



KISHIELD

Security Audit

AutoApy Token

March 26, 2022



Table of Contents

1 Audit Summary

2 Project Overview

2.1 Token Summary

2.2 Main Contract Assessed

3 Smart Contract Vulnerability Checks

4 Contract Ownership

4.1 Privileged Functions

5 Important Notes To The Users

6 Findings Summary

6.1 Classification of Issues

6.1 Findings Table

01 Variables could be declared as constant

02 Public function that could be declared external

03 Division before Multiplication

7 Statistics

7.1 Liquidity

7.2 Token Holders

7.3 Liquidity Holders

8 Liquidity Ownership

9 Disclaimer



Audit Summary

This report has been prepared for AutoApy Token on the Binance Chain network. KISHIELD provides both client-centered and user-centered examination of the smart contracts and their current status when applicable. This report represents the security assessment made to find issues and vulnerabilities on the source code along with the current liquidity and token holder statistics of the protocol.

A comprehensive examination has been performed, utilizing Cross Referencing, Static Analysis, In-House Security Tools, and line-by-line Manual Review.

The auditing process pays special attention to the following considerations:

- Ensuring contract logic meets the specifications and intentions of the client without exposing the user's funds to risk.
- Testing the smart contracts against both common and uncommon attack vectors.
- Inspecting liquidity and holders statistics to inform the current status to both users and client when applicable.
- Assessing the codebase to ensure compliance with current best practices and industry standards.
- Verifying contract functions that allow trusted and/or untrusted actors to mint, lock, pause, and transfer assets.
- Thorough line-by-line manual review of the entire codebase by industry experts.

Project Overview

Token Summary

Parameter	Result
Address	0x6f51e9bfd7834651ce88AB7D2D01115bFD1Aac77
Name	AutoApy
Token Tracker	AutoApy (AutoApy)
Decimals	5
Supply	380,873.46,044
Platform	Binance Chain
compiler	v0.7.6+commit.7338295f
Optimization	Yes with 200 runs
LicenseType	Unlicense
Language	Solidity
Codebase	https://bscscan.com/ address/0x6f51e9bfd7834651ce88AB7D2D01115bFD1Aac77
Url	https://autoapy.com/

Main Contract Assessed

Name	Contract	Live
AutoApyGame.sol	0x6f51e9bfd7834651ce88AB7D2D01115bFD1Aac77	Yes

Smart Contract Vulnerability Checks

Vulnerability	Automatic Scan	Manual Scan	Result
Unencrypted Private Data On-Chain	Complete	Complete	✓ Low / No Risk
Code With No Effects	Complete	Complete	✓ Low / No Risk
Message call with hardcoded gas amount	Complete	Complete	✓ Low / No Risk
Hash Collisions With Multiple Variable Length Arguments	Complete	Complete	✓ Low / No Risk
Unexpected Ether balance	Complete	Complete	✓ Low / No Risk
Presence of unused variables	Complete	Complete	✓ Low / No Risk
Right-To-Left-Override control character (U+202E)	Complete	Complete	✓ Low / No Risk
Typographical Error	Complete	Complete	✓ Low / No Risk
DoS With Block Gas Limit	Complete	Complete	✓ Low / No Risk
Arbitrary Jump with Function Type Variable	Complete	Complete	✓ Low / No Risk
Insufficient Gas Griefing	Complete	Complete	✓ Low / No Risk
Incorrect Inheritance Order	Complete	Complete	✓ Low / No Risk
Write to Arbitrary Storage Location	Complete	Complete	✓ Low / No Risk
Requirement Violation	Complete	Complete	✓ Low / No Risk
Missing Protection against Signature Replay Attacks	Complete	Complete	✓ Low / No Risk
Weak Sources of Randomness from Chain Attributes	Complete	Complete	✓ Low / No Risk

Vulnerability	Automatic Scan	Manual Scan	Result
Authorization through tx.origin	Complete	Complete	✓ Low / No Risk
Delegatecall to Untrusted Callee	Complete	Complete	✓ Low / No Risk
Use of Deprecated Solidity Functions	Complete	Complete	✓ Low / No Risk
Assert Violation	Complete	Complete	✓ Low / No Risk
Reentrancy	Complete	Complete	✓ Low / No Risk
Unprotected SELFDESTRUCT Instruction	Complete	Complete	✓ Low / No Risk
Unprotected Ether Withdrawal	Complete	Complete	✓ Low / No Risk
Unchecked Call Return Value	Complete	Complete	✓ Low / No Risk
Outdated Compiler Version	Complete	Complete	✓ Low / No Risk
Integer Overflow and Underflow	Complete	Complete	✓ Low / No Risk
Function Default Visibility	Complete	Complete	✓ Low / No Risk

Contract Ownership

The contract ownership of AutoApy is not currently renounced. The ownership of the contract grants special powers to the protocol creators, making them the sole addresses that can call sensible ownable functions that may alter the state of the protocol.

The current owner is the address 0xaED5bd7930EaBCB7F9846776e36685c1624b534e which can be viewed from:
[HERE](#)

The owner wallet has the power to call the functions displayed on the privileged functions chart below, if the owner wallet is compromised this privileges could be exploited.

We recommend the team to renounce ownership at the right timing if possible, or gradually migrate to a timelock with governing functionalities in respect of transparency and safety considerations.

