

FIRE INVESTIGATION REPORT

1 Balmoral Drive, Tokoroa, South Waikato District



Incident Information:

F3860442

Suspicious Fire

1:51 a.m. 19 November 2023

Report completed by:

Stu Cradock, Specialist Fire Investigator

Fire and Emergency New Zealand, Nga Tai ki te Puku

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Author's brief

My full name is Stuart Ian CRADOCK.

I am a Specialist Fire Investigator for Fire and Emergency New Zealand (Fire and Emergency).

I have served with the New Zealand Fire Service, now Fire and Emergency, since 1978. I have been responsible for determining the origin and cause of fires since 2003.

I have completed the following training courses:

Fire Investigation 1 - 2001

Fire Investigation 2 - 2005

I have attained the following tertiary level qualification

Advanced Diploma in Public Safety (Fire Investigation), Canberra Institute of Technology - 2014

I have attained the following qualifications by examination:

NZ Fire Service - First Class Fireman 1984

NZ Fire Service - Senior Fireman 1989

NZ Fire Service - Station Officer 1999

NZ Fire Service - Senior Station Officer 2004

NZ Fire Brigades Institute - Associate Member 1993

NZ Fire Brigades Institute – Member 1996

NZ Fire Brigades Institute – Fellow 2004

The Institution of Fire Engineers - Graduate 2016

I have the following memberships:

Membership of the Institution of Fire Engineers

I was appointed as a Fire and Emergency New Zealand Inspector under Section 166 of the Fire and Emergency New Zealand Act 2017 on 1 July 2017.

As a Specialist Fire Investigator for Fire and Emergency I am required to respond to significant fires in accordance with Operational Instructions with the principal objectives being to co-ordinate, supervise or undertake investigations into major and serious fires, including fatal fires, by determining the point of origin of a fire and from this establishing the cause of a fire.

I have previously given testimony in Coroners Inquests and the District Court.

I have read the Code of Conduct for Expert Witnesses, Schedule 4 of the High Court Rules 2016, and agree to abide with them.

Executive summary

The Fire and Emergency Communications Centre received a 111-call advising the Trees Tavern, 1 Balmoral Drive, Tokoroa, was on fire at 1:51 a.m. on the morning of 19 November 2023.

Two fire appliances were dispatched from Tokoroa Fire Station. (Tokoroa 871 and 877).

Witness 1, the OIC of the first arriving fire appliance, transmitted a K99 (Property fire - well involved) radio message, and then a 'transmit 3rd alarm' radio message on their arrival at the scene to request further firefighting resources.

At 2:07 a.m., I was paged as the on-call Specialist Fire Investigator as a predetermined response for a third alarm fire.

Based on the evidence available at the time of this investigation, the cause of this incident has been recorded as undetermined, with three possible scenarios considered:

- Incendiary Fire
- Carelessness with a cigarette
- Carelessness with a naked flame

There was no evidence present that indicated the fires had resulted from an electrical event.

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Terms of reference

Sponsor

Jeff Maunder – District Manager.

Incident background

The Officer in Charge (OIC) of this incident considered the circumstances of the fire met the criteria requiring the attendance of a Specialist Fire Investigator (SFI) as per National Commander's Instruction P3. The OIC made this request through the Fire and Emergency Communications Centre who summoned the author of this report to attend the incident as an SFI.

The reason for the attendance of a SFI was: Suspicious Fire.

Objectives

Determine the origin and cause of the fire through best practice analysis and investigative processes.

Scope

- Focus on this incident specifically but consider historical data and information from this site and other similar incidents, and other incident information that may have a bearing or contributed to the outcome.
- Analysis of the circumstances and factors, including the occupant(s) actions, building fire loading and design, fire protection/suppression systems performance, circumstances of the fire, and result of the fire.
- Where evidence or suspicion of a deliberate fire start is discovered, the matter is to be referred to the Police who will then have the responsibility for further investigation. The Police may request that the Fire and Emergency SFI assist with the origin and cause determination.
- Produce a completed report for the report sponsor outlining all relevant findings.

