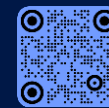# NOVOS

## KYC & AUDIT.

Novos is an agency specializing in blockchain technology solutions, Audits, KYC / Doxx.

# CERTIFICATE OF COMPLIANCE

## Smart Contract Audit by NOVOS

NOVOS

PepeDoge Token

Audit Passed

August 24, 2022

# Table of Contents

# NOVOS

# Audit Summary

This report has been prepared for PepeDoge Token on the DOGECHAIN network. Novos 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.

# NOVOS

## Project Overview

| Parameter | Result |
|---|---|
| Address | 0x7B188425491c84f6e49Ddb97eF16Aaa65C5b08EC |
| Name | PepeDoge |
| Token Tracker | PD |
| Decimals | 18 |
| Supply | 100,000,000,000 |
| Platform | DOGECHAIN |
| Compiler | v0.8.6+commit.11564f7e |
| Optimization | True / 200 |
| Other Settings: | default evmVersion |
| Language | Solidity |
| Codebase | https://explorer.dogechain.dog/address/0x7B188425491c84f6e49Ddb97eF16Aaa65C5b08EC/contracts |
| Url | https://pepedogechain.com/ |

## Main Contract Assessed

| Name | Contract | Live |
|---|---|---|
| **PepeDoge** | 0x7B188425491c84f6e49Ddb97eF16Aaa65C5b08EC | 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** |

# Smart Contract Vulnerability Checks

| 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** |

# NOVOS

# Contract
# Ownership

The contract ownership of PepeDoge 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.

.

**01**

The current owner is the address 0xaca7d59f8cec7b43fb47179ca42fde0bb55f989f which can be viewed from: HERE

**02**

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

**03**

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:

**01**
```
address public marketingWallet = 0x730d3DCa4e8e6bE96bC8350638C61D79dBD93026;
address public devWallet = 0x273845503f78eA7B485662eD23Fd2988E9906c86;
address public teamWallet = 0x273845503f78eA7B485662eD23Fd2988E9906c86;
```

**02**
```
bool public antiBotEnabled = false;
uint256 public antiBotFee = 990;
uint256 public _startTimeForSwap;
```

**03**
```
uint256 public marketingPortionOfSwap = 5%;
uint256 public devPortionOfSwap = 2%;
uint256 public teamPortionOfSwap = 1,5%;
uint256 public lpPortionOfSwap = 1,5%;
```

**04**
```
function _burn(uint256 amount, uint256 currentRate, uint256 fee) private {
uint256 tBurn = amount.mul(fee).div(FEES_DIVISOR);
uint256 rBurn = tBurn.mul(currentRate);
burnTokens(address(this), tBurn, rBurn)
```

**05**
```
function isExcludedFromReward(address account) external view returns (bool) {return _isExcludedFromRewards[account]
```

**06**
```
function isExcludedFromFee(address account) public view returns(bool) {return _isExcludedFromFee[account]
```

**07**
```
function blacklistAddress(address account, bool value) internal onlyOwner{_isBlacklisted[account] = value;
```

