

ADVANCED CERTIFICATE IN OIL AND GAS LAND BASED PRODUCTION OPERATIONS TRAINING PROGRAM (LBPOT)

I. OVERVIEW

The **Advanced Certificate In Oil And Gas Land Based Production Operations Training Programme (LBPOT)** was developed to provide the necessary practical and theoretical framework for individuals working on land-based production facilities or individuals who desire to be employed in land-based production facilities. The programme offers a wide range of modules such as Lease Acquisition Custody Transfer, Rod or Beam Pumping and Tank Gauging. LBPOT also engages and facilitates other useful skills including report writing. On completion of this programme participants will be equipped for the world of work and will have acquired the necessary tools to excel in the land-based production environment.

II. ENTRY REQUIREMENTS

To gain entry into this programme the candidate is required to have:

Five (5) CXC subjects, inclusive of Mathematics and Science (Chemistry, Physics or Integrated Science) and a postsecondary Technician's Diploma from an approved postsecondary education.

AND

Technical qualifications in either:

City and Guild Level III IVQ Advanced Diploma in Oil and Gas

or

(Kenson) Diploma in Oil and Gas

or

A recognised Technician's Diploma in one of the following qualifications:

- Mechanical engineering
- Electrical and Electronic engineering
- Industrial Instrumentation engineering

or

A Journeyman's Certificate awarded by MIC

or

A Degree awarded by a recognised Institution

III. AIM

To equip participants for the world of work with the necessary tools to excel in the land-based production environment.

IV. COURSE CONTENT

Some of the units to be delivered include:

- **Basic Principles of Petroleum**

This unit seeks to have students develop their knowledge in the basic fundamentals in Petroleum Science, the formation of oil, the history of oil's exploration, its extraction, and its role and importance in an Energy Sector.

- **Crude Oil Dynamics**

This unit seeks to have students develop their knowledge in: Crude Oil Extraction and Recovery emphasizing the different methods of oil recovery that exist, oil processing and separation discussing the major methods and equipment involved and oil refining, highlighting the detailed processes that occur.

- **Pipe Valves and Fittings (PVF)**

Completion of this unit proves the student is able to: a) Define a variety of valves. b) Understand and explain the design, function and operation of a variety of valves. c) Understand how proper maintenance procedures ensure that life span of the valves is lengthened. d) Outline the problems experienced with the use of gate, ball and plug valves, and the resolution to those problems. e) Discuss the advantages and disadvantages of globe, needle and butterfly valves f) Outline the purpose and operation of flapper, ball and disc type check valves g) Show operational and maintenance checks which should be carried out on a wide assortment of valves.

- **Pumps**

This unit seeks to have students develop competence in applying the classifications, operations, care and troubleshooting of a wide number of pumps.

- **Flowing Wells**

This module describes the dynamics of oil movement in wells, the systems to ensure good well performance, operating flowing wells and the well components necessary to facilitate and control well flow.

- **Lease Acquisition Custody Transfer (LACT)**

This module describes fully the Lease Automatic Custody Transfer unit used in custody transfer.

- **Oil Well Performance and Surveillance**

This section uncovers the entire process monitoring oil well performance, the factors affecting well performance, well inflow performance, testing and recordkeeping and test equipment used in well surveillance.

- **Safe Systems of Work**

Completion of this unit provides the student with understanding of the application and use of Safe System of Work and supporting tools for its implementation and maintenance. Additionally students would have a working knowledge of the risk assessment and Permit to Work Process.

V. INSTRUCTIONAL TECHNIQUES

The Advanced Certificate In Oil And Gas Land Based Production Operations Training Programme will be delivered using blended modalities. The following teaching strategies will be used to promote individual and group-based learning: case studies, collaborative learning activities, debates, group-based online discussions, group projects, individual assignments, individual projects, lectures, reading and research, presentations and weekly discussions.

V1. ASSESSMENT METHODS

All units will be assessed through a combination of demonstration of practical skills, product evidence, simulations, projects, observation, and written examinations.