

**Form MMS 123A/123S - Electronic Version**

**Application for Permit to Drill a New Well**

**Lease** G24179 **Area/Block** GC 726 **Well Name** 001 **ST** 00 **BP** 00 **Well** Exploration  
**Application Status** Approved **Operato** 00981 Anadarko Petroleum Corporation

**General Well Information**

<b>API Number</b> 608114049500	<b>Approval Date</b> 05/31/2007	<b>Approved By</b> Ben Coco
<b>Date of Request</b> 05/21/2007	<b>Req Spud</b> 06/01/2007	<b>Kickoff Point</b> N/A
<b>Water Depth (ft.)</b> 4686	<b>Drive Size (in)</b> 36	<b>Mineral Code</b> Hydrocarbon
<b>RKB Elevation</b> 86	<b>Drive Depth</b> 5092	<b>Subsea BOP</b> Yes
<b>Verbal Approval</b>		<b>Verbal Approval By</b>

**Proposed Well Location**

**SURFACE LOCATION**

<b>LEASE (OCS)</b> G24179	<b>Area/Block</b> GC 726	<b>Authority</b> Federal Lease
<b>Entered NAD 27</b>	<b>Calculated NAD 27 Departures</b>	<b>Calculated NAD 27 X-Y</b>
<b>Lat:</b> 27.22331583	S 509.0	<b>X</b> 2343432.980996
<b>Lon:</b> -90.8363025	E 887.0	<b>Y</b> 9884668.973959
<b>Surface Plan</b>	<b>Plan Lease (OCS)</b> G24179	<b>Area/Block</b> GC 726

**BOTTOM LOCATION**

<b>LEASE (OCS)</b> G24179	<b>Area/Block</b> GC726	
<b>Entered NAD 27</b>	<b>Calculated NAD 27 Departures</b>	<b>Calculated NAD 27 X-Y</b>
<b>Lat:</b> 27.22917	S 2601.0	<b>X</b> 2341297.406913
<b>Lon:</b> -90.84276056	E 3023.0	<b>Y</b> 9886760.91958
<b>Bottom Plan</b>	<b>Plan Lease (OCS)</b> G24179	<b>Area/Block</b> GC 726

**Approval Comments**

The APD is approved with the following conditions:

Drill with caution due to possible shallow gas at 5150 feet and 6450 feet SS, as well as shallow faulting at 5925 feet SS. Conductor will be set at 7454 feet SS which is below the potential shallow gas.

MWD/PWD logs will be run below drive pipe and an ROV will monitor the well for shallow water flow.

Anticipate geopressure in the salt at about 19850 feet SS and possible abnormal pressure zones below 26000 feet SS.

Maintain kill weight mud in the pits. Maintain good drilling mud properties to drill out of drive pipe and weight increased as required to TD of surface hole. Cement slurry must contain gas migration additives, quick transition time additives, and high compressive strength additives to prevent gas flow after cementing. If possible, casing must be centralized in the hole across gas sands to ensure uniform cement sheath across the sands. Use mud if you plan to wash out the conductor or surface casing annulus after cementing.

Hold a prespud meeting with the crew to discuss the drilling plan for the above shallow hazards. Hold pit drills and abandon ship drill prior to spudding the well and drilling the above shallow hazards.

Follow the conditions of your approved Plan N-7577 and R-4636.

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<b>RKB Elevation</b> 86	<b>Drive Depth</b> 5092	<b>Subsea BOP</b> Yes
<b>Verbal Approval</b>		<b>Verbal Approval By</b>

You are required to enter the as built casing on the WAR for every wellbore including each sidetrack and or bypass.

All operations must be conducted in accordance with the OCS Lands Act (OCSLA), the lease terms and stipulations, the regulations of 30 CFR Part 250, Notices to Lessees and Operators (NTL s), the approved Application for Permit to Drill (APD), and any written instructions or orders of the District Manager.

Notify the MMS Houma District office 24 hours prior to moving onto or off of the location.

Call if any questions or concerns, Ben Coco at 985-853-5903.

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**Geologic Information**

<b>H2S Designation</b> Absent	<b>H2S TVD</b>
<b>Anticipated Geologic Markers</b>	
<b>Name</b>	<b>Top MD</b>
M15	26252

**Rig Information**

RIG SPECIFICATIONS		ANCHORS		Yes
Rig Name	DIAMOND OCEAN VALIANT			
Type	SEMISUBMERSIBLE	ID Number	28547	
Function	DRILLING	Constructed	1989	
Shipyard		Refurbished		
RATED DEPTHS				
Water Depth	5000	Drill Depth	35000	
CERTIFICATES				
ABS/DNV	09/29/2008	Coast Guard	10/17/2007	
SAFE WELDING AREA				
Approval Date	09/13/2004	District	1.0	
Remarks	Drilling Depth Rating upgraded from 25000 to 30000 ft per email dated 2/28/06 from Doug Foster of Diamond Offshore - DJT			
	Drilling Depth Rating upgraded from 30000 to 33000 ft per email dated 3/1/06 from Doug Foster of Diamond Offshore - DJT			
	Drilling Depth Rating upgraded from 33000 to 35000 ft per email dated 8/2/06 from David Webb of Diamond Offshore - DJT			

