

Our File: 2121-00924-00 TASK 2010

March 6, 2024 (Revision 1)

R.F. Binnie & Associates Ltd. 300- 4940 Canada Way Burnaby, BC, Canada V5G 4K6

Attention: Mr. Maurizio Ponzini, P.Eng.

### Technical Circular T-03/20 Step A Screening Summary – Cariboo Road Recovery Project: Cottonwood Hill Area (the "Site")

### INTRODUCTION

McElhanney Ltd. was retained by the BC Ministry of Transportation and Infrastructure (MOTI) to complete a Step A Screening Summary Letter in accordance with *Technical Circular T-03/20*<sup>1</sup> for the Cariboo Road Recovery Project (the Project): Cottonwood Hill Area near Quesnel, BC (the Site).

The purpose of the Step A Screening is to determine the historical and/or current presence of one or more industrial or commercial activities listed in Schedule 2 of the BC Contaminated Sites Regulation (CSR) or high risk conditions (as per CSR Protocol 12 and recorded on the Site Registry) on properties within or adjacent to the Project boundaries. The Step A Screening is required for completing the Site Profile form (now "Site Disclosure Statement" form in Schedule 1 of the CSR) during the conceptual or functional design phase.

The Cottonwood Hill area is one of five study areas in the Project (the Project Areas) requiring a Step A Screening. The locations of the Project Areas are shown in Figure A. Based on the Detailed Design 100% submission, dated January 10, 2024 (refer to Attachment A), the Site consists of an approximately 1.2 km long section of Highway 97 Right of Way (ROW) and a 30m long section of an access road ROW (Umiti Pit Road).

<sup>&</sup>lt;sup>1</sup> MOTI, Technical Circular T-03/20 – Identification and Characterization of Potentially Contaminated Soil (T-03/20) issued August 4, 2020



Figure A. Project Areas (yellow line) located on Highway 97 between Soda Creek and Cottonwood, near Quesnel BC.

### Scope of Work

The Step A Screening included a review of both available current and historical records for the Site and its surroundings and cursory site visits of the properties at/near the Site. Specifically, the Step A Screening consisted of the following key tasks:

- Historical and Background Records Review
  - Aerial Photograph Review of the Site (Included Aerial Photographs from 1953, 1957, 1963, 1967, 1974, 1980, 1985, 1991, 1997, and 2005). Records obtained from the UBC Geographic Information Center.
  - Available aerial imagery on Google Earth from 2013 to 2024 was reviewed on February 5, 2022.
  - An overview of Public Street Directory no listing as no properties were present within 500 m of the Site Area.
  - A search of the BC Site Registry within a 500 m radius of the Site Area, obtained on February 1, 2024.
  - A search of the Federal Contaminated Sites Inventory, records obtained on February 1, 2024.
  - A search of the Province of BC Geographic Information System (GIS) iMapBC database for BC Environmental Remediation Site Registries and local water wells. Search completed on February 1, 2024.

- Previous Environmental Reports Review
  - Technical Memo Phase 2: Highway 97 Cottonwood Slide Project, Quesnel, BC.
     McElhanney Ltd. January 2024.
- Site Reconnaissance
  - Cursory site reconnaissance. Limited to accessible properties and visual observations from Highway 97, conducted on February 9, 2024
- Highway Design and Property Requisition Plans Review
  - Ministry of Transportation and Infrastructure, Highway 97, Cottonwood Hill 100% Detailed Design Submission, Dated January 10.

### Methodology and Limitations

This Step A Screening was completed per the requirements of the MOTI Technical Circular T-03/20. The study was limited to identifying historical and current CSR Schedule 2 Use and Protocol 12 high risk sites. Furthermore, as the footprint and design parameters of the Site are largely established (100% Detailed Design), only those Schedule 2 Use or high risk sites located within or potentially impacting parts of the Site were highlighted in our summary per the guidance provided in T-03/20.

Schedule 2 Use and high risk sites outside of the Site have only been considered if there is a potential for migration of contamination onto the Project footprint. The Step A Screening Summary does not involve intrusive investigation such as physical sampling or analysis of environmental media.

Based on the findings from the Step A Screening, a CSR Schedule 1 Site Disclosure Statement (SDS) is completed for all identified Schedule 2 Use and high risk sites. The completed SDS is for MOTI due diligence purposes only and is not intended for submission to ENV unless advised by the MOTI Geoscientist.

This report is specific to identify the potential for contamination of environmental media resulting from BC CSR Schedule 2 Use or high risk sites and does not, nor is intended to, address other potential environmental constraints associated with, but not limited to, watercourses, wetlands, wildlife, or other such "greenfield" elements.

#### Results

Based on the available documents reviewed and those portions of the Site accessible for observation, this Step A Screening did not identify any CSR Schedule 2 activities or any area within the Site historically or currently classified as high risk. Table 1 summarizes the results of the Step A Screening.



Table 1 - Step A Screening Summary Results

Source	Findings	Reference
Binnie Cottonwood Hill 100% Detailed Design	The Site consists of a stretch of Highway 97 near Cottonwood Hill, located approximately 16 km north of Quesnel, as well as a stretch of Umiti Pit Road located approximately 1 km east of Cottonwood Hill	Attachment A
Historical Aerial Photo review	Highway 97 has been constructed that runs across the Site since 1947. The single-track railway ROW located east of the Site is visible beginning in 1957 with a section re-routed in 1967 or earlier. The Cottonwood slide is visible beginning in 2021	Attachment C – Historical Aerial Photo Review
BC Site Registry search	No registered sites located within a 500 m radius of the Site	Attachment D - Site Registry Search Results
Federal Contaminated Sites Inventory	No listings located within a 500 m radius of the Site	URL: https://www.tbs-sct.gc.ca/fcsi-rscf/home-accueil-eng.aspx
iMapBC search	No water wells located within a 500 m radius of the Site	URL: https://www2.gov.bc.ca/gov/content/d ata/geographic-data-services/web- based-mapping/imapbc
MESL Tech Memo review	No contaminated soil identified during initial Site visits for proposed works	Technical Memo Phase 2: Highway 97 Cottonwood Slide Project, Quesnel, BC. McElhanney Ltd. January 2024
Site visit	HWY97 was paved, no staining found. A single-track railway runs parallel with HWY97 to the east. The railway runs across gravel paved Umiti Pit Road. A soil pile consisting of native soil from the road clearing was observed near Umiti Pit Road. No evidence of contamination such as staining or railway spill was found. The remaining area was heavily wooded.	Attachment E: Site Visit Photos



### Site Disclosure Statements

To meet the requirements of the MOTI Technical Circular T-03/20, McElhanney has prepared a SDS for the Site. No Schedule 2 or high risk site was identified and therefore this form is not required to be submitted to ENV.

A copy of the completed SDS form is included as Attachment B.

#### Conclusion and Recommendations

McElhanney Ltd. was retained by the MOTI to complete a Step A Screening Summary Letter for the Cariboo Road Recovery Project: Cottonwood Area near Quesnel, BC in accordance with the MOTI T-03/20. The investigation included a review of historical documents, previous environmental investigations, and design drawings (100% Detailed Design), as well as a site reconnaissance.

