CASE OVERVIEW

Fictional intermittent pressure-loss case

Project boundary

An entirely fictional pneumatic test station shows how containment, event reconstruction, competing hypotheses, verification trials and recurrence monitoring can be documented without mistaking correlation, opinion or a successful fix for proof of the original cause.

Reference metrics

17 pressure-loss events in 2,400 cycles = 0.708%; Temporary leak check detects all 17 historic-type events but adds 22 seconds/cycle; Controlled reproduction: 9/10 failures with cracked quick-connect seal vs 0/10 with verified seal; 0 events in 3,000 post-correction cycles; The zero-event pilot supports effectiveness but does not prove indefinite zero risk

Evidence caution

All values are fictional and illustrate documentation logic only.

DEFINE

Completed example | RCA-D01 Problem signal and cust

Question

Create a concise evidence record for problem signal and customer harm within the Define phase of this Root Cause Analysis Project Forms workbook.

Fictional evidence

Fictional case cue: 17 pressure-loss events in 2,400 cycles = 0.708%. Use this only as invented practice data; replace it with controlled project evidence.

Worked record

The fictional team records a bounded problem signal and customer harm entry, identifies the controlled source, states the result and notes the decision consequence.

Decision

Define evidence is accepted only for the fictional route described in this case; unresolved contradictions remain visible.

DEFINE

Completed example | RCA-D02 Problem-solving charter

Question

Authorize the project with a bounded problem, outcome, scope, ownership and decision route.

Fictional evidence

Fictional case cue: Temporary leak check detects all 17 historic-type events but adds 22 seconds/cycle. Use this only as invented practice data; replace it with controlled project evidence.

Worked record

The fictional team records a bounded problem-solving charter entry, identifies the controlled source, states the result and notes the decision consequence.

Decision

Define evidence is accepted only for the fictional route described in this case; unresolved contradictions remain visible.

Completed example | RCA-D03 Problem population bou

Question

Create a concise evidence record for problem population boundary within the Define phase of this Root Cause Analysis Project Forms workbook.

Fictional evidence

Fictional case cue: Controlled reproduction: 9/10 failures with cracked quick-connect seal vs 0/10 with verified seal. Use this only as invented practice data; replace it with controlled project evidence.

Worked record

The fictional team records a bounded problem population boundary entry, identifies the controlled source, states the result and notes the decision consequence.

Decision

Define evidence is accepted only for the fictional route described in this case; unresolved contradictions remain visible.

DEFINE

Completed example | RCA-D04 Operational problem def

Question

Create an operational definition for operational problem definition that two independent reviewers can apply consistently.

Fictional evidence

Fictional case cue: 0 events in 3,000 post-correction cycles. Use this only as invented practice data; replace it with controlled project evidence.

Worked record

The fictional team records a bounded operational problem definition entry, identifies the controlled source, states the result and notes the decision consequence.

Decision

Define evidence is accepted only for the fictional route described in this case; unresolved contradictions remain visible.

Completed example | RCA-M01 Event and defect coding

Question

Create a concise evidence record for event and defect coding within the Measure phase of this Root Cause Analysis Project Forms workbook.

Fictional evidence

Fictional case cue: 17 pressure-loss events in 2,400 cycles = 0.708%. Use this only as invented practice data; replace it with controlled project evidence.

Worked record

The fictional team records a bounded event and defect coding entry, identifies the controlled source, states the result and notes the decision consequence.

Decision

Measure evidence is accepted only for the fictional route described in this case; unresolved contradictions remain visible.

Completed example | RCA-M02 Case identification and t

Question

Create a concise evidence record for case identification and traceability within the Measure phase of this Root Cause Analysis Project Forms workbook.

Fictional evidence

Fictional case cue: Temporary leak check detects all 17 historic-type events but adds 22 seconds/cycle. Use this only as invented practice data; replace it with controlled project evidence.

Worked record

The fictional team records a bounded case identification and traceability entry, identifies the controlled source, states the result and notes the decision consequence.

Decision

Measure evidence is accepted only for the fictional route described in this case; unresolved contradictions remain visible.

Completed example | RCA-M03 Timeline data plan

Question

Define a controlled, reviewable plan for timeline data plan with owners, inputs, timing and acceptance criteria.

Fictional evidence

Fictional case cue: Controlled reproduction: 9/10 failures with cracked quick-connect seal vs 0/10 with verified seal. Use this only as invented practice data; replace it with controlled project evidence.

