

Northwest End of Prospect Street
Pemberton, BC

Phase 1 Environmental Site Assessment



PREPARED FOR:

Sanctuary Pemberton Townhomes Ltd.
1688 Ayleslynn Drive
North Vancouver, BC V7J 2T3

PREPARED BY:

PGL Environmental Consultants
#1500 – 1185 West Georgia Street
Vancouver, BC V6E 4E6

PGL File: 4914-03.01

April 2021



solve and simplify

Executive Summary

Our Phase 1 Environmental Site Assessment (ESA) investigated the northwest end of Prospect Street, Pemberton, BC (the Site) for risk of environmental contamination. We reviewed the history of the Site and area, visited the Site on March 31, 2021, and interviewed people familiar with the Site.

The Site is in a residential area of Pemberton, BC, and is an undeveloped forested lot.

Our historical research indicates that the Site has never been developed.

No environmental risks were identified. No further work is recommended.

This Executive Summary is subject to the same standard limitations as contained in the report and must be read in conjunction with the entire report.

Table of Contents

1.0	Introduction.....	1
1.1	Site Information	1
1.2	Purpose	1
1.3	Scope.....	1
2.0	Physical Setting.....	2
3.0	Records Review.....	3
3.1	Site History	3
3.2	Surrounding Area History	3
3.3	ENV Site Registry Search	3
4.0	Site Visit.....	3
4.1	Site Description	3
4.2	Fill	3
4.3	Storage Tanks	3
4.4	Hazardous Materials.....	4
4.5	Hydraulic Elevator/In-ground Hoists.....	4
4.6	Waste Streams	4
4.7	Drains/Wastewater/Sewage	4
4.8	Wells	4
4.9	Stains, Odours, Debris and Stressed Vegetation.....	4
4.10	Regulated Building Materials.....	4
4.11	Heating and Cooling Systems	4
4.12	Neighbouring Property Use	4
5.0	Conclusions	5
6.0	Limitations.....	5

LIST OF TABLES

Table A Site Identification Information

LIST OF FIGURES

Figure 1 Site Location

LIST OF APPENDICES

Appendix 1 Site Photographs
Appendix 2 Aerial Photographs
Appendix 3 Site Registry Search
Appendix 4 Title Search
Appendix 5 Water Well Search
Appendix 6 Information Sheets

1.0 INTRODUCTION

Sanctuary Pemberton Townhomes Ltd. retained PGL Environmental Consultants (PGL) to conduct a Phase 1 Environmental Site Assessment (ESA) of the northwest end of Prospect Street, Pemberton, BC (the Site; Figure 1). The Phase 1 investigation was conducted to assess the likelihood of environmental contamination at the Site, whether from Site use, or uses nearby. The report describes the Site and area uses and history, discusses environmental contamination risks, and presents our conclusions/recommendations.

1.1 Site Information

The Site is currently vacant. Photographs of the Site and surrounding area are attached in Appendix 1. Key Site information is summarized in Table A.

Table A: Site Identification Information

Civic Address	n/a
Existing Land Use	Undeveloped
Parcel Identifier	025-641-620
Legal Description	Lot A District Lot 202 Lillooet District Plan KAP73119
Latitude*	50° 19' 33.2"
Longitude*	122° 48' 29.1"
Site Area	Approximately 3.5 acres

* Source: Google Earth

1.2 Purpose

We understand that this report is intended for due diligence and financing purposes. This report may not include sufficient documentation for regulatory review. Regulatory reports are more technical than what is typically required for financing or property transaction purposes and are therefore more costly to prepare. If regulatory submission is ever necessary, we can augment this report.

1.3 Scope

This Phase 1 investigation has been completed in accordance with Canadian Standards Association Z768-01 and pertinent BC legislation including the *Environmental Management Act* (July 2004) and the Contaminated Sites Regulation. It consists of a records review, inspection of the Site and surrounding area, and interviews with people knowledgeable about the Site. For more information, please see the attached Information Sheet – Phase 1 Site Investigation.

The Phase 1 scope included:

1. A review of geological maps, topographical maps, provincial water resources maps, and PGL data from nearby sites;

2. A records review of:
 - Historical and recent aerial photographs of the area (Appendix 2);
 - Municipal records accessible on the internet; and
 - The BC Ministry of Environment and Climate Change Strategy (ENV) Site Registry (500m radius search) (Appendix 3).
3. An interview of Bruce van Mook, the Site owner. Information obtained from the interview is included in relevant sections of this report; and
4. A Site visit on March 31, 2021, which included:
 - Carrying out a reconnaissance of the neighbouring properties (Appendix 1);
 - Reviewing physical factors that may affect Site contamination such as topography, groundwater, and soils; and
 - Inspecting the Site and improvements for indications of environmentally significant materials/activities.

For the records review, PGL used a 300m upgradient, 150m cross-gradient, and 100m downgradient search radius for the Site, based on our knowledge of the area, the behaviour of expected contaminants, inferred groundwater flow, and preferred pathways.

Some information that can be part of a Phase 1 ESA was not included for this report. PGL completed a current title search for this property (Appendix 4) but did not conduct a historical title search. A historical title search was not warranted given the property use and information available. Business directories and fire insurance maps were not available for the Site as they were never developed for this area of Pemberton. No previous environmental reports were identified. The absence of this information is not considered a significant limitation to this investigation, as sufficient information was obtained from reviewed sources.

2.0 PHYSICAL SETTING

Physical setting determines how potential contaminants move through the ground. Contaminants usually follow groundwater flow gradients. Groundwater normally follows topography, flowing from areas of high elevation (upgradient) to low elevation (downgradient). Offsite contamination that is upgradient is more likely to reach the Site than contamination that is downgradient or cross-gradient. The specific soil type of the area affects how far contamination is likely to travel.

The local topography is generally flat. A tributary of the Arn Canal is approximately 70m north of the Site, flowing northwest to southeast. Local groundwater flow is likely influenced by drainage channels, but generally we infer the groundwater flow direction is to the northeast towards the tributary. The inferred water table in the area is approximately 1m below ground.

