

CONSULTANCY SERVICES PROFILE

ABRIDGED VERSION



Introduction

Morendat Institute of Oil & Gas (MIOG) is a Centre of Excellence established in 2014 for developing human resource capacity and to offer consultancy services in oil pipeline management, operations, and maintenance.

MIOG is a government institution owned by the Kenya Pipeline Company Ltd (KPC) whose establishment was an initiative by the Heads of State of Kenya, Uganda, Rwanda, and South Sudan to develop human resource skills and capacity to support the Northern Corridor Integrated Projects (NCIP).

Though the Kenya Pipeline Co. Ltd (KPC) was best suited to host the institute due to its over 44 years' experience and expertise in managing and operating a multi-product oil pipeline in the region, this was also envisaged in the company's vision 2025 as one of the diversification projects.



VISION

International center of excellence for oil and gas skills development.



MISSION

To build capacity for oil and gas industry by offering internationally accredited courses, research, and consultancy services.



MIOG COMMITMENTS

MIOG is committed to offering high quality training and consultancy services, creating a modern, safe and inspiring learning environment, providing state of the art training equipment, ensuring highly qualified management and teaching staff and obtaining national / international accreditation.

The Institute's commitment to offer quality service is also premised on its adherence to the rule of law, competent staff and consultants, ideal infrastructure, hard work, transparency, accountability, fairness and timely service delivery.



MIOG ACCREDITATION AND PARTNERSHIP

MIOG is registered by both the Technical and Vocational Education and Training Authority (TVETA) and the National Industrial Training Authority (NITA), licenced by the Directorate of Occupational Safety Health Services (DOSHS) as a trainer for First Aid, Fire Safety and Occupational Safety and Health to members of the Workplace Safety and Health Committees. MIOG has also partnered with the UK based National Examination Board for Occupational Safety & Health (NEBOSH) and Sol Y Sol, an affiliate of the American Welding Society (AWS) to assess pipeline welding students.

Why Consult MIOG

1. Share repository of knowledge and experience in managing oil and gas operations for over a period of 44 years.
2. To offer unique and quality consultancy services and products to the satisfaction of clients, while providing solutions to development challenges.
3. To support government agenda on local content.
4. Enhance KPC/MIOG brand
5. To continuously identify with best practices and apply them to future projects including improved business through exposure to the latest business and societal trends.
6. Develop networks and partnership.

Areas of Consultancy

- | | |
|---|--|
| 1. Health, Safety and Environment (HSE). | 7. Terminal Operations. |
| 2. Pipeline Design and Installation. | 8. Airport Hydrant System Design, Operations and Maintenance |
| 3. Terminal/Depot Facilities Design and Installation. | 9. Communication Systems. |
| 4. Oil Pipeline Operations (single and multi-products pipelines). | 10. Petroleum Products Testing through ISO 17025 Certified Laboratories located in Nairobi, Mombasa, Eldoret and Kisumu. |
| 5. Oil Jetty Operations & Maintenance. | 11. Bulk LPG Storage and Handling. |
| 6. Oil Pipeline and Depot Facilities Maintenance | 12. Refinery Operations and Maintenance. |

The following pictorials illustrates KPC experience in various engineering disciplines in the energy sector to support its outstanding strength in consultancy services.



Figure 1: KPC pipeline Storage Facilities



Figure 2: Firefighting equipment.

2 PIPELINE DESIGN AND INSTALLATION

KPC has over 44 years expertise in pipeline design and construction, having done so for 6no. pipeline covering a total of 1,792 kms across Kenya.



Figure 3: Construction of a 450KM pipeline from Mombasa to Nairobi (Line 5) commissioned in 2018

1 HEALTH, SAFETY AND ENVIRONMENT (HSE).

KPC has the state-of-the-art firefighting equipment and has been supporting and providing HSE training to various institutions in the country. Fire and safety audits which is a statutory requirement for all organisations but most importantly with the goal of giving an independent report that your company can use to reduce accident risks, losses and lower insurance premiums for staff and facilities. We also offer Environmental Impact Assessment (EIA) and Environmental Social Impact Assessment (ESIA) - for civil, electrical and mechanical works.



Figure 4: Nairobi Terminal Tank Farm

3 TERMINAL/DEPOT FACILITIES DESIGN AND INSTALLATION.

KPC has storage capacity of 1,008,651m³ spread across the country which have been constructed over time.

