The BP Oil Spill

Mardjokic.com

It's been a number of months since I've posted and I apologize for this; it certainly hasn't been for lack of material!

As I look out at the state of the world, I see a number of dark clouds, but for me one of the most troubling is the BP Oil spill. We seem wholly incapable of shutting down this well and I can't help but ask: why are we drilling at 4,992 feet when its clear we have neither the expertise or the technology to work and repair busted wellheads at these depths.

Following the failed containment cap and top kill procedures, one of the first questions that popped into my head was just how much oil is down there? If traditional methods like top kill and relief wells don't work, when will this problem resolve itself? Its our fail-safe, and without sounding too much like a conspiracy theorist, I've heard a figure has been floated around, but its obviously quite staggering and no one seems interesting in reporting on it.

But before I dive into how much oil I think is down there, I'd like to first share with you some interesting background info I learned along the way:

- The oil fields below the Gulf of Mexico account for 23% of all US oil production.
- The Deepwater Horizon rig is owned by Transocean, a swiss based company, that purchased the rig from Hyundai Heavy Industries in 2001.
- Transocean's corporate slogan is: "We're never out of our depth"
- Transocean owns and in turn leases over 140 different rigs to oil companies such as BP (count as of 12/09).
- Details and specifications on Deepwater Horizon are available here. *See Appendix 1.*
- BP had filed their application to drill the wells located in Mississippi Canyon, Block 252 in 2009 and received approval just 2 months later.
    - *See Appendix 2, 3, 4*
- Transocean's Marianas was initially commissioned for this drill site (10/21/09) but stopped drilling due to structural damages from Hurricane Ida (11/28/09). In February of this year, Deepwater Horizon picked up the torch and the balance of the story everyone seems to know. (See Footnote 1).

So back to my original question: when will this well run dry? Thinking logically, oil exploration is a very expensive proposition and BP is in the business of making money so the reserves that are developed first will likely be abundant in quality and quantity. The first number you can come up with a break even quantity. How many barrels of oil would BP need to extract before they were made whole on their

investment?

Based on average lease rates taken from Transocean 2009 10K, it costs BP almost half a million dollars a day to drill a well. Adding in the cost of employees and miscellaneous expenses, the BE on drilling a well is 2.1M barrels. *See Appendix 5.* To date (7/6/2010), the NYT reports that between 1-3M barrels have been released into the Gulf. (Conversion factor = 42 gallons / barrel). The riser has been leaking for nearly 2 months and we are just now breaking into the black for BP, yikes!

BP operates several other production wells in the area. We can use data from these locations to help ascertain how much oil BP expected to extract from these new oil fields.

Horn Mountain is a production field not far from Deepwater Horizon. The well and pipelines cost over $600M to develop and was expected to yield 150M barrels of oil and nat gas. If we assume that BP would be looking to invest in exploration projects that yield similar operating profit we can extrapolate how much oil BP thought was below Deepwater Horizon.

Under the Horn Mountain project, each well cost BP $75M to construct and would yield approximately 18M barrels of oil. Using 2005 oil prices that would yield an operating profit of $834M. As a ratio to costs, BP made back 11x what they spent on the well. A healthy margin no doubt. Applying this same relationship to Deepwater Horizon (and its sister well), the company would be looking to make over $1.3B in operating profit and using 2009 oil prices, each well would be expected to yield about 11.8M bbls. The supporting workbook and calculations are available here. *See Appendix 6.*

So in sum, my guestimate is anywhere between breakeven bbls per day of 2.1M and north of the constant margin estimate of 12M bbls. Unfortunately the figure has to be closer to 12 then 2 which puts it at more than 6X the amount of oil that's already been released into the Gulf of Mexico. Truly, is an unacceptable number.

Footnotes:

1. SubsealQ.com

Appendix 1

Fleet Specifications

Deepwater Horizon		
The DEEPWATER HORIZON is a Reading & Bates Falcon RBS8D design semi-submersible drilling unit capable of operating in harsh environments and water depths up to 8,000 ft (upgradeable to 10,000 ft) using 18¾in 15,000 psi BOP and 21in OD marine riser.		
Rig Type	5th Generation Deepwater	
Design	Reading & Bates Falcon RBS-8D	
Builder	Hyundai Heavy Industries Shipyard, Ulsan, South Korea	
Year Built	2001	
Classification	ABS	
Flag	Marshall Islands	
Accommodation	130 berths	
Helideck	Rated for S61-N helicopter	
Moonpool	21 ft x 93 ft	
Station Keeping	Dynamically Positioned	
Max Drill Depth	30,000 ft / 9,144 m	
Max Water Depth	8,000 ft / 2,438 m	
Operating Conditions	Significant Wave: 29 ft;@ 10.1 sec; Wind: 60 knots; Current: 3.5 knots	
Storm Conditions	Significant Wave: 41 ft @ 15 sec; Wind: 103 knots; Current: 3.5 knots	

Technical Dimensions

Length	396 ft	121 m
Breadth	256 ft	78 m
Depth	136 ft	41 m
Operating Draft	76 ft	23 m
Ocean Transit Draft	29 ft	9 m
VDL - Operating	8,816 st	8,000 mt

Capacities

Liquid Mud	4,435 bbls	24,900 cu ft	705 cu m
Drill Water	13,076 bbls	73,415 cu ft	2,078 cu m
Potable Water	7,456 bbls	41,862 cu ft	1,185 cu m
Fuel Oil	27,855 bbls	156,392 cu ft	4,426 cu m
Bulk Mud		13,625 cu ft	386 cu m
Bulk Cement		8,175 cu ft	231 cu m
Sack Material	10,000 sacks		

Drilling Equipment

Derrick	Dreco 242 ft x 48 ft x 48 ft, 2000 kips GNC
Drawworks	Hitec active heave compensating drawworks, 6900 hp rated input power continuous, 2in drilling line

Motion Compensator	Hitec ASA Active Heave Compensator, 13.7 ft stroke, 500 st operating, 1000 st locked
Top Drive	Varco TDS-8S, 750 st, 1150 hp with PH-100 pipe handler
Rotary	Varco RST, 60.5in opening, 1000 st
Pipe Handling	2 x Varco PRS-6i Pipe Packers; Varco AR-3200 Iron Roughneck
Mud Pumps	4 x Continental Emsco FC-2200, 7500 psi
Shale Shakers	7 x Brandt LCM-2D CS linear motion / cascading shakers
Desander	2 x Brandt SRS-3 with 6 x 12in cones
Desilter	Brandt LCM-2D/LMC with 40 x 4in cones over one linear motion shaker, 2400 gpm
Mud Cleaner	See Desilter
BOP	2 x Cameron Type TL 18¾in 15K double preventers; 1 x Cameron Type TL 18¾in 15K single preventer; 1 x Cameron DWHC 18¾in 15K wellhead connector
LMRP	2 x Cameron DL 18¾in 10K annular; 1 x Cameron HC 18¾in 10K connector
Diverter	Hydril 60 with 21¼in max bore size, 500 psi WP and 18in flowline and two outlets
Control System	Cameron Multiplex Control System
Riser	Vetco HMF-Classs H 21in OD riser; 90 ft long joints with C&K and booster and hydraulic supply lines
Riser Tensioners	6 x Hydralift Inline, 50f t stroke, 800 kips each
Guideline Tensioners	N/A
Podline Tensioners	N/A
Choke & Kill	Stewart & Stevenson 3-1/16in, 15K, with 2 x adjustable chokes and 2 x hydraulic power chokes
Cementing	Halliburton (third party equipment)

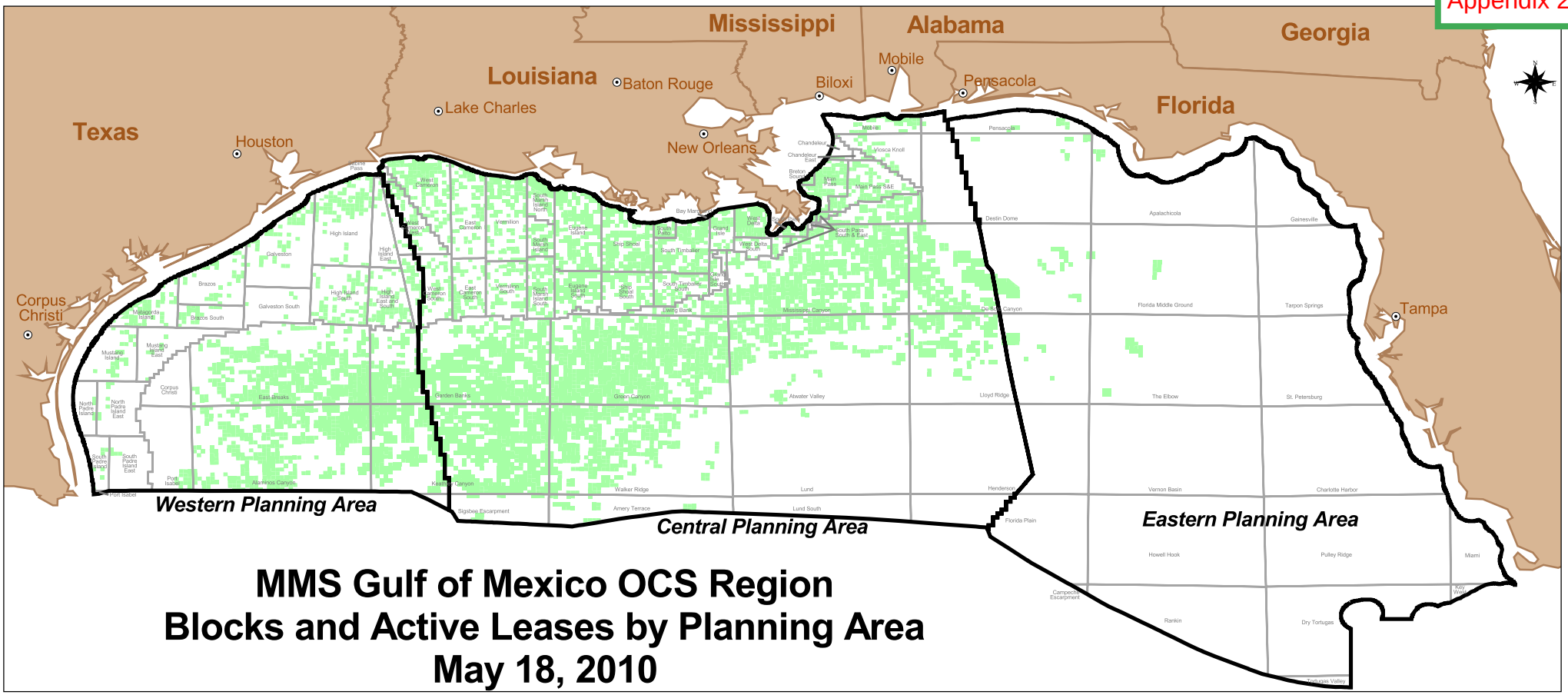
Machinery

Main Power	6 x Wartsila 18V32 rated 9775 hp each, driving 6 x ABB AMG 0900xU10 7000 kW 11,000 volts AC generators
Emergency Power	1 x Caterpillar 3408 DITA driving 1 x Caterpillar SR4 370 kW 480 volts AC generator
Power Distribution	8 x ABB Sami-Megastar Thruster Drives, 5.5 MW and 6 x GE Drilling Drive Lineups 600 V 12 MW
Deck Cranes	2 x Liebherr, 150 ft boom, 80 mt @ 35 ft
Thrusters	8 x Kamewa rated 7375 hp each, fixed propeller, full 360 deg azimuth
Propulsion	See Thrusters

Mooring Equipment

Winches	N/A
Wire/Chain	N/A
Anchors	N/A

Appendix 2



MMS Gulf of Mexico OCS Region
Blocks and Active Leases by Planning Area
May 18, 2010

Planning Area	Total Blocks	Total Acres	Number of Leases	Acres Leased
Western	5,240	28,576,583	1,624	9,114,293
Central	12,409	66,452,086	4,906	25,866,835
Eastern	11,526	64,556,650	122	656,264
Total	29,175	159,585,319	6,652	35,637,392
CPA / EPA Shared Blocks*	(86)	-	(9)	-
TOTALS	**29,089**	**159,585,319**	**6,643**	**35,637,392**

Active Lease
Planning Area Boundary

* CPA and EPA contain 86 shared blocks of which 9 are leased. These blocks are given both a CPA and EPA designation in the data which accounts for a higher block total.

TM10037 05/18/2010

Appendix 3

UNITED STATES GOVERNMENT
MEMORANDUM

March 10, 2009

To: Public Information (MS 5030)
From: Plan Coordinator, FO, Plans Section (MS 5231)

Subject: Public Information copy of plan
- Control # - N-09349
- Type - Initial Exploration Plan
- Lease(s) - OCS-G32306 Block - 252 Mississippi Canyon Area
- Operator - BP Exploration & Production Inc.
- Description - Wells A and B
- Rig Type - SEMISUBMERSIBLE

Attached is a copy of the subject plan.

It has been deemed submitted as of this date and is under review for approval.

Michelle Griffitt
Plan Coordinator

Site Type/Name	Botm Lse/Area/Blk	Surface Location	Surf Lse/Area/Blk
WELL/A	G32306/MC/252	6943 FNL, 1036 FEL	G32306/MC/252
WELL/B	G32306/MC/252	7066 FNL, 1326 FEL	G32306/MC/252

NOTED - SCHEXNAILDRE
Rec'd DM
3/12/09

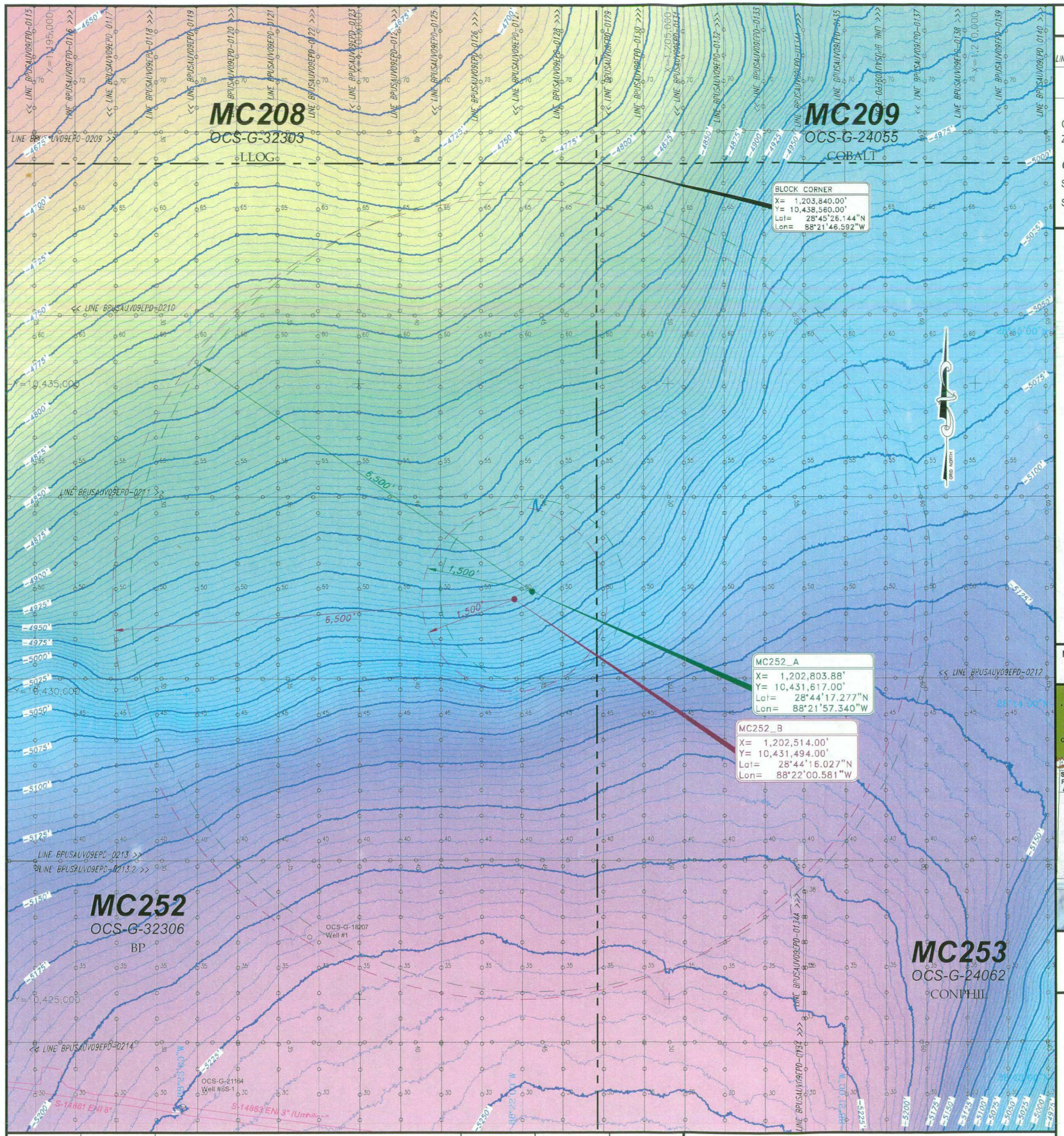
Initial Exploration Plan

Mississippi Canyon Block 252

OCS-G 32306

Public Information

BP Exploration & Production Inc.
February 2009



PLAN VIEW

LINE BPUSAUV09EPD-1	Navigation trackline with name and direction run, fix and fix number
○	Well with no surface facility

