the Landfill. Furthermore, visible waste or landfill odours were not detected during the Site visit;
- With good vegetation cover between the Landfill and the Site, other nuisance impacts are not anticipated; and,
- The 1962 Air photo presented in Appendix B of the 2010 Study shows that the Site was formerly part of an orchard and a disturbed area was visible on the Landfill property. Air photographs from 1995, 2010 and 2015 show little change from current conditions at the Site and Landfill.

2.3 Site Inspection

A site Inspection was conducted on July 28, 2020 which included a walk over and meeting with the Site owner (Mr. Mike Kearns). Site conditions were noted such as topography, drainage, surface cover and vegetation and general position of the Site relative to the landfill. Photographs taken during the inspection are appended.

The Inspection revealed the Site as a vacant un-serviced lot. Ground surface at the Site was higher than the landfill with overall drainage (surface water and shallow groundwater) inferred to be directed northwesterly toward the Beaver River. The waste fill area of the Landfill was not a visible mound above surrounding ground surface. The Landfill waste fill area was not visible from John Street or the Site. There were no odours or stressed vegetation visible along John Street.

The lots on either side of the Site were occupied with residential units inferred to be serviced with private wells and sewage treatment systems.

3.0 Conclusions

The results of this investigation indicate that:

1. Groundwater, surface water, landfill gas and nuisance impacts from the Closed Clarksburg Landfill Site are unlikely to affect the future development of 114 John Street.
2. Detailed site-specific investigations such as drilling, well installation, water quality sampling, water level measurements, and gas readings are not required.

4.0 Recommendations

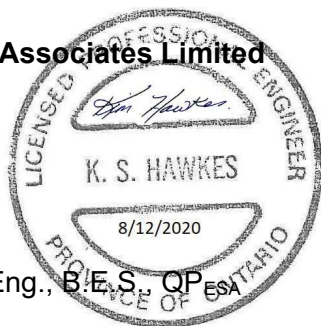
The following recommendations are presented based on the results of this investigation:

1. No further Guideline D-4 study is required.
2. A copy of this letter report should be submitted to the Town of the Blue Mountains.
3. The Official Plan h3 holding provision should be removed from 114 John Street based on the results of this study.

If you have any questions or require additional information, please feel free to contact the undersigned at your convenience.

Yours truly,

R.J. Burnside & Associates Limited



Kim Hawkes, P. Eng., B.E.S., QP_{ESA}
Project Engineer
KSH:kl

A handwritten signature in black ink that reads "Jim Walls".

Jim Walls, P. Geo., QP_{ESA}
Senior Geoscientist



Enclosure(s) Figure 1 Site Plan
 Excerpts from Town of the Blue Mountains Official Plan
 Site Photographs
 Excerpts from the 2010 Environmental Impact Study
 Water Well Records

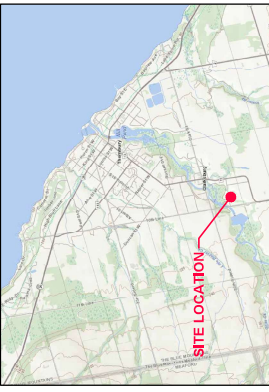
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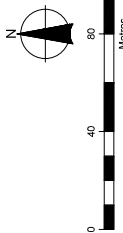
KEY MAP (N.T.S.)



LEGEND

- SUBJECT LANDS (114 JOHN STREET)
- CLOSED LANDFILL SITE
- H3 - LANDFILLS HOLDING PROVISION (TOWN OF THE BLUE MOUNTAINS OFFICIAL PLAN MARCH 2020)
- INTERPRETED LIMIT OF FILL (WASTE)
- INTERPRETED SHALLOW GROUNDWATER FLOW DIRECTION

Sources:
1. © Queen's Printer in Right of Canada
2. © Queen's Printer in Right of Ontario
3. Impact Zones from 2010 Environmental Impact Study, Clarksburg Closed Landfill, RJ Burnside, Landfill, RJ Burnside, Professional.
4. Background satellite / air photo circa 2019 obtained from Google Earth Professional.
© Google Earth, use of products are subject to the Terms and Conditions of Licensed Google Earth Software.

