VitalBlock

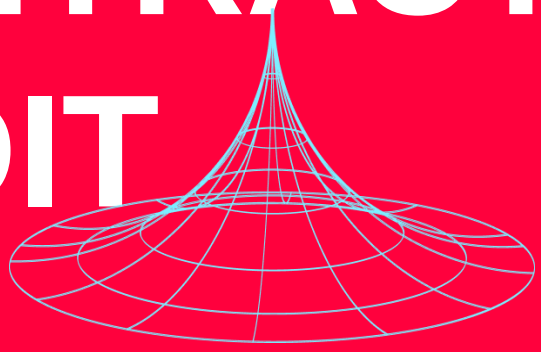
FOR

PICKLERICK

WEBSITE
https://www.picklerick.online

TELEGRAM
https://t.me/PickleRickCrypto

SMART CONTRACT AUDIT



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Blockchain technology and cryptographic assets present a high level of ongoing risk. Vital Block Solidity's position is that each company and individual are responsible for their own due diligence and continuous security. Vital Block Solidity's goal is to help reduce the attack vectors and the high level of variance associated with utilizing new and consistently changing technologies, and in no way claims any guarantee of security or functionality of the technology we agree to analyse

What is a Vital Block Audit report?

- A document describing in detail an in-depth analysis of a particular piece(s) of source code provided to Vital Block Solidity by a Client.

- An organized collection of testing results, analysis and inferences made about the structure, implementation, and overall best practices of a particular piece of source code.

- Representation that a Client of Vital Block Solidity has indeed completed a round of auditing with the intention to increase the quality of the company/ product's IT infrastructure and or source code.

Overview

Project Summary

Project Name	**PICKLERICK**
Description	**Home of the foul mouthed, deranged and intellectual disasterminds.**
Platform	**Binance Mainnet**
Mainnet Contracts:	**0xeefb49c0bd5b39764e57b0406dfd9ad684ddb242 *PICKLERICK (RICK)***
Files:	**PICKLERICK.sol**

Audit Summary

Delivery Date	**June 182022**
Method of Audit	**Security Static Analysis**
Timeline	**Story Points 100**

Vulnerability Summary

Total Issues Found	**1**
Total Issues Resolved	**0**
Total Critical	**0**
Total High	**1**
Total Medium	**2**
Total Low	**0**
Total Informational	**2**

Executive Summary

Our Audit Methodology

- **STEP 1**
  A manual line-by-line code review to ensure the logic behind each function is safe and secured against common attack vectors.

- **STEP 2**
  Simulation of hundreds of thousands of Smart Contract Interactions on a test and Mainnet blockchain using a combination of automated test tools and manual testing to determine if any security vulnerabilities exist.

- **STEP 3**
  Consultation with the project team on the audit report pre-publication to implement recommendations and resolve any outstanding issues.

Grading

The following grading structure is used to assess the level of vulnerability found within all Smart Contracts:

THREAT LEVEL	DEFINITION
Critical	Severe vulnerabilities which compromise the entire protocol and could result in immediate data manipulation or asset loss.
High	Significant vulnerabilities which compromise the functioning of the smart contracts leading to possible data manipulation or asset loss.
Medium	Vulnerabilities which if not fixed within in a set timescale could compromise the functioning of the smart contracts leading to possible data manipulation or asset loss.
Low	Low level vulnerabilities which may or may not have an impact on the optimal performance of the Smart contract.
Informational	Issues related to coding best practice which do not have any impact on the functionality of the Smart Contracts

Description

PICKLERICK ($RICK) is The Home of the foul mouthed, deranged and intellectual disasterminds. Loosely based on the popular show Rick and Morty, In an infinite multiverse where anything can and will happen, we will allow our creativity to unfold. Incentivized BUSD rewards program for holders, future GameFi and NFT space.

Trading fees are 10% on buys and a 10% on sells. The fees are distributed as follows:

Buy Trading Fees 10.0% - LP | 2% - Marketing | 7% - Liquidity | 1% - BUSD Reward

Sell Trading Fees 10.0% - LP | 2% - Marketing | 7% - Liquidity | 1% - BUSD Reward

