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THE REPUBLIC OF UGANDA

NATIONAL ENVIRONMENT MANAGEMENT AUTHORITY (NEMA)

The National Environment Act Cap. 153

The Environment Impact Assessment Regulations, S.1 No. 13 of 1998

Certificate of Approval of Environmental Impact Assessment

Certificate No. NEMA/EIA/ 12085

This is to certify that the Project Brief / Environment Impact Statement**

received from

M/s: TOTAL E&P UGANDA B.V. AND M/S TULLOW UGANDA OPERATIONS
PTY LIMITED

of PLOT 21, YUSUF LULE ROAD, AND PLOT 15, YUSUF LULE ROAD

submitted in accordance with the National Environment Act Cap. 153 to the National Environment
Management Authority (NEMA) regarding:

TILENGA ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT (ESIA)
REPORT

(Title of Project)

briefly described as TILENGA PROJECT

(Nature, Purpose)

located at BULIISA AND NWOYA DISTRICTS

(District/Sub-county/City/Town/Ward)

has been reviewed and was found to:

** have significant environmental impacts and the following appropriate mitigation measures were identified
and made a condition precedent for approval and implementation.

(The relevant conditions are attached in the subsequent pages)

Dated at KAMPALA on 15 APRIL 2019

Signed

EXECUTIVE DIRECTOR (NEMA)



ORIGINAL Developer DUPLICATE Lead Agency TRIPLICATE The Authority QUADRUPLICATE Any other relevant agency

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CONDITIONS OF APPROVAL FOR THE ENVIRONMENTAL AND SOCIAL IMPACT STATEMENT FOR THE TILENGA PROJECT

(Within the coordinate area defined in Annex 2 in the districts of Buliisa, Nwoya and Masindi)

- 1.0 This Certificate is issued to **M/s. Total E&P Uganda and M/s. Tullow Uganda Operations Pty Limited** (herein jointly referred to as Developer); for the development of six oil fields (with 34 well pads), an Industrial Area, buried pipelines, and other supporting infrastructure in Buliisa and Nwoya Districts, referred to as the Tilenga Project shown in **Figure 1 on page 3**:
- 2.0 This Certificate is issued in accordance with;
 - ✓(a) The National Environment Act, No. 5 of 2019;
 - (b) The Petroleum (Exploration, Development and Production) Act, 2013; and
 - (c) The National Environment (Environment Impact Assessment) Regulations, S.I No. 153-1.
- 3.0 The Developer shall ensure compliance with the following laws during implementation of the Tilenga Project;
 - (a) The Uganda Wildlife Act, Cap.200
 - (b) The Physical Planning Act, 2010;
 - (c) The Water Act, Cap.152;
 - (d) The Petroleum (Refining, Conversion, Transmission and Midstream storage) Act, 2013;
 - (e) The Occupational Safety and Health Act, 2006;
 - (f) Employment Act, 2006;
 - (g) Public Health Act, Cap.281; and
 - (h) The Petroleum (Waste Management) Regulations, 2019;
 - (i) The National Environment (Waste Management) Regulations S.I No. 153-2;
 - (j) Any other applicable laws and regulations.

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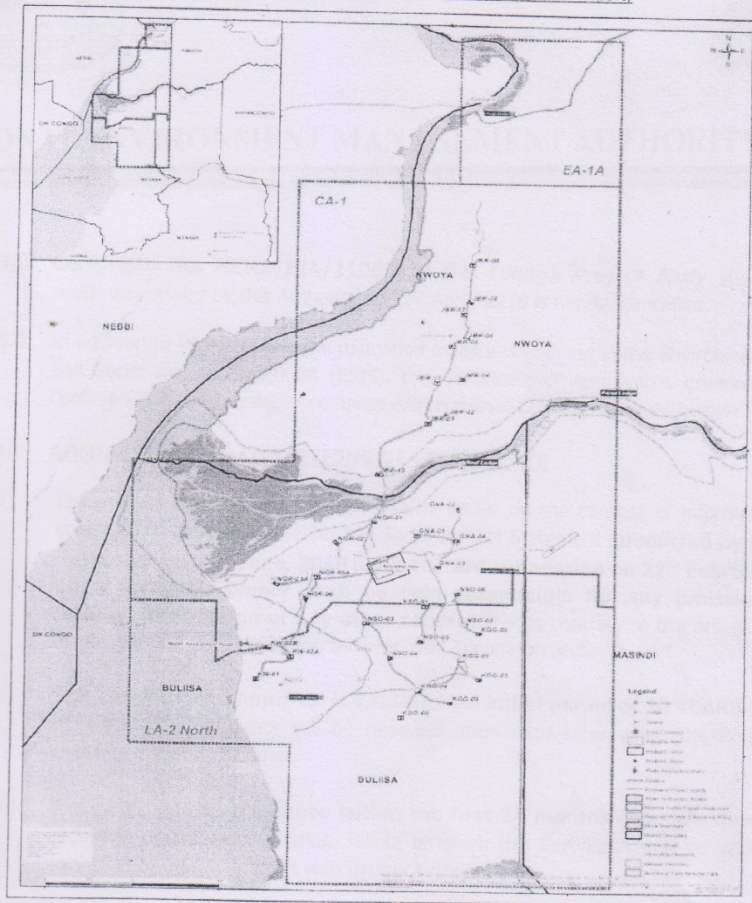
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Figure 1: The Tilenga Project Area (Source: Tilenga ESIA Report)



- 4.0 This Certificate of Approval **EXCLUDES** the following Project Components:
- (a) Roads named N3, C3, C2, the section of C1 from Tangi gate to the Pakuba lodge junction;
 - * (b) the Victoria Nile (Ferry) crossing facility;
 - (c) the proposed Masindi vehicle check point;
 - (d) the unused and future slots to be drilled on each specific well pad; and
 - * (e) Option 1 HDD Work Areas in the Ramsar Site (North and South of the Victoria Nile).