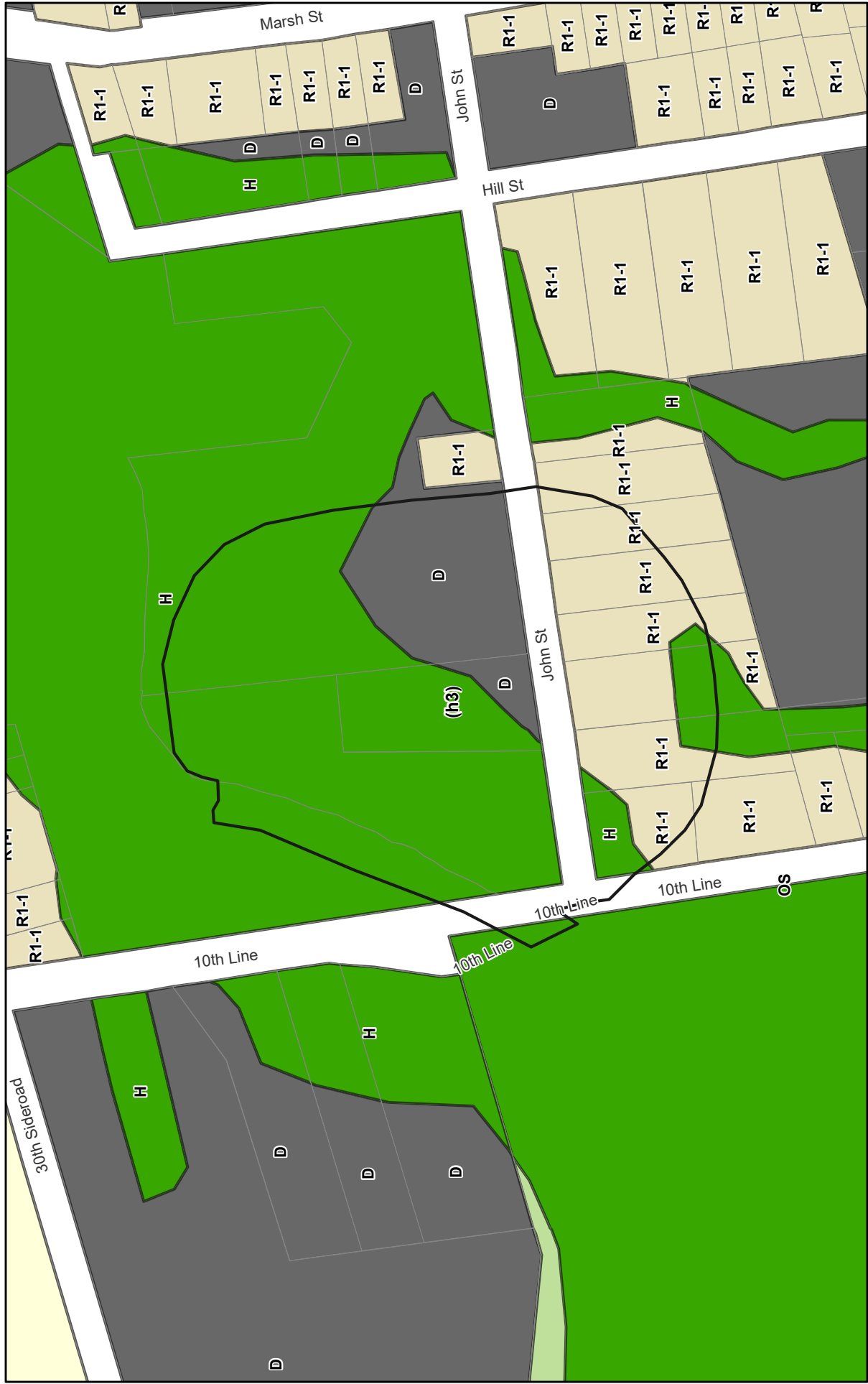


Client / Report
MR. KEARNS
CLARKSBURG, ONTARIO
D-4 STUDY
114 JOHN STREET, CLARKSBURG

SITE PLAN

Drawn	Checked	Date	Figure No.
SK	KH	AUGUST 2020	1
Scale		Project No.	
1:2,000		300051999	

Hold Provision area - 114 John Street



August 5, 2020

h Provision Overlay

(h3) Landfill

Dissolve_2018_65_Landuse

2018-65 Landuse

R1-1 - Residential One -1

D- Development

OS - Open Space

H - Hazard

SA - Special Agricultural

1:4,514

0 0.03 0.06 0.09 0.11 mi

0 0.04 0.09 0.17 km

The Town of The Blue Mountains

Comprehensive Zoning By-law 2018 – 65



Office Consolidation to March 9, 2020

November 29, 2018
(Original Approved)

2. Additions and alterations to existing *dwellings* provided that the additions or alterations are not located closer to the feature than the existing dwelling.

10.2.2 Holding Provision (h2) – Areas of Natural and Scientific Interest (ANSI – Life Science) and Adjacent Lands

The Holding (h2) provision applying to Areas of Natural and Scientific Interest (ANSI – Life Science) identified in the Official Plan and lands within 50.0 metres of the ANSI – Life Science may be lifted if a Development Permit and/or exemption has been obtained from the Grey Sauble Conservation Authority or its successor, an approval has been obtained from the Grey Sauble Conservation Authority or the Nottawasaga Valley Conservation Authority and provided the proposed development will not have a negative impact on the ANSI and its associated ecological functions.

Any development application that requires a *building* permit within the area shown as subject to this Hold shall be required to submit this assessment, with the following exceptions:

1. Reconstruction or replacement of existing *dwellings*; and,
2. Additions and alterations to existing *dwellings* provided that the additions or alterations are not located closer to the feature than the existing dwelling.

10.2.3 Holding Provision (h3) – Landfill Sites

The Holding (h3) provision applying to closed or open landfill sites, as identified in the Official Plan, may be lifted once a study has been prepared by a qualified engineer and submitted for review in accordance with the Ministry of the Environment, Conservation and Parks Guideline D-4, indicating that the lands to be developed are secure from potential methane gas and/or leachate migration from the landfill site or what remedial measures or conditions are required prior to any development approval being granted.

This provision applies to lands within defined assessment areas from the fill area of a closed *waste disposal site* identified in Environmental Impact Studies prepared in July 2010 for the Thornbury Closed Landfill site and Clarksburg Closed Landfill site. This Hold will be lifted upon receipt of an assessment report prepared by a qualified engineer in accordance with Guideline D-4 (April 1994) of the Province of Ontario or its successor.

Any development application that requires a *building* permit within the area shown as subject to this Hold shall be required to submit this assessment, with the following exceptions:

1. Reconstruction or replacement of existing dwellings;
2. Additions and alterations to existing dwellings; and,
3. Construction of *accessory buildings or structures*.

10.2.4 Holding Provision (h4a and h4b) – Lands Within Source Water Protection Areas

The Holding (-h4a) provision applies to significant drinking water threats within Water Intake Protection Zones / Events Based Areas (EBAs) EBA-50,000 and EBA-100,000. The (-h4a) provision prohibits land uses which include the handling and storage of more than 50,000 litres of fuel and 100,000 litres of fuel. The (-h4a) provision may be lifted once it is determined through a risk assessment under the *Clean Water Act, 2006* is completed demonstrating that the proposed development does not pose a risk to source water areas.

