

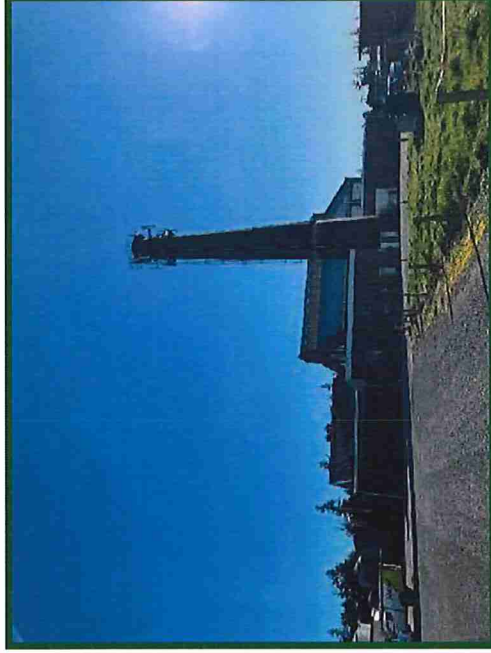
ANNEXURE H – PRELIMINARY SITE INVESTIGATION



**Soil Contamination Risk
Preliminary Site Investigation Report**

8 Glassworks Road, Ashburton, Canterbury

July 2025



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Quality Control and Certification Sheet

Client: Malteurop Group

Date of Issue: 10 July 2025

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1 Executive Summary

The subject of this investigation is located at 8 Glassworks Road in Netherby, Ashburton, Canterbury, from herein referred to as 'the site'. The client is proposing to subdivide the site for continued commercial/industrial purposes. The client is also required to undertake seismic strengthening works which involves demolishing two existing buildings, partially demolishing the 38.4m chimney on site and completing seismic strengthening works in two of the historical buildings. This proposal involves subdivision of the site and is likely to include some minor soil disturbance activities and potential off-site disposal of soils. As such, the Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011 (NESC) require an assessment of the likelihood of soil contamination being present. It is also noted that Momentum Environmental Ltd (MEL) is obligated to consider the requirements of Section 10(4) of the Health and Safety at Work (Asbestos) Regulations 2016.

This Preliminary Site Investigation (PSI) has shown that the site has been used for commercial/industrial purposes for its known history. The site was previously occupied by Ashburton Glassworks and contained furnaces likely powered by coal. Anecdotal information from the client representative suggests the glassworks was only operational for two weeks before the main furnace for the production plate and sheet glass gave way, halting production. The site is currently owned by Malteurop, a malt production and supply company. The following potential sources of contamination have been identified for the site, as per the Hazardous Activities and Industries List (HAIL):

- Minor chemical and fuel storage occurring in various locations across the site (HAIL A17).
- Potential historical wood treatment including bulk storage of treated timber outside in the western half of the site, largely restricted to RS 40106 (HAIL A18).
- An electrical transformer (HAIL B2).
- An engineering workshop with metal fabrication (HAIL D5).
- Coal or coke storage associated with the glassworks and potential military use of the site (HAIL Category I).
- Lead and asbestos products on historical buildings (HAIL Category I).
- Burn areas and waste disposal of ash (HAIL Category I).

If any contamination exists, it is considered unlikely that it would be at concentrations that exceed the 'commercial/industrial' soil guideline values and there would be a low risk to human health and the environment under the existing industrial setting.

There is a potential risk to construction workers where soil disturbance works are proposed. It is recommended that a Detailed Site Investigation (DSI) be undertaken in areas of the site where soil disturbance activities are to be undertaken.

At the time of writing this report, the proposed subdivision can proceed as a permitted activity under Regulation 8(4) of the NESC due to the proposal being highly unlikely to pose a risk to human health.

Resource consent under the NESC for future soil disturbance works may be required, this is dependent on the size and scope of any proposed works and will be assessed during the DSI phase of investigation.

2 Objectives of the Investigation

This report has been prepared in general accordance with the Ministry for the Environment's (MfE) 'Contaminated Land Management Guidelines No 1: Reporting on Contaminated Sites in New Zealand, revised 2021' (CLMG) and the 'New Zealand Guidelines for Assessing and Managing Asbestos in Soils, revised 2024' (NZ GAMAS). This report includes all requirements for a Preliminary Site Investigation Report.

The objective of this investigation is to:

- Collect and assess information from multiple sources to understand past and current land uses.
- Describe the physical and environmental features of the site to understand potential pathways and receptors.
- To establish under the NESCS whether it is more likely than not that an activity or industry described in the Hazardous Activities and Industries List (HAIL) is being, or has been, undertaken on the site.
- To assess whether there is any risk to potential receptors that would warrant further investigation.

3 Scope of Work Undertaken

The scope of the work undertaken has included:

- Obtaining and review of Environment Canterbury (ECan) data from the Listed Land Use Register (LLUR).
- Search of Land Information New Zealand (LINZ) orchard database.
- Review of relevant historical aerial photographs.
- Review of relevant historical certificates of title (CTs).
- Review of Ashburton District Council (ADC) property files.
- Site inspection.
- Preparation of this report in accordance with MfE guidelines.

4 Site Identification

The subject of this investigation is located at 8 Glassworks Road in Ashburton, Canterbury, from herein referred to as 'the site'. The site is legally described as Lot 1 DP 9084 and RS 40106. The site measures approximately 3.26ha as shown on **Figure 1** below.

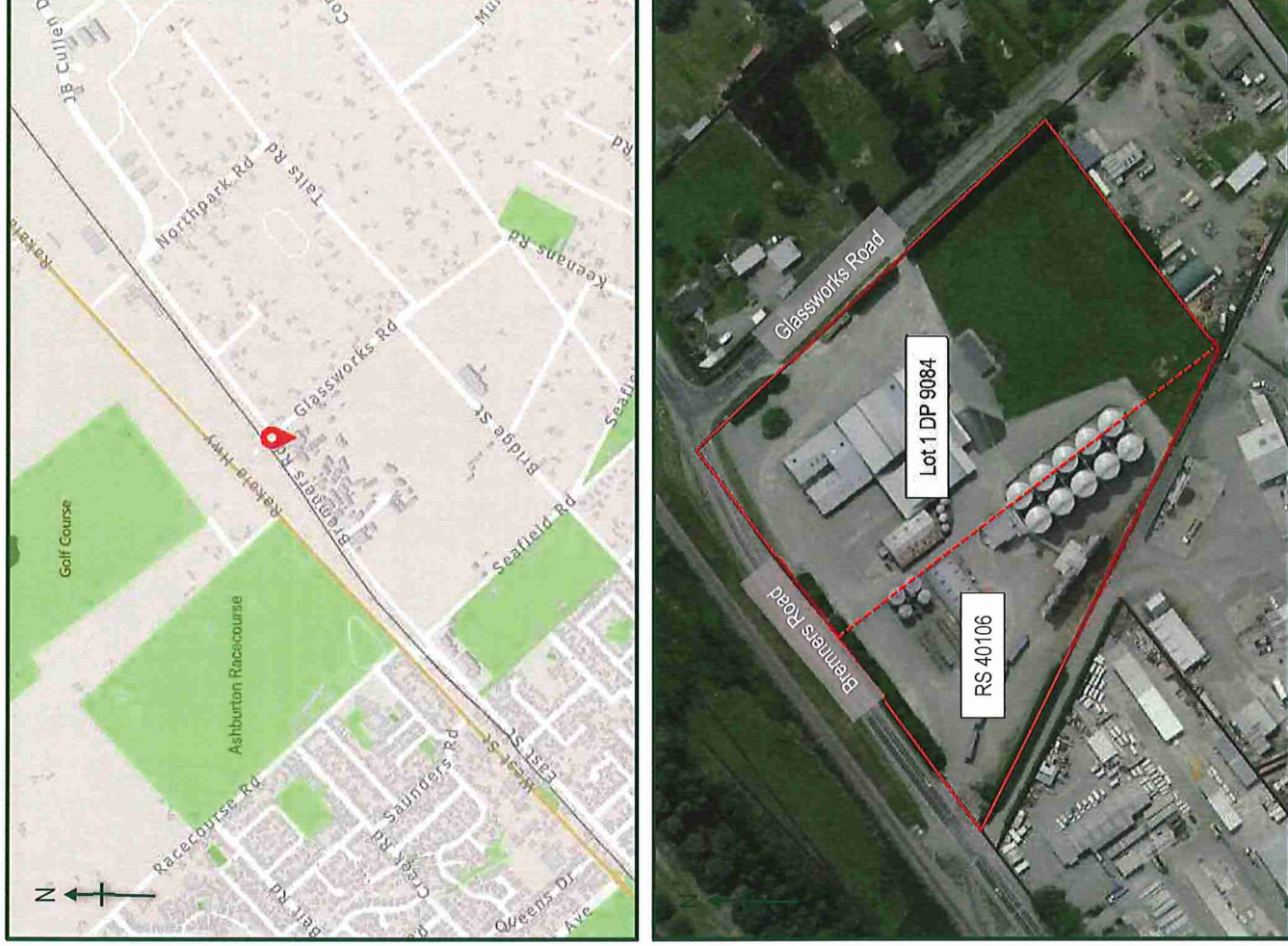


Figure 1 – Location Plan

5 Site Description

5.1 Environmental Setting

Table 1 – Environmental Information

Topography	The topography of the site is generally flat, the land is slightly undulating in the pastoral areas located in the south of the site.
Geology	The ECan GIS database describes soils at the site as the Lismore shallow silt. Information obtained from surrounding bore logs describes soils as topsoil underlain by sandy gravel and claybound sandy gravels.
Soil Trace Elements	According to the ECan GIS database, natural concentrations of trace elements for the site are those of the 'Regional, Yellow Brown Stoney' soil group.
Groundwater	According to the ECan GIS database, the site lies over the unconfined and semiconfined aquifer system. Groundwater levels recorded from on-site wells are between 6.14-6.50m below ground level (bgl). The direction of groundwater flow shown on the piezometric contours layer is generally south-easterly.
Surface Water	The Wakanui Creek is located 1.4km south of the site.

5.2 Site Layout and Current Site Uses

The site is currently used for commercial/industrial purposes. The site is owned and operated by Malteurop, a malt production and supply company and contains several buildings and silos. There is a grassed area in the south and south-east corner of the site, used for grazing of cattle.

5.3 Surrounding Land Uses

To the north, south and west of the site there are commercial/industrial properties. Residential and rural residential properties are present to the east of the site.

5.4 Geotechnical Investigations

At the time of writing, no geotechnical investigations were available to Momentum Environmental Ltd (MEL).

6 Proposed Site Use

The client is proposing to undertake a boundary adjustment. The proposed boundary adjustment layout is shown in **Figure 2** below. There will be no change of land use or soil disturbance activities occurring as a result of the proposed boundary adjustment.

The client is also required to undertake seismic strengthening works which involves demolishing two existing buildings, partial demolition of the 38.4m chimney and seismic strengthening of two historical buildings. This proposal is likely to include minor soil disturbance activities and possible off-site disposal of soils.

The Proposed Floor Plan showing the location of buildings to be demolished is attached in **Appendix A**.

