



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

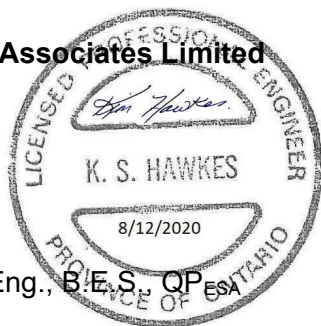
The following recommendations are presented based on the results of this investigation:

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

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

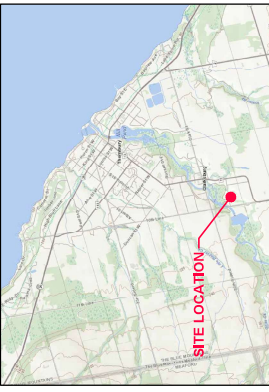
Other than by the addressee, copying or distribution of this document, in whole or in part, is not permitted without the express written consent of R.J. Burnside & Associates Limited.

In the preparation of the various instruments of service contained herein, R.J. Burnside & Associates Limited was required to use and rely upon various sources of information (including but not limited to: reports, data, drawings, observations) produced by parties other than R.J. Burnside & Associates Limited. For its part R.J. Burnside & Associates Limited has proceeded based on the belief that the third party/parties in question produced this documentation using accepted industry standards and best practices and that all information was therefore accurate, correct and free of errors at the time of consultation. As such, the comments, recommendations and materials presented in this instrument of service reflect our best judgment in light of the information available at the time of preparation. R.J. Burnside & Associates Limited, its employees, affiliates and subcontractors accept no liability for inaccuracies or errors in the instruments of service provided to the client, arising from deficiencies in the aforementioned third party materials and documents.

R.J. Burnside & Associates Limited makes no warranties, either express or implied, of merchantability and fitness of the documents and other instruments of service for any purpose other than that specified by the contract.



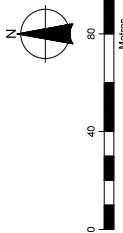
KEY MAP (N.T.S.)



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

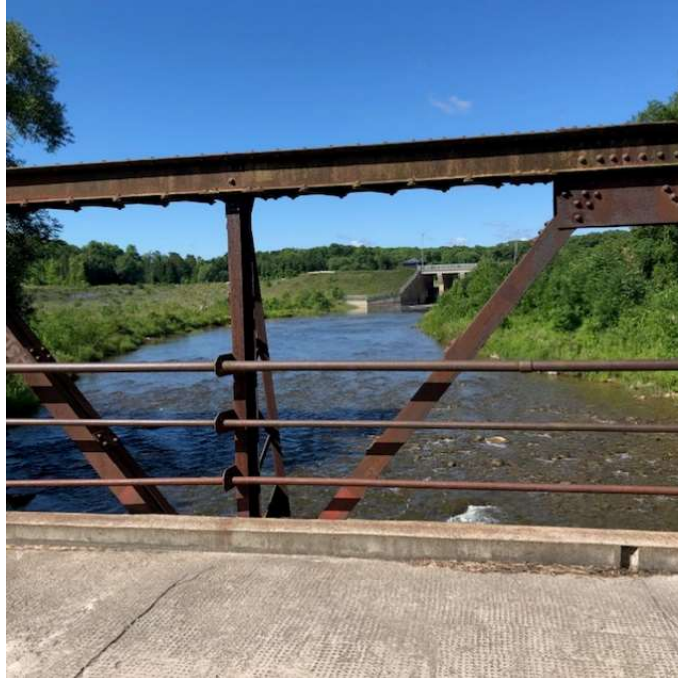


Photo 5: Beaver River looking South West Upstream



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.

