UNITED STATES GOVERNMENT
MEMORANDUM

April 26, 2005

To: Public Information (MS 5034)

From: Plan Coordinator, FO, Plans Section (MS 5231)

Subject: Public Information copy of plan

Control # - N-08388

Type - Initial Exploration Plan

Lease(s) - OCS-G24084 Block - 502 Mississippi Canyon Area

Operator - Eni Petroleum Co. Inc.

Description - Wells A, B, C, D, and E

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	G24084/MC/502	520 FSL, 4320 FEL	G24084/MC/502
WELL/B	G24084/MC/502	3376 FSL, 4372 FWL	G24084/MC/502
WELL/C	G24084/MC/502	600 FSL, 3380 FWL	G24084/MC/502
WELL/D	G24084/MC/502	1165 FSL, 5713 FEL	G24084/MC/502
WELL/E	G24084/MC/502	1455 FSL, 795 FEL	G24084/MC/502

[redacted]

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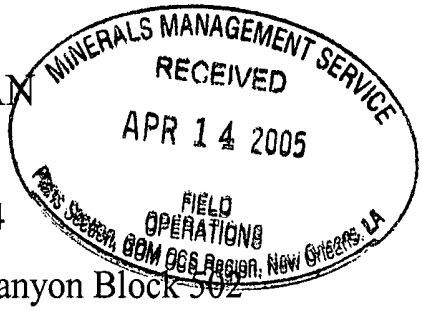
NOTED - SCHEXNAILDRE

PUBLIC COPY
April 12, 2005



INITIAL EXPLORATION PLAN

Lease Number: OCS-G 24084

Area/Block: Mississippi Canyon Block 502

Prospect Name: Longhorn North

Offshore: Louisiana and Mississippi

Submitted by:

Eni Petroleum Co. Inc.
1201 Louisiana, Suite 3500
Houston, Texas 77002

Dave Dougall
(713) 393-6122
david.dougall@enipetroleum.com

Estimated start up date: July 15, 2005

Authorized Representative:
Valerie Land
J. Connor Consulting, Inc.
16225 Park Ten Place, Suite 700
Houston, Texas 77084
(281) 578-3388
valerie.land@jccteam.com

No. Copies Being Submitted:
Proprietary: 5
Public Info: 4

For MMS:
Plan No.:
Assigned to:

CONTROL No. N-3248
REVIEWER: Michelle Griffitt
PHONE: (504) 736-2975

ENI PETROLEUM CO. INC.

INITIAL EXPLORATION PLAN

LEASE OCS-G 24084

MISSISSIPPI CANYON BLOCK 502

APPENDIX A	*Contents of Plan*
APPENDIX B	*General Information*
APPENDIX C	*Geological, Geophysical & H_2S Information*
APPENDIX D	*Biological and Physical Information*
APPENDIX E	*Wastes and Discharge Information*
APPENDIX F	*Oil Spill Information*
APPENDIX G	*Air Emissions Information*
APPENDIX H	*Environmental Impact Analysis*
APPENDIX I	*Coastal Zone Management Consistency Information*
APPENDIX I	*OCS Plan Information Form*

APPENDIX A
CONTENTS OF PLAN

Eni Petroleum Co. Inc. (Eni) is the designated operator of the subject oil and gas lease.

(A) DESCRIPTION, OBJECTIVES AND SCHEDULE

This Initial Exploration Plan provides for the drilling, completion and testing of five (5) exploratory wells in Lease OCS-G 24084, Mississippi Canyon Block 502.

(B) LOCATION

Included as ***Attachments A-1 through A-5*** are location plats showing the locations of the proposed wells and a bathymetry map depicting water depths in this area. Additional well information is included on the OCS Plan Information Form.

(C) DRILLING UNIT

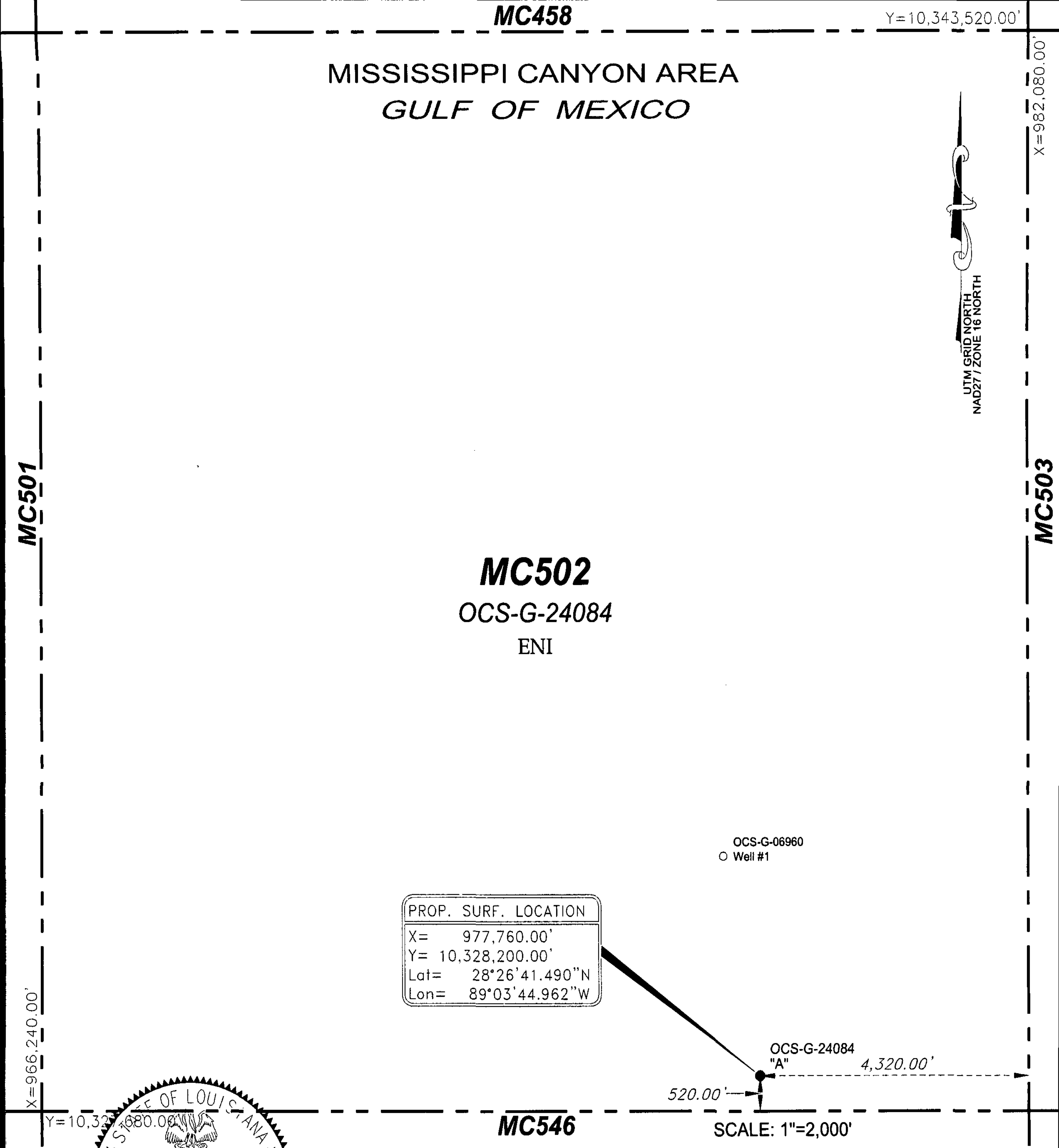
Eni will utilize a semi-submersible drilling unit for their proposed operations. Anchor pattern plots for the proposed well locations are included in the *Deep Tow Survey* conducted by Tesla Offshore, LLC being submitted under separate cover. A description of the drilling unit is included in Appendix J, on the OCS Plan Information Form. Rig specifications will be made part of each Application for Permit to Drill.

Safety features on the drilling unit will include well control, pollution prevention, and blowout prevention equipment as described in Title 30 CFR Part 250, Subparts C, D, E, and G; and as further clarified by MMS Notices to Lessees, and current policy making invoked by the MMS, Environmental Protection Agency and the U.S. Coast Guard. Appropriate life rafts, life jackets, ring buoys, etc., will be maintained on the facility at all times.

Operator will ensure employees and contractor personnel engaged in well control operations understand and can properly perform their duties.

Pollution prevention measures include installation of curbs, gutters, drip pans, and drains on drilling deck areas to collect all contaminants and debris.

Eni does not propose additional safety, pollution prevention, or early spill detection measures beyond those required by 30 CFR 250.



RALPH A. COLEMAN REG. No. 4691 REGISTERED PROFESSIONAL LAND SURVEYOR — STATE OF LOUISIANA

I, RALPH A. COLEMAN, HEREBY CERTIFY THAT THE ABOVE PROPOSED SURFACE LOCATION IS CORRECT.

RALPH A. COLEMAN
PROFESSIONAL LAND SURVEYOR
LOUISIANA REGISTRATION No. 4691

Attachment A-1

DATE: 03/29/2005 TIME: 15:01 FILENAME: J:\7230\PERMITS\7230LOC_MC502A.DWG

PUBLIC INFORMATION

Eni GROUP — Eni Petroleum

OCS-G-24084 Well "A"

BLOCK 502 - MISSISSIPPI CANYON AREA

PREPARED BY C&C Technologies SURVEY SERVICES 730 E. KALISTE SALOOM ROAD, LAFAYETTE, LA (337) 261-0660

JOB No: 7230	REVISED:	DATE: 03/29/2005
FILENAME: 7230LOC_MC502A.DWG		SHEET 1 OF 1

MC458

Y=10,343,520.00'

X=982,080.00'

MISSISSIPPI CANYON AREA
GULF OF MEXICO

UTM GRID NORTH
NAD27 / ZONE 16 NORTH

MC501

MC503

MC502

OCS-G-24084

ENI

PROP. SURF. LOCATION
X= 970,612.32'
Y= 10,331,055.73'
Lat= 28°27'08.538"N
Lon= 89°05'05.562"W

OCS-G-06960
Well #1

4,372.32'

OCS-G-24084
"B"

3,375.73'

X=966,240.00'

Y=10,32[illegible]680.00'

MC546

SCALE: 1"=2,000'

STATE OF LOUISIANA
RALPH A. COLEMAN
REG. No. 4691
PROFESSIONAL

I, RALPH A. COLEMAN, HEREBY CERTIFY THAT THE ABOVE PROPOSED SURFACE LOCATION IS CORRECT.

RALPH A. COLEMAN
PROFESSIONAL LAND SURVEYOR
LOUISIANA REGISTRATION No. 4691
DATE: 03/29/2005 TIME: 15:06 FILENAME: J:\7230\PERMITS\7230LOC_MC502B.DWG

Attachment A-2

PUBLIC INFORMATION

Eni Petroleum

OCS-G-24084 Well "B"

BLOCK 502 - MISSISSIPPI CANYON AREA

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

JOB No: 7230	REVISED:	DATE: 03/29/2005
FILENAME: 7230LOC_MC502B.DWG		SHEET 1 OF 1

MC458

Y=10,343,520.00'

X=982,080.00'

MISSISSIPPI CANYON AREA
GULF OF MEXICO

UTM GRID NORTH
NAD27 / ZONE 16 NORTH

MC501

MC503

MC502
OCS-G-24084
ENI

PROP. SURF. LOCATION
X= 969,620.00'
Y= 10,328,280.00'
Lat= 28°26'40.892"N
Lon= 89°05'16.135"W

OCS-G-06960
○ Well #1

X=966,240.00'

3,380.00'

OCS-G-24084
"C"

600.00'

Y=10,327,680.00'

MC546

SCALE: 1"=2,000'

STATE OF LOUISIANA
RALPH A. COLEMAN
REG. No. 4691
REGISTERED
PROFESSIONAL
LAND SURVEYOR

I, RALPH A. COLEMAN, HEREBY CERTIFY THAT THE ABOVE PROPOSED SURFACE LOCATION IS CORRECT.

RALPH A. COLEMAN
PROFESSIONAL LAND SURVEYOR
LOUISIANA REGISTRATION No. 4691
DATE: 03/29/2005 TIME: 15:17 FILENAME: J:\7230\PERMITS\7230LOC_MC502C.DWG

Attachment A-3

PUBLIC INFORMATION

Eni Petroleum

OCS-G-24084 Well "C"

BLOCK 502 - MISSISSIPPI CANYON AREA

PREPARED BY: C&C Technologies SURVEY SERVICES 730 E. KALISTE SALOOM ROAD, LAFAYETTE, LA (337) 261-0660	JOB No: 7230	REVISED:	DATE: 03/29/2005
	FILENAME: 7230LOC_MC502C.DWG		SHEET 1 OF 1

MC458

Y=10,343,520.00'

X=982,080.00'

MISSISSIPPI CANYON AREA

GULF OF MEXICO

UTM GRID NORTH
NAD27 / ZONE 16 NORTH

MC501

MC503

MC502

OCS-G-24084

ENI

PROP. SURF. LOCATION	
X=	976,367.15'
Y=	10,328,845.03'
Lat=	28°26'47.639"N
Lon=	89°04'00.684"W

OCS-G-06960
Well #1

OCS-G-24084
"D"

5,712.85'

1,165.03'

X=966,240.00'

Y=10,32[illegible]680.00'

MC546

SCALE: 1"=2,000'

STATE OF LOUISIANA
RALPH A. COLEMAN
REG. No. 4691
REGISTERED
PROFESSIONAL
LAND SURVEYOR

I, RALPH A. COLEMAN, HEREBY CERTIFY THAT THE ABOVE PROPOSED SURFACE LOCATION IS CORRECT.

RALPH A. COLEMAN
PROFESSIONAL LAND SURVEYOR
LOUISIANA REGISTRATION No. 4691
DATE: 03/29/2005 TIME: 15:18 FILENAME: J:\7230\PERMITS\7230LOC_MC502D.DWG

Attachment A-4

PUBLIC INFORMATION

Eni Petroleum

OCS-G-24084 Well "D"

BLOCK 502 - MISSISSIPPI CANYON AREA

PREPARED BY: C&C Technologies SURVEY SERVICES 730 E. KALISTE SALOOM ROAD, LAFAYETTE, LA (337) 261-0660	JOB No: 7230	REVISED:	DATE: 03/29/2005
	FILENAME: 7230LOC_MC502D.DWG		SHEET 1 OF 1

MC458

Y=10,343,520.00'

X=982,080.00'

MISSISSIPPI CANYON AREA

GULF OF MEXICO

UTM GRID NORTH
NAD27 / ZONE 16 NORTH

MC501

MC503

MC502

OCS-G-24084

ENI

OCS-G-06960
○ Well #1

PROP. SURF. LOCATION	
X=	981,285.00'
Y=	10,329,135.00'
Lat=	28°26'51.343"N
Lon=	89°03'05.664"W

OCS-G-24084
"E" *795.00'*

1,455.00'

X=966,240.00'

Y=10,32[illegible]680.00'

MC546

SCALE: 1"=2,000'

STATE OF LOUISIANA
RALPH A. COLEMAN
REG. No. 4691
PROFESSIONAL
LAND SURVEYOR

I, RALPH A. COLEMAN, HEREBY CERTIFY THAT THE ABOVE PROPOSED SURFACE LOCATION IS CORRECT.

