Cyberscope

Audit Report

PepeMax

October 2023

Network ETH

Address 0xEEA3bEaE86F355d68AF187b561fC5Eec368626B1

Audited by © cyberscope

Analysis

Critical Medium Minor / Informative Pass

Severity	Code	Description	Status
●	ST	Stops Transactions	Passed
●	OTUT	Transfers User's Tokens	Passed
●	ELFM	Exceeds Fees Limit	Passed
●	MT	Mints Tokens	Passed
●	BT	Burns Tokens	Passed
●	BC	Blacklists Addresses	Passed

Diagnostics

Critical Medium Minor / Informative

Severity	Code	Description	Status
●	L04	Conformance to Solidity Naming Conventions	Unresolved
●	L14	Uninitialized Variables in Local Scope	Unresolved
●	L20	Succeeded Transfer Check	Unresolved

Table of Contents

Review

Contract Name	PepeMax
Compiler Version	v0.8.19+commit.7dd6d404
Optimization	500 runs
Explorer	https://etherscan.io/address/0xeea3beae86f355d68af187b561fc5eec368626b1
Address	0xeea3beae86f355d68af187b561fc5eec368626b1
Network	ETH
Symbol	PMAX
Decimals	18
Total Supply	7,000,000,000

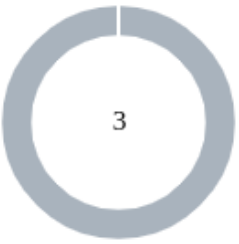
Audit Updates

Initial Audit	13 Oct 2023

Source Files

Filename	SHA256
PepeMax.sol	b49ddad72f7c1059f7d9053371a75eae0f3554b5759bf95af902a63ffdd1e9bf

Findings Breakdown



Critical	0
Medium	0
Minor / Informative	3

Severity	Unresolved	Acknowledged	Resolved	Other
Critical	0	0	0	0
Medium	0	0	0	0
Minor / Informative	3	0	0	0

L04 - Conformance to Solidity Naming Conventions

Criticality	Minor / Informative
Location	contracts/PepeMax.sol#L33,106,107,108,109,110,116,236
Status	Unresolved

Description

The Solidity style guide is a set of guidelines for writing clean and consistent Solidity code. Adhering to a style guide can help improve the readability and maintainability of the Solidity code, making it easier for others to understand and work with.

The followings are a few key points from the Solidity style guide:

1. Use camelCase for function and variable names, with the first letter in lowercase (e.g., myVariable, updateCounter).
2. Use PascalCase for contract, struct, and enum names, with the first letter in uppercase (e.g., MyContract, UserStruct, ErrorEnum).
3. Use uppercase for constant variables and enums (e.g., MAX_VALUE, ERROR_CODE).
4. Use indentation to improve readability and structure.
5. Use spaces between operators and after commas.
6. Use comments to explain the purpose and behavior of the code.
7. Keep lines short (around 120 characters) to improve readability.

```
function WETH() external pure returns (address);
uint256 constant private startingSupply = 7_000_000_000
string constant private _name = "PepeMax"
string constant private _symbol = "PMAX"
uint8 constant private _decimals = 18
uint256 constant private _tTotal = startingSupply *
10**_decimals
bool public _hasLiqBeenAdded = false
address _initializer
```

Recommendation

By following the Solidity naming convention guidelines, the codebase increased the readability, maintainability, and makes it easier to work with.
Find more information on the Solidity documentation
https://docs.soliditylang.org/en/v0.8.17/style-guide.html#naming-convention.

L14 - Uninitialized Variables in Local Scope

Criticality	Minor / Informative
Location	contracts/PepeMax.sol#L240
Status	Unresolved

Description

Using an uninitialized local variable can lead to unpredictable behavior and potentially cause errors in the contract. It's important to always initialize local variables with appropriate values before using them.

```
address constructorLP
address router
```

Recommendation

By initializing local variables before using them, the contract ensures that the functions behave as expected and avoid potential issues.

L20 - Succeeded Transfer Check

Criticality	Minor / Informative
Location	contracts/PepeMax.sol#L342
Status	Unresolved

Description

According to the ERC20 specification, the transfer methods should be checked if the result is successful. Otherwise, the contract may wrongly assume that the transfer has been established.

```
TOKEN.transfer(_owner, TOKEN.balanceOf(address(this)))
```

Recommendation

The contract should check if the result of the transfer methods is successful. The team is advised to check the SafeERC20 library from the Openzeppelin library.

