



Victoria File: 26250-20/3003
Site ID: 3003

December 16, 2020

Alexandra Deglow
BC Ministry of Transportation and Infrastructure
4B – 940 Blanshard Street
PO Box 9850 Stn Prov Govt
Victoria, BC V8W 9T5
Alexandra.Deglow@gov.bc.ca

Dear Alexandra Deglow:

Re: Approval in Principle – 51 Francois Lake Drive, Burns Lake, British Columbia

Please find enclosed an Approval in Principle respecting the contaminated site referenced above.

In addition to the conditions set out in Schedule B of the Approval in Principle, please be advised of the following:

1. Information about the site will be included in the Site Registry established under the *Environmental Management Act*.
2. The provisions of this Approval in Principle are without prejudice to the right of the Director to make orders or impose requirements as the Director may deem necessary in accordance with applicable laws. Nothing in this Approval in Principle will restrict or impair the Director's powers in this regard.
3. A qualified environmental consultant should be available to identify, characterize and appropriately manage:
 - (a) any environmental media that may be contaminated, or
 - (b) soil which may exceed the standards triggering a Contaminated Soil Relocation Agreement set out in section 40 of the Contaminated Sites Regulationand may be encountered during any future subsurface work at the site.
4. This Approval in Principle does not authorize entry upon, crossing over, or use for any purpose of private or Crown lands or works, unless and except as authorized by the owner of such lands or works. The responsibility for obtaining such authority rests with the persons undertaking remediation. It is also the responsibility of those persons to ensure that all activities conducted under this Approval in Principle are carried out with due regard to the rights of third parties, and comply with other applicable legislation that may be in force.

5. Additional permits and approvals may be required before remediation begins.
6. All site materials (e.g., excavated soil, replaced soil, groundwater from dewatering, pumping, well development etc.) must be characterized and managed in accordance with applicable legislation and ministry guidance.
7. Groundwater wells that are no longer required must be properly decommissioned in accordance with the *Water Sustainability Act's* Groundwater Protection Regulation.
8. Please be advised that there are inherent health and safety risks associated with remediation activities at contaminated sites. Development of site-specific work procedures in accordance with WorkSafeBC regulations is warranted. Please direct related questions to the WorkSafeBC office at 604-276-3100 (Lower Mainland only) or 1-888-621-7233 (toll free in B.C.).
9. 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 use, must be promptly identified by written submission to the Director.
10. If an application for a Certificate of Compliance is to be submitted for the site, the confirmation of remediation report accompanying the application must demonstrate compliance with the remediation standards and criteria in force at the time the application for the Certificate is made, which may differ from the remediation standards and criteria in force at the time of issuance of this Approval in Principle.

Issuance of this Approval in Principle is a decision that may be appealed under Part 8 of the *Environmental Management Act*.

If you require clarification of any aspect of this Approval in Principle, please contact the undersigned at 778-698-4885 (toll free via Enquiry BC at 1-800-663-7867).

Yours truly,



J.A. Brooke, P.Eng.
Senior Contaminated Sites Officer

Enclosure

cc: Sheryl Worthing, Village of Burns Lake, sworthing@burnslake.ca
CSAP Society, apopova@csapsociety.bc.ca
Michael Geraghty, Approved Professional, Keystone Environmental Ltd.,
mgeraghty@keystoneenviro.com
Scott Steer, Approved Professional, Steer Environmental Associates Ltd.
scott.steer@steerenvironmental.com
Client Information Officer, Land Remediation Section, csp_cio@Victorial.gov.bc.ca



APPROVAL IN PRINCIPLE

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

THIS IS TO CERTIFY that the remediation plan described herein submitted by British Columbia Ministry of Transportation and Infrastructure 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.

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J.A. Brooke

For Director, *Environmental Management Act*

Schedule A

The site covered by this Approval in Principle is located in two areas, the source site at 51 Francois Lake Drive, and the affected parcel, a portion of Highway 35, Burns Lake, British Columbia which is more particularly known and described as:

Source Site: Former Burns Lake Highway Maintenance Yard

Block A District Lot 5402 Range 5 Coast District Except Plan 11879

PID: 005-610-427

Affected Parcel: Ministry of Transportation and Infrastructure Lands, a portion of Highway 35
Starting at the west corner of Lot 1, District Lot 5402 and 6309, Range 5, Coast District Plan EPP341:

- The Point of Commencement.
- thence 16° 05' 13" for 19.017 metres;
- thence 30° 38' 11" for 139.703 metres;
- thence 179° 47' 40" for 18.876 metres;
- thence 120° 40' 15" for 16.676 metres;
- thence 53° 52' 32" for 7.861 metres;
- thence 186° 33' 48" for 43.559 metres;
- thence 233° 51' 39" for 81.689 metres;
- thence 227° 15' 33" for 35.770 metres;
- Returning to the Point of Commencement.

