List of Projects – Don Van Slyke

2010 - 2015, Consultant, Fluids and Waste Management Team, Chevron

- As Program Manager for Technology Development program in the Drilling Fluids and Waste Management Team, managed a portfolio of strategic research and technology development projects
- Worked on maintaining approval for synthetic paraffins in Australia, Vietnam, Brazil, Central China and South China Sea
- Provided technical service to support paraffin drilling fluid applications in China, Australia, Thailand, Indonesia, Bangladesh, Angola, Nigeria, and Brazil
- Invented and patented breakthrough bacteria system for rapid biodegradation of oil
- Developed pulsed power drilling fluid to enable 10x faster penetration rate in hard rock
- Worked on development of ultra-light fluid for underbalanced drilling

2005 - 2010, Sr. Advisor, Fluids and Waste Management Team, Chevron

- As Project Manager for Technology Development program in the Drilling Fluids and Waste Management Team, managed 9 projects with a total budget of $2.1 million/yr
- Provided technical service to solve drilling fluid and waste management problems on complex wells
- Collaborated with business partners and drilling departments to implement industry leading synthetic drilling fluids
- Worked on gaining approval for synthetic paraffins in Australia, East Canada, Vietnam, Brazil, Venezuela, and China
- Invented breakthrough bacteria system for rapid sequestration and biodegradation of oil
- Led a team that designed, built and yard tested a bioreactor for biodegrading oil on drill cuttings
- Worked with Focus Area Manager on a project to educate Industry and EPA on the CO2 measurement in the anaerobic biodegradation test. Made presentations to 11 companies.

2002 - 2005, Consulting Engineer, Central Drilling Group, Unocal

- Developed Estegreen synthetic paraffin base fluid for the GOM. Used by Unocal on most wells in the GOM from 2003 through 2005.
- Collaborated with Shell to develop Saraline 185V synthetic paraffin base oil for deepwater drilling applications. Applied in drilling of all Unocal Indonesia wells starting in 2003.
- Developed insulating gelled packer fluid in 2003. Applied to all West Seno wells, - Unocal's first deepwater development.
- Led research effort to identify improved anaerobic biodegradation method including CO2 detection in addition to CH4 detection
- Led compliance testing for Unocal wells in the GOM
- Worked on API work groups to lead industry efforts during renewal of NPDES permit
- Advice sought in successful Osprey litigation
- Made presentations at Unocal and Industry conferences
- Led technical efforts to make presentations to government regulatory agencies worldwide, including those in Vietnam, Bangladesh, Thailand, Brazil, and Azerbaijan
- Increased total number of patents granted to 70

2001 – 2002, Consulting Engineer, Drilling Ventures Team, Unocal

- As Business Development Manager, established and managed a drilling fluid base oil supply business within Unocal

1998 – 2001, Senior Engineering Advisor, Drilling and Production Technology, Exploration and Production Technology, Unocal

- Developed Ecoflow synthetic drilling fluid, applied on all of Unocal wells in the Gulf of Mexico. Ecoflow saved Unocal >$10MM/yr in the Gulf of Mexico from faster drilling rates, better hole stability, accelerated production, reduced disposal costs, lower mud bills, and helping to create farm-in opportunities.
- Played a critical role in re-introducing Saraline synthetic base fluid to Unocal Thailand in 2000. Saraline was applied on all of Unocal Thailand's wells, saving $2.4MM in base oil cost in the first 12 months.
- Led Unocal's efforts to 'green up' Ecoflow for pending EPA regulations. Made significant progress in improving product in 2001.
- Contributed base oil and drilling fluid formulation expertise to help Spirit Deepwater Team achieve their goal of 50% reduction in drilling cost
- Lobbied with EPA for regulatory approval of synthetic based drilling fluids. Traveled to Washington D.C. three times in 2000 to attend meetings and make presentations. Prepared 385 page Unocal Comment document. Instrumental in helping Industry prevent proposed zero discharge, ester-only requirement, and ultra-low cuttings oil retention limits.
- Evaluated drilling fluids for Thailand, Indonesia, Spirit Deepwater and Shelf, Alaska, Brazil, Gabon, Vietnam, and Azerbaijan
- Played a key role in the re-introduction of Saraline synthetic base fluid into Indonesia in 2000. Saraline, applied to all of Unocal Indonesia's wells, significantly improved drilling fluid health and environmental performance relative to the previous fluid (Mentor 26).
- Helped initiate discussions with Shell MDS Malaysia to form a marketing alliance for Saraline synthetic drilling fluid. Traveled to Kuala Lumpur and Vietnam in 2001 for negotiating sessions.
- Played a key role in gaining approval for Ecoflow use in Unocal drilling operations in Brazil. Ecoflow was the first synthetic drilling fluid used in Brazil.
- Developed model for predicting salt creep in deepwater wells
- Obtained advanced drilling hydraulics model and utilized the model to optimize well designs
- Made presentations on synthetic based drilling fluids at Unocal B.U. offices, Unocal worldwide drilling and technology conferences, E&PT management meetings, and AADE Industry meeting

