



Azwan Shaharun

Global Business Development Manager – Flow Assurance & Performance

Kuala Lumpur, Malaysia

Profile

Azwan has 15 years of experience in the industry, both in the field and in the flow assurance consulting domains. His expertise covering steady state and transient analysis of conceptual phase to operational life-cycle of oil and gas development. He has strong analytical skills for result interpretations and demonstrates good inter-personal skills and active engagement with both internal and external clients. Leveraging on the technical expertise, he acutely aware and in tune with the business sense of the industry.

Professional Experience

Sept 2016 – Current: Global Business Development Manager – Production & Flow Assurance Schlumberger - Software Integrated Solutions (Malaysia)

- Spearheading the concerted efforts for developing new market penetration and maintaining technology footprints for existing clients, globally.
- Orchestrating strategic engagements with internal and external clients.
- Focal point for production and flow assurance software sales and consulting services in Asia.

April 2015 – August 2016: Service Manager, Global Production Engineering Consulting (GPEC) – Middle East & Asia,

Schlumberger - Software Integrated Solutions (Malaysia)

- Responsible for day-to-day of Middle East & Asia operations for production and flow assurance consulting services and software sales with global target of USD75 million.
- Directly responsible for team performance in five pillars of operation: consulting, sales support, technical training, software support and software testing.
- Directly responsible for high utilization of team members in billable external consulting work; and internal sales support and tactical advisory.
- Focal point for production and flow assurance software sales and consulting services in Middle East Asia.

October 2013 – March 2015: Project Manager / Consulting Production Engineer, Schlumberger Information Solutions (Malaysia)

- Client: Petronas Carigali Sdn Bhd (PCSB)
Project: Integrated Transient Network Modeling (ITNM) for PMO Angsi (February 2014 – Current)
 - Team Lead and focal point for ITNM project for Angsi Field, which provides domestic producing fields, linking wells, intra-field pipelines, topsides and inter-field pipelines to onshore facilities.
 - Overseeing the desktop study for optimization of the choke settings for all producing fields in domestic region (PMO, SKO and SBO), optimization of the gas lift injection for all production fields and optimization of topside operating conditions and control tuning parameters.
 - The team is providing production optimization solutions with ambitious modeling of over 400 wellbores and 50 inter-field and intra-field pipelines. Upon job completion, this integrated operation solutions would be a legacy for the Client for continuous production tuning and optimization.
- Flow Team Lead for BMP SIS Geomarket (July 2014 – April 2015)
 - Direct supervisor for four Senior Production Engineers, one Production Engineer and two Student Trainees within BMP SIS Flow segment.
 - Reporting to Reservoir and Production Business Owner on day-to-day Flow team administration.

**February 2012 – September 2013: Principal Flow Assurance Consultant,
SPT Group – A Schlumberger Company, (Australia)**

- Client: Petronas Carigali, Malaysia
Project: Peninsular Malaysia Operations (PMO) Production Optimization Phase 2 (Operation Optimization Phase)
 - Project Manager for integrated modeling and production optimization for the entire Petronas offshore assets in West Malaysia, covering the wellbores, pipelines and topside processing facilities.
 - Acts as focal point between KL-based and Perth-based consultants and Petronas Subsurface and Operations teams.
- Client: Hoang Long JOC, Vietnam
Project: TGT Flow Assurance and Wax Analysis Study (Operational Phase)
 - Project Manager for TGT production pipelines wax study and managing laboratory analyses conducted by a third party on behalf of the Client.
- Client: Arrow Energy, Brisbane
Project: Gas Lift Evaluation as Potential Artificial Lift for Coal Seam Gas in Bowen Basin (Front End Engineering Phase)
 - Project team lead for a relatively new involvement of SPT Group in coal seam gas industry in Australia.
- Client: GHD, Brisbane
Project: QGC - Argyle and Bellevue Trunklines Transient Analysis Project (Detailed Design Phase)
 - Principal Consultant role for investigating the liquid inventory management for low flowrates in coal seam gas environment.
- Client: Woodside, Perth
Project: NWS 1TL Depressurization and Isolation (Operational Phase).
 - Reviewed depressurization and isolation defined scenario for Northwest Shelf operation.

