

**ARCHAEOLOGICAL
MONITORING OF THE
CONSTRUCTION COMPONENTS
OF FESTIVAL PARK
AT THE FORKS**

Submitted to

THE FORKS NORTH PORTAGE PARTNERSHIP

**QUATERNARY
CONSULTANTS
LIMITED**

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EXECUTIVE SUMMARY

The development of Festival Park consisted of three components at different locations within that portion of The Forks administered by The Forks North Portage Partnership. These components are: the construction of a bandshell at the southeast corner of Parking Lot 4; extension of sub-surface services (land drainage sewer, waste water sewer, watermain, and Hydro ductline) from Pioneer Boulevard to the bandshell; and extension of waste water sewer lines to kiosk nodes in the greenspace between the paved parking lot and the bandshell. Due to the archaeological sensitivity of the area, all construction was monitored and mitigative heritage resource recovery was undertaken whenever archaeological resources were encountered.

As no sub-surface activity had taken place in the central area, east of Pioneer Boulevard, since the East Yard rail facility had been decommissioned in 1989, an advantage of this project was that it provided an opportunity to determine the location and density of archaeological resources. The bandshell is located where previous building supply companies had existed and evidence of their presence was observed. The upper levels of the services corridor consisted of railroad era fill—cinder, sand, gravel, clay, etc. Undisturbed riverine sediments occurred under the fill layer and eight locations of Pre-Contact archaeological resources were recorded during the excavations of the vertical shafts for the services and the continuous Hydro ductline trench. The archaeological layers can be correlated with those which were defined during The Forks Access Project and date to the period between A.D. 1200 and A.D. 1300. The resources are sparse, suggesting that the occurrences are on the periphery of the main occupation areas.

The waste water sewer in the greenspace area was also installed by vertical shafts and horizontal boring. The placement was relatively shallow—generally less than two metres below surface. In several instances, railroad era fill extended to the base of the excavations, especially in the shallow northern end at Kiosk Node 1. No Pre-Contact or Fur Trade resources were encountered during this component of the project.

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1.0 INTRODUCTION

The current development of the Festival Park area of The Forks consists of several components: a new bandshell at the southeast corner of the gravel parking lot (Parking Lot 4); the installation of underground services (land drainage sewer, waste water sewer, watermain, and Hydro ductline) to the bandshell through a services corridor; and the development of four kiosk nodes in the greenspace between the paved parking lot and the gravel parking lot (Figure 1). Previous projects have shown that sub-surface cultural resources occur in the immediate vicinity of these components: Stage I Construction Project (Kroker and Goundry 1990); Fort Gibraltar I (Kroker *et al.* 1990, 1991, 1992); Manitoba Children's Museum Project (Quaternary 1994a); Parking Lot Extension Project (Quaternary 1996a); and The Forks Access Project (Quaternary 1999a). As the developments for Festival Park occur in a highly sensitive archaeological area, it was necessary for all construction excavation to be monitored. Accordingly, Quaternary Consultants Ltd. was retained to provide heritage resource management services. All archaeological activities—monitoring and mitigation—were carried out under the terms of Heritage Permit A81-98 (Appendix A), issued by Historic Resources Branch, Manitoba Culture, Heritage and Citizenship.

1.1 Location and Scope of the Project

As depicted on Figure 1, the project is on the west side of the Red River to the south of Water Avenue in the central portion of the area known as The Forks.

Several components of the project had potential for impact upon archaeological resources:

- drilling of seating holes for pilings for the bandshell;
- excavation around pilings for construction of the pile caps;
- excavation of the dressing room and washroom areas below the floor of the stage;
- installation of a land drainage sewer which connects into the Pioneer Boulevard land drainage sewer;
- installation of a watermain from Pioneer Boulevard to the bandshell;
- installation of a waste water sewer from Pioneer Boulevard to the bandshell;
- installation of a Hydro ductline from Pioneer Boulevard to the bandshell; and
- installation of a waste water sewer in the central greenspace to the kiosk nodes.

Installation of small diameter water lines to the kiosk nodes in the greenspace was higher than the waste water sewer and was entirely within the upper railroad fill layers, as were the irrigation water lines in the same area.

The sub-surface services were installed by excavating vertical shafts with the pipes placed in horizontal bores between the vertical shafts. The vertical shafts were deepest at the Pioneer Boulevard end, sloping upward to the east. The land drainage sewer is the deepest of the services. The Hydro ductline was placed in a continuous open-cut trench. The depth of the trench varied with the deepest location being 277 cm below surface and the shallowest being 202 cm below surface, although it generally was excavated to a depth approximating 225 cm.

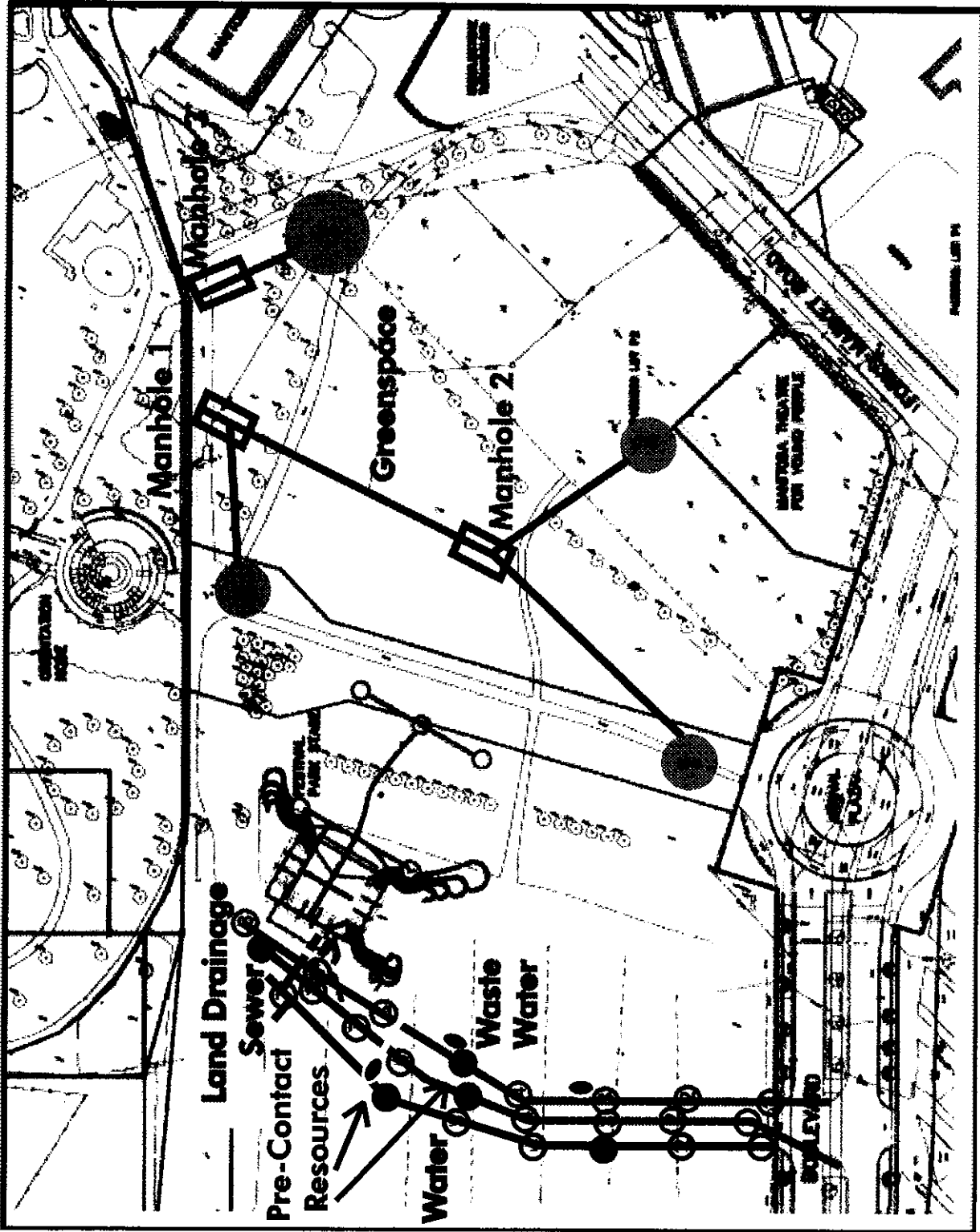


Figure 1: Map of Project Impacts and Locations of Pre-Contact Recoveries

The first component, the drilling for the piling installation at the bandshell, began on December 9, 1998. Pile cap excavations and dressing room excavations occurred in December. The first excavations in the services corridor for the land drainage sewer started on March 15, 1999. The second series of vertical shafts were for the waste water sewer and the final series of excavations were for the watermain. The installation of these three services was completed by April 6. The excavation of the Hydro ductline began on April 21 and was completed by May 17. The installation of the waste water sewer to the kiosk nodes in the central greenspace area began on May 13 and was finished on May 25.

Original plans called for the relocation of an existing hydrant, adjacent to the access road, near the Children's Museum. The relocation site was approximately 7 metres east, in Parks Canada territory, and directly within the known perimeter of Fort Gibraltar I (Priess *et al.* 1986; Kroker *et al.* 1990, 1991, 1992). Inasmuch as the cultural resource management of the Federal territory is administered by Parks Canada, the monitoring archaeologist (Sid Kroker) alerted the project engineer and the contractor that there were serious complications with the proposed relocation. An archaeologist with the Parks Canada regional office, Mr. David Hems, was contacted to assess the situation and advise from the Federal management viewpoint. The relocation site was deemed unacceptable and alternative locations were proposed to the Parks Canada engineers. In terms of cost benefit analysis and, considering a hydrant is located near the northwest corner of the Children's Museum, it was decided to cap the water line and forgo the relocation of the existing hydrant.

1.2 Study Team

The entire archaeological resources management program was directed by Sid Kroker (Senior Archaeologist). The monitoring of all construction excavation was undertaken by Sid Kroker. Laboratory operations, resulting from artifact recovery, were supervised by Pam Goundry (Research Archaeologist). Primary artifact preparation was undertaken by Sid Kroker. Computer cataloguing was completed by Pam Goundry. Documentation and analysis has been undertaken by Sid Kroker and Pam Goundry.

1.3 Excavation Monitoring Methodology

The excavations for the piling seating holes were done with truck-mounted augers of three different diameters—12", 14", and 16". The auger bit is 5 feet in length and arrangements were made with the driller that after each five-foot drilling, the auger would be pulled up for observation before the extracted soil was spun off. The monitoring archaeologist recorded the depth of the railroad fill layer, the depth of buried soil horizons, and the presence or absence of pre-European cultural deposits and the depth of the horizon, if present. Each piling excavation received its own number so that the presence of cultural material could be mapped across the site and correlations between locations and depths could be maintained. The pile cap excavations were undertaken with a rubbermount backhoe which removed the upper soil around the piles, resulting in a roughly cylindrical excavation.

The excavations for the vertical shafts for the sub-surface services were undertaken with backhoes and the soil was trucked away from the site. Archaeological monitoring consisted of continual visual observation of the excavation. During the excavations of the vertical shafts, the monitoring archaeologist watches for buried soil horizons and changes in soil texture which could indicate possible former ground surfaces upon which cultural strata could occur. The indicators watched for are charcoal layers, ash lenses, and/or reddish stained soil. The colour change is usually indicative of oxidation of the iron particles in Red River silt by heat—the more intense the heat, the redder the soil. These features can indicate either a natural event such as a brush or prairie fire or a cultural event such as a campfire. If evidence of fire is observed, the layer is investigated to ascertain if the cause was natural or cultural. The presence of food remains, particularly mammal or fish bones, resting upon a buried soil is a positive indicator of an archaeological occupation horizon. Other positive indicators are the presence of fragments of earthenware containers and/or lithic tools or flakes resulting from tool manufacture. Once the excavation is completed and the sewer cages installed, the monitoring archaeologist enters the excavation to record the soil profile in the walls of the vertical shaft. Each excavation received its own designation so that cultural material retrieved from the vertical shaft can be located on a site map.

The excavation of the continuous trench for the Hydro ductline occurred after the services had been installed so that generalized knowledge of the stratigraphy in the area had been obtained. Thus, intensive monitoring occurred when there was a potential of encountering Pre-Contact horizons that had already been identified during the excavation of vertical shafts. Otherwise, the monitoring of the excavations of the ductline was intermittent, usually four or five times during the day, when the monitoring archaeologist was not working at the waste water sewer installations in the central area.

The artifact recovery methods varied depending upon the temporal age of the artifacts. The upper layers of the bandshell area, the services corridor, and the central greenspace area consist of fill relating to the railroad era. In addition, two building product facilities—the City Asphalt Plant and Building Products and Coal Company (Forks Renewal Corporation 1988:58-60)—had existed in the vicinity of the bandshell. The primary focus for recoveries from the historic fill horizons was diagnostic artifacts, i.e., those which could provide evidence of time period, company of manufacture, and/or function. Accordingly, glass and ceramic containers which often have diagnostic markings were curated, if present. Also, metallic objects which could be identified to function would have been recovered, while non-diagnostic structural items, such as generic bricks, eavestrough, iron pipes, wire-cut nails, etc. are not generally curated.

When Pre-Contact cultural horizons were encountered, all cultural material was recovered. The preponderance of artifacts from these horizons are faunal remains, which result from butchering activities for food consumption.

1.4 Archaeological Site Designation

Each artifact is assigned a Borden designation as part of its catalogue number. The Borden designation, consisting of a four-letter prefix and a numerical suffix, is a Canada-wide system of identifying archaeological sites based upon latitude and longitude (Borden 1954). The four letter identifier, DILg, designates a geographical block between 49° 50' and 50° 00' North latitude and 97° 00' and 97° 10' West longitude. Within each block, archaeological sites are assigned sequential numbers upon discovery. This site, lying south of Water Avenue, west of the Red River, and east of the CNR Main Line Embankment, had been previously designated as DILg-33. As numerous archaeological projects have occurred within the site boundaries over the past decade (Kroker 1989; Kroker and Goundry 1990, 1993a, 1993b, 1994; Quaternary 1988, 1989a, 1989b, 1990a, 1990b, 1990c, 1992, 1993a, 1993b, 1994a, 1994b, 1995a, 1995b, 1995c, 1996a, 1996b, 1996c, 1998a, 1998b, 1999a, 1999b, 1999c, 2000a), the site designation has been expanded to include a sequential year/project identifier. The identifier for this project is 98C, denoting that this is the third project initiated at the site during 1998.

1.5 Laboratory Procedures

During the project, a total of 1288 artifacts were recovered: 647 Historic and 641 Pre-Contact. These were brought to Quaternary laboratory facilities, where they were washed and sorted by material class and identified by the lab personnel. Material of the same type (e.g., white porcelain plate sherds) within the same location and depth were combined under a single catalogue number. Identification was carried to the limit obtainable by available reference works and staff expertise.

Each artifact received a catalogue number consisting of the Borden designation for the site and a sequential number for permanent identification, i.e., DILg-33:98C/####. All pertinent data associated with the artifact was entered into the computer cataloguing system which is based upon the Canadian Heritage Inventory Network (CHIN) system (Manitoba Museum of Man and Nature 1986; Kroker and Goundry 1993a:Appendix B). The computer cataloguing program is derived from DBASE3® and generates individual artifact catalogue cards.

Processed artifacts were prepared for storage by inserting the specimens and the catalogue cards into standard plastic storage bags, then stapling the bags closed. At the end of the project, all recovered artifacts will be delivered to the Manitoba Museum of Man and Nature which is the repository designated by The Forks North Portage Partnership.

2.0 STRATIGRAPHY

The stratigraphy within the impact zone is both simple and complex. The macro-stratigraphy consists of historic fill overlying an intermittent A Horizon overlying sequential layers of riverine-deposited sediments. Within the riverine layers, periods of stable ground are represented by buried soil levels formed during the time between successive flood episodes. It is on these former soil horizons that potential archaeological layers can be found.

2.1 Bandshell Location

The initial monitoring component, during the drilling of seating holes for the piles for the bandshell, produced some generalized stratigraphic knowledge. However, the rotary action of the auger tends to distort or obscure thin layers (less than 0.5 cm), so that only thicker layers of buried soils or different textured sediments (sand versus silt) can be discerned. A total of 53 auger holes were monitored. The depth of the historic fill layer varied between 75 cm and 220 cm. Similar depths were recorded during the excavations of the vertical shafts and the Hydro ductline.

The deeper fill deposits appear to be associated with former building basements or excavations for garbage disposal. In areas where the fill layer rested upon the soil horizon post-dating the 1881 flood, riverine deposits were encountered to base of the excavations. Indications of an undulating sand horizon occurred at depths between 340 and 410 cm in the bandshell area.

2.2 Services Corridor

The upper fill horizon consists of various materials (cinder, sand, gravel, clay, etc.) deposited as landfill during the last century. This fill layer tends to average 1.0 to 1.5 metres thick. Occasional evidence of early excavations, either for an ephemeral building or for garbage disposal, was observed.

The sequences of the riverine sediments below the historic fill are quite complex when the micro-stratigraphy is examined. The primary sources of data for the detailed stratigraphy are the profiles recorded during the excavation of the vertical shafts for sub-surface services and the continuous Hydro ductline trench (Figure 2).

The profile from the Land Drainage Sewer (LDS) vertical shaft at the western edge of the parking lot is the longest profile (Table 1), as this hole was the deepest excavation of the entire services installation. The excavations for the LDS were deeper than the vertical shafts for the other services and provided stratigraphic data from the lower levels. The stratigraphic profiles obtained from the Hydro ductline only reached to depths slightly over 2.25 metres.

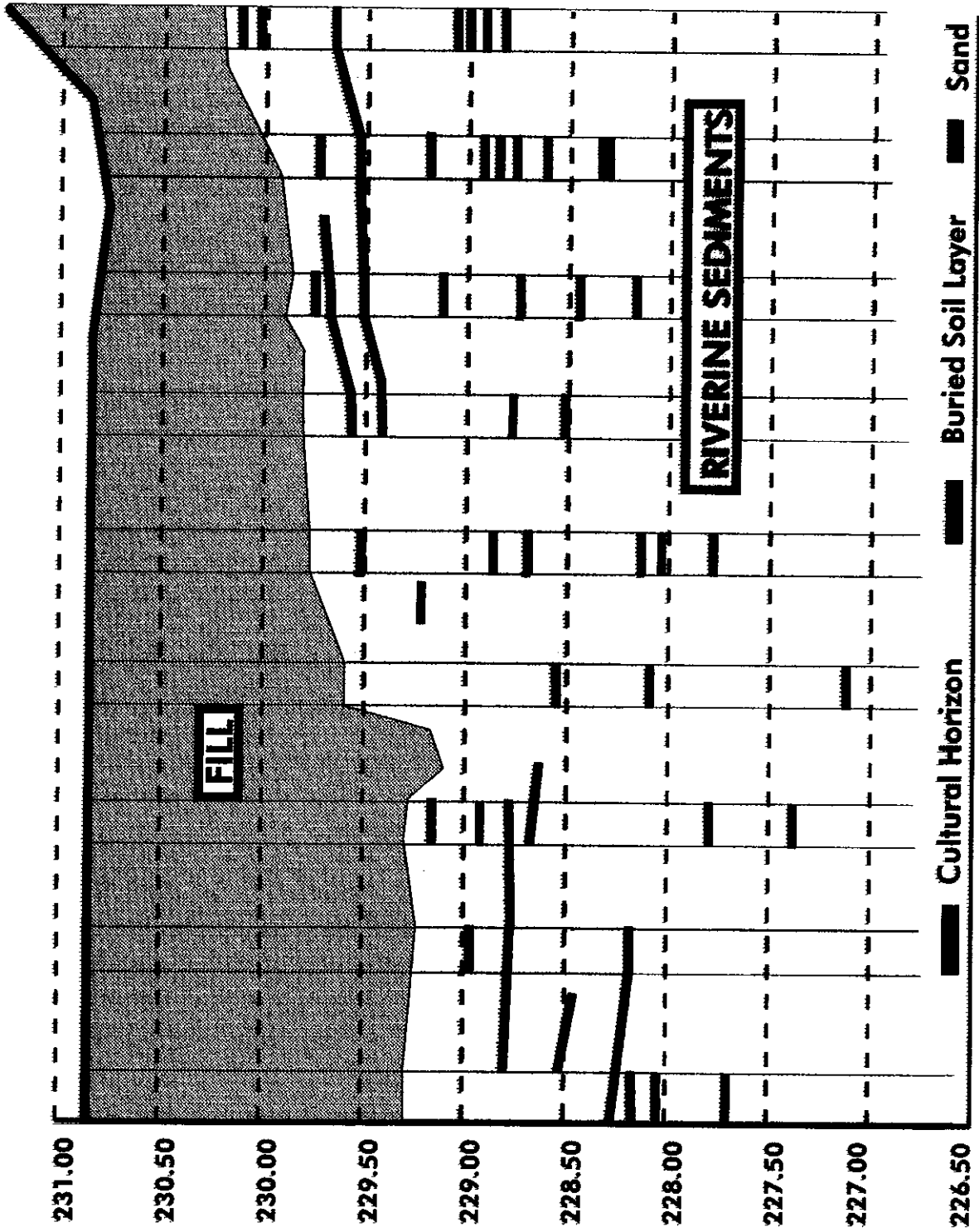


Figure 2: Stratigraphic Profile of the Services Corridor

Several instances of hydrocarbon discolouration of the sediments were observed. Diesel staining occurred from the surface sediments to the base of the excavation of LDS Hole 1, as well as lesser amounts of staining at other vertical shafts.

