



Smart Contract Audit

FOR
Core AI

DATED : 04 FEB 23'



AUDIT SUMMARY

Project name – Core AI

Date: 04 February, 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	0	0
Acknowledged	0	0	0	0	0
Resolved	0	0	0	0	0



USED TOOLS

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/0x0e67f3B84c1875D2991083CA8cBE86EaD89dD944>



Token Information

Token Name : Core AI

Token Symbol: Core AI

Decimals: 18

Token Supply: 100,000,000

Token Address:

0x4BD0cf33AA7C6F75Fb4b70438656FFABa2E5986c

Checksum:

f0e4c2f76c58916ec258f246851bea091d14d4247a2f
c3e18694461b1816e13b

Owner:

0x68014a2adC8B950548faDaeD325C5EC88F39e4e5

Deployer:

0x68014a2adC8B950548faDaeD325C5EC88F39e4e5



TOKEN OVERVIEW

Fees:

Buy Fees: 3%

Sell Fees: 3%

Transfer Fees: 0%

Fees Privilige: None

Ownership : Owned

Minting: No mint function

Max Tx Amount/ Max Wallet Amount: No

Blacklist: No

Other Privileges: No



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

0

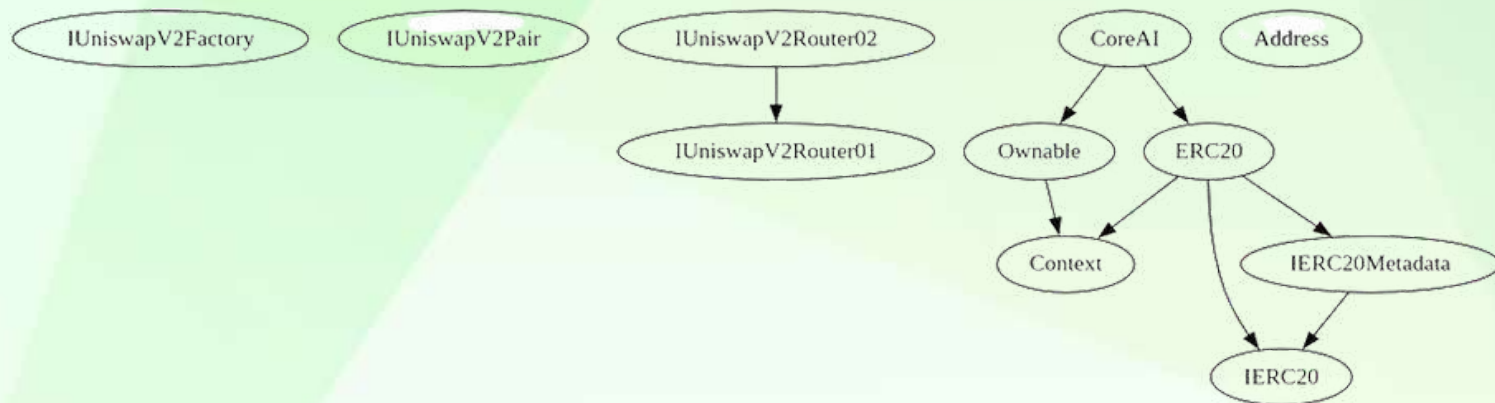
◆ Low-Risk

0

◆ Gas Optimization / Suggestions

0

INHERITANCE TREE





POINTS TO NOTE

- **Owner is not able to set buy/sell taxes over 3% (0% transfer tax)**
 - **Owner is not able to blacklist an arbitrary wallet**
 - **Owner is not able to set max buy/sell/transfer amounts**
 - **Owner is not able to disable trades**
 - **Owner is not able to mint new tokens**
-



CONTRACT ASSESMENT

Contract	Type	Bases			
└──┐	**Function Name**	**Visibility**	**Mutability**	**Modifiers**	
IUniswapV2Factory	Interface				
└ feeTo	External	!	NO	!	
└ feeToSetter	External	!	NO	!	
└ getPair	External	!	NO	!	
└ allPairs	External	!	NO	!	
└ allPairsLength	External	!	NO	!	
└ createPair	External	!		NO	!
└ setFeeTo	External	!		NO	!
└ setFeeToSetter	External	!		NO	!
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	!