RALPH A. COLEMAN
PROFESSIONAL LAND SURVEYOR
LOUISIANA REGISTRATION No. 4691
DATE: 03/29/2005 TIME: 15:18 FILENAME: J:\7230\PERMITS\7230LOC_MC502E.DWG

Attachment A-5

PUBLIC INFORMATION

Eni Petroleum

OCS-G-24084 Well "E"

BLOCK 502 - MISSISSIPPI CANYON AREA

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

JOB No: 7230	REVISED:	DATE: 03/29/2005
FILENAME: 7230LOC_MC502E.DWG		SHEET 1 OF 1

APPENDIX B
GENERAL INFORMATION

(A) CONTACT

Inquiries may be made to the following authorized representative:

Valerie Land/ Brenda Montalvo
J. Connor Consulting, Inc.
16225 Park Ten Place, Suite 700
Houston, Texas 77084
(281) 578-3388
E-mail address: valerie.land@jccteam.com/ brenda.montalvo@jccteam.com

(B) PROSPECT NAME

Longhorn North

(C) NEW OR UNUSUAL TECHNOLOGY

Eni does not propose to use any new or unusual technology to carry out the proposed exploration activities. New or unusual technology is defined as equipment and/or procedures that:

1. Function in a manner that potentially causes different impacts to the environment than the equipment or procedures did in the past;
2. Have not been used previously or extensively in an MMS OCS Region;
3. Have not been used previously under the anticipated operating conditions; or
4. Have operating characteristics that are outside the performance parameters established by 30 CFR 250.

(D) BONDING INFORMATION

The bond requirements for the activities and facilities proposed in this EP are satisfied by an area wide bond, furnished and maintained according to 30 CFR 256, Subpart I; NTL No. 2000-G16, "Guidelines for General Lease Surety Bonds", dated September 7, 2000.

(E) ONSHORE BASE AND SUPPORT VESSELS

A Vicinity Map is included as ***Attachment B-1***, showing Mississippi Canyon Block 502 located approximately 38 miles from the nearest shoreline and approximately 81 miles from the onshore support base in Fourchon, Louisiana.

The existing onshore base provides 24-hour service, a radio tower with a phone patch, dock space, equipment, and supply storage area, drinking and drill water, etc. The base serves as a loading point for tools, equipment, and machinery, and temporary storage for materials and equipment. The base also supports crew change activities. The proposed operations do not require expansion or major modifications to the base.

During the proposed activities, support vessels/helicopters and travel frequency are as follows:

Type	Weekly Estimate (No.) of Roundtrips
Crew Boat	5
Supply Boat	4
Helicopter	7

The most practical, direct route from the shorebase as permitted by weather and traffic conditions will be utilized.

(F) LEASE STIPULATION

Exploration activities are subject to the following stipulation attached to Lease OCS-G 24084 Mississippi Canyon Block 502.

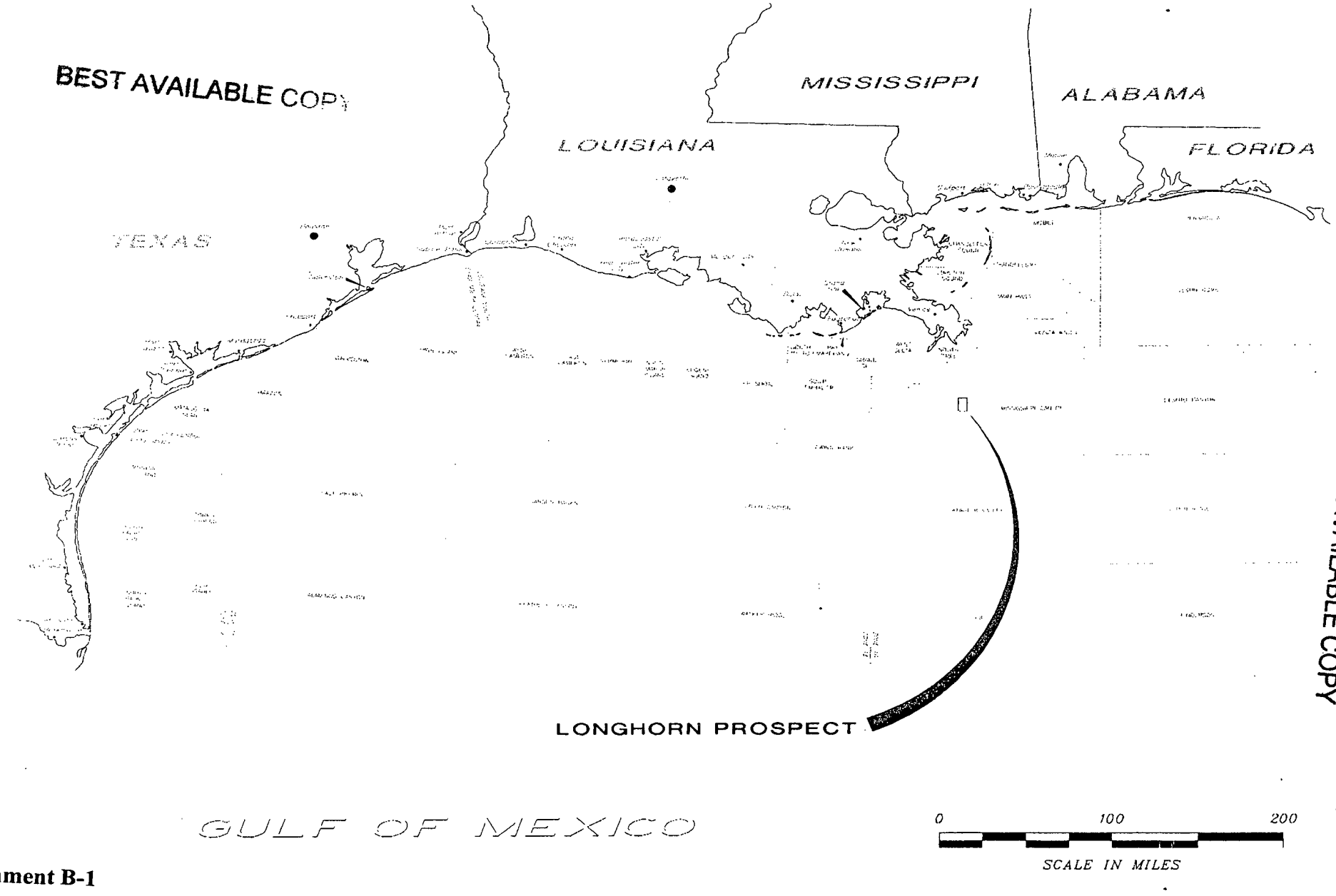
- **Marine Protected Species**
  Lease Stipulation No. 6 is meant to reduce the potential taking of marine protected species. Eni will operate in accordance with NTL 2003-G10, to minimize the risk of vessel strikes to protected species and report observations of injured or dead protected species, and NTL 2003-G11 to prevent intentional and/or accidental introduction of debris into the marine environment.

SPECIAL CONDITIONS

The west half of Mississippi Canyon Block 502 is located within the boundary of a **designated Ordinance Disposal Area.** Eni will take the necessary precautions as outlined in our Shallow Hazards Assessment to conduct safe operations and avoid potential hazards within this area.

ARCHAEOLOGY SURVEY BLOCKS

Mississippi Canyon Block 502 is not located in an area known to have any archeological interest; therefore, the Cultural Resources requirement has not been invoked.



Attachment B-1

Figure 1. Regional map shows the geographic location of the Longhorn Prospect.

APPENDIX C
GEOLOGICAL, GEOPHYSICAL, AND H_2S INFORMATION

(A) STRUCTURE CONTOUR MAPS
Proprietary Information.

(B) TRAPPING FEATURES
Proprietary Information.

(C) DEPTH OF GEOPRESSURE
Proprietary Information.

(D) INTERPRETED 3-D SEISMIC LINES
Proprietary Information.

(E) GEOLOGICAL STRUCTURE CROSS-SECTIONS
Proprietary Information.

(F) SHALLOW HAZARDS REPORT
A shallow hazards survey was conducted over Mississippi Canyon Block 502. Two copies of the shallow hazard report are being submitted to the MMS under separate cover.

(G) SHALLOW HAZARDS ASSESSMENT
Utilizing the 3D seismic exploration data, shallow hazards assessments were prepared for each of the proposed surface locations and are included as ***Attachments C-1 through C-5***.

(H) HIGH-RESOLUTION SEISMIC LINES
Proprietary Information.

(I)STRATIGRAPHIC COLUMN
Proprietary Information.

(J) TIME VS DEPTH TABLES
Proprietary Information.

(K) HYDROGEN SULFIDE INFORMATION
In accordance with Title 30 CFR 250. 490(c) and NTL No. 2003-G17, Eni requests that Mississippi Canyon Block 502 be classified by the MMS as H_2S absent.

C&C Technologies
SURVEY SERVICES

Eni Petroleum
GROUP

Eni Petroleum
1201 Louisiana, Suite 3500
Houston, Texas 77002

April 4, 2005

ATTN: Mr. Charles Russell

Site Clearance Letter
Proposed Well "A" Location
Block 502, Mississippi Canyon Area
OCS-G-24084

INTRODUCTION

C & C Technologies, Inc. was contracted by Eni Petroleum to prepare a well site clearance letter for the proposed Well "A" location in Block 502 (OCS-G-24084), Mississippi Canyon Area. This letter provides a tophole drilling prognosis and addresses seafloor conditions within an 8,000-foot radius of the proposed surface location and within 500 feet of associated anchor locations and anchor chain touchdown zones. The depth limit of the investigation is roughly one second of two-way traveltime below the seafloor. The assessment is based on the geohazard interpretation of 3D seismic data provided to C & C Technologies, Inc. by Eni Petroleum and the integration of conventional deep tow survey results from Tesla Offshore, LLC. C & C completed the report titled "3D Seismic Shallow Hazards Study of Longhorn Prospect in Blocks 502, 546 and vicinity, Mississippi Canyon Area" in October 2004. The blocks included in this study lie in an abandoned unexploded ordinance dumping ground and Eni Petroleum felt the deep tow data acquisition was prudent in order to clear the proposed well and anchor locations.

EQUIPMENT AND METHODS

3D SEISMIC DATA

The 3D seismic data used for this site clearance assessment was provided in SEG-Y format on a DLT tape. The data were loaded into Seismic Micro Technology's (SMT) 2d/3dPAK for interpretation.

The survey grid consists of 1,443 northwest-southeast oriented inlines spaced at 65.62-foot (20m) intervals and 1,785 crosslines spaced at 41.01-foot (12.5m) intervals. The grid is populated with seismic data in an area of interest that includes all of Blocks 459, 460, 501 – 504, and 545 – 547, Mississippi Canyon Area and portions of some of the surrounding blocks.

DEEP TOW GEOPHYSICAL SURVEY DATA

Eni Petroleum selected Tesla Offshore, LLC to conduct a high-resolution deep tow sonar and swath bathymetry survey covering proposed well sites in Blocks 502 and 546, Mississippi Canyon Area with associated anchor/mooring patterns into contiguous blocks to the east and west. These data were collected to complement the

3D geohazard assessment. Survey coverage included a portion of an abandoned explosives dumping area defined by NOAA across portions of Blocks 501, 502, 545, and 546, Mississippi Canyon Area.

Geophysical instruments utilized during this survey include an Edgetech 3,000-meter depth deep tow sonar system operated at a frequency of 410 kHz and the ELAC Bottom Chart Mark II multibeam fathometer system provided 200% redundant overlap within the survey grid. A Sonardyne USBL system was utilized from a tracking vessel to correctly position the Edgetech towfish. Differential GPS receivers were interfaced to a HYPAK navigation system with differential signals provided via WAAS & USCG Reference Station Networks.

WELL LOCATION AND ANCHOR LOCATIONS

The coordinates of the proposed surface location for Well "A" and calls from Block MC502 are tabularized below:

Well	Easting	Northing	Latitude	Longitude	Calls From Block MC502	
A	977,760.00'	10,328,200.00'	28° 26' 41.490"N	89° 03' 44.962"W	520' FSL	4,320' FEL

Eight proposed anchor locations associated with the proposed Well "A" are listed in the following table:

Anchor	Easting	Northing	Water Depth
1	969,827.30'	10,326,325.96'	2,400'
2	969,963.64'	10,330,473.32'	2,315'
3	976,036.07'	10,336,135.95'	2,400'
4	980,185.13'	10,335,981.17'	2,570'
5	985,692.70'	10,330,074.05'	2,705'
6	985,556.36'	10,325,926.58'	2,730'
7	979,483.93'	10,320,264.05'	2,660'
8	975,337.17'	10,320,417.35'	2,580'

Units are US Survey Feet. The geodetic datum is NAD 27 and the ellipsoid is Clarke 1866 with the projection in Universal Transverse Mercator Zone 16N.

The surface location of the proposed Well "A" and each of anchor locations with mooring lines and touchdown zones are displayed in Proposed Anchor Spread and Well "A" Location Map (Figure 1).

BATHYMETRY AND SEAFLOOR GRADIENTS

A Fledermaus 3D seafloor perspective view looking north across the proposed Well "A" and its associated anchor locations are shown in Figure 2. The water depth at the proposed Well "A" location is approximately 2,500 feet

below sea level. The seafloor at the proposed well site slopes to the southeast at a gradient of approximately 3.8°. Water depths at the proposed anchor locations range from 2,315 to 2,730 feet.

SEAFLOOR FEATURES

The sonar imagery and the seafloor reflector exhibit low backscatters and low amplitude seismic signals throughout the proposed anchor spread area, suggestive of fine textured seafloor sediments that are comprised mainly of hemipelagic clay. No fault scarps, recent slumps or other geologic hazards at the seafloor are present.

POTENTIAL CHEMOSYNTHETIC COMMUNITIES

No surficial high-amplitude zones or hydrocarbon seepage that could represent high-density chemosynthetic communities were noted within 2,000 feet of the proposed Well "A" location. Examination of seismic profiles and side scan sonar imagery of each anchor location and anchor chain touchdown zones show no evidence of hydrocarbon seepage that might support high-density chemosynthetic communities within 500 feet.

MAN-MADE HAZARDS

Three well sites, Well #1 (OCS-G-06960) in Block MC502, Well #1 (OCS-G-06965) and Well #1 (OCS-G-14642) in Block MC546, were confirmed within the proposed anchor spread area by the sonar data along with multiple mooring line imprints from previous drilling operations. Well #1 (OCS-G-14642) in Block MC546 is temporarily abandoned 500 feet west of the mooring line for anchor 8.

The eastern boundary of the explosives dumpsite is located 6,700 feet west of the proposed "A" location (Figure 1). Fifteen (15) side scan sonar targets were found within or near the perimeter of the 8,000-foot anchor spread radius. These sonar targets may represent unexploded munitions, modern debris from drilling, or zones of seafloor disturbance from previous anchor drops and dragging. Most of the targets extend less than a foot above the seafloor. The nearest sonar target to the proposed well and anchor locations is at least 1,014 feet away. Detailed descriptions of these sonar targets can be found in the report of Deep Tow Survey of Proposed Well Sites and Anchor/Mooring Pattern submitted to Eni Petroleum by Tesla Offshore, LLC in March 2005.