The site contains part of a legal parcel depicted in an engineering drawing prepared by Keystone Environmental Ltd. on March 3, 2020.

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

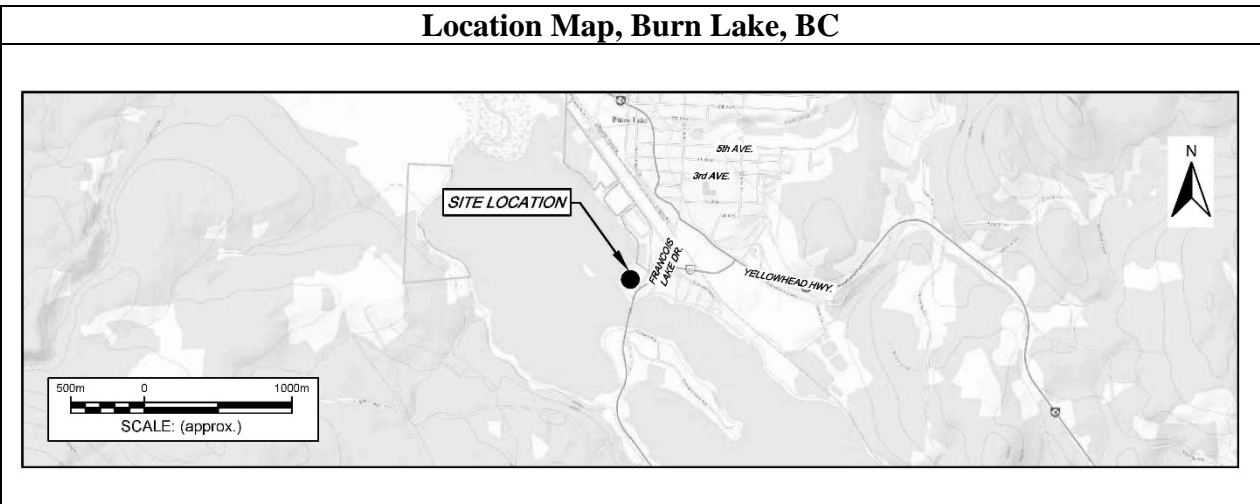
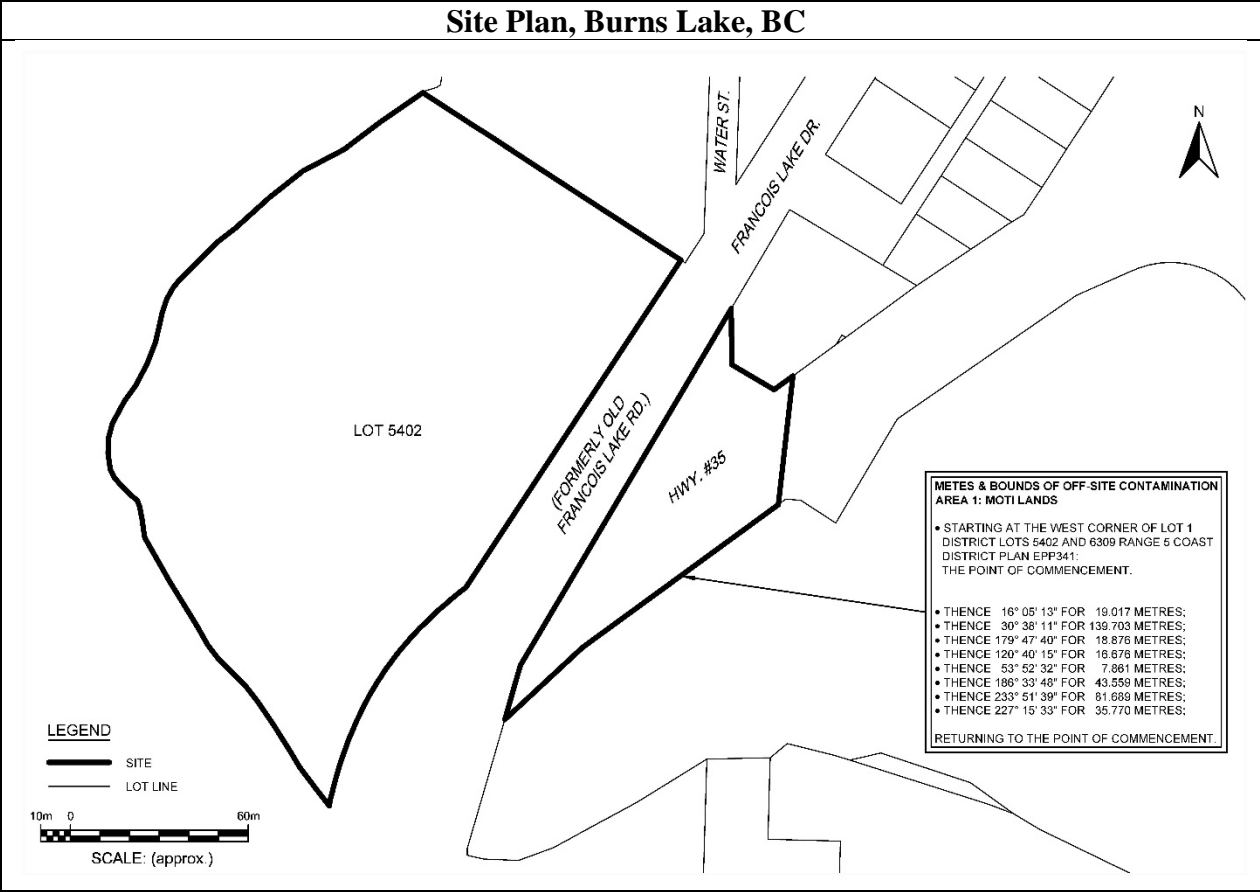
Latitude: 54° 13' 23.00"
Longitude: 125° 45' 53.50"

