

APPLICATION FOR PERMIT TO DRILL

**TARPON OPERATING & DEVELOPMENT, LLC
LEASE OCS-G 32181, WELL NO. 1
EUGENE ISLAND BLOCK 305**

**PROPOSED DRILLING PROCEDURE
*Revised November 11, 2011***

The proposed well will be drilled to a depth of 10,870' MD /10,795' TVD and temporarily abandoned.

GENERAL:

WELL NAME:	OCS-G 32181 Well No. 1
BLOCK/AREA:	Eugene Island Blocks 305, Offshore LA
SURFACE LOCATION:	367.83' FNL & 6,984.86' FEL of EI 305
PBHL:	367.83' FNL & 6,290.04' FEL of EI 305
TOTAL DEPTH:	10,870' MD / 10,795' TVD
WELL TYPE:	Development, Gas
RIG:	Hercules Rig 300
WATER DEPTH:	226'
KB ELEVATION:	100'
APPROX START DATE:	December 1, 2011
DIST TO NEAREST SHORE:	75 miles

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Proposed Drilling Procedure

1. Mobilize MODU to EI 305. Scan well to OCS-G32181 to open water location. Jack up over location.
2. Drive 24" x 3/4" WT drive pipe to \pm 500' (203' pen). Note: Mudline suspension equipment will be utilized in this wellbore for TA purposes. Butt weld MLH sub for 18-5/8" conductor casing will be at \pm 1' Above the Mud Line. Install 24" x 26 3/4" 3M starting head.
3. NU 21-1/4" 2M diverter and +10' valve on 24" drive pipe. Function test diverter and +10' valve. Install 2" WECO connection with ball valve directly under diverter to allow for testing of 24" x 18-5/8" annulus.
4. PU a 17-1/2" bit with 22" under reamer drilling assembly. PU 1000' of 5", 19.5#, S-135, R-11 drill pipe. Drill a 22" vertical hole to casing point at 1,000' MD/TVD.
5. Run and cement 18-5/8", 87.5#, J-55, BTC conductor with MLH at 1' above the mud line. Cement with 2042 cf while taking returns at the +10 valve. WOC for 8 hours before resuming operations.
6. Close the diverter on the 18-5/8" casing. Pressure test the 24" x 18-5/8" annulus to 250 psi.
7. ND diverter. Drop slips and hang off 18-5/8" casing. NU 21-1/4" 2M diverter. ND the +10' valve. PU and TIH with 17-1/2"BHA. Pressure test diverter and 18-5/8" conductor casing to 250 psi.
8. Drill 17-1/2" hole to surface casing point at 4,000' MD / 4,000' TVD.
9. Run and cement 13-3/8", 61.0#, J-55, BTC surface casing with MLH at 1' above the mud line. Cement with 5326 cf. WOC for 12 hours before ND Diverter.
10. ND Diverter. NU 13-5/8" 10M BOPs. Test BOPE to 250/3,500/5,000 psi.
11. Pressure test 18-5/8" x 13-3/8" annulus to 500# for 30 minutes.
12. Test 13-3/8" casing to 2554 psi prior to drilling out. TIH with 12-1/4" BHA. Drill out shoe and \pm 10' of new formation. Perform FIT. If FIT is less than 13.5 ppg EMW, squeeze and retest as necessary.
13. Displace 9.6 water based mud with 10.0 ppg oil based mud.
14. Drill 12-1/4" hole to 9030' MD / 9000' TVD.

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15. Log and evaluate. Run and cement 9-5/8", 53.5#, P-110, LTC intermediate casing. Cement with 2298 cf., estimated top of cement at 3500'. Install 13-3/8" 5M x 11" 10M casing spool. Test BOPE to 250/3500/7500 psi.
16. Test 9-5/8" casing to 6520 psi with prior to drilling out. TIH with 8-1/2" x 9-7/8" BHA. Drill out shoe and 10' of new formation. Perform FIT. If FIT is less than 16.0 ppg EMW, squeeze and retest as necessary.
17. Drill 8-1/2" x 9-7/8" hole while maintaining angle and direction to TD at 10,870' MD / 10,795' TVD.
18. Log and evaluate. If log evaluation indicates the well is a dry hole, the wellbore will be plugged and abandoned in accordance with 30 CFR Part 250.1700.
19. If Productive, run 7-5/8", 33.7#, HCQ-125, LTC production liner to TD at 10,870' MD / 10,795' TVD. Cement with 556 cf.

Note: An APM to TA the well will be filed separately.

BOP PROGRAM

<u>Interval</u>	<u>BOP Type</u>	<u>Test Pressure</u>
0' - 4,000' MD	21-1/4", 2M psi WP Diverter	250 psi
4,000' – 10,870' MD	13-5/8" 5M Annular	250 psi/3,500 psi
	13-5/8" 10M Pipe Rams(2)	250 psi/7,500
	13-5/8" 10M Blind/Shear Rams	250 psi/7,500

1. Diverter will be function tested daily on alternating tours while drilling surface hole below drive pipe.
2. BOPs will be tested on installation and every 14 days thereafter.

DRILLING MUD PROGRAM

<u>MD (ft)</u>	<u>Mud Weight (ppg)</u>	<u>Mud Type</u>
0 - 4,000'	8.6 – 9.6	WBM
4,000' – 10,870'	10.0 – 15.0	Oil Based Mud

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A minimum reserve of one thousand (1,000) sxs of barite and two hundred (200) sxs of gel will be kept on site at all times until the production casing is run and cemented.

