

# Audit Report **Moo.Army**

June 2025

Network ETH

Address 0xB044dcF27701Ba47B122eDB56D713003a1ba2DF5

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# **Analysis**

CriticalMediumMinor / InformativePass

Severity	Code	Description	Status
•	ST	Stops Transactions	Passed
•	OTUT	Transfers User's Tokens	Passed
•	ELFM	Exceeds Fees Limit	Passed
•	MT	Mints Tokens	Passed
•	ВТ	Burns Tokens	Passed
•	ВС	Blacklists Addresses	Passed



### **Diagnostics**

CriticalMediumMinor / Informative

Severity	Code	Description	Status
•	L09	Dead Code Elimination	Unresolved
•	L18	Multiple Pragma Directives	Unresolved
•	L19	Stable Compiler Version	Unresolved



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### **Risk Classification**

The criticality of findings in Cyberscope's smart contract audits is determined by evaluating multiple variables. The two primary variables are:

- 1. **Likelihood of Exploitation**: This considers how easily an attack can be executed, including the economic feasibility for an attacker.
- 2. **Impact of Exploitation**: This assesses the potential consequences of an attack, particularly in terms of the loss of funds or disruption to the contract's functionality.

Based on these variables, findings are categorized into the following severity levels:

- Critical: Indicates a vulnerability that is both highly likely to be exploited and can result in significant fund loss or severe disruption. Immediate action is required to address these issues.
- Medium: Refers to vulnerabilities that are either less likely to be exploited or would have a moderate impact if exploited. These issues should be addressed in due course to ensure overall contract security.
- Minor: Involves vulnerabilities that are unlikely to be exploited and would have a
  minor impact. These findings should still be considered for resolution to maintain
  best practices in security.
- 4. **Informative**: Points out potential improvements or informational notes that do not pose an immediate risk. Addressing these can enhance the overall quality and robustness of the contract.

Severity	Likelihood / Impact of Exploitation
<ul> <li>Critical</li> </ul>	Highly Likely / High Impact
<ul><li>Medium</li></ul>	Less Likely / High Impact or Highly Likely/ Lower Impact
Minor / Informative	Unlikely / Low to no Impact



### **Review**

Contract Name	MooArmy
Compiler Version	v0.8.22+commit.4fc1097e
Optimization	200 runs
Explorer	https://etherscan.io/address/0xb044dcf27701ba47b122edb56d 713003a1ba2df5
Address	0xb044dcf27701ba47b122edb56d713003a1ba2df5
Network	ETH
Symbol	MOO
Decimals	18
Total Supply	999,000,000
Badge Eligibility	Yes

### **Audit Updates**

Initial Audit 27 Jun 2025
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### **Source Files**

Filename	SHA256
MooArmy.sol	5e8759df87fd13feecce4bfa2a44aa8b3256b60f01c59a8de66f5eb21362 1846



# **Findings Breakdown**



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



#### L09 - Dead Code Elimination

Criticality	Minor / Informative
Location	MooArmy.sol#L134,539
Status	Unresolved

#### Description

In Solidity, dead code is code that is written in the contract, but is never executed or reached during normal contract execution. Dead code can occur for a variety of reasons, such as:

- Conditional statements that are always false.
- Functions that are never called.
- Unreachable code (e.g., code that follows a return statement).

Dead code can make a contract more difficult to understand and maintain, and can also increase the size of the contract and the cost of deploying and interacting with it.

```
function _contextSuffixLength() internal view virtual returns
(uint256) {
    return 0;
}

function _burn(address account, uint256 value) internal {
    if (account == address(0)) {
        revert ERC20InvalidSender(address(0));
    }
    _update(account, address(0), value);
}
```

#### Recommendation

To avoid creating dead code, it's important to carefully consider the logic and flow of the contract and to remove any code that is not needed or that is never executed. This can help improve the clarity and efficiency of the contract.



#### **L18 - Multiple Pragma Directives**

Criticality	Minor / Informative
Location	MooArmy.sol#L3,85,113,143,308,621
Status	Unresolved

#### Description

If the contract includes multiple conflicting pragma directives, it may produce unexpected errors. To avoid this, it's important to include the correct pragma directive at the top of the contract and to ensure that it is the only pragma directive included in the contract.

```
pragma solidity ^0.8.20;
pragma solidity ^0.8.20;
...
```

#### Recommendation

It is important to include only one pragma directive at the top of the contract and to ensure that it accurately reflects the version of Solidity that the contract is written in.

