



# Audit Report

## **Bull Pepe Wif Hat**

February 2024

Network ETH

Address 0x958Ac35c68B52979c84C28684CfDB04761f67a96

Audited by © Solidikey

## Analysis

● Critical ● Medium ● Minor / Informative ● Pass

Severity	Code	Description	Status
●	ST	Stops Transactions	Passed
●	OTUT	Transfers User's Tokens	Passed
●	ELFM	Exceeds Fees Limit	Passed
●	MT	MintsTokens	Passed
●	BT	BurnsTokens	Passed
●	BC	Blacklists Addresses	Passed

## Diagnostics

● Critical ● Medium ● Minor / Informative

Severity	Code	Description	Status
●	IDI	Immutable Declaration Improvement	Unresolved
●	L04	Conformance to Solidity Naming Conventions	Unresolved

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## Review

Contract Name	BullPepe Wif Hat
Compiler Version	v0.8.9+commit.e5eed63a
Optimization	200 runs
Explorer	<a href="https://etherscan.io/address/0x958ac35c68b52979c84c28684cfdb04761f67a96#code">https://etherscan.io/address/0x958ac35c68b52979c84c28684cfdb04761f67a96#code</a>
Address	0x958Ac35c68B52979c84C28684CfDB04761f67a96
Network	ETH
Symbol	BIF
Decimals	18
TotalSupply	42,690,000,000

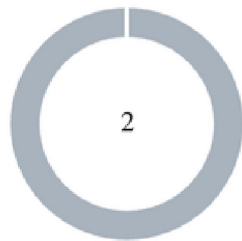
## Audit Updates

Initial Audit	17 Feb 2024
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## Source Files

Filename	SHA256
Bullpepewifhat.sol	fec3853b82d449f5aa25c8eccb7a6322e92c3ef530356365468a28a8aab3ffc1

## Findings Breakdown



● Critical	0
● Medium	0
● Minor / Informative	2

Severity	Unresolved	Acknowledged	Resolved	Other
● Critical	0	0	0	0
● Medium	0	0	0	0
● Minor / Informative	2	0	0	0

## IDI - Immutable Declaration Improvement

<b>Criticality</b>	Minor / Informative
<b>Location</b>	BullPepeWifHat.sol#L235,236
<b>Status</b>	Unresolved

### Description

The contract declares state variables that their value is initialized once in the constructor and are not modified afterwards. The `immutable` is a special declaration for this kind of state variables that saves gas when it is defined.

```
_name  
_symbol
```

### Recommendation

By declaring a variable as immutable, the Solidity compiler is able to make certain optimizations. This can reduce the amount of storage and computation required by the contract, and make it more gas-efficient.

## L04 - Conformance to Solidity Naming Conventions

<b>Criticality</b>	Minor / Informative
<b>Location</b>	BullPepeWifHat.sol#L224,225
<b>Status</b>	Unresolved

### Description

The Solidity style guide is a set of guidelines for writing clean and consistent Solidity code. Adhering to a style guide can help improve the readability and maintainability of the Solidity code, making it easier for others to understand and work with.

The followings are a few key points from the Solidity style guide:

1. Use camel case for function and variable names, with the first letter in lowercase (e.g., `myVariable`, `updateCounter`).
2. Use Pascal case for contract, struct, and enum names, with the first letter in uppercase (e.g., `MyContract`, `UserStruct`, `ErrorEnum`).
3. Use uppercase for constant variables and enums (e.g., `MAX_VALUE`, `ERROR_CODE`).
4. Use indentation to improve readability and structure.
5. Use spaces between operators and after commas.
6. Use comments to explain the purpose and behavior of the code.
7. Keep lines short (around 120 characters) to improve readability.

```
uint8 private constant _decimals = 18
uint256 public constant hardCap = 42_690_000_000 * (10 **
_decimals)
```

### Recommendation

By following the Solidity naming convention guidelines, the codebase increased the readability, maintainability, and makes it easier to work with.

Find more information on the Solidity documentation

<https://docs.soliditylang.org/en/v0.8.17/style-guide.html#naming-convention>.