Based on the Step A Screening results, McElhanney concludes that there are no historical/current CSR Schedule 2 Uses or BC Site Registry listings within or adjacent (within 500 m) to the Site. Also, there are no high risk conditions identified within or adjacent to the Site.

A single-track railway is visible approximately 60 m east of the Highway 97 area in aerial photos beginning in 1957, and railway infrastructure was present during the Site reconnaissance in February 2024. Per the BC CSR Schedule 2, railways are not considered a Schedule 2 activity unless associated with railcar maintenance, cleaning, salvage, or related uses, including railyards. However, it is possible that contamination may exist in the vicinity of the tracks from creosote covered railway ties, railway ballast, lubricants dripping from trains, and herbicide spraying. Contamination associated with railways is typically localized to the vicinity of the tracks, and the majority of the rail lines are physically separated from the Site by forest except a small section of the rail tracks running across Umiti Pit Road. In addition, we did not identify any evidence of contamination (i.e., from railway spills or other activities) during the Site Reconnaissance. Therefore, there is considered a low potential for constituents of concern associated with the railway ROW to be present in the Site soil, groundwater and/or soil vapour at concentrations in excess of the applicable CSR standards.

Therefore, there is considered to be a **low** potential for anthropogenic contamination to be present in the Site soil and further investigation for soil characterization is **not** recommended prior to any excavation, disposal, and/or relocation of the Site soil.

During construction activities, in the event that areas of soil contamination not previously identified (i.e., soil exhibiting staining, odours, or debris) are encountered, the soils in question should be segregated for further assessment in accordance with MOTI's Standard Specification for Highway Construction 165.14.03 and Appendix 165-A. Additionally, it is advisable to characterize cut soils per Step B of MOTI's Technical Circular T-03/20, if they are to be relocated to a third-party property.



### **Report Limitations**

This report was prepared by McElhanney Ltd. ("McElhanney") for the exclusive use of the BC Ministry of Transportation and Infrastructure (MOTI) and Authorized Users and may not be reproduced in whole or in part without the prior written consent of McElhanney, or used or relied upon in whole or in part by a party other than MOTI and/or other Authorized Users. Any unauthorized use of this report, or any part hereof, by a third party, or any reliance on or decisions to be made based on it, are at the sole risk of such third parties. McElhanney accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report, in whole or in part.

This report is intended to provide a preliminary assessment of potential environmental concerns at the subject properties in accordance with MOTI T-03/20. This report is not meant to represent a legal opinion regarding compliance with applicable laws nor to judge the acceptability of risk associated with any potential contamination. Note that environmental statutes, regulations and guidelines, and the interpretation of such environmental statutes, regulations and guidelines, are subject to change over time and such changes, when put into effect, could alter the conclusions and recommendations noted in this report.

The investigation program followed the standard of care expected of professionals undertaking similar work in British Columbia under similar conditions. No warranties, either express or implied, are made as to the professional services provided and included in this report.

This report is based on data and information collected during the investigation conducted by McElhanney Ltd. personnel or agents, and is based solely on the conditions of the subject properties at the time of the site work completed, as described in this report. McElhanney has relied in good faith on information provided by individuals and third parties noted in this report. McElhanney accepts no responsibility for any deficiency, misstatements or inaccuracy contained in this report because of omissions or errors in information provided by third parties or for omissions, misstatements or fraudulent acts of persons interviewed. The compliance of past owners with applicable environmental statutes, regulations or guidelines was not within the scope of the services provided for this report.

Achieving the objectives stated in this report has required us to arrive at conclusions based upon the best information presently known to us. No investigative method can eliminate the possibility of obtaining partially imprecise or incomplete information; it can only reduce the possibility to an acceptable level. Professional judgment was exercised in gathering and analyzing the information obtained and in the formulation of the conclusions. Like all professional persons rendering advice, we do not act as absolute insurers of the conclusions we reach, but we commit ourselves to care and competence in reaching those conclusions

The scope of work for this T-03/20 Step A Screening Summary did not include any subsurface investigation and testing (of soils, groundwater or soil vapour), and it was based on a limited review of regulatory files and site reconnaissance. The findings cannot be extended to portions of the site which were unavailable for observation at the time of McElhanney's field investigations. If new information is discovered in the future during site excavations, building demolition or other activities, or if additional subsurface investigations or testing are conducted by others, McElhanney should be requested to reevaluate the conclusions of this report and to provide amendments as required prior to any reliance upon the information presented herein.



### Closure and Professional Statement

In conformance with applicable regulations and MOTI Technical Circular T-03/20 we confirm that:

• The undersigned have demonstrable experience in investigation of the type of contamination in the Site for which this statement applies and are familiar with the investigation carried out at the Site.

Should there be any questions regarding the information within, please do not hesitate to contact the undersigned.

Sincerely,

McElhanney Ltd.

Prepared By:

Reviewed By:

Andrew Bergen, B. Sc.,
Junior Environmental Scientist

A.Bergen

abergen@mcelhanney.com

Gary Lin, PhD, PEng, CSAP Senior Engineer glin@mcelhanney.com

Attachments:

Attachment A – Site Figures

Attachment B - BC CSR Site Disclosure Statement

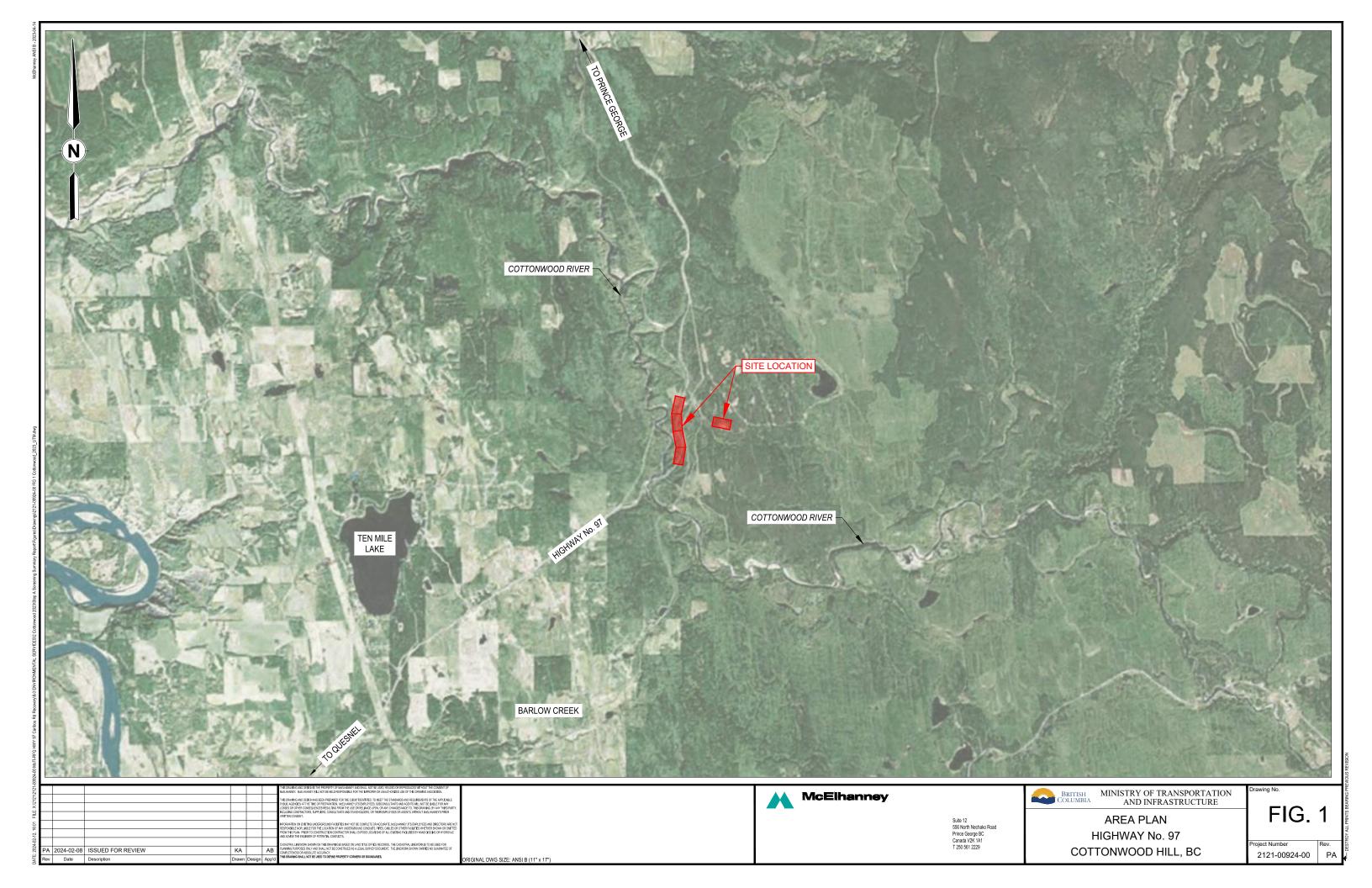
Attachment C - Historical Aerial Photograph Review

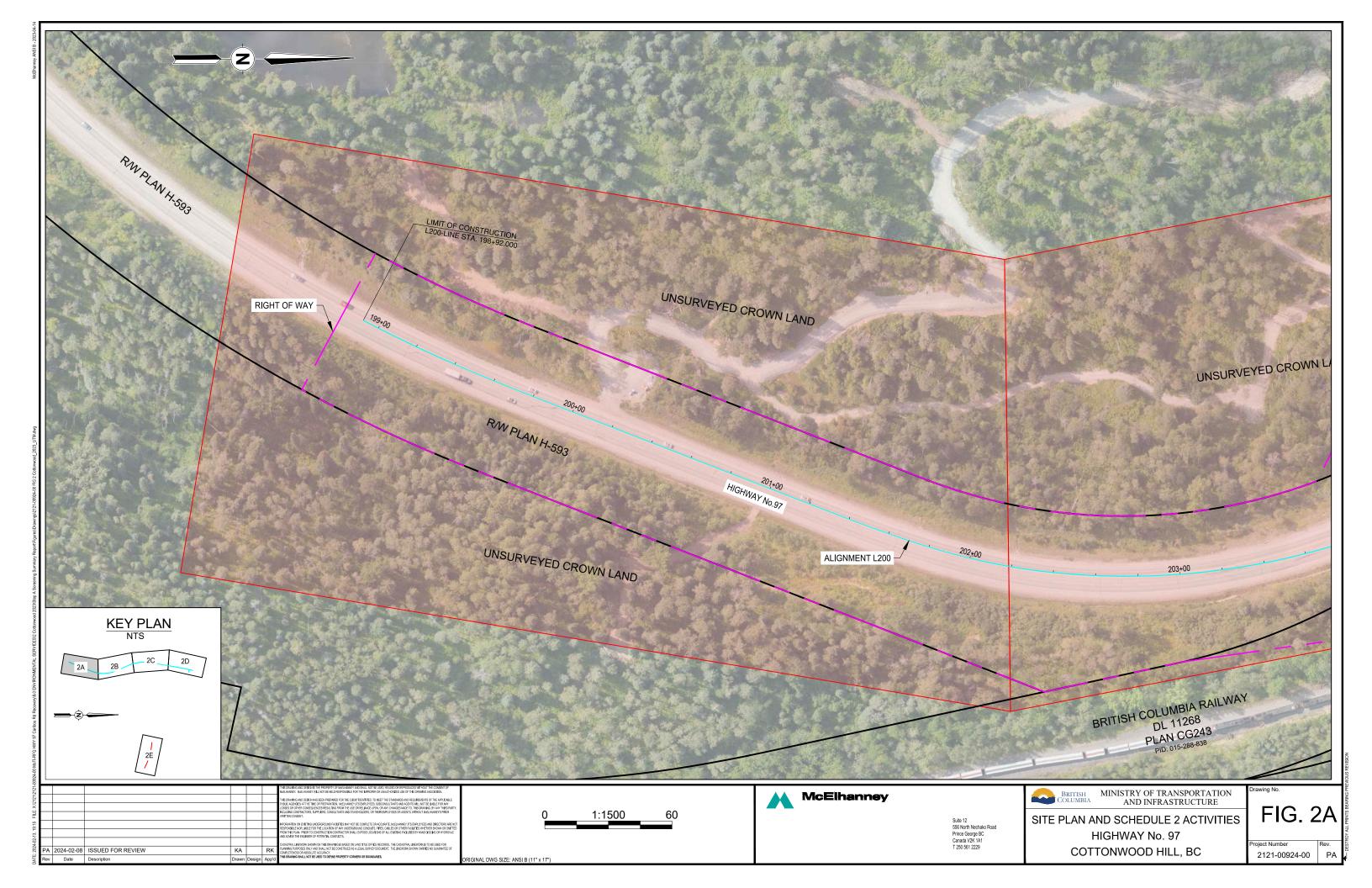
Attachment D - Site Registry Search Results

