CONTAMINATED LAND DESK STUDY REVIEW – ROGERSONS BLOCK

179 - 183 Tuhikaramea Road, Dinsdale, Hamilton

Prepared for G A Rogerson

Prepared by Swiftsure Consultants Ltd

9 June 2025

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Swiftsure Consultants Ltd Document Control:

Report Title	Contamination Desk Study Review: 179 - 183 Tuhikaramea Road, Dinsdale, Hamilton		
Client	G A Rogerson	**Client Contact**	Sam Le Heron (Barker & Associates)
Date	**Revision Details / Status**		
9 June 2025	Final report issued to Client		

SQEP Certifying Statement

I certify that the site has been assessed in accordance with current New Zealand Regulations and guidance documents and reported in general accordance with the Ministry for the Environment's Contaminated Land Management Guidelines No. 1: Reporting on Contaminated Sites in New Zealand (dated 2021).

I am considered by Swiftsure Consultants Ltd Limited to be a suitably qualified and experienced practitioner (SQEP) able to certify reports pursuant to the Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011.

Emma Lewis, Contaminated Land Specialist

Dated: 9 June 2025

1 Introduction

Swiftsure Consultants Ltd ("Swiftsure") was requested by G A Rogerson (the "Client") to prepare a Contaminated Land Desk Study Review (PSI) for the site at 179-183 Tuhikaramea Road, Dinsdale, Hamilton (also known as the "Rogerson Block") (the "site").

This work has been carried out in accordance with our signed agreement dated 14 May 2025.

2 Background

Rogerson Block forms a part of the overall Southern Links designation (SL1). SL1 was approved under the fast-track process in October 2024 and would provide HCC with future housing and industrial.

It is Swiftsure's understanding that the Client would like to obtain the relevant resource consents via the Fast-track Approvals Act 2024 to enable the urban development of the site.

The site is a 45-hectare block west of Higgins Road and east of Tuhikaramea Road. The site is proposed to include 30ha industrial and 15ha medium density residential land and shows two indicative stormwater treatment and ecological enhancement opportunities within the block. It is anticipated that subdivision, earthworks, residential dwellings, commercial activities, and supporting infrastructure will be required.

Given resource consent is being sought under the Fast-track Approvals Act 2024, a Referral Application is required and then a Substantiative Application (if successfully listed).

A contaminated land desk study review is required for the identification of any issues, effects and associated mitigation options with regards to contaminated land.

It should be noted that this report does not constitute a Preliminary Site Investigation but has been undertaken in accordance with the relevant Contaminated Land Management Guidelines (Ministry for the Environment).

3 Purpose and Scope

This Contaminated Land Desk Study Review will provide the following:

- Identify potential sources of contaminants in soils as a result of current and/or historical land use.
- Identify the likely consents required under the NES-CS.

The scope of works included a desk-based review of historical background information. As part of this, the following information sources were reviewed:

- Information made available by Waikato Regional Council (WRC).
- Screening of property files held by Hamilton City Council (HCC) and Waipa District Council (WDC).
- Historical aerial photographs.
- Local geology, hydrogeology and hydrology.
- Walkover inspection of the site.

- Discussions with persons knowledgeable about the site.

This assessment has been undertaken and reported in general accordance with the following:

- Ministry for the Environment Contaminated Land Management Guidelines (CLMG) No. 1 – Reporting on Contaminated Sites in New Zealand (2011).
- Ministry for the Environment Contaminated Land Management Guidelines (CLMG) No. 5 – Site Investigation and Analysis (2011).

4 Site Description

The site is located at 179 – 183 Tuhikaramea Road, Dinsdale, Hamilton. It is legally described as Part Lot 1 Deposited Plan 13477, Lot 2 Deposited Plan South Auckland 86155, Lot 3 Deposited Plan 415839 and Part Lot 1 Deposited Plan South Auckland 10838. The site is approximately 45 hectares in area.

The Rogerson Block will include proposed residential and industrial development located within Temple View north.

