



RugFreeCoins Audit



Sugar Land Token Smart Contract Security Audit January 12, 2022

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Audit details



Audited project

Sugar Land Token



Contract Address

0xcB2aDBCa6f15E9B3F1D98FcE57aC48a093F34fA9



Client contact

Sugar Land Team



Blockchain

Binance smart chain



Project website

<http://sugarlandcoin.com/>

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 disclaimer below – please make sure to read it in full.

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Background

Rugfreecoins was commissioned by Sugar Land Token to perform an audit of the smart contract.

<https://bscscan.com/address/0xcB2aDBCa6f15E9B3F1D98FcE57aC48a093F34fA9>

The focus of this audit is to verify that the smart contract is secure, resilient and working according to the specifications.

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

About the project

Sugar Land is a token built on the Binance Smart Chain that is with an innovative investment use case the main purpose of which is to seek out constant revenue sources, and heading towards building even greater Community, DAO Governed ecosystem, a Multi Chain NFT marketplace and an eventual future Game + metaverse. Each transaction, purchase incurs 12% fee, and sale incurs a 12% fee.

Vision

The team behind Sugarland believes the 'cryptoverse' is capable of creating massive opportunity and driving socioeconomic change for anyone willing to put in the effort. The core team knows first-hand the power of a strong community, and is always building from a "community-first" perspective.

Sugarland's Web 3.0 ecosystem draws from familiar 'cryptoverse' touchpoints and technologies and aims to push the limits of what is possible through community managed decentralized and/or DAO-governed revenue generating tools and dApps (decentralized applications).

Features

- ❖ The Sugarland Token rewards will be distributed among every holder proportional to how many tokens each individual holds in values of 3% when buying and selling.
- ❖ The sustainability fee of 5% when buying and selling for marketing and dev is what allows Sugar Land to hold the aforementioned promise. Tokens will be swapped into BNB and will be sent to a marketing wallet per transaction. This way, Sugar Land will have enough funds to promote the coin and spend for future development without selling tokens as the traditional way.
- ❖ The additional component included under the sustainability section is a liquidity fee of 4% when buying and selling, which is a redistribution mechanism that ensures the trading pool always has sufficient liquidity.

Tokenomics

12% fee when buying and selling

- ❖ 3% of trade goes to holders' pockets in \$Sugar tokens.
- ❖ 4% of trade goes to the liquidity pool.
- ❖ 5% of trade goes to the marketing and Dev wallets.

Pre-Launch Phase In progress

- ✓ Roadmap & Contract Revision For Sugarland V2
- ✓ Private Sale Raise - 200 BNB
- ✓ Launch Marketing With Various Telegram & Twitter Influencers
- ✓ AMA with Big Crypto Communities
- ✓ Audit + KYC report From Brewlabs
- ✓ Successful Presale Round 1 For 245 BNB
- ✓ Successful Presale Round 2 For 350 BNB
- ✓ PancakeSwap Listing & Liquidity Lock for 1 Year
- ✓ Apply for Certik Audit

Phase 1 - Q1 2022

- ✔ Apply CoinGecko, CoinMarketCap and Nomics Listing
- ✔ SugarFactory - All in One dApp
- ✔ Initial Marketing With Partners
- ✔ PR Articles Publishing in Popular Media Outlets
- ✔ Banner Ads on Popular Coin Listing Sites
- ✔ Reach 10,000 Holders
- ✔ Apply for Tier 2 CEX Listings
- ✔ First NFT Lottery Round
- ✔ First NFT Series - BEP721 NFTs Carrying Most Benefits In Sugarland Ecosystem
- ✔ SugarFactory - Second Milestone For NFT Minting & Staking Going Live
- ✔ SugarFactory - Third Milestone For Governance

Phase 2

- ✔ Bring Tech & Media Partners
- ✔ NFT Marketplace MVP Development
- ✔ Marketplace Building & Testing
- ✔ Marketplace Beta Release
- ✔ Growth Acceleration For Marketplace User Base
- ✔ Features Upgrade & Scaling
- ✔ Marketplace Revenue Share Integrated For CITIZEN Series NFT Holders

