



GORDIAN AGENCY

**SMART CONTRACT SECURITY AUDIT**

July 15th, 2021



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## AUDIT DETAILS

Project

**BiShares**

Deployer Address

**0xc1169b9dF6613Ad50E60aE2D0ed6139Efb8e1D2b**

Client Contacts

**@defiVlad, @allthingsNFT**

Blockchain

**Binance Smart Chain**

Project Website

**BiShares.Finance**





## BACKGROUND

**Gordian Agency was commissioned by Bishares.finance to perform an audit of smart contracts:**

- [IndexPool.sol](#)
- [MarketCapSqrtController.sol](#)
- [PoolFactory.sol](#)
- [PoolFactoryAccessControl.sol](#)
- [PoolInitializer.sol](#)
- [UnboundTokenSeller.sol](#)
- [BisharesUniswapV2Oracle.sol](#)

**The purpose of this audit was to achieve the following:**

- Ensure that the smart contracts function as intended
- Identify potential security issues with the smart contracts

The information in this report should be used to understand the risk exposure of the smart contracts, and as a guide to improve the security posture of the smart contracts by remediating the issues that were identified.





# ISSUES CHECKING STATUS

Issue description	Checking status
Compiler errors.	Passed
Race conditions and Reentrancy. Cross-function race conditions.	Passed
Possible delays in data delivery.	Passed
Oracle calls.	Passed
Front running.	Passed
Timestamp dependence.	Passed
Integer Overflow and Underflow.	Passed
DoS with Revert.	Passed
DoS with block gas limit.	Passed
Methods execution permissions.	Low issues
Economy model of the contract.	Passed
The impact of the exchange rate on the logic.	Passed
Private user data leaks.	Passed
Malicious Event log.	Passed
Scoping and Declarations.	Passed
Uninitialized storage pointers.	Passed
Arithmetic accuracy.	Passed
Design Logic.	Passed
Flashloan protection.	Passed
Safe Open Zeppelin contracts implementation and usage.	Passed
Fallback function security.	Passed



## ISSUES DETAILS

### Issues found in the audited smart contracts:

Contract name	Issue	Severity level
<a href="#"><u>IndexPool.sol</u></a>	Public function to external function	Low severity
<a href="#"><u>IndexPool.sol</u></a>	Local Variables Initialization	Low severity



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## CONCLUSION

The audited smart contracts contain low severity issues only and are safe to deploy. This was an extensive audit, congrats to the team - Well Done!

### NOTES:

**Please check the disclaimer below and note, the audit makes no statements or warranties on business model, investment attractiveness or code sustainability. The report is provided for the only contracts mentioned in the report and does not include any other potential contracts deployed by the Owner.**





## DISCLAIMER

This is a limited report on our findings based on our analysis, in accordance with good industry practice as at the date of this report, in relation to cybersecurity vulnerabilities and issues in the framework and algorithms based on smart contracts, the details of which are set out in this report. In order to get a full view of our analysis, it is crucial for you to read the full report. While we have done our best in conducting our analysis and producing this report, it is important to note that you should not rely on this report and cannot claim against us on the basis of what it says or doesn't say, or how we produced it, and it is important for you to conduct your own independent investigations before making any decisions. We go into more detail on this in the below disclaimer below – please make sure to read it in full.

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The analysis of the security is purely based on the smart contracts alone. No applications or operations were reviewed for security. No product code has been reviewed.