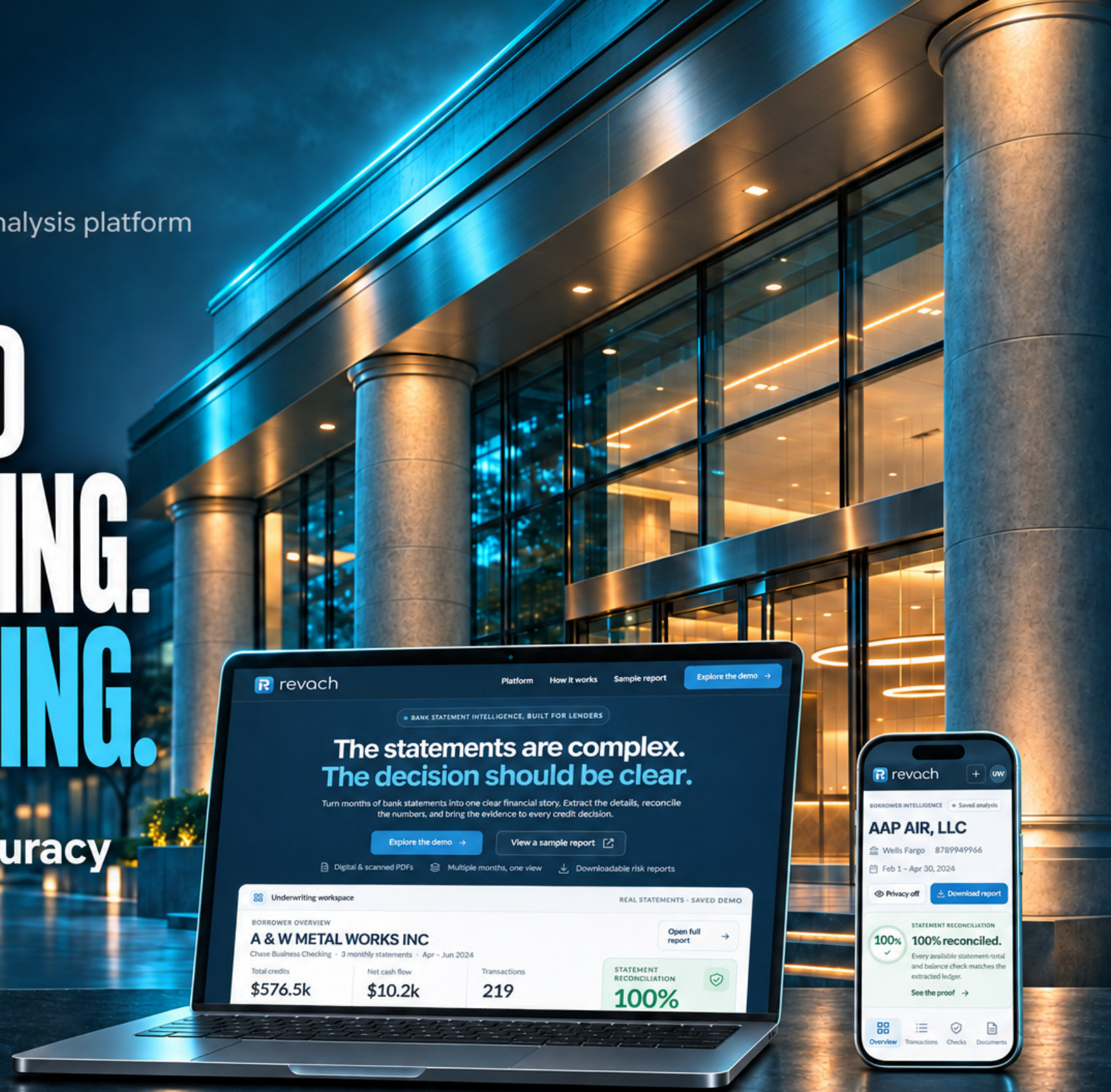
revach.AI

AI bank-statement extraction and analysis platform

AUTOMATED UNDERWRITING. SAFER LENDING.

100% Extraction Accuracy



Emilian Manolache

Senior Full-Stack Engineer & SaaS Architect | End-to-End

End-to-End: Document extraction / Rules and AI evaluations / Landing page & user portal / Stripe subscriptions