DEPTH (cm)	SOIL LAYER	COMMENTS
0 - 57	recent fill	structural debris, cinder, gravel
57 - 88	gravel	-
88 - 150	cinder fill	-
150 - 160	top soil	well developed A Horizon
160 - 240	brown silty clay	-
240 - 251	mottled silty clay	charcoal flecks
251 - 251	buried soil horizon	2 mm thick
251 - 265	brown silty clay	-
265 - 265	buried soil horizon	2 mm thick
265 - 276	brown silty clay	-
276 - 276	buried soil horizon	3 mm thick
276 - 296	brown silty clay	-
296 - 297	brown sandy silt	-
297 - 312	brown silty clay	-
312 - 312	buried soil horizon	3 mm thick, charcoal
312 - 349	brown silty clay	-
349 - 353	brown sandy silt	-
353 - 389	brown silty clay	-
389 - 394	brown sandy silt	-
394 - 400	brown silty clay	-
400 - 406	tan sand	-
406 - 426	brown sandy silt	base of excavation

Table 1: Stratigraphic Profile from LDS Catchbasin Excavation at West End of Parking Lot

The map of sub-surface stratigraphy (Figure 2) does not differentiate between the various types of fine-grained riverine sediments—clay, silty clay, silt, and sandy silt. Most of the strata were relatively thin—on the order of 5 to 10 centimetres. Thin bands of buried soil horizons were observed throughout. Most were disjunct and, even in the Hydro ductline trench, could not be followed for more than a few metres. This pattern of soil deposition is standard for a riverine flood plain where high water episodes deposit layers of different textured sediments, depending upon the speed of the water and the source area of the sediments (upstream on the Red River or the Assiniboine River). Concomitant with deposition of sediments, flood waters cause erosion and remove sediments that had been previously deposited. A case in point is the documented erosion of cultural deposits recorded during the mitigative excavations at the CanWest Global Park Baseball Stadium (Quaternary 2000b).

Evidence of cultural occupations is recorded at several locations within the Services Corridor. Two distinct layers containing artifacts were observed. An upper horizon (Section 6.1) occurred at:

Watermain Hole 3:	188 cm below surface
Hydro Ductline near Hole 3:	180 cm below surface
Hydro Ductline near Hole 5:	155 cm below surface
Watermain Hole 6:	200 cm below surface
Hydro Ductline near Hole 6:	170 cm below surface, and
Land Drainage Sewer Hole 9:	187 cm below surface.

Two instances of equivalent soil layers containing ash and charcoal but no artifacts were recorded: Waste Water Hole 2 at 186 cm and Waste Water Hole 4 at 188 cm. It would appear that there is a relatively extensive horizon occurring at approximately 185 cm below surface, i.e., 228.95 metres above sea level. This probably correlates with Horizon B of The Forks Access Project (Quaternary 1999a) and the Legacy Estates Project (Quaternary 2000a).

The horizon at 155 cm below surface (Hydro Ductline near Hole 5) may be a later occupation than the 185 cm level. The relative uniformity of elevation of the other occurrences would suggest that the 155 cm level is not part of this stratum and may be equivalent to Horizon A (Quaternary 1999a). Similarly, the 200 cm level at Water Hole 6 may be an earlier occupation level, although a variation of only 15 cm is within the realm of possibility for a slightly undulating horizon.

The lower horizon (Section 6.2) was recorded at:

Land Drainage Sewer Hole 5:	272 cm below surface, and
Waste Water Hole 5:	288 cm below surface.

A buried soil horizon containing some ash was observed at a depth of 256 cm below surface in Waste Water Hole 6. These depths appear to correlate with the occurrences of Horizon D recorded during the Legacy Estates Project (Quaternary 2000a) and The Forks Access Project (Quaternary 1999a).

Culturally, the two Pre-Contact strata fall within the Late Woodland Period. Using information derived from The Forks Access Project, along Pioneer Boulevard on the south side of Water Avenue, tentative dates for the two occupations can be assigned. The extensive Horizon B (Quaternary 1999a:103-135) occurs throughout the area. Radiocarbon dates of 675 ± 60 and 655 ± 55 years before present were obtained on bone samples (Quaternary 1999a:12). An immediately underlying horizon (Horizon D) yielded a radiocarbon date of 700 ± 60 years ago (Quaternary 1999a:12). The stratigraphy suggests that both cultural levels result from occupations of Aboriginal peoples between 600 and 700 years ago.

2.3 Greenspace Services

The sub-surface excavation within the greenspace between the paved parking lot and the berm at the south edge of Parking Lot 4 consisted of the installation of waste water sewer lines to the four kiosk nodes (Figure 1). The waste water line was installed by horizontal boring between vertical shafts, spaced approximately twelve metres apart. The eastern terminus was tied into the existing line at

Manhole 1. Considerable prior disturbance had occurred at this location due to the original installation in an open-cut trench. A small portion of the excavation (the western edge) encountered undisturbed sediments. The profile of this excavation is detailed in Table 2.

DEPTH (cm)	SOIL LAYER	COMMENTS
0 - 70	recent fill	structural debris, gravel
70 - 127	cinder fill	-
127 - 140	clay fill	-
140 - 165	cinder fill	brick mixed in with cinders
165 - 171	sand fill	-
171 - 179	brown silty clay	-
179 - 180	buried soil horizon	Double A Horizon
180 - 241	medium brown silty clay	-
241 - 241	buried soil horizon	3 mm thick
241 - 255	medium brown silty clay	-
255 - 258	brown sandy silt	-
258 - 260	light brown sand	-
260 - 274	brown sandy silt	-
274 - 276	light brown sand	-
276 - 285	brown sandy silt	-
285 - 288	brown silty clay	base of excavation

Table 2: Stratigraphic Profile from Manhole 1 - Greenspace Waste Water Sewer

The majority of the vertical shafts were relatively shallow, especially in comparison with those from the services corridor. The depth of excavation steadily decreased toward the north with the excavation base at Manhole 2 being 184 cm below surface and the western terminus at Node 1 being only 110 cm below surface. At several locations the vertical shafts encountered historic fill to the base of the vertical shaft. Slightly east of Manhole 2, a former uncribbed basement or pit had been filled with brick rubble. No evidence of Pre-Contact cultural occupations was observed.

The final component of the kiosk services installation was the installation of a waste water line between Kiosk Node 3 and the existing line running under the access road. This was installed through a short open-cut trench. The eastern end was severely disturbed due to the prior installation of the original pipe. Undisturbed sediments were encountered at the southwestern end of the manhole excavation and a stratigraphic column was recorded (Table 3). The southwestern end of the open-cut trench encountered a subterranean brick structure consisting of several courses of mortared brick. This structure, which was at the extreme end of the trench, is a sub-surface remnant of the round house that had been attached to the northern end of the engine repair facility of the Northern Pacific and Manitoba Railway (Forks Renewal Corporation 1988:55).

DEPTH (cm)	SOIL LAYER	COMMENTS
0 - 120	cinder fill	structural debris, gravel
120 - 133	clay fill	-
133 - 133	buried soil horizon	5 mm thick
133 - 142	medium brown silty clay	-
142 - 142	buried soil horizon	3 mm thick
142 - 149	medium brown silty clay	-
149 - 149	buried soil horizon	3 mm thick
149 - 165	medium brown sandy silt	-
165 - 169	brown silty clay	-
169 - 172	light brown sand	-
172 - 191	brown sandy silt	-
191 - 193	brown silty clay	-
193 - 208	brown sand	bedded layers
208 - 210	brown sandy silt	-
210 - 217	brown sand	-
217 - 222	brown silty clay	-
222 - 225	brown sand	-
225 - 232	brown silty clay	-
232 - 235	brown sand	-
235 - 235	buried soil horizon	3 mm thick
235 - 241	brown sandy silt	-
241 - 247	brown sand	-
247 - 255	brown sandy silt	base of excavation

Table 3: Stratigraphic Profile from Manhole 3 - Greenspace Waste Water Sewer

3.0 BANDSHELL COMPONENT

The bandshell is located in the eastern portion of The Forks site at the southeast corner of Parking Lot 4 (Figure 1). The construction consisted of three primary phases: augering of holes to seat piles; surface excavation to building level; and excavation for a sub-surface change room and washroom facilities with water and waste water connections.

Artifacts were recovered during the pile augering and the surface excavation. All recoveries were historic, most dating to the period when the area was occupied by the two industrial facilities. The upper strata consisted of various types of sands and gravels, coal cinders, and a large quantity of concrete bags. These bags had been left *in situ*, had gotten moist, and had hardened yielding pillow-shaped, rock-like objects.

Thirty-seven artifacts were curated from the bandshell component. Eighteen were recovered during surface leveling excavations. Those retrieved during the pile augering phase are noted in the text. The artifacts have been analysed within functional categories based on the Canadian Heritage Inventory Network (CHIN) cataloguing format.

3.1 Architectural Object

DILg-33:98/15 consists of five, thick, white ceramic sherds recovered from Auger Hole 39 at a depth of 150 cm. One sherd is embossed with a Prince of Wales feather design. Although at least two of the sherds have a distinct curve, all are identical in paste and colour. Therefore, they were catalogued together in the Hardware Category, Structure sub-category, and identified as tile, perhaps from a bathroom or kitchen wall.

3.2 Lighting Equipment

At the beginning of the 20th century, a rapid evolution in lighting techniques took place. Formerly, oil lighting and candlelight had been common, but electric lighting became much more prevalent. All of the recovered specimens appear to derive from electric light fixtures, either shades or globes. DILg-33:98C/14 consists of two body sherds of opaque, white glass which measure 3.3 mm in thickness. These artifacts were recovered from Auger Hole 38 at a depth of 160 cm. DILg-33:98C/22 consists of three, thinner (2.9 mm), opaque white sherds. These were recovered from Auger Hole 53 at a depth of 140 cm.

3.3 Transportation

DILg-33:98C/12 is a conical, copper item that may be a cap from some part of a train engine or car. It measures 43.9 mm in height and has a basal diameter of 74.7 mm. This includes the flattened edge (6.1 mm wide) that flares out from the base of the body. The diameter narrows to 43.9 mm at the

top of the object. Both the top and the bottom are open and a ring of equidistant small (2.1 mm diameter) holes occurs on the body, 18.8 mm down from the top. The exact usage of this artifact cannot be identified at this time.

3.4 Containers

This category includes all artifacts, or portions of artifacts, which are used to contain products. As such, it tends to cross-cut other functional divisions, with assignment to the category based upon form, as much as function. The category contains several sub-categories (Manitoba Museum of Man and Nature 1986), three of which are applicable to the artifacts recovered from the bandshell area:

- a. Storage - the purpose of the container is to hold material, e.g., bottles, jars, tin cans;
- b. Ornamental - decorative items such as vases; and
- c. Dinnerware - the artifact is used in the serving or eating of food.

3.4.1 Storage

Storage containers include most of the commonly used artifacts in today's material culture. Many products are sold, transported, carried, or stored in a container of some type: bag, box, barrel, jar, sealer, can, bottle, pail. Containers come in a variety of material types such as metal, ceramic, and glass but only glass storage containers were recovered from this portion of the project.

Twenty-two complete and incomplete glass storage specimens were curated. Indications of the method of manufacture, which provide information about time period and technology, are often present on these artifacts. Where possible, the specimens have been identified to type of container, i.e., bottle, sealer, jar. Jars are defined as containers which have a generally cylindrical body and a mouth which is greater than $\frac{2}{3}$ of the diameter of the widest part of the base or body, while bottles have a constricted mouth and neck. Further identification, to a functional sub-type such as condiment, medicine, beer, beverage, and liquor, has been done where possible.

3.4.1.1 Condiment and Food Produce Bottles

Representatives of the condiment class are often difficult to identify as many producers used unmarked bottles and affixed a paper label identifying their company and product to the bottle. In some instances, the shape of the bottle can identify the product. The distinctive Ketchup bottle is an example of this. Some producers had bottles manufactured in private molds which were embossed with their name, e.g., the Heinz Company.

DILg-33:98C/5 consists of six body sherds from a clear, panelled bottle recovered from the surface excavations. Although there are no markings to indicate it, this bottle style is fairly typical of panelled ketchup bottles. No manufacturer information is present on any of the sherds.

3.4.1.2 Medicine Bottles

DILg-33:98C/2 is a small (88.1 mm in height), complete, clear bottle. It is a Philadelphia-style, oval prescription bottle (Sydenham 1908:7) with a recessed front panel where the manufacturer of the contents or the pharmacy would have placed a label. There are no marks on the bottle.

3.4.1.3 Beer Bottles

It is tempting to ascribe all containers produced by brewing companies to this class, however it is impossible. Many brewing companies, with the exception of McDonagh & Shea, appear to have had side-lines of soft drinks. Other firms, like Blackwoods Limited concentrated on soda waters but also produced some beers (Chopping 1978:105).

Two brown body, base sherds, DILg-33:98C/1, were recovered from the general fill. The larger of the two sherds has an "McD&S" monogram (the logo of McDonagh & Shea) embossed on the body with "WINNIPEG, MAN." printed below the logo and "P..." embossed on the base. This specimen can be identified to either Chopping Type MWIN BC5-4 or MWIN BC5-5 (Chopping 1978:136).

DILg-33:98C/13 is a portion of a body, base sherd from a brown McDonagh & Shea bottle, recovered from Hole 38 at a depth of 160.0 cm. The base has "884 B" embossed on it which corresponds with MWIN BC5-3 (Chopping 1978:136).

The history of the McDonagh & Shea company began in 1887 when John McDonagh and Patrick Shea purchased the Celestin Thomas brewery in Winnipeg. Based upon manufacturing techniques, the earliest McDonagh & Shea bottles are clear or aqua while the later bottles are dark brown and were produced in a private mold (Chopping 1978:133-139). Chopping's types appear to follow in a roughly chronological order and his taxonomy is based largely upon manufacturing techniques and embossing characteristics. However, the dates for each type have yet to be determined. In 1926, McDonagh & Shea became Shea's Winnipeg Brewery, thus providing a terminal date for the series.

3.4.1.4 Beverage Bottles

Those breweries that bottled beer as well as soft drinks often used the same type of bottle for each product. Without a paper label, it becomes impossible to ascribe a specific product to an archaeologically recovered bottle. These specimens are assigned to the generalized Beverage class. Within this sub-type, depending upon the data embossed on the artifact, it may be possible to identify the producer of the contents, the manufacturer of the container, both, or neither.

Unfortunately, the two beverage sherds, from the bandshell location, have no information whatsoever on them. DILg-33:98C/3 is the lip, neck portion of a cylindrical, aqua bottle with a crown finish (Jones and Sullivan 1985:88). DILg-33:98C/4 is a green body sherd, also from a cylindrical bottle.

3.4.1.5 Wine Bottles

One specimen, DILg-33:98C/9, is a large, dark green bottle missing the upper neck and finish. The base is slightly concave with a decorative small mamelon. The body has horizontal striae indicating turn-molding manufacture. This style of manufacture, commonly used for wine and liquor bottles, occurred from the 1870s through World War I (Jones and Sullivan 1985:31).

3.4.1.6 Liquor Bottles

This sub-type is a catchall for bottles that held some type of spirits but could not be assigned to a specific type such as whisky, gin, etc.

DILg-33:98C/6 is a nearly complete (the lip is chipped), aqua, flask-shaped bottle. The style of this specimen is a Shoofly (Sydenham 1908:38) with an applied, flat-sided, stopper finish (Jones and Sullivan 1985:89). DILg-33:98C/8 consists of the lip, neck, and shoulder portion of a larger, oval, aqua bottle. The lip is an applied stopper finish. DILg-33:98C/19, recovered from Auger Hole 53 at a depth of 140 cm, is a similar lip,neck sherd from an aqua bottle. It has an applied, flat-sided stopper finish. DILg-33:98C/20, also from Auger Hole 53, is a body,base sherd from a cylindrical dark green bottle. Other than circular striae on the base suggesting turn-molding, there are no markings on this sherd.

3.4.1.7 Unassignable Bottles

Artifacts in this grouping have some identifying characteristics, such as shape or manufacturer's marks. However, the data is insufficient to permit identification of the function of the container; i.e., medicine bottle versus condiment bottle. Occasionally, the style of manufacture of the neck and lip of bottles suggests the possible contents of the container. Also, the type of closure and evidence of manufacturing technique can provide approximate dates. The length of the mold seam can indicate a general age; i.e., if the seam extends to the lip of the bottle it was produced after 1920. Five specimens were assigned to this sub-category.

DILg-33:98C/7 is a cylindrical neck,body sherd, recovered from the general fill. The finish is missing on this clear bottle. The domed shoulder and cylindrical shape suggest this may be a beverage container.

DILg-33:98C/17, three body sherds, come from an oval-shaped, brown glass bottle. There are no marks of any kind on any of these sherds to indicate the contents, the manufacturer of the contents, or the maker of the bottle. It was recovered from Auger Hole 53 at a depth of 140 cm.

DILg-33:98C/18, also from Auger Hole 53, is a small, clear, lip,neck sherd which could be from a miniature liquor bottle or a condiment bottle. The molded vertical finish has a groove at the neck/finish junction.

3.4.2 *Ornamental*

The artifacts assigned to this sub-category were used primarily for their decorative features rather than any utilitarian function. DILg-33:98C/11 is a single white glass sherd. There are remnants of a red colour on the external surface of the sherd and it may have been decorated at some point. The sherd has been exposed to heat as it has been melted and the original shape cannot be discerned. Many different ornamental items were made of white Milk Glass (Lee 1946). It is possible that DILg-33:98C/11 is a portion of a vase or some other type of ornamental object.

3.4.3 *Dinnerware*

Three dinnerware artifacts were recovered, a glass tumbler from the general fill, a metal cup from Auger Hole 39 at a depth of 150 cm, and a ceramic sherd from Auger Hole 53 at a depth of 140 cm.

DILg-33:98C/10 is the body, base portion of a thick-walled drinking glass. The body of the tumbler, near the base, is decorated with a continuous fluted pattern, eight flutes in all. Each flute measures 39.8 mm in height and is 22.4 mm wide. This was a very common pattern for bar tumblers of various styles and sizes (Lee 1936: Plate 8). Lee lists some of these as being a Dublin Bar, a Frisco Bar, a Louisville Bar, a 7 flute, an 8 flute, and a 9 flute.

The base of this tumbler is embossed, in a circular design, with "CANADIAN NORTHERN RAILWAY" in mirror image so that the drinker would see the company name in readable text through the base of the tumbler. The Canadian Northern Railway began as the result of the union of two smaller Manitoba railway branch lines (Regehr 1985:277). The dates of the beginning and end of the Canadian Northern Railway vary somewhat according to the references. Tucker (1985:276) states that the Canadian Northern Railway was founded by William MacKenzie and Donald Mann in 1895, while Regehr (1985:277) notes that incorporation of the Canadian Northern Railway took place in 1899. The dates of demise of the railway also vary. Tucker (1985:276) says the Canadian Northern Railway was absorbed (along with four other railways) into the Canadian National Railways system between 1917 and 1923. Regehr (1985:277) states that the Canadian Northern Railway ended as an independent company with nationalization in 1918, while Guinn (1980:1) points out that the Canadian Northern Railway was in existence prior to amalgamation of the railroads in 1921. Whichever dates are correct, the period for this particular glass can be designated as between approximately 1895 and 1921.

DILg-33:98C/16 is a very bent, crushed, corroded iron cup that was originally painted blue. The Ashdown Hardware Company Catalogue (1909:753) illustrates straight-walled cups and mugs in this enameled ware style.

One small lip, body sherd comes from a white porcelain cup. Although there is no evidence of any other coloured pattern on DILg-33:98C/21, it could be part of a larger piece with a pattern.

