

E-DRILL



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COMPANY

E-DRILL is a French incorporated limited liability company offering technical support to oil industry.

E-DRILL is owned by Former ELF then TOTALFINAELF Drilling and completion specialist and manager.

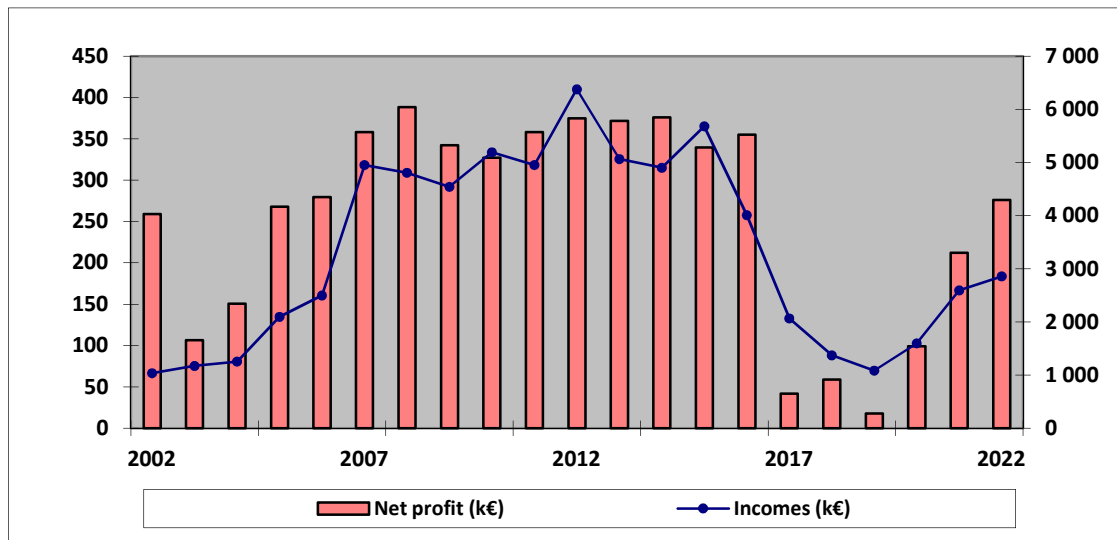
All are highly qualified and experienced in the Drilling/Completion field of operations and related management.

E-DRILL has a substantial capital base ensuring long-term services.

E-DRILL is operational from 01st October 01.



INCOMES AND PROFITS



SERVICES

E-DRILL will supply technical knowledge (see E-DRILL NETWORK dedicated paragraph), expertise, studies and audits to oil and gas operators or concerned service companies worldwide mainly in the following areas:

- **Drilling and Completion:**
 - Drilling and Completion expertise,
 - Drilling and Completion supervision and assistance both onshore and offshore, on site or at the operational base
 - Drilling and Completion Studies and Programme,
 - Drilling Rig audits and inspections,
 - Drilling and Completion project management. i.e. engineering, preparation of a budget, preparation of call for tender, selection of contractor, purchase and follow up of equipment. Implementation of the operation.
 - Detailed planning of operation with equipment lists.
 - Reporting: end of well report, experience transfer ...
- **3 G**
 - Geological and geophysical support,
 - Seismic supervision,
 - (3D) seismic processing supervision and interpretation,
 - Well proposals ...
- **Safety and environment**
 - Safety Audits,
 - Safety Management System development and improvement,
 - Process procedures development and improvement,
 - Safety cases,
 - Joint Drilling manuals,



- Blow out contingency plans,
 - Emergency contingency plans,
 - Oil spill contingency plans,
 - EIA's.
- **Security**
 - Security procedures and Audits.

INTEGRATED MANAGEMENT SERVICES

With global experience of E-DRILL experts, our company is able to manage client complex projects on an outsourced basis.

Possible project management covers: rig selection, service companies' selection, well construction including lead items and tangibles supply, exploration well and field development.