The Holding (-h4b) provision applies to significant drinking water threats within Wellhead Protection Areas (WHPAs). The (-h4b) provision prohibits the following land uses:

- Waste disposal sites within the meaning of Part V of the Environmental Protection Act;
- The establishment, operation or maintenance of a system that collects, stores transmits, treats or disposes of sewage;
- The application of agricultural source material to land;
- The storage of agricultural source material;
- The management of agricultural source material;
- The application of non-agricultural source material to land;
- The handling and storage of non-agricultural source material;
- The application of commercial fertilizer to land;
- The handling and storage of commercial fertilizer;
- The application of pesticide to land;
- The handling and storage of pesticide;
- The application of road salt;
- The handling and storage of road salt;



Photo 1: Site looking North toward John St from the Southern portion of Property



Photo 2: Site looking South from John St



Photo 3: Site looking from North side of John St



Photo 4: Looking North West from North edge of Site

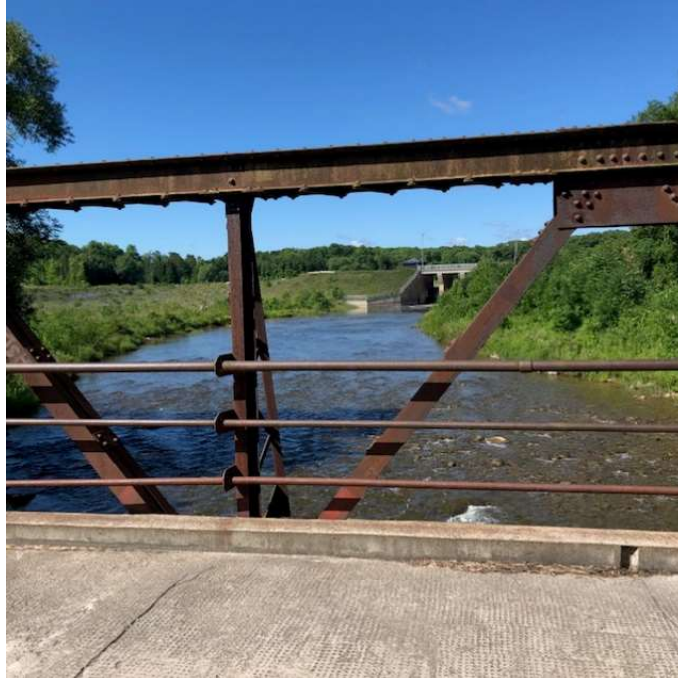


Photo 5: Beaver River looking South West Upstream



Photo 6: Beaver River looking North East Downstream



Photo 7: Closed Landfill Site looking North from John St



Photo 8: Closed Landfill Fill area looking North



BURNSIDE

[THE DIFFERENCE IS OUR PEOPLE]

Environmental Impact Study Clarksburg Closed Landfill Site

Prepared By:

R.J. Burnside & Associates Limited
15 Townline Orangeville ON L9W 3R4

Prepared for:

Town of The Blue Mountains

July 2010

File No: MCO 018503

The material in this report reflects best judgement in light of the information available at the time of preparation. Any use which a third party makes of this report, or any reliance on or decisions made based on it, are the responsibilities of such third parties. R.J. Burnside & Associates Limited accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report.

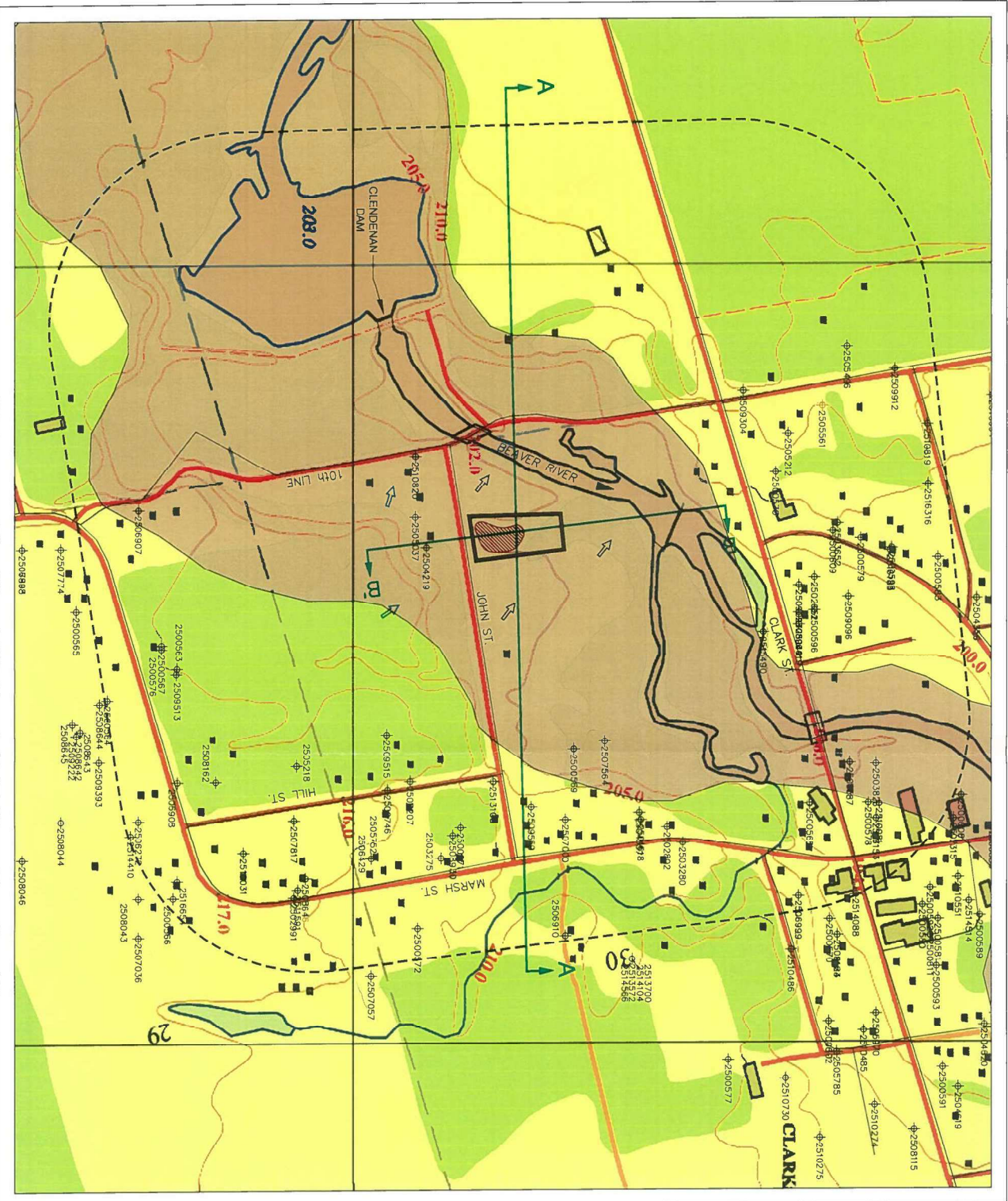
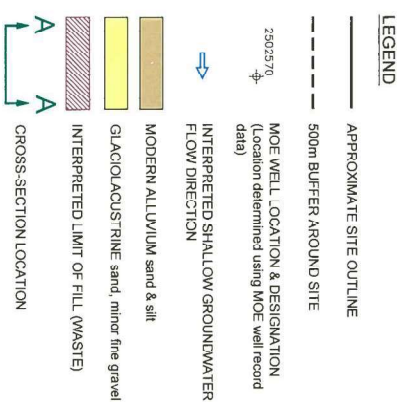
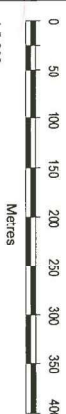


