



Smart Contract Audit

FOR

PEPETATE

DATED : 23 MAY 23'



AUDIT SUMMARY

Project name – PEPETATE

Date: 23 May, 2023

Scope of Audit- Audit Ace was consulted to conduct the smart contract audit of the solidity source codes.

Audit Status: **Passed**

Issues Found

Status	Critical	High	Medium	Low	Suggestion
Open	0	0	1	0	0
Acknowledged	0	0	0	0	0
Resolved	0	0	0	0	0

USED TOOLS

Tools:

1. Manual Review: The code has undergone a line-by-line review by the **Ace** team.

2. ETH Test Network: All tests were conducted on the ETH Test network, and each test has a corresponding transaction attached to it. These tests can be found in the "Functional Tests" section of the report.

3. Slither: The code has undergone static analysis using Slither.

Testnet version:

The tests were performed using the contract deployed on the BSC Testnet, which can be found at the following address:

<https://testnet.bscscan.com/address/0xDB74C0ca03cA178c820e6848B6eED1DdE0eC78b5#code>



Token Information

Name : Pepe Tate

Symbol : PEPETATE

Decimals: 18

Network: BSC

Token Type: BEP20

Token Address:

0x297ea5EbE431D0802F5888181EB7546989Eacc11

Owner:

0x50C32d22d0561bcFd8c2fE064eb259Ae3438115F
(at time of writing the audit)

Deployer: 0x50C32d22d0561bcFd8c2fE064eb259Ae
3438115F



Token Information

Fees:

Buy Fees: 0-25%

Sell Fees: 0-25%

Transfer Fees: 0-25%

Fees Privilege: Owner

Ownership : Owned

Minting: None

Max Tx Amount/ Max Wallet Amount: No

Blacklist: No

Other Privileges: - Modifying fees

- including in rewards
 - excluding from rewards
 - changing swap threshold
 - changing reward settings (min token to be eligible and cooldown)
 - initial distribution of the tokens
-



AUDIT METHODOLOGY

The auditing process will follow a routine as special considerations by Auditace:

- Review of the specifications, sources, and instructions provided to Auditace to make sure the contract logic meets the intentions of the client without exposing the user's funds to risk.
 - Manual review of the entire codebase by our experts, which is the process of reading source code line-by-line in an attempt to identify potential vulnerabilities.
 - Specification comparison is the process of checking whether the code does what the specifications, sources, and instructions provided to Auditace describe.
 - Test coverage analysis determines whether the test cases are covering the code and how much code is exercised when we run the test cases.
 - Symbolic execution is analysing a program to determine what inputs cause each part of a program to execute.
 - Reviewing the codebase to improve maintainability, security, and control based on the established industry and academic practices.
-

VULNERABILITY CHECKLIST

- | | |
|------------------------------------|-------------------------------|
| ✓ Return values of low-level calls | ✓ Gasless Send |
| ✓ Private modifier | ✓ Using block.timestamp |
| ✓ Multiple Sends | ✓ Re-entrancy |
| ✓ Using Suicide | ✓ Tautology or contradiction |
| ✓ Gas Limitand Loops | ✓ Timestamp Dependence |
| ✓ Address hardcoded | ✓ Revert/require functions |
| ✓ Exception Disorder | ✓ Use of tx.origin |
| ✓ Using inline assembly | ✓ Integer overflow/underflow |
| ✓ Divide before multiply | ✓ Dangerous strict equalities |
| ✓ Missing Zero Address Validation | ✓ Using SHA3 |
| ✓ Compiler version not fixed | ✓ Using throw |
-



CLASSIFICATION OF RISK

Severity

Description

◆ Critical	These vulnerabilities could be exploited easily and can lead to asset loss, data loss, asset, or data manipulation. They should be fixed right away.
◆ High-Risk	A vulnerability that affects the desired outcome when using a contract, or provides the opportunity to use a contract in an unintended way.
◆ Medium-Risk	A vulnerability that could affect the desired outcome of executing the contract in a specific scenario.
◆ Low-Risk	A vulnerability that does not have a significant impact on possible scenarios for the use of the contract and is probably subjective.
◆ Gas Optimization / Suggestion	A vulnerability that has an informational character but is not affecting any of the code.