Initial supply is 100,000,000,000 tokens, distributed as follows

10% - Presale

10% - Initial Liquidity

10% – Exchange Listing

15% – Future Projects

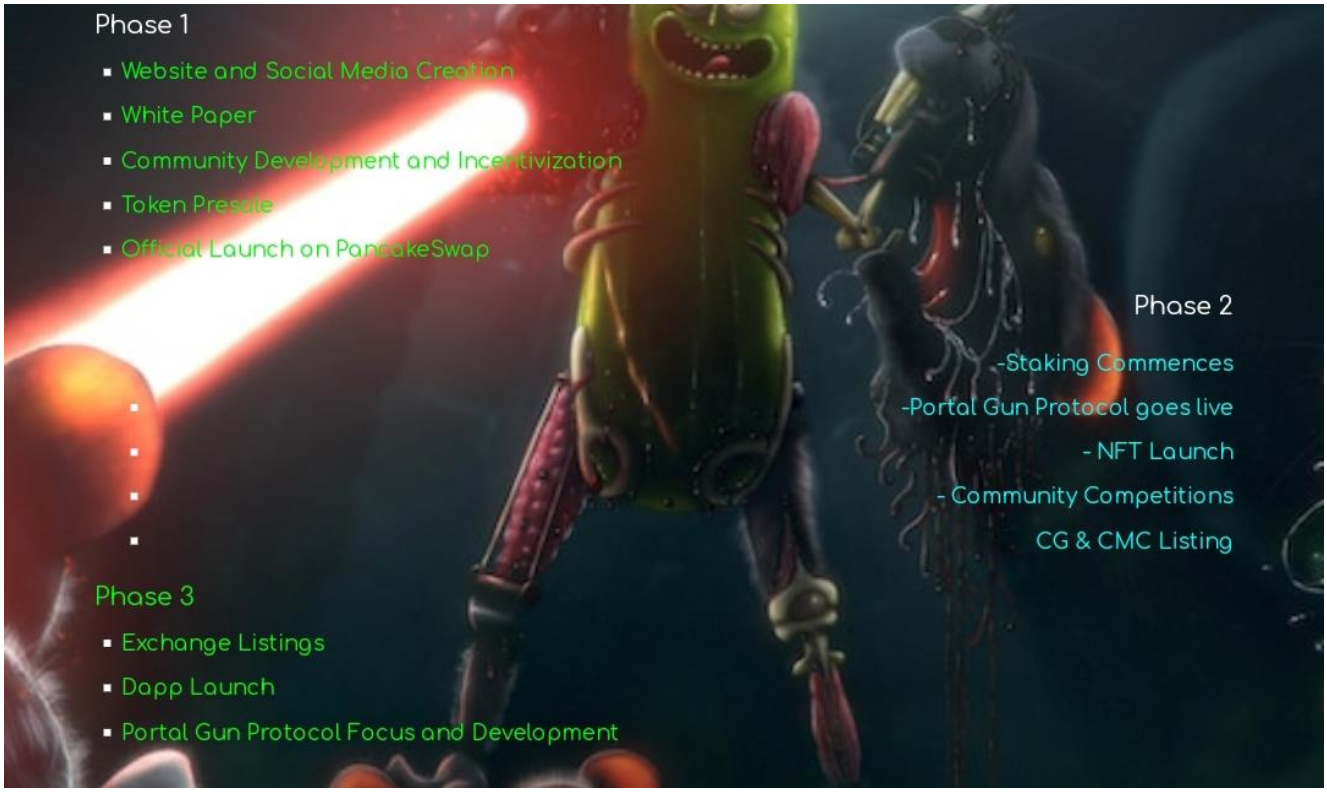
10% - Staking and Farming

5% - Marketing Wallet

5% - Developer/Mod Fund

35% - Periodic Burns

PICKLERICK ROADMAP



Vulnerability 1: Total Supply cant exceed MAX_SUPPLY

Threat level: Medium

Description:
Not a honeypot transaction simulation is success at the moment. Always DYOR before investing.

INFO! There is no liquidity with BNB. Honeypot added liquidity for test. Results with non-BNB pair may differ. If the token is not live yet, results may be different once the token is live. It is common for tokens to have 0% taxes before launching on DEX!

```
341
342     uint256 public launchedAt = 0;
343
344     // Fees receivers
345     address public autoLiquidityReceiver;
346
347     IDEXRouter public router;
348     address public pair;
349
350     bool public tradingOpen = true;
351
352     DividendDistributor public distributor;
353     uint256 distributorGas = 500000;
354
355     bool public swapEnabled = true;
356     bool inSwap;
357     modifier swapping() { inSwap = true; _; inSwap = false; }
358
359     uint256 public swapThreshold = _totalSupply / (1000) * (1); // 0.1%
360
361     constructor () Auth(msg.sender) {
362         router = IDEXRouter(0x10ED43C718714eb63d5aA57B78B54704E256024E);
363         pair = IDEXFactory(router.factory()).createPair(WBNB, address(this));
364         _allowances[address(this)][address(router)] = type(uint256).max;
365
366         distributor = new DividendDistributor(address(router));
367
368         isFeeExempt[msg.sender] = true;
369         isTxLimitExempt[msg.sender] = true;
370
371         canAddLiquidityBeforeLaunch[msg.sender] = true;
372
373         isDividendExempt[pair] = true;
374         isDividendExempt[address(this)] = true;
375         isDividendExempt[DEAD] = true;
```