**08**
```
function prepareForPreSale() internal onlyOwner {takeFeeEnabled = false; swapEnabled = false; isInPresale = true; maxTxAmount = _totalSupply; maxWalletBalance = _totalSupply;
```
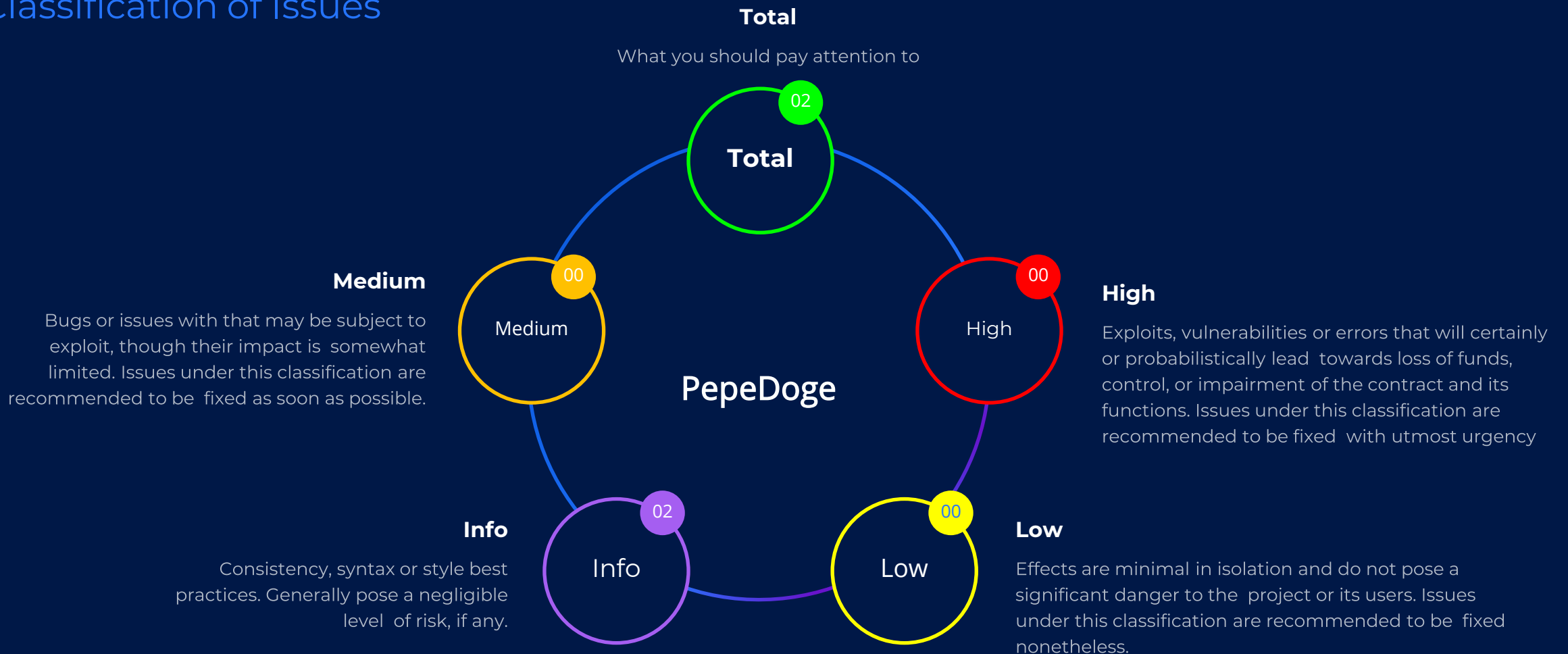
**09**
```
function afterPreSale() internal onlyOwner {takeFeeEnabled = true; swapEnabled = true; isInPresale = false; maxTxAmount = _totalSupply / 100; maxWalletBalance = _totalSupply / 50;
```

**10**
```
function updateMarketingWallet(address newMarketingWallet) internal onlyOwner {require(newMarketingWallet != marketingWallet, "The Marketing wallet is already this address"); emit MarketingWalletUpdated(newMarketingWallet, marketingWallet); marketingWallet = newMarketingWallet
```
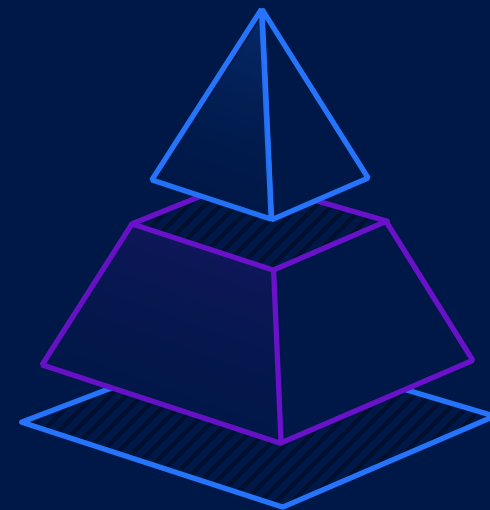
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# Technical Findings Summary
## Classification of Issues

**Total**
What you should pay attention to

02
**Total**

**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.

00
Medium

PepeDoge

00
High

**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

**Info**

Consistency, syntax or style best practices. Generally pose a negligible level of risk, if any.

02
Info

00
Low

**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.

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# Findings

## Public function that could be declared external

| ID | Severity | Contract | Function |
|----|----------|----------|----------|
| 01 | Informational | PepeDoge | Functions: size, getKeyAtIndex, getIndexOfKey |

### Description

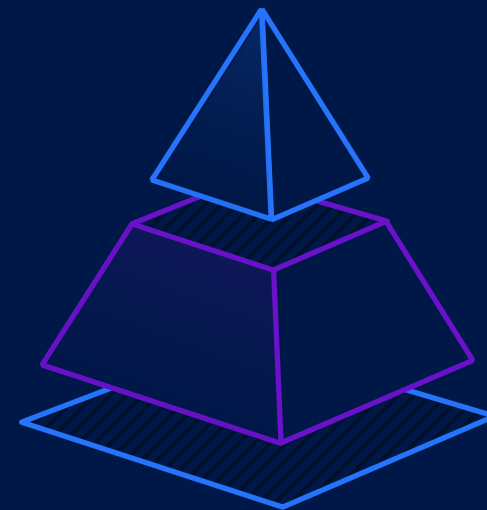Gas Optimization. Public function that could be declared external

### Recommendation

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

# Findings

## Missing events arithmetic

| ID | Severity | Contract | Function |
|----|----------|----------|----------|
| 02 | Informational | PepeDoge | Missing events for setWalletBalance, setMaxBuyTransaction, setMaxSellTransaction, setSwapTokensAtAmount, setSellTransactionMultiplier |

**Description**

Functions that change critical arithmetic parameters should emit an event.