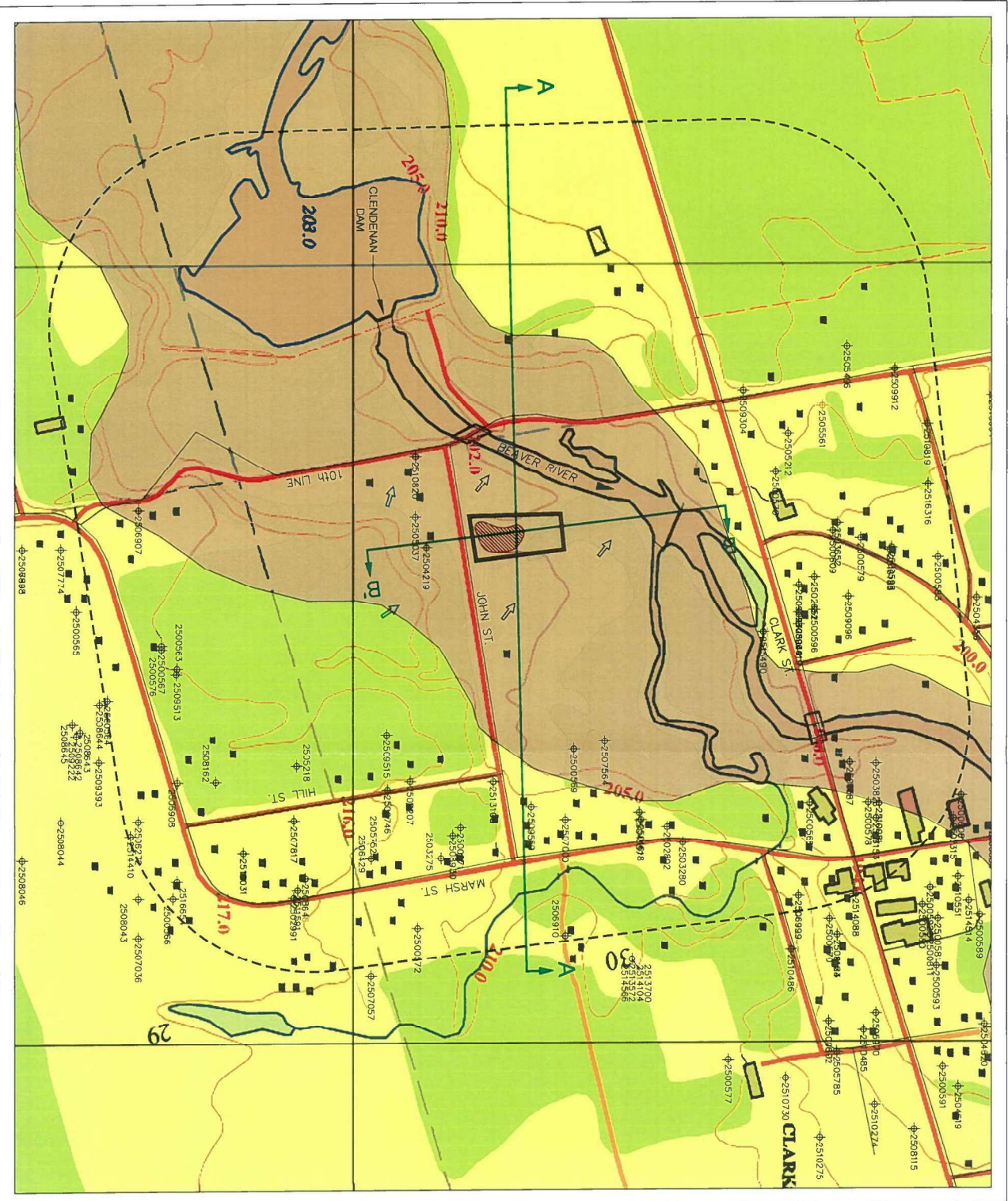
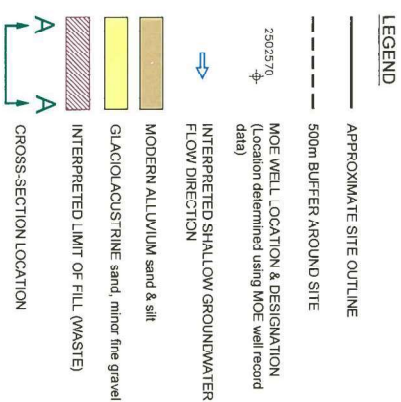
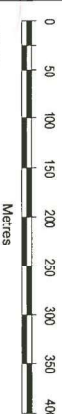


