



APPROVAL IN PRINCIPLE
(Pursuant to Section 53 of the *Environmental Management Act*)

THIS IS TO CERTIFY that the remediation plan described herein submitted by 8360 Wiggins Holdings Inc. for the contaminated site identified in Schedule A of this document has been approved.

When implemented, the remediation plan must be implemented in accordance with the requirements and conditions specified in Schedule B.

The substances for which remediation will be conducted and for which this Approval in Principle is valid are specified in Schedule C.

I have issued this Approval in Principle based on a review of the documents listed in Schedule D. I, however, make no representation or warranty as to the accuracy or completeness of that information.

A Director may rescind this Approval in Principle if conditions imposed in the Approval in Principle are not complied with or any fees payable under Part 4 of the Act or regulations are outstanding.

This Approval in Principle should not be construed as an assurance that there are no hazards present at the site.

September 22, 2017
Date Issued


Heather Osachoff
For Director, *Environmental Management Act*

Schedule A

The site covered by this Approval in Principle is located at portions of 8340, 8351, 8371 and 8381 Fraser Reach Court, Burnaby, British Columbia which is more particularly known and described as:

Portions of Lot 3 (PID: 030-026-733) and Lot 4 (PID: 030-026-741) District Lot 167 Group 1 New Westminster District Plan EPP67256, which is more particularly described by following metes and bounds description:

Commencing at a point on the Westerly Boundary of Lot 4 District Lot 167 Group 1 New Westminster District Plan EPP67256 lying $140^{\circ}18'24''$ and 52.716 metres, from the Northwesterly corner of said Lot 4,

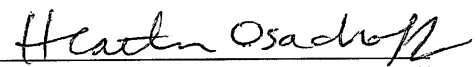
Thence $50^{\circ}18'25''$ for a distance of 230.742 metres,
Thence $140^{\circ}18'09''$ for a distance of 289.731 metres,
Thence $46^{\circ}17'12''$ for a distance of 1.721 metres,
Thence $45^{\circ}50'22''$ for a distance of 16.189 metres,
Thence $39^{\circ}45'12''$ for a distance of 1.992 metres, more or less, to a point of intersection with the Westerly Boundary of Lot 3 District Lot 167 Group 1 New Westminster District Plan EPP67256,
Thence $39^{\circ}45'12''$ for a distance of 35.869 metres,
Thence $37^{\circ}31'49''$ for a distance of 47.458 metres,
Thence $38^{\circ}22'28''$ for a distance of 47.197 metres,
Thence $39^{\circ}59'13''$ for a distance of 52.514 metres,
Thence $39^{\circ}30'50''$ for a distance of 38.328 metres,
Thence $22^{\circ}45'58''$ for a distance of 4.812 metres,
Thence $32^{\circ}24'37''$ for a distance of 16.414 metres, more or less, to a point of intersection with the Southerly Boundary of Lot 43 District Lot 167 Group 1 New Westminster District Plan 25676,

Thence $50^{\circ}17'45''$ for a distance of 13.081 metres, more or less, following in the said Southerly Boundary of Lot 43 to a point of intersection with the Easterly Boundary of said Lot 3 Plan EPP67256,

Thence Southerly following in the said Easterly Boundary of Lot 3, $140^{\circ}18'30''$ for a distance of 33.7 metres, more or less, to the Southeasterly corner of said lot 3, said point being the Natural Boundary of the Fraser River as shown on Plan EPP56894,

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Thence Westerly following in the said Natural Boundary of the Fraser River to the Southwesterly corner of said Lot 4 Plan EPP67256,

Thence 320°18'24" and following in the said Westerly Boundary of Lot 4, for a distance of 327.0 metres, more or less, to the Point of Commencement, said part within the heavy outline containing 8.48 hectares, more or less.