Phase 3 & Onwards

- After successful implementation of Previous Phases Short Term Roadmap, we will work towards Virtual Real Estate
- ✔ Development & Metaverse Integration using Latest Layered Blockchain Solutions
- Team Expansion Phase For Sugarland's Metaverse including
- ✔ Business and Advertising Based Revenue for Real Estate Holders
 - ✔ Virtual Real Estate NFT Sales

The Team



Mia

Founder - CEO - Lead Dev



jBob

Blockchain Advisor



Nomi

Creatives



Leben

Social Media Manager



Giuliano Maria Lodi

Front End Developer



Tyler McWilliams

Full Stack Developer



Target market and the concept

Target market

- ❖ Anyone who's interested in the Crypto space with long-term investment plans.
- ❖ Anyone who's ready to earn a passive income in native tokens by holding their tokens.
- ❖ Anyone who's interested in trading tokens.
- ❖ Anyone who's interested in winning & collecting Premium 3D Citizen NFTs.
- ❖ Anyone who's interested in Access Multi Chain NFT Marketplace & trade NFTs and launch collections, earn Royalties.
- ❖ Anyone who's interested in Access to Future Metaverse from Sugarland.
- ❖ Anyone who's interested in being eligible for other Sugarland Products & services
- ❖ Anyone who's interested in making financial transactions with any other party using Sugar Land as the currency.

Core concept

\$SUGAR was initially launched, and received a positive community response, in mid-2021 as a meme-based reflection token.

The majority of V1 "Sugarlanders" / \$SUGAR holders have stuck with the core development team and will receive V2 tokens at the launch of this contract. The majority of the community approved of and endorsed the migration from V1 to V2, a contract and branding upgrade that makes the \$SUGAR token, and overall Sugarland brand a more scalable and dynamic project.

Ask anyone who was a part of V1, the Sugarland team works hard, and most importantly, cares about the community. The Sugarland V2 contract, approach, and project roadmap are all reworked and finely tuned in preparation for what's to come. SUGAR is ready to take on the next phase of DeFi and plans to be a key asset and part of the wider cryptoverse's journey to manifest the ultimate Metaverse experience.

The Sugar Land reward system

3% of each transaction when buying and selling gets converted to tokens, and is split amongst all holders. Holders will be eligible to receive tokens in each transaction and rewards are proportional to how many tokens each individual holds.

Sustainable mechanism

The sustainability fee of 5% when buying and selling for marketing and dev is what allows Sugar Land to promote the token and use funds to further the development of the platform. Tokens will be swapped into BNB and will be sent to a marketing wallet per transaction. This way, Sugar Land will have access to the funds without selling tokens as the traditional way, which will enable them to consume funds without hurting the project.

The liquidity fee of 4% when buying and selling, which is a redistribution mechanism that ensures the trading pool always has sufficient liquidity.

The use case

Sugarland's NFT marketplace is an origin point for an eventual 'one-stop-shop' and comprehensive, cross-chain solution & decentralized ecosystem that will scale across multiple metaverse, play to earn, and web 3.0 environments. The solution is focused on both primary and secondary markets and incorporates DAO-inspired governance and community involvement to establish a community-run and collaboratively curated NFT epicenter.

Via in-house and third-party development partners Sugarland's rich UI and DeFi navigation system will make it easy and fun to explore, discover, and collect feature-packed, dynamic NFTs. Cross-chain and partner integrations will make it easy to find, buy, trade, and sell the latest NFT collections across GameFi, DeFi, and Metaverse environments.

In addition to third-party partners and external integrations, Sugarland may develop and deploy \$SUGAR GameFi / play to earn NFTs and game environments as well as an eventual goal of a decentralized Sugarland Metaverse.