Functions Analysis

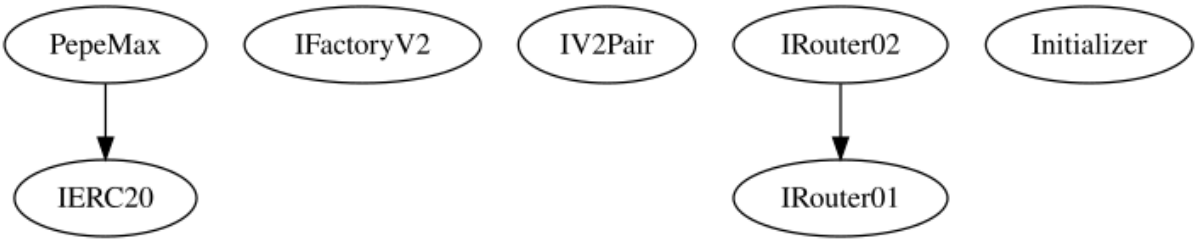
Contract	Type	Bases		
	Function Name	**Visibility**	**Mutability**	**Modifiers**
IERC20	Interface			
	totalSupply	External		-
	decimals	External		-
	symbol	External		-
	name	External		-
	getOwner	External		-
	balanceOf	External		-
	transfer	External	✓	-
	allowance	External		-
	approve	External	✓	-
	transferFrom	External	✓	-
IFactoryV2	Interface			
	getPair	External		-
	createPair	External	✓	-
IV2Pair	Interface			
	factory	External		-

	getReserves	External		-
	sync	External	✓	-
IRouter01	Interface			
	factory	External		-
	WETH	External		-
	addLiquidityETH	External	Payable	-
	addLiquidity	External	✓	-
	swapExactETHForTokens	External	Payable	-
	getAmountsOut	External		-
	getAmountsIn	External		-
IRouter02	Interface	IRouter01		
	swapExactTokensForETHSupportingFeeOnTransferTokens	External	✓	-
	swapExactETHForTokensSupportingFeeOnTransferTokens	External	Payable	-
	swapExactTokensForTokensSupportingFeeOnTransferTokens	External	✓	-
	swapExactTokensForTokens	External	✓	-
Initializer	Interface			
	setLaunch	External	✓	-
	getConfig	External	✓	-
	setLpPair	External	✓	-

