

# Audit Report MyLottery

January 2022

Type BEP20

Network BSC

Address 0xfB0e07E2Cd01b303cA9565A061E1ea073188D038

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# **Table of Contents**

Table of Contents	1
Contract Review	3
Audit Updates	3
Contract Analysis	4
ELFM - Exceed Limit Fees Manipulation	5
Description	5
Recommendation	5
Contract Diagnostics	6
L01 - Public Function could be Declared External	7
Description	7
Recommendation	7
L02 - State Variables could be Declared Constant	8
Description	8
Recommendation	8
L04 - Conformance to Solidity Naming Conventions	9
Description	9
Recommendation	9
L09 - Dead Code Elimination	10
Description	10
Recommendation	10
L07 - Missing Events Arithmetic	11
Description	11
Recommendation	11
L08 - Tautology or Contradiction	12
Description	12
Recommendation	12



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Contract Functions 13
Contract Flow 18
Domain Info 19
Summary 20
Disclaimer 21
About Coinscope 22

2



# **Contract Review**

Contract Name	Token
Compiler Version	v0.8.6+commit.11564f7e
Optimization	200 runs
Licence	MIT
Explorer	https://bscscan.com/token/0xfB0e07E2Cd01b303cA9 565A061E1ea073188D038
Symbol	MLY
Decimals	18
Total Supply	500,000,000
Source	contract.sol
Domain	mylottery.io

# **Audit Updates**

Initial Audit	27th January 2022
Corrected	



# **Contract Analysis**

CriticalMediumMinorPass

Severity	Code	Description
•	ST	Contract Owner is not able to stop or pause transactions
•	OCTD	Contract Owner is not able to transfer tokens from specific address
•	OTUT	Owner Transfer User's Tokens
•	ELFM	Contract Owner is not able to increase fees more than a reasonable percent (25%)
•	ULTW	Contract Owner is not able to increase the amount of liquidity taken by dev wallet more than a reasonable percent
•	MT	Contract Owner is not able to mint new tokens
•	ВТ	Contract Owner is not able to burn tokens from specific wallet
•	ВС	Contract Owner is not able to blacklist wallets from selling



#### **ELFM - Exceed Limit Fees Manipulation**

Criticality	medium
Location	contract.sol#L935

#### Description

The contract owner has the authority to increase over the allowed limit of 25%. The owner may take advantage of it by calling the setAllFeePercent function with 10% value for all the taxes. As an outcome it will add up to total fees of 50%.

```
function setAllFeePercent(uint8 taxFee, uint8 liquidityFee, uint8 burnFee,
uint8 walletFee, uint8 buybackFee) external onlyOwner() {
    require(taxFee >= 0 && taxFee <=maxTaxFee, "TF err");
    require(liquidityFee >= 0 && liquidityFee <=maxLiqFee, "LF err");
    require(burnFee >= 0 && burnFee <=maxBurnFee, "BF err");
    require(walletFee >= 0 && walletFee <=maxWalletFee, "WF err");
    require(buybackFee >= 0 && buybackFee <=maxBuybackFee, "BBF err");</pre>
```

#### Recommendation

The contract could embody a check for the maximum acceptable value.

The team should carefully manage the private keys of the owner's account. We strongly recommend a powerful security mechanism that will prevent a single user from accessing the contract admin functions. That risk can be prevented by temporarily locking the contract or renouncing ownership.



# **Contract Diagnostics**

CriticalMediumMinor

Severity	Code	Description
•	L01	Public Function could be Declared External
•	L02	State Variables could be Declared Constant
•	L04	Conformance to Solidity Naming Conventions
•	L09	Dead Code Elimination
•	L07	Missing Events Arithmetic
•	L08	Tautology or Contradiction



#### L01 - Public Function could be Declared External

Criticality	minor
Location	contract.sol#L1325,L1068,L967 and 23 more

#### Description

Public functions that are never called by the contract should be declared external to save gas.

recoverBEP20
isExcludedFromFee
setSwapAndLiquifyEnabled
...

#### Recommendation

Use the external attribute for functions never called from the contract.



#### L02 - State Variables could be Declared Constant

Criticality	minor
Location	contract.sol#L722,L730,L711 and 7 more

#### Description

Constant state variables should be declared constant to save gas.

```
router
mintedByMudra
minMxWalletPercentage
...
```

#### Recommendation

Add the constant attribute to state variables that never change.



# L04 - Conformance to Solidity Naming Conventions

Criticality	minor
Location	contract.sol#L759,L758,L748 and 11 more

#### Description

Solidity defines a naming convention that should be followed. Rule exceptions:

- Allow constant variable name/symbol/decimals to be lowercase.
- Allow \_ at the beginning of the mixed\_case match for private variables and unused parameters.

```
_maxWalletAmount
_maxTxAmount
_buybackFee
...
```

#### Recommendation

Follow the Solidity naming convention.

https://docs.soliditylang.org/en/v0.4.25/style-guide.html#naming-conventions



## L09 - Dead Code Elimination

Criticality	minor
Location	contract.sol#L227,L211,L399 and 13 more

#### Description

Functions that are not used in the contract, and make the code's size bigger.

```
mod
safeTransferFrom
safeTransfer
...
```

#### Recommendation

Remove unused functions.