SUBSURFACE FEATURES

Six stratigraphic units of distinct seismic character were assessed (Figures 3 and 4). A detailed description of the sequence units can be found in the 3D Seismic Shallow Hazard Study Report. Subsurface deposition in the upper 1,180 feet (using a constant assumed velocity of 5,500 feet per second of two-way traveltime) of the wellbore at the proposed Well "A" location is mostly parallel-stratified fine-grained sediment. High amplitude reflectors at the top and bottom of Unit D between 715 and 825 feet below mudline (1.27 to 1.31 seconds in Figure 3) may indicate the presence of sand-prone sediment. The remaining portion of the subsurface data down to the depth limit of the investigation shows interbedded sand-prone channel deposits and fine-grained mass movement deposits.

No faults intersect the proposed wellbore in the interval between the seafloor and one second of two-way traveltime below the mudline.

Very high amplitude anomalies, commonly termed bright spots, are interpreted as potential regions of gas saturation consisting of mainly shale-sand-shale formation. Two zones of bright spots in the central study area are located 2,500 feet to the west of the proposed well location at depths between 897 and 912 feet below mudline (See Sheet 6 and Figure 9 in the 3D Seismic Shallow Hazard Study Report).

SHALLOW WATER FLOWS (SWF)

Shallow Water Flows (SWF) are overpressured, unconsolidated sands that are encountered in the tophole sections of some wells drilled in the deepwater areas of the Gulf of Mexico. From the assessment of seismic profiles, interval amplitudes, and well log data, it suggests that sand-prone sediment within Unit D between 715 and 825 feet below mudline exhibits a risk of SWF potential (Figures 3 and 4). The interval from 1,293 to 2,283 feet below mudline shows massive, stacked channel and overbank deposits with variable amplitude reflectors. Within this interval, high amplitudes in channel sands from 1,458 to 1,513, 1,815 to 1,898, and 2,145 to 2,282 feet below mudline suggest a low to moderate risk of shallow water flow potential. A tophole prognosis chart showing subsurface conditions and shallow water flow potential is summarized in Figure 5.

CONCLUSIONS

The anchors and anchor chain locations will avoid any sonar targets that could represent potential munitions and there should be no impacts to chemosynthetic communities. The assessment of the geophysical data indicates sand-prone intervals beneath the Well "A" location may contain over-pressured fluids which could be prone to producing shallow water flows during the drilling. Caution should be exercised when drilling through these sand-prone intervals. Thank you for this opportunity to be of service. Please contact us if you have any questions concerning this assessment.

Sincerely yours,

Y.-D. Eddy Lee, Ph.D., P.G.
Senior Geologist

C & C Technologies, Inc.
Office: 1-713-468-1536
Direct: 1-832-461-4719
Fax: 1-713-468-1115

Eni Petroleum
1201 Louisiana, Suite 3500
Houston, Texas 77002

April 4, 2005

ATTN: Mr. Charles Russell

Site Clearance Letter
Proposed Well "B" Location
Block 502, Mississippi Canyon Area
OCS-G-24084

INTRODUCTION

C & C Technologies, Inc. was contracted by Eni Petroleum to prepare a well site clearance letter for the proposed Well "B" location in Block 502 (OCS-G-24084), Mississippi Canyon Area. This letter provides a tophole drilling prognosis and addresses seafloor conditions within an 8,000-foot radius of the proposed surface location and within 500 feet of associated anchor locations and anchor chain touchdown zones. The depth limit of the investigation is roughly one second of two-way traveltime below the seafloor. The assessment is based on the geohazard interpretation of 3D seismic data provided to C & C Technologies, Inc. by Eni Petroleum and the integration of conventional deep tow survey results from Tesla Offshore, LLC. C & C completed the report titled "3D Seismic Shallow Hazards Study of Longhorn Prospect in Blocks 502, 546 and vicinity, Mississippi Canyon Area" in October 2004. The blocks included in this study lie in an abandoned unexploded ordinance dumping ground and Eni Petroleum felt the deep tow data acquisition was prudent in order to clear the proposed well and anchor locations.

EQUIPMENT AND METHODS

3D SEISMIC DATA

The 3D seismic data used for this site clearance assessment was provided in SEG-Y format on a DLT tape. The data were loaded into Seismic Micro Technology's (SMT) 2d/3dPAK for interpretation.

The survey grid consists of 1,443 northwest-southeast oriented inlines spaced at 65.62-foot (20m) intervals and 1,785 crosslines spaced at 41.01-foot (12.5m) intervals. The grid is populated with seismic data in an area of interest that includes all of Blocks 459, 460, 501 – 504, and 545 – 547, Mississippi Canyon Area and portions of some of the surrounding blocks.

DEEP TOW GEOPHYSICAL SURVEY DATA

Eni Petroleum selected Tesla Offshore, LLC to conduct a high-resolution deep tow sonar and swath bathymetry survey covering proposed well sites in Blocks 502 and 546, Mississippi Canyon Area with associated anchor/mooring patterns into contiguous blocks to the east and west. These data were collected to complement the

3D geohazard assessment. Survey coverage included a portion of an abandoned explosives dumping area defined by NOAA across portions of Blocks 501, 502, 545, and 546, Mississippi Canyon Area.

Geophysical instruments utilized during this survey include an Edgetech 3,000-meter depth deep tow sonar system operated at a frequency of 410 kHz and the ELAC Bottom Chart Mark II multibeam fathometer system provided 200% redundant overlap within the survey grid. A Sonardyne USBL system was utilized from a tracking vessel to correctly position the Edgetech towfish. Differential GPS receivers were interfaced to a HYPAK navigation system with differential signals provided via WAAS & USCG Reference Station Networks.

WELL LOCATION AND ANCHOR LOCATIONS

The coordinates of the proposed surface and bottom hole locations for Well "B" and calls from Block MC502 are tabularized below:

	Easting	Northing	Latitude	Longitude	Calls From Block MC502	
Surface Location	970,612.32'	10,331,055.73'	28° 27' 08.538"N	89° 05' 05.562"W	3,376' FSL	4,372' FWL
Bottom Hole	971,139.34'	10,328,692.16'	28° 26' 45.232"N	89° 04' 59.200"W	1,012'FSL	4,899' FWL

Eight proposed anchor locations associated with the proposed Well "B" are listed in the following table:

Anchor	Easting	Northing	Water Depth
1	962,679.30'	10,329,181.96'	2,310'
2	962,815.64'	10,333,329.32'	2,205'
3	968,888.07'	10,338,991.95'	2,180'
4	973,037.13'	10,338,837.17'	2,300'
5	978,544.70'	10,332,930.04'	2,480'
6	978,408.36'	10,328,782.68'	2,500'
7	972,335.93'	10,323,120.05'	2,490'
8	968,189.17'	10,323,273.35'	2,470'

Units are US Survey Feet. The geodetic datum is NAD 27 and the ellipsoid is Clarke 1866 with the projection in Universal Transverse Mercator Zone 16N. The surface location of the proposed Well "B" and each of anchor locations with mooring lines and touchdown zones are displayed in Proposed Anchor Spread and Well "B" Location Map (Figure 1).

BATHYMETRY AND SEAFLOOR GRADIENTS

A Fledermaus 3D seafloor perspective view looking north across the proposed Well "B" and its associated anchor locations are shown in Figure 2. The water depth at the proposed Well "B" location is approximately 2,300 feet below sea level. The seafloor at the proposed well site slopes to the southeast at a gradient of approximately 1.4°. Water depths at the proposed anchor locations range from 2,180 to 2,500 feet.

SEAFLOOR FEATURES

The sonar imagery and the seafloor reflector exhibit low backscatters and low amplitude seismic signals throughout the proposed anchor spread area, suggestive of fine textured seafloor sediments that are comprised mainly of hemipelagic clay. No fault scarps, recent slumps or other geologic hazards at the seafloor are present.

POTENTIAL CHEMOSYNTHETIC COMMUNITIES

No surficial high-amplitude zones or hydrocarbon seepage that could represent high-density chemosynthetic communities were noted within 2,000 feet of the proposed Well "B" location. Examination of seismic profiles and side scan sonar imagery of each anchor location and anchor chain touchdown zones show no evidence of hydrocarbon seepage that might support high-density chemosynthetic communities within 500 feet.

MAN-MADE HAZARDS

Four well sites, Well #1 (OCS-G-06960) in Block MC502, Well #1 (OCS-G-06965), Well #2 (OCS-G-06965), and Well #1 (OCS-G-14642) in Block MC546, were confirmed within the proposed anchor spread area by the sonar data along with multiple mooring line imprints from previous drilling operations.

Well "B" is proposed to be drilled in the explosives dumpsite area (Figure 1). Sixteen (16) side scan sonar targets were found within or near the perimeter of the 8,000-foot anchor spread radius. These sonar targets may represent unexploded munitions, modern debris from drilling, or zones of seafloor disturbance from previous anchor drops and dragging. Most of the targets extend less than a foot above the seafloor. Sonar target No. 6 is approximately 82 feet east of the projected mooring line for anchor 4. The anchor 4 should be shifted west to avoid this sonar target. Target No. 3 is 220 feet north of the anchor chain position for anchor 1. Other sonar targets are at least 500 feet away from the proposed well and anchor locations. A shipwreck measuring 150 feet by 59 feet was found in Block MC501 at 2,320 feet of water. A 500-foot radius avoidance area for the shipwreck is annotated in the enclosed map (Figure 1). The shipwreck is at least 900 feet away from the proposed anchor locations. Detailed descriptions of these sonar targets can be found in the report of Deep Tow Survey of Proposed Well Sites and Anchor/Mooring Pattern submitted to Eni Petroleum by Tesla Offshore, LLC in March 2005.

SUBSURFACE FEATURES

Six stratigraphic units of distinct seismic character were assessed (Figures 3 and 4). A detailed description of the sequence units can be found in the 3D Seismic Shallow Hazard Study Report. Subsurface deposition in the upper 1,320 feet (using a constant assumed velocity of 5,500 feet per second of two-way traveltime) of the wellbore at the proposed Well "B" location is mostly parallel-stratified fine-grained sediment. High amplitude reflectors at the top and bottom of Unit D between 770 and 780 feet below mudline (1.21 to 1.25 seconds in Figure 3) may indicate the presence of sand-prone sediment. The remaining portion of the subsurface data down to the depth limit of the investigation shows interbedded sand-prone channel deposits and fine-grained mass movement deposits.

No faults intersect the proposed wellbore in the interval between the seafloor and one second of two-way traveltime below the mudline. A fluid / gas column is found approximately 5,330 feet to the southeast of the proposed well location (Figure 3). Very high amplitude anomalies, commonly termed bright spots, are interpreted as potential regions of gas saturation consisting of mainly shale-sand-shale formation. Two zones of bright spots in the central study area are located 5,075 feet to the southeast of the proposed well location at depths between 897 and 912 feet below mudline (See Sheet 6 and Figure 9 in the 3D Seismic Shallow Hazard Study Report).

SHALLOW WATER FLOWS (SWF)

Shallow Water Flows (SWF) are overpressured, unconsolidated sands that are encountered in the tophole sections of some wells drilled in the deepwater areas of the Gulf of Mexico. From the assessment of seismic profiles, interval amplitudes, and well log data, it suggests that sand-prone sediment within Unit D between 770 and 880 feet below mudline exhibits a risk of SWF potential (Figures 3 and 4). The interval from 1,320 to 2,035 feet below mudline shows massive, stacked channel and overbank deposits with variable amplitude reflectors. High amplitudes in channel sands from 1,870 to 2,035 feet below mudline within this interval and a sand-prone interval between 2,475 and 2,750 feet below mudline suggest a low to moderate risk of shallow water flow potential. A tophole prognosis chart showing subsurface conditions and shallow water flow potential is summarized in Figure 5.

CONCLUSIONS

The anchors and anchor chain locations will avoid any sonar targets that could represent potential munitions after the anchor location 4 is repositioned and there should be no impacts to chemosynthetic communities or potential cultural resources (shipwreck). The assessment of the geophysical data indicates sand-prone intervals beneath the Well "B" location may contain over-pressured fluids which could be prone to producing shallow water flows during the drilling. Caution should be exercised when drilling through these sand-prone intervals. Thank you for this opportunity to be of service. Please contact us if you have any questions concerning this assessment.

Sincerely yours,

Y.-D. Eddy Lee, Ph.D., P.G.
Senior Geologist

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Enclosures

Figure 1. Proposed Anchor Spread and Well "B" Location Map.

Figure 2. A Fledermaus 3D seafloor perspective view looking to the north across the anchor spread area.

Figure 3. Subsurface stratigraphy – Inline 13696, Crosslines 16135-16645

Figure 4. Subsurface stratigraphy – Crosslines 16420, Inlines 13465 – 13975

Figure 5. Tophole prognosis chart for the proposed Well "B" in Block 502, Mississippi Canyon Area

Eni Petroleum
1201 Louisiana, Suite 3500
Houston, Texas 77002

April 4, 2005

ATTN: Mr. Charles Russell

Site Clearance Letter
Proposed Well "C" Location
Block 502, Mississippi Canyon Area
OCS-G-24084

INTRODUCTION

C & C Technologies, Inc. was contracted by Eni Petroleum to prepare a well site clearance letter for the proposed Well "C" location in Block 502 (OCS-G-24084), Mississippi Canyon Area. This letter provides a tophole drilling prognosis and addresses seafloor conditions within an 8,000-foot radius of the proposed surface location and within 500 feet of associated anchor locations and anchor chain touchdown zones. The depth limit of the investigation is roughly one second of two-way traveltime below the seafloor. The assessment is based on the geohazard interpretation of 3D seismic data provided to C & C Technologies, Inc. by Eni Petroleum and the integration of conventional deep tow survey results from Tesla Offshore, LLC. C & C completed the report titled "3D Seismic Shallow Hazards Study of Longhorn Prospect in Blocks 502, 546 and vicinity, Mississippi Canyon Area" in October 2004. The blocks included in this study lie in an abandoned unexploded ordinance dumping ground and Eni Petroleum felt the deep tow data acquisition was prudent in order to clear the proposed well and anchor locations.

EQUIPMENT AND METHODS

3D SEISMIC DATA

The 3D seismic data used for this site clearance assessment was provided in SEG-Y format on a DLT tape. The data were loaded into Seismic Micro Technology's (SMT) 2d/3dPAK for interpretation.

The survey grid consists of 1,443 northwest-southeast oriented inlines spaced at 65.62-foot (20m) intervals and 1,785 crosslines spaced at 41.01-foot (12.5m) intervals. The grid is populated with seismic data in an area of interest that includes all of Blocks 459, 460, 501 – 504, and 545 – 547, Mississippi Canyon Area and portions of some of the surrounding blocks.

DEEP TOW GEOPHYSICAL SURVEY DATA

Eni Petroleum selected Tesla Offshore, LLC to conduct a high-resolution deep tow sonar and swath bathymetry survey covering proposed well sites in Blocks 502 and 546, Mississippi Canyon Area with associated anchor/mooring patterns into contiguous blocks to the east and west. These data were collected to complement the

3D geohazard assessment. Survey coverage included a portion of an abandoned explosives dumping area defined by NOAA across portions of Blocks 501, 502, 545, and 546, Mississippi Canyon Area.

Geophysical instruments utilized during this survey include an Edgetech 3,000-meter depth deep tow sonar system operated at a frequency of 410 kHz and the ELAC Bottom Chart Mark II multibeam fathometer system provided 200% redundant overlap within the survey grid. A Sonardyne USBL system was utilized from a tracking vessel to correctly position the Edgetech towfish. Differential GPS receivers were interfaced to a HYPAK navigation system with differential signals provided via WAAS & USCG Reference Station Networks.

