



## Early Resolution of Insurance Claims and Litigation

Dr. John Fildes conducts accident and failure analysis investigations for insurers and litigators. His cases typically involve the performance of materials, materials compatibility, friction and wear, lubrication, the design process, and issues involving installation, maintenance, and adherence to codes and standards. In addition to providing traditional insurance claim and litigation technical investigations, Dr. Fildes is unique in offering a proven way to help resolve cases early.

Dr. Fildes is keenly aware of clients' need to cut litigation costs. The only way to cut litigation costs is to resolve the case early, but the only way to resolve a case early while having a reasonable basis for establishing liability and achieving the best outcome is to establish the key technical issues in a way that is authoritative and compelling, but how can one do this? How can the key issues be established without extensive discovery, which is what must be avoided to substantially cut costs?

### The Approach

Discovery establishes the key issues involved and the positions of each party. Any alternative must do this and establish who is likely to prevail and what it will take and cost to prevail, to set a reasonable, non-negligent basis for settlement.

The initial facts of the case often fail to identify the key issues and can be misleading, especially for complex and multidisciplinary technical cases. Dr. Fildes' physical science-based approach coupled with superior analytical skills, provide the experience, insight, and skill to find the key relevant existing information. He gathers information from the civil complaint, prior related cases, trade association publications, patents, manufacturer's marketing materials and reports, and Internet blogs and forums. His comprehensive data mining is coupled with top-notch analysis to fill the gaps that exist to applying existing information to the specific incident he is investigating. Manufacturers publish studies and universities conduct applied research. Relevant research likely exists and can provide 60% to 80% of the insight as to what happened.

This is how industry approaches R&D today, and it works because of the information rich environment that exists. Industry uses the available information coupled with top-notch analysis to identify the key technical issues that will determine success or failure, to properly focus the work they will do at their cost, to avoid duplication of what already is known, and to realistically estimate the cost and what it will take to succeed. These benefits are also available to insurers, litigators, and corporate counsel through use of a similar investigative approach.

### Experience and Case Study

Property Estimation Investigations – Dr. Fildes has conducted a number of investigations where he has used existing information, often from manufacturers' published studies to establish the likely performance of materials or chemicals in specific situations. These studies have included estimating the volatility of lubricants, the moisture absorption properties and expansion and contraction of engineered wood products, the likelihood for corrosion to occur due to the prevailing environment, the ability of substances to clog drains and the conditions under which that might occur, and the properties of aggregates, asphalt, and concrete. Dr. Fildes' reports in these types of cases are used by insurers to resolve claims and by litigators as the basis for mediation and arbitration. His physical science-based approach allows highly effective information searching, analysis, and modeling to produce scientifically supported estimates without the need for expensive testing.

Class Actions – Dr. Fildes' approach is valuable in class actions because it provides a scientifically reliable way to estimate the performance of materials and the factors that influence them, which supports determination of if the key technical issues are common to the class, or if key technical issues are unique to individuals of the class. For example, Dr. Fildes successfully applied this approach to a chemical process used in building materials to show that key factors that could contribute to the alleged problem depended on scientific principles that varied from one individual of the class to another. The chemical process in question was complex, and this approach provided previously unknown insight that was critical not only to determining if a class action was appropriate, but the insight he developed also guided the investigation for the ensuing litigation, which focused the expensive testing, lowering costs and improving the outcomes.

Dr. Fildes also applied this early resolution approach to another building product investigation to develop the strategic direction for mounting a defense. His research discovered relevant patents and academic research that established the technical direction for further investigation.



