



# Smart Contract Audit

FOR

# Crypto PepeMines

DATED : 10 May 23'



# AUDIT SUMMARY

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**Project name** – Crypto PepeMines

**Date:** 10 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    | 0      | 1   | 2          |
| Acknowledged | 0        | 0    | 0      | 0   | 0          |
| Resolved     | 0        | 0    | 0      | 0   | 0          |



# USED TOOLS

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## Tools:

### 1- Manual Review:

a line by line code review has been performed by audit ace team.

### 2- BSC Test Network:

all tests were done on BSC Test network, each test has its transaction has attached to it.

### 3- Slither : Static Analysis

**Testnet Link:** all tests were done using this contract, tests are done on BSC Testnet

<https://testnet.bscscan.com/token/0x4Bbe7693380942c505856e72371c6a3f784dF4ca>

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# Token Information

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**Token Name :** Crypto PepeMines

**Token Symbol:** CPM

**Decimals:** 18

**Token Supply:**5,000,000

**Token Address:** -

**Checksum:**

bf50ef6934cc5b1dc376c49e6e5ffe496eb329da

**Owner:** -

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# TOKEN OVERVIEW

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## **Fees:**

Buy Fees: 3 %

Sell Fees: 3 %

Transfer Fees: 3%

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**Fees Privilege:** owner

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**Ownership :** none

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**Minting:** No mint function

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**Max Tx Amount/ Max Wallet Amount:** No

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**Blacklist:** No

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**Other Privileges:** modifying fees

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# AUDIT METHODOLOGY

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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.
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# VULNERABILITY CHECKLIST

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- |  |   |
|--|---|
|  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                 |
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# 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