The site is currently owned by G A Rogerson and is used as horse racing stables and track. It is located within a residential area within the suburb of Dinsdale. The site location is shown in **Figure 1**.

The area of proposed development is topographically flat across the site with no elevation changes included on the Waipa District Council online mapping layer.

5 Published Geology

5.1 Geology and Hydrogeology

Geological maps[1] indicate the site is underlain Holocene swamp deposits described as soft, dark, brown to black, organic mud, muddy peat and woody peat. These muds are underlain by Early Pleistocene to Middle Pleistocene alluvium dominated by primary and reworked, non-welded ignimbrite. From the CMW report it has indicated that, the site has predominantly peat subsoils up to 2m in depth.

A concrete lined drain (Waitawhiriwhiri Stream) currently passes through the middle of the site. Lake Rotoroa/Hamilton is located approximately 1.7km to the east of the site. The Waikato River lies approximately 3km to the north-east of the subject site at an approximate level of RL14m

5.2 Geomorphology

Existing geotechnical assessments for the SL1 area[2] state that the site is within a wetland/alluvial plain and that this landform is defined by an essentially level to gently undulating plain at between RL43m and RL35m (Moturiki Datum) that lies to the west of the Low Hamilton Hills. The report states that the plains are often crossed with a network of open drains which are typical of farmland in peat areas. Most of the site is low-lying flat farmland.

5.3 Groundwater

The Geotechnical report[2] prepared for the wider area states that investigation data has been taken from the late 1990's to early 2020's investigations, with testing occurring over varying seasons and groundwater conditions. Within the Wetland/Alluvial Plain areas, groundwater was encountered between 0.0m to 6.7m below the existing ground surface at the time of testing. The technical memorandum provided by WGA[3] states that groundwater levels within the vicinity of the site are 'relatively close to surface'.

The Waikato Regional Council (WRC) database provides the following information (**Table 1**) on bores in the vicinity to the site. The information includes the static groundwater level in each bore.

Bore Number	Depth (m)	Static Water Level (m)	Screened Depth (m bgl)	Screened Geology
72_10320	17	7	11-17	Gravel/sand
70_1198	12	Unknown	9.7-12	Pumice
72_1347	4	2	1-4	Peat
72_2039	6	Unknown	2-6	Unknown
72_1348	4	1	1-4	Sand
72_1349	4	1	1-4	Peat
72_7946	38	4.6	20-38	Sand