- ❖ **Rich navigation system designed to Explore and Collect feature-packed NFTs, the platform will make it accessible to easily find Latest Collections for GameFi and Defi protocol-based NFTs.**
- ❖ **With the boom in the crypto space, an NFT marketplace solution is required to showcase & prioritize NFTs with various use cases too and let the enthusiasts find them easily.**

With a business development around the above-mentioned use-cases and product releases, a dedicated team will lead the marketing and adoption of the marketplace.

Future developments at Sugarland may include the development of a wide range GameFi NFTs, with \$SUGAR being the earned currency. An eventual metaverse for Sugarland is also in the future goals.

Governance

At launch, whitelisted 'Sugarlanders' will have the opportunity to acquire non-fungible governance tokens. These select and initially rare NFTs will ultimately give the holder future opportunities to access and contribute to the management of the DAO at the core of the project.

Earn & Yield

Staking NFTs will enable a higher yield on your \$SUGAR, more details coming soon.

Grow & Access

Access-based NFTs or NFT tickets can provide holders with unique and exclusive experiences online and in the metaverse.

Dynamic & Adaptable

NFT developments are occurring daily, and Sugarland is excited to be on the cutting edge of what NFTs might be able to facilitate down the line. From real-world and digital environment access tokens to fractional ownership, and input-dependent dynamic output, Sugarland will be poised to integrate, utilize, and facilitate the exchange of NFTs of all types.

Potential to grow with score points

| | | |
|--------------|--------------------------|-----------------|
| 1. | Project efficiency | 9/10 |
| 2. | Project uniqueness | 9/10 |
| 3 | Information quality | 10/10 |
| 4 | Service quality | 10/10 |
| 5 | System quality | 10/10 |
| 6 | Impact on the community | 9/10 |
| 7 | Impact on the business | 10/10 |
| 8 | Preparing for the future | 9/10 |
| Total Points | | 9.625/10 |

