

CURRICULUM VITAE

Dale Teague Littlejohn, P.G.

PERSONAL

Name:Dale Teague Littlejohn, P.G.Birthdate:July 29, 1957Birthplace:Ft Worth, TexasCitizenship:United StatesLanguage:English

SPECIALIZATION

Geology, hydrogeology, soil and groundwater assessment with respect to regulatory compliance and client liability minimization relative to the protection of human health and the environment; includes elements of surface and subsurface data acquisition, quality assurance, statistical analysis, fate & transport modeling, risk assessment, and litigation support.

EDUCATION

Stephen F Austin State University, 1979 Bachelor of Science, Geology

PROFESSIONAL CERTIFICATIONS AND REGISTRATIONS

State of Texas Board of Professional Geoscientist, No. 555 (April 21, 2003 - Present) Texas Commission on Environmental Quality, Corrective Action Project Manager: Petroleum Storage Tank Program (1994 to 2003)

EXPERIENCE

August 2014 – Present Consultant Geologist Geolex, Inc. 500 Marquette Avenue NW, Suite 1350 Albuquerque, New Mexico 87102

Performed geological and regulatory agency liaison duties associated with the drilling, completion, and workover of acid gas injection (AGI) wells in southeast New Mexico.

These duties included 24-hour oversight and evaluation of geological data (lithological logs, electric logs, drilling breaks, gas shows, etc.) and coordinating with client, drilling contractor, safety contractor, and regulatory agencies to insure that the drilling, installation of casing, cementing, formation testing (Step-Rate), installation of surface and subsurface valves and sensors, and final mechanical integrity testing were performed according to permit requirements. Communication with regulatory agencies included: (1) providing specific notices of activities requiring regulatory witness, (2) represent the client and drilling contractor before regulatory personnel during on-site inspections (3) secure regulatory pre-approvals for any changes to original drilling or completion plans or variance for permit alterations, (4) submittal of regulatory reports and forms required by the various agencies that describe the details of all completed and ongoing well site activities, and (5) preparation of final report that includes all aspects of the AGI well installation from initial permit application to final injection approval.

February 2012 – Present Consultant Geologist R. T. Hicks Consultants, LTD. 901 Rio Grande Blvd. NW, Suite F-142 Albuquerque, New Mexico 87104

Performed site-specific geological and environmental evaluations associated with the permitting of oil well drilling reserve pits and other treated fluid pits in compliance with the New Mexico "Pit Rule" (19.15.17 NMAC). These duties included: (1) an assessment of rule applicability relative to depth of groundwater, location of natural surface drainage and karst features, and the location of man-made features, (2) preparation, submittal, and defense of the pit application (NMOCD Form C-144), (3) oversight of excavation and pit liner installation contractors to insure compliance with the approved permit, (4) periodic inspection of the pit liner during drilling operations to document and correct potential release issues, (5) provide landowner and regulatory notices relative to pit closure, (6) oversight and documentation of pit closure and re-seeding activities, and (7) prepare and submit final pit closure forms to the regulatory agency.

May 1994 – Present

Trident Environmental: Geologist/Projection Manager, Partner (April 2001 – Present) TRW Environmental Services: Env. Project Manager (January 1999 – March 2001) BDM International: Environmental Project Manager (January 1997 – December 1998) Geoscience Consultants Ltd: Env. Project Manager (May 1994 – December 1996) Midland, Texas

Mr. Littlejohn was initially hired by Geoscience Consultants Ltd (based in Albuquerque) to open the Midland, Texas office in order to better service existing environmental clients in the Permian Basin. Ultimately, BDM International acquired Geoscience Consultants and BDM was acquired by TRW. In 2001 TRW discontinued its environmental services division and the remaining three Midland employees formed Trident Environmental.

As a team leader from 1994 to 2001 duties included, in addition to project management, oversight and evaluation of the Midland employees and employees located in the Redlands, California and Bartlesville, Oklahoma satellite offices.

As a geologist and environmental project manager from 1994 to the present, duties included all phases of environmental assessments involving spills of fuel hydrocarbons, crude oil, hydrocarbon condensate, oil field brine water, elemental mercury, biological waste products, NORM radiation-impacted tank bottom sludge, and RCRA metal residue from manufacturing operations. Of specific note are the following projects that were managed, or continue to be managed, to full compliance with the regulatory authorities and satisfaction of the client:

- Currently managing the post-closure care and monitoring of a closed landfill and a closed wastewater management facility located within a decommissioned refinery in central Texas. The project required the preparation, submittal, and defense of a Part A/Part B RCRA Hazardous and Industrial Waste Permit renewal application in compliance with 40 CFR 270 as promulgated by 30 TAC 305.65 and 30 TAC 335.151-183. Additionally, ongoing activities include the compliance point groundwater monitoring and the management of a large analytical database according to the statistical methods required under the current EPA unified guidance document. Detailed activity reports for each site are prepared and submitted on an annual basis.
- 2. Performed an environmental assessment and secured regulatory closure of a soil and groundwater impact site at a fuel terminal in central Texas utilizing the Texas Commission on Environmental Quality (TCEQ), Texas Risk Reduction Program (TRRP) under 30 TAC 350. The project required the preparation and submittal of an Affected Property Assessment Report (APAR), a Response Action Completion Report (RACR), and a Response Action Plan (RAP). Ultimately, regulatory closure was secured through groundwater monitoring and the application of institutional controls with no engineered remediation.
- 3. Managed and oversaw the complete decommissioning and termination of a discharge waste permit for a "treated effluent to land-application" facility at a cheese processing plant in southeast New Mexico. All of the work was performed under the guidance of the New Mexico Environmental Department (NMED). The project included the removal of waste sludge and the associated treatment lagoons requiring restoration of the natural topography. Additionally, lift stations, piping, waste brine tanks, and mechanical treatment equipment were removed or closed in-place. Regulatory closure was achieved based post-closure monitoring of the underlying groundwater and a final inspection by the NMED.
- 4. Conducted approximately 40 Phase I Assessments of crude oil production facilities, pipeline facilities (including booster stations and tank farms), and oil fields. The properties range in size from 2 wells and a tank battery to a 500 well field with a major regional pipeline system. The assessment reports generated from the activities

were utilized to identify potential environmental liabilities for cost consideration prior to acquisition.

- 5. Served as Project Manager over the Phase II environmental investigations of three large pipeline acquisitions for a major gas gathering company. The work was performed to determine the extent of hydrocarbon (natural gas liquids) and mercury impacts to the soil and groundwater from the production, storage, and metering equipment along the pipeline and at approximately 65 processing facilities. Cost analyses were then performed in order to adjust the property sell price to accommodate anticipated regulatory actions. Once the gas gathering systems were acquired, Phase III environmental site and risk assessments were performed to identify facilities requiring further corrective actions. In most cases the results of the risk assessments were used to justify limited remedial actions, establishment of institutional controls, and secure regulatory closure.
- 6. Served as Project Manager over the closure of a 45-well oil field, located in an environmentally sensitive setting, near federally protected recreation and wilderness areas in Colorado. The project required the performance of Phase II and Phase III environmental assessments, the coordination and supervision of the plugging and abandonment of oil wells, the destruction and removal of a large tank battery, and the disposition of hydrocarbon contaminated soil and NORM contaminated sludge.
- 7. Continue to serve as regulatory and environmental oversight liaison for large working cattle ranch in West Texas. Activities include evaluation of surface water and groundwater resources, oversight of a third-party assessment and remediation contractor concerning a decommissioned gasoline refinery and LPG storage cavern, and negotiations with oil production companies and their representatives concerning hydrocarbon-, salt-, and chemical-impacted soil and groundwater.

November 1988 – May 1994 Petro-Global Consultants Environmental Project Manager, Partner Midland, Texas

Founder and partner of Petro-Global Consultants; served as the primary corrective action project manager for dozens of leaking petroleum storage tank (LPST) sites under the supervision and direction of the regulatory authority of the TCEQ. Duties included service station tank and piping removal oversight, installation and sampling of monitoring wells, evaluation of health risks to potential receptors, preparation of assessment reports, proposal and oversight of soil and groundwater remediation, and management of associated costs with respect to the Texas LPST reimbursement fund. Was also involved in Phase I ESAs and spill assessments associated with oil field operations under the authority of the Railroad Commission of Texas.

April 1987 – November 1988 Rose Energy Corporation Petroleum Geologist Midland, Texas

As an exploration/production geologist, identified and presented oil and gas prospects to management and partners for drilling or sale to other operators. Additionally performed functions with respect to the acquisition of land associated with prospects.

November 1980 – August 1986 Gulf Oil Corporation / Chevron USA Production Co Petroleum Geologist Midland, Texas

As a production geologist in the Midland Basin and Central Basin Platform of Permian Basin, was responsible for the oil well drilling and testing oversight, development and expansion of existing oil fields and the identification of new fields within areas held under lease by the company. Developed expertise in formation evaluation in cooperation with a team of geologist and engineers to identify projects for capitol expenditure and make specific budget recommendations to management. As an exploration geologist worked with a team of geologist, geophysicist, and land professionals to identify potential oil and gas plays in central and southern Utah.

May 1979 – November 1980 Core Laboratories, Inc. Geologist – Special Core Analysis Section Dallas, Texas

Performed laboratory testing of porosity, permeability, water flood susceptibility, and steady state oil-water flow testing on oil and gas reservoir and cap rock cores. As laboratory manager, was responsible for quality control, employee oversight, employee training, and laboratory safety.