

UNITED STATES GOVERNMENT
MEMORANDUM

November 16, 2005

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

Subject: Public Information copy of plan
Control # - S-06795
Type - Supplemental Exploration Plan
Lease(s) - OCS-G17561 Block - 813 Alaminos Canyon Area
 ✓ OCS-G17565 Block - 857 Alaminos Canyon Area
Operator - Shell Offshore Inc.
Description - Wells O and R
Rig Type - Not Found

Attached is a copy of the subject plan.

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


Robert Stringfellow
Plan Coordinator

Site Type/Name	Botm Lse/Area/Blk	Surface Location	Surf Lse/Area/Blk
WELL/O	G17565/AC/857	194 FNL, 3135 FEL	G17565/AC/857
WELL/R	G17561/AC/813	421 FSL, 3914 FEL	G17561/AC/813

PIRS
NOV 17 2005

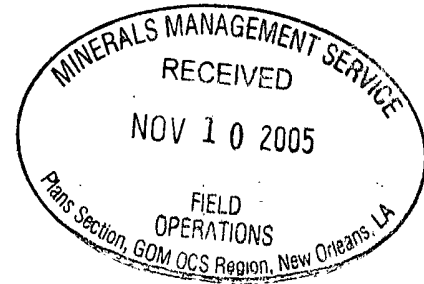
NOTED - SCHEXNAILDRE



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United States of America
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Telex http://www.shell.com/eandp-en
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November 10, 2005

Mr. Don Howard
Regional Supervisor
Office of Field Operations
Minerals Management Service
1201 Elmwood Park Boulevard
New Orleans, LA 70123-2394



Dear Mr. Howard

SUBJECT: Supplemental Exploration Plan
OCS-G 17565, Alaminos Canyon Block 857
OCS-G 17561, Alaminos Canyon Block 813
Offshore Texas

In compliance with 30 CFR 250.204 and NTL 2003-G17 giving Exploration Plan guidelines, Shell Offshore Inc. (SOI) requests your approval of this Supplemental Exploration Plan to drill Well Locations O and R. If the Nautilus Discoverer Spirit is available drilling could commence as early as January 15, 2006.

Location O was originally approved in Plan S6246 effective September 9, 2003. The O location is being revised in this plan and we are adding a new location, R, to our plans for the subject leases.

Three copies of the Shallow Hazards Report were previously submitted.

This Plan consists of a series of attachments, as detailed in Attachment 1, describing our intended operations. The attachments we desire to be exempted from disclosure under the Freedom of Information Act are marked "Confidential" and excluded from the Public Information Copies of this submittal.

Should you require additional information, please contact me as indicated above.

Kind regards

Sylvia A. Bellone

Supplemental Exploration Plan
OCS-G 17565, Alaminos Canyon Block 857
OCS-G 17561, Alaminos Canyon Block 813
Offshore Texas

APPENDIX	DESCRIPTION
A-1	Project Description, Location & Drilling Unit Information
A-2, A&B	Surface Location and Bathymetry Map
B-1	General Information (Contact, Prospect Name, New or Unusual Technology, Bond Information, Onshore Base & Support Vessels, Lease Stipulations)
B-2, A&B	Vicinity Map
C-1	Anchor Radius Plats - NOT APPLICABLE
C-2	Enhanced Seafloor Renderings
C-3*	Geological Description, H ₂ S Determination
C-4*, A&B	Geologic Structure Maps
C-5*, A&B	Geologic Cross Sections
C-6*	Shallow Hazards Report (Previously submitted)
C-7*	Shallow Hazards Site Specific Comments
C-8*, A&B	Time Migration Seismic Lines (Original only)
C-9*, A&B	Stratigraphic Column with Time vs Depth Table
C-10*, A&B	Bottom Hole Locations Plat
C-11*	OCS Plan Information Form (Appendix J), Confidential
D-1	Chemosynthetic Information - SEE ATTACHMENT C-7
D-2	ROV Survey Plan, & Archeological Information
E-1	Discharge Information
E-2	Waste Information
F	Oil Spill Information
G-1	Projected Air Emissions
H-1	Environmental Impact Analysis (Previously submitted)
I	Coastal Zone Management Consistency Information (Not applicable)
J	OCS Plan Information Form, Public Information

*Confidential Information that has been omitted from the Public Information copies of the plan

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APPENDIX A
CONTENTS OF PLAN

DESCRIPTION, OBJECTIVES, AND SCHEDULE

Plans are to drill one or two wells, each well taking approximately 90 days to drill. Upon completion of drilling the subsea well(s), they will be either temporarily or permanently abandoned in accordance with 30 CFR, Subpart G. If further exploration, development, or production activities are to be undertaken, appropriate plans will be submitted.