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Dr. John Fildes

*Dr. Fildes' experience for conducting the type of work described above is extensive, spanning his entire career from graduate education to the present. He has a doctorate degree in physical chemistry and the concepts of thermodynamics, underlying combustion and chemical reactivity, and of quantum mechanics, underlying the strength of materials and failures, provide the underpinnings of much of chemical, mechanical, materials, and electrical engineering. Statistical analysis, data mining, and modeling the properties of materials and chemical systems and making predictions based on those models was central to his Ph.D. Dissertation and was used numerous times in conducting his over \$27.5 million of funded R&D starting at Borg-Warner's Corporate Research Center, as Director of Sensors and Controls at IIT Research Institute, as the founder and co-director of Northwestern University's Advanced Composite Materials Intelligent Materials Processing Center, and through his Army-funded work in tribology (the science of friction and wear).*

*John has done extensive research in process control that was funded by the Gas Research Institute, the Army, the Navy, the State of Illinois, and the Great Lakes Composites Consortium. The Gas Research Institute (GRI) used John to help define their research agenda in combustion control. He was an invited workshop panel member for a report on Intelligent Process Control Systems for Materials Heat Treatment prepared by the National Materials Advisory Board of the National Research Council (NMAB-457, National Academy Press) and an invited speaker on intelligent process control of chemical processes organized by the Defense Advanced Research Agency (DARPA). He led the process control activities for the Great Lakes Composites Consortium involving a team including Grumman, Northrop, and McDonnell Douglas. He was invited to provide a demonstration of intelligent process control to Congress, which he did provide. His work in materials processing and process control was the basis for establishing Northwestern University's federally funded Advanced Composite Materials Intelligent Processing Center. He also has project experience with predicting the properties of numerous materials, sintering ceramics, sensors and control methods and systems, semiconductor physics and materials, and innovative ceramic-like armor. His CV contains additional relevant experience.*

*Although Dr. Fildes does not practice engineering, he has extensive experience with engineering. He served as a post-doctoral research associate in the Department of Chemical Engineering at Virginia Tech and instructed in a course on chemical process control. He led two substantial engineering companies licensed in Illinois as both Professional Engineering and Structural Engineering organizations, and a group of 28 scientists and engineers at Northwestern University, which gives him much experience with the conduct, application, and principles of engineering. His oversight of major research labs at Northwestern University, Borg-Warner's Corporate Research Center, and the Illinois Institute of Technology Research Institute gives him broad experience with issues involving chemical and materials safety.*

<p><b>Our gatekeeper approach provides:</b></p> <ul style="list-style-type: none"> <li>✓ <i>The quickest and best possible outcome.</i></li> <li>✓ <i>A unique opportunity for early resolution based on knowing 60% to 80% of what might ultimately be uncovered.</i></li> <li>✓ <i>Superior technical insight for even complex and multidisciplinary issues.</i></li> <li>✓ <i>A reliable basis for expert testimony that meets rules for admissibility established by the Supreme Court.</i></li> <li>✓ <i>A strategic advantage with corporate clients since they already appreciate that this approach improves outcomes and lowers costs through use of all existing knowledge and elimination of duplication.</i></li> </ul>	<p><b>Our gatekeeper approach uses information research and analytics early in technically related cases and establishes the key MAKE OR BREAK technical issues and everything that is known about them. This approach requires someone who has the extensive experience with both contemporary R&amp;D methods and litigation-related expert witness investigations so as to adapt the corporate R&amp;D technical investigation process to the unique aspects of litigation expert witness investigations. Our experience to do this is reflected in our process to bring litigators the R&amp;D technical investigation techniques that have revolutionized industrial R&amp;D, providing litigators with the better outcomes and lower costs that industry has achieved in overcoming similar investigation challenges.</b></p> <p><b><u>1. Define the Technical Issues</u></b> – Inspections, insight from litigation parties, and broad literature searching are conducted to gather information from prior related cases, trade association publications, patents, manufacturer's marketing materials and reports, and Internet forums to establish the key technical issues.</p> <p><b><u>2. Use Analytics to Establish What is Known About the Technical Issues</u></b> – The data gathered above is analyzed using contemporary tools for data mining and modeling to adapt the available data and fill the gaps that always exist in litigation investigations.</p> <p><b><u>(3) Reliably Define the Testing Needed</u></b> – The data that has been collected and analysis that has been done ensures that: existing knowledge is not recreated, the remaining work is properly focused, and all involved parties understand the challenges, methods, and progress.</p> <p><b><u>(4) Coordinate, Oversee, and Effectively Communicate</u></b> – This approach ensures that the overarching technical concepts are effectively framed and communicated, and it eases report preparation. The results are well supported, clear, and compelling even to people not knowledgeable of science and engineering.</p>
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