PROPOSED PERMANENT ABANDONMENT
MISSISSIPPI CANYON 296 SS001 (ST00BP01)
OCS-G 21164, API 60-817-41018-01 RPM REV.D 7/25/2012

Background

OCS-G 21164 SS001 ST00 BP01 was originally completed by Dominion in May 2005.

Current Well Status

Well 1 ST00 BP01 is currently shut-in since 6/28/2011. The well last tested 0 BOPD, 0 BWPD and 6.9 MMCFD at 2,060 psi FTP on 6/6/2011. The well has watered out and has no future utility. Upper zone twin flow TF AIS(11,440' MD) is open with SSD(11,581'MD closed). Lower zone AIS(11,640' MD is open with lower SSD(11,682' MD closed).

Recommendation

Permanently abandon SS001 ST00BP01 utilizing slick line, electric line and coil tubing with 7-3/8" 10 k intervention riser system(IRS).

Well Data

Current fluid in A-Annulus	11.4ppg $CaBr_2/CaCl_2$
Max. anticipated surface pressure	5,690 psi (0.6 SG gas corrected for P = 0.125 psi/ft)
Water depth	5229 ft
Rig	Ocean Victory
Kelly bushing height	72 ft
Rotary Table (RT) to Wellhead	5289 ft
Surface Location **Bottom Hole Location**	Surf. - 553' FSL & 6694' FEL MC 252 BH - 3148' FNL & 6111' FWL MC 296

Production Casing

Size (in)	Weight (lb/ft)	Grade	Thread	ID (in)	Drift (in)	Collapse (psi)	Burst (psi)	Tensile (klbs)	Depth (MD)
10.750	65.70	Q-125	Hyd 523	9.56	9.5	7920	12110	1796	*7500 to ML*
9.875	62.8	HCQ-125	Hyd 523	8.625	8.500	11140	13800	1682	13989' XO @ 7500''

Production Tubing

Size (in)	Weight (lb/ft)	Grade / Tool Joint	ID (in)	Drift (in)	Collapse (psi)	Burst (psi)	Tensile (klbs)	Capacity (bbls/ft)
5.500	17.00	13Cr85-BTS6U	4.892	4.767	6520	8220	422	.02325

Drill Pipe (Not run across RAMS)

Size (in)	Weight (lb/ft)	Grade / Tool Joint	ID (in)	Drift (in)	Collapse (psi)	Burst (psi)	Tensile (klbs)	Capacity (bbls/ft)
4"	14	S-135 XT39	3.34	2.438	13836	17820	403.5	.01033

Reservoir Info

Current Reservoir	Rob-E Upper – Oil
Completion type	Gravel Pack
Perforations	11558'-11580' MD (22') / 11066'-11082' TVD
Deviation at TOS	44 degrees
BHP (calc)	3000 psi @11066' TVD
EMW	5.2 ppg – 8.5 ppg
SITP (measured 12/28/2011)	2603 psi

Current Reservoir	Rob-E Lower– Oil SHUT IN 6/28/2011
Completion type	Gravel Pack
Perforations	11640'-11680' MD (40') / 11125'-11154' TVD
Deviation at TOS	44 degrees
BHP (calc)	3016 psi @11125' TVD
EMW	5.2 ppg – 8.5 ppg
SITP (measured 6/6/2011)	2060 psi

***PDHG no longer functioning*
***Expected BHP = 3000-3020 psi calculated from SITP, worst cast = 4890-4900 psi (8.5 ppg)*
***Pressure control equipment tested to original BHP with .6 gas SG as contingency*

ATTACHMENTS FOR APM REQUEST

A. Present well schematic
B. Proposed PA schematic
C. Intervention Riser System (IRS) configuration drawing
D. Coil Tubing rig up drawing
E. 3rd Party PE certification of two (2) independent barriers

Test Pressures

MASPcc = 5690 psi @ Wellhead and 5050 psi @ Rig Floor (original BHP with .6 gas SG)

Test Pressures = 6200 psi (MASPcc + 500 psi)

Slick line, Electric line, and Coil tubing Sizes

Slick line = .125 in
Electric line = 9/32 in Carbon Steel, 154#/1000ft, 12/18 LH over RH, 10000 lb Min break strength
Coil Tubing = 1.5 in HS90 (WT=13184 ft of .156", 3615 ft of .18", 1715 ft of .19"

APM Procedure

1. MOBILIZE OCEAN VICTORY, POSITION, MOOR, INSPECT SST WITH ROV
2. RIH WITH 4" DRILL PIPE AND THRT, PULL ITC
3. RIH INTERVENTION RISER SYSTEM (IRS)

   ***DEADMAN/AUTOSHEAR AND ROV INTERVENTION FUNCTION TESTED*
   ***IRS STUMP TESTED TO 250 PSI LOW AND 6.2 K PSI HIGH*
4. FLUSH IRS PRIOR TO LANDING WITH SEA H_20 + OBSERVE WITH ROV FOR DEBRIS
5. SET COMPENSATOR, ORIENT, LATCH, TEST CONNECTION
6. CONNECT IWOCS, FUNCTION + PRESSURE TEST IRS AND ST.

