



RYDER
SCOTT

21st

ANNUAL
RESERVES
CONFERENCE

SEPTEMBER 25, 2025



PHIL KANDEL, P.E., P.ENG.

Retired, Bank Engineer
Wells Fargo

Phil earned his Bachelor of Applied Science degree in Geological Engineering from the University of Toronto and began his career in the late 1970s as an open-pit Mining Engineer with Syncrude Canada Ltd. in Fort McMurray, Alberta. He later joined AMOCO Canada as a Petroleum Engineer in the Pembina Field and, by the early 1980s, began specializing in reserves evaluations with the Royal Bank of Canada in Calgary and Denver. Over the following decades, Phil held reserves engineering roles with oil and gas operators, a natural gas pipeline company, and as a consultant with Sproule Associates and AJM Petroleum Consultants. In 2007, he joined the oil and gas division of Wells Fargo Bank in Denver, where he worked until his retirement in 2020 after nearly 14 years of service. A lifetime member of SPE and member of SPEE since 1998, Phil holds PE licenses in Colorado, Texas, and Alberta. He has presented at SPEE Annual Meetings and served in leadership roles within the organization.



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Numbers to Count On. Experts to Trust.

SO, WHAT HAPPENED WAS...

Confessions of a Bank Engineer

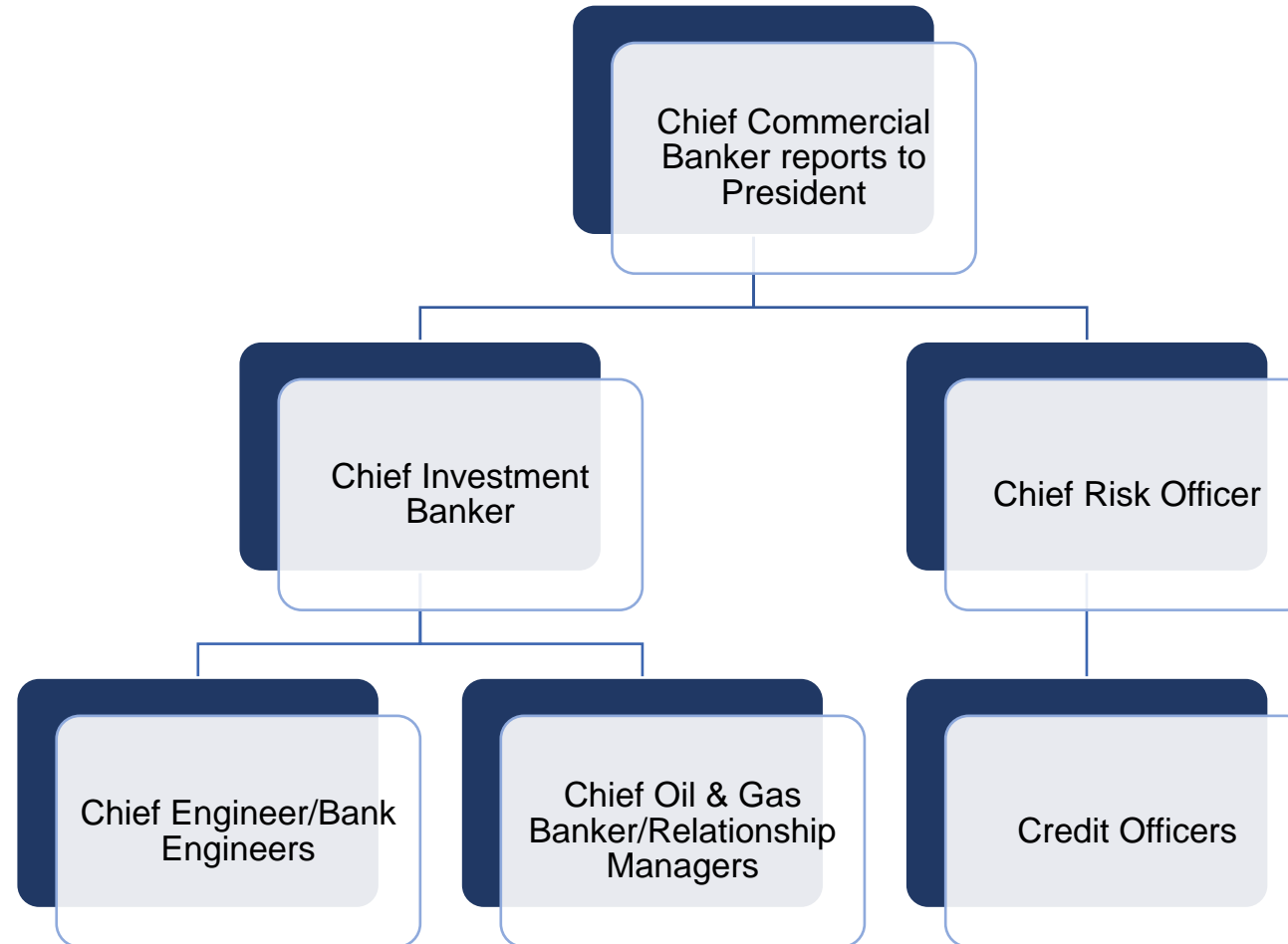
Ethics Hour Presented by:
Phil Kandel, P.E., P.Eng.