Geological maps indicate surficial soils in the area consist of “*sand and silt floodplain sediments, commonly including organic materials and underlain, in many places, by gravel; 1 to 3m thick; occurring as flat surfaces close to river level; prone to flooding*”.

In these circumstances, the groundwater at the Site is likely highly vulnerable to contamination originating at the surface, and contamination in groundwater is likely moderately mobile, given the soil texture and setting.

3.0 RECORDS REVIEW

Local historical records help us evaluate contamination risk by identifying the uses at the Site and nearby properties over time. The history of the Site and surrounding properties has been inferred from the records review and interviews.

3.1 Site History

The Site has never been developed. We did not identify any onsite areas of potential environmental concern during our initial screening.

3.2 Surrounding Area History

The surrounding area began to be developed primarily for residential purposes in the 1950s. A commercial building (now containing a NAPA auto parts store) was constructed at 7456 Prospect Street, approximately 70m cross-gradient to the Site. The surrounding area is much the same today. No environmental risks were identified.

3.3 ENV Site Registry Search

PGL's search of the ENV Site Registry through iMaps (Appendix 3) did not identify any properties on file within a 0.5km radius that are a risk to the Site. The nearest listing is the Prospect Street Esso, 400m south of the Site at 7432 Prospect Street, which is too far to be an environmental risk. Note that the map in Appendix 3 shows this listing approximately 70m south of the Site, but this is incorrect.

4.0 SITE VISIT

PGL inspected the Site and area on March 31, 2020.

Our Site visit included:

- Carrying out a reconnaissance of the neighbouring properties;
- Reviewing physical factors that may affect Site contamination such as topography, groundwater, and soils; and
- Inspecting the Site and improvements for indications of environmentally significant materials such as those listed in the following sections.

4.1 Site Description

The Site is vacant and covered in trees, shrubs, and grasses.

4.2 Fill

The Site is at a similar elevation to adjacent properties. No fill of environmental concern is evident.

4.3 Storage Tanks

PGL inspected the Site for evidence of underground or aboveground storage tanks and neither were observed or suspected onsite.

4.4 Hazardous Materials

No hazardous materials were observed.

4.5 Hydraulic Elevator/In-ground Hoists

No hydraulic systems were observed.

4.6 Waste Streams

No waste is generated onsite.

4.7 Drains/Wastewater/Sewage

The Site does not generate any wastewater or sewage.

4.8 Wells

The BC Water Resources Atlas indicates that there are no water wells within 500m of the Site (Appendix 5).

4.9 Stains, Odours, Debris and Stressed Vegetation

No stains, odours, or stressed vegetation (a potential indicator of contamination) were observed. Some minor anthropogenic debris/garbage was observed, but is not considered an environmental risk.

4.10 Regulated Building Materials

There are no buildings onsite.

4.11 Heating and Cooling Systems

There are no buildings onsite.

4.12 Neighbouring Property Use

The surrounding area is primarily residential. Surrounding property uses include:

- North – Farmland and vacant forested land;
- East – Prospect Street then residential;
- South – Residential and Pemberton Meadows Road; and
- West – Vacant land, Pemberton Meadows Road, and residential.

We did not observe any current operating service stations, dry cleaners, or other operations that might pose a risk to the Site through migration of contamination.

5.0 CONCLUSIONS

We reviewed the Site for environmental issues normally assessed in a Phase 1 ESA. We did not identify any areas of potential environmental concern.

No further work is recommended.

6.0 LIMITATIONS

This report is accurate at a high level for reasonably foreseeable conditions. The limitations of the work are not always obvious, and the best way to understand them is discussion with the authors in the context of your intended use. This work is a snapshot in time, so any use must consider that conclusions may change materially because of changes in site condition or regulatory context.

Only the addressee, our client, and their agents may rely on this report for the stated purpose. We warrant only that the work was done as described and is similar to the work that would be done by other qualified consultants in this area. Our contract includes limitations on liability related to professional errors and omissions.

We trust this meets your needs. If you have any questions or require clarification, please contact Zayed Mohamed or Michael Shum at 604-895-7640 and 604-895-7656, respectively.

Respectfully submitted,

PGL ENVIRONMENTAL CONSULTANTS

Per:



Zayed Mohamed, P.Ag., CSAP
Senior Environmental Consultant



Michael Shum, Ph.D., P.Ag., R.P.Bio.
Senior Environmental Consultant

ZPM/MGS/slr
r-4914-03-01-Phase 1-v1.docx

Bibliography

Aerial photographs of the area:

Year	Serial No.	Photo No.	Notes
1947	BC409	23	The Site and surrounding area are primarily undeveloped. Pemberton Meadows Road is to the west, and a railway is farther to the east running north/south. A small residential area is farther south.
1950	BC1272	79	There are no significant changes from the 1947 photograph.
1958	BC2431	92	A few more homes are completed to the south.
1961	BC5039	77	There are no significant changes from the 1958 photograph.
1964	BC51047	238	Development continues to the south and southeast. Frontier Street is being constructed.
1971	BC5431	81	The Site and south adjacent property have been cleared. A few greenhouses or sheds are visible on the south adjacent property, accessed from Pemberton Meadows Road. Prospect Street is now visible to the southeast. A commercial building is to the southeast, on the east side of Prospect Street.
1975	BC5655	83	A larger commercial building has replaced the previous building on the east side of Prospect Street.
1979	30BCC211	57	There are no significant changes from the 1975 photograph.
1986	15BC86066	114	Prospect Street and Walnut Street are now completed, bounding the Site to the east. Two homes are completed across from the Site on the east side of Prospect Street.
1990	30BCB90106	327	There are no significant changes from the 1986 photograph.
1994	30BCC84157	122	The greenhouses to the south have been cleared and the current townhouse complex is completed on the south adjacent property.
2005	30BCC05086	106	The north adjacent property and area to the northeast have been cleared. A home, barn and several small outbuildings are now visible. More homes are completed on the east side of Prospect Street.
2016	BCS16403	47	Residential development has begun to the southwest, on the opposite side of Pemberton Meadows Road.
2019	Google Earth		There are no significant changes from the 2016 photograph.

