



Building the Futuristic **Blockchain Ecosystem**

# SECURITY AUDIT REPORT

ALBETROS

# TOKEN OVERVIEW

## Risk Findings

Severity	Found
● High	2
● Medium	0
● Low	1
● Informational	2

## Centralization Risks

Owner Privileges	Description
● Can Owner Set Taxes >25% ?	Not Detected
● Owner needs to enable trading ?	Not Detected
● Can Owner Disable Trades ?	Not Detected
● Can Owner Mint ?	Detected
● Can Owner Blacklist ?	Not Detected
● Can Owner Burn Tokens ?	Detected
● Can Owner Set Max TX amount ?	Not Detected

# TABLE OF CONTENTS

02	Token Overview	_____
03	Table of Contents	_____
04	Overview	_____
05	Contract Details	_____
06	Audit Methodology	_____
07	Vulnerabilities Checklist	_____
08	Risk Classification	_____
09	Inheritance Trees	_____
10	Static analysis	_____
11	Testnet Version	_____
12	Manual Review	_____
18	About Expelee	_____
19	Disclaimer	_____

# OVERVIEW

The Expelee team has performed a line-by-line manual analysis and automated review of the smart contract. The smart contract was analysed mainly for common smart contract vulnerabilities, exploits, and manipulation hacks. According to the smart contract audit:

<b>Audit Result</b>	<b>High Risk Major Flag</b>
<b>Audit Date</b>	<b>29 March 2024</b>

# CONTRACT DETAILS

**Token Address:** 0xB087CB524daEF1CdAC5E78b7b9F2Ed20B891C187

**Name:** ALBETROS

**Symbol:** ARS

**Decimals:** 18

**Network:** BscScan

**Token Type:** BEP-20

**Owner:** 0xC978f05787a944DDb0602AF825057B7Ee081a38e

**Deployer:** 0xC978f05787a944DDb0602AF825057B7Ee081a38e

**Token Supply :** 100 Billion

**Checksum:** Ae1c3a4fbb6e83e8393a57617b5a5132

**Testnet:**

<https://testnet.bscscan.com/address/0x0970d6fbaee1ffadc1d7ec7ae92ec187b6264a2a#code>

# AUDIT METHODOLOGY

## Audit Details

Our comprehensive audit report provides a full overview of the audited system's architecture, smart contract codebase, and details on any vulnerabilities found within the system.

## Audit Goals

The audit goal is to ensure that the project is built to protect investors and users, preventing potentially catastrophic vulnerabilities after launch, that lead to scams and rugpulls.

## Code Quality

Our analysis includes both automatic tests and manual code analysis for the following aspects:

- Exploits
- Back-doors
- Vulnerability
- Accuracy
- Readability

## Tools

- DE
- Open Zeppelin
- Code Analyzer
- Solidity Code
- Compiler
- Hardhat

# VULNERABILITY CHECKS

Design Logic	Passed
Compiler warnings	Passed
Private user data leaks	Passed
Timestamps dependence	Passed
Integer overflow and underflow	Passed
Race conditions & reentrancy. Cross-function race conditions	Passed
Possible delays in data delivery	Passed
Oracle calls	Passed
Front Running	Passed
DoS with Revert	Passed
DoS with block gas limit	Passed
Methods execution permissions	Passed
Economy model	Passed
Impact of the exchange rate on the logic	Passed
Malicious event log	Passed
Scoping and declarations	Passed
Uninitialized storage pointers	Passed
Arithmetic accuracy	Passed
Cross-function race conditions	Passed
Safe Zeppelin module	Passed

# RISK CLASSIFICATION

When performing smart contract audits, our specialists look for known vulnerabilities as well as logical and access control issues within the code. The exploitation of these issues by malicious actors may cause serious financial damage to projects that failed to get an audit in time. We categorize these vulnerabilities by the following levels:

## High Risk

Issues on this level are critical to the smart contract's performance/functionality and should be fixed before moving to a live environment.

## Medium Risk

Issues on this level are critical to the smart contract's performance/functionality and should be fixed before moving to a live environment.