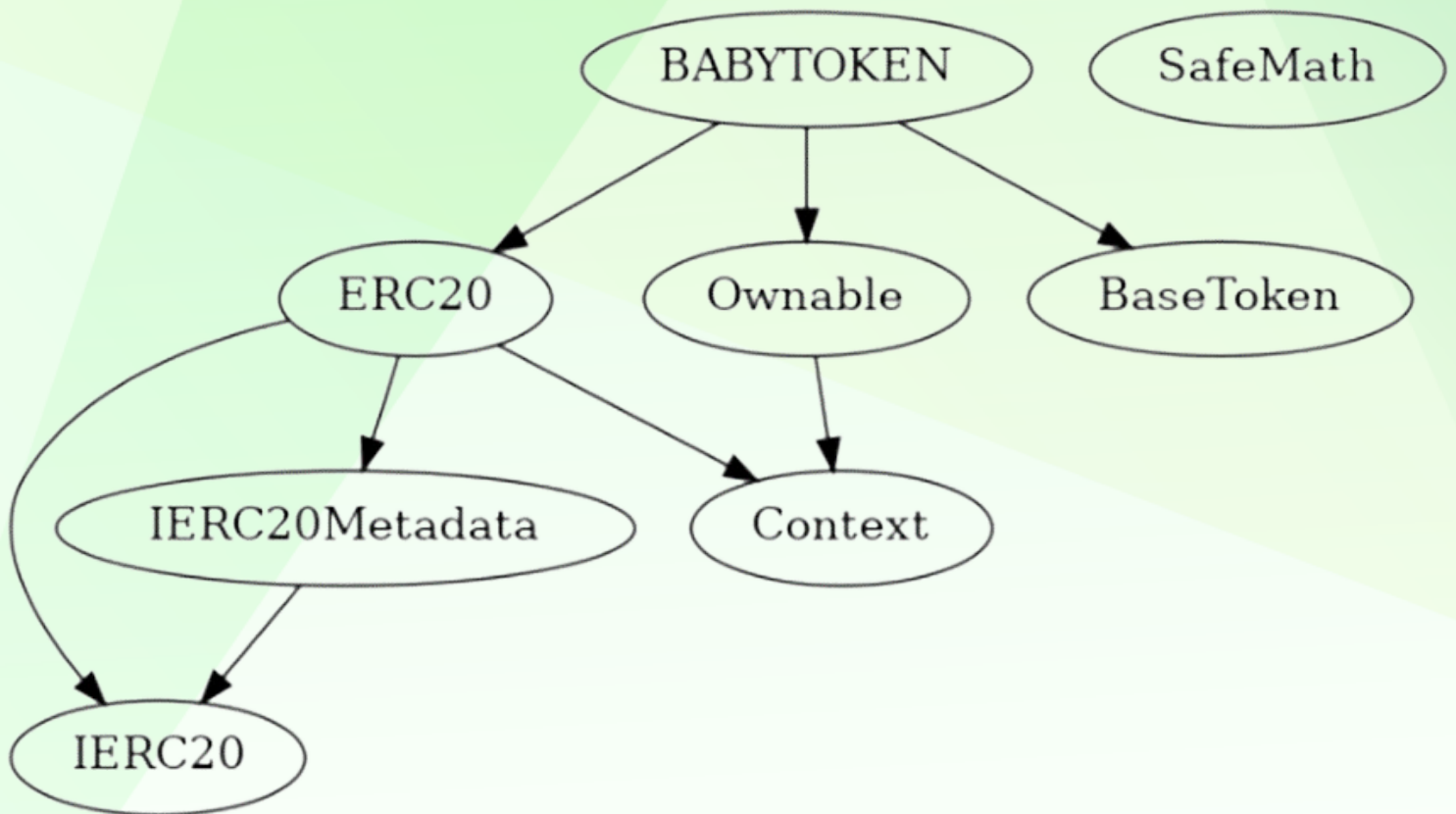
Findings

Severity

Found

◆ Critical	0
◆ High-Risk	0
◆ Medium-Risk	1
◆ Low-Risk	0
◆ Gas Optimization / Suggestions	0

