

THE HILL METHOD

A Field-to-Courtroom Framework for Oil & Gas Disputes, Pipeline Failures, Operational Incidents, and Financial Exposure

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1.0 Proven Financial Impact

As of 2026, application of The Hill Consulting Method has resulted in documented recoveries and cost avoidance exceeding **\$91.5 million** across a broad range of technical and operational disputes, including:

- Custody transfer measurement errors
- Gas composition and energy content misrepresentation
- Pipeline operational failures and leak events
- Royalty and accounting misallocations
- Regulatory compliance conflicts
- Operational incident investigations, including injury and fatality cases

These outcomes were not achieved through improved calculation methods or better reporting formats.

They were achieved through systematic identification of structural failure within the decision-making and reporting process—specifically where:

- Assumptions were accepted but not validated
- Data was interpreted through confirmatory frameworks
- Incentives influenced conclusions
- Compliance was mistaken for accuracy
- Systems were functioning correctly while measuring or representing the wrong reality

These are not errors in math.

They are failures in how truth is constructed.

2.0 The Core Question

Every dispute, regardless of complexity, reduces to a single foundational question:

Is the conclusion true—or simply defensible within a controlled narrative?

This distinction is critical.

Most technical reports are not designed to discover truth.

They are designed to:

- Explain outcomes
- Justify decisions
- Defend positions

3.0 The Reality Gap

Every case exists within two distinct and often conflicting realities:

3.1 Documented Reality

- Technical reports
- SCADA data
- Regulatory filings
- Compliance documentation
- Accounting systems

3.2 Operational Reality

- Physical system behavior
- Actual flow conditions
- Human decision-making
- Environmental factors
- Real-time system limitations

The case does not live in the report.

It lives in the gap between what is reported and what actually occurred.

4.0 Phase I – Field Audit (Ground Truth)

The field audit is the foundation of The Hill Method.

Its objective is to establish:

What is physically and operationally true—independent of documentation

4.1 Measurement System Evaluation

Systems reviewed include:

- LACT units
- Ultrasonic measurement systems
- Gas chromatographs
- Flow computers (ABB, ROC, Omni)
- SCADA systems
- Sampling systems
- Accounting / Allocations
- Pipeline Operations / Failures
- Safety incidents: injuries and fatalities

The evaluation is not limited to:

- Calibration

- Compliance
- Specification

Instead, the focus is:

- Representativeness
- System placement
- Real-world performance
- Data validity

4.2 Pipeline System Evaluation

Pipeline analysis includes:

- Flow dynamics
- Pressure behavior
- Transient conditions
- Leak detection system assumptions
- Alarm thresholds
- SCADA interpretation
- P&ID
- SOP
- Circumstances: weather, rushing, frustration, fatigue, lack of training, lack of supervision

4.3 Operational Reality Assessment

This includes:

- Actual flow paths vs designed flow paths
- Sampling location validity
- Maintenance vs performance condition
- Environmental and operational stress factors

A system can be compliant, calibrated, and fully documented—and still produce incorrect results.

Cross-Examination Framework

- Was the system measuring actual product—or an assumed representation?
- Were conditions verified—or assumed stable?
- Does system placement reflect actual system behavior?

5.0 Phase II – Forensic Investigation

This phase transitions from observation to **structured challenge of the narrative**.

The objective is not to confirm the report—but to test it.

6.0 Core Analytical Engines

These analytical engines apply across all case types:

- Pipeline failures
- Operational incidents (including injuries and fatalities)
- Measurement disputes
- Financial and accounting discrepancies

6.1 Assumption Mapping

Every technical conclusion rests on a set of assumptions, including:

- Measurement representativeness
- Stability of operating conditions
- Validity of historical baseline data
- Accuracy of system configuration

Unchallenged assumptions become accepted facts in litigation.

Cross-Examination

- What assumption was never tested?
- Is the assumption explicitly stated—or implied?
- Would the conclusion hold if the assumption is false?

6.2 Exploratory vs Confirmatory Thinking

This distinction defines analytical integrity.

Exploratory Thinking

- Seeks to discover what actually occurred
- Tests multiple hypotheses
- Accepts uncertainty

Confirmatory Thinking

- Seeks to support a conclusion
- Filters or excludes conflicting data
- Explains away anomalies

Most litigation reports are confirmatory—even when presented as objective analysis.

Cross-Examination

- What data contradicts this conclusion?
- What alternative explanations were tested?
- Was the analysis designed to discover—or defend?