WELL LOCATION AND ANCHOR LOCATIONS

The coordinates of the proposed surface location for Well "C" and calls from Block MC502 are tabularized below:

Well	Easting	Northing	Latitude	Longitude	Calls From Block MC502	
C	969,620.00'	10,328,280.00'	28° 26' 40.892"N	89° 05' 16.135"W	600' FSL	3380' FWL

Eight proposed anchor locations associated with the proposed Well "C" are listed in the following table:

Anchor	Easting	Northing	Water Depth
1	961,687.30'	10,326,405.96'	2,360'
2	961,823.64'	10,330,553.32'	2,260'
3	967,896.07'	10,336,215.95'	2,170'
4	972,045.13'	10,336,061.17'	2,290'
5	977,552.70'	10,330,154.04'	2,455'
6	977,416.36'	10,326,006.68'	2,505'
7	971,343.93'	10,320,344.05'	2,560'
8	967,197.17'	10,320,497.35'	2,550'

Units are US Survey Feet. The geodetic datum is NAD 27 and the ellipsoid is Clarke 1866 with the projection in Universal Transverse Mercator Zone 16N. The surface location of the proposed Well "C" and each of anchor locations with mooring lines and touchdown zones are displayed in Proposed Anchor Spread and Well "C" Location Map (Figure 1).

BATHYMETRY AND SEAFLOOR GRADIENTS

A Fledermaus 3D seafloor perspective view looking north across the proposed Well "C" and its associated anchor locations are shown in Figure 2. The water depth at the proposed Well "C" location is approximately 2,360 feet below sea level. The seafloor at the proposed well site slopes to the southeast at a gradient of approximately 1.1°. Water depths at the proposed anchor locations range from 2,170 to 2,560 feet.

SEAFLOOR FEATURES

The sonar imagery and the seafloor reflector exhibit low backscatters and low amplitude seismic signals throughout the proposed anchor spread area, suggestive of fine textured seafloor sediments that are comprised mainly of hemipelagic clay. No fault scarps, recent slumps or other geologic hazards at the seafloor are present.

POTENTIAL CHEMOSYNTHETIC COMMUNITIES

No surficial high-amplitude zones or hydrocarbon seepage that could represent high-density chemosynthetic communities were noted within 2,000 feet of the proposed Well "C" location. Examination of seismic profiles and side scan sonar imagery of each anchor location and anchor chain touchdown zones show no evidence of hydrocarbon seepage that might support high-density chemosynthetic communities within 500 feet.

MAN-MADE HAZARDS

Four well sites, Well #1 (OCS-G-06960) in Block MC502, Well #1 (OCS-G-06965), Well #2 (OCS-G-06965), and Well #1 (OCS-G-14642) in Block MC546, were confirmed within the proposed anchor spread area by the sonar data along with multiple mooring line imprints from previous drilling operations.

Well "C" is proposed to be drilled in the explosives dumpsite area (Figure 1). Eleven (11) side scan sonar targets were found within or near the perimeter of the 8,000-foot anchor spread radius. These sonar targets may represent unexploded munitions, modern debris from drilling, or zones of seafloor disturbance from previous anchor drops and dragging. Most of the targets extend less than a foot above the seafloor. Sonar target No. 3 is approximately 85 feet south of the projected mooring line for anchor 2. The anchor 2 should be shifted north to avoid this sonar target. Other sonar targets are at least 700 feet away from the proposed well and anchor locations. A shipwreck measuring 150 feet by 59 feet was found in Block MC501 at 2,320 feet of water. A 500-foot radius avoidance area for the shipwreck is annotated in the enclosed map (Figure 1). The shipwreck is at least 2,000 feet away from the proposed anchor locations. Detailed descriptions of these sonar targets can be found in the report of Deep Tow Survey of Proposed Well Sites and Anchor/Mooring Pattern submitted to Eni Petroleum by Tesla Offshore, LLC in March 2005.

SUBSURFACE FEATURES

Six stratigraphic units of distinct seismic character were assessed (Figures 3 and 4). A detailed description of the sequence units can be found in the 3D Seismic Shallow Hazard Study Report. Subsurface deposition in the upper 1,267 feet (using a constant assumed velocity of 5,500 feet per second of two-way traveltime) of the wellbore at the proposed Well "C" location is mostly parallel-stratified fine-grained sediment. High amplitude reflectors at the top and bottom of Unit D between 689 and 827 feet below mudline (1.21 to 1.26 seconds in Figure 3) may indicate the presence of sand-prone sediment. The remaining portion of the subsurface data down to the depth limit of the investigation shows interbedded sand-prone channel deposits and fine-grained mass movement deposits.

No faults intersect the proposed wellbore in the interval between the seafloor and one second of two-way traveltime below the mudline. Very high amplitude anomalies, commonly termed bright spots, are interpreted as potential regions of gas saturation consisting of mainly shale-sand-shale formation. Two zones of bright spots in the central study area are located 5,360 feet to the east of the proposed well location at depths between 897 and 912 feet below mudline (See Sheet 6 and Figure 9 in the 3D Seismic Shallow Hazard Study Report).

SHALLOW WATER FLOWS (SWF)

Shallow Water Flows (SWF) are overpressured, unconsolidated sands that are encountered in the tophole sections of some wells drilled in the deepwater areas of the Gulf of Mexico. From the assessment of seismic profiles, interval amplitudes, and well log data, it suggests that sand-prone sediment within Unit D between 689 and 827 feet below mudline exhibits a risk of SWF potential (Figures 3 and 4). The interval from 1,267 to 1,982 feet below mudline shows massive, stacked channel and overbank deposits with variable amplitude reflectors. High amplitudes in channel sands from 1,267 to 1,322, 1,460 to 1597, and 1,845 to 1,982 feet below mudline within this interval and a sand-prone interval between 2,395 and 2,560 feet below mudline suggest a low to moderate risk of shallow water flow potential. A tophole prognosis chart showing subsurface conditions and shallow water flow potential is summarized in Figure 5.

CONCLUSIONS

The anchors and anchor chain locations will avoid any sonar targets that could represent potential munitions after the anchor location 2 is repositioned and there should be no impacts to chemosynthetic communities or potential cultural resources (shipwreck). The assessment of the geophysical data indicates sand-prone intervals beneath the Well "C" location may contain over-pressured fluids which could be prone to producing shallow water flows during the drilling. Caution should be exercised when drilling through these sand-prone intervals. Thank you for this opportunity to be of service. Please contact us if you have any questions concerning this assessment.

Sincerely yours,

Y.-D. Eddy Lee, Ph.D., P.G.
Senior Geologist

C & C Technologies, Inc.
Office: 1-713-468-1536
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C&C Technologies
SURVEY SERVICES

Eni Petroleum

Eni Petroleum
1201 Louisiana, Suite 3500
Houston, Texas 77002

April 4, 2005

ATTN: Mr. Charles Russell

Site Clearance Letter
Proposed Well "D" Location
Block 502, Mississippi Canyon Area
OCS-G-24084

INTRODUCTION

C & C Technologies, Inc. was contracted by Eni Petroleum to prepare a well site clearance letter for the proposed Well "D" location in Block 502 (OCS-G-24084), Mississippi Canyon Area. This letter provides a tophole drilling prognosis and addresses seafloor conditions within an 8,000-foot radius of the proposed surface location and within 500 feet of associated anchor locations and anchor chain touchdown zones. The depth limit of the investigation is roughly one second of two-way traveltime below the seafloor. The assessment is based on the geohazard interpretation of 3D seismic data provided to C & C Technologies, Inc. by Eni Petroleum and the integration of conventional deep tow survey results from Tesla Offshore, LLC. C & C completed the report titled "3D Seismic Shallow Hazards Study of Longhorn Prospect in Blocks 502, 546 and vicinity, Mississippi Canyon Area" in October 2004. The blocks included in this study lie in an abandoned unexploded ordinance dumping ground and Eni Petroleum felt the deep tow data acquisition was prudent in order to clear the proposed well and anchor locations.

EQUIPMENT AND METHODS

3D SEISMIC DATA

The 3D seismic data used for this site clearance assessment was provided in SEG-Y format on a DLT tape. The data were loaded into Seismic Micro Technology's (SMT) 2d/3dPAK for interpretation.

The survey grid consists of 1,443 northwest-southeast oriented inlines spaced at 65.62-foot (20m) intervals and 1,785 crosslines spaced at 41.01-foot (12.5m) intervals. The grid is populated with seismic data in an area of interest that includes all of Blocks 459, 460, 501 – 504, and 545 – 547, Mississippi Canyon Area and portions of some of the surrounding blocks.

DEEP TOW GEOPHYSICAL SURVEY DATA

Eni Petroleum selected Tesla Offshore, LLC to conduct a high-resolution deep tow sonar and swath bathymetry survey covering proposed well sites in Blocks 502 and 546, Mississippi Canyon Area with associated anchor/mooring patterns into contiguous blocks to the east and west. These data were collected to complement the

3D geohazard assessment. Survey coverage included a portion of an abandoned explosives dumping area defined by NOAA across portions of Blocks 501, 502, 545, and 546, Mississippi Canyon Area.

Geophysical instruments utilized during this survey include an Edgetech 3,000-meter depth deep tow sonar system operated at a frequency of 410 kHz and the ELAC Bottom Chart Mark II multibeam fathometer system provided 200% redundant overlap within the survey grid. A Sonardyne USBL system was utilized from a tracking vessel to correctly position the Edgetech towfish. Differential GPS receivers were interfaced to a HYPAK navigation system with differential signals provided via WAAS & USCG Reference Station Networks.

WELL LOCATION AND ANCHOR LOCATIONS

The coordinates of the proposed surface location for Well "D" and calls from Block MC502 are tabularized below:

Well	Easting	Northing	Latitude	Longitude	Calls From Block MC502	
D	976,367.15'	10,328,845.03'	28° 26' 47.639"N	89° 04' 00.684"W	1165' FSL	5713' FEL

Eight proposed anchor locations associated with the proposed Well "D" are listed in the following table:

Anchor	Easting	Northing	Water Depth
1	968,434.30'	10,326,970.96'	2,375'
2	968,570.64'	10,331,118.32'	2,290'
3	974,643.07'	10,336,780.95'	2,340'
4	978,782.13'	10,336,626.17'	2,510'
5	984,299.70'	10,330,719.04'	2,650'
6	984,163.36'	10,326,571.68'	2,670'
7	978,090.93'	10,320,909.05'	2,610'
8	973,944.17'	10,321,062.35'	2,560'

Units are US Survey Feet. The geodetic datum is NAD 27 and the ellipsoid is Clarke 1866 with the projection in Universal Transverse Mercator Zone 16N. The surface location of the proposed Well "D" and each of anchor locations with mooring lines and touchdown zones are displayed in Proposed Anchor Spread and Well "D" Location Map (Figure 1).

BATHYMETRY AND SEAFLOOR GRADIENTS

A Fledermaus 3D seafloor perspective view looking north across the proposed Well "D" and its associated anchor locations are shown in Figure 2. The water depth at the proposed Well "D" location is approximately 2,455 feet below sea level. The seafloor at the proposed well site slopes to the southeast at a gradient of approximately 1.6°. Water depths at the proposed anchor locations range from 2,290 to 2,670 feet.

SEAFLOOR FEATURES

The sonar imagery and the seafloor reflector exhibit low backscatters and low amplitude seismic signals throughout the proposed anchor spread area, suggestive of fine textured seafloor sediments that are comprised mainly of hemipelagic clay. No fault scarps, recent slumps or other geologic hazards at the seafloor are present.

POTENTIAL CHEMOSYNTHETIC COMMUNITIES

No surficial high-amplitude zones or hydrocarbon seepage that could represent high-density chemosynthetic communities were noted within 2,000 feet of the proposed Well "D" location. Examination of seismic profiles and side scan sonar imagery of each anchor location and anchor chain touchdown zones show no evidence of hydrocarbon seepage that might support high-density chemosynthetic communities within 500 feet.

MAN-MADE HAZARDS

Three well sites, Well #1 (OCS-G-06960) in Block MC502, Well #1 (OCS-G-06965) and Well #1 (OCS-G-14642) in Block MC546, were confirmed within the proposed anchor spread area by the sonar data along with multiple mooring line imprints from previous drilling operations.

The eastern boundary of the explosives dumpsite is located 5,300 feet west of the proposed "A" location (Figure 1). Fifteen (15) side scan sonar targets are found within or near the perimeter of the 8,000-foot anchor spread radius. These sonar targets may represent unexploded munitions, modern debris from drilling, or zones of seafloor disturbance from previous anchor drops and dragging. Most of the targets extend less than a foot above the seafloor. Sonar target No. 16 is approximately 293 feet northeast of the anchor location 3. Target No. 14 is 212 feet east of the projected anchor chain position. Target No. 24 is about 42 feet north of the anchor chain for anchor 5. The anchor 5 should be moved farther south to ensure that the anchor chain would avoid the sonar target. Detailed descriptions of these sonar targets can be found in the report of Deep Tow Survey of Proposed Well Sites and Anchor/Mooring Pattern submitted to Eni Petroleum by Tesla Offshore, LLC in March 2005.

SUBSURFACE FEATURES

Six stratigraphic units of distinct seismic character were assessed (Figures 3 and 4). A detailed description of the sequence units can be found in the 3D Seismic Shallow Hazard Study Report. Subsurface deposition in the upper 1,293 feet (using a constant assumed velocity of 5,500 feet per second of two-way traveltime) of the wellbore at the proposed Well "D" location is mostly parallel-stratified fine-grained sediment. High amplitude reflectors at the top and bottom of Unit D between 743 and 881 feet below mudline (1.26 to 1.31 seconds in Figure 3) may indicate the presence of sand-prone sediment. The remaining portion of the subsurface data down to the depth limit of the investigation shows interbedded sand-prone channel deposits and fine-grained mass movement deposits.

No faults intersect the proposed wellbore in the interval between the seafloor and one second of two-way traveltime below the mudline. A seafloor depression / pockmark is found approximately 2,360 feet to the west of the proposed well location and a fluid / gas column is observed on underlying reflectors. Very high amplitude anomalies, commonly termed bright spots, are interpreted as potential regions of gas saturation consisting of mainly shale-sand-shale formation. Two zones of bright spots in the central study area are located 770 feet to the west of the proposed well location at depths between 897 and 912 feet below mudline (See Sheet 6 and Figure 9 in the 3D Seismic Shallow Hazard Study Report).

SHALLOW WATER FLOWS (SWF)

Shallow Water Flows (SWF) are overpressured, unconsolidated sands that are encountered in the tophole sections of some wells drilled in the deepwater areas of the Gulf of Mexico. From the assessment of seismic profiles, interval amplitudes, and well log data, it suggests that sand-prone sediment within Unit D between 743 and 881 feet below mudline exhibits a risk of SWF potential (Figures 3 and 4). The interval from 1,293 to 1,925 feet below mudline shows massive, stacked channel and overbank deposits with variable amplitude reflectors. This interval and high amplitudes in channel sands from 2,145 to 2,338 feet below mudline suggest a low to moderate risk of shallow water flow potential. A tophole prognosis chart showing subsurface conditions and shallow water flow potential is summarized in Figure 5.

CONCLUSIONS

The anchors and anchor chain locations will avoid any sonar targets that could represent potential munitions after the anchor location 5 is repositioned and there should be no impacts to chemosynthetic communities. The assessment of the geophysical data indicates sand-prone intervals beneath the Well "D" location may contain over-pressured fluids which could be prone to producing shallow water flows during the drilling. Caution should be exercised when drilling through these sand-prone intervals. Thank you for this opportunity to be of service. Please contact us if you have any questions concerning this assessment.