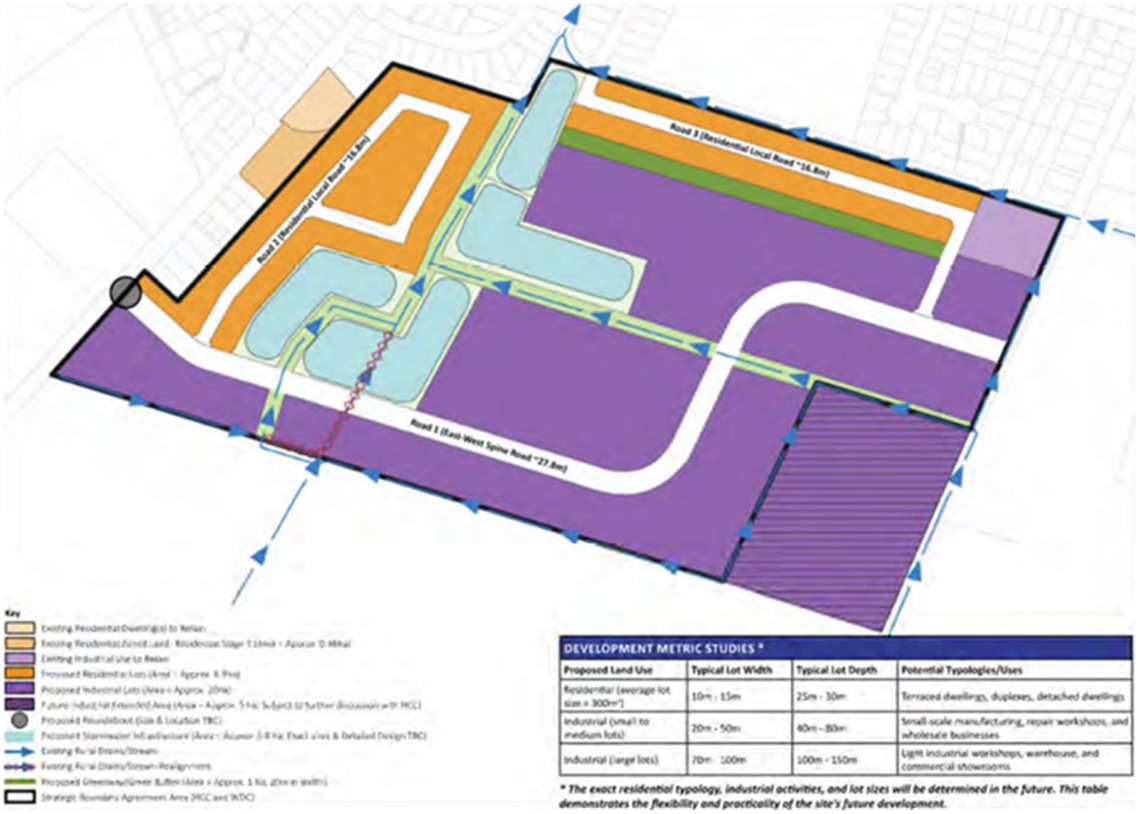
[1] Geologic62_84al Map4.5 of New Zealand: 1:125K. Institute of Geological and Nuclear Sciences Ltd, 2010.
[2] Southern Links SL1 – Geotechnical Investigation Report. CMW Geosciences, 15 March 2024.
[3] Technical Memorandum. Wallbridge Gilbert Aztec, 20 May 2025.

Bore Number	Depth (m)	Static Water Level (m)	Screened Depth (m bgl)	Screened Geology
62_82	4.5	2.55	1-4.5	Sand
62_83	4.5	2.25	1-4.5	Sand
62_84	4.5	1.95	1-4.5	Unknown
62_85	4.5	2.3	1-4.5	Silt
62_161	4.5	2.55	Unknown	Silt
62_162	4.5	2.22	Unknown	Sand
62_163	4.5	1.98	Unknown	Silt
62_164	4.5	2.3	Unknown	Silt
72_10272	24.45	Unknown	21-24	Silt/sand

6 Proposed Development

The proposed development is to develop approximately 44 hectares (gross) of land yielding approximately 7 hectares of net developable land for residential purposed and 20 hectares net developable land for industrial activities.

Figure 2: Rogerson Block Master Plan



DEVELOPMENT METRIC STUDIES *			
Proposed Land Use	**Typical Lot Width**	**Typical Lot Depth**	**Potential Typologies/Uses**
Residential (average lot size > 300m²)	10m - 15m	25m - 30m	Terraced dwellings, duplexes, detached dwellings
Industrial (small to medium lots)	20m - 50m	40m - 80m	Small-scale manufacturing, repair workshops, and wholesale businesses
Industrial (large lots)	70m - 100m	100m - 150m	Light industrial workshops, warehouse, and commercial showrooms

**** The exact residential typology, industrial activities, and lot sizes will be determined in the future. This table demonstrates the flexibility and practicality of the site's future development.***

7 Information Review

A review of information relevant to the site was undertaken as part of this assessment. The following sections provide a summary of the review.

7.1 Historical Aerial Review

Historical aerial photographs have been obtained from Retrolens and Google Earth for the years 1943. 1953, 1961, 1979, 1991, 1995, 2016 and today. It should be noted that limited availability of historical imagery resulted in some gaps of the review.

Copies of the historical aerial photos can be found in **Appendix A. Tables 1** below summarises observations from each photo.