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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 are based, or changes in land, vapour, water, or sediment use, must be promptly identified in a written submission by the responsible person<s> 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 five years 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:

- (a) A summary of remedial activities undertaken to date;

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- (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, and /or, groundwater 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 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 constructed on the site will have surface-oriented concrete slab foundations and footings without basements.*
 - (b) *Future buildings at the Site must not be constructed within 30 m of the identified vapour contamination (building exclusion zone) or include a vapour barrier*

Any inconsistencies that arise between the structures, locations and depths of proposed or constructed buildings at or adjacent to 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 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

Former Burns Lake Highway Maintenance Yard Part of the Site

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

To meet risk-based remediation standards:

barium	7440-39-3
benzene	71-43-2
chloride ion	16887-00-6
ethylbenzene	100-41-4
HEPH _s	NA
LEPH _s	NA
sodium ion	17341-25-2
toluene	108-88-3
VPH _s	NA
xylene	1330-20-7

Substances to be remediated in vapour for commercial land vapour use:

To meet risk-based remediation standards:

benzene	71-43-2
VPH _v	NA

Substances to be remediated in water for drinking water use:

To meet risk-based remediation standards:

arsenic	7440-38-2
barium	7440-39-3
benzene	71-43-2
chloride ion	16887-00-6
ethylbenzene	100-41-4

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lithium	7439-93-2
sodium ion	17341-25-2
strontium	7440-24-6
toluene	108-88-3
xylene, total	1330-20-7

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

To meet risk-based remediation standards:

arsenic	7440-38-2
benzene	71-43-2
chloride ion	16887-00-6
LEPH _w	NA
naphthalene	91-20-3
toluene	108-88-3
VPH _w	NA
xylene, total	1330-20-7

Highway 35 Part of the Site

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

To meet risk-based remediation standards:

chloride ion	16887-00-6
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Substances to be remediated in water for drinking water use:

To meet risk-based remediation standards:

chloride ion	16887-00-6
lithium	7439-93-2
sodium ion	17341-25-2
strontium	7440-24-6

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Schedule D

Documents

Summary of Site Conditions, 51 Francois Lake Drive, Burns Lake, BC, Keystone Environmental Ltd., March 2020;