TECHNICAL EXPERIENCE

E-DRILL is able to supply expertise in various domains such as:

- High Temperature and High Pressure (HP/HT) wells. E.G.
 - Drilling in formation with very narrow margin between frac. Pressure and ECD. Running of very heavy production casing strings (600t) and high pressure testing.
 - Completion of HP/HT wells using Cesium Formate brine 2,20SG.
- Deep sea Drilling.
- Horizontal Drilling and Completion,
- Multi lateral drilling.
- Well completion, completion design, on site supervision of equipment fabrication including Factory Acceptance Tests.
- Well plugging and abandonment:
 - Land, sub sea and platform wells. Injector or gas/oil producer wells.
 - Barrier philosophy for permanent abandonment (wells have to be plugged for ever – accountability to environment) and for temporary abandonment to ensure easy well recovery.
- Work over operations, fishing and risk assessment during such operation.
- Light interventions with coiled tubing for tubing cleaning, well stimulation, zones isolation with packer or/and cement, fishing of Wire line equipment.
- Mud and Cement
- Geological and geophysical support
- HSE management system implementation

OWNER EXECUTIVE BACKGROUND

Christian MARIOTTI

Christian worked for 20 years for ELF AQUITAINE then TOTALFINAELF group in oil and gas operations worldwide as Drilling and Completion manager in ITALY and FRANCE, then as Health Safety and Environment Manager in ANGOLA where he was also in charge of ELF ANGOLA security. Christian has been involved in a lot of horizontal and multilateral projects. Christian speaks French, fluent English and Italian, and understands Spanish and Portuguese languages.

Christian is the manager of **E-DRILL** Company.



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He will implement the E-DRILL network coordination and the E-DRILL database knowledge update. Consequently, Christian will be available only for short on site visits, inspections or audits but will be on duty 24h a day and 7 days a week.

PARTNERS AND KEY PERSONNEL

All E-DRILL partners have between 30 and up to over 35 years experience in their speciality.

Main E-DRILL drilling advisors are:

- Jean Louis CHECA, experienced in relief well operations, harsh environment and desert drilling operations management, HP-HT well design and HP-HT drilling operations, deep water operations,
- Angelo DAMBROSIO, Senior Well Operation Engineer for Drilling, Completion and Work Over/DST activity, expert in sour and harsh well environments, ERD wells and integrated Casing/Tubing design for complex wells,
- Philippe PERRIN, expert in deep water operations and sub-sea completion design,
- Ludovic CAILLET, expert in well testing, Coiled tubing and stimulation engineering and operations,
- Christian ZURDO, expert in drilling fluids design and cutting management.

They are competent to handle all problems that are encountered during drilling, completion or work over operations.

They are willing to share this experience with our future clients through our service.

CV's are available for all E-DRILL personnel.

COMPANY SUPPORT AND NETWORK

Christian ensures the E-DRILL network coordination and the E-DRILL knowledge database updated.

Clients will have instant access to:

- E-DRILL network database containing more than one hundred years of accumulated knowledge and experience. Operational question and problems are entered into the network. These problems are simultaneously transmitted to all company personnel for feedback and input. In this fashion the goal of obtaining the best technical solution for our clients can be achieved and the database knowledge expanded.
- To the E-DRILL database through the E-DRILL website (with dedicated password), where all knowledge gained by the E-DRILL network will be accessible.

CLIENT RELATIONSHIP

E-DRILL is capable of offering a new and high value added service compared to other services companies whose service is limited to supply of personnel. Access to a large experience database accumulated by the company members is of great potential value to international Operators.

Don't hesitate to contact us so that we can examine together the opportunities to establish a long term and satisfactory relationship through our specialized personal.



REFERENCES

ADDAX CAMEROON (2015-2017)

Drilling superintendence for HP HT exploration well
Drilling and completion advisor for the operations in 2017

BAKER HUGHES ALGERIA (2008-2010)

Onshore base superintendence of exploration wells
Drilling supervision of exploration wells
Drilling supervisors training

BEICIP FRANLAB (2013 – Now)

Well examiner for deep sea drilling programmes in Cyprus
Drilling advisor for deep sea well operations in Cyprus
Drilling and completion expertise for various projects

CONOCOPHILLIPS PETROLEUM ABERDEEN (2001- 2006)

Preparation and supervision of an offshore work-over on deep gas well with a Heavy Duty Snubbing Unit.

