



**TechRate**  
AUDIT COMPANY

# Smart Contract Security Audit

# Audit Details



Audited project

**BABY BAKE**



Deployer address

**0x21DcB4D15B0E8Ce37823742c607e38273440D3B7**



Client contacts:

**BABY BAKE team**



Blockchain

**Binance Smart Chain**



Project website:

<https://babybake.com>

# Disclaimer

This is a limited report on our findings based on our analysis, in accordance with good industry practice as at the date of this report, in relation to cybersecurity vulnerabilities and issues in the framework and algorithms based on smart contracts, the details of which are set out in this report. In order to get a full view of our analysis, it is crucial for you to read the full report. While we have done our best in conducting our analysis and producing this report, it is important to note that you should not rely on this report and cannot claim against us on the basis of what it says or doesn't say, or how we produced it, and it is important for you to conduct your own independent investigations before making any decisions. We go into more detail on this in the below disclaimer below – please make sure to read it in full.

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The analysis of the security is purely based on the smart contracts alone. No applications or operations were reviewed for security. No product code has been reviewed.

# Background

TechRate was commissioned by BABY BAKE to perform an audit of smart contracts:

<https://bscscan.com/address/0x4f73b1f7adcf65d0fa744fd49a8d0341f478cd24#code>

The purpose of the audit was to achieve the following:

- Ensure that the smart contract functions as intended.
- Identify potential security issues with the smart contract.

The information in this report should be used to understand the risk exposure of the smart contract, and as a guide to improve the security posture of the smart contract by remediating the issues that were identified.

# Contracts Details

## Token contract details for 26.07.2021

Contract name	BABYBAKE
Contract address	0x4f73b1f7Adcf65D0FA744fd49a8D0341f478CD24
Total supply	100,000,000,000
Token ticker	BABYBAKE
Decimals	18
Token holders	4,401
Transactions count	63,994
Top 100 holders dominance	66.04%
Liquidity fee	3
BAKER rewards fee	7
Marketing fee	5
Total fees	15
Dividend tracker	0x24f7e8e15bee7c1f9c8624e42315f17d0cf80a02
Uniswap V2 pair	0xddd1fcd8adef129b2dfb4517a7c82851ccad75d9
Contract deployer address	0x21DcB4D15B0E8Ce37823742c607e38273440D3B7
Contract's current owner address	0x21dcb4d15b0e8ce37823742c607e38273440d3b7



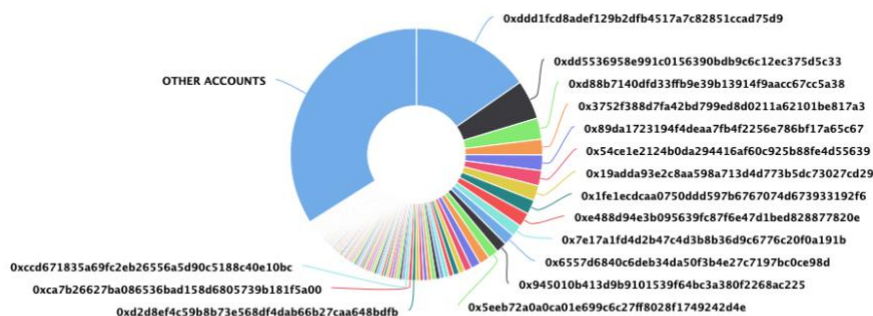
# BABY BAKE Token Distribution

The top 100 holders collectively own 66.04% (66,038,421,916.62 Tokens) of BABY BAKE