Table 1: Summary of Historical Aerial Photography Review

Year	Key Information
1943	Available imagery is limited. The image does not cover the western extent of the site adjacent to Tuhikaramea Road. The site is developed and pasture. Paddocks are visible with associated fence lines. No structures are visible from the area covered. The surrounding area is also farmland.
1953	Poor quality/resolution image. The paddocks are still visible, and the site used as pasture/farmland. A dwelling is visible adjacent to Tuhikaramea Road presumed to be the farm homestead. The wider are continues to be used as farmland.
1961	No discernible change.
1979	Poor resolution. The trotting ring has been constructed. The wider site still undeveloped pasture. It is not possible to ascertain what additional structures have been constructed associated with the horse stables. The neighbouring area has started to be developed into residential housing.
1991	The trotting ring, training track and stables/associated infrastructure now present. The horse poo, training walking pool and multiple structures (presumed to be stables) are now present. The dwelling at 179 Tuhikaramea Road has been built as has the accommodation to the west of the site. Multiple holding yards are evident. Two structures are present in the wider site likely outbuildings. The north-eastern corner of the site has been developed. A half round shed and multiple farm-related structures are evident. This corner appears to be separate from the main horse stables. The wider neighbourhood has seen further residential intensification.
1995	No discernible change.
2016	Colour image. The horse stables and associated infrastructure do not appear to have changed since 1991. One of the outbuildings has been removed. A structure in the north-east corner has been removed. The footprint of the house at 183 Tuhikaramea Road has altered indicating it has been re-built.

7.2 Information held by Council

7.2.1 Property Files

The site is divided into the Waipa District and the Hamilton City District. As such both WDC and HCC hold property files for the site. Provided in the sections below is the review of the property files held by both councils.

Waipa District Council: 183 Tuhikaramea Road

The property file for 183 Tuhikaramea Road is held by WDC and has been reviewed as part of this assessment. This property file is in relation to the horse stables and associated training facilities and constitutes the majority of property file information related to the site.

Table 2 provides a summary of the property file.

Table 2: Summary of Property File

Reference	Date	Description	Description of Information
6145078	December 1980	Erect round hay barn	Application for building permit.
3680150 3680122	11 June 1984	Construction of training pool for horses	Building permit: sprayed concrete pool; plans.
3680114	16 May 1986	Construct horse stables and amenities.	Building Permit
3680110	8 June 1988	Erect horse stables	Application to construct horse stables. Materials stated to be treated piles, timber and iron.
BC/0122/09	2009	Stage 2: Erect Shed for Horse Walking Aqua Walking 2 Barns for Horse Stables	Code of compliance certificate; building consent application; Specification Producer Statement; building plans; building PIM; Stormwater disposal
22057	August 2000	New Storage Shed	Code of compliance certificate; building consent application; building plans; building consent.
RC/3424	August 2001	Erect horse boxes within side yard	Application; decision consent; plans.
22058	March 2002	Erect storage building	CoC

Reference	Date	Description	Description of Information
BC/1090/08	May 2013	Erect Class 5 Farm Building	Building consent application, specification, building PIM; Specification Producer Statement; building plans.
37032	February 2004	Extension and lean-to to existing implement shed	Building plans; specifications; CoC; building PIM.
29552	April 2002	Erect a storage building	Building plans; specifications; CoC; building PIM.
27241	July 2001	Erect horse boxes	Building plans; specifications; CoC; plans; building PIM.
PIM/1032/08 CCC/0208/09	2008	Erect Class 5 farm building	Building plans; specifications; CoC; plans; building PIM.
6107666 6192305	2016	Erect overnight yards for horses	Plans; building permits.

Hamilton City Council

The property file for 179, 181 and 183 Tuhikaramea Road is held by HCC and has been reviewed as part of this assessment.

