

**ARCHAEOLOGICAL
MONITORING OF THE
ISLAND AREA ROAD WORKS:
DONALD STREET TO MAIN STREET**

Submitted to

REID CROWTHER & PARTNERS

**QUATERNARY
CONSULTANTS
LIMITED**

January 1998

EXECUTIVE SUMMARY

The construction of the new Norwood and Main Street bridges resulted in the construction of a new road connection between Stradbrook Avenue and Main Street. In addition, the existing roads (Mayfair Avenue, Harkness Street, and the eastern portion of River Avenue) were completely rebuilt. New sub-surface pipe was installed adjacent to the new road connection and a short section of hydro ductline was added near the River Avenue/Main Street intersection. Due to the potential for impact upon heritage resources, all mechanized excavation was archaeologically monitored. Stratigraphic profiles were recorded and diagnostic artifacts were curated.

The excavations for the south lanes of the new road were considered to have the highest potential for impact, due to the presence of a Pre-Contact archaeological site (DILg-68) at the southern edge of the temporary office compound. The site did not extend into the construction area of this project. Isolated recent artifacts were recovered from the upper layers during the monitoring of the excavations of the new roadway. No distinct archaeological horizons were encountered during the project.

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1.0 INTRODUCTION

The construction of the new Main and Norwood Bridges required the construction of a series of new roadways to link the new structures with existing streets. This component consisted of the development of a new road linking Stradbroke Avenue with Main Street and the rebuilding of Mayfair Avenue, Harkness Street, and a portion of River Avenue (Figure 1). In conjunction with the new road construction, a sewer line was installed from Stradbroke Avenue to Main Street. New hydro duct lines were installed linking existing facilities with those that had been put in place during earlier phases of Main Street construction.

The construction excavation for this component was monitored by Quaternary Consultants Ltd. under the terms of Heritage Permit A29-97 (Appendix A).

1.1 Study Team

The archaeological resources management program was directed by Sid Kroker (Senior Archaeologist). The monitoring of construction excavations was conducted by Sid Kroker. Computer cataloguing of the recovered artifacts was completed by Pam Goundry (Research Archaeologist). Analysis of the recovered specimens, documentation, and interpretation were undertaken by Pam Goundry and Sid Kroker.

1.2 Excavation Monitoring Methodology

The excavation for the project was implemented with large backhoes and the soil was hauled away from the site. Archaeological monitoring consisted of continual visual observation of the face of the excavation with hand-retrieval of artifacts from the historic fill layers. Arrangements had been made with the backhoe operators whereby the monitoring archaeologist could, if necessary, ask the operator for brief (two to five minutes) cessations of excavation for additional examination of the excavation face.

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. Faunal remains and metallic objects, which could be identified to function, were recovered. Recovery was selective in that non-diagnostic structural items, such as generic bricks, eavestrough, iron pipes, wire-cut nails, etc. were not curated.

When the excavations extended into undisturbed original sediments below the 1885 soil horizon, the monitoring archaeologist watched for buried soil horizons and changes in soil texture which could indicate possible former ground surfaces. All instances which suggested potential archaeological horizons were carefully examined. Indicators of archaeological horizons are charcoal layers, ash lenses, and/or reddish stained soil. The colour change is usually indicative