4.0 SERVICES CORRIDOR

The services corridor (Figure 1) contains watermain, waste water, land drainage sewer, and Hydro ductline components. The first three were installed by excavating vertical shafts with horizontal boring for pipe placement. The Hydro ductline was installed in a continuous open-cut trench. Most of the historic artifacts tended to be recovered during the ductline excavations, especially when pockets of secondarily deposited debris were encountered within the upper railroad era fill horizon (Figure 2). A total of 277 artifacts was recovered.

Minimal Pre-Contact archaeological strata were encountered during this component, only at eight locations (Figure 1). These resources consisted of occupational evidence, primarily faunal remains from food consumption. Two separate cultural horizons are defined and are described in Chapter 6.

4.1 Architectural Objects

Artifacts that are used in the construction, the maintenance, and the furnishing of structures are catalogued in this category. However, due to corrosion and fragmentation, many metal, glass, or wood architectural objects cannot be assigned to a manufacturer or a time period.

4.1.1 Hardware

Hardware consists of items which are used in the construction of a structure. Items such as nails, bolts, house insulators, etc. were catalogued in this sub-category.

4.1.1.1 Nails

Two nails, one hand-wrought and the other sheet-cut, were curated. Hand wrought nails are the earliest form of nail and were used, in Canada, throughout the 17th, 18th, and 19th centuries (Nelson 1968:6). Hand wrought nails were made individually by a blacksmith and are square in cross-section with a relatively uniform taper from head to point. Head styles include T-heads, L-heads, and rose heads. DILg-33:98C/384 is a slightly rusted, rose-headed specimen measuring 151.7 mm in length.

Sheet-cut nails were developed about 1790 (Nelson 1968:8) and were mass produced by rolling sheets of iron or steel to a uniform thickness. These sheets were then cut into a nail which tapers from top to bottom. The thickness of the nail remains constant from head to point, while the width tapers. The T-shaped or L-shaped head was added to each individual shank. Sheet-cut nails were being produced in Montreal in the early part of the 19th century, however they only became common in The Forks area after 1860 when river steamboats transported quantities of American goods into this region (Kroker *et al.* 1991:105; McLeod 1983:148). The first steam boat to arrive in the vicinity of The Forks was the Anson Northup which came up the Red River from Minnesota (Collard 1967:39) . Her first regular run began in June of 1860 and two years later she was replaced by a larger steamboat. DILg-33:98C/378 is a minimally rusted specimen measuring 128.4 mm in length. It has a T-head.

4.1.1.2 Bolts

DILg-33:98C/383 is a $\frac{3}{8}$ " carriage bolt with the burr rusted in place. The overall length is $2\frac{1}{2}$ " (63.3 mm). It has a flat head.

4.1.1.3 Porcelain House Insulators

Three porcelain house insulators, used for electrical wiring, were curated. These include one rectangular two-wire cleat and two knob insulators (Amory 1969:661). DILg-33:98C/368 is the broken upper half of a white, rectangular, two-wire cleat insulator. Only one of the nail holes and wire notches is present.

Knob insulators have vertical walls with a groove three-quarters of the way up the body for wire placement. The two recovered specimens are quite different in size. DILg-33:98C/367 is complete, measuring 41.8 mm ($1\frac{5}{8}$ ") in height and 37.3 mm ($1\frac{1}{2}$ ") in diameter. DILg-33:98C/366 is larger, measuring 45.9 mm ($1\frac{7}{8}$ ") in height and 49.0 mm ($1\frac{15}{16}$ ") in diameter. A portion of the upper knob has been chipped off. The two sizes of knob insulators illustrated in the 1902 Sears, Roebuck catalogue are $1\frac{1}{16}$ " in diameter by $1\frac{3}{4}$ " high and $1\frac{9}{16}$ " in diameter by $1\frac{5}{8}$ " high (Amory 1969:661).

4.1.1.4 Miscellaneous Electrical

A partial overlap occurs between the Lighting Equipment (Electric Lighting) category and those electrical components which can be assigned to the Hardware sub-category. This is a function of the cataloguing hierarchy and could be remedied by considering all electrical components as a sub-category under Architectural Object. Six artifacts were curated in this sub-category.

DILg-33:98C/369 is a generally rectangular, white porcelain bar with copper posts. The shape is rounded at both ends and expanded in the middle producing undulating lateral edges. There is a nail/screw hole through the centre of the middle. Small copper bolts extend through holes at the distal ends of the specimen and each has three burrs, two washers, and a flat copper strap (46.4 mm long by 13.0 mm wide by 0.8 mm thick) which has a U-shaped notch at its distal end. A capital L is embossed on the surface of the artifact beside each of the posts.

DILg-33:98C/370 is a multi-component, circular electrical part consisting of a white porcelain base, three copper posts, two of which have copper straps, and a central complex. This central element is based upon a circular mica sheet under a copper alloy washer which rises into a threaded tube, 34.6 mm in diameter. This is bolted to the main porcelain body with two small brass bolts. The centre of the complex has four, short, movable carbon bars (separated by mica sheets) attached to a vertical medial copper plate. The function of this artifact is undeterminable. The letters "G" and "I" are embossed on the upper surface of the porcelain. DILg-33:98C/379 and 381 are portions of the copper alloy screw cap which fits over the central complex. DILg-33:98C/381 is a very small fragment of the threaded base portion, while DILg-33:98C/379 is nearly complete and fits onto a remnant still

remaining on DILg-33:98C/370. This screw cap is 36.7 mm in diameter, at least 37 mm in height, and has four small holes in the flat top.

DILg-33:98C/371 and 372 are two-part porcelain and copper electrical artifacts. Both are circular with a diameter of 61.3 mm and have a screw-on, cylindrical cap perforated with three, equally spaced, small holes. The interior of the basal portion has four copper elements consisting of a small kidney-shaped base plate screwed into the porcelain base, a locking screw, and a tube for wire insertion with a smaller locking screw. These are arranged at 1:00 o'clock, 5:00 o'clock, 7:00 o'clock, and 11:00 o'clock with screw holes at 3:00 o'clock and 9:00 o'clock and a perpendicular raised ridge separating the base into two halves. The exterior of the base has grooves for wire placement and holes for insertion of wires to the tubes with locking screws. The base of DILg-33:98C/371 has a U-bolt shaped logo embossed on it and an impressed circular mark consisting of "CFA in a triangle" and the word "ENGLAND" wrapped around the triangle. DILg-33:98C/372 has the same logo but the mark is not present. The screw cap for DILg-33:98C/372 is broken. A copper wire is attached to one of the tubes on DILg-33:98C/372.

4.1.1.5 Strap

The functional category of strap is open to debate—some strap could have been used as a structural component, some could have been used as part of a machine, and some could have been used for packing. One remnant of metal strap was catalogued. DILg-33:98C/396 is a circular, copper alloy, strap which has a flat U-shaped cross-section. It is obvious that something was held in place in the U-shaped channel (10.8 mm wide) but the diameter of the artifact is too small for a vehicle headlight and too large for the railway bulls-eye lanterns.

4.1.1.6 Lock

DILg-33:98C/394 is a heavy, heart-shaped, cast-iron padlock with a broken shackle. The exterior surface appears to have originally been a glossy black. A raised circular area occurs near the base, on one surface, and this appears to have a key hole filled with rust. A figure 8-shaped raised area, which may be a toggling cover for the key hole, occurs above the circular area.

4.1.2 *Accoutrements*

Artifacts catalogued in this category are those used to put the finishing touches on a structure. DILg-33:98C/365 is a fragment of clear windowpane measuring 4.8 mm in thickness. This is slightly thicker than standard windowpane but not as thick as plate glass.

4.1.3 *Structural Elements*

This category consists of elements of the structure, e.g., brick, tile, linoleum, lumber, etc. Incomplete or broken structural artifacts are minimally diagnostic. DILg-33:98C/376 is a thin (7.0 mm) tabular fragment of black slate. This specimen, obviously broken from a larger artifact, could

have been a roofing slate, a floor tile, or a counter surface. DILg-33:98C/377 is a lozenge-shaped piece of reddish-brown marble. It measures 154.8 mm in length, 77.8 mm in width, and 12.5 mm in thickness. It appears to have been affected by intense heat.

4.2 Lighting Equipment

Seven artifacts were assigned to this category, all in sub-category of Oil Lighting. DILg-33:98C/387 is the iron wick holder from an oil or kerosene lamp. This artifact is broken and corroded but the entire wick sheath and a portion of the wick are still present. DILg-33:98C/386 is similar to DILg-33:98C/387 except it lacks the wick and wick sheath.

DILg-33:98C/375 is a sherd of white glass, possibly vaseline glass, which appears to have a rectangular or square outline with a central circular component. It is possible that this the basal footing for a coal oil lamp, below the fluid holding reservoir.

The remaining four artifacts are portions of a railroad lanterns (Ashdown 1909:841). DILg-33:98C/391 is the broken, rusted wire guard component, missing the base and the cap. DILg-33:98C/390 is a complete clear glass globe for this style of lantern. DILg-33:98C/389, the same style of globe, is complete except for a small chip missing from the body. DILg-33:98C/388 is a body, base sherd of a similar globe.

4.3 Manufacturing Equipment

This category refers to tools and/or implements used to manufacture other artifacts. Eight artifacts represent the sub-categories of Industrial, Building, Metalworking, and Woodworking.

4.3.1 Industrial

Four artifacts have been assigned to this sub-category (Table 4) and are more than likely all from parts of machinery. DILg-33:98C/395 is an oval handle measuring 76.8 mm by 46.1 mm. Two short, flat prongs project from a lateral side. Each is perforated with a small hole, probably used for inserting a rod, pin, or bolt for attaching this component to a larger artifact.

DILg-33:98C/404 measures 186.9 mm in diameter and has sixteen vertical rectangular teeth and two elongated rectangular teeth at opposite sides of the circle. The inner portion is composed of two concentric rings with radiating braces and a central cross-bar in the middle ring.

DILg-33:98C/405 is an enigmatic artifact. At the centre, a perpendicular flat hook projects upward and culminates in a small, tubular extension. The artifact has corroded portions of elongated teeth as could be expected in the internal structure of a circular gear. The artifact does not seem to be symmetrical as there is no evidence of a continuation of the teeth on the lower half.

CAT. #	QTY	OBJECT	MATERIAL	COMMENTS
395	1	handle	iron	oval, two prongs for pin attachment
404	1	gear	iron	circular toothed, internal lattice work
405	1	gear?	iron	elongated teeth, hook
406	1	prong	iron	tapered strap-like, proximal bend
TOTAL	4			

Table 4: Industrial Artifacts from the Services Corridor

DILg-33:98C/406 is a 34.5 cm long flat prong which tapers from a width of 25.3 mm at the proximal end to 10.1 mm at the distal end. A reverse bend occurs at the proximal end forming a nearly 90° angle with the inward curving prong. The function of this artifact is unknown although it is probably paired with other similar pieces to make up a complete tool.

4.3.2 Building

DILg-33:98C/403 is the central, adze-eye socket portion of a heavily corroded pick. As both tines have been broken off, it is not possible to ascertain the style of pick, i.e., railroad, ore, rock, or drifting (Ashdown 1909:26-27).

4.3.3 Metalworking

DILg-33:98C/392 is a rusted, iron, cylindrical punch tapering towards both the top and bottom. It measures 164.3 mm in length. Ashdown (1909:122D-123) illustrates several types of punches. This specimen closely resembles a machinists' centre punch.

DILg-33:98C/408 is a large, iron, open-end wrench with a long handle. The open end would fit a 1 $\frac{3}{8}$ " bolt. The overall length of this implement is 54.8 cm and it would have been a specialized tool for railroad work.

4.3.4 Woodworking

DILg-33:98C/393 is a section of a wood saw blade (Ashdown 1909:49-51). These blades generally are 30" long, however this section is 11" (277.3 mm) long and lacks both lateral ends.

4.4 Communication

Five communication related artifacts were curated, three in the sub-category of Written Communication and two in the sub-category of Telecommunication.

4.4.1 Written Communication

DILg-33:98C/421 consists of three clumps of multiple pages from a burned ledger. One piece has a portion of a page with the heading "...ORTHERN" above "...STER'S SWITCH...". The page is divided into columns with the headings "CAR", "LOADED OR EMPTY", and "DES...". Under the 'car' column there are pencilled numbers, 20 is the only legible one. A second fragment has a column also with pencilled numbers—100, 46, 28, 86, 84, etc. The third fragment also has columns with pencilled in text and numbers. It is likely that this is a switchmasters ledger for use in the Canadian Northern Railway marshalling yard. The history of this railway is detailed in Section 3.4.3.

4.4.2 Telecommunication

Two portions of aqua, threaded, domed, pony-style types of glass insulators were curated. This threaded design was patented in 1865 and has been used into the 20th century (Kottman 1979:18). According to Kottman (1979:19), the pony style of insulator was so named due to the "use of [insulators] on telegraph lines, which made the pony express obsolete". DILg-33:98C/363 is a body,base sherd, while DILg-33:98C/364 is a nearly complete insulator with a portion of the basal skirt missing. The extant portion of the skirt on DILg-33:98C/364 is embossed with "...TTICOAT". This could stand for Petticoat, possibly the name of the manufacturer of the insulator.

4.5 Food Processing

DILg-33:98C/407 is a large meat hook made from a steel rod, 17.0 mm in diameter. The proximal end has been bent to form a J-shaped hook which would have been suspended over rods or wires. The distal end is an open J-hook culminating in a sharp point and oriented perpendicular to the plane of the proximal end. This artifact probably was used for suspending sides of beef, pork, or mutton during shipment in railroad refrigerator cars.

4.6 Clothing

Thirteen artifacts, all representative of footwear items were recovered (Table 5). Most are nondescript fragments of shoes and all discernible information has been listed in the table. The heels, where present, were attached to the soles with iron nails and evidence of stitching was present on most specimens. DILg-33:98C/412 is a largely complete woman's lace-up shoe with a low heel and a toe cap. The upper has five lower eyelets and two hooks and a final eyelet at the top. This same pattern of eyelets and hooks occurs on DILg-33:98C/417 which may be the missing portion of DILg-33:98C/412.

Two of the specimens are from rubber boots. DILg-33:98C/410 is a melted fragment of reddish rubber. DILg-33:98C/420 is part of the sole of a black rubber boot. The instep has an embossed logo with a portion of the text, "...ADIAN RUBBER COM..." , present. The hatchured tread on the toe portion of this sole has been severely worn indicating a long period of use for this boot.

CAT. #	QTY	PORTION	MATERIAL	SIDE	COMMENTS
410	1	sole	rubber	-	red
411	1	sole	leather	-	-
412	1	sole, heel, upper	leather, iron	left	woman's shoe; eyelets; hooks
413	1	heel, sole	leather, iron	right	woman's shoe?
414	1	sole	leather	left	woman's shoe?
415	1	sole	leather	left	man's shoe
416	1	heel	leather, iron	-	-
417	1	upper	leather, iron	-	eyelets; hooks
418	2	upper	leather, iron	right	eyelets
419	2	sole	leather	-	-
420	1	sole	rubber	right	black; ...ADIAN RUBBER COM...
TOTAL	13				

Table 5: Shoes from the Services Corridor

4.7 Transportation

Three types of transportation—draught, railroad, and vehicle—are represented by the recoveries.

4.7.1 Draught

The single draught artifact is a portion of a harness. DILg-33:98C/409 is an elongated iron hook with an oval ring at the distal end through which a section of leather is looped. The hook is 104.1 mm long and the section of leather harness is 40.5 mm wide.

4.7.2 Railroad

As this area was a railroad yard from 1888 until 1988, it can be expected that various types of artifacts pertaining to the rail activities would be recovered. Three fragments of coloured glass for the bulls-eye glass lens of railroad signalman's lamps were recovered. DILg-33:98C/373 is one red sherd and DILg-33:98C/374 is two blue sherds from different lamps.

4.7.3 Vehicle

DILg-33:98C/342 is an amber glass sherd from a small (38.0 mm diameter) running light. The molded pattern consists of parallel raised ridges and vertical ribbed flat bands between the ridges. While the portion is too incomplete for positive identification, the sherd strongly resembles ancillary lights that are attached to light trucks.

4.8 Faunal Remains

A total of 37 faunal artifacts were recovered (Table 6). The specimens were identified using standard references: Casteel (1976), Clarke (1981), Gilbert (1973), Olsen (1960, 1964, 1968), and Schmid (1972). All faunal remains were examined and identified as specifically as possible: body part, age of individual, and species. Evidence of butchering techniques, such as cutting or sawing, was recorded as was the condition of the specimens, i.e., charred, broken, chewed, or gnawed.

TAXON	ELEMENT	CAT. #	QTY	WT	COMMENTS
Undifferentiated Aves Large Aves	femur	343	1	5.5	chicken?
TOTAL AVES			1	5.5	
Shellfish Unionidae	valve	344	1	0.6	-
Atlantic Oyster (Ostreidae)	valve	345	2	6.5	charred
TOTAL SHELL			3	7.1	
Mammal Medium Mammal Sheep (<i>Ovis aries</i>)	rib	347	1	4.9	stained
	metacarpal	349	1	18.3	stained
	metatarsus	350	1	37.7	sub-adult, stained
	scapula	351	1	4.6	sawn
	radius	352	1	6.9	cut
	humerus	353	1	17.5	cut marks
	mandible, tooth	348	1	23.7	sub-adult, sawn
Pig (<i>Sus scrofa</i>)	humerus	354	1	4.8	proximal epiphysis
	mandible, tooth	355	1	62.3	stained
Cow (<i>Bos taurus</i>)	carpus?/tarsus?	356	1	10.4	cut
	hyoid	357	1	6.1	gnawed
	atlas	358	1	61.7	sawn, cut
	scapula	359	2	99.1	sawn
	humerus	360	5	463.1	sawn
	vertebra	361	5	100.4	cut, cut marks, sawn
	rib	362	9	296.4	sawn, cut marks
TOTAL MAMMAL			33	1217.9	
TOTAL			37	1230.5	

Table 6: Faunal Recoveries from the Services Corridor

All of the faunal remains are obviously remnants from food resources, mainly from domestic animals. The mammal bones are dominated by cow (*Bos taurus*) and sheep (*Ovis aries*). The cow specimens derive from adult animals while the sheep and pig remains are from sub-adult animals.

Almost all of the mammal bones have cut marks and/or evidence of sawing to show that the animal had been butchered. Many of the cuts indicate that the animals had been sectioned into roasts and steaks. The type of butchering varies from dismembering at joints to cutting of smaller bones to sawing of larger bones. Given that the upper layer of railroad fill was slowly built up over the latter portion of the 19th century and the early part of the 20th century, the railroad companies probably used garbage from railroad dining cars as fill along with the cinders from the locomotives. It is possible that garbage from other areas of the city was dumped into the area, with or without the permission of the railroads.

The only bird element is tentatively identified as chicken (*Gallus gallus*). Given the size of this specimen, it could derive also from a larger duck (mallard, canvasback, etc.) or a small goose. The shell fragment from a local freshwater clam could not be identified to species. Imported shellfish, i.e., Atlantic oysters, were also present on the site.

4.9 Floral Remains

This category includes non-manufactured articles which are comprised of plant material. DILg-33:98C/346 is a portion of the husk of a coconut (*Cocos nucifera*). As with oyster, coconut was an imported exotic food. It's presence may be the result of dining car facilities on the railroad or the dumping of refuse from a restaurant.

4.10 Containers

The recoveries from the services corridor fall into three functional sub-categories:

- a. Storage - the purpose of the container is to hold material, e.g., bottles, jars, tin cans;
- b. Ornamental - decorative items such as vases; and
- c. Dinnerware - the artifact is used in the serving or eating of food.

Within the analytical and computer cataloguing hierarchy, dinnerware is considered as a sub-category of containers. However, for discussion purposes, it is sometimes treated as a distinct and separate group. In part, this is due to the large quantities recovered, as well as the detail of information that can be derived from dinnerware specimens. Accordingly, the dinnerware recoveries from the services corridor are discussed in Section 4.11.

4.10.1 Storage

As noted earlier, storage containers can be boxes, barrels, jars, cans, bottles, or pails. Containers of metal, ceramic, and glass were recovered from this component. In addition, some types of closures were curated.

4.10.1.1 Closures

Containers have a variety of closure types—modern ones have metal or plastic caps while older containers had corks or glass stoppers. Six corks, of varying sizes, were curated (DILg-33:98C/307). Two specimens, DILg-33:98C/380 and 382, are severely corroded caps from bottles. DILg-33:98C/380 is iron and has a diameter of 29.7 mm, while DILg-33:98C/382 is tin or zinc with a diameter of approximately 27 mm. Both are too incomplete to determine whether they are snap caps or screw caps. The final closure artifact is DILg-33:98C/399, a large (86.4 mm diameter) snap cap lid from a tin or cardboard can.