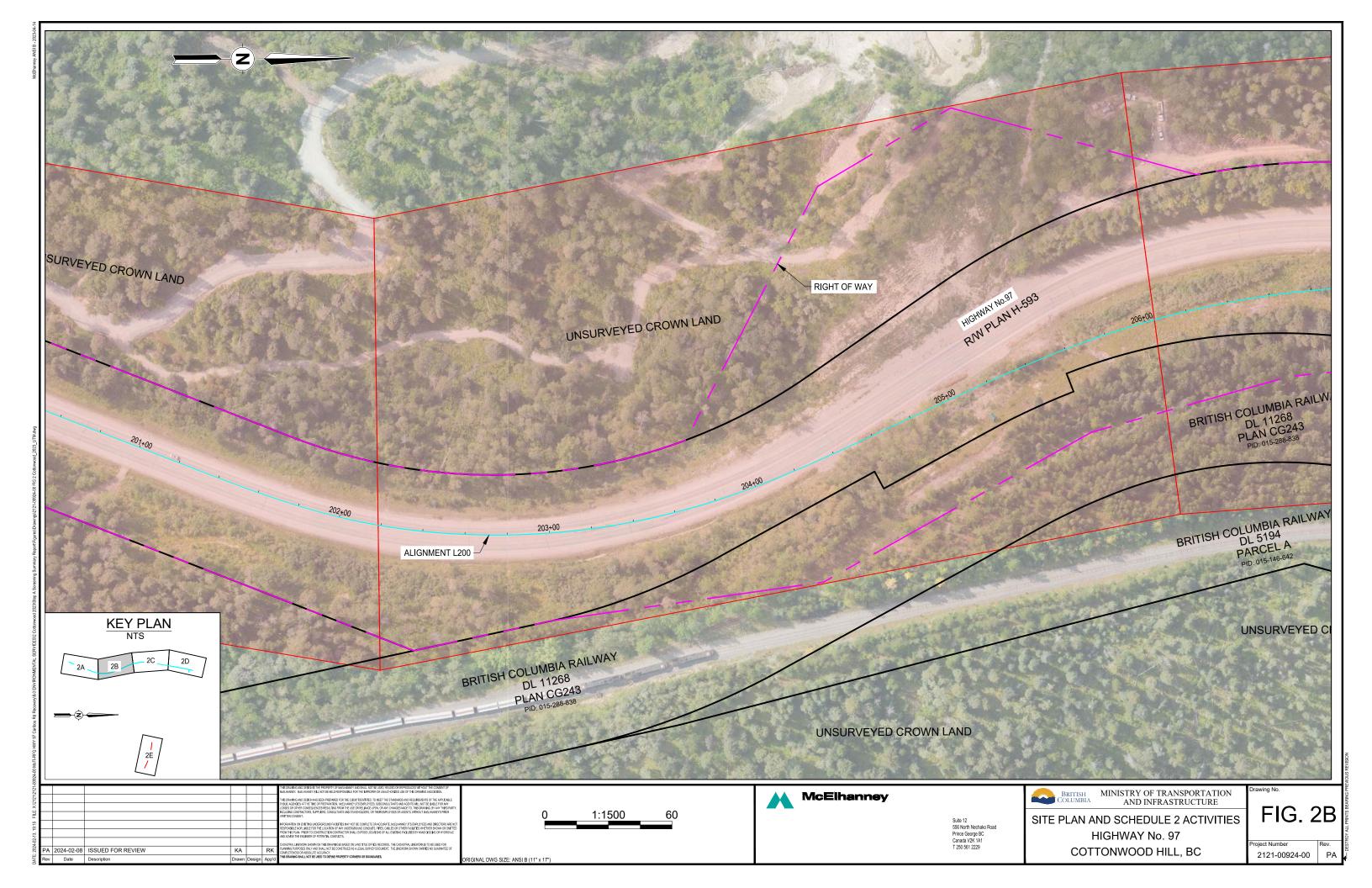
Attachment E - Site Visit Photos

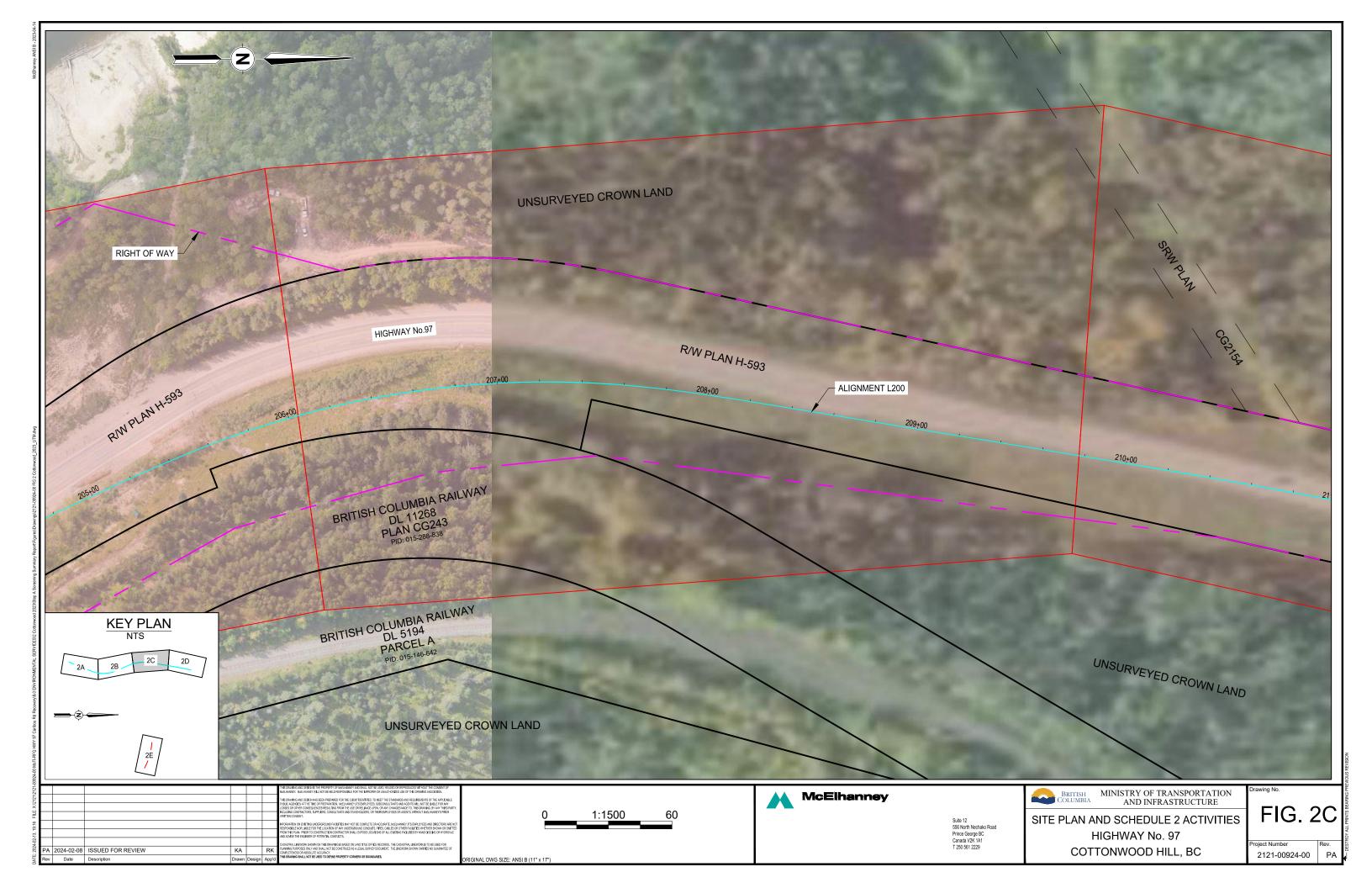


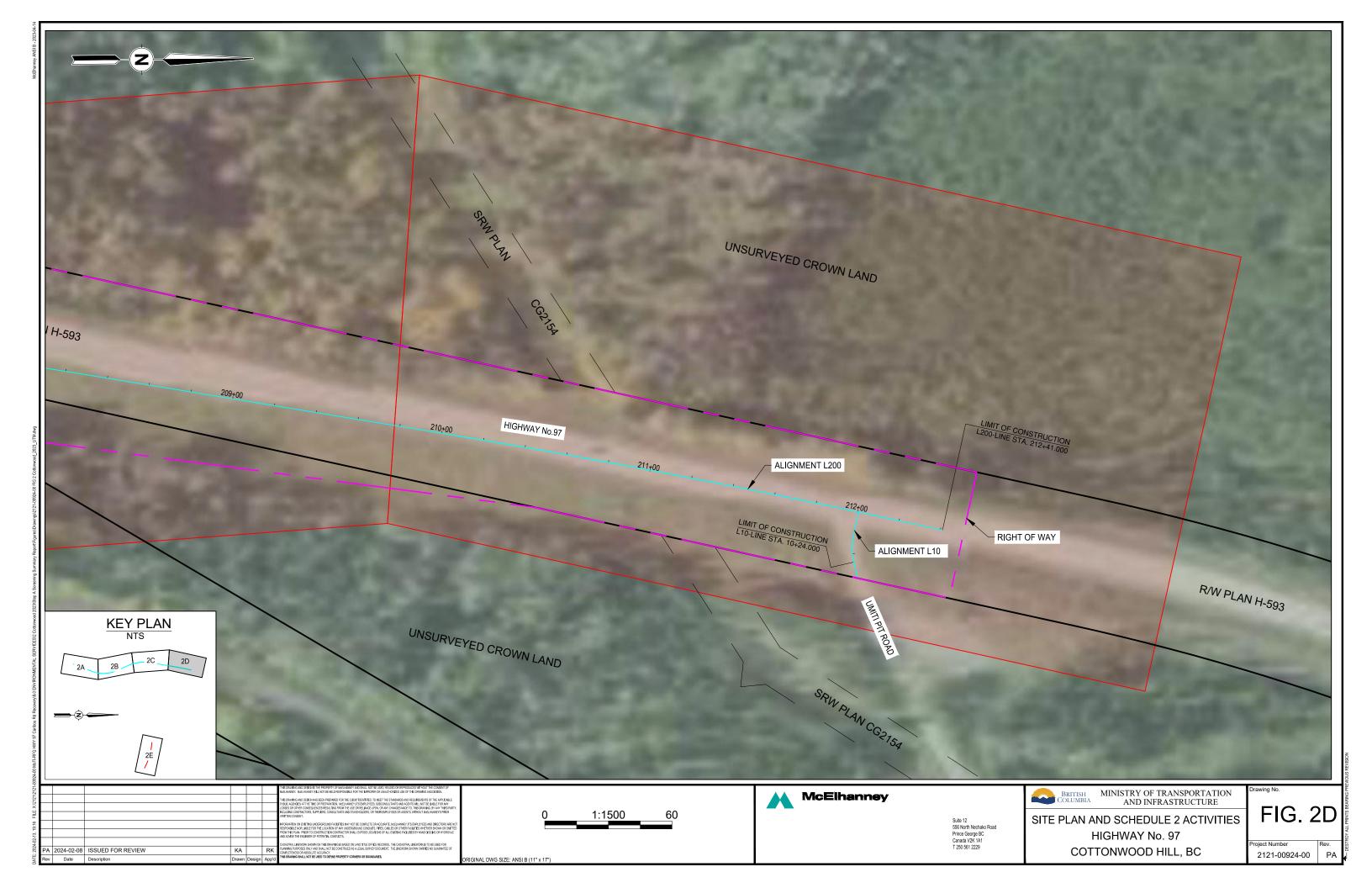
## ATTACHMENT A: SITE FIGURES

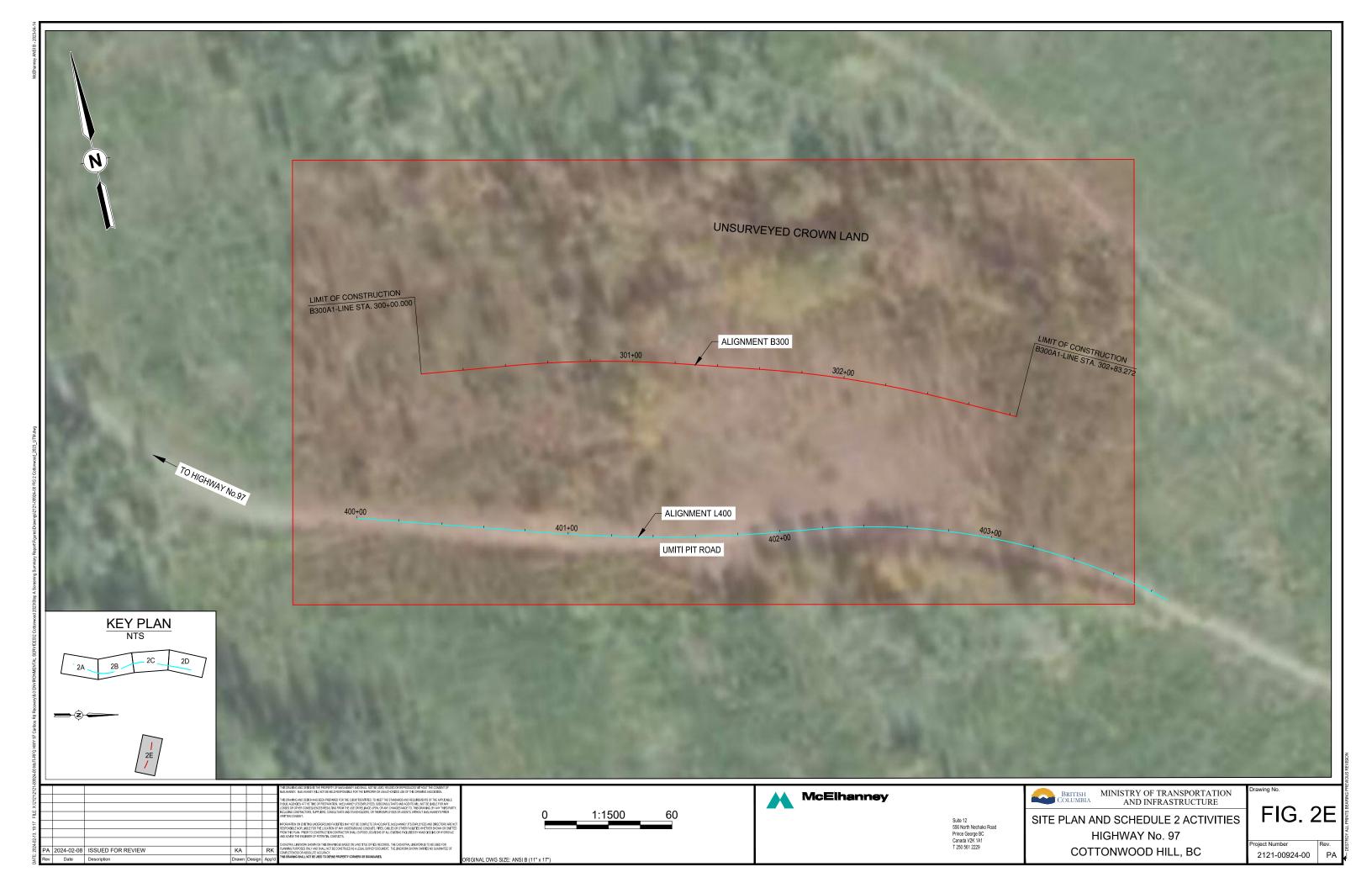












## ATTACHMENT B: BC CSR SITE DISCLOSURE STATEMENT



### **Site Disclosure Statement**

Has the site been used for any industrial or commercial uses described in Schedule 2 of the

All fields marked with an asterisk (\*) are mandatory.