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**Question Information**

Number	Question	Respons	Response Text
1	Will you maintain quantities of mud and mud material (including weight materials and additives) sufficient to raise the entire system mud weight 1/2 ppg or more?	YES	
2	If hydrocarbon-based drilling fluids were used, is the drilling rig outfitted for zero discharge and will zero discharge procedures be followed?	YES	
3	If drilling the shallow casings strings riserless, will you maintain kill weight mud on the rig and monitor the wellbore with an ROV to ensure that it is not flowing?	YES	
4	If requesting a waiver of the conductor casing, have you submitted a log to MMS G&G that is within 500 feet of the proposed bottom hole location for the proposed surface casing point?	N/A	
5	Will the proposed operation be covered by an EPA Discharge Permit? (please provide permit number in comments for this question)	YES	GMG 290006 -386 A/T/S Approved for synethetics
6	Will all wells in the well bay and related production equipment be shut-in when moving on to or off of an offshore platform, or from well to well on the platform? If not, please explain.	N/A	

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**Permit Attachments**

File Type	File Description	Status
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**Required Attachments**

pdf	Proposed Well Location Plat	Attached
pdf	Drilling prognosis and summary of drilling, cementing, and mud processes	Attached
pdf	Pore pressure (PP), Mud Weight (MW), and Fracture Gradient (FG) Plot	Attached
pdf	Directional Program	Attached
pdf	Proposed Wellbore Schematic	Attached
pdf	Engineering Calculation	Attached
pdf	BOP & Diverter Schematics with Operating Procedures	Attached

**Optional/Supplemental Attachments**

pdf	Hurricane Evacuation - Contingency	Attached
pdf	Shallow Gas Contingency Plan	Attached
pdf	Structure Map - M15 Sand	Attached
pdf	Hurricane - Risk Analysis	Attached
pdf	Hurricane - GC 726 001- Survival RAOs and Wave Drift	Attached
pdf	Hurricane - Appendix D- Constat Consequence Analysis Report	Attached
pdf	Hurricane - Appendix B - AQWA	Attached
pdf	Hurricane - Ocean Valiant Motion Mooring Analysis 5-22-2007	Attached
pdf	Mooring Pattern	Attached
pdf	Location Plat - Proposed BHL and SL	Attached
pdf	Mud Program-Cementing Program-Logging Program	Attached
pdf	Shallow water - Shallow Water Flow	Attached
pdf	BOP with Rams Configured on Drawing	Attached
pdf	Safe Welding Area Drawing	Attached
pdf	Rig Picture and Drawing	Attached
pdf	Procedure - Revised 5-29-2007	Attached
pdf	Departure List	Attached
pdf	Hurricane - 10 mile map	Attached

**Contacts Information**

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**Contacts Information**

<b>Name</b>	Gaylene Reier
<b>Company</b>	00981          Anadarko Petroleum Corporation
<b>Phone Number</b>	832.636.3096
<b>E-mail Address</b>	gaylene.reier@anadarko.com
<b>Contact</b>	

<b>Name</b>	Sharon Jensen
<b>Company</b>	00981          Anadarko Petroleum Corporation
<b>Phone Number</b>	832.636.3269
<b>E-mail Address</b>	sharon.jensen@andarko.com
<b>Contact</b>	

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**Well Design Information**

Interval Number 1			Type	Casing	Name			Conductor
Section Number	Casing Size (in)	Casing Weight (lb/ft)	Casing Grade	Burst Rating	Collapse Rating (psi)	Depth (ft) MD TVD		Pore Pressure (ppg)
1	22.0	224.3	X-80	6360.0	3870.0	7454.	7454.	9.2
<b>GENERAL INFORMATION</b>			<b>PREVENTER INFORMATION</b>			<b>TEST INFORMATION</b>		
Hole Size (in)	26.0		Type	Blowout		Annular Test (psi)	2050.0	
Mud Weight (ppg)	10.0		Size (in)	18.75		BOP/Diverter Test	2050.0	
Mud Type Code	Gelled Sea		Wellhead Rating	15000		Test Fluid Weight	10.0	
Fracture Gradient	12.1		Annular Rating (psi)	10000		Casing/Liner Test	2050.0	
Liner Top Depth (ft)	0.0		BOP/Diverter Rating	15000		Formation Test (ppg)	12.1	
Cement Volume (cu	3600.0							