Vulnerability 1: Owner Can Set Gass Fee up to 90

Threat level: High

Vulnerability 1: Gas optimisation

Threat level 2: Informational

Description: this smart-contract can Modified by Deployer
this can always change! Do your own due diligence.
INFO! Owner can change trading tax fee up to 90 which is Really not a good call on the Smart Contract. Removal fee is private and calculate function

AWFOS (AFS)

Max TX: 10.000 % RICK (~0 BNB)
Gas used for Buying: 333,858.000
Gas used for Selling: 202,172.000

Recommendation:

The contract can be modified so that it can be done via a single call to save gas.

```
578
579     function setIsFeeExempt(address holder, bool exempt) external authorized {
580         isFeeExempt[holder] = exempt;
581     }
582
583     function setIsTxLimitExempt(address holder, bool exempt) external authorized {
584         isTxLimitExempt[holder] = exempt;
585     }
586
587     function setDistributionCriteria(uint256 _minPeriod, uint256 _minDistribution) external
588         distributor.setDistributionCriteria(_minPeriod, _minDistribution);
589     }
590
591     function setDistributorSettings(uint256 gas) external authorized {
592         require(gas < 900000);
593         distributorGas = gas;
594     }
595
596     // Stuck Balances Functions
597     function rescueToken(address tokenAddress, uint256 tokens) public onlyOwner returns (bo
598         return IBEP20(tokenAddress).transfer(msg.sender, tokens);
599     }
```

Issues Checking Status

	Issue description	Checking status
1.	**Compiler errors.**	Passed
2.	**Race conditions and Reentrancy. Cross-function race conditions.**	Passed
3.	**Possible delays in data delivery.**	Passed
4.	**Oracle calls.**	Passed
5.	**Front running.**	Passed
6.	**Timestamp dependence.**	Passed
7.	**Integer Overflow and Underflow.**	Passed
8.	**DoS with Revert.**	Passed
9.	**DoS with block gas limit.**	Passed
10.	**Methods execution permissions.**	Passed
11.	**Economy model of the contract.**	Passed
12.	**The impact of the exchange rate on the logic.**	Passed
13.	**Private user data leaks.**	Passed
14.	**Malicious Event log.**	Passed
15.	**Scoping and Declarations.**	Passed
16.	**Uninitialized storage pointers.**	Passed
17.	**Arithmetic accuracy.**	Passed
18.	**Design Logic.**	Passed
19.	**Cross-function race conditions.**	Passed
20.	**Safe Open Zeppelin contracts implementation and usage.**	Passed
21.	**Fallback function security.**	Passed

Conclusion

During the Vital block Audit process, the Picklerick contract was analysed by manual review and automated testing. All issues identified was after deployment to mainnet. By submitting the contract for audit after Deployment, the team have displayed a strong commitment to security.

Whilst there are no obvious vulnerabilities or security risks identified within the main net contract, it is beyond the scope of this Vital Block Audit to comment upon any risks associated with tokenomics, adoption or platform longevity. Before placing funds in any defi protocol Vital Block encourages potential investors to exercise due diligence and research all projects thoroughly to assess plans for ongoing development and financial sustainability.

Appendix

Finding Categories

Gas Optimization
Gas Optimization findings refer to exhibits that do not affect the functionality of the code but generate different, more optimal EVM opcodes resulting in a reduction on the total gas cost of a transaction.

Mathematical Operations
Mathematical Operation exhibits entail findings that relate to mishandling of math formulas, such as overflows, incorrect operations etc.

Logical Issue
Logical Issue findings are exhibits that detail a fault in the logic of the linked code, such as an incorrect notion on how block.timestamp works.

Control Flow
Control Flow findings concern the access control imposed on functions, such as owner-only functions being invoke-able by anyone under certain circumstances.

Volatile Code
Volatile Code findings refer to segments of code that behave unexpectely on certain edge cases that may result in avulnerability.

Data Flow
Data Flow findings describe faults in the way data is handled at rest and in memory, such as the result of a structassignment operation affecting an in-memory struct rather than an instorage one.

Language Specific
Language Specific findings are issues that would only arise within Solidity, i.e. incorrect usage of private or delete.

Coding Style
Coding Style findings usually do not affect the generated byte-code and comment on how to make the codebase more legible and as a result easily maintainable.

Appendix

Inconsistency

Inconsistency findings refer to functions that should seemingly behave similarly yet contain different code, such as a constructor assignment imposing different require statements on the input variables than a setter function.

Magic Numbers

Magic Number findings refer to numeric literals that are expressed in the codebase in their raw format and should otherwise be specified as constant contract variables aiding in their legibility and maintainability.

Compiler Error

Compiler Error findings refer to an error in the structure of the code that renders it impossible to compile using the specified version of the project.

Dead Code

Code that otherwise does not affect the functionality of the codebase and can be safely omitted.

VitalBlock

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Decentralized Smart Contract Auditing Firm.