Surficial Geology and Landslide Inventory of the Upper Sea to Sky Corridor, Geological Survey of Canada, 2004-2006

Site Registry: 0.5km radius area search

Google Earth

Village of Pemberton Online Map

<http://maps.gov.bc.ca/ess/sv/wrbc/>

Figure

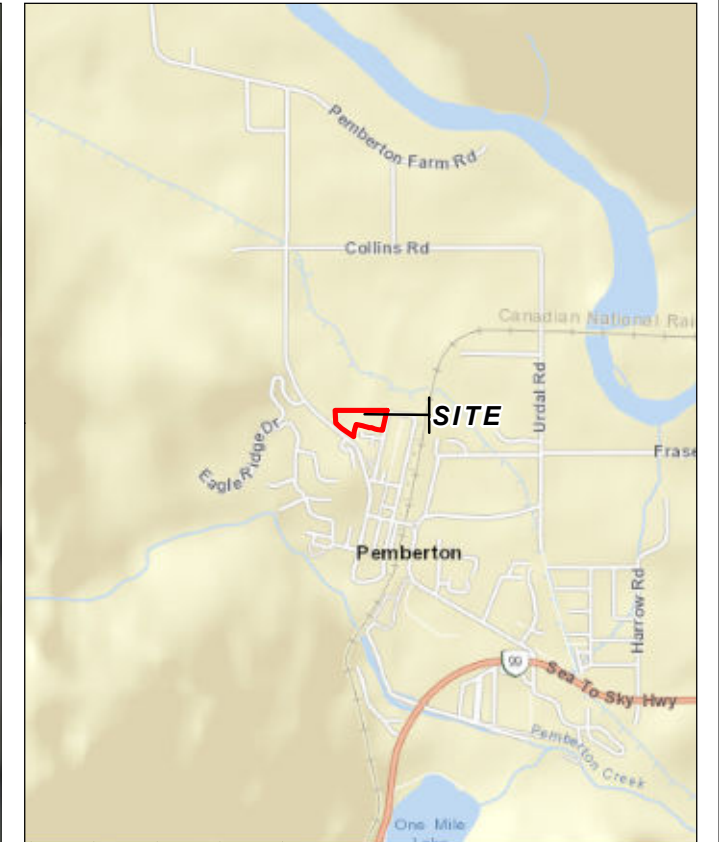


PID: 025-641-620


PEMBERON MEADOWS ROAD

PROSPECT STREET

0 1:1100 65 m



0 1 Km

 Site Boundary (Approximate)

SITE LOCATION

Northwest end of Prospect Street, Pemberton, BC

SANCTUARY PEMBERTON TOWNHOMES LTD.



File No.:	Dwg No.:	FIGURE
4914-03.01	P1_0010	
Date:	Drawn by:	1
MAR 2021	RSS	

Appendix 1
Site Photographs



Photograph 1:

The Site from above. The Site is vacant and covered with trees grass and shrubs. View west



Photograph 2:

Lands north of the Site are primarily agricultural



Photograph 3:

View east. lands east and south of the Site are residential

DJI_0049



Photograph 4:
Onsite view south towards houses



Photograph 5:
Prospect Street. View South

Appendix 2
Aerial Photographs



Aerial Photograph – 1947

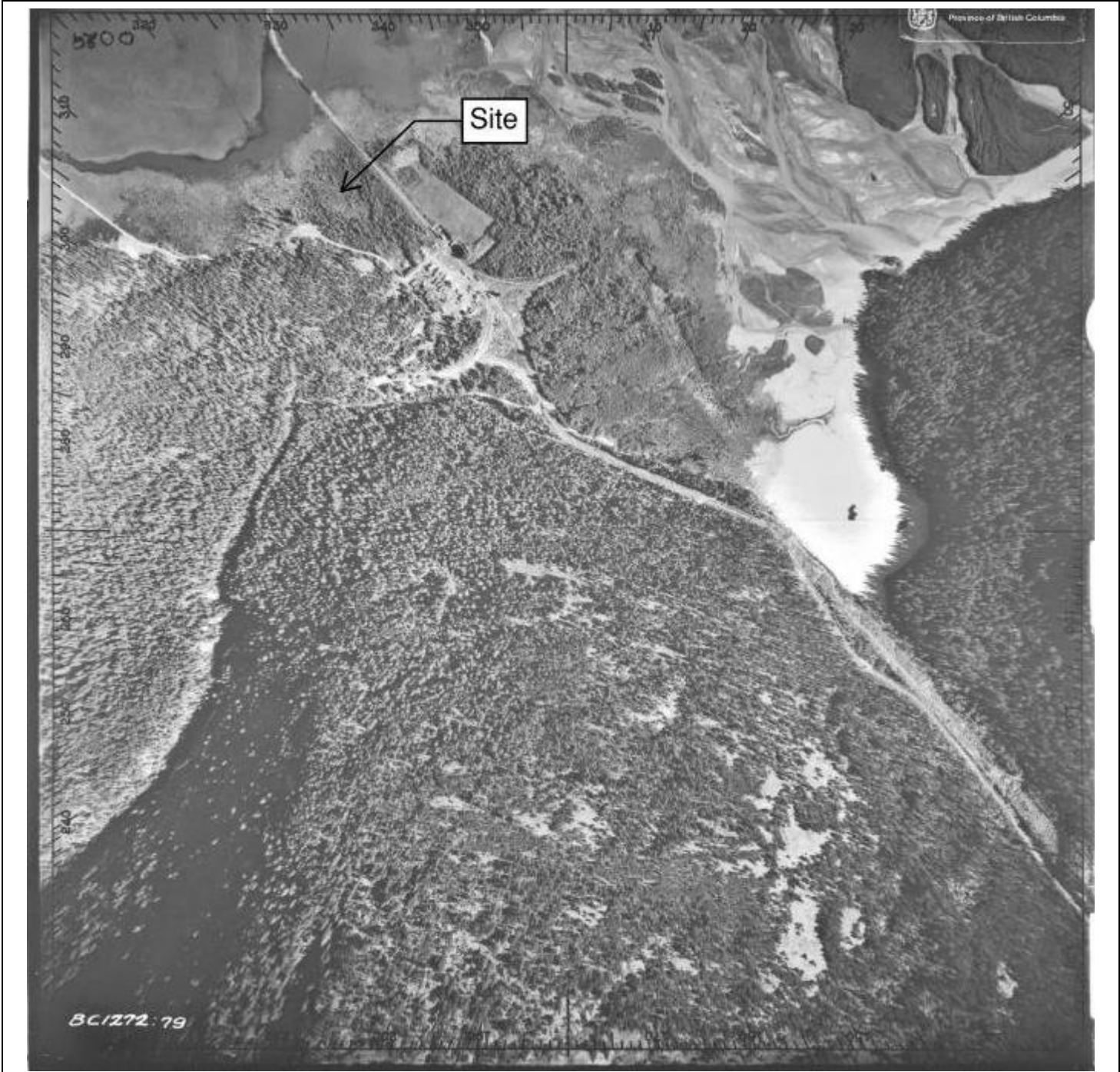
PGL File: 4914-03.01

Northwest end of Prospect Street, Pemberton, BC

Date: April 5, 2021

Sanctuary Pemberton Townhomes Ltd.





Aerial Photograph – 1950

PGL File: 4914-03.01

Northwest end of Prospect Street, Pemberton, BC

Date: April 5, 2021

Sanctuary Pemberton Townhomes Ltd.





Aerial Photograph – 1958

PGL File: 4914-03.01

Northwest end of Prospect Street, Pemberton, BC

Date: April 5, 2021

Sanctuary Pemberton Townhomes Ltd.





Aerial Photograph – 1961

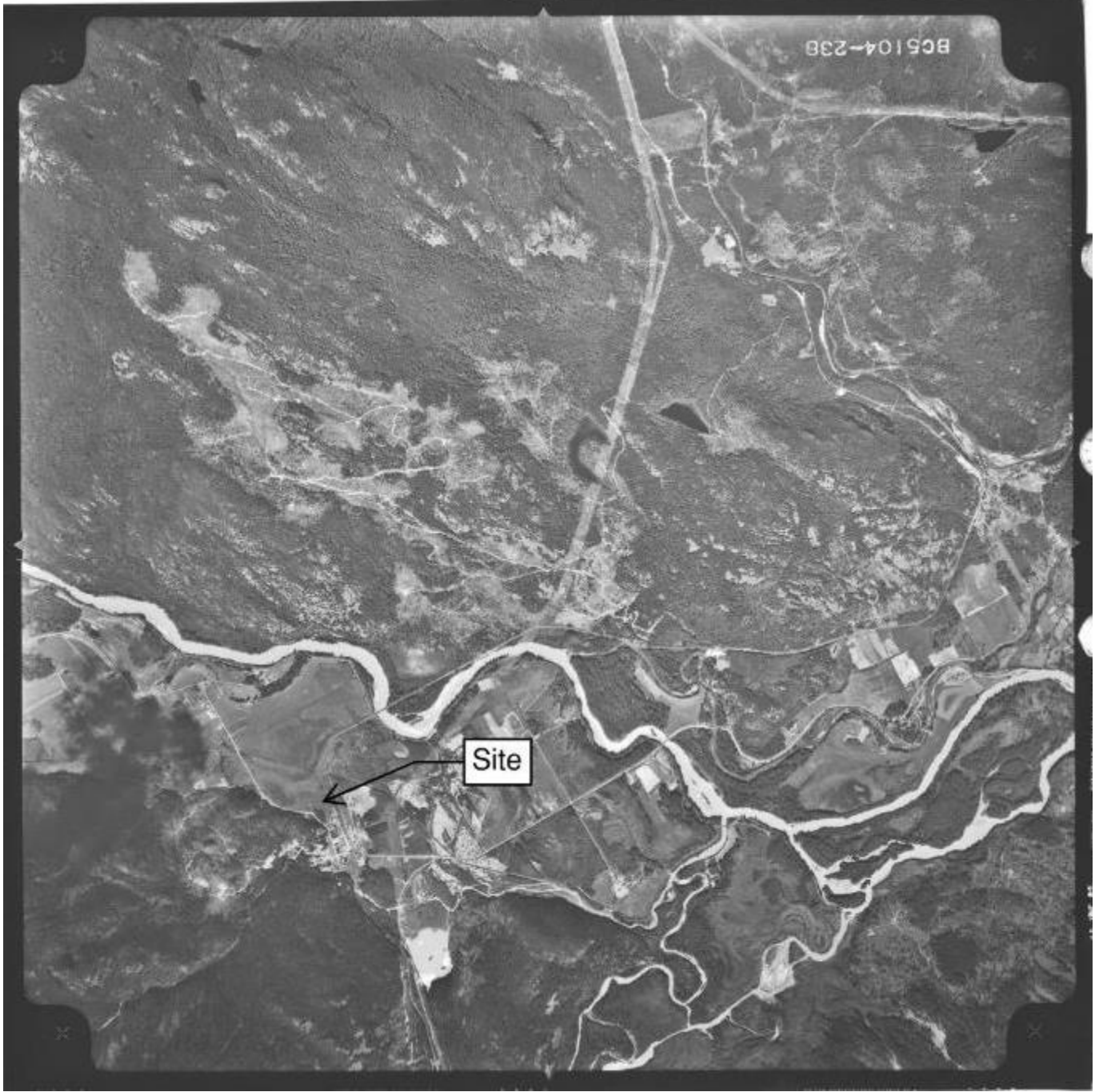
PGL File: 4914-03.01

Northwest end of Prospect Street, Pemberton, BC

Date: April 5, 2021

Sanctuary Pemberton Townhomes Ltd.





Aerial Photograph – 1964

PGL File: 4914-03.01

Northwest end of Prospect Street, Pemberton, BC

Date: April 5, 2021

Sanctuary Pemberton Townhomes Ltd.