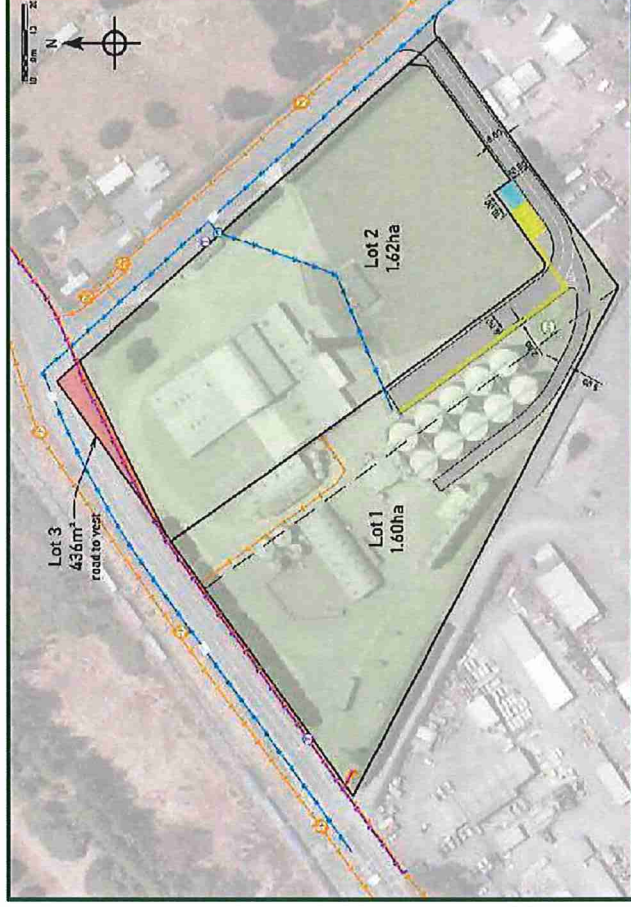


Figure 2 – Proposed boundary adjustment layout

7 Historical Site Use

7.1 Previous Site Ownership and Use

Historical Certificates of Title (CTs) were reviewed with the following relevant ownership information outlined below. Bolded information indicates potentially contaminating activities:

26 October 1928	Southern Cross Glass Company of New Zealand Limited
6 February 1947	New Zealand Plywood Limited
6 September 1948	Dominion Industries Limited
20 May 1959	Fletcher Industries Limited
25 October 1966	Canterbury Malting Company Limited
14 July 2000	International Malting Company New Zealand Limited
11 July 2012	Change of name to Malteurop New Zealand Limited

Note that some of the older information was of poor quality and difficult to follow, therefore the accuracy of the spelling of names and dates is not guaranteed. Copies of the historical CTs are included in **Appendix B**.

7.2 District Authority Records

The site is located within the Business E Zone in the Ashburton District Plan.

Property files were received from Ashburton District Council and reviewed on 24 June 2025. The property file included the following relevant information for the site:

- Building permit to erect a weighbridge pit and office, dated 07 October 1968.
- Building permit to erect the base for a silo complex, dated 07 September 1973.

- Building permit to erect 10 silos with support towers and walkways, dated 07 March 1974. Building permit also notes steel walls and roof.
- Building permit to make alteration to the existing office, dated 21 May 1976. Building permit also notes concrete foundations, block walls and a galvanised iron roof.
- Building permit to erect a silo complex, dated 02 December 1976.
- Building permit to erect four silos for grain storage, dated 31 January 1977. Building permit also notes concrete foundations and iron walls and roof.
- Building permit to erect new bulk storage for grain and seed, dated 18 November 1977. Building permit also notes concrete foundations, blockwork walls and a corrugated iron roof.
- Building consent for internal alterations to an existing building for telecommunications, dated 20 October 1994.
- Building consent to install silos, an elevator, conveyor, hoppers, structures and cladding, dated 29 June 1999.
- Building consent to erect a new office building with bathrooms, dated 24 August 2015.

7.3 Regional Council Records

Information available from the ECan GIS database shows part of the site is listed on the Listed Land Use Register (LLUR) for land use activities and industries associated with the Hazardous Activities and Industries List (HAIL). Part of the site is listed as 'HAIL 1 – any other land'. A note in the LLUR statement indicates the site was occupied by the Ashburton Glassworks from the 1940's onwards and contained furnaces for the manufacture of glass which were likely powered by coal. The site is categorised as 'verified HAIL, not investigated'. **Figure 3** below shows the listed area in relation to the site.

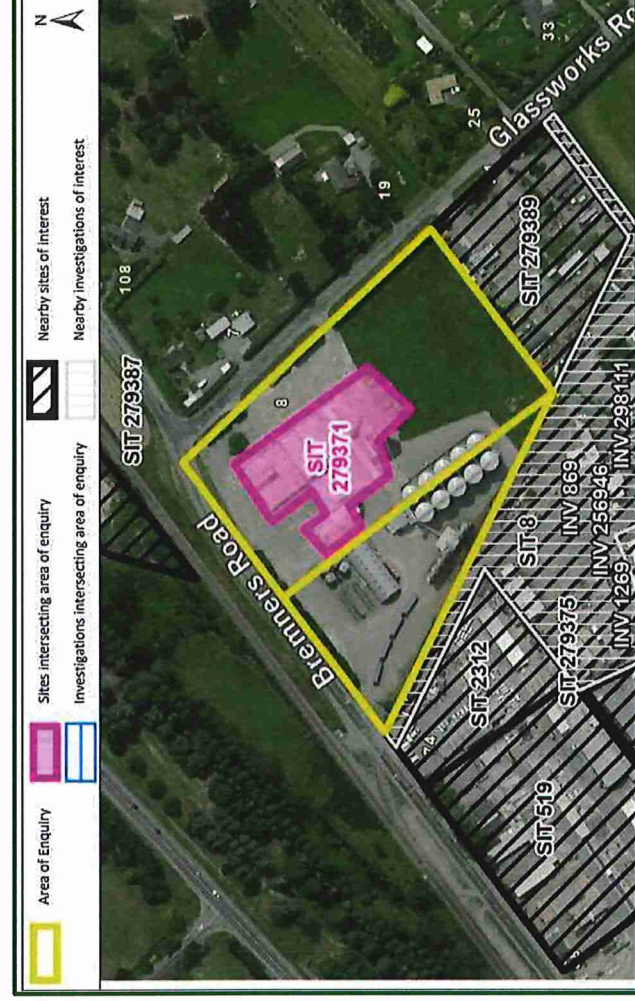


Figure 3 – Listed area (pink) in relation to the site (yellow)

Six properties within a 100m radius of the site are also listed on the LLUR as follows:

- Site 8, Ashburton Timber Company, located at 8 Bremmers Road, adjacent to the southern boundary of the site, is listed as 'HAIL A17 – storage tanks or drums for fuel, chemicals or liquid waste', 'HAIL A18 – wood treatment or preservation and bulk storage of treated timber' and 'HAIL G3 – landfill sites'. Site 8 is categorised as 'verified HAIL, partially investigated'. Four investigations have been undertaken on this property, none of which have been summarised in the LLUR statement. Site 8 continues to be used for timber treatment, using CCA and boron chemicals. An aboveground 2,000L un-bunded diesel tank is located on bare land, south of the mill building. Recent records indicate the tank was relocated to a concrete pad, no excavation of the contaminated soil beneath the previous tank location was completed. In August 2008 the Ministry for the Environment carried out an investigation into all former and currently operating timber treatment sites in New Zealand. The investigation identified the potential for an undetermined level of contamination to be present in the soil due to its use as a sawmill at a time when it was common practice to use pentachlorophenol.
- Site 519, Bradford Construction Co Ltd, located at the corner of Bremmers and Malcolm McDowell Rd, approximately 70m south-west of the site, is listed as 'HAIL A17 – storage tanks or drums for fuel, chemicals or liquid waste'. Site 519 is categorised as 'verified HAIL, not investigated'. The LLUR statement notes that the underground storage tank was replaced in approximately 1993-1994.
- Site 2312, Premier Machinery Ltd, located on Bremmers Road, approximately 15m south-west of the site, is listed as 'HAIL D3 – metal treatment or coating'. Site 2312 is categorised as 'verified HAIL, not investigated'. The LLUR statement notes that Site 2312 has been used for metal fabrication activities since 1994.
- Site 279375, Ashburton Pre-Stress Concrete Ltd, located approximately 100m south-west of the site, is listed for 'HAIL E4 – concrete manufacture and bulk cement storage'. Site 279375 is categorised as 'verified HAIL, not investigated'.
- Site 279387, Bremmers Road Gravel Pit, located on Bremmers Road, approximately 80m north of the site, is listed as 'HAIL G3 – landfill site'. Site 279387 is categorised as 'verified HAIL, not investigated'. The LLUR statement notes that a gravel pit was identified in aerial photographs from 1940 and was filled between 1970 and 2000.
- Site 279389, Bell Engineering and Repairs, located at 24 Glassworks Road, adjacent to the south-east boundary of the site, is listed as 'HAIL D5 – engineering workshops with metal fabrications' and 'HAIL G3 – landfill sites'. Site 279389 is categorised as 'verified HAIL, not investigated'. The LLUR statement notes that landfilling occurred between 1940 and 1959 and the property is currently occupied by engineering workshops with metal fabrications.

The LLUR Statement is included in **Appendix C**.

Resource consent information was sourced from the ECan GIS database. There is one resource consent for the site to discharge contaminants to air associated with the handling of grain. There are three resource consent within a 100m radius of the site, to discharge industrial stormwater to land and discharge human effluent to land.

Bore information sourced from the ECan GIS database shows there are four active bores on site used for water level observations. Within 100m of the site, there is one bore to the south-west of the site used for commercial/industrial use and a bore to the south-east of the site used for domestic water supply.

7.4 Land Information New Zealand Records

The Land Information New Zealand (LINZ) orchard layer does not show the site, or any directly surrounding properties as having listed orchards.

7.5 Review of Historical Aerial Photographs

A total of twelve historical aerial photographs have been sourced from the ECan GIS database and Retrolens to assess the historical use of the site. Copies of the aerial photographs used are included in **Appendix D**.

- The earliest available aerial photograph is from **1940-1944** and shows multiple industrial type buildings are present on the northern half of the site and the surrounding area appears grassed. The large chimney is visible adjacent to the factory buildings. An office building is located along the north-eastern boundary of the site. The southern half of the site is covered in trees. Land to the north and south of the site both show excavated pits are present. Land to the east of the site is used for rural residential and rural purposes. Land to the west of the site appears to also contain trees as part of a forestry block.
- The **1950-1954** aerial photograph shows the southern half of the site has been cleared of trees and potential raw barley product lies in its place. Additional buildings have been added to the large factory and are adjacent to the chimney. The surrounding area appears to have been cleared and is now gravelled. In the northern corner there is a rectangular water storage pool used for fire protection. Train tracks are present around the industrial buildings at the site, extend through the fence onto RS 40106 and exit the site across Bremners Road. The western side of the site is covered in scrubby vegetation with some storage of materials likely associated with the vegetation clearance and include green waste and stockpiles of wood. Land to the west is scrubby land which has also recently been cleared of vegetation. A sawmill is present in this property along with stockpiles of timber. These adjacent activities appear to cross over onto RS 40106 of the site, with no permanent fencing in place. A permanent fence separates RS 40106 from the remainder of the site. The pit to the south of the site has increased in size. Land to the north has been planted in tress.
- The **1955-1959** aerial photograph shows the possible raw barley product previously present along the southern half of the site has been removed and the area returned to pasture. The pits on the land to the north and south of the site have started to be infilled.
- The **1960** aerial photograph shows no significant changes to the site or surrounding area.
- The **1975-1979** aerial photograph shows the western half of the site has been cleared, the fence removed and is now in consistent use with the remainder of the site. 10 large silos have been constructed in the southern end of the site. Material, likely pallets are being stored along the north-western boundary. The pits to the north and south of the site have been completely infilled. Land to the west of the site has been cleared of scrubby vegetation and the sawmill and is beginning to be developed for industrial land use.
- The **1980-1984** aerial photograph shows all storage along the northern boundary has been removed and a storage building/workshop and four silos are present north-west of the original 10 large silos. The water storage pool has been infilled. The southernmost building has been extended. Further industrial development is occurring to the west of the site.
- The **1985-1989** aerial photograph shows no significant changes to the site. Continued industrial development is occurring on land to the south and west of the site.
- The **1995-1999** aerial photograph is blurry and changes not easy to discern but no significant changes to the site are visible. Rural residential and residential development is occurring to the east of the site.

- The **2004-2010** aerial photograph shows six small silos have been constructed along the south-western boundary of the site. The office building along the northeastern boundary has been demolished. soil disturbance activities and/or a potential burn area are visible in the south-west corner of the site. There are no significant changes to the surrounding area.
- The **2010-2014** aerial photograph shows two areas circular areas of soil disturbance/burn areas/filling areas, with track marks extending across the pastoral paddocks, connecting the two areas. There also appears to be some waste disposal to land occurring in the south-west corner of the site. There is increased residential development to the east of the site and increased industrial development to the south and west of the site. Some excavations are occurring on the land to the north of the site.
- The **2015-2019** aerial photograph shows a new office building has been constructed to the south of the existing buildings. The soil disturbance areas in the paddock in the south of the site are no longer visible. There are no significant changes to the surrounding area.
- The latest aerial photograph is from **2020** and shows a building has been demolished north of the newly constructed office building. Waste disposal to land in a pit is occurring in the south-west corner of the site, consistent with the location of the previously disturbed area. Visible materials include wooden pallets. There are no significant changes to the surrounding area.