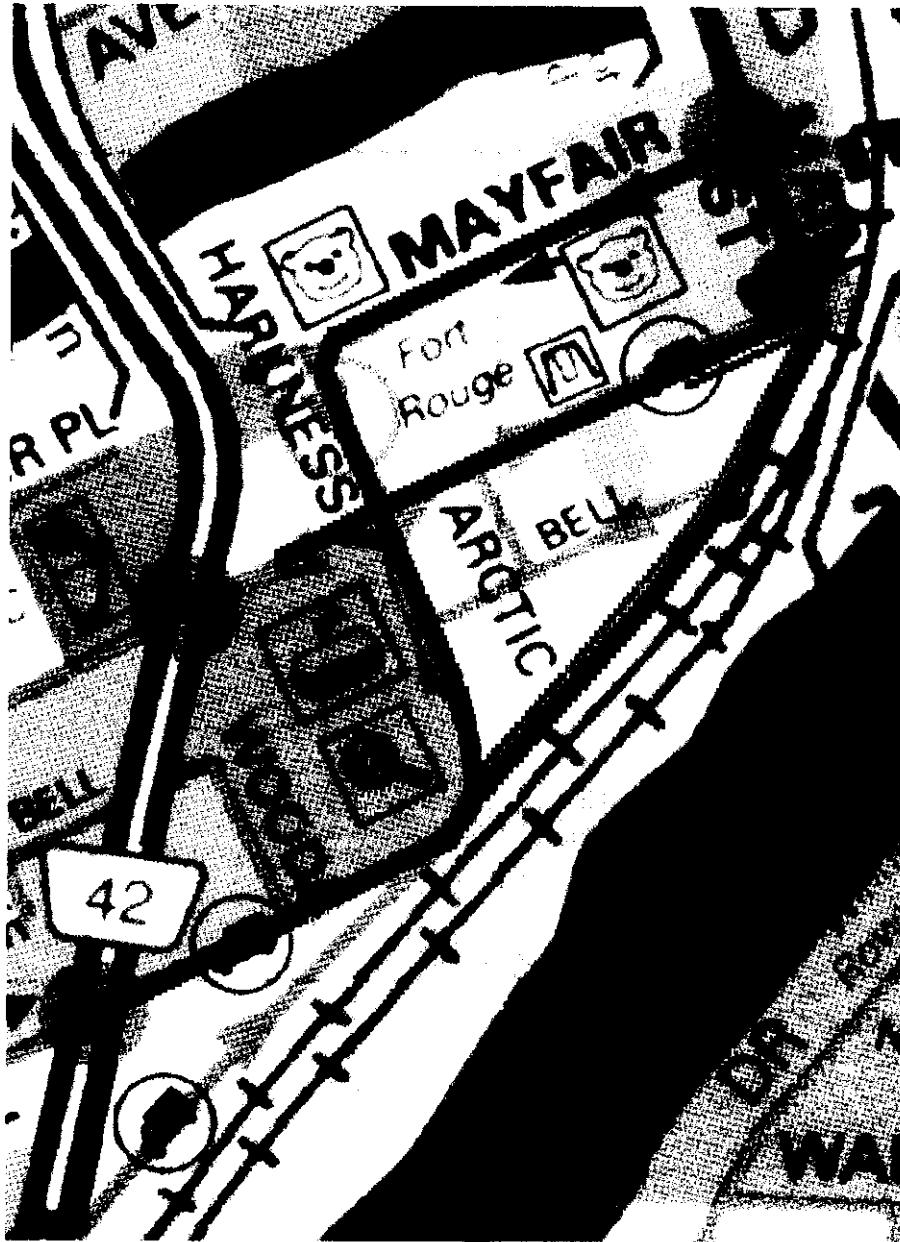


Figure 1: Location of Project

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 fire in the gallery forest lining the banks of the rivers or a cultural event such as a campfire. When evidence of fire was observed, the layer was 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 layer is a positive indicator of an archaeological occupation horizon. Other positive indicators would be the presence of lithic tools, flakes resulting from tool manufacture, and/or fragments of earthenware containers.

1.3 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.

The area affected by this project had been given the Borden designation of DILg-68 as a result of the archaeological discovery of a Pre-Contact horizon in 1994 (Quaternary 1994:47-56). The current project was given the same archaeological site designation with the addition of a year suffix (DILg-68:97A) to indicate a sequential operation at this location.

1.4 Laboratory Procedures

The recovered artifacts were brought to Quaternary Consultants laboratory facilities where artifacts were washed and/or brushed clean. All artifacts were sorted by material class and identified to the limit obtainable by available reference works and staff expertise. Faunal remains were, where possible, identified to element and species.