Administrative Guidance 11: Communication Record - Village of Burns Lake, Portions of Water Street and Francois Lake Drive adjacent to 51 Francois Lake Drive; Portions of Village of Burns Lake Municipal Campground (civic address 133 Flogum Drive) adjacent to Highway 35, Burns Lake, BC, Keystone Environmental Ltd., March 2020;

Administrative Guidance 11: Communication Record - Burns Lake Automotive & Industrial Supply Ltd., Portion of 94 Francois Lake Drive, Burns Lake, BC, Keystone Environmental Ltd., March 2020;

Remediation Plan, 51 Francois Lake Drive, Burns Lake, BC, Keystone Environmental Ltd., March 2020;

Report of Findings – Human Health and Ecological Risk Assessment, 51 Francois Lake Drive, Burns Lake, BC, Keystone Environmental Ltd., March 2020;

Report of Findings – Stage 1 Preliminary Site Investigation and Detailed Site Investigation, 51 Francois Lake Drive, Burns Lake, BC, Keystone Environmental Ltd., February 2020;

Former Burns Lake Highway Maintenance Yard, Remedial System Semi-Annual Report (October 2018 to July 2019), 51 Francois Lake Drive, Burns Lake, BC, Keystone Environmental Ltd., July 31, 2019;

2019 Burns Lake Highways Yard Remedial System Semi-Annual Report, 51 Francois Lake Road, Burns Lake, BC, Keystone Environmental Ltd., January 29, 2019;

Application for Local Background Concentration Determination for Dissolved Lithium in Groundwater, 51 Francois Lake Drive, Burns Lake, BC, Keystone Environmental Ltd., January 22, 2019;

2018 Burns Lake Highways Yard Remedial System Semi-Annual Report, 51 Francois Lake Road, Burns Lake, BC, Keystone Environmental Ltd., September 27, 2018;

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2017 Q2 – Burns Lake Highways Yard Remedial System Update, 51 Francois Lake Road, Burns Lake, BC, SLR Consulting (Canada) Ltd., January 13, 2018;

2017 Q1 – Burns Lake Highways Yard Remedial System Update, 51 Francois Lake Road, Burns Lake, BC, SLR Consulting (Canada) Ltd., July 7, 2017;

2016 Q2 – Burns Lake Highways Yard Remedial System Update, 51 Francois Lake Road, Burns Lake, BC, SLR Consulting (Canada) Ltd., January 17, 2017;

2016 Q1 – Burns Lake Highways Yard Remedial System Update, 51 Francois Lake Road, Burns Lake, BC, SLR Consulting (Canada) Ltd., July 8, 2016;

2015 Q2 – Burns Lake Highways Yard Remedial System Update, 51 Francois Lake Road, Burns Lake, BC, SLR Consulting (Canada) Ltd., January 4, 2016;

2015 Q1 – Burns Lake Highways Yard Remedial System Update, 51 Francois Lake Road, Burns Lake, BC, SLR Consulting (Canada) Ltd., September 29, 2015;

Spring 2015 Work Program, Former Burns Lake Highways Yard, 51 Francois Lake Road, Burns Lake, BC, SLR Consulting (Canada) Ltd., August 21, 2015;

Former Lakes District Maintenance Yard – Site Risk Classification Report Update, 51 Francois Lake Road, Burns Lake, BC, SLR Consulting (Canada) Ltd., June 1, 2015;

2014 Q2 - Burns Lake Highways Yard Remedial System Update, 51 Francois Lake Road, Burns Lake, BC, SLR Consulting (Canada) Ltd., December 18, 2014;

Former Lakes District Maintenance Yard – Site Risk Classification Report Update, 51 Francois Lake Road, Burns Lake, BC, SLR Consulting (Canada) Ltd., November 14, 2014;

Burns Lake Highways Yard Remedial System Update, 51 Francois Lake Road, Burns Lake, BC, SLR Consulting (Canada) Ltd., July 9, 2014;

November 2013 Remedial System Update - Former Lakes District Maintenance Yard, 51 Francois Lake Road, Burns Lake, BC, SLR Consulting (Canada) Ltd., December 5, 2013;

2013 Bi-annual - Burns Lake Highways Yard Remedial System Update, 51 Francois Lake Road, Burns Lake, BC, SLR Consulting (Canada) Ltd., November 19, 2013;