Important Notes To The Users:

- The owner cannot mint tokens after intial deployment.
- The owner cannot stop Trading.
- The transfer function is implemented correctly.
- The owner cannot change the max tx amount.
- The owner cannot change the fees amount.
- The owner can add/remove addresses from the whitelist and blacklist.
- The owner can toggle liquidity add and rebase functionality.
- No high-risk Exploits/Vulnerabilities Were Found in token Source Code.

Audit Passed



Findings Summary

Classification of Issues

All Issues Found are Informational

Severity	Description
● High	Exploits, vulnerabilities or errors that will certainly or probabilistically lead towards loss of funds, control, or impairment of the contract and its functions. Issues under this classification are recommended to be fixed with utmost urgency
● Medium	Bugs or issues with that may be subject to exploit, though their impact is somewhat limited. Issues under this classification are recommended to be fixed as soon as possible.
● Low	Effects are minimal in isolation and do not pose a significant danger to the project or its users. Issues under this classification are recommended to be fixed nonetheless.
● Info	Consistency, syntax or style best practices. Generally pose a negligible level of risk, if any.

Findings

Severity	Found
● High	0
● Medium	0
● Low	1
● Info	2
Total	3

Findings

Variables could be declared as constant

ID	Severity	Contract	Function
01	● Informational	AutoApy	variables name, symbol, decimals

Description

Gas Optimization. Variables that are never changed could be declared as constant.

Recommendation

We recommend declaring those variables as constant.

Public function that could be declared external

ID	Severity	Contract	Function
02	● Informational	AutoApy	Functions setPairAddress(), getLiquidityBacking()

Description

Gas Optimization. Public function that could be declared external

Recommendation

Public functions that are never called by the contract should be declared external to save gas.

Division before Multiplication

ID	Severity	Contract	Function
03	● Low	AutoApy	function takeFee()

Description

Precision Loss. Division before multiplication can result in truncation and less accurate results

Recommendation

Multiplication should be performed before division to not lose precision.

Privileged Functions (onlyOwner)

Function Name	Parameters	Visibility
renounceOwnership	none	public
transferOwnership	address newOwner	public
transfer	none	external
transferFrom	none	external
addLiquidity	none	internal
swapBack	none	internal
withdrawAllToTreasury	none	external
withdrawAllToTreasury	none	external
setAutoRebase	bool _flag	external
setAutoAddLiquidity	bool _flag	external
setFeeReceivers	address _autoLiquidityReceiver, address _treasuryReceiver, address _autoApyInsuranceFundReceiver, address _fieryfurnace	external
setWhitelist	address _addr	external
setBotBlacklist	address _botAddress, bool _flag	external
setPairAddress	address _pairAddress	public
setLP	address _address	external

Statistics

Liquidity Info

Parameter	Result
Pair Address	0x88D7aaFFF6c0A3E32B32f9d26FEDf33f76013f96
AutoApy Reserves	0.00 AutoApy
BNB Reserves	0.00 BNB
Liquidity Value	\$0 USD

Token (AutoApy) Holders Info

Parameter	Result
AutoApy Percentage Burnt	0.00%
AutoApy Amount Burnt	0 AutoApy
Top 10 Percentage Own	100.00%
Top 10 Amount Owned	380,873.46 AutoApy
Top 10 Aprox Value	\$-- USD

LP (AutoApy/BNB) Holders Info

Parameter	Result
AutoApy/BNB % Burnt	0.00%
AutoApy/BNB Amount Burnt	0 AutoApy
Top 10 Percentage Owned	0.00%
Top 10 Amount Owned	0 AutoApy
Locked Tokens Percentage	0.00%
Locked Tokens Amount	0 AutoApy

* All the data displayed above was taken on-chain at block 16408613

* The tokens on industry-standard burn wallets are not included on the top 10 wallets calculations

Liquidity Ownership

The token does not have liquidity at the moment of the audit, block 16408613

KISHIELD



Disclaimer

KISHIELD has conducted an independent audit to verify the integrity of and highlight any vulnerabilities or errors, intentional or unintentional, that may be present in the codes that were provided for the scope of this audit. This audit report does not constitute agreement, acceptance or advocacy for the Project that was audited, and users relying on this audit report should not consider this as having any merit for financial advice in any shape, form or nature. The contracts audited do not account for any economic developments that may be pursued by the Project in question, and that the veracity of the findings thus presented in this report relate solely to the proficiency, competence, aptitude and discretion of our independent auditors, who make no guarantees nor assurance that the contracts are completely free of exploits, bugs, vulnerabilities or deprecation of technologies.

All information provided in this report does not constitute financial or investment advice, nor should it be used to signal that any persons reading this report should invest their funds without sufficient individual due diligence regardless of the findings presented in this report. Information is provided 'as is', and KISHIELD is under no covenant to the completeness, accuracy or solidity of the contracts audited. In no event will KISHIELD or its partners, employees, agents or parties related to the provision of this audit report be liable to any parties for, or lack thereof, decisions and/or actions with regards to the information provided in this audit report.

The assessment services provided by KISHIELD is subject to dependencies and under continuing development. You agree that your access and/or use, including but not limited to any services, reports, and materials, will be at your sole risk on an as-is, where-is, and as-available basis. Cryptographic tokens are emergent technologies and carry with them high levels of technical risk and uncertainty. The assessment reports could include false positives, false negatives, and other unpredictable results. The services may access, and depend upon, multiple layers of third-parties.