

The Shell Petroleum Company Limited

Internal Investment Proposal

Summary Information

Business unit and company	Shell Petroleum Development Company of Nigeria																																																																						
Group equity interest	100% in SPDC, whereas SPDC is the Joint Venture (JV) operator of an unincorporated JV with a 30% interest.																																																																						
Other shareholders / partners	Nigeria National Petroleum Corporation (NNPC: 55%), Total Exploration & Production Nigeria Limited (TEPNG: 10%), Nigeria Agip Oil Company (NAOC: 5%) in SPDC-JV.																																																																						
Business or Function	E&P																																																																						
Amount	The cost of Koroama 002T (Recompletion and Facilities) is 16.4mln Shell Share (US\$54.8mln 100% JV) of which US\$7.31mln Shell share, MOD, 50/50 is requested for approval in this proposal (Recompletion cost only). This proposal includes Shell equity share (30%) of US\$3.29mln and Shell's MCA commitment on NNPC Share of US\$4.02mln. US\$82.1mln 100% JV has been approved in previous proposals as part of the Gbaran Ubie Phase 2A (Infill) project.																																																																						
Project	Gbaran Ubie Phase II Acceleration - Koroama 002T Well Recompletion																																																																						
Main commitments	<table border="1"> <thead> <tr> <th>Description</th><th>Previous Approvals (100% JV)</th><th>Previous Approvals (Shell Share Equity + Carry)</th><th>Full cost of Koma 002T Re-completion & Facilities (100% JV)</th><th>Full cost of Koma 002T Re-completion & Facilities (30% SS)</th><th>This Proposal (Recompletion cost only) 100% JV</th><th>This Proposal (30% Shell Share)</th><th>NNPC MCA Carry (36.67% Shell Share) This Proposal</th><th>Total Shell Share (Equity + Carry) This Proposal</th></tr> </thead> <tbody> <tr> <td>NAG Wells (Including Location Preparation)</td><td>35.3</td><td>17.7</td><td>11.0</td><td>3.3</td><td>11.0</td><td>3.3</td><td>4.0</td><td>7.3</td></tr> <tr> <td>Facilities and Pipelines</td><td>45.8</td><td>15.4</td><td>42.8</td><td>12.8</td><td></td><td></td><td></td><td></td></tr> <tr> <td>Total CAPEX (\$ mln)</td><td>81.2</td><td>33.1</td><td>53.8</td><td>16.1</td><td>11.0</td><td>3.3</td><td>4.0</td><td>7.3</td></tr> <tr> <td>SCD</td><td>1.0</td><td>0.3</td><td>1.0</td><td>0.3</td><td></td><td></td><td></td><td></td></tr> <tr> <td>Total OPEX (\$ mln)</td><td>1.0</td><td>0.3</td><td>1.0</td><td>0.3</td><td></td><td></td><td></td><td></td></tr> <tr> <td>Total Project (\$ mln)</td><td>82.1</td><td>33.4</td><td>54.8</td><td>16.4</td><td>11.0</td><td>3.3</td><td>4.0</td><td>7.3</td></tr> </tbody> </table>								Description	Previous Approvals (100% JV)	Previous Approvals (Shell Share Equity + Carry)	Full cost of Koma 002T Re-completion & Facilities (100% JV)	Full cost of Koma 002T Re-completion & Facilities (30% SS)	This Proposal (Recompletion cost only) 100% JV	This Proposal (30% Shell Share)	NNPC MCA Carry (36.67% Shell Share) This Proposal	Total Shell Share (Equity + Carry) This Proposal	NAG Wells (Including Location Preparation)	35.3	17.7	11.0	3.3	11.0	3.3	4.0	7.3	Facilities and Pipelines	45.8	15.4	42.8	12.8					Total CAPEX (\$ mln)	81.2	33.1	53.8	16.1	11.0	3.3	4.0	7.3	SCD	1.0	0.3	1.0	0.3					Total OPEX (\$ mln)	1.0	0.3	1.0	0.3					Total Project (\$ mln)	82.1	33.4	54.8	16.4	11.0	3.3	4.0	7.3
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Source and form of financing	This investment will be financed with Alternative Funding (AF) and Shell share capital expenditure will be met by SPDC's own cash flow and / or the existing shareholder facility. Formal JV partners' approval of the proposed MCA (alternative funding) has been received																																																																						
Summary cash flow																																																																							
Summary economics	Summary Economics (RV-RT12)		NPV7 (USD mln)		RTEP (%)		VIR7																																																																
	Base case		13.9		27		0.46																																																																
	High CAPEX (P90)		13.2		26		0.39																																																																

Section 1: The proposal (management summary)

Approval is sought for US\$7.31 million SS MOD (US\$3.29mln Equity & US\$4.02mln Carry) for the recompletion of 1No NAG Well (Koroama 002T). This recompletion is part of the Gbaran Ubie Phase 2A (Infill) project scope which is being accelerated based on rig availability. However, production from this well would be delayed until Dec 2015 when required surface facilities (including 5.5km x 8" CSS flowline, cathodic protection systems, intersite cables and a 250MMscfd slug catcher at the Gbaran CPF) would have been installed as part of the Gbaran Infill (2A) project.

