



# Lucky Smart Contract Security Audit

<u>TechRate</u> September, 2021

## **Disclaimer**

This is a limited report on our findings based on our analysis, in accordance with good industry practice as at the date of this report, in relation to cybersecurity vulnerabilities and issues in the framework and algorithms based on smart contracts, the details of which are set out in this report. In order to get a full view of our analysis, it is crucial for you to read the full report. While we have done our best in conducting our analysis and producing this report, it is important to note that you should not rely on this report and cannot claim against us on the basis of what it says or doesn't say, or how we produced it, and it is important for you to conduct your own independent investigations before making any decisions. We go into more detail on this in the below disclaimer below – please make sure to read it in full.

DISCLAIMER: By reading this report or any part of it, you agree to the terms of this disclaimer. If you do not agree to the terms, then please immediately cease reading this report, and delete and destroy any and all copies of this report downloaded and/or printed by you. This report is provided for information purposes only and on a non-reliance basis, and does not constitute investment advice. No one shall have any right to rely on the report or its contents, and TechRate and its affiliates (including holding companies, shareholders, subsidiaries, employees, directors, officers and other representatives) (TechRate) owe no duty of care towards you or any other person, nor does TechRate make any warranty or representation to any person on the accuracy or completeness of the report. The report is provided "as is", without any conditions, warranties or other terms of any kind except as set out in this disclaimer, and TechRate hereby excludes all representations, warranties, conditions and other terms (including, without limitation, the warranties implied by law of satisfactory quality, fitness for purpose and the use of reasonable care and skill) which, but for this clause, might have effect in relation to the report. Except and only to the extent that it is prohibited by law, TechRate hereby excludes all liability and responsibility, and neither you nor any other person shall have any claim against TechRate, for any amount or kind of loss or damage that may result to you or any other person (including without limitation, any direct, indirect, special, punitive, consequential or pure economic loss or damages, or any loss of income, profits, goodwill, data, contracts, use of money, or business interruption, and whether in delict, tort (including without limitation negligence), contract, breach of statutory duty, misrepresentation (whether innocent or negligent) or otherwise under any claim of any nature whatsoever in any jurisdiction) in any way arising from or connected with this report and the use, inability to use or the results of use of this report, and any reliance on this report.

The analysis of the security is purely based on the smart contracts alone. No applications or operations were reviewed for security. No product code has been reviewed.

# **Background**

TechRate was commissioned by Lucky to perform an audit of smart contracts:

- https://bscscan.com/address/0xB6FE67c8a28d50c50f65fDb5847Ee4477c5505 68
- https://bscscan.com/address/0x4B6c8959a41475347226d51f37eC9a1E09F39a 92
- https://bscscan.com/address/0x75c8Ec8884a9FC4D8EAcf2599fDBa08B7D4F6 53B

The purpose of the audit was to achieve the following:

- Ensure that the smart contract functions as intended.
- Identify potential security issues with the smart contract.

The information in this report should be used to understand the risk exposure of the smart contract, and as a guide to improve the security posture of the smart contract by remediating the issues that were identified.

. . . . . . . . . .

10001

101000001

1 1 0 1 1 1 0 1 1 0 0 0 1 1 0 0 1

10000000111110110010

100 11011

00001000110101

11001000100000

000100101000

0010011101

1000010

# **Issues Checking Status**

Issu	e description	Checking status
1. Com	piler errors.	Passed
	e conditions and Reentrancy. Cross-function race ditions.	Passed
3. Poss	sible delays in data delivery.	Passed
4. Orac	cle calls.	Passed
5. Fron	nt running.	Passed
6. Time	estamp dependence.	Passed
7. Integ	ger Overflow and Underflow.	Passed
8. DoS	with Revert.	Passed
9. DoS	with block gas limit.	Low issues
10. Meth	nods execution permissions.	Passed
11. Eco	nomy model of the contract.	Passed
12. The	impact of the exchange rate on the logic.	Passed
13. Priva	ate user data leaks.	Passed
14. Mali	cious Event log.	Passed
15. Sco	oing and Declarations.	Passed
16. Unin	nitialized storage pointers.	Passed
17. Arith	nmetic accuracy.	Passed
18. Desi	gn Logic.	Passed
19. Cros	ss-function race conditions.	Passed
20. Safe usag	open Zeppelin contracts implementation and ge.	Passed
21. Fallk	pack function security.	Passed

### **Security Issues**

High Severity Issues

No high severity issues found.

No medium severity issues found.

- Low Severity Issues
  - 1. Block gas limit

Issue:

The massUpdatePools() function can fail due to block gas limit if the pool size is too big.

#### **Notes:**

- User rewards not minted when Lucky reaches capitalization, but dev rewards are minted.
- Contracts contain interfaces that are not audited.

#### **Owner privileges:**

- Owner can change migrator.
- Owner can change dev address.
- Owner can transfer ownership.
- Owner can change luckyPerBlock.

#### Conclusion

Smart contracts contain low severity issues!

#### TechRate note:

Please check the disclaimer above and note, the audit makes no statements or warranties on business model, investment attractiveness or code sustainability. The report is provided for the only contract mentioned in the report and does not include any other potential contracts deployed by Owner.





