

2021 Gas Lift Virtual Workshop

June 7-11, 2021

Welcome

Is Gas Lift Taking Over?



ALRDC President – Larry Harms

Larry Harms is a production optimization specialist at Optimization Harms way LLC, established in 2016 after a 38-year career with ConocoPhillips. At ConocoPhillips he specialized in holistic production optimization and helped lead the Artificial Lift Network for 10 years. Larry has served on the ALRDC Board since 2008 and was elected president in June 2020. He has written/co-authored 12 SPE papers and has conducted training courses for hundreds of industry and ConocoPhillips engineering, operations, and maintenance personnel on artificial lift, high pressure gas lift, compression, production optimization, systems nodal analysis, integrated production modeling and gas well deliquification.





ALRDC Vision | Mission | Purpose

- Mission Significantly advance the knowledge and practice of artificial lift technology and business
- Vision Be the pre-eminent global point of contact for anyone interested in applying and/or advancing the technology and business of artificial lift
- Purpose:
 - Host workshops, seminars or forums on artificial lift topics of interest
 - Maintain information on artificial lift workshops, courses, etc.
 - Maintain and share best practices
 - Maintain and share case histories examples of successes and failures
 - Help promote, facilitate, and coordinate Artificial Lift Research and Development



Special Thanks to President Emeritus – Cleon Dunham



I founded ALRDC in 2000 when I retired from Shell. We have been active ever since, except for the time of the virus, with various Workshops, and other services to the Artificial Lift Community.

I live two miles from my youngest son and his family in Wimberley, Texas, but right now we don't get to see them as often as we'd like. My other two sons and their families live in Massachusetts and Colorado. We visit often but see them only now and then. But my daughter-in-law was recently in Belton, Texas to help my granddaughter move into her new home there and we got together to celebrate our Anniversary and my wife's Birthday, with appropriate use of masks and social distancing.

I am active in the Presbyterian Church in Austin, although these days we have all of our services via Zoom.



2021 Gas Lift Workshop Coordinator



Steven Freeman has spent the last twenty years working in Oil and Gas in the area of artificial lift. He started his O&G career with Weatherford working with gas lift, progressive cavity pumps and reciprocating rod lift. He later joined Schlumberger where he focused on gas lift for the Barnett Shale boom, offshore gas lift in the GOM, Alberta and Eastern Canada. He is currently employed at Shell where he is recognized as a subject matter expert of gas lift and provides global support to Shell's assets for gas lift and product development.

General Chair – Chandran Peringod

- Principal Gas-lift Technical Expert, Brunei Shell Petroleum
 - Leading companywide gas-lift improvement projects and capability building

Chandran Peringod is a subject matter expert for gas-lift and currently working with Brunei Shell Petroleum and actively pursuing gas-lift optimization across the company.

Chandran's prior experience of more than three decades includes serving as Senior Petroleum Engineer in ONGC, India, Kuwait oil company, Petroleum Development Oman and Shell Canada for providing Artificial lift and gas well de-liquification related technology support and direction as Artificial Lift SME. Chandran has implemented many new technologies including companywide deployment of WellTracer Technology for gas-lift diagnostics for the first time. Chandran earned his BS and MS in Chemical Engineering and a licensed professional engineer from APEGA, Alberta, Canada.



Artificial Lif

Safety Moment

What is a hazard?

A hazard is an unsafe condition or unsafe act that when activated could result in damage to equipment, property, or people.

Hazards are classified into categories:

- **Biological:** Viruses, bacterial, insects, and respiratory
- Chemical: Gases, dust, fumes, vapors, and liquids
- Ergonomic: Posture or workflow, manual handling, repetitive movements, poor equipment design of workstation
- Physical: Electrical, fire, slippery floors, objects in walkways, excessive noise
- Psycho-social: Stress, anxiety, workplace violence, bullying
- Safety: Confined space, ventilation, temperature, heights, unguarded machinery



Every action has risk



Diversity & Inclusion

► The mission of ALRDC's D& I is to make a positive difference, provide guidance, support, increase participation and promote the advancement of diversity in the Energy Industry with an emphasis on increasing awareness, outreach, support, leadership development.