FIGURE 2
TOWN OF THE BLUE MOUNTAINS
CLARKSBURG CLOSED LANDFILL
ENVIRONMENTAL IMPACT STUDY
REGIONAL PLAN WITH
SURFICIAL GEOLOGY



Map Source
1. 1:10,000 Ontario Base Map derived from First Base Solutions
2. Quaternary Geology data source:
1. Ontario Geological Survey 2003 Surficial Geology of Southern Ontario
2. Geological Survey, Miscellaneous Publication - Cat 128
3. Province of Ontario Geological Survey, ERS Data Set 14
4. Queen's Printer in Right of Canada



1:5,000
May 2010
Project Number: MCO018503
Projection: UTM Zone 17
Datum: NAD83
Prepared by: C. Sheppard
Verified by: K. Hawkes



MCO018503 CLARKSBURG ENVIRONMENTAL IMPACT STUDY



FIGURE 3

TOWN OF THE BLUE MOUNTAINS
CLARKSBURG CLOSED LANDFILL
ENVIRONMENTAL IMPACT STUDY

SITE PLAN

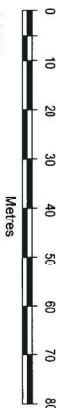
LEGEND

APPROXIMATE SITE OUTLINE

INTERPRETED LIMIT OF FILL (WASTE)

TEST PIT
(RJ Burnside, June 2010)

Air Photo Source:
Background colour air photo circa 2006 obtained from Google Earth Professional.



1:1,000
May 2010
Project Number: MCO018503
Prepared by: S. Ker
Projection: UTM Zone 17
Datum: NAD83
Verified by: K. Hawkes



MCO018503 CLARKSBURG ENVIRONMENTAL IMPACT STUDY

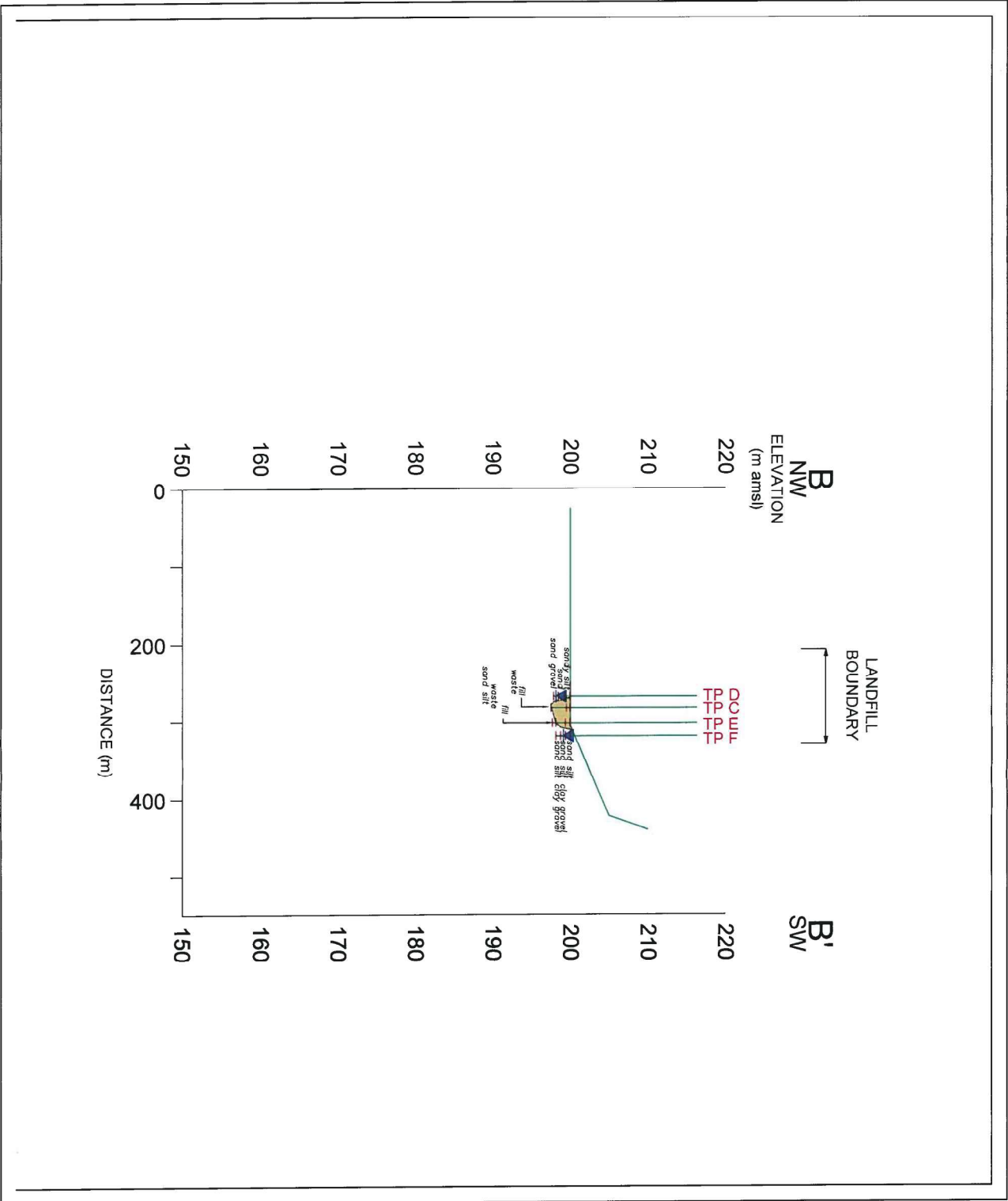
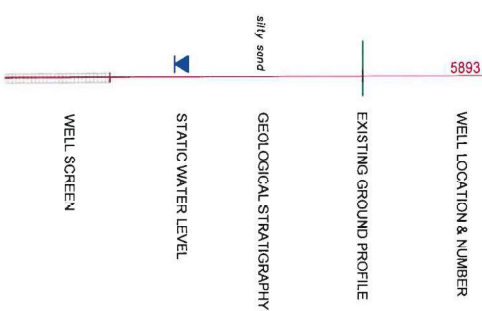