6.3 Incentive Analysis

Outcomes align with incentives.

These include:

- Financial exposure reduction
- Regulatory compliance positioning
- Contractual advantage
- Organizational risk management

Incentives do not just influence decisions—they shape interpretation of facts.

Cross-Examination

- Who benefits from this conclusion?
- What outcome minimizes exposure?

- Would a different conclusion create financial or regulatory harm?

6.4 Post Hoc Reasoning

Post hoc reasoning occurs when:

- A conclusion is formed first
- Evidence is assembled afterward

Examples:

- “System was compliant, therefore it was accurate”
- “Procedure was followed, therefore failure did not occur”

This creates a narrative that appears logical—but is constructed in reverse.

Cross-Examination

- Was the conclusion formed before analysis began?
- Is the reasoning explanatory—or investigative?

6.5 Hidden & Implied Meaning

Technical reports communicate through:

- Omission
- Emphasis
- Framing
- Language selection

What is not stated often carries more meaning than what is stated.

Cross-Examination

- What data was excluded?
- What variables were minimized or ignored?
- What framing limits alternative interpretations?

6.6 Moral & Cognitive Frameworks

Individuals operate within internal frameworks influenced by:

- Professional identity
- Organizational pressure
- Financial exposure

- Institutional loyalty

People do not reason to conclusions.

They reason from them.

7.0 Pipeline Failures & Leak Events

Observed Pattern

- SCADA shows stable conditions
- Pressure and flow appear within range
- No alarms are triggered

Operational Reality

- Leak develops
- Flow imbalance exists
- Detection system fails

The system reports stability while the pipeline fails.

Failure Mechanisms

- Incorrect detection assumptions
- SCADA misinterpretation
- Alarm thresholds set too high
- System design limitations

Cross-Examination

- Was the system capable of detecting the failure under real conditions?
- Were alarms structurally delayed?
- Did system design prevent detection?

8.0 Operational Incidents, Injuries & Fatalities

Typical Report Structure

- Procedure cited
- Compliance demonstrated
- Individual responsibility emphasized

Hill Method Reframe

Was the procedure realistically executable under actual field conditions?

Reality Factors

- Environmental conditions
- Time pressure
- System constraints
- Human limitations

Compliance does not guarantee safety in execution.

Cross-Examination

- Was the procedure usable in real-world conditions?
- Were risks normalized over time?
- Was failure systemic rather than individual?

9.0 Measurement & Financial Exposure

Measurement is the foundation of:

- Revenue
- Royalty distribution
- Taxation
- Contract performance

If the measurement is wrong, everything built on it is wrong.

Compounding Effect

Small error × time × volume = material financial distortion

Cross-Examination

- Is the measurement representative of actual product?
- What is the cumulative financial impact?
- How does error propagate through accounting systems?

10.0 Regulatory Compliance vs Truth

Frameworks

- PHMSA
- OCC / RRC
- API / GPA / AGA standards

Critical Distinction

Compliance $\neq$ Accuracy

An organization can be fully compliant—and systematically wrong.

SOP Evaluation

- Were procedures followed?
- Are procedures technically valid?
- Do procedures reflect real conditions?
- Was personnel trained in safe operation procedures?

Cross-Examination

- Can a compliant system still produce incorrect results?
- Do SOPs reflect operational reality?

11.0 Analytical Deconstruction

Every report contains:

1. Facts
2. Assumptions
3. Interpretations
4. Conclusions

Remove the assumptions—and the conclusion reveals its strength or collapses.

12.0 Report Construction

Pyramid Structure

Top:

- Financial impact
- Root failure

Middle:

- Broken assumptions
- Data inconsistencies

Base:

- Field evidence
- System analysis

Rule

If it cannot survive cross-examination, it does not belong in the report.

13.0 Case Study – Chromatograph Failure

Situation

- Fully compliant
- Fully calibrated
- Industry standard

Reality

- Sampling location not representative
- System measuring incorrect gas stream

The system was not broken.

It was measuring the wrong reality—perfectly.

Impact

- ~\$6,900 per day
- Multi-million-dollar exposure

14.0 Final Definition

The Hill Consulting Method establishes ground truth, exposes assumptions, analyzes incentives, distinguishes exploratory from confirmatory reasoning, eliminates post hoc logic, and constructs conclusions that withstand cross-examination.

15.0 Engagement & Contact

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Final Statement

Most cases are built on conclusions that were never designed to be challenged.

The Hill Method is designed to challenge them.