MULTIBEAM PROCESSING SEQUENCE

Contour interval = 5 feet
Zero datum = Mean Sea Level

Color shaded image

Sun azimuth = 45°

Sun elevation = 30°

Water column velocity corrections applied
Tide corrections applied using Goddard Ocean Tide Model GOT99.2
Bin size = 3 meters (9.84 feet)
Median filter applied
Produced gridded-binned dataset using weighted-neighbor algorithm
Search radius = 9 meters (29.53 feet)

DEPTH IN FEET

-4600 -4605 -4610 -4615 -4620 -4625 -4630 -4635 -4640 -4645 -4650 -4655 -4660 -4665 -4670 -4675 -4680 -4685 -4690 -4695 -4700 -4705 -4710 -4715 -4720 -4725 -4730 -4735 -4740 -4745 -4750 -4755 -4760 -4765 -4770

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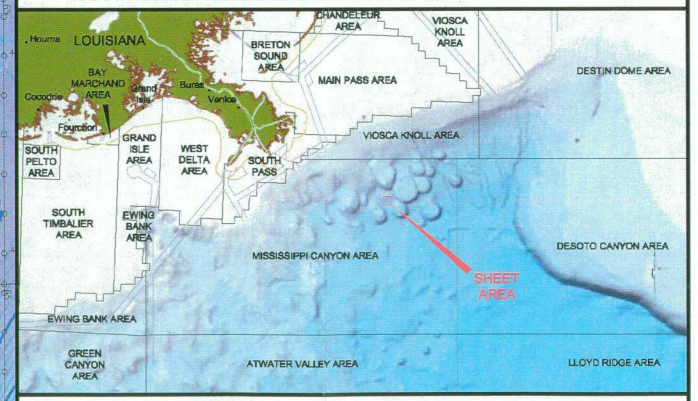
-5110 -5115 -5120 -5125 -5130 -5135 -5140 -5145 -5150 -5155 -5160 -5165 -5170 -5175 -5180 -5185 -5190 -5195 -5200 -5205 -5210 -5215 -5220 -5225 -5230 -5235 -5240 -5245 -5250 -5255 -5260 -5265 -5270 -5275 -5280

PROPOSED ANCHOR LOCATIONS

NUMBER	X COORDINATE	Y COORDINATE	NUMBER	X COORDINATE	Y COORDINATE
1	1,198,335.04'	10,429,958.86'	5	1,207,280.04'	10,433,279.86'
1A	1,198,575.04'	10,429,415.86'	5A	1,207,036.04'	10,433,830.86'
2	1,198,048.04'	10,431,547.86'	6	1,207,566.04'	10,431,691.86'
3	1,201,131.04'	10,436,077.86'	7	1,204,098.04'	10,427,038.86'
4	1,202,713.04'	10,436,386.86'	8	1,202,896.04'	10,426,855.86'
4A	1,203,248.04'	10,436,386.86'	8A	1,202,360.04'	10,426,875.86'

NOTE: All field data acquired January 2-25, 2009.
Survey vessel: M/V *Miss Ginger*
NADCON version 2.1 utilized for WGS84-NAD27 conversions.



BP America Inc.
WestLake Park Boulevard
Houston, Texas 77079-2696

COLOR SHADED BATHYMETRY MAP
SITE SPECIFIC SURVEY
of
PROPOSED A and B WELLS
"MACONDO" PROSPECT
BLOCK 252 (OCS-G-32306)
MISSISSIPPI CANYON AREA

1,000' 0 1,000' 2,000'
SCALE IN US SURVEY FEET

ISSUE	DATE	DESCRIPTION	DRAWN	INTERP	CHECKED
1	Feb. 16, 2009	Preliminary issue for review	RJS, AMM	JB, RC	D. Pierrottie
2	Feb. 19, 2009	Original issue with report	RJS, AMM	JB, RC	D. Pierrottie
3	Feb. 25, 2009	Added additional radii	RJS, AMM	JB, RC	D. Pierrottie

GEODETIC DATUM: NAD27
ELLIPSOID: CLARKE 1866
GRID UNITS: U.S. SURVEY FEET
PROJECTION: UNIVERSAL TRANSVERSE MERCATOR
ZONE: 16N
CENTRAL MERIDIAN: 87° 00' W
FALSE EASTING: 1,640,416.67 ft. at C.M.
FALSE NORTHING: 0.00 ft. at 00° 00' N

PREPARED BY:
C&C Technologies SURVEY SERVICES
330 E. KALISTE SALOOM ROAD, LAFAYETTE, LA (337) 261-0660

JOB NO. 084083-094742 | DATE: Feb. 25, 2009
FILENAME: J:\084083-094742\084083_WELL_SITE.DWG

SHEET 1 of 6

2/25/09

AMENDMENT

25" x 21"
DATE: 02/25/2009 TIME: 10:10 FILENAME: J:\084083-094742\084083_WELL_SITE.DWG

TABLE OF CONTENTS

Section

1.0 Plan Contents
- 1.1 Plan Information Form
- 1.2 Location Information
- 1.3 Safety and Pollution Prevention Features
- 1.4 Storage Tanks and Production Vessels
- 1.5 Pollution Prevention Measures
- 1.6 Attachments to Section 1.0

2.0 General Information
- 2.1 Applications and Permits
- 2.2 Drilling Fluids
- 2.3 New or Unusual Technology
- 2.4 Bonding Information
- 2.5 Oil Spill Financial Responsibility (OSFR)
- 2.6 Deepwater Well Control
- 2.7 Blowout Scenario

3.0 Geological, Geophysical, and H_2S Information
- 3.1 Geological and Geophysical Information
- 3.2 H_2S Information
- 3.3 Attachments to Section 3.0

4.0 Biological, Physical, and Socioeconomic Information
- 4.1 Chemosynthetic Information
- 4.2 Topographic Features Information
- 4.3 Live Bottoms (Pinnacle Trend)
- 4.4 Live Bottoms (Low Relief)
- 4.5 Potentially Sensitive Biological Features
- 4.6 Remotely Operated Vehicle (ROV) Monitoring Survey Plan
- 4.7 Archaeological Report

5.0 Waste and Discharge Information
- 5.1 Projected Generated Wastes
- 5.2 Projected Ocean Discharge

6.0 Air Emissions Information
- 6.1 Emissions Worksheets and Screening Questions
- 6.2 Contact Information
- 6.3 Modeling Report

7.0 Oil Spills Information
- 7.1 Oil Spill Response Planning
- 7.2 Modeling Report

8.0 Environmental Monitoring Information
- 8.1 Monitoring Systems
- 8.2 Flower Garden Banks National Marine Sanctuary

9.0 Lease Stipulation Information
- 9.1 Lease Stipulations for MC 252

10.0 Environmental Mitigation Measures Information
- 10.1 Description of Mitigation Measures
- 10.2 Incidental Takes

TABLE OF CONTENTS

11.0 Support Vessels and Aircraft Information
- 11.1 General
- 11.2 Diesel Oil Supply Vessels
- 11.3 Diesel Fluids Transportation
- 11.4 Solid and Liquid Wastes Transportation
- 11.5 Vicinity Map
- 11.6 Attachments to Section 10.0

12.0 Onshore Support Facilities Information
- 12.1 General Information
- 12.2 Support Base construction or Expansion
- 12.3 Waste Disposal

13.0 Coastal Zone Management Act (CZMA) Information
- 13.1 Consistency Certification
- 13.2 Other Information
- 13.3 Attachments to Section 12.0

14.0 Environmental Impact Analysis (EIA)
- 14.1 Impact Producing Factors
- 14.2 Analysis
- 14.3 Impacts on Proposed Activities
- 14.4 Environmental Hazards
- 14.5 Alternatives
- 14.6 Mitigation Measures
- 14.7 Consultation
- 14.8 Preparers
- 14.9 References

15.0 Administrative Information
- 15.1 Exempted Information Description (Public Information Copies Only)
- 15.2 Bibliography

1.0 Plan Contents

Under this Exploration Plan, BP Exploration & Production Inc. proposes to drill and temporarily abandon two (2) exploratory wells in the Macondo project area.

1.1. Plan Information Form

Included in Section 1.0 is Form MMS-137 "OCS Plan Information Form" which provides details concerning the activities proposed in this plan. The dates shown are tentative.

1.2 Location Information

A well location plat prepared in accordance with Notice to Lessees (NTL) 2008-G04 is included in Section 1.0.

1.3 Safety and Pollution Prevention Features

The proposed wells will be drilled with Transocean's *Marianas* rig. Rig specifications will be made a part of the appropriate Applications for Permit to Drill.

Please note that if the aforementioned semi-submersible drilling rig is not available and another rig is contracted, any differences regarding air emissions, drilling equipment, pollution control and safety equipment will be addressed at that time.

Safety features on the MODU will include well control, pollution prevention, welding procedure, and blowout prevention equipment as described in Title 30 CFR Part 250, Subparts C, D, E, G and O and as further clarified by MMS Notices to Lessees and current policy making invoked by the MMS. The *Marianas* is ISO 14001 certified.

The MMS is required to conduct onsite inspections of offshore facilities to confirm operators are complying with lease stipulations, operating regulations, approved plans, and other conditions, as well as to assure safety and pollution prevention requirements are being met. The National Potential Incident of Noncompliance (PINC) List serves as the baseline for these inspections. The MMS also inspects the stockpiles of equipment listed in the operator's approved Regional Oil Spill Response Plan that would be used for the containment and cleanup of hydrocarbon spills.

Appropriate life rafts, life jackets, rig buoys, etc. will be maintained on the facility at all times as mandated by the U.S. Coast Guard regulations contained in Title 33 CFR.

Supervisory and certain designated personnel on-board the facility will be familiar with the effluent limitations and guidelines for overboard discharges into the receiving waters, as outlined in the NPDES General Permit GMG290000.

1.4 Storage Tanks and Production Vessels

– Information regarding the storage tanks that will be used to conduct the drilling operations proposed in this plan that will store oil, as defined at 30 CFR 254.6 is provided in the table below. Only those tanks with a capacity of 25 barrels or more are included.

Type of Storage Tank	Type of Facility	Tank Capacity (bbls)	Number of Tanks	Total Capacity (bbls)	Fluid Gravity (API)
Fuel Oil	Semi-Submersible	4794	4	19176	27.489
Waste Oil	Semi-Submersible	31	1	31	34.971
Fuel Oil	Semi-Submersible	123	2	246	27.489
Fuel Oil	Semi-Submersible	137	1	137	27.489

Type of Storage Tank	Type of Facility	Tank Capacity (bbls)	Number of Tanks	Total Capacity (bbls)	Fluid Gravity (API)
Fuel Oil	Semi-Submersible	115	1	115	27.489
Fuel Oil	Semi-Submersible	32	1	32	27.489
Hydraulic	Semi-Submersible	29	3	87	31.144
Lube Oil	Semi-Submersible	134	1	134	34.971
Heli-Fuel	Semi-Submersible	50	1	50	37.961

1.5 Pollution Prevention Measures – A discussion of measures to prevent the discharge of oils and greases from drilling rigs during rainfall and routine operations is not required for the operations proposed in this plan.

1.6 Additional Measures – A discussion of additional safety, pollution prevention, or early spill detection measures beyond those required by 30 CFR 250 is not required in this plan.

1.7 Attachments to Section 1.0

- OCS Plan Information Form (Form MMS 137)
- Well Location Maps

OCS PLAN INFORMATION FORM

General Information

Type of OCS Plan	X	Exploration Plan (EP)		Development Operations Coordination Document (DOCD)
Company Name: BP Exploration & Production, Inc.			MMS Operation Number: 02481	
Address: 200 Westlake Park Blvd			Contact Person: Scherie Douglas	
Houston, TX 77079			Phone Number: 281-366-6843	
			E-Mail Address: scherie.douglas@bp.com	

Lease(s):OCS-G 32306	Area: MC	Block(s): 252	Project Name (If Applicable): Macondo

Objective(s):	X	Oil		Gas		Sulphur		Salt	Onshore Base: Fourchon, LA		Distance to Closes Land (Miles): 48	

Description of Proposed Activities (Mark all that apply)

X	Exploration drilling		Development drilling
	Well completion		Installation of production platform
	Well test flaring (for more than 48 hours)		Installation of production facilities
	Installation of caisson or platform as well protection structure		Installation of satellite structure
	Installation of subsea wellheads and/or manifolds		Commence production
	Installation of lease term pipelines		Other (Specify and describe)

Have you submitted or do you plan to submit a Conservation Information Document to accompany this plan?		Yes	X	No
Do you propose to use new or unusual technology to conduct your activities?		Yes	X	No
Do you propose any facility that will serve as a host facility for deepwater subsea development?		Yes	X	No
Do you propose any activities that may disturb an MMS-designated high-probability archaeological area?		Yes	X	No
Have all of the surface locations of your proposed activities been previously reviewed and approved by MMS?		Yes	X	No

Tentative Schedule of Proposed Activities

Proposed Activity	Start Date	End Date	No. of Days
Drill and temporarily abandon well location "A"	04/15/2009	07/24/2009	100
Drill and temporarily abandon well location "B"	04/15/2010	07/24/2010	100

Description of Drilling Rig

	Jackup		Drillship		Caisson		Tension Leg Platform
	Gorilla Jackup		Platform rig		Well protector		Compliant tower
X	Semi-submersible		Submersible		Fixed Platform		Guyed tower
	DP Semi-submersible		Other (Attach description)		Subsea manifold		Floating production system
Drilling Rig Name (if known): Transocean's *Marianas*					Spar		Other (Attach Description)

Description of Lease Term Pipelines

From (Facility/Area/Block)	To (Facility/Area/Block)	Diameter (Feet)	Length (Feet)
NA			