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5.0 Certificate No. NEMA/EIA/11066 for the *Tilenga Project Early Works*, which was issued by this Authority on 13th April, 2018 is hereby cancelled.

*6.0 In addition to implementing the mitigation measures outlined in the Environmental and Social Impact Statement (ESIS), this Certificate of Approval is granted on condition that the Developer complies with approval Conditions stated below

7.0 ADMINISTRATIVE CONDITIONS OF CERTIFICATE

- (i) Issuance of this Certificate of Approval is based on the content of information contained in the Environmental and Social Impact Statement **submitted by the Developer on 12th June, 2018 and a revised submission on 27th February, 2019. The Developer shall be held responsible for any omissions, falsified information or any other content** that is contrary to the provisions of the relevant laws governing the proposed Tilenga project.
- (ii) **This Certificate of Approval is VALID for an initial period of 10 YEARS** and thereafter this certificate will be reviewed upon request or when the Project area/site conditions change.
- * (iii) The project **must commence within the first 24 months** (from the date of approval), of the validity period, failure of which this Certificate shall be varied, cancelled or otherwise dealt with by this Authority.
- (iv) The **Executive Director shall be NOTIFIED** in writing, of any transfer of ownership, variation/alteration of the project design or components, or surrender of this Certificate of Approval.

8.0 SPECIFIC CONDITIONS OF APPROVAL FOR THE TILENGA PROJECT

8.1. Land Acquisition and Compensation

- (i) The proposed sites for the various Project components must be legally obtained in accordance with the Land Act, Cap 277 and other relevant laws of Uganda.

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- (ii) Prior to commencement of project activities, ensure that all Project Affected Persons (PAPs) are adequately compensated for equivalent loss occasioned by the project.

8.2. Industrial Area

- (i) Ensure that the establishment of the industrial area is restricted to the acreage defined by the coordinates 36N 330101 242958, 330687 241578, 328800 240777, and 328214 242157.
- (ii) Landscape the industrial area, in consultation with the Authority and the relevant Lead Agencies, with appropriate material and indigenous vegetation so as to minimize visual intrusion.
- (iii) Install containment bunds around the central processing facility for emergency use.
- ✳(iv) Install equipment for the control, measurement, and monitoring of noise, air quality, water quality, and vibrations.
- ✳(v) Put in place measures to detect and monitor leakages for both oil and gas spills within the industrial area.
- (vi) Gas Flaring and venting shall be limited to only **exceptional circumstances** described in The Petroleum (Exploration, Development and Production) Act, 2013.

8.3. Well pads

- (i) This Certificate applies for the 412 wells listed in **Table 1** and defined by the associated coordinates in **Annex 2**.

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Table 1: Wells and slots of each well pad

No.	Block	Field	Name	Total No. of Wells	Oil Producer	Water Injection	Observation Wells
1.	CA-1	GUNYA	GNA-01	12	6	5	1
2.	CA-1	GUNYA	GNA-02	11	5	5	1
3.	CA-1	GUNYA	GNA-03	08	3	4	1
4.	CA-1	GUNYA	GNA-04	13	6	6	1
5.	CA-1	JobiRii	JBR-01	6	2	4	0
6.	CA-1	JobiRii	JBR-02	15	8	6	1
7.	CA-1	JobiRii	JBR-03	11	4	6	1
8.	CA-1	JobiRii	JBR-04	22	10	11	1
9.	CA-1	JobiRii	JBR-05	12	5	6	1
10.	CA-1	JobiRii	JBR-06	19	8	10	1
11.	CA-1	JobiRii	JBR-07	6	3	2	1
12.	CA-1	JobiRii	JBR-08	14	6	7	1
13.	CA-1	JobiRii	JBR-09	14	6	7	1
14.	CA-1	JobiRii	JBR-10	13	6	7	0
15.	CA-1	Ngiri	NGR-01	13	7	5	1
16.	CA-1	Ngiri	NGR-02	16	7	8	1
17.	CA-1	Ngiri	NGR-03A	9	3	5	1
18.	CA-1	Ngiri	NGR-05A	14	9	4	1
19.	LA-2	Ngiri	NGR-06	11	4	6	1
20.	LA-2	Kigogole	KGG-01	18	9	8	1
21.	LA-2	Kigogole	KGG-03	13	7	5	1
22.	LA-2	Kigogole	KGG-04	13	7	5	1
23.	LA-2	Kigogole	KGG-05	15	7	7	1
24.	LA-2	Kigogole	KGG-6	6	2	3	1
25.	LA-2	Kigogole	KGG-09	4	1	2	1
26.	LA-2	Kasemene-Wairindi	KW-1A	5	2	2	1
27.	LA-2	Kasemene-Wairindi	KW-2A	13	6	6	1
28.	LA-2	Kasemene-Wairindi	KW-2B	13	6	6	1
29.	LA-2	Nsonga	NSO-01	21	11	9	1
30.	LA-2	Nsonga	NSO-02	7	3	3	1
31.	LA-2	Nsonga	NSO-03	9	4	4	1
32.	LA-2	Nsonga	NSO-04	11	5	5	1
33.	LA-2	Nsonga	NSO-05	11	5	5	1
34.	LA-2	Nsonga	NSO-06	14	7	6	1
TOTAL				412	190	190	32

- (ii) Any additional wells that the Developer may wish to establish shall be subjected to separate Environmental and Social Impact Assessments.
- (iii) Give written notice of at least 21days to the Authority and Lead Agency (Uganda Wildlife Authority or host Local Government) as applicable, before site clearance.
- (iv) Ensure that the critical containment area within the well pads is lined with impervious material.