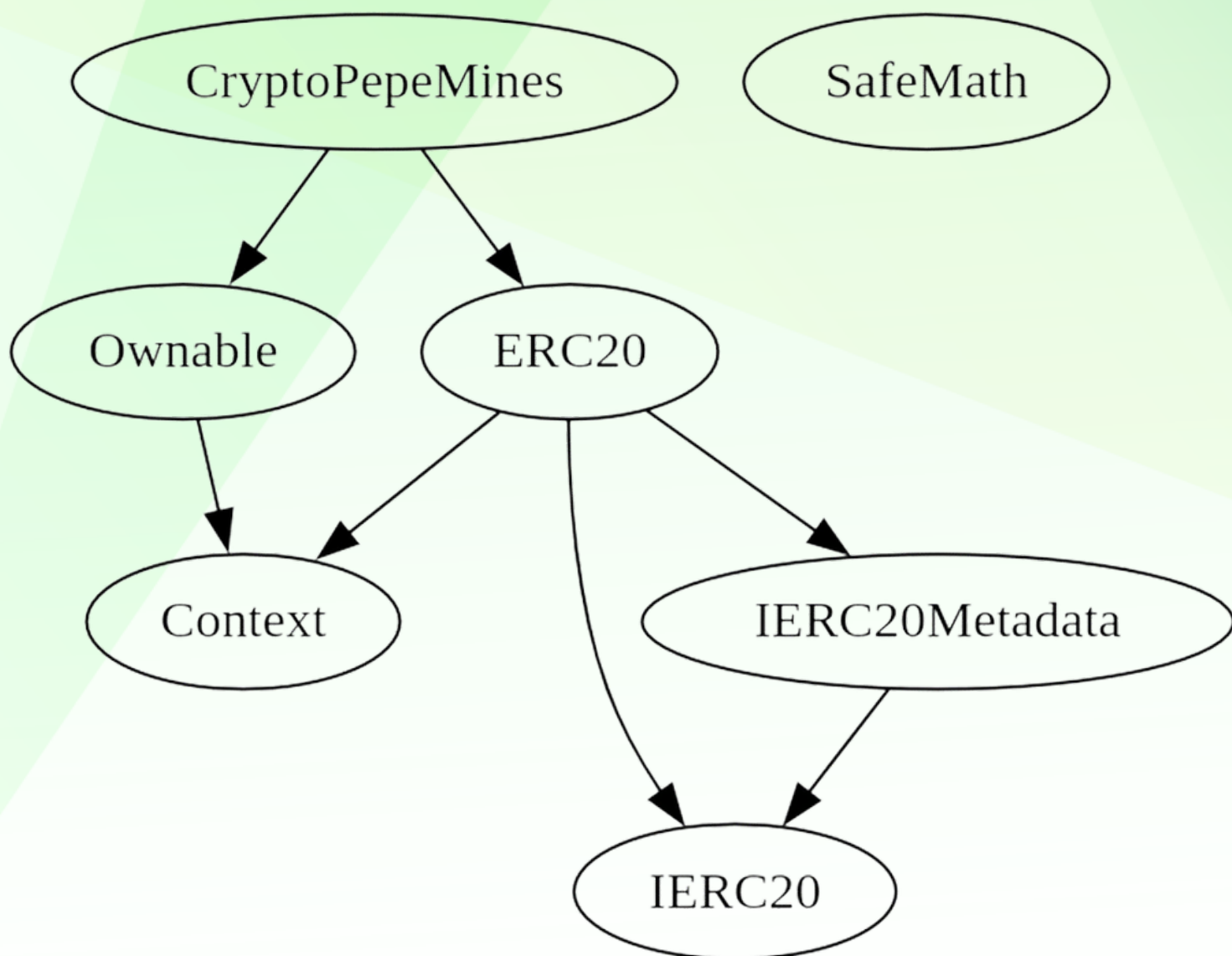
### Found

|                                  |   |
|----------------------------------|---|
| ◆ Critical                       | 0 |
| ◆ High-Risk                      | 0 |
| ◆ Medium-Risk                    | 0 |
| ◆ Low-Risk                       | 1 |
| ◆ Gas Optimization / Suggestions | 2 |



# INHERITANCE TREE

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# POINTS TO NOTE

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- Owner is not able to set buy/sell/transfer tax over 3% each
  - Owner is not able to set a max buy/transfer/wallet/sell amount
  - Owner is not able to blacklist an arbitrary wallet
  - Owner is not able to disable trades
  - Owner is not able to mint new tokens
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# CONTRACT ASSESMENT

| Contract   | Type                      | Bases          |                |               |           |
|--|---------------------------|----------------|----------------|---------------|-----------|
| :-----: :-----: :-----: :-----: :-----:                      |                           |                |                |               |           |
| L  | **Function Name**         | **Visibility** | **Mutability** | **Modifiers** |           |
| **CryptoPepesMines**   Implementation   ERC20, Ownable       |                           |                |                |               |           |
| L  | <Constructor>             | Public         | !              | !             | ERC20     |
| L  | setLiquidityContract      | External       | !              | !             | onlyOwner |
| L  | setWalletsExcludedFromFee | External       | !              | !             | onlyOwner |
| L  | setTax                    | External       | !              | !             | onlyOwner |
| L  | _transfer                 | Internal       | !              | !             |           |
|  |                           |                |                |               |           |
| **ERC20**   Implementation   Context, IERC20, IERC20Metadata |                           |                |                |               |           |
| L  | <Constructor>             | Public         | !              | !             | NO        |
| L  | name                      | Public         | !              | !             | NO        |
| L  | symbol                    | Public         | !              | !             | NO        |
| L  | decimals                  | Public         | !              | !             | NO        |
| L  | totalSupply               | Public         | !              | !             | NO        |
| L  | balanceOf                 | Public         | !              | !             | NO        |
| L  | transfer                  | Public         | !              | !             | NO        |
| L  | allowance                 | Public         | !              | !             | NO        |
| L  | approve                   | Public         | !              | !             | NO        |
| L  | transferFrom              | Public         | !              | !             | NO        |
| L  | increaseAllowance         | Public         | !              | !             | NO        |
| L  | decreaseAllowance         | Public         | !              | !             | NO        |
| L  | _transfer                 | Internal       | !              | !             |           |
| L  | _mint                     | Internal       | !              | !             |           |
| L  | _burn                     | Internal       | !              | !             |           |
| L  | _approve                  | Internal       | !              | !             |           |
| L  | _spendAllowance           | Internal       | !              | !             |           |
| L  | _beforeTokenTransfer      | Internal       | !              | !             |           |
| L  | _afterTokenTransfer       | Internal       | !              | !             |           |
|  |                           |                |                |               |           |
| **IERC20**   Interface                                       |                           |                |                |               |           |
| L  | totalSupply               | External       | !              | !             | NO        |
| L  | balanceOf                 | External       | !              | !             | NO        |
| L  | transfer                  | External       | !              | !             | NO        |
| L  | allowance                 | External       | !              | !             | NO        |
| L  | approve                   | External       | !              | !             | NO        |
| L  | transferFrom              | External       | !              | !             | NO        |
|  |                           |                |                |               |           |
| **IERC20Metadata**   Interface   IERC20                      |                           |                |                |               |           |
| L  | name                      | External       | !              | !             | NO        |
| L  | symbol                    | External       | !              | !             | NO        |

# CONTRACT ASSESMENT

```

|  | decimals | External ! | | NO! |
|  |  |  |  |  |
| **Context** | Implementation | | |
|  | _msgSender | Internal | | |
|  | _msgData | Internal | | |
|  |  |  |  |  |
| **Ownable** | Implementation | Context | | |
|  | <Constructor> | Public ! | | NO! |
|  | owner | Public ! | | NO! |
|  | _checkOwner | Internal | | |
|  | renounceOwnership | Public ! | | onlyOwner |
|  | transferOwnership | Public ! | | onlyOwner |
|  | _transferOwnership | Internal | | |
|  |  |  |  |  |
| **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 | | |
| Symbol | Meaning |
|:-----:|-----|
|  | Function can modify state |
|  | Function is payable |