OCS PLAN INFORMATION FORM (CONTINUED)

Include one copy of this page for each proposed well/structure

Proposed Well/Structure Location					
Well or Structure Name/Number (If renaming well or structure, reference previous name): Well Location "A"				***Subsea Completion***	
Anchor Radius (if applicable) in feet: 4600				Yes	X No
	Surface Location		**Bottom-Hole Location (For Wells)**		
Lease No.	OCS-G 32306				
Area Name	MC				
Block No.	252				
Blockline Departures (in feet)	N/S Departure 6943 F _N_ L		N/S Departure F _N_ L		
	E/W Departure 1036 F _E_ L		E/W Departure F _E_ L		
Lamber X-Y coordinates	X: 1202803.88		X:		
	Y: 10431617.00		Y:		
Latitude / Longitude	Latitude 28°44'17.277"N		Latitude		
	Longitude 88°21'57.340"W		Longitude		
	TVD (Feet):	MD (Feet):		Water Depth (Feet): 4992	

Anchor Locations for Drilling Rig or Construction Barge (If anchor radius supplied above, not necessary)

Anchor Name or No.	Area	Block	X Coordinate	Y Coordinate	Length of Anchor Chain on Seafloor

Include one copy of this page for each proposed well/structure

Proposed Well/Structure Location				
Well or Structure Name/Number (If renaming well or structure, reference previous name): Well Location "B"			***Subsea Completion***	
Anchor Radius (if applicable) in feet: 4600			Yes	X No

	Surface Location	**Bottom-Hole Location (For Wells)**
Lease No.	OCS-G 32306	
Area Name	MC	
Block No.	252	
Blockline Departures	N/S Departure 7066' F _N_ L	N/S Departure F _N_ L
(in feet)	E/W Departure 1326' F _E_ L	E/W Departure F _E_ L
Lamber X-Y coordinates	X: 1202514.00	X:
	Y: 10434194.00	Y:
Latitude / Longitude	Latitude 28°44'16.027"N	Latitude
	Longitude 88°22'00.581"W	Longitude
	TVD (Feet):	MD (Feet): Water Depth (Feet): 4992

Anchor Locations for Drilling Rig or Construction Barge (If anchor radius supplied above, not necessary)

Anchor Name or No.	Area	Block	X Coordinate	Y Coordinate	Length of Anchor Chain on Seafloor

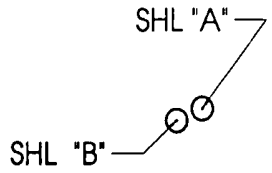
Paperwork Reduction Act of 1995 Statement: The Paperwork Reduction Act of 1995 (44 U.S.C. Chapter 35) requires us to inform you that MMS collects this information as part of an applicant's Exploration Plan or Development Operations Coordination Document submitted for MMS approval. We use the information to facilitate our review and data entry for OCS plans. We will protect proprietary data according to the Freedom of Information Act and 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 Office of Management and Budget Control Number. The use of this form is voluntary. The public reporting burden for this form is included in the burden for preparing Exploration Plans and Development Operations Coordination Documents. We estimate that burden to average 580 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 Information Collection Clearance Officer, Mail Stop 4230, Minerals Management Service, 1849 C Street, N.W., Washington, DC 20240.

Y = 10, 438, 560.00ft

X = 1, 188, 000.00ft

Proposed Surface Hole locations:

	Block Ties FEL x FNL	UTM Zone 16 North NAD27 - US Survey Feet Northing (Y)	Easting (X)	NAD27 Lat/Long Latitude	Longitude	NAD83 Lat/Long Latitude	Longitude	Water Depth
"A"	1036.12' X 6943.00'	10431617.00ft	1202803.88ft	28°44'17.277"N	88°21'57.340"W	28°44'18.128"N	88°21'57.362"W	-4992ft
"B"	1326.00' X 7066.00'	10431494.00ft	1202514.00ft	28°44'16.027"N	88°22'00.581"W	28°44'16.877"N	88°22'00.603"W	-4992ft



MC252
BP E&P Inc
OCS-G32306

SHL
001

SHL
001

X = 1, 203, 840.00ft

Y = 10, 422, 720.00ft

Notes:
1) All coordinate data in UTM Zone 16 North, NAD27, US survey feet unless otherwise noted;
2) All geodetic conversions transformed utilizing NADCON version 2.0 or better equivalent software;
3) Locations NOT in a Military Warning Area

"Public Information"

bp

BP EXPLORATION AND PRODUCTION

EP Locations OCS-G32306 MC 252 "A" and "B"

Mississippi Canyon Area (OPD# NH16-10) Block 252 Offshore Federal - Louisiana

Plat prepared by: Brian D. Autio, APLS BP IT&S GoM SPU

Scale 1" = 2000 ft

Date: 11February 2009

SECTION 2.0
General Information
(250.213 and 250.243)

2.1 Applications and Permits – The table below provides information on the filing or approval status of the individual and/or site-specific Federal, State and local application approvals or permits that must be obtained to conduct the proposed activities.

Application/Permit	Issuing Agency	Status
Application for Permit to Drill	MMS – New Orleans District	To be submitted
Emergency Evacuation Plan	USCG	To be submitted

2.2 Drilling Fluids - A table providing information on the types (including chemical constituents) and amounts of the drilling fluids that are planned to drill the proposed wells is included below:

Type of Drilling Fluid	Estimated Volume of Drilling Fluid to be Used per Well
Water-based (seawater, freshwater, barite)	20,000 bbls
Synthetic-based (internal olefin, ester)	10,000 bbls

2.3 New or Unusual Technology

BP Exploration & Production Inc. does not propose to utilize new techniques or unusual technologies for these operations; however, the best available and safest technologies (BAST) as referenced in Title 30 CFR 250 will be incorporated as standard operational procedures.

2.4 Bonding Information

The bond requirements for the activities and facilities proposed in this Exploration Plan are satisfied by a $3,000,000 area-wide bond furnished and maintained according Title 30 CFR Part 256, Subpart I, and NTL No. 2000-G16 *"Guidelines for General Lease Surety Bonds"*, dated September 7, 2000.

2.5 Oil Spill Financial Responsibility (OSFR)

BP Exploration & Production Inc., MMS company number 02481, has demonstrated oil spill financial responsibility for the facilities proposed in this Exploration Plan according to Title 30 CFR Part 253, and National NTL No. 2008-N05, "*Guidelines for Oil Spill Financial Responsibility for Covered Facilities".*

2.6 Deepwater Well Control

BP Exploration & Production Inc., MMS company number 02481, has the financial capability to drill a relief well and conduct other emergency well control operations.

2.7 Blowout Scenario

A scenario for a potential blowout of the well from which BP would expect to have the highest volume of liquid hydrocarbons is not required for the operations proposed in this EP.

SECTION 3.0
Geological, Geophysical, and H_2S Information
(250.214, 250.215, 250.244 and 240.245)

3.1 Geological and Geophysical Information

The following subsections describe the various geological and geophysical data that has been included with this plan. Maps and cross-sections can be found at the end of this descriptive section or as attachments to the overall Plan.

3.1.1 Geological description – Proprietary Information

3.1.2 Structure contour maps - Current structure contour maps at a scale of 1 inch = 2,000 feet (depth-based, expressed in feet subsea) drawn on the top of each prospective hydrocarbon sand, showing the entire lease block and the location of each proposed well and the locations of geological cross-sections.

3.1.3 Interpreted two-dimensional (2-D) and/or three dimensional (3D) seismic lines –3D seismic data for shallow hazards identification as per the guidelines outlined in NTL 2008-G05.

3.1.4 Geological structure cross-sections – Interpreted geological structure cross-sections showing the location and depth of each proposed well and showing at least one key horizon and the objective sands.

3.1.5 Shallow hazards report - The proposed surface location of this well was selected based on the results of: a regional shallow hazards survey and study of MC208, MC252 and MC296 and portions of surrounding blocks conducted by KC Offshore in 1998 for Texaco Exploration and Production Inc. (Texaco) using HR2D seismic data integrated with 3D exploration seismic data; AND a shallow hazards report for MC252 and MC296 and vicinity produced by Fugro GeoServices, Inc. (Fugro) in 2003 for Dominion Exploration and Production Inc. (Dominion) based on exploration 3D seismic data – the seafloor mapping area for this report covered all of MC252 and MC296, whereas the subsurface mapping area only covered the southern half of MC252 and the northern half of MC296. Copies of the 1998 KC Offshore report have already been submitted to the MMS in support of the Texaco EP documentation for five proposed wells (A through E) with surface locations in MC252 (Plan Control N 6521, approved 16 July, 1999) and copies of the 2003 Fugro report were submitted in support of the Dominion EP documentation for four proposed wells (A through D) with surface locations in MC252 and MC296 (Plan Control N 7743, approved 29 May, 2003).

A site-specific Shallow Hazards and Archaeological Assessment for the proposed wellsite and mooring pattern was commissioned by BP and produced by C&C Technologies (C&C) in 2009 based on AUV data acquired during January 2009 over a larger area.

3.1.6 Shallow hazards assessment – A shallow hazard analysis prepared, in accordance with NTL No. 2008-G05, for all proposed surface locations evaluating seafloor and subsurface geologic and manmade features and conditions.

3.1.7 High resolution seismic lines – An annotated copy of the high-resolution survey line closest to each of the proposed well locations.

3.1.8 Stratigraphic column – Generalized biostratigraphic/lithostratigraphic column from the seafloor to the total depth of the proposed wells.

3.1.9 Time vs. depth tables – A table providing seismic time versus depth for the proposed well locations.

3.2 H_2S Information

3.2.1 Concentration – It is not expected that H_2S will be encountered during the operations proposed in this plan.

3.2.2 Classification – Pursuant to Title 30 CFR 250.490(c), BP requests a determination that Mississippi Canyon Block 252 is located in an area where the absence of H_2S has been confirmed.

3.2.3 H_2S Contingency Plan – An H_2S Contingency Plan prepared according to 30 CFR 250.4990(f) will not be required for the operations proposed in this plan.

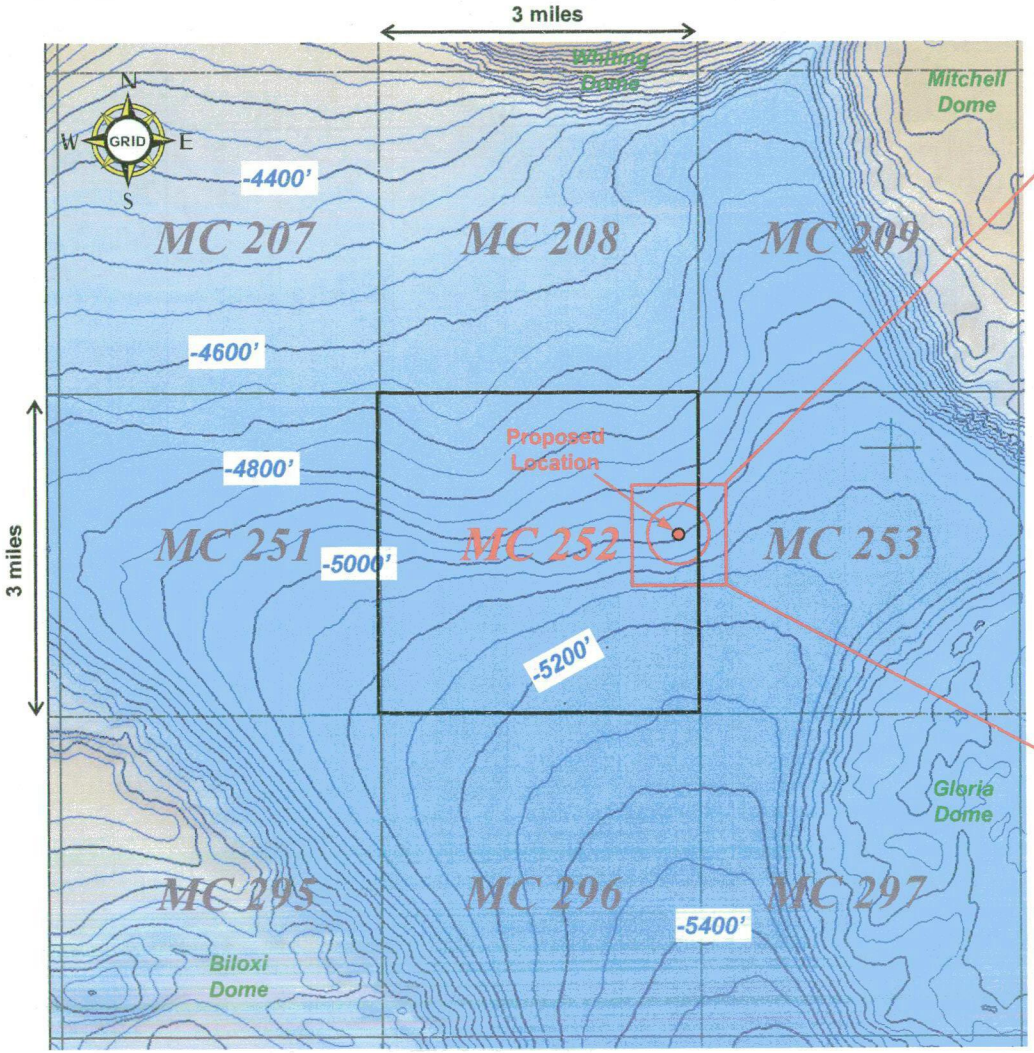
3.2.4 Modeling Report – H_2S at concentrations greater than 500 parts per million (ppm) are not expected in the operations proposed in this plan; therefore a modeling report is not required.

3.3 Attachments to Section 3.0

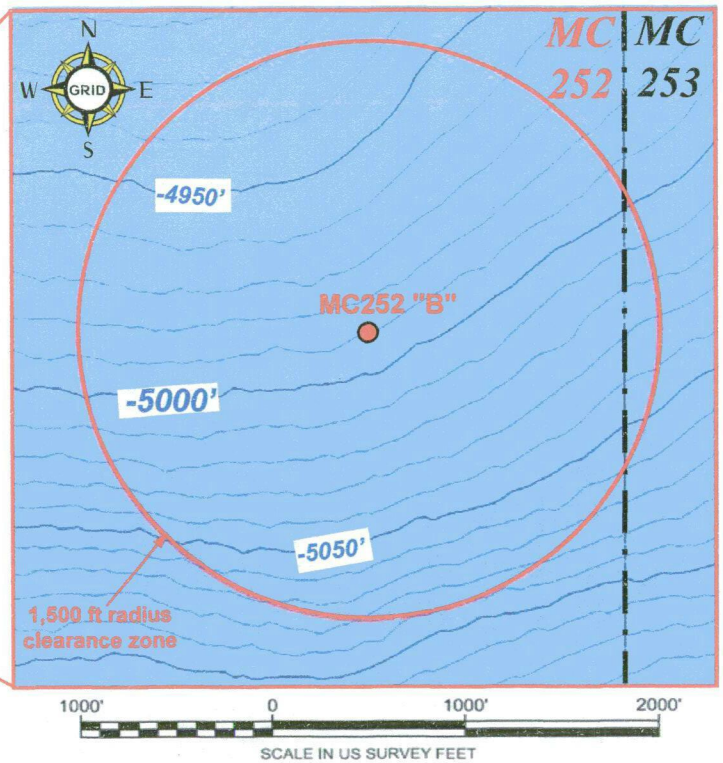
- Shallow hazard assessment

Bathymetry Map

Proposed Mississippi Canyon Block 252 "B" Location



Water depths in feet
Contour Interval = 50 feet



Bathymetry data derived from exploration 3D seismic water bottom time picks, converted to feet using an average water column velocity of 4922 ft/sec derived from offset well time-depth pairs and then adjusted to C&C 2009 AUV depth at proposed wellsite

Images produced in Fledermaus
Vertical exaggeration = x0.1

Plate 6

CONCLUSIONS

This Shallow Hazards Assessment for location "A" in Mississippi Canyon Block 252 (OCS-G-32306) supplements the Exploration Plan (EP) to be submitted to the Minerals Management Service (MMS). This narrative defines the proposed location and documents the anticipated tophole drilling conditions within a radius of 1,500 ft of the primary location

Conditions at the proposed drilling location have been evaluated on the basis of: a regional shallow hazards survey and study conducted by KC Offshore in 1998 for Texaco Exploration and Production Inc. using HR2D seismic data integrated with 3D exploration seismic data; a shallow hazards report for MC252 and MC296 produced by Fugro GeoServices, Inc. (Fugro) in 2003 for Dominion Exploration and Production Inc. based on exploration 3D seismic; mapping performed internally in 2008 and 2009 by BP America Inc. for MC252 and vicinity using a merged data volume (mosaic) re-processed by TGS in 2004 and covering a large portion of the Mississippi Canyon Lease Area; results of a site-specific Shallow Hazards and Archaeological Assessment for the proposed wellsite and mooring pattern commissioned by BP and produced by C&C Technologies (C&C) in 2009 based on AUV data acquired during January 2009 over a larger area; and well information for the nearby MC252#1 and MC296#1 wells.