**March 2009 – February 2012: Senior Flow Assurance Engineer,
Atkins (Australia)**

- Client: Woodside Energy Ltd, Australia
Project: Pluto LNG Project (Detailed Design and Pre-Commissioning Phases)
 - Senior Flow Assurance (Consultant) Engineer on Pluto LNG Project. Responsibilities included low-temperature studies and detailed OLGA modeling of depressurization and repressurization systems on the Pluto Riser Platform.
 - Flowline and spools corrosion study, utilising OLGA Corrosion Module.
- Client: Apache Energy Ltd, Australia
Project: Coniston Tie-back to Van Gogh FPSO Flow Assurance (Conceptual Phase)
 - Hydraulic feasibility study to determine the optimized tie-back connection point from appraised Coniston field to existing Van Gogh FPSO facilities.
 - Crude emulsion viscosity tuning in PVTsim19 and benchmarking the simulation prediction with experimental data.
 - Determination of minimum restart pressure in anticipation of heavy crude emulsion upon prolonged shut-in.
- Client: Apache Energy Ltd, Australia
Project: Existing Van Gogh Subsea System Modeling and Benchmarking (Operational Phase)
 - Benchmarked existing Van Gogh oil/water/gas production (in operation since March 2010) with the OLGA simulation predictions.
- Client: Apache Energy Ltd, Australia
Project: Balnaves Subsea System Flow Assurance (Conceptual Phase)
 - Hydraulic feasibility study to determine the optimized flexible flowline sizes and configurations connecting Balnaves crude field subsea manifold to an FPSO (1100 m flowline, 130 m water depth).

- Client: Apache Energy Ltd, Australia
Project: John Brookes Pipeline Pigging Analysis (Operational Phases)
 - Updated OLGA simulation files developed during design stage (2004) with the as-built and the latest operational parameters (2009).
 - Simulated multiple pigging scenario encompassing cases for minimising liquid and maximising gas production during the operation of swabbing and intelligent pigs.
 - Quantification of expected liquid surge and its characteristics as to assess the Varanus Island slugcatcher liquid handling capacity.

October 2007 – January 2009: Senior Process Engineer, Technip (Australia)

- Client: Chevron Australia
Project: Gorgon Upstream Joint Venture (Detailed Design Phase)
 - Performed flow assurance steady state and transient analyses for gas wellbores, subsea jumpers, infield flowlines, and export flowlines connecting Gorgon/Jansz gas fields to Barrow Island LNG processing facility (15 MTPA capacity).
 - Involved in process and equipment datasheet preparation for subsea facilities and LNG plant.
 - Determined minimum design temperature for the subsea section during well start-up.

May 2006 – September 2007: Senior Flow Assurance Engineer, MSI Asia Pacific (Malaysia)

- Client: Brunei Shell Petroleum, Brunei
Project: Seria North Flank Cluster A Block C/D (Front End Engineering Phase)
 - Performed steady state hydraulic analysis for 8-5/8" water injection pipeline SETG-28 onshore facility to SNWJ-01 offshore platform.
 - Performed pipeline wall thickness and end expansion analysis for multiphase, gas lift, water injection, and chemical injection pipelines using MSI in-house computer program.
- Client: Brunei Methanol Corp., Brunei
Project: Methanol Marine Delivering Facility (Conceptual Phase)
 - Performed steady state hydraulic analysis using both PIPESIM and OLGA using multiple pipeline and marines hose configurations for transporting liquid methanol from shore facility to the tanker.
- Client: Talisman Malaysia Ltd., Malaysia
Project: Northern Field (Detailed Design Phase)
 - Performed steady state hydraulic analysis and line sizing calculations.
 - Performed the transient analysis using OLGA to identify the slug catcher handling capacity and minimum flowrate thresholds for full well stream, infield gas, and export crude pipelines.

October 2002 – April 2006: Flow Assurance Engineer, INTEC Engineering (Malaysia)

- Client: PETRODAR Operating Company (PDO), Sudan
Project: Bashayer-2 Marine Terminal Facilities (Detailed Design Phase)
 - Involved in PFD preparation for the detailed design phase.
 - Prepared process equipment list.
 - Prepared process and instrument data sheets, and carried out associated sizing calculations.
- Client: Murphy Oil Sabah, Malaysia
Project: Kikeh Deepwater Development (Detailed Design Phase)
 - Performed water-hammer surge analysis for deepwater water injection system which comprises of water injection pump at FPSO to Dry Tree Unit (DTU) via Gravity-Assisted Pipe (GAP); and to sub-sea injection wells via flexible pipes.
 - Identified the surge pressure profile based on sensitivities on flow rates and downstream valve closure time.

