

# Patrick Harris

## Curriculum Vitae

Home Addr: 5 Gardenia Rd, Gardenvale VIC 3185, AU

Nationality: Australia & UK

L/I: <https://no.linkedin.com/in/patrick-harris-3b5ab53b>

DOB: 21-07-1991

M: (+61) 448 280 017

E: [harris pj346@gmail.com](mailto:harris pj346@gmail.com)

### SUMMARY

I am a multilingual Engineering Professional, with experience in Drilling and Reservoir Engineering (Australia, Middle East and Norway), looking to combine full time work with ongoing distance study. I am currently undertaking my MSc. in Petroleum Engineering at the University of Stavanger, majoring in Drilling. Exposure to HPHT, conventional and directional well planning and execution, and rig ops experience as Night Company Man. Key strengths are casing design (Landmark), directional well planning and particularly well cost management (especially WellView). I thrive in multi-disciplinary teams and work effectively in highly remote, harsh locations. Outside my professional life, I have volunteered with Autistic children in Bahrain and have spearheaded a number of academic projects.

### KEY SKILLS AND EXPERIENCE

**Well planning and delivery** – casing design, drill-string dynamic modelling, programme writing, AFE generation and cost tracking, KPI reporting, post-well lessons-learned studies, NORSOK D-10.

**Well supervision** – on-site drilling and workover supervision, daily well reporting, drilling optimisation, well control, on-site logistics coordination, WellView, Pason, Landmark.

**Reservoir optimisation** – reserves evaluation and reporting, decline curve analysis, well test analysis and interpretation, production optimisation and field development planning.

**Health, safety and environment** – contractor equipment HSE inspections and auditing, rig fit for purpose audits, HSE reporting, on-site HSE management,

**Project management** – planning, risk management, communications, steering committee facilitation, tracking and reporting all costs, control and monitoring processes, and reporting.

**Relationship building** – relationship initiation and development, liaison with Government bodies.

### CAREER SUMMARY

Drilling Engineer	Senex Energy Ltd.	Sep 2013 – Mar 2016
Jnr Reservoir Engineer	Senex Energy Ltd.	Feb 2013 – Sep 2013
Petroleum Engineer Intern	Schlumberger Middle East	Oct 2012 – Feb 2013
Wireline Engineer Intern	Schlumberger Middle East	Oct 2011 – Mar 2012

### EDUCATION AND QUALIFICATIONS

Master of Science (Petroleum)	University of Stavanger Stavanger, Norway	Expected Aug 2018
Bachelor of Engineering (Petroleum)	University of New South Wales Sydney, Australia	Dec 2012

### PROFESSIONAL DEVELOPMENT

Drilling Fluids School	Newpark Drilling Fluids (Houston, TX)	Nov 2015
Well Site Permit to Work Rev III	Permit to Work (Brisbane, AU)	Sep 2015
Fundamentals of Casing Design	PetroSkills (Houston, TX)	Aug 2015
H2S (SCBA)	Maersk HSE (Sale, AU)	Mar 2014
IWCF Well Control (Surface)	Harness Energy (Brisbane, AU)	Mar 2014
Stuck Pipe Prevention	Harness Energy (Brisbane, AU)	Nov 2013
Core Analysis in Reservoir Characterisation and Description	CoreLab (Brisbane, AU)	Aug 2013

## CAREER HISTORY

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**Aug 2016 – June 2017**  
**Stavanger, Norway**

**Research Assistant – Drilling  
Automation**

**University of Stavanger**

The MSc in Petroleum Engineering has an international profile and accommodates both Norwegian and international students. UiS is a yearly participant in the SPE DATS Drillbotics Challenge. Drillbotics is an international competition for universities to design and build a small drilling rig that uses sensors and control algorithms to autonomously drill a rock sample provided by SPE's Drilling Systems Automation Technical Section (DSATS). The team at UiS takes this one step further, by partnering with the International Research Institute of Stavanger, to further this concept to full-scale rigs for batch-drilling.

### *Key Result Accountabilities*

- Small-scale drill string design and looking at innovative methods of solids control on a miniature scale.
- BHA, torque/drag and hydraulics optimisation using WellPlan software package.
- Assist younger students by providing theoretical input to design
- Writing algorithms for mitigating and remediating downhole drilling problems and optimising drilling performance. Design and implementation of control systems

**Sep 2013 – Mar 2016**  
**Brisbane, Australia**

**Drilling Engineer**

**Senex Energy Ltd**

Senex Energy is a growth-focused Australian oil and gas explorer and producer with a 30-year operating history. Senex has a significant acreage position in two of Australia's most prolific onshore energy regions, the Cooper Basin and the Surat Basin.

Reason for leaving – redundancy due to cancellation of 2016/17 drilling programme.