## Low Risk

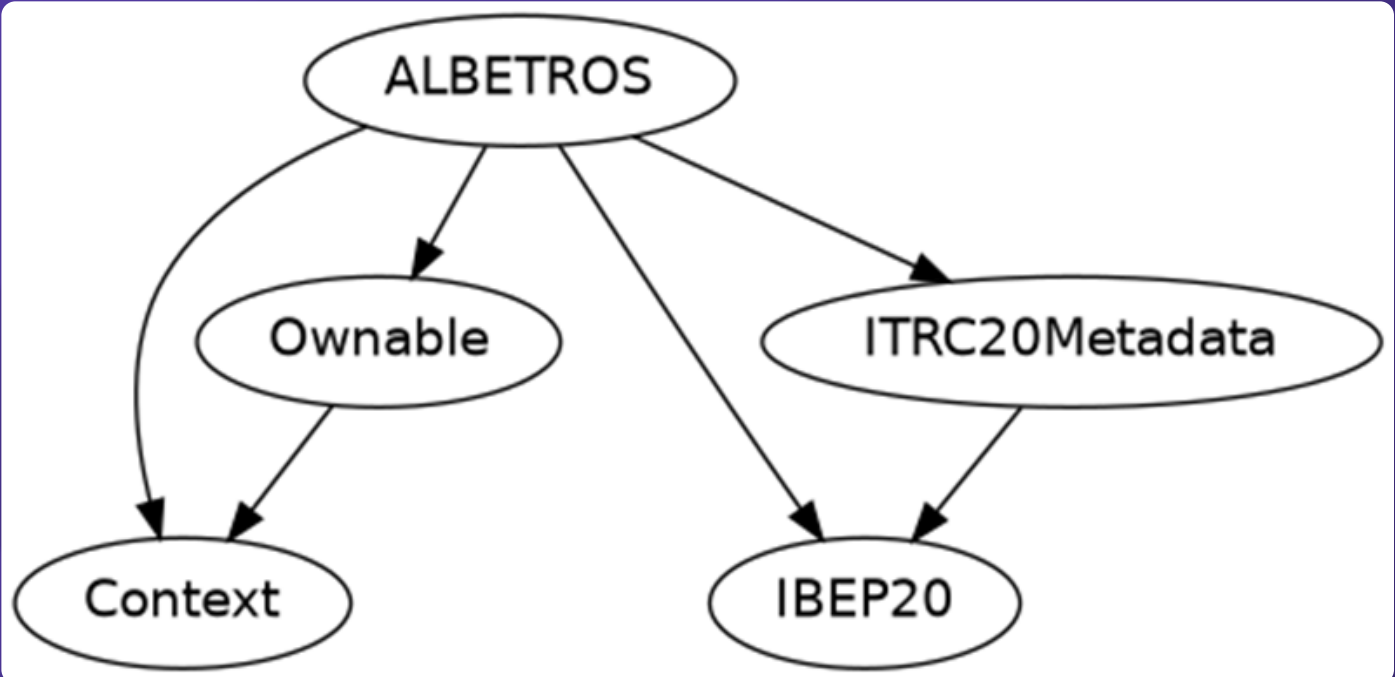
Issues on this level are minor details and warnings that can remain unfixed.

## Informational

Issues on this level are minor details and warnings that can remain unfixed.



# INHERITANCE TREE



# STATIC ANALYSIS

```
INFO:Detectors:
ALBETROS.allowance(address,address).owner (ALBETROS.sol#133) shadows:
  - Ownable.owner() (ALBETROS.sol#51-53) (function)
ALBETROS._approve(address,address,uint256).owner (ALBETROS.sol#281) shadows:
  - Ownable.owner() (ALBETROS.sol#51-53) (function)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#local-variable-shadowing
INFO:Detectors:
Context._msgData() (ALBETROS.sol#13-15) is never used and should be removed
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#dead-code
INFO:Detectors:
Pragma version^0.8.17 (ALBETROS.sol#6) allows old versions
solc-0.8.24 is not recommended for deployment
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#incorrect-versions-of-solidity
INFO:Detectors:
ALBETROS.constructor() (ALBETROS.sol#92-97) uses literals with too many digits:
  - _mint(msg.sender,100000000000 * 10 ** 18) (ALBETROS.sol#96)
ALBETROS.slitherConstructorConstantVariables() (ALBETROS.sol#76-313) uses literals with too many digits:
  - MAX_SUPPLY = 100000000000 * 10 ** 18 (ALBETROS.sol#87)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#too-many-digits
INFO:Detectors:
ALBETROS._decimals (ALBETROS.sol#85) should be immutable
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#state-variables-that-could-be-declared-immutable
INFO:Slither:ALBETROS.sol analyzed (5 contracts with 93 detectors), 8 result(s) found
```

# TESTNET VERSION

## 1- Approve (**passed**):

<https://testnet.bscscan.com/tx/0xdc9da3afbd572a6fc9498a977affe29b894bde54a3a54d2001984f1ca4d7f7bb>

## 2- Increase Allowance (**passed**):

<https://testnet.bscscan.com/tx/0x7696de5c6921593498a465df225dd9653f7ab91fac05d6663c82a57d6e1cf99e>

## 3- Decrease Allowance (**passed**):

<https://testnet.bscscan.com/tx/0x19f8a2cef33f2c41c8bfab38d2d166797fab1ef52e1c7731db5e6b165124ed5f>

## 4- Mint (**passed**):

<https://testnet.bscscan.com/tx/0xfb2efac9ec9509506414bb64b92d9a303c336bde9279d331afa706094b2bde9b>

## 5- Burn (**passed**):

<https://testnet.bscscan.com/tx/0x86c2589a2974c760d0b6239bbcdce828585e1185a6a6978bf9ff86b58af69a56>

## 6- Transfer Ownership (**passed**):

<https://testnet.bscscan.com/tx/0xdb36aaca02e324474cb0b1fdc9433038fc61ae164d66ab2c634881940320451f>

# MANUAL REVIEW

## Severity Criteria

Expelee assesses the severity of disclosed vulnerabilities according to methodology based on OWASP standarts.

