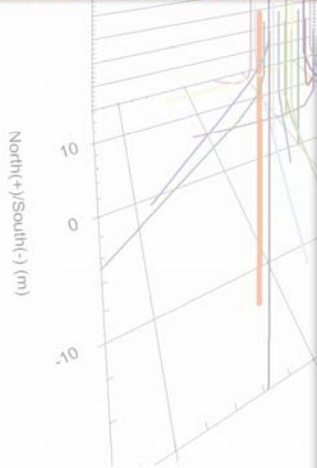

Signa Engineering Corp.



**EXPERT WITNESS TESTIMONY:
EXPERIENCE AND CASE HISTORIES**





INTERNATIONAL & DOMESTIC
PETROLEUM ENGINEERING
PROJECT MANAGEMENT

Expert Witness Testimony: Experience and Case Histories

Sigma Engineering Corp.

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I.) INTRODUCTION

Since 1995, the team at Signa Engineering Corp. has provided expert witness testimony and litigation support for dozens of legal cases pertaining to incidents within the oil and gas industry.

Signa's engineering staff routinely analyzes critical well designs to identify and mitigate potentially hazardous drilling factors, such as high temperature, high pressured formations, sour gasses, hostile environments and dangers due to remote locations. This analytical experience allows them to evaluate catastrophic failures to determine what went wrong, why it happened, and who (or what) is at fault.

Signa has provided expert witness services, high level computer graphics and other demonstrative evidence across the region for cases involving the most problematic of oilfield concepts, including:

- Accident Investigations
- Injury and Equipment Damage Liability
- Blowout Preventer Mishaps
- Bottom Hole Assembly failures
- Casing Crew Accidents
- Patent Design Disputes
- Environmental Liability
- Breach of Contract
- Oil Lease Property Rules
- Intellectual Property Theft



Signa engineers have experience in all aspects of upstream oil and gas procedures, including Managed Pressure Drilling (MPD), Horizontal Drilling, UnderBalanced Drilling (UBD), Rig Safety, Plugging and Abandonment, Reservoir Analysis, Production Engineering, Drilling Engineering and Operations, Environmental Engineering and Site Assessment, Economic Analysis and more.

Our litigation support history includes:

- Computer Animation and Document Imaging
- Designing Charts, Graphs & Timelines
- 2D and 3D Technical Illustrations
- Video / Photography
- Courtroom Graphic Assistance
- Unique Courtroom Presentation Methods
- Accident Recreation



II.) SELECTED CASE HISTORIES

Patent Infringement

- Signa reviewed the case of dispute over who was the true inventor of a drilling process after a patent was issued for that technique.
- Signa reviewed extensive information on two companies' multilateral drilling processes to determine if the patent had been infringed upon. The engineering staff did extensive multilateral application studies and worked with an economist on economic projections (10 year span) to determine how significant a monetary setback the patent holder would have suffered.
- Signa engineers were asked to answer technical questions in a patent case involving the alleged use of numerous patented well treatment services by another company. The engineering team had to analyze well treatment service records to determine if the patent had been infringed upon.
- Signa engineers were asked to utilize their special expertise and knowledge in the subject matter of rotating blowout preventer equipment in a patent infringement case.

Personal Injury

- Signa investigated a case in which a failure in a BOP stack element occurred during UnderBalanced Drilling. This resulted in a blowout, causing extensive property damage and injuries to the crew.
- Signa investigated a well blowout that occurred while workers were trying to come out of a hole to make a bit change, when the well kicked. Workers tried to put the Kelly back on but were unsuccessful. When the well kicked, well was blowing sand, rocks and gas up through the crown and eventually ignited. A BOP installed on the well was not shut in. Plaintiff claimed foot injuries.
- Signa reviewed the case of a roughneck (drilling rig worker) injured while changing the rubber element on a rotating blowout preventer.
- Signa investigated a case regarding an occurrence of casing falling out of position during makeup, which injured a member of the casing crew. The drill rig derrick was allegedly not centered over the hole, making the handling of casing hazardous.

Property Damage

- Signa engineers were asked to utilize their experience in oilfield drilling and knowledge of wellsite equipment to testify what had caused a blowout and subsequent destruction of an oil well. Testimony involved clarifying drilling fluids, drillstring depth, describing downhole equipment and elaborating on alleged destructive elements that caused the fire.
- Signa engineers were asked to review a well in Webb County, Texas, for possible product liability in regards to a 10,000 psi Shaffer blowout preventer that two pipe rams had reportedly failed in while trying to control a flowing oil & gas well.



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- Signa investigated a case in which an oil and gas operator had initiated turnkey drilling of a well. During the operation, a section of the bottom hole assembly (drilling jars) failed, allegedly causing a loss of money (profit) for the turnkey contractor.
- Signa graphic designers illustrated a case involving an accident at a wellsite by producing graphic illustrations needed for a basic education and introduction of the pertinent equipment and terms in the case.

Health, Safety & Environmental

- Signa investigated a groundwater and soil contamination case on a site where oil & gas operations were located. Signa's engineers and litigation staff combined knowledge of petroleum engineering, geology, environmental science and geo hydrology to resolve the case.
- Signa investigated a case regarding a defendant's right to dump waste material in specified area.



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III.) CLIENT LIST

Adams and Reese LLP

Atlas Tubular

AIG Claim Services, Inc.

Alpine Oil Services

Baker & Hostetler LLP

Bayko, Gibson, Carnegie & Hagan LLP

Boswell & Hallmark

Carr & Storm, L.L.P.

Cokinos, Bosien & Young

Culbreth & Munn

Crutsinger & Booth

DiCecco, Fant & Burman, L.L.P.

Fibich & Garth, P.C.

Fitzgerald, Gartner & Follis

Fleming, Hovenkamp & Grayson

Guste, Barnett & Shusan

Marathon Oil

McGlinchey Stafford

Meyer, Orlando & Evans, P.C.

Royston, Razor, Vickery & Williams LLP

Rush Johnson Associates

Schopf & Weiss

Small, Craig & Werkenthin

Steinburg, Carwile & Herzik

Stevenson & Ammons, LLC

Thelen Reid & Priest LLP

Tom L. Pettiette

Vinson & Elkins, LLP



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IV.) BIOGRAPHICAL DATA

Charles R. "Rick" Stone, P.E.

George H. Medley, P.E.

Dennis D. Moore, P.E.

Please see following pages for bios.