4.10.1.2 Metal Containers

Four artifacts are the ubiquitous tin cans. The most distinctive specimen is DILg-33:98C/402 which is a severely corroded sardine-type tin. The dimensions are 112.5 mm by 76.5 mm by 26.5 mm. The majority of the lid is also present. The remaining three specimens are fragments of cylindrical tins of differing sizes. DILg-33:98C/401 is a base portion with a diameter of 80.3 mm. A deep circular groove is present on the base. DILg-33:98C/400 is a body, base fragment from a smaller can with a diameter estimated at approximately 70 mm. Finally, DILg-33:98C/398 is a lip, body fragment from a larger can with a diameter estimated at 90 mm. This can would have closed with a snap lid which would seat onto the raised ridge occurring 21.3 mm below the lip.

4.10.1.3 Ceramic Containers

Eight ceramic sherds, representing two crocks, five bottles, and a jar, were recovered. Ceramic containers were prevalent during the 19th and the early part of the 20th century. Many products were sold in stoneware bottles or jars. Stoneware crocks were used for storage, food processing, or home preserving.

4.10.1.3.1 Crocks

Crocks of various sizes, from one quart to twenty gallons, were a standard feature in most homes during the latter part of the 19th century. They were used for storing bulk staples like flour, preserving meats in salt brine or eggs in isinglass, or preparing other foods like sauerkraut. In the prairie region, a few suppliers dominated the market, particularly those of the stoneware companies of Red Wing, Minnesota and, after 1909, the various pottery firms from Medicine Hat, Alberta. Other firms in eastern Canada and the United States contributed to the steady market.

DILg-33:98C/340 is a grey body sherd, while DILg-33:98C/339 is a tan body sherd with a vertical painted blue line and a dark red brown interior. DILg-33:98C/340 is 7.1 mm thick while DILg-33:98C/339 is 8.6 mm thick. The blue line on DILg-33:98C/339 could be part of a decorative feature, a size numeral, or an advertising logo.

4.10.1.3.2 Bottles

Five sherds could be identified as stoneware bottles of various colours. DILg-33:98C/335 is a body sherd with an orange brown glaze and a grey paste. The surface of the body is somewhat irregular indicating that this is not a high quality piece. DILg-33:98C/337 is a body,base sherd also with a grey paste but a dark red brown glaze on the interior and exterior surfaces. Most of these darker coloured bottles probably contained ink or other chemical compounds rather than beverages which tended to be sold in the grey or pale tan bottles.

DILg-33:98C/338 is a grey body sherd with a roughly finished interior. DILg-33:98C/336 consists of two body,shoulder sherds that fit together. They are grey on the bottom and yellow brown on the top. Chopping (1978) illustrates several varieties of Golden Key Ginger Beer bottles and notes that the colours are tan and cream as opposed to Blackwoods bottles which are a single colour and Douglas & King bottles which are dark brown and cream. If one assumes the product is local, it is probable that the sherds represent a Drewry product.

4.10.1.3.3 Jars

Jars are defined as having a mouth diameter at least $\frac{2}{3}$ that of the body. Stoneware jars were used to store food products such as preserves, marmalades, butter, etc. DILg-33:98C/326 is a lip,body sherd from a small cream-coloured jar. In contrast to the standard plain ginger jars that are common occurrences, this specimen is decorated with a molded design consisting of two horizontal raised ridges paralleling the lip and scroll work on the body.

4.10.1.4 Glass Containers

One hundred and twenty-nine complete and incomplete glass storage specimens were curated. These were identified to functional sub-types.

4.10.1.4.1 Condiment and Food Produce Bottles

DILg-33:98C/249 consists of two clear sherds, one a body,lip and the other a body,base. The body cross-section is square with chamfered corners rising into a cylindrical neck which has two string collars and an interrupted screw closure. The numeral "3" is embossed on the base and remnants of paper labels occur on the body and the neck. None of the text is sufficiently decipherable to positively identify the product or the manufacturer. Traces of a "W", a possible "O", and a possible "D" provide a basis for hypothesizing that the product could have been produced by Blackwoods who are known to have manufactured sauces and pickles (Chopping 1978:229).

4.10.1.4.2 Carboys

Three sherds were designated as carboys based on the thickness and the curvature of the glass. DILg-33:98C/248 is two body,base sherds from a clear bottle which would have contained at least 1 gallon. The thickness of the body is 5.9 mm. DILg-33:98C/297 is an aqua lip,neck,shoulder sherd. The

applied lip has an exterior vertical brace and the slightly tapering inner bore is 49.8 mm. This container probably was closed with a cork.

4.10.1.4.3 Milk (or Dairy) Bottles

DILg-33:98C/244 is a clear, lip, neck sherd from an unassignable quart-sized milk bottle. The bottle is decorated with continuous vertical panelling, a common feature of milk bottles throughout North America. The lip has an inner step for placement of the cardboard seal. The mold seam runs to the top of the lip indicating manufacture after 1920.

DILg-33:98C/242 is a shoulder, body, base sherd from a clear milk bottle. The name "CRESCENT" is embossed on the body in a descending oblique print. The embossing and the size of the bottle match Chopping Type MWIN DC6 (Chopping 1978:177). Seriation of recoveries from the Assiniboine Riverfront Quay Project (Kroker and Goundry 1993a:44-45) indicate that this particular bottle is one of the later versions of the company. A panorama of the area north of The Forks shows the Crescent Creamery Company at the end of Lombard Avenue in 1911 (Quaternary 1999d:9).

DILg-33:98C/243 is a clear basal sherd embossed with "DELAVAL" in an arc. It is unknown if this is a dairy or dairy supply firm. It is probable that it is the latter as Chopping notes that both a bottle from the P&C Milk Company, Calgary (1978:164 ACAL DR1) and a Hill's Dairy bottle from Saskatoon (1978:164 SSAS DJ1) are embossed with DeLaval on the base.

4.10.1.4.4 Cosmetic Containers

Two artifacts were assigned to this category. DILg-33:98C/333 is a small white glass jar with an interrupted screw closure. The diameter is 50.8 mm and the height is only 24.8 mm. The concave interior measures 18.6 mm deep. The body is decorated with twenty wide concave panels. This small jar may have contained rouge or a similar cosmetic product. DILg-33:98C/334 is a white glass lid from a larger jar (62.3 mm in diameter). No decoration occurs on this lid which would have rested on a ledge of the lip of the jar.

White glass jars tend to cross-cut categories and often contain a variety of materials. Some have a product name such as Pond's that identify the jar as containing a cold cream (Kroker and Goundry 1993a:53; Quaternary 1995d:38) while others have a script and/or logo that identifies the jar as containing a food product, i.e., MacLaren's Imperial Cheese (Kroker and Goundry 1990:61). These jars were also used for holding cosmetics. In addition, they also held unguents and ointments, precursors to the plastic jars dispensed at pharmacies today.

4.10.1.4.5 Soft Drink Bottles

Many bottling firms produced alcoholic and non-alcoholic beverages, often using the same bottles which were identified by paper labels. Specimens recovered archaeologically can only be assigned to the Soft Drink category if the artifact is identified with a brand name or a company name of a firm which only produced non-alcoholic beverages. Those specimens which could not be identified as soft

drink containers are discussed in the more generic Beverage section. Two specimens were assigned to this category.

DILg-33:98C/282 is an aqua, body,base sherd, with "O'KELLY BRO..." and "TRA..." embossed on it. In 1893, C. O'Kelly and T.D. Flanery were soda water manufacturers at 184 James Street. The company name became O'Kelly Brothers in 1895 and continued until 1901 (Stock 1978:27). This sherd derives from a Hutchinson bottle, Chopping Type MWIN BF1 (Chopping 1978:140).

DILg-33:98C/241 is a clear, body,base sherd embossed with "DREWRY" and "901" on the base and "WINNIPEG MANITO..." on the body near the base. This year date, employed by Drewry indicates that the product was Golden Key Brand Aerated Waters, produced in the year 1901. Chopping (1978:116) identifies this type as MWIN BG6-7. The history of this company is detailed in the Beverage bottles section as it produced alcoholic beverages as well.

4.10.1.4.6 Beer Bottles

As noted above, containers produced by most brewing companies could have contained either soft drinks or beer. Those which are known to have contained beer are discussed here, while bottles from firms which manufactured both products are discussed under the general Beverage category. Nine artifacts were assigned to this category (Table 7).

COMPANY	CHOPPING NO.	COLOUR	CAT. #	QTY	PORTION
McDonagh & Shea	MWIN BC5-4/5	brown	211	1	body,base
	MWIN BC5-4/5	amber	225	1	body,base
	MWIN BC7-3	brown	208	1	complete
	MWIN BC7-5	"	207	1	"
	MWIN BC8-5*	"	209	1	"
	MWIN BC8?	"	210	1	body
	MWIN BC?	"	212	1	body,base
Edelweiss	MWIN BM2	green	274	1	body,base
L.H. Clarke	-	aqua	285	1	neck,body,base

Table 7: Beer Bottles from Services Corridor

Seven specimens are products of McDonagh & Shea. In 1887, John McDonagh and Patrick Shea purchased the Celestin Thomas brewery in Winnipeg. In 1926, the company became Shea's Winnipeg Brewery, thereby providing a terminal date for the bottles from this company. The bottles represent two manufacturing techniques—blown-in-mold and automatic bottling machine. The lower Chopping (1978) numbers are for the blown-in-mold specimens with MWIN BC6 and higher produced in

automatic bottling machines. The logo, "P.B.&CO.", embossed on the base of DILg-33:98C/211 and 225 has yet to be identified but it would be that of the bottle manufacturer.

DILg-33:98C/274 is a body, base sherd from a light green bottle embossed with "PROPERTY OF EDELWEISS BREWERY" and "W'P'G". The Edelweiss Brewery first appears in the Henderson Directories in 1906 and was located at Stadacona and Taylor. The manager at that time was listed as A.W. Riedle. In 1923, Mr. Riedle bought the brewery and renamed it after himself, i.e., Riedle Brewery. This business lasted until 1951 when it became Grant's Brewery. This company, in turn, lasted until 1958 when it was bought by O'Keefe Brewery (Kroker and Goundry 1993a:62).

The earliest specimen, DILg-33:98C/285, is a nearly complete, aqua bottle manufactured in a three piece vertical body mold (Jones and Sullivan 1985:28). This bottle has a great deal of information embossed on it: the manufacturer, "L.H. CLARKE" (and his monogram), the product name, "STOCK LAGER", and the place, "PALMERSTON ONT". This product was probably imported by one of the hotels in the city or was brought and discarded by a passenger on a west-bound train.

4.10.1.4.7 Beverage Bottles

Forty-seven specimens were designated as Beverage bottles. Based on the extracted information, the recovered specimens are discussed in two sections: those attributable to Winnipeg bottling firms and those for which neither the manufacturer nor the producer could be identified.

4.10.1.4.7.1 Winnipeg Bottling Firms

There was an active beverage industry in Winnipeg with several firms vying for the market. Recoveries from the services corridor include bottles representing four of these companies: Blackwoods, Drewry, North West Aerated Water, and Pelissier (Table 8). Two firms (Blackwoods and Drewry) dominated the local market or, at least, their bottles are the most commonly found. Blackwood Brothers, later Blackwoods Limited, is better known as a bottler of soft drinks while E. L. Drewry Limited appears to have concentrated on brewing beer.

The passage of the Manitoba Temperance Act, in 1916, resulted in all Winnipeg brewers concentrating on the manufacture of soft drinks and beer for export. The local market for 'Temperance Beer' and medicinally prescribed spirits was further diminished by the 1918 Federal War Measures Act which was in force for one year and prevented importation of alcohol. Broad-based restrictions were eliminated by the introduction of the Liquor Control Act in 1923.

Blackwoods has a long and involved history. In 1882, it began as the Manitoba Brewing Company and became Blackwoods Brothers shortly after. In 1901, the name was changed to Blackwoods Limited. Another name change occurred in 1921, this time to Blackwoods Beverages (Aerated Water Manufacturing Company Limited). In 1923, the Whistle Bottling Company was formed to take over Blackwoods' business and, in 1934, the name reverted to Blackwoods Beverages Limited (Stock 1978:19; Chopping 1978:99-109).

COMPANY	CHOPPING NO.	COLOUR	CAT. NO.	QTY	PORTION
Blackwoods	MWIN BA18-3	aqua	261	1	body, base, shoulder
	MWIN BA18-3	aqua	262	1	body, base, neck
	MWIN BA19-1	clear	236	3	body, base, shoulder
	MWIN BA19-5	aqua	260	2	complete, chipped
Drewry	MWIN BG11-1	clear	238	1	body, base, shoulder
	MWIN BG13	blue	256	1	body, base, shoulder
	MWIN BG13	blue	257	1	body, base
	MWIN BG15-3	aqua	269	1	body, base, shoulder
	MWIN BG15-4*	aqua	267	1	body, base, shoulder
	MWIN BG18-2	blue	263	1	body, base
	MWIN BG18-4	light green	264	1	body, base
	MWIN BG18-5	aqua	268	1	lip, body, neck
	MWIN BG18-6*	light green	272	1	body, base
	MWIN BG23-3*	light green	270	1	body, base, shoulder
	MWIN BG24-2*	clear	240	1	body, base
	MWIN BG25	blue	265	1	complete
	MWIN BG25-1	aqua	266	1	complete
	MWIN BG25-1	aqua	271	1	body, base
	MWIN BG26	amethyst	239	1	body, base
	MWIN BG23-2/24-1	clear	237	1	lip, body, base
	MWIN BG?	clear	246	1	body, base
	MWIN BG?	aqua	273	1	lip, neck, shoulder
	MWIN BG?	aqua	275	2	body, base
	N.W.A.W.	MWIN BR2	aqua	277	1
"		aqua	278	1	body, base
MWIN BI?		aqua	301	1	body
Pelissier	MWIN BR2	aqua	259	2	body, base, neck
	MWIN BR3	aqua	258	1	neck, body, base
	MWIN BR6-1	amethyst	233	1	body, base
	MWIN BR9	clear	234	1	body, base
	MWIN BR9	clear	255	1	body, base, shoulder
	MWIN BR?	clear	235	1	lip, neck, shoulder
Unassigned	MWIN B?	aqua	276	1	body, base

Table 8: Identified Winnipeg Beverage Bottles

The early incarnations of the Blackwoods business had various locations. Just after 1900, William and A.T.R. Blackwood bought a pre-existing building (built in the early 1880s) at 409-421 Mulvey Avenue East. In 1920, Blackwoods sold this property. Originally, the building on the Mulvey site had been a factory and then, over the years, it was the home of other brewing companies—E.L. Drewry, Pelissier Brewery, Labatts. Today, various manufacturing companies occupy it (Peterson and Sweeney 1998:27).

Four different types of Blackwoods bottles were recovered and identified using Chopping (1978). All recovered specimens have the later of the two versions of the ownership clause, "THIS BOTTLE IS OUR PROPERTY ANY CHARGE MADE THEREFOR SIMPLY COVERS ITS USE WHILE CONTAINING GOODS BOTTLED BY US AND MUST BE RETURNED WHEN EMPTY", embossed on the body. The company name is Blackwoods Limited which means that the bottles were produced between 1901 and 1921.

The Drewry company began in 1877 when E.L. Drewry leased the Redwood Brewery and produced beverages labeled with his name. In 1904, the company name was changed to E.L. Drewry Limited and, in 1921, it became Drewrys Limited. As well as the Redwood location, Drewry purchased the premises of the Empire Brewing Company at Mulvey Avenue East in 1892. These facilities were sold to Blackwood Brothers shortly after the turn of the century (Peterson and Sweeney 1998:27). As well as beers and ales, the firm produced several brands of soft drinks (Stock 1978:11-13).

Fifteen different types of Drewry bottles were recovered and identified using Chopping (1978). In some instances, recovered bottles were different from the type defined by Chopping, either in colour or format of the embossings. New sub-type numbers were assigned and denoted by a single asterisk following the Chopping number. Drewry products are extremely useful as temporal markers in that the date of manufacture is embossed on the base of the bottles. The recovered artifacts represent the years 1904, 1906, 1908, 1909, 1910, and 1911.

The Winnipeg-specific ownership clause, "THIS BOTTLE IS OUR PROPERTY ANY CHARGE MADE THEREFOR SIMPLY COVERS ITS USE WHILE CONTAINING GOODS BOTTLED BY US AND MUST BE RETURNED WHEN EMPTY", is embossed on the body of all specimens. The company name and Winnipeg are embossed in various locations—most often on the shoulder and the base. These embossings allow the identification of small sherds as part of a Drewry bottle but do not provide sufficient information to identify the Chopping Type (Table 8).

DILg-33:98C/267 is an extrapolated Chopping type. This specimen has a mold number "7766" at the body, base junction. Chopping (1978:120) lists two 1908 types with mold numbers, neither of which matches this one. Therefore, a new sub-number has been introduced. DILg-33:98C/270 has a basal date embossing of "08 in a diamond". This matches Chopping Types MWIN BG23 and MWIN BG23-1 as opposed to MWIN BG23-2. However, those types are all clear and this specimen, being light green, is allocated a new Chopping number MWIN BG23-3. DILg-33:98C/240 is embossed with the year marker "09 in a rectangle" on the base. This format matches Chopping Type MWIN BG24-1 which is listed as an aqua bottle. The recovered specimen is clear, necessitating a new

Chopping sub-type designation. DILg-33:98C/272 has the year date "11 in a circle" embossed on the base like Chopping Type MWIN BG18-5. However, the "C" below the year date is missing and the mold number "6225" occurs on the body, near the base, instead of "7810".

All three of the North West Aerated Water Company bottles are the Hutchinson-type of bottle (Chopping 1978:140). The bases of these bottles are slightly more rounded than those of Blackwoods and are reminiscent of a truncated torpedo bottle. This company began in 1889 and continued producing until 1894. It appears that they only used the Hutchinson-type bottles during their operation. The firm was located in the Cauchan Building on Main Street at York Avenue (Stock 1978:26). In an 1892 panorama of Main Street, by Clarence Steele, the North West Aerated Water Company is pictured at the north end of the block (Quaternary 1994c:46). The Cauchan Building, built in 1881, became the Empire Hotel in 1905 and was demolished in May of 1982 (The Winnipeg Sun 1982:5).

The Pelissier Brewery has a rather convoluted history. In 1911, Pelissier & Sons manufactured Soda Water at 721 Furby. In 1914, the company, still manufacturing Soda Water, changed its name to Beaver Brewing and Bottling Company and, in 1918, it expanded from 721 to 719 Furby. In 1920, there was another name change, to the Home Brewery, and a further expansion, from 719 to 723 Furby. At this time, Alphonse, Cleophas, and Henry Pelissier were all listed as executives of the company. The final expansion of the Home Brewery, on the Furby site, took place in 1924, with the Brewery now occupying 715 to 723 Furby. In 1925, the company moved to Osborne and Mulvey and changed its name to Pelissiers Limited. It remained at this location, under variations of the same name, until 1977 when it became Kiewel-Pelissier's Breweries. Four types of bottles from this firm were identified and, based on the embossed name, were manufactured between 1911 and 1914. This date range corresponds closely with those obtained from the Drewry bottles.

DILg-33:98C/276 has the word "WINNIPEG" on the base identifying it as a local product. A portion of a word "...IL" also occurs on the body, at the base. This does not match the last letters in any known Winnipeg beverage manufacturing firm. In addition, a portion of a central design and the word "MARK", in an arc, are embossed on the base. The extant portion of the central mark could be the bottom half of a beaver logo but the design format does not match either the Beaver Brewing and Bottling Company or Pelissier & Sons Ltd.

4.10.1.4.7.2 Unascribed Beverage Bottles

The remaining nine beverage sherds have no indication of any markings or manufacturers (Table 9). They are assigned to this category due to the type of finish, except DILg-33:98C/213 which is assigned on the basis of colour. All the finishes have a crown lip (Jones and Sullivan 1985:88). The colours vary and certain colours tend to be associated with certain products, i.e., brown bottles are often used for beer. However, this tendency is not exclusive and is not sufficient to permit allocation of these artifacts into specific categories.