Description and use of building

The Trees Tavern was located at the intersection of SH 1 and Balmoral Drive, Tokoroa, and had three separate businesses within the building.

Trees Tavern

The Tavern was on the north side of the building and included a gambling room, two bars, and a restaurant.

Legal Description

Lot 1 DP 304450

Parcel ID 6552610

Club 865

The club was on the southeast end of the structure.

Black Bull Liquor outlet

Black Bull Liquor was on the north side of the Club 865.

The Trees Tavern building was about 1538 sqm and was constructed on a concrete floor with timber framing, multiple external walls, aluminium/timber joinery, and a long-run iron roof.

The internal wall linings and ceilings were a mixture of products.

Heating:

The primary source was central heating.

Fire Protection:

There was an old interconnected manual fire alarm throughout.

There was no automatic fire protection installed.



Image 1: Trees Tavern. (Image courtesy of Police.)

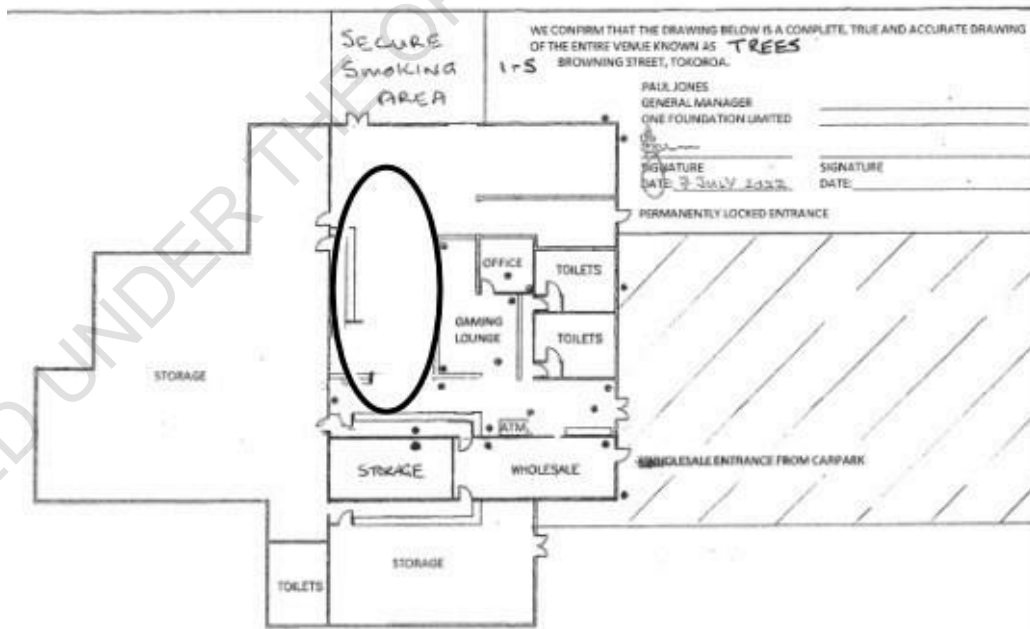


Image 2: Floor plan layout. Facing North.

