RUGDOG

SMART CONTRACT SECURITY AUDIT

Final report   Plan: Simple

SproutScape

February 2024

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✧ CONTENTS

✧ INTRODUCTION

The report has been prepared for SproutScape.

Name	SproutScape
Audit date	2024-02-14 - 2024-02-14
Language	Solidity
Network	Binance Smart Chain

✧ CONTRACTS CHECKED

Name	Address
SproutScape	0x83f4a44d061d8407ff2dc408ead0e563ca4c034d

✧ AUDIT PROCESS

The code was audited by the team according to the following order:

Automated analysis

- ⬥ Scanning the project's smart contracts with several publicly available automated Solidity analysis tools
- ⬥ Manual confirmation of all the issues found by the tools

Manual audit

- ⬥ Thorough manual analysis of smart contracts for security vulnerabilities
- ⬥ Smart contracts' logic check

✧ ATTACKS CHECKED

Title	Check result
Unencrypted Private Data On-Chain	✓ passed
Code With No Effects	✓ passed
Message call with hardcoded gas amount	✓ passed
Typographical Error	✓ passed
DoS With Block Gas Limit	✓ passed
Presence of unused variables	✓ passed
Incorrect Inheritance Order	✓ passed
Requirement Violation	✓ passed
Weak Sources of Randomness from Chain Attributes	✓ passed
Shadowing State Variables	✓ passed
Incorrect Constructor Name	✓ passed
Block values as a proxy for time	✓ passed
Authorization through tx.origin	✓ passed
DoS with Failed Call	✓ passed
Delegatecall to Untrusted Callee	✓ passed

Use of Deprecated Solidity Functions	✓	passed
Assert Violation	✓	passed
State Variable Default Visibility	✓	passed
Reentrancy	✓	passed
Unprotected SELFDESTRUCT Instruction	✓	passed
Unprotected Ether Withdrawal	✓	passed
Unchecked Call Return Value	✓	passed
Floating Pragma	✓	passed
Outdated Compiler Version	✓	passed
Integer Overflow and Underflow	✓	passed
Function Default Visibility	✓	passed

✧ OVERVIEW OF RELEVANCE LEVELS

High relevance   Issues of high relevance may lead to losses of users' funds as well as changes of ownership of a contract or possible issues with the logic of the contract.
High-relevance issues require immediate attention and a response from the team.

Medium relevance   While issues of medium relevance don't pose as high a risk as the high-relevance ones do, they can be just as easily exploited by the team or a malicious user, causing a contract failure and damaging the project's reputation in the process. Usually, these issues can be fixed if the contract is redeployed.
Medium-relevance issues require a response from the team.

Low relevance   Issues of low relevance don't pose high risks since they can't cause damage to the functionality of the contract. However, it's still recommended to consider fixing them.

✧ ISSUES

High relevance issues

No high relevance issues found

Medium relevance issues

No medium relevance issues found

Low relevance issues

No low relevance issues found

✦ CONCLUSION

SproutScape SproutScape contract was audited. No relevance issues were found.