Sincerely yours,

Y.-D. Eddy Lee, Ph.D., P.G.
Senior Geologist

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Eni Petroleum
1201 Louisiana, Suite 3500
Houston, Texas 77002

April 4, 2005

ATTN: Mr. Charles Russell

Site Clearance Letter
Proposed Well "E" Location
Block 502, Mississippi Canyon Area
OCS-G-24084

INTRODUCTION

C & C Technologies, Inc. was contracted by Eni Petroleum to prepare a well site clearance letter for the proposed Well "E" location in Block 502 (OCS-G-24084), Mississippi Canyon Area. This letter provides a tophole drilling prognosis and addresses seafloor conditions within an 8,000-foot radius of the proposed surface location and within 500 feet of associated anchor locations and anchor chain touchdown zones. The depth limit of the investigation is roughly one second of two-way traveltime below the seafloor. The assessment is based on the geohazard interpretation of 3D seismic data provided to C & C Technologies, Inc. by Eni Petroleum and the integration of conventional deep tow survey results from Tesla Offshore, LLC. C & C completed the report titled "3D Seismic Shallow Hazards Study of Longhorn Prospect in Blocks 502, 546 and vicinity, Mississippi Canyon Area" in October 2004. The blocks included in this study lie in an abandoned unexploded ordinance dumping ground and Eni Petroleum felt the deep tow data acquisition was prudent in order to clear the proposed well and anchor locations.

EQUIPMENT AND METHODS

3D SEISMIC DATA

The 3D seismic data used for this site clearance assessment was provided in SEG-Y format on a DLT tape. The data were loaded into Seismic Micro Technology's (SMT) 2d/3dPAK for interpretation.

The survey grid consists of 1,443 northwest-southeast oriented inlines spaced at 65.62-foot (20m) intervals and 1,785 crosslines spaced at 41.01-foot (12.5m) intervals. The grid is populated with seismic data in an area of interest that includes all of Blocks 459, 460, 501 – 504, and 545 – 547, Mississippi Canyon Area and portions of some of the surrounding blocks.

DEEP TOW GEOPHYSICAL SURVEY DATA

Eni Petroleum selected Tesla Offshore, LLC to conduct a high-resolution deep tow sonar and swath bathymetry survey covering proposed well sites in Blocks 502 and 546, Mississippi Canyon Area with associated anchor/mooring patterns into contiguous blocks to the east and west. These data were collected to complement the

3D geohazard assessment. Survey coverage included a portion of an abandoned explosives dumping area defined by NOAA across portions of Blocks 501, 502, 545, and 546, Mississippi Canyon Area.

Geophysical instruments utilized during this survey include an Edgetech 3,000-meter depth deep tow sonar system operated at a frequency of 410 kHz and the ELAC Bottom Chart Mark II multibeam fathometer system provided 200% redundant overlap within the survey grid. A Sonardyne USBL system was utilized from a tracking vessel to correctly position the Edgetech towfish. Differential GPS receivers were interfaced to a HYPAK navigation system with differential signals provided via WAAS & USCG Reference Station Networks.

WELL LOCATION AND ANCHOR LOCATIONS

The coordinates of the proposed surface location for Well "E" and calls from Block MC502 are tabularized below:

Well	Easting	Northing	Latitude	Longitude	Calls From Block MC502	
E	981,285.00'	10,329,135.00'	28° 26' 51.343"N	89° 03' 05.664"W	1455' FSL	795' FEL

Eight proposed anchor locations associated with the proposed Well "E" are listed in the following table:

Anchor	Easting	Northing	Water Depth
1	973,297.30'	10,327,255.96'	2,415'
2	973,433.64'	10,331,403.32'	2,360'
3	979,506.07'	10,337,065.95'	2.550'
4	983,655.13'	10,336,911.17'	2,710'
5	989,162.70'	10,331,004.04'	2,850'
6	989,026.36'	10,326,856.68'	2,780'
7	982,953.93'	10,321,194.05'	2,200'
8	978,807.17'	10,321,347.35'	2,610'

Units are US Survey Feet. The geodetic datum is NAD 27 and the ellipsoid is Clarke 1866 with the projection in Universal Transverse Mercator Zone 16N. The surface location of the proposed Well "E" and each of anchor locations with mooring lines and touchdown zones are displayed in Proposed Anchor Spread and Well "E" Location Map (Figure 1). It is noted that anchor locations 5 and 6 are outside the survey coverage.

BATHYMETRY AND SEAFLOOR GRADIENTS

A Fledermaus 3D seafloor perspective view looking north across the proposed Well "E" and its associated anchor locations are shown in Figure 2. The water depth at the proposed Well "E" location is approximately 2,545 feet below sea level. The seafloor at the proposed well site slopes to the southeast at a gradient of approximately 1.3°. Water depths at the proposed anchor locations range from 2,200 to 2,850 feet.

SEAFLOOR FEATURES

The sonar imagery and the seafloor reflector exhibit low backscatters and low amplitude seismic signals throughout the proposed anchor spread area, suggestive of fine textured seafloor sediments that are comprised mainly of hemipelagic clay. No fault scarps, recent slumps or other geologic hazards at the seafloor are present.

POTENTIAL CHEMOSYNTHETIC COMMUNITIES

No surficial high-amplitude zones or hydrocarbon seepage that could represent high-density chemosynthetic communities were noted within 2,000 feet of the proposed Well "E" location. Examination of seismic profiles and side scan sonar imagery of each anchor location and anchor chain touchdown zones show no evidence of hydrocarbon seepage that might support high-density chemosynthetic communities within 500 feet.

MAN-MADE HAZARDS

Three well sites, Well #1 (OCS-G-06960) in Block MC502, Well #1 (OCS-G-06965) and Well #1 (OCS-G-14642) in Block MC546, were confirmed within the proposed anchor spread area by the sonar data along with multiple mooring line imprints from previous drilling operations.

Eleven (11) side scan sonar targets are located within or near the perimeter of the 8,000-foot anchor spread radius. These sonar targets may represent unexploded munitions, modern debris from drilling, or zones of seafloor disturbance from previous anchor drops and dragging. Most of the targets extend less than a foot above the seafloor. Sonar target No. 26 is on the projected chain location. The anchor should be moved farther north to avoid this sonar target. Detailed descriptions of these sonar targets can be found in the report of Deep Tow Survey of Proposed Well Sites and Anchor/Mooring Pattern submitted to Eni Petroleum by Tesla Offshore, LLC in March 2005.

SUBSURFACE FEATURES

Six stratigraphic units of distinct seismic character were assessed (Figures 3 and 4). A detailed description of the sequence units can be found in the 3D Seismic Shallow Hazard Study Report. Subsurface deposition in the upper 1,071 feet (using a constant assumed velocity of 5,500 feet per second of two-way traveltime) of the wellbore at the proposed Well "E" location is mostly parallel-stratified fine-grained sediment. High amplitude reflectors at the top and bottom of Unit D between 674 and 798 feet below mudline (1.275 to 1.32 seconds in Figure 3) may indicate the presence of sand-prone sediment. The remaining portion of the subsurface data down to the depth limit of the investigation shows interbedded sand-prone channel deposits and fine-grained mass movement deposits.

No faults intersect the proposed wellbore in the interval between the seafloor and one second of two-way traveltime below the mudline. A buried channel is found approximately 1,920 feet to the northeast of the proposed well location (See Sheet 6 in the 3D Seismic Shallow Hazard Study Report).

SHALLOW WATER FLOWS (SWF)

Shallow Water Flows (SWF) are overpressured, unconsolidated sands that are encountered in the tophole sections of some wells drilled in the deepwater areas of the Gulf of Mexico. From the assessment of seismic profiles, interval amplitudes, and well log data, it suggests that sand-prone sediment within Unit D between 674 and 798 feet below mudline exhibits a risk of SWF potential (Figures 3 and 4). The interval from 1,073 to 2,364 feet below mudline shows massive, stacked channel and overbank deposits with variable amplitude reflectors. Within this interval, high-amplitude sand-prone levee/overbank deposits between 1,073 and 1,264 feet below mudline suggest a moderate risk of shallow water flow potential (Figure 4). A tophole prognosis chart showing subsurface conditions and shallow water flow potential is summarized in Figure 5.

CONCLUSIONS

The anchors and anchor chain locations will avoid any sonar targets that could represent potential munitions after the anchor location 6 is repositioned and there should be no impacts to chemosynthetic communities. The assessment of the geophysical data indicates sand-prone intervals beneath the Well "E" location may contain over-pressured fluids which could be prone to producing shallow water flows during the drilling. Caution should be exercised when drilling through these sand-prone intervals. Thank you for this opportunity to be of service. Please contact us if you have any questions concerning this assessment.

Sincerely yours,

Y.-D. Eddy Lee, Ph.D., P.G.
Senior Geologist

C & C Technologies, Inc.
Office: 1-713-468-1536
Direct: 1-832-461-4719
Fax: 1-713-468-1115

APPENDIX D
BIOLOGICAL AND PHYSICAL INFORMATION

CHEMOSYNTHETIC INFORMATION

Activities proposed in this plan could disturb seafloor areas in water depths of 400 meters (1312 feet) or greater, therefore, information for the potential of encountering chemosynthetic communities is included as follows:

MAPS

Submitted under separate cover are maps prepared using 3-D seismic data depicting bathymetry, seafloor and shallow geological features, surface location of the proposed wells and positions of anchors and chains relative to the proposed operations.

ANALYSIS

Using 3-D seismic information, all seafloor features and areas that could be disturbed by the activities proposed in this plan have been identified. The likelihood of these proposed activities disturbing these seafloor and shallow geologic features is discussed in the following summary statement:

Associated Anchors – No Anchor Disturbances within 500 Feet of Chemosynthetic Communities

Well Locations A, B, C, D and E and the associated anchor patterns:

- Features or areas that could support high-density chemosynthetic communities are **not** located within 1,500 feet of each proposed muds and cuttings discharge location.

- Features or areas that could support high-density chemosynthetic communities are **not** located within 500 feet of any seafloor disturbances resulting from our use of anchors (including those caused by anchors, anchor chains, and wire ropes).

TOPOGRAPHIC FEATURES INFORMATION

A semi-submersible drilling rig will be used for this project. Neither the drilling rig nor the associated anchors will be placed within 500 feet of a no-activity zone. Therefore, topographic features information is not required.

LIVE BOTTOM (PINNACLE TREND) INFORMATION

Mississippi Canyon Block 502 is not located within 100 feet of any pinnacle trend feature with vertical relief equal to or greater than 8 feet; therefore, live bottom information is not required.

REMOTELY OPERATED VEHICLE (ROV) SURVEYS

Pursuant to NTL No. 2003-G03, operators may be required to conduct remotely operated vehicle (ROV) surveys during pre-spudding and post-drilling operations for the purpose of biological and physical observations.

If required, surveys will be conducted immediately prior and upon completion of drilling operations.

A semi-submersible rig based ROV equipped with video imaging capabilities will be used. The survey pattern will consist of six transects centered on the well location with tracks extending approximately 100 meters away from the well on bearings of 30 degrees, 90 degrees, 150 degrees, 210 degrees, 270 degrees and 330 degrees. The seafloor will be videotaped continuously along each track.

Biological and physical observations as described in the subject NTL and Form MMS-141 will be made prior to commencing drilling operations and also following the completion of drilling operations, but prior to moving the rig off location. The observations will be documented using Form MMS-141 or a facsimile and submitted to the MMS within 60 days after the second survey is completed.

APPENDIX E
WASTES AND DISCHARGES INFORMATION

DISCHARGES

All discharges associated with operations proposed in this Exploration Plan will be in accordance with regulations implemented by Minerals Management Service (MMS), U. S. Coast Guard (USCG) and the U.S. Environmental Protection Agency (EPA).

WASTES

For disposed wastes, the type and general characteristics of the wastes, the amount to be disposed of (volume, rate, or weight), the daily rate, the name and location of the disposal facility, a description of any treatment or storage, and the methods for transporting and final disposal are provided in tabular format in ***Attachment E-1.*** For purposes of this Appendix, disposed wastes describes those wastes generated by the proposed activities that are disposed of by means other than by releasing them in to the waters of the Gulf of Mexico at the site where they are generated. These wastes can be disposed of by offsite release, injection, encapsulation, or placement at either onshore or offshore permitted locations for the purpose of returning them back to the environment.

Disposal Table (Wastes to be disposed of, not discharged)

Type of Waste Approximate Composition	Amount*	Rate per Day	Name/Location of Disposal Facility	Treatment and/or Storage, Transport and Disposal Method
Spent oil-based drilling fluids and cuttings	N/A	N/A	N/A	N/A
Spent synthetic-based drilling fluids and cuttings	N/A	N/A	N/A	N/A
Oil-contaminated produced sand	N/A	N/A	N/A	N/A
Waste Oil	N/A	N/A	N/A	N/A
Produced water	NA	NA	NA	NA
Produced water	NA	NA	NA	NA
NORM-contaminated wastes	N/A	N/A	N/A	N/A
Trash and debris	3,960 ft^3	60 ft^3 /day	Solid Waste Management, Inc. in Raceland, LA	The trash bags will be shipped via non-hazardous trucks for disposal.
Chemical product wastes	33 bbl/well	.5 bbl/day	PCI in Memphis, TN	Transport in container on supply boat to Fourchon, LA.
Chemical product wastes	N/A	N/A	N/A	N/A
Workover fluids	N/A	NA	NA	NA

*can be expressed as a volume, weight, or rate

APPENDIX F
OIL SPILL INFORMATION

1. Regional OSRP Information

Eni Petroleum Co. Inc.'s Regional Oil Spill Response Plan (OSRP) was approved on May 12, 2004 through June 30, 2005. Activities proposed in this EP will be covered by the Regional OSRP.

2. OSRO Information

Eni's primary equipment provider is Clean Gulf Associates (CGA). The Marine Spill Response Corporation's (MSRC) STARS network will provide closest available personnel, as well as an MSRC supervisor to operate the equipment.

3. Worst-Case Scenario Comparison

Category	Regional OSRP WCD	EP WCD
Type of Activity	Exploratory Drilling	Exploratory Drilling
Facility Location (Area/Block)	GC298	MC502
Facility Designation		
Distance to Nearest Shoreline (miles)	95	38
Volume Storage tanks (total) Uncontrolled blowout Total Volume	52,174 bbls	75,952 bbls
Type of Oil(s) (crude, condensate, diesel)	Crude	Condensate
API Gravity	28°	50°

Eni has determined that the worst-case scenario from the activities proposed in this EP do supercede the worst-case scenario from our approved regional OSRP; therefore Eni will submit the new worst-case scenario to the MMS GOMR on or before April 18, 2005 for inclusion in our regional OSRP.

5. FACILITY TANKS, PRODUCTION FACILITIES

All facility tanks of 25 barrels or more.

Type of Storage Tank	Type of Facility	Tank Capacity (bbls)	Number of Tanks	Total Capacity (bbls)	Fluid Gravity (API)
Fuel Oil (Marine Diesel)	Drilling rig	515	1	515	35°
Fuel Oil Day	Drilling rig	80 ea.	2	160	35°
Emergency Generator	Drilling rig	41	1	41	35°
Forward Hull – Fuel Oil	Drilling rig	2645 (90% capacity)	2	5290	35°
Lower AFT Hull – Fuel Oil	Drilling rig	3564 (90% capacity)	2	7128	35°
Lube Oil Service	Drilling rig	198	1	198	26°
Dirty Lube Oil	Drilling rig	30	1	30	26°
Dirty Bilge	Drilling rig	30	1	30	26°

6. PRODUCED LIQUID HYDROCARBONS TRANSPORTATION VESSELS

Eni does not propose the transfer of stored production or well test fluids under this EP.