CAT. #	COLOUR	QTY	PORTION	COMMENTS
213	brown	1	body,base	two-piece post mold
214	brown	1	lip,neck	molded finish
215	brown	1	lip,neck	molded finish
247	clear	1	lip,neck	molded finish
279	blue	1	lip,neck	applied lip
280	aqua	4	lip,neck	applied lip
TOTAL		9		

Table 9: Unascribed Beverage Bottles

4.10.1.4.8 Gin Bottles

Three olive sherds have been identified as portions of case gin bottles. DILg-33:98C/230, a body,base sherd, has chamfered corners and a whittled surface appearance on the body. The base is embossed with seven raised conical dots. DILg-33:98C/231, also a body,base sherd, has vertical ribbing on the body and a single raised dot on the base. DILg-33:98C/232 is a body,shoulder sherd with the vertical ribbing decoration on the body.

These bottles are distinguishable by their square cross-section and decorative vertical ribbing. The shape was a function of ocean shipment of the product: square bottles could be packed with more to a box and were less likely to break, due to rough handling, than round bottles. They were made in Holland, England, and America in the 19th century. Bottles with no embossing were probably made pre-1850, while bottles with embossing were manufactured post-1850 (Klamkin 1971:82-83).

4.10.1.4.9 Liquor Bottles

This group is a catchall for bottles that held some type of spirits but could not be assigned to whisky, gin, etc. Fourteen sherds (Table 10) fit this definition.

The ubiquitous pint-size brown book flask type is represented by DILg-33:98C/217, 218, and 219 and the smaller 5 oz. book flask is represented by two specimens, DILg-33:98C/220 and 221. All but DILg-33:98C/221 have mold numerals embossed on the base. Occasionally, the mold numbers can be traced to specific manufacturers. The number on DILg-33:98C/219 matches a 10 oz. book flask and the number on DILg-33:98C/220 matches a 5 oz book flask listed in the 1908 catalogue of the Sydenham Glass Co. of Wallaceburg, Ontario (Miller and Jorgensen 1986:49). The number on the aqua shoofly flask, DILg-33:98C/283, also matches an entry in that catalogue (Miller and Jorgensen 1986:46). The mold number on DILg-33:98C/284 cannot be traced to a manufacturer. While the finish is missing on two of the flasks, it would appear that all were manufactured prior to 1920 as indicated by the applied lips and all would have been closed with a glass stopper which seated into the stopper finish.

CAT. #	QTY	COLOUR	PORTION	COMMENTS
217	2	brown	lip,neck,body,base	book flask;979;applied lip
218	1	brown	lip,neck,body,base	book flask;2;applied lip
219	1	brown	body,base	book flask;160B
220	1	brown	lip,neck,body,base	small book flask;159A;applied lip
221	1	brown	neck,body,base	small book flask
222	1	brown	lip,neck	applied lip
223	1	brown	lip,neck,body	turn molded;applied lip;quart size
228	1	green	lip,neck	applied lip;champagne flat top finish
229	1	green	body,base	thick glass;kick-up
245	1	clear	complete	shoofly flask;applied lip
283	1	aqua	body,base	shoofly flask;13
284	2	blue	lip,neck,body,base	shoofly flask;23;applied lip
TOTAL	14			

Table 10: Liquor Bottles from the Services Corridor

DILg-33:98C/223 is a nearly complete large (26 oz.), tall, cylindrical bottle and, again, was manufactured prior to 1920, as was DILg-33:98C/222. The body of the large bottle has no mold seams indicating manufacture by the turn-molding technique (Jones and Sullivan 1985:30-31). DILg-33:98C/229 is from a smaller cylindrical bottle that may have contained wine. However, instances of bottles with external kick-ups which do not have a corresponding domed base in the interior have been noted on bottles reputed to have contained imported stout.

4.10.1.4.10 Unassigned Bottles

Forty-three artifacts were catalogued in this sub-type. The specimens vary in colour and in shape and were divided into two sections: those which have some form of marking (Table 11) and those which have no markings (Table 12).

4.10.1.4.10.1 Marked Unassignable Bottles

Four sherds have embossed marks of various types (Table 11). Two of the embossed texts are manufacturer's marks, one is a part of a word which could represent the brand name or the manufacturer, and one is definitely a mold number.

DILg-33:98C/281 is embossed with the mark identifying the American Bottle Company of Chicago, Illinois. The mark was used from the founding of the company in 1905 until 1916 (Toulouse 1971:30).

DILg-33:98C/289 is embossed with one of the marks used by Cunninghams & Company of Pittsburgh. The mark dates between 1879 and 1907 (Toulouse 1971:119).

CAT #	QTY	COLOUR	PORTION	MARKINGS	COMMENT
281	1	aqua	body,base	A.B.Co.;8	cylindrical
286	1	aqua	body,base	...982	cylindrical, concave base
289	1	clear	body,base	C & Co	cylindrical
300	1	blue	body	B...	cylindrical
TOTAL	4				

Table 11: Marked Unassignable Bottles from the Services Corridor

4.10.1.4.10.2 Unmarked Unassignable Bottles

Forty artifacts were curated which could not be assigned to a specific type of bottle and had no identifying markings (Table 12). Few specimens have sufficient information for further analysis. The specimens with applied lips would pre-date 1920.

CAT #	QTY	PORTION	COLOUR	COMMENT
216	1	body,base	brown	book flask?
224	1	body,base	brown	cylindrical
226	1	body	green	oval
227	2	body,base	green	cylindrical, trace of kick-up
250	1	body,base	clear	cylindrical
251	1	body,base	clear	square
252	3	body	clear	cylindrical
253	1	body	green	cylindrical
254	1	body,base	brown	cylindrical
287	1	body,base	aqua	rectangular
288	1	body,base	aqua	rectangular
290	3	body,base	aqua	cylindrical
291	1	lip,neck,shoulder	clear	cylindrical, raised concentric ring
292	1	lip,neck	green	applied lip, elongated neck
293	1	lip,neck,shoulder	blue	applied lip, rectangular
294	1	lip,neck,shoulder	aqua	applied lip, rectangular
295	1	lip,neck	clear	applied lip
296	1	neck,shoulder	clear	-
298	4	body	aqua	cylindrical
299	1	lip,neck	clear	automatic bottling machine
302	1	body	blue	panel
303	3	body,base	clear	cylindrical
304	1	body	aqua	cylindrical
305	3	body	aqua	cylindrical
306	3	lip,body	aqua	cylindrical, large jar
385	1	shoulder	clear	cylindrical
TOTAL	40			

Table 12: Unmarked Unassigned Bottles from the Services Corridor

DILg-33:98C/291 is a clear sherd decorated with a raised horizontal ring at the neck/shoulder junction. This type of decoration is often found on ink or mucilage bottles.

The only other specimen that merits further explanation is DILg-33:98C/306 which consists of three sherds from a large, open-mouthed jar with a lip that is rounded and has no collar. The diameter of the jar is estimated to be greater than 150 mm. The sherds are splattered with green paint.

4.10.2 Ornamental

DILg-33:98C/332 is a single, coarse-paste sherd in the form of a green leaf. The base is embossed with "ET... * MA..." in a double circle logo. A small portion of a maker's mark occurs in the centre of the logo. Godden (1964:719) illustrates this mark and notes that it is usually attributed to Edward Steele, of the Cannon Street Works, Hanley, Staffordshire, who operated between 1875 and 1900. He also notes that this mark, or a very similar one, was used by Griffin, Smith & Hill of Phoenixville, Pennsylvania, United States. The lettering stands for Etruscan Majolica. This plate was probably used as a candy dish or a condiment dish for pickles, etc.

4.11 Dinnerware

Dinnerware can be found in variety of types of materials, such as metal, glass, and ceramic. Examples of all these types were recovered from the services corridor.

4.11.1 Metal Artifacts

DILg-33:98C/397 is the lip, body portion of a white enamelware cup. Ashdown (1909:757) illustrates both mugs and teacups of white enamelware. Both types have a rolled rim and, although severely corroded and slightly bent, the recovered specimen appears to have the straight walls of a mug. The interior diameter is approximately 3½" which would be Ashdown's size #9.

4.11.2 Glass Artifacts

Two glass dinnerware items, a tumbler and a wine glass, were catalogued. DILg-33:98C/308 is a clear, very thick, heavy base with a deep recess to lessen the weight. The diameter of the base measures 49.9 mm. No distinguishing marks are present.

DILg-33:98C/309 is the bottom of the goblet and top of the stem from a heavy wine glass. The goblet is decorated with horizontal rows of concave circular depressions which match illustrations of the Argus pattern, now known as Thumbprint (Lee 1936:Plate 8, 18, 24). Based on the small portion of the stem extant, it would appear that the goblet would be a Hotel Argus (Lee 1936:Plate 24) as made by Bakewell, Pears & Company.

4.11.3 Ceramic Artifacts

Ceramic dinnerware includes place settings—plates, small bowls, cups and saucers—and serving pieces—platters, large bowls, creamers. Archaeological recoveries are often too fragmented to allow exact identification. This is reflected in the use of object types such as bowl?, plate?/saucer?, and bowl?/cup?. Because dinnerware is usually manufactured in sets of the same pattern, the decorative features of a set cross-cut the types of objects.

Twenty-nine ceramic dinnerware artifacts were recovered. These are separated into groups based on colour and, within each colour category, decorative design and any information such as manufacturer, jobber, company of use, etc. will be discussed.

4.11.3.1 White Ceramics

White sherds are only fragments of complete objects—there may be patterns with other colours that fit onto these sherds. Eighteen white sherds were recovered from this portion of the site. Of these, eleven are plain white with no indication of a pattern or a manufacturer (Table 13).

The bowls range from a small, single-serving bowl to a larger, soup bowl to a heavy based serving dish. DILg-33:98C/331, a plate, has been burned, a result of contact with intense or prolonged heat. DILg-33:98C/317 fits onto DILg-33:98C/311, the small pitcher described in Section 4.11.3.1.1. This handle has a small finger hole.

CAT. #	QTY	PORTION	OBJECT	COMMENT
317	1	handle	pitcher	fits #311
319	4	lip,body	bowl	soup bowl?
320	3	body	bowl?	small bowl
328	1	body,base	bowl	serving dish;heavily crazed;stained
331	1	lip,body,base	plate	burned
341	1	base	plate	-
TOTAL	11			

Table 13: Plain White Dinnerware

4.11.3.1.1 Manufacturers of White Ceramics

Some of the recovered white sherds have a maker's mark on them. This can identify the company that manufactured the dinnerware item. In addition to identifying the company, the period of manufacture can often be determined due to changes in the logos over time.

W.H. Grindley & Co.

DILg-33:98C/321 consists of two basal sherds, which fit together, from a plate. A portion of a black Royal Arms mark has "...L IRO...E CHINA" printed above it and "...NDLEY & CO." and "...GLAND", printed below it. Although Godden (1964:294) does not illustrate a Royal Arms mark for W.H. Grindley & Co., no other British firms have that letter combination at the end of their name. This mark can be dated to post-1891 when British firms were required, due to the McKinley Tariff act of 1891, to add England to their marks.

Unknown

Four sherds have portions of maker's marks on them, however, it is impossible to assign them to a particular firm. DILg-33:98C/322, a body,base sherd from a bowl, has the upper half of the Royal Arms mark with "...YAL IRONSTONE CHINA" above it, while DILg-33:98C/323, a small portion of a plate sherd, has a little piece of the mane from one of the animals on the Royal Arms mark with "ROYAL" printed above it. Many British companies, as well as others in the United States and several European countries, used the Royal Arms mark (Kovel 1986:267).

DILg-33:98C/311 is two halves, that fit together, of a small cream pitcher. It measures 62.9 mm in height from the lip to the base. The body is slightly bulbous. A very small portion of a black mark is on the base. Unfortunately the pitcher broke in half along the mark and the chip that is missing would have had the rest of the mark. This size of pitcher is typical of the style used in restaurants. DILg-33:98C/317, the handle sherd listed in Table 13, fits onto this pitcher.

4.11.3.1.2 Molded White Ceramics

One white ceramic sherd has a molded design. DILg-33:98C/310 is the lower portion of a spout from a large teapot. Part of the body, with the straining holes, is still extant. The spout has five incised lines on each side of a square-shaped base with the elongated pouring portion of the spout coming out of this at a sharply upturned angle.

4.11.3.2 Gold-on-White Ceramics

One sherd, DILg-33:98C/318, is an ornate molded handle from either a sugar bowl or a creamer. The molding has produced a curlicue pattern which is traced by thin gold lines on both lateral sides and down the centre.

4.11.3.3 Blue-on-White Ceramics

Two blue-on-white sherds were curated. DILg-33:98C/315 is a sherd from a bowl with a portion of a coarse leaf pattern in flow blue.

DILg-33:98C/312 is a body,base sherd from a large, relatively flat bowl (perhaps even a basin from a wash stand set). A floral design, in blue, occurs in the centre of the base. The flower is multi-

petalled with a protruding calyx. The exterior base is concave producing a somewhat footed appearance.

4.11.3.4 Green-on-White Ceramics

DILg-33:98C/325 is a lip,body,base sherd from a saucer. It has a band of vertical wavy lines below the lip and a garland of floral patterns on the body, below the band. A portion of a green maker's mark, on the base, has been identified as representing John Maddock & Sons Ltd. of Burslem, Staffordshire (Godden 1964:406). John Maddock began this company in 1842 and it became John Maddock & Sons in 1855 and continues to the present. This particular mark was used circa 1896. A portion of the pattern name, "...RT", occurs beneath the logo.

4.11.3.5 Black-on-White Ceramics

DILg-33:98C/324 is a lip,body sherd from a straight-walled cup. The cup is decorated with a garden design containing an urn and shrubbery on one side. The other side has text, possibly a poem, of which only a part is present:

WHO'S...
I SAID...
WITH...
AN...
W...

Urns are a common design element in late Victorian decorated dinnerware (see Sussman 1979).

4.11.3.6 Red-on-White Ceramics

DILg-33:98C/313 is a body sherd from a large pitcher, either a milk or water jug. The pattern consists of branches and serrated leaves. It may contain other floral elements.

4.11.3.7 Ceramics of Other Colours

Brown and Green-on-White (DILg-33:98C/327)

This body sherd derives from a large bowl and is decorated, on the exterior, with a pattern of brown columns and minarets(?). Another component consists of an irregular green design superimposed over a feathery brown design.

Blue and Gold-on-White (DILg-33:98C/314)

DILg-33:98C/314 is a lip,body sherd from a scalloped plate. The design consists of several elements including embossing, flow blue transfer print, and gold painting. The embossed components are a row of raised dots paralleling the scalloped edge of the plate and flowers slightly below that. The flow blue design is a combination of a border design of leaves and curlicues and an interior design of a flower and leaf spray. The gold paint is applied in swooping curves to highlight the flow blue curlicues at the bottom of the blue border.

The maker's mark, on the exterior body, provides considerable information. It identifies the firm, W.H. Grindley & Co., and provides a date aspect in that "ENGLAND" is used as part of the mark, indicating post-1891 production. The pattern, "OSBORNE", is part of the mark as are the letters "FB" indicating flow blue, and "22" which may be the designer's or painter's designation (Godden 1964:294).

Multicoloured

(DILg-33:98C/316, 329, 330)

The multicolour category consists of those artifacts which have a pattern of more than three colours. DILg-33:98C/316 is a lip,body sherd from a cup. The design starts 1 cm below the lip, on the exterior body, and consists of a thin gold band above the floral pattern. A six-petalled blue flower with a central yellow and orange core is surrounded by leaves which are grey, tan, and brown. A speckled pale brown background occurs near the gold line.

DILg-33:98C/329 and 330 are from a set. DILg-33:98C/329 is a lip,body sherd from a saucer, while DILg-33:98C/330 is a lip,body,base sherd from a cup. It has an intact handle. The design on the saucer consists of a 2.4 mm red-brown band just below the lip, two thin black lines 16.6 mm below the lip, and a central design of a young girl wearing a blue hood and blue scarf. The girl is outlined in black with stippling to indicate the hair. A small trace of red occurs at the broken edge of the pattern. The straight-walled cup has a red-brown line just below the lip on the interior surface. The exterior has black and painted designs on the body, a thin red line down the centre of the handle, and two lines (one red-brown and the other green) parallel to the base between the bottom of the handle and the base of the cup. The design on the body, to the right of the handle, has two people working—one sawing at a work bench and the second carrying a board. The backdrop for the entire design is vertical and diagonal boards with a perspective horizon line about mid-point and a hatched base (floor?) parallel to the green line. The clothing of the upright figure is highlighted with blue paint—the same shade as on the saucer. The shirt of the kneeling figure is red. The design, to the left of the handle, consists of a male coming out of a doorway. He is dressed in a three-quarter length coat, a vest, and a trilby hat. This figure has not been highlighted by secondary paint. The general impression of the era, represented by the scene, is of the 1890s. It would appear that these artifacts derive from a set which was printed with the original black designs and then was subsequently painted. This style is known as printed-and-tinted.

5.0 GREENSPACE EXCAVATIONS

Sub-surface services were installed to four nodes between the parking lot area and the bandshell. The deepest impact occurred adjacent to The Forks National Historic Site in the area traversed by the access road. No Pre-Contact archaeological strata were encountered in any of the excavations and artifacts were present only in the upper railroad-related fill stratum. This stratum, composed of varying mixes of cinder, sand, and gravel, ranged in depth from 80 cm to greater than 250 cm. The deeper deposits were the result of infill of excavations that had occurred in the earlier part of the 20th century. Most of the artifacts derive from Manhole 2, in the centre of the greenspace (Figure 1). A total of 333 artifacts were recovered.

5.1 Architectural Objects

Five artifacts occur in the sub-categories of Hardware, Accountrements, and Structural Elements.

5.1.1 Hardware

A single nail and an electrical part were catalogued in this sub-category. DILg-33:98C/116 is a corroded sheet-cut nail with a T-head.

DILg-33:98C/110 is a domed, cylindrical, multi-component electrical part. The exterior has two copper brackets, for electrical connection, on opposite sides with lobed nail holes at the intervening quadrants. The interior is a cylindrical element held in place with five copper screws. This central component would be removed for feeding wire through the central hole to connect with the copper components in the base. A part number, "397", is embossed on the base.

5.1.2 Accountrements

A single aqua windowpane sherd, DILg-33:98C/117, was curated. It is standard thickness (2.7 mm).

5.1.3 Structural Elements

DILg-33:98C/108 is a tabular fragment of black slate measuring 3.8 mm in thickness. This specimen, broken from a larger artifact, could have been a roofing slate, a floor tile, or a counter surface. DILg-33:98C/109 is a fragment of stoneware tile which measures 11.0 mm in thickness. It is a dull blue on both sides. Traces of grout appear on the exterior edges.

5.2 Lighting Equipment

Eighteen artifacts were assigned to this category, all in the sub-category of Electric Lighting. DILg-33:98C/106 and 112 are portions of dry cell batteries. DILg-33:98C/106 is an almost complete dry cell, consisting of the interior carbon core with a copper attaching bolt, the active body, and the

external layered paper wrappings. It has a diameter of 66.4 mm. Portions of the wrapping have red and white markings, but it is too exfoliated to be able to discern a brand name. DILg-33:98C/112 is a cylindrical, inner core from another dry cell battery of the same size. It measures 160.5 mm in height with a diameter of 25.7 mm.

The remaining sixteen artifacts are all portions of glass ceiling fixtures or lamp globes. Numerous styles of shades and globes were prevalent in the early part of the 20th century (Ashdown 1909:1803-1832). DILg-33:98C/131 is a clear glass sherd from the basal portion of a globe. The basal edge has been ground. DILg-33:98C/132 is a single body,base sherd from a white glass globe which is also probably represented by the 11 sherds in DILg-33:98C/133. The curvature indicates that this would have been a relatively large globe. DILg-33:98C/135 is a body,base sherd from a similar globe although the glass is thicker and more opaque. The base shows evidence of grinding to smooth the surface. DILg-33:98C/134 is two body,base sherds from a large white globe. This specimen differs from DILg-33:98C/135 in that the base is flared and attached to a woven fibre ring, to effect a tight seal in the fixture.

5.3 Communication

One fragment of a deep blue-green glass insulator was recovered. DILg-33:98C/113 is the typical threaded, domed, pony-style type of insulator. It is embossed with "X O" on the top of the dome.

5.4 Clothing

DILg-33:98C/115 is a small piece of leather. There is insufficient size or markings to determine what part of apparel this specimen represents.

5.5 Recreation

The Recreation category includes items such as smoking equipment, games, musical instruments, and toys. Only one artifact, a toy, was recovered. DILg-33:98C/118 is a lip,body,base sherd of a saucer from a child's tea set. It is white and has no markings to indicate a manufacturer.

5.6 Transportation

Two types of transportation—draught and railroad—are represented in the two artifacts catalogued in this category.