Address	Date	Description of Information
179 Tuhikaramea Road	20 December 2012	Application and CoC to demolish a dwelling. Notes state that the site will be cleaned up with an excavator and material trucked off site.
183 Tuhikaramea Road	25 August 1987 27 April 1988 9 January 2011	Erect a dwelling Demolish a residence Building application, producer statements, CoC, plans to construct a new 2-storey building and basement garage gym

Waikato Regional Council

A Land Use Information Register (LUR) enquiry was made to WRC. The Waikato Regional Council maintains a register of properties known to be contaminated on the basis of chemical measurements or potentially contaminated on the basis of past land use. This register (called the Land Use Information Register) is still under development and should not be regarded as comprehensive. The 'potentially contaminated' category is gradually being compiled with reference to past or present land uses that have a greater than average chance of causing contamination, as outlined in the Ministry for the Environment's Hazardous Activities and Industries List (HAIL).

The response stated that the site does not appear on the Land Use Information Register.

7.3 Site Visit

On 13 May 2025 Swiftsure Consultants visited the site for a site inspection.

Appendix B provides photographs of the site. The following observations were made.

The site can be broadly split into the following:

- Horse stables and associated infrastructure associated with horse training (including the house and workers accommodation).
- Trotting track and training track.
- Mr Rogerson's main house.
- Storage/laydown area to the east of the site.

There are numerous horse yards and stables. The construction of these appears to be mainly timber and iron. The condition of these was variable, but they appear to have been there for some time. Established willow trees are present around the yards for shelter. There are aqua walkers and swimming pools for training the horses. Above ground rain tanks provide water. Tack rooms, food storage areas and horse washing bays were observed.

There is a small workshop with a decommissioned welder located outside. Separate to this building is a half round hay barn understood to be the maintenance building – this was not accessed at the time of the site visit. Farm related machinery such as a forklift, spreader and tractor were observed. In proximity to the maintenance building were two above ground tanks (AST) containing diesel and petrol. These were not bunded and were located on a gravel site – no evidence of staining on the ground was noted. An additional AST was observed in the vicinity to the stables.

There were occasional IBCs containing hypochlorite solution and other associated bleaching and disinfectants solutions.

The smaller house associated with the stables was noted to be brick construction with an iron roof. The workers' accommodation comprised a weatherboard construction on piles. Suspected ACM debris (asbestos containing materials) was noted to be present in the subfloor in several locations.

Mr Graeme's house was not accessed but was noted to be a relatively new build.

Several livestock related outbuildings were present containing hay or wood shavings.

The trotting track and training track are actively used and comprise the expected timber railings and compacted sand for training the horses.

A lined waterway/farm drain runs through the site which is crossed to access the track.

The separate buildings on the far side of the site away from the main stables area comprise a large half round iron shed, and numerous other farm outbuildings and containers used for storage. This area was not accessed as part of the site visit.

The remainder of the site was farmland/grazing.

8 Summary of Information and Discussion

The site was originally farmland when it was developed in the late 1970s/1980s into horse stables – “Rogerson Stables”. The training track and trotting track were constructed prior to 1979 and the majority of the stables and horse yards were built in the 1980s. Typical construction was timber and iron. Many additional features associated with horse training were established at similar times such as the aqua pools and swimming pools for horses.

The smaller residential dwelling and worker’s accommodation look to have been constructed post 1979 and pre 1995 but poor imagery means exact timings are not known. Suspected ACM fragments were observed in the subfloor.

Mr Graeme’s house at 183 Tuhikaranea Road was constructed in 2012 and comprises several bedrooms, swimming pool and basement gym.

Hazardous substances including hydrocarbons, bleaches and cleaners are stored in small quantities onsite. There are three ASTs that are not currently bunded assumed to contain fuel.

There have been several outbuildings removed/demolished over the years. The separate half round shed and associated buildings on the far side of the site is understood to be currently leased to a contractor and is used for storage.

From the information reviewed as part of this assessment, it is unlikely that the site is grossly contaminated – rather there is the potential for isolated hotspots associated with current/former buildings containing ACM and the storage of small quantities of fuel and chemicals.

9 Conceptual Site Model

Based on the information review and limited soil sampling, the conceptual site model is shown in **Table 3**.