APPENDIX G
AIR EMISSIONS INFORMATION

AIR EMISSIONS INFORMATION

Screen Procedures for EP's	Yes	No
Is any calculated Complex Total (CT) Emission amount (tons) associated with your proposed exploration activities more than 90% of the amounts calculated using the following formulas: CT = $3400D^{2/3}$ 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 H_2S 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?		X

Summary Information

There are no existing facilities or activities co-located with the currently proposed activities, therefore the Complex Total Emissions are the same as the Plan Emissions and are provided in the table below.

Air Pollutant	Plan Emission Amounts[1] (tons)	Calculated Exemption Amounts[2] (tons)	Calculated Complex Total Emission Amounts[3] (tons)
Particular matter (PM)	33.58	1265.40	33.58
Sulphur dioxide (SO_2)	154.06	1265.40	154.06
Nitrogen oxides (NO_x)	1154.36	1265.40	1154.36
Volatile organic compounds (VOC)	34.63	1265.40	34.63
Carbon Monoxide (CO)	251.86	38429.79	251.86

[1]For activities proposed in your EP, list the projected emissions calculated from the worksheets.
[2]List the exemption amounts for your proposed activities calculated by using the formulas in 30 CFR 250.303(d).
[3]List the complex total emissions associated with your proposed activities calculated from the worksheets.

Enclosed as ***Attachment G-1*** are the emissions worksheets prepared in accordance with 30 CFR 250.303(d).

This information was calculated by: Brenda Montalvo
(281) 578-3388
brenda.montalvo@jccteam.co

Based on this data, emissions from the proposed activities will not cause any significant effect on onshore air quality.

EXPLORATION PLAN (EP)
AIR QUALITY SCREENING CHECKLIST

OMB Control No. XXX-XXX
Expiration Date: Pending

COMPANY	Eni Petroleum Co. Inc.
AREA	Mississippi Canyon
BLOCK	502
LEASE	G24084
PLATFORM	
WELL	A, B, C, D, & E
COMPANY CONTACT	Valerie Land/ Brenda Montalvo
TELEPHONE NO.	(281) 578-3388
REMARKS	Drill, complete and test Well Locations A thru E

"Yes"	"No"	Air Quality Screening Questions
X		1. 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: $CT = 3400D^{2/3}$ for CO, and $CT = 33.3D$ for the other air pollutants (where D = distance to shore in miles)?
	X	2. Do your emission calculations include any emission reduction measures or modified emission factors?
	X	3. Are your proposed exploration activities located east of 87.5° W longitude?
	X	4. Do you expect to encounter H_2S at concentrations greater than 20 parts per million?
	X	5. Do you propose to flare or vent natural gas for more than 48 continuous hours from any proposed well?
	X	6. Do you propose to burn produced hydrocarbon liquids?

If ALL questions are answered "No":
Submit only this coversheet with your plan; a full set of spreadsheets is not needed.

If ANY of questions 1 through 7 is answered "Yes":
Prepare and submit a full set of **EP** spreadsheets with your plan.

If question number 8 is answered "Yes":
Prepare and submit a full set of **DOCD** spreadsheets showing the cumulative emissions from both the proposed activities and the existing production platform.

Fuel Usage Conversion Factors	Natural Gas Turbines		Natural Gas Engines		Diesel Recip. Engine		REF.	DATE
	SCF/hp-hr	9.524	SCF/hp-hr	7.143	GAL/hp-hr	0.0483	AP42 3.2-1	4/76 & 8/84

Equipment/Emission Factors	units	PM	SOx	NOx	VOC	CO	REF.	DATE
NG Turbines	gms/hp-hr		0.00247	1.3	0.01	0.83	AP42 3.2-1& 3.1-1	10/96
NG 2-cycle lean	gms/hp-hr		0.00185	10.9	0.43	1.5	AP42 3.2-1	10/96
NG 4-cycle lean	gms/hp-hr		0.00185	11.8	0.72	1.6	AP42 3.2-1	10/96
NG 4-cycle rich	gms/hp-hr		0.00185	10	0.14	8.6	AP42 3.2-1	10/96
Diesel Recip. < 600 hp.	gms/hp-hr	1	1.468	14	1.12	3.03	AP42 3.3-1	10/96
Diesel Recip. > 600 hp.	gms/hp-hr	0.32	1.468	11	0.33	2.4	AP42 3.4-1	10/96
Diesel Boiler	lbs/bbl	0.084	2.42	0.84	0.008	0.21	AP42 1.3-12,14	9/98
NG Heaters/Boilers/Burners	lbs/mmscf	7.6	0.593	100	5.5	84	P42 1.4-1, 14-2, & 14	7/98
NG Flares	lbs/mmscf		0.593	71.4	60.3	388.5	AP42 11.5-1	9/91
Liquid Flaring	lbs/bbl	0.42	6.83	2	0.01	0.21	AP42 1.3-1 & 1.3-3	9/98
Tank Vapors	lbs/bbl				0.03		E&P Forum	1/93
Fugitives	lbs/hr/comp.				0.0005		API Study	12/93
Glycol Dehydrator Vent	lbs/mmscf				6.6		La. DEQ	1991
Gas Venting	lbs/scf				0.0034			

Sulfur Content Source	Value	Units
Fuel Gas	3.33	ppm
Diesel Fuel	0.4	% weight
Produced Gas(Flares)	3.33	ppm
Produced Oil (Liquid Flaring)	1	% weight

EMISSIONS CALCULATIONS 1ST YEAR

OMB Control No. xxxx-xxxx
Expiration Date: Pending

COMPANY	AREA	BLOCK	LEASE	PLATFORM	WELL	CONTACT	PHONE	REMARKS
Eni Petroleum Co. Inc.	Mississippi Canyon	502	G24084	0	A, B, C, D, & E	Valerie Land/ Brenda Montalvo	(281) 578-3388	

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	26400	1275.12	30602.88	24	114	18.61	85.36	639.65	19.19	139.56	25.46	116.78	875.04	26.25	190.92
	PRIME MOVER>600hp diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	PRIME MOVER>600hp diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	PRIME MOVER>600hp diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	BURNER diesel	0			0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	AUXILIARY EQUIP<600hp diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	VESSELS>600hp diesel(crew)	2065	99.7395	2393.75	8	81	1.46	6.68	50.03	1.50	10.92	0.47	2.16	16.21	0.49	3.54
	VESSELS>600hp diesel(supply)	2065	99.7395	2393.75	10	65	1.46	6.68	50.03	1.50	10.92	0.47	2.17	16.26	0.49	3.55
	VESSELS>600hp diesel(tugs)	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FACILITY INSTALLATION	DERRICK BARGE diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	MATERIAL TUG diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	VESSELS>600hp diesel(crew)	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	VESSELS>600hp diesel(supply)	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	MISC.	**BPD**	**SCF/HR**	**COUNT**												
	TANK-	0			0	0				0.00					0.00	
DRILLING WELL TEST	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
	GAS FLARE		0		0	0		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00
2005 YEAR TOTAL							**21.52**	**98.72**	**739.71**	**22.19**	**161.39**	**26.40**	**121.11**	**907.51**	**27.23**	**198.00**
EXEMPTION CALCULATION	**DISTANCE FROM LAND IN MILES**											**1265.40**	**1265.40**	**1265.40**	**1265.40**	**38429.79**
	38.0															

OMB Control No. xxxx-xxxx
Expiration Date: Pending

EMISSIONS CALCULATIONS 2ND YEAR

COMPANY	AREA	BLOCK	LEASE	PLATFORM	WELL		CONTACT	PHONE	REMARKS
Eni Petroleum Co. Inc.	Mississippi Canyon	502	G24084	0	A, B, C, D, & E		Valerie Land/ Brenda Montalvo	(281) 578-3388	

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	26400	1275.12	30602.88	24	145	18.61	85.36	639.65	19.19	139.56	32.38	148.53	1112.99	33.39	242.83
	PRIME MOVER>600hp diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	PRIME MOVER>600hp diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	PRIME MOVER>600hp diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	BURNER diesel	0			0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	AUXILIARY EQUIP<600hp diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	VESSELS>600hp diesel(crew)	2065	99.7395	2393.75	8	103	1.46	6.68	50.03	1.50	10.92	0.60	2.75	20.61	0.62	4.50
	VESSELS>600hp diesel(supply)	2065	99.7395	2393.75	10	83	1.46	6.68	50.03	1.50	10.92	0.60	2.77	20.76	0.62	4.53
	VESSELS>600hp diesel(tugs)	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FACILITY INSTALLATION	DERRICK BARGE diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	MATERIAL TUG diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	VESSELS>600hp diesel(crew)	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	VESSELS>600hp diesel(supply)	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	MISC.	BPD	SCF/HR	COUNT												
	TANK-	0			0	0				0.00					0.00	
DRILLING WELL TEST	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
	GAS FLARE		0		0	0		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00
2006 YEAR TOTAL							**21.52**	**98.72**	**739.71**	**22.19**	**161.39**	**33.58**	**154.06**	**1154.36**	**34.63**	**251.86**
EXEMPTION CALCULATION	**DISTANCE FROM LAND IN MILES** 38.0											**1265.40**	**1265.40**	**1265.40**	**1265.40**	**38429.79**

SUMMARY

OMB Control No. xxxx-xxxx
Expiration Date: Pending

COMPANY	AREA	BLOCK	LEASE	PLATFORM	WELL
Eni Petroleum C	Mississippi Canyon	502	G24084	0	A, B, C, D, & E

Year	Emitted Substance				
	PM	SOx	NOx	VOC	CO
2005	26.40	121.11	907.51	27.23	198.00
2006	33.58	154.06	1154.36	34.63	251.86
Allowable	1265.40	1265.40	1265.40	1265.40	38429.79

APPENDIX H
ENVIRONMENTAL IMPACT ANALYSIS (EIA)

Please find enclosed as ***Attachment H-1*** an Environmental Impact Analysis covering the proposed drilling and completion operations in Mississippi Canyon Block 502.

Eni Petroleum Co. Inc. (Eni)

Initial Exploration Plan
Mississippi Canyon Block 502
OCS-G 24084

(A) Impact Producing Factors

ENVIRONMENTAL IMPACT ANALYSIS WORKSHEET

Environment Resources	Impact Producing Factors (IPFs) Categories and Examples Refer to recent GOM OCS Lease Sale EIS for a more complete list of IPFs					
	Emissions (air, noise, light, etc.)	Effluents (muds, cutting, 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, H_2S releases)	Discarded Trash & 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		X	
Fisheries		X	X		X	
Marine Mammals	X(8)	X			X(8)	X
Sea Turtles	X(8)	X			X(8)	X
Air quality	X(9)					
Shipwreck sites (known or potential)			(7)			
Prehistoric archaeological sites			(7)			
Vicinity of Offshore Location						
Essential fish habitat		X	X		X(6)	
Marine and pelagic birds	X				X	X
Public health and safety					(5)	
Coastal and Onshore						
Beaches					X(6)	X
Wetlands					X(6)	
Shore birds and coastal nesting birds					X(6)	X
Coastal wildlife refuges					X	
Wilderness areas					X	

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:
   - 4-mile zone of the Flower Garden Banks, or the 3-mile zone of Stetson Bank;
   - 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;
   - Essential Fish Habitat (EFH) criteria of 500 ft. from any no-activity zone; or
   - 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 (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 H2S 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 a 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.

(B) Analysis

Site-Specific at Mississippi Canyon Block 502

Proposed operations consist of the drilling, completion, and testing of Well Locations A, B, C, D, and E. Operations to be completed using a semi-submersible.

1. Designated Topographic Features

Potential IPFs on topographic features include physical disturbances to the seafloor, effluents, and accidents.

Physical disturbances to the seafloor: Mississippi Canyon Block 502 is 31 miles from the closest designated Topographic Features Stipulation Block (Sackett Bank); therefore, no adverse impacts are expected.

Effluents: Mississippi Canyon Block 502 is 31 miles from the closest designated Topographic Features Stipulation Block (Sackett Bank); therefore, no adverse impacts are expected.

Accidents: It is unlikely that an accidental surface or subsurface spill would occur from the proposed activities (refer to statistics in **Item 5**, Water Quality). Oil spills cause damage to benthic organisms only if the oil contacts the organisms. Oil from a surface spill can be driven into the water column; measurable amounts have been documented down to a 10 m depth. At this depth, the oil is found only at concentrations several orders of magnitude lower than the amount shown to have an effect on corals. Because the crests of topographic features in the Northern Gulf of Mexico are found below 10 m, no oil from a surface spill could reach their sessile biota. Oil from a subsurface spill is not applicable due to the distance of these blocks from a topographic area. The activities proposed in this plan will be covered by Eni's Regional OSRP (refer to information submitted in **Appendix F**).

There are no other IPFs (including emissions and wastes sent to shore for disposal) from the proposed activities, which could impact topographic features.

2. Pinnacle Trend Area Live Bottoms

Potential IPFs on pinnacle trend area live bottoms include physical disturbances to the seafloor, effluents, and accidents.

Physical disturbances to the seafloor: Mississippi Canyon Block 502 is 65 miles from the closest live bottom (pinnacle trend) area; therefore, no adverse impacts are expected.

Effluents: Mississippi Canyon Block 502 is 65 miles from the closest live bottom (pinnacle trend) area; therefore, no adverse impacts are expected.

Accidents: It is unlikely that an accidental surface or subsurface spill would occur from the proposed activities (refer to statistics in **Item 5**, Water Quality). Oil spills have the potential to foul benthic communities and cause lethal and sublethal effects on live bottom organisms. Oil from a surface spill can be driven into the water column; measurable amounts have been documented down to a 10 m depth. At this depth, the oil is found only at concentrations several orders of magnitude lower than the amount shown to have an effect on marine organisms. Oil from a subsurface spill is not applicable due to the distance of these blocks from a live bottom (pinnacle trend) area. The activities proposed in this plan will be covered by Eni's Regional OSRP (refer to information submitted in **Appendix F**).

There are no other IPFs (including emissions and wastes sent to shore for disposal) from the proposed activities which could impact a live bottom (pinnacle trend) area.

3. Eastern Gulf Live Bottoms

Potential IPFs on Eastern Gulf live bottoms include physical disturbances to the seafloor, effluents, and accidents.

Physical disturbances to the seafloor: Mississippi Canyon Block 502 is not located in an area characterized by the existence of live bottoms, and this lease does not contain a Live-Bottom Stipulation requiring a photo documentation survey and survey report.

Effluents: Mississippi Canyon Block 502 is not located in an area characterized by the existence of live bottoms; therefore, no adverse impacts are expected.

Accidents: It is unlikely that an accidental surface or subsurface spill would occur from the proposed activities (refer to statistics in **Item 5**, Water Quality). Oil spills cause damage to live bottom organisms only if the oil contacts the organisms. Oil from a surface spill can be driven into the water column; measurable amounts have been documented down to a 10 m depth. At this depth, the oil is found only at concentrations several orders of magnitude lower than the amount shown to have an effect on marine invertebrates. Oil from a subsurface spill is not applicable due to the distance of these blocks from a live bottom area. The activities proposed in this plan will be covered by Eni's Regional OSRP (refer to information submitted in **Appendix F**).