1994 - 1998, Engineering Advisor, Drilling Technology, Exploration and Production Technology, Unocal

- Collaborated with Shell to develop SARALINE, Industry's first low cost non-toxic synthetic drilling fluid. Unocal drilled 300 wells with Saraline in Thailand, Indonesia, and the U.S. Gulf of Mexico. Unocal improved drilling fluid health and environmental performance and saved $4.5MM in drilling costs.
- Spearheaded implementation of Saraline in Azerbaijan, saving AIOC $4MM in drilling costs
- Played a critical role in developing methods for predicting gas kick behavior in slimhole wells, leading to improved well designs and well control procedures
- Provided technical expertise and support to operations personnel
- Taught course on "Recent Advances in Drilling Technology" to Vietnamese engineers
- Taught course on oil-based mud well control to AIOC engineers
- Diagnosed and solved hole cleaning and stuck pipe problems on critical wells
- Developed, commercialized and licensed OILKICK, a well control simulator for oil-based and synthetic-based fluids
- Developed, commercialized and licensed HTVIS, a leading high temperature viscosifier for oil-based and synthetic-based drilling fluids

1991 - 1994, Senior Research Engineer, Drilling and Completions, Science & Technology Division, Unocal

- Designed, tested, and developed improved drilling and completion fluids as required in the drilling, coring and completion of critical wells
- Developed first thermally-stable oil-based drilling fluid for 400 ^{o}F bottomhole temperatures in Thailand
- Developed non-damaging completion fluid for Indonesia operations

1987 - 1991, Research Engineer, Production Chemistry, Science & Technology Division, Unocal

- Found solutions for problems encountered in oil well drilling
- Developed and tested a process for cleaning oil-based fluid from drill cuttings
- Modified a well control computer simulator for use with oil-based drilling fluids

1983 - 1987, Research Engineer, Recovery Methods, Science & Technology Division, Unocal

- Project Engineer for steam-foam EOR project in Midway-Sunset field
- Recovered ~450,000 bbls of additional oil
- Developed EOR processes using CO_2, steam, ammonia, and foam
- Designed commercial supercritical CO_2 process for recovering heavy oil from diatomite and evaluated economics

1982-1983, Research Engineer, Process Engineering, Science & Technology Division, Unocal

- Designed a 12,800 ton/day commercial process for solvent extraction of oil from shale
- Developed a material and heat balance and sized all vessels
- Estimated power requirements, production and capital costs

1982-1983, Research Engineer, Production Research, Science & Technology Division, Unocal

- Conducted high temperature, high pressure corrosion studies for Philippine geothermal wells

1981-1982, Research Engineer, Refining Research, Science & Technology Division, Unocal

- Conducted pilot plant studies to determine the effectiveness of Selectox catalysts in converting H2S to elemental sulfur

1981, Research Engineer, Process Development, Science & Technology Division, Unocal

- Conducted pilot plant studies to determine the deactivation rate of HC-F and HC-K hydrotreating catalysts for shale oil upgrading
- Developed improved needle coke preheating process