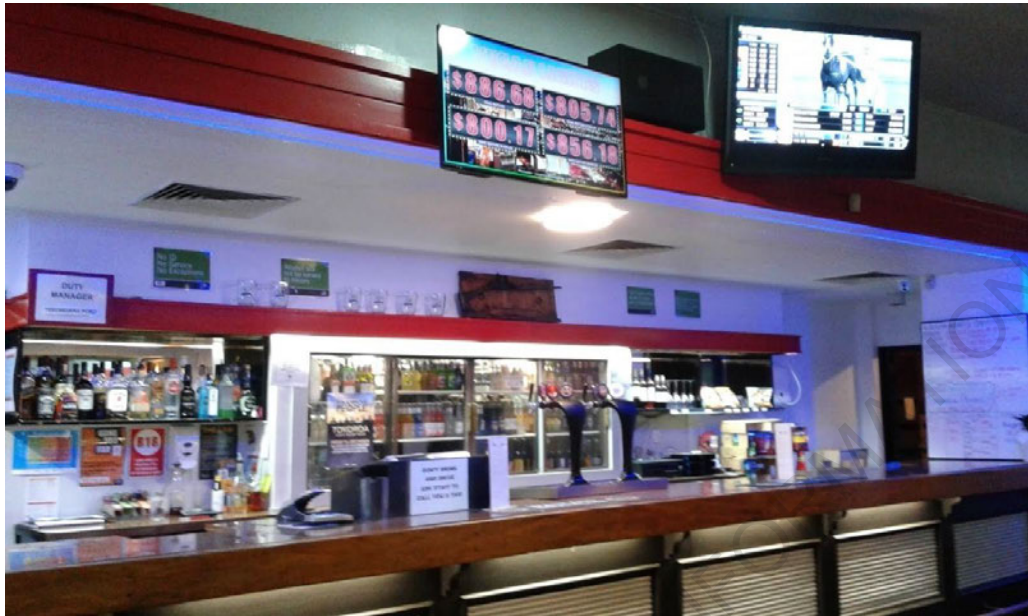


Image 3: Bar on West wall of Trees Tavern. (Image courtesy of Facebook.)

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Pre-incident events

The Trees Tavern lost its liquor license in about 2021. It was subsequently closed and placed on the market.

The Trees Tavern was purchased in February 2022, and due to the difficulty of obtaining a liquor license to operate, the Tavern had yet to open. The Tavern was recently placed back on the market.

The weather at the time of the fire was overcast, with no signs of adverse weather or lightning strikes.

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Discovery of fire

The Fire and Emergency Communications Centre received a 111-call advising that the Trees Tavern, 1 Balmoral Drive, Tokoroa, was on fire at 1:51 a.m. on November 19, 2023.

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Fire and Emergency New Zealand response

Information sourced from Fire and Emergency Computer Aided Despatch Incident Report.

Incident Number	F3860442	
Call Type	Structure fire	
Method call received	111 Telephone	
Incident date	19 Nov 2023	
Incident time	1:51:49 a.m.	
1st Arrival	TOKO871	2:02:29 a.m.
2nd Arrival	TOKO877	2:03:50 a.m.

The Fire and Emergency Communications Centre received a 111-call advising that the Trees Tavern, 1 Balmoral Drive, Tokoroa, was on fire at 1:51 a.m. on November 19, 2023.

Two fire appliances were dispatched from Tokoroa Fire Station. (Tokoroa 871 and 877).

Witness 1, the OIC of the first arriving fire appliance, transmitted a K99 (Property fire - well involved) radio message and then a 'transmit a 3rd alarm' radio message on their arrival at the scene to request further firefighting resources.

Witness 1 transmitted a situation report (SITREP) radio message "1 Derelict building 60 x 60m well involved crews doing external offensive attack LPD (low pressure hose line) can you confirm that an aerial is attached".

At 2:07 a.m., I was paged as the on-call Specialist Fire Investigator as a predetermined response for a 3rd alarm fire.

At 3:18 a.m., the priority message was sent "Transmit 4th alarm."



Photo 1: Showing fire inside the southwest corner of the tavern on arrival of firefighters. (Photo courtesy of Police.)



Photo 2: Tress Tavern fully involved in fire (Photo courtesy of stuff.co.nz.)

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Process of investigation

Interviews

I interviewed witnesses during the post incident investigation and that information informs part of this report.

Scene Examination

Exterior Preliminary Examination

I commenced an exterior preliminary examination from the front (east) of the tavern facing SH1. The fire inside the tavern was still evident and would take some time to extinguish. I noted that some of the doors along the front of the tavern had been forced open by the firefighters.

I moved around to the northeast side of the tavern which was known as Club 865 and the fire within this area was still intense and still developing.

The fire in the south side of the Club 865 and the rear storage was also still developing.



Photo 3: Trees Tavern frontage facing SH 1 (East).



Photo 4: Southeast side of tavern (Club 865).



Photo 5: Southside of tavern. Rear of Club 865.

SCENE EXAMINATION

Northwest side of tavern

The scene examination commenced from the north side of the tavern which was facing Balmoral Drive.

