



**EXPERIENCE:**

Dick has over 18 years of continuous experience with environmental matters ranging from industrial to real estate related issues. The scope of services performed during his tenure in the industry includes many projects utilizing the Texas Risk Reduction Program (TRRP) rules, Voluntary Cleanup Program (VCP) projects, petroleum storage tank (PST) matters, expert witness, groundwater quality assessments, groundwater modeling, soil and groundwater remediation, Phase I ESA real estate evaluations, permitting and waste handling issues.

Through service as one of 12 statewide members of the TRRP Guidance Steering Committee in charge of overseeing development of TRRP guidance, Dick has led the group preparing assessment related guidance.

Dick has also made presentations to various organizations including the State Bar of Texas Environmental Law Section, State Bar of Texas Real Estate Section and the Texas Association of Business on TRRP and other Texas Commission on Environmental Quality (TCEQ) related issues.

Dick has served as past Vice-Chairman of a statewide environmental trade organization and has been involved with state agencies on a wide range of projects. Brief summaries of a portion of the projects Dick has dealt with are provided below:

**KEY PROJECTS:**

***Industrial Property – Midland-Odessa, Texas. Project Manager:*** Dick is serving as project manager for a Fortune 500 company on a site with chlorinated organic impacts to two aquifers from an industrial dry cleaners. The project involves interim remediation through soil vapor extraction being followed by remediation through injection into the aquifer(s). The project included evaluation of whether the



TRRP or Risk Reduction Rules were best suited for the site conditions. The SVE system has been successful in reducing original PCE concentrations from 13,000,000 ppb to non-detectable levels. The injection remediation has reduced dissolved PCE levels up to 96% of their original concentration and to below detection limits in the source area.

***Base Area Re-Development for Residential Use, Aspen Highlands Ski Area – Aspen, Colorado: Project Manager:***

Dick was the project manager responsible for assessment and remediation of maintenance areas, drum storage areas and petroleum storage tank locations so that the base of the ski area could be redeveloped as a mixed residential/commercial development by Hines Interests Limited Partnership. The project required maintaining a tight time schedule as well as interaction with Colorado's voluntary cleanup and petroleum storage tank programs. The project was completed on time with concurrence on closure of issues from both programs allowing for redevelopment of the site on schedule.

***Expert Witness - Dry Cleaner Remediations, Dallas, Texas:***

Dick provided litigation support for a case involving evaluation of the appropriateness of both cost and technical approach in another consultant's turnkey, lump sum cleanup of multiple dry cleaning facilities. Through Dick's deposition and analysis, the consultant and their insurance provider agreed to conduct further cleanup.

***Dry Cleaning Facility – Mid-Cities Area, Project Manager:***

Dick developed and implemented a site investigation plan under the TRRP which focused on assessment and gathering data suitable for classification of the site with respect to groundwater. Based on obtaining a non-groundwater bearing unit (non-GBU) determination, no further action with respect to the chlorinated organic



impact to the soil and groundwater were required thus reducing site response action costs.

*Expert Witness – Wood Treating Facility, Texas:* Dick provided litigation support of a potentially responsible party for impacts from a wood preserving facility that were commingled with solvent impacts to groundwater from an adjoining facility. Dick provided cost analysis, technical opinions and review of other depositions in support of this case which was settled out of court.

*Industrial Property – East Texas. Project Manager:* Dick reviewed existing site investigation files and developed a plan to complete delineation for a facility with 1,1,1 TCA impacts in the soil and groundwater beneath the plant. The investigation included drilling inside the building in sensitive manufacturing areas without having to shut down production. The remedial response to this facility is planned to be limited remedial action through removal of soil followed by longer term groundwater monitoring.

*Dry Cleaning Facilities – Texas:* Dick is or has been involved in the assessment, evaluation and, if necessary, remediation of 18 dry cleaner facilities in Texas in geology ranging from tight clay with little available groundwater to sand and gravel aquifers used as drinking water resources. The focus of the site evaluations is always what is the best remedy for that particular site given client needs, contaminant levels and site geology. A number of the properties also involved impacts to third parties requiring sensitivity to notification requirements and to communication issues with adjoining property owners.