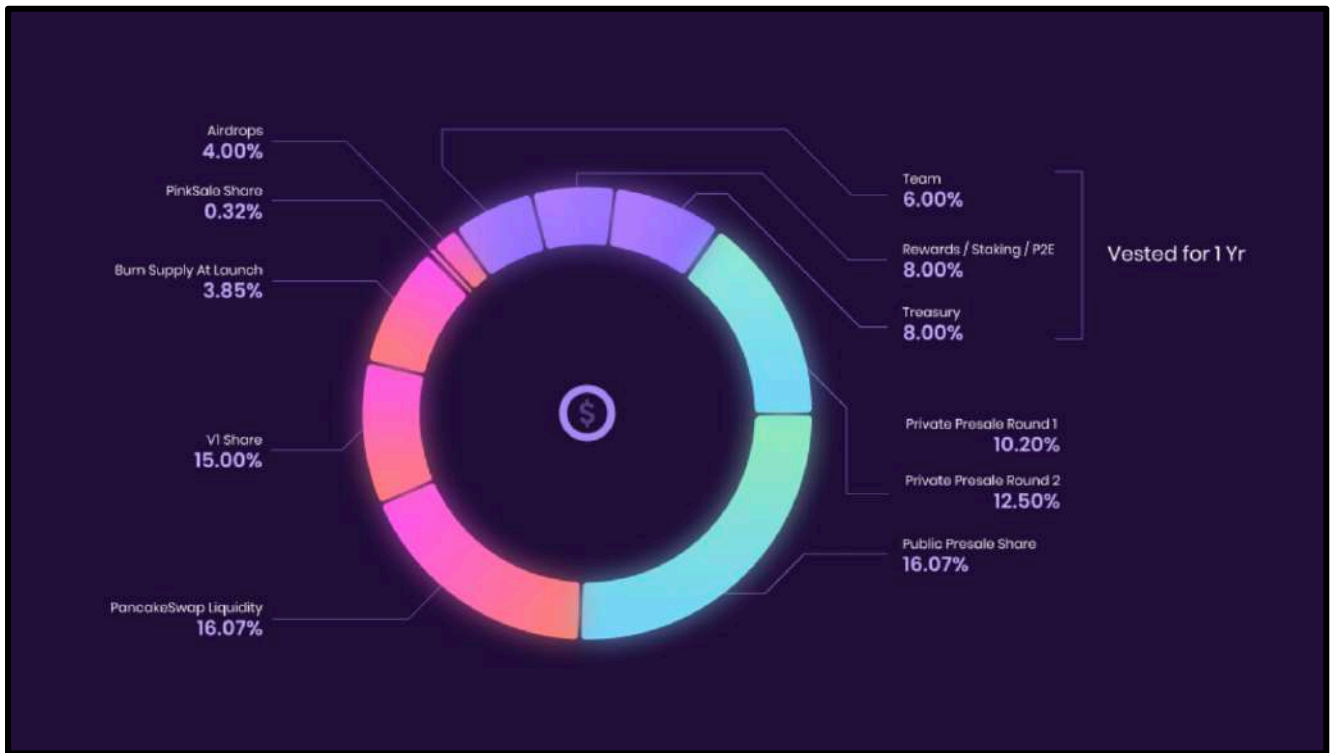
Contract details

Token contract details for 12th January 2022

| | |
|----------------------------------|--|
| Contract name | Sugarland |
| Contract address | 0xcB2aDBCa6f15E9B3F1D98FcE57aC48a093F34fA9 |
| Token supply | 1,000,000,000 |
| Token ticker | Sugar |
| Decimals | 9 |
| Token holders | 2 |
| Transaction count | 2 |
| Contract deployer address | 0x3adE241eDED91fE0f10cDB93A7295c6469220b2b |
| Contract's current owner address | 0x3ade241eded91fe0f10cdb93a7295c6469220b2b |

Token distribution

Tokens are distributed as follows:

















Contract code function details








| No | Category | Item | Result |
|----|---------------------------------------|--|-----------|
| 1 | Coding conventions | BRC20 Token standards | pass |
| | | compile errors | low issue |
| | | Compiler version security | pass |
| | | visibility specifiers | pass |
| | | Gas consumption | low issue |
| | | SafeMath features | pass |
| | | Fallback usage | pass |
| | | tx.origin usage | pass |
| | | deprecated items | pass |
| | | Redundant code | pass |
| | | Overriding variables | pass |
| 2 | Function call audit | Authorization of function call | pass |
| | | Low level function (call/delegate call) security | pass |
| | | Returned value security | pass |
| | | Selfdestruct function security | pass |
| 3 | Business security | Access control of owners | pass |
| | | Business logics | pass |
| | | Business implementations | pass |
| 4 | Integer overflow/underflow | | pass |
| 5 | Reentrancy | | pass |
| 6 | Exceptional reachable state | | pass |
| 7 | Transaction ordering dependence | | pass |
| 8 | Block properties dependence | | pass |
| 9 | Pseudo random number generator (PRNG) | | pass |
| 10 | DoS (Denial of Service) | | pass |
| 11 | Token vesting implementation | | pass |
| 12 | Fake deposit | | pass |
| 13 | Event security | | pass |

















Contract description table

Below table represents the summary of the contracts and methods in the token contract. We scanned the whole contract and listed down all the Interfaces, functions and implementations with its visibility and mutability.

| Contract | Type | Bases | | |
|----------------|-----------------------|--|---|-----------|
| L | Function Name | Visibility | Mutability | Modifiers |
| | | | | |
| IERC20 | Interface | | | |
| L | totalSupply | External ! | | NO! |
| L | balanceOf | External ! | | NO! |
| L | transfer | External ! |  | NO! |
| L | allowance | External ! | | NO! |
| L | approve | External ! |  | NO! |
| L | transferFrom | External ! |  | NO! |
| | | | | |
| Address | Library | | | |
| L | sendValue | Internal  |  | |
| | | | | |
| Context | Implementation | | | |