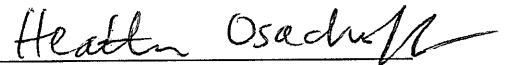
The site contains part of a legal parcel as shown within the heavy outline on a Sketch Plan prepared by Butler Sundvick B.C.L.S., Drawing No. 4292-MB2 dated February 14th, 2017.

The approximate centre of the site using the NAD (North American Datum) 1983 convention is:

Latitude: 49° 11' 02.65"
Longitude: 122° 58' 24.25"

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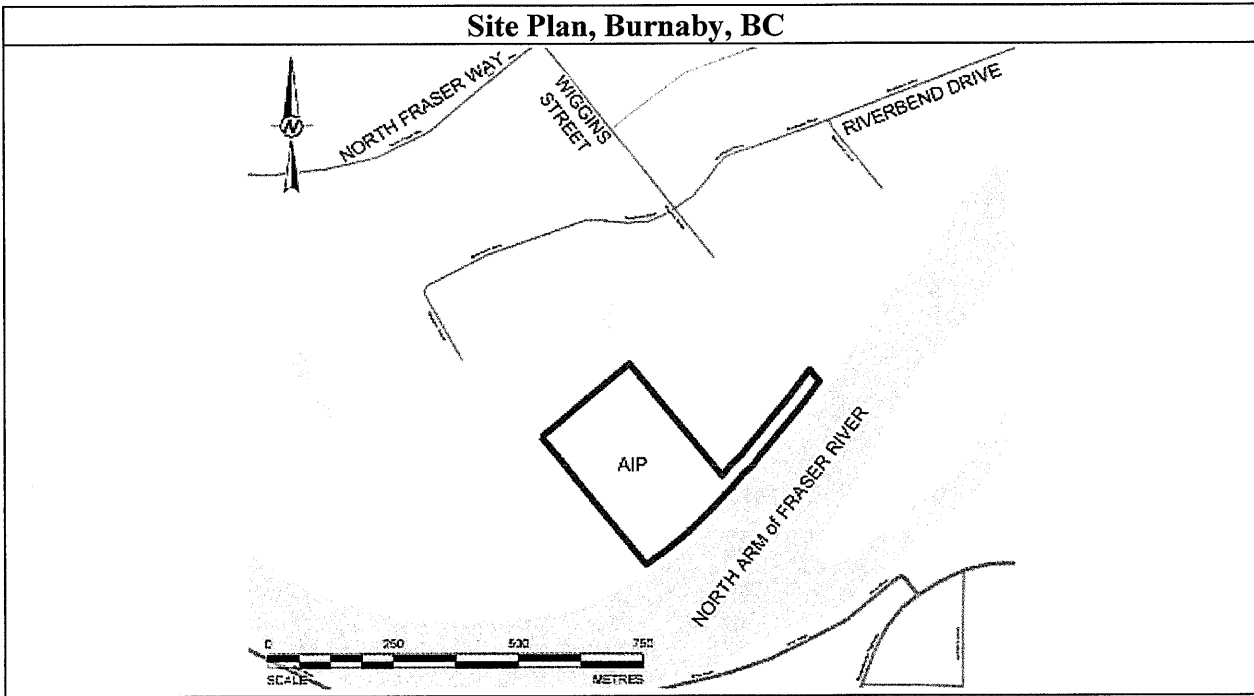
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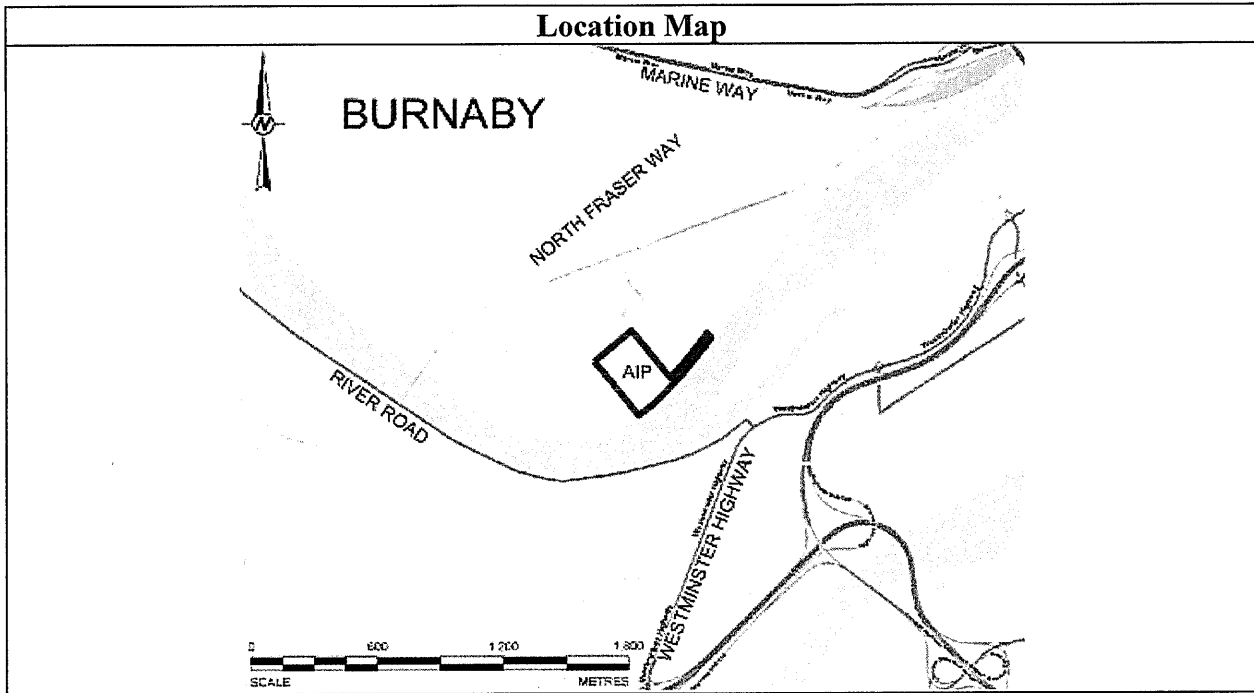
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Site Plan, Burnaby, BC