- What does a Bank Engineer do?
- Bank Engineer's Place in Bank Hierarchical Structure
- 6 Case Studies (...Speaking for a Friend)

What does a Bank Engineer Do?

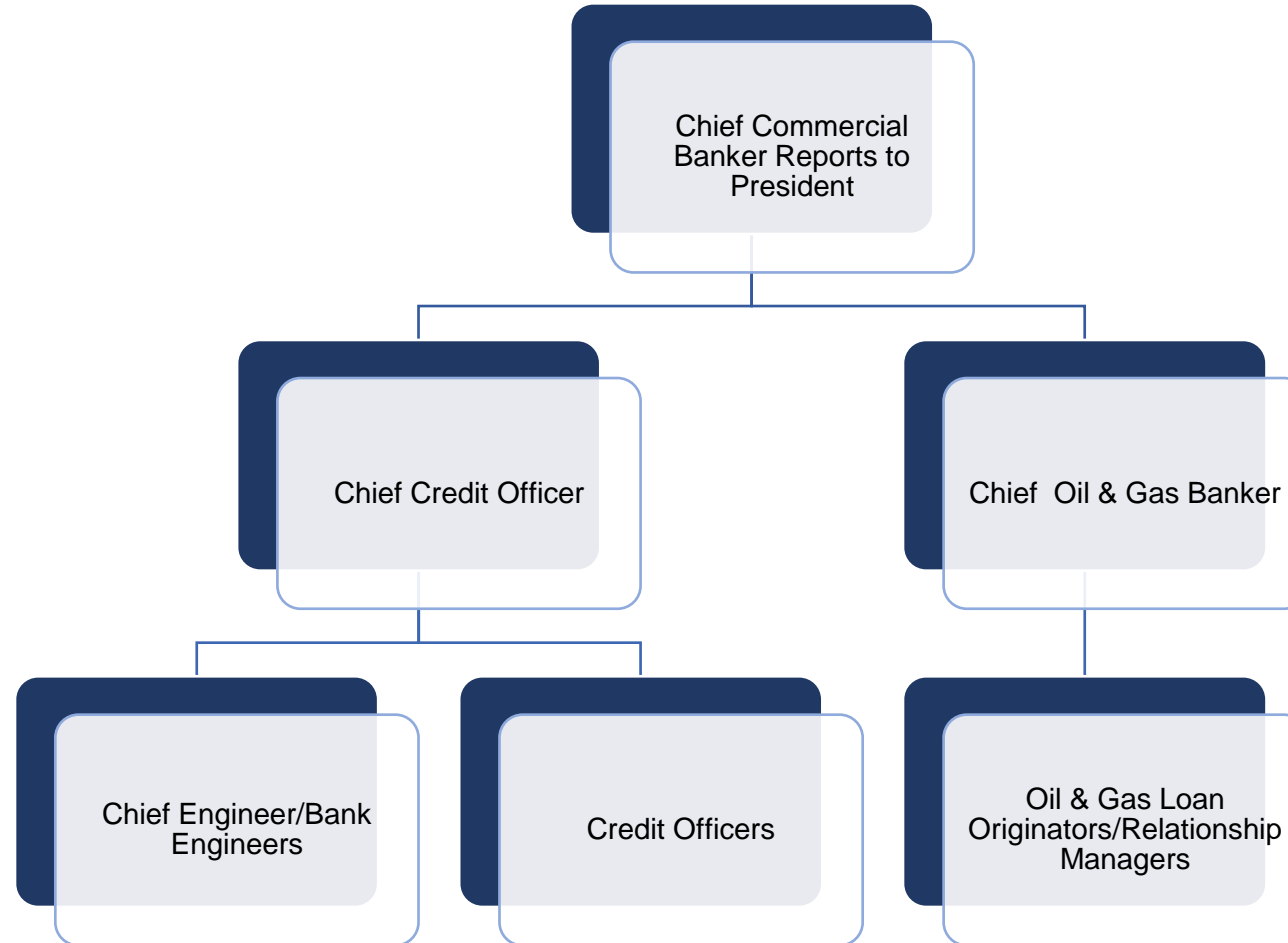
- Information Required:
 - ARIES/PHDWin (most common) Database
 - PDP, PDNP, PUD, and Total Proved Outputs
 - One-Line Summaries
 - 12 months of LOS (and reconciliation to forecast in the database)
 - Commodity contracts
 - Hedging Information (actual) or Assumptions (usually set by Banker/Company)
 - Bank Price Deck
- Match Run to Database Provided
- Changes to get to “VERY” High Degree of Certainty within 48 hours
- Salary Plus Bonus Remuneration