8 Other Information

Information provided by the clients planner included a Heritage New Zealand and an Ashburton Museum blog post describing the former Ashburton Glassworks site on the corner of 8 Glassworks Road and Brenners Road, Ashburton. The articles describe the site as being occupied by the Southern Cross Glass Company, with construction occurring between 1926 and 1928 and production commencing on 01 March 1930. The company obtained mining rights for the silica and coal needed from Mount Somers for production. Within a fortnight the special firebricks in the main furnace for the production plate and sheet glass gave way, halting all glass production. It was noted that subterranean channels that were constructed to conduct smoke from the furnaces to the chimney remain beneath the floor of the main building and elements of railway siding remain apparent at the eastern side of the building. Construction materials were also noted to have included brick, iron, timber, steel, concrete and asbestos corrugated roof sheeting. After shutting down the glass production the buildings were used as a military training facility and barracks for five years during World War 2. During military use it was discussed that coke braziers were used to warm the buildings. Eventually in 1947 the Southern Cross Glass company gave up on reopening and sold the property to New Zealand Plywood Company Ltd who quickly sold to Dominion Industries Ltd in 1948. Since then, the site has been owned and occupied by maiting companies.

The referenced blog posts can be provided upon request.

9 Site Inspection

An inspection was undertaken on 01 July 2025 to assess the likelihood of soil contamination on the site. A Site Inspection Plan is attached in **Appendix D**. The client representative was present on site at the time of the inspection to answer any questions.

The industrial area of the site is largely gravelled, with areas of asphalt and hardseal. All buildings present at the site had a sealed base.

The historic glassworks building and attached chimney are located in the centre of the site. From historical information gathered, the buildings were constructed in the 1920's and are either red

brick or iron clad, with corrugated iron roofing. The buildings are currently used for seed/grain storage by Malteurop and other general storage. There were no obvious signs of asbestos containing materials on the exterior of the buildings. The subterranean channels noted in **Section 8** above are visible throughout the building and cause significant issues with vermin as discussed by the client representative. The chimney itself was fully encapsulated. The client representative noted the significant unknowns with regard to the chimney and how deep underground it extends. He also noted that it is unclear how the site functioned in relation to coal storage areas and transport across the site. However, train tracks do extend into the building adjacent to the chimney and likely transported the coal directly to the chimney. There was no evidence of coal storage at the site.

A modern hazardous substances storage shed and a lubricant drum with a pump are located within the building. A modern transformer was present outside the building. All are situated on a concrete base with no visible spills or leaks present.

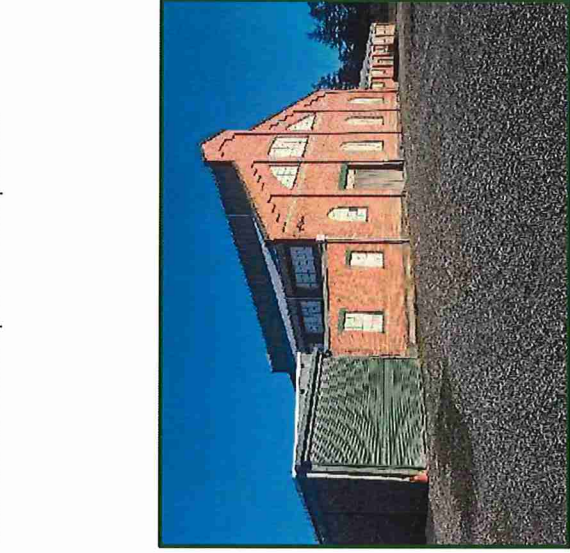


Photo 1 – Historic Building with brick cladding

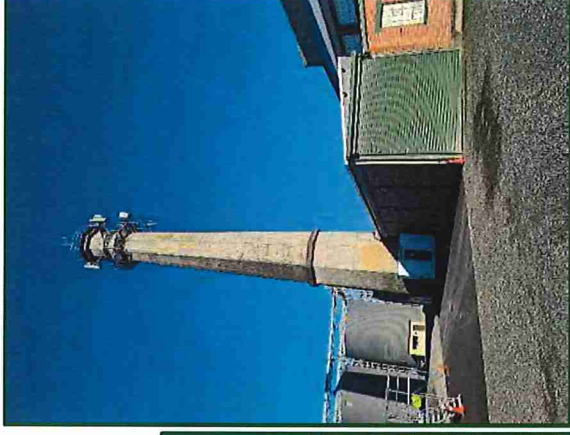


Photo 2 – Chimney

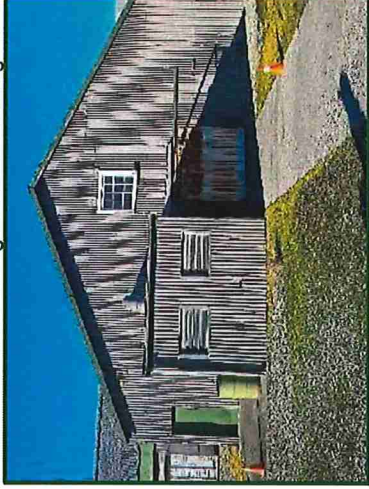


Photo 3 – Historic building with iron cladding



Photo 4 – Hazardous substances storage shed



Photo 5 – Lubricant drum with pump



Photo 6 - Transformer

Along the northeastern boundary of the site is a concrete pad from a former weighbridge. Concrete edging is also present from the former inground water storage pool used for fire protection.



Photo 7 – Former weighbridge – concrete pad

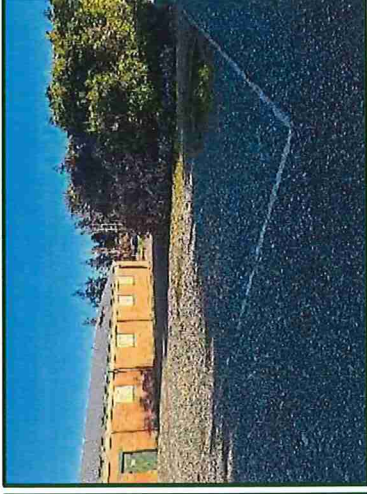


Photo 8 – Former pool for fire protection – concrete edging

To the west of the historic building there are six decommissioned silos, with an additional two concrete pads for silos which have already been removed.

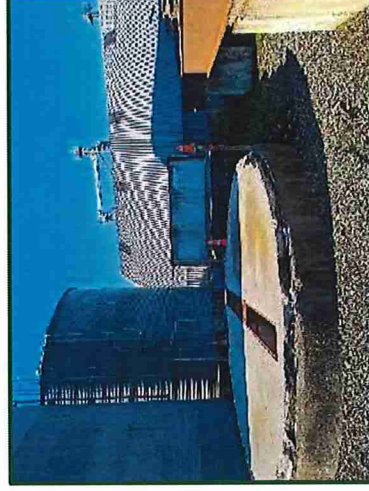


Photo 9 & 10 – Decommissioned silos



The western section of the site consists of a long-corrugated iron workshop occupied by EML, a steel supply and custom engineering business. Outside the workshop there is general workshop storage and several oil drums which appear to be used for the burning of waste materials.

A pegged-out area in the western corner of the site has been allocated for lease to a telecommunications provider. In this area there is a long mound of visually clean gravels adjacent to a mound of soil containing waste material with ash and charcoal.

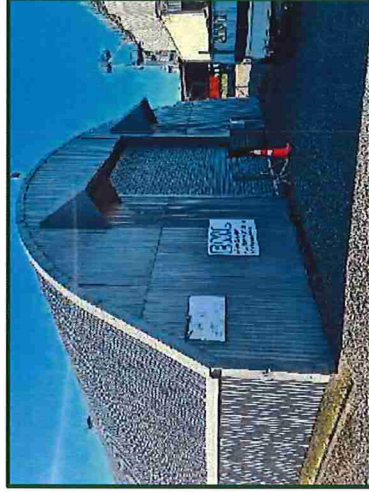


Photo 11 – EML Workshop

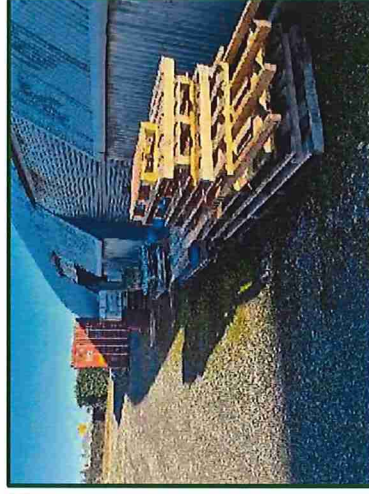


Photo 12 – Storage



Photo 13 – Pegged area for telecommunications



Photo 14 – Soil with visible ash and charcoal

At the southern end, eight smaller silos are present with rail shunting infrastructure used for malt storage and distribution. An air compressor is situated on a concrete base to the south side of these silos. Ten large barley silos are also located in this area, accompanied by a concrete block clad control room, to the north. Black staining was observed on the floor of the control room surrounding an air compressor. There were no cracks in the concrete base of the control room.

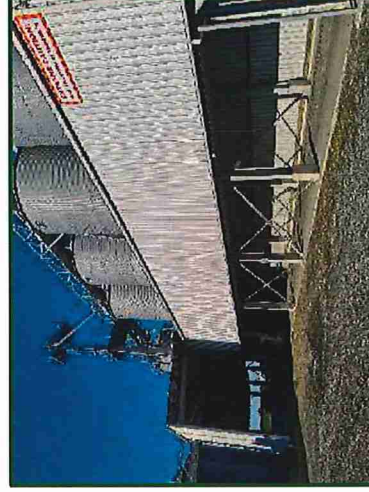


Photo 15 – Silos with rail shunting



Photo 16 – Air compressor

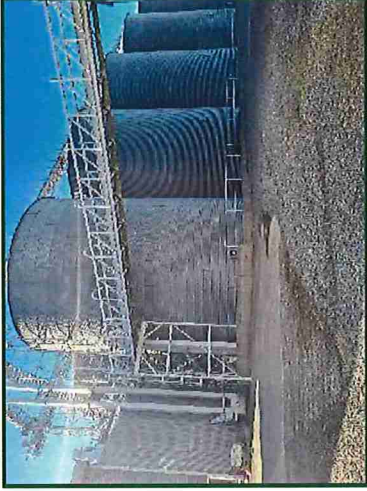


Photo 16 – Barley Silos



Photo 17 – Concrete control room with black staining

In the southern corner of the site, there is a large, grassed area used for grazing, a burn pit containing timber, steel and green waste was noted.

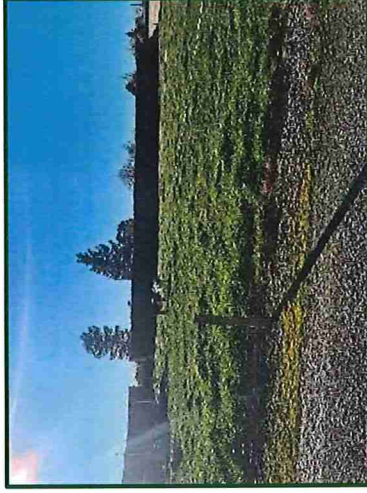


Photo 18 – Grassed area

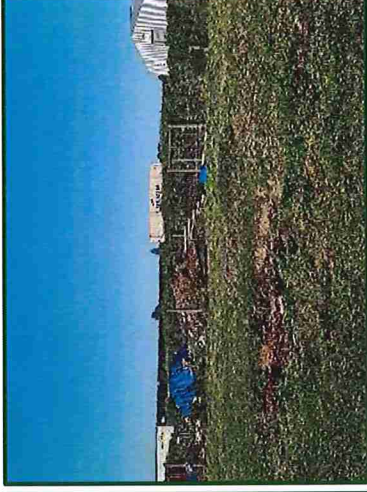


Photo 19 – Burn pit containing timber, steel and green waste

10 Preliminary Risk Assessment

10.1 Potential HAIL Uses Identified

The Hazardous Activities and Industries List (HAIL) compiled by the Ministry for the Environment identifies industries and activities that are considered potentially contaminating. Based on historical land uses and the information reviewed above, the following categories (*in italics*) have been identified for the site, including a summary of the risks associated with such activities.