2024-2025

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DOCUMENT ENGINEERING

BANK STATEMENTS, ACCURATELY EXTRACTED

100%

transaction extraction accuracy

Over 1,000

bank-statement sets checked

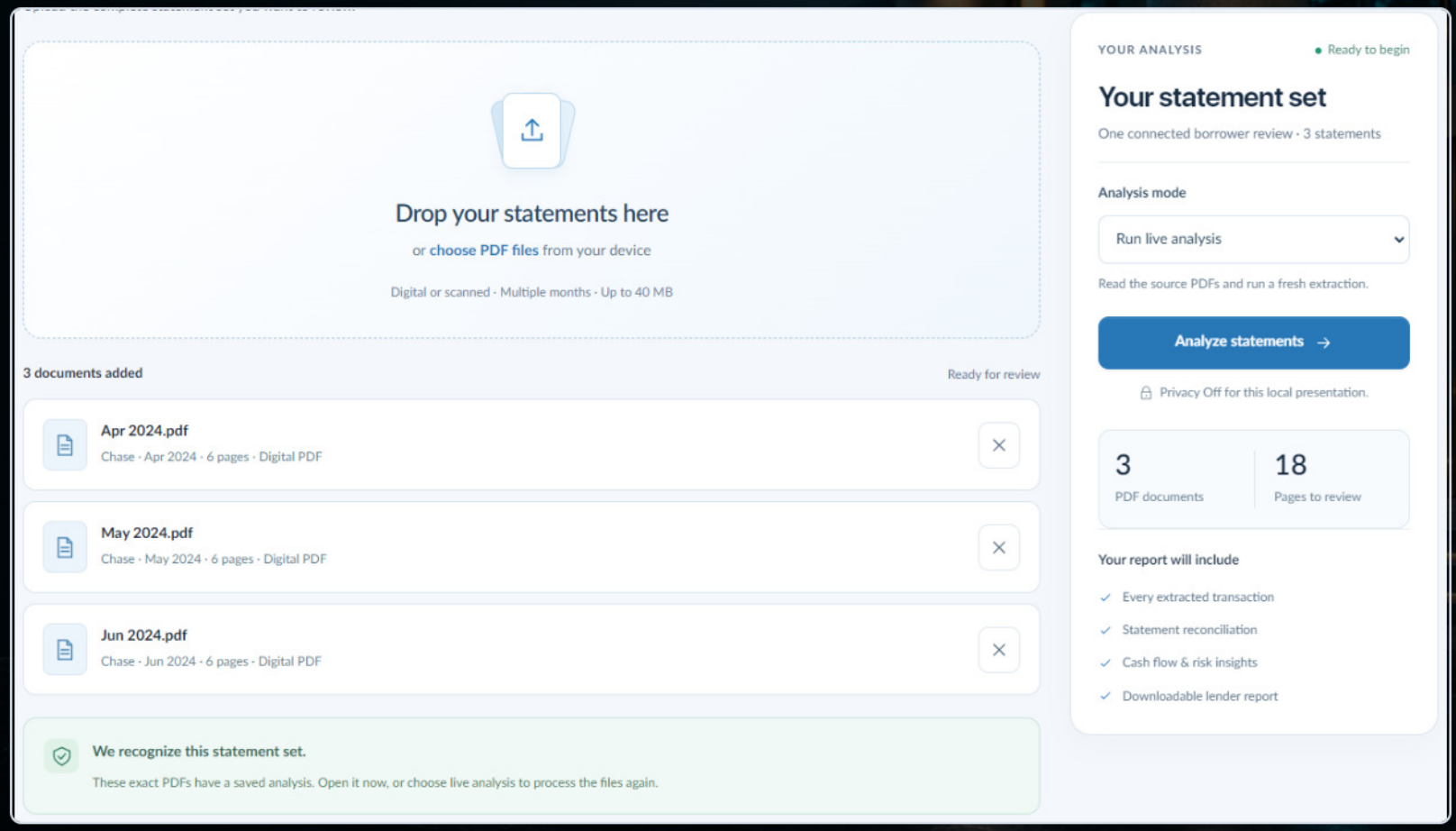
3–4 consecutive monthly statements per set

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DOCUMENT INTAKE

MULTIPLE MONTHS.
ONE BORROWER REVIEW.

Upload a statement set, inspect its files and follow the processing stages.



INSPECT THE FILES

Bank, period, page count and document format.

PROCESS THE SET

Extraction, checks and analysis in one workflow.

OPEN THE REVIEW

A consolidated view of the borrower's finances.

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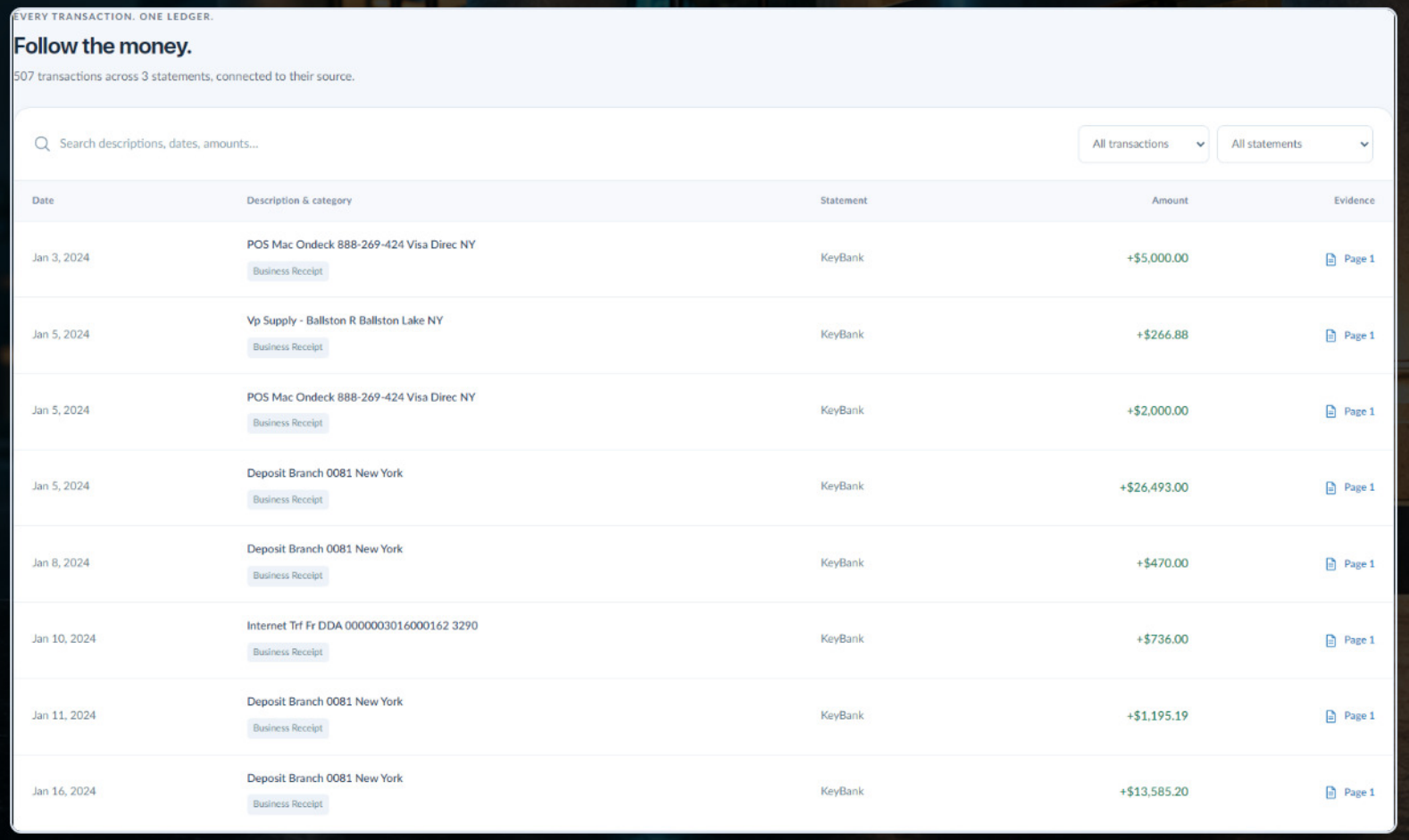
NATIVE PDFS AND SCANS BECOME USABLE DATA

Azure Document Intelligence supports the bank-statement extraction pipeline.