- Engineers report through the Line

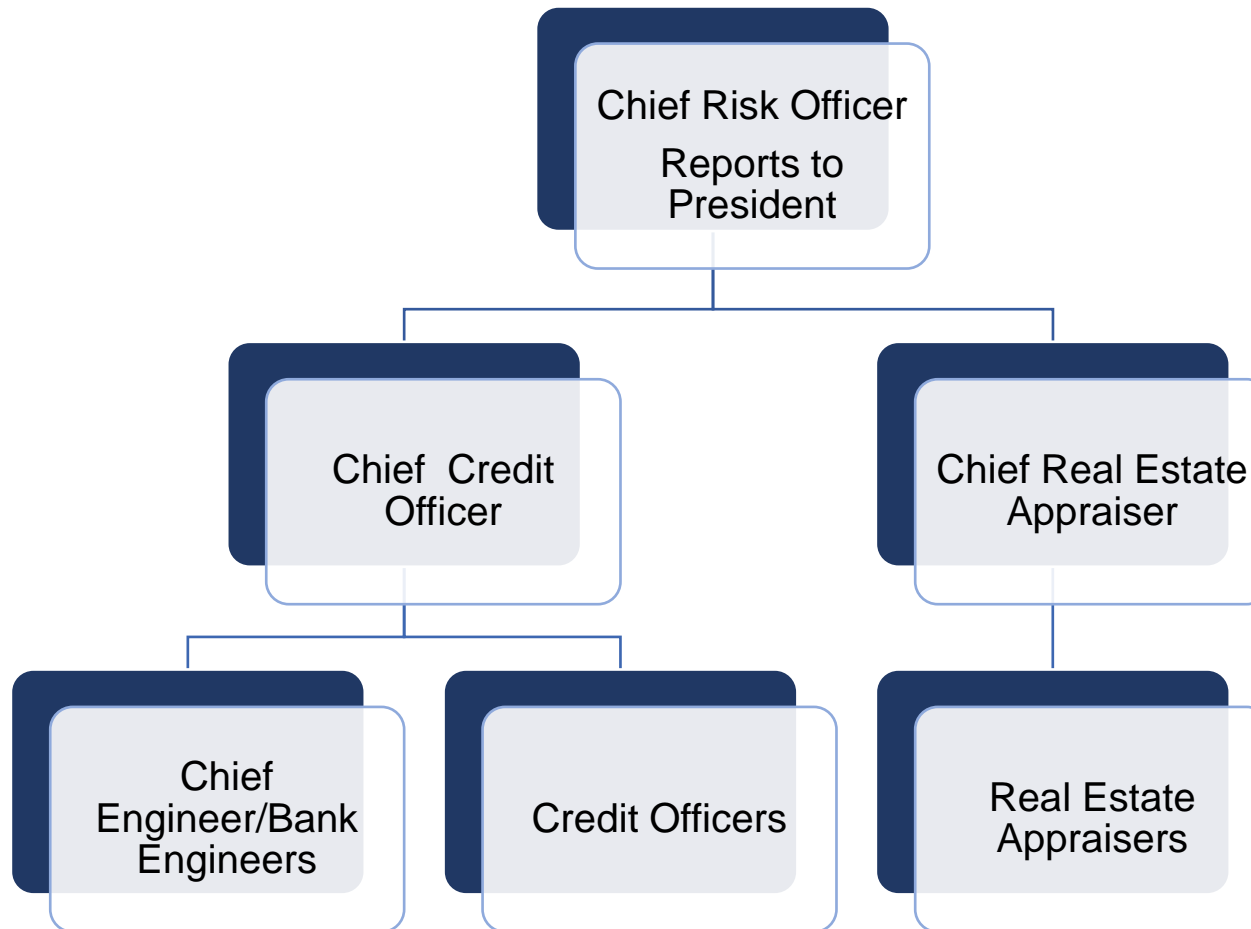


BANK B

- Engineers report through Credit Officer



- Appraisers are fully Independent from Loan Originators



CASE ONE: Counting the Molecules

Client/Banker Requests \$5 Million.

Bank Engineer Evaluation \$4.95 Million (non-conforming)

Banker needs a Conforming Loan

Loan/Approvals subject to OCC special scrutiny

Banker requests Engineer to “fix it”

What do you do?

CASE TWO: Close but no Cigar

Client/Banker Requests \$5 Million

Bank Engineer Evaluation \$4 Million (non-conforming)

Banker needs a Conforming Loan

Loan/Internal Approvals subject to OCC special scrutiny

Banker requests Engineer to “fix it”

What do you do?

CASE THREE: Senior Executive wants the Deal

Client/Banker Requests \$250 Million

Bank Engineer (1st Pass) Evaluation \$200 Million (non-conforming)

Banker needs a Conforming Loan

Loan/Internal Approvals subject to OCC special scrutiny

Banker requests Engineer to “Review”

Engineer (2nd Pass) can get to \$220 Million Maximum

“Development Case”

What do you do now?

CASE FOUR: Get To The Number

Client/Banker Presses “The Number” before Engineer begins evaluation.

Banker calls repeatedly during the evaluation period.

Setting the bar

Credit Officer/Chief Engineer/Ethics Line?

What do you do?

CASE FIVE: Trip to “Hawaii”

Client/Banker Requests \$200 Million

Bank Engineer (1st Pass) Evaluation \$125 Million (non-conforming)

Banker needs a Conforming Loan

Loan/Internal Approvals subject to OCC special scrutiny

Banker requests Engineer to “Review”

Engineer (2nd Pass) can get to \$175 Million Maximum

What IF the Client makes “that call”

\$100-\$200 Limit Bank Policy

What do you do?

CASE SIX: Working From Home

Challenge to Communication During/Post-COVID

Lack of face time with Banker/Client

Engineers “too independent”

Bankers Complain

What do you do?

Summary and Questions?

- Talk to Your Bank's Engineer/Banker
- Process is "Highly" Transparent
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