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- (v) Put in place a secondary containment infrastructure around each well pad.
- (vi) Undertake a comprehensive Environmental Risk Assessment of the polymer to be used at the Jobi-Rii-4 well pad.
- ✱(vii) Put in place measures to prevent ingress and harm of wildlife at the well pads during construction and operation in the Murchison Falls National Park.

8.4. Water Abstraction

- ✱(i) Before commencement of Project activities, obtain Water Abstraction Permit(s) from the Directorate of Water Resources Management for the project water requirements estimated at 159,700,000m³ during the project implementation period
- ✱(ii) Develop and implement programs to raise awareness and foster co-existence of water abstraction activities with local livelihoods including fishing, domestic water supply, snail shells harvesting, and Lake water transport among others.
- ✱(iii) In liaison with the Directorate of Fisheries Resources (Ministry of Agriculture Animal Industry and Fisheries), ensure that fish breeding areas within the influence of the water abstraction facilities are not negatively impacted upon.
- ✱(iv) Monitor and report to the relevant Authorities, the qualitative and quantitative status of ground water sources in the project area.

8.5. Flow Lines

- ✱(i) Ensure that all flow lines within the Murchison Falls National Park are buried at a depth of not less than one meter.
- ✱(ii) Install flow lines below the riverbeds and floor-beds of streams, wetlands, rivers, and other water bodies being traversed by the flow lines.
- ✱(iii) Ensure that the installation of flow lines does not interfere with the natural hydrological functioning of wetlands, streams or other water bodies in the project area.

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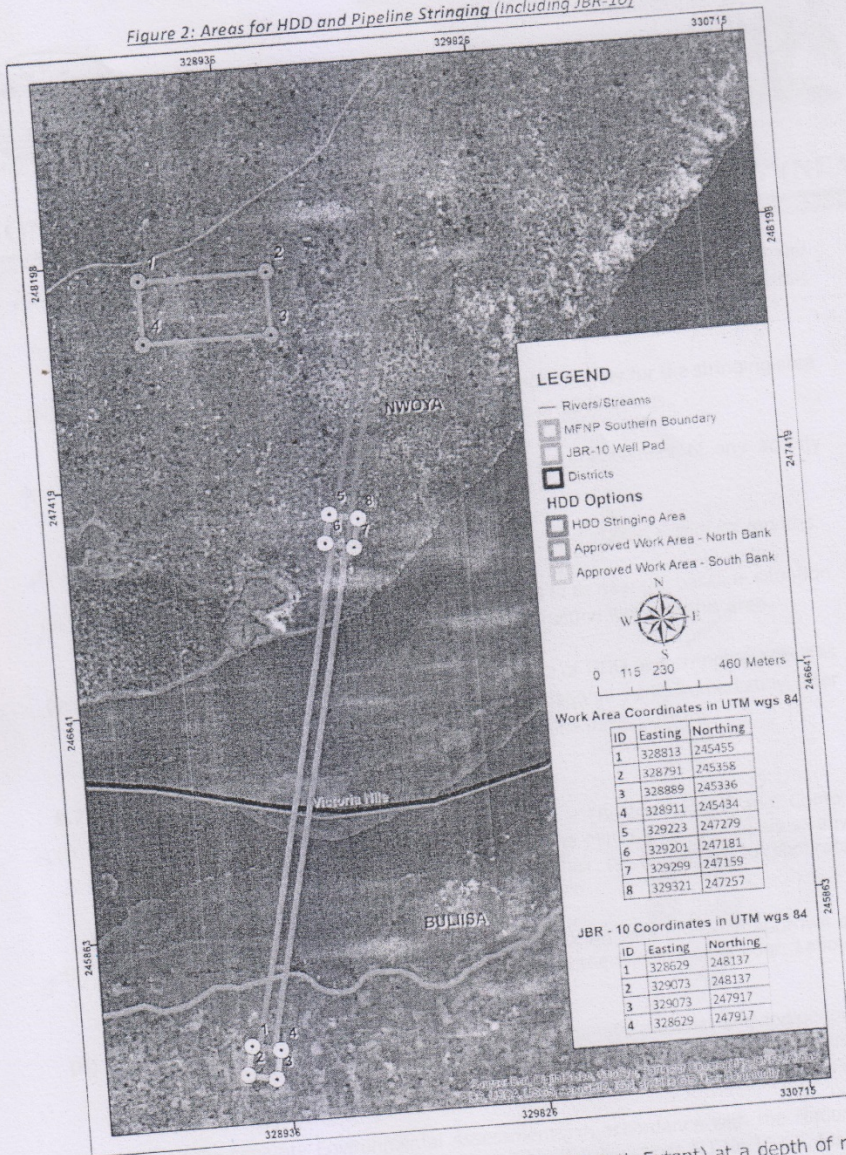
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- * (iv) Limit the vegetation clearance to 20meters within the Murchison Falls National Park **unless authorised** by the Uganda Wildlife Authority.
- * (v) There will be **no permanent right of way** within the Murchison Falls National Park *
- * (vi) Ensure that communities living within the neighbourhood of flow lines are continuously engaged and sensitized on issues pertaining to the Health, Safety, risks and other relevant information associated with pipelines.