| | | | | |
|-----------------|-----------------------|---|---|-----------|
| L | _msgSender | Internal  | | |
| L | _msgData | Internal  | | |
| | | | | |
| Ownable | Implementation | Context | | |
| L | | Public ! |  | NO! |
| L | owner | Public ! | | NO! |
| L | renounceOwnership | Public ! |  | onlyOwner |
| L | transferOwnership | Public ! |  | onlyOwner |
| L | _setOwner | Private  |  | |
| | | | | |
| IFactory | Interface | | | |
| L | createPair | External ! |  | NO! |
| | | | | |
| IRouter | Interface | | | |
| L | factory | External ! | | NO! |
| L | WETH | External ! | | NO! |
| L | addLiquidityETH | External ! |  | NO! |

| | | | | |
|------------------|--|---------------------------------|---|-----|
| L | swapExactTokensForETHSupportingFeeOnTransferTokens | External ! |  | NO! |
| | | | | |
| Sugarland | Implementation | Context, IERC20, Ownable | | |
| L | | Public ! |  | NO! |
| L | name | Public ! | | NO! |
| L | symbol | Public ! | | NO! |
| L | decimals | Public ! | | NO! |
| L | totalSupply | Public ! | | NO! |
| L | balanceOf | Public ! | | NO! |
| L | transfer | Public ! |  | NO! |
| L | allowance | Public ! | | NO! |
| L | approve | Public ! |  | NO! |
| L | transferFrom | Public ! |  | NO! |
| L | increaseAllowance | Public ! |  | NO! |
| L | decreaseAllowance | Public ! |  | NO! |
| L | isExcludedFromReward | Public ! | | NO! |
| L | reflectionFromToken | Public ! | | NO! |

| | | | | |
|---|---------------------|---|---|-----------|
| L | tokenFromReflection | Public ! | | NO! |
| L | excludeFromReward | Public ! |  | onlyOwner |
| L | includeInReward | External ! |  | onlyOwner |
| L | excludeFromFee | Public ! |  | onlyOwner |
| L | includeInFee | Public ! |  | onlyOwner |
| L | isExcludedFromFee | Public ! | | NO! |
| L | setTransferTaxes | Public ! |  | onlyOwner |
| L | setBuyTaxes | Public ! |  | onlyOwner |
| L | setSellTaxes | Public ! |  | onlyOwner |
| L | _reflectRfi | Private  |  | |
| L | _takeLiquidity | Private  |  | |
| L | _takeMarketing | Private  |  | |
| L | _getValues | Private  | | |
| L | _getTValues | Private  | | |
| L | _getRValues | Private  | | |

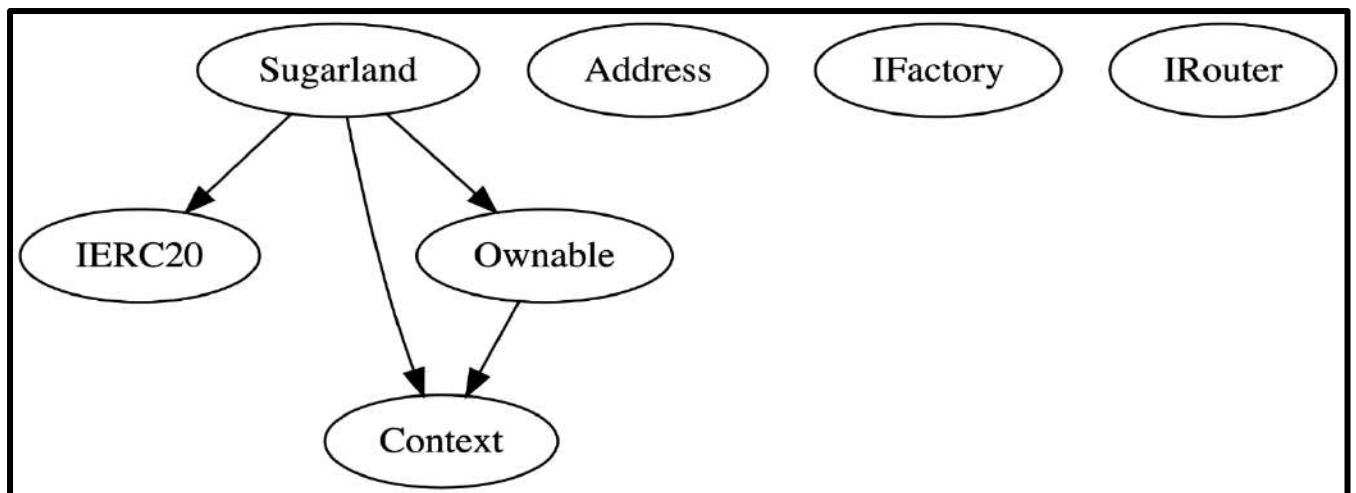
| | | | | |
|---|--------------------------|------------|---|-------------|
| L | _getRate | Private 🔒 | | |
| L | _getCurrentSupply | Private 🔒 | | |
| L | _approve | Private 🔒 | 🛑 | |
| L | _transfer | Private 🔒 | 🛑 | |
| L | _tokenTransfer | Private 🔒 | 🛑 | |
| L | swapAndLiquify | Private 🔒 | 🛑 | lockTheSwap |
| L | addLiquidity | Private 🔒 | 🛑 | |
| L | swapTokensForBNB | Private 🔒 | 🛑 | |
| L | startTrading | External ! | 🛑 | onlyOwner |
| L | updateMarketingWallet | External ! | 🛑 | onlyOwner |
| L | updateMaxTxAmount | External ! | 🛑 | onlyOwner |
| L | updateMaxWalletBalance | External ! | 🛑 | onlyOwner |
| L | updateSwapTokensAtAmount | External ! | 🛑 | onlyOwner |