CONTRACT ASSESMENT


|||||


| ****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! |

|||||

| ****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! |

|||||



CONTRACT ASSESMENT

```
| **Address** | Library | ||| |
|  | isContract | Internal | | |
|  | sendValue | Internal | | |
|  | functionCall | Internal | | |
|  | functionCall | Internal | | |
|  | functionCallWithValue | Internal | | |
|  | functionCallWithValue | Internal | | |
|  | functionStaticCall | Internal | | |
|  | functionStaticCall | Internal | | |
|  | functionDelegateCall | Internal | | |
|  | functionDelegateCall | Internal | | |
|  | verifyCallResultFromTarget | Internal | | |
|  | verifyCallResult | Internal | | |
|  | _revert | Private | | |
| | | |
| **Context** | Implementation | |||
|  | _msgSender | Internal | | |
|  | _msgData | Internal | | |
| | | |
| **Ownable** | Implementation | Context | |||
|  | <Constructor> | Public | | | NO |
|  | owner | Public | | | NO |
|  | renounceOwnership | Public | | | onlyOwner |
|  | transferOwnership | Public | | | onlyOwner |
| | | |
| **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 | | |
```

CONTRACT ASSESMENT

```

| ^ | _approve | Internal | 🔒 | 🔴 | |
| ^ | _beforeTokenTransfer | Internal | 🔒 | 🔴 | |
| ^ | _afterTokenTransfer | Internal | 🔒 | 🔴 | |
| | | |
| **CoreAI** | Implementation | ERC20, Ownable | | |
| ^ | <Constructor> | Public | ! | 🔴 | ERC20 |
| ^ | <Receive Ether> | External | ! | 💰 | NO! |
| ^ | claimStuckTokens | External | ! | 🔴 | onlyOwner |
| ^ | excludeFromFees | External | ! | 🔴 | onlyOwner |
| ^ | setMarketingFeeOnBuy | External | ! | 🔴 | onlyOwner |
| ^ | setMarketingFeeOnSell | External | ! | 🔴 | onlyOwner |
| ^ | isExcludedFromFees | Public | ! | | NO! |
| ^ | changeMarketingWallet | External | ! | 🔴 | onlyOwner |
| ^ | enableTrading | External | ! | 🔴 | onlyOwner |
| ^ | _transfer | Internal | 🔒 | 🔴 | |
| ^ | setSwapEnabled | External | ! | 🔴 | onlyOwner |
| ^ | setSwapTokensAtAmount | External | ! | 🔴 | onlyOwner |
| ^ | swapAndSendMarketing | Private | 🔒 | 🔴 | |