Token Total Supply: 100,000,000,000.00 Token | Total Token Holders: 4,401

BABY BAKE Top 100 Token Holders

Source: BscScan.com



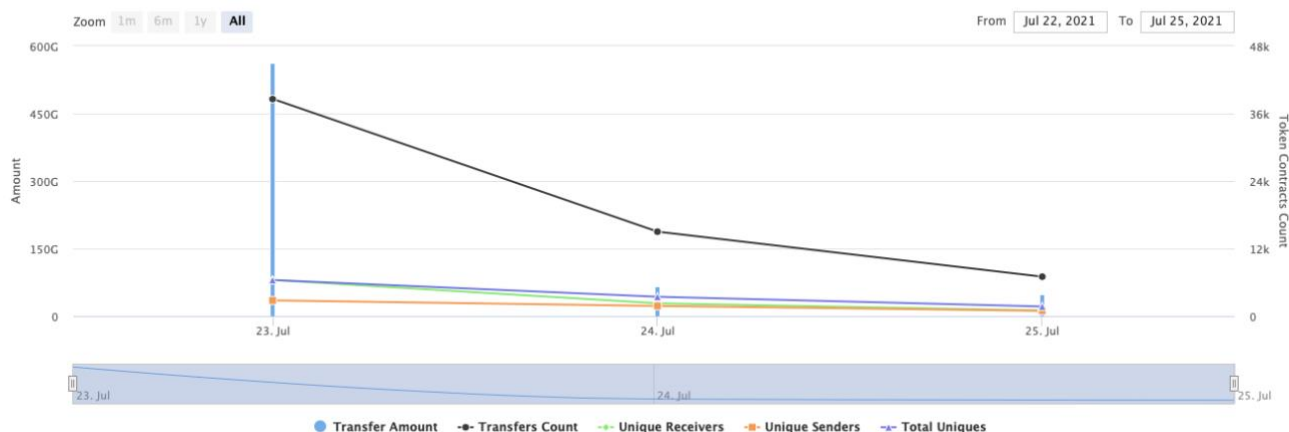
(A total of 66,038,421,916.62 tokens held by the top 100 accounts from the total supply of 100,000,000,000.00 token)

## BABY BAKE Contract Interaction Details


Time Series: Token Contract Overview

Fri 23, Jul 2021 - Sun 25, Jul 2021

Token Contract 0x4f73b1f7adcf65d0fa744fd49a8d0341f478cd24 (BABY BAKE)  
Source: BscScan.com



# BABY BAKE Top 10 Token Holders

Rank	Address	Quantity (Token)	Percentage
1	 0xdddf1cd8adef129b2dfb4517a7c82851ccad75d9	15,329,334,331.469192284525795396	15.3293%
2	0xdd5536958e991c0156390bdb9c6c12ec375d5c33	5,000,000,000	5.0000%
3	0xd88b7140dfd33ffb9e39b13914f9aacc67cc5a38	2,727,226,537.193949726285317886	2.7272%
4	0x3752f388d7fa42bd799ed8d0211a62101be817a3	1,999,999,999	2.0000%
5	0x89da1723194f4deaa7fb4f2256e786bf17a65c67	1,999,999,998	2.0000%
6	0x54ce1e2124b0da294416af60c925b88fe4d55639	1,952,438,032.660206946995734691	1.9524%
7	0x19adda93e2c8aa598a713d4d773b5dc73027cd29	1,920,000,000	1.9200%
8	0x1fe1ecdcaa0750ddd597b6767074d673933192f6	1,848,999,958.959843026190910671	1.8490%
9	0xe488d94e3b095639fc87f6e47d1bed828877820e	1,814,939,451.444837683880244029	1.8149%
10	0x7e17a1fd4d2b47c4d3b8b36d9c6776c20f0a191b	1,499,999,999	1.5000%



# Contract functions details

- + [Lib] SafeMathUint
  - [Int] toInt256Safe
- + [Lib] SafeMathInt
  - [Int] mul
  - [Int] div
  - [Int] sub
  - [Int] add
  - [Int] abs
  - [Int] toUint256Safe
- + [Lib] SafeMath
  - [Int] add
  - [Int] sub
  - [Int] sub
  - [Int] mul
  - [Int] div
  - [Int] div
  - [Int] mod
  - [Int] mod
- + Ownable (Context)
  - [Pub] <Constructor> #
  - [Pub] owner
  - [Pub] renounceOwnership #
    - modifiers: onlyOwner
  - [Pub] transferOwnership #
    - modifiers: onlyOwner
- + [Int] IUniswapV2Router01
  - [Ext] factory
  - [Ext] WETH
  - [Ext] addLiquidity #
  - [Ext] addLiquidityETH (\$)
  - [Ext] removeLiquidity #
  - [Ext] removeLiquidityETH #
  - [Ext] removeLiquidityWithPermit #
  - [Ext] removeLiquidityETHWithPermit #
  - [Ext] swapExactTokensForTokens #
  - [Ext] swapTokensForExactTokens #
  - [Ext] swapExactETHForTokens (\$)
  - [Ext] swapTokensForExactETH #
  - [Ext] swapExactTokensForETH #
  - [Ext] swapETHForExactTokens (\$)
  - [Ext] quote
  - [Ext] getAmountOut
  - [Ext] getAmountIn
  - [Ext] getAmountsOut
  - [Ext] getAmountsIn
- + [Int] IUniswapV2Router02 (IUniswapV2Router01)