| | | | | |
|---|----------------------|------------|---|-----------|
| L | updateSwapEnabled | External ! | 🛑 | onlyOwner |
| L | updateRouterAndPair | External ! | 🛑 | onlyOwner |
| L | setIsBot | External ! | 🛑 | onlyOwner |
| L | rescueBNB | External ! | 🛑 | onlyOwner |
| L | rescueAnyBEP20Tokens | Public ! | 🛑 | onlyOwner |
| L | | External ! | 💰 | NO! |

Legend

| Symbol | Meaning |
|--------|---------------------------|
| 🛑 | Function can modify state |
| 💰 | Function is payable |

Inheritance Hierarchy



Security issue checking status

❖ High severity issues

No high severity issues found.

❖ Medium severity issues

No medium severity issues found.

❖ Low severity issues

- The function `includeInReward()` uses the loop to find and remove addresses from the `_excluded` list. Function will be aborted with `OUT_OF_GAS` exception if there will be a long excluded addresses list.

```
ftrace | funcSig
function includeInReward(address account↑) external onlyOwner {
    require(_isExcluded[account↑], "Account is not excluded");
    for (uint256 i = 0; i < _excluded.length; i++) {
        if (_excluded[i] == account↑) {
            _excluded[i] = _excluded[_excluded.length - 1];
            tOwned[account↑] = 0;
            _isExcluded[account↑] = false;
            _excluded.pop();
            break;
        }
    }
}
```

❖ Informational

- The owner can change max transactions amount without any limit.

```
ftrace | funcSig
function updateMaxTxAmount(uint256 amount↑) external onlyOwner {
    maxTxAmount = amount↑ * 10**_decimals;
}

ftrace | funcSig
function updateMaxWalletBalance(uint256 amount↑) external onlyOwner {
    maxWalletAmount = amount↑ * 10**_decimals;
}
```

Owner privileges

- ❖ The owner can include/exclude wallets from rewards.

```
ftrace | funcSig
function excludeFromReward(address account↑) public onlyOwner {
    require(!_isExcluded[account↑], "Account is already excluded");
    if (_rOwned[account↑] > 0) {
        tOwned[account↑] = tokenFromReflection(_rOwned[account↑]);
    }
    _isExcluded[account↑] = true;
    _excluded.push(account↑);
}

ftrace | funcSig
function includeInReward(address account↑) external onlyOwner {
    require(_isExcluded[account↑], "Account is not excluded");
    for (uint256 i = 0; i < _excluded.length; i++) {
        if (_excluded[i] == account↑) {
            _excluded[i] = _excluded[_excluded.length - 1];
            tOwned[account↑] = 0;
            _isExcluded[account↑] = false;
            _excluded.pop();
            break;
        }
    }
}
```