## L07 - Missing Events Arithmetic

Criticality	minor
Location	contract.sol#L960,L953,L949 and 1 more

#### Description

Detected missing events for critical arithmetic parameters. There are functions that have no event emitted, so it is difficult to track off-chain changes.

```
_maxWalletAmount = _tTotal.mul(maxWalletPercent).div(10 ** 2)
_maxTxAmount = _tTotal.mul(maxTxPercent).div(10 ** 2)
buyBackUpperLimit = buyBackLimit * 10 ** 18
...
```

#### Recommendation

Emit an event for critical parameter changes.



## L08 - Tautology or Contradiction

Criticality	minor
Location	contract.sol#L932 and 2 more

#### Description

Detects expressions that are tautologies or contradictions. For instance, an uint variable will always be greater than or equal to zero.

```
require(bool,string)(liquidityFee >= 0 && liquidityFee <= maxLiqFee,LF err)
require(bool,string)(buybackFee >= 0 && buybackFee <= maxBuybackFee,BBF err)
require(bool,string)(taxFee >= 0 && taxFee <= maxTaxFee,TF err)
...</pre>
```

#### Recommendation

Fix the incorrect comparison by changing the value type or the comparison.



# **Contract Functions**

Contract	Туре	Bases		
	Function Name	Visibility	Mutability	Modifiers
IERC20	Interface			
	totalSupply	External		-
	balanceOf	External		-
	transfer	External	<b>✓</b>	-
	allowance	External		-
	approve	External	✓	-
	transferFrom	External	✓	-
SafeMath	Library			
	add	Internal		
	sub	Internal		
	sub	Internal		
	mul	Internal		
	div	Internal		
	div	Internal		
	mod	Internal		
	mod	Internal		
Context	Implementation			
	_msgSender	Internal		
	_msgData	Internal		
Address	Library			
	isContract	Internal		
	sendValue	Internal	<b>√</b>	
	functionCall	Internal	<b>√</b>	
	functionCall	Internal	1	
	functionCallWithValue	Internal	1	
	functionCallWithValue	Internal	1	



	_functionCallWithValue	Private	✓	
SafeERC20	Library			
	safeTransfer	Internal	1	
	safeTransferFrom	Internal	1	
	safeApprove	Internal	1	
	safeIncreaseAllowance	Internal	1	
	safeDecreaseAllowance	Internal	1	
	_callOptionalReturn	Private	1	
Ownable	Implementation	Context		
	<constructor></constructor>	Public	✓	-
	owner	Public		-
	renounceOwnership	Public	✓	onlyOwner
	transferOwnership	Public	✓	onlyOwner
	geUnlockTime	Public		-
	lock	Public	1	onlyOwner
	unlock	Public	✓	-
IUniswapV2Fa ctory	Interface			
	feeTo	External		-
	feeToSetter	External		-
	getPair	External		-
	allPairs	External		-
	allPairsLength	External		-
	createPair	External	1	-
	setFeeTo	External	✓	-
	setFeeToSetter	External	1	-
IUniswapV2Ro uter01	Interface			
	factory	External		-
	WETH	External		-
	addLiquidity	External	1	-
	addLiquidityETH	External	Payable	_



	removeLiquidity	External	✓	-
	removeLiquidityETH	External	✓	-
	removeLiquidityWithPermit	External	/	-
	removeLiquidityETHWithPermit	External	√ ·	-
	swapExactTokensForTokens	External	/	_
	swapTokensForExactTokens	External	/	-
	swapExactETHForTokens	External	Payable	-
	swapTokensForExactETH	External	√	-
	swapExactTokensForETH	External	/	_
	swapETHForExactTokens	External	Payable	-
	quote	External	1 dyddio	_
	getAmountOut	External		-
	getAmountIn	External		-
	getAmountsOut	External		_
	getAmountsIn	External		_
	getAmountsin	LAterrial		
IUniswapV2Ro uter02	Interface	IUniswapV2 Router01		
	removeLiquidityETHSupportingFeeOn TransferTokens	External	1	-
	removeLiquidityETHWithPermitSuppo rtingFeeOnTransferTokens	External	<b>√</b>	-
	swapExactTokensForTokensSupporti ngFeeOnTransferTokens	External	1	-
	swapExactETHForTokensSupporting FeeOnTransferTokens	External	Payable	-
	swapExactTokensForETHSupporting FeeOnTransferTokens	External	1	-
Token	Implementation	Context, IERC20, Ownable		
	<constructor></constructor>	Public	<b>✓</b>	-
	name	Public		-
	symbol	Public		-
	decimals	Public		-
	totalSupply	Public		-
	balanceOf	Public		-