Contaminated Sites Regulation? \*

No ou an	swered no to the question above, the form is not submitted to the ministry	As per
	3.5 of the Contaminated Sites Regulation, a municipality or approving office	•
	a person to complete a site disclosure statement for their records.	,
> Sec	ction I - Contact information	
A: Si	te owners(s) or operators(s)	
		8
La	st name *	
	N/A	
Fi	rst name *	
	N/A	
Co	ompany, if applicable	
	BC Ministry of Transportation and Infrastructure	
Ad	ddress *	
	447 Columbia Street	
Ci	ty *	

Kamloops	
Province *	
ВС	
Country *	
Canada	
Postal code *	
V2C 2T3	
Phone number *	
1-250-828-4220	
Email *	
Kamloops.Regional.Transportation@gov.bc.ca	
Person completing site disclosure statement ( ne as above)	leave blank
	leave blank
ne as above)	leave blank
ne as above)	leave blank
ne as above)  name ergen	leave blank
ne as above) name ergen t name	leave blank
ne as above) Iname ergen It name Indrew	leave blank
ne as above) Iname ergen It name Indrew Inpany, if applicable	
me as above) Iname Ergen It name Indrew Inpany, if applicable CElhanney Ltd.	
ne as above) Iname Ergen It name Indrew Inpany, if applicable CElhanney Ltd.  Person to contact regarding the site disclosur	
ne as above) Iname Iname Indrew Inpany, if applicable CElhanney Ltd.  Person to contact regarding the site disclosur Iname *	

Company, if applicable
McElhanney Ltd.
Address *
556 N Nechako Rd #12
City *
Prince George
Phone number *
250-561-2229
Email *
abergen@mcelhanney.com
^ Section II - Site information
Coordinates for the centre of the site:
Latitude
Latitude
Latitude Degrees *
Latitude  Degrees *  53
Latitude  Degrees *  53  Minutes *
Latitude  Degrees *  53  Minutes *  6
Latitude  Degrees *  53  Minutes *  6  Seconds *
Latitude Degrees *  53  Minutes *  6  Seconds *
Latitude  Degrees *  53  Minutes *  6  Seconds *  26  Longitude
Latitude Degrees *  53  Minutes *  6  Seconds *  26  Longitude  Degrees *
Latitude  Degrees *  53  Minutes *  6  Seconds *  26  Longitude  Degrees *

22	
ten	tion:
	arate map with appropriate scale showing the location and boundaries of the site pe included.
lw	ill include a map with my submission *
and o	ownership *
) Le	gally titled, registered property
) Ui	ntitled Crown land
For	untitled Crown land
	PIN *
	N/A
	Land description *
	Within MOTI Road designation
	♣ Add Another
And	d if available:
Cı	rown land file numbers
	♣ Add Another

Indicate all the industrial or commercial uses described in the Contaminated Sites Regulation Schedule 2 which have occurred or are occurring on this site.

### **Example Schedule 2 references and descriptions**

E1. appliance, equipment, or engine maintenance, repair, reconditioning, cleaning or salvage

F10. solvent manufacturing, bulk storage, shipping and handling

Schedule 2 reference and description \*

None

Select all that apply, choose "none" if no Schedule 2 uses apply.

### ↑ Section IV - Additional information

1. Provide a brief summary of the planned activity and proposed land use at the site. \*

Repair and realignment of Highway 97 near Cottonwood slide area - Property is designated as ROW

If not applicable, type N/A

2. Indicate the information used to complete this site disclosure statement including a list of record searches completed. \*

Based on findings of T-03/20 Step A Summary Report by McElhanney Ltd, Dated February 2024

3. List any past or present government orders, permits, approvals, certificates or notifications pertaining to the environmental condition of the site: \*

N/A

If not applicable, type N/A

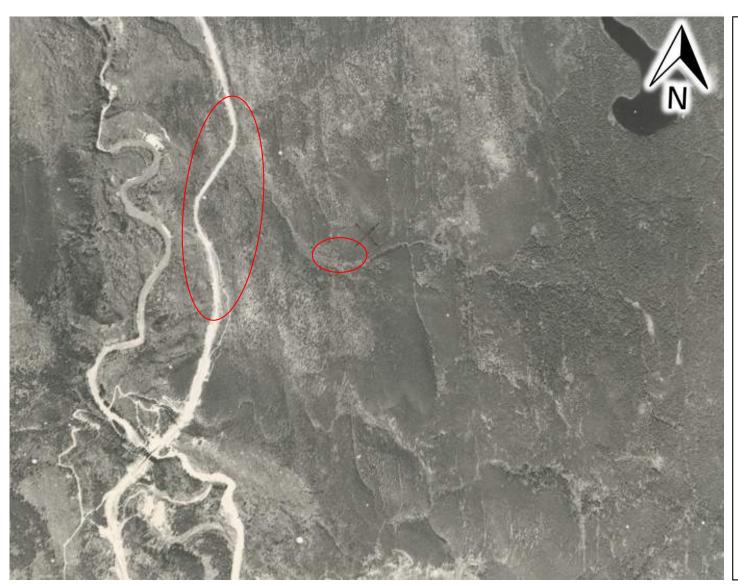
### Section V - Declarations

Where a municipal approval is not required, you must indicate the reason for submission directly to the registrar:	1
Under order  BIA proceedings  Foreclosure  Decommissioning  CCAA proceedings  Ceasing operations	
By signing below, I confirm that the information in this form is complete and accurate to the best of my knowledge:  SIGNATURE	
a Bergen	
Sign above	
For agents completing this form, save to PDF then forward the form to the owner/operator to complete thi section.	S
First and last name	
Andrew Bergen	
Owner	
Operator	
Date signed	
2024-02-05	
Approving authority contact information	
All fields in this section must be completed by the municipality (including regional distriction or approving officer prior to forwarding the form to the site registrar.  First and last name	its)

Agency		
Address		
Phone number		
()		
Email		
Reason for submission (Please check	one or more of the followin	g):
Building permit Subdivision	n Zoning	<ul><li>Development permit</li></ul>
likely disturb soil		for an activity that wil likely disturb soil
Date received by approving authority		
Date submitted to registrar		
		<b>#</b>