A – Chemical manufacture, application and bulk storage

17 – Storage tanks or drums for fuel, chemicals or liquid waste

During the site inspection two air compressors, a hazardous substances storage shed and a lubricant drum with a pump were identified. There is likely to be minor fuel and chemical storage occurring elsewhere on site, not identified during the site inspection. One of the air compressors located in the control room appeared to have leaked and black staining was present on the surrounding surface. In general, the fuel and chemical storage occurring on site is very low risk as it is occurring within buildings on sealed surfaces.

Contaminants of concern include heavy metals, and hydrocarbons. Other contaminants may be present depending on chemicals stored on the site.

18 – Wood treatment or preservation including the commercial use of antiseptics and chemicals during milling, or bulk storage of treated timber outside

Following the clearance of vegetation on the site and land to the west, RS 40106, located in the western half of the site appeared to be used as part of the adjacent sawmilling activities. Aerial photographs during the 1950's and 1960's show what appears to be a sawmill and timber storage areas on the adjacent property to the west. This timber storage appears to also be occurring on the western side of the site.

Contaminants of concern include heavy metals, specifically copper, chromium, arsenate and boron, as well as Pentachlorophenol (PCP).

B – Electrical and electronic works, power generation and transmission

2 – Electrical transformers, including the manufacturing, repairing or disposing of electrical transformers or other heavy electrical equipment

A modern transformer was identified during the site inspection. Based on the likely era of construction the use of polychlorinated biphenyls (PCBs) is considered unlikely. Contaminants of concern include heavy metals and hydrocarbons. However, the site inspection did not find any signs of oil leakages and the transformer is located on a concrete base, surrounded by hard sealed surfaces.

C – Explosives and ordnance production, storage and use

3 – Training areas set aside exclusively or primarily for the detonation of explosive ammunition

Information from the heritage articles indicates the site was used as a military training facility and barracks between 1940 to 1945, during World War 2. Activities involving the use of explosive munitions, such as firing or dropping them onto land may result in contamination from target fragments, munition fragments and products of explosion and combustion. Given that the site was largely occupied by industrial buildings during this time, it is considered unlikely that these activities took place on the site. However, it is possible that munitions were stored at the site during this period although the exact location is unknown it is likely any storage occurred in buildings on sealed surfaces.

D – Metal extraction, refining and reprocessing, storage and use

5 – Engineering workshops with metal fabrication

An engineering workshop is present on the western side of the site. Work includes steel supply, custom engineering and prototype work. During the site inspection, welding was taking place in the workshop. The workshop is situated on a concrete pad.

Contaminants of concern include heavy metals, hydrocarbons and solvents.

H – Any land that has been subject to the migration of hazardous substances from adjacent land in sufficient quantity that it could be a risk to human health or the environment

The site is located within a commercial/industrial area, with six properties with a 100m radius that are listed on the ECan LLUR for potentially contaminating activities. Based on the information provided in the LLUR statement it is unlikely that hazardous substances would have migrated onto the site in sufficient quantity to pose a risk to human health or the environment in a commercial/industrial setting.

I - Any other land that has been subject to the intentional or accidental release of a hazardous substance in sufficient quantity that it could be a risk to human health or the environment

The ECan LLUR notes the site was occupied by the Ashburton Glassworks from 1940 to present and had furnaces for the manufacturer of glass which was likely powered by coal. Information from the heritage articles also suggests that the site stored coal and coke during the ownership of the Glassworks and/or military training facility and barracks. Specific information regarding the location of coal storage areas was not available.

Contaminants of concern include heavy metals and hydrocarbons.

Historical aerial photographs show multiple buildings on site in the pre1940's. Due to the era of construction, the use of lead paint based is considered likely. Asbestos corrugated roof sheeting was noted in heritage articles as part of the construction material used on the historic buildings. Any intentional removal or natural deterioration over time may have resulted in contamination of the surrounding soils.

Contaminants of concern include heavy metals and asbestos.

A large burn pit, waste disposal of ash and a drum used for burning waste materials were identified during the site inspection. The burn pit is visible on aerial photographs from the early 2000's onwards and wooden pallets are visible in recent aerial photographs as well as during the site inspection. Burning of anthropogenic materials can cause contamination of the underlying soils.

Contaminants of concern include heavy metals, asbestos, other contaminants depending on the material burnt.

10.2 NESCS Regulation 6(3) Probability Assessment

In relation to the NESCS, Regulation 5(7) states that land is considered to be covered if an activity or industry described in the HAIL is being undertaken; has been undertaken; or is more likely than not to have been undertaken on it. Regulation 6 describes the methods for determining this. Method 6(3) is to rely on a Preliminary Site Investigation. The 'NESCS Users Guide' indicates the test for 'more likely than not' is whether there is more than a 50 percent likelihood of the HAIL having occurred.

The table below states the likelihood of each HAIL identified in **Section 10.1** above:

Table 2 – NESCS Probability Assessment

HAIL Category	6(3)a - Is being undertaken	6(3)b – has been undertaken	6(3)c – likelihood of having been undertaken (if not confirmed)
HAIL A17 – chemical and fuel storage	✓	-	More likely than not
HAIL A18 – wood treatment or preservation	-	-	More likely than not
HAIL B2 – electrical transformers	✓	-	-
HAIL C3 – training areas for detonation of explosives	-	-	Highly unlikely
HAIL D5 – engineering workshop	✓	-	-
HAIL H - migration	-	-	Highly unlikely
HAIL I – any other land (coal/coke storage)	-	✓	-
HAIL I – any other land (lead paint and ACM on older buildings)	-	-	More likely than not
HAIL I – any other land (burn area)	✓	-	-

10.3 Conceptual Site Model

The following preliminary conceptual site model (CSM) indicates potentially complete exposure pathways at the site.

Table 3 – Conceptual Site Model

Preliminary Conceptual Site Model		
Source	Pathways	Receptor/Pathway Exposure
- Minor chemical and fuel storage - Historical wood treatment, including bulk storage of treated timber - An electrical transformer - An engineering workshop - Coal or coke storage associated with the glassworks and military use of the site. - Lead and asbestos products on historical buildings - Burn areas and waste disposal of ash	Human	Dermal contact, ingestion and inhalation through soil contact Likely incomplete exposure pathway for existing and future land users due to limited access to underlying soils and continued industrial use of the site. Potentially complete exposure pathway for workers involved in soil disturbance activities at the site.
	Ecological	Infiltration through soils to groundwater Incomplete exposure pathway given the depth to groundwater.
		Surface runoff to waterways Likely incomplete exposure pathway due to separation distance to the Wakanui Creek.

11 Discussion

In general, there is likely to be a relatively low risk of contamination being present at the site in sufficient quantity to pose a risk to human health or the environment under the existing industrial setting. It is noted that there is no change of land use or soil disturbance activities proposed in association with the proposed boundary adjustment. As such, it is considered highly unlikely that undertaking the boundary adjustment will result in a risk to human health. Therefore, under Regulation 8(4) of the NESCS, the proposed boundary adjustment can proceed as a permitted activity.

There is a potential risk to construction workers where soil disturbance works are proposed. It is recommended that a Detailed Site Investigation be undertaken in areas of the site where soil disturbance activities are to be undertaken.

Consent under the NESCS for future soil disturbance works may be required, this is dependent on the size and scope of any proposed works.

12 Conclusion

The PSI has shown that the site has been used for commercial/industrial purposes for its known history. The following potential sources of contamination have been identified for the site:

- Minor chemical and fuel storage occurring in various locations across the site (HAIL A17).
- Potential historical wood treatment including bulk storage of treated timber outside in the western half of the site, largely restricted to RS 40106 (HAIL A18).
- An electrical transformer (HAIL B2).
- An engineering workshop with metal fabrication (HAIL D5).
- Coal or coke storage associated with the glassworks and potential military use of the site (HAIL Category I).
- Lead and asbestos products on historical buildings (HAIL Category I).
- Burn areas and waste disposal of ash (HAIL Category I).

If any contamination exists, it is considered unlikely that it would be at concentrations that exceed the 'commercial/industrial' soil guideline values and there would be a low risk to human health and the environment under the existing industrial setting.

There is a potential risk to construction workers where soil disturbance works are proposed. It is recommended that a Detailed Site Investigation (DSI) be undertaken in areas of the site where soil disturbance activities are to be undertaken.

At the time of writing this report the proposed subdivision can proceed as a permitted activity under Regulation 8(4) of the NESCS due to the proposal being highly unlikely to pose a risk to human health.

Resource consent under the NESCS for future soil disturbance works may be required, this is dependent on the size and scope of any proposed works and will be assessed during the DSI phase of investigation.

13 Limitations

Momentum Environmental Limited has performed services for this project in accordance with current professional standards for environmental site assessments, and in terms of the client's financial and technical brief for the work. Any reliance on this report by other parties shall be at such party's own risk. It does not purport to completely describe all the site characteristics and properties. Where data is supplied by the client or any third party, it has been assumed that the information is correct, unless otherwise stated. Momentum Environmental Limited accepts no responsibility for errors or omissions in the information provided. Should further information become available regarding the conditions at the site, Momentum Environmental Limited reserves the right to review the report in the context of the additional information.

Opinions and judgments expressed in this report are based on an understanding and interpretation of regulatory standards at the time of writing and should not be construed as legal opinions. As regulatory standards are constantly changing, conclusions and recommendations considered to be acceptable at the time of writing, may in the future become subject to different regulatory standards which cause them to become unacceptable. This may require further assessment and/or remediation of the site to be suitable for the existing or proposed land use activities. There is no investigation that is thorough enough to preclude the presence of materials at the site that presently or in the future may be considered hazardous.

No part of this report may be reproduced, distributed, publicly displayed, or made into a derivative work without the permission of Momentum Environmental Ltd, other than the distribution in its entirety for the purposes it is intended.