Each artifact received a catalogue number consisting of the Borden designation for the site—DILg-68:97A—and a sequential number for permanent identification. All pertinent data associated with the artifact was entered into the computer cataloguing system. The cataloguing system is based upon the Canadian Heritage Inventory Network (CHIN) system (Manitoba Museum of Man and Nature 1986; Kroker and Goundry 1993: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 card into standard plastic storage bags, then stapling the bags closed. At the end of the project, all recovered artifacts (Appendix B) will be delivered to the Manitoba Museum of Man and Nature. This institution is the repository designated by the City of Winnipeg for archaeological artifacts recovered during construction projects undertaken on behalf of the City of Winnipeg. The results of the artifact analysis are detailed in Chapter 3.

2.0 OBSERVATIONS

2.1 *Stratigraphy*

Most excavation was relatively shallow, extending 1.2 to 1.5 metres deep for roadbed construction. The sewer system adjacent to the new road linkage between Donald Street and Main Street was installed by horizontal augering between vertical shafts and occasional open-cut sections. The stratigraphy in the vertical shafts was similar throughout the extent of the sub-surface pipe installation. The vertical shafts and open-cuts extended to depths ranging between 2.4 and 2.6 metres below the existing surface. The stratigraphy consisted of recent deposits (black loam, gravel, riverine silt, coal, buried soil zone) in the upper 1.25 metres. The basal buried soil zone would represent the existing ground surface circa 1885, with the overlying coal/cinder layer deriving from rail activities that began after the laying of the Northern Pacific and Manitoba Railroad track in 1888 (Guinn 1980).

Below the post-railroad horizons, sequential layers of riverine sediments were observed. These layers could be distinguished by minor differences in texture, i.e., sandy silt, silt, silty clay, clayey silt, clay, and gradations in colour from pale brown to medium reddish brown. Each distinct layer represents a separate sedimentation episode caused by flooding of the area by the Red and/or Assiniboine Rivers. Buried soil horizons indicate sufficient time depth between sedimentation episodes for the establishment of a vegetational cover and the formation of a humic layer. Very few buried soil horizons were observed suggesting that this portion of the land was either repeatedly flooded with short intervals between high water episodes or that the upper soil layers were often eroded during these high water episodes. No cultural evidence such as food remains or camp fire remnants were observed in any of the excavations along the new Donald/Stradbrook/Main Street roadway.

The hydro duct line excavations paralleled the existing River Avenue on the south side of the former sidewalk. These excavations extended to a depth of 2.7 metres with the upper 1.1 metre consisting of recent deposits. No coal/cinder horizons were present although other indicators of prior impact, such as gravel, were observed. The hydro trench, approximately 30 metres long, did not encounter any Pre-Contact archaeological horizons.

Intermittent monitoring was undertaken during the reconstruction of the Harkness Street, Mayfair Avenue, and River Avenue roadbeds. As the new construction required deeper excavations than the original construction, the basal portion exposed unmodified soil below the existing roadbed. These excavations extended to depths, on average, of 1.2 metres below curb level. The original street construction had extended to depths approximating 0.8 to 1.0 metres below curb level. Within the new exposures, riverine sediments were observed. A distinct buried soil horizon occurred on both Mayfair and River Avenues. The horizon, usually 3 to 5 centimetres thick, occurred at varying depths suggesting an undulatory original surface. In some instances, particularly on the central portion of Mayfair Avenue, the depth was 1.2 metres below curb level.

On the central portion of River Avenue, the horizon was only observed in the sides of the excavation, at a depth of 0.8 metres, having been eradicated by the previous road construction. No artifacts were observed in association with this horizon.

2.2 Features

The primary concern during the excavation of the northbound lanes—those on the south or riverward side—of the new Donald/Stradbrook/Main Street roadway was the possibility of impact upon the Pre-Contact horizons adjacent to the railroad tracks (Quaternary 1994:47-56). No traces of these horizons were encountered by the excavation which continued to a depth of 68 centimetres below the asphalted surface of the temporary office compound. The depth of excavation was sufficient to have encountered the horizons if they had extended northward into the impact zone.

