

Class quiz

Hide answers

Q1:What does SOC stands for?

- Statement of Commitment

This is a wrong answer

- Statement of Commerciality

This is a correct answer

- Statement of Conflict

This is a wrong answer

- Statement of Contribution

This is a wrong answer

Q2:How many decision gates do we normally have in a field development process?

- 3

This is a wrong answer

- 5

This is a correct answer

- 4

This is a wrong answer

- 6

This is a wrong answer

Q3:How do we call the project management process that is commonly used in field development ?

- Status-gate

This is a wrong answer

- Phase-gate

This is a correct answer

- Waterfall

This is a correct answer

- Stage-gate

This is a correct answer

Q4: Which of the following activities are normally performed during a business case identification

- Scouting, pre-exploration, prospect identification , Seismic

This is a correct answer

- Prepare the PDO

This is a wrong answer

- Create a reservoir model

This is a wrong answer

- Discovery assessment, appraisal, reserve estimation

This is a correct answer

Q5: What subphases are in the project planning?

- Feasibility studies, concept planning, detailed engineering

This is a wrong answer

- Feasibility studies, concept planning, pre-engineering

This is a correct answer

- Business case identification, Feasibility studies, pre-eng

This is a wrong answer

- Feasibility studies, concept planning, tech. requirements

This is a wrong answer

Q6:Flow assurance issues are evaluated in the project planning phase

- True

This is a correct answer

- False

This is a wrong answer

Q7:The life cycle of a hydrocarbon field is comprised of

- Exploration, appraisal, planning

This is a correct answer

- Construction and execution

This is a correct answer

- Production and operations

This is a correct answer

- Abandonment and decommissioning

This is a correct answer

Q8:PDO stands for

- Plan for Design and Operations

This is a wrong answer

- Plan for Development and Optimization

This is a wrong answer

- Plan for Development and Operations

This is a correct answer

- Plan for Utbygging og Drift

This is a correct answer

Q9:In the field development process, what follows after the project planning?

- Appraisal

This is a wrong answer

- Project execution

This is a correct answer

- Identification of Business case

This is a wrong answer

- Operations

This is a wrong answer

Q10:What does FEED stand for?

- First End Engineering Design

This is a wrong answer

- Field End Engineering design

This is a wrong answer

- Front End Established Design

This is a wrong answer

- Front End Engineering Design

This is a correct answer

Q11:What of the tasks below are not performed during decommissioning?

- Remove and bury subsea pipelines

This is a wrong answer

- well plugging and abandonment

This is a wrong answer

- debottlenecking

This is a correct answer

- recovery of material and recycling of equipment

This is a wrong answer

Q12:which of the following statements is false?

- Field production mode A is always followed by mode B

This is a wrong answer

- A field could be produced using mode b and then mode a

This is a wrong answer

- production mode B is typically used for standalone projects

This is a correct answer

- In production mode A, the wellhead choke is opened gradually

This is a wrong answer

Q13: Which one of the following tasks are performed during the business case identification phase?

- Probabilistic reserve estimation

This is a correct answer

- simplified economic valuation of reserves

This is a correct answer

- appraisal

This is a correct answer

- Apply and obtain a production license

This is a correct answer

Q14: As a rule of thumb, how much is the annual offtake of an oil field in the north sea?

- 10% of the TRR

This is a correct answer

- 3% of the TRR

This is a wrong answer

- 5% of the TRR

This is a wrong answer

- 0.1% of the TRR

This is a wrong answer

Q15: When is the reservoir pressure maintenance strategy planned in an offshore development?

- from the beginning

This is a correct answer

- after some years producing the field

This is a wrong answer

Q16:BONUS: what are the names of the members of the reference group?