Location Map



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Schedule B

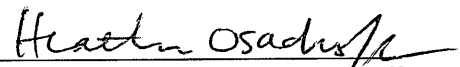
Requirements and Conditions

1. Remediation, including monitoring, inspections and maintenance of any works, must be undertaken by the responsible person in the manner and schedule specified in the plan listed in Schedule D or as specified in a modification of the plan approved by the Director.
2. Any substantial modifications to the approved remediation plan, including substantial changes to the remediation schedule, conditions or circumstances described in the risk assessment upon which the remediation plan is based, or changes in land, vapour, water, or sediment use, must be promptly identified in a written submission by the responsible person to the Director. An application for an amendment or new Approval in Principle may be necessary.
3. Up-to-date records of monitoring, inspections and maintenance of any works must be maintained by the responsible person or their agent. The records must be available for inspection by the Director.
4. Remediation must be completed within one year of the date of issuance of this Approval in Principle.
5. Remediation must be confirmed in accordance with applicable legislation and ministry guidance. Within 90 days of completing remediation, a report summarizing confirmation of remediation must be prepared in accordance with section 49 (2) of the Contaminated Sites Regulation and submitted to the Director.
6. A statement signed by an Approved Professional must be submitted to the Director annually within 90 days of the anniversary of the date of issuance of this Approval in Principle. The statement must include the following:
 - (a) A summary of remedial activities undertaken during the reporting period; and
 - (b) An assessment comparing remediation progress to the actions and schedule set out in the plans referenced above. Refer to Condition 3 above if remedial progress differs substantially from the schedule set out in the approved plan.