BC5431 No. 081



Aerial Photograph – 1971

PGL File: 4914-03.01

Northwest end of Prospect Street, Pemberton, BC

Date: April 5, 2021

Sanctuary Pemberton Townhomes Ltd.





Aerial Photograph – 1975

PGL File: 4914-03.01

Northwest end of Prospect Street, Pemberton, BC

Date: April 5, 2021

Sanctuary Pemberton Townhomes Ltd.





Aerial Photograph – 1979

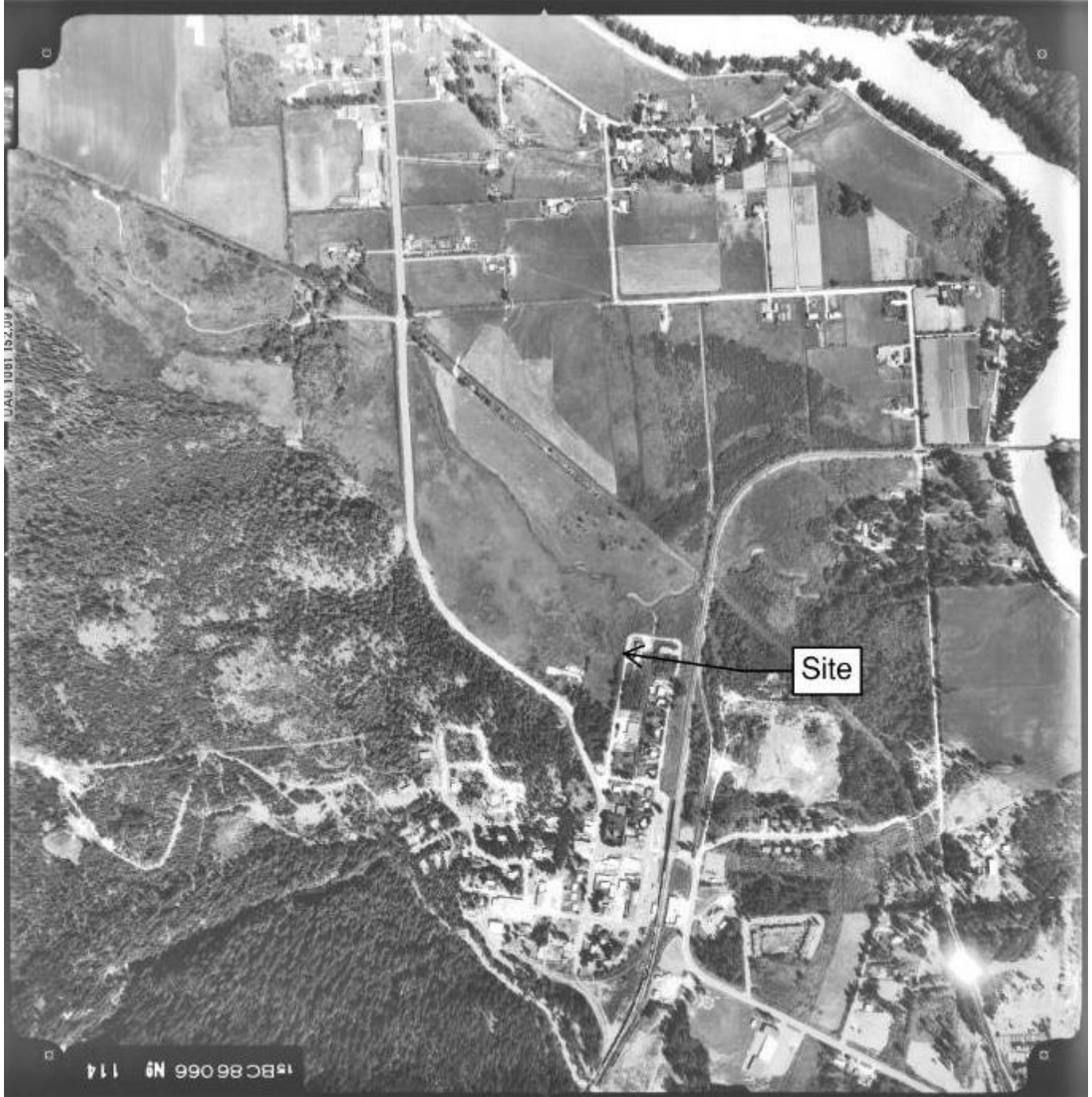
PGL File: 4914-03.01

Northwest end of Prospect Street, Pemberton, BC

Date: April 5, 2021

Sanctuary Pemberton Townhomes Ltd.