Table 3: Conceptual Site Model

Source	Contaminant of Concern	Exposure Pathway	Potential Receptor	Pathway Complete?
Current and former structures- built pre-2000	Asbestos Lead	Exposure of workers to contaminants in soils and groundwater during site redevelopment – dermal contact, ingestion or inhalation of dust/vapours.	Construction workers.	**Potential Pathway** – Contaminants in soils may be at levels to pose a risk to human health.
		Exposure of future site users to contaminants in soils – dermal contact, ingestion or inhalation of dust/vapours.	Future site users.	**Potential Pathway** – Contaminants in soils may be at levels to pose a risk to human health.
		Exposure of general public to contaminants in soils– dermal contact, ingestion or inhalation of dust/vapours.	General public.	**Incomplete Pathway** – General public do not have access to the site.
		Groundwater resources for public consumption.	Leaching and migration of soil contaminants into groundwater.	**Potential Pathway** – Contaminants (lead) in soils may be at levels to have the potential to leach.
		Surface water	Sediment and runoff directly into surface water.	**Potential Pathway** – Contaminants may be at levels to have the potential to leach to adjacent stormwater channel.

Source	Contaminant of Concern	Exposure Pathway	Potential Receptor	Pathway Complete?
Chemical storage	Hydrocarbons Heavy metals Other	Exposure of workers to contaminants in soils and groundwater during site redevelopment – dermal contact, ingestion or inhalation of dust/vapours.	Construction workers.	**Potential Pathway** – Contaminants in soils may be at levels to pose a risk to human health.
		Exposure of future site users to contaminants in soils – dermal contact, ingestion or inhalation of dust/vapours.	Future site users.	**Potential Pathway** – Contaminants in soils may be at levels to pose a risk to human health.
		Exposure of general public to contaminants in soils– dermal contact, ingestion or inhalation of dust/vapours.	General public.	**Incomplete Pathway** – General public do not have access to the site.
		Groundwater resources for public consumption.	Leaching and migration of soil contaminants into groundwater.	**Potential Pathway** – Contaminants in soils may be at levels to have the potential to leach.
		Surface water	Sediment and runoff directly into surface water.	**Potential Pathway** – Contaminants may be at levels to have the potential to leach to adjacent stormwater channel.

10 Development Implications

10.1 National Environmental Standard: Contaminated Land

The *Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011* (NES-CS) applies to land as per clause 5(7):

"Land covered:
(7) The piece of land is a piece of land that is described by 1 of the following:
(a) an activity or industry described in the HAIL[3] is being undertaken on it;
(b) an activity or industry described in the HAIL has been undertaken on it;
(c) it is more likely than not that an activity or industry described in the HAIL is being or has been undertaken on it."

The following HAIL[4] activities have been identified for this site on a more likely than not basis:

- **E1** - Asbestos products manufacture or disposal including sites with buildings containing asbestos products known to be in a deteriorated condition (current and former structures).
- **A17 -** Storage tanks or drums for fuel, chemicals or liquid waste.

The NES-CS applies to five activities taking place on land identified to have potentially contaminative activities being undertaken on it, as listed on the HAIL.

Should a trigger activity be undertaken, the regulations of the NES-CS will apply.

Table 4: NES-SC Trigger Activities

Trigger Activity
Does the proposed activity at the site include the removal or replacement of all, or part of, a fuel storage system?
Does the proposed activity at the site include soil sampling?
Does the proposed activity at the site involve the disturbance of soil?
Does the proposed activity at the site involve the subdivision of the land?
Does the proposed activity involve a change of land use?

Summary of NES-CS Assessment

In summary, should the proposed development be unable to comply with the permitted activity criteria of the NES-CS and a land use consent is required.

10.2 Waikato Regional Plan

Consent may be required under the contaminated land provisions of the Waikato Regional Plan. It is recommended advice be sought from a Planner.

[4] Hazardous Activities and Industries List (MfE)

11 Conclusion

From the information reviewed as part of this assessment, it is unlikely that the site is grossly contaminated – rather there is the potential for isolated hotspots associated with current/former buildings containing ACM and the storage of small quantities of fuel and chemicals.