ORIGINAL SCANNED STATEMENT



STRUCTURED TRANSACTIONS

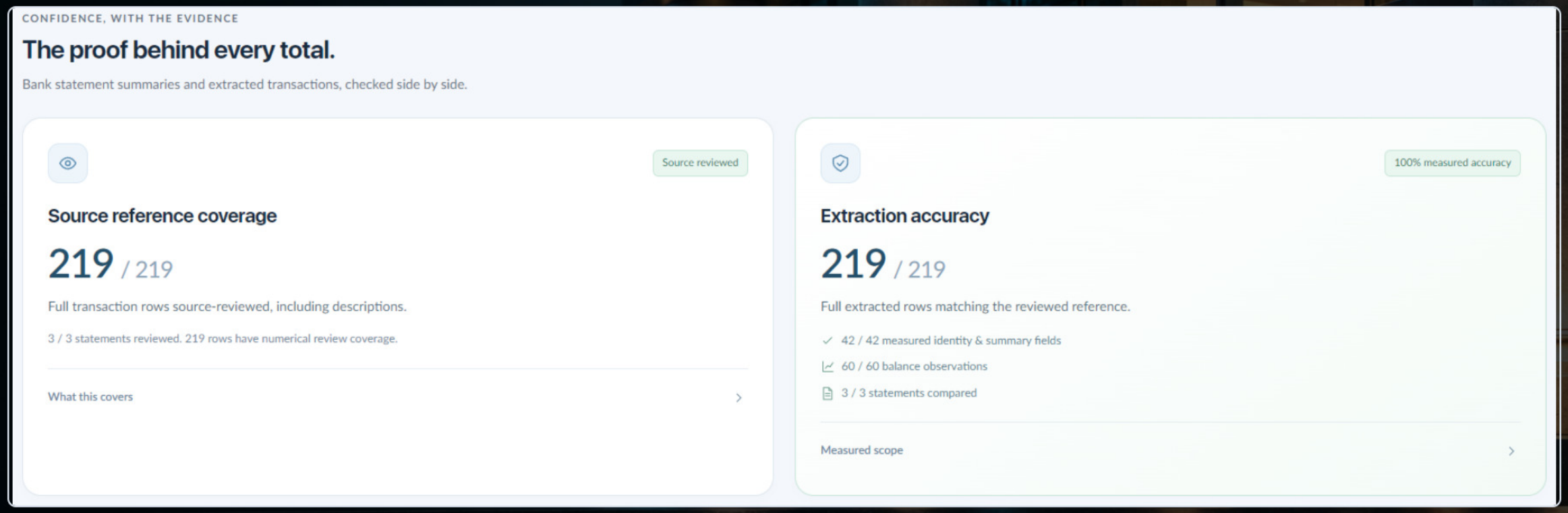


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MEASURED VERIFICATION

VERIFIED AT THE TRANSACTION LEVEL

Chase statement set: April–June 2024. Extraction checks cover the full row, including its description.



219 / 219
transaction rows

42 / 42
identity & summary fields

60 / 60
balance observations

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DETERMINISTIC VALIDATION

TOTALS RECONCILED.
BALANCES CONNECTED.

Chase review: 32 of 32 checks matched, with $0.00 total monetary difference.

Chase · Apr 2024
10 / 10 available checks matched

✓ 100% reconciled View statement

Verification check	Statement	Extracted	Difference	Result
Credits match bank summary	$328,359.84	$328,359.84	$0.00	✓ Matched
Debits match bank summary	$257,082.60	$257,082.60	$0.00	✓ Matched
Opening + credits - debits = closing	$72,728.92	$72,728.92	$0.00	✓ Matched
Credit count matches summary	27	27	0	✓ Matched
Debit count matches summary	51	51	0	✓ Matched
Complete transaction dates and amounts	0	0	0	✓ Matched
Transaction source pages are available and in range	0	0	0	✓ Matched
Daily balance observations have valid values and source pages	0	0	0	✓ Matched
Transactions fall within statement period	0	0	0	✓ Matched
Source file occurs once	0	0	0	✓ Matched

A connected financial history.
Each closing balance checked against the next opening balance.

Chase → Chase ✓ Matched - $0.00

Chase → Chase ✓ Matched - $0.00

CHECK THE ARITHMETIC

Credits and debits

Compare extracted totals with the bank's summary.

Opening to closing

Reconcile the balance and check continuity between statements.

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TRANSACTION REVIEW

A SEARCHABLE LEDGER WITH A PATH TO THE SOURCE

Review dates, descriptions and amounts. Filter the ledger and open the linked statement page.

EVERY TRANSACTION. ONE LEDGER.

Follow the money.

219 transactions across 3 statements, connected to their source.