Q17:During the feasibility studies one or more development concepts must be identified and analyzed

- true

This is a correct answer

- false

This is a wrong answer

- Kahoot quiz for re-cap
- onshore vs offshore
- oil vs gas
- try online field simulator (dry gas)

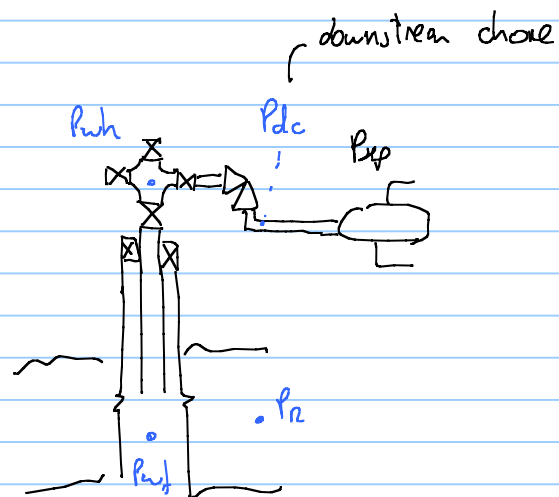
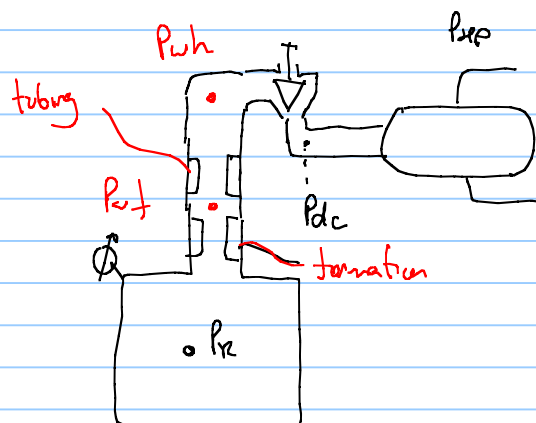
http://www.ipt.ntnu.no/~stanko/Field_Simulator.html

	7 wells	10 wells
plateau duration for		
15 EOG m^3/d	$\sim 7000 \text{ d}$	10000 d
20 EOG m^3/d	$\sim 3250 \text{ d}$	6000 d
25 EOG m^3/d	$\sim 1750 \text{ d}$	4000 d

- chane must be opened gradually to maintain plateau
 - Adding number of wells increases plateau duration
 - increasing wellhead deliverability coefficient prolongs plateau
- re-completion
 tracking
 stimulation
 tubing size
 AL/boosting



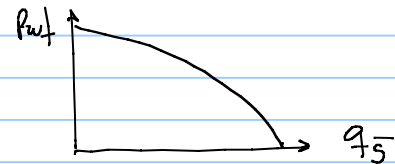
mechanical analog of a field (dry gas)



P_{wf} flowing bottom-hole pressure (BHP)
 P_{wh} wellhead pressure (WHP)

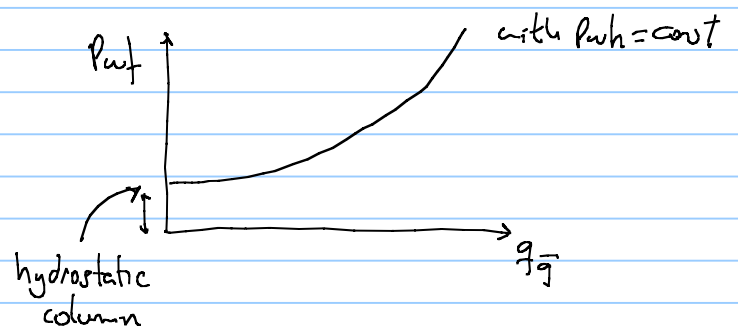
$P_R \rightarrow P_{wf}$ flow in formation (drawdown) IPR inflow performance relationship

$$q_g = f_1(P_R, P_{wf})$$



$P_{wf} \rightarrow P_{wh}$ flow in tubing \rightarrow TPR tubing performance relationship

$$q_g = f_2(P_{wf}, P_{wh})$$



$P_{wh} \rightarrow P_{dc}$ \rightarrow pressure drop in choke

choke equation

$$q_g = f_3(P_{wh}, P_{dc}, \text{Opening})$$

- inaccurate model
- highly non-linear
- difficult to converge
- "many" models

$P_{dc} \rightarrow P_{fp} \rightarrow$ pressure drop in pipe

Pipeline/flowline performance relationship (FPR, PPR)

$$q_g = f_4(P_{in}, P_{out})$$