Vulnerabilities are dividend into three primary risk categorieis:

High

Medium

Low

High-level considerations for vulnerabilities span the following key areas when conducting assessments:

- Malicious input handling
- Escalation of privileges
- Arithmetic
- Gas use

Overall Risk Severity				
Impact	HIGH	Medium	High	Critical
	MEDIUM	Low	Medium	High
	LOW	Note	Low	Medium
		LOW	MEDIUM	HIGH
	Likelihood			

# HIGH RISK FINDING

**Centralization** – Owner can Burn Tokens.

Severity: **High**

Function: burn

Status: Open

## Overview:

The owner can burn tokens without approval from any wallet.

```
function burn(address account, uint256 value) public  
onlyOwner {  
    _burn(account, value);  
}
```

## Suggestion:

There should not be any burning without any allowance from the user.

# HIGH RISK FINDING

**Centralization** – Owner Can Mint Tokens.

**Severity:** High

**Status:** Open

**Function:** mint

## Overview:

The owner is able to mint unlimited tokens which is not recommended as this functionality can cause the token to lose its value and the owner can also use it to manipulate the price of the token.

```
function mint(address account, uint256 value) public onlyOwner {  
    _mint(account, value);  
}
```

## Suggestion:

It is recommended that the total supply of the token should not be changed after initial deployment.

# LOW RISK FINDING

## Centralization – Local Variable Shadowing

Severity: **Low**

Status: **Open**

Function: **\_approve and allowance**

### Overview:

```
function allowance(address owner, address spender) public view  
virtual override returns (uint256) {  
    return _allowances[owner][spender];  
}  
  
function _approve(  
    address owner,  
    address spender,  
    uint256 amount  
) internal virtual {  
    require(owner != address(0), "BEP20: approve from the zero  
address");  
    require(spender != address(0), "BEP20: approve to the zero  
address");  
  
    _allowances[owner][spender] = amount;  
    emit Approval(owner, spender, amount);  
}
```

### Suggestion:

Rename the local variable that shadows another component.



# INFORMATIONAL & OPTIMIZATIONS

## Optimization

**Severity:** Informational

**Subject:** Floating Pragma.

**Status:** Open

### Overview:

It is considered best practice to pick one compiler version and stick with it. With a floating pragma, contracts may accidentally be deployed using an outdated.

```
pragma solidity ^0.8.0;
```

### Suggestion:

Adding the latest constant version of solidity is recommended, as this prevents the unintentional deployment of a contract with an outdated compiler that contains unresolved bugs.



# INFORMATIONAL & OPTIMIZATIONS

## Optimization

Severity: Optimization

Subject: Remove unused code.

Status: Open

### Overview:

Unused variables are allowed in Solidity, and they do not pose a direct security issue. It is the best practice though to avoid them.

```
function _msgData() internal pure returns (bytes calldata) {  
    return msg.data;  
}
```

# ABOUT EXPELEE

Expelee is a product-based aspirational Web3 start-up. Coping up with numerous solutions for blockchain security and constructing a Web3 ecosystem from deal making platform to developer hosting open platform, while also developing our own commercial and sustainable blockchain.

 [www.expelee.com](http://www.expelee.com)

 [expeleeofficial](https://twitter.com/expeleeofficial)

 [expelee](https://medium.com/expelee)

 [Expelee](https://t.me/Expelee)

 [expelee](https://in.linkedin.com/expelee)

 [expelee\\_official](https://www.instagram.com/expelee_official)

 [expelee-co](https://github.com/expelee-co)

# expelee

Building the Futuristic **Blockchain Ecosystem**

# DISCLAIMER

All the content provided in this document is for general information only and should not be used as financial advice or a reason to buy any investment. Team provides no guarantess against the sale of team tokens or the removal of liquidity by the project audited in this document.

Always do your own research and project yourselves from being scammed. The Expelee team has audited this project for general information and only expresses their opinion based on similar projects and checks from popular diagnostic tools.

Under no circumstances did Expelee receive a payment to manipulate those results or change the awarding badge that we will be adding in our website. Alway do your own research and protect yourselves from scams.

This document should not be presented as a reason to buy or not buy any particular token. The Expelee team disclaims any liability for the resulting losses.

The logo for Expelee, featuring the word "expelee" in a stylized font. The "ex" is in white, and "pelee" is in orange. The letters are bold and modern.

Building the Futuristic **Blockchain Ecosystem**