The Koroama field, with two existing wells, is situated in OML-28 and was discovered in 1975 by Koroama-1. The Koroama-2 well was subsequently drilled in 2007 to appraise the D7000X, E1000X and F1000X gas reservoirs. A Field Development Plan (FDP) of 2009 identified opportunities to drill and complete 8 new NAG development wells and recomplete the Koroama-2 well at the F1000X reservoir as a NAG development well.

The base plan was for Koroama-2 well to be recompleted as part of the Gbaran Infill (2A) project with the recompletion planned for Q3 2013 to precede the drilling of the Koroama wells. However, based on current rig availability and location imposed constraint (due to flooding and unusually high water levels), this recompletion is being accelerated to replace the Gbaran 14 Sidetrack in the drilling sequence.

Following the drilling of Koroama TBUV-2 well, the Hilong-2 rig was originally planned to progress to the Gbaran 14 Sidetrack and then on to the Gbaran E Sands (in line with the September 2012 STDWS). However, due to inaccessibility of the Gbaran location as a result of flooding, a gap was created in the drilling sequence. In a bid to close this gap, it was proposed that the rig move on to the Koroama-2 well location and recomplete this well.

The Koroama-2 well is presently secured with a Non-Return Valve (NRV) awaiting rig re-entry. The expected developed reserves from this well are 55Bscf of gas and 1.7MMstb of associated condensate with an initial production potential of 60MMscf/d.

A pre-FID proposal of US\$55.4mln 100% JV (US\$16.6mln 30% SS) was approved in Apr 2010 to enable front-end activities. This was followed by approval of US\$26.7mln 100% JV (US\$8.01mln Equity & US\$8.77mln Carry) for Gbaran Ubie Phase II Acceleration to enable drilling and hook up of Koroama TBUV 2. This brings to US\$82.1mln 100% JV (US\$24.61mln Equity & US\$8.77mln Carry) previously approved IPs on the Gbaran Ubie Phase 2A (Infill) Project.

The Gbaran Infill Project is post DG3 and currently at commercial evaluation in the contracting process. Funding is to be provided via Alternative Funding (AF) using the Modified Carry Agreement (MCA) vehicle. Alignment has been reached with NAPIMS and other JV Partners regarding the cost estimate for the project. The agreed cost estimate (wells, facilities & owners cost) is as shown in Table 2 below.

Koroama 002T recompletion cost estimate was supported by NAPIMS for AF/ MCA funding as part of Gbaran Ubie Phase 2A (Infill) Project. Pending the signing of the AF/ MCA agreement, LDL will be sought to fund the drilling.

The 50/50-project cost for this proposal is US\$7.31mln Shell share (US\$10.96mln 100% JV) CAPEX. The cost schedule is shown in the table 1.

Table-1: Project Cost Schedule.

Cost Profile (US\$'000)	2012	2013	Total	Remarks
Location Preparation				Existing Well
Drilling				Existing Well
Recompletion	10.96		11	
Flowline & Hookup				
Total Capex	10.96		10.96	
SCD				Built into well cost
Total Cost	10.96		10.96	

Table-2: Overall Project Cost (Gbaran Infill)

Description	COST PHASING						
	Previous Approvals	2012	2013	2014	2015	2016	Total
Facilities Capex 100% JV (FUS\$mIn) - less PMT& SCD	43.9	8.6	103.5	271.5	248.8	79.1	755.4
Wells Capex 100% JV (FUS\$mIn)	35.3	20.7	60.7	142.6	21.1	-	280.3
Total Capex 100% JV (FUS\$mIn) - less PMT&SCD	79.2	29.2	164.2	414.1	270.0	79.1	1,035.7
PMT 100% JV (FUS\$mIn)	2.6	5.6	9.7	15.1	10.1	5.3	48.3
Opex 100% JV (FUS\$mIn)	0.3	0.0	2.9	7.7	5.8	0.4	17.1
Total 100% JV (FUS\$ mln)	82.1	34.9	176.7	436.8	285.8	84.9	1,101.2
Total 100% JV (FUS\$ mln) excluding Previous Approvals							1,019.1
Shell Share Equity (30%)	24.6	10.5	53.0	131.1	85.7	25.5	330.4
MCA Carry Shell Share (36.67%)	8.8	10.7	60.2	151.8	99.0	29.0	359.5
Total Shell Share (FUS\$ mln)	33.4	21.2	113.2	282.9	184.7	54.5	689.9