5.6.1 Draught

DILg-33:98C/114 is a standard horseshoe with a length of 145.8 mm and a width of 154.4 mm. Many of the horseshoe nails are still projecting through the body of this shoe which is heavily rusted. Horses were prevalent during the beginning years of the City of Winnipeg. The Canadian Northern

Railway and Grand Trunk Pacific Railway had stables at The Forks (Guinn 1980) and a stable existed on Mill Street (near the Lombard Avenue intersection) from the 1880s until after WWI (Quaternary 1996d:107). In addition, several businesses—Dick and Banning Saw Mill, McCauley and Jarvis Sash and Door Factory, Jarvis & Berridge's Saw and Planing Mill—were located along the west bank of the Red River (Quaternary 1999d:5-10). They would have used horses for cartage. Horses were also used to draw firefighting equipment from the early days of the Winnipeg Fire Department well into the 20th century and some of the first fire stations were located in this area. Between 1874 and 1900, there was a station at the corner of Victoria Street (now Westbrook) and Post Office Street (now Lombard) and another station at Victoria Street and Matilda Street (now Thistle Lane) (Leah 1982:110-111). Finally, those private citizens who could afford to own a horse would have had one for personal use.

5.6.2 Railroad

DILg-33:98C/111 is a tapered, black, hard rubber O-ring which probably fitted into a pipe as a joining seal. The relative hardness of the rubber suggests that the pipe probably transmitted steam as regular non-vulcanized rubber would have deteriorated rapidly. Alternatively, this may be a sealing coupling gasket for an oil pipe.

5.7 Unknown

DILg-33:98C/107 is a massive, more or less, cylindrical object consisting of an outer heavy sleeve and an inner bolt. Its overall length is 104.4 mm. The bolt passes through the centre of the object and is capped with a four-sided head measuring 23.6 mm on a side. The diameter of the bolt is 22.1 mm. The exterior sleeve has a hexagonal circumference at the distal end with a diameter of 62.9 mm. The cylindrical body has a diameter of 58.7 mm which tapers at the proximal end to 38.2 mm. It would appear that this element was bolted to a larger component and the central bolt acted as a tightening mechanism.

5.8 Faunal Remains

A total of nineteen faunal artifacts, all butchering remains, were recovered (Table 14). The mammal bones are dominated by cow (*Bos taurus*). Only two of the mammalian elements were not identified as cow: one is a rib from a medium mammal, possibly sheep or pig, and the other is an unidentifiable fragment from a medium/large animal. Many of the mammal bones have cut marks and/or evidence of sawing to show that the animal had been butchered.

The single bird bone is a femur from a large specimen, either a large chicken or goose. It is too small to be a turkey. The importation of oysters from the eastern seaboard is indicated by DILg-33:98C/95.

TAXON	ELEMENT	CAT. #	QTY	WT	COMMENTS
Aves					
Large	femur	96	1	4.7	-
Shellfish					
Atlantic Oyster (Ostreidae)	valve	95	1	41.0	-
Mammal					
Medium/Large	unidentifiable	97	1	0.9	-
Medium	rib	101	1	8.6	cut
Artiodactyla					
Cow (<i>Bos taurus</i>)	rib	104	7	262.6	sawn, cut marks
	vertebra	99	1	24.4	process, sawn
	phalanx	98	1	3.8	split
	tibia	103	2	303.6	sawn
		105	2	660.5	fit together, cut marks
	radius	102	1	100.6	sawn
	humerus	100	1	23.4	split
TOTAL			19	1434.1	

Table 14: Butchering Remains from the Greenspace Excavations

5.9 Containers

Four sub-categories are applicable to the artifacts recovered from the greenspace area:

- Storage - the purpose of the container is to hold material, e.g., bottles, jars, tin cans;
- Cooking - containers used in the preparation of food, e.g., pots and pans;
- Ornamental - decorative items such as vases; and
- Dinnerware - the artifact is used in the serving or eating of food.

The 193 dinnerware artifacts are discussed in Section 5.10.

5.9.1 Storage

Ceramic and glass containers were recovered from this component. In addition, a single closure was also catalogued.

5.9.1.1 Closures

A severely corroded copper alloy screw cap was recovered. DILg-33:98C/82 has a diameter of 36.0 millimetres.

5.9.1.2 Ceramic Containers

A total of 18 ceramic sherds from stoneware containers were recovered. The preponderance of the sherds derive from bottles (13 sherds) with crocks (3 sherds), jars (1 sherd), and jugs (1 sherd) also represented in the assemblage.

5.9.1.2.1 Crocks

Three body sherds were curated. DILg-33:98C/76 and DILg-33:98C/206 are similar in thickness, 12.5 mm and 12.4 mm respectively. Both are plain grey sherds with no markings. DILg-33:98C/81 is thinner (8.9 mm) and has a dark reddish-brown interior with no markings on the grey exterior.

5.9.1.2.2 Bottles

Thirteen sherds were identified as stoneware bottles (Table 15). DILg-33:98C/77 is thin-walled (7.2 mm) and has a narrow incised line just above the base. DILg-33:98C/79 is also thin (7.1 mm) as opposed to DILg-33:98C/78 which measures 10.0 mm. DILg-33:98C/80 is the thinnest sherd (5.4 mm) and could derive from a small bottle or a ginger jar.

DILg-33:98C/72 (2 sherds) and 73 (1 sherd) are both products of Blackwoods and both can definitely be identified to Chopping Type MWIN CH2 (Chopping 1978:155). The full name of the product was Royal Edinburgh Ginger Beer. DILg-33:98C/74 consists of six body and shoulder sherds which have the same colour and paste as the two Blackwoods ginger beer bottles, although the sherds in DILg-33:98C/74 do not fit onto the sherds in DILg-33:98C/72 or 73.

CAT. #	QTY	PORTION	COLOUR	MARKINGS	COMPANY
72	2	body,base	tan	...R	Blackwoods
73	1	body	tan	BEER:...IPEG,CANADA	Blackwoods
74	6	body, shoulder	tan	...EER:...ADA	-
77	1	body,base	reddish brown	-	-
78	1	body	dark brown	-	-
79	1	body	dark brown	-	-
80	1	body	grey	-	-
TOTAL	13				

Table 15: Stoneware Bottles

5.9.1.2.3 Jars

One lip,body sherd was designated as a portion of a jar. DILg-33:98C/93 has a slightly bulbous lip with a ridged string collar below it in contrast to the standard ginger jars which have an incised line below the straight-walled lip.

5.9.1.2.4 Jugs

While crocks were used to store predominantly dry goods, jugs were the common storage container for liquid products such as vinegar, wine, spirits, and syrup. DILg-33:98C/75 is the domed, shoulder/neck sherd from a standard shoulder jug where there is a sharp demarcation between the vertical body and the domed shoulder/neck (DePasquale *et al.* 1990:27). This is in contrast to the common jug which did not have the shoulder ledge (DePasquale *et al.* 1990:23-24). The sherd is plain grey and has a remnant of a strap handle which was the more common style rather than bale handles (DePasquale *et al.* 1990:40-42). Plain jugs were produced by most pottery companies.

5.9.1.3 Glass Containers

Seventy-one complete and incomplete glass storage specimens were curated. Further identification, to a functional sub-type has been done where possible.

5.9.1.3.1 Condiment and Food Produce Bottles

One glass artifact was assigned to this category. DILg-33:98C/27 is a cylindrical, aqua glass stopper with the company name, "LEA & PERRINS", embossed on the top of the stopper in a circular pattern. This style of stopper, with a tapered cylindrical shank, is designated as a club sauce type (Jones and Sullivan 1985:152-153). These stoppers were often sheathed with cork to provide a complete seal. Lea & Perrins still manufactures flavouring sauces.

5.9.1.3.2 Medicine Bottles

One deep olive body, base sherd, DILg-33:98C/57, was recovered. It has "...HIJOS" embossed on the base. This is part of the phrase 'Dr J G B Siegert & Hijos' which has been observed on specimens recovered from other projects (Kroker and Goundry 1993a:47; Kroker 1989:67). The embossed name suggests that the contents may have been a medicinal or tonic concoction. The word *hijos* may be Spanish and would translate as *sons* suggesting a Spanish or Latin American company.

5.9.1.3.3 Cosmetic Containers

Only one sherd was assigned to this category. DILg-33:98C/130 is a portion of a lid from a white glass jar. The inner surface of the lid has a downward projecting ridge which would sit inside the body of the jar, with the exterior portion of the rim seated on the top of the lip of the jar. Traces of a swirling, possibly floral, pattern are present on the top of the lid, possibly indicating that this jar was used for a cosmetic cream of some type.

5.9.1.3.4 Soft Drink Bottles

Three sherds were assigned to the Soft Drink category. DILg-33:98C/69 is identified as a body, base sherd from a clear Golden Key bottle, a soft drink produced by the E.L. Drewry Brewery from approximately 1895 until the 1920s (Stock 1978:13). The base is embossed with "DREWRY" and "900" identifying this as Chopping Type MWIN BG6-6 (Chopping 1978:116), produced in 1900.

DILg-33:98C/23 is an aqua body, base sherd with "SMS" embossed on it. The initials are those of the Stanley Mineral Springs Company of Stanley, Ontario. This company established an office in Winnipeg in 1912 and maintained a presence until 1915 (Stock 1978:30). The specimen is from a truncated torpedo bottle and probably is the earliest manifestation of Stanley Mineral Springs, exemplified by Chopping's designation as MWIN BH1 (Chopping 1978:144).

The last soft drink specimen, DILg-33:98C/66, is a clear body, base sherd embossed with "PEPS..." and "...MITED". This specimen is identified as a Pepsi Cola bottle. Pepsi Cola was first bottled, in Winnipeg, by Blackwoods Beverages in 1936. From 1940 to the present, it has bottled its own soft drinks (Stock 1978:68).

5.9.1.3.5 Beer Bottles

Four artifacts, all from American bottlers, were curated. DILg-33:98C/26 consists of an aqua body, base sherd which is embossed with "W F & S" and "MIL.". This bottle, produced in a two-piece post mold, came from the William Franzen & Son Company of Milwaukee, Wisconsin. This company was in business from 1900 to 1929. As the primary customers were the Milwaukee brewers, Prohibition resulted in the closure of the factory (Toulouse 1971:536-537).

A complete aqua bottle, DILg-33:98C/24, and an aqua body, base sherd, DILg-33:98C/25, were both produced by Adolphus Busch Glass Manufacturing Company of Belleville, Illinois. The corporate logo, a joined A and B embossed on the base, was used between 1904 and 1907 (Toulouse 1971:26-27). In addition to the logo, the bottle has "M3" embossed on the base and "S-B" embossed on the body, near the base. The sherd has "C3" embossed on the base. These numbers may represent production runs or the specific machine.

DILg-33:98C/531, an aqua body sherd, is tentatively assigned to this category based on the partial phrase "BE..." embossed on the front of the cylindrical body. The back of the bottle is embossed with incomplete text in a cartouche—"...CO." and "...INN."—suggesting manufacture in Minnesota.

5.9.1.3.6 Beverage Bottles

Fourteen beverage specimens were curated. Most could be attributed to Winnipeg bottling firms.

5.9.1.3.6.1 Winnipeg Bottling Firms

Eleven specimens could be assigned to Winnipeg companies (Table 16). Most of these were from Blackwoods which was one of the two dominant firms.

Seven different types of Blackwoods bottles were recovered and identified using Chopping (1978). Many of the recovered specimens have some versions of the ownership clause. Parts of the earliest version of this clause, "ANYONE FILLING BUYING SELLING OR DESTROYING THIS BOTTLE WILL BE PROSECUTED", occurs on two of the earlier specimens, DILg-33:98C/29 and 32, which derive from Hutchinson-type bottles. This phrase does not appear on the slightly earlier

sherd, DILg-33:98C/31, which also derives from a Hutchinson bottle but does not have text embossed on the body of the bottle. Portions of the second version of the ownership clause, "THIS BOTTLE IS OUR PROPERTY ANY CHARGE MADE THEREFOR SIMPLY COVERS ITS USE WHILE CONTAINING GOODS BOTTLED BY US AND MUST BE RETURNED WHEN EMPTY", is embossed on DILg-33:98C/71, also a Hutchinson-style bottle. Portions of the third version of the clause, "THIS BOTTLE IS OUR PROPERTY ANY ONE USING DESTROYING OR RETAINING WILL BE PROSECUTED", occur on DILg-33:98C/33 and DILg-33:98C/70, both crown seal closure bottles. The change in the company name from Blackwood Brothers on DILg-33:98C/33 to Blackwood's Limited on DILg-33:98C/70 indicates that these bottles were produced on opposite sides of the temporal dividing line when the company name was changed in 1901. The remaining two Blackwood specimens, DILg-33:98C/30 and 34, derive from crown seal bottles and did not have the ownership clause on the body. The markings consist of the company name, Winnipeg, and the logo embossed on the base.

COMPANY	CHOPPING NO.	COLOUR	CAT. NO.	QTY	PORTION
Blackwoods	MWIN BA7	aqua	31	1	body, base
	MWIN BA8-?	aqua	29	1	body
	MWIN BA8-2	aqua	32	1	body, base
	MWIN BA11-1	clear	71	1	body, base
	MWIN BA12	green	33	1	body
	MWIN BA13	clear	70	1	body, base
	MWIN BA14	blue	30	1	body, base
	MWIN BA14-1	blue	34	1	body, base, neck
Drewry	?	clear	68	1	shoulder
Unassigned	-	aqua	28	1	body
	-	clear	67	1	body

Table 16: Identified Winnipeg Beverage Bottles from the Greenspace Excavations

DILg-33:98C/68 is a clear shoulder sherd embossed with "E.L. DRE...". This marking was found on most of the Drewry bottles from 1902 to 1922 (Chopping 1978:117-128).

DILg-33:98C/28 has just a portion of a word, "...RTY", while DILg-33:98C/67 has the distal end of three lines of the last version of the ownership clause. Tentatively, it can be assigned to Drewry based on the shape and spacing of the text, whereas DILg-33:98C/28 has insufficient data to permit any allocation.

5.9.1.3.6.2 Unascribed Beverage Bottles

Three specimens have no markings and could not be assigned to a local or a non-local firm. DILg-33:98C/35 is a neck, shoulder, body sherd from an aqua Hutchinson bottle. The other two sherds, DILg-33:98C/56 (green) and DILg-33:98C/47 (brown), are lip, neck sherds with crown closures.

5.9.1.3.7 Wine Bottles

One olive body, base sherd, DILg-33:98C/58, was assigned to wine bottles. An identifying feature of early wine bottles is the kick-up which is a raised section of the base. This feature originated as a sediment trap and is currently retained as a tradition. A kick-up is present on this cylindrical sherd. Often a mamelon—a small downward projecting dome of glass—is present in the centre of the kick-up. This sherd does not have a mamelon. Colour is another indicator of early wine bottles, most 19th century bottles are olive-coloured.

5.9.1.3.8 Liquor Bottles

The nine sherds in this category (Table 17) could not be assigned to a specific type of alcoholic beverage, i.e., whisky, gin, etc.

CAT. #	QTY	COLOUR	PORTION	COMMENTS
48	1	brown	neck, shoulder	flask
49	1	brown	body	flask
50	1	brown	lip, neck, shoulder	flask; applied lip; stopper finish
52	4	green	body, base	oval; NB 185; L5
59	2	olive	body, base	cylindrical; thick; N; +
TOTAL	9			

Table 17: Liquor Bottles from the Greenspace Excavations

DILg-33:98C/48, 49, and 50 are pint-size brown flasks. Both DILg-33:98C/4 and DILg-33:98C/50 have an applied lip with a lower rounded string collar.

The numerals on DILg-33:98C/52 may represent a mold number but, without a paper label, the contents cannot be ascertained. A similar situation applies with DILg-33:98C/59 where the two sherds represent two different thick-bottomed bottles of a very deep olive.

5.9.1.3.9 Unassigned Bottles

There are 21 catalogue numbers in this sub-type representing 37 specimens. The sherds vary in colour and in shape. The recoveries were divided into two sections: those sherds which have some form of marking and those which have no marking whatsoever.

5.9.1.3.9.1 Marked Unassignable Bottles

Four sherds have marks of various types. DILg-33:98C/43 is a body,base sherd from a cylindrical, brown bottle produced in a two-piece post mold. A capital "B" is embossed in the centre of the base. DILg-33:98C/46 has the same embossing and was also produced in a two-piece post mold. It is slightly lighter in colour and has a smaller diameter, 67.4 mm as compared to DILg-33:98C/43 which has a diameter of 80.4 mm. Both these specimens may be beer bottles with the smaller being approximately 1 pint and the larger being approximately 1 quart.

DILg-33:98C/61 is a body,base sherd from a cylindrical, clear bottle. The base is embossed with "5 OZ" while "...NDON" is embossed on the body near the base. This may have been a food container.

The final sherd, DILg-33:98C/65, is a body,base sherd from a small, cylindrical, clear bottle with "...W YORK" embossed on the body. The size could suggest medicine and/or flavouring extract.

5.9.1.3.9.2 Unmarked Unassignable Bottles

Thirty-three artifacts were curated which could not be assigned to a specific type of bottle and had no identifying markings (Table 18). The only specimen that has a design element that may be identifiable is DILg-33:98C/64 which has converging ribs from the shoulder up to the base of the applied finish. This may be a generalized design style or a product specific format.

CAT #	QTY	COLOUR	PORTION	COMMENT
36	1	aqua	lip,neck	applied down-tooled neck
37	2	aqua	shoulder,body	Hutchinson-type?
38	1	aqua	neck	-
39	1	aqua	neck,shoulder	applied string collar finish
40	3	aqua	body,base	cylindrical
41	5	aqua	body	cylindrical
42	1	brown	body	oval
44	1	brown	body,base	cylindrical
45	6	brown	body	cylindrical
51	4	green	body	cylindrical
53	1	green	body,base	cylindrical
54	1	olive	neck	-
55	1	olive	neck,shoulder	oval?
60	1	amethyst	body	cylindrical
62	2	clear	body	cylindrical
63	1	clear	body,base	concave oval
64	1	clear	lip,neck	cork;applied lip;fluted
TOTAL	33			

Table 18: Unmarked Unassigned Sherds

5.9.2 Cooking

DILg-33:98C/92 is a body,base sherd from a mixing-sized stoneware bowl. It is yellow with a footed base and a molded pattern of widely-spaced ribs on the exterior surface. The body thickness measures 9.3 mm. These types of bowls were manufactured by the various pottery companies from Red Wing, Minnesota (DePasquale *et al.* 1990) and Medicine Hat, Alberta (Getty 1994; Symonds 1974).

5.9.3 Ornamental

DILg-33:98C/94 is a lip,body sherd from a small diameter, probably cylindrical, vase?. The exterior surface of this porcelain specimen has a molded design which is indiscernible. Faint traces of magenta pigment occur under the glaze, again on the external surface, although any design portrayed by the pigment is largely eradicated. Some evidence of heat modification is present with slight blistering of the glaze and embedded cinder fragments.

5.10 Dinnerware

Only ceramic dinnerware artifacts were recovered from the greenspace component of the Festival Park project. Nearly all were recovered from the refuse pit area encountered at Manhole 2.

5.10.1 Ceramic Artifacts

The 193 ceramic dinnerware artifacts are separated into groups based on colour and, within each colour category, decorative design and any information such as manufacturer, jobber, company of use, etc. will be discussed.

5.10.1.1 White Ceramics

Of the 183 white sherds recovered, 108 (Table 19) are plain white with no indication of a pattern or a manufacturer. These sherds represent plates, cups, and bowls as well as a remnant of a pitcher.

The bowls range from small single-serving bowls to larger circular serving dishes. DILg-33:98C/185 has a short neck and an out-flaring body which may indicate a smaller-sized pitcher. Some of the specimens have been burned or are melted together, a result of contact with intense or prolonged heat.

5.10.1.1.1 Manufacturers of White Ceramics

Several of the recovered white sherds have a maker's mark which permit the identification of the company that manufactured the dinnerware item.

CAT. #	QTY	PORTION	OBJECT	COMMENT
185	1	lip,body	pitcher	short neck
188	1	body,base	cup	-
189	1	lip,body	plate	small size
190	12	body	bowl?/cup?	-
191	6	lip,body,handle	cup	two sherds melted together
192	1	lip,body	bowl	burned
193	1	lip,body	plate	burned
194	2	lip,body	bowl	burned
195	12	body	bowl	serving bowl?
196	1	body,base	bowl	footed
197	1	body,base	bowl	footed, serving bowl?
198	1	body,base	bowl	footed, serving bowl?
199	1	base	bowl?	concave base
200	1	lip,body	bowl	serving bowl
201	2	lip,body	bowl	serving bowl
203	15	lip,body	plate	stained
204	16	base	plate	-
205	33	body, base	plate	-
TOTAL	108			

Table 19: Plain White Dinnerware from the Greenspace Excavations

Robert Cochran & Company

DILg-33:98C/123 is a basal sherd from a plate with the scalloped edging between the base and the body indicative of the Wheat pattern (Section 5.10.1.1.2). A portion of a black Royal Arms mark and the name "COCHRA..." indicates that this is a product of the Robert Cochran and Company of Glasgow, Scotland (Sussman 1985:20-21). Godden (1964:157-158) lists this firm as being in existence from 1846 until 1918 at the Britannia Pottery and subsequently at the Verreville Pottery.