4 OIL PIPELINE OPERATIONS (SINGLE AND MULTIPRODUCTS PIPELINES).

KPC operates a multi-product pipeline in transporting four (4) grades of petroleum products (Jet A1, Kerosine, Motor Spirit Premium (MSP) and AGO-Diesel) across its pipeline network.



Figure 5: New Kipevu Oil Jetty, Mombasa.

5 OIL JETTY OPERATIONS & MAINTENANCE

KPC operates two oil terminal jetties namely Kipevu Oil Terminal, an offshore facility located at the Port of Mombasa and the new Kisumu Oil Jetty which commenced operations in 2022.

6 OIL PIPELINE AND DEPOT FACILITIES MAINTENANCE



Figure 6: KPC Pipeline Welding and Pumps Maintenance Service

7 TERMINAL OPERATIONS.

KPC operates truck loading facilities at Kenya Petroleum Refineries Ltd and Moi Airport in Mombasa, Konza Depot, JKIA terminal in Nairobi as well as Nakuru, Eldoret and Kisumu depots.



Figure 7: KPC Bottom Truck Loading Facility

8 AIRPORT HYDRANT SYSTEM DESIGN, OPERATIONS AND MAINTENANCE.

The airport has 120 hydrant pit valves covering all the terminals linked by a 14inch pipeline from Jomo Kenyatta International Airport (JKIA) Nairobi. There are 7No. electric and 2No. diesel hydrant pumps each with a flow capacity of 280m³/hr used to fuel the aircrafts.

9 COMMUNICATION SYSTEMS - FIBRE OPTIC CABLES.

KPC operates commercialized fibre optic cable that runs from the port of Mombasa through Nairobi to Kisumu and Eldoret in Western Kenya.



Figure 8: JKIA Aircraft Loading through Hydrant System.



Figure 9: Fiber Optic Cables

10 PETROLEUM PRODUCTS TESTING THROUGH ISO 17025 CERTIFIED LABORATORIES LOCATED IN NAIROBI, MOMBASA, ELDORET AND KISUMU.

KPC conducts laboratory testing of petroleum products to ensure conformity to international standards and best practices.



Figure 10: KPC testing labs at all stations.

11 BULK LPG STORAGE AND HANDLING

KPC operates storage and LPG truck loading at KPRL, Changanwe, Mombasa.



Figure 11: KPC Bulk LPG Storage Handling

12 REFINERY OPERATIONS AND MAINTENANCE.

Although KPRL is no longer refining petroleum products, the facility is strategically located as a trading hub for petroleum products within East African region, through evacuation via pipeline or backloading onto a marine vessel for re-export. KPRL currently is handling products & hospitality on the following services: Liquid Petroleum Gas (LPG), Motor Spirit Premium (MSP), Dual Purpose Kerosene (DPK), Automotive Gasoil, Fuel Oil services and Laboratory Services (certify/verify that oil product(s) meet stipulated standards and Fuel Loading Facilities).



Figure 11: KPC Bulk LPG Storage Handling

13. Quality Assurance – developing management systems for Laboratory, Quality Control and Health Safety and Environment.
14. Feasibility Studies / Business Case Assessment for Oil and Gas Projects.
15. Enterprise Risk Management & Business Continuity Management in Oil and Gas
16. Petroleum Product Accounting in Oil & Gas Management (gain and loss).
17. Collateral Financing Agreement (CFA) Management

Consulting Professionals & Experts

Our vibrant consultancy wing has a pool of professional experienced consultants available to deliver solutions to our clients.

Some of our consultants are:



DR. JONAH AIYABEI

Director, MIOG.

Dr. Jonah Aiyabei is a finance and investment profession with over 25 years of experience. He is also a Certified Investment and Financial Analyst (CIFA). Chairperson of the Institute of Certified Investment and Financial Analysts (ICIFA), a Council member of Mount Kenya University and a member of The KASNEB Technical Examination Committee. In consultancy, Dr. Aiyabei is technical financial & investment Consultant as well as the team lead.

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PAMELA ONDAGO (Mrs)

Deputy Director (Consultancy Services), MIOG.