Aerial Photograph – 1986

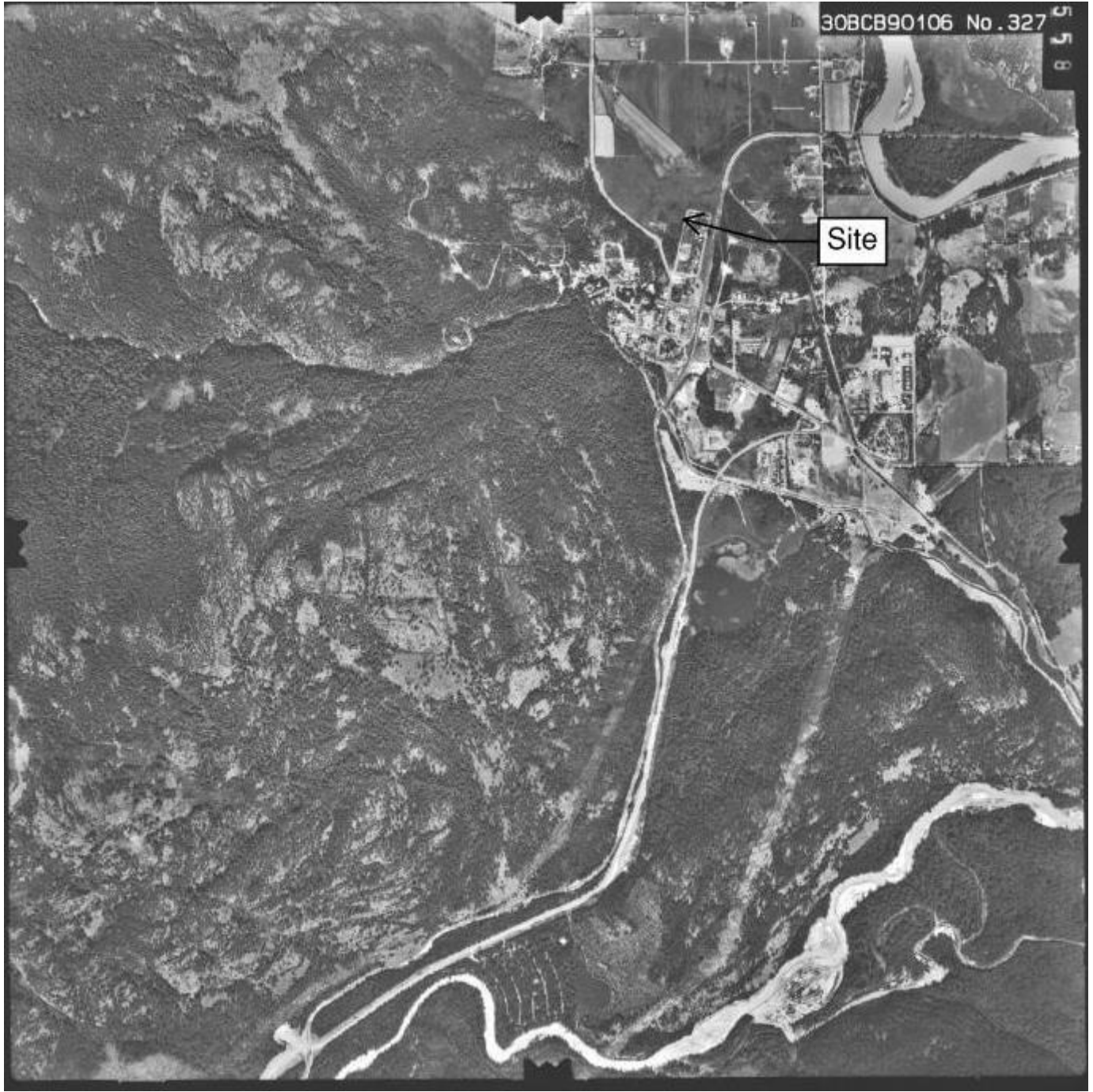
PGL File: 4914-03.01

Northwest end of Prospect Street, Pemberton, BC

Date: April 5, 2021

Sanctuary Pemberton Townhomes Ltd.