- [Ext] removeLiquidityETHSupportingFeeOnTransferTokens #
- [Ext] removeLiquidityETHWithPermitSupportingFeeOnTransferTokens #
- [Ext] swapExactTokensForTokensSupportingFeeOnTransferTokens #
- [Ext] swapExactETHForTokensSupportingFeeOnTransferTokens (\$)
- [Ext] swapExactTokensForETHSupportingFeeOnTransferTokens #

- + [Int] IUniswapV2Pair
  - [Ext] name
  - [Ext] symbol
  - [Ext] decimals
  - [Ext] totalSupply
  - [Ext] balanceOf
  - [Ext] allowance
  - [Ext] approve #
  - [Ext] transfer #
  - [Ext] transferFrom #
  - [Ext] DOMAIN\_SEPARATOR
  - [Ext] PERMIT\_TYPEHASH
  - [Ext] nonces
  - [Ext] permit #
  - [Ext] MINIMUM\_LIQUIDITY
  - [Ext] factory
  - [Ext] token0
  - [Ext] token1
  - [Ext] getReserves
  - [Ext] price0CumulativeLast
  - [Ext] price1CumulativeLast
  - [Ext] kLast
  - [Ext] mint #
  - [Ext] burn #
  - [Ext] swap #
  - [Ext] skim #
  - [Ext] sync #
  - [Ext] initialize #

- + [Int] IUniswapV2Factory
  - [Ext] feeTo
  - [Ext] feeToSetter
  - [Ext] getPair
  - [Ext] allPairs
  - [Ext] allPairsLength
  - [Ext] createPair #
  - [Ext] setFeeTo #
  - [Ext] setFeeToSetter #

- + [Lib] IterableMapping
  - [Pub] get
  - [Pub] getIndexOfKey
  - [Pub] getKeyAtIndex
  - [Pub] size
  - [Pub] set #
  - [Pub] remove #

- + [Int] IERC20Metadata (IERC20)
  - [Ext] name

- [Ext] symbol
- [Ext] decimals

+ [Int] IERC20

- [Ext] totalSupply
- [Ext] balanceOf
- [Ext] transfer #
- [Ext] allowance
- [Ext] approve #
- [Ext] transferFrom #

+ ERC20 (Context, IERC20, IERC20Metadata)

- [Pub] <Constructor> #
- [Pub] name
- [Pub] symbol
- [Pub] decimals
- [Pub] totalSupply
- [Pub] balanceOf
- [Pub] transfer #
- [Pub] allowance
- [Pub] approve #
- [Pub] transferFrom #
- [Pub] increaseAllowance #
- [Pub] decreaseAllowance #
- [Int] \_transfer #
- [Int] \_mint #
- [Int] \_burn #
- [Int] \_approve #
- [Int] \_beforeTokenTransfer #

+ [Int] DividendPayingTokenOptionalInterface

- [Ext] withdrawableDividendOf
- [Ext] withdrawnDividendOf
- [Ext] accumulativeDividendOf

+ [Int] DividendPayingTokenInterface

- [Ext] dividendOf
- [Ext] withdrawDividend #

+ DividendPayingToken (ERC20, Ownable, DividendPayingTokenInterface, DividendPayingTokenOptionalInterface)

- [Pub] <Constructor> #
  - modifiers: ERC20
- [Pub] distributeBAKEDividends #
  - modifiers: onlyOwner
- [Pub] withdrawDividend #
- [Int] \_withdrawDividendOfUser #
- [Pub] dividendOf
- [Pub] withdrawableDividendOf
- [Pub] withdrawnDividendOf
- [Pub] accumulativeDividendOf
- [Int] \_transfer #
- [Int] \_mint #
- [Int] \_burn #
- [Int] \_setBalance #