- ❖ The owner can include and exclude wallets from fees.

```
ftrace | funcSig
function excludeFromFee(address account↑) public onlyOwner {
    _isExcludedFromFee[account↑] = true;
}

ftrace | funcSig
function includeInFee(address account↑) public onlyOwner {
    _isExcludedFromFee[account↑] = false;
}
```

- ❖ The owner can change all fees.

```
ftrace | funcSig
function setTransferTaxes(
    uint256 _rfi↑,
    uint256 _marketing↑,
    uint256 _liquidity↑
) public onlyOwner {
    transferTaxes = Taxes(_rfi↑, _marketing↑, _liquidity↑);
}

ftrace | funcSig
function setBuyTaxes(
    uint256 _rfi↑,
    uint256 _marketing↑,
    uint256 _liquidity↑
) public onlyOwner {
    buyTaxes = Taxes(_rfi↑, _marketing↑, _liquidity↑);
}

ftrace | funcSig
function setSellTaxes(
    uint256 _rfi↑,
    uint256 _marketing↑,
    uint256 _liquidity↑
) public onlyOwner {
    sellTaxes = Taxes(_rfi↑, _marketing↑, _liquidity↑);
}
```

- ❖ The owner can start trading.

```
ftrace | funcSig
function startTrading() external onlyOwner {
    require(!tradingActive, "Trading already active");
    tradingActive = true;
    swapEnabled = true;
}
```

- ❖ The owner can update the marketing wallet.

```
ftrace | funcSig
function updateMarketingWallet(address _marketingWallet↑)
    external
    onlyOwner
{
    marketingWallet = _marketingWallet↑;
}
```

- ❖ The owner can change max wallet balance and max transaction amount.

```
ftrace | funcSig
function updateMaxTxAmount(uint256 amount↑) external onlyOwner {
    maxTxAmount = amount↑ * 10**_decimals;
}

ftrace | funcSig
function updateMaxWalletBalance(uint256 amount↑) external onlyOwner {
    maxWalletAmount = amount↑ * 10**_decimals;
}
```

- ❖ The owner can enable/disable swapping and can change swap point.

```
ftrace | funcSig
function updateSwapTokensAtAmount(uint256 amount↑) external onlyOwner {
    swapTokensAtAmount = amount↑ * 10**_decimals;
}

ftrace | funcSig
function updateSwapEnabled(bool _enabled↑) external onlyOwner {
    swapEnabled = _enabled↑;
}
```

- ❖ The owner can update the router address.

```
ftrace | funcSig
function updateRouterAndPair(address newRouter↑, address newPair↑)
    external
    onlyOwner
{
    router = IRouter(newRouter↑);
    pair = newPair↑;
}
```

- ❖ The owner can blacklist wallets from the contract.

```
ftrace | funcSig
function setIsBot(address user↑, bool state↑) external onlyOwner {
    isBot[user↑] = state↑;
}

//Use this in case BNB are sent to the contract by mistake
```

- ❖ The owner can get BNBs and other tokens in contract to the owner wallet.

```
//Use this in case BNB are sent to the contract by mistake
ftrace | funcSig
function rescueBNB(uint256 weiAmount↑) external onlyOwner {
    require(address(this).balance >= weiAmount↑, "insufficient BNB balance");
    payable(msg.sender).transfer(weiAmount↑);
}

// Function to allow admin to claim *other* BEP20 tokens sent to this contract (by mistake)
ftrace | funcSig
function rescueAnyBEP20Tokens(
    address _tokenAddr↑,
    address _to↑,
    uint256 _amount↑
) public onlyOwner {
    IERC20(_tokenAddr↑).transfer(_to↑, _amount↑);
}
```

Audit conclusion

While conducting the audit of the Sugar Land Token smart contract, it was observed that there is nothing alarming with the code and it only contains a low severity issue.