Search descriptions, dates, amounts... | All transactions | All statements

Date	Description & category	Statement	Amount	Evidence
Apr 1, 2024	Zelle Payment From Cong Oir Yisroel Elimilech 20319971680 — Business Receipt	Chase	+$5,000.00	Page 1
Apr 1, 2024	Zelle Payment From Cong Oir Yisroel Elimilech 20331330740 — Business Receipt	Chase	+$4,600.00	Page 1
Apr 1, 2024	Orig CO Name:GM Financial Orig ID:I522190781 Desc Date:240401 CO Entry Descr:Gmf Pymt Sec:PPD Trace#:091000017912354 Eed:240401 Ind ID: Ind Name:Martin Weinstock Trn: 0927912354Tc — Operating Expense	Chase	−$500.00	Page 3
Apr 1, 2024	Zelle Payment To Leibish Fried & Associates 20015557082 — Operating Expense	Chase	−$600.00	Page 3
Apr 1, 2024	Zelle Payment To Joel Landau 20255945649 — Operating Expense	Chase	−$2,000.00	Page 3
Apr 2, 2024	Book Transfer Credit B/O: Pesach Supreme LLC Spring Valley NY 10977-6810 US Trn: 3708794093Es — Transfer. Description identifies a transfer; confirm its business purpose.	Chase	+$35,000.00	Page 1
Apr 2, 2024	Zelle Payment From Cong Oir Yisroel Elimilech 20342477794 — Business Receipt	Chase	+$4,523.87	Page 1

Search and filter across the statement set.

FOLLOW THE EVIDENCE

Source document

Chase — May 2024 · 6 pages — digital

Page 2 / 6 | View original PDF

Original PDFs contain unmasked borrower information.

SOURCE TRANSCRIPTION

May 2024.pdf

May 2024 · Page 2

Transactions on this page

May 2	Check 3368	-$1,000.00
May 3	Check 0	-$3,000.00
May 13	Remote Online Deposit 1	+$2,000.00
May 13	Zelle Payment From Cong Oir Yisroel Elimilech 20755808826	+$970.00
May 14	Zelle Payment From Cong Oir Yisroel Elimilech 20776642583	+$15,000.00
May 14	Zelle Payment From Cong Oir Yisroel Elimilech 20776630662	+$7,500.00
May 14	Zelle Payment From Cong Oir Yisroel Elimilech 20776686743	+$1,296.35
May 15	Zelle Payment From Congregation Bais Y'Shaya, Inc. 20785024081	+$5,000.00
May 15	Zelle Payment From Cong Belz Meadows Bacpq8Cg72Jp	+$500.00
May 16	Orig CO Name:Bankcard Orig ID:5921267939 Desc Date:240515 CO Entry Descr:Mtot Dep Sec:CCD Trace#:091000016343119 Eed:240516 Ind ID:518993321363566 Ind Name:A&W Metal Works Trn: 1376343119Tc	+$500.00

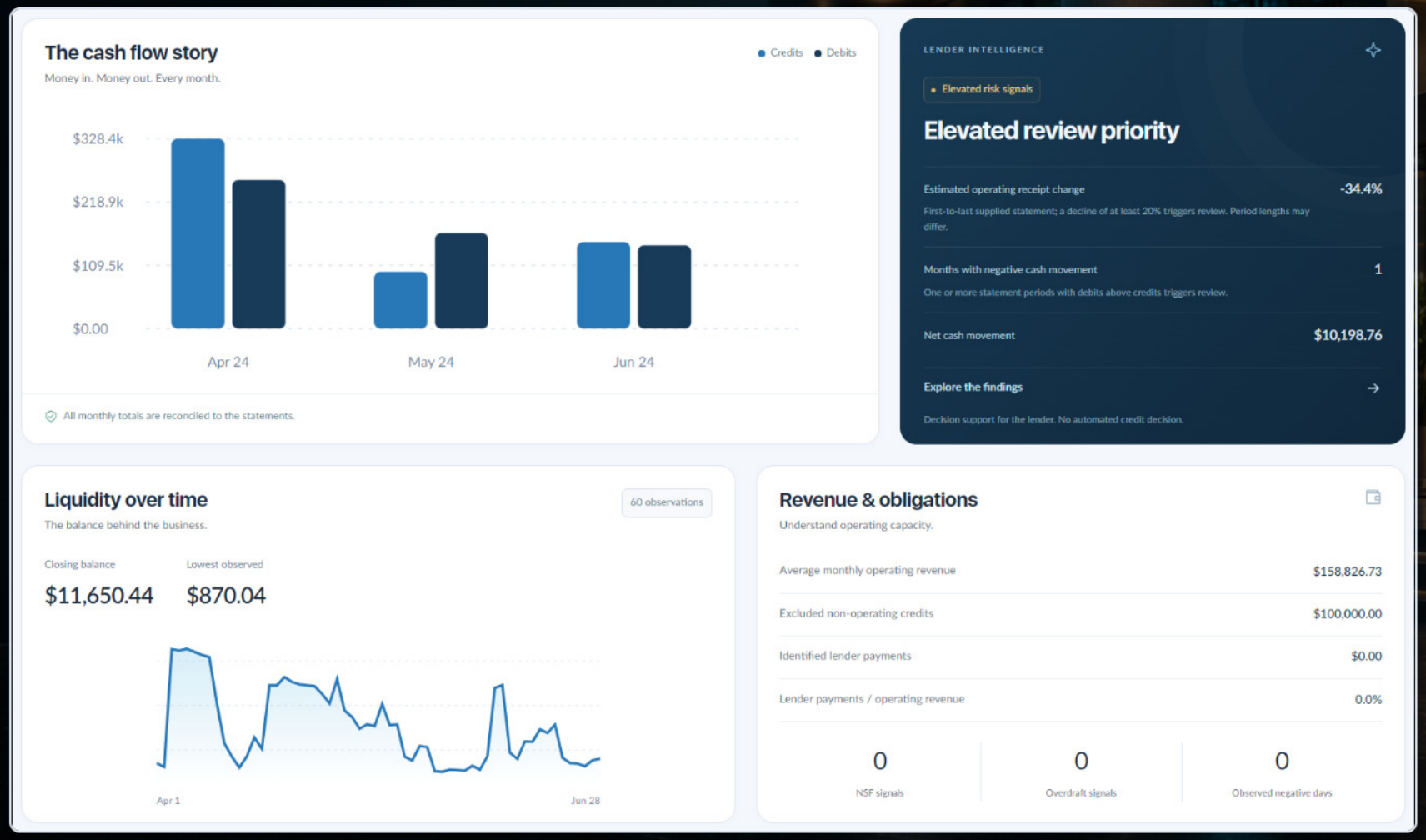
Evidence stays connected to the report.