## + Context

- [Int] \_msgSender
- [Int] \_msgData

## + BABYBAKE (ERC20, Ownable)

- [Pub] <Constructor> #
  - modifiers: ERC20
- [Ext] <Fallback> (\$)
- [Pub] updateDividendTracker #
  - modifiers: onlyOwner
- [Pub] updateUniswapV2Router #
  - modifiers: onlyOwner
- [Pub] excludeFromFees #
  - modifiers: onlyOwner
- [Pub] excludeMultipleAccountsFromFees #
  - modifiers: onlyOwner
- [Ext] setMarketingWallet #
  - modifiers: onlyOwner
- [Ext] setBAKERewardsFee #
  - modifiers: onlyOwner
- [Ext] setLiquiditFee #
  - modifiers: onlyOwner
- [Ext] setMarketingFee #
  - modifiers: onlyOwner
- [Ext] setMaxWalletLimit #
  - modifiers: onlyOwner
- [Pub] setAutomatedMarketMakerPair #
  - modifiers: onlyOwner
- [Ext] blacklistAddress #
  - modifiers: onlyOwner
- [Prv] \_setAutomatedMarketMakerPair #
- [Pub] updateGasForProcessing #
  - modifiers: onlyOwner
- [Ext] updateClaimWait #
  - modifiers: onlyOwner
- [Ext] getClaimWait
- [Ext] getTotalDividendsDistributed
- [Pub] isExcludedFromFees
- [Pub] withdrawableDividendOf
- [Pub] dividendTokenBalanceOf
- [Ext] excludeFromDividends #
  - modifiers: onlyOwner
- [Ext] getAccountDividendsInfo
- [Ext] getAccountDividendsInfoAtIndex
- [Ext] processDividendTracker #
- [Ext] claim #
- [Ext] getLastProcessedIndex
- [Ext] getNumberOfDividendTokenHolders
- [Int] \_transfer #
- [Prv] swapAndSendToFee #
- [Prv] swapAndLiquify #
- [Prv] swapTokensForEth #
- [Prv] swapTokensForBake #
- [Prv] addLiquidity #

- [Prv] swapAndSendDividends #
- + BABYBAKEDividendTracker (Ownable, DividendPayingToken)
  - [Pub] <Constructor> #
    - modifiers: DividendPayingToken
  - [Int] \_transfer #
  - [Pub] withdrawDividend #
  - [Ext] excludeFromDividends #
    - modifiers: onlyOwner
  - [Ext] updateClaimWait #
    - modifiers: onlyOwner
  - [Ext] getLastProcessedIndex
  - [Ext] getNumberOfTokenHolders
  - [Pub] getAccount
  - [Pub] getAccountAtIndex
  - [Prv] canAutoClaim
  - [Ext] setBalance #
    - modifiers: onlyOwner
  - [Pub] process #
  - [Pub] processAccount #
    - modifiers: onlyOwner

(\$) = payable function

# = non-constant function

# 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.	Low issue
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

# Security Issues

## ✓ High Severity Issues

No high severity issues found.

## ✓ Medium Severity Issues

No medium severity issues found.

## ✓ Low Severity Issues

### 1. Out of gas

Issue:

- The function `excludeMultipleAccountsFromFees()` uses the loop to exclude multiple accounts from fees. Function will be aborted with `OUT_OF_GAS` exception if there will be a long addresses list.

## Notes:

- Dividend tracker may be changed. So that logic of `setBalance` and other functions could be another and not audited.

## Owner privileges (In the period when the owner is not renounced)

- Owner can change dividend tracker.
- Owner can change Uniswap router address.
- Owner can exclude from the fees.
- Owner can exclude and include addresses in `automatedMarketMakerPairs` array.
- Owner can change BAKE rewards, marketing, liquidity fee.
- Owner can change max wallet limit.
- Owner can blacklist addresses.
- Owner can change gas for processing.
- Owner can update `claimWait` value.
- Owner can change marketing wallet.
- Owner can exclude from dividends.



# Conclusion

Smart contracts do not contain high severity issues! Liquidity pair contract's security is not checked due to out of scope. The further transfers and operations with the funds raise are not related to this particular contract.

Liquidity locking details provided by the team:

[https://dxsale.app/app/v2\\_9/dxlockview?id=0&add=0x21DcB4D15B0E8Ce37823742c607e38273440D3B7&type=lplock&chain=BSC](https://dxsale.app/app/v2_9/dxlockview?id=0&add=0x21DcB4D15B0E8Ce37823742c607e38273440D3B7&type=lplock&chain=BSC)

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## *TechRate note:*

*Please check the disclaimer above and note, the audit makes no statements or warranties on business model, investment attractiveness or code sustainability. The report is provided for the only contract mentioned in the report and does not include any other potential contracts deployed by Owner.*



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