8.6. Victoria Nile HDD Crossing

- (i) The Nile crossing activities should be strictly confined to the area shown in the **Figure 2 on page 9:**

Figure 2: Areas for HDD and Pipeline Stringing (including JBR-10)



- (ii) Install the flow line crossing the Victoria Nile (HDD Path Extent) at a depth of not less than 15metres below the riverbed.

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- *(iii) Ensure that no pollution of the Victoria Nile or surrounding environment (Ramsar Site) occurs as a result of the Horizontal Directional Drilling (HDD) activities including frack-out.
- (iv) Ensure that the maximum clearance including the right-of-way for the stringing area does not exceed the width of 50metres and length of 1500metres.
- *(v) Obtain a Wetland Resource User Permit before commencement of any activity within the Ramsar site.
- *(vi) Ensure that the Stringing and all HDD activities are undertaken within six months.
- (vii) Restore the Stringing area and the HDD work areas to as near the baseline situation as possible, immediately after completion of construction works in this area.
- (viii) Remove all debris and waste generated as a result of HDD and stringing activities from the Ramsar Site and the Murchison Falls National Park, immediately after completion of installation of the Nile Crossing pipeline infrastructure.

8.7. Camps

- *(i) This approval is restricted to the four main camps (Buliisa Camp, Tangi Camp, Bugungu Camp and Industrial Area Camp) and the Mini Camps at Rig-sites; any additional camps required by the Developer shall be subjected to separate Environmental Assessments.
- *(ii) Ensure that all Camps are established and constructed with guidance/approval of the host District Local Government Authorities and the Ministry of Gender, Labour and Social Development.
- (iii) Ensure that all camps are landscaped with appropriate material and indigenous vegetation to blend with the surrounding environment and preserve existing tree vegetation.
- *(iv) Undertake separate Environmental Assessments, in accordance with the National Environment (Environmental Impact Assessment) Regulations S.I No.153-1, for all other camps required by the Project yet not included in the Tilenga Environmental and Social Impact Statement.

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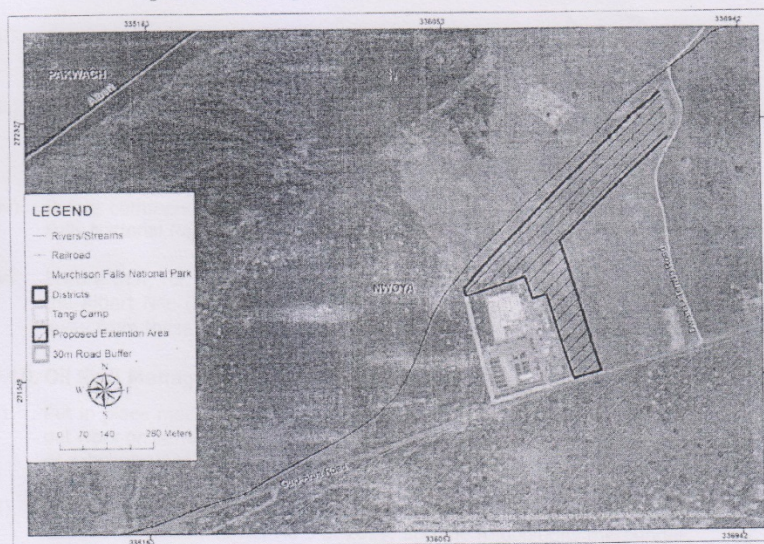
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- (v) Obtain permission from the Uganda Railways Corporation for the proposed expansion of Tangi camp.
- (vi) Ensure that the expansion of Tangi Camp is confined to the area (22 Hectares) shown in **Figure 3**;

Figure 3: The existing and approved expansion of the Tangi Camp



8.8. Roads

- (i) Ensure that all road works are undertaken in accordance with specifications set by the Ministry of Works and Transport.
- (ii) Ensure that the roads traversing wetlands, streams, swamps, rivers and other water bodies in the Project area are designed and constructed in a manner that provides for minimum interference with the natural hydrological flow and drainage of the water resources.

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- (iii) Develop and implement a road safety awareness programme to sensitize the local community, road users, school children, among others, on safety measures to adhere to, during the road construction and operational phases.

8.9. Borrow Pits

- (i) This approval is restricted to the twenty (20) Borrow pits for the extraction of murram, which are listed in **Annex 2**.
- (ii) Separate Environmental Assessments should be undertaken for any additional Borrow pits required by the Developer.
- (iii) Prepare an extraction and restoration plan for each borrow pit approved under this certificate, and submit to the Authority for approval before commencement of murram extraction.
- (iv) Before commencement of operation of borrow pits to be located within Murchison Falls National Park, obtain authorization/approval from UWA.

- * (v) Ensure that, for borrow pits neighboring the Ramsar Boundary (in Kisomere) and the Albert Nile (in MFNP), the site activities are undertaken at least 200 metres away from these sensitive locations *

8.10. Oil Spill Management and Emergency Response

- (i) Put in place measures to prevent oil spillage and ensure that any person carrying out work on behalf of the developer, either personally or as an employee, contractor or subcontractor prevents oil spills from their operations.
- * (ii) Put in place a comprehensive Oil Spill Contingency Plan in accordance with the National Environment Act No.5 of 2019; and the Regulations thereunder.
- * (iii) Establish an Emergency Preparedness and Response Plan for any other emergencies and incidents that may be occasioned during Project Implementation.
- * (iv) Provide adequate resources, customized equipment and trained personnel for the purpose of implementation of the plans outlined in 8.10(ii) and 8.10(iii) above. *
- (v) Conduct regular well-structured drills and exercises for project personnel, stakeholders and host communities, in respect of Oil Spill Management and Emergency Response.