There are no other IPFs (including emissions and wastes sent to shore for disposal) from the proposed activities which could impact an Eastern Gulf live bottom area.

4. Chemosynthetic Communities

Mississippi Canyon Block 502 is located in water depths 1,312 feet (400 meters) or greater. IPFs that could result in impacts to chemosynthetic communities from the proposed activities include physical disturbances to the seafloor.

Physical disturbances to the seafloor: Mississippi Canyon Block 502 is approximately 60 miles from a known chemosynthetic community site (Chemo Mississippi Canyon Block 969), listed in NTL 2000-G20. This Initial Exploration Plan submittal includes the required maps, analyses, and statement(s). The proposed activities will be conducted in accordance with NTL 2000-G20, which will ensure that features or areas that could support high-density chemosynthetic communities will not be impacted.

There are no other IPFs (including emissions, effluents, wastes sent to shore for disposal, or accidents) from the proposed activities which could impact chemosynthetic communities.

5. Water Quality

IPFs that could result in water quality degradation from the proposed operations in Mississippi Canyon Block 502 include disturbances to the seafloor, effluents and accidents.

Physical disturbances to the seafloor: Bottom area disturbances resulting from the emplacement of drill rigs, the drilling of wells and the installation of platforms and pipelines would increase water-column turbidity and re-suspension of any accumulated pollutants, such as trace metals and excess nutrients. This would cause short-lived impacts on water quality conditions in the immediate vicinity of the emplacement operations.

Effluents: Levels of contaminants in drilling muds and cuttings and produced water discharges, discharge-rate restrictions and monitoring and toxicity testing are regulated by the EPA NPDES permit, thereby eliminating many significant biological or ecological effects. Operational discharges are not expected to cause significant adverse impacts to water quality.

Accidents: Oil spills have the potential to alter offshore water quality; however, it is unlikely that an accidental surface or subsurface spill would occur from the proposed activities. Between 1980 and 2000, OCS operations produced 4.7 billion barrels of oil and spilled only 0.001 percent of this oil, or 1 bbl for every 81,000 bbl produced. The spill risk related to a diesel spill from drilling operations is even less. Between 1976 and 1985, (years for which data were collected), there were 80 reported diesel spills greater than one barrel associated with drilling activities. Considering that there were 11,944 wells drilled, this is a 0.7 percent probability of an occurrence. If a spill were to occur, the water quality of marine waters would be temporarily affected by the dissolved components and small oil droplets. Dispersion by currents and microbial degradation would remove the oil from the water column and dilute the constituents to background levels. Historically, changes in offshore water quality from oil spills have only been

detected during the life of the spill and up to several months afterwards. Most of the components of oil are insoluble in water and therefore float. The activities proposed in this plan will be covered by Eni's Regional Oil Spill Response Plan (refer to information submitted in **Appendix F**).

There are no other IPFs (including emissions, physical disturbances to the seafloor, and wastes sent to shore for disposal) from the proposed activities which could cause impacts to water quality.

6. Fisheries

IPFs that could cause impacts to fisheries as a result of the proposed operations in Mississippi Canyon Block 502 include physical disturbances to the seafloor, effluents and accidents.

Physical disturbances to the seafloor: The emplacement of a structure or drilling rig results in minimal loss of bottom trawling area to commercial fishermen. Pipelines cause gear conflicts which result in losses of trawls and shrimp catch, business downtime and vessel damage. Most financial losses from gear conflicts are covered by the Fishermen's Contingency Fund (FCF). The emplacement and removal of facilities are not expected to cause significant adverse impacts to fisheries.

Effluents: Effluents such as drilling fluids and cuttings discharges contain components and properties which are detrimental to fishery resources. Moderate petroleum and metal contamination of sediments and the water column can occur out to several hundred meters down-current from the discharge point. Offshore discharges are expected to disperse and dilute to very near background levels in the water column or on the seafloor within 3,000 m of the discharge point, and are expected to have negligible effect on fisheries.

Accidents: An accidental oil spill has the potential to cause some detrimental effects on fisheries; however, it is unlikely that such an event would occur from the proposed activities (refer to **Item 5**, Water Quality). The effects of oil on mobile adult finfish or shellfish would likely be sublethal and the extent of damage would be reduced to the capacity of adult fish and shellfish to avoid the spill, to metabolize hydrocarbons, and to excrete both metabolites and parent compounds. The activities proposed in this plan will be covered by Eni's Regional OSRP (refer to information submitted in **Appendix F**).

There are no IPFs from emissions, or wastes sent to shore for disposal from the proposed activities which could cause impacts to fisheries.

7. Marine Mammals

GulfCet II studies revealed that cetaceans of the continental shelf and shelf-edge were almost exclusively bottlenose dolphin and Atlantic spotted dolphin. Squid eaters, including dwarf and pygmy killer whale, Risso's dolphin, rough-toothed dolphin, and Cuvier's beaked whale, occurred most frequently along the upper slope in areas outside of anticyclones. IPFs that could cause impacts to marine mammals as a result of the proposed operations in Mississippi Canyon Block 502 include emissions, effluents, discarded trash and debris, and accidents.

Emissions: Noises from drilling activities, support vessels and helicopters may elicit a startle reaction from marine mammals. This reaction may lead to disruption of marine mammals' normal activities. Stress may make them more vulnerable to parasites, disease, environmental contaminants, and/or predation (Majors and Myrick, 1990). There is little conclusive evidence for long-term displacements and population trends for marine mammals relative to noise.

Effluents: Drilling fluids and cuttings discharges contain components which may be detrimental to marine mammals. Most operational discharges are diluted and dispersed upon release. Any potential impact from drilling fluids would be indirect, either as a result of impacts on prey items or possibly through ingestion in the food chain (API, 1989).

Discarded trash and debris: Both entanglement in, and ingestion of debris have caused the death or serious injury of marine mammals (Laist, 1997; MMC, 1999). The limited amount of marine debris, if any, resulting from the proposed activities is not expected to substantially harm marine mammals. 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 United States Coast Guard (USCG) and the Environmental Protection Agency (EPA).

Eni 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 all vessels and facilities having 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 video (or Microsoft PowerPoint presentation), "All Washed Up: The Beach Litter Problem". Thereafter, all personnel will view the marine trash and debris training video annually.

Accidents: Collisions between support vessels and cetaceans would be unusual events, however should one occur, death or injury to marine mammals is possible. Contract vessel operators can avoid marine mammals and reduce potential deaths by maintaining a vigilant watch for marine mammals and maintaining a safe distance when they are sighted. Vessel crews should use a reference guide to help identify the twenty-eight species of whales and dolphins, and the single species of manatee that may be encountered in the Gulf of Mexico OCS. Vessel crews must report sightings of any injured or dead protected marine mammal species immediately, regardless of whether the injury or death is caused by their vessel, to the Marine Mammal and Sea Turtle Stranding Hotline at (800) 799-6637, or the Marine Mammal Stranding Network at (305) 862-2850. In addition, if the injury or death was caused by a collision with a contract vessel, the MMS must be notified within 24 hours of the strike by email to protectedspecies@mms.gov. If the vessel is the responsible party, it is required to remain available to assist the respective salvage and stranding network as needed.

Oil spills have the potential to cause sublethal oil-related injuries and spill-related deaths to marine mammals. However, it is unlikely that an accidental oil spill would occur from the proposed activities (refer to **Item 5**, Water Quality). Oil spill response activities may increase vessel traffic in the area, which could add to changes in cetacean behavior and/or distribution, thereby causing additional stress to the animals. The effect of oil dispersants on cetaceans is not known. The acute toxicity of oil dispersant chemicals included in Eni's OSRP is considered to be low when compared with the constituents and fractions of crude oils and diesel products. The activities proposed in this plan will be covered by Eni's OSRP (refer to information submitted in accordance with **Appendix F**).

There are no other IPFs (including physical disturbances to the seafloor) from the proposed activities which could impact marine mammals.

8. Sea Turtles

IPFs that could cause impacts to sea turtles as a result of the proposed operations include emissions, effluents, discarded trash and debris, and accidents. GulfCet II studies sighted most loggerhead, Kemp's ridley and leatherback sea turtles over shelf waters. Historically these species have been sighted up to the shelf's edge. They appear to be more abundant east of the Mississippi River than they are west of the river (Fritts et al., 1983b; Lohoefener et al., 1990). Deep waters may be used by all species as a transitory habitat.

Emissions: Noise from drilling activities, support vessels, and helicopters may elicit a startle reaction from sea turtles, but this is a temporary disturbance.

Effluents: Drilling fluids and cuttings discharges are not known to be lethal to sea turtles. Most operational discharges are diluted and dispersed upon release. Any potential impact from drilling fluids would be indirect, either as a result of impacts on prey items or possibly through ingestion in the food chain (API, 1989).

Discarded trash and debris: Both entanglement in, and ingestion of, debris have caused the death or serious injury of sea turtles (Balazs, 1985). The limited amount of marine debris, if any, resulting from the proposed activities is not expected to substantially harm sea turtles. 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 United States Coast Guard (USCG) and the Environmental Protection Agency (EPA). Eni 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 all vessels and facilities having 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 video (or Microsoft PowerPoint presentation), "All Washed Up: The Beach Litter Problem". Thereafter, all personnel will view the marine trash and debris training video annually.

Accidents: Collisions between support vessels and sea turtles would be unusual events, however should one occur, death or injury to sea turtles is possible. Contract vessel operators can avoid sea turtles and reduce potential deaths by maintaining a vigilant watch for sea turtles and maintaining a safe distance when they are sighted. Vessel crews should use a reference guide to help identify the five species of sea turtles that may be encountered in the Gulf of Mexico OCS. Vessel crews must report sightings of any injured or dead protected sea turtle species immediately, regardless of whether the injury or death is caused by their vessel, to the Marine Mammal and Sea Turtle Stranding Hotline at (800) 799-6637, or the Marine Mammal Stranding Network at (305) 862-2850. In addition, if the injury or death was caused by a collision with a contract vessel, the MMS must be notified within 24 hours of the strike by email to protectedspecies@mms.gov. If the vessel is the responsible party, it is required to remain available to assist the respective salvage and stranding network as needed.

All sea turtle species and their life stages are vulnerable to the harmful effects of oil through direct contact or by fouling of their food. Exposure to oil can be fatal, particularly to juveniles and hatchlings. However, it is unlikely that an accidental oil spill would occur from the proposed activities (refer to **Item 5**, Water Quality). Oil spill response activities may increase vessel traffic in the area, which could add to the possibility of collisions with sea turtles. The activities proposed in this plan will be covered by Eni's Regional Oil Spill Response Plan (refer to information submitted in accordance with **Appendix F**).

There are no other IPFs (including physical disturbances to the seafloor) from the proposed activities which could impact sea turtles.

9. Air Quality

Mississippi Canyon Block 502 is located 70 miles from the Breton Wilderness Area and 38 miles from shore. Applicable emissions data is included in Appendix G of the Plan.

There would be a limited degree of air quality degradation in the immediate vicinity of the proposed activities. Plan Emissions for the proposed activities do not exceed the annual exemption levels as set forth by MMS. Accidents and blowouts can release hydrocarbons or chemicals, which could cause the emission of air pollutants. However, these releases would not impact onshore air quality because of the prevailing atmospheric conditions, emission height, emission rates, and the distance of Mississippi Canyon Block 502 from the coastline. There are no other IPFs (including effluents, physical disturbances to the seafloor, wastes sent to shore for treatment or disposal) from the proposed activities which would impact air quality.

10. Shipwreck Sites (known or potential)

IPFs that could impact known or unknown shipwreck sites as a result of the proposed operations in Mississippi Canyon Block 502 include disturbances to the seafloor. Mississippi Canyon Block 502 is not located in or adjacent to an OCS block designated by MMS as having a high probability for occurrence of shipwrecks. Eni will report to MMS the discovery of any evidence of a shipwreck and make every reasonable effort to preserve and protect that cultural resource. There are no other IPFs (including emissions, effluents, wastes sent to shore for treatment or disposal, or accidents) from the proposed activities which could impact shipwreck sites.

11. Prehistoric Archaeological Sites

IPFs which could impact prehistoric archaeological sites as a result of the proposed operations in Mississippi Canyon Block 502 include disturbances to the seafloor (structure emplacement) and accidents (oil spill). Mississippi Canyon Block 502 is located outside the Archaeological Prehistoric high probability line. Eni will report to MMS the discovery of any object of prehistoric archaeological significance and make every reasonable effort to preserve and protect that cultural resource.

Accidents: An accidental oil spill has the potential to cause some detrimental effects to prehistoric archaeological sites if the release were to occur subsea. However, it is unlikely that an accidental oil spill would occur from the proposed activities (refer to **Item 5**, Water Quality). The activities proposed in this plan will be covered by Eni's Regional Oil Spill Response Plan (refer to information submitted in accordance with **Appendix F**).

There are no other IPFs (including emissions, effluents, wastes sent to shore for treatment or disposal) from the proposed activities which could impact prehistoric archaeological sites.

Vicinity of Offshore Location

1. Essential Fish Habitat (EFH)

IPFs that could cause impacts to EFH as a result of the proposed operations in Mississippi Canyon Block 502 include physical disturbances to the seafloor, effluents and accidents. EFH includes all estuarine and marine waters and substrates in the Gulf of Mexico.

Physical disturbances to the seafloor: The Live Bottom Low Relief Stipulation, the Live Bottom (Pinnacle Trend) Stipulation, and the Eastern Gulf Pinnacle Trend Stipulation would prevent most of the potential impacts on live-bottom communities and EFH from bottom disturbing activities (e.g., anchoring, structure emplacement and removal).

Effluents: The Live Bottom Low Relief Stipulation, the Live Bottom (Pinnacle Trend) Stipulation, and the Eastern Gulf Pinnacle Trend Stipulation would prevent most of the potential impacts on live-bottom communities and EFH from operational waste discharges. Levels of contaminants in drilling muds and cuttings and produced-water discharges, discharge-rate restrictions, and monitoring and toxicity testing are regulated by the EPA NPDES permit, thereby eliminating many significant biological or ecological effects. Operational discharges are not expected to cause significant adverse impacts to EFH.

Accidents: An accidental oil spill has the potential to cause some detrimental effects on EFH. Oil spills that contact coastal bays and estuaries, as well as OCS waters when pelagic eggs and larvae are present, have the greatest potential to affect fisheries. However, it is unlikely that an oil spill would occur from the proposed activities (refer to **Item 5**, Water Quality). The activities proposed in this plan will be covered by Eni's Regional OSRP (refer to information submitted in **Appendix F**).

There are no other IPFs (including emissions, or wastes sent to shore for treatment or disposal) from the proposed activities which could impact essential fish habitat.

2. Marine and Pelagic Birds

IPFs that could impact marine birds as a result of the proposed activities include air emissions, accidental oil spills, and discarded trash and debris from vessels and the facilities.

Emissions: Emissions of pollutants into the atmosphere from these activities are far below concentrations which could harm coastal and marine birds.

Accidents: An oil spill would cause localized, low-level petroleum hydrocarbon contamination. However, it is unlikely that an oil spill would occur from the proposed activities (refer to **Item 5**, Water Quality). Marine and pelagic birds feeding at the spill location may experience chronic, nonfatal, physiological stress. It is expected that few, if any, coastal and marine birds would actually be affected to that extent. The activities proposed in this plan will be covered by Eni's Regional OSRP (refer to information submitted in **Appendix F**).