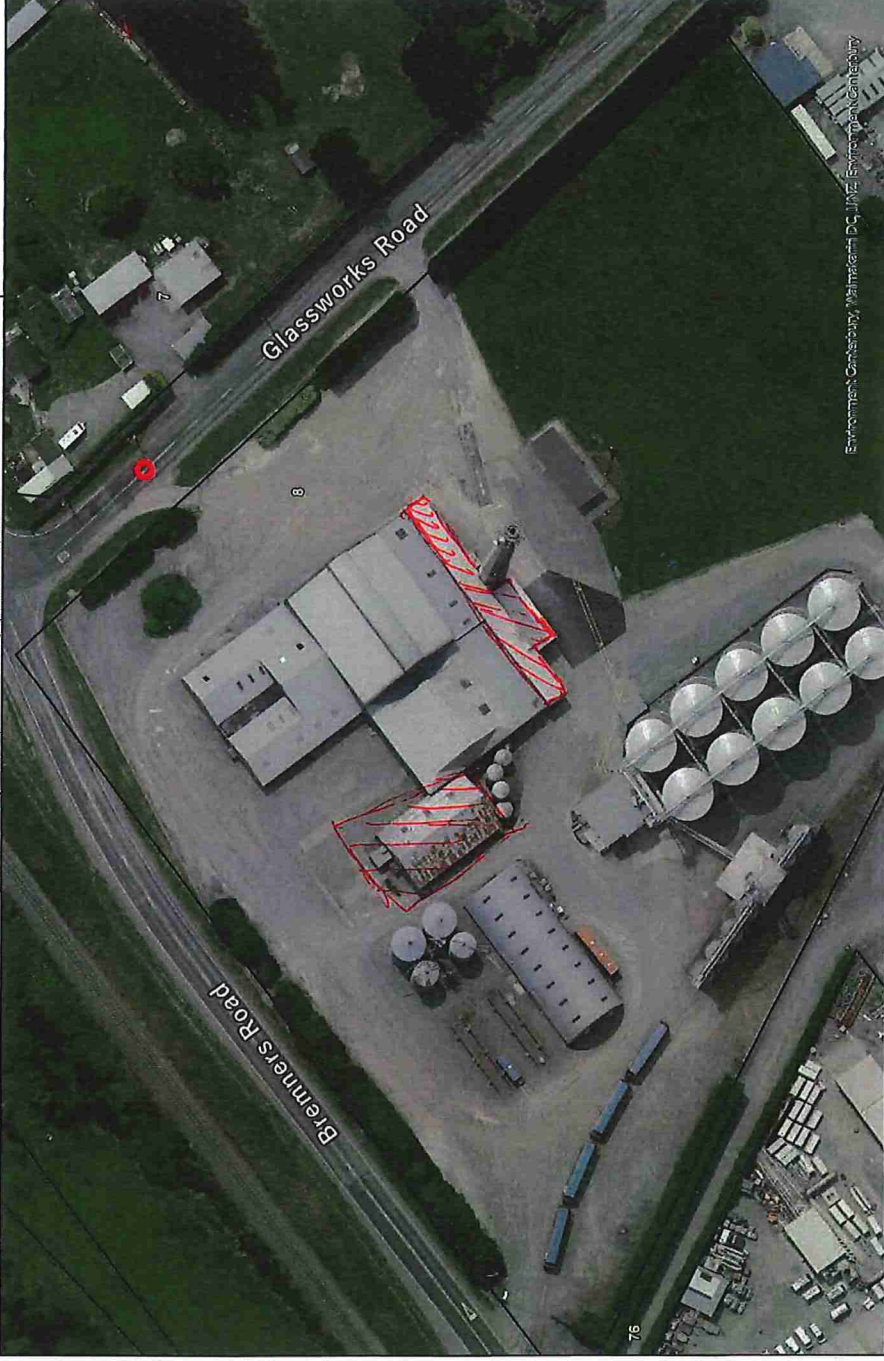
Appendix A – Proposed Floor Plan

~~777~~ - Bldg to be removed.

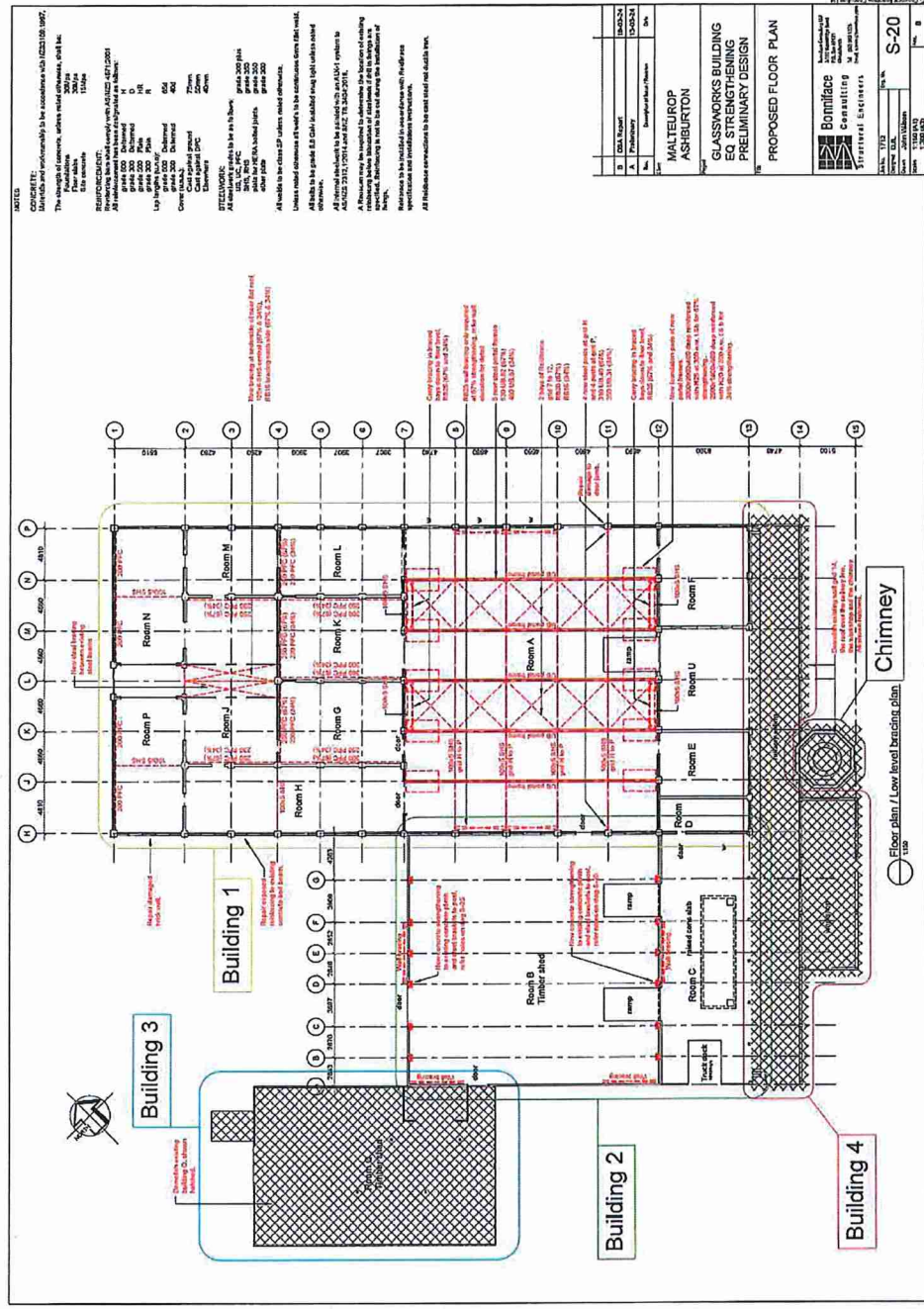


Malteurop Ashburton

Information has been derived from various organisations, including Environment Canterbury and the Canterbury Maps partners. The information is provided as a guide only and is not intended to be used for any purpose other than the general information of the user. The user should independently verify the information from this map may not be used for the purposes of any legal disputes. The user should independently verify the accuracy of any information where liability may attach to reliance upon it.



Environment Canterbury, Malmesbury D.C. JNZ Environment Canterbury

[illegible]

**MALTEUROP
ASHBURTON**

GLASSWORKS BUILDING
EQ STRENGTHENING
PRELIMINARY DESIGN

PROPOSED FLOOR PLAN

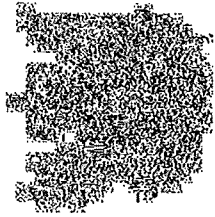


Bonniface
Consulting
Structural Engineers

DATE	1/12	ENG. NO.	S-20
DATE	01/12	ENG. NO.	

Species	Golden Woodpeckers	Age	0
Season	1-150 (A.D.)		

Appendix B – Historical Certificates of Title



RECORD OF TITLE
UNDER LAND TRANSFER ACT 2017
FREEHOLD
Historical Search Copy




R.W. Muir
Registrar-General
of Land

Constituted as a Record of Title pursuant to Sections 7 and 12 of the Land Transfer Act 2017 - 12 November 2018

Identifier **CB413/165**

Land Registration District **Canterbury**

Date Issued 26 October 1928

Estate Fee Simple
Area 2.2460 hectares more or less
Legal Description Lot 1 Deposited Plan 9084
Original Registered Owners
International Malting Company New Zealand Limited

Interests

8911049.1 Change of Name of International Malting Company New Zealand Limited to Malteurop New Zealand Limited -
11.7.2012 at 2:46 pm

[Land and Deeds—4
(Form B)

NEW ZEALAND



Vol. , Folio
Transfer No.
Reference: Application No.
Order for N/C No. 1907

Register-book,
Vol. 413, folio 165

413 165

CERTIFICATE OF TITLE UNDER LAND TRANSFER ACT.

This Certificate, dated the Twenty-ninth day of October, one thousand nine hundred and Twenty-eight under the hand and seal of the District Land Registrar of the Land Registration District of Canterbury Christchurch that THE CHAIRMAN, COUNCILLORS AND INHABITANTS OF THE COUNTY OF ASHBURTON are seized of an estate in fee simple in Trust for Plantation Purposes

located at Canterbury (subject to such reservations, restrictions, encumbrances, liens, and interests as are notified by memorial under written or endorsed hereon, subject also to any existing right of the Crown to take and lay off roads under the provisions of any Act of the General Assembly of New Zealand) in the land hereinafter described, as the same is delineated by the plan hereon bordered green, be the several admeasurements a little more or less, that is to say: All that parcel of land containing FIVE ACRES, TWO ROADS, AND EIGHT PERCHES or thereabouts situated in Block XIII of the Ashburton Survey District being Lot 1 on plan deposited in the Land Registry Office at Christchurch as No. 9384, part of Reserve 1775

Image Quality due
to Condition
of Original

W. H. R. M. R.
District Land Registrar

Transfer 185852 produced 26 October 1928 at 11.45 a.m.
The Chairman, Councillors and Inhabitants of the County of Ashburton to Southern Cross Glass Company of New Zealand Limited having its Registered Office at Ashburton

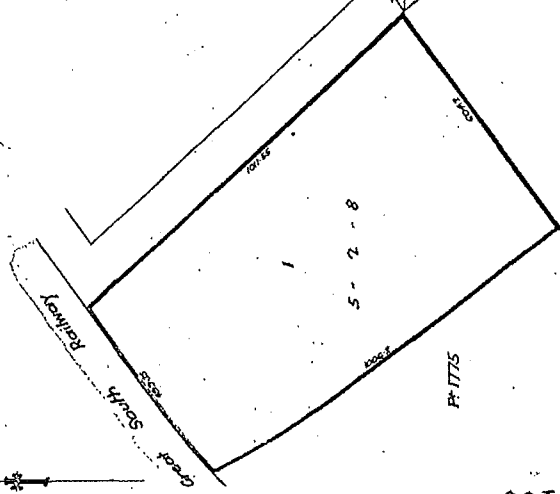
D. L. R.

Christchurch was produced in February 1928
region situated in the Ashburton Survey District
of the Ashburton Survey District
and of the Ashburton Survey District

Transfer 270842 produced 6 February 1947 at 11.53 a.m. Southern Cross Glass Company of New Zealand Limited to registered company having its office at Ashburton

Transfer for 186012 produced 6 February 1947 at 11.53 a.m. New Zealand Pyrowood Limited to Southern Cross Glass Company of New Zealand Limited
registered office at Ashburton
and of the Ashburton Survey District

11.53



METRIC AREA—2.2460 ha

Scale—2 Chains to an Inch

Appendix C – LLUR Statement



Customer Services
P. 03 353 9007 or 0800 324 636

PO Box 345
Christchurch 8140
P. 03 365 3828
F. 03 365 3194
E. ecinfo@ecan.govt.nz
www.ecan.govt.nz

Dear Sir/Madam

Thank you for submitting your property enquiry from our Listed Land Use Register (LLUR). The LLUR holds information about sites that have been used or are currently used for activities which have the potential to cause contamination.

The LLUR statement shows the land parcel(s) you enquired about and provides information regarding any potential LLUR sites within a specified radius.

Please note that if a property is not currently registered on the LLUR, it does not mean that an activity with the potential to cause contamination has never occurred, or is not currently occurring there. The LLUR database is not complete, and new sites are regularly being added as we receive information and conduct our own investigations into current and historic land uses.

The LLUR only contains information held by Environment Canterbury in relation to contaminated or potentially contaminated land; additional relevant information may be held in other files (for example consent and enforcement files).

Please contact Environment Canterbury if you wish to discuss the contents of this property statement.