✧ DISCLAIMER

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This report should not be used in any way to make decisions around investment or involvement with any particular project. This report in no way provides investment advice, nor should be leveraged as investment advice of any sort. This report represents an extensive assessing process intending to help our customers increase the quality of their code while reducing the high level of risk presented by cryptographic tokens and blockchain technology.
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✧ STATIC ANALYSIS

```
INFO:Detectors:
SproutScape.addLiquidity(uint256,uint256) (contracts/customTokens/sproutscape/
SproutScape.sol#628-687) sends eth to arbitrary user
        Dangerous calls:
        - uniswapV2Router.addLiquidityETC{value: ethAmount}
(address(this),tokenAmount,0,0,address(0xdead),block.timestamp) (contracts/
customTokens/sproutscape/SproutScape.sol#633-644)
        - uniswapV2Router.addLiquidityROSE{value: ethAmount}
(address(this),tokenAmount,0,0,address(0xdead),block.timestamp) (contracts/
customTokens/sproutscape/SproutScape.sol#647-658)
        - uniswapV2Router.addLiquidityAVAX{value: ethAmount}
(address(this),tokenAmount,0,0,address(0xdead),block.timestamp) (contracts/
customTokens/sproutscape/SproutScape.sol#661-672)
        - uniswapV2Router.addLiquidityETH{value: ethAmount}
(address(this),tokenAmount,0,0,address(0xdead),block.timestamp) (contracts/
customTokens/sproutscape/SproutScape.sol#674-685)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#functions-
that-send-ether-to-arbitrary-destinations
INFO:Detectors:
Reentrancy in SproutScape._transfer(address,address,uint256) (contracts/customTokens/
sproutscape/SproutScape.sol#520-544):
        External calls:
        - swapAndLiquify(contractTokenBalance) (contracts/customTokens/sproutscape/
SproutScape.sol#536)
                - uniswapV2Router.addLiquidityETC{value: ethAmount}
(address(this),tokenAmount,0,0,address(0xdead),block.timestamp) (contracts/
customTokens/sproutscape/SproutScape.sol#633-644)
                - uniswapV2Router.swapExactTokensForETCSupportingFeeOnTransferTokens(
tokenAmount,0,path,address(this),block.timestamp) (contracts/customTokens/
sproutscape/SproutScape.sol#572-583)
                - uniswapV2Router.addLiquidityROSE{value: ethAmount}
(address(this),tokenAmount,0,0,address(0xdead),block.timestamp) (contracts/
customTokens/sproutscape/SproutScape.sol#647-658)
```

```
            - uniswapV2Router.swapExactTokensForROSESupportingFeeOnTransferTokens
(tokenAmount,0,path,address(this),block.timestamp) (contracts/customTokens/
sproutscape/SproutScape.sol#586-597)
               - uniswapV2Router.addLiquidityAVAX{value: ethAmount}
(address(this),tokenAmount,0,0,address(0xdead),block.timestamp) (contracts/
customTokens/sproutscape/SproutScape.sol#661-672)
               - uniswapV2Router.swapExactTokensForAVAXSupportingFeeOnTransferTokens
(tokenAmount,0,path,address(this),block.timestamp) (contracts/customTokens/
sproutscape/SproutScape.sol#600-611)
               - uniswapV2Router.addLiquidityETH{value: ethAmount}
(address(this),tokenAmount,0,0,address(0xdead),block.timestamp) (contracts/
customTokens/sproutscape/SproutScape.sol#674-685)
               - uniswapV2Router.swapExactTokensForETHSupportingFeeOnTransferTokens(
tokenAmount,0,path,address(this),block.timestamp) (contracts/customTokens/
sproutscape/SproutScape.sol#613-624)
        External calls sending eth:
        - swapAndLiquify(contractTokenBalance) (contracts/customTokens/sproutscape/
SproutScape.sol#536)
               - uniswapV2Router.addLiquidityETC{value: ethAmount}
(address(this),tokenAmount,0,0,address(0xdead),block.timestamp) (contracts/
customTokens/sproutscape/SproutScape.sol#633-644)
               - uniswapV2Router.addLiquidityROSE{value: ethAmount}
(address(this),tokenAmount,0,0,address(0xdead),block.timestamp) (contracts/
customTokens/sproutscape/SproutScape.sol#647-658)
               - uniswapV2Router.addLiquidityAVAX{value: ethAmount}
(address(this),tokenAmount,0,0,address(0xdead),block.timestamp) (contracts/
customTokens/sproutscape/SproutScape.sol#661-672)
               - uniswapV2Router.addLiquidityETH{value: ethAmount}
(address(this),tokenAmount,0,0,address(0xdead),block.timestamp) (contracts/
customTokens/sproutscape/SproutScape.sol#674-685)
        State variables written after the call(s):
        - _tokenTransfer(from,to,amount,takeFee) (contracts/customTokens/sproutscape/
SproutScape.sol#543)
               - tOwned[address(this)] = tOwned[address(this)] + tLiquidity
(contracts/customTokens/sproutscape/SproutScape.sol#468)
               - tOwned[teamAddress] = tOwned[teamAddress] + tTeam (contracts/
customTokens/sproutscape/SproutScape.sol#476)
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                - tOwned[sender] = tOwned[sender] - amount (contracts/customTokens/
sproutscape/SproutScape.sol#702)
                - tOwned[recipient] = tOwned[recipient] + tTransferAmount (contracts/
customTokens/sproutscape/SproutScape.sol#703)
        SproutScape.tOwned (contracts/customTokens/sproutscape/SproutScape.sol#221)
can be used in cross function reentrancies:
        - SproutScape._burn(address,uint256) (contracts/customTokens/sproutscape/
SproutScape.sol#727-736)
        - SproutScape._takeLiquidity(address,uint256) (contracts/customTokens/
sproutscape/SproutScape.sol#465-471)
        - SproutScape._takeTeamFee(address,uint256) (contracts/customTokens/
sproutscape/SproutScape.sol#473-479)
        - SproutScape._tokenTransfer(address,address,uint256,bool) (contracts/
customTokens/sproutscape/SproutScape.sol#689-709)
        - SproutScape.balanceOf(address) (contracts/customTokens/sproutscape/
SproutScape.sol#329-331)
        - SproutScape.constructor(address) (contracts/customTokens/sproutscape/
SproutScape.sol#267-293)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#reentrancy-
vulnerabilities
INFO:Detectors:
SproutScape.swapAndLiquify(uint256) (contracts/customTokens/sproutscape/
SproutScape.sol#546-561) uses a dangerous strict equality:
        - newBalance == 0 (contracts/customTokens/sproutscape/SproutScape.sol#556)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#dangerous-
strict-equalities
INFO:Detectors:
SproutScape.addLiquidity(uint256,uint256) (contracts/customTokens/sproutscape/
SproutScape.sol#628-687) ignores return value by
uniswapV2Router.addLiquidityETC{value: ethAmount}
(address(this),tokenAmount,0,0,address(0xdead),block.timestamp) (contracts/
customTokens/sproutscape/SproutScape.sol#633-644)
SproutScape.addLiquidity(uint256,uint256) (contracts/customTokens/sproutscape/
SproutScape.sol#628-687) ignores return value by
uniswapV2Router.addLiquidityROSE{value: ethAmount}
(address(this),tokenAmount,0,0,address(0xdead),block.timestamp) (contracts/
customTokens/sproutscape/SproutScape.sol#647-658)
```

```
SproutScape.addLiquidity(uint256,uint256) (contracts/customTokens/sproutscape/
SproutScape.sol#628-687) ignores return value by
uniswapV2Router.addLiquidityAVAX{value: ethAmount}
(address(this),tokenAmount,0,0,address(0xdead),block.timestamp) (contracts/
customTokens/sproutscape/SproutScape.sol#661-672)
SproutScape.addLiquidity(uint256,uint256) (contracts/customTokens/sproutscape/
SproutScape.sol#628-687) ignores return value by
uniswapV2Router.addLiquidityETH{value: ethAmount}
(address(this),tokenAmount,0,0,address(0xdead),block.timestamp) (contracts/
customTokens/sproutscape/SproutScape.sol#674-685)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#unused-
return
INFO:Detectors:
Reentrancy in SproutScape._transfer(address,address,uint256) (contracts/customTokens/
sproutscape/SproutScape.sol#520-544):
        External calls:
        - swapAndLiquify(contractTokenBalance) (contracts/customTokens/sproutscape/
SproutScape.sol#536)