Given HAIL activities have been identified on a more likely than not basis and that trigger activities are likely to be undertaken as part of the development of the site, the NES-CS will apply. Should the proposed development be unable to comply with the permitted activity criteria of the NES-CS a land use consent is required.

Consent may be required under the contaminated land provisions of the Waikato Regional Plan. It is recommended advice be sought from a Planner.

Should consent be applied for, further investigation is required in the form of a Detailed Site Investigation (soil investigation). This DSI will inform whether remediation and/or management is required of the soils.

13 Limitations

This report is the property of G A Rogerson and Swiftsure Consultants Ltd. It was produced for the purpose stated above in accordance with the conditions of the contract dated 14 May 2025. It does not purport to provide legal or financial advice. Swiftsure Consultants Ltd accepts no liability to any other party or for any other purpose.

We have only reviewed readily available information. This information may contain errors and omissions, for which we cannot be responsible: we have not validated any information unless specifically stated.

The recommendations in this report are based on information provide to Swiftsure Consultants Ltd at the time of writing this report.

This report is current as of 22 May 2025. Site conditions may change in future, as may regulations and guidance. Readers must make their own judgements as to whether this report remains current at the time of reading, and/or seek further advice from Swiftsure Consultants Ltd.

APPENDIX A:

Historical Aerial Photographs

Legend

Site Boundary

1953

0 100 m 200 m

Produced by **Datanest.earth**

Title: Historical Aerial Photos		
Client: G A Rogerson		Size: A4
Project: SL1 Rogerson Block	Drawn: EL	Appendix: A
Date: 07-05-2025	Checked: EL	
Proj No: 2010	Scale: 1:8280	Version: draft

