SAMPLE REPORT — DEMO DATA. Every address, transaction and amount in this report is synthetic and does not depict a real case. Evidence hashes are illustrative.

Cryptocurrency Tracing Report

Illustrative theft trace (demo data)
Case DEMO-0001 · Examiner: Chain Tracker sample · Prepared 2026-11-13

1. Scope and data source

Blockchain: Bitcoin mainnet. Data was retrieved from the Esplora API at `https://mempool.space/api`. Each response was preserved unaltered and identified by its SHA-256 hash (Appendix A). Integrity check at report time: 8 stored responses re-hashed, 0 problem(s).

2. Methodology

- Transaction analysis: inputs and outputs were examined and heuristic tests applied for CoinJoin fingerprints and change-output detection.
- Address clustering: addresses were grouped using the common-input-ownership heuristic (all inputs of a non-CoinJoin transaction are assumed to share an owner), optionally extended by change-output detection. Each grouping cites the transaction that supports it.
- Wallet exploration: balances, history and counterparties were compiled from public blockchain data for the listed addresses (or addresses derived from an extended public key using a gap-limit scan).
- Taint analysis: funds were followed forward from the source outputs using the stated allocation method. Tracing stopped at unspent outputs, attributed service endpoints, CoinJoins, the hop limit, or amounts below the threshold.

3. Findings

Theft transaction — inputs, outputs and change

TX · recorded 2026-11-12T15:00:00.000Z

`2222222222222222222222222222222222222222222222222222222222222222` — Simple payment with change · block 101 · fee 10000 sats

Input	Value (BTC)
`bc1qthiefA1`	0.60000000
`bc1qthiefA2`	0.40000000

#	Output	Value (BTC)
0	`bc1qpayX1`	0.50000000
1	`bc1qthiefA3` likely change (low)	0.49990000

- output #1: +1 only non-round amount (other outputs are round payments)

Examiner notes: The 0.5 BTC output is a round amount; the 0.4999 BTC output is the likely change returning to the suspect.

Suspect address cluster

CLUSTER · recorded 2026-11-12T15:00:00.000Z

Seed `bc1qthiefA1` · 2 addresses · 1 spending transactions examined

Address	Linked via	Rule	Supporting transaction
`bc1qthiefA2`	`bc1qthiefA1`	CIOH	`2222222222222222222222222222222222222222222222222222222222222222`

Examiner notes: Two addresses spent together in one transaction; treated as one controller.

Suspect wallet activity

WALLET · recorded 2026-11-12T15:00:00.000Z

Total received 1.09990000 BTC · sent 1.09990000 BTC · balance 0.00000000 BTC · first seen 2023-11-15T14:53:20.000Z · last seen 2023-11-15T15:13:20.000Z

Address	Type	Txs	Received (BTC)	Balance (BTC)
`bc1qthiefA1`	P2WPKH (native SegWit)	2	0.60000000	0.00000000
`bc1qthiefA3`	P2WPKH (native SegWit)	2	0.49990000	0.00000000

Top counterparties

Address	Sent to (BTC)	Received from (BTC)	Txs
`bc1qvictim`	0.00000000	1.00000000	1
`bc1qpayX1`	0.50000000	0.00000000	1
`bc1qchg1`	0.39970000	0.00000000	1
`bc1qmix1`	0.10000000	0.00000000	1
`bc1qmix2`	0.10000000	0.00000000	1
`bc1qmix3`	0.10000000	0.00000000	1
`bc1qmix4`	0.10000000	0.00000000	1
`bc1qchg2`	0.09990000	0.00000000	1
`bc1qchg3`	0.04990000	0.00000000	1

Address	Sent to (BTC)	Received from (BTC)	Txs
bc1qchg4	0.01990000	0.00000000	1

FIFO trace of the stolen 0.60 BTC

TAINT · recorded 2026-11-12T15:00:00.000Z

Method: **FIFO** · source 0.60000000 BTC from 1 output(s) · 3 transactions traced

Where the tainted funds ended up

Destination	Tainted (BTC)
endpoint: exchange	0.49990000
entered mixer	0.10000000

> Funds entered a CoinJoin (JoinMarket-style / generic CoinJoin). Tracing stops here; outputs cannot be linked to inputs with confidence. (4444444444444444444444444444444444444444444444444444444444444444, 0.10000000 BTC)

FIFO assigns input sats to outputs in the order they appear in the transaction. Wallet software, not the user, usually chooses that order.