FIGURE 2
TOWN OF THE BLUE MOUNTAINS
CLARKSBURG CLOSED LANDFILL
ENVIRONMENTAL IMPACT STUDY
REGIONAL PLAN WITH
SURFICIAL GEOLOGY



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
 Prepared by: C. Sheppard
 Projection: UTM Zone 17
 Datum: NAD83
 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.



0 10 20 30 40 50 60 70 80
Metres

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

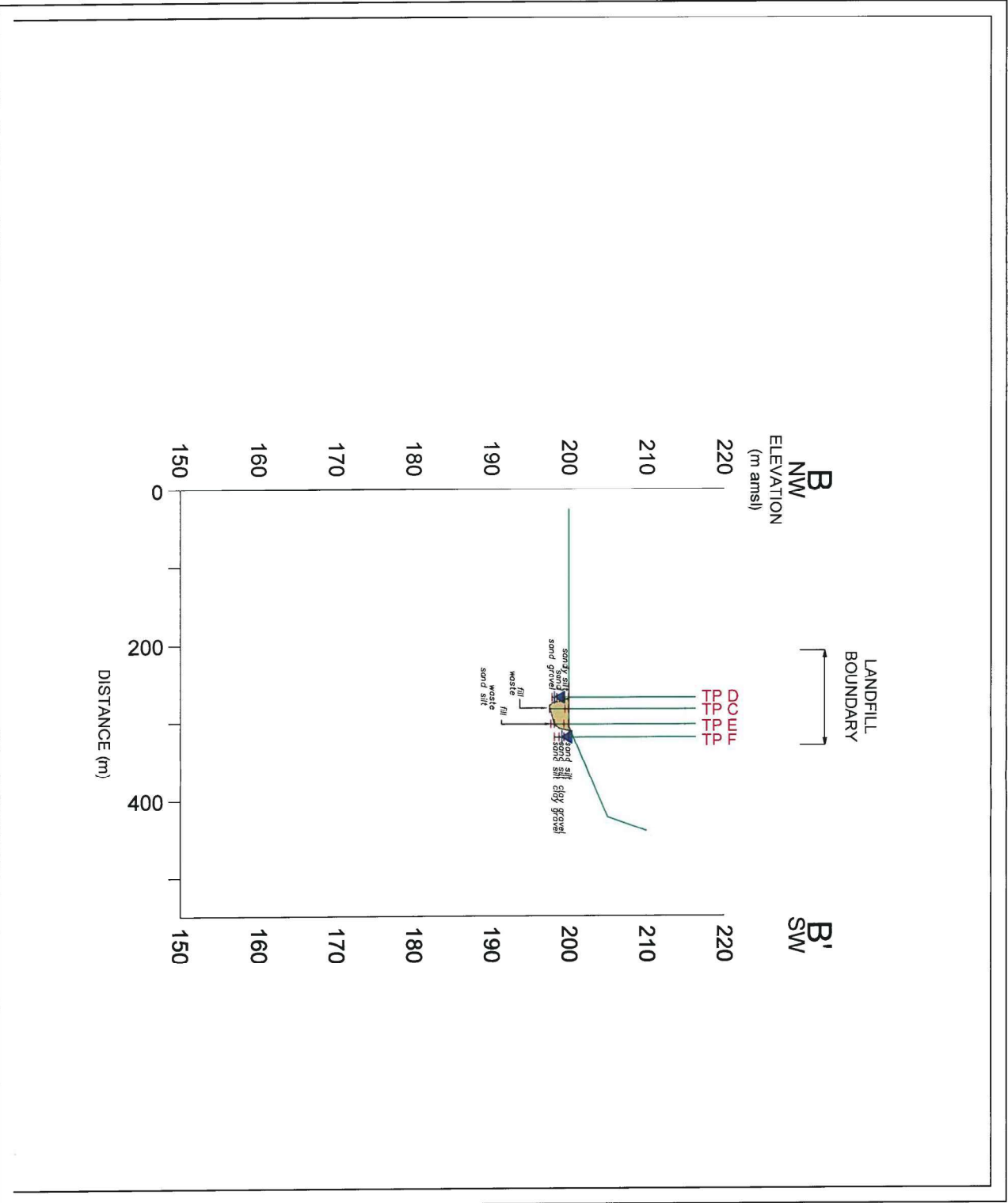
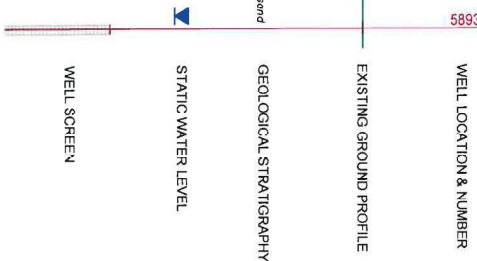