```

| Symbol | Meaning |

| :-----: | ----- |

| 🔴 | Function can modify state |

| 💰 | Function is payable |



STATIC ANALYSIS

```
Address.revert(bytes,string) (contracts/TestToken.sol#529-544) is never used and should be removed
Address.functionCall(address,bytes) (contracts/TestToken.sol#388-399) is never used and should be removed
Address.functionCall(address,bytes,string) (contracts/TestToken.sol#401-407) is never used and should be removed
Address.functionCallWithValue(address,bytes,uint256) (contracts/TestToken.sol#409-421) is never used and should be removed
Address.functionCallWithValue(address,bytes,uint256,string) (contracts/TestToken.sol#423-443) is never used and should be removed
Address.functionDelegateCall(address,bytes) (contracts/TestToken.sol#472-482) is never used and should be removed
Address.functionDelegateCall(address,bytes,string) (contracts/TestToken.sol#484-497) is never used and should be removed
Address.functionStaticCall(address,bytes) (contracts/TestToken.sol#445-455) is never used and should be removed
Address.functionStaticCall(address,bytes,string) (contracts/TestToken.sol#457-470) is never used and should be removed
Address.isContract(address) (contracts/TestToken.sol#371-373) is never used and should be removed
Address.verifyCallResult(bool,bytes,string) (contracts/TestToken.sol#517-527) is never used and should be removed
Address.verifyCallResultFromTarget(address,bool,bytes,string) (contracts/TestToken.sol#499-515) is never used and should be removed
Context._msgData() (contracts/TestToken.sol#552-555) is never used and should be removed
ERC20._burn(address,uint256) (contracts/TestToken.sol#742-757) is never used and should be removed
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#dead-code

Pragma version<0.8.17 (contracts/TestToken.sol#3) necessitates a version too recent to be trusted. Consider deploying with 0.6.12/0.7.6/0.8.16
solc-0.8.17 is not recommended for deployment
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#incorrect-versions-of-solidity

Low level call in Address.sendValue(address,uint256) (contracts/TestToken.sol#375-380):
- (success) = recipient.call{value: amount}() (contracts/TestToken.sol#381)
Low level call in Address.functionCallWithValue(address,bytes,uint256,string) (contracts/TestToken.sol#423-443):
- (success,returndata) = target.call{value: value}(data) (contracts/TestToken.sol#433-435)
Low level call in Address.functionStaticCall(address,bytes,string) (contracts/TestToken.sol#457-470):
- (success,returndata) = target.staticcall(data) (contracts/TestToken.sol#462)
Low level call in Address.functionDelegateCall(address,bytes,string) (contracts/TestToken.sol#484-497):
- (success,returndata) = target.delegatecall(data) (contracts/TestToken.sol#489)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#low-level-calls

Function IUniswapV2Pair.DOMAIN_SEPARATOR() (contracts/TestToken.sol#65) is not in mixedCase
Function IUniswapV2Pair.PERMIT_TYPEHASH() (contracts/TestToken.sol#67) is not in mixedCase
Function IUniswapV2Pair.MINIMUM_LIQUIDITY() (contracts/TestToken.sol#98) is not in mixedCase
Function IUniswapV2Router01.WETH() (contracts/TestToken.sol#138) is not in mixedCase
Parameter CoreAI.changeMarketingWallet(address).marketingWallet (contracts/TestToken.sol#892) is not in mixedCase
Parameter CoreAI.setSwapEnabled(bool).enabled (contracts/TestToken.sol#974) is not in mixedCase
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#conformance-to-solidity-naming-conventions

Redundant expression "this (contracts/TestToken.sol#553)" inContext (contracts/TestToken.sol#547-556)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#redundant-statements

Variable IUniswapV2Router01.addLiquidity(address,address,uint256,uint256,uint256,uint256,address,uint256).amountADesired (contracts/TestToken.sol#143) is too similar to IUniswapV2Router01.addLiquidity(address,address,uint256,uint256,uint256,uint256,address,uint256).amountBDesired (contracts/TestToken.sol#144)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#variable-names-too-similar

CoreAI.uniswapV2Pair (contracts/TestToken.sol#788) should be immutable
CoreAI.uniswapV2Router (contracts/TestToken.sol#787) should be immutable
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#state-variables-that-could-be-declared-immutable
```

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

No major issues were found in the output



FUNCTIONAL TESTING

Router (PCS V2):

0xD99D1c33F9fC3444f8101754aBC46c52416550D1

1- Adding Liquidity (Passed):

liquidity added on Pancakeswap V2:

<https://testnet.bscscan.com/tx/0x7206b2afd29b0ce1adb72410d20535ac79aa2bd1fb13bd72661ba0f33d21cb3b>

no issue were found on adding liquidity.

2- Buying (3% max tax)(Passed):

<https://testnet.bscscan.com/tx/0x362ce662557a8113add9acd2045f2f9f89b37b24e4d813176e887703f1c92393>

3- Selling (3% max tax)(Passed):

<https://testnet.bscscan.com/tx/0xdf1003223c0ba319052a10b874fd6927e61ebb4ad1a61574beb60d923ba84cfc>

4)Tax swaps – marketing wallet received BNB (Passed):

<https://testnet.bscscan.com/address/0x275e3179d61d47d6a85c521e7d40f4e35e936460#internaltx>



MANUAL TESTING

NO ISSUES FOUND

A solid red rectangular bar is positioned in the bottom right corner of the page.

Social Media Overview

**Here are the Social Media Accounts of
Core AI**



https://t.me/CoreAI_Channel



https://twitter.com/CoreAI_BSC



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