

Pleasure Coin

Smart Contract

Audit Report



03 Mar 2022



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AUDITED DETAILS

Audited Project

| Project name | Token ticker | Blockchain | |
|---------------|--------------|---------------|--|
| Pleasure Coin | NSFW | Polygon Matic | |

Addresses

| Contract address | 0x8f006d1e1d9dc6c98996f50a4c810f17a47fbf19 |
|---------------------------|--|
| Contract deployer address | 0x129F027a491D96aBCeD68cC30976797a42987303 |

Project Website

https://www.pleasurecoin.com/

Codebase

https://polygonscan.com/address/0x8f006d1e1d9dc6c98996f50a4c810f17a47fbf19#code



SUMMARY

Pleasure Coin (NSFW) is an ERC-20 token on the Polygon chain that will be utilized within the Pleasure Network, an adult industry ecosystem that empowers individuals and businesses.

Contract Summary

Documentation Quality

Pleasure Coin provides a very good documentation with standard of solidity base code.

• The technical description is provided clearly and structured and also dont have any high risk issue.

Code Quality

The Overall quality of the basecode is standard.

• Standard solidity basecode and rules are already followed by Pleasure Coin with the discovery of several low issues.

Test Coverage

Test coverage of the project is 100% (Through Codebase)

Audit Findings Summary

- SWC-101 | It is recommended to use vetted safe math libraries for arithmetic operations consistently on lines 309, 328, 350, 383, 385, 406, 407, 432 and 434.
- SWC-103 | Pragma statements can be allowed to float when a contract is intended on lines 12, 97, 127, 154, 511, 538 and 558.



CONCLUSION

We have audited the Pleasure Coin project released in March 2022 to discover issues and identify potential security vulnerabilities in Pleasure Coin Project. This process is used to find technical issues and security loopholes which might be found in the smart contract.

The security audit report provides satisfactory results with low-risk issues.

The issues found in the Pleasure Coin smart contract code do not pose a considerable risk. The writing of the contract is close to the standard of writing contracts in general. The low-risk issue found is a floating pragma is set. Contracts should be deployed with the same compiler version and flags that they have been tested thoroughly. Locking the pragma helps to ensure that contracts do not accidentally get deployed using, for example, an outdated compiler version that might introduce bugs that affect the contract system negatively. It is recommended to specify a fixed compiler version to ensure that the bytecode produced does not vary between builds. This is especially important if you rely on bytecode-level verification of the code.



AUDIT RESULT

| Article | Category | Description | Result | |
|--------------------------------------|--------------------|---|----------------|--|
| Default Visibility | SWC-100 SWC-108 | Functions and state variables visibility should be set explicitly. Visibility levels should be specified consciously. | | |
| Integer Overflow and Underflow | SWC-101 | If unchecked math is used, all math operations should be safe from overflows and underflows. | · | |
| Outdated Compiler Version | SWC-102 | It is recommended to use a recent version of the Solidity compiler. | PASS | |
| Floating Pragma | SWC-103 | Contracts should be deployed with the same compiler version and flags that they have been tested thoroughly. | ISSUE FOUND | |
| Unchecked Call Return Value | SWC-104 | The return value of a message call should be checked. | PASS | |
| Unprotected Ether Withdrawal | SWC-105 | Due to missing or insufficient access controls, malicious parties can withdraw from the contract. | | |
| SELFDESTRUCT Instruction | SWC-106 | The contract should not be self-destructible while it has funds belonging to users. | | |
| Reentrancy | SWC-107 | Check effect interaction pattern should be followed if the code performs recursive call. | | |
| Uninitialized Storage Pointer | SWC-109 | Uninitialized local storage variables can point to unexpected storage locations in the contract. | PASS | |
| Assert Violation | SWC-110 SWC-123 | PA: | | |
| Deprecated Solidity Functions | SWC-111 | Deprecated built-in functions should never be used. | PASS | |
| Delegate call to Untrusted Callee | SWC-112 | Delegatecalls should only be allowed to trusted addresses. | | |