FIGURE 5
TOWN OF THE BLUE MOUNTAINS
CLARKSBURG CLOSED LANDFILL
ENVIRONMENTAL IMPACT STUDY

CROSS-SECTION B-B'

LEGEND



Horizontal Scale 1:5,000
Vertical Scale 1:500
Vertical Exaggeration 10x
July 2010
Project Number: MCC018503
Prepared by: S. Ker
Verified by: K. Hawkes



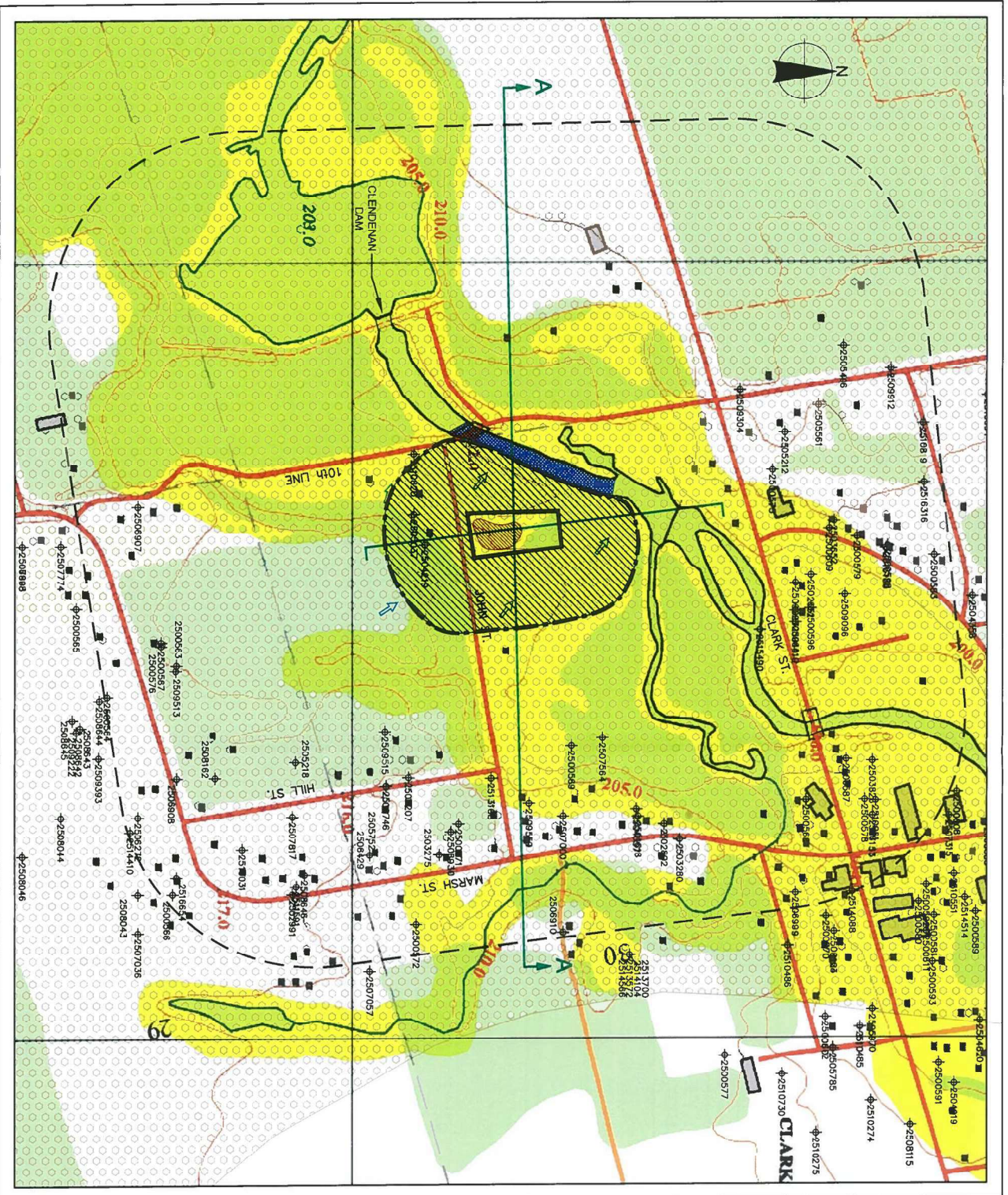


FIGURE 6
TOWN OF THE BLUE MOUNTAINS
CLARKSBURY CLOSED LANDFILL
ENVIRONMENTAL IMPACT STUDY

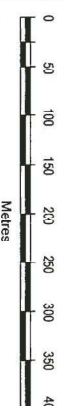
POTENTIAL IMPACT ZONES

LEGEND

- APPROXIMATE SITE OUTLINE
- 500m BUFFER AROUND SITE
- 2502579
+ MOE WELL LOCATION & DESIGNATION
(Location determined using MOE well record data)
- ⇒ INTERPRETED SHALLOW GROUNDWATER FLOW DIRECTION
- ▨ INTERPRETED LIMIT OF FILL (WASTE)
- ▨ POTENTIAL GROUNDWATER IMPACT ZONE
- ▨ POTENTIAL SURFACE WATER IMPACT ZONE
- POTENTIAL LANDFILL GAS IMPACT ZONE
(Approximate 100m radius from the site)
- REGULATED AREAS FOR DEVELOPMENT, INTERFERENCE WITH WETLANDS, ALTERATIONS TO SHORELINES AND WATERCOURSES OUTARIO REGULATION 151/06 - GSQA
- DEER WINTERING GROUNDS