FIGURE 5
TOWN OF THE BLUE MOUNTAINS
CLARKSBURG CLOSED LANDFILL
ENVIRONMENTAL IMPACT STUDY

CROSS-SECTION B-B'

LEGEND



Horizontal Scale 1:5,000
Vertical Scale 1:500
Vertical Exaggeration 10x
July 2010
Project Number: MCO018503
Prepared by: S. Ker
Verified by: K. Hawkes



MCO018503 CLARKSBURG ENVIRONMENTAL IMPACT XSB.dwg

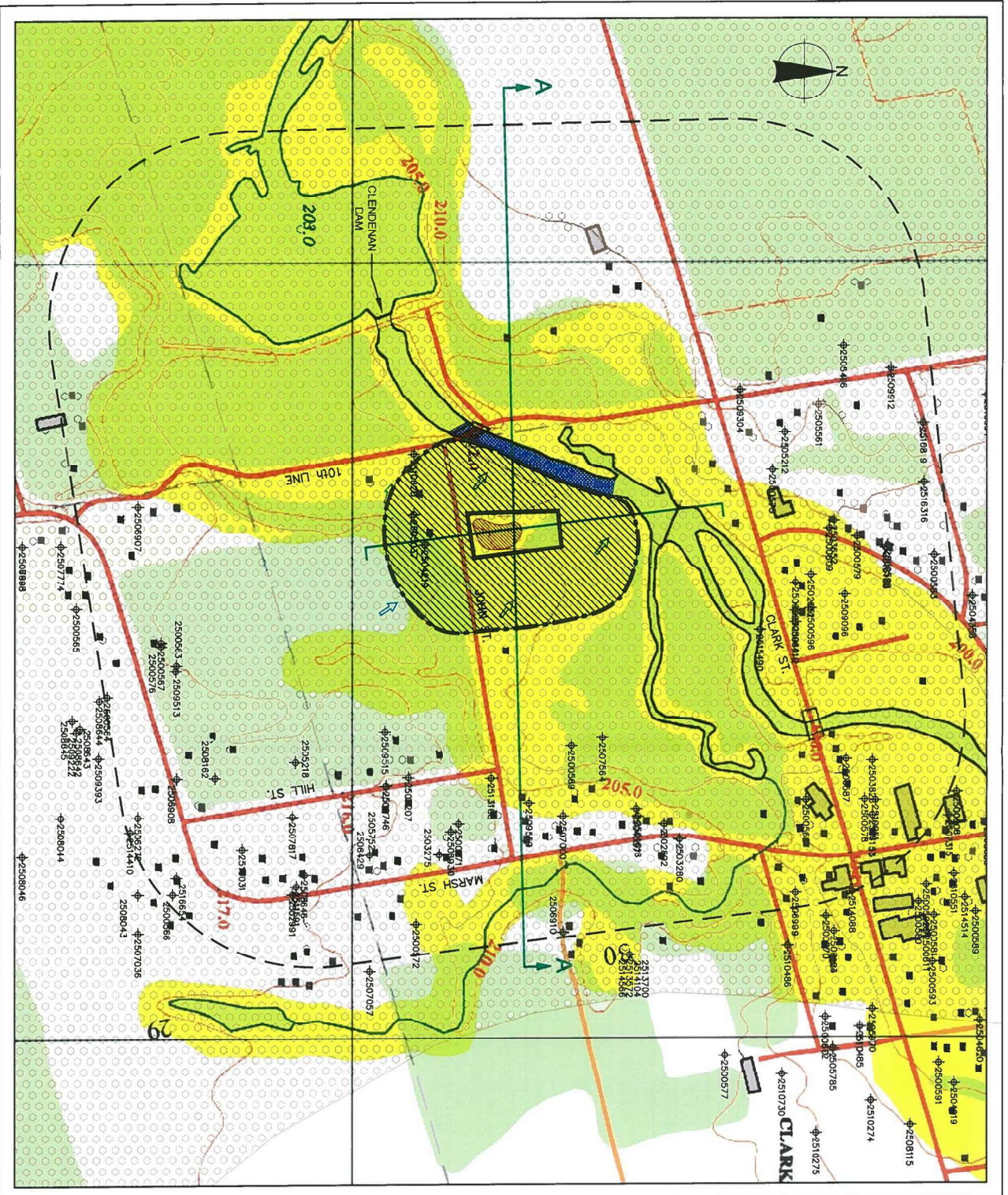


FIGURE 6
TOWN OF THE BLUE MOUNTAINS
CLARKSBURY CLOSED LANDFILL
ENVIRONMENTAL IMPACT STUDY

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, ALTERATIONS TO WETLANDS, AND WATERCOURSES OUTRARIO 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 Geological Survey, 1987, Quaternary geology, seamless coverage of the 15000 7.5' x 7.5' grid, Ontario Geological Survey, ECLIS Data Set 14
- 4. Ontario Geological Survey, 1987, Quaternary geology, seamless coverage of the 15000 7.5' x 7.5' grid, Ontario Geological Survey, ECLIS Data Set 14

0 50 100 150 200 250 300 350 400
Metres

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

BURNSIDE

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





FIGURE B2

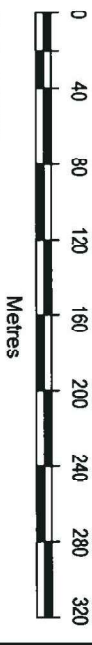
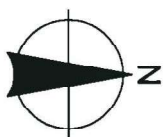
**TOWN OF THE BLUE MOUNTAINS
CLARKSBURG CLOSED LANDFILL
ENVIRONMENTAL IMPACT STUDY**

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

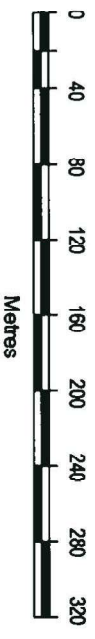
**TOWN OF THE BLUE MOUNTAINS
CLARKSBURG CLOSED LANDFILL
ENVIRONMENTAL IMPACT STUDY**

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





10

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

[illegible]