Section 2: Value proposition and strategic and financial context

Koroama-2 will develop expectation reserves of 55Bscf and 1.7MMstb of gas and associated condensate (100% SPDC JV) respectively. The well will be recompleted in 2012 but will come on-stream in December 2015 following the procurement and installation of surface facilities and hook-up materials. The production from the well will increase the utilization of Gbaran CPF and support gas supply to the NLNG.

2.1 Summary Economics

The economics evaluation for this project was carried out on a forward-looking basis. The value of the base case was determined using 50/50 level III cost estimate and production forecast for the well. Sensitivity analysis was carried out to determine the values of the project at different production volumes and high CAPEX. An additional BVA (Benchmark Verified and Approved) sensitivity was evaluated to address cost disputes with NNPC resulting in a 1.5% cost mark up.

The value of the well being accelerated shows some value erosion as against carrying out the out the recompletion in 2013 (See table-3).

The evaluation assumed funding under the 2008 Modified Carry Arrangement (MCA) terms.

Table 3: Economics summary (Shell Share)

PV Reference Date: 1/7/2012	NPV (\$/S \$ mln)		VIR	RTEP	UTC (RT \$/boe)		Payout-Time (RT)	Maximum Exposure (RT- AT)
	0%	7%	7%	%	0%	7%	(yyyy)	\$mln (yyyy)
Base Case								
SV (\$50/bbl RT12)	17.3	9.2	0.30		6.3	7.4		
RV (\$70/bbl RT12)	23.8	13.9	0.46	27	6.3	7.4	2015	8.14(2014)
HV (\$90/bbl RT12)	29.2	17.8	0.58		6.3	7.4		
Sensitivities (using RV-RT12)								
Low Volumes (P90)		5.5	0.18					
High Volumes (P10)		21.1	0.69					
High CAPEX (P90)		13.2	0.39					
Project funded under JV		14.2	1.00					
Planned as per BP12		14.0	0.47					
1.5% cost markup due to BVA issues		13.2	0.40					

Key project parameters (Shell Share)

Parameter	Unit	BP12 Provision	Low	Mid	High	Comments
Capex (MOD)	US\$ mln	NA	NA	7.3	NA	MCA + JV(well cost)
Opex (MOD) Project	US\$ mln	NA	NA	NA	NA	
Production Volume	mln boe	NA	2.0	3.3	5.0	not a stand alone activity in BP12
Start Up Date	mm/yy	NA	NA	Jul-15	NA	not a stand alone activity in BP12
Production in first 12 months	mln boe		NA	1.2	NA	

Economic Assumptions

- Condensate price at the three PSVs: SV, RV and HV (\$50/bbl, \$70/bbl and \$90/bbl respectively) with applicable offsets.
- 2012 NLNG Gas PSV
- Gas taxed under CITA with Associated Gas Framework Agreement (AGFA) incentive.
- Education Tax of 2% assessable profit
- NDCC levy of 3% total expenditure
- GHV of 1150btu/scf for Export gas
- Abandonment estimated as 10% of total RT CAPEX
- SCD Cost was provided by project team
- ABC opex provided by project team
- Condensate taxed under PPT (PPT tax rate of 85%)

MCA Assumptions

- Profit gas ceiling of 8% IRR on carried costs
- All costs on the MCA would be recovered through cost Gas and Condensate.
- Current agreement for recovery of carry costs is maintained
- \$70/bbl – Condensate at PSV RV-RT in 2012
- OPEX and PMT not carried under current MCA arrangement.

Section 3: Risks, opportunities and alternatives

Risks and mitigation plan

The key risks and mitigations for the project are discussed in the table below.