I examined the covered smoking area including the external aluminium sliding doors that open from the tavern into the smoking area. There was no evidence of forced entry from the sliding doors along the north wall and the sliding doors glass panes were still intact.

I moved to the northwest corner of the tavern adjacent the smoking area and noted a single damaged door that opened into the kitchen area. Reviewing the damage, it appeared to have happened post fire which was clarified as fire fighters forcing this door open on their arrival.



Photo 7: North side of Tavern. (Photo courtesy of Police.)



Photo 8: Single door forced opened by firefighters. Arrow depicting damaged door. (Photo courtesy of Police.)

Northwest corner of tavern rear entrance

I moved the rear entrance to the tavern which was accessed through a small passage in the southwest corner. This entrance provided access to the rear of the tavern on the left, which was the east side of the passage.

The right side of the passage provided access through a set of doors into a large storage room. I noted that the double doors to the storeroom were damaged and open during my examination.

At the end of the passage was a double set of doors that provided access to the refrigeration/generator room. The double doors to the refrigeration room were still locked and secure.

Witness 1 (OIC) confirmed that when they arrived at the fire, the doors off the passage were all secure and locked.



Photo 9: "A" Northwest corner of tavern rear entrance. (Photo courtesy of Police.)



Photo 10: Internal passage to rear of tavern. "B" Entrance to kitchen. "C" Entrance door to inside rear of the tavern.



Photo 11: "D" refrigeration/generator. "E" Entrance doors to storeroom.

West side of Tavern

I moved around to the rear, west side of the tavern. I noted that the west side of the tavern had been the least damaged by fire and the fire patterns showed that the fire had spread to the west side of the tavern.

There was a steel gate was in a partially opened position. I examined the gate, chain, and padlock. I noted that a chain link that was attached to the timber post that was against the building had been cut. I checked with the firefighters who were working within this area, and they confirmed that they did not cut the chain to the gate.

9(2)(ba)(i)



Photo 12: West side of the tavern. (Photo courtesy of Police.)



Photo 13: The gate chain was cut prior to fire fighters arrival. Northwest corner of the tavern. (Photo courtesy of Police.)

Southwest corner of tavern

In the rear of the Southwest corner of the tavern, I noted a set of four windows in the opened position, and the right-side window aluminium joinery sash showed damage consistent to having been forced open.

9(2)(ba)(i)

I noted other windows within this area of the tavern were slightly opened, but these windows were prevented from opening further due to security staves preventing entry. There was no evident damage to the windows held open by security staves.

I examined windowpane glass on the ground below the four windows, and I did not locate any evidence of clean broken glass that could indicate there was broken glass before the fire.

Under the four windows, I noted a red plastic crate. Further investigation confirmed that this crate was likely to have been placed under the windows by firefighters.



Photo 14: Four opened windows southwest corner of tavern. (Photo courtesy of Police).



Photo 15: Right damaged aluminium window sash. The arrow depicts a red plastic crate. (Photo courtesy of Police).

Club 865 South wall

The Club 865 south wall runs towards the east end of the building facing SH 1. Some of the window sashes along the south wall were slightly opened and security staves were installed.



Photo 16: South wall of Club 865

East side of tavern

I moved to the front (east side) of the tavern facing SH 1 and commenced the examination from the southern end of the tavern.

Witness 1 confirmed that the fire was not visible on the east side of the tavern on their arrival.

Club 865

On the southeast corner of tavern, I examined the exterior of the Club 865.

I examined the timber doors inside the entrance to the club and aluminium window frames, including the glass windowpanes, and there was no evidence of forced entry.

I viewed the interior of the club from the windows and doors. While the interior damage was extensive, I confirmed that the fire had spread to the club and had not originated inside. Witness 1 confirmed that the fire was not visible inside the club on their arrival.



Photo 17: East side of tavern facing SH 1. (Photo courtesy of Police).

