



The Shell Petroleum Development Company of Nigeria Ltd.

NUN RIVER 7 WELL LOCATION DESIGN AND CONSTRUCTION IMPROVEMENT

BUSINESS CASE & IMPLEMENTATION PLAN

Rev	Date of Issue	Originator	Reviewed	Approved
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TABLE OF CONTENTS

1.0	PROBLEM STATEMENT	3
2.0	BUSINESS CASE	3
3.0	OPPORTUNITY	3
4.0	SCOPE	3
5.0	DESIRED OUTCOMES	4
6.0	IMPLEMENTATION PLAN	4
7.0	TEAM	4

1.0 PROBLEM STATEMENT

Drilling location layout development and specification typically take time during design (with > 1 week in manhours on location specifications) and numerous layout reviews.

Current design practices typically result in large number of piles and at substantial depths for cellar slabs (in the Niger Delta Terrain)

2.0 BUSINESS CASE

Implementation of well location design standardization on the Nun River 7 Location design, will ensure operational safety during the drilling and work over operations, improve design and construction schedule and achieve cost avoidance.

3.0 OPPORTUNITY

The Nun River 7 well location is a two - well slot well location planned for drilling workover activities in 2022. The design had progressed in line with the typical design practices and was about being completed in Dec 2021. However, following the success of the continuous improvement on drilling location design and layout development, the location was identified as a suitable pilot for the implementation.

4.0 SCOPE

- Review of the well location footprint and layout to ensure operational safety and achieve footprint reduction
- Cellar slab & piles structural design optimization
- Geotechnical design and optimization of the piles using a comparative software
- Development of an SOP (Standard Operating procedure) for well location

5.0 DESIRED OUTCOMES

- Optimized total pile lengths by circa 15%
- Optimized location footprint and compliance with safety distances
- Achieve cost avoidance of circa F\$200k
- Deliver SOP

6.0 IMPLEMENTATION PLAN

S/N	Activity	Timeline
1	Location layout and design gap assessment	Q2 2022
2	Redesign and optimization	Q2 2022
3	Develop Standard Operating Procedure	Q3 2022

7.0 TEAM

LEAD: Asilonu Collins

MEMBERS: Erinle Adeyemi, Donald Jambol, Sokaribo Victor, Tella Omotayo, Tom-West Jenbarimiema, Chioke Kelechukwu, Nnabugwu Tochukwu, Otegbeye Ayomide, Ekele Ogorchukwu, Umane Winifred, Akodudu Yinka.