Version: 18

# ATTACHMENT C: HISTORICAL AERIAL PHOTO REVIEW



Photograph Reference: 1953 BC1641-1

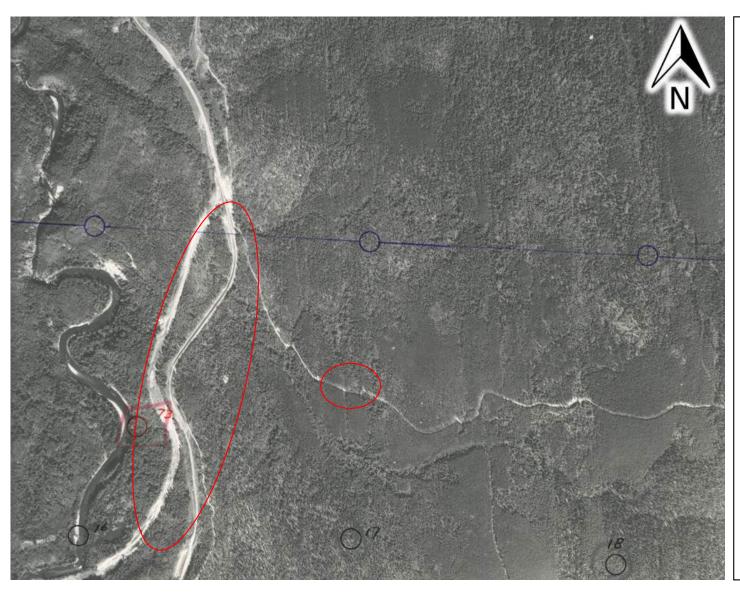
Photograph Year: 1953 Interpreted by: A. Bergen Reviewed by: Gary Lin

For ease of reference the approximate Site area has been outlined in red.

<u>The Site:</u> Highway 97 has been developed and is outlined in red. The Umiti Pit Road Area has not been developed

<u>The Surrounding Area:</u> Cottonwood River is visible to the west of the Site. The surrounding area is forested





Photograph Reference: 1957-BC2353-13

Photograph Year: 1957 Interpreted by: A. Bergen Reviewed by: Gary Lin

For ease of reference the approximate Site area has been outlined in red.

<u>The Site:</u> The Umiti Pit Road is constructed, but the Site area has not been cleared

The Surrounding Area: A single-track railway is visible that runs parallel with HWY 97 to the east. The rest of the surrounding area remains similar to previous photos.





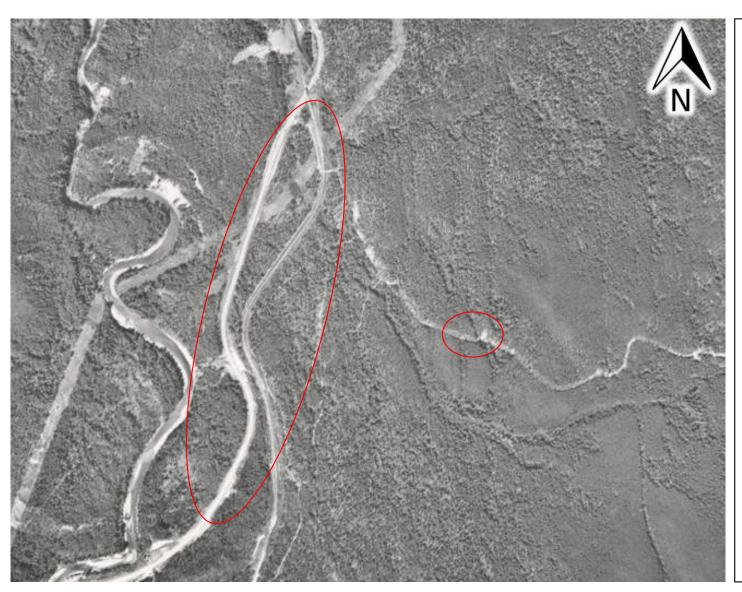
Photograph Reference: 1963-BC5067-4

Photograph Year: 1963 Interpreted by: A. Bergen Reviewed by: Gary Lin

For ease of reference the approximate Site area has been outlined in red.

<u>The Site:</u> The Site remains similar to previous photos.





Photograph Reference: 1967-BC7016-047

Photograph Year: 1967 Interpreted by: A. Bergen Reviewed by: Gary Lin

For ease of reference the approximate Site area has been outlined in red.

<u>The Site:</u> The Site remains similar to previous photos.

<u>The Surrounding Area:</u> A power line ROW has been constructed, running from the southwest to the northeast.





Photograph Reference: 1974-BC7599-078

Photograph Year: 1974 Interpreted by: A. Bergen Reviewed by: Gary Lin

For ease of reference the approximate Site area has been outlined in red.

<u>The Site:</u> The Site remains similar to previous photos.





Photograph Reference: 1980-

30BC80014-037

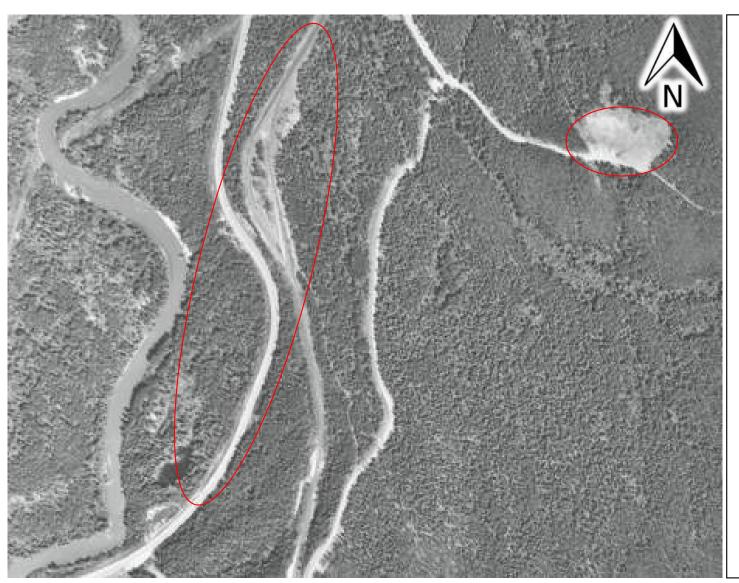
Photograph Year: 1980 Interpreted by: A. Bergen Reviewed by: Gary Lin

For ease of reference the approximate Site area has been outlined in red.

<u>The Site:</u> The Highway 97 area remains similar to previous photos. The Umiti Pit Road area has been cleared.

The Surrounding Area: A section of the railway appears to be re-routed further away from HWY97. A new road is visible running north to south from Umiti Pit Road.