- Client: Kochi Refineries Ltd, India
Project: SPM System and Crude Receiving Facilities (Detailed Design Phase)
 - Determined the required pumping duration to export crude from a 300,000 DWT VLCC via an approximately 19.2 km offshore pipeline and about 200 m onshore pipeline.
 - Performed the sensitivity studies to investigate the effect on pumping duration for various rail-pressures, pressure drops across PLEM and SPM, pumping temperatures, STF feeding positions and STF heights.
- Client: Talisman Malaysia Ltd., Malaysia
Project: Northern Field Development (Detailed Design Phase)
 - Performed steady state hydraulic analysis for two gas and crude export pipelines (50-km) and five gas, crude, gas lift and gas injection intra-field pipelines.
 - Recommended the optimized line size and insulation thickness of each pipeline by considering the pressure drop, arrival temperature, flow regime, fluid velocity, and slugging patterns.
- Client: Carigali-Triton Operating Company, Malaysia-Vietnam JV
Project: Cakerawala Field (Operational Phase)
 - Evaluated and analyzed the maximum allowable span length along three inter-connected offshore pipelines. Proper recommendation was given to the identified locations for spanning correction work.
 - Performed cathodic protection (CP) analyses for above-mentioned pipelines to assess the CP integrity of the pipelines for their remaining design life.
- Client: Brunei Shell Petroleum, Brunei
Project: Petrokon Three Onshore Pipelines (Detailed Design Phase)
 - Prepared the design basis for a new 17km long, 4" OD ULLG crude pipeline, in which a Reinforced Thermo Plastic (RTP)-type buried onshore pipeline is proposed.
 - Prepared the mechanical design report for a new 6" OD onshore firewater system, using Glass Reinforced Epoxy (GRE)-type pipeline.
- Client: Woodside Energy Ltd., Australia
Project: Enfield FPSO (Detailed Design Phase)
 - Performed steady state simulation for gas lift and backflow scenarios from FPSO.
- Client: Oil and Natural Gas Corporation (ONGC), India
Project: PY#3 Gas Utilization (Phase I)
 - Performed feasibility study including equipment (separation and compression) sizing & costing for exporting 7 MMscfd previously flared gas to the onshore power plant.
 - Carried out relative cost optimization analysis for various pipeline and compressor size combinations.
- Client: ROC Oil, Australia
Project: Cliff Head (Phase I and II)
 - Performed steady state simulations for a 13.7 km insulated and non-insulated onshore and offshore pipelines.
 - Liaised with the client in Perth with respect to updating steady state model data from Phase I.
- Client: Petrolran Development Company (PEDCO), Iran
Project: Foroozan and Esfandiar Field (Front End Engineering Phase)
 - Performed steady state, ramp-up, and ramp-down analysis to investigate slugging phenomenon in 16" sour gas and 8" crude test pipelines.
 - Prepared analysis reports on steady state and transient simulations.
- Client: National Iranian Oil Company (NIOC), Iran
Project: South Pars Phase 9 and 10 (Front End Engineering Phase)
 - Determined the slug properties and frequency of a 100 km offshore and onshore pipeline to meet the slug catcher requirement at the receiver.
 - Performed transient analyses for ramp-up, ramp-down, line pressurization, shut-in and settle-out, packing, de-packing, and pigging scenarios.

- Client: Shell Sarawak Bhd., Malaysia
Project: E-11 Hub Development (Front End Engineering Phase)
 - Performed hydraulic transient simulation cases (ramp-up, ramp-down, restart, slugging, and hydrate prediction) for Shell Sarawak s E-11 Hub field developments consisting of a network of 5 pipelines.
 - Assisted senior engineer in preparing hydraulic reports for clients' reviews.

**October 2001 – Aug 2002: Field Engineer,
Schlumberger (Oklahoma, USA)**

- Assisted and performed oilfield logging services (open and cased holes) under supervision in Oklahoma/Texas region.
- Exposed to various physics of oil reservoir measurements using nuclear (gamma ray and neutron), acoustic, induction, and explosive tools.
- Responsible for periodic maintenance of logging tools.

PROFESSIONAL AFFILIATION

Institution	Membership	Year Joining
Society of Petroleum Engineers (SPE)	Member (3552598)	2012
Institute for Chemical Engineers (ICChemE)	Associate Member (99950312)	2010
PRINCE2 Practitioner	2000255341	2015
ITIL Foundation	9980085633277991	2016