                - uniswapV2Router.addLiquidityETC{value: ethAmount}
(address(this),tokenAmount,0,0,address(0xdead),block.timestamp) (contracts/
customTokens/sproutscape/SproutScape.sol#633-644)
                - uniswapV2Router.swapExactTokensForETCSupportingFeeOnTransferTokens(
tokenAmount,0,path,address(this),block.timestamp) (contracts/customTokens/
sproutscape/SproutScape.sol#572-583)
                - uniswapV2Router.addLiquidityROSE{value: ethAmount}
(address(this),tokenAmount,0,0,address(0xdead),block.timestamp) (contracts/
customTokens/sproutscape/SproutScape.sol#647-658)
                - uniswapV2Router.swapExactTokensForROSESupportingFeeOnTransferTokens
(tokenAmount,0,path,address(this),block.timestamp) (contracts/customTokens/
sproutscape/SproutScape.sol#586-597)
                - uniswapV2Router.addLiquidityAVAX{value: ethAmount}
(address(this),tokenAmount,0,0,address(0xdead),block.timestamp) (contracts/
customTokens/sproutscape/SproutScape.sol#661-672)
                - uniswapV2Router.swapExactTokensForAVAXSupportingFeeOnTransferTokens
(tokenAmount,0,path,address(this),block.timestamp) (contracts/customTokens/
sproutscape/SproutScape.sol#600-611)
                - uniswapV2Router.addLiquidityETH{value: ethAmount}
```

```
(address(this),tokenAmount,0,0,address(0xdead),block.timestamp) (contracts/
customTokens/sproutscape/SproutScape.sol#674-685)
                - uniswapV2Router.swapExactTokensForETHSupportingFeeOnTransferTokens(
tokenAmount,0,path,address(this),block.timestamp) (contracts/customTokens/
sproutscape/SproutScape.sol#613-624)
        External calls sending eth:
        - swapAndLiquify(contractTokenBalance) (contracts/customTokens/sproutscape/
SproutScape.sol#536)
                - uniswapV2Router.addLiquidityETC{value: ethAmount}
(address(this),tokenAmount,0,0,address(0xdead),block.timestamp) (contracts/
customTokens/sproutscape/SproutScape.sol#633-644)
                - uniswapV2Router.addLiquidityROSE{value: ethAmount}
(address(this),tokenAmount,0,0,address(0xdead),block.timestamp) (contracts/
customTokens/sproutscape/SproutScape.sol#647-658)
                - uniswapV2Router.addLiquidityAVAX{value: ethAmount}
(address(this),tokenAmount,0,0,address(0xdead),block.timestamp) (contracts/
customTokens/sproutscape/SproutScape.sol#661-672)
                - uniswapV2Router.addLiquidityETH{value: ethAmount}
(address(this),tokenAmount,0,0,address(0xdead),block.timestamp) (contracts/
customTokens/sproutscape/SproutScape.sol#674-685)
        State variables written after the call(s):
        - _tokenTransfer(from,to,amount,takeFee) (contracts/customTokens/sproutscape/
SproutScape.sol#543)
                - liquidityFee = previousLiquidityFee (contracts/customTokens/
sproutscape/SproutScape.sol#500)
                - liquidityFee = 0 (contracts/customTokens/sproutscape/
SproutScape.sol#495)
        - _tokenTransfer(from,to,amount,takeFee) (contracts/customTokens/sproutscape/
SproutScape.sol#543)
                - previousLiquidityFee = liquidityFee (contracts/customTokens/
sproutscape/SproutScape.sol#492)
        - _tokenTransfer(from,to,amount,takeFee) (contracts/customTokens/sproutscape/
SproutScape.sol#543)
                - previousTeamFee = teamFee (contracts/customTokens/sproutscape/
SproutScape.sol#493)
        - _tokenTransfer(from,to,amount,takeFee) (contracts/customTokens/sproutscape/
SproutScape.sol#543)
```

```
                - teamFee = previousTeamFee (contracts/customTokens/sproutscape/
SproutScape.sol#501)
                - teamFee = 0 (contracts/customTokens/sproutscape/
SproutScape.sol#496)
Reentrancy in SproutScape.swapAndLiquify(uint256) (contracts/customTokens/
sproutscape/SproutScape.sol#546-561):
        External calls:
        - swapTokensForEth(half) (contracts/customTokens/sproutscape/
SproutScape.sol#552)
                - uniswapV2Router.swapExactTokensForETCSupportingFeeOnTransferTokens(
tokenAmount,0,path,address(this),block.timestamp) (contracts/customTokens/
sproutscape/SproutScape.sol#572-583)
                - uniswapV2Router.swapExactTokensForROSESupportingFeeOnTransferTokens
(tokenAmount,0,path,address(this),block.timestamp) (contracts/customTokens/
sproutscape/SproutScape.sol#586-597)
                - uniswapV2Router.swapExactTokensForAVAXSupportingFeeOnTransferTokens
(tokenAmount,0,path,address(this),block.timestamp) (contracts/customTokens/
sproutscape/SproutScape.sol#600-611)
                - uniswapV2Router.swapExactTokensForETHSupportingFeeOnTransferTokens(
tokenAmount,0,path,address(this),block.timestamp) (contracts/customTokens/
sproutscape/SproutScape.sol#613-624)
        - addLiquidity(otherHalf,newBalance) (contracts/customTokens/sproutscape/
SproutScape.sol#558)
                - uniswapV2Router.addLiquidityETC{value: ethAmount}
(address(this),tokenAmount,0,0,address(0xdead),block.timestamp) (contracts/
customTokens/sproutscape/SproutScape.sol#633-644)
                - uniswapV2Router.addLiquidityROSE{value: ethAmount}
(address(this),tokenAmount,0,0,address(0xdead),block.timestamp) (contracts/
customTokens/sproutscape/SproutScape.sol#647-658)
                - uniswapV2Router.addLiquidityAVAX{value: ethAmount}
(address(this),tokenAmount,0,0,address(0xdead),block.timestamp) (contracts/
customTokens/sproutscape/SproutScape.sol#661-672)
                - uniswapV2Router.addLiquidityETH{value: ethAmount}
(address(this),tokenAmount,0,0,address(0xdead),block.timestamp) (contracts/
customTokens/sproutscape/SproutScape.sol#674-685)
        External calls sending eth:
        - addLiquidity(otherHalf,newBalance) (contracts/customTokens/sproutscape/
SproutScape.sol#558)
```

```
        - uniswapV2Router.addLiquidityETC{value: ethAmount}
(address(this),tokenAmount,0,0,address(0xdead),block.timestamp) (contracts/
customTokens/sproutscape/SproutScape.sol#633-644)
            - uniswapV2Router.addLiquidityROSE{value: ethAmount}
(address(this),tokenAmount,0,0,address(0xdead),block.timestamp) (contracts/
customTokens/sproutscape/SproutScape.sol#647-658)
            - uniswapV2Router.addLiquidityAVAX{value: ethAmount}
(address(this),tokenAmount,0,0,address(0xdead),block.timestamp) (contracts/
customTokens/sproutscape/SproutScape.sol#661-672)
            - uniswapV2Router.addLiquidityETH{value: ethAmount}
(address(this),tokenAmount,0,0,address(0xdead),block.timestamp) (contracts/
customTokens/sproutscape/SproutScape.sol#674-685)
        State variables written after the call(s):
        - addLiquidity(otherHalf,newBalance) (contracts/customTokens/sproutscape/
SproutScape.sol#558)
            - _allowances[account][spender] = amount (contracts/customTokens/
sproutscape/SproutScape.sol#516)
Reentrancy in SproutScape.transferFrom(address,address,uint256) (contracts/
customTokens/sproutscape/SproutScape.sol#356-371):
        External calls:
        - _transfer(sender,recipient,amount) (contracts/customTokens/sproutscape/
SproutScape.sol#361)
            - uniswapV2Router.addLiquidityETC{value: ethAmount}
(address(this),tokenAmount,0,0,address(0xdead),block.timestamp) (contracts/
customTokens/sproutscape/SproutScape.sol#633-644)
            - uniswapV2Router.swapExactTokensForETCSupportingFeeOnTransferTokens(
tokenAmount,0,path,address(this),block.timestamp) (contracts/customTokens/
sproutscape/SproutScape.sol#572-583)
            - uniswapV2Router.addLiquidityROSE{value: ethAmount}
(address(this),tokenAmount,0,0,address(0xdead),block.timestamp) (contracts/
customTokens/sproutscape/SproutScape.sol#647-658)
            - uniswapV2Router.swapExactTokensForROSESupportingFeeOnTransferTokens
(tokenAmount,0,path,address(this),block.timestamp) (contracts/customTokens/
sproutscape/SproutScape.sol#586-597)
            - uniswapV2Router.addLiquidityAVAX{value: ethAmount}
(address(this),tokenAmount,0,0,address(0xdead),block.timestamp) (contracts/
customTokens/sproutscape/SproutScape.sol#661-672)
```