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9.0 GENERAL CONDITIONS OF APPROVAL

9.1. Project Management Obligations

- * (i) Ensure that the Environmental and Social Management Plan (ESMP) contained in the ESIA Report (and the referenced Management Plans listed in **Annex-1**) is implemented and adhered to.
- * (ii) **Update, Review and Submit** the Environmental and Social Management Plan (ESMP) to the Authority for consideration, including the management plans listed in Annex 1 to be in place not later than 30th June, 2020.
- (iii) Ensure compliance with all the conditions of this certificate in all operations of the Developer and those of the Developer's contractors and/or assignees.
- * (iv) Undertake specific Environment Assessments for the Power Generation, Flare System, and Lake Albert water abstraction components for which there is no preferred option at the time of issuance of this Certificate.
- * (v) Establish, maintain and implement an Environment Management System (EMS) in accordance with Section 49 of the National Environment Act No.5 of 2019.
- (vi) Undertake Environmental Compliance Audits for all project components in accordance with section 126 of the National Environment Act No.5 of 2019 and the National Environment (Audit) Regulations.
- * (vii) Maintain records of the Environmental Management undertakings of the Project in accordance with Section 176 of the National Environment Act, No. 5, 2019; and make the records available to the Authority, Environmental Inspectors, and Authorized persons upon request.
- (viii) Submit Annual Reports to the Authority in accordance with Section 177 of the National Environment Act, No. 5, 2019.
- (ix) * Design and implement a biodiversity offset mechanism to address residual impacts of the project activities in accordance with Section 115 of the National Environment Act, No. 5 of 2019.

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- * (x) Introduction of **alien species and ornamentals is prohibited** in the entire project area.
- (xi) Air conditioners and cooling systems to be used in the Project area must be those permitted under the National Environment (Management of Ozone Depleting Substances and Products) Regulations S.I. No. 63/2001; and ensure that banned refrigerants and related equipment are NOT used at any time during the lifetime of the Project.
- * (xii) Put in place systems and mechanisms that minimize noise, vibrations, dust, and other nuisances arising as a result of project activities. *
- * (xiii) Put in place systems to measure, monitor and record air quality, emissions, noise and vibrations, effluents and other discharges resulting from the project activities.
- * (xiv) All proposed activities within the Victoria Nile Riverbank, Albert Nile Riverbank, Albert-Nile Delta wetland (Ramsar Site), and Lake Albert Shoreline, shall be undertaken in accordance with National Environment (Wetlands, Riverbanks and Lakeshores Management) Regulations, S.I. No. 153-5.
- (xv) Mitigate any other undesirable environmental impacts that may arise due to implementation of the project, but were not foreseen during the assessment and by the time of issuing this approval in accordance with

* 9.2. Permits, Licenses and other Authorizations

- (i) Obtain written clearance from the Uganda Wildlife Authority (UWA), prior to commencement of any developments within the Murchison Falls National Park. *
- (ii) Obtain all other necessary permits, licenses and written clearances necessary for the Project, from this Authority and relevant Lead Agencies.

9.3. Standards

- * (i) Noise and vibrations generated during construction and/or operations of the project shall not exceed the thresholds stipulated in the National Environment (Noise Standards and Control) Regulations, S.I. No. 30/2003; and as indicated in the **Table 2** of this certificate.

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Table 2: Maximum permissible noise and Vibrations limits

General Environment Noise Levels	At the boundary of the facility generating noise	
	Noise Limits dB (A) (L _{eq})	
	Day 6.00a.m - 10.00p.m	Night 10.00p.m - 6.00a.m
Residential + industry or small-scale production + commerce	60	50
Industrial	70	60
Residential buildings	50	35
Acceptable limits		
Vibrations at 10 – 50Hz frequency	12.5 mm/s	

- (ii) Apply for and obtain a temporary permit in accordance with Section 106 of the National Environment Act No.5 of 2019, for noise in excess of the prescribed standards.
- (iii) Ensure that waste water discharged from the various project facilities is in compliance with the limits prescribed in the National Environment (Standards for discharge of effluent into water or on land) Regulations, S.I. No. 153-3.
- ☒ (iv) Discharge of produced water and hydrotest water into the environment is prohibited.
- ☒ (v) Put in place measures to ensure that both surface and underground water resources are protected against contamination and/or pollution from the project activities in accordance with the Water Act, Cap.152 and the National Environment (Standards for Discharge of Effluent into Water and Land) Regulations, S.I. No. 153-3.
- (vi) Emissions resulting from project activities should not exceed the limits prescribed in **Table 3** and in accordance with the East African Standards.