► We encourage inclusion of people from diverse backgrounds and experiences, not only because it is ethical and honorable, but because it enriches the innovation and creativity necessary to find solutions to current and future challenges.

ALRDC is committed to creating an environment founded in diversity of our leaders and volunteers to meet and exceed the expectations of our members and customers.

ALRDC is committed to working toward a global society that safeguards that all people are valued for their inherent worth and treated with fairness and integrity.



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ARTIFICIAL LIFT INTELLIGENCE



Artificial Lift R&D Council

ALRDC



Thanks to JMI Manufacturing Inc.





Keynote Speakers



Tony Hord



Belle Ibanez



Dr. Paulo Waltrich

2021 Gas Lift Virtual Workshop

Panel Discussion

If I knew then what I know now!

<u>Moderator: Michael Romer,</u> ExxonMobil

Panelists:

- Tony Hord
- Wayne Mabry
- Mike Juenke
- Mike Johnson

Wednesday June 9th 11:00 – 12:00PM CDT

A young career in gas lift what is exciting and new

Moderator: Rosmer Brito ExxonMobil

Panelists:

Bell Ibanez

- Maggy Burns, ExxonMobil
- Heath Spidle, SWRI

Thursday June 10th 1:00 – 12:00PM CDT

Teaching the next generation Oil & Gas workers

Artificial Lift

R&D Council

Moderator: Angel Wileman SwRI

Panelists:

- Dr. Paulo Waltrich
- Dr. Eduardo Pereyra
- Lynn Rowlan

Friday June 11th 11:00 – 12:00PM CDT



Wednesday - June 9, 2021 Day 1 Technical Session

Session	Presentation Title - Description	Begin Time	End Time	Name	
	Visit Exhibit Halls or Lounge or Main Enterance	7:30 AM	8:00 AM	Meet and Greet	
	Case Histories - Field Experiences - Best Practices Part 1	8:00 AM	9:30 AM	Michael Romer - Session Chair	
1	Welcome - Safety Moment - Word from our President	8:00 AM	8:15 AM	A Larry Harms Steven Freeman	
101	Dual String Gas Lift Optimizations Using Electric Gas Lift	8:15 AM	9:00 AM	/ Dr. Ahmed Al Shmakhy	
1 02	Real time production optimization in conjunction with virtual flowmeter	9:00 AM	9:30 AM	¹ Bob Okhuijsen	
	Visit Exhibit Halls or Lounge or Main Enterance	9:30 AM	10:30 AM	A Break	
	Keynote address Tony W. Hord - Panel Discussion	10:30 AM	12:00 PM	Michael Romer - Session Chair	
Keynote 1	Keynote - Dynamic Gas Lift	10:30 AM	11:30 AM	/I Tony W. Hord	
Panel	Round Table - PANEL DISCUSSION	11:30 AM	12:00 PM	I Tom Nations Larry Harms Wayne Mabry	
Panel	Round Table - PANEL DISCUSSION	11:30 AM	12:00 PM	/ Mike Juenke Mike Johnson	
	Visit Exhibit Halls or Lounge or Main Enterance	12:00 PM	12:30 PM	N Visit our Sponsors	
	Case Histories - Field Experiences - Best Practices Part 2	12:30 PM	2:00 PM	Greg Stephenson - Session Chair	
103	Troubleshooting Gas Lift wells using simultaneous acoustic surveys	12:30 PM	1:00 PM	/ Gustavo Fernandez	
104	Gas Lift in Vaca Muerta- Plan, Implementation, and Lessons Learned	1:00 PM	1:30 PM	Mario Ottulich Luciana Masud	
1 05	Intermittent gas lift, the answer to significantly reducing daily gas injection	1:30 PM	2:00 PM	A Stan Logie Luis Gonzalez	
	Visit Exhibit Halls or Lounge or Main Enterance	2:00 PM	3:00 PM	N Visit our Sponsors	