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            - uniswapV2Router.swapExactTokensForAVAXSupportingFeeOnTransferTokens
(tokenAmount,0,path,address(this),block.timestamp) (contracts/customTokens/
sproutscape/SproutScape.sol#600-611)
            - uniswapV2Router.addLiquidityETH{value: ethAmount}
(address(this),tokenAmount,0,0,address(0xdead),block.timestamp) (contracts/
customTokens/sproutscape/SproutScape.sol#674-685)
            - uniswapV2Router.swapExactTokensForETHSupportingFeeOnTransferTokens(
tokenAmount,0,path,address(this),block.timestamp) (contracts/customTokens/
sproutscape/SproutScape.sol#613-624)
    External calls sending eth:
    - _transfer(sender,recipient,amount) (contracts/customTokens/sproutscape/
SproutScape.sol#361)
            - uniswapV2Router.addLiquidityETC{value: ethAmount}
(address(this),tokenAmount,0,0,address(0xdead),block.timestamp) (contracts/
customTokens/sproutscape/SproutScape.sol#633-644)
            - uniswapV2Router.addLiquidityROSE{value: ethAmount}
(address(this),tokenAmount,0,0,address(0xdead),block.timestamp) (contracts/
customTokens/sproutscape/SproutScape.sol#647-658)
            - uniswapV2Router.addLiquidityAVAX{value: ethAmount}
(address(this),tokenAmount,0,0,address(0xdead),block.timestamp) (contracts/
customTokens/sproutscape/SproutScape.sol#661-672)
            - uniswapV2Router.addLiquidityETH{value: ethAmount}
(address(this),tokenAmount,0,0,address(0xdead),block.timestamp) (contracts/
customTokens/sproutscape/SproutScape.sol#674-685)
    State variables written after the call(s):
    - _approve(sender,_msgSender(),_allowances[sender]
[_msgSender()].sub(amount,ERC20: transfer amount exceeds allowance)) (contracts/
customTokens/sproutscape/SproutScape.sol#362-369)
            - _allowances[account][spender] = amount (contracts/customTokens/
sproutscape/SproutScape.sol#516)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#reentrancy-
vulnerabilities-2
INFO:Detectors:
Reentrancy in SproutScape._transfer(address,address,uint256) (contracts/customTokens/
sproutscape/SproutScape.sol#520-544):
    External calls:
    - swapAndLiquify(contractTokenBalance) (contracts/customTokens/sproutscape/
SproutScape.sol#536)
```

