Staking Protocol

Autonomous Tools Result

1. Slither Report

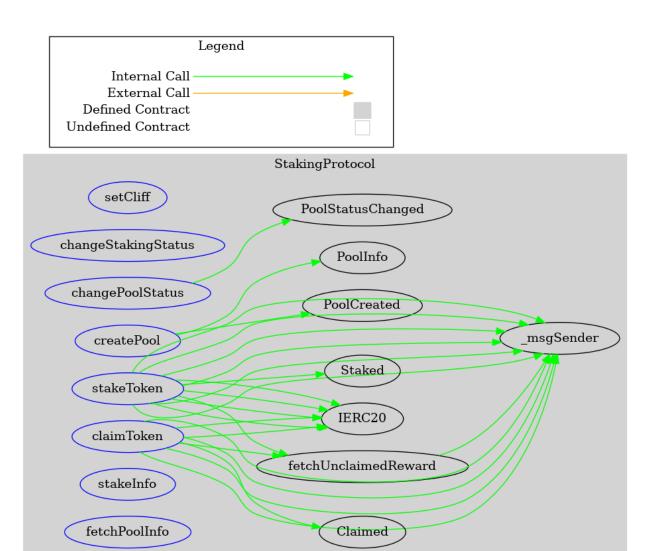
1. Mythril Report

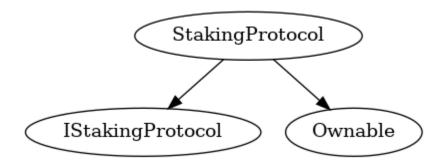
No Issues were detected.

2. Solhint Report

No issues were detected.

3. Surya Report





```
## Sūrya's Description Report
### Files Description Table
contracts/StakingProtocol.sol | 0cf37e31896d5a8026bc0763d189d56b81f8f153 |
### Contracts Description Table
 Contract | Type | Bases |
:----:|:----:|:----:|:----:|:----:|:-----:|:-----:|:-----
        | **Function Name** | **Visibility** | **Mutability** |
**Modifiers**
 **StakingProtocol** | Implantation | IStakingProtocol, Ownable | | |
 L | stakeToken | External | |
                        NO I
 L | claimToken | External | | | NO | |
 L | stakeInfo | External | | NO | |
 | fetchUnclaimedReward | Public | | NO | |
 L | fetchPoolInfo | External | | NO | |
### Legend
 Symbol | Meaning |
   | Function can modify state |
   Function is payable |
```

4. Unit Testing

```
Contract: Staking Protocol

✓ Should be able to check public variable in staking protocol (3340ms)

 ✓ Should be able to set cliff value in staking protocol (464ms
✓ Should not be able to set cliff if not called by owner (320ms)

✓ Should be able to change staking status on staking protocol (95ms)

  Should not be able to change staking status when not called by owner (52ms)
  Should be able to change pool status on staking protocol (25)
  ✓ Should not be able to change pool status when not called by owner (54ms)
  Should not be able to change pool status when poolId is not valid (62ms)
  Should be able to create new pool on staking protocol (146)

✓ Should be able to stake token on staking protocol (478)

    Should be able to stake token on staking protocol, when staking second time (744ms)

 \checkmark Should not be able to stake token when staking is paused (387ms) \checkmark Should not be able to stake token when poolId is not valid (326m

    Should not be able to stake token when staking address does not have allowance (405ms)

    Should be able to claim reward from staking contract and unstakingToken (1569ms)

    Should not be able to claim or unstakingToken from staking protocol when unclaimedReward is zero (1195ms)

  ✓ Should be able to get stakeInfo from staking contract (
  ✓ Should be able to get fetchUnclaimedReward from staking contract (53)

    Should not be able to fetchUnclaimedReward when stakeAmount is zero (611ms)

  ✓ Should be able to get pool info from staking contract (6810ms)
```

5. Solidity Coverage

File	 % Stmts	% Branch	% Funcs	 % Lines	Uncovered Lines
contracts/ IStakingProtocol.sol SampleToken.sol StakingProtocol.sol	100 100 100 100	100 100 100 100	100 100 100 100	100 100 100 100	
All files	100	100	100	100	