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AuditAce

FROM INCEPTION TO SUCCESS

Smart Contract Audit

FOR

BONKGIRL

DATED : 14 Jan, 2024

MANUAL TESTING

Centralization – Enabling Trades
Severity: High
function: Enabling Trades
Status: Open

Overview:
Tokens swaps are disabled until owner enable trading. Only owner is able to swap/transfer tokens during this time.

```
  function enableTrading() external onlyOwner {
require(!tradingEnabled, "Trading already enabled.");
      tradingEnabled = true;
      swapEnabled = true;

      emit TradingEnabled(tradingEnabled);
  }
```

Suggestion:
To reduce centralization and potential manipulation, consider one of the following approaches:

1. Automatically enable trading after a specified condition, such as the completion of a presale, is met.

2. If manual activation is still desired, consider transferring the ownership of the contract to a trustworthy, third-party entity like a certified "PinkSale Safu" developer. This can give investors more confidence in the eventual activation of trading capabilities, mitigating concerns of potential bad-faith actions by the original owner.

AUDIT SUMMARY

Project name – BONKGIRL

Date: 14 Jan, 2023

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

Audit Status: **Passed With High Risk**

Issues Found

Status	Critical	High	Medium	Low	Suggestion
Open	0	1	1	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 conducted on the BSC 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/tx/0x2a4cd3a6b130b842e3de6a660555ddf9388b3667a733ae419aba28fe18aa6d0d

Token Information

Token Name : BONKGIRL

Token Symbol: BONKGIRL

Decimals: 18

Token Supply: 1,000,000,000

Network: BscScan

Token Type: BEP-20

Token Address:
0x2EA6C9396b214c7cbC035eeC57AED636e35bbd9B

Checksum:
0x55a8b23e1bb3dcfccea5501c4342becea746391ae50d0a8a6a89397d39faf4c1

Owner:
0x90828703979cfFF7fDF96469970e34897fBf3185
(at time of writing the audit)

Deployer:
0x90828703979cfFF7fDF96469970e34897fBf3185

TOKEN OVERVIEW

Fees:

Marketing Tax: 5%

Transfer Fee: 0%

Fees Privilege: Owner

Ownership: Owned

Minting: No mint function

Max Tx Amount/ Max Wallet Amount: No

Blacklist: No

Other Privileges:

Enabling trades

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

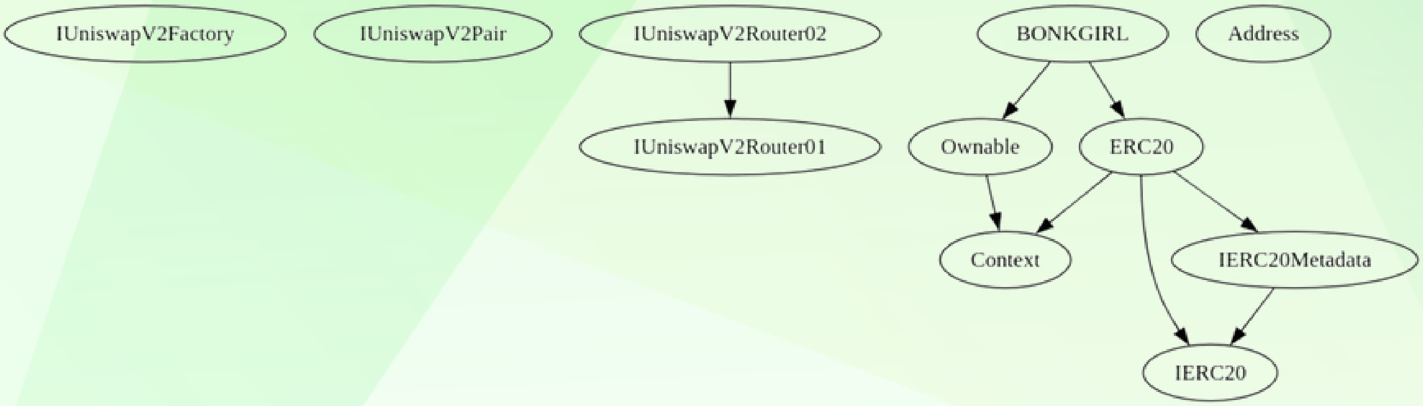
CLASSIFICATION OF RISK

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

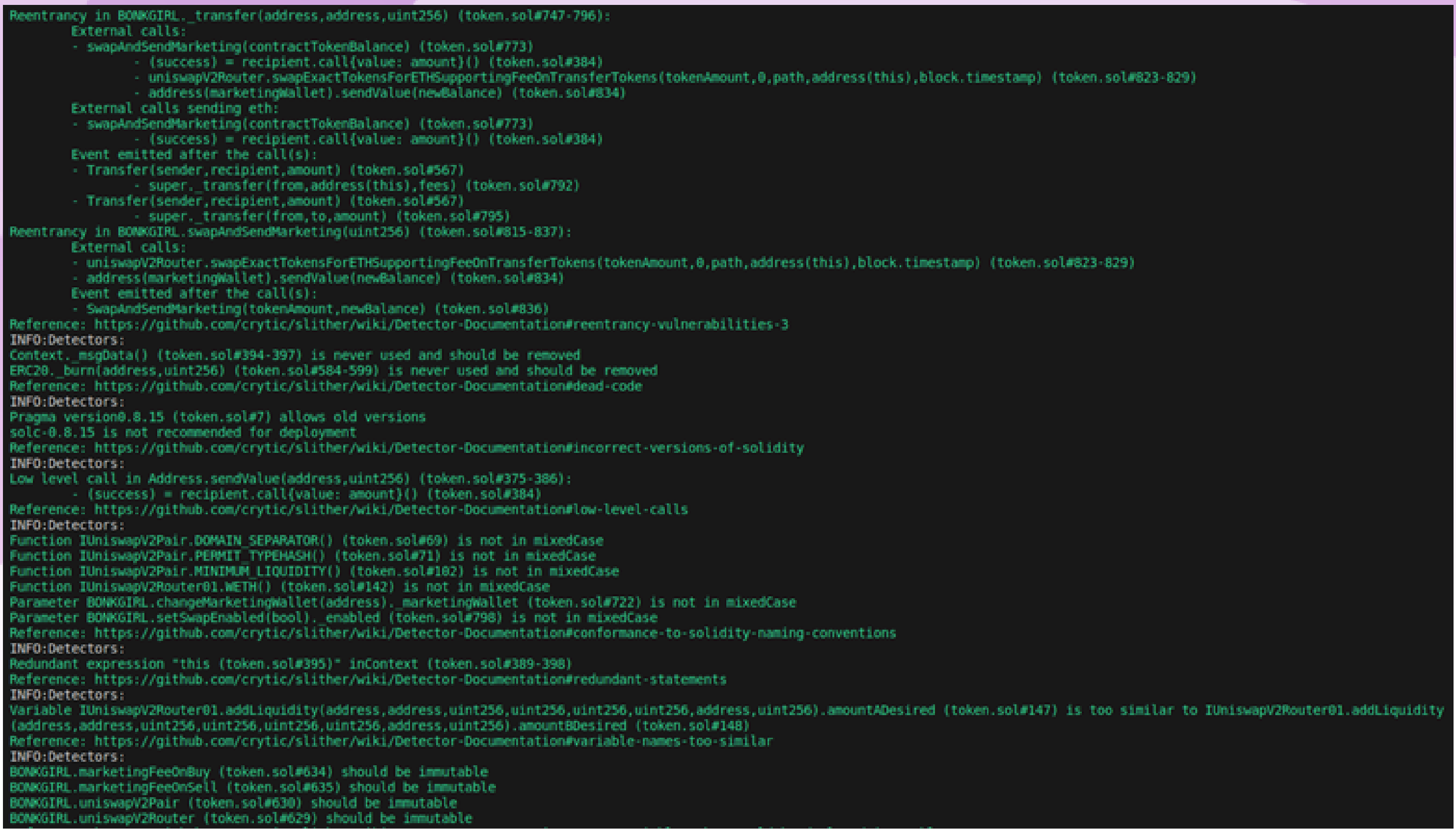
INHERITANCE TREE



POINTS TO NOTE

- The owner can transfer ownership.
- The owner can renounce ownership.
- The owner can Enable trading.
- The owner can Add/Remove the Exempt fee address.