Results of the data review indicate

- The seafloor at the proposed "A" location is in a water depth of 4,992 ft and dips to the southeast at ~3.0°. The only seafloor feature identified on the exploration 3D seismic data within the vicinity is a low-relief escarpment approximately 1,000 ft to the south of the "A" location, which is the seafloor expression of a deeply-buried scarp associated with mass-wasting.
- There is no evidence for the existence of high-density chemosynthetic communities within 1,500 ft of the proposed well location.
- There is no evidence for shipwreck debris or sites of archaeological significance at or within 1,500 ft of the proposed well location.
- The proposed wellbore will not intersect any faults between the seafloor and the depth limit of this investigation at Horizon 6 or 5,328 ft bml.
- The risk of encountering **shallow gas** is ranked as: ***Moderate*** for two sand-prone sequences within the middle and lower portions of Unit 6; ***Low*** for the central portion of Unit 4 and a sandy sequence at the base of Unit 4, the upper portion of Unit 5 and an interval within the top of Unit 6; and ***Negligible*** for all other units or portions of units between the Seafloor and Horizon 60.

CONCLUSIONS

This Shallow Hazards Assessment for location "B" in Mississippi Canyon Block 252 (OCS-G-32306) supplements the Exploration Plan (EP) to be submitted to the Minerals Management Service (MMS). This narrative defines the proposed location and documents the anticipated tophole drilling conditions within a radius of 1,500 ft of the primary location

Conditions at the proposed drilling location have been evaluated on the basis of: a regional shallow hazards survey and study conducted by KC Offshore in 1998 for Texaco Exploration and Production Inc. using HR2D seismic data integrated with 3D exploration seismic data; a shallow hazards report for MC252 and MC296 produced by Fugro GeoServices, Inc. (Fugro) in 2003 for Dominion Exploration and Production Inc. based on exploration 3D seismic; mapping performed internally in 2008 and 2009 by BP America Inc. for MC252 and vicinity using a merged data volume (mosaic) re-processed by TGS in 2004 and covering a large portion of the Mississippi Canyon Lease Area; results of a site-specific Shallow Hazards and Archaeological Assessment for the proposed wellsite and mooring pattern commissioned by BP and produced by C&C Technologies (C&C) in 2009 based on AUV data acquired during January 2009 over a larger area; and well information for the nearby MC252#1 and MC296#1 wells.

Results of the data review indicate

- The seafloor at the proposed "B" location is in a water depth of 4,992 ft and dips to the southeast at ~3.0°. The only seafloor feature identified on the exploration 3D seismic data within the vicinity is a low-relief escarpment approximately 950 ft to the south of the "B" location, which is the seafloor expression of a deeply-buried scarp associated with mass-wasting.
- There is no evidence for the existence of high-density chemosynthetic communities within 1,500 ft of the proposed well location.
- There is no evidence for shipwreck debris or sites of archaeological significance at or within 1,500 ft of the proposed well location.
- The proposed wellbore will not intersect any faults between the seafloor and the depth limit of this investigation at Horizon 6 or 5,292 ft bml.
- The risk of encountering **shallow gas** is ranked as: ***Moderate*** for two sand-prone sequences within the middle and lower portions of Unit 6; ***Low*** for the central portion of Unit 4 and a sandy sequence at the base of Unit 4, the upper portion of Unit 5 and an interval within the top of Unit 6; and ***Negligible*** for all other units or portions of units between the Seafloor and Horizon 60.

4.1 Chemosynthetic Information

Since the proposed seafloor disturbing activities are in water depths greater than 400 meters, maps, analysis, and a statement prepared using the guidance in Attachment B of NTL No. 2000-G20, "Deepwater Chemosynthetic Communities" are provided as attachments to Section 3.0.

Seafloor conditions capable of supporting high-density chemosynthetic communities are not expected within the mooring pattern or within 1,500 ft. of any proposed SEPLA anchor locations.

4.2 Topographic Features Information

MMS and NOAA Fisheries have entered into a programmatic consultation agreement for Essential Fish Habitat, which requires that no bottom disturbing activities may occur within 500 feet of the no-activity zone of a topographic feature. If such bottom disturbing activities are proposed, the MMS is required to consult with NOAA Fisheries.

4.2.1 Topographic features map – No bottom-disturbing activities (including rig placement, and rig or construction barge use of anchors, chains, cables, and wire ropes) proposed in this plan are within 305 meters (1000 feet) of the "No Activity Zone" of an identified topographic feature. Therefore the map described in Attachment 2, Section A, Item No. 1 of NTL No. 2004-G05, *"Biologically Sensitive Areas of the Gulf of Mexico,"* dated April 1, 2004 is not required.

4.2.2 Topographic features statement (shunting) – This exploration plan does not proposed to drill more than two wells from the same surface location located outside the 1-mile Zone but within the Protective Zone of an identified topographic feature. Therefore the statement described in Attachment 2, Section A, Item No. 2 of NTL No. 2004-G05 *"Biologically Sensitive Areas of the Gulf of Mexico,"* dated April 1, 2004 is not required.

4.3 Live Bottoms (Pinnacle Trend)

MMS and NOAA Fisheries have entered into a programmatic consultation agreement for Essential Fish Habitat that relates to bottom-disturbing activities occurring within 100 feet of any Pinnacle Trend feature with vertical relief greater than or equal to 8 feet. Any such proposed activities would require MMS to consult with the NOAA Fisheries pursuant to the agreement.

Mississippi Canyon Block 252 is not located in the vicinity of a Pinnacle Trend area.

4.4 Live Bottoms (Low Relief)

The Live Bottom (low relief) stipulation is not attached to the lease for Mississippi Canyon Block 252. Therefore the map described in Attachment 6, Section A of NTL No. 2004-G05 *"Biologically Sensitive Areas of the Gulf of Mexico,"* dated April 1, 2004 is not required.

4.5 Potentially Sensitive Biological Features

No bottom disturbing activities (including rig placement and rig or construction barge use of anchors, chains, cables, and wire ropes) within 30 meters (100 feet) of potentially sensitive biological features are proposed in this plan. Therefore the map described in Attachment 8, Section A of NTL No. 2004-G05 *"Biologically Sensitive Areas of the Gulf of Mexico,"* dated April 1, 2004 is not required.

4.6 Remotely Operated Vehicle (ROV) Monitoring Survey Plan

Pursuant to NTL No. 2008-G06 *"Remotely Operated Vehicle Surveys in Deepwater,"* operators may be required to conduct remotely operated vehicle (ROV) surveys during pre-spud and post-drilling operations for the purpose of biological and physical observations.

MC 252 is located in Grid 16. Therefore, according to the MMS website Grid EA and ROV Status Report, the ROV surveys will not be required for the proposed operations.

4.7 Threatened or endangered species, critical habitat, and marine mammal information

Twenty-nine species of marine mammals occur in the GOM. There are 28 species of cetaceans (7 mysticete and 21 odontocete species) and 1 sirenian species, the manatee.
Five baleen whales, one toothed whale, and one sirenian occur in the GOM and are listed as endangered under the Endangered Species Act (ESA):

- The Northern Right Whale
- The Blue Whale
- The Fin Whale
- The Sei Whale
- The Humpback Whale
- The Sperm Whale
- The West Indian Manatee

The sperm whale is common in oceanic waters of the northern GOM and appears to be a resident species, while the baleen whales are considered rare or extralimital in the Gulf. The West Indian manatee typically inhabits only coastal marine, brackish, and freshwater areas.

Five sea turtles inhabit the waters of GOM and are listed as endangered: the Leatherback, Green, Hawksbill, Kemp's Ridley, and Loggerhead turtle. These five species are all highly migratory, and no individual members of any of the species are likely to be year-round residents of the proposed area of interest.

There are no critical habitats designated within the Gulf of Mexico for the threatened and endangered species listed above.

Additional information can be found in Section 14.0 of this Plan.

4.7 Archaeological Report

Pursuant to NTL No. 2005-G07 *"Archaeological Resource Surveys and Reports"*, and further clarified in NTL NO. 2006-G07 *"Revisions to the List of OCS Lease Blocks Requiring Archaeological Resource Surveys and Reports"*, lessees proposing bottom-disturbing activities in areas that have been identified as "High Probability Shipwreck blocks or Prehistoric areas must submit an archaeological report or a reference to such a report if it has already been provided to the Regional Supervisor.

Mississippi Canyon Block 252 is located in a block designated as a High Probability Shipwreck or Prehistoric Area. An Archaeological Assessment is included with the plan.

SECTION 5.0
Waste and Discharge Information
(250.217 and 250.248)

The Minerals Management Service (MMS), U.S. Coast Guard (USCG) and the U.S. Environmental Protection Agency regulate the overboard discharge and/or disposal of operational waste associated with oil and gas exploration and production activities.

5.1 Projected Generated Wastes

The term disposed wastes describes those wastes generated by the proposed activities that are disposed of by means other than by releasing them into the waters of the Gulf of Mexico at the site where they are generated. These wastes can be disposed of by offsite release, injections, encapsulation, or placement at either onshore or offshore permitted locations for the purpose of returning them back to the environment

A table providing information on the projected solid and liquid wastes likely to be generated by the proposed activities is included below:

Type of Waste	Composition	Projected Amount
Spent drilling fluids	Water-based drilling muds	20,000 bbls/well
Cuttings containing synthetic-based mud	Cuttings coated with synthetic based drilling muds	4000 bbls/well
Trash	Trash and Debris	18,000 cu. ft.
Drill cuttings associated with water-based fluids	Cuttings coated with water based drilling muds	1800 bbls
Sanitary wastes (Omnipure unit)	Sanitary wastes from living quarters	10,000 bbls

5.2 Projected Ocean Discharge

The term discharges describes those wastes generated by the proposed activities that will be disposed of by releasing them into the waters of the Gulf of Mexico at the site where they are generated, usually after receiving some form of treatment before they are released, and in compliance with applicable NPDES permits or State requirements.

BP has requested coverage under the EPA Region VI NPDES General Permit GMG290110 for discharges associated with exploration activities in Mississippi Canyon Block 252, and will take applicable steps to ensure all offshore discharges associated with the proposed operations will be conducted in accordance with the permit.

A table describing and liquid wastes to be discharged overboard is included below:

Type of Waste	Total Amount to be Discharged	Discharge Rate	Discharge Method
Water-based Drilling Fluid	20,000 bbls	1800 bbls/hr	Riserless drilling, discharged at the mudline
Drill cuttings associated with water-based fluids	1,800 bbls	400 bbls/hr	Riserless drilling discharged at the mudline
Drill cuttings associated with	4000 bbl	100 bbl/hr	Discharge overboard through

Type of Waste	Total Amount to be Discharged	Discharge Rate	Discharge Method
synthetic based fluids			shunt line to 40' below waterline.
Sanitary wastes (Omnipure unit)	10,000 bbls	3600 gallons/day	Block Chlorinate and Discharge overboard
Domestic wastes	30 gal/person/day	Not applicable	Block Remove floating solids, discharge overboard
Deck drainage	Dependant upon rainfall and deck washdown	Not applicable	Block Remove oil and grease, discharge overboard

SECTION 6.0
Air Emissions Information
(250.218 and 250.249)

Offshore air emissions related to the proposed activities result mainly from the drilling rig operations, helicopters and service vessels. These emissions occur mainly from combustion or burning of fuels and natural gas and from venting or evaporation of hydrocarbons. The combustion of fuels occurs primarily on diesel-powered generators, pumps or motors and from lighter fuel motors.

Primary air pollutants associated with OCS activities are nitrogen oxides, carbon monoxide, sulphur oxides, volatile organic compound and suspended particulate.

6.1 Emissions worksheets and screening questions – Plan emissions were calculated using the methodology, emission factors, and worksheets in Form MMS-138 for Exploration Plans and are attached to this section of the Exploration Plan.

Screening questions and emissions summary are described in the tables below. The Plan Emissions and the Complex Total Emissions are the same.

Yes	No	Air Quality Screening Questions
	X	Is any calculated Complex Total (CT) Emission amount (in tons) associated with your proposed exploration activities more than 90% of the amounts calculated using the following formulas: CT = 2400D2/3 for CO, and CT = 33.3D for the other air pollutants (where D = distance to shore in miles)?
	X	Do your emission calculations include any emission reduction measures or modified emission factors?
	X	Are your proposed exploration activities located east of 87.5° W longitude?
	X	Do you expect to encounter H2S at concentrations greater than 20 parts per million (ppm)?
	X	Do you propose to flare or vent natural gas for more than 48 continuous hours from any proposed well?
	X	Do you propose to burn produced hydrocarbon liquids?

Air Quality Emissions Summary					
Year	Emitted Substance				
	PM	SOx	NOx	VOC	CO
2009	38.60	177.05	1326.70	39.80	289.46
2010	38.60	177.05	1326.70	39.80	289.46
Allowable	1598.40	1598.40	1598.40	1598.40	44906.21

6.2 Contact Information – Information for a contact who calculated the projected Plan Emissions and exemption amounts and can answer questions regarding the same is listed below:

Megan Parks
BP Exploration & Production Inc.
281.366.8296
Megan.parks@bp.com

6.3 Modeling Report – An Offshore Coastal Dispersion (OCD) Modeling Report for the proposed operations is not required for the operations proposed in this EP.

6.4 Attachments to section 6.0

- Form MMS-138 worksheets

EXPLORATION PLAN (EP)
AIR QUALITY SCREENING CHECKLIST

OMB Control No. 1010-0049
OMB Approval Expires: August 31, 2006

COMPANY	BP Exploration & Production Inc.
AREA	Mississippi Canyon
BLOCK	252
LEASE	OCS-G32306
PLATFORM	
WELL	A & B
COMPANY CONTACT	Megan Parks
TELEPHONE NO.	281-366-8296
REMARKS	Drill and temporarily abandon 2 exploratory wells.

