

Security Assessment

GemPad LP Locker SOL

Verified on 12/16/2024



SUMMARY

Project		CHAIN METHODOLOGY					
GemPad LP Loc	cker SOL	Solana		Manual & Automatic Analysis			
FILES Single		DELIVERY 12/16/2024		TYPE Standard Audit			
	O Total Findings	O O Critical Majo	O r Medium	O O Minor Informatio	O nal Resolved		
0 Critical				functions in several disrupt the contract	n affect the contract events that can risk and		
0 Major				An opening & expos contract in an unwar	ure to manipulate the nted manner		
0 Medium				An opening that could affect the outcome in executing the contract in a specific situation			
O Minor				An opening but doesn't have an impact on the functionality of the contract			
0 Informational				An opening that consists information but will not risk or affect the contract			
0 Resolved				ContractWolf's findings has been acknowledged & resolved by the project			
STATUS	√ AU	IDIT PASSED					



TABLE OF CONTENTS GemPad LP Locker SOL

Summary

Project Summary Findings Summary Disclaimer Scope of Work Auditing Approach

Project Information

Token/Project Details

Findings

Issues
CW Rust Assessment
Fixes & Recommendation
Audit Comments



DISCLAIMER GemPad LP Locker SOL

<u>ContractWolf</u> audits and reports should not be considered as a form of project's "Advertisement" and does not cover any interaction and assessment from "Project Contract" to "External Contracts" such as PancakeSwap, UniSwap, SushiSwap or similar.

ContractWolf does not provide any <u>warranty</u> on its released report and should not be used as a <u>decision</u> to invest into audited projects.

ContractWolf provides a transparent report to all its "Clients" and to its "Clients Participants" and will not claim any guarantee of bug-free code within its **SMART CONTRACT**.

ContractWolf's presence is to analyze, audit and assess the Client's Smart Contract to find any underlying risk and to eliminate any logic and flow errors within its code.

Each company or project should be liable to its security flaws and functionalities.



SCOPE OF WORK GemPad LP Locker SOL

GemPad team has agreed and provided us with the files that need to be tested (*Github*, *BSCscan*, *Etherscan*, *Local files etc*). The scope of audit is the main contract.

The goal of this engagement is to identify if there is a possibility of security flaws in the implementation of smart contract and its systems.

ContractWolf will be focusing on contract issues and functionalities along with the project claims from smart contract to their website, whitepaper, repository which has been provided by **GemPad**.



AUDITING APPROACH GemPad LP Locker SOL

Every line of code along with its functionalities will undergo manual review to check for security issues, quality of logic and contract scope of inheritance. The manual review will be done by our team that will document any issues that they discovered.

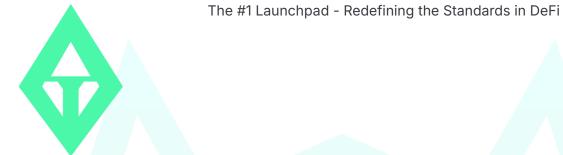
METHODOLOGY

The auditing process follows a routine series of steps:

- 1. Code review that includes the following:
- Review of the specifications, sources and instructions provided to ContractWolf to make sure we understand the size, scope and functionality of the smart contract.
- Manual review of code. Our team will have a process of reading the code line-by-line with the intention of identifying potential vulnerabilities, underlying and hidden security flaws.
- 2. Testing and automated analysis that includes:
- Testing the smart contract function with common test cases and scenarios to ensure that it returns the expected results.
- 3. Best practices and ethical review. The team will review the contract with the aim to improve efficiency, effectiveness, clarifications, maintainability, security and control within the smart contract.
- Recommendations to help the project take steps to eliminate or minimize threats and secure the smart contract.



TOKEN DETAILS GemPad LP Locker SOL



Token Na	me	Symbol	Decimal		Tota	al Supp	oly	Chain
-		-	-		-			Solana

SOURCE

Source Sent Via local-files



FINDINGS GemPad LP Locker SOL



This report has been prepared to state the issues and vulnerabilities for GemPad LP Locker SOL through this audit. The goal of this report findings is to identify specifically and fix any underlying issues and errors

ID	Title	File & Line #		Severity	Status	
N/A	No Issues found	-		-	-	



CW RUST ASSESSMENT GemPad LP Locker SOL

ContractWolf Vulnerability for Rust and Security Test Cases Relevant & known up-to-date issues for rust language

ID	Name	Description	Status
RCW-001	Reentrancy	a malicious contract calls back into the calling contract before the first invocation of the function is finished.	V
RCW-002	Undefined behavior	The Rust reference contains a non-exhaustive list of behaviors considered undefined in Rust	V
RCW-003	Integer overflow & underflow	Overflow/Underflow of mathematical operations inside the rust smart contract	V
RCW-004	Out of bounds read/write	The contract or function reads data past the end or before beginning of the intended buffer	V
RCW-005	Memory Corruption	Wrong usage of memory model throughout the contract or within its functions.	V
RCW-006	Typographical Error	Unintended error for contract, function names, code and arithmetic inputs	V
RCW-007	Hash Collisions With Multiple Arguments	If used incorrectly, triggers a hash collision while calling a function within a function.	✓
CVE-2021-39137	Erroneous Computation	Incorrect math calculation	V
CVE-2022-37450	Function Manipulation	Manipulation attack of time-difference values to increase rewards	V
CVE-2022-23328	Denial of Service	DDoS Attack using pending transactions	V
CVE-2022-29177	High verbosity logging	The product does not properly control the allocation and maintenance of a limited resource, thereby enabling an actor to influence the amount of resources consumed, eventually leading to the exhaustion of available resources.	V

ContractWolf follows the safety protocols from **NVD**(National Vulnerability Database) & **CVE Details** for **RUST Language** to assess and identify the security risk for rust smart contracts.



FIXES & RECOMMENDATION

No Issues Clean Contract

ContractWolf did not find any technical issues within the contract and marked the contract safe to interact with.





AUDIT COMMENTS GemPad LP Locker SOL

Smart Contract audit comment for a non-technical perspective

- Owner cannot freeze tokens
- Authorized user can lock LP tokens to a DEX
- Authorized users can extend lock time/period
- Users can claim vested tokens



CONTRACTWOLF

Blockchain Security - Smart Contract Audits