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FINANCIAL ANALYSIS

CASH FLOW AND LIQUIDITY IN ONE VIEW

Monthly inflows and outflows, observed balances, operating receipts and obligations.



MONTHLY MOVEMENT

Credits and debits reveal changes between periods.

BORROWER LIQUIDITY

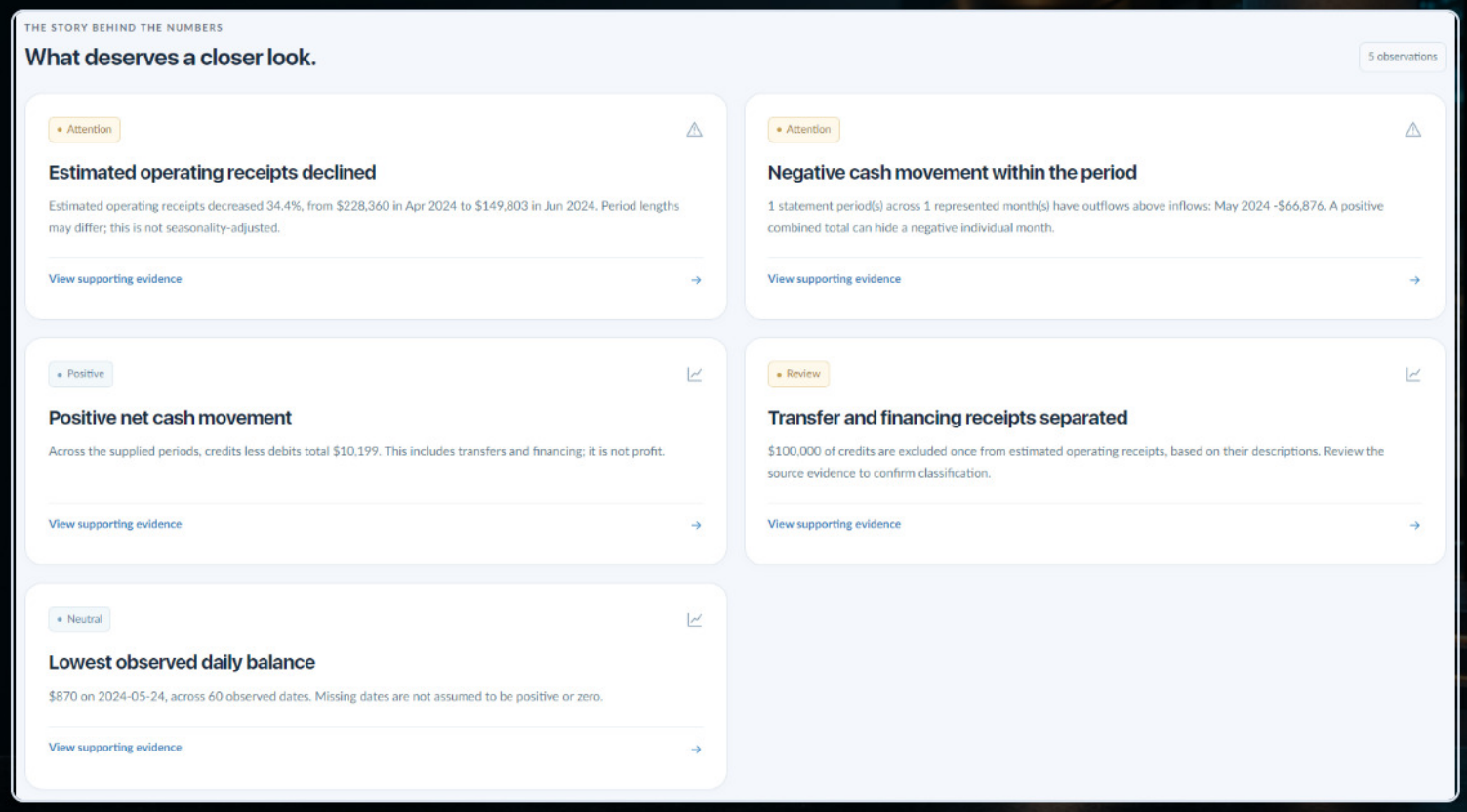
Balance observations add context to the cash-flow picture.

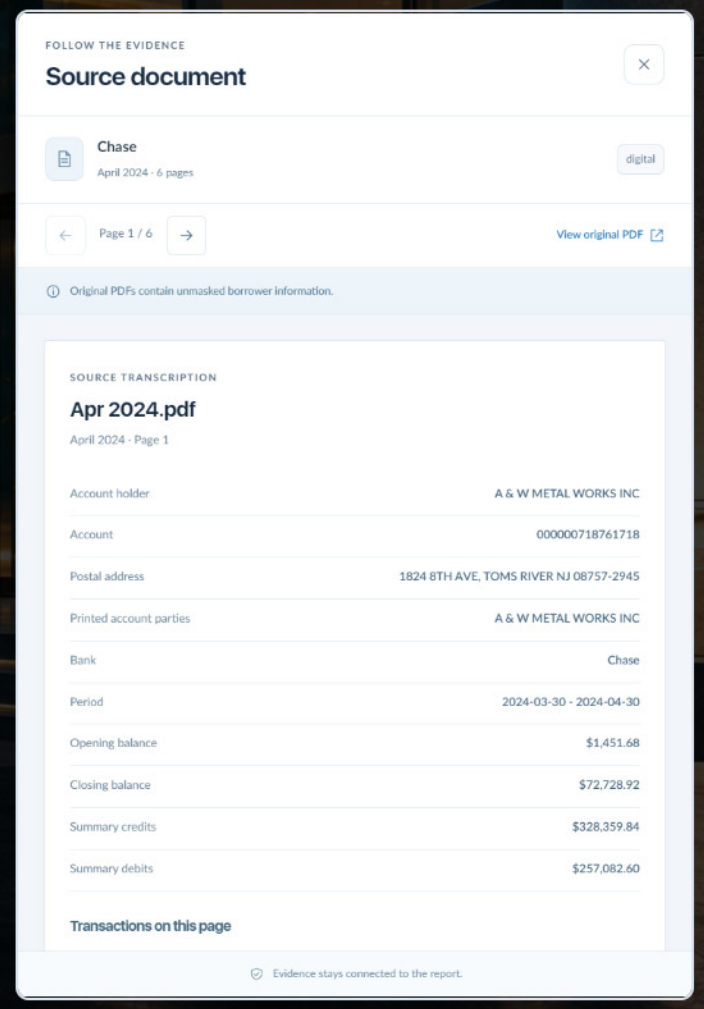
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TRACEABLE RISK ANALYSIS

RISK FINDINGS WITH SOURCE CONTEXT

Review priorities connect to the underlying statement information.