Traced outputs

Hop	Outpoint	Address	Tainted (BTC)	% of output	Status
0	1111111111111111111…:0	bc1qthiefA1	0.60000000	100.0%	spent → traced
1	2222222222222222222…:0	bc1qpayX1	0.50000000	100.0%	spent → traced
1	2222222222222222222…:1	bc1qthiefA3	0.10000000	20.0%	entered mixer (444444444444…)
2	3333333333333333333…:0	bc1qexchangeE1 ExampleEx deposit	0.49990000	100.0%	endpoint: exchange — ExampleEx deposit

Examiner notes: 0.4999 BTC reached a labeled exchange deposit (subpoena target). 0.10 BTC entered a CoinJoin and was not followed further.

4. Attribution sources

Address	Label	Category	Source
bc1qexchangeE1	ExampleEx deposit	exchange	Illustrative label (demo)

5. Limitations

- Clustering and change detection are heuristics, not proof. Payjoin, shared custody, collaborative transactions and deliberate change-avoidance can produce false positives.
- Attribution (labels) is only as reliable as its stated source; unlabeled addresses are not necessarily unaffiliated.
- CoinJoin detection relies on known structural fingerprints; novel or small mixing transactions may not be recognised, and some ordinary batch payments may resemble them.
- The taint allocation method materially changes the amounts attributed to each destination. Results under other methods may differ.
- Off-chain movements (internal exchange ledgers, Lightning Network, custodial transfers) are not visible on the blockchain and cannot be traced here.

Appendix A — Evidence log

#	Collected (UTC)	Request	SHA-256	Bytes
1	2026-11-12T15:00:12.000Z	`https://mempool.space/api/tx/1111111111111111111111111111111111111111111111111111111111111111`	`76ee24c064e969280a671cd1d1a542a6ad9e4397e7a3e34963063d168eaa6fe8`	900
2	2026-11-12T15:01:12.000Z	`https://mempool.space/api/tx/1111111111111111111111111111111111111111111111111111111111111111/outspends`	`d63fc99df767042820f24e905e84bed54013238475f1870c0e81311aacc59d5f`	1037
3	2026-11-12T15:02:12.000Z	`https://mempool.space/api/tx/2222222222222222222222222222222222222222222222222222222222222222`	`3b57851f8eeaf79b8d18078f071594d4a8924599adec19befc0ae27b547469ab`	1174
4	2026-11-12T15:03:12.000Z	`https://mempool.space/api/tx/2222222222222222222222222222222222222222222222222222222222222222/outspends`	`b8f246c11218966d99539126515074a4701480af5a2289fd6d8a3abf93888647`	1311
5	2026-11-12T15:04:12.000Z	`https://mempool.space/api/tx/3333333333333333333333333333333333333333333333333333333333333333`	`6097167e5fb56b623539acd721f9bcb6ac785a8d17e59692cbc05c091189199d`	1448
6	2026-11-12T15:05:12.000Z	`https://mempool.space/api/tx/4444444444444444444444444444444444444444444444444444444444444444`	`d8983e6712bf61fd486692c8387f00a02432ba1b8d7efa3a234d940a5fac399b`	1585
7	2026-11-12T15:06:12.000Z	`https://mempool.space/api/address/bc1qthiefA1`	`ce3a3fa87d02394f3b2da56bb620948c0eb851cbe324188ec701a640d426522a`	1722
8	2026-11-12T15:07:12.000Z	`https://mempool.space/api/address/bc1qthiefA1/txs`	`eeabb214ee42122a2484283e50ed72b5e8ed35fd53005281c6f6a60089b14539`	1859