```



# STATIC ANALYSIS

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```
Context._msgData() (contracts/Token.sol#25-27) is never used and should be removed
ERC20._burn(address,uint256) (contracts/Token.sol#804-820) is never used and should be removed
SafeMath.add(uint256,uint256) (contracts/Token.sol#265-267) is never used and should be removed
SafeMath.div(uint256,uint256,string) (contracts/Token.sol#363-372) is never used and should be removed
SafeMath.mod(uint256,uint256) (contracts/Token.sol#323-325) is never used and should be removed
SafeMath.mod(uint256,uint256,string) (contracts/Token.sol#389-398) is never used and should be removed
SafeMath.sub(uint256,uint256) (contracts/Token.sol#279-281) is never used and should be removed
SafeMath.sub(uint256,uint256,string) (contracts/Token.sol#340-349) is never used and should be removed
SafeMath.tryAdd(uint256,uint256) (contracts/Token.sol#179-188) is never used and should be removed
SafeMath.tryDiv(uint256,uint256) (contracts/Token.sol#230-238) is never used and should be removed
SafeMath.tryMod(uint256,uint256) (contracts/Token.sol#245-253) is never used and should be removed
SafeMath.tryMul(uint256,uint256) (contracts/Token.sol#210-223) is never used and should be removed
SafeMath.trySub(uint256,uint256) (contracts/Token.sol#195-203) is never used and should be removed
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#dead-code

Pragma version^0.8.17 (contracts/Token.sol#8) necessitates a version too recent to be trusted. Consider deploying with 0.6.12/0.7.6/0.8.16
solc-0.8.19 is not recommended for deployment
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#incorrect-versions-of-solidity

Parameter CryptoPepeMines.setTax(uint256)._tax (contracts/Token.sol#1001) is not in mixedCase
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#conformance-to-solidity-naming-conventions

CryptoPepeMines.constructor() (contracts/Token.sol#975-979) uses literals with too many digits:
- _mint(msg.sender,5000000 * 10 ** decimals()) (contracts/Token.sol#976)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#too-many-digits
```

**Result => A static analysis of contract's source code has been performed using slither,**

**No major issues were found in the output**

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# FUNCTIONAL TESTING

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## **Router (PCS V2):**

0xD99D1c33F9fC3444f8101754aBC46c52416550D1

All the functionalities have been tested, no issues were found

### **1- Adding liquidity (passed):**

<https://testnet.bscscan.com/tx/0x971b9dbfdda14a38a5f2ee9009c5c8bc82858b49dcc245a9a41d7be0c9723381>

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

<https://testnet.bscscan.com/tx/0xed6f8a8ab913c9636143e99da63a9f39f4a0a9c1cbdf51377b11976f6ff1ede8>

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

<https://testnet.bscscan.com/tx/0x66a40fa8cbeb864175168e40263f23569405a47b77911b3e8c2ffd46c876e951>

### **4- Transferring when excluded (0% tax) (passed):**

<https://testnet.bscscan.com/tx/0x19ee4889846f047d74c5c6343a6cf34ccacbd2aec42f4d12900c6d77f786a1bb>

### **5- Buying when not excluded (0% tax) (passed):**

<https://testnet.bscscan.com/tx/0x6bbe8a2d92f6be8fb8ed858f8454519727c83903ef28c6aad68b087bcd568a19>

### **6- Selling when not excluded (0% tax) (passed):**

<https://testnet.bscscan.com/tx/0xe41fb967be70440fcbdb414d765fde6634836b3b419b62e038436471ffdc0798>

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# FUNCTIONAL TESTING

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**7- Transferring when not excluded (0% tax) (passed):**

<https://testnet.bscscan.com/tx/0x01bc353e07640965bb52d6bce7dd520d25ec9910782e7c59e51b81aa31ee1ea4>

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# MANUAL TESTING

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## Logical – Fee whitelist

Severity: **Low**

**function:** setExcludedFromFee

**Status:** Not Resolved

### Overview:

if a wallet is excluded from fees, it can not be unexcluded again.

```
function setWalletsExcludedFromFee(address wallet) external onlyOwner {
    require(
        wallet != address(0),
        "address variable can not be zero address"
    );
    require(!isExcludedFromFee[wallet], "This wallet is excluded");
    isExcludedFromFee[wallet] = true;
    emit WalletsExcludedFromFee(wallet);
}
```

### Suggestion

To mitigate this issue, implement a way to unexclude a wallet from fees

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# MANUAL TESTING

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## Informational – Stuck ETH

**Status:** Not Resolved

**Overview:**

Currently there is no way to withdraw ETH from the contract

**Suggestion:**

implement a function to be able to withdraw ETH from the contract

## Informational – Stuck ERC20 tokens

**Status:** Not Resolved

**Overview:**

ERC20 tokens sent to contract can not be rescued.

**Suggestion:**

implement a function to be able to withdraw ERC20 tokens from the contract

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# ABOUT AUDITACE

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We specialize in providing thorough and reliable audits for Web3 projects. With a team of experienced professionals, we use cutting-edge technology and rigorous methodologies to evaluate the security and integrity of blockchain systems. We are committed to helping our clients ensure the safety and transparency of their digital assets and transactions.



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