The portion of the roadway that traversed the parking lot of the Pitney Bowes office building encountered disjunct structural remnants below the recent asphalt and gravel layers. These structural remnants consisted of sawn boards and timber mixed with sawdust and coal. As no portions appeared to be joined, it is possible that this lumber derived from the demolition of the Arctic Ice Company offices which were situated at the southeast corner of Bell Avenue and Harkness Street. An alternative possibility would be that the lumber represents ephemeral structures used by the various ice companies that had their operations in this vicinity. The Winnipeg City Henderson Directories list a series of ice companies at this location. The Winnipeg Ice Company became the Bricker Ice Company in 1891. This firm was purchased by the Arctic Ice Company in 1904 and they were present on this site until after World War I. The history has been maintained in the street names—Arctic Street was originally named Bricker Street.

The remnants of a basement, outlined by cobblestones in a degraded mortar, occurred to the east of the Arctic Ice Company structural remnants. This foundation was oriented parallel with Bell Avenue and represented a dwelling structure which had been offset from the street. No artifacts were associated with the basement feature.

The northward extent of any features observed in the excavations for the south lanes is unknown as the north lanes were excavated over a weekend. The monitoring archaeologist had not been advised of this new schedule by the Project Managers who, in turn, had not been advised by the contractor that work would occur that weekend to take advantage of dry weather—the project was delayed several times due to heavy rain. Given the stratigraphic and feature observations in the south lanes, it is unlikely that this breakdown of communication resulted in impact to significant heritage resources. The Pre-Contact horizons did not extend into the excavation area for the south lanes. Previous investigation south of the railroad embankment had revealed that the horizons had very minimal manifestation of cultural activity beyond the periphery of the core area (Quaternary 1995:126-173). The structural remnants at the west end of the excavation area are not *in situ* deposits relating to any original building and would have yielded minimal information beyond the fact that they represent a demolished structure which may have been located nearby.

3.0 RECOVERED ARTIFACTS

Twelve historic artifacts were recovered during this project. These specimens fit into the categories of Transportation, Faunal Remains, and Containers.

3.1 Transportation

DILg-68:97A/9 is a complete, very rusted, iron horseshoe. While The Forks was a hub of railway activity with both the Canadian Northern Railway and Grand Trunk Pacific Railway having stable facilities there (Guinn 1980), horse-drawn activities were prevalent throughout the city of Winnipeg. Other businesses in the area, most notably the Arctic Ice Company, used horse-drawn carriages for deliveries. In addition, horse and buggy was a form of private transportation for the citizens of both the urban and rural areas. Horseshoes are a common find (Kroker 1989:47; Kroker and Goundry 1990:52; Quaternary 1994:12-13, 1995:26).

3.2 Faunal Remains

Six artifacts are the remains from food resources. All of the residue is from mammal (Table 1) and all of the specimens show evidence of butchering activities. The pig tibia and the sheep humerus are both from juvenile animals, while the cow remains are all from adult animals. The pig tibia has evidence of carnivore chewing, probably by a dog. The cow vertebra is weathered indicating that it, at some time prior to incorporation in the soil, lay on the surface of the ground. These artifacts may be derived from a trash pile used by the occupants of the dwelling, the foundation of which was encountered during excavation for the south lanes.

TAXON	ELEMENT	CAT.#	QTY	WT	AGE	COMMENTS
Cow (<i>Bos taurus</i>)	Rib	6	1	22.1	Adult	Spiral fracture
	Vertebra	7	1	31.2	Adult	Sawn; weathered
	Tibia	8	1	141.1	Adult	Sawn
	Patella	12	1	34.0	Adult	Cut marks
Pig (<i>Sus scrofa</i>)	Tibia	10	1	41.7	Juvenile	Cut marks; carnivore chewing
Sheep (<i>Ovis aries</i>)	Humerus	11	1	4.8	Juvenile	Cut marks
TOTAL			6	274.9		

Table 1: Faunal Recoveries

3.3 Containers

The remaining five artifacts are all glass storage specimens—a medicine bottle, a perfume bottle, a cosmetic jar, a beer bottle, and a liquor bottle.

DILg-68:97A/3 is a complete, clear, 1 ounce, rectangular, graduated bottle with a prescription lip (Sydenham 1908:4) and a slightly concave front panel. It would have been closed with a cork. The base is embossed with "NATIONAL OVAL" (Chopping 1978:321). The word Oval is doubled possibly due to shifting of the mold during the blowing process. The mold seam continues to the base of the neck with an applied lip, indicating manufacture prior to 1921.