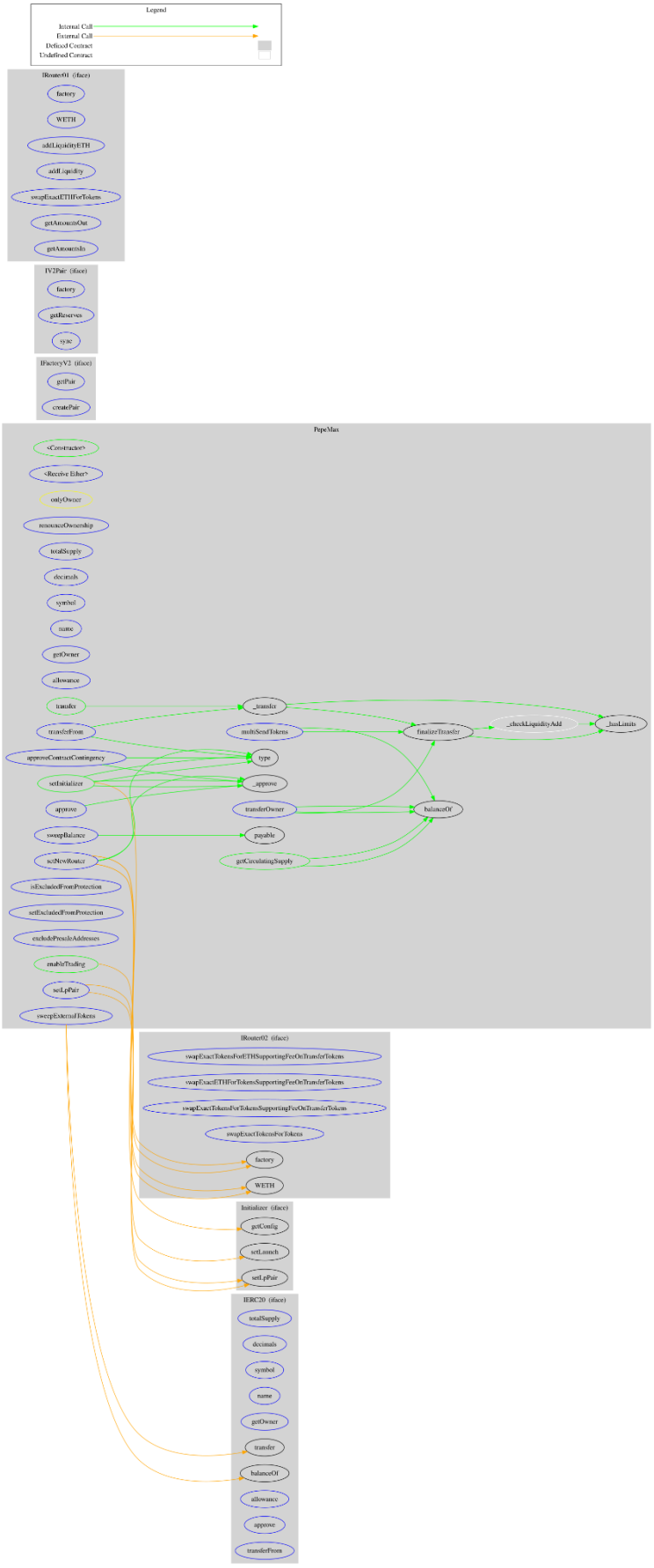
PepeMax	Implementation	IERC20		
		Public	Payable	-
		External	Payable	-
	transferOwner	External	✓	onlyOwner
	renounceOwnership	External	✓	onlyOwner
	totalSupply	External		-
	decimals	External		-
	symbol	External		-
	name	External		-
	getOwner	External		-
	allowance	External		-
	balanceOf	Public		-
	transfer	Public	✓	-
	approve	External	✓	-
	_approve	Internal	✓	
	approveContractContingency	External	✓	onlyOwner
	transferFrom	External	✓	-
	setNewRouter	External	✓	onlyOwner
	setLpPair	External	✓	onlyOwner
	setInitializer	Public	✓	onlyOwner
	isExcludedFromProtection	External		-
	setExcludedFromProtection	External	✓	onlyOwner
	getCirculatingSupply	Public		-

	excludePresaleAddresses	External	✓	onlyOwner
	_hasLimits	Internal		
	_transfer	Internal	✓	
	_checkLiquidityAdd	Internal	✓	
	enableTrading	Public	✓	onlyOwner
	sweepBalance	External	✓	onlyOwner
	sweepExternalTokens	External	✓	onlyOwner
	multiSendTokens	External	✓	onlyOwner
	finalizeTransfer	Internal	✓	

Inheritance Graph



Flow Graph


Legend
Internal Call
External Call
Defined Contract
Undefined Contract
IRouter01 (iface)
factory
WETH
addLiquidityETH
addLiquidity
swapExactETHForTokens
getAmountsOut
getAmountsIn
IV2Pair (iface)
factory
getReserves
sync
IFactoryV2 (iface)
getPair
createPair
PepeMax
<Constructor>
<Receive Ether>
onlyOwner
renounceOwnership
totalSupply
decimals
symbol
name
getOwner
allowance
transfer
transferFrom
approveContractContingency
setInitializer
approve
sweepBalance
setNewRouter
isExcludedFromProtection
setExcludedFromProtection
excludePresaleAddresses
enableTrading
setLpPair
sweepExternalTokens
_transfer
multiSendTokens
type
_approve
transferOwner
payable
getCirculatingSupply
finalizeTransfer
checkLiquidityAdd
_hasLimits
balanceOf
IRouter02 (iface)
swapExactTokensForETHSupportingFeeOnTransferTokens
swapExactETHForTokensSupportingFeeOnTransferTokens
swapExactTokensForTokensSupportingFeeOnTransferTokens
swapExactTokensForTokens
factory
WETH
Initializer (iface)
getConfig
setLaunch
setLpPair
IERC20 (iface)
totalSupply
decimals
symbol
name
getOwner
transfer
balanceOf
allowance
approve
transferFrom

Summary

PepeMax contract implements a token mechanism. This audit investigates security issues, business logic concerns and potential improvements. PepeMax is an interesting project that has a friendly and growing community. The Smart Contract analysis reported no compiler error or critical issues. The contract Owner can access some admin functions that can not be used in a malicious way to disturb the users' transactions.

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The Cyberscope team

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