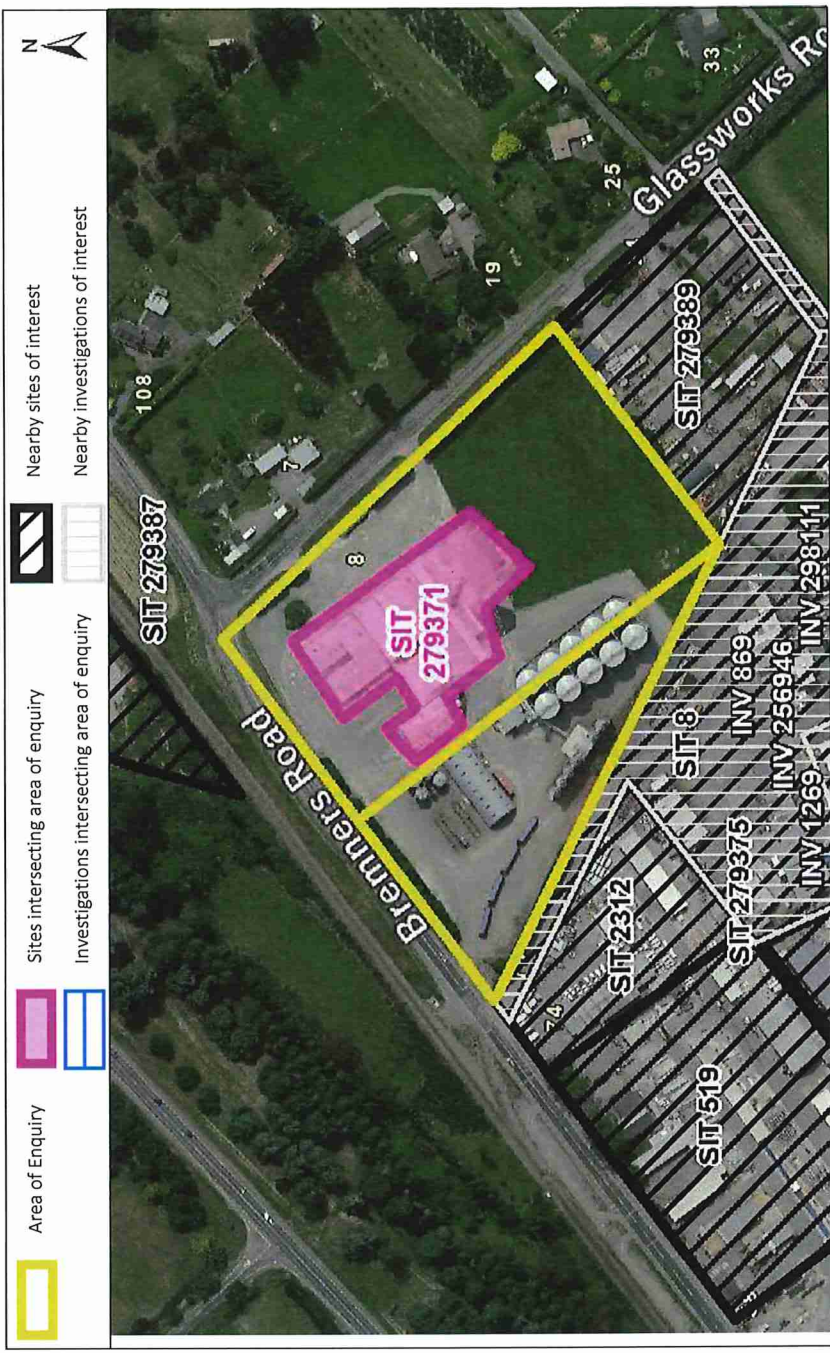
Yours sincerely

Contaminated Sites Team

Property Statement from the Listed Land Use Register

Visit can.govt.nz/HAIL for more information or
contact Customer Services at can.govt.nz/contact/ and quote ENQ419160

Date generated: 22 June 2025
Land parcels: RS 40106
Lot 1 DP 9084



The information presented in this map is specific to the area within a 100m radius of property you have selected. Information on properties outside the search radius may not be shown on this map, even if the property is visible.

Sites at a glance

Sites within enquiry area

Site number	Name	Location	HAIL activity(s)	Category
279371	8 Glassworks Road	Lot 1 DP 9084	1 - Any other land;	Not Investigated

Please note that the above table represents a summary of sites and HAILS intersecting the area of enquiry only.

Nearby sites

Site number	Name	Location	HAIL activity(s)	Category
8	Ashburton Timber Company	8 Bremmers Road, Ashburton	A18 - Wood treatment or preservation and bulk storage of treated timber; A17 - Storage tanks or drums for fuel, chemicals or liquid waste; G3 - Landfill sites;	Partially Investigated
519	Bradford Construction Co Ltd	Cnr Bremmers and Malcolm McDowell Rd, Ashburton	A17 - Storage tanks or drums for fuel, chemicals or liquid waste;	Not Investigated
2312	Premier Machinery Ltd	Bremmers Rd, Ashburton	D3 - Metal treatment or coating;	Not Investigated

279375	Ashburton Pre-Stress Concrete Ltd	Lot 1 DP 303756	E4 - Concrete manufacture and bulk cement storage;	Not Investigated
279387	Bremmers Road Gravel Pit	Bremmers Road, Ashburton	G3 - Landfill sites;	Not Investigated
279389	Bell Engineering and Repairs	24 Glassworks Road	G3 - Landfill sites;D5 - Engineering workshops with metal fabrication;	Not Investigated

Please note that the above table represents a summary of sites and HAILS intersecting the area of enquiry within a 100m buffer.

More detail about the sites

Site 8: Ashburton Timber Company (Within 100m of enquiry area.)

Category: Partially Investigated
Definition: Verified HAIL has been partially investigated.

Location: 8 Bremmers Road, Ashburton
Legal description(s): Lot 2 DP 303756, Lot 3 DP 303756, RS 40692

HAIL activity(s):

Period from	Period to	HAIL activity
1980	present	Wood treatment or preservation including the commercial use of anti-sapstain chemicals during milling, or bulk storage of treated timber outside
?	?	Storage tanks or drums for fuel, chemicals or liquid waste
1940	1959	Landfill sites

Notes:

25 Jul 2003

This site has historically used PCP, reviewed as part of Pattie Delamore Partners 1994 "Pentachlorophenol Contaminated Site Investigations - preliminary assessment of schedule 2 sites". The site continues to be used for timber treatment, using CCA and boron chemicals. An assessment of Environmental Effects prepared by Woodward-Clyde in December 1997 in support of resource consent applications CRC001918 (discharge contaminants to water) & CRC001979 (discharge contaminants to land), contains the description of the treatment methods undertaken on the site. A soil sampling survey was undertaken as a part of the AEE.

24 Jan 2005

Resource consent application: Applicant: Ashburton Timber Co. (1990) Ltd. Address: PO Box 593, Ashburton.

CRC001979 - to discharge water and contaminants onto land in circumstances which may result in the contaminant (or any other contaminant) emanating as a result of natural processes from that contaminant) entering water. The site contains an existing timber mill and timber treatment plant. The discharge will arise from the storage of treated timber on open ground, runoff from concrete pads where treated timber is stored and roof stormwater. Potential contaminants in the discharge include Copper, Chromium, Arsenic and Boron. The site is located on Bremmers Road, between Malcolm McDowell Avenue and Glassworks Road, Ashburton, at or about map reference NZMS 260 L37:1160-0135. The applicant has requested a consent duration of 35 years. The resource consent is at the hearings stage.

16 Jan 2006

An above ground, 2,000 L, un-bunded diesel tank was located on bare land, south of the Mill building. The 1997 AEE proposed bunding the tank in the future. More recent records indicate that the tank was relocated to a concrete pad near the mill. No excavation of the contaminated soil beneath the previous tank location was completed by mid 2005.

12 Nov 2008

In August 2008 the Ministry for the Environment carried out an investigation into all former and currently operating timber treatment sites in New Zealand. The investigation identified the potential for an undetermined level of contamination to be present in the soil of this property due to its former use as a sawmill at a time when it was common practice to use pentachlorophenol (PCP). Dioxins may be present in soil on the site, especially in areas where PCP was applied to timber. As a precaution, and in the absence of soil test information, the following measures would minimise exposure to contamination:

- 1 - avoid consuming animal produce (eg chickens, eggs, other livestock) grown on the property
- 2 - Vegetables can be grown safely in a raised bed using clean imported soil.



Investigations:

INV 298111

Interim Report on PCP Contaminated Site Investigations - Preliminary Assessment of Schedule 2

Sites

Pattie Delamore Partners Ltd - Detailed Site Investigation

1 Feb 1994

Summary of investigation(s):

Environment Canterbury has received a Detailed Site Investigation report that includes all or part of the property you have selected.

A DSI seeks to identify the type, extent and level of contamination (if any) in an area. Soil, soil-gas or water samples will have been collected and analysed.

This investigation has not been summarised.

INV 256946

Soil Sampling – 76 Bremmers Road, Ashburton

Sephira Environmental Ltd - Detailed Site Investigation

22 Mar 2019

Summary of investigation(s):

Environment Canterbury has received a Detailed Site Investigation report that includes all or part of the property you have selected.

A DSI seeks to identify the type, extent and level of contamination (if any) in an area. Soil, soil-gas or water samples will have been collected and analysed.

This investigation has not been summarised.

INV 1269

Preliminary survey of pentachlorophenol use in the timber industry in Canterbury

Loe Pearce & Associates - Detailed Site Investigation

30 Apr 1993

INV 869

Pentachlorophenol Contamination Investigation - Recommendations for further investigations,

Site: Ashburton Timber, Bremmers Rd, Ashburton

PDP - Detailed Site Investigation

1 Apr 1994

Summary of investigation(s):

Report(s) have not yet been audited.

Site 519: Bradford Construction Co Ltd (Within 100m of enquiry area.)

Category: Not Investigated

Definition: Verified HAIL has not been investigated.

Location: Cnr Bremmers and Malcolm McDowell Rd, Ashburton

Legal description(s): Lot 1 DP 82658; Lot 2 DP 82658; Lot 3 DP 82658

HAIL activity(s):	Period from	Period to	HAIL activity
	?	1998	Storage tanks or drums for fuel, chemicals or liquid waste

Notes:

26 Jan 1998 Occupier states (26/1/98) that the underground storage tank on the site was replaced in approximately 1993-94.



Investigations:

There are no investigations associated with this site.

Site 2312: Premier Machinery Ltd (Within 100m of enquiry area.)

Category: Not Investigated

Definition: Verified HAIL has not been investigated.

Location: Bremmers Rd, Ashburton

Legal description(s): Lot 1 DP 43637

HAIL activity(s):	Period from	Period to	HAIL activity
	?	current	Metal treatment or coating including polishing, anodising, galvanising, pickling, electroplating, or heat treatment or finishing using cyanide compounds

Notes:

18 Jan 2001

Info held by Environment Canterbury from 1994 indicates that the site is used for metal fabrication activities. (Source Potentially contaminated site sheet).



Investigations:

There are no investigations associated with this site.

Site 279371: 8 Glassworks Road (Intersects enquiry area.)

Category: Not Investigated
Definition: Verified HAIL has not been investigated.

Location: Lot 1 DP 9084
Legal description(s): Lot 1 DP 9084

HAIL activity(s):

Period from	Period to	HAIL activity
1940	Present	Any other land that has been subject to the intentional or accidental release of a hazardous substance in sufficient quantity that it could be a risk to human health or the environment

Notes:

28 Jan 2021 Site occupied by the old Ashburton Glassworks, had furnaces for the manufacturer of glass which were likely powered by coal
28 Jan 2021 This record was created as part of the Ashburton District 2020 HAIL identification project.



Investigations:

There are no investigations associated with this site.

Site 279375: Ashburton Pre-Stress Concrete Ltd (Within 100m of enquiry area.)

Category: Not Investigated
Definition: Verified HAIL has not been investigated.

Location: Lot 1 DP 303756
Legal description(s): Lot 1 DP 303756

HAIL activity(s):

Period from	Period to	HAIL activity
Unknown	Present	Commercial concrete manufacture or commercial cement storage

Notes:

21 Jan 2021 Property is occupied by Ashburton Pre-stress Concrete Ltd, manufacture/mix products on site
21 Jan 2021 This record was created as part of the Ashburton District 2020 HAIL identification project.



Investigations:

There are no investigations associated with this site.

Site 279387: Bremners Road Gravel Pit (Within 100m of enquiry area.)

Category: Not Investigated
Definition: Verified HAIL has not been investigated.