*Ski Area Assessment – Colorado. Project Manager:* Dick worked closely for four years with a major ski area in Colorado in assessing a wide range of environmental issues. These issues included assessment and closure of



over 150 petroleum storage tanks at ski lifts and maintenance areas on four different mountains, development of waste handling and minimization plans, creation of SPCC plans, development and implementation of asbestos operation and maintenance plans, and creation of a comprehensive Environmental Compliance Manual focused on ski area operations. The budget for the above operations exceeded 3.0 million dollars over the four years of the project with the majority of expenditures in the first year. Dick was able to save the ski area between \$500,000 to \$800,000 through creative interaction with the Colorado Department of Public Health and the environment that allowed reuse of affected soil on site and application of risk assessment when the state did not have a formal risk assessment program. Issues ranged from chlorinated organic impacts to affects from fuel compounds

*Closure of Agricultural Landfill – Texas:* Dick provided project management for investigation and closure of an uncontrolled landfill on a farm property. Through installation of wells and construction of a vegetated cap the landfill was closed through the TCEQ with no further action required.

*Landfill Maintenance and Monitoring – Texas:* Dick has provided support services for one of our clients with three hazardous waste landfills in maintaining compliance with closure monitoring requirements as well as maintenance of the cap and area around the landfills.

*Industrial Property – Dallas, Texas. Project Manager:* Dick reviewed existing site investigation files concerning chlorinated organic impacts to the subsurface soil and groundwater. In review of the site and development of projected costs to address the concerns, Dick was able to find a path to closure through the TCEQ's Voluntary Cleanup Program (VCP) for the prospective purchaser of



the property that met their business needs. Other potential purchasers had declined to proceed with acquisition of the site due to the presence of the chlorinated organic compounds in the soil and groundwater. Remediation was completed through a combination of excavation and injection of chemicals into the subsurface. The property is currently in the VCP and a Conditional Certificate of Completion is expected to be issued initially followed by a Certificate of Completion after adequate monitoring is finished.

*Chip Manufacturing Facility – Garland, Texas:* Dick developed a remediation plan utilizing injection of chemical agents into the subsurface to remediate the soil and groundwater to Class 2 levels. The site is also under consideration for application for a Municipal Settings Designation.

*Dry Cleaning Facilities – North Texas Area, Texas, Project Manager:* Dick has provided detailed evaluation of site conditions with respect to the TRRP rules vs. the Risk Reduction Rules on many dry cleaner sites with chlorinated organic impacts in varied geologic conditions in the north Texas area. The evaluations were designed to evaluate which set of rules were best suited for site conditions and to determine if existing data was adequate to meet the TRRP requirements. The evaluations also included reviews of the effectiveness of the remediation techniques being employed.

*Industrial Property – Mid-Cities Area, North Texas. Project Manager:* Dick designed and performed an investigation of a property utilized in electronics manufacturing over the past 30 years. The investigation of the site focused primarily on potential impacts from metals and trichloroethene (TCE) and included evaluation of whether the TRRP or Risk Reduction Rules were best



suiting for the property. The presence of TCE in the alluvial deposits of the Woodbine makes vertical delineation a key issue for this project. Through support of legal counsel of litigation surrounding this property, the responsible party was identified and agreed to take over clean up responsibilities.

*Acoustic Wafer Chip Manufacturing Facility - Dallas, Texas, Project Manager:* Dick developed and implemented a site investigation under the TRRP that included evaluation of the groundwater classification for a property with chlorinated organic impacts to the soil and groundwater. Though some wells were above the yield threshold for Class 3 groundwater, we were able to obtain a Class 3 groundwater classification through use of averaging of the well yields. The higher cleanup standards for Class 3 groundwater led to a Certificate of Completion being issued for the property.

*High Tech Chip Manufacturing Facility - North Texas, Project Manager:* Dick has evaluated as site for a major high tech chip manufacturer in the Dallas area in order to determine the best route to achieve closure under the current TRRP rules and regulations of metal and chlorinated organic impacts originating in the 1980's. Closure plans are currently being developed for the property.

*Creosote Impacts Investigation - West Texas, Project Manager:* Dick developed and implemented a site investigation plan under TRRP to evaluate potential impacts to site soil and groundwater from long-term storage of power poles treated with creosote. The plan targeted specific COCs typically associated with creosote.

*US Department of Agriculture Research Facilities - Texas. Project Geologist:* USDA facilities used in research for

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herbicides and pesticides were investigated with facility records and the soil and groundwater on site being evaluated. Remedial plans were then designed to address the impacts found.

*Oilfield Damages Assessment – Rio Grande Valley, Project Manager:* Dick was involved in assessment and evaluation of potential remedial action costs related to repeated saltwater impacts to an agricultural property from a rupturing saltwater injection pipeline. The case was successfully settled in favor of the impacted landowner.