INHERITANCE TREE





POINTS TO NOTE

- Owner is not able to change buy/sell/transfer fees within range 0-25%
 - Owner is not able to blacklist an arbitrary address.
 - Owner is not able to disable trades
 - Owner is not able to limit buy/sell/transfer/wallet amounts
 - Owner is not able to mint new tokens
 - **Token is pinksale generated (already tested) and uses \$BTC as reward token.**
-



CONTRACT ASSESMENT

Contract	Type	Bases			
└	**Function Name**	**Visibility**	**Mutability**	**Modifiers**	
IERC20 Interface					
└	totalSupply	External	!	NO	!
└	balanceOf	External	!	NO	!
└	transfer	External	!	NO	!
└	allowance	External	!	NO	!
└	approve	External	!	NO	!
└	transferFrom	External	!	NO	!
IERC20Metadata Interface IERC20					
└	name	External	!	NO	!
└	symbol	External	!	NO	!
└	decimals	External	!	NO	!
Context Implementation					
└	_msgSender	Internal	🔒		
└	_msgData	Internal	🔒		
ERC20 Implementation Context, IERC20, IERC20Metadata					
└	<Constructor>	Public	!	NO	!
└	name	Public	!	NO	!
└	symbol	Public	!	NO	!
└	decimals	Public	!	NO	!
└	totalSupply	Public	!	NO	!
└	balanceOf	Public	!	NO	!
└	transfer	Public	!	NO	!
└	allowance	Public	!	NO	!
└	approve	Public	!	NO	!
└	transferFrom	Public	!	NO	!
└	increaseAllowance	Public	!	NO	!
└	decreaseAllowance	Public	!	NO	!
└	_transfer	Internal	🔒		
└	_mint	Internal	🔒		
└	_burn	Internal	🔒		
└	_approve	Internal	🔒		
└	_beforeTokenTransfer	Internal	🔒		
└	_afterTokenTransfer	Internal	🔒		
Ownable Implementation Context					
└	<Constructor>	Public	!	NO	!

CONTRACT ASSESMENT

```

└─ owner | Public ! | [NO ! |
└─ renounceOwnership | Public ! | ● | onlyOwner |
└─ transferOwnership | Public ! | ● | onlyOwner |
└─ _setOwner | Private 🔒 | ● |
|||||
**SafeMath** | Library | |||
└─ tryAdd | Internal 🔒 | ||
└─ trySub | Internal 🔒 | ||
└─ tryMul | Internal 🔒 | ||
└─ tryDiv | Internal 🔒 | ||
└─ tryMod | Internal 🔒 | ||
└─ add | Internal 🔒 | ||
└─ sub | Internal 🔒 | ||
└─ mul | Internal 🔒 | ||
└─ div | Internal 🔒 | ||
└─ mod | Internal 🔒 | ||
└─ sub | Internal 🔒 | ||
└─ div | Internal 🔒 | ||
└─ mod | Internal 🔒 | ||
|||||
**Clones** | Library | |||
└─ clone | Internal 🔒 | ● | ||
└─ cloneDeterministic | Internal 🔒 | ● | ||
└─ predictDeterministicAddress | Internal 🔒 | ||
└─ predictDeterministicAddress | Internal 🔒 | ||
|||||
**Address** | Library | |||
└─ isContract | Internal 🔒 | ||
└─ sendValue | Internal 🔒 | ● | ||
└─ functionCall | Internal 🔒 | ● | ||
└─ functionCall | Internal 🔒 | ● | ||
└─ functionCallWithValue | Internal 🔒 | ● | ||
└─ functionCallWithValue | Internal 🔒 | ● | ||
└─ functionStaticCall | Internal 🔒 | ||
└─ functionStaticCall | Internal 🔒 | ||
└─ functionDelegateCall | Internal 🔒 | ● | ||
└─ functionDelegateCall | Internal 🔒 | ● | ||
└─ verifyCallResult | Internal 🔒 | ||
|||||
**IUniswapV2Factory** | Interface | |||
└─ feeTo | External ! | [NO ! |
└─ feeToSetter | External ! | [NO ! |