Johnson Bros. Ltd.

DILg-33:98C/122 is a body,base sherd from a plate. It has a small portion of a black Royal Arms mark with "JOH..." and "EN..." printed below it. This is sufficient to identify this plate as a product of Johnson Bros. of Staffordshire. The Royal Arms mark was used, by this company, from 1883 to 1913, with the addition of England after 1891 (Godden 1964:355). The firm is still in business today.

Alfred Meakin

DILg-33:98C/128 is a body,base sherd from a larger bowl, probably a serving dish. A complete black Royal Arms mark with "ROYAL IRONSTONE CHINA", printed above it, and "ALFRED

MEAKIN" and "ENGLAND", printed below it, occurs on the base. Alfred Meakin Ltd. of Tunstall, Staffordshire has been producing pottery since 1875 with the country of origin, England, being added to the mark after 1891 and Ltd. being added after 1897 (Godden 1964:425-426). Therefore, DILg-33:98C/128 had to have been manufactured after 1891, but before 1897.

J&G Meakin

Four sherds, were attributed to J&G Meakin (Ltd.) of Hanley, Staffordshire: DILg-33:98C/124 (bowl?), 125 (bowl), 126 (plate), 127 (plate). All of the sherds have portions of the black Royal Arms mark on the base. DILg-33:98C/126 has "...TONE CHINA", in an arc, above the arms mark. The diagnostic characteristics most relied on, to assign these sherds to this company, are the portions of the company name—"MEAKIN" (124, 127); "...AKIN" (126), and "...IN" (125)—and location "...LEY" and "...AND" (127), "...AND" (125). The font is the same throughout, although in slightly varying sizes, and the spacing of the company and location text matches a mark illustrated by Godden (1964:427). This company began producing pottery in 1851 and the Royal Arms occur on many of their marks. The earlier versions of the J&G Meakin marks did not have England on them.

Unknown

Five sherds have portions of maker's marks. However, it is impossible to assign them to a particular firm. DILg-33:98C/119, a bowl? sherd, and DILg-33:98C/120, a plate sherd, have portions of the black Royal Arms mark which was used by many companies in different countries. In addition, DILg-33:98C/119 has "...NSTONE CH..." in an arc above the arms. DILg-33:98C/121, a bowl? sherd, has "...ON..." which may also represent Ironstone China.

DILg-33:98C/129, a base sherd from a plate, has a portion of a banner with "...NS" in it atop what appears to be another banner. Examination of available references failed to elicit an identification for this mark.

DILg-33:98C/136 is a saucer sherd with a pattern on it. This is the Wheat, Rope and Ribbons pattern (see Section 5.10.1.1.2). It also has a portion of a maker's mark on the base. This consists of either a circular or ovoid shape with two segments: one is cross-hatched with a flower-type design in it, the other has a white background with the letter "S" printed in it. This mark could not be located in any of the references, although one Copeland mark, a ship with a semi-circular sail, does resemble it somewhat (Godden 1964:172). Sussman (1985:71) notes that this pattern was registered by Thomas Furnival and Sons in 1878. The company name changed to Furnivals Ltd. but none of the illustrated marks for this company match the maker's mark on the sherd.

5.10.1.1.2 Embossing and Molding on White Ceramics

Several of the white ceramics have decorative designs formed by embossing or molding. The most recognizable pattern, produced by many firms during the Victorian era, is Wheat.

Wheat Pattern

Fifty-five sherds have variations of this pattern (Table 20). Several of the specimens have only partial designs and/or indistinct embossing, thereby rendering identification of a specific manufacturer impossible. Those artifacts which could be identified to a manufacturer are discussed further.

DILg-33:98C/136, 137, 138, 139, 140, and 141 have a variation of the Wheat pattern known as Wheat, Rope and Ribbons. As noted earlier, the only known producer of this pattern is Thomas Furnival and Sons of Cobridge, Staffordshire (Sussman 1985:71). This firm began in 1843 and currently is operating although there have been several name changes over the duration (Godden 1964:263-264). Many elements of a setting are present, i.e., cup, saucer, plate, and a lid from a large tureen.

DILg-33:98C/142 is a lip,body sherd from a large pitcher, either a water or milk jug. The embossed pattern consists of broad herbaceous leaves, similar to those illustrated on a Wheat and Hops pitcher made by Clementson Brothers (Sussman 1985:40).

None of the Wheat patterns can be definitely ascribed to a specific manufacturing firm. Several sherds are indistinct or have only the less diagnostic leaf portion of the design. Sherds from vessels other than plates are difficult to ascribe as the placement of design elements differs for each vessel form and not all are illustrated in Sussman (1985), which is the premier reference for this pattern. Many of the sherds containing three-row wheat heads had sufficient similarity of design that they could be ascribed to the same manufacturer: DILg-33:98C/146, 151, 152, 153, 156, 157, 162, and 165. The types of veining and configuration of the leaves on some plate sherds lacking the wheat heads (DILg-33:98C/161, 164, 167, 168, and 171) could also be matched with the above sherds. The three-row patterns were produced by several companies, three of which have patterns which closely match the design on many of the recovered sherds: Robert Cochran of Glasgow; Hollinshead and Kirkham of Staffordshire; and Turner, Goddard and Company of Staffordshire. At present, it is not possible to definitively assign the sherds to one of these companies.

A single saucer sherd (DILg-33:98C/176), with a three-row wheat head, displays the same design configuration as that illustrated by Sussman (1985:21) for Robert Cochran. The design configuration for the illustrated saucer is much different from that of the illustrated plate and it is unknown if similar variations occur with other companies. Accordingly, the designation of this sherd as a product of Robert Cochran is only tentative.

CAT. #	QTY	OBJECT	PORTION	PATTERN
123	1	plate	body,base	scalloped; Cochran*
136	1	saucer	body,base	Wheat, Rope and Ribbons;unknown mark*
137	1	cup	lip,body	Wheat, Rope and Ribbons
138	2	plate	body,base	Wheat, Rope and Ribbons
139	2	saucer	lip,body	Wheat, Rope and Ribbons
140	1	lid	lip,body	Wheat, Rope and Ribbons
141	1	plate	lip,body	Wheat, Rope and Ribbons
142	1	pitcher	lip,body	Wheat & Hops
145	2	pitcher	body	three rows of kernels
146	1	plate	lip,body	three rows of kernels
147	3	bowl	lip,body	three rows of kernels
148	1	cup	lip,body	indiscernible
149	1	bowl?	lip,body	leaves only
150	2	plate	lip,body	three rows of kernels
151	1	plate	lip,body	three rows of kernels
152	1	plate	lip,body	three rows of kernels
153	1	plate	lip,body	three rows of kernels
154	1	plate	lip,body	leaves only
155	1	plate	lip,body	leaves only
156	1	plate	lip,body	three rows of kernels
157	1	plate	lip,body	three rows of kernels
158	1	plate	lip,body,base	leaves only
159	1	plate	lip,body	indiscernible
160	1	plate	lip,body	leaves only
161	1	plate	lip,body	leaves only
162	1	plate	lip,body	three rows of kernels
163	1	plate	lip,body	leaves only
164	1	plate	lip,body	leaves only
165	1	plate	lip,body	three rows of kernels
166	1	plate	lip,body	leaves only
167	1	plate	lip,body	leaves only
168	1	plate	lip,body	leaves only
169	1	plate	lip,body	leaves only
170	1	plate	lip,body	leaves only
171	1	plate	lip,body	leaves only
172	1	plate	lip,body	leaves only
173	1	plate	lip,body	three rows of kernels
174	1	bowl	lip,body	three rows of kernels
175	1	saucer	lip,body	leaves only
176	1	saucer	lip,body	three rows of kernels
177	1	teapot	lip,body	leaves only
178	3	plate	body,base	scalloped
179	4	plate	body	scalloped
182	1	saucer	body,base	scalloped
TOTAL	55			

* see Section 5.10.1.1.1

Table 20: Wheat Pattern on White Ceramics

Other Embossed and Molded Patterns

Three sherds have an embossed design and seven sherds have a molded pattern (Table 21). The molded patterns are usually part of the design of the vessel, i.e., horizontal collars and ridges around bowls and vertical ribbing on mixing bowls. These design elements usually are not company specific and maker's marks would be necessary to identify the producer.

CAT. #	OBJECT	QTY	PORTION	COMMENTS
EMBOSSED				
143	plate	2	lip,body	grape vine;scallops
144	saucer	1	lip,body,base	curlicues
MOLDED				
180	bowl	1	body,base	wide vertical ribs
181	bowl?	1	body	ridge
183	bowl	1	body	ridge
184	pitcher	1	body	wide vertical ribs
186	cup	1	handle	chevron
187	bowl?/cup?	1	body	wide vertical ribs
202	pitcher	1	body	horizontal ridge
TOTAL		10		

Table 21: Embossed and Molded White Ceramics

The configuration of the body on DILg-33:98C/143 has the scallops associated with the Wheat pattern. However, no trace of wheat heads or leaves are present along with the vines and clusters of grapes, suggesting that this design is quite distinct from the Wheat pattern even though the shape of the plate has been borrowed. DILg-33:98C/144 is a plain saucer with very shallow, wide scalloping of the lip and a fine tracery of curlicues embossed just below the lip on the interior.

5.10.1.2 Gold-on-White Ceramics

One sherd, DILg-33:98C/87, is the lip,body portion of a plate. It has a scalloped edge with a row of raised dots below it and a thin gold line below the dots. A garland of alternating embossed flowers and fronds occurs below the gold line. It is possible that this sherd has had another floral design element painted on the glaze at a later date. The outline of leaves and circular flowers can be seen, however there is no colouring left on the leaves and traces of a pink pigment where the flower might have been could also be staining.

5.10.1.3 Blue-on-White Ceramics

Five blue-on-white sherds, all with floral patterns, were curated. DILg-33:98C/83 is a lip,body sherd from a small cup. The pattern, in a deep blue-green, occurs on the interior and exterior and consists of continuous sprays of five-petalled and ten-petalled flowers with tri- and multi-foliolate leaves. The five-petalled spray occurs near the lip on the interior and near the base on the exterior, while the ten-petalled spray occurs near the lip on the exterior.

DILg-33:98C/84 is a lip,body sherd from a bowl. The very dark blue (indigo?) pattern consists of leaves and flowers on the interior body surface.

DILg-33:98C/85 is body sherd from a large bowl, possibly a serving dish. It may also have been from a pitcher. The pattern, a bright blue, consists of full-blown roses and leaves on the exterior surface.

DILg-33:98C/86 consists of two lip,body sherds from a saucer. One sherd has a blooming flower with leaves, while the other sherd has three buds and different leaves. Both patterns have stippled outlining. Although the patterns differ, the colour, paste, size, and texture of these specimens is identical.

5.10.1.4 Green-on-White Ceramics

Two sherds have green-on-white patterns. DILg-33:98C/90 is a small body sherd from a bowl with a pale green wash on the entire exterior surface. DILg-33:98C/89, a body sherd, derives from a bowl? and has a portion of a leaf pattern, in green.

5.10.1.5 Brown Ceramics

One segment of a brown handle was curated. DILg-33:98C/91 is a coarser porcelain and may be from a teapot or a jug. The colouring is done in such a manner as to emulate wood grain.

5.10.1.6 Multicoloured Ceramics

DILg-33:98C/88 is a body,base sherd from a plate. The pattern, on the body, is a floral design consisting of green leaves with purple veins and stems as well as a spray of violet and pink flowers. Traces of a yellow background occur in clusters of the floral design. This pattern bears a resemblance to the Bridal Rose pattern.

6.0 PRE-CONTACT ARTIFACTS

During the monitoring of the drilling of the vertical shafts for services installations, Pre-Contact cultural resources were recorded at several locations (Figure 1). In contrast with the overlapping sequential horizons recorded north of this location during The Forks Access Project (Quaternary 1999a), the sparseness of archaeological deposits is reminiscent of the culturally sterile area observed during the Stage I Construction Program (Kroker and Goundry 1990:29). It appears that the services corridor is on the periphery of an area favoured for occupation sites. Several instances of buried soil horizons at depths equivalent to cultural horizons in The Forks Access Project were recorded during the monitoring program of this project.

6.1 *Upper Horizon*

The uppermost horizon was encountered at six locations during the monitoring of services installations (Figure 1, Figure 2): at Hole 9 of the LDS; at Hole 3 and Hole 6 of the water installation; and, during the Hydro ductline trenching, at the equivalent of Hole 3, Hole 5, and the manhole excavation (near Hole 6). While it is possible that these six separated occurrences represent more than one discrete cultural occupation site, they are combined as a single level for analytical purposes. A total of 555 artifacts was recovered from the upper horizon. These consist of 15 lithic artifacts, 514 faunal remains, and 26 floral remains.

6.1.1 *Lithic Artifacts*

The lithic component of pre-European tool kits is the portion that tends to preserve the best. Bone and wooden tools, as well as clothing and other organic artifacts, decay or burn during prairie/forest fires. Due to the indestructibility of stone artifacts, they have become one of the standard diagnostic tools for assessing cultural affiliations. This assessment is predicated upon the assumption that there were standardized forms for each type of artifact within each cultural group at a specific time period. However, considerable variation can occur due to the degree of skill of the individual tool maker, the quality of the lithic material from which the tool is being made, and the borrowing of ideas from other cultural groups.

The fifteen lithic artifacts are analysed within the following categories: detritus (14 = 93.3%) and fire-cracked rock (1 = 6.7%).

6.1.1.1 Detritus

Detritus is the category under which the byproducts and waste elements of the tool manufacturing process are catalogued. This category refers to lithic material and includes flakes and cores. It can also include fragments of copper and, in proto/post-Contact times, iron. The category also includes waste products from the manufacture of bone or wooden tools.

The manufacture of stone tools is a complex process. Cobbles and pebbles of the desired raw material are struck with a hammerstone to remove flakes. A cobble with flakes removed is known as a core. The flakes which have been removed are further shaped, using a stone or antler billet to strike off smaller flakes to thin the original object and to produce the desired shape. At this time, a pointed implement called a flaker, usually made of antler, is used to press small flakes from the edge to produce a sharp, straight cutting edge. During this process, many flakes are produced—some are further modified as retouched flakes, others are used *as is* as expedient cutting tools, but most are discarded at the place of manufacture.

Fourteen lithic flakes were recovered (Table 22). Four types are represented, the predominant one is grey chert.

MATERIAL	GROUP	QUANTITY	FREQUENCY	WEIGHT	FREQUENCY
Chert, grey	IV	8	57.1	4.3	35.2
Chert, red	IV	1	7.1	0.1	0.8
Quartzite	IV	3	21.4	5.6	45.9
Selkirk Chert	V	2	14.3	2.2	18.0
TOTAL		14	99.9	12.2	99.9

Table 22: Flake Recoveries by Material Type

In contrast to most archaeological horizons in the vicinity, few lithic types are present and these represent very limited numbers of source areas. In most sites, six major source areas are represented. These source areas and the materials derived from them are:

- Group I: Materials found throughout the western portion of Manitoba. This group includes Swan River Chert from the Swan River Valley region near the Saskatchewan border and St. Ambrose Chert from Lake Manitoba. Other materials, i.e., chalcedony and jasper, are found in deposits such as the Souris Gravel Pits.
- Group II: Materials found to the south. The primary example of this group is Knife River Flint which occurs at quarry locations in North Dakota.
- Group III: Materials associated with the Canadian Shield, found to the east and to the north of the Red River. This group consists of quartz and rhyolite.
- Group IV: Materials whose distribution is a result of glacial transportation and can be found throughout the province. This group is represented by quartzite, siltstone, silicified sediment, and the various types of undifferentiated chert.
- Group V: Materials from nearby quarry sources. This group is represented by Selkirk Chert and the limestone matrix in which the nodules occur.
- Group VI: Materials from the western Lake Superior area, especially around Thunder Bay. This group includes Gunflint Chert and Jasper Taconite.

The most frequent group is Group IV, representing 85.6% of the total with Group V providing the remainder. Inasmuch as lithic materials are not available at the site, all material would have been transported to the location by the occupants. Group IV materials could have been obtained at creek mouths and riffle areas to the west along the Assiniboine River. Group V materials could have been found slightly downstream on the Red River at the St. Andrews Rapids (Selkirk Chert).

The dominant lithic materials often represent source areas recently visited by the occupants. An assemblage such as this one, which shows a very strong reliance on locally obtained material, indicates a knowledge of regional lithic source areas and suggests the practise of gathering tool-quality material when the opportunity arises. As certain types of material are favoured for specific tools, often that type of material is carried until needed. Thus, representations of previously visited areas or source areas accessed by traders can occur as components of the current lithic assemblage.

6.1.1.2 Fire-cracked Rock

Fire-cracked rocks are those specimens which have evidence of being subjected to intense heat. Depending upon the structure of the rock, extreme temperature variations cause different results. Fine-grained homogenous lithic cobbles, such as limestone, quartzite, and rhyolite, will spall and shatter into angular fragments, while coarse-grained granitic rocks will tend to decompose into smaller granular fragments of the different parent materials, i.e., granite, granodiorite, diorite, etc.

Only one small fragment of fire-cracked granite (DILg-33:98C/516) was recovered. Concentrations of fire-cracked rock tend to indicate hearths and cooking activity areas. None of the indicators of hearths—ash, charcoal, burned bone—were observed in the stratigraphic profiles of the vertical shafts.

6.1.2 Faunal Remains

The largest number of artifacts in the upper Pre-Contact horizon consists of faunal objects. These include two samples with the remainder of the faunal material being either butchering remains or natural faunal deposits. The faunal material was identified using the standard references: Casteel (1976), Clarke (1981), Gilbert (1973), Mundell (1975), Olsen (1960, 1964, 1968, 1971), Schmid (1972). All of the faunal remains were examined and identified as specifically as possible: body part, age of individual, and species. Evidence of butchering techniques, such as cut marks, was recorded as was the condition of the specimen, i.e., charred, broken, chewed, or gnawed.

6.1.2.1 Butchering Remains

As is usually the case, food residue in the form of butchering remains is the highest percentage of recovery—505 artifacts with a combined weight of 811.6 grams. While samples could be construed as butchering remains, in that they are the result of cluster cataloguing of minute residue obtained during the wet screening process, they are not included in the quantities or weights of butchering remains. This is done so as not to skew the percentages inordinately in favour of undetermined or

unidentifiable fragments. As such, the quantities that can be identified to specific taxa more closely reflect the actual food procurement practices of the peoples that camped here.

For comparative purposes, the identified taxa are listed in Table 23. The frequencies of each taxon are calculated on the combined weight and quantities to give a picture of the relative frequency within the entire faunal food assemblage. It should be noted that even though these are considered as butchering remains, some taxa may have been harvested solely for their fur rather than food. However, this cannot be readily ascertained given our current 20th century biases.

TAXON	QTY	FREQUENCY	WT	FREQUENCY
Aves				
Medium Aves	1	0.2	0.3	< 0.1
TOTAL AVES	1	0.2	0.3	< 0.1
Undifferentiated Fish	204	40.4	20.5	2.5
Catfish (<i>Ictalurus</i> sp.)	148	29.3	117.7	14.5
TOTAL FISH	352	69.7	138.2	17.0
Mammal				
Large Mammal	56	11.1	129.2	15.9
Medium/Large Mammal	58	11.5	9.4	1.2
Medium Mammal	16	3.2	6.2	0.8
Deer/Cow Family (Artiodactyla)	18	3.6	232.7	28.7
Cow Family (Bovidae)				
Bison (<i>Bison bison</i>)	3	0.6	295.5	36.4
Carnivore Family (Carnivora)				
Skunk (<i>Mephitis mephitis</i>)	1	0.2	0.1	< 0.1
TOTAL MAMMAL	152	30.1	673.1	82.9
TOTAL BUTCHERING REMAINS	505	99.9	811.6	99.9

Table 23: Aves, Fish, and Mammal Remains from the Upper Horizon

Evidence of butchering is preserved on the bone elements in the form of cut marks where the joints were separated and/or the flesh was stripped from the bone for further preparation. Cut marks occur on only mammal specimens. They are recorded on the bison elements, the Artiodactyla metapodial, and several of the large mammal fragments, comprising more than 10.0% of the mammal remains.