If requested by the Director, a report signed by an Approved Professional must be submitted for review to the Director and must include the following:

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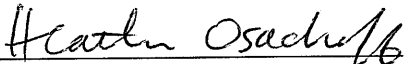
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- (a) A summary of remedial activities undertaken to date;
 - (b) An assessment comparing remediation progress to the actions and schedule set out in the plans referenced above. Refer to Condition 3 above if remedial progress differs substantially from the schedule set out in the approved plan;
 - (c) Interpretation of current and cumulative monitoring results from the soil, vapour, groundwater, air monitoring program;
 - (d) Evaluation of the performance of the <institutional and/or engineering controls; and
 - (e) Supporting documentation (e.g., analytical reports, records of inspection, maintenance of treatment works, etc.).
7. The documents listed in Schedule D indicate that vapour attenuation factors were applied to meet Contaminated Sites Regulation numerical and risk-based standards at and adjacent to the site. These vapour attenuation factors were selected based on assumptions about the structures, locations and depths of buildings and trenches existing or expected at and adjacent to the site. These assumptions include the following:
- (a) Buildings are constructed with slab-on-grade construction;
 - (b) No groundwater will be in contact with the slab;

Any inconsistencies that arise between the structures, locations and depths of proposed or constructed buildings at the site and the range of structures, locations and depths of buildings assumed in the selection of vapour attenuation factors in the documents listed in Schedule D must be promptly identified by the responsible person<s> in a written submission to the Director. An application for an amendment or new Approval in Principle may be necessary.

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Schedule C

Substances and Uses

Substances to be remediated in soil for industrial land soil use:

To meet numerical remediation standards:

- Polychlorinated biphenyls.

To meet risk-based remediation standards:

- Antimony, arsenic, lead, zinc.

Substances to be remediated in soil for urban park land soil use:

To meet risk-based remediation standards:

- Antimony, arsenic, barium, copper, lead, molybdenum, tin, zinc.

Substances to be remediated in water for freshwater aquatic life water use:

To meet numerical remediation standards:

- Naphthalene; and
- LEPHw.

To meet risk-based remediation standards:

- Arsenic, sulphide (as H₂S), zinc; and
- Phenanthrene, pyrene.

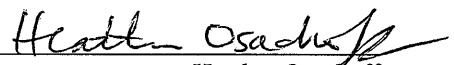
Substances to be remediated in water for drinking water use:

To meet risk-based remediation standards:

- Antimony, arsenic, sulphide (as H₂S); and
- Chloroethane.

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Schedule D

Documents

Document Title	Author / Company	Document Date
<i>Summary of Site Condition</i>	Golder	March 09 2017
<i>Addendum #1 to SSI (REF. 1114360082-118-R-REV0-8000)</i>	Golder	March 08 2017
<i>Human Health and Risk Assessment, Riverbend Business Park, Burnaby, BC</i>	Golder	March 08 2017
<i>Remediation Plan – Riverbend Business Park</i>	Golder	March 3, 2017
<i>Performance Verification Plan</i>	Golder	February 28 2017
<i>Protocol 6 Approval Application 5244 Riverbend Drive, Burnaby, BC</i>	BC MOE	February 27, 2017
<i>Confirmation of Remediation, Riverbend Business Park, Burnaby, BC</i>	Golder	February 21, 2017
<i>Notification of Independent Remediation</i>	Golder	February 10, 2017
<i>Supplemental Site Investigation (1 October 2014 to 1 November 2016), Riverbend Business Park, Burnaby, BC</i>	Golder	February 6, 2017
<i>January 2015 to December 2015 Annual Monitoring Report for Permit PE-17 8255 Wiggins Street, Burnaby, BC</i>	Golder	August 16, 2016
<i>Supplemental Sediment Investigation, 8255 and 8360 Wiggins Street and 5279 Riverbend Drive, Burnaby, British Columbia.</i>	Golder	September 4, 2015
<i>Release Request: Summary of Risk Assessment Results</i>	Golder	August 21, 2015
<i>Riverbend Business Park: Aquatic Habitat Assessment for a Proposed Urban Trail North of Riverbend Drive</i>	Golder	August 14, 2015
<i>Release Request: Zoning, Sub-Division and No Build Covenant, Building Permit</i>	Golder	August 4, 2015
<i>8255 Wiggins, 8360 Wiggins and 5279 Riverbend Drive, Burnaby BC – Commitment by 8360 Wiggins Holding Inc. to Site Remediation</i>	Oxford	July 30, 2015
<i>Remediation and Redevelopment of Riverbend Drive Property at 8360 Wiggins Holdings Inc.</i>	Oxford	July 28, 2015