*Former Pesticide Handling Facility – Dallas, Texas. Project Manager:* A former facility used for storage and mixing of pesticides for use on various residential and commercial properties was evaluated for impacts to the subsurface. Closure of the site is anticipated through the TCEQ's Voluntary Cleanup Program.

*Bulk Fuel Terminal – Abilene, Texas. Project Manager:* Dick was involved in assessment and remediation of a former refinery in the Abilene area that was being utilized as a bulk fuel terminal. Through use of past site drawings and use of aerial photographs, old refinery units were identified and an investigation plan was developed. Remediation was implemented to remove free phase hydrocarbons, heavy metals impacts and removal of a tar pit. Dick also assisted the terminal manager with waste handling issues and air emission inventories.

*Bulk Fuel Terminal – Dallas/Fort Worth Area, Texas. Project Manager:* Dick was involved in assessment and remediation of a bulk fuel terminal with fuel releases as well as chlorinated organic impacts from a vapor recovery unit. A remediation system was installed under the loading rack to recover accumulated hydrocarbons.



***Bulk Fuel Terminal – Wichita Falls, Texas, Project Manager:*** Dick was involved in assessment of a bulk fuel terminal in Wichita Falls, Texas, that was located adjacent to an old refinery. Assessment work involved determining what impacts were from current or from past uses.

***Former Gun Range – Richardson, Texas, Project Manager:*** Through an investigation and corrective action plan utilizing the TRRP rules, Dick was able to gain a no further action determination for a former gun range with no remediation being conducted.

***Former Chrome Plating Operation – East Texas. Project Manager:*** Dick assisted a client in addressing subsurface hydrocarbon impact issues from a neighboring facility and chrome- affected soil from a chrome plating operation on site. Characterization of the site resulted in clearly identifying that the hydrocarbon impacts were from both on and off-site sources and in determining that the health risk from the chrome-affected soil was low enough that no further action was necessary.

***Truck Manufacturing Facility – North Texas. Project Manager:*** Dick assisted a manufacturer of tractors for “18-wheeler” rigs with an investigation and closure plan for a subsurface sump that had contained waste paint and solvents that had impacted the subsurface beneath the plant. Implementation of the plan resulted in closure of the site from the State.

***Petroleum Storage Tanks – Texas. Project Geologist and Project Manager:*** Dick provided field investigation and project management for over 70 petroleum storage tank locations for Fina Oil and Chemical Company. Dick was responsible for technical as well as financial issues regarding these projects. Dick received the Outstanding Project Manager award from Fina for his efforts.



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**RICHARD S. RECORD, P.G.**  
**Dallas Operations Manager**

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**EDUCATION:** Masters of Science, Geology (emphasis on groundwater); Texas Tech University; 1988

Bachelors of Science, Geology; Texas A&M University; 1985

Analysis and Design of Aquifer Tests; National Water Well Association; 1990.

Other – Groundwater and Contaminant Transport Modeling and Aquifer Characterization, Masters Civil Engineering Coursework, Texas Tech University, 1987 to 1988.

**WORK HISTORY:** Dallas Operations Manager; Cirrus Associates, Dallas, March 1998 to Present

Branch Manager; CURA, Inc., Dallas, July 1997 to March 1998

Senior Client/Project Manager/Hydrogeologist; CURA, Inc., Dallas, Texas; November 1988 to July 1997.

**AFFILIATIONS:** Dallas Bar Association, Environmental Law Section, Associate Member and Executive Board Member (2005)

Industry Council for the Environment (ICE); former Board Vice-Chairman and current Regulatory Committee Chairman; Current TRRP Liaison

Member of TCEQ's Texas Risk Reduction Program Steering Committee for developing TRRP Guidance.

**PRESENTATIONS:** *Regulatory Tools: Voluntary Cleanup Program, Innocent Owner/Operator Program and Brownfields Programs*, 25<sup>th</sup> Annual Advanced State Bar Real Estate Law Course, July 2003.



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*Update on the Status of TRRP Guidance Implementation, State Bar of Texas Environmental Superconference, August 2003.*

*Update on the Texas Risk Reduction Program (TRRP), North Texas Real Estate Management Council, April 2003.*

2003 Spill Response Memoranda Presentation, Texas Association of Business, October 2003

Presentation to the Canada West Ski Areas Association covering effective environmental programs.