Discarded trash and debris: Marine and pelagic birds could become entangled and snared in discarded trash and debris, or ingest small plastic debris, which 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 United States Coast Guard (USCG) and the Environmental Protection Agency (EPA). Eni 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 all vessels and facilities having 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 video (or Microsoft PowerPoint presentation), "All Washed Up: The Beach Litter Problem". Thereafter, all personnel will view the marine trash and debris training video annually. Debris, if any, from these proposed activities will seldom interact with marine and pelagic birds; therefore, the effects will be negligible.

There are no other IPFs (including effluents, physical disturbances to the seafloor, or wastes sent to shore for treatment or disposal) from the proposed activities which could impact marine and pelagic birds.

3. Public Health and Safety Due to Accidents

There are no IPFs (emissions, effluents, physical disturbances to the seafloor, wastes sent to shore for treatment or disposal or accidents, including an accidental H2S releases) from the proposed activities which could cause impacts to public health and safety. In accordance with NTL No. 2003 G-17, sufficient information is included in **Appendix C** to justify our request that our proposed activities be classified by MMS as H_2S absent.

Coastal and Onshore

1. Beaches

IPFs from the proposed activities that could cause impacts to beaches include accidents (oil spills) and discarded trash and debris.

Accidents: Oil spills contacting beaches would have impacts on the use of recreational beaches and associated resources. Due to the distance from shore (38 miles) and the response capabilities that would be implemented, no significant adverse impacts are expected. The activities proposed in this plan will be covered by Eni's Regional OSRP (refer to information submitted in **Appendix F**).

Discarded trash and debris: Trash on the beach is recognized as a major threat to the enjoyment and use of beaches. There will only be a limited amount of marine debris, if any, resulting 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 United States Coast Guard (USCG) and the Environmental Protection Agency (EPA). Eni 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 all vessels and facilities having 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 video (or Microsoft PowerPoint presentation), "All Washed Up: The Beach Litter Problem". Thereafter, all personnel will view the marine trash and debris training video annually.

There are no other IPFs (emissions, effluents, physical disturbances to the seafloor, or wastes sent to shore for treatment or disposal) from the proposed activities which could impact beaches.

2. Wetlands

Accidents: Oil spills could cause impacts to wetlands, however, it is unlikely that an oil spill would occur from the proposed activities (refer to **Item 5**, Water Quality). Due to the distance from shore (38 miles) and the response capabilities that would be implemented, no impacts are expected. The activities proposed in this plan will be covered by Eni's Regional OSRP (refer to information submitted in **Appendix F**).

There are no other IPFs (emissions, effluents, physical disturbances to the seafloor, or wastes sent to shore for treatment or disposal) from the proposed activities which could impact wetlands.

3. Shore Birds and Coastal Nesting Birds

Accidents: Oil spills could cause impacts to shore birds and coastal nesting birds. However, it is unlikely that an oil spill would occur from the proposed activities (refer to **Item 5**, Water Quality). Given the distance from shore (38 miles) and the response capabilities that would be implemented, no impacts are expected. The activities proposed in this plan will be covered by Eni's Regional OSRP (refer to information submitted in **Appendix F**).

Discarded trash and debris: Coastal and marine birds are highly susceptible to entanglement in floating, submerged, and beached marine debris: specifically plastics. 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 United States Coast Guard (USCG) and the Environmental Protection Agency (EPA). Eni 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 every facility that has 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 video (or Microsoft PowerPoint presentation), "All Washed Up: The Beach Litter Problem". Thereafter, all personnel will view the marine trash and debris training video annually.

There are no other IPFs (emissions, effluents, physical disturbances to the seafloor, or wastes sent to shore for treatment or disposal) from the proposed activities that could cause impacts to shore birds and coastal nesting birds.

4. Coastal Wildlife Refuges

Accidents: An accidental oil spill from the proposed activities could cause impacts to coastal wildlife refuges. However, it is unlikely that an oil spill would occur from the proposed activities (refer to Item 5, Water Quality). Due to the distance from shore (38 miles) and the response capabilities that would be implemented, no impacts are expected. The activities proposed in this plan will be covered by Eni's Regional OSRP (refer to information submitted in **Appendix F**).

There are no other IPFs (emissions, effluents, physical disturbances to the seafloor, or wastes sent to shore for treatment or disposal) from the proposed activities that could cause impacts to coastal wildlife refuges.

5. Wilderness Areas

An accidental oil spill from the proposed activities could cause impacts to wilderness areas. However, it is unlikely that an oil spill would occur from the proposed activities (refer to **Item 5**, Water Quality). Due to the distance from the nearest designated Wilderness Area (70 miles) and the response capabilities that would be implemented, no significant adverse impacts are expected. The activities proposed in this plan will be covered by Eni's Regional OSRP (refer to information submitted in **Appendix F).**

6. Other Environmental Resources Identified

None

(C) Impacts on your proposed activities.

The site–specific environmental conditions have been taken into account for the proposed activities. No impacts are expected on the proposed activities from site-specific environmental conditions.

(D) Alternatives

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

(E) Mitigation Measures

No mitigation measures other than those required by regulation will be employed to avoid, diminish, or eliminate potential impacts on environmental resources.

(F) Consultation

No agencies or persons were consulted regarding potential impacts associated with the proposed activities. Therefore, a list of such entities has not been provided.

(G) References

Authors:

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- Hazard Surveys
- MMS EIS's:
  - GOM Deepwater Operations and Activities. Environmental Assessment. MMS 2000-001
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APPENDIX I

COASTAL ZONE MANAGEMENT CONSISTENCY INFORMATION

Relevant enforceable policies were considered in certifying consistency for Louisiana. A certificate of Coastal Zone Management Consistency for the state of Louisiana is enclosed as ***Attachment I-1***.

COASTAL ZONE MANAGEMENT CONSISTENCY CERTIFICATION

INITIAL EXPLORATION PLAN

MISSISSIPPI CANYON BLOCK 502

OCS-G 24084

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)

Eni Petroleum Co. Inc.
Lessee or Operator

David A. Daigle, HSE Mgr.
Certifying Official

4/12/05
Date

U.S. Department of the Interior
Minerals Management Service

OMB Control Number: 1010-0049
OMB Approval Expires: August 31, 2006

OCS PLAN INFORMATION FORM

GENERAL INFORMATION

Type of OCS Plan:	X	Exploration Plan (EP)		Development Operations Coordination Document (DOCD)
Company Name: Eni Petroleum Co. Inc.				MMS Operator Number: 00162
Address: 1201 Louisiana, Suite 3500 Houston, Texas 77002				Contact Person: Valerie D. Land Phone Number: (281) 578-3388
				Email Address: valerie.land@jccteam.com

Lease: G24084	Area: MC	Block: 502	Project Name (If Applicable): Longhorn

Objective(s): ☐Oil	☒Gas	☐Sulphur	☐Salt	Onshore Base: Fourchon, LA	Distance to Closest Land (Miles): 38

Description of Proposed Activities (Mark all that apply)

☒ 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, complete and test Well Location B	07/15/05	9/09/05	57
Drill, complete and test well Location A	09/10/05	11/05/05	57
Drill, complete and test Well Location C	01/01/06	02/14/06	45
Drill, complete and test Well Location D	02/15/06	04/05/06	50
Drill, complete and test Well Location E	04/06/06	05/25/06	50

Description of Drilling Rig

☐ Jackup	☐ Drillship
☐ Gorilla Jackup	☐ Platform rig
☒ Semisubmersible	☐ Submersible
☐ DP Semisubmersible	☐ Other (Attach Description)
☐ Drilling Rig Name (If Known):	

Description of Production Platform

☐ Caisson	☐ Tension leg platform
☐ Well protector	☐ Compliant tower
☐ Fixed platform	☐ Guyed tower
☐ Subsea manifold	☐ Floating production system
☐ Spar	☐ Other (Attach description)

Description of Lease Term Pipelines

From (Facility/Area/Block)	To (Facility/Area/Block)	Diameter (inches)	Length (Feet)
NA	NA	NA	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): Location A			Subsea Completion
Anchor Radius (if applicable) in feet: Not Applicable			☐ Yes ☒ No
	Surface Location		**Bottom-Hole Location (For Wells)**
Lease No.	OCS-G 24084		
Area Name	Mississippi Canyon		
Block No.	502		
Blockline Departures (in feet)	N/S Departure: 520 FSL		
	E/W Departure: 4320 FEL		
Lambert X-Y coordinates	X: 977,760.00		
	Y: 10,328,200.00		
Latitude/ Longitude	Latitude: 28° 26' 41.490"		
	Longitude: 89° 03' 44.962"		
	TVD (Feet):		Water Depth (Feet): 2500

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
1	MC	546	X = 969,827.30	Y = 10,326,325.96	8000'
2	MC	502	X = 969,963.64	Y = 10,330,473.32	8000'
3	MC	502	X = 976,036.07	Y = 10,336,135.95	8000'
4	MC	502	X = 980,185.13	Y = 10,335,981.17	8000'
5	MC	503	X = 985,692.70	Y = 10,330,074.05	8000'
6	MC	547	X = 985,556.36	Y = 10,325,926.68	8000'
7	MC	546	X = 979,483.93	Y = 10,320,264.05	8000'
8	MC	546	X = 975,337.17	Y = 10,320,417.35	8000'

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.

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): Location B			Subsea Completion
Anchor Radius (if applicable) in feet: Not Applicable			☐ Yes ☒ No

	Surface Location	Bottom-Hole Location (For Wells)
Lease No.	OCS-G 24084	
Area Name	Mississippi Canyon	
Block No.	502	
Blockline Departures (in feet)	N/S Departure: 3375.73' FSL	
	E/W Departure: 4372.32' FWL	
Lambert X-Y coordinates	X: 970612.32	
	Y: 10331055.73	
Latitude/ Longitude	Latitude: 28° 27' 08.538"	
	Longitude: 89° 05' 05.562"	

TVD (Feet):	MD (Feet):	Water Depth (Feet): 2300

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
1	MC	501	X = 962,679.30	Y = 10,329,181.96	8000'
2	MC	501	X = 962,815.64	Y = 10,333,329.32	8000'
3	MC	502	X = 968,888.07	Y = 10,338,991.95	8000'
4	MC	502	X = 973,037.13	Y = 10,338,837.17	8000'
5	MC	502	X = 978,544.70	Y = 10,332,930.04	8000'
6	MC	502	X = 978,408.36	Y = 10,328,782.68	8000'
7	MC	546	X = 972,335.93	Y = 10,323,120.05	8000'
8	MC	546	X = 968,189.17	Y = 10,323,273.35	8000'

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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): Location C			Subsea Completion
Anchor Radius (if applicable) in feet: Not Applicable			☐ Yes ☒ No

	Surface Location	Bottom-Hole Location (For Wells)
Lease No.	OCS-G 24084	
Area Name	Mississippi Canyon	
Block No.	502	
Blockline Departures (in feet)	N/S Departure: 600' FSL	
	E/W Departure: 3380' FWL	
Lambert X-Y coordinates	X: 969,620.00	
	Y: 10,328,280.00	
Latitude/ Longitude	Latitude: 28° 26' 40.892"	
	Longitude: 89° 05' 16.135"	

TVD (Feet):	MD (Feet):	Water Depth (Feet): 2350'

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
1	MC	545	X = 961,687.30	Y = 10,326,405.96	8000'
2	MC	501	X = 961,823.64	Y = 10,330,553.32	8000'
3	MC	502	X = 967,896.07	Y = 10,336,215.95	8000'
4	MC	502	X = 972,045.13	Y = 10,336,061.17	8000'
5	MC	502	X = 977,552.70	Y = 10,330,154.04	8000'
6	MC	546	X = 977,416.36	Y = 10,326,006.68	8000'
7	MC	546	X = 971,343.93	Y = 10,320,344.05	8000'
8	MC	546	X = 967,197.17	Y = 10,320,497.35	8000'

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.

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): Location D			Subsea Completion
Anchor Radius (if applicable) in feet: Not Applicable			☐ Yes ☒ No
	Surface Location		**Bottom-Hole Location (For Wells)**
Lease No.	OCS-G 24084		
Area Name	Mississippi Canyon		
Block No.	502		
Blockline Departures (in feet)	N/S Departure: 1165.03' FSL		
	E/W Departure: 5712.85' FEL		
Lambert X-Y coordinates	X: 976,367.15		
	Y: 10,328,845.03		
Latitude/ Longitude	Latitude: 28° 26' 47.639"		
	Longitude: 89° 04' 00.684"		
	TVD (Feet):	MD (Feet):	Water Depth (Feet): 2450

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
1	MC	545	X = 968,434.30	Y = 10,326,970.96	8000'
2	MC	502	X = 968,570.64	Y = 10,331,118.32	8000'
3	MC	502	X = 974,643.07	Y = 10,336,780.95	8000'
4	MC	502	X = 978,792.13	Y = 10,336,626.17	8000'
5	MC	503	X = 984,299.70	Y = 10,330,719.04	8000'
6	MC	547	X = 984,163.36	Y = 10,326,571.68	8000'
7	MC	546	X = 978,090.93	Y = 10,320,909.05	8000'
8	MC	546	X = 973,944.17	Y = 10,321,062.35	8000'

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.

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): Location E			Subsea Completion
Anchor Radius (if applicable) in feet: Not Applicable			☐ Yes ☒ No

	Surface Location	Bottom-Hole Location (For Wells)
Lease No.	OCS-G 24084	
Area Name	Mississippi Canyon	
Block No.	502	
Blockline Departures (in feet)	N/S Departure: 1455' FSL	
	E/W Departure: 795' FEL	
Lambert X-Y coordinates	X: 981,285.00	
	Y: 10,329,135.00	
Latitude/ Longitude	Latitude: 28° 26' 51.343"	
	Longitude: 89° 03' 05.664"	
	TVD (Feet):	MD (Feet): Water Depth (Feet): 2600'

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
1	MC	546	X = 973,297.30	Y = 10,327,255.96	8000'
2	MC	502	X = 973,433.64	Y = 10,331,403.32	8000'
3	MC	502	X = 979,506.07	Y = 10,337,065.95	8000'
4	MC	503	X = 983,655.13	Y = 10,336,911.17	8000'
5	MC	503	X = 989,162.70	Y = 10,331,004.04	8000'
6	MC	547	X = 989,026.36	Y = 10,326,856.68	8000'
7	MC	547	X = 982,953.93	Y = 10,321,194.05	8000'
8	MC	546	X = 978,807.17	Y = 10,321,347.35	8000'

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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):			Subsea Completion
Anchor Radius (if applicable) in feet:			☐ Yes ☐ No
	Surface Location		**Bottom-Hole Location (For Wells)**
Lease No.	OCS		OCS
Area Name			
Block No.			
Blockline Departures (in feet)	N/S Departure: F___ L		N/S Departure: F___ L
	E/W Departure: F___ L		E/W Departure: F___ L
Lambert X-Y coordinates	X:		X:
	Y:		Y:
Latitude/ Longitude	Latitude:		Latitude:
	Longitude:		Longitude:
	TVD (Feet):	MD (Feet):	Water Depth (Feet):

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
			X =	Y =	
			X =	Y =	
			X =	Y =	
			X =	Y =	
			X =	Y =	
			X =	Y =	
			X =	Y =	
			X =	Y =	

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