```

CONTRACT ASSESMENT

```

└─| getPair | External ! | |NO ! |
└─| allPairs | External ! | |NO ! |
└─| allPairsLength | External ! | |NO ! |
└─| createPair | External ! | ● |NO ! |
└─| setFeeTo | External ! | ● |NO ! |
└─| setFeeToSetter | External ! | ● |NO ! |

```

```

|||||

```

```

**IUniswapV2Router01** | Interface | |||
└─| factory | External ! | |NO ! |
└─| WETH | External ! | |NO ! |
└─| addLiquidity | External ! | ● |NO ! |
└─| addLiquidityETH | External ! | 🟢 |NO ! |
└─| removeLiquidity | External ! | ● |NO ! |
└─| removeLiquidityETH | External ! | ● |NO ! |
└─| removeLiquidityWithPermit | External ! | ● |NO ! |
└─| removeLiquidityETHWithPermit | External ! | ● |NO ! |
└─| swapExactTokensForTokens | External ! | ● |NO ! |
└─| swapTokensForExactTokens | External ! | ● |NO ! |
└─| swapExactETHForTokens | External ! | 🟢 |NO ! |
└─| swapTokensForExactETH | External ! | ● |NO ! |
└─| swapExactTokensForETH | External ! | ● |NO ! |
└─| swapETHForExactTokens | External ! | 🟢 |NO ! |
└─| quote | External ! | |NO ! |
└─| getAmountOut | External ! | |NO ! |
└─| getAmountIn | External ! | |NO ! |
└─| getAmountsOut | External ! | |NO ! |
└─| getAmountsIn | External ! | |NO ! |

```

```

|||||

```

```

**IUniswapV2Router02** | Interface | IUniswapV2Router01 |||
└─| removeLiquidityETHSupportingFeeOnTransferTokens | External ! | ● |NO ! |
└─| removeLiquidityETHWithPermitSupportingFeeOnTransferTokens | External ! | ● |NO ! |
└─| swapExactTokensForTokensSupportingFeeOnTransferTokens | External ! | ● |NO ! |
└─| swapExactETHForTokensSupportingFeeOnTransferTokens | External ! | 🟢 |NO ! |
└─| swapExactTokensForETHSupportingFeeOnTransferTokens | External ! | ● |NO ! |

```

```

|||||

```

```

**IERC20Upgradeable** | Interface | |||
└─| totalSupply | External ! | |NO ! |
└─| balanceOf | External ! | |NO ! |
└─| transfer | External ! | ● |NO ! |
└─| allowance | External ! | |NO ! |
└─| approve | External ! | ● |NO ! |
└─| transferFrom | External ! | ● |NO ! |