| DoS (Denial of Service) | SWC-113 SWC-128 | Execution of the code should never be blocked by a specific contract state unless required. | |
|--|-------------------------------|---|------|
| Race Conditions | SWC-114 | Race Conditions and Transactions Order Dependency should not be possible. | |
| Authorization through tx.origin | SWC-115 | tx.origin should not be used for authorization. | |
| Block values as a proxy for time | SWC-116 | Block numbers should not be used for time calculations. | PASS |
| Signature Unique ID | SWC-117 SWC-121 SWC-122 | Signed messages should always have a unique id. A transaction hash should not be used as a unique id. | PASS |
| Incorrect Constructor Name | SWC-118 | Constructors are special functions that are called only once during the contract creation. | PASS |
| Shadowing State Variable | SWC-119 | State variables should not be shadowed. | |
| Weak Sources of Randomness | SWC-120 | Random values should never be generated from Chain Attributes or be predictable. | |
| Write to Arbitrary Storage Location | SWC-124 | The contract is responsible for ensuring that only authorized user or contract accounts may write to sensitive storage locations. | PASS |
| Incorrect Inheritance Order | SWC-125 | | PASS |
| Insufficient Gas Griefing | SWC-126 | Insufficient gas griefing attacks can be performed on contracts which accept data and use it in a sub-call on another contract. | |
| Arbitrary Jump Function | SWC-127 | As Solidity doesnt support pointer arithmetics, it is impossible to change such variable to an arbitrary value. | PASS |



| Typographical Error | SWC-129 | A typographical error can occur for example when the intent of a defined operation is to sum a number to a variable. | |
|-------------------------------|--------------------|--|------|
| Override control character | SWC-130 | Malicious actors can use the Right-To-Left-Override unicode character to force RTL text rendering and confuse users as to the real intent of a contract. | |
| Unused variables | SWC-131 SWC-135 | Unused variables are allowed in Solidity and they do not pose a direct security issue. | PASS |
| Unexpected Ether balance | SWC-132 | Contracts can behave erroneously when they strictly assume a specific Ether balance. | |
| Hash Collisions Variable | SWC-133 | Using abi.encodePacked() with multiple variable length arguments can, in certain situations, lead to a hash collision. | |
| Hardcoded gas amount | SWC-134 | The transfer() and send() functions forward a fixed amount of 2300 gas. | |
| Unencrypted Private Data | SWC-136 | It is a common misconception that private type variables cannot be read. | |



SMART CONTRACT ANALYSIS

| Started | Wednesday Mar 02 2022 20:25:57 GMT+0000 (Coordinated Universal Time) | | |
|------------------|--|--|--|
| Finished | Thursday Mar 03 2022 12:48:16 GMT+0000 (Coordinated Universal Time) | | |
| Mode | Standard | | |
| Main Source File | StandardERC20.sol | | |

Detected Issues

| ID | Title | Severity | Status |
|---------|--------------------------------------|----------|--------------|
| SWC-101 | ARITHMETIC OPERATION "-" DISCOVERED | low | acknowledged |
| SWC-101 | ARITHMETIC OPERATION "+" DISCOVERED | low | acknowledged |
| SWC-101 | ARITHMETIC OPERATION "-" DISCOVERED | low | acknowledged |
| SWC-101 | ARITHMETIC OPERATION "-" DISCOVERED | low | acknowledged |
| SWC-101 | ARITHMETIC OPERATION "+=" DISCOVERED | low | acknowledged |
| SWC-101 | ARITHMETIC OPERATION "+=" DISCOVERED | low | acknowledged |
| SWC-101 | ARITHMETIC OPERATION "+=" DISCOVERED | low | acknowledged |
| SWC-101 | ARITHMETIC OPERATION "-" DISCOVERED | low | acknowledged |
| SWC-101 | ARITHMETIC OPERATION "-=" DISCOVERED | low | acknowledged |
| SWC-103 | A FLOATING PRAGMA IS SET. | low | acknowledged |
| SWC-103 | A FLOATING PRAGMA IS SET. | low | acknowledged |
| SWC-103 | A FLOATING PRAGMA IS SET. | low | acknowledged |
| SWC-103 | A FLOATING PRAGMA IS SET. | low | acknowledged |
| SWC-103 | A FLOATING PRAGMA IS SET. | low | acknowledged |



| SWC-103 | A FLOATING PRAGMA IS SET. | low | acknowledged |
|---------|---------------------------|-----|--------------|
| SWC-103 | A FLOATING PRAGMA IS SET. | low | acknowledged |



SWC-101 | ARITHMETIC OPERATION "-" DISCOVERED

LINE 309

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- StandardERC20.sol

```
308 unchecked {
309    _approve(sender, _msgSender(), currentAllowance - amount);
310  }
311
312  return true;
313
```



SWC-101 | ARITHMETIC OPERATION "+" DISCOVERED

LINE 328

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- StandardERC20.sol

```
function increaseAllowance(address spender, uint256 addedValue) public virtual
returns (bool) {

28    _approve(_msgSender(), spender, _allowances[_msgSender()][spender] + addedValue);

329    return true;

330  }

331

332
```