Aerial Photograph – 1990

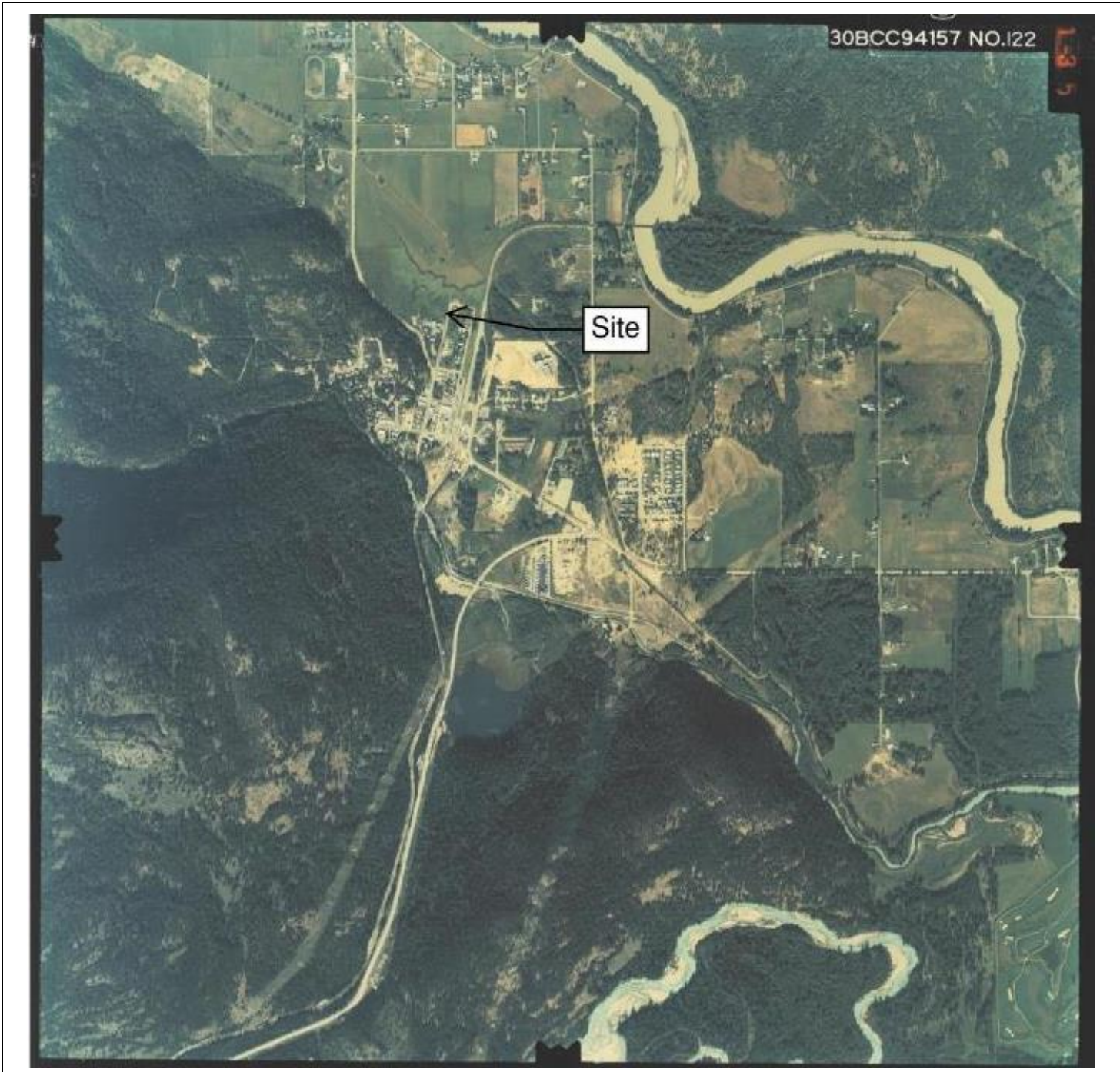
PGL File: 4914-03.01


Northwest end of Prospect Street, Pemberton, BC

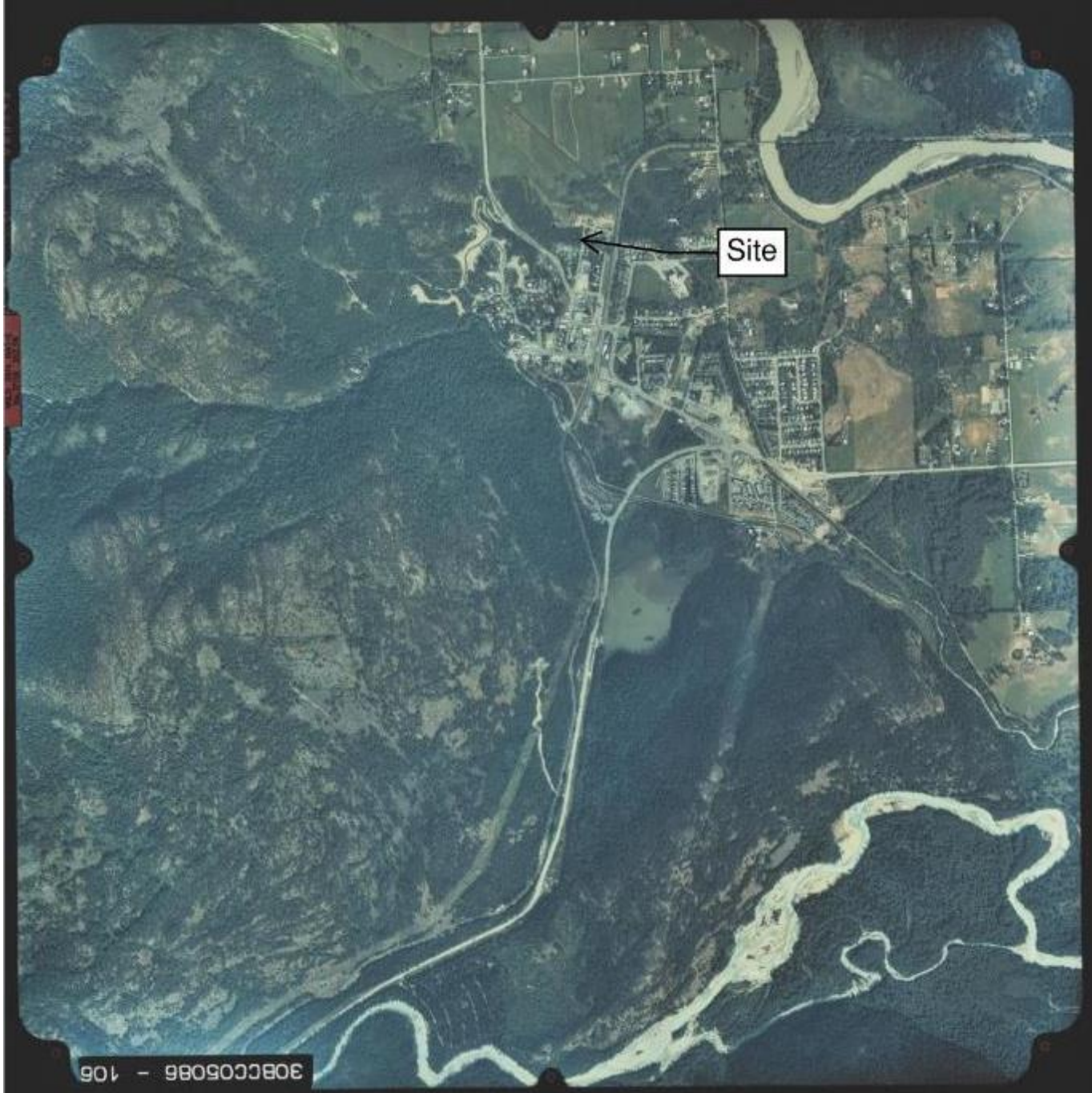
Date: April 5, 2021

Sanctuary Pemberton Townhomes Ltd.





<p>Aerial Photograph – 1994</p>	<p>PGL File: 4914-03.01</p>
<p>Northwest end of Prospect Street, Pemberton, BC</p>	<p>Date: April 5, 2021</p>
<p>Sanctuary Pemberton Townhomes Ltd.</p>	



Aerial Photograph – 2005

PGL File: 4914-03.01

Northwest end of Prospect Street, Pemberton, BC

Date: April 5, 2021

Sanctuary Pemberton Townhomes Ltd.





Aerial Photograph – 2016

PGL File: 4914-03.01

Northwest end of Prospect Street, Pemberton, BC

Date: April 5, 2021

Sanctuary Pemberton Townhomes Ltd.





Aerial Photograph – 2019

PGL File: 4914-03.01

Northwest end of Prospect Street, Pemberton, BC

Date: April 5, 2021

Sanctuary Pemberton Townhomes Ltd.