Legend

Site Boundary

1961

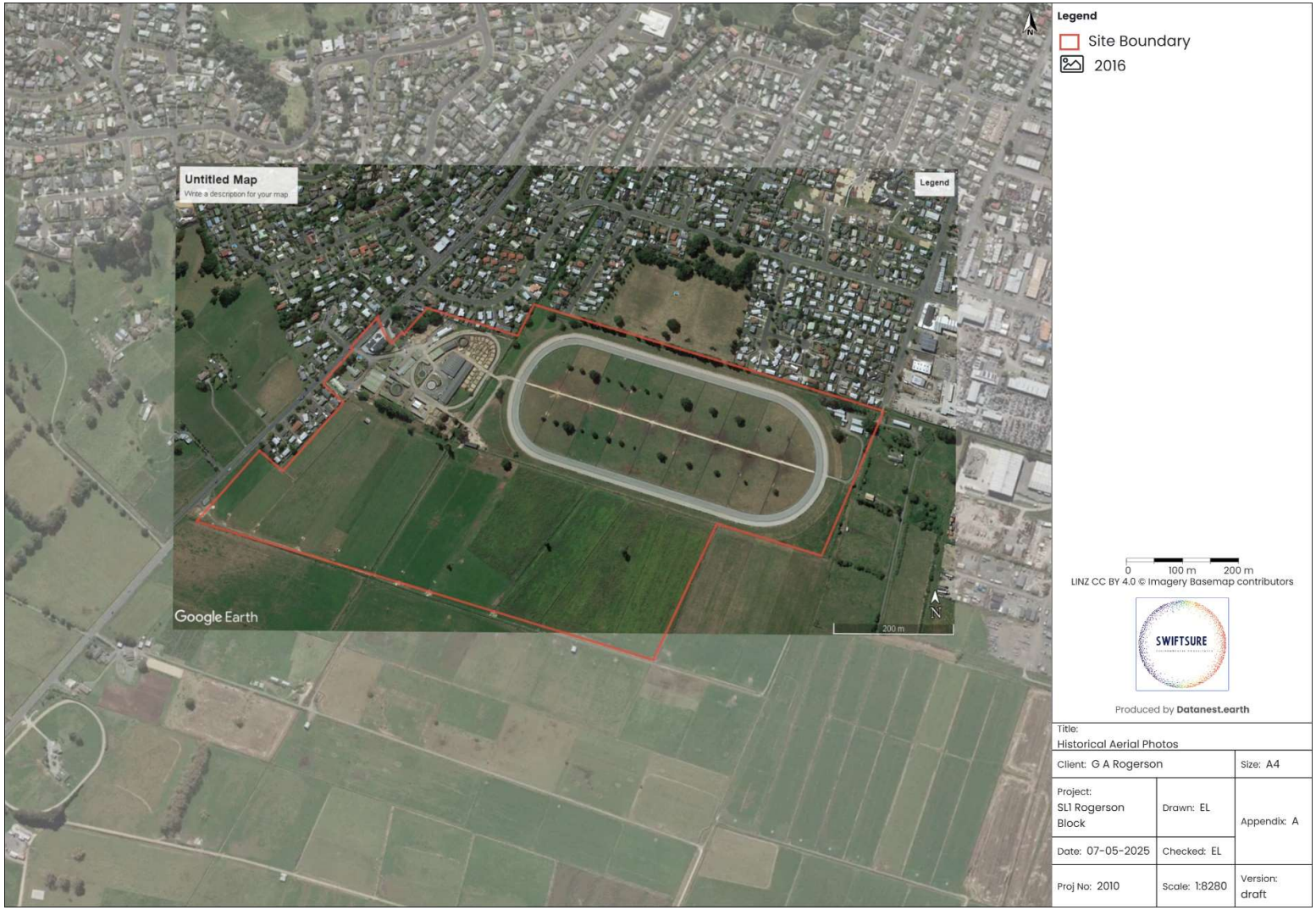
0 100 m 200 m

Produced by **Datanest.earth**

Title: Historical Aerial Photos		
Client: G A Rogerson		Size: A4
Project: SL1 Rogerson Block	Drawn: EL	Appendix: A
Date: 07-05-2025	Checked: EL	
Proj No: 2010	Scale: 1:8280	Version: draft


Legend
Site Boundary
1979
0
100 m
200 m
LINZ CC BY 4.0 © Imagery Basemap contributors
SWIFTSURE
Produced by Datanest.earth
Title:
Historical Aerial Photos
Client: G A Rogerson
Size: A4
Project:
SL1 Rogerson
Block
Drawn: EL
Appendix: A
Date: 07-05-2025
Checked: EL
Proj No: 2010
Scale: 1:8280
Version:
draft

Title: Historical Aerial Photos		
Client: G A Rogerson		Size: A4
Project: SL1 Rogerson Block	Drawn: EL	Appendix: A
Date: 07-05-2025	Checked: EL	
Proj No: 2010	Scale: 1:8280	Version: draft


Untitled Map
Write a description for your map
Legend
Google Earth
200 m
N
Legend
Site Boundary
2016
0
100 m
200 m
LINZ CC BY 4.0 © Imagery Basemap contributors
SWIFTSURE
Produced by Datanest.earth
Title:
Historical Aerial Photos
Client: G A Rogerson
Size: A4
Project:
SL1 Rogerson Block
Drawn: EL
Appendix: A
Date: 07-05-2025
Checked: EL
Proj No: 2010
Scale: 1:8280
Version:
draft

APPENDIX B:

Site Photographs

Photo 1: Mr Rogerson's house (183 Tuhikaramea Rd)

Photo 2: Smaller residential dwelling

Photo 3: Worker's accommodation

Photo 4: Suspected ACM debris

Photo 5: Suspected ACM cladding

Photo 5: Lined open stormwater drain

Photo 6: Hay barn adjacent to stables

Photo 7: Older stables

Photo 8: Horse yards

Photo 9: Horse yards

Photo 10: Horse yards

Photo 11: ASTs containing diesel and petrol

Photo 12: Maintenance shed

Photo 13: Surrounding farmland and out building

Photo 14: Horse aqua walker

Photo 15: Swimming pool for horses

Photo 16: Horse aqua walker

Photo 18: Training track

Photo 19: Farm mechinery