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Table 3: Ambient Air Quality Standards/Tolerance Limits

Pollutant	Time weighted Average	Designated Areas		
		Industrial area	Residential, Urban, Rural & Other area	Controlled areas***
Sulphur oxides (SO _x); [µg/m ³]	Annual Average	80	60	15
	24 hours**	125	80	20
	One Hour	500	500	500
	Instant Peak (10 min)	500	500	500
Oxides of Nitrogen (NO _x); [µg/m ³]	Annual Average*	80	60	15
	24 hours**	150	80	30
	Instant Peak	940	500	
Respirable particulate matter (<10mm)-[µg/m ³]	Annual Average*	70	50	50
	24 hours**	150	100	75
Respirable particulate matter; PM _{2.5} - [µg/m ³]	Annual Average	35	35	35
	24 hours	75	75	75
Carbon monoxide (CO) (mg/m ³)	8 hours**	5	10	1
	1 hour	10	10	2
Total VOC (mg/m ³)	8 hour**	6	6	6
Ozone - [µg/m ³]	1-Hour	200	240	240
	8 hour (instant Peak)	100	100	100
Acid mist - [µg/m ³]	10 hr	100		
Ammonia - [µg/m ³]	24 hr	200		
Carbon dioxide (CO ₂)-mg/m ³	1 hour	63000	4	2
Chlorine - [µg/m ³]	24 hr	1450		
	24 hours**	150g/m ³		

LEGEND

- Values at Standard Temperature and Pressure (STP)
- * Annual Arithmetic mean of minimum 104 measurements in a year taken twice a week 24 hourly at uniform interval
- ** 24 hourly/8 hourly values should be met 98 % of the time in a year. However, 2 % of the time, it may exceed but not on two consecutive days.
- Whenever and wherever two consecutive values exceed the limit specified above for the respective category, it would be considered adequate reason to institute regular/continuous monitoring and further investigations.
- *The 24-hour limit may not be exceeded more than three times in one year;
- ** 24-hour limit may not be exceeded more than three times in one year micrograms/m³
- *** Not to be exceeded more than once per year average concentration
- Where measured components results from a combustion process, 10 % excess oxygen will be included. Excess air above 10 % will result in dilution of pollutants

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9.4. Chemicals management

- (i) Chemicals prohibited under Section 70 of the National Environment Act, No.5 of 2019 shall not be used at any time during project implementation.
- (ii) Comply with the applicable National laws and the Globally Harmonized System (GHS) for classification and labelling of chemicals, in the transportation, storage, handling and disposal of chemicals.
- (iii) Maintain an up-to date list of chemicals used, their Material Safety Data Sheets and Risk Assessment Report; and avail this information to the Authority upon request.

9.5. Waste management

- (i) Ensure that all Petroleum waste generated during project implementation is managed in accordance with The Petroleum (Waste Management) Regulations, S.I. No.3 of 2019.
- (ii) Manage any other waste (hazardous and non-hazardous) generated during project implementation in accordance with The National Environment (Waste Management) Regulations, S.I. No. 153-2.
- (iii) Remove all hazardous waste generated in the Murchison Falls National Park during project implementation within 24 hours, unless otherwise authorized by Uganda wildlife Authority.

9.6. Design and construction

- (i) Put in place adequate soil stabilization and erosion control measures where appropriate during project implementation.
- (ii) Design and establish drainage systems that minimize pollution of the receiving environment at all project sites.
- (iii) Design, construct and operate project installations and facilities in a manner that prevents harm to the workers, community and wildlife; while maximizing the efficient use of resources.
- (iv) Adhere to the building codes relevant to the category of buildings to be established under the project, in accordance with the Building Control Act, 2013 or Best Industry Practice.

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- ✱ (v) Ensure that the project infrastructural developments are synchronized with the physical development plans, management plans of the relevant host Authorities and/or District Local Governments. ✱
- (vi) Ensure that all the project installations and equipment are designed in such a manner so as to blend with the natural environment.
- (vii) Put in place measures to prevent un-authorized access to project sites during project implementation.
- ✱ (viii) Except for drilling works, all construction works in Murchison Falls National Park shall be limited to day time (i.e. 7am to 7pm). ✱
- (ix) Obtain clearance from the Civil Aviation Authority, for activities within 100metres of Aerodromes in the project area, before commencement of the project.
- (x) Ensure that lighting at installations is designed in such a manner so as to minimise glare and light pollution to the surrounding environment.

9.7. Occupational Health Safety and Public Health

- (i) Ensure that all operations including those of all contractors and sub-contractors are undertaken in compliance with the Occupational Safety and Health Act, 2006; and the Petroleum (Exploration, Development and Production) (Health, Safety and Environment) Regulations, 2016;
- ✱ (ii) Put in place appropriate and adequate onsite gender-responsive sanitary facilities for project workers in accordance with the Public Health Act, Cap.281. ✱
- (iii) Provide safe drinking water for the workers in accordance with the Public Health Act, Cap.281.
- (iv) Institute robust house-keeping practices/measures at the project sites and sensitize the project workforce on sound environmental management practices.
- (v) Smoking is only allowed in accordance with the provisions of the Tobacco Control Act, 2015.

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9.8. Social Aspects

- (i) Undertake continuous community engagements in the project area on project activities as appropriate, including among others the opportunities and potential impacts of the Project, in an understandable language.
- (ii) Put in place sensitization and prevention programs for both workers and the host communities on the dangers of HIV/AIDS, Ebola Haemorrhagic Fever (Ebola), Hepatitis-B, and other communicable diseases.
- * (iii) Put in place mechanisms to ensure that project implementation does not prevent use of public utilities by the host communities, the general public, and tourists in Murchison Falls National Park. *
- * (iv) Ensure preservation of cultural heritage within the project area in accordance with the Institution of Traditional or Cultural Leaders Act, 2011 and Historical Monuments Act, 1968. *
- * (v) Institute policies and rules applicable to all project personnel to **minimise fraternization that could lead to social disruptions.** *
- * (vi) Put in place measures to ensure that within the Murchison Falls National Park, **tourism activities retain priority.** *
- (vii) Adhere to applicable traffic rules and regulations within and outside the Murchison Falls National Park, and manage fleet movement to minimize accidents, nuisances and disruptions to the project host communities.
- (viii) Ensure that project recruitment is undertaken in compliance with the Employment Act, 2006 and the Petroleum (Exploration, Development and Production) (National Content) Regulations, 2016.
- (ix) Put in place mechanisms to ensure that, while not compromising the effect of condition 9.8(viii) above, project recruitment especially for unskilled labour prioritizes candidates from the host communities in the project area.