Location: Bremners Road, Ashburton
Legal description(s): Part RES 1450, RES 3095, RES 3095, RES 4433

HAIL activity(s):

Period from	Period to	HAIL activity
1940	Present	Landfill sites

Notes:

- 22 Jan 2021Gravel pit identified in aerial photographs was established in 1940 and was filled between 1970 and 2000
- 22 Jan 2021This record was created as part of the Ashburton District 2020 HAIL identification project.



Investigations:

There are no investigations associated with this site.

Site 279389: Bell Engineering and Repairs (Within 100m of enquiry area.)

- Category:Not Investigated
- Definition:Verified HAIL has not been investigated.
- Location:24 Glassworks Road
- Legal description(s):RS 40693

HAIL activity(s):

Period from	Period to	HAIL activity
1940	1959	Landfill sites
Unknown	Present	Engineering workshops with metal fabrication

Notes:

- 22 Jan 2021Property is occupied by Bell Engineering and Repairs
- 22 Jan 2021This record was created as part of the Ashburton District 2020 HAIL identification project.



Investigations:

There are no investigations associated with this site.



Nearby investigations of interest

There are no investigations associated with the area of enquiry.

Disclaimer

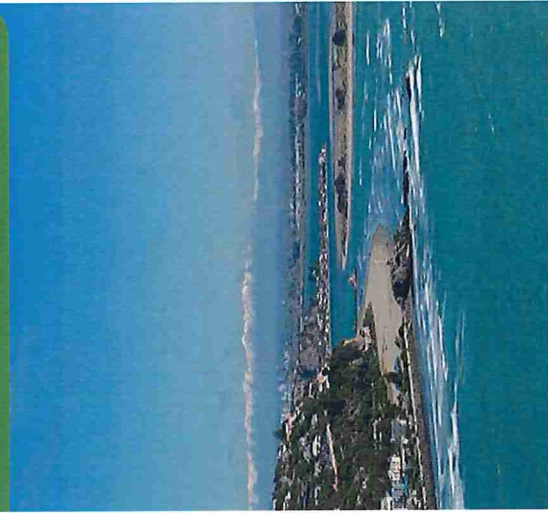
The enclosed information is derived from Environment Canterbury’s Listed Land Use Register and is made available to you under the Local Government Official Information and Meetings Act 1987.

The information contained in this report reflects the current records held by Environment Canterbury regarding the activities undertaken on the site, its possible contamination and based on that information, the categorisation of the site. Environment Canterbury has not verified the accuracy or completeness of this information. It is released only as a copy of Environment Canterbury’s records and is not intended to provide a full, complete or totally accurate assessment of the site. It is provided on the basis that Environment Canterbury makes no warranty or representation regarding the reliability, accuracy or completeness of the information provided or the level of contamination (if any) at the relevant site or that the site is suitable or otherwise for any particular purpose. Environment Canterbury accepts no responsibility for any loss, cost, damage or expense any person may incur as a result of the use, reference to or reliance on the information contained in this report.

Any person receiving and using this information is bound by the provisions of the Privacy Act 1993.

Listed Land Use Register

What you need to know



Everything is connected

What is the Listed Land Use Register (LLUR)?

The LLUR is a database that Environment Canterbury uses to manage information about land that is, or has been, associated with the use, storage or disposal of hazardous substances.

Why do we need the LLUR?

Some activities and industries are hazardous and can potentially contaminate land or water. We need the LLUR to help us manage information about land which could pose a risk to your health and the environment because of its current or former land use.

Section 30 of the Resource Management Act (RMA, 1991) requires Environment Canterbury to investigate, identify and monitor contaminated land. To do this we follow national guidelines and use the LLUR to help us manage the information.

The information we collect also helps your local district or city council to fulfil its functions under the RMA. One of these is implementing the National Environmental Standard (NES) for Assessing and Managing Contaminants in Soil, which came into effect on 1 January 2012.

For information on the NES, contact your city or district council.

How does Environment Canterbury identify sites to be included on the LLUR?

We identify sites to be included on the LLUR based on a list of land uses produced by the Ministry for the Environment (MfE). This is called the Hazardous Activities and Industries List (HAIL). The HAIL has 53 different activities, and includes land uses such as fuel storage sites, orchards, timber treatment yards, landfills, sheep dips and any other activities where hazardous substances could cause land and water contamination.

We have two main ways of identifying HAIL sites:

- We are actively identifying sites in each district using historic records and aerial photographs. This project started in 2008 and is ongoing.
- We also receive information from other sources, such as environmental site investigation reports submitted to us as a requirement of the Regional Plan, and in resource consent applications.

¹The Hazardous Activities and Industries List (HAIL) can be downloaded from MfE's website www.mfe.govt.nz, keyword search HAIL

How does Environment Canterbury classify sites on the LLUR?

Where we have identified a HAIL land use, we review all the available information, which may include investigation reports if we have them. We then assign the site a category on the LLUR. The category is intended to best describe what we know about the land use and potential contamination at the site and is signed off by a senior staff member.

Please refer to the Site Categories and Definitions factsheet for further information.

What does Environment Canterbury do with the information on the LLUR?

The LLUR is available online at www.llur.ecan.govt.nz. We mainly receive enquiries from potential property buyers and environmental consultants or engineers working on sites. An inquirer would typically receive a summary of any information we hold, including the category assigned to the site and a list of any investigation reports.

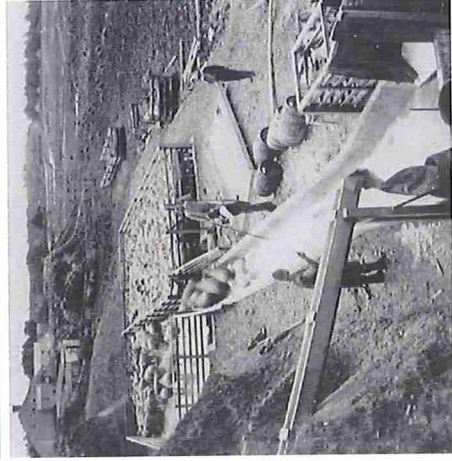
We may also use the information to prioritise sites for further investigation, remediation and management, to aid with planning, and to help assess resource consent applications. These are some of our other responsibilities under the RMA.

If you are conducting an environmental investigation or removing an underground storage tank at your property, you will need to comply with the rules in the Regional Plan and send us a copy of the report. This means we can keep our records accurate and up-to-date, and we can assign your property an appropriate category on the LLUR. To find out more, visit www.ecan.govt.nz/HAIL.



IMPORTANT!

The LLUR is an online database which we are continually updating. A property may not currently be registered on the LLUR, but this does not necessarily mean that it hasn't had a HAIL use in the past.



Sheep digging (ABOVE) and gas works (TOP) are among the former land uses that have been identified as potentially hazardous. (Photo above by Wheeler & Son in 1927, courtesy of Canterbury Museum.)

My land is on the LLUR – what should I do now?

IMPORTANT! Just because your property has a land use that is deemed hazardous or is on the LLUR, it doesn't necessarily mean it's contaminated. The only way to know if land is contaminated is by carrying out a detailed site investigation, which involves collecting and testing soil samples.

You do not need to do anything if your land is on the LLUR and you have no plans to alter it in any way. It is important that you let a tenant or buyer know your land is on the Listed Land Use Register if you intend to rent or sell your property. If you are not sure what you need to tell the other party, you should seek legal advice.

You may choose to have your property further investigated for your own peace of mind, or because you want to do one of the activities covered by the National Environmental Standard for Assessing and Managing Contaminants in Soil. Your district or city council will provide further information.

If you wish to engage a suitably qualified experienced practitioner to undertake a detailed site investigation, there are criteria for choosing a practitioner on www.ecan.govt.nz/HAIL.



I think my site category is incorrect – how can I change it?

If you have an environmental investigation undertaken at your site, you must send us the report and we will review the LLUR category based on the information you provide. Similarly, if you have information that clearly shows your site has not been associated with HAIL activities (eg. a preliminary site investigation), or if other HAIL activities have occurred which we have not listed, we need to know about it so that our records are accurate.

If we have incorrectly identified that a HAIL activity has occurred at a site, it will be not be removed from the LLUR but categorised as Verified Non-HAIL. This helps us to ensure that the same site is not re-identified in the future.

Contact us

Property owners have the right to look at all the information Environment Canterbury holds about their properties.

It is free to check the information on the LLUR, online at www.llur.ecan.govt.nz.

If you don't have access to the internet, you can enquire about a specific site by phoning us on (03) 353 9007 or toll free on 0800 EC INFO (32 4636) during business hours.

Contact Environment Canterbury:

Email: ecinfo@ecan.govt.nz

Phone:

Calling from Christchurch: (03) 353 9007

Calling from any other area: 0800 EC INFO (32 4636)



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Listed Land Use Register

Site categories and definitions

When Environment Canterbury identifies a Hazardous Activities and Industries List (HAIL) land use, we review the available information and assign the site a category on the Listed Land Use Register. The category is intended to best describe what we know about the land use.

If a site is categorised as **Unverified** it means it has been reported or identified as one that appears on the HAIL, but the land use has not been confirmed with the property owner.

If the land use has been confirmed but analytical information from the collection of samples is not available, and the presence or absence of contamination has therefore not been determined, the site is registered as:

Not investigated:

- A site whose past or present use has been reported and verified as one that appears on the HAIL.
- The site has not been investigated, which might typically include sampling and analysis of site soil, water and/or ambient air, and assessment of the associated analytical data.
- There is insufficient information to characterise any risks to human health or the environment from those activities undertaken on the site. Contamination may have occurred, but should not be assumed to have occurred.

If analytical information from the collection of samples is available, the site can be registered in one of six ways:

At or below background concentrations:

The site has been investigated or remediated. The investigation or post remediation validation results confirm there are no hazardous substances above local background concentrations other than those that occur naturally in the area. The investigation or validation sampling has been sufficiently detailed to characterise the site.

Below guideline values for:

The site has been investigated. Results show that there are hazardous substances present at the site but indicate that any adverse effects or risks to people and/or the environment are considered to be so low as to be acceptable. The site may have been remediated to reduce contamination to this level, and samples taken after remediation confirm this.

Managed for:

The site has been investigated. Results show that there are hazardous substances present at the site in concentrations that have the potential to cause adverse effects or risks to people and/or the environment. However, those risks are considered managed because:

- the nature of the use of the site prevents human and/or ecological exposure to the risks; and/or
- the land has been altered in some way and/or restrictions have been placed on the way it is used which prevent human and/or ecological exposure to the risks.

Partially investigated:

The site has been partially investigated. Results:

- demonstrate there are hazardous substances present at the site; however, there is insufficient information to quantify any adverse effects or risks to people or the environment; or
- do not adequately verify the presence or absence of contamination associated with all HAIL activities that are and/or have been undertaken on the site.

Significant adverse environmental effects:

The site has been investigated. Results show that sediment, groundwater or surface water contains hazardous substances that:

- have significant adverse effects on the environment; or
- are reasonably likely to have significant adverse effects on the environment.

Contaminated:

The site has been investigated. Results show that the land has a hazardous substance in or on it that:

- has significant adverse effects on human health and/or the environment; and/or
- is reasonably likely to have significant adverse effects on human health and/or the environment.

If a site has been included incorrectly on the Listed Land Use Register as having a HAIL, it will not be removed but will be registered as:

Verified non-HAIL:

Information shows that this site has never been associated with any of the specific activities or industries on the HAIL.