1. The water based mud and cuttings will be disposed of overboard as long as the drilling fluids meet EPA LC-50 toxicity limits.
2. When the mud system is converted to oil-based mud and for the remainder of the well, the rig will be secured for zero discharge. All oil base cuttings and oil base mud will be transported from location and disposed of at an approved disposal facility.
3. Estimated delivery time for mud supplies is eight (8) to ten (10) hours.

DIRECTIONAL PLAN:

TYPE OF WELLBORE:	Build & Hold
KOP:	7,393'
MAX ANGLE:	13°
FINAL ANGLE:	13°
FINAL AZIMUTH:	90°
DISPLACEMENT:	695'
TOTAL DEPTH:	10,870' MD / 10,795' TVD

LOGGING PROGRAM

1. No logging to be performed in the surface hole.
2. The 12-1/4" and 9-7/8" hole sections will be logged with CNL/FDC/Induction (Triple Combo) wire line logs.
3. SWCs and RFTs are contingent upon electric log results.

CASING PROGRAM

<u>Drive Pipe</u>	24" x 3/4" WT	Set @	500' MD/ 500' TVD
<u>Conductor</u>	18-5/8", 87.5#, J-55, BTC	Set @	1000' MD/1000' TVD

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<u>Surface</u>	13-3/8", 61.0#, J-55, BTC	Set @	4000' MD/4000' TVD
<u>Intermediate</u>	9-5/8", 53.5#, P-110, LTC	Set @	9030' MD/9000' TVD
<u>Production</u>	7-5/8", 33.7#, HCQ-125, LTC	Set @	10870' MD/10795' TVD

Casing Test Pressure – 18-5/8" Conductor

$$\begin{aligned}
 \text{MASP} &= [(\text{FG})(\text{TVD})(.052)] - (\text{GG})(\text{TVD}) \\
 &= [(11.6)(1000)(.052)] - (.1)(1000) \\
 &= 503 \text{ psi (drilling condition)} \\
 \\
 \text{CTP} &= 250 \text{ psi (diverter in use)}
 \end{aligned}$$

Casing Test Pressure – 13-3/8" Surface

$$\begin{aligned}
 \text{MASP} &= [(\text{FG})(\text{TVD})(.052)] - [(\text{GG})(\text{TVD})] \\
 &= [(14.2)(4000)(.052)] - (.1)(4000) \\
 &= 2554 \text{ psi (drilling condition)} \\
 \\
 \text{CTP} &= \text{Same as MASP} \\
 &= 2554 \text{ psi}
 \end{aligned}$$

Casing Test Pressure – 9-5/8" Intermediate

$$\begin{aligned}
 \text{MASP} &= [(\text{PP})(\text{TVD})(.052)] - [(\text{TVD})(\text{GG})] \\
 &= [(14.5)(10795)(.052)] - [(.15)(10795)] \\
 &= 6520 \text{ psi (production condition)} \\
 \\
 \text{CTP} &= \text{Same as MASP} \\
 &= 6520 \text{ psi (production condition)}
 \end{aligned}$$

Liner Test Pressure – 7-5/8" Production

$$\begin{aligned}
 \text{MASP} &= [(\text{FG})(\text{TVD})(.052)] - (\text{GG})(\text{TVD}) \\
 &= [(14.5)(10795)(.052)] - (.15)(10795) \\
 &= 6520 \text{ psi (production condition)} \\
 \\
 \text{LTP} &= [(\text{FG})(.052)(\text{TVD}) + 500] - [(\text{MW})(.052)(\text{TVD})] \\
 &= [(16.9)(.052)(9000) + 500] - [(15)(.052)(9000)] \\
 &= 1389 \text{ psi}
 \end{aligned}$$

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CEMENTING PROGRAM

CONDUCTOR:

HOLE SIZE	=	22"
CASING SIZE	=	18-5/8"
SHOE DEPTH	=	1000'
TOC	=	325' (1'AML)
OPENHOLE EXCESS	=	200%
VOLUME (FT ³)	=	2042

SURFACE:

HOLE SIZE	=	17-1/2"
CASING SIZE	=	13-3/8"
SHOE DEPTH	=	4000'
TOC	=	325' (1'AML)
OPENHOLE EXCESS	=	100%
VOLUME(FT ³)	=	5326

INTERMEDIATE:

HOLE SIZE	=	12-1/4"
CASING SIZE	=	9-5/8"
SHOE DEPTH	=	9030'
TOC	=	3500'
OPENHOLE EXCESS	=	30%
VOLUME(FT ³)	=	2298

PRODUCTION LINER:

HOLE SIZE	=	9-7/8"
CASING SIZE	=	7-5/8"
SHOE DEPTH	=	10875'
TOC	=	8900'
OPENHOLE EXCESS	=	30%
VOLUME(FT ³)	=	556

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1. All porous zones containing hydrocarbons will be isolated by open hole cement plugs.
2. All freshwater zones will be fully protected from contamination.

SAFE WELDING & BURNING AREAS

Per Drilling Contractor's approved designated safe welding and burning area.

SUSTAINED CASING PRESSURE PLAN

1. The casing design (including metallurgy) will be in accordance with the expected pressures encountered in the well. The safety factors and design criteria of which are included in the APD.
2. The volume of cement used in cementing operations will be sufficient to cover hydrocarbon-bearing zones.
3. All aspects of good cementing practices (good quality cement, cement spacers, centralization, etc.) will be utilized in an attempt to get high quality cement jobs.
4. If SCP does occur on a well, remedial techniques will be utilized to address these casing pressures. These techniques will be customized for the particular well and circumstances.
5. During well control operations, the BOP in use will be switched from the annular preventer to a ram preventer when casing pressure reaches a maximum of 3,500 psi (annular preventer test pressure) unless safety or other specific well control situations dictate otherwise.