DILg-68:97A/4 is a complete, clear, screw cap bottle. It measures 73.0 mm in height. The vertical cross-section is isosceles triangular with a slight incurving of the lateral sides. The mold seam extends to the top of the lip indicating manufacture after 1921 in an automatic bottling machine. Embossed, on the base, are the numbers "2 - 5". While this bottle has been called a perfume bottle, it could also have contained fingernail polish.

DILg-68:97A/5 is a complete, small, white jar. It measures 56.7 mm in height which includes the still attached, very rusted, iron screw cap. The body of the jar is 41.9 mm wide and 37.4 mm thick and is oval in cross-section. The number "5" is embossed on the base. Although white jars have also been used to contain food products, such as MacLaren's Imperial Cheese (Barclay 1977:88; Quaternary 1995:38, 1996a:39), and used to dispense ointments and unguents from pharmacies, they can also contain cosmetic products such as creams, i.e., Pond's (Kroker and Goundry 1993:53; Quaternary 1996b:65) and Ingrams Milk Weed Cream (Quaternary 1995:48), as well as rouges and lipsticks.

A complete, brown bottle has been identified as a beer bottle from the McDonagh & Shea Company of Winnipeg. The history of this company has been outlined in other reports (Kroker and Goundry 1993:62; Quaternary 1995:53, 1996a:46, 1996b:66). DILg-68:97A/1 can be identified to Chopping Type MWIN BC8 (Chopping 1978:139). Chopping distinguishes four sub-types predicated upon series numbers (none, 2, 3, 4). This specimen has the series number "1" on the front below the logo indicating that it is a previously unrecorded sub-type. A beginning date for this firm is identified as 1887 when John McDonagh and Patrick Shea purchased the Celestin Thomas brewery, while a terminal date can be ascertained as 1926 when the name was changed from McDonagh & Shea to Shea's Winnipeg Brewery. The earliest specimens from the McDonagh & Shea Brewery were clear or aqua in colour with the later bottles being dark brown. The dates for each type of bottle have not yet been determined, but DILg-68:97A/1 is a later specimen as evidenced by the fact that it was produced in an automatic bottling machine.

DILg-68:97A/2 is an incomplete, olive-coloured bottle. Portions of the base, body, and neck are present. There are no markings to indicate a manufacturer or the contents but, in all likelihood, this bottle contained beer, wine, or liquor.

4.0 SUMMARY

The excavations for the new roadway between Donald Street and Main Street were shallow and encountered minimal undisturbed riverine sediments. The deeper vertical shafts for pipe installation parallel to the roadway yielded stratigraphic evidence that portrayed numerous flood sedimentation episodes. No buried soil horizons were present. This suggests that the periods between floods were relatively short and there was insufficient time for soil formation. No pre-railroad archaeological horizons were encountered in either the shallow roadbed excavation or the deeper pipe and ductline excavations.

Monitoring of the excavations for the rebuilding of Harkness Street, Mayfair Avenue, and the eastern portion of River Avenue yielded stratigraphic data concerning sediment deposits and soil formation. The only strongly defined soil horizon is above undisturbed riverine sediments and is interpreted as the existing soil surface in 1885, prior to the arrival of the railroad in the vicinity.

Only limited quantities of diagnostic artifacts were curated, all recovered during the excavation of the upper levels of the new Donald Street to Main Street roadway. All artifacts probably were used by residents of Bell Avenue or employees of the various ice companies which were situated at the southeast corner of Harkness Street and Bell Avenue (the Winnipeg Ice Company, the Bricker Ice Company, and the Arctic Ice Company).

5.0 BIBLIOGRAPHY

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Quaternary Consultants Ltd.

1994 *1994 Archaeological Investigations in Conjunction with the Main/Norwood Project*. On file with Reid Crowther & Partners and Manitoba Culture, Heritage and Citizenship, Historic Resources Branch.