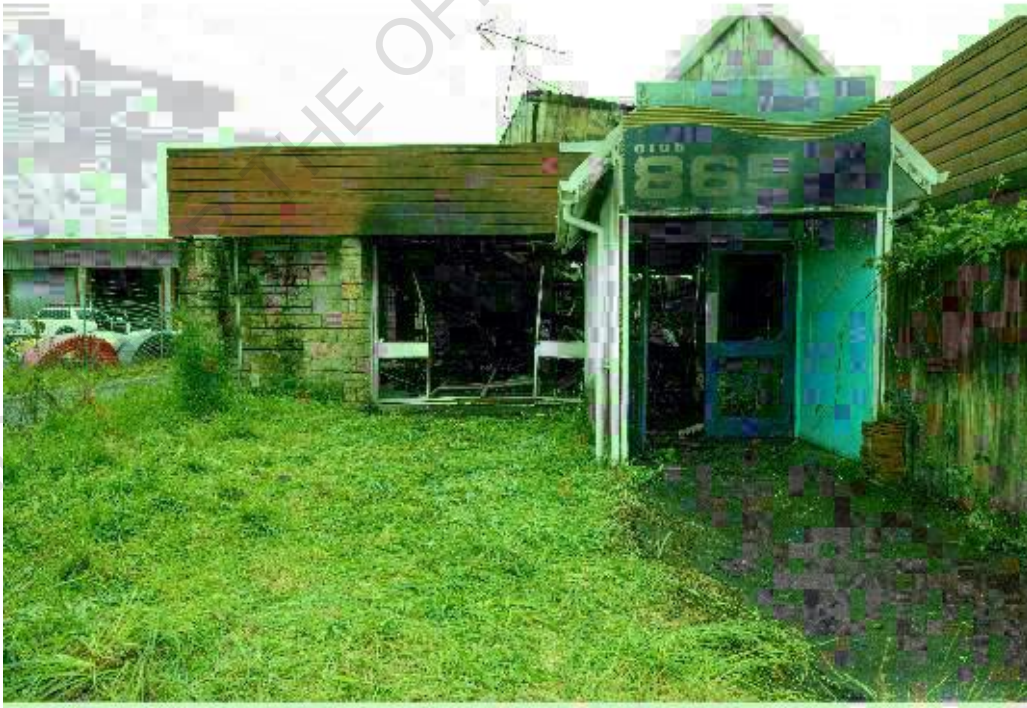


Photo 17: Club 865 on the south side of the tavern.



Photo 18: View of the aluminium window and interior of Club 865. (Photo courtesy of Police).



Photo 19: Interior of Club 865. (Photo courtesy of Police).

Black Bull Liquor

To the right of Club 865, facing SH 1, I viewed the interior of the Black Bull liquor shop. On the right of the liquor outlet was the main entrance to the tavern, which provided access to the south side of the tavern.

Firefighters had forced the door, which was closed and locked, to open during fire extinguishment.

Reviewing the fire damage within the outlet, I believe the fire had spread to the liquor shop and had not originated inside.

I noted there were electrical appliances, including freezers, inside the outlet. Given the electricity was not operating inside the tavern beyond the electrical cabinet, I ruled out an electrical event inside the Black Bull Liquor store.

The Back Bull Liquor outlet was eliminated as an area of origin.



Photo 20: "F" Black bull liquor outlet. "G" Entrance to the tavern. (Photo courtesy of Police).



Photo 21: Interior of Black Bull Liquor store. (Photo courtesy of Police).

Southeast entrance to tavern

To the right (north side) of the Black Bull liquor outlet I located the 2nd entry door into the tavern. This entry door provided access to the north end of the tavern including the restaurant.

The door into the tavern had been forced opened by firefighters and witness 1 also confirmed that this door was locked on their arrival.

Reviewing fire patterns inside the entrance to the tavern, I was of the opinion that the fire had spread from the west side of the tavern and had not originated inside the entrance.

The south end entrance to the tavern has been eliminated as an area of origin.



Photo 22: Southeast entrance door to tavern. (Photo courtesy of Police).



Photo 23: Southeast entrance to Tavern. (Photo courtesy of Police).