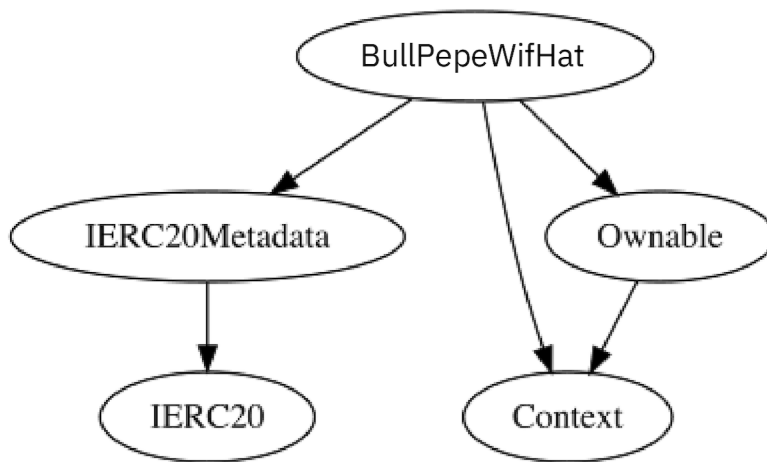
## Functions Analysis

Contract	Type	Bases		
	Function Name	Visibility	Mutability	Modifiers
<b>IERC20</b>	Interface			
	totalSupply	External		-
	balanceOf	External		-
	transfer	External	✓	-
	allowance	External		-
	approve	External	✓	-
	transferFrom	External	✓	-
<b>IERC20Metadata</b>	Interface	IERC20		
	name	External		-
	symbol	External		-
	decimals	External		-
<b>Context</b>	Implementation			
	_msgSender	Internal		
	_msgData	Internal		
<b>Ownable</b>	Implementation	Context		
		Public	✓	-

	owner	Public		-
	_checkOwner	Internal		
	renounceOwnership	Public	✓	onlyOwner
	transferOwnership	Public	✓	onlyOwner
	_transferOwnership	Internal	✓	
<b>BullPepeWifHat</b>	Implementation	Context, IERC20Meta data, Ownable		
		Public	✓	-
	name	Public		-
	symbol	Public		-
	decimals	Public		-
	totalSupply	Public		-
	balanceOf	Public		-
	transfer	Public	✓	-
	allowance	Public		-
	approve	Public	✓	-
	transferFrom	Public	✓	-
	increaseAllowance	Public	✓	-
	decreaseAllowance	Public	✓	-
	_transfer	Internal	✓	
	_mint	Internal	✓	
	_burn	Internal	✓	

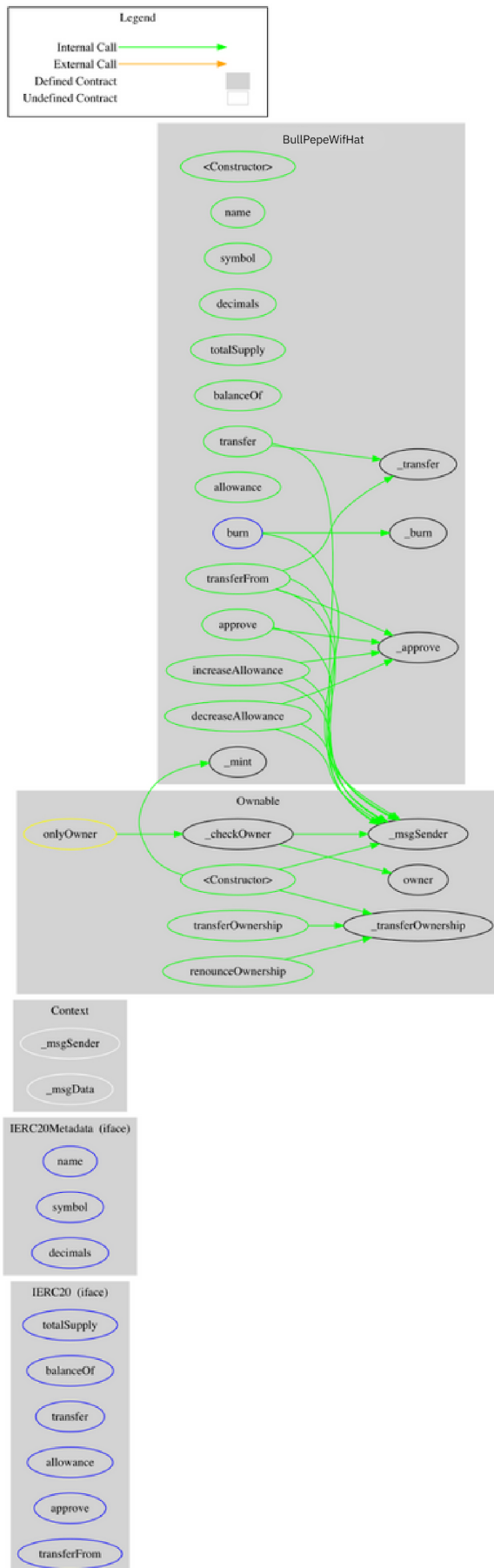
	burn	External	✓	-
	_approve	Internal	✓	

## Inheritance Graph





# Flow Graph



## Summary

BullPepeWifHat contract implements a token mechanism. This audit investigates security issues, business logic concerns and potential improvements. BullPepeWifHat is an interesting project that has a friendly and growing community. The Smart Contract analysis reported no compiler error or critical issues. The contract Owner can access some admin functions that can not be used in a malicious way to disturb the users' transactions.

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Solidikey is one of the leading smart contract audit firms in the crypto space and has built a high-profile network of clients and partners.