Map Source

- Background 1:10,000 Ontario Base Map, obtained from First Base Solutions
- 1. Ontario Geological Survey 2003, Surface Cadastre of Southern Ontario, Ontario Geological Survey, Miscellaneous Release - Jans 1728
- 2. Ontario Geological Survey, 1987, Quaternary geology, seamless coverage of the 15000 7.5' x 7.5' grid, Ontario Geological Survey, ECLIS Data Set 14
- 3. Ontario Premier in Right of Ontario
- 4. Ontario Premier in Right of Ontario



1:5,000
May 2010
Project Number MCOJ18503
Projection: UTM Zone 17
Datum: NAD83
Prepared by: S. Ker
Verified by: K. Hawkes



MCOJ18503 CLARKSBURY ENVIRONMENTAL IMPACT PIZ.dwg



FIGURE B1

**TOWN OF THE BLUE MOUNTAINS
CLARKSBURG CLOSED LANDFILL
ENVIRONMENTAL IMPACT STUDY**

1938 AIRPHOTO

LEGEND

— APPROXIMATE SITE OUTLINE

Air Photo Source:
1938 airphoto obtained from National Airphoto Library



Scale 1:4,000
July 2010
Project No: MCO018503
Projection: UTM Zone 17
Datum: NAD83
Prepared by: S. Ker
Verified by: K. Hawkes





FIGURE B2

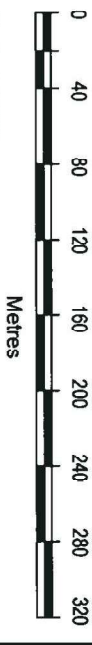
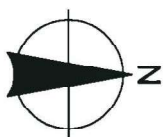
**TOWN OF THE BLUE MOUNTAINS
CLARKSBURG CLOSED LANDFILL
ENVIRONMENTAL IMPACT STUDY**

1962 AIRPHOTO

LEGEND

— APPROXIMATE SITE OUTLINE

Air Photo Source:
1962 airphoto obtained from National Airphoto Library



Scale 1:4,000
July 2010
Project No: MCO018503
Prepared by: S. Ker

Projection: UTM Zone 17
Datum: NAD83
Verified by: K. Hawkes



MCO018503 CLARKSBURG ENVIRONMENTAL IMPACT 1962 AP.dwg



FIGURE B3

**TOWN OF THE BLUE MOUNTAINS
CLARKSBURG CLOSED LANDFILL
ENVIRONMENTAL IMPACT STUDY**

1995 AIRPHOTO

LEGEND

— APPROXIMATE SITE OUTLINE

Air Photo Source:
1995 airphoto obtained from National Airphoto Library



Scale 1:4,000
July 2010
Project No: MCO018503
Prepared by: S. Ker
Projection: UTM Zone 17
Datum: NAD83
Verified by: K. Hawkes





Ontario

MINISTRY OF THE ENVIRONMENT
The Ontario Water Resources Act

WATER WELL RECORD

41/1/9W

1. PRINT ONLY IN SPACES PROVIDED
2. CHECK ☒ CORRECT BOX WHERE APPLICABLE

(11)

12505031

MUNICIP. 25.003

CON.

C.O.N.

1.0

COUNTY OR DISTRICT

TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE

CON., BLOCK, TRACT, SURVEY, ETC.

DATE COMPLETED

Collingwood

Plan III, Block 1

DATE COMPLETED

11-53

DAY

MONTH

YEAR

74

ELEVATION

BASIN CODE

II

IV

1856

4

5

22

APR 06, 1976

1

1

1

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET	
				FROM	TO
	Top Soil			0	1
Brown	clay	gravelly stones		1	6
Grey	clay	gravel		6	24
Grey	gravel	streaks clay		24	35
Grey	clay	gravel		35	42
Grey	gravel	clay		42	47
Grey	clay	gravel		47	50
Black	clay	gravel		50	55
Grey	gravel	streaks clay		55	57
	gravel	some sand		57	62

(31) 0001 02 00066051112 002420511 003521105 004220511 004721105 1
(32) 005020511 005560511 005721105 0062 1128

41 WATER RECORD		51 CASING & OPEN HOLE RECORD		61 PLUGGING & SEALING RECORD	
WATER FOUND AT	KIND OF WATER	INSIDE DIAM. INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET
0051 15-18	1 ☒ FRESH 3 ☐ SULPHUR 4 ☐ MINERAL	07 15/16	1 ☒ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE	2-32	0 58' 34"
20-23	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL	17-18	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE		20-23
25-28	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL	24-25	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE		27-30
30-33	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL				

SCREEN SIZE(S) OF OPENING (SLOT NO.) 0/2 31-33 05-06 34-38 03 LENGTH 39-40 41-44 80

MATERIAL AND TYPE stainless steel DEPTH TO TOP OF SCREEN 0058

DEPTH SET AT - FEET FROM TO MATERIAL AND TYPE (CEMENT GROUT, LEAD PACKER, ETC.)