Preparation and supervision of HP/HT exploration wells. Task consists in:

- Well cost estimate, Equipment listing and purchase follow up
- Casing, tubing stress calculation, using WELLCAT software
- Write the drilling and completion programmes
- Day to day supervision of operations

Sub sea well engineering studies

DOLPHIN ENERGY (TOTAL) QUATAR (2003)

On site supervision for drilling and testing a gas development well with high H₂S content and long interval coring.

FOXTROT INTERNATIONAL IVORY COAST (2002-now)

Drilling and completion engineering of a two work over's project on gas wells with dual completion
Drilling and completion engineering of two sub sea's exploration wells
Geological and geophysical support for exploration and development well proposals
Drilling and completion engineering of two gas development wells
Day to day drilling and completion assistance for ongoing and future projects
Drilling and completion engineering of two exploration wells with JU rig
Drilling and completion engineering of two ERD and two horizontal development wells (2012-2013 campaign)
Drilling and completion engineering of one ERD and three horizontal development wells with Gravel-Pack (2015-2016 campaign)
Drilling and completion advisor for the operations



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Drilling and completion engineering task consists in:

- Rig call for tender, rig selection and negotiations
- Drilling programme engineering including casing design
- Casing call for tender
- Wellhead and X-mass tree design and call for tender with specifications and tender document preparation
- Service companies call for tender

Onshore base superintendence and offshore site supervision of the operations

GAZ DE FRANCE (2005-2012)

Rig acceptance (program and onsite supervision)

Rig audits

HP/HT team building

Blow Out Contingency planning

Drilling advisor for difficult work overs on salt storages

GSZ (GAZ DE FRANCE SUEZ) ALGERIA then NEPTUNE (2012-Now)

Preparation of an onshore drilling campaign. Tasks consist in testing programme engineering and service companies call for tenders.

Testing supervision of these wells

GSZ (GAZ DE FRANCE SUEZ) BRITAIN (2007-2017)

Preparation and supervision of HP/HT exploration wells. Task consists in:

- Well cost estimate, Equipment listing and purchase follow up
- Casing, tubing stress calculation, using WELLCAT software
- Drilling programme engineering including casing design
- Casing call for tender
- Wellhead and X-mass tree design and call for tender with specifications and tender document preparation

GAZPROM LYBIA (2008-2011)

Preparation of a deep sea exploration wells campaign. Task consists in:

- Rig call for tender, rig selection and negotiations
- Drilling programme engineering including casing design
- Casing call for tender
- Wellhead design and call for tender with specifications and tender document preparation
- Service companies call for tender

Preparation of an onshore drilling campaign. Tasks consist in:

- Drilling programme engineering including casing design
- Casing and wellhead call for tender with specifications and tender document preparation

GAZPROM ALGERIA (2009-2012)

Preparation of an onshore drilling campaign. Tasks consist in:

- Rig call for tender, rig selection and negotiations
- Drilling programme engineering including casing design



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- Testing programme engineering
- Casing, wellhead and X-mass tree call for tender with specifications and tender document preparation
- Service companies call for tender

Drilling supervision of these wells

INVESTCAN CANADA (2014-2015)

Drilling and completion advisor for an onshore horizontal well

On site drilling supervision

INVESTAQ ENERGIE FRANCE (2014-2018)

Drilling and completion engineering an onshore deep side-tracked well. Tasks consist in:

- Rig call for tender, rig selection and negotiations
- Drilling programme engineering including casing design
- Testing programme engineering
- X-mass tree call for tender with specifications and tender document preparation
- Service companies call for tender

Drilling and completion advisor for the operations

Drilling and completion engineering for an onshore well. Tasks consist in:

- Rig call for tender, rig selection and negotiations
- Drilling programme engineering including casing design
- Casing and X-mass tree call for tenders with specifications and tender document preparation
- Service companies call for tenders

JAOC OPCO AZERBAIJAN (2002-2003)

E-DRILL supplied HP/HT expertise onshore and offshore on this two exploration well project with high mud density (2.35) and overburden formations problems:

- HP/HT manual and procedures writing and implementation
- Stripping job recommendations and supervision
- HP/HT cementing techniques implementation and related jobs supervision
- Blow out contingency plan

KAVALA OIL GREECE (2002-2003)

On site supervision on a re-drill (completion equipment withdrawal, window opening, side-tracking and medium radius build up) operation followed with a long fishing job (wash over, milling)

LONGREACH OIL&GAS LTD (2013-2014)

Onshore base superintendence of exploration wells in Morocco

Drilling and mud supervision of those exploration wells

Blow Out Contingency plan for drilling operations in Morocco

MAUREL & PROM CONGO (2005-2007)

Mud and cement expertise



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PEBERCO CUBA (2005-2007)

Operations preparation of extended reach onshore wells

Drilling and completion supervision of these wells

PERENCO TUNISIA and TURKEY (2011-2013)

Operations preparation of exploration onshore wells

Onshore base superintendence of these wells

PERENCO CONGO and GABON (2011-2014)

Operations preparation of exploration onshore and offshore wells

Base superintendence of these wells

PERENCO KURDISTAN (2011-2012)

Site supervision of exploration wells

PETROGAS EP LLC INDIA (2010-2012)

Preparation of an offshore drilling campaign. Tasks consist in:

- Rig call for tender, rig selection and negotiations
- Drilling programme engineering including casing design
- Service companies call for tender

Onshore base superintendence and site supervision of these wells

PETROSA (2012-2013)

Onshore base engineering of mud and cement programme for a sub-sea development wells

Mud and cement offshore supervision by our expert

RAK PETROLEUM DUBAI (2011-2012)

Onshore base engineering of WO and infill drilling wells on depleted zone and H₂S environment

Onshore base superintendence of these wells

REPSOL CUBA (2003-2004 and 2011-2012)

Onshore base engineering of mud and cement programme for a deep sea exploration well

Mud and cement offshore supervision by our expert

REPSOL ALGERIA (2005-2013)

Onshore base superintendence of exploration wells

Drilling supervision of exploration wells

Onshore base completion superintendence of exploration wells

Testing engineering and supervision

REPSOL RUSSIA (2014-2015)

Onshore base engineering of mud and cement programme for onshore ERD wells

Mud and cement supervision by our expert

REPSOL NORWAY (2014-2015)

Onshore base engineering of mud and cement programme for offshore wells

Mud and cement supervision by our expert



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SCHLUMBERGER ALGERIA (2010-2011)

Onshore base superintendence of exploration wells

Drilling supervision of exploration wells

SAHARA WELL CONSTRUCTION SERVICES ALGERIA (2009-2012)

Onshore base superintendence of exploration wells

Drilling supervision of exploration wells

SPERRY SUN ALGERIA (2002-2003)

Onshore base supervision of a five medium radius horizontal wells project

TOTAL AUSTRAL (2004)

Blow Out Contingency plan for TOTAL AUSTRAL subsidiary

TOTAL CAMEROUN (2004 and 2008)

Blow Out Contingency plan for TOTAL CAMEROUN subsidiary

TOTAL E & P ALGERIA (2013-2014)

Onshore base superintendence of exploration wells

Drilling supervision of exploration wells

TOTAL E&P UK (2004-2005)

E-DRILL supplied HP/HT expertise onshore and offshore on ongoing projects in ELGIN field

- HP/HT manual and procedures writing and implementation
- Drilling programme engineering
- Blow out contingency plan

TOTAL PAU (2003)

Blow Out Contingency plan for TOTAL Lacq subsidiary

TOTAL SHALES GAZ EUROPE (2014-2015)

Blow Out Contingency plan for drilling operations in DENMARK

Drilling engineering for a deep shale gas well

Well integrity advisor during drilling operations

TOTAL STOCKAGE GAZ FRANCE / TOTAL INFRASTRUCTURES GAZ France (2004-2012)

Blow Out Contingency plan for TOTAL Lussagnet subsidiary

SHE Management system maintenance through long term assistance

HSE SOR for IZA15 WO and new gas pipe installation between Lussagnet and Izaute

SIMOPS procedures for WO's and P&A's