A large percentage of mammalian bone exhibits spiral fracture indicating breakage while fresh. This breakage was probably for the production of bone grease during which the bones are broken into small fragments (Zeirhut 1967:35) and then boiled to extract the fat (Paget 1909:78). The resulting

bone grease, variously termed marrow fat, soft fat, and grease (Hurlburt 1977:19-21), was consumed directly or used for making pemmican. The product has been described as "...quite hard like tallow, and has the appearance and very nearly the flavour of the richest yellow butter" (Catlin 1926:131).

Some post-depositional trauma occurs during or immediately after the food preparation process when bone fragments are placed into the fire. The result is bone which is either charred or calcined (so thoroughly burned that only the inorganic white calcium carbonate remains). Charred bones account for 0.8% of the total mammal sample, while no calcined bones are recorded.

Other post-depositional trauma is also recorded on butchering remains. Carnivore chewing, either by domesticated dogs or scavenging canids, occurs on three artiodactyl ribs. This could be a result of scavenging during visits to the location by coyotes or wolves after the departure of the occupants rather than the presence of dogs in the campsite.

Archaeologists have many techniques to analyse the protein component of Pre-Contact diets. The most common method is to determine the minimum number of individuals of each species represented at the site. This is done by selecting the most frequent element, e.g., left dentary of a catfish, right femur of a bison, etc., and using that number as the minimum number of animals that would have been harvested. A rigorous analysis uses these minimum numbers and an average body weight of the particular species to determine the amount of usable meat that is represented by the bones in the faunal assemblage. This can be further refined by using base line measurements of the specific element and calculating percentage size ratios of the recovered specimens and then applying that corrected value to the usable meat formula. As an example, a dentary from a 20 pound catfish measures a certain length and the archaeological specimens may range from 50% to 150% of that size. The usable meat would be a compilation of the combined ratios times 20 pounds. A study of this magnitude would fall within academic parameters and is beyond the scope of a mitigative project.

The frequency of the butchering remains are illustrated by both quantity and weight (Figure 3). In the quantity graph, the fish remains overwhelm the other taxa. However, as fish bone is small and light in comparison to the larger and denser mammal bone, the proportions tend to be reversed when weight is considered. In this rather simplistic type of analysis, the amount of available meat is deemed to be relatively proportional to the weight of the residue.

With the above caveats, it can be seen that more than three-quarters of the protein component of the occupants' diet was fulfilled by meat from mammals. Much of the bone could not be identified beyond large or medium/large mammal or Artiodactyla. The identified large mammal taxon—bison—probably produced most of the unidentified bone and supplied the majority of the diet. Within the fish, catfish was overwhelmingly dominant when weight is considered (Table 23). Other taxa such as perch, sauger, drum, or sucker may have supplied some of the unidentified bone. The low proportion of bird remains suggests that the occupation did not take place during either the spring or fall migration periods. Alternatively, the option of bird hunting was not as economically productive as that of fishing or big game hunting and birds were only obtained when the opportunity arose during other activities.

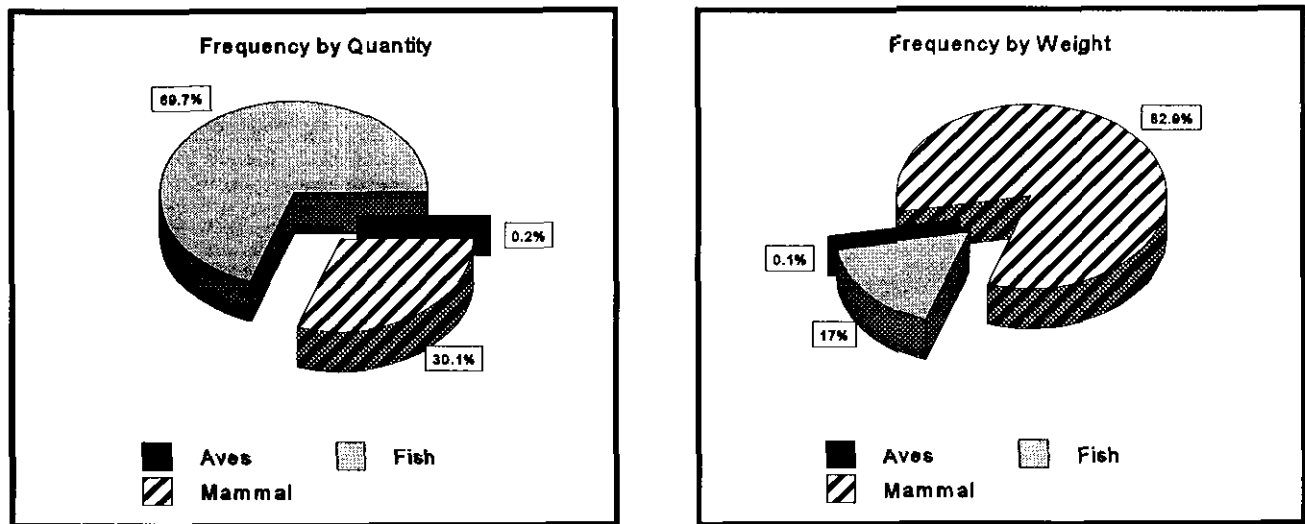


Figure 3: Butchering Remains from Upper Horizon

6.1.2.2 Samples

Samples are an expeditious mechanism for the cataloguing of myriads of minuscule recoveries. These consist of specimens recovered on a 2 millimetre screen and contain diverse artifacts, i.e., charcoal fragments, shell fragments, and small fragmented bone elements. Intensive detailed study of the material catalogued as samples may result in the identification of various plant or animal species, but most of the dominant taxa are already represented by larger recoveries. The additional information obtained through a comprehensive analysis of samples is usually that of degree and further confirmation of specific taxa rather than the identification of previously unrecorded species. Two samples (DILg-33:98C/470 and 488) weighing a total of 22.6 grams were catalogued.

6.1.2.3 Naturally Deposited Fauna

Seven specimens of non-food faunal remains have been curated. Representations of these types of faunal specimens are often incorporated into cultural deposits. They include frogs, which burrow into the soil for hibernation, and natural residents such as small rodents who tend to scavenge occupation sites. The aquatic taxa, freshwater snails and pea clams, are deposited as part of the sediment load during flood episodes and are part of the soil substrate below the cultural level. As the cultural material mixes slightly with the upper portion of the original soil, these taxa are incorporated within the cultural matrix. Six pond snails (*Lymnaeidae*), weighing 0.2 gm (DILg-33:98C/487 and 519), and one ramshorn snail (*Planorbidae*), weighing 0.1 gm (DILg-33:98C/520), were recovered.

6.1.3 Floral Remains

The floral recoveries consist of one wood fragment (DILg-33:98C/518), weighing 0.1 grams, and 25 fragments of charcoal (DILg-33:98C/463, 486, and 517). The charcoal fragments are small, weighing 0.3 grams in total. Few specimens are large enough for species determination at a macro-

analysis level, but it can be assumed that most of the charcoal would derive from locally available trees. These would include oak, maple, willow, poplar, and birch.

6.2 Lower Horizon

The lower horizon was encountered at two locations in the middle of the services corridor. The cultural deposits were recorded at Hole 5 of the LDS, at 270 cm below surface, and at Hole 5 of the Waste Water Sewer, at 288 cm below surface. While it is possible that these separated occurrences represent more than one discrete cultural occupation site, they are combined as a single level for analytical purposes.

A total of 86 artifacts was recovered from the lower horizon. These consist of 83 faunal remains and three floral remains.

6.2.1 Faunal Remains

The majority of the artifacts in the lower Pre-Contact horizon consists of faunal objects, predominately butchering remains (Table 24) with one naturally deposited pea clam (Sphaeriidae). DILg-33:98C/441, the pea clam, weighs 0.1 grams.

TAXON	QTY	FREQUENCY	WT	FREQUENCY
Undifferentiated Fish	76	92.7	1.2	14.5
Catfish (<i>Ictalurus</i> sp.)	6	7.3	7.1	85.5
TOTAL FISH	82	100.0	8.3	100.0
TOTAL BUTCHERING REMAINS	82	100.0	8.3	100.0

Table 24: Fish Remains from the Lower Horizon

Two specimens, a vertebra and a rib from undifferentiated fish, are calcined. Due to the largeness of the bones, catfish was overwhelmingly dominant when weight is considered.

6.2.2 Floral Remains

The floral recoveries consist of three small fragments of charcoal (DILg-33:98C/442), weighing 0.1 grams. None of the charcoal specimens are large enough for species determination at a macro-analysis level.

7.0 SUMMARY AND INTERPRETATION

7.1 *Historic Component*

The recent artifacts and structural remnants of the historic period, recorded during the Festival Park Project, are all the result of railroad activity. Earlier Fur Trade and Immigration Period activities tended to be clustered close to the junction of the Red and Assiniboine Rivers. The rail era began at The Forks in 1888 when the Northern Pacific and Manitoba Railroad brought track north along the Red River and crossed the Assiniboine River. Their repair facility was located in the building which now houses the Manitoba Children's Museum and the roundhouse extended from the north end, near Kiosk Node 3 (Figure 1). The depot was at the corner of Main Street and Water Avenue. Thus, rail-related activities occurred across the area now known as The Forks. The central portion of the East Yard tended to be used as a switching and mastering yard.

Grand Trunk Pacific took over the Northern Pacific and Manitoba Railroad facilities and continued expansion of activities. Canadian Northern Railroad also maintained facilities at The Forks prior to amalgamation into the Canadian National Railroad. Continuous activity occurred throughout the East Yard until the area was decommissioned in 1989.

The historic artifacts that were recovered during this project are primarily the result of secondary deposition. Little material was directly used at the location from which it was recovered, the exception being railroad spikes and components of rolling stock which would have been deposited alongside the tracks and the freight warehouses. The primary track was from the Lowline Bridge across the Assiniboine River to the depot at Main Street and Water Avenue, with secondary spur lines to the roundhouse, at the southeast corner of the railyard, and to freight warehouses. The majority of the artifacts would have been used by the rail companies at other locations within their spheres of activities and then discarded into garbage piles which were then used as landfill throughout the northern and central portion of The Forks. Other sources of garbage may also be possible, with the most notable example being Winnipeg Dump Site #1 (Kroker 1989:181) on the north bank of the Assiniboine River.

Certain artifacts provide temporal controls as logos, brand names, and patterns often were used for a short period prior to alteration. Most hardware and structural objects cannot be dated to the nearest decade due to the longevity of manufacturing techniques. The most useful artifacts for determining date of manufacture and subsequent deposition are beverage containers and dinnerware. Those artifacts which could provide dates are detailed, by manufacturer, in Figure 4. There is a general concentration of pattern markers which denote the presence of dinnerware manufactured between 1890 and 1910. However, there is usually a considerable time lag between the manufacture of a cup or plate and its subsequent disposal after breakage. Beverage bottles tend to provide firmer dates, especially as empty bottles are usually discarded soon after use. The dates for Pelissier are from 1911 to 1914 while those from Stanley Mineral Springs are 1912 to 1915. Bottles produced for E.L.

Drewry Limited are the most useful as the year of manufacture is embossed on the base of the bottle. The dates obtained from recovered specimens are 1904, 1906, 1908, 1909, 1910, and 1911.

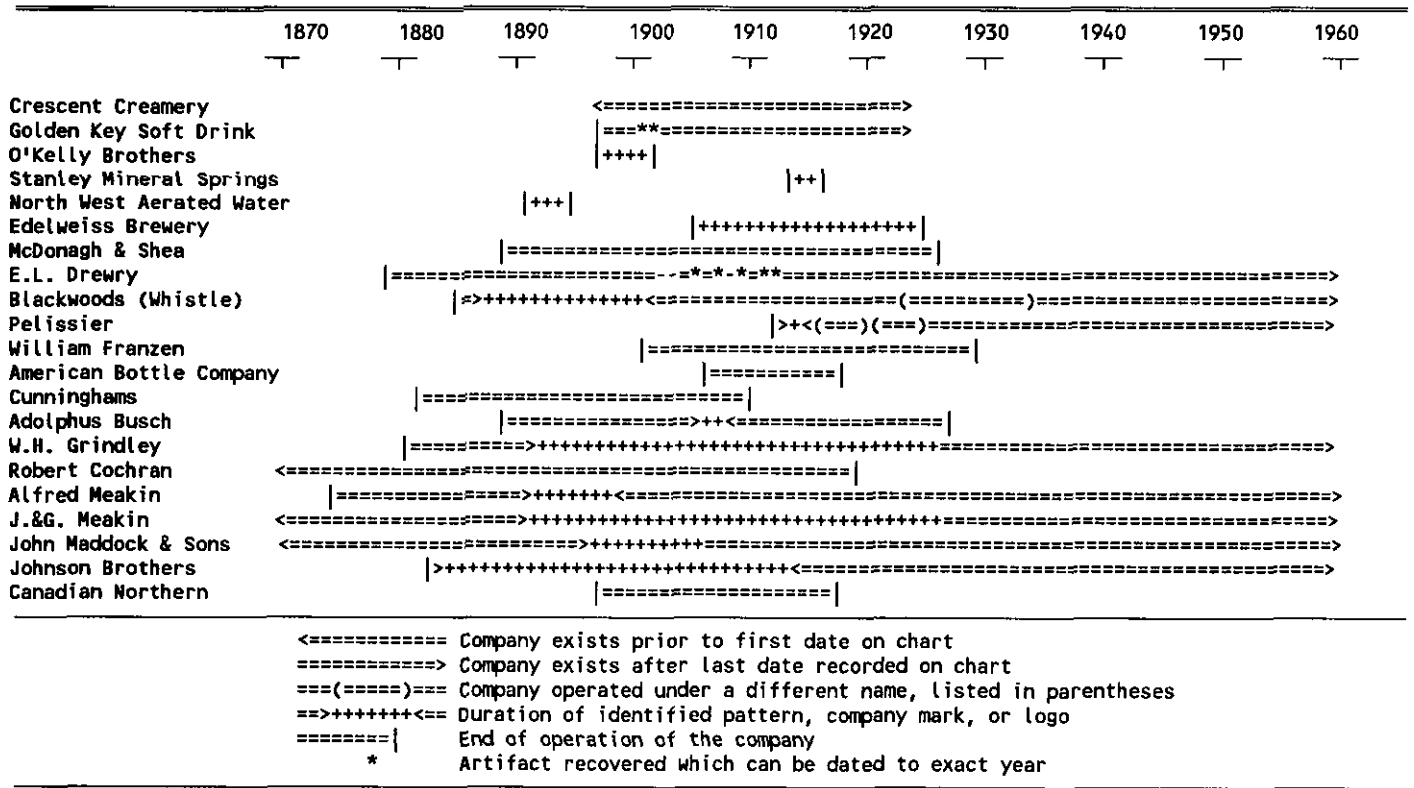


Figure 4: Temporal Chart of Recovered Historic Artifacts

The majority of the historic material was recovered from the cinder fill level which derives from the earlier part of the century while land levels were being raised through the spreading of cinders produced by coal-burning locomotives. Additional landfill materials included sands and gravels, layers of which were encountered during the excavations. If comprehensive railroad archives still existed, some seriation of the construction and demolition of ephemeral buildings, as well as land aggradation episodes, could be developed. Unfortunately, most of the archives relating to Canadian National Railroad and its predecessors were destroyed in a fire in Montreal in the 1960s.

The eastern part of Parking Lot 4 was occupied by two construction-oriented facilities—the City Asphalt Plant (1900 - 1934) and Building Products and Coal Company (1920 - 1974). Considerable quantities of structural material, especially gravel and concrete pillow-shaped concretions, were recorded in this area, now occupied by the bandshell.

7.2 Pre-Contact Component

At least two, and possibly as many as four, Pre-Contact cultural horizons were recorded during the construction monitoring of the Festival Park Project. The upper horizon, located at a depth of 185 cm below surface (228.95 metres above sea level), is tentatively correlated with Horizon B which was defined in The Forks Access Project (Quaternary 1999a) and also located during the Legacy Estates Project (Quaternary 2000a). The manifestation in the Hydro ductline trench near Hole 5 occurs at a depth of 155 cm below surface and may not be a continuation of Horizon B (circa A.D. 1285) but the earlier Horizon A.

The lower horizon, occurring at 272 cm and 288 cm below surface, is tentatively correlated with Horizon D from The Forks Access project (Quaternary 1999a) and the Legacy Estates Project (Quaternary 2000a). Given the discontinuous nature of the recoveries, these strata could represent two distinct horizons, correlating with any of Horizon C, Horizon D, Horizon F, or Horizon G. All four of these cultural horizons have been radiocarbon dated to the period between A.D. 1225 and A.D. 1285 (Horizon B).

It appears that all of the Pre-Contact occurrences are on the periphery of the occupation sites, as the presence of artifacts within the strata is sparse, when compared with the density of the recoveries in The Forks Access Project. This may suggest that there was a reason the central portion of the East Yard was not heavily utilized during the 13th century A.D. Possibilities could include dense tree cover or a wet, low-lying area. A tantalizing bit of data obtained during the Stage I Construction Project (Kroker and Goundry 1990:150, 163) was the presence of gyttja, an organic sediment that forms at the bottom of long-standing lakes and sloughs. This sediment may indicate the presence of an oxbow lake (a relic of a former meander channel of the Red River similar to Enfield Crescent in St. Boniface) in the central area. This oxbow may have existed up to the 13th century occupations as a slough and later a marshy area, accounting for the sparseness of cultural resources between Arrival Square and the York Avenue Intersection.

7.3 Recommendations

No specific recommendations are engendered by the data recovered from this project, in as much as the project is completed and no further sub-surface impact is associated with this development. Also, the management of The Forks North Portage Partnership are fully cognizant of the archaeological sensitivity of the area and have, to date, been rigorous in undertaking all necessary impact assessments and mitigative actions during any development phases.

If future developments are projected within Parking Lot 4, it appears that impact upon Pre-Contact cultural resources can occur at depths greater than 150 cm below surface, i.e., 229.30 metres above sea level. Accordingly, it can be recommended that any development with sub-surface components below 150 cm of depth undergo archaeological screening.

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APPENDIX A
HERITAGE PERMIT



Heritage Permit No. A81-98

Pursuant to Section/Subsection 53 of *The Heritage Resources Act*:

Name: Quaternary Consultants Ltd.
Address: 130 Fort Street
Winnipeg MB R3C 1C7

ATTENTION: Mr. Sid Kroker

(hereinafter referred to as "the Permittee"),

is hereby granted permission to:

monitor and, if necessary, mitigate the construction of the permanent stage structure for Festival Park at The Forks, DILg-33;

during the period:

October 31, 1998 to March 31, 1999

This permit is issued subject to the following conditions:

- (1) That the information provided in the application for this permit dated the 30th day of October 1998, is true in substance and in fact;
- (2) That the permittee shall comply with all the provisions of *The Heritage Resources Act* and any regulations or orders thereunder; **Please note attachment re custody and ownership of heritage objects**
- (3) That the Permittee shall provide to the Minister a written report or reports with respect to the Permittee's activities pursuant to this permit, the form and content of which shall be satisfactory to the Minister and which shall be provided on the following dates:
March 31, 1999
- (4) That this permit is not transferable;
- (5) This permit may be revoked by the Minister where, in the opinion of the Minister, there has been a breach of any of the terms or conditions herein or of any provision of *The Heritage Resources Act* or any regulations thereunder;


(6) Special Conditions:



- a. All heritage objects are to be deposited with the Manitoba Museum by March 31, 1999, for permanent curation and storage, unless appropriate loan requirements are arranged with the Curator of Archaeology prior to that date;
- b. A complete set of archaeological field records, catalogue sheets, laboratory analysis records, photographs, reports, etc. are to be deposited with the Manitoba Museum of Man and Nature upon completion of the archaeological research, or sooner if required; and any subsequent revisions or additions to these records are to be filed as soon as possible thereafter;
- c. Neither the Government of Manitoba nor the party issuing this permit be liable for any damages resulting from any activities carried out pursuant to this permit, and the Permittee specifically agrees, in consideration for receiving this permit, to indemnify and hold harmless the Minister and the Government of Manitoba, the Minister and any employees and officials of the Government, against any and all action, liens, demands, loss, liability, cost, damage and expense including, without limitation, reasonable legal fees, which the Government, Minister or any employee or official of the Government may suffer or incur by reason of any of the activities pursuant to or related to this permit.

D11g-33: 98C

Dated at the City of Winnipeg, in Manitoba, this 6th day of November 1998.



Minister of Culture, Heritage and Citizenship