Worked record

The fictional team records a bounded timeline data plan entry, identifies the controlled source, states the result and notes the decision consequence.

Decision

Measure evidence is accepted only for the fictional route described in this case; unresolved contradictions remain visible.

Completed example | RCA-M04 Measurement-method r

Question

Create a concise evidence record for measurement-method review within the Measure phase of this Root Cause Analysis Project Forms workbook.

Fictional evidence

Fictional case cue: 0 events in 3,000 post-correction cycles. Use this only as invented practice data; replace it with controlled project evidence.

Worked record

The fictional team records a bounded measurement-method review entry, identifies the controlled source, states the result and notes the decision consequence.

Decision

Measure evidence is accepted only for the fictional route described in this case; unresolved contradictions remain visible.

Completed example | RCA-M05 Symptom measurement

Question

Create a concise evidence record for symptom measurement within the Measure phase of this Root Cause Analysis Project Forms workbook.

Fictional evidence

Fictional case cue: The zero-event pilot supports effectiveness but does not prove indefinite zero risk. Use this only as invented practice data; replace it with controlled project evidence.

Worked record

The fictional team records a bounded symptom measurement entry, identifies the controlled source, states the result and notes the decision consequence.

Decision

Measure evidence is accepted only for the fictional route described in this case; unresolved contradictions remain visible.

Completed example | RCA-A01 Detailed event timeline

Question

Create a concise evidence record for detailed event timeline within the Analyze phase of this Root Cause Analysis Project Forms workbook.

Fictional evidence

Fictional case cue: 17 pressure-loss events in 2,400 cycles = 0.708%. Use this only as invented practice data; replace it with controlled project evidence.

Worked record

The fictional team records a bounded detailed event timeline entry, identifies the controlled source, states the result and notes the decision consequence.

Decision

Analyze evidence is accepted only for the fictional route described in this case; unresolved contradictions remain visible.

Completed example | RCA-A02 Cause-and-effect diagra

Question

Create a concise evidence record for cause-and-effect diagram within the Analyze phase of this Root Cause Analysis Project Forms workbook.

Fictional evidence

Fictional case cue: Temporary leak check detects all 17 historic-type events but adds 22 seconds/cycle. Use this only as invented practice data; replace it with controlled project evidence.

Worked record

The fictional team records a bounded cause-and-effect diagram entry, identifies the controlled source, states the result and notes the decision consequence.

Decision

Analyze evidence is accepted only for the fictional route described in this case; unresolved contradictions remain visible.

Completed example | RCA-A03 5 Why chain

Question

Create a concise evidence record for 5 why chain within the Analyze phase of this Root Cause Analysis Project Forms workbook.

Fictional evidence

Fictional case cue: Controlled reproduction: 9/10 failures with cracked quick-connect seal vs 0/10 with verified seal. Use this only as invented practice data; replace it with controlled project evidence.

Worked record

The fictional team records a bounded 5 why chain entry, identifies the controlled source, states the result and notes the decision consequence.

Decision

Analyze evidence is accepted only for the fictional route described in this case; unresolved contradictions remain visible.

Completed example | RCA-A04 Fault-tree logic

Question

Create a concise evidence record for fault-tree logic within the Analyze phase of this Root Cause Analysis Project Forms workbook.

Fictional evidence

Fictional case cue: 0 events in 3,000 post-correction cycles. Use this only as invented practice data; replace it with controlled project evidence.

Worked record

The fictional team records a bounded fault-tree logic entry, identifies the controlled source, states the result and notes the decision consequence.

Decision

Analyze evidence is accepted only for the fictional route described in this case; unresolved contradictions remain visible.

ANALYZE

Completed example | RCA-A05 Competing hypothesis m

Question

Structure evidence for competing hypothesis matrix so patterns can be examined without treating association as proof of cause.

Fictional evidence

Fictional case cue: The zero-event pilot supports effectiveness but does not prove indefinite zero risk. Use this only as invented practice data; replace it with controlled project evidence.

Worked record

The fictional team records a bounded competing hypothesis matrix entry, identifies the controlled source, states the result and notes the decision consequence.

Decision

Analyze evidence is accepted only for the fictional route described in this case; unresolved contradictions remain visible.

Completed example | RCA-I01 Corrective-action opportu

Question

Create a concise evidence record for corrective-action opportunity list within the Improve phase of this Root Cause Analysis Project Forms workbook.