### *Key Result Accountabilities*

- Prepared drilling programs in accordance with industry recognised HSSE and technical criteria and applicable drilling regulations for HPHT gas and conventional oil wells with little-to-no assistance:
  - Casing design, anti-collision, drill string design, drilling fluid design and contingency planning.
- Undertook monthly visit to field to support drilling and workover operations. Served as Night Company Man intermittently.
- Managed all engineering, operations support and project management requirements for multiple drilling campaigns (both exploration and development).
- Prepared AFE's and monitored/coordinated cost control and materials/logistics requirements for ongoing/upcoming projects in collaboration with Drilling Manager and Chief Operating Officer
- Carried out technical evaluation of third party services and drilling service contract tenders in line with the tendering strategy
- Produced post-well operational reports to ensure the optimization of operational data collation and interrogation to be used for continuous design and operational improvement

### *Key Projects and Achievements*

- Planned and delivered over 20 oil and gas wells across differing drilling campaigns. Introduced cost saving initiatives that saved 40% in drill costs year-on-year for 2015/16.
- Planned and executed, solely, two HPHT unconventional deep gas wells. The campaign was executed with both wells drilled three days ahead of schedule and with a total cost saving upwards of one million US dollars.
- Became fully conversant in all aspects of EDM Landmark, and eventually combined with skills gained from self-initiated industry courses to help update and develop the Well Integrity Management System and Drilling Operations Manual.
- Executed a complete overhaul of the company's financial and cost reporting system (from an Excel based system to a fully integrated WellView system) which resulted in drill costs being tracked at 1-3% tracked vs actual and drilling KPIs bringing about a reduction in drill costs. Replicated this success in the Completions team, who saw similar results.
- Two years spent working in the field intermittently, as Night Company Man on the Drilling Rigs and Optimisation Engineer for Workover Rigs.

**Feb 2013 – Sep 2013**  
**Brisbane, Australia**

**Jnr. Reservoir Engineer**

**Senex Energy Ltd**

Reason for leaving – rotation to Drilling and Completions department

*Key Result Accountabilities*

- Assistance in reserves estimation and modeling of company oilfields and unconventional gas fields
- Building basic reservoir simulation models
- Decline analysis/RTA and forecasting using WellTest, Harmony and PetEx Suite
- Building and maintaining reservoir engineering databases and collation of all company subsurface information. This includes a bi-annual reserves update
- Assisted in coordination and planning of well testing campaigns (SGS, PVT, EPT's etc...)
- Core and Well-Log analysis, QC and interpretation

*Key Projects and Achievements*

- Completed reserves evaluation of two oilfields within two months of joining the business. This included decline curve analysis, building and history-matching a reservoir model and collaborating with the Economics team to build an economic model to recommend go-forward plans for development.
- Spearheaded a campaign of Special Core Analysis, which resulted in a 20% increase in oil in place of an existing field after a re-work of the in-house well models and rel-perm curves.
- Undertook a marginal field development study to look at improving

**Oct 2012 – Feb 2013**  
**Al Khobar, Saudi Arabia**

**Petroleum Engineer Intern**

**Schlumberger**

Schlumberger is the world's leading provider of technology for reservoir characterization, drilling, production, and processing to the oil and gas industry. Working in more than 85 countries and employing approximately 113,000 people who represent over 140 nationalities, Schlumberger supplies the industry's most comprehensive range of products and services, from exploration through production and integrated pore-to-pipeline solutions for hydrocarbon recovery that optimize reservoir performance.

Reason for leaving – end of internship and commencement of full time employment with Senex Energy.

*Key Result Accountabilities*

- Placed in four different business units. Geology, Petrophysics, Reservoir and Well Placement.
- Assistance with basic day-to-day duties and more complex duties including data interpretation and report writing.
- On-site real-time interpretation of fracture stimulation, well testing and MLWD jobs.

*Key Projects and Achievements*

- Geology: Worked with geologists using GeoFrame to interpret FMI and Conventional Logs.
- Petrophysics: Interpreted a number of well logs to produce the final interpretation reports for client.
- Reservoir: Undertook basic reservoir simulation of Manifa Saudi Oilfield. Gained brief exposure to Eclipse software. Also assisted in MDT interpretation and real-time monitoring.
- Well Placement: incorporated LWD/MWD data with an understanding of geological well tops and field tools to more effectively re-position wells to improve drilling targets. On the three wells he repositioned, the prognosis showed a 10% improvement in target achievement on a well by well basis compared to the proposed targets.

**Oct 2011 – March 2012**  
**Manama, Bahrain**

**Wireline Engineer Intern**

**Schlumberger**

Reason for leaving – commencement of final year university studies.

*Key Result Accountabilities*

- Assisted with logging duties, pre-job engineering preparation and QHSE briefs.
- Obtained experience at the wellsite in desert conditions working on shallow wells

- Attended numerous full logging jobs. Had brief exposure to cementing, MWD, direction drilling and also attended fishing job (Stuck tools). Also received a small Schlumberger QHSE Award.

*Key Projects and Achievements*

- Developed a new system of well log archiving for the Bahrain site base. This included extraction and compilation of very old logs in analogue format and converting them to digital. The system allowed data engineers to better access offset well logs and improved delivery times to the client.
- Gained an excellent understanding of in-field well evaluation techniques, the catalogue of tools and current technologies, plus drilling and workover operations.

**AWARDS**

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HSE award for in-field HAZOB recognition and job-stops	Schlumberger Middle East	Dec 2012
First in class for Final Year Thesis	University of New South Wales	Sep 2012

**MEMBERSHIPS**

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SPE UNSW Chapter Sydney, Australia	Vice President	Feb 2011 – Nov 2012
Society of Petroleum Engineers	Full Member	2009 to Present
Pet. Exploration Society Australia	Full Member	2010 to Present

**LANGUAGES**

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English	Written and Spoken	Native
Norwegian	Written and Spoken	Highly Proficient
Swedish	Written and Spoken	Highly Proficient
Arabic (Gulf)	Written and Spoken	Basic/Intermediate

**REFEREES**

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*Referees can be provided upon request*