Northeast entrance to tavern

To the right (north side) of the Black Bull liquor outlet I located the 2nd entry door into the Tavern. This entry door provided access to the north end of the tavern including the restaurant.

The door into the tavern had been forced opened by firefighters and witness 1 also confirmed that this door was locked on their arrival.

Reviewing fire patterns inside the entrance to the tavern, I was of the opinion that the fire had spread from the west side of the tavern and had not originated inside the entrance.

The north end entrance to the tavern has been eliminated as an area of origin.



Photo 24: Northeast entrance to tavern. (Photo courtesy of Police).



Photo 25: Exterior aluminium of restaurant. Photo courtesy of Police.



Photo 26: Interior of the tavern dining room. (Photo courtesy of Police).

Refrigeration room

I examined the refrigeration room at the end of the passage. Examining the electrical components and wiring of the refrigeration units inside the room confirmed the damage was an external source of fire, and no evidence would support an issue with the plant equipment.

I examined the timber framing in the room and confirmed that there was still timber framing present that showed timber that had not been exposed to fire or smoke damage.

I eliminated the refrigeration room as an area of origin.



Photo 27: Refrigeration room.



Photo 28: Arrows depicting timber and shelving that was not fire damaged.

Interior of tavern

I moved into the west side of the tavern which was the location of the two tavern bars and gaming room further to the east towards SH 1. Due to the extensive fire damage and risk of collapse and the amount of debris on the floor, it was not practical to conduct a full internal examination and delay the debris.

I was of the opinion that an internal examination of the tavern to determine the area or point of origin was not credible.

Heavy machinery would be required to make the area safe.



Photo 29: Area in front of the west side tavern bar.



Photo 30: Area if front of the southside tavern bar

Electrical distribution cabinet

I located the electrical cabinet inside the tavern on the south side of the refrigeration room that was off the northwest rear passage. Witness 2, 9(2)(a) [REDACTED], 9(2)(ba)(i) [REDACTED]

I examined the distribution cabinet inside the room and noted there was one large lever on the left side in the "Off" position (the lever down is "Off"). 9(2)(ba)(i) [REDACTED]

I noted a 2nd set of two levers on the cabinet's right side. The levers were in the "on" position (lever up is in the "On" position). The two right levers were subsidiary. 9(2)(ba)(i) [REDACTED]

Corporate Risks (Contracted Insurance Investigators) engaged an electrical engineer to survey the electrical cabinet, and they confirmed that the power was isolated at the cabinet; therefore, there was no electricity beyond the cabinet to the tavern before the fire.

I examined the electrical cabinet, electrical components, and the area surrounding the cabinet. There were no fire patterns to support a fire originating from the electrical cabinet.

The electrical distribution cabinet was eliminated from the scene examination.



Photo 31: Tavern electrical distribution cabinet. "H" is the leading electrical on/off lever. The oval depicts the two subsidiary levers in the "On" position.



Photo 32. "I" Main electrical distribution cabinet lever was in the "Off" position.

