(18th June 1975)

50 YEARS AGO ……..

Hamilton Brothers Oil & Gas "Argyll" field 1st UK oil production out paced the famous "BP Forties " by few months due to tech and scheduling problems, and some luck …

"Argyll" discovered and evaluated in 1971 , was classed as a marginal field for economics and limited technology available for such short life span and lack of long term data.
Innovations in all disciplines was the key to make this project successful and viable, similar in some ways as Norway for the early production phase of the "Ekofisk" field in 1971 (4 years earlier).

It was the first floating production system with the subsea wells being the original completed exploration wells, and located away (satellites) and tied back to the production platform. A modified single point tanker mooring system was adapted to ensure offloading and transport , no storage was available.
Hence some downtime between shipments and storms was difficult to counter act and made any planning difficult.

4 Years ….. later

11th June `1975 , First production offshore from the converted drilling rig into a loating production rig (Transworld 58) and offshore loading into a tanker.
Great office party in Aberdeen !!!

17th June 1975 , (6 days transit) First shipment by tanker landed at the BP refinery on the Isle of Grain in England.

18th June 1975 , (following day) Official UK

ceremony at the refinery for the first barrels of North Sea oil . Operating Company co-owner (one of the brothers) Fred Hamilton and State Energy Minister Anthony Wedgwood Benn "opened the valve" !
Great official party and milestone achievement !

The ongoing challenges : Day to day , non stop designing , repairing , creating , all this with the highest level of safety input at the time. The entire operation was relying on the diving industry and this was a very strong commitment by all considering the associated risks, and also the technology to dive and work at these depths.
We could write a book , talking about some events like the "production platform drifting in the North Sea with all anchor chains severed , dragging chains across subsea production flowlines … and almost capsized ! and some of the tragic diving

accidents in that period. Thank you and God bless all these dedicated workers.

Professional diving at that depth of 250 ft was generally practiced in the Navy or in the Gulf of America (Mexico) with similar oilfield installations and problems, but dissimilar weather pattern of wind and waves. The extensive US tech. and the supply chain was the main reference for us at that time.The technology for exploration and production relied a lot on the diving industry. Off course as we learnt ,and all new tech. became slowly available so the ROV remote operated vehicles replaced divers, however early producing infrastructures would require divers support for the field life. A system design for divers most likely is not applicable for an ROV .

Bad news : Our subsea manifold and was replaced after 3 years developing structural stress cracks (not pressure contained) from the 9 lines dynamic production risers. We spent a lot of time /years studying the interaction and fatigue of the dynamic risers and trying to establish a life span prognostatic for components replacements ? Like an offshore MOT somehow ? The classification societies with a long seafaring history had to adapt to this oil & Gas offshore development, semi submersible, tension leg, dynamic positioning …
We worked within the rules if any ? API (American Petroleum Institute) standards and codes mainly applicable to USA land operations. The Mechanical Engineering Handbook USA was like a bible at the time.
Good souvenir of the support given by the Chief Inspector of diving :Commander Jackie Warner at the DOE / London Marylebone road , and many professional like Pat Tesson, Aquatic Contractors & Engineers / Aberdeen 1974 also "Bob" Brown of RJ Brown / Houston , Pipeline offshore pioneer . Ric Wharton Manager of COMEX / 2W … leading the diving industry.
A strong determinate drive and enthousiasm from everyone on this project , starting with the owners Fred and Ferris Hamilton of Denver Col / USA! Bob Dyk , Managing Director at St James Square London , our direct link to the UK Gov. Depart Of Energy.
In parallel the overall industry communications between the few operators was good , via SPE Society of Petroleum Engineers, SUT Subsea Underwater Technology , IP Institute of Petroleum. IADC International association of drilling Contractors .

Monthly industry meetings and at the pub at times … or Petroleum Club in Milltimber.
Various tech. Universities often participated to look at specific problems and carry testing and analysis away from a tough Aberdeen front line office and offshore support.
No one worked from home, no mobile tel … but all available 24/7 relied on Stonehaven Marine radio and our telex room was full of perforated tapes , all labelled and stored in pigeon hole boxes. The fax machine came later … and the pagers…

LIFE SPAN …… The Argyll field was shut down and abandoned in 1992 (17 years later) due a combination of declining field producing levels and difficult economics with older equipment. *Not bad for a marginal field …*
Another atempt was made to redevelop the field renamed as "Ardmore" but shut down again in 2005 ?
A partial redevelopment took place named as "Alma" field but production ended in

2020. New technology is often difficult be used on an old offshore infrastructure , this is often the case in almost large energy industry. The productivity of the field and high North Sea maintenance costs did not give much alternatives the geology , reservoir and reserves are a key parameters.

Great industry innovations 70/80's : From time to time major tech. changes were brought by inventions, experience, and global communications input between industries, not just oil & gas.
Few of these,

- First high pressure flexible/composite pipeline.
- Diving procedures in deep water and use of new gas mixture and decompression control.
- Motion compensation , would control heave of a vessel , drilling rig in very rough weather. Also applicable to new DP dynamic positioning and diving vessels.
- Directional drilling , long horizontal deviated wells.
- Safety during servicing and work over of subsea production wells.
- Communications in general + specific underwater , cameras, lights, positioning system, wet mateable electrical connectors.

Publications : Few Interesting references to read a true statement of the time.

DUBS -How The Oil Came North , John.C.Milne
Requiem for a Diver , Jackie Warner (Dept of Energy) -Fred Park (Aberdeen Press & Journals)
"The development of floating production facilities - second year of operation at Argyll field " JL Daeschler Offshore Europe 1977
"Argyll continues unique pace " JL Daeschler ,Petroleum Engineer International Oct. 1979.