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- *(x) Institute an effective grievance handling mechanism to appropriately handle any grievances that may arise during project implementation.*
- (xi) Put in place measures to protect workers including those engaged by third parties and vulnerable groups against discrimination and unfair treatment among others.
- *(xii) Put in place mechanisms, in consultation with UWA, to minimise and resolve the human-wildlife conflicts arising out of implementation of Project activities.*

10.0 NOTIFICATION CONDITIONS

- 10.1. All notifications to the Authority and relevant Lead Agency shall be in writing.
- 10.2. Notify the Authority and relevant Lead Agencies of any negative impacts and changes in Project activities which were not contemplated during the Environmental & Social Impact Assessment, and at issuance of this certificate.
- 10.3. Notify the Authority and relevant Lead Agency, twenty-one days in advance, prior to any project site clearance.
- 10.4. *Notify the Petroleum Authority of Uganda and this Authority of any malfunction of any system/ project component within twelve hours and the corrective measures put in place to address the malfunction.*
- 10.5. Notify the Authority, of any modifications to the Project components or project implementation modalities.
- 10.6. Notify the Authority at least three months prior to the decommissioning of any component.

11.0 DECOMMISSIONING AND RESTORATION PHASE CONDITIONS

- 11.1. *Prepare and submit to this Authority, a Decommissioning and Restoration plan for each Project component to be decommissioned.*
- 11.2. Initiate and undertake an Environmental and Social Impact Assessment for the decommissioning of major project components such as Well pads, Nile River Crossing, Flow lines, Industrial Area, Water abstraction system, and others as may be determined by the Authority.

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- 11.3. Restore/Rehabilitate all areas affected by project implementation to, as near as possible, the original state during and after the lifespan of the Project.
- 11.4. Decommission Tangi Carpp to an area of 5 Hectares in the eighth year of the Project and adhere to the decommissioning schedule for the various project components as given in the approved Environmental and Social Impact Statement.

12.0 SUSPENSION/WITHDRAWAL/CANCELLATION CONDITIONS

- 12.1. The Authority may suspend project operations and/or activities for any Project Component, where there is non-compliance with any of the **Specific Conditions** set out in this Certificate.
- 12.2. The Authority may Suspend, Withdraw, or Cancel this Certificate where;
- (i) There is unauthorized modification of the project implementation or operations that were not evaluated at the time of issuing this Certificate.
 - (ii) There emerge substantive undesirable effects that were not contemplated during the issuance of this Certificate of Approval.
 - (iii) The developer persistently fails to address negative environmental and social impacts occasioned by the Project.
 - (iv) Any other reasons the Authority may consider relevant.

DATED AT KAMPALA ON 15TH APRIL, 2019

Signed:

EXECUTIVE DIRECTOR (NEMA)

c.c: The Permanent Secretary,
Ministry of Water and Environment,
LUZIRA.

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- c.c: The Permanent Secretary,
Ministry of Works and Transport,
KAMPALA.
- c.c: The Permanent Secretary,
Ministry of Lands, Housing and Urban Development,
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- c.c: The Permanent Secretary,
Ministry of Gender, Labour and Social Development,
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- c.c: The Permanent Secretary,
Ministry of Agriculture, Animal Industry, and Fisheries
ENTEBBE.
- c.c: The Permanent Secretary
Ministry of Health
KAMPALA
- c.c: The Executive Director,
Petroleum Authority of Uganda,
ENTEBBE.
- c.c: The Executive Director,
Uganda Wildlife Authority,
KAMPALA.
- c.c: The Executive Director,
Civil Aviation Authority,
ENTEBBE.
- c.c: The Executive Director,
Uganda National Roads Authority,
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Annex-1: Management Plans

1. Overarching Strategies & Mechanisms

- (a) Community Impact Management Strategy
- (b) Influx Management Strategy
- (c) National and Community Content Strategy / Framework
- (d) Stakeholder Engagement Plan
- (e) Grievance Management Procedure
- (f) Biodiversity Strategy
- (g) HSE Management System

2. Social

- (a) Resettlement Action Plan (RAP)
- (b) Livelihood Restoration Plan
- (c) Labour Management Plan
- (d) Cultural Heritage and Archaeology Management Plan (CHMP)
- (e) Chance Find Procedure (CFPr)
- (f) Community Content, Economic Development and Livelihood Plan (CCEDLP)
- (g) Community Health, Sanitation, Safety, and Security Plan (CHSSSP);
- (h) Community Environmental Conservation Plan (CECP)
- (i) Tourism Management Plan
- (j) Road Safety and Transport Management Plan
- (k) Journey Management Plan

3. Biodiversity

- (a) Biodiversity and Ecosystem Services Management Plan
- (b) Biodiversity and Ecosystem Services Action Plan
- (c) Alien/Invasive Species Management Plan
- (d) Site Clearance Plan
- (e) Site Restoration Plan
- (f) Wetland Management Plan