Please contact Environment
Canterbury for further information:

(03) 353 9007 or toll free
on 0800 EC INFO (32 4636)
email ecinfo@ecan.govt.nz

Appendix D – Historical Aerial Photographs



1940-1944 Historical Aerial

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0 0 0 0 0 0.1
Kilometres

Scale: 1:1,500 @A4

Map Created by MEL on 23/06/2025 at 10:53 AM



Environment Canterbury, Canterbury Maps Partners: DPMC LINZ, Stats NZ, NIWA, Ministry of Education, & OpenStreetMap contributors



1950-1954 Historical Aerial

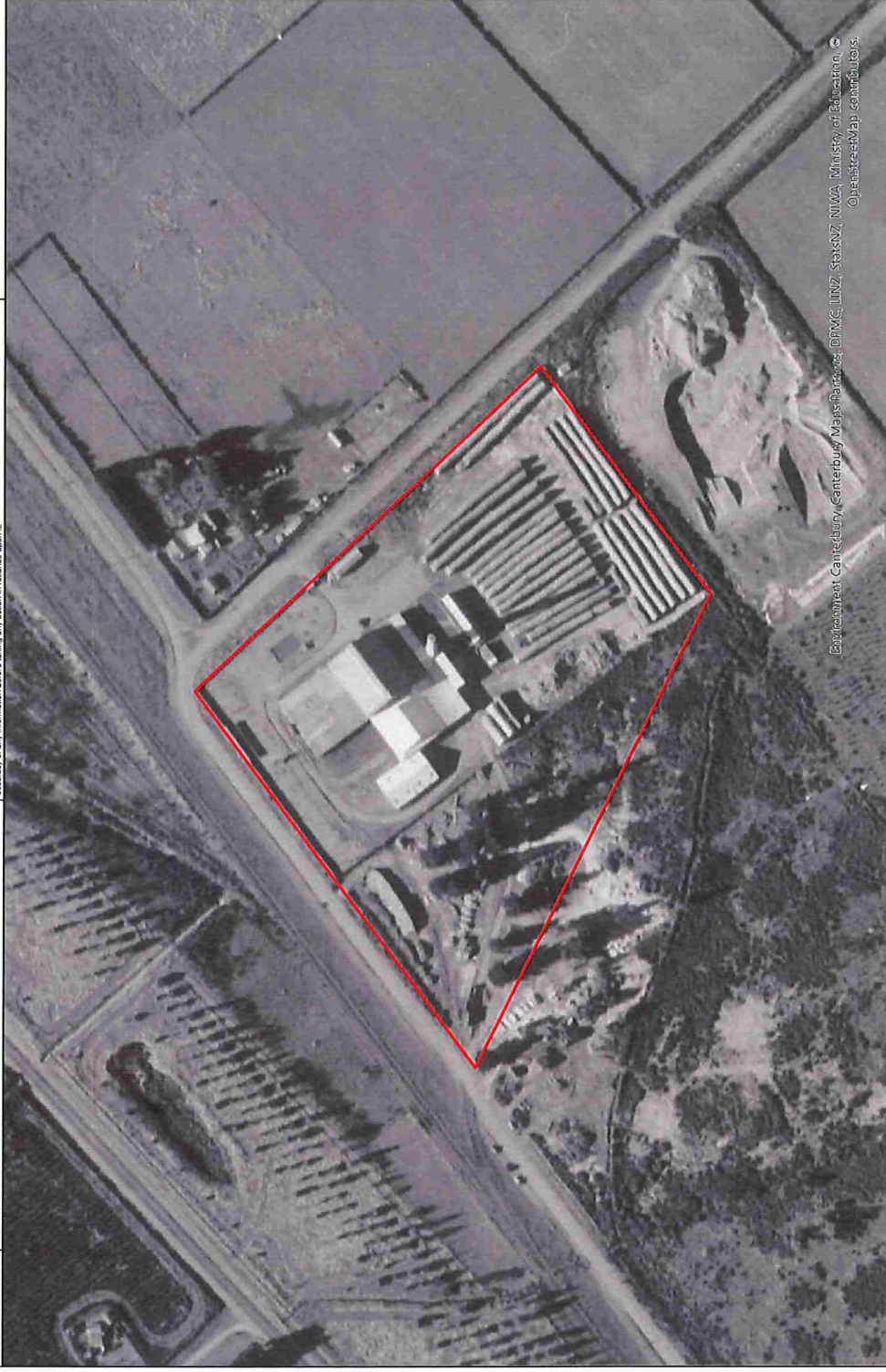
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Scale: 1:2,000 @A4

Map Created by MEL on 23/06/2025 at 10:54 AM

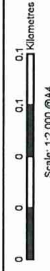


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1955-1959 Historical Aerial

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1960 Historical Aerial Photograph

8 Glassworks Road, Netherby, Ashburton, Canterbury

Sourced from Retrolens



1975-1979 Historical Aerial

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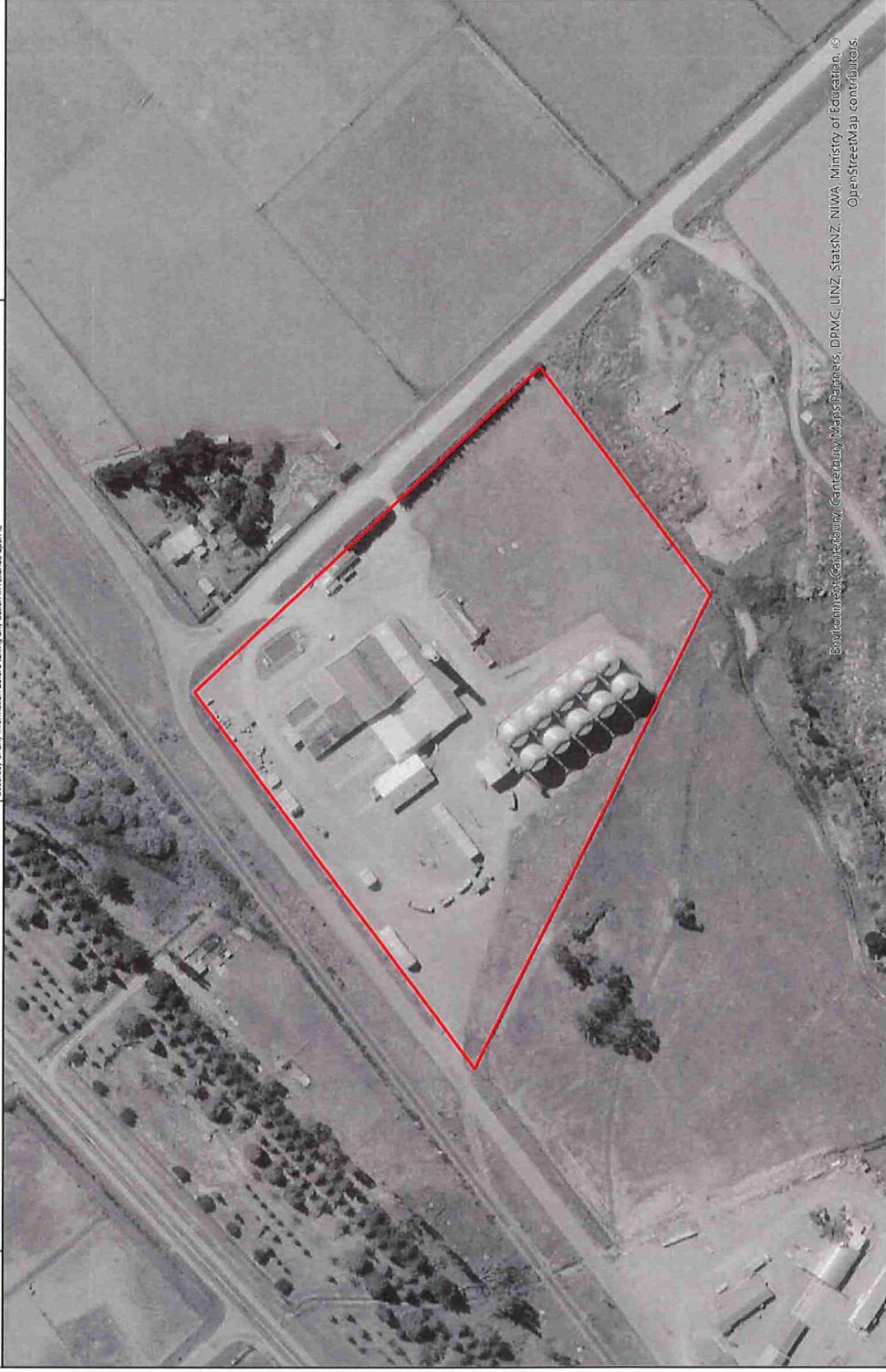
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0 0 0 0.1 0.1 Kilometres

Scale: 1:2,000 @A4

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1980-1984 Historical Aerial

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Scale: 1:2,000 @A4
Map Created by MEL on 23/06/2025 at 10:56 AM

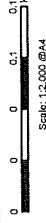


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1985-1989 Historical Aerial

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1995-1999 Historical Aerial

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2004-2010 Historical Aerial

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Scale: 1:2,000 @M4

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2010-2014 Historical Aerial

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Scale: 1:2,000 @A4
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2015-2019 Historical Aerial

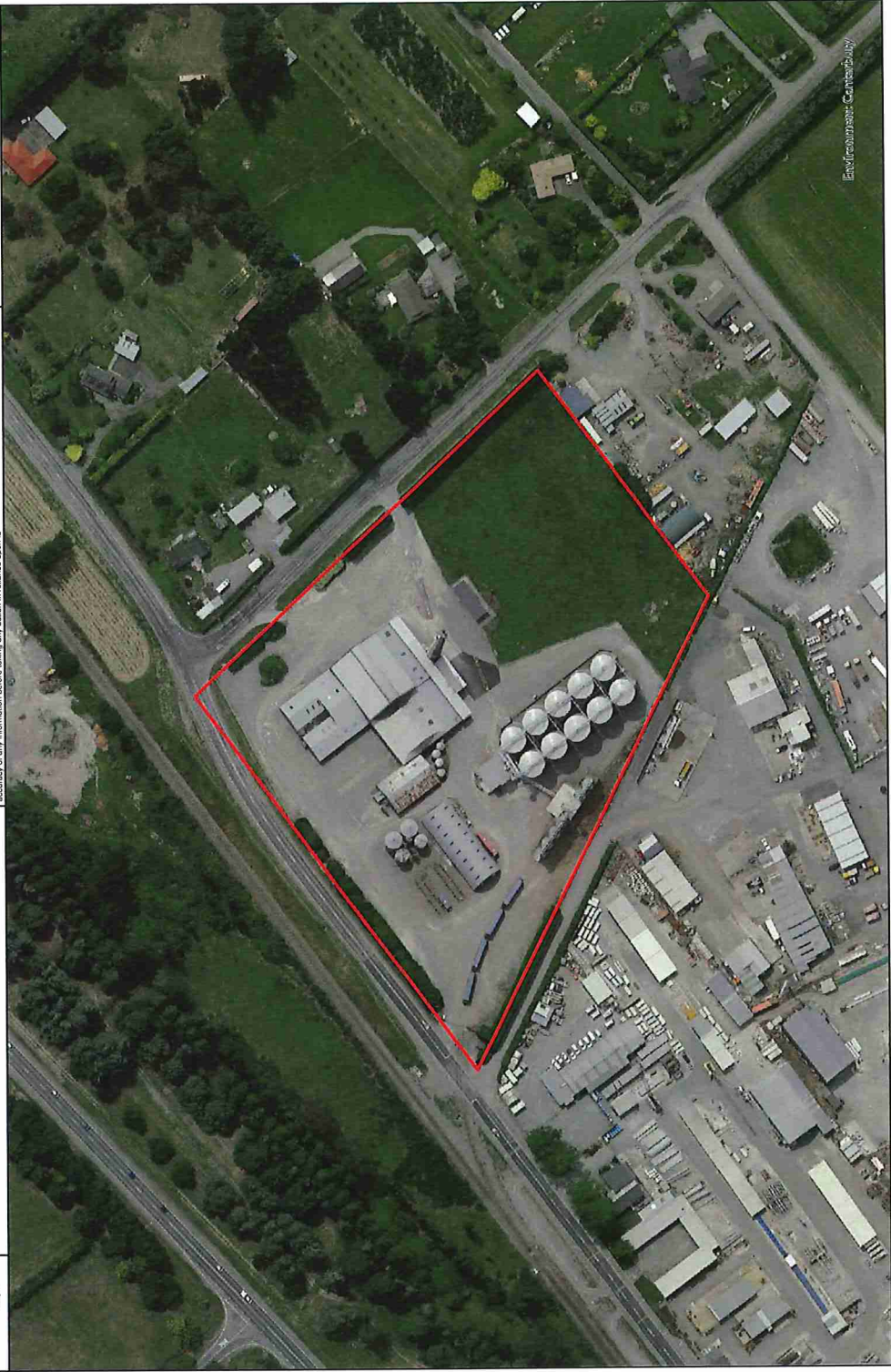
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Scale: 1:2,000 @A4
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Appendix E - Site Inspection Plan