```
                - uniswapV2Router.addLiquidityETC{value: ethAmount}
(address(this),tokenAmount,0,0,address(0xdead),block.timestamp) (contracts/
customTokens/sproutscape/SproutScape.sol#633-644)
                    - uniswapV2Router.swapExactTokensForETCSupportingFeeOnTransferTokens(
tokenAmount,0,path,address(this),block.timestamp) (contracts/customTokens/
sproutscape/SproutScape.sol#572-583)
                    - uniswapV2Router.addLiquidityROSE{value: ethAmount}
(address(this),tokenAmount,0,0,address(0xdead),block.timestamp) (contracts/
customTokens/sproutscape/SproutScape.sol#647-658)
                    - uniswapV2Router.swapExactTokensForROSESupportingFeeOnTransferTokens
(tokenAmount,0,path,address(this),block.timestamp) (contracts/customTokens/
sproutscape/SproutScape.sol#586-597)
                    - uniswapV2Router.addLiquidityAVAX{value: ethAmount}
(address(this),tokenAmount,0,0,address(0xdead),block.timestamp) (contracts/
customTokens/sproutscape/SproutScape.sol#661-672)
                    - uniswapV2Router.swapExactTokensForAVAXSupportingFeeOnTransferTokens
(tokenAmount,0,path,address(this),block.timestamp) (contracts/customTokens/
sproutscape/SproutScape.sol#600-611)
                    - uniswapV2Router.addLiquidityETH{value: ethAmount}
(address(this),tokenAmount,0,0,address(0xdead),block.timestamp) (contracts/
customTokens/sproutscape/SproutScape.sol#674-685)
                    - uniswapV2Router.swapExactTokensForETHSupportingFeeOnTransferTokens(
tokenAmount,0,path,address(this),block.timestamp) (contracts/customTokens/
sproutscape/SproutScape.sol#613-624)
        External calls sending eth:
        - swapAndLiquify(contractTokenBalance) (contracts/customTokens/sproutscape/
SproutScape.sol#536)
                    - uniswapV2Router.addLiquidityETC{value: ethAmount}
(address(this),tokenAmount,0,0,address(0xdead),block.timestamp) (contracts/
customTokens/sproutscape/SproutScape.sol#633-644)
                    - uniswapV2Router.addLiquidityROSE{value: ethAmount}
(address(this),tokenAmount,0,0,address(0xdead),block.timestamp) (contracts/
customTokens/sproutscape/SproutScape.sol#647-658)
                    - uniswapV2Router.addLiquidityAVAX{value: ethAmount}
(address(this),tokenAmount,0,0,address(0xdead),block.timestamp) (contracts/
customTokens/sproutscape/SproutScape.sol#661-672)
                    - uniswapV2Router.addLiquidityETH{value: ethAmount}
```