```



CONTRACT ASSESMENT

```
||||| |
| **IERC20MetadataUpgradeable** | Interface | IERC20Upgradeable |||
|  | name | External ! | | NO ! |
|  | symbol | External ! | | NO ! |
|  | decimals | External ! | | NO ! |
|||||
| **Initializable** | Implementation | |||
|||||
| **ContextUpgradeable** | Implementation | Initializable |||
|  | __Context_init | Internal 🔒 | ● | initializer |
|  | __Context_init_unchained | Internal 🔒 | ● | initializer |
|  | _msgSender | Internal 🔒 | | |
|  | _msgData | Internal 🔒 | | |
|||||
| **ERC20Upgradeable** | Implementation | Initializable, ContextUpgradeable, IERC20Upgradeable,
IERC20MetadataUpgradeable |||
|  | __ERC20_init | Internal 🔒 | ● | initializer |
|  | __ERC20_init_unchained | Internal 🔒 | ● | initializer |
|  | name | Public ! | | NO ! |
|  | symbol | Public ! | | NO ! |
|  | decimals | Public ! | | NO ! |
|  | totalSupply | Public ! | | NO ! |
|  | balanceOf | Public ! | | NO ! |
|  | transfer | Public ! | ● | NO ! |
|  | allowance | Public ! | | NO ! |
|  | approve | Public ! | ● | NO ! |
|  | transferFrom | Public ! | ● | NO ! |
|  | increaseAllowance | Public ! | ● | NO ! |
|  | decreaseAllowance | Public ! | ● | NO ! |
|  | _transfer | Internal 🔒 | ● | |
|  | _mint | Internal 🔒 | ● | |
|  | _burn | Internal 🔒 | ● | |
|  | _approve | Internal 🔒 | ● | |
|  | _beforeTokenTransfer | Internal 🔒 | ● | |
|  | _afterTokenTransfer | Internal 🔒 | ● | |
|||||
| **OwnableUpgradeable** | Implementation | Initializable, ContextUpgradeable |||
|  | __Ownable_init | Internal 🔒 | ● | initializer |
|  | __Ownable_init_unchained | Internal 🔒 | ● | initializer |
|  | owner | Public ! | | NO ! |
|  | renounceOwnership | Public ! | ● | onlyOwner |
|  | transferOwnership | Public ! | ● | onlyOwner |
```



CONTRACT ASSESMENT

```
|  | _setOwner | Private | 🔒 | ● | |
|||||
| **IUniswapV2Pair** | Interface | |||
|  | name | External | ! | |NO ! |
|  | symbol | External | ! | |NO ! |
|  | decimals | External | ! | |NO ! |
|  | totalSupply | External | ! | |NO ! |
|  | balanceOf | External | ! | |NO ! |
|  | allowance | External | ! | |NO ! |
|  | approve | External | ! | ● |NO ! |
|  | transfer | External | ! | ● |NO ! |
|  | transferFrom | External | ! | ● |NO ! |
|  | DOMAIN_SEPARATOR | External | ! | |NO ! |
|  | PERMIT_TYPEHASH | External | ! | |NO ! |
|  | nonces | External | ! | |NO ! |
|  | permit | External | ! | ● |NO ! |
|  | MINIMUM_LIQUIDITY | External | ! | |NO ! |
|  | factory | External | ! | |NO ! |
|  | token0 | External | ! | |NO ! |
|  | token1 | External | ! | |NO ! |
|  | getReserves | External | ! | |NO ! |
|  | price0CumulativeLast | External | ! | |NO ! |
|  | price1CumulativeLast | External | ! | |NO ! |
|  | kLast | External | ! | |NO ! |
|  | mint | External | ! | ● |NO ! |
|  | burn | External | ! | ● |NO ! |
|  | swap | External | ! | ● |NO ! |
|  | skim | External | ! | ● |NO ! |
|  | sync | External | ! | ● |NO ! |
|  | initialize | External | ! | ● |NO ! |
|||||
| **SafeMathInt** | Library | |||
|  | mul | Internal | 🔒 | | |
|  | div | Internal | 🔒 | | |
|  | sub | Internal | 🔒 | | |
|  | add | Internal | 🔒 | | |
|  | abs | Internal | 🔒 | | |
|  | toUint256Safe | Internal | 🔒 | | |
|||||
| **SafeMathUint** | Library | |||
|  | toInt256Safe | Internal | 🔒 | | |
|||||
```