10-13 14-17 18-21 22-25 26-29 30-33 80

71 PUMPING TEST METHOD 1 ☒ PUMP 2 ☐ BAILEY

10 PUMPING RATE 0003

31-34 DURATION OF PUMPING 01 15-16 30 17-18

16 PUMPING 1 ☒ PUMPING 2 ☐ RECOVERY

25 WATER LEVELS DURING

19-21 22-24 15 MINUTES 26-28 29-31 32-34 35-37

004 047 047

IF FLOWING, GIVE RATE 38-41 **PUMP INTAKE SET AT** 42-45 **WATER AT END OF TEST** 42

1 ☒ CLEAR 2 ☐ CLOUDY

RECOMMENDED PUMP TYPE 43-45 **RECOMMENDED PUMP SETTING** 055 **RECOMMENDED PUMPING RATE** 46-49

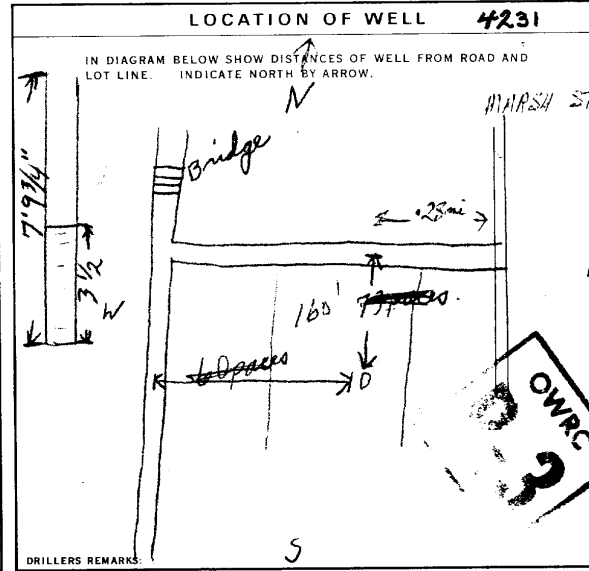
1 ☐ SHALLOW 2 ☒ DEEP

50-53 000.1 **GPM / FT. SPECIFIC CAPACITY**

FINAL STATUS OF WELL 54 1 ☒ WATER SUPPLY 2 ☐ OBSERVATION WELL 3 ☐ TEST HOLE 4 ☐ RECHARGE WELL 5 ☐ ABANDONED, INSUFFICIENT SUPPLY 6 ☐ ABANDONED, POOR QUALITY 7 ☐ UNFINISHED

WATER USE 55-56 1 ☒ DOMESTIC 2 ☐ STOCK 3 ☐ IRRIGATION 4 ☐ INDUSTRIAL 5 ☐ COMMERCIAL 6 ☐ MUNICIPAL 7 ☐ PUBLIC SUPPLY 8 ☐ COOLING OR AIR CONDITIONING 9 ☐ NOT USED

METHOD OF DRILLING 57 1 ☒ CABLE TOOL 2 ☐ ROTARY (CONVENTIONAL) 3 ☐ ROTARY (REVERSE) 4 ☐ ROTARY (AIR) 5 ☐ AIR PERCUSSION 6 ☐ BORING 7 ☐ DIAMOND 8 ☐ JETTING 9 ☐ DRIVING



CONTRACTOR 58 **NAME OF WELL CONTRACTOR** Jim Clarke Well Drilling **LICENCE NUMBER** 1565

ADDRESS RR#2 Meaford

NAME OF DRILLER OR BORER Bob Scammell **LICENCE NUMBER**

SIGNATURE OF CONTRACTOR Jas A Clarke **SUBMISSION DATE** DAY 25 MO Mar YR 75

OFFICE USE ONLY 59 **DATA SOURCE** 1 **CONTRACTOR** 1565 **DATE RECEIVED** 170475 **INSPECTOR** 7

DATE OF INSPECTION Apr 23/75 **REMARKS** HOLE FISHED, 140'

CSS 58 **P** L **WI**



Ministry
of the
Environment

The Ontario Water Resources Act

WATER WELL RECORD

Ontario
GREY

1. PRINT ONLY IN SPACES PROVIDED
2. CHECK ☒ CORRECT BOX WHERE APPLICABLE

11

2510820

MUNICIPALITY
25003

CON. NO.
CON.

LOT
110

COUNTY OR DISTRICT: Mun. of [redacted] TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE: [redacted] CON. BLOCK, TRACT, SURVEY, ETC.: [redacted] LOT: 25-27
DATE COMPLETED: DAY 17 MO. 05 YR. 90
ELEVATION: 331.856 RC: 626 BASIN CODE: 1127

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET	
				FROM	TO
			Top Soil	0	2
			Brown Clay Stones	2	10
			Grey Sand & Clay Stones	10	55
			Dirty Water Sand	55	62
			Hand Picked Stones	62	72

31
32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
10-13 55	1 ☒ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERALS 5 ☐ GAS
15-18	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERALS 5 ☐ GAS
20-23	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERALS 5 ☐ GAS
25-28	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERALS 5 ☐ GAS
30-33	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERALS 5 ☐ GAS

51 CASING & OPEN HOLE RECORD

INSIDE DIAM INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET
10-11 6	1 ☒ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE 5 ☐ PLASTIC		10-16 188
17-18 5	1 ☒ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE 5 ☐ PLASTIC		19-23 188
24-25	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE 5 ☐ PLASTIC		26-30 188

SCREEN

SIZE OF OPENING (SLOT NO.): #12
DIAMETER: 6 INCHES
LENGTH: 6 FEET
MATERIAL AND TYPE: Stainless
DEPTH TO TOP OF SCREEN: 55 FEET

61 PLUGGING & SEALING RECORD

DEPTH SET AT - FEET	MATERIAL AND TYPE (CEMENT GROUT LEAD PACKER, ETC.)
10-13	
14-17	
18-21	
22-25	
26-29	
30-33	

71 PUMPING TEST

PUMPING TEST METHOD: 10 ☒ PUMP 2 ☐ BAILEY
PUMPING RATE: 4 GPM
DURATION OF PUMPING: 4 HOURS
STATIC LEVEL: 4 FEET
WATER LEVEL END OF PUMPING: 52 FEET
WATER LEVELS DURING: 15 MINUTES: 52 FEET, 30 MINUTES: 52 FEET, 45 MINUTES: 52 FEET, 60 MINUTES: 52 FEET
IF FLOWING, GIVE RATE: 55 GPM
PUMP INTAKE SET AT: 55 FEET
WATER AT END OF TEST: 42 FEET
RECOMMENDED PUMP TYPE: 1 ☐ SHALLOW 2 ☒ DEEP
RECOMMENDED PUMP SETTING: 50 FEET
RECOMMENDED PUMPING RATE: 70 GPM

FINAL STATUS OF WELL

1 ☒ WATER SUPPLY 5 ☐ ABANDONED, INSUFFICIENT SUPPLY
2 ☐ OBSERVATION WELL 6 ☐ ABANDONED, POOR QUALITY
3 ☐ TEST HOLE 7 ☐ UNFINISHED
4 ☐ RECHARGE WELL 8 ☐ DEWATERING

WATER USE

1 ☒ DOMESTIC 5 ☐ COMMERCIAL
2 ☐ STOCK 6 ☐ MUNICIPAL
3 ☐ IRRIGATION 7 ☐ PUBLIC SUPPLY
4 ☐ INDUSTRIAL 8 ☐ COOLING OR AIR CONDITIONING
9 ☐ OTHER 9 ☐ NOT USED

METHOD OF CONSTRUCTION

1 ☐ CABLE TOOL 6 ☐ BORING
2 ☐ ROTARY (CONVENTIONAL) 7 ☐ DIAMOND
3 ☐ ROTARY (REVERSE) 8 ☐ JETTING
4 ☐ ROTARY (AIR) 9 ☐ DRIVING
5 ☒ AIR PERCUSSION 10 ☐ DIGGING 11 ☐ OTHER

LOCATION OF WELL

IN DIAGRAM BELOW SHOW DISTANCES OF WELL FROM ROAD AND LOT LINE. INDICATE NORTH BY ARROW.