Thursday - June 10, 2021 - Day 2 Technical Session

Session	Presentation Title - Description	Begin Time	End Time	Name	
	Visit Exhibit Halls or Lounge or Main Enterance	7:30 AM	8:00 AM	Meet and Greet	
	New Technology R&D Part 1	8:00 AM	9:30 AM	Rosmer Brito - Session Chair	
II 06	Diversity, Equity, and Inclusion in Artificial Lift PPT Presentation	8:00 AM	8:15 AM	Angel Wileman	
	Panel discussions and Audience Q&A	8:15 AM	9:00 AM	Kimberly A Hoyle Gustavo Fernandez	
II 08	Overcoming Inefficiencies of Annular Flow in a Hybrid Gas Lift Well	9:00 AM	9:30 AM	Eric Hale	
	Visit Exhibit Halls or Lounge or Main Enterance	9:30 AM	10:30 AM	Break	
	Keynote address Belle Ibanez - Panel Discussion	10:30 AM	12:00 PM	Rosmer Brito - Session Chair	
Keynote 2	Keynote 2 - Production Engineer Working with Gas Lift	10:30 AM	11:00 AM	Belle Ibanez	
Panel	Round Table - PANEL DISCUSSION	11:00 AM	12:00 PM	Matt Young Coll Brodie Anu Sood	
Panel	Round Table - PANEL DISCUSSION	11:00 AM	12:00 PM	Haseeb Janjua Wheeler Allen	
	Visit Exhibit Halls or Lounge or Main Enterance	12:00 PM	12:30 PM	Visit our Sponsors	
	Technology R&D Part 2	12:30 PM	2:00 PM	Matt Young - Session Chair	
II 09	Remotely Operated Gas Lift Valves In Permian Basin Non-Conventional We	12:30 PM	1:00 PM	Johannes Visser Tomislav Basic	
II 10	Gas Lift Valve Open and Closing Behavior Observations Seen While Conduct	1:00 PM	1:30 PM	Russell Brukey Angel Wileman	
11	Taking Charge of Flowing Tubing and Injection Pressures to Optimize Gas Li	1:30 PM	2:00 PM	Larry Harms	
	Visit Exhibit Halls or Lounge or Main Enterance	2:00 PM	3:00 PM	Visit our Sponsors	
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June 7-11, 2021



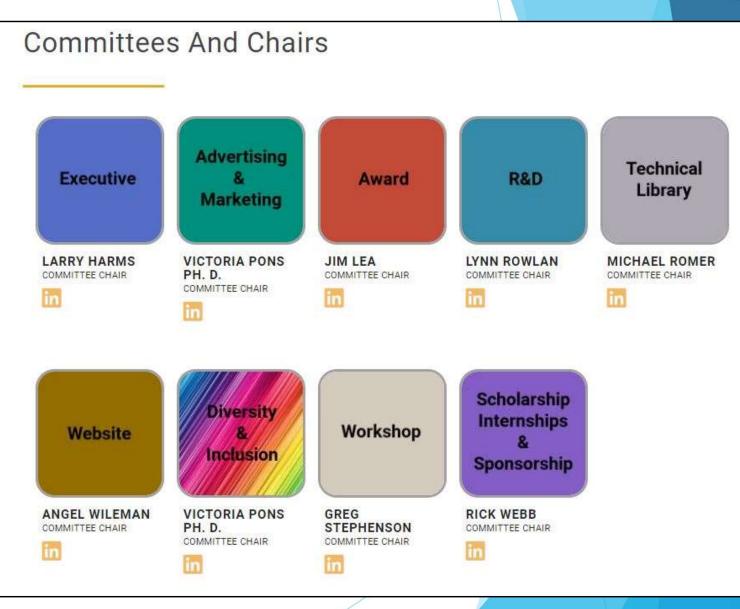
Friday - June 11, 2021 - Day 3 Technical Session