31	00186051811	007620511	0079 11195	0085217		
32	10 14 15	21	22	23		

41 WATER RECORD	
WATER FOUND	KIND OF WATER
0076-13	2 ☒ FRESH 3 ☐ SULPHUR 14
76-13	2 ☐ SALTY 4 ☐ MINERAL
15-18	1 ☒ FRESH 3 ☐ SULPHUR 19
76-18	2 ☐ SALTY 4 ☐ MINERAL
20-23	1 ☐ FRESH 3 ☐ SULPHUR 24
	2 ☐ SALTY 4 ☐ MINERAL
25-28	1 ☐ FRESH 3 ☐ SULPHUR 29
	2 ☐ SALTY 4 ☐ MINERAL
30-33	1 ☐ FRESH 3 ☐ SULPHUR 34
	2 ☐ SALTY 4 ☐ MINERAL

CASING & OPEN HOLE RECORD				
INSIDE DIAM INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET	
			FROM	TO
0-10-11	1 STEEL	12		13-14
2	☐ GALVANIZED			0076
3	☐ CONCRETE	2.44	0	76'6"
4	☐ OPEN HOLE			0082
10-18	1 STEEL	19		76'6"
2	☐ GALVANIZED			0082
3	☐ CONCRETE			76'6"
4	☐ OPEN HOLE			27-30
24-25	1 STEEL	26		
2	☐ GALVANIZED			
3	☐ CONCRETE			
4	☐ OPEN HOLE			

SCREEN	SIZE(S) OF OPENING (SLOT NO.)	31-33	DIAMETER	34-38	LENGTH	39-40	FEET
	MATERIAL AND TYPE			INCHES		FEET	
				DEPTH TO TOP OF SCREEN		41-44	80

61 PLUGGING & SEALING RECORD		FEET	
DEPTH SET AT - FEET		MATERIAL AND TYPE (CEMENT GROUT, LEAD PACKER, ETC.)	
FROM	TO		
10-13	14-17		
18-21	22-25		
26-29	30-33	80	

PUMPING TEST	PUMPING TEST METHOD		10	PUMPING RATE		11-14	DURATION OF PUMPING	
	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457							

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
	55-56	1 ☒ DOMESTIC 2 ☐ STOCK 3 ☐ IRRIGATION 4 ☐ INDUSTRIAL ☐ OTHER	5 ☐ COMMERCIAL 6 ☐ MUNICIPAL 7 ☐ PUBLIC SUPPLY 8 ☐ COOLING OR AIR CONDITIONING 9 ☐ NOT USED
	WATER USE	01	
		57	1 ☒ CABLE TOOL 2 ☐ ROTARY (CONVENTIONAL) 3 ☐ ROTARY (REVERSE) 4 ☐ ROTARY (AIR) 5 ☐ AIR PERCUSSION
METHOD OF DRILLING			

LOCATION OF WELL

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

30-31 Side 1 Rel.

John St.

Lot 11

John St.

1385'

1400'

25 HSTH 110

2 1/2 acres

House

70'

5

W

DRILLERS REMARKS:

CONTRACTOR	NAME OF WELL CONTRACTOR		LICENSE NUMBER
	Jim Clarke Well Drilling		1565
	ADDRESS		
	RR # 2 Meaford.		
CONTRACTOR	NAME OF DRILLER OR BORER		LICENSE NUMBER
	Cecil Munton		
	SIGNATURE OF CONTRACTOR		SUBMISSION DATE
	Jas A Clarke		DAY 20 MO June YR 73

OFFICE USE ONLY	DATA SOURCE	58	CONTRACTOR	59-62	DATE RECEIVED	63-68	69
	1		1565		300773		
	DATE OF INSPECTION			INSPECTOR			
	REMARKS:						P 
		CSS.Sd					WI

OWRC COPY



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.

030

DATE COMPLETED

DAY 28 MO. 11 YR 74

ELEVATION

RC.

ELEVATION

RC.