4. Physical Environment

- (a) Physical Environment Monitoring Plan
- (b) Surface Run Off and Drainage Management Plan
- (c) Dust Control Plan
- (d) Noise and Vibration Management Plan
- (e) Waste Management Plan
- (f) Chemical Management Plan
- (g) Water Management Plan
- (h) Landscape Management Plan

5. Emergency Preparedness

- (a) Spill Prevention Plan
- (b) Oil Spill Contingency Plan (OSCP)
- (c) Emergency Preparedness and Response Plan (ERP)
- (d) Blow Out Contingency Plan (BOCP)
- (e) Frack Out Plan
- (f) Produced water contingency Management Plan

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Annex 2: Coordinates of Approved Tilenga Project Components

Project Component	Location	Coordinates (UTM 36 N)		Project Component	Location	Coordinates (UTM 36 N)	
WELL PADS				WELL PADS			
GNA-01	Kisomere Village	330933	244136	KGG-05	Gottiyech Village	334547	237690
	Ngwedo Subcounty	331241	244136		Bulisa Subcounty	334854	237690
	Bulisa District	331241	243924		Bulisa District	334547	237508
		330933	243924				
GNA-02	Kilyango Village	333328	245670	KGG-06	Kichoke Bugana Village	330100	232242
	Ngwedo Subcounty	333510	245670		Bulisa Subcounty	330444	232242
	Bulisa District	333510	245664		Bulisa District	330444	232030
		333328	245664				
GNA-03	Uduk II Village	332133	242072	KGG-09	Kijumbya Village	332947	233172
	Ngwedo Subcounty	332449	242072		Bulisa Subcounty	333240	233172
	Bulisa District	332449	241890		Bulisa District	333240	232990
		332133	241890				
GNA-04	Avogera Village	333211	243825	KW-01	Kityanga Village	321754	234642
	Ngwedo Subcounty	333536	243829		Bulisa TC Subcounty	322091	234642
	Bulisa District	333536	243647		Bulisa District	322091	234430
		333211	243647				
JBR-01	MFNP	331425	251466	KW-02A	Kakindo Village	323688	236100
	Purongo Subcounty	331801	251466		Bulisa TC Subcounty	324055	236100
	Nwoya District	331801	251248		Bulisa District	324055	235858
		331425	251248				
JBR-02	MFNP	332644	251978	KW-02B	Kisiomo Village	322466	236667
	Purongo Subcounty	332908	251825		Bulisa TC Subcounty	322767	236667
	Nwoya District	332813	251660		Bulisa District	322767	236444
		332644	251813				
JBR-03	MFNP	331923	254138	NGR-01	Kasinyi Village	328459	244960
	Purongo Subcounty	332289	254138		Ngwedo Subcounty	328759	244960
	Nwoya District	332289	253918		Bulisa District	328759	244778
		331923	253918				
JBR-04	MFNP	333381	254369	NGR-02	Kasinyi Village	328375	243714
	Purongo Subcounty	333721	254369		Ngwedo Subcounty	328627	243462
	Nwoya District	333721	254160		Bulisa District	328477	243312
		333381	254160				
JBR-05	MFNP	332747	256558	NGR-03A	Kirama Village	322877	240918
	Purongo Subcounty	333108	256558		Kigwera Subcounty	323187	240739
	Nwoya District	333108	256338		Bulisa District	323093	240583
		332747	256338				
JBR-06	MFNP	333583	257009	NGR-05A	Kirama Village	325182	241368
	Purongo Subcounty	333918	257009		Kigwera Subcounty	325529	241368
	Nwoya District	333918	256819		Bulisa District	325529	241126
		333583	256819				
JBR-07	MFNP	333427	258639	NGR-06	Bukongolo, Kigwera NE	324596	239982
	Purongo Subcounty	333771	258639		Village	324859	239831
	Nwoya District	333771	258419		Kigwera Subcounty	324753	239647
		333427	258419				
JBR-08	MFNP	333862	259491	NSO-01	Ngwedo Village	331407	238466
	Purongo Subcounty	334147	259326		Ngwedo Subcounty	331768	238466
	Nwoya District	334052	259161		Bulisa District	331768	238254
		333767	259326				
JBR-09	MFNP	333877	261916	NSO-02	Ngwedo farm Village	333745	238291
	Purongo Subcounty	334218	261916		Ngwedo Subcounty	334032	238109
	Nwoya District	334218	261696		Bulisa District	333745	238109
		333877	261696				
JBR-10	MFNP	328529	248137	NSO-03	Kibambura Village	328022	238332
	Purongo Subcounty	329073	248137		Ngwedo Subcounty	328387	238332
	Nwoya District	329073	247917		Bulisa District	328387	238120
		328529	247917				
KGG-01	Oribo Village	333511	235963	NSO-04	Kibambura Village	329465	236044
	Bulisa Subcounty	333832	235963		Ngwedo Subcounty	329756	236044
	Bulisa District	333832	235781		Bulisa District	329756	235862
		333511	235781				
KGG-03	Beroya Village	334564	234721	NSO-05	Kibambura Village	331243	237136
	Bulisa Subcounty	334883	234721		Ngwedo Subcounty	331545	237136
	Bulisa District	334883	234639		Bulisa District	331545	236954
		334564	234639				
KGG-04	Kichoke Bugana, Kijumbya	331100	234009	NSO-06	Uduk I, Ngwedo farm	333296	240321
	Village	331427	234009		Village	333611	240321
	Bulisa Subcounty	331427	233755		Ngwedo Subcounty	333611	240139
	Bulisa District	331100	233755	Bulisa District	333296	240139	

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