EMISSIONS CALCULATIONS 1ST YEAR

COMPANY	AREA	BLOCK	LEASE	PLATFORM	WELL		CONTACT	PHONE	REMARKS
BP Exploration & Production In	Mississippi Canyon	252	OCS-G32306		A & B		Megan Parks	281-366-8296	

OPERATIONS	EQUIPMENT	RATING	MAX. FUEL	ACT. FUEL	RUN TIME		MAXIMUM POUNDS PER HOUR					ESTIMATED TONS				
	Diesel Engines	HP	GAL/HR	GAL/D												
	Nat. Gas Engines	HP	SCF/HR	SCF/D												
	Burners	MMBTU/HR	SCF/HR	SCF/D	HR/D	DAYS	PM	SOx	NOx	VOC	CO	PM	SOx	NOx	VOC	CO
DRILLING	PRIME MOVER>600hp diesel	3600	173.88	11129.00	24	100	2.54	11.64	87.22	2.62	19.03	8.12	37.25	279.14	8.37	60.90
Marianas MODU	PRIME MOVER>600hp diesel	3600	173.88	4173.12	24	100	2.54	11.64	87.22	2.62	19.03	3.04	13.97	104.67	3.14	22.84
	PRIME MOVER>600hp diesel	3600	173.88	4173.12	24	100	2.54	11.64	87.22	2.62	19.03	3.04	13.97	104.67	3.14	22.84
	PRIME MOVER>600hp diesel	3600	173.88	4173.12	24	100	2.54	11.64	87.22	2.62	19.03	3.04	13.97	104.67	3.14	22.84
	PRIME MOVER>600hp diesel	3600	173.88	4173.12	24	100	2.54	11.64	87.22	2.62	19.03	3.04	13.97	104.67	3.14	22.84
	PRIME MOVER>600hp diesel	3600	173.88	4173.12	24	100	2.54	11.64	87.22	2.62	19.03	3.04	13.97	104.67	3.14	22.84
	PRIME MOVER>600hp diesel	1950	94.185	2260.44	24	100	1.37	6.31	47.25	1.42	10.31	1.65	7.57	56.70	1.70	12.37
Tugs to move MODU	VESSELS>600hp diesel(support)	16500	796.95	19126.80	24	8	11.63	53.35	399.78	11.99	87.22	1.12	5.12	38.38	1.15	8.37
	VESSELS>600hp diesel(support)	13500	652.05	15649.20	24	8	9.52	43.65	327.09	9.81	71.37	0.91	4.19	31.40	0.94	6.85
	VESSELS>600hp diesel(support)	13500	652.05	15649.20	24	8	9.52	43.65	327.09	9.81	71.37	0.91	4.19	31.40	0.94	6.85
	VESSELS>600hp diesel(support)	15000	724.5	17388.00	24	8	10.57	48.50	363.44	10.90	79.30	1.01	4.66	34.89	1.05	7.61
	VESSELS>600hp diesel(support)	15000	724.5	17388.00	24	8	10.57	48.50	363.44	10.90	79.30	1.01	4.66	34.89	1.05	7.61
Anchor handling	VESSELS>600hp diesel(support)	15000	724.5	17388.00	24	30	10.57	48.50	363.44	10.90	79.30	3.81	17.46	130.84	3.93	28.55
Anchor handling	VESSELS>600hp diesel(support)	15000	724.5	17388.00	24	12	10.57	48.50	363.44	10.90	79.30	1.52	6.98	52.33	1.57	11.42
Support vessels for rig	VESSELS>600hp diesel(crew)	6600	318.78	7650.72	8	100	4.65	21.34	159.91	4.80	34.89	1.86	8.54	63.96	1.92	13.96
	VESSELS>600hp diesel(support)	3400	164.22	3941.28	6	100	2.40	10.99	82.38	2.47	17.97	0.72	3.30	24.71	0.74	5.39
	VESSELS>600hp diesel(support)	3400	164.22	3941.28	6	100	2.40	10.99	82.38	2.47	17.97	0.72	3.30	24.71	0.74	5.39
	MISC.	BPD	SCF/HR	COUNT												
	TANK-	0			0	0				0.00					0.00	
DRILLING	OIL BURN	0			0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WELL TEST	GAS FLARE		0		0	0		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00
2009	YEAR TOTAL						99.00	454.14	3402.97	102.09	742.47	38.60	177.05	1326.70	39.80	289.46
EXEMPTION CALCULATION	DISTANCE FROM LAND IN MILES											1598.40	1598.40	1598.40	1598.40	44906.21
	48.0															

EMISSIONS CALCULATIONS 1ST YEAR

COMPANY	AREA	BLOCK	LEASE	PLATFORM	WELL		CONTACT	PHONE	REMARKS
BP Exploration & Production Ir	Mississippi Canyon	252	OCS-G32306		A & B		Megan Parks	281-366-8296	

OPERATIONS	EQUIPMENT	RATING	MAX. FUEL	ACT. FUEL	RUN TIME		MAXIMUM POUNDS PER HOUR					ESTIMATED TONS				
	Diesel Engines	HP	GAL/HR	GAL/D												
	Nat. Gas Engines	HP	SCF/HR	SCF/D												
	Burners	MMBTU/HR	SCF/HR	SCF/D	HR/D	DAYS	PM	SOx	NOx	VOC	CO	PM	SOx	NOx	VOC	CO
DRILLING	PRIME MOVER>600hp diesel	3600	173.88	11129.00	24	100	2.54	11.64	87.22	2.62	19.03	8.12	37.25	279.14	8.37	60.90
Marianas MODU	PRIME MOVER>600hp diesel	3600	173.88	4173.12	24	100	2.54	11.64	87.22	2.62	19.03	3.04	13.97	104.67	3.14	22.84
	PRIME MOVER>600hp diesel	3600	173.88	4173.12	24	100	2.54	11.64	87.22	2.62	19.03	3.04	13.97	104.67	3.14	22.84
	PRIME MOVER>600hp diesel	3600	173.88	4173.12	24	100	2.54	11.64	87.22	2.62	19.03	3.04	13.97	104.67	3.14	22.84
	PRIME MOVER>600hp diesel	3600	173.88	4173.12	24	100	2.54	11.64	87.22	2.62	19.03	3.04	13.97	104.67	3.14	22.84
	PRIME MOVER>600hp diesel	3600	173.88	4173.12	24	100	2.54	11.64	87.22	2.62	19.03	3.04	13.97	104.67	3.14	22.84
	PRIME MOVER>600hp diesel	1950	94.185	2260.44	24	100	1.37	6.31	47.25	1.42	10.31	1.65	7.57	56.70	1.70	12.37
Tugs to move MODU	VESSELS>600hp diesel(support)	16500	796.95	19126.80	24	8	11.63	53.35	399.78	11.99	87.22	1.12	5.12	38.38	1.15	8.37
	VESSELS>600hp diesel(support)	13500	652.05	15649.20	24	8	9.52	43.65	327.09	9.81	71.37	0.91	4.19	31.40	0.94	6.85
	VESSELS>600hp diesel(support)	13500	652.05	15649.20	24	8	9.52	43.65	327.09	9.81	71.37	0.91	4.19	31.40	0.94	6.85
	VESSELS>600hp diesel(support)	15000	724.5	17388.00	24	8	10.57	48.50	363.44	10.90	79.30	1.01	4.66	34.89	1.05	7.61
	VESSELS>600hp diesel(support)	15000	724.5	17388.00	24	8	10.57	48.50	363.44	10.90	79.30	1.01	4.66	34.89	1.05	7.61
Anchor handling	VESSELS>600hp diesel(support)	15000	724.5	17388.00	24	30	10.57	48.50	363.44	10.90	79.30	3.81	17.46	130.84	3.93	28.55
Anchor handling	VESSELS>600hp diesel(support)	15000	724.5	17388.00	24	12	10.57	48.50	363.44	10.90	79.30	1.52	6.98	52.33	1.57	11.42
Support vessels for rig	VESSELS>600hp diesel(crew)	6600	318.78	7650.72	8	100	4.65	21.34	159.91	4.80	34.89	1.86	8.54	63.96	1.92	13.96
	VESSELS>600hp diesel(support)	3400	164.22	3941.28	6	100	2.40	10.99	82.38	2.47	17.97	0.72	3.30	24.71	0.74	5.39
	VESSELS>600hp diesel(support)	3400	164.22	3941.28	6	100	2.40	10.99	82.38	2.47	17.97	0.72	3.30	24.71	0.74	5.39
	MISC.	BPD	SCF/HR	COUNT												
	TANK-	0			0	0				0.00					0.00	
DRILLING	OIL BURN	0			0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WELL TEST	GAS FLARE		0		0	0		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00
2009	YEAR TOTAL						99.00	454.14	3402.97	102.09	742.47	38.60	177.05	1326.70	39.80	289.46
EXEMPTION CALCULATION	DISTANCE FROM LAND IN MILES											1598.40	1598.40	1598.40	1598.40	44906.21
	48.0															

SUMMARY

COMPANY	AREA	BLOCK	LEASE	PLATFORM	WELL
BP Exploration	Mississippi Canyon	252	OCS-G32306		A & B

Year	Emitted Substance				
	PM	SOx	NOx	VOC	CO
2009	38.60	177.05	1326.70	39.80	289.46
2010	38.60	177.05	1326.70	39.80	289.46
Allowable	1598.40	1598.40	1598.40	1598.40	44906.21

SECTION 7.0
Oil Spills Information
(250.219 and 250.250)

7.1 Oil Spill Response Planning

The proposed activities are in the Central Planning Area of the GOM. Therefore a site-specific Oil Spill Response Plan (OSRP) is not required for this plan.

7.1.1 Regional OSRP Information – All proposed activities and facilities in this Exploration Plan will be covered by the Oil Spill Response Plan filed by BP America Inc. (MMS company number 21591) and includes BP Exploration & Production Inc. (MMS company number 02481) in accordance with 30 CFR 254 and approved on November 14, 2008.

7.1.2 Spill Response Sites – Information on the location of the primary spill response equipment and the location of planned staging area(s) that would be used in the unlikely event of an oil spill resulting from the activities proposed in this plan is provided in the table below.

Primary Response Equipment Location	Preplanned Staging Location(s)
Belle Chasse, LA	Port Fourchon, LA
New Iberia, LA	Morgan City, LA

7.1.3 OSRO Information – BP utilizes the National Response Corporation (NRC) and the Marine Spill Response Corporation (MSRC) as the primary providers for oil spill removal equipment. The MSRC STARS network provides for the closest available personnel, as well as an MSRC supervisor to operate the equipment.

7.1. Worst-Case Scenario Determination – A comparison of the appropriate worst-case scenario from BP's approved regional OSRP with the worst-case scenario from the proposed activities in this Exploration Plan is provided in the table below. The proposed activities are within ten miles seaward of the coastline therefore the "near-shore" worst-case scenario is provided as well as the "exploration" worst-case scenario.

Category	Regional OSRP (Exploration)	EP
Type of Activity	Exploration Drilling	Exploration Drilling
Facility Location	MC 727	MC 252
Facility Designation	MODU	MODU
Distance to Nearest Shoreline	50	49 miles
Volume Uncontrolled Blowout (per day)	300,000	162,000
Type of Oil(s)	Crude Oil	Crude Oil
API Gravity	28°	33° *(estimated)*

Since BP Exploration & Production Inc. has the capability to respond to the appropriate worst-case spill scenario included in its regional OSRP approved on November 14, 2008, and since the worst-case scenario determined for our Exploration Plan does not replace the appropriate worst-case scenario in our regional OSRP, I hereby certify that BP Exploration & Production Inc. has the capability to respond, to the maximum extent practicable, to a worst-case discharge, or a substantial threat of such a discharge, resulting from the activities proposed in our Exploration Plan.

7.1.5 Oil spill response discussion – a discussion of response to an oil spill resulting from the activities proposed in this plan is not required for this Exploration Plan.

7.2 Modeling report

A model of a potential oil or hazardous substance spill is not required for the activities proposed in this plan.

SECTION 8.0
Environmental Monitoring Information
(250.221 and 250.252)

8.1 Monitoring Systems

8.1.1 Operational personnel have been instructed to check for pollution frequently during their tour of duty and, in the event pollution is spotted, to identify and shut-off the source and make immediate notifications as per instructions provided in Section 2 and 3 of BP's approved OSRP, Volume II.

8.1.2 In accordance with the provisions of Title 30 CFR Part 250.417(e) and NTL 2009-G02 *"Deepwater Ocean Current Monitoring on Floating Facilities"* dated January 27, 2009, the MODU will be equipped with an Acoustic Doppler Current Profile (ADCP) current monitoring system onboard to ensure continuous monitoring and gathering of ocean current data on a real-time basis from the ocean surface and seafloor.

8.2 Incidental Takes

BP does not anticipate that any protected species might be incidentally taken during operations proposed in this plan. All activities will be conducted in adherence to NTL 2007-G03 "Marine Trash and Debris Awareness Training and Elimination", NTL 2007-G04 "Vessel Strike Avoidance and Injured/Dead Protected Species Reporting" and NTL 2007-G-02 "Implementation of Seismic Survey Mitigation and Protected Species Observer Program". Monitoring activities are conducted by all personnel on vessels, rigs and platforms to prevent accidental loss of materials overboard and to report sightings of injured/dead protected species. Vessel personnel conduct continual watch while underway to prevent takes through avoidance and to immediately report any observations of injured or dead mammals/turtles, regardless of cause.

Visual and/or passive acoustic monitoring of the area surrounding the sound source will be done by trained marine mammal observers as part of borehole seismic surveys. Visual observers will conduct the NTL prescribed monitoring program during day light hours. Passive acoustic monitoring will be used to monitor and clear the exclusion zone if a night time operation is scheduled.

8.3 Flower Garden Banks National Marine Sanctuary

The proposed activities are not located within the Protective Zones of the Flower Garden Banks or Stetson Bank.

SECTION 9.0
Lease Stipulation Information
(250.222 and 250.253)

Oil and gas exploration activities on the OCS are subject to stipulations developed before the lease sale and would be attached to the lease instrument, as necessary, in the form of mitigating measures. The MMS is responsible for ensuring full compliance with stipulations.

9.1 **Stipulation 3 – Military Area (ETWA-1F)**

The military warning area stipulation has been applied to blocks in military warning areas to mitigate potential multiple-use conflicts. The stipulation reduces potential impacts, primarily those associated with safety, by curtailing OCS operations and support activities in areas where military operations are being conducted. One of the requirements of this stipulation is that the operator notify the military prior to conducting oil and gas activities; and if required, enter into an agreement to provide for positive control of boats, ships, and aircraft operating into the warnings areas.

Mississippi Canyon 252 is located within the designated Eglin Water Test Area EWTA-1F. Therefore, in accordance with the requirements of the referenced stipulation, BP will contact the Air Force Development Test Center, Eglin AFB in order to coordinate and control the electromagnetic emissions, boats, ships and aircraft in the area during the proposed operations

SECTION 10.0
Environmental Mitigation Measures Information
(250.223 and 250.254)

10.1 A description of the measures that would be taken to avoid, minimize, and mitigate impacts to the marine and coastal environments and habitats, biota, and threatened and endangered species is not required for this plan.

10.2 Incidental Takes - BP does not anticipate that any protected species might be incidentally taken during operations proposed in this plan. All activities will be conducted in adherence to NTL 2007-G03 "Marine Trash and Debris Awareness Training and Elimination", NTL 2007-G04 "Vessel Strike Avoidance and Injured/Dead Protected Species Reporting" and NTL 2007-G-02 "Implementation of Seismic Survey Mitigation and Protected Species Observer Program". Mitigation to prevent takes varies based on the activity underway and it can include 1) worker training on waste management and trash and debris containment procedures to avoid accidental loss overboard and it's potential impact on protected species; 2) vessel procedures to slow down or stop when a protected species is observed; 3) protected species observer program with associated ramp up, shut down and shot pause procedures during seismic operations (VSP).