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Former Lakes District Maintenance Yard – Site Summary, 51 Francois Lake Road, Burns Lake, BC, SLR Consulting (Canada) Ltd., February 22, 2013;

Former Lakes District Maintenance Yard – 2012 Groundwater Monitoring and Sampling Program, 51 Francois Lake Road, Burns Lake, BC, SLR Consulting (Canada) Ltd., December 13, 2012;

2012 Q2 – Former Lakes District Maintenance Yard – 2012 Remedial System Summary Report – Q2, 51 Francois Lake Road, Burns Lake, BC, SLR Consulting (Canada) Ltd., July 20, 2012;

2012 Q1 – Former Lakes District Maintenance Yard – 2012 Remedial System Summary Report – Q1, 51 Francois Lake Road, Burns Lake, BC, SLR Consulting (Canada) Ltd., April 30, 2012;

Former Lakes District Maintenance Yard – 2012 Hot-Spot Excavation Program, 51 Francois Lake Road, Burns Lake, BC, SLR Consulting (Canada) Ltd., April 10, 2012;

2011 Q4 – Former Lakes District Maintenance Yard - Remedial System Summary Report - Q4, 51 Francois Lake Road, Burns Lake, BC, SLR Consulting (Canada) Ltd., January 31, 2012;

Former Lakes District Maintenance Yard – 2011 Step-Out Sampling Program, 51 Francois Lake Road, Burns Lake, BC, SLR Consulting (Canada) Ltd., January 19, 2012;

2011 Q1 – Former Lakes District Maintenance Yard - Remedial System Summary Report – Q1, 51 Francois Lake Road, Burns Lake, BC, SLR Consulting (Canada) Ltd., October 21, 2011;

Former Lakes District Maintenance Yard – 2010 Soil and Groundwater Investigation, 51 Francois Lake Road, Burns Lake, BC, SLR Consulting (Canada) Ltd., April 9, 2010;

Former Lakes District Maintenance Yard – 2009 Remedial System Report, 51 Francois Lake Road, Burns Lake, BC, SLR Consulting (Canada) Ltd., January 18, 2010;

Additional Site Investigation and Remediation (Off-Site), Burns Lake Works Yard, 51 Francois Lake Road, Burns Lake, BC, PHH Environmental Limited, November 10, 2005;

Detailed Site Investigation and Remediation (On-Site), Burns Lake Works Yard, 51 Francois Lake Road, Burns Lake, BC, PHH Environmental Limited, December 23, 2004;

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Stage 3 Detailed Site Investigation and Remediation of Off-Site Contamination, Burns Lake Works Yard, 51 Francois Lake Road, Burns Lake, BC, PHH Environmental Limited, October 27, 2003;

Environmental Stage 3, Detailed Site Investigation for Road Salt, 51 Francois Lake Road, Burns Lake, BC, PHH Environmental Limited, July 2003;

Environmental Remediation of Burns Lake Highways Works Yard, Review of Stage I/II PSI and DSI Reports, Burns Lake, BC, PHH Environmental Limited, July 20, 2001;

Detailed Site Investigation, British Columbia Buildings Corporation, Burns Lake Highways Yard, 51 Francois Lake Road, Burns Lake, BC, SEACOR Environmental Engineering Inc., November 12, 1999;

Discharge Monitoring Report, Groundwater Discharge Permit PE-15077, Technology Resources Inc., May 20, 1999;

Combined Stage 1 / Stage 2 Preliminary Site Investigations, Burns Lake Works Yard, Conor Pacific Environmental Technologies Inc., March 1999;

Groundwater Containment Trench and Treatment System, Lakes District Maintenance Yard, 51 Francois Lake Drive, Burns Lake, BC, Technology Resources Inc., February 5, 1997;

Additional Investigation and Remediation Plan, Lakes District Maintenance Yard, 51 Francois Lake Drive, Burns Lake, BC, Technology Resources Inc., July 6, 1995;

Removal of Two Underground Fuel Storage Tanks from the Lakes District Maintenance Yard, 51 Francois Lake Drive, Burns Lake, BC, Technology Resources Inc., December 29, 1994; and,

Phase 2 Environmental Audits at Nine Transportation and Highways Facilities, Section 6, Lakes District Maintenance Yard, Burns Lake, Site Inspection - August 12, 1993, Technology Resources Inc., September 27, 1993.

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