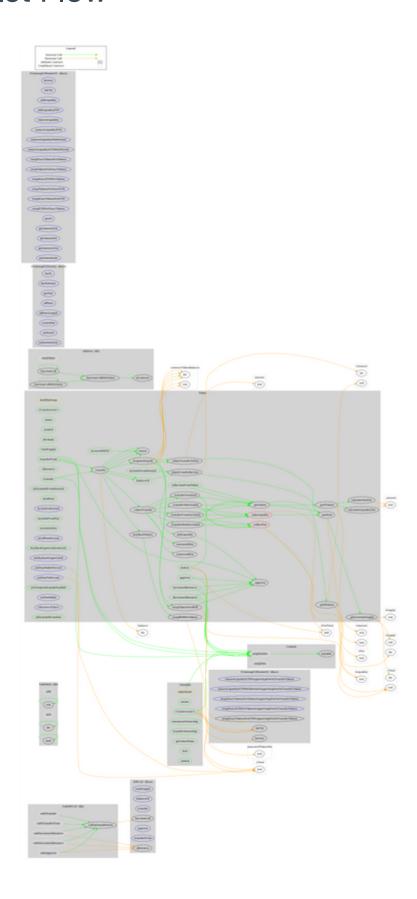
transfer	Public	✓	-
allowance	Public		-
approve	Public	✓	-
transferFrom	Public	1	-
increaseAllowance	Public	1	-
decreaseAllowance	Public	1	-
isExcludedFromReward	Public		-
totalFees	Public		-
deliver	Public	1	-
reflectionFromToken	Public		-
tokenFromReflection	Public		-
excludeFromReward	Public	<b>✓</b>	onlyOwner
includeInReward	External	1	onlyOwner
excludeFromFee	Public	1	onlyOwner
includeInFee	Public	1	onlyOwner
setAllFeePercent	External	<b>✓</b>	onlyOwner
buyBackUpperLimitAmount	Public		-
setBuybackUpperLimit	External	<b>✓</b>	onlyOwner
setMaxTxPercent	External	<b>✓</b>	onlyOwner
setMaxWalletPercent	External	1	onlyOwner
setSwapAndLiquifyEnabled	Public	1	onlyOwner
setFeeWallet	External	<b>✓</b>	onlyOwner
<receive ether=""></receive>	External	Payable	-
_reflectFee	Private	1	
_getValues	Private		
_getTValues	Private		
_getRValues	Private		
_getRate	Private		
_getCurrentSupply	Private		
_takeLiquidity	Private	<b>✓</b>	
calculateTaxFee	Private		
calculateLiquidityFee	Private		
removeAllFee	Private	<b>✓</b>	
restoreAllFee	Private	1	
	Public		



_арр	rove	Private	✓	
_tran	sfer	Private	✓	
swap	AndLiquify	Private	✓	lockTheSwap
buyB	ackTokens	Private	✓	lockTheSwap
swap	TokensForBNB	Private	✓	
swap	BNBForTokens	Private	✓	
addL	iquidity	Private	✓	
_toke	nTransfer	Private	✓	
_tran	sferStandard	Private	✓	
_tran	sferToExcluded	Private	✓	
_tran	sferFromExcluded	Private	✓	
_tran	sferBothExcluded	Private	✓	
_toke	nTransferNoFee	Private	✓	
recov	verBEP20	Public	✓	onlyOwner



# **Contract Flow**





# Domain Info

Domain Name	mylottery.io
Registry Domain ID	dac7bd289009481eb4c135b1ba336a13-DONUTS
Creation Date	2021-12-10T16:22:39Z
Updated Date	2021-12-16T01:26:07Z
Registry Expiry Date	2022-12-10T16:22:39Z
Registrar WHOIS Server	whois.godaddy.com/
Registrar URL	http://www.godaddy.com/domains/search.aspx?ci=89 90
Registrar	GoDaddy.com, LLC
Registrar IANA ID	146

The domain has been created about 2 months before the creation of the audit. It will expire in 11 months.

There is no public billing information, the creator is protected by the privacy settings.



# Summary

Mylottery aims to be The Very First Cross-chain Gambling & Lottery Protocol. The Project has a friendly and growing community. The Smart Contract analysis reported no compiler errors and only 1 medium threat issue. There are some functions that can be abused by the owner, like manipulating fees up to 50%. A multi-wallet signing pattern will provide security against potential hacks. Temporarily locking the contract or renouncing ownership will eliminate all the contract threats.



#### Disclaimer

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The Coinscope team disclaims any liability for the resulting losses.



# **About Coinscope**

Coinscope is the leading early coin listing, voting and auditing authority firm. The audit process is analyzing and monitoring many aspects of the project. That way, it gives the community a good sense of security using an informative report and a generic score.

Coinscope is aiming to make crypto discoverable and efficient globally. It provides all the essential tools to assist users draw their own conclusions.



The Coinscope.co team

https://www.coinscope.co