Presentation Title - Description	Begin Time	End Time	Name
Visit Exhibit Halls or Lounge or Main Enterance	7:30 AM	8:00 AM	Meet and Greet
Design - Optimization - Automation - Challenges Part 1	8:00 AM	9:30 AM	Angel Wileman - Session Chair
Electric Gas Lift Using Existing Side Pocket Mandrels – Is It Possible?	8:00 AM	8:30 AM	Brett Bouldin
High Pressure/Single Point Gas Lift Applications (Including Hybrid with "Conven	8:30 AM	9:00 AM	Tom Nations
Logic Based Injection Leads to Quicker, Deeper, Smarter Single Point Inj	9:00 AM	9:30 AM	Adam Anderson Sam Wildman
Visit Exhibit Halls or Lounge or Main Enterance	9:30 AM	10:30 AM	Break
Keynote address Dr. Paulo Waltrich - Pannel Discussion	10:30 AM	12:00 PM	Angel Wileman - Session Chair
Keynote 3 - Perspective from an Academic, Researcher and Entrepreneur	10:30 AM	11:00 AM	Dr. Paulo Waltrich
Round Table Discussion	11:00 AM	12:00 PM	Eduardo Pereyra Lynn Rowlan
Visit Exhibit Halls or Lounge or Main Enterance	12:00 PM	12:30 PM	Visit our Sponsors
Design - Optimization - Automation - Challenges Part 2	12:30 PM	2:00 PM	Anu Sood - Session Chair
Electric Gas Lift Valve Flow Loop Testing	12:30 PM	1:00 PM	Michael Romer
Shale Plays and Understanding Multipointing Advantages and Disadvantages	1:00 PM	1:30 PM	Dean Gordon
End of Conference - Closing Remarks - Door Prize	1:30 PM	2:00 PM	Anu. Sood
	Visit Exhibit Halls or Lounge or Main Enterance Design - Optimization - Automation - Challenges Part 1 Electric Gas Lift Using Existing Side Pocket Mandrels – Is It Possible? High Pressure/Single Point Gas Lift Applications (Including Hybrid with "Conven Logic Based Injection Leads to Quicker, Deeper, Smarter Single Point Inj Visit Exhibit Halls or Lounge or Main Enterance Keynote address Dr. Paulo Waltrich - Pannel Discussion Keynote 3 - Perspective from an Academic, Researcher and Entrepreneur Round Table Discussion Visit Exhibit Halls or Lounge or Main Enterance Design - Optimization - Automation - Challenges Part 2 Electric Gas Lift Valve Flow Loop Testing Shale Plays and Understanding Multipointing Advantages and Disadvantages	Visit Exhibit Halls or Lounge or Main Enterance7:30 AMDesign - Optimization - Automation - Challenges Part 18:00 AMElectric Gas Lift Using Existing Side Pocket Mandrels – Is It Possible?8:00 AMHigh Pressure/Single Point Gas Lift Applications (Including Hybrid with "Conven 8:30 AM8:30 AMLogic Based Injection Leads to Quicker, Deeper, Smarter Single Point Inj9:00 AMVisit Exhibit Halls or Lounge or Main Enterance9:30 AMKeynote address Dr. Paulo Waltrich - Pannel Discussion10:30 AMRound Table Discussion11:00 AMVisit Exhibit Halls or Lounge or Main Enterance12:00 PMDesign - Optimization - Automation - Challenges Part 212:30 PMElectric Gas Lift Valve Flow Loop Testing12:30 PMShale Plays and Understanding Multipointing Advantages and Disadvantages1:00 PM	Visit Exhibit Halls or Lounge or Main Enterance7:30 AM8:00 AMDesign - Optimization - Automation - Challenges Part 18:00 AM9:30 AMElectric Gas Lift Using Existing Side Pocket Mandrels – Is It Possible?8:00 AM8:30 AMHigh Pressure/Single Point Gas Lift Applications (Including Hybrid with "Conven8:30 AM9:00 AMLogic Based Injection Leads to Quicker, Deeper, Smarter Single Point Inj9:00 AM9:30 AMVisit Exhibit Halls or Lounge or Main Enterance9:30 AM10:30 AMKeynote address Dr. Paulo Waltrich - Pannel Discussion10:30 AM12:00 PMKeynote 3 - Perspective from an Academic, Researcher and Entrepreneur10:30 AM12:00 PMVisit Exhibit Halls or Lounge or Main Enterance12:00 PM12:00 PMVisit Exhibit Halls or Lounge or Main Enterance12:00 PM12:00 PMElectric Gas Lift Valve Flow Loop Testing12:30 PM2:00 PMShale Plays and Understanding Multipointing Advantages and Disadvantages1:00 PM1:30 PM



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Upcoming Workshop

2022 Artificial Lift Workshop – February 28th- March 3rd, 2022 at the Norris Center in Houston – In person

Coordinator: Lynn Rowlan, Echometer

For more information please visit www.alrdc.com

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