**Recommendation**

Emit corresponding events for critical parameter changes.

# Priviliged Functions (onlyOwner & Others)

| Function Name | Parameters | Visibility |
|---|---|---|
| ✓ renounceOwnership | ▪ none | ▪ **external** |
| ✓ transferOwnership | ▪ address newOwner | **public** |
| ✓ prepareForPartherOrExchang eListing | ▪ address_partnerOrExchangeAddress | ▪ **external** |
| ✓ setWalletBalance | ▪ uint256 _maxWalletBalance | ▪ **external** |
| ✓ setMaxBuyTransaction | ▪ uint256 _maxTxn | ▪ **external** |
| ✓ setMaxSellTransaction | ▪ uint256 _maxTxn | ▪ **external** |
| ✓ updateBusdDividendToken | ▪ address _newContract | ▪ **external** |
| ✓ updateMarketingWallet | ▪ address _newWallet | ▪ **external** |
| ✓ setSwapTokensAtAmount | ▪ uint256 _swapAmount | ▪ **external** |
| ✓ setSellTransactionMultiplier | ▪ uint256 _multiplier | ▪ **external** |
| ✓ setTradingIsEnabled | ▪ none | ▪ **external** |
| ✓ setBusdDividendEnabled | ▪ bool _enabled | ▪ **external** |
| ✓ setMarketingEnabled | ▪ bool _enabled | ▪ **external** |
| ✓ setSwapAndLiquifyEnabled | ▪ bool _enabled | ▪ **external** |
| ✓ updatebusdDividendTracker | ▪ address newAddress | ▪ **external** |
| ✓ updateUniswapV2Router | ▪ address newAddress | ▪ **external** |

# Priviliged Functions (onlyOwner & Others)

| Function Name | Parameters | Visibility |
|---|---|---|
| ✓ excludeFromFees | ▪ address account, bool excluded | ▪ **public** |
| ✓ excludeFromDividend | ▪ address account | ▪ **public** |
| ✓ setAutomatedMarketMakerP air | ▪ address pair, bool value | ▪ **external** |
| ✓ updateGasForProcessing | ▪ uint256 newValue | ▪ **external** |
| ✓ updateMinimumBalanceForDi vidends | ▪ uint256 newMinimumBalance | ▪ **external** |
| ✓ updateClaimWait | ▪ uint256 claimWait | ▪ **external** |
| ✓ processDividendTracker | ▪ uint256 gas | ▪ **external** |
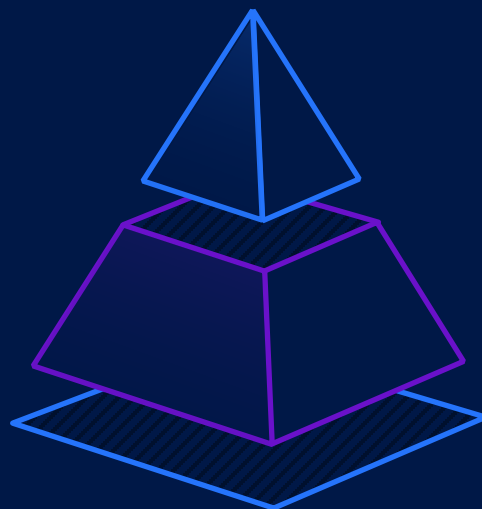
# Statistics

## Liquidity Info
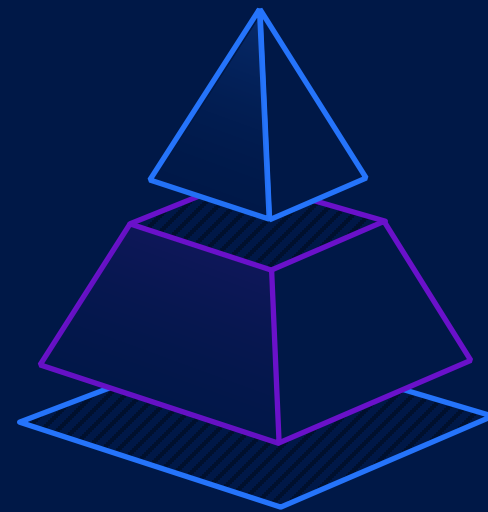
| Parameter | Result |
| --- | --- |
| Pair Address | 0x5f78b3175bec545bfa76cf861d89997c5af800b9 |
| PD Reserves | 0 PD |
| Reserves, wDoge | 0 wDoge |
| Liquidity Value | $ 0 |

# Statistics

## Token (PD) Holders Info

| Parameter | Result |
| --- | --- |
| PD Percentage Burnt | 0 % |
| PD Amount Burnt | 0 PD |
| Top 10 Percentage Own | 100 % |
| Top 10 Amount Owned | 100,000,000,000 PD |

### Token Holders

< Page 1 >

0x273845503f78eA7B485662eD23Fd2988E9906c86

100,000,000,000 PD 100.0000%

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# Disclaimer

Novos 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 advocation 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.

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