Mrs Pamela Ondago is an accountant and finance consultant with over 27 years of professional experience. She is in possession of Bcom Accounting Option and MBA Finance from The University of Nairobi. CPAK and Member of the Institute of Certified Public Accountants of Kenya. In consultancy, Pamela Ondago is the technical financial consultant.

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ENG. DAVID M. MURIUKI

Consultant Mechanical Engineering.

Eng. David Muriuki boasts more than 26 years of experience as a Mechanical Engineer, specializing in oil pipelines and depots design, maintenance of locomotive processes, steam/pneumatic systems and oil and gas systems as well as projects management. A registered Professional Engineer with the Engineers Board of Kenya (EBK) and a Corporate member of Institution of Engineers of Kenya (IEK). Eng. Muriuki is the General Manager Infrastructure Development, KPC.

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DR. DISTERIUS NYANDIKA
Consultant Risk Management.

Dr Disterius Nyandika, is a risk management consultant with over 31 years of professional experience in public service and oil & gas industry. He is Certified Enterprise Risk Management Professional (CERMP), Lead Expert in EIA & Audit and Corporate Member of the Kenya Institute of Planners (MKIP) where he has previously served as a member of the Governing Council. Dr. Nyandika is the Head of Risk & Quality Assurance, KPC.

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ENG. GEORGE OUMA
Consultant Civil/Structural Engineering.

Eng. George Ouma is a registered and practicing Consulting Civil /Structural Engineer with over 30 years of professional experience in broad areas such as management, depot & pipeline operations, strategy development & implementation, project design, construction supervision and projects management.

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ENG. ANDREW KIPKORIR BIRIR
Consultant Mechanical Engineering.

Eng. Andrew Birir is a professional Mechanical Engineer with over 26 years of experience in maintenance of oil pipelines and depots. He has also played leading roles in planning, executing, and managing mega projects in the Oil and Gas Industry. He is a Professional Engineer with the Engineers Board of Kenya (EBK) and a Corporate Member of Institution of Engineers of Kenya (IEK). Eng. Birir is the project construction manager, KPC.

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ENG. FIDELIS MULI
Consultant Corrosion Control, Electrical & Electronic Engineering.

Eng Muli is a corrosion, electrical and electronic engineer with over 33 years of professional experience. He is a registered Engineer with Engineer's Registration Board of Kenya, a Member of Institute of Corrosion (ICorr), UK and a member of Project Management Institute, California, USA.

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ENG. LUCY KARIUKI
Consultant Health, Safety and Environment.

Eng. Lucy Kariuki is a professional electrical & electronic engineer with over 24 years experience. She is registered with Engineers' Registration Board of Kenya, a Lead Expert with National Environmental Management Authority (NEMA) and holder of NEBOSH International diploma in Occupation Health and Safety. Eng Kariuki is the Chief Engineer, Research and Innovation, MIOG.

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DR. NELSON LAMBAINO
Consultant Risk Management & Supply Chain Expert.

Dr. Nelson Lambaino is a professional supply chain and economist with over 28 years of experience, specialized in Risk Management in Oil & Gas Industry. He is a member of Kenya Institute of Supplies Management (KISM) and Kenya National Statistical Society (KNSS).

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ENG. BENSON MUANGE

Consultant Civil Engineering.

Eng. Benson Muange is a professional civil engineer with over 34 years of experience in Oil Pipelines and Oil Depots, Design, Supervision and Maintenance. Experience applying international standards (API, ASME, BS, Kenya KEBS). Registered Engineer with the EBK (Engineers Board of Kenya) and a corporate member of IEK (Institution of Engineers of Kenya).

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ENG. JULIUS ALOLO

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Eng. Julius Alolo is a registered Instrumentation and Control engineer with over 26 years of professional experience in project designs and implementation of various instrumentation, telecommunication, control systems and maintenance. He is registered engineer with Engineers Board of Kenya (EBK) and corporate member of Institute of Engineers of Kenya (IEK).

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MR. STANLEY MANDUKU

Technical Legal Consultant.

Stanley Kerandi Manduku is an Advocate of the High Court of Kenya, a Commissioner for Oaths, Notary Public, and a Patent Agent. He is also a Certified Secretary, a Certified Fraud Examiner and a Certified Professional Mediator. He is a legal practitioner with over 23 years post admission experience. Mr. Manduku is the Chief Legal Counsel, MIOG.

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