SECTION 11.0
Support Vessels and Aircraft Information
(250.224 and 250.257)

11.1 General

The table below provides information regarding the vessels and aircraft that will be used to support the activities proposed in this plan.

Type	Maximum Fuel Tank Storage Capacity	Maximum No. in Area at Any time	Trip Frequency or Duration
Aircraft-Helicopter	300 gallons	1	1 trip daily
Crew boat	36,000 gallons	1	1 trip daily
Work boat	152,000 gallons	2	1 trip daily

11.2 Diesel Oil Supply Vessels

Additional information on the vessels used to supply diesel oil is not required for the activities proposed in this plan.

11.3 Drilling Fluids Transportation

The proposed activities are not located in an area where the State of Florida is an affected state. Therefore, information on the projected drilling fluids transported from the onshore support facilities to the drilling unit is not required.

11. 4 Solid and Liquid Wastes Transportation

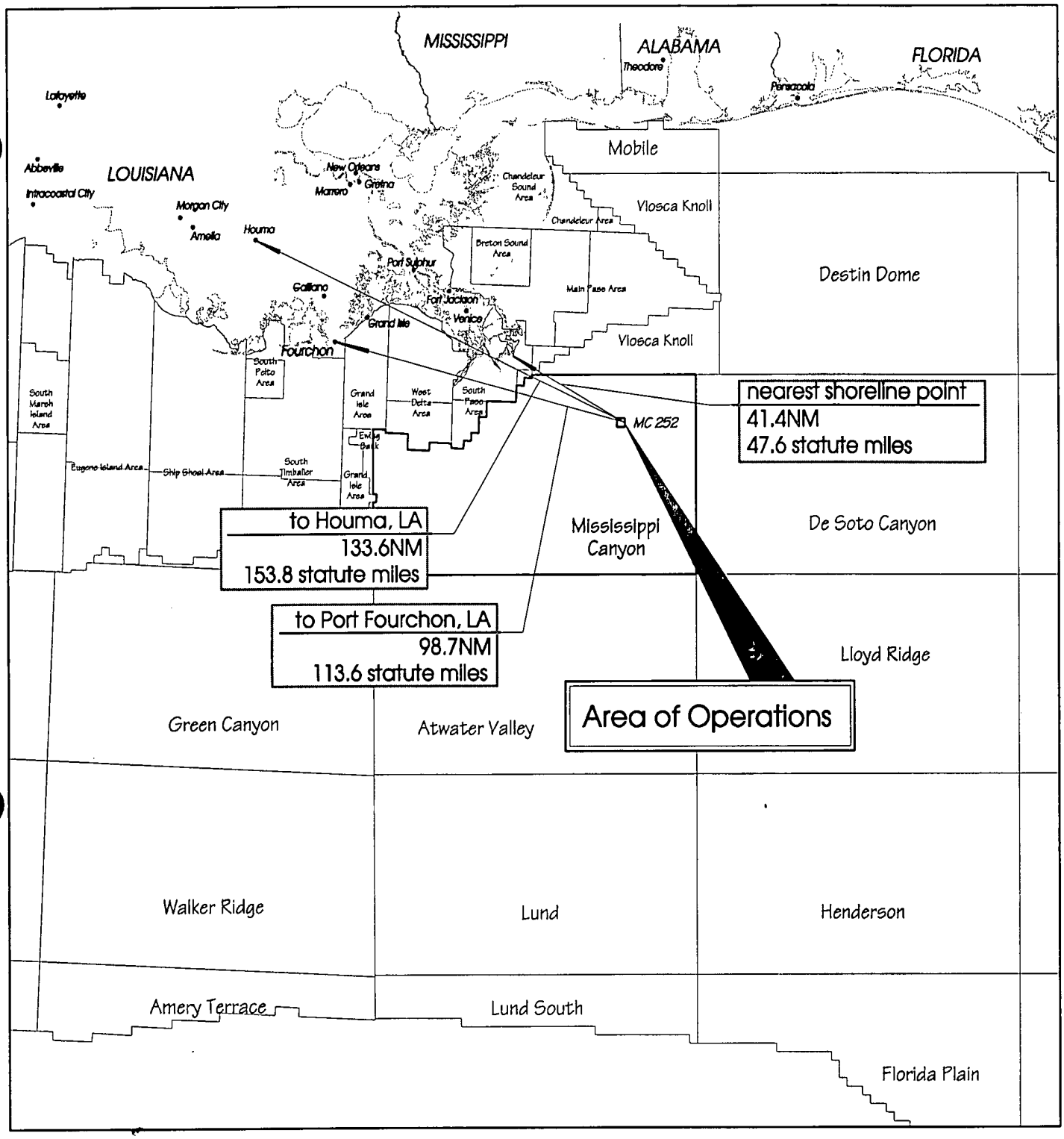
Information regarding the transport of any of the solid and liquid wastes from the site of the proposed activities to other offshore structures or to temporary or permanent onshore facilities for storage disposal is not required for the operations proposed in this plan.

11.5 Vicinity Map

A map showing the location of the proposed activities relative to the shoreline, the distance of the proposed activities from the shoreline, and the primary route(s) of the support vessels and aircraft that will be used when traveling between the onshore support facilities and drilling unit is provided as an attachment to this section.

11.6 Attachments to Section 10.0

- Vicinity Map



N
Grid North
W E
S

Projection: UTM Zone 16 North
Datum: NAD27
Distance Units: US Survey Feet

"VICINITY CHART"

Sheet 1 of 2

bp	BP EXPLORATION AND PRODUCTION EP Locations OCS-G32306 MC 252 "A" and "B" Mississippi Canyon Area (OPD# NH16-10) Block 252 — Offshore Federal - Louisiana Plat prepared by: Brian D. Autio, RPLS IT&S BP GoM SPU	Scale 1" = 50 miles Date: 11February2009

SECTION 12.0
Onshore Support Facilities Information
(250.225 and 250.258)

The onshore support base for the proposed operations will be in Fourchon, Louisiana. Mississippi Canyon Block 252 is located approximately 190 miles from the nearest Louisiana shoreline and approximately 242 miles from the onshore support base located in Fourchon, Louisiana.

12.1 General

The following table provides information of the onshore facility that will be used to provide supply and service support for the activities proposed in this plan.

Name	Location	Existing/New/Modified
C-Port	Fourchon, LA	Existing

The C-Port Fourchon, Louisiana facility provides a vehicle parking lot, office space, radio communication equipment, outside and warehouse storage space, crane, forklifts, water and fueling facilities, and boat dock space. The base is owned by Chouest and is leased by BP Exploration & Production Inc. The base is in operation 24 hours each day.

A small amount of vessel and helicopter traffic may originate from bases other those described above in order to address changes in weather, market, and operational conditions. It is expected that this vessel traffic will originate from bases and locations that are in the near vicinity of the base previously described.

12.2 Support Base Construction or Expansion

The proposed operations are temporary in nature and do not mandate any immediate measures for additional land acquisition or expansion of the existing onshore base facilities.

12.3 Waste Disposal

The table below provides information on the onshore facilities that will be used to store and dispose of any solid and liquid wastes generated by the proposed activities.

Name/Location of Facility	Type of Waste	Amount	Max Rate	Disposal Method
BHI / Fourchon	Spent synthetic-based drilling fluids	15,000 bbls/ well	50 bbls/day	Return to supplier for reclamation
Aaron Oil Co. or Omega Waste Management3	Waste Oil / Used oil filters	365 bbl/yr	1.0 bbl/day	Packed in MPT tanks or USCG drums and transport to shorebase for disposal
Omega	Trash and debris	18,000 ft3	100 ft^3/day	Compacted into canvas bags and transported to shorebase for disposal
Vendor or Omega Waste Management	Chemical product wastes	360 bbls	2 bbl/day	Transport in approved containers to shorebase for disposal

SECTION 13.0
Coastal Zone Management Act (CZMA) Information
(250.226 and 250.260)

Under the direction of the Coastal Zone Management Act (CZMA), the states of Alabama, Florida, Louisiana, Mississippi and Texas developed Coastal Zone Management Programs (CZMP) to allow for the supervision of significant land and water use activities that take place within or that could significantly impact their respective coastal zones.

13.1 Consistency Certification

A Coastal Zone Management Act consistency certification according to 15 CFR 930.76(c) and (d) for Louisiana is attached to this section.

13.2 Other Information

Issues identified in the Louisiana CZMP include the following: general coastal use guidelines, levees, linear facilities (pipelines); dredges soil deposition; shoreline modifications, surface alterations, hydrologic and sediment transport modifications; waste disposal; uses that result in the alteration of waters draining into coastal waters; oil, gas or other mineral activities; and air and water quality.

BP has considered all of Louisiana's and Mississippi's enforceable policies and certifies the consistency for the proposed operations.

13.2.1 The following Louisiana guidelines are applicable to the proposed operations:

TOPIC	GUIDELINE NO.	CROSS REFERENCE
Air Quality	1.2	Section 6.0
Water Quality	1.2	Section 5.0
Permitting Authority	1.6	Sections 4.0 thru 14.0
Adverse Effects	1.7	Section 14.0
Multiple Use	1.9	Section 1.0 and 2.0
Waste Storage, Treatment and Disposal Facilities	8.1	Section 5.0 and 12.0
Hazardous Waste Storage, Treatment and Disposal	8.2	Section 5.0 and 12.0
Approved Disposal Sites	8.8	Section 5.0 and 12.0
Radioactive Waste	8.9	Section 5.0 and 12.0
Siting of Exploration, Production Activities	10.3	Sections 2.0 and 14.0
Access to Site	10.5	Section 2.0 and 12.0
Best Practical Techniques for Drilling/Production Sites	10.6	Sections 2.0 and 5.0
Drilling and Production Equipment Guidelines for Preventing Adverse Environmental Effects	10.10	Section 1.0
Effective Environmental Protection and Emergency or Contingency Plans	10.11	Sections 1.0, 7.0 and 14.0

13.2.2 The following Mississippi guidelines are applicable to the proposed operations:

TOPIC	GUIDELINE NO.	CROSS REFERENCE
To provide for reasonable industrial expansion in the coastal area and to insure the efficient utilization of waterfront industrial sites so that suitable site are conserved for water dependent industry	Goal 1	Section 2.0 and 12.0
To favor the preservation of the coastal wetlands and ecosystems, except where a specific alternation of specific coastal wetlands would serve a higher public interest in compliance with the public purposes of the public trust in which the coastal wetlands are held.	Goal 2	Sections 2.0 and 14.0
To protect, propagate, and conserve the state's seafood and aquatic life in connection with the revitalization of the seafloor industry of the state of Mississippi.	Goal 3	Sections 2.0 and 14.0
To conserve the air and waters of the state, and to protect, maintain, and improve the quality thereof for public use, for the prorogation of wildlife, fish, and aquatic life, and for domestic, agricultural, industrial, recreational, and other legitimate beneficial uses.	Goal 4	Sections 5.0 through 14.0
To put to benefit use to the fullest extent of which they are capable the water resources of the state, and to prevent the waste, unreasonable use, or unreasonable method of use of water.	Goal 5	Section 5.0 and 14.0
To preserve the state's historical and archaeological resources, to prevent their destruction, and to enhance these resources whenever possible.	Goal 6	Section 4.0 and 14.0
To encourage the preservation of natural scenic qualities in the coastal area.	Goal 7	Section 14.0
To assist local governments in the provision of public facilities services in a manner consistent with the coastal program.	Goal 8	Section 2.0

13.3 Attachments to Section 12.0

- Certificate of Coastal Zone Consistency for the State of Louisiana
- Certificate of Coastal Zone Consistency for the State of Mississippi

COASTAL ZONE MANAGEMENT

CONSISTENCY CERTIFICATION

Initial Exploration Plan
Type of OCS Plan

Mississippi Canyon Block 252
Area and Block

OCS-G 32306
Lease Number

The proposed activities described in detail in this OCS Plan comply with Louisiana's approved Coastal Management Program(s) and will be conducted in a manner consistent with such Program(s).

BP Exploration and Production, Inc.
Lessee or Operator

Scherie Douglas
Certifying Official

February 20, 2009
Date

COASTAL ZONE MANAGEMENT

CONSISTENCY CERTIFICATION

Initial Exploration Plan
Type of OCS Plan

Mississippi Canyon Block 252
Area and Block

OCS-G 32306
Lease Number

The proposed activities described in detail in this OCS Plan comply with Mississippi's approved Coastal Management Program(s) and will be conducted in a manner consistent with such Program(s).

BP Exploration and Production, Inc.
Lessee or Operator

Scherie Douglas
Certifying Official

February 20, 2009
Date

14.1 Impact Producing Factors (IPS's)

Environmental Resources	Impact Producing Factors (IPFs) Categories and examples Refer to a recent GOM OCS Lease Sale EIS for a more complete list of IPFs					
	Emissions (air, noise, light, etc.)	Effluents (muds, cuttings, other discharges to the water column or seafloor)	Physical disturbances to the seafloor (rig or anchor emplacements, etc.)	Wastes sent to shore for treatment or disposal	Accidents (e.g., oil spills, chemical spills, H2S releases)	Marine Trash and Debris
Site-specific at Offshore Location						
Designated topographic features		(1)	(1)		(1)	
Pinnacle Trend area live bottoms		(2)	(2)		(2)	
Eastern Gulf live bottoms		(3)	(3)		(3)	
Chemosynthetic communities			(4)			
Water quality		X			x	
Fisheries	x				x	
Marine mammals	(8) x				(8) x	x
Sea turtles	(8) x				(8) x	x
Air quality	(9) x					
Shipwreck sites (known or potential)			(7) x			
Prehistoric archaeological sites			(7) x			
Vicinity of Offshore Location						
Essential fish habitat	X				(6) x	
Marine and pelagic birds	X				X	x
Public health and safety					(5)	
Coastal and Onshore						
Beaches					(6) x	x
Wetlands					(6) x	
Shore birds and coastal nesting birds					(6) x	
Coastal wildlife refuges					(6) x	
Wilderness areas					(6) x	
Other Resources You Identify						

Footnotes for Environmental Impact Analysis Matrix

1. *Activities that may affect a marine sanctuary or topographic feature. Specifically, if the well or platform site or any anchors will be on the seafloor within the:*
   a. *4-mile zone of the Flower Garden Banks, or the 3-mile zone of Stetson Bank;*
   b. *1000-m, 1-mile or 3-mile zone of any topographic feature (submarine bank) protected by the Topographic Features Stipulation attached to an OCS lease;*
   c. *Essential Fish Habitat (EFH) criteria of 500 ft from any no-activity zone; or*
   d. *Proximity of any submarine bank (500 ft buffer zone) with relief greater than 2 meters that is not protected by the Topographic Features Stipulation attached to an OCS lease.*

2. *Activities with any bottom disturbance within an OCS lease block protected through the Live Bottom Activities (Pinnacle Trend) Stipulation attached to an OCS lease.*

3. *Activities within any Eastern Gulf OCS block where seafloor habitats are protected by the Live Bottom (Low Relief) Stipulation attached to an OCS lease.*

4. *Activities on blocks designated by the MMS as being in water depths 400 meters or greater.*

5. *Exploration or production activities where H_2S concentrations greater than 500 ppm might be encountered.*

6. *All activities that could result in an accidental spill of produced liquid hydrocarbons or diesel fuel that you determine would impact these environmental resources. If the proposed action is located a sufficient distance from a resource that no impact would occur, the EIA can note that in a sentence or two.*

7. *All activities that involve seafloor disturbances, including anchor emplacements, in any OCS block designated by the MMS as having high-probability for the occurrence of shipwrecks or prehistoric sites, including such blocks that will be affected that are adjacent to the lease block in which your planned activity will occur. If the proposed activities are located a sufficient distance from a shipwreck or prehistoric site that no impact would occur, the EIA can note that in a sentence or two.*

8. *All activities that you determine might have an adverse effect on endangered or threatened marine mammals or sea turtles or their critical habitats.*

9. *Production activities that involve transportation of produced fluids to shore using shuttle tankers or barges*

14.2 Analysis

14.2.1 Site Specific at Offshore Location

14.2.1.1 Designated Topographic Features – There are no IPF's (including effluents, physical disturbances to the seafloor, and accidents) from the proposed activities that could cause impacts to topographic features. The site-specific offshore location of the proposed activities (Mississippi Canyon Block 252) is outside the 3-mile zone of any identified topographic feature.