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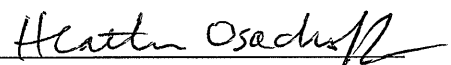
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<i>DFO Permit Package</i>	Golder	June 16, 2015
<i>Water Act Section 9 Notification</i>	Golder	June 16, 2015
<i>Riverbend EMP Report</i>	Golder	June 16, 2015
<i>Riverbend Business Park, Fraser River Shoreline Assessment Report</i>	Golder	June 16, 2015
<i>Notification of Presence of Hazardous Waste</i>	Golder	May 8, 2015
<i>Detailed Site Investigation</i>	Golder	March 26, 2015
<i>Stage 1 Preliminary Site Investigation</i>	Golder	March 26, 2015
<i>January 2014 to December 2014 Permit PR 5936 Annual Monitoring Report for 8255 Wiggins Street, Burnaby, BC</i>		February 27, 2015
<i>January 2014 to December 2014 Annual Monitoring Report for Permit PE-17 8255 Wiggins Street, Burnaby, BC</i>	Golder	January 30, 2015
<i>Notification of Process Substitution Permit PE-17 and Permit PR-05936, 8255 Wiggins Street, BBY, BC</i>	Golder	January 28, 2015
<i>Notification of Independent Remediation, 5279 Riverbend Drive, Burnaby, BCPID: 002-497-905 Site IDs: 2199, 2233</i>	Golder	October 14, 2014
<i>8255 and 8360 Wiggins Street and 5279 Riverbend Drive, Burnaby, BC – Soil and Water Management Plan</i>	Golder	October 6, 2014
<i>City of Burnaby Encroachment Permit #2014-17</i>	Golder	August 25, 2014
<i>Riverbend Business Park Update Mill Building Area and Creosote Pile Removal</i>	Golder	June 19, 2014
<i>Riverbend Island Excavations and Contaminated Soil Handling Requirements</i>	Golder	May 7, 2014
<i>Acknowledgement of intent to use previously pre-approved toxicity tests at Site 2199 and 2233</i>	BC MOE	April 16, 2014
<i>Management of Creosote treated Piles</i>	Golder	April 14, 2014
<i>Permit 5936 – as amended February 2, 2014</i>	MOE	February 2, 2014
<i>January 2013 to December 2013 Annual Monitoring Report for Permit PE 17 – 8255 Wiggins Street, Burnaby, BC</i>	Golder	January 31, 2014
<i>Supporting Information Minor Permit Amendment for Permit PR-05936 at 8255 Wiggins Street, Burnaby, BC</i>	Golder	January 28, 2014
<i>Lead Leachate Sampling – For the location 8255 Wiggins Street, Burnaby, BC</i>	EMTEC Environmental Consulting Ltd.	October 1, 2013
<i>Minor Amendment permit application Oxford</i>	Golder	September 12, 2013
<i>October 2012 to March 2013 Annual Monitoring Report</i>	Golder	April 4, 2013