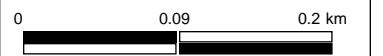


Appendix 3
Site Registry Search



Legend

- Environmental Remediation



1: 4,514

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Datum: NAD83
Projection: WGS_1984_Web_Mercator_Auxiliary_Sp here

Key Map of British Columbia



Appendix 4
Title Search

TITLE SEARCH PRINT

2021-04-05, 11:15:53

File Reference: 4914-03.01

Requestor: Carla Shaw

Declared Value \$345750

****CURRENT INFORMATION ONLY - NO CANCELLED INFORMATION SHOWN****

Land Title District

Land Title Office

KAMLOOPS

KAMLOOPS

Title Number

From Title Number

CA6873998

KV37128

Application Received

2018-06-19

Application Entered

2018-06-21

Registered Owner in Fee Simple

Registered Owner/Mailing Address:

SANCTUARY PEMBERTON TOWNHOMES LTD., INC.NO.
BC1156907
1495 MARINE DR
WEST VANCOUVER, BC
V7T 1B8

Taxation Authority

North Shore - Squamish Valley Assessment Area
Pemberton Valley Dyking District

Description of Land

Parcel Identifier:

025-641-620

Legal Description:

LOT A DISTRICT LOT 202 LILLOOET DISTRICT PLAN KAP73119

Legal Notations

HERETO IS ANNEXED EASEMENT KM111784 OVER PART OF LOT 13 PLAN KAP63162
AS SHOWN ON PLAN KAP63163

HERETO IS ANNEXED EASEMENT KM111785 OVER PART OF LOT 14 PLAN KAP63162
AS SHOWN ON PLAN KAP63163

HERETO IS ANNEXED EASEMENT KM111786 OVER PART OF LOT 15 PLAN KAP63162
AS SHOWN ON PLAN KAP63163

HERETO IS ANNEXED EASEMENT KM111787 OVER PART OF LOT 16 PLAN KAP63162
AS SHOWN ON PLAN KAP63163

TITLE SEARCH PRINT

2021-04-05, 11:15:53

File Reference: 4914-03.01

Requestor: Carla Shaw

Declared Value \$345750

Charges, Liens and Interests

Nature:	COVENANT
Registration Number:	KL141290
Registration Date and Time:	1997-12-24 09:23
Registered Owner:	PROVINCIAL AGRICULTURAL LAND COMMISSION
Remarks:	INTER ALIA PART ON PLAN KAP60862

Nature:	COVENANT
Registration Number:	KV37132
Registration Date and Time:	2003-04-04 15:04
Registered Owner:	THE CROWN IN RIGHT OF BRITISH COLUMBIA AS REPRESENTED BY THE MINISTER OR WATER LAND AND AIR PROTECTION AS TO AN UNDIVIDED 1/2 INTEREST VILLAGE OF PEMBERTON AS TO AN UNDIVIDED 1/2 INTEREST
Registered Owner:	

Nature:	MORTGAGE
Registration Number:	CA7226810
Registration Date and Time:	2018-12-03 12:13
Registered Owner:	STAR DEVELOPMENTS LTD. INCORPORATION NO. BC0345322

Nature:	ASSIGNMENT OF RENTS
Registration Number:	CA7226811
Registration Date and Time:	2018-12-03 12:13
Registered Owner:	STAR DEVELOPMENTS LTD. INCORPORATION NO. BC0345322

Duplicate Infeasible Title NONE OUTSTANDING

Transfers NONE

Pending Applications NONE

Appendix 5
Water Well Search



Legend

Groundwater Wells - All

ARTESIAN_IND

Reported Artesian Well

Well

Groundwater Wells - Licence

LICENCE_STATUS

Licensed

Unlicensed

Groundwater Wells - Lithology

PROVINCIAL OBSERVATION WELL

OBSERVATION_WELL_STATU

Active

Inactive

Groundwater Wells - Class

WELL_CLASS

Water Supply

Monitoring

Dewatering/drainage

Geotechnical

Closed Loop Geoexchange

Injection

Recharge

Remediation

Unknown

Groundwater Supply Wells -

INTENDED_WATER_USE

Private Domestic

0 0.09 0.2 km



1: 4,514

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Datum: NAD83

Projection: BC Albers

Key Map of British Columbia



Appendix 6
Information Sheets
Phase 1 Site Investigation

INFORMATION SHEET – Phase 1 Site Investigation

What a PGL Phase 1 Site Investigation Covers

A Phase 1 Environmental Site Investigation assesses contaminant risks for a site based on historical operations onsite and in the area. This is done using archival records review, interviews, and a visual inspection.

We review risks that are identified by our sources or that are visible and readily inspected. No destructive investigation or testing is ordinarily conducted. A Phase 1 does not evaluate compliance of operations or the risk that an ongoing operation might contaminate the site; these would be evaluated in an operations or compliance audit.

Issues discussed in the report are those that have reasonable potential to contaminate the subject site based on our investigation or qualified experience. Issues that are not a concern or not applicable are not normally documented in the report, but are documented in our files.

The topics investigated in our Phase 1 include:

- Present activities at the site and nearby sites
- Past activities at the site and nearby sites
- Environmental certificates, permits, and orders (presence/absence only)
- Regulatory history and concerns
- Fill, spills, and waste disposal onsite (visible indicators, records)
- Fuel/chemical storage facilities and past use:
 - Aboveground storage tanks
 - Underground storage tanks
 - Fixed hydraulic equipment
 - Chemicals and hazardous substances
- PCB materials/equipment
 - Asbestos materials. Visual scan only. No testing except in extraordinary circumstances
 - Lead paint. Unusual hazardous condition only
- Pesticides/herbicides
- Radon/methane gas. In identified hazard areas only

Legal and Regulatory Context of a Phase 1 Investigation

We summarize the legal and regulatory context of a Phase 1 as we understand them. More detailed and authoritative information may be obtained from a lawyer.

There is currently no statutory requirement to conduct environmental assessments in the absence of an order by regulators, nor do you have to give them a copy if you have a Phase 1 performed for your own purposes.

A Site Profile, which is a very simple version of a Phase 1, is required to obtain rezoning, subdivision, demolition, or redevelopment permits in most municipalities if the history of the site includes certain risk uses. A Site Profile can be easily prepared if a Phase 1 has been completed.

Site profiles must also be provided to purchasers unless an exemption applies. Site Profiles provided to regulators may trigger BC Ministry of Environment & Climate Change Strategy processes that will lead to site investigation and remediation if contamination is present.