   ***PRESSURE TEST IRS RAMS AGAINST CROWN PLUG 250 PSI LOW AND 6.2 K PSI HIGH*
   ***FUNCTION TEST DEADMAN AND ROV INTERVENTION*
7. CIRCULATE RISER TO 8.5 PPG INHIBITED BRINE
8. RU COIL TUBING (CT) LIFT FRAME/BOPS, SURFACE TREE(ST), SLICKLINE (SL) AND TEST

   ***PRESSURE TEST(PT) SL PRES. CONTROL EQUIP. (PCE) 250 PSI LOW & 6.2 K PSI PER CFR 30 §250.619*
9. TEST PRODUCTION PACKER, A-ANN., TUBING INTEGRITY TO 1000 PSI SURFACE PRESSURE
10. RIH AND PULL TUBNING HANGER CROWN PLUG.
11. BULLHEAD KILL LOWER ZONE WITH VISCOUS PILL + 8.5 PPG INHIBITED BRINE
12. BULLHEAD KILL UPPER ZONE WITH VISCOUS PILL + 8.5 PPG INHIBITED BRINE
13. PULL RPT PRONG + PLUG + RD SL AT HYDRACONN CONNECTOR
14. RU CT SIDE DOOR STRIPPER, INJECTOR AND GOOSENECK

    ***PRESSURE TEST CT PCE TO 250 PSI LOW AND 6.2K PSI PER CFR 30 §250.616*
15. WASH DOWN + PLACE AND SQUEEZE CEMENT INTO LOWER ZONE WITH CT **PLUG #1**

    ***PRESSURE TEST PLUG #1 TO 1000 PSI FOR 15 MINUTES PER CFR 30 §250.1715*
16. RD CT AT HYDRACONN CONNECTOR AND RU SL PCE

    ***PRESSURE TEST(PT) SL PCE TO 250 PSI LOW AND 6.2K PSI PER CFR 30 §250.619*
17. RU EWL(ELECTRIC WIRE LINE) PCE + SET + TEST THROUGH TUBING PLUG(TTP) AT 10840'

    ***PRESSURE TEST SL PCE 250 PSI LOW & 6.2 K PSI PER CFR 30 §250.619*
18. PUNCH HOLES ABOVE TTP FROM 10825' – 10820' + CIRC ANNULUS TO CLEAN SEA H_20
19. WITH CT PLACE 300' TBG x ANNULUS **PLUG #3** ABOVE TTP + PROD. PACKER

    ***PRESSURE TEST PLUG #3 AT 1-1.5K PSI FOR 15 MINUTES PER CFR 30 §250.1715*
20. RD CT AT HYDDACONN CONNECTOR AND RU EWL PCE

    ***PRESSURE TEST(PT) EWL PCE TO 250 PSI LOW AND 6.2K PSI PER CFR 30 §250.619*
21. RIH + CUT TUBING AT 10225' + RD EWL
22. DISCONECT IWOCS WITH ROV + POOH AND LAY DOWN IRS/SST
23. RIH WITH THRT ON DP AND PULL TUBING
24. MU/RIH CIBP AND SET AT 10000' MD RT

    ***PRESSURE TEST CIBP AT 1-1.5K PSI FOR 15 MINUTES PER CFR 30 §250.1715*
25. MU/RIH EZSV-B AND SQUEEZE GUNS + SET/TEST EZSV-B AT 8682'

    ***WEIGHT TEST(WT) EZSV-B TO 15K*
26. PERFORATE 9-7/8" + 13-5/8" FROM 8692' TO 8696' AND ESTABLISH INJECTION
27. SQUEEZE 13-5/8" x 16" ANNULUS + PLACE 150' CEMENT **PLUG #4** ABOVE EZSV-B

***PRESSURE TEST PLUG #4 AT 1-1.5K PSI FOR 15 MINUTES PER CFR 30 §250.1715*

28. PU AND CIRCULATE AT HIGH RATE + POOH
29. MU/RIH 2ND EZSV-B AND SQUEEZE GUNS + SET/TEST EZSV-B AT 7667'

    ***WEIGHT TEST(WT) EZSV-B TO 15K*
30. PERFORATE 9-7/8" + 13-5/8" + 16" FROM 7677' TO 7681' AND ESTABLISH INJECTION
31. SQUEEZE 16" x 20" ANNULUS + PLACE 150' CEMENT **PLUG #5** ABOVE EZSV-B

    ***PRESSURE TEST PLUG #5 AT 1-1.5K PSI FOR 15 MINUTES PER CFR 30 §250.1715*
32. PU AND CIRCULATE AT HIGH RATE + POOH
33. MIX AND PUMP SURFACE CMT **PLUG #6**, POOH + CIRC AT HIGH RATE
34. WOC, RIH + WEIGHT TEST PLUG #4 TO ~~15,000 LBS~~ 10,000 LBS, POOH + INSTALL DEBRIS CAP + DEMOB