BASIN CODE

II

III

IV

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

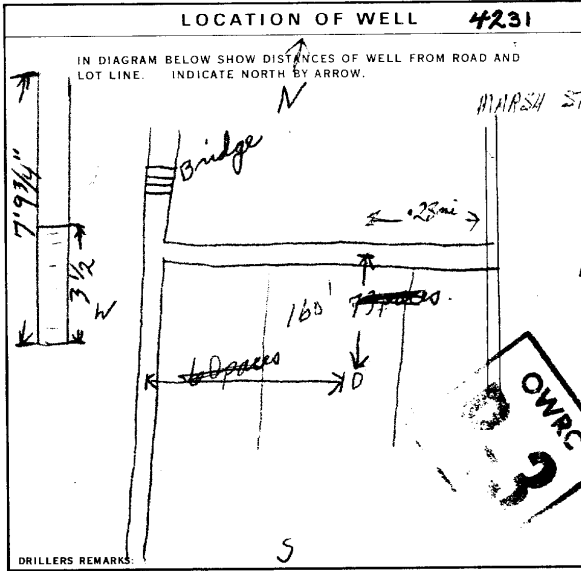
GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET	
				FROM	TO
	Top Soil			0	1
Brown	clay	gravelly stones		1	6
Grey	clay	gravel		6	24
Grey	gravel	streaks clay		24	35
Grey	clay	gravel		35	42
Grey	gravel	clay		42	47
Grey	clay	gravel		47	50
Bit	clay	gravel		50	55
Grey	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
0059 59.62	1 ☒ FRESH 3 ☐ SULPHUR 4 ☐ MINERAL	07 15/16	1 ☒ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE	2.32	0 58.34
15-18	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL	17-18	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE		20-23
20-23	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL	24-25	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE		27-30
25-28	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL				
30-33	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL				

71 PUMPING TEST METHOD		10 PUMPING RATE		31-34 DURATION OF PUMPING	
1 ☐ PUMP 2 ☒ BAILEY		00 03		01 15-16 30 17-18	
STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING			
19-21	22-24	15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
004	047	26-28	29-31	32-34	35-37
		FEET	FEET	FEET	FEET
IF FLOWING, GIVE RATE		PUMP INTAKE SET AT		WATER AT END OF TEST	
38-41		42-45		46-49	
RECOMMENDED PUMP TYPE		RECOMMENDED PUMP SETTING		RECOMMENDED PUMPING RATE	
1 ☐ SHALLOW 2 ☒ DEEP		0 55		H2	
50-53		GPM / FT. SPECIFIC CAPACITY			

FINAL STATUS OF WELL		WATER USE		METHOD OF DRILLING	
1 ☒ WATER SUPPLY 2 ☐ OBSERVATION WELL 3 ☐ TEST HOLE 4 ☐ RECHARGE WELL	5 ☐ ABANDONED, INSUFFICIENT SUPPLY 6 ☐ ABANDONED, POOR QUALITY 7 ☐ UNFINISHED	1 ☒ DOMESTIC 2 ☐ STOCK 3 ☐ IRRIGATION 4 ☐ INDUSTRIAL 5 ☐ OTHER	5 ☐ COMMERCIAL 6 ☐ MUNICIPAL 7 ☐ PUBLIC SUPPLY 8 ☐ COOLING OR AIR CONDITIONING 9 ☐ NOT USED	1 ☒ CABLE TOOL 2 ☐ ROTARY (CONVENTIONAL) 3 ☐ ROTARY (REVERSE) 4 ☐ ROTARY (AIR) 5 ☐ AIR PERCUSSION	6 ☐ BORING 7 ☐ DIAMOND 8 ☐ JETTING 9 ☐ DRIVING



CONTRACTOR		DATA SOURCE		DATE RECEIVED	
Jim Clarke Well Drilling		1565		170475	
ADDRESS		DATE OF INSPECTION		INSPECTOR	
RR#2 Meaford		Mar 23/75		7	
NAME OF DRILLER OR BORER		REMARKS		P L	
Bob Scammell		H2E H2E H2E H2E		WI	
SIGNATURE OF CONTRACTOR		SUBMISSION DATE		CSS S8	
Gas A Clarke		DAY 25 MO. Mar YR. 75			