SWC-101 | ARITHMETIC OPERATION "-" DISCOVERED

LINE 350

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- StandardERC20.sol

```
unchecked {
350    _approve(_msgSender(), spender, currentAllowance - subtractedValue);
351  }
352
353    return true;
354
```



SWC-101 | ARITHMETIC OPERATION "-" DISCOVERED

LINE 383

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- StandardERC20.sol



SWC-101 | ARITHMETIC OPERATION "+=" DISCOVERED

LINE 385

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- StandardERC20.sol

```
384  }
385  _balances[recipient] += amount;
386
387  emit Transfer(sender, recipient, amount);
388
389
```



SWC-101 | ARITHMETIC OPERATION "+=" DISCOVERED

LINE 406

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- StandardERC20.sol

```
405
406 _totalSupply += amount;
407 _balances[account] += amount;
408 emit Transfer(address(0), account, amount);
409
410
```



SWC-101 | ARITHMETIC OPERATION "+=" DISCOVERED

LINE 407

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- StandardERC20.sol

```
406  _totalSupply += amount;
407  _balances[account] += amount;
408  emit Transfer(address(0), account, amount);
409
410  _afterTokenTransfer(address(0), account, amount);
411
```



SWC-101 | ARITHMETIC OPERATION "-" DISCOVERED

LINE 432

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- StandardERC20.sol

```
431 unchecked {
432   _balances[account] = accountBalance - amount;
433  }
434   _totalSupply -= amount;
435
436
```



SWC-101 | ARITHMETIC OPERATION "-=" DISCOVERED

LINE 434

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- StandardERC20.sol

```
433 }
434 _totalSupply -= amount;
435
436 emit Transfer(account, address(0), amount);
437
438
```



LINE 12

low SEVERITY

The current pragma Solidity directive is ""^0.8.0"". It is recommended to specify a fixed compiler version to ensure that the bytecode produced does not vary between builds. This is especially important if you rely on bytecode-level verification of the code.

Source File

- StandardERC20.sol

```
11
12 pragma solidity ^0.8.0;
13
14 /**
15 * @dev Interface of the ERC20 standard as defined in the EIP.
16
```



LINE 97

low SEVERITY

The current pragma Solidity directive is ""^0.8.0"". It is recommended to specify a fixed compiler version to ensure that the bytecode produced does not vary between builds. This is especially important if you rely on bytecode-level verification of the code.

Source File

- StandardERC20.sol

```
96
97 pragma solidity ^0.8.0;
98
99
100 /**
101
```



LINE 127

low SEVERITY

The current pragma Solidity directive is ""^0.8.0"". It is recommended to specify a fixed compiler version to ensure that the bytecode produced does not vary between builds. This is especially important if you rely on bytecode-level verification of the code.

Source File

- StandardERC20.sol

```
126
127 pragma solidity ^0.8.0;
128
129 /**
130 * @dev Provides information about the current execution context, including the
131
```



LINE 154

low SEVERITY

The current pragma Solidity directive is ""^0.8.0"". It is recommended to specify a fixed compiler version to ensure that the bytecode produced does not vary between builds. This is especially important if you rely on bytecode-level verification of the code.

Source File

- StandardERC20.sol

```
153
154 pragma solidity ^0.8.0;
155
156
157
158
```



LINE 511

low SEVERITY

The current pragma Solidity directive is ""^0.8.0"". It is recommended to specify a fixed compiler version to ensure that the bytecode produced does not vary between builds. This is especially important if you rely on bytecode-level verification of the code.

Source File

- StandardERC20.sol

```
510

511 pragma solidity ^0.8.0;

512

513

514 /**

515
```



LINE 538

low SEVERITY

The current pragma Solidity directive is ""^0.8.0"". It is recommended to specify a fixed compiler version to ensure that the bytecode produced does not vary between builds. This is especially important if you rely on bytecode-level verification of the code.

Source File

- StandardERC20.sol

```
537
538 pragma solidity ^0.8.0;
539
540 interface IPayable {
541 function pay(string memory serviceName) external payable;
542
```



LINE 558

low SEVERITY

The current pragma Solidity directive is ""^0.8.0"". It is recommended to specify a fixed compiler version to ensure that the bytecode produced does not vary between builds. This is especially important if you rely on bytecode-level verification of the code.

Source File

- StandardERC20.sol

```
557
558 pragma solidity ^0.8.0;
559
560
561
562
```



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