Fictional evidence

Fictional case cue: 17 pressure-loss events in 2,400 cycles = 0.708%. Use this only as invented practice data; replace it with controlled project evidence.

Worked record

The fictional team records a bounded corrective-action opportunity list entry, identifies the controlled source, states the result and notes the decision consequence.

Decision

Improve evidence is accepted only for the fictional route described in this case; unresolved contradictions remain visible.

Completed example | RCA-I02 Containment-to-correctio

Question

Create a concise evidence record for containment-to-correction transition within the Improve phase of this Root Cause Analysis Project Forms workbook.

Fictional evidence

Fictional case cue: Temporary leak check detects all 17 historic-type events but adds 22 seconds/cycle. Use this only as invented practice data; replace it with controlled project evidence.

Worked record

The fictional team records a bounded containment-to-correction transition entry, identifies the controlled source, states the result and notes the decision consequence.

Decision

Improve evidence is accepted only for the fictional route described in this case; unresolved contradictions remain visible.

IMPROVE

Completed example | RCA-I03 Solution-risk assessment

Question

Identify and bound risks related to solution-risk assessment before the team changes the process.

Fictional evidence

Fictional case cue: Controlled reproduction: 9/10 failures with cracked quick-connect seal vs 0/10 with verified seal. Use this only as invented practice data; replace it with controlled project evidence.

Worked record

The fictional team records a bounded solution-risk assessment entry, identifies the controlled source, states the result and notes the decision consequence.

Decision

Improve evidence is accepted only for the fictional route described in this case; unresolved contradictions remain visible.

Completed example | RCA-I04 Corrective-action selecti

Question

Create a concise evidence record for corrective-action selection within the Improve phase of this Root Cause Analysis Project Forms workbook.

Fictional evidence

Fictional case cue: 0 events in 3,000 post-correction cycles. Use this only as invented practice data; replace it with controlled project evidence.

Worked record

The fictional team records a bounded corrective-action selection entry, identifies the controlled source, states the result and notes the decision consequence.

Decision

Improve evidence is accepted only for the fictional route described in this case; unresolved contradictions remain visible.

CONTROL

Completed example | RCA-C01 Corrective-action contro

Question

Define a controlled, reviewable plan for corrective-action control plan with owners, inputs, timing and acceptance criteria.

Fictional evidence

Fictional case cue: 17 pressure-loss events in 2,400 cycles = 0.708%. Use this only as invented practice data; replace it with controlled project evidence.

Worked record

The fictional team records a bounded corrective-action control plan entry, identifies the controlled source, states the result and notes the decision consequence.

Decision

Control evidence is accepted only for the fictional route described in this case; unresolved contradictions remain visible.

CONTROL

Completed example | RCA-C02 Problem recurrence mon

Question

Monitor problem recurrence monitoring with an explicit trigger, reaction and accountable owner.

Fictional evidence

Fictional case cue: Temporary leak check detects all 17 historic-type events but adds 22 seconds/cycle. Use this only as invented practice data; replace it with controlled project evidence.

Worked record

The fictional team records a bounded problem recurrence monitoring entry, identifies the controlled source, states the result and notes the decision consequence.

Decision

Control evidence is accepted only for the fictional route described in this case; unresolved contradictions remain visible.

CONTROL

Completed example | RCA-C03 Leading-indicator monito

Question

Monitor leading-indicator monitoring with an explicit trigger, reaction and accountable owner.

Fictional evidence

Fictional case cue: Controlled reproduction: 9/10 failures with cracked quick-connect seal vs 0/10 with verified seal. Use this only as invented practice data; replace it with controlled project evidence.

Worked record

The fictional team records a bounded leading-indicator monitoring entry, identifies the controlled source, states the result and notes the decision consequence.

Decision

Control evidence is accepted only for the fictional route described in this case; unresolved contradictions remain visible.

CONTROL

Completed example | RCA-C04 Reaction plan

Question

Define a controlled, reviewable plan for reaction plan with owners, inputs, timing and acceptance criteria.

Fictional evidence

Fictional case cue: 0 events in 3,000 post-correction cycles. Use this only as invented practice data; replace it with controlled project evidence.

Worked record

The fictional team records a bounded reaction plan entry, identifies the controlled source, states the result and notes the decision consequence.

Decision

Control evidence is accepted only for the fictional route described in this case; unresolved contradictions remain visible.