Photograph Reference: 1985-

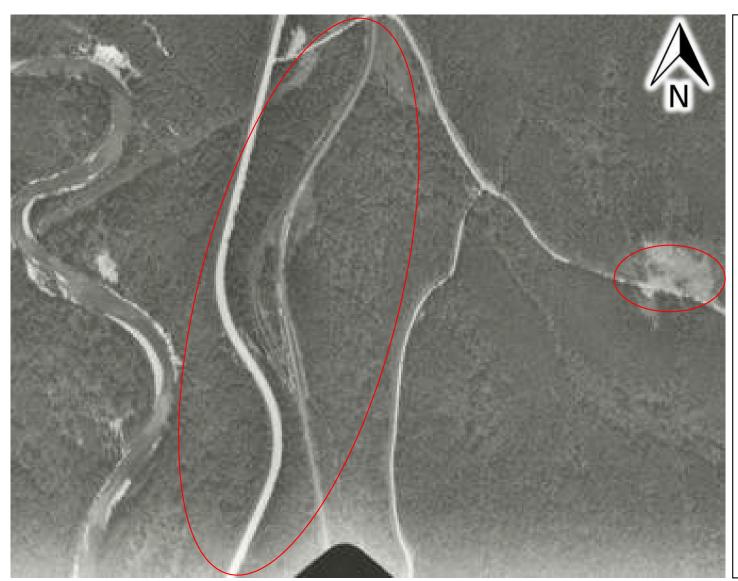
30BC85008-158

Photograph Year: 1985 Interpreted by: A. Bergen Reviewed by: Gary Lin

For ease of reference the approximate Site area has been outlined in red.

<u>The Site:</u> The Site remains similar to previous photos.





Photograph Reference: 1991-

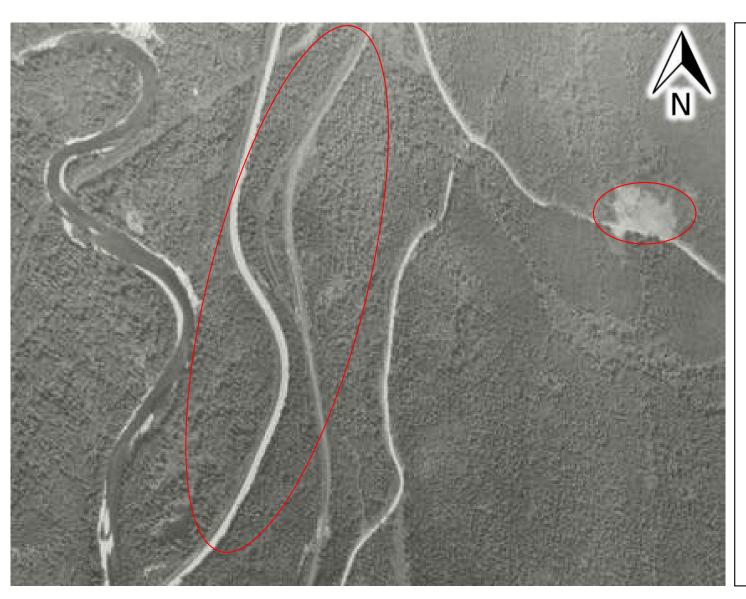
30BC91065-136

Photograph Year: 1991 Interpreted by: A. Bergen Reviewed by: Gary Lin

For ease of reference the approximate Site area has been outlined in red.

<u>The Site:</u> The Site remains similar to previous photos.





Photograph Reference: 1997-

30BCC97135-30

Photograph Year: 1991 Interpreted by: A. Bergen Reviewed by: Gary Lin

For ease of reference the approximate Site area has been outlined in red.

<u>The Site:</u> The Site remains similar to previous photos.





Photograph Reference: 2005-

30BCC05060-099 Photograph Year: 2005 Interpreted by: A. Bergen Reviewed by: Gary Lin

For ease of reference the approximate Site area has been outlined in red.

<u>The Site:</u> The Site remains similar to previous photos.

<u>The Surrounding Area:</u> There is new clearing south of the Umiti Pit Road area, and several offshoots from the main road..





Photograph Reference: Google Earth 2013

Photograph Year: 2013 Interpreted by: A. Bergen Reviewed by: Gary Lin

For ease of reference the approximate Site area has been outlined in red.

<u>The Site:</u> The Site remains similar to previous photos.





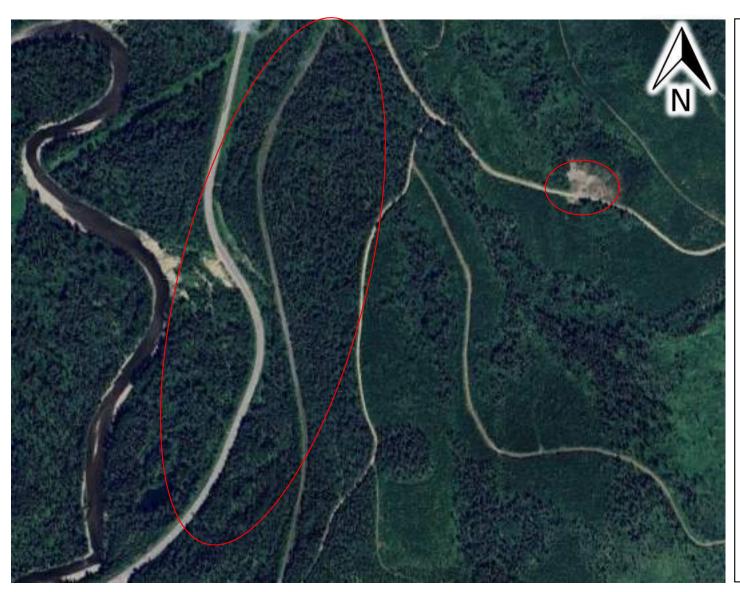
Photograph Reference: Google Earth 2018

Photograph Year: 2018 Interpreted by: A. Bergen Reviewed by: Gary Lin

For ease of reference the approximate Site area has been outlined in red.

<u>The Site:</u> The Site remains similar to previous photos.





Photograph Reference: Google Earth 2022

Photograph Year: 2022 Interpreted by: A. Bergen Reviewed by: Gary Lin

For ease of reference the approximate Site area has been outlined in red.

<u>The Site:</u> The Cottonwood Slide is visible west of Highway 97. The Umiti Pit Road site is similar to previous photos.



# ATTACHMENT D: SITE REGISTRY SEARCH RESULTS

### Site Registry - Area Search

### **BC** Registries and Online Services

No records from the Site Registry that match the search criteria provided:

Folio: 2121-00924

Latitude: 53deg 6min 7.3sec

Longitude: 122deg 21min 21.6sec

Radius: 0.5km

You have been charged for this information.

Sites may be revealed by searching with alternate search methods. For example, a site not revealed in an Area search may be revealed by searching with another piece of information such as PID, PIN, address, or Crown Lands File Number.

Disclaimer: Site Registry information has been filed in accordance with the provisions of the *Environmental Management Act*. While we believe the information to be reliable, BC Registries and Online Services and the Province of British Columbia make no representation or warranty as to its accuracy or completeness. Persons using this information do so at their own risk.

## ATTACHMENT E: SITE VISIT PHOTOS



Photo 1: View of soil stockpiled west of the Highway 97 Area as a result of clearing. No evidence of contamination is visible. (February 9, 2024).



Photo 2: View of Umiti Pit Road clearing area with some debris visible, facing east. (February 9, 2024).



Photo 3: View of Umiti Pit Road clearing area, facing west-northwest. (February 9, 2024).



Photo 4: View of Highway 97 from Umiti Pit Road Entrance, facing southwest. (February 9, 2024).