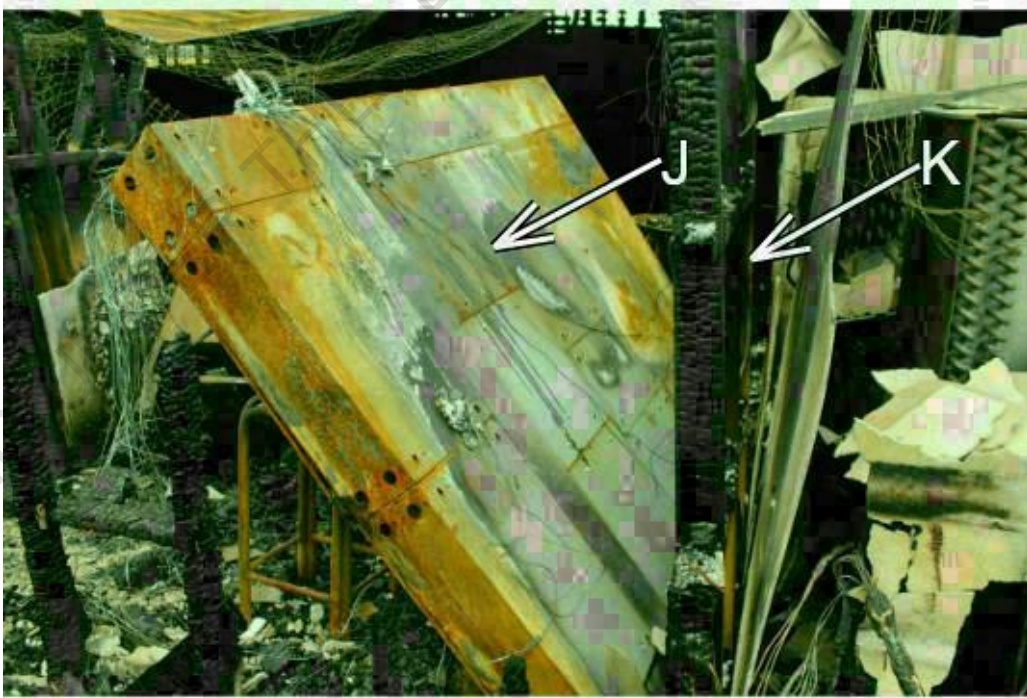


Photo 33: "J" Rear of electrical cabinet. "K" Timber framing behind cabinet still intact.

Interior of Tavern - Post Investigation

I returned to the tavern on 21 November 2023 once the insurance company had engaged a company to remove the iron and debris and made a further scene examination.

After reviewing the fire damage, it was still not credible to determine a defined area or point of origin to an acceptable level.

I was provided drone footage after the debris had been cleared, providing an aerial view of a large area with the most damage appearing to be inside the tavern. (Refer to Photo 37).

Due to the extensive fire damage, I was unable to determine the cause of the fire to an acceptable level. I concluded that there were 3 possible causes within the tavern.

- Incendiary
- Carelessness with a cigarette
- Carelessness with a naked flame



Photo 34: Interior of tavern after the removal of iron and debris.



Photo 35: Northwest of tavern looking towards the kitchen and rear entrance.



Photo 36: Enlarged area of origin. (Photo courtesy of Police).

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Area and point of origin

Area of Origin

I determined that the southwest corner of the tavern was area of origin.

Due to the extensive fire damage throughout the tavern, I could not rule out that there was also other areas of origin to an acceptable level.



Photo 37: Area of origin in the southwest corner of the Tavern. (Photo courtesy of Police).



Photo 38: Area of origin after the removal of the roofing iron. (Photo courtesy of Corporate Risks).



Photo 39: Area of origin looking from South towards the North of the Tavern. (Photo courtesy of Corporate Risks).

Point of Origin

Due to the large, indicated area of origin inside the tavern, it would not be credible to determine the point of origin to an acceptable level.

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Conclusions

Supposed Cause

Based on the evidence available at the time of this investigation, the classification of this incident has been recorded as Undetermined

Based on the evidence available at the time of this investigation, the cause of this incident has been recorded as undetermined, with three possible scenarios considered:

- Incendiary Fire
- Carelessness with a cigarette
- Carelessness with a naked flame

Elimination of Other Possible Causes

An electrical event was eliminated as the power was isolated from the electrical cabinet into the Tavern.

The weather at the time of the fire was overcast with no signs of adverse weather or lightning strikes.

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Report approvals

Investigation and report completed by:

Investigator

Name: Stu Cradock

Job Title: Specialist Fire Investigator

Date: 13 February 2024 07:40p.m.

I confirm the truth and accuracy of this statement. I make the statement with the knowledge that it is to be used in court proceedings. I am aware that it is an offence to make a statement that is known by me to be false or intended by me to mislead.

A technical review of this report has been completed by:

Name: [PEERREVIEWERSNAME-DONOTDELETE]

Job Title: [PEERREVIEWERSRANK-DONOTDELETE]

Date: [PEERREVIEWEDDATE-DONOTDELETE]

This report has been approved by:

Name: [APPROVERSNAME]

Job Title: [APPROVERSRANK]

Date: [APPROVEDDATE]

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Appendix 1: Witness Details

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