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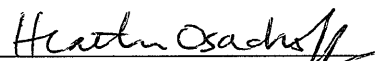
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<i>for Permit PE-17, 8255 Wiggins Street, Burnaby, BC</i>		
<i>Permit PE-17, as amended October 29, 2012</i>	BC MOE	October 29, 2012
<i>Permit Transfer Package</i>	Golder	September 12, 2012
<i>Environmental Site Assessment Summary – Permitted Landfill APEC 100 – 8255 and 8360 Wiggins Street and 5279 Riverbend Drive</i>	Golder	January 26, 2012
<i>Environmental Due Diligence 8255 and 8360 Wiggins Street and 5879 Riverbend Drive, Burnaby, BC</i>	Golder	April 4, 2011
<i>Report of Findings Preliminary Quantitative Risk Assessment Landfill at 8255 and 8360 Wiggins Street and 5879 Riverbend Drive, Burnaby, BC</i>	KE	February 28, 2011
<i>Geotechnical Investigation Report - Landfill Review</i>	GeoPacific	February 3, 2010
<i>Report of Findings Site Investigations and Human Health and Ecological Risk Assessment 8255 and 8360 Wiggins Street and 5279 Riverbend Drive, Burnaby, BC</i>	KE	October 21, 2008
<i>Geotechnical Investigation Report - proposed Site Redevelopment 8255 & 8360 Wiggins Street and 5279 Riverbend Drive, Burnaby, BC</i>	GeoPacific	October 2, 2008
<i>Figure - Norampac Action Plan - Wiggins Street Site Plan - Option 11</i>	CBA	September 12, 2008
<i>Figure - Norampac Action Plan - Wiggins Street Site Plan - Option 12</i>	CBA	September 12, 2008
<i>Status of Investigation 8255 and 8360 Wiggins Street and 5279 Riverbend Drive, Burnaby, BC</i>	KE	September 12, 2008
<i>Hazardous Building Materials Survey for the Cascades Site Paper Mill Division Located at 8255 Wiggins Street, Burnaby, BC</i>	AC	May 30, 2008
<i>Report of Findings Preliminary Site Investigation - Stage 1 8255 and 8360 Wiggins Street, and 5279 Riverbend Drive, Burnaby, BC</i>	KE	May 9, 2008
<i>Norampac Q2 2007 Water Quality Monitoring</i>	SHA	October 1, 2007
<i>Quarterly Groundwater monitoring Report for the First Quarter 2007</i>	SHA	May 5, 2007
<i>Summary of Results for 2006 Groundwater Sampling program</i>	SNC-Lavalin Environment	April 5, 2007
<i>City of Burnaby V. Norampac Inc. et al</i>	Guild Yule &	March 13, 2007

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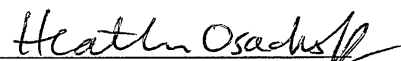
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	Company	
<i>Norampac Paper Mill Landfill Annual Monitoring Report 2006</i>	SHA	January 1, 2007
<i>Summary of Reports for 2005 Groundwater Sampling Program</i>	Morrow	May 2, 2006
<i>Norampac Paper Mill Landfill Annual Monitoring Report 2005</i>	SHA	January 1, 2006
<i>Environmental Audit</i>	ESC	September 1, 2005
<i>Norampac Paper Mill Landfill Annual Monitoring report</i>	SHA	January 1, 2005
<i>Norampac Waste Landfill Compliance Process</i>	City of Burnaby	October 25, 2004
<i>Action Plan</i>	Norampac Paper Inc. Environmental Affairs	September 24, 2004
<i>Additional Environmental Investigation, Norampac Site, 8255 Wiggins Street, Burnaby, BC</i>	Morrow	September 24, 2004
<i>8255 Wiggins Street - Landfill Issues</i>	BLG	August 9, 2004
<i>Operations for On-Site Landfill</i>	SHA	June 29, 2004
<i>Annual Report Under Permit GVA-0548</i>	Norampac Paper	March 4, 2004
<i>Figure - Areas of Potential Environmental Concern and potential Contaminants of Concern</i>	Morrow	February 19, 2004
<i>Tank Test</i>	MT	February 5, 2004
<i>Summary of Spill Response Excavation Results - Diesel Fuel Spill</i>	Morrow	July 2, 2003
<i>Test Analysis Summary</i>	MT	February 25, 2003
<i>Groundwater Monitoring and Sampling Program, Norampac Site, 8255 Wiggins Street, Burnaby, BC</i>	Morrow	January 29, 2003
<i>Waste Management Act Amended Permit PR-05936</i>	Province of British Columbia	May 29, 2001
<i>Action Plan</i>	Norampac Paper Inc. Environmental Affairs	April 19, 2001