```
(address(this),tokenAmount,0,0,address(0xdead),block.timestamp) (contracts/
customTokens/sproutscape/SproutScape.sol#674-685)
        Event emitted after the call(s):
        - Transfer(sender,address(this),tLiquidity) (contracts/customTokens/
sproutscape/SproutScape.sol#470)
                - _tokenTransfer(from,to,amount,takeFee) (contracts/customTokens/
sproutscape/SproutScape.sol#543)
        - Transfer(sender,teamAddress,tTeam) (contracts/customTokens/sproutscape/
SproutScape.sol#478)
                - _tokenTransfer(from,to,amount,takeFee) (contracts/customTokens/
sproutscape/SproutScape.sol#543)
        - Transfer(sender,recipient,tTransferAmount) (contracts/customTokens/
sproutscape/SproutScape.sol#706)
                - _tokenTransfer(from,to,amount,takeFee) (contracts/customTokens/
sproutscape/SproutScape.sol#543)
Reentrancy in SproutScape.addLiquidity(uint256,uint256) (contracts/customTokens/
sproutscape/SproutScape.sol#628-687):
        External calls:
        - uniswapV2Router.addLiquidityETC{value: ethAmount}
(address(this),tokenAmount,0,0,address(0xdead),block.timestamp) (contracts/
customTokens/sproutscape/SproutScape.sol#633-644)
        Event emitted after the call(s):
        - AddLiquidityFailed(ethAmount) (contracts/customTokens/sproutscape/
SproutScape.sol#643)
Reentrancy in SproutScape.addLiquidity(uint256,uint256) (contracts/customTokens/
sproutscape/SproutScape.sol#628-687):
        External calls:
        - uniswapV2Router.addLiquidityROSE{value: ethAmount}
(address(this),tokenAmount,0,0,address(0xdead),block.timestamp) (contracts/
customTokens/sproutscape/SproutScape.sol#647-658)
        Event emitted after the call(s):
        - AddLiquidityFailed(ethAmount) (contracts/customTokens/sproutscape/
SproutScape.sol#657)
Reentrancy in SproutScape.addLiquidity(uint256,uint256) (contracts/customTokens/
sproutscape/SproutScape.sol#628-687):
        External calls:
        - uniswapV2Router.addLiquidityAVAX{value: ethAmount}
```

(address(this),tokenAmount,0,0,address(0xdead),block.timestamp) (contracts/
customTokens/sproutscape/SproutScape.sol#661-672)

        Event emitted after the call(s):

        - AddLiquidityFailed(ethAmount) (contracts/customTokens/sproutscape/
SproutScape.sol#671)
Reentrancy in SproutScape.addLiquidity(uint256,uint256) (contracts/customTokens/
sproutscape/SproutScape.sol#628-687):

        External calls:

        - uniswapV2Router.addLiquidityETH{value: ethAmount}
(address(this),tokenAmount,0,0,address(0xdead),block.timestamp) (contracts/
customTokens/sproutscape/SproutScape.sol#674-685)

        Event emitted after the call(s):

        - AddLiquidityFailed(ethAmount) (contracts/customTokens/sproutscape/
SproutScape.sol#684)
Reentrancy in SproutScape.swapAndLiquify(uint256) (contracts/customTokens/
sproutscape/SproutScape.sol#546-561):

        External calls:

        - swapTokensForEth(half) (contracts/customTokens/sproutscape/
SproutScape.sol#552)

                - uniswapV2Router.swapExactTokensForETCSupportingFeeOnTransferTokens(
tokenAmount,0,path,address(this),block.timestamp) (contracts/customTokens/
sproutscape/SproutScape.sol#572-583)

                - uniswapV2Router.swapExactTokensForROSESupportingFeeOnTransferTokens
(tokenAmount,0,path,address(this),block.timestamp) (contracts/customTokens/
sproutscape/SproutScape.sol#586-597)

                - uniswapV2Router.swapExactTokensForAVAXSupportingFeeOnTransferTokens
(tokenAmount,0,path,address(this),block.timestamp) (contracts/customTokens/
sproutscape/SproutScape.sol#600-611)

                - uniswapV2Router.swapExactTokensForETHSupportingFeeOnTransferTokens(
tokenAmount,0,path,address(this),block.timestamp) (contracts/customTokens/
sproutscape/SproutScape.sol#613-624)

        - addLiquidity(otherHalf,newBalance) (contracts/customTokens/sproutscape/
SproutScape.sol#558)

                - uniswapV2Router.addLiquidityETC{value: ethAmount}
(address(this),tokenAmount,0,0,address(0xdead),block.timestamp) (contracts/
customTokens/sproutscape/SproutScape.sol#633-644)

                - uniswapV2Router.addLiquidityROSE{value: ethAmount}