Interval Number 2			Type	Liner	Name			Surface
Section Number	Casing Size (in)	Casing Weight (lb/ft)	Casing Grade	Burst Rating	Collapse Rating (psi)	Depth (ft) MD TVD		Pore Pressure (ppg)
1	17.875	93.5	P-110	5380.0	1270.0	11474	11474	10.3
<b>GENERAL INFORMATION</b>			<b>PREVENTER INFORMATION</b>			<b>TEST INFORMATION</b>		
Hole Size (in)	21.0		Type	Blowout		Annular Test (psi)	2050.0	
Mud Weight (ppg)	11.6		Size (in)	18.75		BOP/Diverter Test	3800.0	
Mud Type Code	Synthetic		Wellhead Rating	15000		Test Fluid Weight	11.6	
Fracture Gradient	14.6		Annular Rating (psi)	10000		Casing/Liner Test	2000.0	
Liner Top Depth (ft)	6900.0		BOP/Diverter Rating	15000		Formation Test (ppg)	14.6	
Cement Volume (cu	1500.0							

Interval Number 3			Type	Casing	Name			Intermediate
Section Number	Casing Size (in)	Casing Weight (lb/ft)	Casing Grade	Burst Rating	Collapse Rating (psi)	Depth (ft) MD TVD		Pore Pressure (ppg)
1	13.625	88.2	HCQ-125	10030.0	5930.0	19254	19254	12.3
<b>GENERAL INFORMATION</b>			<b>PREVENTER INFORMATION</b>			<b>TEST INFORMATION</b>		
Hole Size (in)	16.5		Type	Blowout		Annular Test (psi)	3500.0	
Mud Weight (ppg)	14.1		Size (in)	18.75		BOP/Diverter Test	9000.0	
Mud Type Code	Synthetic		Wellhead Rating	15000		Test Fluid Weight	14.1	
Fracture Gradient	16.1		Annular Rating (psi)	10000		Casing/Liner Test	1700.0	
Liner Top Depth (ft)	0.0		BOP/Diverter Rating	15000		Formation Test (ppg)	16.1	
Cement Volume (cu	2400.0							

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**Well Design Information**

<b>Interval Number</b> 4		<b>Type</b> Liner		<b>Name</b> Intermediate			
<b>Section Number</b>	<b>Casing Size (in)</b>	<b>Casing Weight (lb/ft)</b>	<b>Casing Grade</b>	<b>Burst Rating</b>	<b>Collapse Rating (psi)</b>	<b>Depth (ft) MD TVD</b>	<b>Pore Pressure (ppg)</b>
1	11.875	71.8	Q-125	10720.0	5630.0	22148 21980	13.2
<b>GENERAL INFORMATION</b>			<b>PREVENTER INFORMATION</b>			<b>TEST INFORMATION</b>	
<b>Hole Size (in)</b>		13.5	<b>Type</b>		Blowout	<b>Annular Test (psi)</b> 3500.0	
<b>Mud Weight (ppg)</b>		14.4	<b>Size (in)</b>		18.75	<b>BOP/Diverter Test</b> 9000.0	
<b>Mud Type Code</b>		Synthetic	<b>Wellhead Rating</b>		15000	<b>Test Fluid Weight</b> 14.4	
<b>Fracture Gradient</b>		15.4	<b>Annular Rating (psi)</b>		10000	<b>Casing/Liner Test</b> 1700.0	
<b>Liner Top Depth (ft)</b>		18950.0	<b>BOP/Diverter Rating</b>		15000	<b>Formation Test (ppg)</b> 15.4	
<b>Cement Volume (cu)</b>		325.0					

<b>Interval Number</b> 5		<b>Type</b> Open Hole		<b>Name</b> Open Hole			
<b>Section Number</b>	<b>Casing Size (in)</b>	<b>Casing Weight (lb/ft)</b>	<b>Casing Grade</b>	<b>Burst Rating</b>	<b>Collapse Rating (psi)</b>	<b>Depth (ft) MD TVD</b>	<b>Pore Pressure (ppg)</b>
1						27400 26792	14.3
<b>GENERAL INFORMATION</b>			<b>PREVENTER INFORMATION</b>			<b>TEST INFORMATION</b>	
<b>Hole Size (in)</b>		10.625	<b>Type</b>		Blowout	<b>Annular Test (psi)</b> 3500.0	
<b>Mud Weight (ppg)</b>		14.6	<b>Size (in)</b>		18.75	<b>BOP/Diverter Test</b> 9000.0	
<b>Mud Type Code</b>		Gelled Sea	<b>Wellhead Rating</b>		15000	<b>Test Fluid Weight</b> 0.0	
<b>Fracture Gradient</b>		0.0	<b>Annular Rating (psi)</b>		10000	<b>Casing/Liner Test</b>	
<b>Liner Top Depth (ft)</b>			<b>BOP/Diverter Rating</b>		15000	<b>Formation Test (ppg)</b>	
<b>Cement Volume (cu)</b>							

PAPERWORK REDUCTION ACT OF 1995 (PRA) STATEMENT: The PRA (44 U.S.C. 3501 et seq. Requires us to inform you that we collect this information to obtain knowledge of equipment and procedures to be used in drilling operations. MMS uses the information to evaluate and approve or disapprove the adequacy of the equipment and/or procedures to safely perform the proposed drilling operation. Responses are mandatory (43 U.S.C. 1334). Proprietary data are covered under 30 CFR 250.196. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB Control Number. Public reporting burden for this form is estimated to average 27 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to the