By including all required compiler options and flags in a single pragma directive, the potential conflicts could be avoided and ensure that the contract can be compiled correctly.



#### L19 - Stable Compiler Version

Criticality	Minor / Informative
Location	MooArmy.sol#L85,621
Status	Unresolved

#### Description

The \_\_\_\_\_\_\_ symbol indicates that any version of Solidity that is compatible with the specified version (i.e., any version that is a higher minor or patch version) can be used to compile the contract. The version lock is a mechanism that allows the author to specify a minimum version of the Solidity compiler that must be used to compile the contract code. This is useful because it ensures that the contract will be compiled using a version of the compiler that is known to be compatible with the code.

```
pragma solidity ^0.8.20;
pragma solidity ^0.8.22;
```

#### Recommendation

The team is advised to lock the pragma to ensure the stability of the codebase. The locked pragma version ensures that the contract will not be deployed with an unexpected version. An unexpected version may produce vulnerabilities and undiscovered bugs. The compiler should be configured to the lowest version that provides all the required functionality for the codebase. As a result, the project will be compiled in a well-tested LTS (Long Term Support) environment.

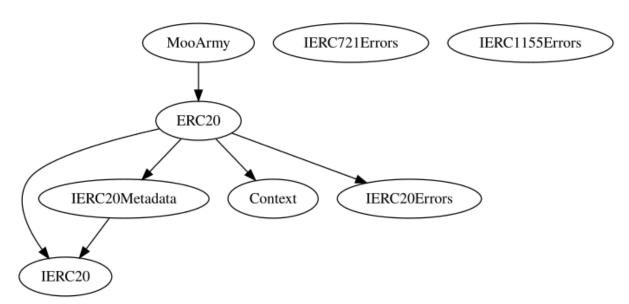


# **Functions Analysis**

Contract	Туре	Bases		
	Function Name	Visibility	Mutability	Modifiers
MooArmy	Implementation	ERC20		
		Public	✓	ERC20

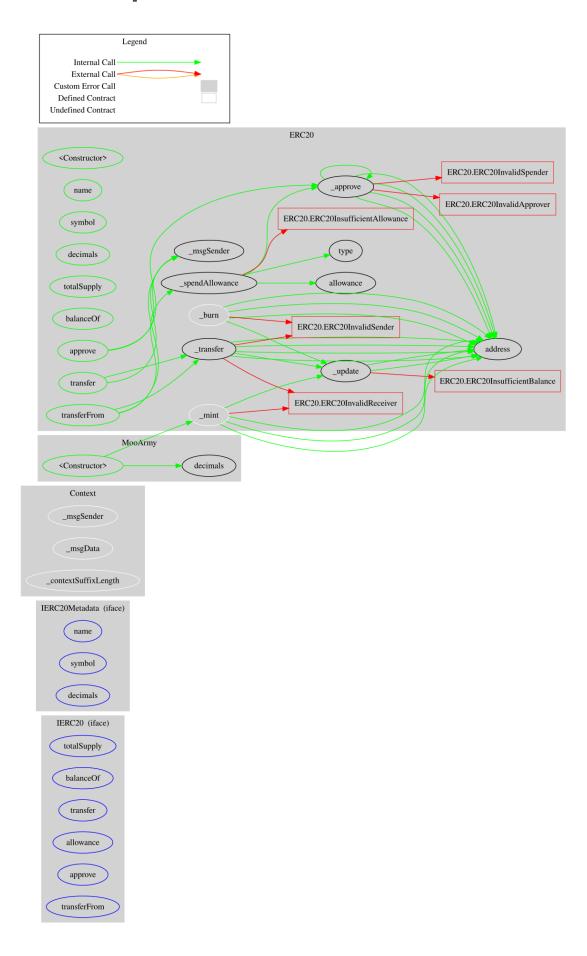


# **Inheritance Graph**





### Flow Graph





### **Summary**

Moo.Army contract implements a token mechanism. This audit investigates security issues, business logic concerns, and potential improvements. Moo.Army is an interesting project that has a friendly and growing community. The Smart Contract analysis reported no compiler errors or critical issues.



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### **About Cyberscope**

Cyberscope is a TAC blockchain cybersecurity company that was founded with the vision to make web3.0 a safer place for investors and developers. Since its launch, it has worked with thousands of projects and is estimated to have secured tens of millions of investors' funds.

Cyberscope is one of the leading smart contract audit firms in the crypto space and has built a high-profile network of clients and partners.



The Cyberscope team

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