Ministry
of the
Environment

Ontario
GREY

The Ontario Water Resources Act

WATER WELL RECORD

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 6 ☐
15-18	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERALS 5 ☐ GAS 6 ☐
20-23	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERALS 5 ☐ GAS 6 ☐
25-28	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERALS 5 ☐ GAS 6 ☐
30-33	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERALS 5 ☐ GAS 6 ☐

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		FROM TO
17-18 5	1 ☒ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE 5 ☐ PLASTIC		FROM TO
24-25	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE 5 ☐ PLASTIC		FROM TO

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.)
FROM TO	
10-13	
14-17	
18-21	
22-25	
26-29	
30-33	
34-37	

71 PUMPING TEST

PUMPING TEST METHOD: 10 ☒ PUMP 2 ☐ BAILEY
PUMPING RATE: 4 GPM
DURATION OF PUMPING: 4 HOURS
WATER LEVELS DURING: 1 ☐ PUMPING 2 ☐ RECOVERY
19-21: 4 FEET 22-24: 52 FEET 25-28: 52 FEET 29-31: 52 FEET 32-34: 52 FEET 35-37: 52 FEET
IF FLOWING, GIVE RATE: 55 GPM
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 NAD 83	Zone 17	Easting 542462	Northings 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			Results of Well Yield Testing			
Depth Set at (m/ft) From To	Type of Sealant Used (Material and Type)	Volume Placed (m ³ /ft ³)	After test of well yield, water was:		Draw Down	
0 8 1/2	HOLE PLUG		☐ Clear and sand free		Time (min)	Water Level (m/ft)
8 1/2 42 1/2	FILTER SAND		☐ Other, specify		Time (min)	Water Level (m/ft)
			If pumping discontinued, give reason:		Static Level	
			Pump intake set at (m/ft)		1	1
			Pumping rate (l/min / GPM)		2	2
			Duration of pumping hrs + min		3	3
			Final water level end of pumping (m/ft)		4	4
			If flowing give rate (l/min / GPM)		5	5
			Recommended pump depth (m/ft)		10	10
					15	15
					20	20
					25	25
					30	30
					40	40
					50	50
					60	60

Method of Construction				Well Use			
☐ Cable Tool	☐ Diamond	☐ Public	☐ Commercial	☐ Not used	☐ Domestic	☐ Municipal	☐ Dewatering
☐ Rotary (Conventional)	☐ Jetting	☒ Livestock	☐ Test Hole	☐ Monitoring	☐ Irrigation	☐ Cooling & Air Conditioning	
☐ Rotary (Reverse)	☐ Driving	☐ Industrial	☐ Other, specify				
☒ Boring	☐ Digging						
☐ Air percussion							
☐ 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	☒ Water Supply	☐ Replacement Well	☐ Test Hole	
36	CONCRETE	3	0 42 1/2	☐ Recharge Well	☐ Dewatering Well	☐ Observation and/or Monitoring Hole	
				☐ Alteration (Construction)	☐ Abandoned, Insufficient Supply	☐ Abandoned, Poor Water Quality	
				☐ Other, specify			

Construction Record - Screen				Map of Well Location			
Outside Diameter (cm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m/ft) From To	Please provide a map below following instructions on the back.			

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

Business Name of Well Contractor JOHNSON & BRETZ		Well Contractor's Licence No. 3030
Business Address (Street Number/Name) 112 McGUIRE DRIVE		Municipality BRANTFORD
Province ONT	Postal Code N3T6K4	Business E-mail Address

Bus. Telephone No. (inc. area code) 5197570041	Name of Well Technician (Last Name, First Name) DAERZ JOHN	Date Submitted 20100730
Well Technician's Licence No. 333	Signature of Technician and/or Contractor 	