```
(address(this),tokenAmount,0,0,address(0xdead),block.timestamp) (contracts/
customTokens/sproutscape/SproutScape.sol#647-658)
                - uniswapV2Router.addLiquidityAVAX{value: ethAmount}
(address(this),tokenAmount,0,0,address(0xdead),block.timestamp) (contracts/
customTokens/sproutscape/SproutScape.sol#661-672)
                - uniswapV2Router.addLiquidityETH{value: ethAmount}
(address(this),tokenAmount,0,0,address(0xdead),block.timestamp) (contracts/
customTokens/sproutscape/SproutScape.sol#674-685)
        External calls sending eth:
        - addLiquidity(otherHalf,newBalance) (contracts/customTokens/sproutscape/
SproutScape.sol#558)
                - uniswapV2Router.addLiquidityETC{value: ethAmount}
(address(this),tokenAmount,0,0,address(0xdead),block.timestamp) (contracts/
customTokens/sproutscape/SproutScape.sol#633-644)
                - uniswapV2Router.addLiquidityROSE{value: ethAmount}
(address(this),tokenAmount,0,0,address(0xdead),block.timestamp) (contracts/
customTokens/sproutscape/SproutScape.sol#647-658)
                - uniswapV2Router.addLiquidityAVAX{value: ethAmount}
(address(this),tokenAmount,0,0,address(0xdead),block.timestamp) (contracts/
customTokens/sproutscape/SproutScape.sol#661-672)
                - uniswapV2Router.addLiquidityETH{value: ethAmount}
(address(this),tokenAmount,0,0,address(0xdead),block.timestamp) (contracts/
customTokens/sproutscape/SproutScape.sol#674-685)
        Event emitted after the call(s):
        - AddLiquidityFailed(ethAmount) (contracts/customTokens/sproutscape/
SproutScape.sol#643)
                - addLiquidity(otherHalf,newBalance) (contracts/customTokens/
sproutscape/SproutScape.sol#558)
        - AddLiquidityFailed(ethAmount) (contracts/customTokens/sproutscape/
SproutScape.sol#657)
                - addLiquidity(otherHalf,newBalance) (contracts/customTokens/
sproutscape/SproutScape.sol#558)
        - AddLiquidityFailed(ethAmount) (contracts/customTokens/sproutscape/
SproutScape.sol#671)
                - addLiquidity(otherHalf,newBalance) (contracts/customTokens/
sproutscape/SproutScape.sol#558)
        - AddLiquidityFailed(ethAmount) (contracts/customTokens/sproutscape/
SproutScape.sol#684)
```

```
        - addLiquidity(otherHalf,newBalance) (contracts/customTokens/
sproutscape/SproutScape.sol#558)
        - Approval(account,spender,amount) (contracts/customTokens/sproutscape/
SproutScape.sol#517)
            - addLiquidity(otherHalf,newBalance) (contracts/customTokens/
sproutscape/SproutScape.sol#558)
        - SwapAndLiquify(half,newBalance,otherHalf) (contracts/customTokens/
sproutscape/SproutScape.sol#560)
Reentrancy in SproutScape.swapTokensForEth(uint256) (contracts/customTokens/
sproutscape/SproutScape.sol#563-626):
        External calls:
        - uniswapV2Router.swapExactTokensForETCSupportingFeeOnTransferTokens(tokenAmo
unt,0,path,address(this),block.timestamp) (contracts/customTokens/sproutscape/
SproutScape.sol#572-583)
        Event emitted after the call(s):
        - SwapTokensForEthFailed(tokenAmount) (contracts/customTokens/sproutscape/
SproutScape.sol#582)
Reentrancy in SproutScape.swapTokensForEth(uint256) (contracts/customTokens/
sproutscape/SproutScape.sol#563-626):
        External calls:
        - uniswapV2Router.swapExactTokensForROSESupportingFeeOnTransferTokens(tokenAm
ount,0,path,address(this),block.timestamp) (contracts/customTokens/sproutscape/
SproutScape.sol#586-597)
        Event emitted after the call(s):
        - SwapTokensForEthFailed(tokenAmount) (contracts/customTokens/sproutscape/
SproutScape.sol#596)
Reentrancy in SproutScape.swapTokensForEth(uint256) (contracts/customTokens/
sproutscape/SproutScape.sol#563-626):
        External calls:
        - uniswapV2Router.swapExactTokensForAVAXSupportingFeeOnTransferTokens(tokenAm
ount,0,path,address(this),block.timestamp) (contracts/customTokens/sproutscape/
SproutScape.sol#600-611)
        Event emitted after the call(s):
        - SwapTokensForEthFailed(tokenAmount) (contracts/customTokens/sproutscape/
SproutScape.sol#610)
Reentrancy in SproutScape.swapTokensForEth(uint256) (contracts/customTokens/
sproutscape/SproutScape.sol#563-626):
```

```
    External calls:
    - uniswapV2Router.swapExactTokensForETHSupportingFeeOnTransferTokens(tokenAmo
unt,0,path,address(this),block.timestamp) (contracts/customTokens/sproutscape/
SproutScape.sol#613-624)
    Event emitted after the call(s):
    - SwapTokensForEthFailed(tokenAmount) (contracts/customTokens/sproutscape/
SproutScape.sol#623)
Reentrancy in SproutScape.transferFrom(address,address,uint256) (contracts/
customTokens/sproutscape/SproutScape.sol#356-371):
    External calls:
    - _transfer(sender,recipient,amount) (contracts/customTokens/sproutscape/
SproutScape.sol#361)
            - uniswapV2Router.addLiquidityETC{value: ethAmount}
(address(this),tokenAmount,0,0,address(0xdead),block.timestamp) (contracts/
customTokens/sproutscape/SproutScape.sol#633-644)
            - uniswapV2Router.swapExactTokensForETCSupportingFeeOnTransferTokens(
tokenAmount,0,path,address(this),block.timestamp) (contracts/customTokens/
sproutscape/SproutScape.sol#572-583)
            - uniswapV2Router.addLiquidityROSE{value: ethAmount}
(address(this),tokenAmount,0,0,address(0xdead),block.timestamp) (contracts/
customTokens/sproutscape/SproutScape.sol#647-658)
            - uniswapV2Router.swapExactTokensForROSESupportingFeeOnTransferTokens
(tokenAmount,0,path,address(this),block.timestamp) (contracts/customTokens/
sproutscape/SproutScape.sol#586-597)
            - uniswapV2Router.addLiquidityAVAX{value: ethAmount}
(address(this),tokenAmount,0,0,address(0xdead),block.timestamp) (contracts/
customTokens/sproutscape/SproutScape.sol#661-672)
            - uniswapV2Router.swapExactTokensForAVAXSupportingFeeOnTransferTokens
(tokenAmount,0,path,address(this),block.timestamp) (contracts/customTokens/
sproutscape/SproutScape.sol#600-611)
            - uniswapV2Router.addLiquidityETH{value: ethAmount}
(address(this),tokenAmount,0,0,address(0xdead),block.timestamp) (contracts/
customTokens/sproutscape/SproutScape.sol#674-685)
            - uniswapV2Router.swapExactTokensForETHSupportingFeeOnTransferTokens(
tokenAmount,0,path,address(this),block.timestamp) (contracts/customTokens/
sproutscape/SproutScape.sol#613-624)
    External calls sending eth:
```