Operating receipts, cash movement and source context support the lender's review.

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ANALYSIS ENGINEERING

DETERMINISTIC CHECKS AND AI EVALUATION

I connected arithmetic validation with model-based transaction analysis.

DETERMINISTIC LOGIC

Validate the numbers

Reconcile statement totals.

Check balance arithmetic.

Connect consecutive periods.

OPENAI EVALUATIONS

Interpret transactions

Identify lenders.

Surface higher-risk transactions.

Add context for the reviewer.

A structured review for the lender

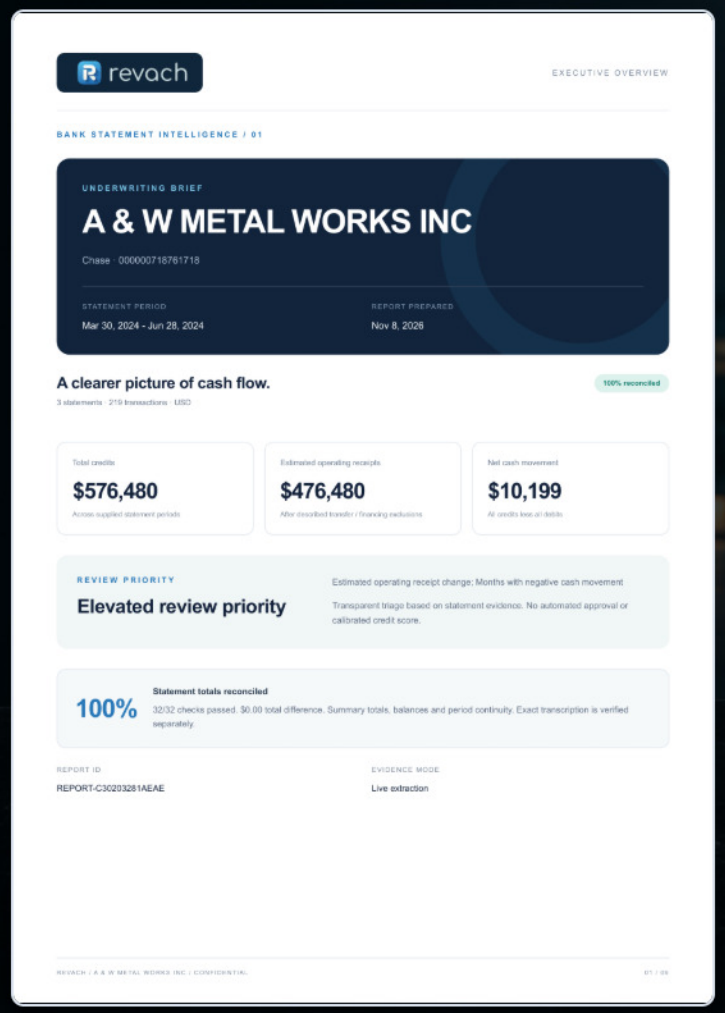
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REPORT DELIVERY

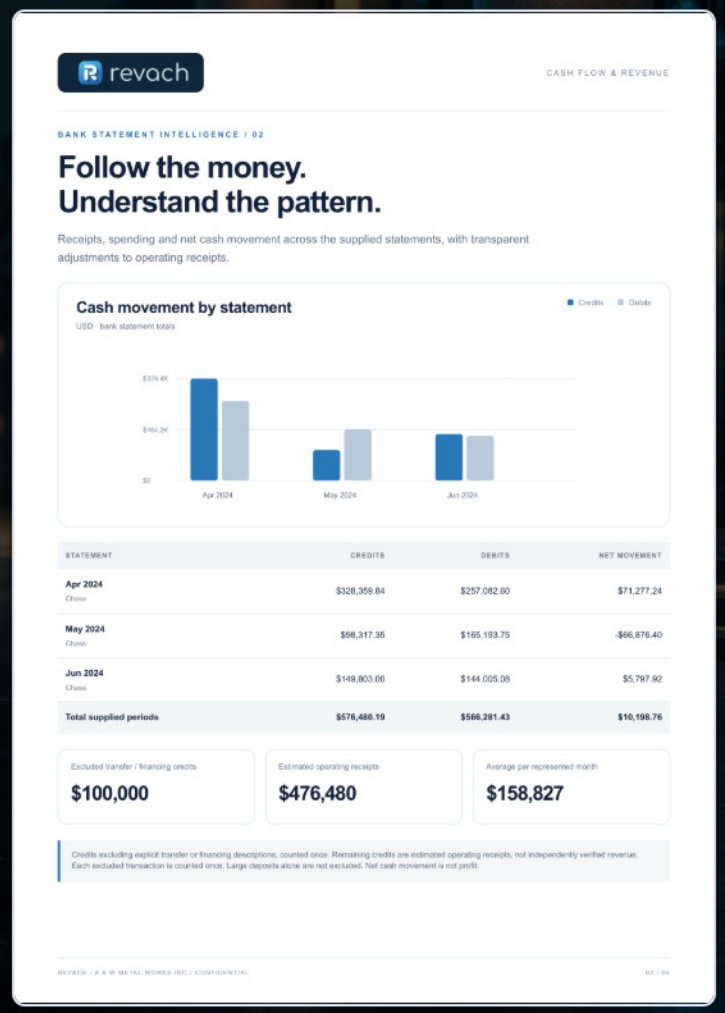
A LENDER REPORT READY TO SHARE

Export the financial overview, risk findings, reconciliation and methodology in one PDF.