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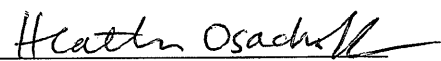
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<i>Phase 2 Environmental Investigation Report - Soil and Groundwater Screening - Paperboard Industries Corporation Site, Burnaby, BC</i>	PGL	September 1, 2000
<i>Separated Phase 2 Environmental Investigation Reports - Papermill and Box Plant Sites, Burnaby, BC</i>	PGL	September 1, 2000
<i>Summary of Environmental Issues - Box Plant - Crown Packaging Ltd. Site 3855 Wiggins Street, Burnaby BC</i>	PGL	August 1, 2000
<i>Summary of Environmental Issues - Paper Mill Division - Crown Packaging Ltd. 8355 Wiggins Street, Burnaby BC</i>	PGL	August 1, 2000
<i>Asbestos Identification and Management Program, Crown Packaging Ltd. Paper Mill Division, 8255 Wiggins Street, Burnaby, BC</i>	AC	August 1, 2000
<i>Test Analysis Summary</i>	MT	March 10, 2000
<i>Summary of Environmental Issues - Crown Packaging Ltd. Site, 8355 Wiggins Street, Burnaby BC</i>	PGL	March 1, 2000
<i>AN Environmental Compliance Audit Crown Packaging, Boxmaster - Vancouver Operations</i>	EC	January 17, 2000
<i>Landfill Design, Operation and Closure Plan</i>	SHA	September 21, 1999
<i>1995 Annual Groundwater Monitoring Report, 8355 Wiggins Street, Burnaby, BC</i>	PGL	January 1, 1996
<i>Report on Domestic Sanitary Sewer and Storm Water Investigation</i>	JSK	March 1, 1995
<i>Partial Appendices to Report on Domestic Sanitary Sewer and Storm Sewer Investigation</i>	JSK	March 1, 1995
<i>Annual Report Groundwater Monitoring Results CPL Paperboard Ltd., Burnaby, BC</i>	PGL	February 1, 1995
<i>Environmental Investigation Report, Landfill Investigation and Remedial Cost Estimates, Paperboard Industries Corporation, Burnaby, BC</i>	PGL	January 1, 1994
<i>Phase 2 Environmental Investigation Report - Soil and Groundwater Screening - Paperboard Industries Corporation Site, Burnaby BC</i>	PGL	October 22, 1993
<i>Phase 2 Environmental Investigation Report - Soil and Groundwater Screening - Paperboard Industries Corporation and Somerville Packaging Sites, Burnaby, BC</i>	PGL	October 13, 1993
<i>Summary of Results from Drilling and Sampling, Project Burnaby Due Diligence</i>	PGL	September 27, 1993
<i>Phase 1 Environmental Audit/Site History Report Project</i>	PGL	September 27,

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<i>Burnaby Due Diligence</i>	1993
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PGL= Pottinger Gaherty Environmental Consultants Ltd.; AC= Astech Consultants Ltd.; MT= McIntosh Testing & Inspection Inc.; Morrow= Morrow Environmental Consultants; SHA=Sperling Hansen Associates; BLG= Borden Ladner Gervais LLP; EC= Ecologico Consultants; KE=Keystone Environmental; JSK=JSK Engineering; ESC= Environmental Services Cascades Canada Inc.; CBA= Christopher Bozyk Architects Ltd.; GeoPacific= GeoPacific Consultants Ltd.; HE= Hub Engineering Inc.

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