THE SHELL PETROLEUM DEVELOPMENT COMPANY OF NIGERIA

Well Details			Proposal Objectives:						
Field		BELEMA	To replace the vandalized flowline of well BELEMA 001S (D1000A) Scope of Work: - Replace vandalized 4" SCH 40 flowline of BELEMA 001 with 4" SCH 40						
Well		BELE001S							
Flowstation		BELEMA FS							
Well type	(Oil/Gas)	OIL							
Lift Type		Natural Flow							
Reservoir		D1000A							
Abandonment Watercut %		90							
Timing		Q1-2018]						
Job duration (days)		30							
Economic Summary			Flowline Details						
Conduit Production Rate (bbls)		2176	Length (km)	2.68					
Reserves	(MM bbls)	3.82	Size (inch)	4"					
Current BSW %		40	Schedule (no.)	40					
Risked NPV 7% (MM US\$)		-	Total Cost (x1000 US\$)	760					
Risked VIR (-)		-	Account No. Dev/Eng	Eng.					

Proposal contributors

Name	Function					
Iya, Ann	Bonny Node PT (originator)					
Okporiri, Cyril	Bonny Node RE (contributor)					
Amobi, Adeshina Ndukwe, Agwu	Swamp Facilities Lead (reviewer) Swamp East Snr PT (reviewer)					

Approval

Name	Function	Signature	Date
Amaefuna, Magnus	FMT Lead Bonny Node		
Onuoha, Udoka	WRFM Lead Swamp East		
Nwadiuto, Onyekwelu	Head Swamp Engineering		

Justification:

The well was flowing and producing at a rate of 2672 bopd net (BSW=40%, GOR=534 scf/bbl, Sand=1.2 pptb and FTHP =493psi) on bean 56/64" before the well was closed-in July, 2015 as a result of flowline vandalization. In view of the oil reserves (3.82 MMstb) and ca 2672 bopd potential, the well is proposed for flowline replacement. Simple economics with flowline cost of 760,000 USD yields payout of 15 days at assumed crude price of \$30/bbl hence the flowline replacement is justified.

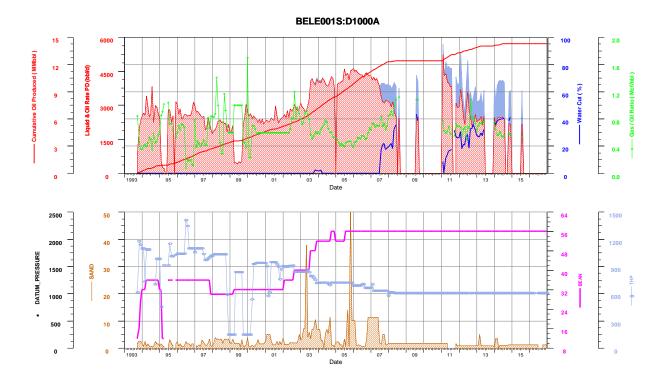
Flowline size and rating

The last recorded oil rate was 2176 bopd with a FTHP of 493 psi as at July 2015. No erosional velocity problems or excessive pipeline pressure drops are expected. it is recommended to install 4" SCH-40 line.

HSSE Issues:

No annular pressure cases recorded. All HSSE procedures for FLRR and well open up should be strictly followed.

ATTACHMENT 1: PERFORMANCE PLOT FOR BELEMA 001S



ATTACHMENT 2: CURRENT WELL SCHEMATIC

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ATTACHMENT 3: VLP/IPR PLOT