1995 *Archaeological Monitoring and Mitigation of the C.N. Rail Overpass Reconstruction - Mile 0.40, Rivers Subdivision P.D. No. 94-32*. On file with Reid Crowther & Partners and Manitoba Culture, Heritage and Citizenship, Historic Resources Branch.

1996a *Heritage Resources Impact Assessment of the Portage East Site*. On file with Spirit of Manitoba, Inc. and Manitoba Culture, Heritage and Citizenship, Historic Resources Branch.

1996b *Archaeological Monitoring and Mitigation of the Northbound Norwood Bridge Construction Project*. On file with Reid Crowther & Partners and Manitoba Culture, Heritage and Citizenship, Historic Resources Branch.

Sydenham Glass Co.

1908 *Illustrated Bottle Catalogue and Price List*. Sydenham Glass Co. Limited, Wallaceburg.

APPENDIX A
HERITAGE PERMIT



Heritage Permit No. A29-97

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:

conduct a heritage resource impact by monitoring excavation activities relating to the reconfiguration of Donald Street in conjunction with the Main/Norwood project, to record the presence or absence of heritage resources, and to mitigate if necessary.

during the period:

May 26, 1997 to March 31, 1998

This permit is issued subject to the following conditions:


- (1) That the information provided in the application for this permit dated the 23rd day of May 1997, 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:
July 1, 1998
- (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;

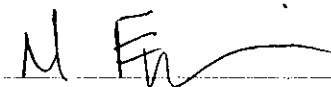
(6) Special Conditions:



- a. All surface collections, excavations, etc. are to be carried out using the provenience system established for use at The Forks;
- b. All heritage objects (artifacts) recovered are to be catalogued according to the CHIN system with the relevant Borden designations; D1Lg-32/96B; D1Lg-33/96B; or as appropriate;
- c. All heritage objects from The Forks are to be deposited with the Manitoba Museum by July 1, 1998, for permanent curation and storage, unless appropriate loan requirements are arranged with the Curatory of Archaeology prior to that date;
- d. 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;
- e. All computer systems and programs employed in archaeological research should be compatible with the computer system established for The Forks;
- f. Appropriate arrangements and funds should be made available for the conservation of perishable heritage objects collected from these sites;
- g. In the event that any human remains are encountered during the excavations, all activity in that particular locus will cease immediately, and the Historic Resources Branch notified immediately so that appropriate action can be determined and taken;
- h. The Permittee will be on-site supervising all aspects of the field work;
- i. The Permittee shall be responsible for the conduct of the laboratory analysis of recovered heritage objects and information to be included in the permit report;
- j. The report identified in #3 above shall conform at a minimum to "The Contents and Format of a Heritage Resource Impact Assessment";
- k. 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.

Dated at the City of Winnipeg, in Manitoba, this 2nd day of June 1997.

 Minister of Culture, Heritage and Citizenship



APPENDIX B
CATALOGUE OF RECOVERED ARTIFACTS

SPECIMEN CATALOGUE RECORD

Site: DLG-68:97A DONALD STREET Area: RED RIVER

Client: REID CROWTHER Acc. No.: _____

Cat. #	Qty	Object Name / Object Type	Material / Cultural Phase	Location / Unit	Coll. Date
1	1	BOTTLE BOTTLE	GLASS INDUSTRIAL		19970618
2	1	SHERD BOTTLE	GLASS INDUSTRIAL		19970618
3	1	BOTTLE BOTTLE	GLASS INDUSTRIAL		19970618
4	1	BOTTLE BOTTLE	GLASS INDUSTRIAL		19970618
5	1	JAR JAR	GLASS; IRON INDUSTRIAL		19970618
6	1	RIB BOS TAURUS	BONE INDUSTRIAL		19970618
7	1	VERTEBRA BOS TAURUS	BONE INDUSTRIAL		19970618
8	1	TIBIA BOS TAURUS	BONE INDUSTRIAL		19970618
9	1	HORSESHOE	IRON INDUSTRIAL		19970618
10	1	TIBIA SUS SCROFA	BONE INDUSTRIAL		19970618
11	1	HUMERUS OVIS ARIES	BONE INDUSTRIAL		19970618
12	1	PATELLA BOS	BONE INDUSTRIAL		19970618