14.2.1.2 Pinnacle Trend Area Live Bottoms - There are no IPF's (including effluents, physical disturbances to the seafloor, and accidents) from the proposed activities that could cause impacts to pinnacle trend area live bottoms. The site-specific offshore location of the proposed activities (Mississippi Canyon Block 252) is not in a pinnacle trend live bottom stipulated block.

14.2.1.3 Eastern Gulf Live Bottoms – The eastern gulf live bottoms are not in the vicinity of the operations proposed in this plan.

14.2.1.4 Chemosynthetic communities - The proposed activities would occur in deep water (water depths >400 meters). Therefore, IPF's (e.g. physical disturbances to the seafloor, effluents) from the proposed activities have the potential to cause impacts to chemosynthetic communities. However, the proposed activities would be conducted in accordance with current regulations. Accordingly, BP has provided MMS with the required maps, analyses and statement(s) prepared using the guidance in Attachment B of NTL No. 2000-G20 *"Deepwater Chemosynthetic Communities"*. As shown in the shallow hazards report accompanying this plan, and the seafloor amplitude map included in Section 3.0 of this plan, no indications of the presence of chemosynthetic communities are recognized on the 3-D seismic data at and around the proposed locations. The risk of chemosynthetic communities at or close to this location is therefore believed to be negligible.

14.2.1.5 Water Quality – Effluents and accidents from the proposed activities in Mississippi Canyon Block 252 could potentially cause impacts to water quality. However, since all discharges will be made in accordance with a general National Pollutant Discharge Elimination System (NPDES) permit issued by the U.S. Environmental Protection Agency, operational discharges are not expected to cause significance adverse impacts to water quality. It is unlikely that an accidental oil spill release would occur from the proposed activities. In the event of such an accidental release, the water quality would be temporarily affected by the dissolved components and small droplets. Currents and microbial degradation would remove the oil from the water column or dilute the constituents to background levels.

14.2.1.6 Fisheries - An accidental oil spill that might occur as a result of the proposed operation in Mississippi Canyon Block 252 has the potential to cause some detrimental effects to fisheries. However, it is unlikely that an accidental surface or subsurface oil spill would occur from the proposed activities. If such a spill were to occur in open waters of the OCS proximate to mobile adult finfish or shellfish, the effects would likely be sub-lethal and the extent of damage would be reduced to the capability of adult fish and shellfish to avoid a spill, to metabolize hydrocarbons, and to excrete both metabolites and parent compounds. No adverse activities to fisheries are anticipated as a result of the proposed activities.

14.2.1.7 Marine Mammals – Marine mammals may be adversely impacted by several IPF's, including vessel traffic, noise, accidental oil spills, and loss of trash and debris, all of which could occur due to the proposed action. Chronic and sporadic sub-lethal effects could occur that may stress and/or weaken individuals of a local group or population and make them more susceptible to infection from natural or anthropogenic sources. Few lethal effects are expected from oil spills, chance collisions with service vessels and ingestion of plastic material. Oil spills of any size are estimated to be aperdiodic events that may contact cetaceans. Disturbance (e.g., noise) may stress animals, weaken their immune systems, and make them more vulnerable to parasites and diseases that normally would not be fatal.

The net result of any disturbance would depend on the size and percentage of the population affected, ecological importance of the disturbed area, environmental and biological parameters that influence an animal's sensitivity to disturbance and stress, and the accommodation time in response to prolonged disturbance (Geraci and St. Aubin, et al., 2001). Sperm whales are one of 11 whale species that are hit commonly by ships (Laist et al., 2001). Collisions between OCS vessels and cetaceans within the project area are expected to be unusual events. No adverse impacts to endangered or threatened marine mammals are anticipated as a result of the proposed activities in Mississippi Canyon Block 252.

14.2.1.8 Sea Turtles - IPF's that could impact sea turtles include vessel traffic, noise, trash and debris, and accidental oil spills. Small numbers of turtles could be killed or injured by chance collision with service vessels or by eating indigestible trash, particularly plastic items, accidentally lost from drill rigs, production facilities and service vessels. Drilling rigs and project vessels produce noise that could disrupt normal behavior patterns and create some stress potentially making sea turtles more susceptible to disease. Oil spills and oil spill response activities are potential threats that could have lethal effects on turtles. Contact with oil, consumption of oil particles, and oil-contaminated prey could seriously affect individual sea turtles. Oil-spill-response planning and the habitat protection requirements of the Oil Pollution Act of 1990 should mitigate the threats.

Most OCS related impacts on sea turtles are expected to be sub-lethal. Chronic sub-lethal effects (e.g., stress) resulting in persistent physiological or behavioral changes and/or avoidance of effected areas could cause declines in survival or productivity, resulting in gradual population declines

No adverse impacts to endangered or threatened sea turtles are anticipated as a result of the proposed activities in Mississippi Canyon Block 252.

14.2.1.9 Air Quality – The proposed activities are located approximately 190 miles offshore. There would be a limited degree of air quality degradation in the immediate vicinity of the proposed activities. Air quality analysis (included in Section 6.0 of this plan) is below the MMS exemption level.

14.2.1.10 Shipwreck Sites (known or potential) – Mississippi Canyon Block 252 is on the MMS list of blocks determined to have a high probability of historic shipwrecks. A review of the Shallow Hazards Study included with this plan in accordance with NTL 2005-G07 and NTL 98-20 indicates there are no known or potential shipwreck sites located within the survey area. Therefore, no impacts on such sites are expected as a result of the proposed operations.

However, should BP discover man-made debris that appears to indicate the presence of a shipwreck (e.g. a sonar image or visual confirmation of an iron, steel or wooden hull, wooden timbers, anchors, concentrations of man-made objects such as bottles or ceramics, piles of ballast rock) within or adjacent to our lease area, BP will immediately halt operations, take steps to ensure that the site is not disturbed in any way and contact the Regional Supervisor, Leasing and Environment, within 48 hours of its discovery. BP will cease all operations within 1000 feet (305 meters) of the site until the Regional Director instructs our office on what steps to take to assess the site's potential historic significance and what steps to protect it.

14.2.1.11 Prehistoric Archaeological Sites – The lease is on the MMS list if blocks determined to have a high probability of prehistoric archaeological resources. A review of the Shallow Hazards Study included with this plan in accordance with NTL 2005-G07 and NTL 2006-G07 indicates there are no known or potential archaeological sites located within the survey area. Shallow Hazard survey performed in the area indicates no known or potential archaeological sites at the proposed locations. Therefore, no impacts on such sites are expected as a result of the proposed operations.

14.2.2 Vicinity of Offshore Location

14.2.2.1 Essential Fish Habitat - An accidental oil spill that might occur as a result of the proposed action has the potential to cause some detrimental effects on essential fish habitat. However, it is unlikely that an accidental surface or subsurface oil spill would occur from the proposed activities. If such a spill were to occur in open waters of the OCS proximate to mobile adult finfish or shellfish, the effects would likely be sub-lethal and the extent of damage would be reduced to the capability of adult fish and shellfish to avoid a spill, to metabolize hydrocarbons, and to excrete both metabolites and parent compounds. No adverse impacts to essential fish habitat are anticipated as a result of the proposed activities in Mississippi Canyon Block 252.

In the event of an unanticipated blowout resulting in an oil spill, it is unlikely to have an impact based on the industry wide standards for using proven equipment and technology for such responses, implementation of BP's Regional Oil Spill Response Plan which

address available equipment and personnel, techniques for containment and recovery and removal of the oil spill.

14.2.2.1 Marine and Pelagic Birds - An accidental oil spill that might occur as a result of the proposed action has the potential to impact marine and pelagic birds – birds could become oiled. However, it is unlikely that an accidental oil spill would occur from the proposed activities. No adverse impacts to marine and pelagic birds are anticipated as a result of the proposed activities in Mississippi Canyon Block 252.

Marine and pelagic birds could become entangled and snared in discarded trash and debris, or ingest small plastic debris that can cause permanent injuries and death. Operators are prohibited from deliberately discharging debris as mandated by MARPOL – Annex V and the Marine Plastic Pollution Research and Control Act, and regulations imposed by various agencies including the U. S. Coast Guard and the Environmental Protection Agency.

BP will operate in accordance with the regulations and also avoid accidental loss of solid waste items by maintaining waste management plans, manifesting trash sent to shore and using special precautions such as covering outside trash bins to prevent accidental loss of solid waste. Special caution will be exercised when handling and disposing of small items and packaging materials, particularly those made of non-biodegradable, environmentally persistent materials such as plastic or glass.

Informational placards will be posted on vessels and facilities that have sleeping or food preparation capabilities. All offshore personnel, including contractors and other support services-related personnel (e.g. helicopter pilots, vessel captains and boat crews) will be indoctrinated on waste procedures and will view the marine trash and debris training video annually. Debris, if any, from these proposed activities in Mississippi Canyon Block 252 will seldom interact with marine and pelagic birds. Therefore the effects will be negligible.

14.2.2.3 Public Health and Safety – There are no anticipated IPF's (including any accidental H_2S releases) from the proposed activities that could impact public health and safety. BP has requested MMS classify the proposed objective area as "H_2S absent" and "H_2S Unknown".

14.2.3 Coastal and Onshore

14.2.3.1 Beaches - An accidental oil spill from the proposed activities could cause impacts to beaches. However, due to the distance to shore (48 miles) and the response capabilities that would be implemented, no significant adverse impacts are expected. Both the historical spill data and the combined trajectory/risk calculations referenced in the publication OCS EIS/EA MMS 2002-052 indicate there is little risk of contact or impact to the coastline and associated environmental resources. The activities proposed in the plan will be covered by our regional OSRP (refer to information submitted in Section 7.0 of this plan).

Trash on the beach is recognized as a major threat to the enjoyment and use of beaches. Only a limited amount of marine debris, if any, should result from the proposed activities. Operators are prohibited from deliberately discharging debris as mandated by MARPOL – Annex V and the Marine Plastic Pollution Research and Control Act, and regulations imposed by various agencies including the U. S. Coast Guard and the Environmental Protection Agency.

BP will operate in accordance with the regulations and also avoid accidental loss of solid waste items by maintaining waste management plans, manifesting trash sent to shore and using special precautions such as covering outside trash bins to prevent accidental loss of solid waste. Special caution will be exercised when handling and disposing of small items and packaging materials, particularly those made of non-biodegradable, environmentally persistent materials such as plastic or glass.

Informational placards will be posted on vessels and facilities that have sleeping or food preparation capabilities. All offshore personnel, including contractors and other support services-related personnel (e.g. helicopter pilots, vessel captains and boat crews) will be indoctrinated on waste procedures and will view the marine trash and debris training video annually.

14.2.3.2 Wetlands - An accidental oil spill from the proposed activities could cause impacts to wetlands. However, due to the distance to shore (48 miles) and the response capabilities that would be implemented, no significant adverse impacts are expected. Both the historical spill data and the combined trajectory/risk calculations referenced in the publication OCS EIS/EA MMS 2002-052 indicate there is little risk of contact or impact to the coastline and associated environmental resources. The activities proposed in the plan will be covered by our regional OSRP (refer to information submitted in Section 7.0 of this plan).

14.2.3.3 Shore Birds and Coastal Nesting Birds - An accidental oil spill from the proposed activities could cause impacts to shore birds and coastal nesting birds. However, due to the distance to shore (48 miles) and the response capabilities that would be implemented, no significant adverse impacts are expected. Both the historical spill data and the combined trajectory/risk calculations referenced in the publication OCS EIS/EA MMS 2002-052 indicate there is little risk of contact or impact to the coastline and associated environmental resources. The activities proposed in the plan will be covered by our regional OSRP (refer to information submitted in Section 7.0 of this plan).

Coastal and marine birds could become entangled and snared in discarded trash and debris, or ingest small plastic debris that can cause permanent injuries and death. Operators are prohibited from deliberately discharging debris as mandated by MARPOL – Annex V and the Marine Plastic Pollution Research and Control Act, and regulations imposed by various agencies including the U. S. Coast Guard and the Environmental Protection Agency.

BP will operate in accordance with the regulations and also avoid accidental loss of solid waste items by maintaining waste management plans, manifesting trash sent to shore and using special precautions such as covering outside trash bins to prevent accidental loss of solid waste. Special caution will be exercised when handling and disposing of small items and packaging materials, particularly those made of non-biodegradable, environmentally persistent materials such as plastic or glass.

Informational placards will be posted on vessels and facilities that have sleeping or food preparation capabilities. All offshore personnel, including contractors and other support services-related personnel (e.g. helicopter pilots, vessel captains and boat crews) will be indoctrinated on waste procedures and will view the marine trash and debris training video annually.

14.2.3.4 Coastal Wildlife Refuges - An accidental oil spill from the proposed activities could cause impacts to coastal wildlife refuges. However, due to the distance to shore (48 miles) and the response capabilities that would be implemented, no significant adverse impacts are expected. Both the historical spill data and the combined trajectory/risk calculations referenced in the publication OCS EIS/EA MMS 2002-052 indicate there is little risk of contact or impact to the coastline and associated environmental resources. The activities proposed in the plan will be covered by our regional OSRP (refer to information submitted in Section 7.0 of this plan).

14.2.3.5 Wilderness Areas - An accidental oil spill from the proposed activities could cause impacts to coastal wilderness areas. However, due to the distance from shore (48 miles) and the response capabilities that would be implemented, no significant adverse impacts are expected. Both the historical spill data and the combined trajectory/risk calculations referenced in the publication OCS EIS/EA MMS 2002-052 indicate there is little risk of contact or impact to the coastline and associated environmental resources. The activities proposed in the plan will be covered by our regional OSRP (refer to information submitted in Section 7.0 of this plan).

14.2.3.6 Other Environmental Resources Identified – BP has not identified any other environmental resources other than those addressed above.

14.3 Impacts on Proposed Activities – The site-specific environmental conditions have been taken into account for the proposed activities and no impacts are expected as a result of these conditions.

A shallow hazards survey and shallow hazards assessment of any seafloor and subsurface geological or manmade features and conditions that may adversely affect operations has been submitted in accordance with NTL 2008-G05. Based on the above report and analysis, BP has concluded there are no surface or subsurface geological or manmade features or conditions that may adversely affect the proposed activities.

14.4 Environmental Hazards – The proposed activities could be adversely impacted by strong environmental phenomena such as a hurricane. In the event a hurricane seems likely, the following procedures from BP's Severe Weather Contingency Plan would be followed.