STATIC ANALYSIS



```
Reentrancy in BONKGIRL._transfer(address,address,uint256) (token.sol#747-796):
        External calls:
        - swapAndSendMarketing(contractTokenBalance) (token.sol#773)
                - (success) = recipient.call{value: amount}() (token.sol#384)
                - uniswapV2Router.swapExactTokensForETHSupportingFeeOnTransferTokens(tokenAmount,0,path,address(this),block.timestamp) (token.sol#823-829)
                - address(marketingWallet).sendValue(newBalance) (token.sol#834)
        External calls sending eth:
        - swapAndSendMarketing(contractTokenBalance) (token.sol#773)
                - (success) = recipient.call{value: amount}() (token.sol#384)
        Event emitted after the call(s):
        - Transfer(sender,recipient,amount) (token.sol#567)
                - super._transfer(from,address(this),fees) (token.sol#792)
        - Transfer(sender,recipient,amount) (token.sol#567)
                - super._transfer(from,to,amount) (token.sol#795)
Reentrancy in BONKGIRL.swapAndSendMarketing(uint256) (token.sol#815-837):
        External calls:
        - uniswapV2Router.swapExactTokensForETHSupportingFeeOnTransferTokens(tokenAmount,0,path,address(this),block.timestamp) (token.sol#823-829)
        - address(marketingWallet).sendValue(newBalance) (token.sol#834)
        Event emitted after the call(s):
        - SwapAndSendMarketing(tokenAmount,newBalance) (token.sol#836)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#reentrancy-vulnerabilities-3
INFO:Detectors:
Context._msgData() (token.sol#394-397) is never used and should be removed
ERC20._burn(address,uint256) (token.sol#584-599) is never used and should be removed
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#dead-code
INFO:Detectors:
Pragma version0.8.15 (token.sol#7) allows old versions
solc-0.8.15 is not recommended for deployment
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#incorrect-versions-of-solidity
INFO:Detectors:
Low level call in Address.sendValue(address,uint256) (token.sol#375-386):
        - (success) = recipient.call{value: amount}() (token.sol#384)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#low-level-calls
INFO:Detectors:
Function IUniswapV2Pair.DOMAIN_SEPARATOR() (token.sol#69) is not in mixedCase
Function IUniswapV2Pair.PERMIT_TYPEHASH() (token.sol#71) is not in mixedCase
Function IUniswapV2Pair.MINIMUM_LIQUIDITY() (token.sol#102) is not in mixedCase
Function IUniswapV2Router01.WETH() (token.sol#142) is not in mixedCase
Parameter BONKGIRL.changeMarketingWallet(address)._marketingWallet (token.sol#722) is not in mixedCase
Parameter BONKGIRL.setSwapEnabled(bool)._enabled (token.sol#798) is not in mixedCase
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#conformance-to-solidity-naming-conventions
INFO:Detectors:
Redundant expression "this (token.sol#395)" inContext (token.sol#389-398)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#redundant-statements
INFO:Detectors:
Variable IUniswapV2Router01.addLiquidity(address,address,uint256,uint256,uint256,uint256,address,uint256).amountADesired (token.sol#147) is too similar to IUniswapV2Router01.addLiquidity
(address,address,uint256,uint256,uint256,uint256,address,uint256).amountBDesired (token.sol#148)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#variable-names-too-similar
INFO:Detectors:
BONKGIRL.marketingFeeOnBuy (token.sol#634) should be immutable
BONKGIRL.marketingFeeOnSell (token.sol#635) should be immutable
BONKGIRL.uniswapV2Pair (token.sol#630) should be immutable
BONKGIRL.uniswapV2Router (token.sol#629) should be immutable
```

FUNCTIONAL TESTING

1- Approve (passed):

https://testnet.bscscan.com/tx/0xf91f0f8bf7367e4e43322a55f822de08f103e956ee8a31b2e6c2a6fd67ee978a

2- Increase Allowance (passed):

https://testnet.bscscan.com/tx/0xe937e3c4905e358ae3038974239da1a01f742957c40c5698bed2c5e7141ef9d4

3- Decrease Allowance (passed):

https://testnet.bscscan.com/tx/0xe37a56f0e1a3de4196f1ea9e179fdc7cbcf5b1cdd85de948c7f2e086c366d1c1

4- marketing Wallet(passed):

https://testnet.bscscan.com/tx/0x195281882f13a9b4fdc7d65cdb94001db5d503ece6237abede60eab5b99f54bd

5- exclude from fees (passed):

https://testnet.bscscan.com/tx/0x5653a8016e996312c9b151f28d8df276983df2bdb98c054aba77e0bd61d367dc

6- Enable Trading (passed):

https://testnet.bscscan.com/tx/0x97ac01049caf1d375c5c5bffb9e57b8567508f26cd5fdcc8c369828288032989

7- transfer (passed):

https://testnet.bscscan.com/tx/0x24bf3aeff77fecc714912473f3493d0089f87f7d03d2edb662878834e43de8a4

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Suggestion:

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MANUAL TESTING

Centralization – Slippage control

Severity: Medium

Status: Open

Overview:
there is no slippage control in swapAndSendMarketing when swapping fees into BNB

```
uniswapV2Router.swapExactTokensForETHSupportingFeeOnTransferTokens(
            tokenAmount,
0,
            path,
            address(this),
            block.timestamp
        );
```

Suggestion: Implement slippage control

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