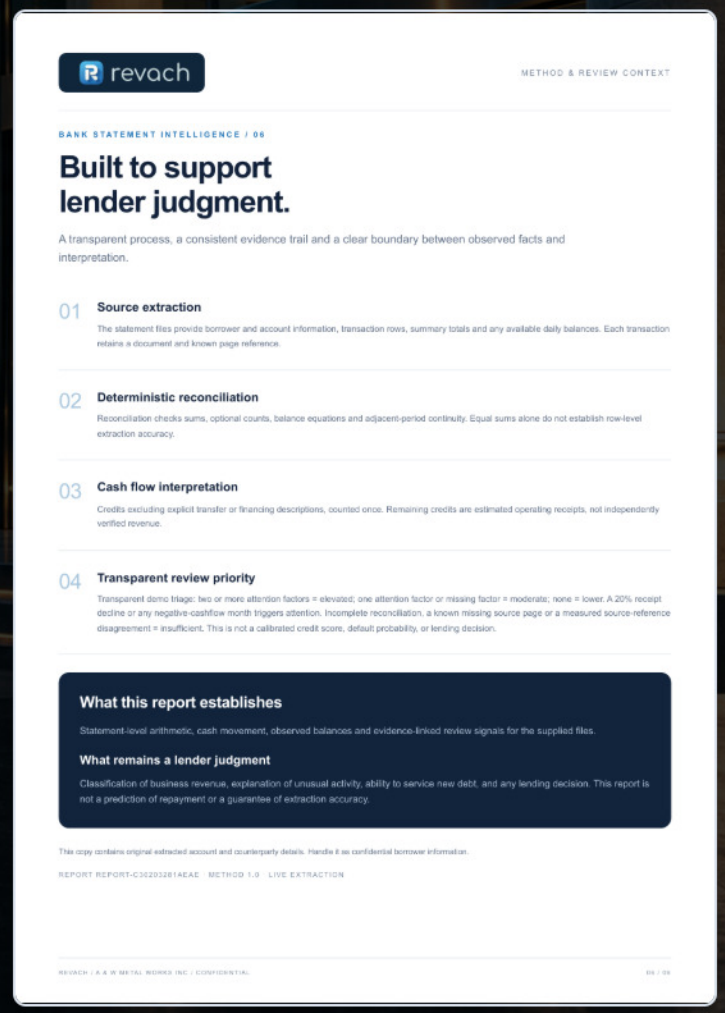
EXECUTIVE OVERVIEW



CASH FLOW & LIQUIDITY



REVIEW METHODOLOGY

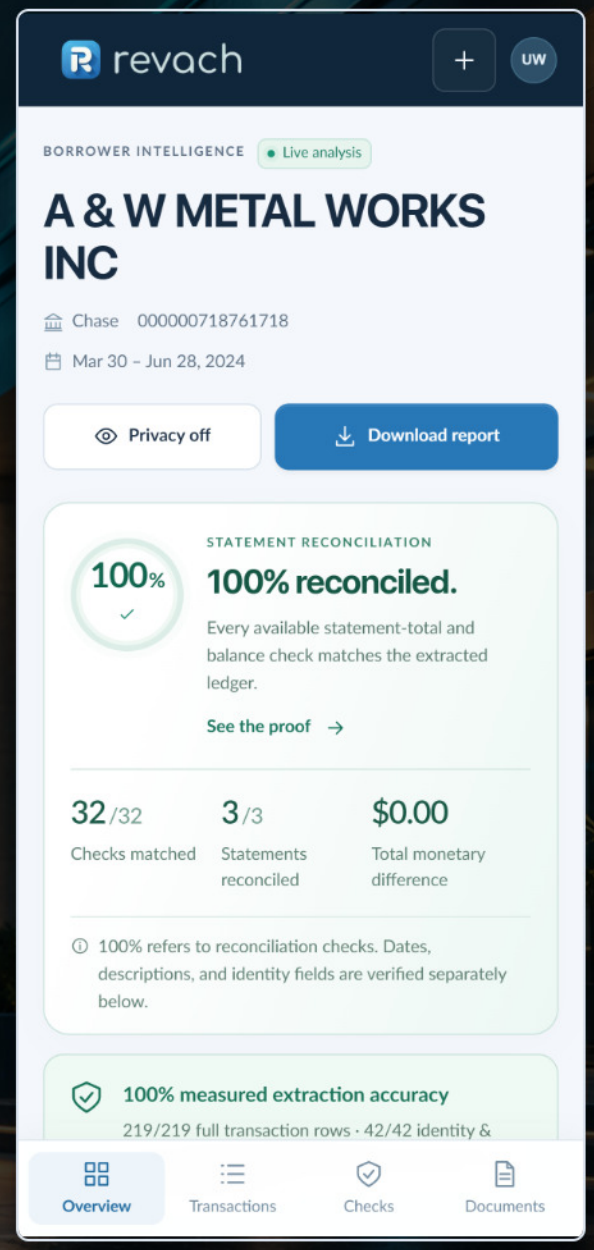


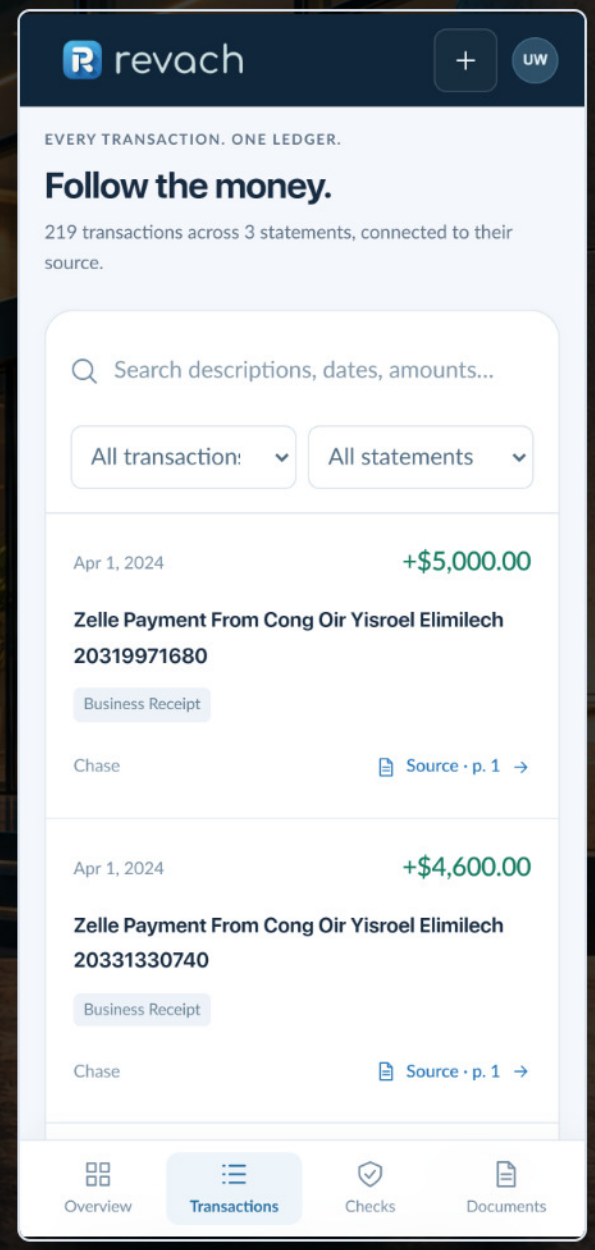
THE FULL REVIEW ON MOBILE

Borrower information, transaction details and verification on a smaller screen.

RESPONSIVE WORKSPACE

A consistent path from the overview to the ledger and supporting checks.



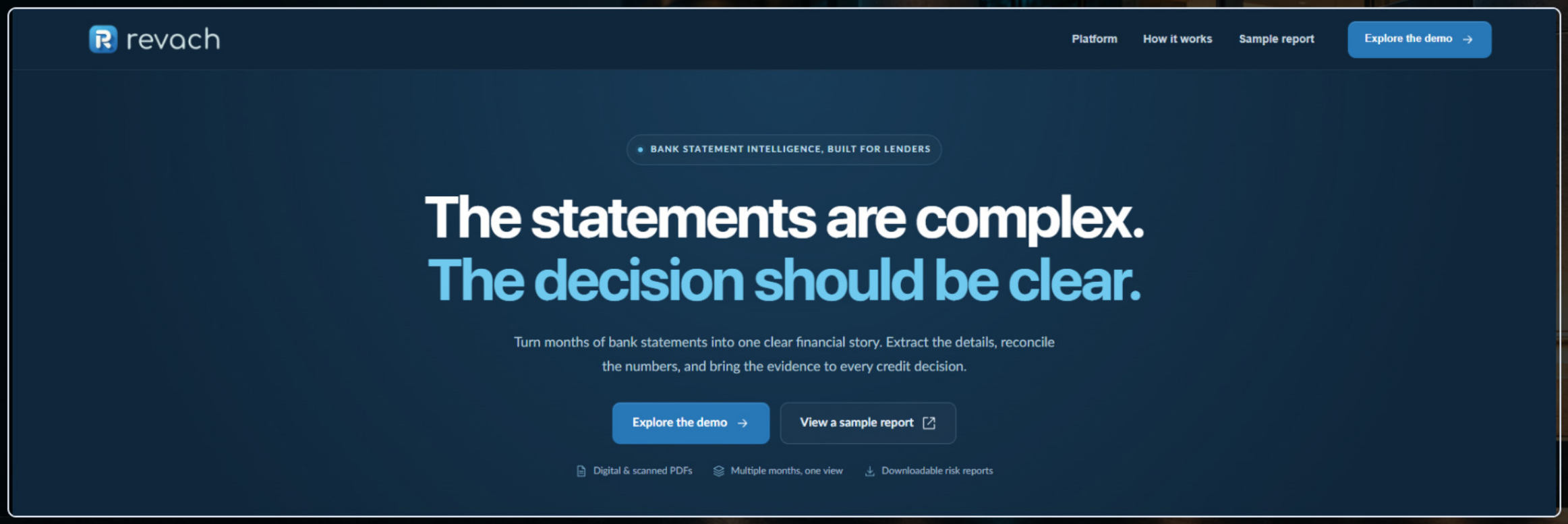


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PRODUCT DELIVERY

THE PRODUCT AROUND THE ANALYSIS ENGINE

Scope extended to the landing page, user portal and Stripe subscription functionality.



Landing page

Explain the product and its workflow.

User portal

Bring document analysis into a workspace.

Stripe subscriptions

Connect the product to subscription billing.

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APPLICATION ARCHITECTURE

DOCUMENT INTELLIGENCE CONNECTED TO THE APPLICATION

Native PDFs and scans become structured information for checks, analysis and lender review.

Statement PDFs

Native documents and scans

→

Azure Document Intelligence

Bank-statement extraction

→

Structured records

Fields, transactions and balances

↓

Deterministic checks + OpenAI evaluations

Reconciliation, financial calculations and transaction analysis

←

Web review + PDF report

Source-linked lender workspace

APPLICATION

TypeScript · Node.js / Sails.js · MongoDB

PRODUCT INTEGRATIONS

Stripe · SendGrid · AWS

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ENGINEERING OWNERSHIP

END-TO-END ENGINEERING FOR AN AI ANALYSIS SAAS

I connected document processing to the product lenders use.

Document extraction	Native and scanned PDFs to structured records.
Rules and AI evaluations	Validated calculations and transaction analysis.
The SaaS experience	Landing page, user portal and Stripe subscriptions.

Senior Full-Stack Engineer & SaaS Architect

End-to-End · 2024–2025