CON #10
CLARK ST. ↑
CLARKSBURG
BRIDGE
JOHN ST.
↑ 200 FT
↑ 120 FT
#13
67748

CONTRACTOR

NAME OF WELL CONTRACTOR: George Hodgkinson
ADDRESS: [redacted]
NAME OF WELL TECHNICIAN: Ian [redacted]
SIGNATURE OF WELL CONTRACTOR: [redacted]
SUBMISSION DATE: DAY 07 MO. 06 YR. 90

WELL CONTRACTOR'S LICENCE NUMBER: 6433
WELL TECHNICIAN'S LICENCE NUMBER: 10282

OFFICE USE ONLY

DATE RECEIVED: 6433 AUG 03 1990
DATE OF INSPECTION: [redacted]
INSPECTOR: [redacted]
REMARKS: [redacted]
CSS: S8



Ontario

Ministry of
the EnvironmentMeasurements recorded in: ☐ Metric ☒ Imperial

Well (Below)

A 093593

Well Record

Regulation 903 Ontario Water Resources Act

Page of

Address of Well Location (Street Number/Name) 124 JOHN ST		Township BLUE MOUNTAINS	Lot	Concession
County/District/Municipality GREY		City/Town/Village CLARKSBURG	Province Ontario	Postal Code M0A1J0
UTM Coordinates Zone NAD 83	Easting 17542462	Northing 4932068	Municipal Plan and Sublot Number	

Overburden and Bedrock Materials/Abandonment Sealing Record (see instructions on the back of this form)

General Colour	Most Common Material	Other Materials	General Description	Depth (m/ft) From	To
BROWN	TOP-SOIL			0	1
BROWN	CLAY			1	6
BROWN	SAND		FINE TIGHT	6	12
GREY	SILT		FINE	12	20
GREY	CLAY		SOFT	20	28
GREY	CLAY	SILT LAYERS		28	39
GREY	CLAY	STONES		39	42 1/2
	STONE	IN BOTTOM			

Annular Space		
Depth Set at (m/ft) From	To	Type of Sealant Used (Material and Type)
0	8 1/2	HOLE PLUG
8 1/2	42 1/2	FILTER SAND

Method of Construction		Well Use	
☐ Cable Tool	☐ Diamond	☐ Public	☐ Commercial
☐ Rotary (Conventional)	☐ Jetting	☒ Domestic	☐ Municipal
☐ Rotary (Reverse)	☐ Driving	☐ Livestock	☐ Test Hole
☒ Boring	☐ Digging	☐ Irrigation	☐ Cooling & Air Conditioning
☐ Air percussion		☐ Industrial	
☐ Other, specify		☐ Other, specify	

Construction Record - Casing				Status of Well	
Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft) From	To	
36	CONCRETE	3	0	42 1/2	☒ Water Supply
					☐ Replacement Well
					☐ Test Hole
					☐ Recharge Well
					☐ Dewatering Well
					☐ Observation and/or Monitoring Hole
					☐ Alteration (Construction)
					☐ Abandoned, Insufficient Supply
					☐ Abandoned, Poor Water Quality
					☐ Abandoned, other, specify
					☐ Other, specify

Construction Record - Screen					Insufficient Supply ☐ Abandoned, Poor Water Quality ☐ Abandoned, other, <i>specify</i> ☐ Other, <i>specify</i>
Outside Diameter (cm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m/ft)		
			From	To	

Water Details		Hole Diameter	
Water found at Depth (m/ft)	Kind of Water: ☐ Fresh ☒ Untested	Depth (m/ft) From	To
12	☐ Gas ☐ Other, specify	0	42 1/2
20	☐ Gas ☐ Other, specify		48
39	☐ Gas ☐ Other, specify		

Business Name of Well Contractor JOHNSON & BRETZ		Well Contractor's Licence No. 3030
Business Address (Street Number/Name) 112 McGUIRE'S DRIVE		Municipality BRANTFORD
Province ONT	Postal Code M3T6K4	Business E-mail Address

Bus. Telephone No. (inc. area code) 5197570041	Name of Well Technician (Last Name, First Name) DAERZ JOHN
Well Technician's Licence No. 333	Signature of Technician and/or Contractor <i>John Daerz</i>
Date Submitted Y Y Y Y M M D D	

Results of Well Yield Testing				
After test of well yield, water was: ☐ Clear and sand free ☐ Other, <i>specify</i>	Draw Down		Recovery	
	Time (min)	Water Level (m/ft)	Time (min)	Water Level (m/ft)
If pumping discontinued, give reason:	Static Level			
	1		1	
Pump intake set at (m/ft)	2		2	
Pumping rate (l/min / GPM)	3		3	
Duration of pumping hrs + min	4		4	
Final water level end of pumping (m/ft)	5		5	
If flowing give rate (l/min / GPM)	10		10	
	15		15	
	20		20	
Recommended pump depth (m/ft)	25		25	
38	30		30	
Recommended pump rate (l/min / GPM)	36 PM		40	
Well production (l/min / GPM)	40		50	
1/2	50		60	
Disinfected?	60		60	
☐ Yes ☐ No				

Map of Well Location

Please provide a map below following instructions on the back.

Well owner's information package delivered ☐ Yes ☐ No	Date Package Delivered Y Y Y Y M M D D 20100730	Ministry Use Only Audit No. z111986 Date Work Completed AUG 16 2010
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