```
          - _transfer(sender,recipient,amount) (contracts/customTokens/sproutscape/
SproutScape.sol#361)
               - uniswapV2Router.addLiquidityETC{value: ethAmount}
(address(this),tokenAmount,0,0,address(0xdead),block.timestamp) (contracts/
customTokens/sproutscape/SproutScape.sol#633-644)
               - uniswapV2Router.addLiquidityROSE{value: ethAmount}
(address(this),tokenAmount,0,0,address(0xdead),block.timestamp) (contracts/
customTokens/sproutscape/SproutScape.sol#647-658)
               - uniswapV2Router.addLiquidityAVAX{value: ethAmount}
(address(this),tokenAmount,0,0,address(0xdead),block.timestamp) (contracts/
customTokens/sproutscape/SproutScape.sol#661-672)
               - uniswapV2Router.addLiquidityETH{value: ethAmount}
(address(this),tokenAmount,0,0,address(0xdead),block.timestamp) (contracts/
customTokens/sproutscape/SproutScape.sol#674-685)
       Event emitted after the call(s):
       - Approval(account,spender,amount) (contracts/customTokens/sproutscape/
SproutScape.sol#517)
               - _approve(sender,_msgSender(),_allowances[sender]
[_msgSender()].sub(amount,ERC20: transfer amount exceeds allowance)) (contracts/
customTokens/sproutscape/SproutScape.sol#362-369)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#reentrancy-
vulnerabilities-3
INFO:Detectors:
SproutScape.swapTokensForEth(uint256) (contracts/customTokens/sproutscape/
SproutScape.sol#563-626) has a high cyclomatic complexity (12).
SproutScape.addLiquidity(uint256,uint256) (contracts/customTokens/sproutscape/
SproutScape.sol#628-687) has a high cyclomatic complexity (12).
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#cyclomatic-
complexity
INFO:Detectors:
SproutScape.previousLiquidityFee (contracts/customTokens/sproutscape/
SproutScape.sol#233) is set pre-construction with a non-constant function or state
variable:
       - liquidityFee
SproutScape.previousTeamFee (contracts/customTokens/sproutscape/SproutScape.sol#236)
is set pre-construction with a non-constant function or state variable:
       - teamFee
```

Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#function-initializing-state

INFO:Detectors:

Pragma version0.8.16 (contracts/customTokens/sproutscape/SproutScape.sol#3) allows old versions

solc-0.8.16 is not recommended for deployment

Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#incorrect-versions-of-solidity

INFO:Detectors:

Function IUniswapV2Router01.WETH() (contracts/customTokens/sproutscape/SproutScape.sol#99) is not in mixedCase

Function IUniswapV2Router01.WETC() (contracts/customTokens/sproutscape/SproutScape.sol#101) is not in mixedCase

Function IUniswapV2Router01.WHT() (contracts/customTokens/sproutscape/SproutScape.sol#103) is not in mixedCase

Function IUniswapV2Router01.WROSE() (contracts/customTokens/sproutscape/SproutScape.sol#105) is not in mixedCase

Function IUniswapV2Router01.WAVAX() (contracts/customTokens/sproutscape/SproutScape.sol#107) is not in mixedCase

Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#conformance-to-solidity-naming-conventions

INFO:Detectors:

Variable IUniswapV2Router01.addLiquidity(address,address,uint256,uint256,uint256,uint256,address,uint256).amountADesired (contracts/customTokens/sproutscape/SproutScape.sol#112) is too similar to IUniswapV2Router01.addLiquidity(address,address,uint256,uint256,uint256,uint256,address,uint256).amountBDesired (contracts/customTokens/sproutscape/SproutScape.sol#113)

Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#variable-names-too-similar

INFO:Detectors:

SproutScape.constructor(address) (contracts/customTokens/sproutscape/SproutScape.sol#267-293) uses literals with too many digits:

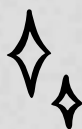   - tTotal = 500000000 * 10 ** _decimals (contracts/customTokens/sproutscape/SproutScape.sol#272)

Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#too-many-digits

INFO:Detectors:

```
SproutScape.uniswapV2Router (contracts/customTokens/sproutscape/SproutScape.sol#238)
should be immutable
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#state-
variables-that-could-be-declared-immutable
INFO:Slither:. analyzed (9 contracts with 85 detectors), 35 result(s) found
```

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