CONTRACT ASSESMENT

```
**IterableMapping** | Library | |||
└─ get | Internal 🔒 | ||
└─ getIndexOfKey | Internal 🔒 | ||
└─ getKeyAtIndex | Internal 🔒 | ||
└─ size | Internal 🔒 | ||
└─ set | Internal 🔒 | ● |
└─ remove | Internal 🔒 | ● |
|||||
**DividendPayingTokenInterface** | Interface | |||
└─ dividendOf | External ! | |NO ! |
└─ withdrawDividend | External ! | ● |NO ! |
|||||
**DividendPayingTokenOptionalInterface** | Interface | |||
└─ withdrawableDividendOf | External ! | |NO ! |
└─ withdrawnDividendOf | External ! | |NO ! |
└─ accumulativeDividendOf | External ! | |NO ! |
|||||
**DividendPayingToken** | Implementation | ERC20Upgradeable, OwnableUpgradeable,
DividendPayingTokenInterface, DividendPayingTokenOptionalInterface |||
└─ __DividendPayingToken_init | Internal 🔒 | ● | initializer |
└─ distributeCAKEDividends | Public ! | ● | onlyOwner |
└─ withdrawDividend | Public ! | ● |NO ! |
└─ _withdrawDividendOfUser | Internal 🔒 | ● |
└─ dividendOf | Public ! | |NO ! |
└─ withdrawableDividendOf | Public ! | |NO ! |
└─ withdrawnDividendOf | Public ! | |NO ! |
└─ accumulativeDividendOf | Public ! | |NO ! |
└─ _transfer | Internal 🔒 | ● |
└─ _mint | Internal 🔒 | ● |
└─ _burn | Internal 🔒 | ● |
└─ _setBalance | Internal 🔒 | ● |
|||||
**BABYTOKENDividendTracker** | Implementation | OwnableUpgradeable, DividendPayingToken |||
└─ initialize | External ! | ● | initializer |
└─ _transfer | Internal 🔒 | ||
└─ withdrawDividend | Public ! | |NO ! |
└─ excludeFromDividends | External ! | ● | onlyOwner |
└─ isExcludedFromDividends | Public ! | |NO ! |
└─ updateClaimWait | External ! | ● | onlyOwner |
└─ updateMinimumTokenBalanceForDividends | External ! | ● | onlyOwner |
└─ getLastProcessedIndex | External ! | |NO ! |
└─ getNumberOfTokenHolders | External ! | |NO ! |
```


CONTRACT ASSESMENT

```

└─| getAccount | Public ! | |NO ! |
└─| getAccountAtIndex | Public ! | |NO ! |
└─| canAutoClaim | Private 🔒 | |
└─| setBalance | External ! | ● | onlyOwner |
└─| process | Public ! | ● |NO ! |
└─| processAccount | Public ! | ● | onlyOwner |
|||||
**BaseToken** | Implementation | |||
|||||
**BABYTOKEN** | Implementation | ERC20, Ownable, BaseToken |||
└─| <Constructor> | Public ! | 💰 | ERC20 |
└─| <Receive Ether> | External ! | 💰 |NO ! |
└─| setSwapTokensAtAmount | External ! | ● | onlyOwner |
└─| excludeFromFees | External ! | ● | onlyOwner |
└─| excludeMultipleAccountsFromFees | External ! | ● | onlyOwner |
└─| setMarketingWallet | External ! | ● | onlyOwner |
└─| setTokenRewardsFee | External ! | ● | onlyOwner |
└─| setLiquiditFee | External ! | ● | onlyOwner |
└─| setMarketingFee | External ! | ● | onlyOwner |
└─| _setAutomatedMarketMakerPair | Private 🔒 | ● |
└─| updateGasForProcessing | Public ! | ● | onlyOwner |
└─| updateClaimWait | External ! | ● | onlyOwner |
└─| getClaimWait | External ! | |NO ! |
└─| updateMinimumTokenBalanceForDividends | External ! | ● | onlyOwner |
└─| getMinimumTokenBalanceForDividends | External ! | |NO ! |
└─| getTotalDividendsDistributed | External ! | |NO ! |
└─| isExcludedFromFees | Public ! | |NO ! |
└─| withdrawableDividendOf | Public ! | |NO ! |
└─| dividendTokenBalanceOf | Public ! | |NO ! |
└─| excludeFromDividends | External ! | ● | onlyOwner |
└─| isExcludedFromDividends | Public ! | |NO ! |
└─| getAccountDividendsInfo | External ! | |NO ! |
└─| getAccountDividendsInfoAtIndex | External ! | |NO ! |
└─| processDividendTracker | External ! | ● |NO ! |
└─| claim | External ! | ● |NO ! |
└─| getLastProcessedIndex | External ! | |NO ! |
└─| getNumberOfDividendTokenHolders | External ! | |NO ! |
└─| _transfer | Internal 🔒 | ● |
└─| swapAndSendToFee | Private 🔒 | ● |
└─| swapAndLiquify | Private 🔒 | ● |
└─| swapTokensForEth | Private 🔒 | ● |