TECHNICAL & PROFESSIONAL COURSES ATTENDED

Date	Course	Location	Organizer
Oct 2016	IT Service Management (ITIL Foundation)	Kuala Lumpur	Axelos
July 2016	PVT for Flow Assurance and Production Engineering Application	Cairo (Online)	SIS
Oct 2015	PRINCE2 Foundation and Practitioner	Kuala Lumpur	Axelos
Nov 2014	Flow Assurance Workshop	Nusa Dua, Bali	SPE
May 2014	Marginal Field Development and Optimisation	Ho Chi Minh City	SPE
Mar 2014	Accounting and Finance Principles for PM Practitioners, IIL, Singapore	Singapore (Online)	IIL
Feb 2014	Train the Trainer – Train Smart	Kuala Lumpur	SIS
Nov 2013	Project Delivery Management Process (PDMP), Kuala Lumpur	Kuala Lumpur	SIS
Oct 2013	SIS Customer Care Center (CCC) Service Delivery Certification	Kuala Lumpur	SIS
June 2013	Introduction to Drilling	Kuala Lumpur	NExT
May 2013	XaitPorter Level 2 (Basic User) Certification	Perth	SLB
Aug 2012	Unconventional Gas Fundamentals	Perth	Akolade
Aug 2012	Dynamic Modeling Using Unisim Dynamics	Brisbane	Honeywell
July 2012	OLGA RMO Internal Training	Kuala Lumpur	SPT
Apr 2012	PVTSim Simulation Course	Perth	Calsep
Mar 2012	Internal Consulting Training	Kuala Lumpur	RogenSI
Feb 2012	Multiphase Flow Fundamental Course	Kuala Lumpur	SPT
July 2010	Operating Subsea Oil and Gas Production Systems	Perth	SUT
May 2009	Overview of Subsea Systems	Perth	JEE
Fall 2008	Petroleum Fluids – Executive Continuing Education	Perth	UWA
Fall 2007	Incident and Injury Free (IIF) Commitment Workshop	Perth	Chevron

TECHNICAL COURSES DELIVERED

Date	Course	Location	Clients
June 2017	Flow Assurance with OLGA – Public Course	Astana, Kazakhstan	NCOC
May 2016	OLGA Well Dynamics – Public Course	Kuala Lumpur	Shell
April 2015	OLGA Well Dynamics – Public Course	Seoul	Hyundai Heavy Industries, Samsung Heavy Industries
Nov 2014	Flow Assurance with OLGA – Public Course	Kuala Lumpur	Shell, Exxon, VICO, PTTEP, PetroVietnam
March 2014	Advanced Flow Assurance with OLGA – Public Course	Kuala Lumpur	Shell, WorleyParsons, Wood Group
Dec 2013	Advanced Flow Assurance with OLGA – Public Course	Kuala Lumpur	Synergy, LSJOC
Nov 2013	Flow Assurance with OLGA – Private Course	Ho Chi Minh City	PetroVietnam Gas
Dec 2012	Advanced Flow Assurance with OLGA - Public Course	Kuala Lumpur	PTTEP, INPEX, WorleyParsons, Saudi Aramco

Date	Course	Location	Clients
June 2012	Flow Assurance with OLGA - Public Course	Jakarta	Pertamina
May 2012	Flow Assurance with OLGA - Public Course	Perth	Atkins
Apr 2012	Flow Assurance with OLGA - Public Course	Kuala Lumpur	Vietsov Petroleum, GL-Noble Denton, WorleyParsons

TECHNICAL PRESENTATIONS AND WORKSHOPS

Date	Event	Location	Organizer
Nov 2016	IPTC – Presenter and Co-author of ‘Dynamic Flow Simulation to Study Flow Assurance Challenges in Water Alternating Gas (WAG) Wells’ (IPTC-18583-MS)	Bangkok	SPE
March 2016	OTC Asia – Presenter and Co-author of ‘Overpressure Protection Workflow to Address Pipeline Integrity Using Multiphase Dynamic Simulation’ (OTC-26706-MS)	Kuala Lumpur	SPE
March 2016	OTC Asia – Co-author of ‘Workflow for History Matching and Predicting Mud Loss Recovery from the Formation Using a Coupled Wellbore-Reservoir Transient Simulator’ (OTC-26705-MS)	Kuala Lumpur	SPE
Jan 2015	DNV GL – OLGA Day	Kuala Lumpur	SIS
July 2014	Talisman – OLGA Day	Kuala Lumpur	SIS
May 2013	APPEA 2013 – Presenter and Co-author of ‘Integrated Modeling of Entire Production Network and Topsides Facilities for Production Optimisation of Major Oil and Gas Fields.’	Brisbane	APPEA
May 2013	CSIRO Intelligent Process Symposium (CIPS)	Melbourne	CSIRO

Education

B. Sc. In Chemical Engineering, University of Minnesota, USA, 2001

Languages

English (Proficient in writing, reading and speaking)

Malay (Proficient in writing, reading and speaking)