14.4.1 Safety Precautions

14.4.1.1 During Hurricane Season, the following safety precautions should be exercised:

- Maintain an adequate supply of mud on board to return to work per rig capabilities.
- Maintain enough fuel on board to allow rig to operate for 3-4 days after restart.
- Maintain a near capacity supply of drilling water on board
- Secure all loose equipment that will not be used or moved in normal operations. Check rig's supply of cable, cable clamps, rope and other material which might be needed to secure any equipment or material during a hurricane. An order shall be placed for any material needed. Have tie-down cables, chains, turnbuckles, etc., prepared for tying down all equipment in the event of a hurricane shut down
- Lay down all excess drill pipe and drill collars standing in derrick
- At all times, have the following equipment on the rig:
  - Halliburton RTTS full bore storm packer, complete with Sub-Surface Control (SSC II or SSC III) Valve. RTTS is to be of proper size to fit inside the last casing string, as required
  - Baker Model "G" Full Flow Float Sub.

- Gray inside BOP (to be kept for back-up)

Make sure above equipment is always in good working condition and subbed for running in the drill string, as required.

- Familiarize all personnel with hurricane securing procedures. Hold safety meetings with all crews to review hurricane evacuation plan and keep personnel aware of their role in carrying out the procedure
- Make frequent checks of aids-to-navigation and communication equipment. Report any defect immediately for repair
- Report the "Time Required To Secure Rig" on the Drilling Report. This estimate will include time to plug and suspend well for the current hole section. A detailed list of required operations and associated times to complete the same should be documented and kept current on the rig
- Review the POB Roster to ensure that it is current
- Monitor Weather Service reports twice daily. Monitor more often as necessary
- Prepare an inventory of all rental equipment on board that shows vendors, serial numbers and dates of arrival and departure
- Maintain an estimate of variable loads on board and record this estimate on the IADC Daily report
- Ensure all hatches, vents, etc. are in good working order
- Ensure system which operates emergency generator is in good working order
- Ensure marine transportation is able to accommodate a full rig crew in one trip if necessary
- Maintain a minimum of 500 sacks of cement on board or enough to properly plug the open hole where applicable

14.4.2 Phase I

A hurricane or severe tropical disturbance develops which could impact BP's Offshore GoM operations, or which forms and enters the Gulf of Mexico. Upon announcement of this Phase, the Well Site Leader on each rig will:

- Continue present operation, recognizing that deteriorating weather conditions may dictate changes in operations. Incorporate a ported drill pipe float into the BHA on the next trip out of hole. When drilling at a depth where high pressures are expected or at a depth where salt may be encountered, drilling operations may be suspended, the mud conditioned and the bit pulled up into the casing until the hurricane danger has passed or orders to commence Phase II are received. Do not commence any potentially hazardous operations. Discuss operations with the Operations Superintendent or delegate and obtain approval to change operations if necessary

- Set up a 24-hour weather watch. Post a weather map and see that the storm's position is plotted and kept current at all times. Report any important changes in weather to the Operations Superintendent.
- Develop Initial Action Plan

- Keep POB Roster current. The roster shall include name, company, and title of each person on board

- Make a thorough inspection of all equipment. All movable objects which are not in use or expected to be used within 72 hours will be firmly secured or removed from the rig. Any objects which are placed in service will again be secured after use

- Lay down extra drill pipe, drill collars or tubing standing in the derrick. If drilling in open hole, do this on next trip out
- Make preparations to lay down drill pipe that is in open hole
- Make preparations to set either a storm packer or mechanical plug. Check storm packer and connections. Super glue all O-rings in the SSC Valve
- Start and run emergency air compressor; make sure it will build 100 psi pressure and ensure the batteries have adequate power to start emergency generator, depending on system installed.
- Check auxiliary power for aid to navigation lights and fog horn and battery status.
- Check all communication facilities and be certain they are operable. Make necessary repairs immediately
- Ensure storm calculations and evacuation lists are prepared
- Determine what equipment and/or liquids will have to be off-loaded to reduce variable load to storm survival limits
- Maintain flexible marine transportation schedule wherein necessary boats can be in the field with minimum notice to assist with possible evacuation
- After preparations for Phase I have been completed, the Well Site Leader shall report same to the Operations Superintendent.

14.4.3 Phase II

A hurricane or high winds, equal to 45 knots (52 mph) ahead of the storm are within twenty-four (24) to seventy-two (72) hours of a location. During Phase II, all rig operations will be secured, and all non-essential personnel will be evacuated. Under most anticipated conditions, action should be taken that would permit support vessels to leave location twenty-four (24) hours ahead of the hurricane or high winds, and personnel on the jack-up rig to start leaving twenty-four (24) ahead of the hurricane or predicted high winds and seas (winds over 40 mph and seas greater than 10 ft).

Upon announcement of this Phase, the Well Site Leader on each rig will:

- Condition mud and get hole in condition for securing well. If open hole conditions allow, POOH and incorporate a ported drill pipe float into the BHA if not previously done during Phase I. Have drilling crews start out of the hole laying down drill pipe. Pipe will be pulled up into the casing, with the remainder laid down, where conditions permit. Do not strip pipe on pipe rack. Take out? Set a storm packer or mechanical plug in the casing. If unable to secure well with a storm packer, set a cement plug

  NOTE: If workover, recompletion, or well-testing operations are in progress, the procedures to secure the well will depend on the exact operation being undertaken. Have plan outlined at all times and consult with Completion/Drilling Team Leader for final approval.

- Make up the Halliburton RTTS Full Bore Packer and SSC II or SSC III Storm Valve in the drill string (Appendix B, RTTS Storm packer Instructions) and run in hole. Install and set packer so that the bit will be near the casing shoe, but not in the open hole.

The packer is to be positioned a sufficient distance below the mudline to allow the well to be abandoned if the packer cannot be pulled

- Check and tighten snub lines on blowout preventer if applicable.
- Communicate preparedness priorities to all personnel
- Stop all non-essential traffic to the work site and prepare to evacuate all non-essential personnel. Determine evacuation point and arrangements
- Skid rig package
- Make a personal inspection of all equipment to be sure that everything is ready for a hurricane and have key contract personnel do the same
  - Finalize all variable deck load calculations. Ensure variable load is distributed evenly on all legs
  - Secure drill pipe and drill collars on rack
  - Secure hoses and tension top drive
  - Secure all other related equipment
  - Dump/pump out shale shaker sand traps and pits. Leave valves open and secure water-tight plate over return line.
  - Dump liquids as required. Discuss with Operations Superintendent prior to dumping any mud!!
  - Secure crane booms in boom rests. Close all doors on cranes
  - Secure all water-tight doors and vents. Close all doors on leg units. Install boards around control room. Close and secure all fan vent covers
  - Secure all equipment below deck. Secure all oil drums
  - Remove lights and electric motors where necessary and store below deck
  - Close air valves off at tanks. Check auxiliary air compressor for fuel
  - Secure all manhole covers
  - If possible, remove and store all radio and dish antennas
  - Pump out bilges and sumps
  - Store and secure all oxygen and acetylene bottles
  - Remove and secure life rafts
  - Ensure primary engine diesel day tank and emergency engine day tank are full
  - Securely close jacking motor covers or cover exposed motors with visqueen and duct tape per Contractor Guidelines.
  - Fill drill water tanks as near full as possible and close equalizing valves
  - Blank flanges on cement unit exhaust
  - Raise water well tower
  - Stow away all take on hoses and tie up ropes in the lower hull area.
  - Place all breakable accommodation/office items on floor (TVs, monitors, computers)
- Have workboats and crew boats in field to evacuate personnel. Inform them of rig readiness condition
- Evacuate all non-essential personnel by available air or sea transportation. Each facility will develop a list of personnel to be evacuated. Keep POB Roster current. Record all times of departure
- Record the following on the IADC report:

- Estimate of variable load
  - Any adjustments made in variable load (i.e., pump off water, barite, etc.)
  - Total amount of casing, drill pipe, drill collars and HWDP left on deck
  - Describe any pipe left in the derrick or in wellbore,
  - Document the status of the rig and equipment on the IADC Report prior to final evacuation. Example: Navigation lights, rig tracking system, battery status etc.

- Contact the Operations Superintendent and the Logistics Group once the rig is secure and all non-essential personnel have been evacuated.

- The Well Site Leader on each facility is given full authority to do whatever he thinks is necessary to protect people, wells and equipment in the event communications with shore is no longer possible

14.4.4 Phase III

A hurricane or high winds, equal to 45 knots (52 mph) ahead of a storm are within twenty-four (24) hours of the location. When Phase III becomes effective, evacuation of all remaining personnel on the facility will commence.

Upon announcement of this phase, the Well Site Leader on each rig will:

- Ensure well is properly suspended and a document stating how the wellbore has been secured.

- Make final check that all equipment and supplies are secured

- Shut down all engines except emergency generator

- Turn on aid-to-navigation and fog horn and confirm battery power adequate. Document any issues and explain what the condition of the rig and equipment is prior to final evacuation.

- Consult with contract Tool pusher and record preparations that have been made to ready the rig for the storm on the IADC report. The IADC reports, along with a current list of all rental equipment on board and critical irreplaceable paperwork, will be carried by the Rig Tool pusher upon evacuation of the rig

-

- The Well Site Leader and contract Tool pusher will maintain a list of all personnel evacuated and the telephone numbers where they can be contacted after the hurricane

- Commence evacuation of remaining personnel to shore by available air or sea transportation

- Contact the Operations Superintendent and the Logistics Support Group when rig is secured just prior to final evacuation and again when all personnel have reached shore

- The Operations Superintendent is responsible for keeping Management current on all critical operations

14.4.5 Phase IV

A Hurricane or Tropical Storm has made landfall or is sufficiently away from a location and no longer poses a threat to that location to allow personnel to begin the return to the work process.

During this Phase, the following procedures will apply:

- Contact contractors to return to rig
- Contact contract boats and start them to shore base
- Upon arrival at rig, inspect for damage and start up engines
- Test all lines for integrity (service, high pressure mud)
- Lower water well tower
- Install bell nipple and BOP fluid lines
- Test choke and kill lines as required by well program
- Open choke line below blind rams and check for pressure
- Test Bops as required by well program
- Pick-up drill pipe with centralizers and RIH. Ratchet into the storm valve, pick up 10,000 lbs on the packer to open the ball valve and check for drill pipe pressure. Close annular preventer, release packer. Retrieving procedure is described in Appendix B. Check for pressure through choke line. Open annular preventer
- Pull out of hole. Lay down packer and stage in hole

14.5 Alternatives – No alternatives to the proposed activities were considered to reduce environmental impacts.

14.6 Mitigation Measures – No mitigation measures other than those required by regulation and BP policy will be employed to avoid, diminish or eliminate potential impacts on environmental resources.

14.7 Consultation – No agencies or persons were consulted regarding potential impacts associated with the proposed activities.

14.8 Preparers – The EIA was prepared by the following:

Scherie D. Douglas
Sr. Regulatory Specialist
BP Exploration & Production, Inc.

14.9 References: - Although not always cited, the following were utilized in preparing the EIA:

- Regional Geohazard Assessment Study, GEMs
- OCS EIS/EA MMS 2002-052, 2002
- MMS EIS – Lease Sale 187

- NPDES Permit GMG290110
- Air Quality Review
- BP Regional Oil Spill Response Plan
- Title 30 CFR Part 250 Subpart B
- MMS NTL 2006-N06 *"Flaring and Venting Regulations"*
- MMS NTL 2004-G05 *"Biologically Sensitive Areas of the Gulf of Mexico"*
- MMS NTL 2007-G04 *"Vessel Strike Avoidance and Injured/Dead Protective Species"*
- MMS NTL 2007-G03 *"Marine Trash & Debris Awareness and Elimination"*
- MMS NTL 2005-G07 *"Archaeological Resource Surveys and Reports"*
- MMS NTL 2006-G07 *"Revisions to the List of OCS Lease Blocks Requiring Archaeological Resource Surveys and Reports"*
- MMS NTL 2000-G20 *"Chemosynthetic Communities"*

SECTION 15.0
Administrative Information
(250.228 and 250.262)

15.1 Exempted Information Description (public information copies only)

- Geological Information in section 3.0
- Bottomhole location information in section 1.0

15.2 Bibliography

Any previously submitted EP, DPP, DOCD, study report, survey report or any other material referenced in this plan is listed below:

- Regional Geohazard Assessment Study (N-6521 and N-7743)

Appendix 4

United States Department of the Interior

MINERALS MANAGEMENT SERVICE

Gulf of Mexico OCS Region
1201 Elmwood Park Boulevard
New Orleans, Louisiana 70123-2394

In Reply Refer To: MS 5231 April 6, 2009

Ms. Scherie Douglas
BP Exploration & Production Inc.
501 Westlake Park Boulevard
Houston, Texas 77079

Dear Ms. Douglas:

Reference is made to the following plan:

Control No.	N-09349
Type	Initial Exploration Plan (EP)
Received	February 23, 2009, amended February 25, 2009
Lease(s)	OCS-G 32306, Block 252, Mississippi Canyon Area (MC)

You are hereby notified that the approval of the subject plan has been granted as of April 6, 2009, in accordance with 30 CFR 250.233(b)(1).

This approval includes the activities proposed for Wells A and B.

Exercise caution while drilling due to indications of shallow gas and possible water flow.

In response to the request accompanying your plan for a hydrogen sulfide (H_2S) classification, the area in which the proposed drilling operations are to be conducted is hereby classified, in accordance with 30 CFR 250.490(c), as "H_2S absent."

If you have any questions or comments concerning this approval, please contact Michelle Griffitt at (504) 736-2975.

Sincerely,

Michael Tolbert

Digitally signed by Michael Tolbert
DN: cn=Michael Tolbert, o, ou, email=Michael.Tolbert@mms.gov, c=US
Date: 2009.04.06 14:52:30 -05'00'

for Michael J. Saucier
Regional Supervisor
Field Operations

Appendix 5

	Total	2010	2011	2012	2013	Thereafter
Average Contractual dayrates for High Specification Floaters [A]	$465,000	$448,000	$479,000	$482,000	$480,000	$441,000

	2005	2006	2007	2008	2009
BP average liquids realizations ($/bbl)[B]	$48.51	$59.23	$67.45	$90.20	$56.26

Transocean Marianas arrives in Mississippi Canyon	**10/21/2009**
Site preparation stops due to Hurricane damage	**11/28/2009**
Deepwater Horizon Begins Drilling	**2/1/2010**
Deepwater Horizon Explosion	**4/20/2010**
days	*116*
Number of Rigs	**2**
Average Day Rate	*$465,000*
Running Cost (Rig)	*$107,880,000*
Total Workers on Board[C]	**126**
Excluding TransOcean Workers	*47*
Employee Costs Ex TransOcean	*985,841*
Misc Expense	**$10,000,000**
Total Costs	**$118,865,841**
Rolling Average Price of Oil (BP)	*$56.26*
Breakeven bbls	**2,112,795**
B/E Gallons	**88,737,386**

A. TransOcean Leases by project or per diem, see page 36 of the 2009 annual report. DeepHorizon is considered a high specification floater.

B. BP Average Sales Price per bbl

C. Seventy-nine Transocean workers, six BP employees and 41 contract workers were aboard. According to SimplyHired.com, Rig workers make an average of 66,000 per year.
http://www.simplyhired.com/a/salary/search/q-offshore+oil+worker

Appendix 6

Horn Mountain (Proxy)	
Cost (8 Production Wells)	$600,000,000
Cost Per Well	$75,000,000
Expected Yield (bbls)	150,000,000
Expected Yield (bbls per well)	18,750,000
2005 Oil prices[1]	$48.51
Operating Profit ($)	$834,562,500.00
Operating Profit (Multiple of Cost)	11.13
Expected Profit Based on Deepwater Well Cost	$1,322,679,647
2009 Oil Prices	$56.26
Expected Yield (bbls per well)	11,755,063

Cost/Expected Yield Sourced from Offshore Technology

1. Production Peaks in 2003, 2005 oil prices used as proxy due to availability of data