```



CONTRACT ASSESMENT

	└		swapTokensForCake		Private	🔒		●		
	└		addLiquidity		Private	🔒		●		
	└		swapAndSendDividends		Private	🔒		●		

Legend

	Symbol		Meaning	
	:-----:		-----	
	●		Function can modify state	
	💰		Function is payable	

STATIC ANALYSIS

[illegible]

Static Analysis

an static analysis of the code were performed using
slither. No issues were found



FUNCTIONAL TESTING

Router (PCS V2):

0xD99D1c33F9fC3444f8101754aBC46c52416550D1

1- Adding liquidity (passed):

<https://testnet.bscscan.com/tx/0xa392663e37ba25dc9835a6700d9ddc50a9e5d378209e27ff388c2fdca64df00e>

2- Buying when excluded (0% tax) (passed):

<https://testnet.bscscan.com/tx/0x13b2f1cf4a032c21d7752b493a7971a32c72b9716424e0635ae36b115509ab64>

3- Selling when excluded (0% tax) (passed):

<https://testnet.bscscan.com/tx/0xddc1c08b588225ed98b529536d70bfbd8f299517685b6c0d0c52ac72b2db8722>

4- Transferring when excluded from fees (0% tax) (passed):

<https://testnet.bscscan.com/tx/0xa76aa9b4ee2fce5a4c4ecd396763e3150480836b43dd950b82965d79249a3ddf>

5- Buying from a regular wallet (0-25% tax) (passed):

<https://testnet.bscscan.com/tx/0x4f96baa531cb2e617a5128e1df02ac4a2562c6ac7f4c88f7102218dc14595673>

6- Selling from a regular wallet (0-25% tax) (passed):

<https://testnet.bscscan.com/tx/0x29b6bf50e7ace568f22a8b64234b62297a59f52c59ca8848c2f86c744e93d119>

7- Transferring from a regular wallet (0-25% tax) (passed):

<https://testnet.bscscan.com/tx/0xa037f475b41a21c35d4c10652655e734ebd9b652c44725dbc6c9e9dbdebdd221>



FUNCTIONAL TESTING

7- Internal swap + rewards distirbution + auto liquidity(passed):
<https://testnet.bscscan.com/tx/0x29b6bf50e7ace568f22a8b64234b62297a59f52c59ca8848c2f86c744e93d119>

FUNCTIONAL TESTING

Category: Centralization

Subject: Excessive fees

Severity: Medium

Overview:

Owner is able to set buy/sell/transfer each one up to 25%

Code:

```
function setTokenRewardsFee(uint256 value) external onlyOwner { ... }
```

```
function setLiquiditFee(uint256 value) external onlyOwner { ... }
```

```
function setMarketingFee(uint256 value) external onlyOwner { ... }
```

Suggestion:

Implement a limit for max amount of buy/sell/transfer fees.

Buy Fees ≤ 10

Sell Fees ≤ 10

Transfer Fees ≤ 10



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