Risk	Mitigation plan
Insecurity in the Niger Delta	<p>The existing GMoU for Gbaran Ubie node will be used for continuous engagement of the communities. Resolution of any legacy issues will be carried out in line with the new GMOU interface model and SP principles/rules to guarantee Freedom to Operate (FTO).</p> <p>Prior to mobilization for the recompletion works, a detailed security plan will be put in place in conjunction with the Area Security Adviser and approved by the head of security.</p> <p>In addition the rig will engage community workers from the catchment area as unskilled labour under the new and operative Project Labour Agreement (PLA).</p>
Delayed EIA approval	Commenced EIA approval process, provisional approval obtained from the Federal Ministry of Environment. The EIA report is currently with DPR for review and approval.
Health, Safety & Environment	<p>Strict compliance with all SPDC & Group HSE policies and procedures and adherence to WIMS. All activities will be planned and delivered under the current drive to achieve 'Goal Zero'.</p> <p>Controls will be put in place to mitigate identified hazards and their effects. These controls will be subjected to daily continual supervision to ascertain their adequacy and effectiveness all through the execution phase.</p>
Retrieval of Old tubing	Chemical cutter would be used if tubing retrieval becomes protracted
Tax conditions and exemptions	Tax conditions and exemptions applicable to Gbaran Ubie Phase-1 project apply to this development.

Opportunities

Accelerating the recompletion works eliminates the rig idle time that would have been experienced due to location inaccessibility due to flooding and unusually high water season. This ensures full utilization of assets and optimizes the drilling sequence.

Alternatives

The rig currently drilling at Koroama (Hilong-2) was originally planned to move to Gbaran 14ST after completing TBUV2. However, due to recent flooding and unacceptably high water levels, the Gbaran site is currently inaccessible. Instead of moving to recomplete Koroama 002T, the rig could be put on standby at a rate of circa \$60k/day. This alternative was considered unattractive.

Instead of capping the well for circa three (3) years after recompletion, the Capex for the surface facilities required to produce the well could have been included in this Investment Proposal. This would have credited the well with the associated production volumes and used for the economic evaluation. However, due to funding challenges and the need to reduce company exposure prior to finalizing funding discussions, it was considered expedient to limit the expenditure to drilling only.

Section 4: Corporate structure, and governance

This proposal is within the SPDC corporate structure and governance framework.

Section 5: Functional Support and consistency with Group and Business Standards

This proposal complies with Group Business Principles, policies and standards. Functional support will be obtained from Finance, Technical, Commercial, HSE/SCD and Legal.

Section 6: Project management, monitoring and review

The decision to recompletable this well has been approved by the Asset Development and the Gbaran Ubie Project team management.

Section 7: Budget provision

It is proposed that at approval, the investment budget requirement will be from the alternative funding tranche. In line with current AF agreements, it is expected that project FID OPEX and Project Management cost will continue to be funded via regular JV budgetary process.

Section 8: Group financial reporting impact

MCAs are accounted for in the same way as ordinary course investments in JV projects i.e. recording resulting capex, depreciation, gross revenues, royalties and taxes and associated production and reserves in line with Group Policy. The financial impact of the MCA's are calculated in line with the base case MCA specific assumptions and are indicated in the table below.

US\$ mln	2012	2013	2014	2015	2016	Post 2016
Total Commitment	7.3					
SCD OPEX						
Pre-FID						
Cash Flow						
Capital expenditure	7.3					
Cash Flow from Operations	4.2	1.1	0.3	0.3	0.3	0.0
Cash Surplus/(Deficit)*	-3.1	1.1	0.3	0.3	0.3	0.0
Profit and Loss						
NIBIAT +/-	0.3	0.0	0.0	0.0	0.0	-1.3
Balance Sheet						
Average Capital Employed	1.7	2.8	2.1	1.8	1.5	0.5

Section 9: Disclosure

Disclosures, if required, will be done in line with existing Group and SPDC policies and guidelines.

Section 10: Financing

A pre-FID proposal of US\$55.4mln 100% JV (US\$16.6mln 30% SS) was approved in Apr 2010 to enable front-end activities. This was followed by approval of US\$26.7mln 100% JV (US\$8.01mln Equity & US\$8.77mln Carry) for Gbaran Ubie Phase II Acceleration to enable drilling and hook up of Koroama TBUV 2. This brings to US\$82.1mln 100% JV (US\$24.61mln Equity & US\$8.77mln Carry) previously approved IPs on the Gbaran Ubie Phase 2A (Infill) Project.

The acceleration of Koroama 002T recompletion forms part of the Gbaran Ubie Phase 2A (Infill) budget which will be financed under AF/ MCA. Formal JV partners' approval of the proposed MCA has been received.

Section 11: Taxation

Taxation assumptions have been reviewed and no material tax risks have been identified.

Section 12: Key Parameters

Approval for US\$7.31mln Shell share, MOD, 50/50 (US\$3.29mln Equity and US\$4.02mln Carry) to recomplete Koroama 002T.

Section 13: Signatures

This Proposal is submitted to UIG, VP Technical for approval.

Supported by: Bernard, Bos FUI/F Date / /	For Business approval: Lismont, Bart UIG/T Date / /
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Initiated by:

Balogun, Oluseun (UIG/T/TO)

Date ... / /