See Appendix J for schedule and Appendix C-2 for geological objectives (confidential copies).

LOCATION

See Appendix J for proposed surface locations. See Appendix C-10 for proposed bottom hole locations and total depths (confidential copies).

DRILLING UNIT

The Drill Ship, Discoverer Spirit, we plan to use will comply with all of the regulations of the American Bureau of Shipping (ABS), International Maritime Organization (IMO) and the United States Coast Guard (USCG).

Pollution Prevention Equipment:

See detailed description in Appendix F-3 & F-4

Rig Safety Features:

All drilling operations will be conducted under the provisions of 30 CFR, Part 250, Subpart D, and other applicable regulations and notices, including those regarding the avoidance of potential drilling hazards and safety and pollution prevention control.

Inflow Detection and Well control

Wellbore and formation pressures are controlled by two methods described as primary, and secondary, which will be described in this text. Primary control is the proper use of the hydrostatic head of fluid to overbalance the formation pressure and prevent entry of foreign fluids into the wellbore. A "kick" is defined as an entry of formation fluid into the well bore which is sufficient to cause the well to flow. When a well kicks it means that primary control has been lost, at least temporarily and then secondary measures are the required. The primary methods for detecting an inflow to the wellbore are a gain in pit volume while drilling, flow from the annulus when the pumps are shut off and readings from the downhole MWD (measure while drilling) tool.

Once a well inflow has been determined, secondary well control operations are begun to regain primary control of the well. The steps that are taken in secondary control are:

1. Shut the well in by closing the BOP's and reading the increase in pressure on the drill string.
2. Determine the increase in mud weight that is required in order to offset the increase in bottom hole pressure and weight up the mud system to this mud weight.
3. Increase the bottom hole pressure by maintaining enough backpressure at the choke while circulating to prevent further fluid entry.
4. Circulate the foreign fluid out of the hole while maintaining choke pressure.
5. Circulate the weighted up mud into the well so that choking the well during circulation can be eliminated and primary control is regained.

Once primary control is regained the BOP's are opened, the well is checked for flow, and given no flow from the annulus drilling operations are resumed.

Loss of Circulation

Once loss of circulation due to annulus equivalent mud weight exceeding the fracture pressure of the formations drilled occurs, several methods of regaining returns can be considered. Initially, the annulus should be filled with fluid and the pipe kept moving to prevent differential sticking. Procedures that should be evaluated in view of the exiting loss of circulation based on well conditions and subsurface information are as follows:

1. Reduce the mud weight (if practicable), circulating rate or mud viscosity.
2. Mix a volume of mud containing a high concentration of various sized lost circulation materials design to plug fractures and flow paths and spot this fluid to seal the loss zones.
3. Mix a special lost circulation plug such as Diaseal-M and spot this plugging material to seal the loss zone.
4. Mix and pump cement down the drill string and spot the cement across the loss zone and then drill out the open hole section again and watch for loss circulation.
- 5.

Seepage Loss

Seepage losses occur when the formations drilled have porosities and permabilities greater than the bridging capability of the solids in the drilling fluid (mud) system. This situation is usually detected by a slow decrease in pit volume while drilling in open hole section. The method used to control this situation is as follows:

1. Lost circulation materials that are sized smaller than those used to control lost circulation are added to the mud system.
2. The well is circulated and the pit volume is monitored for seepage loss. If seepage loss continues a higher concentration of loss circulation material is added to the system including larger sized materials.
3. Once the seepage is controlled drill operations are continued.

Casing Design

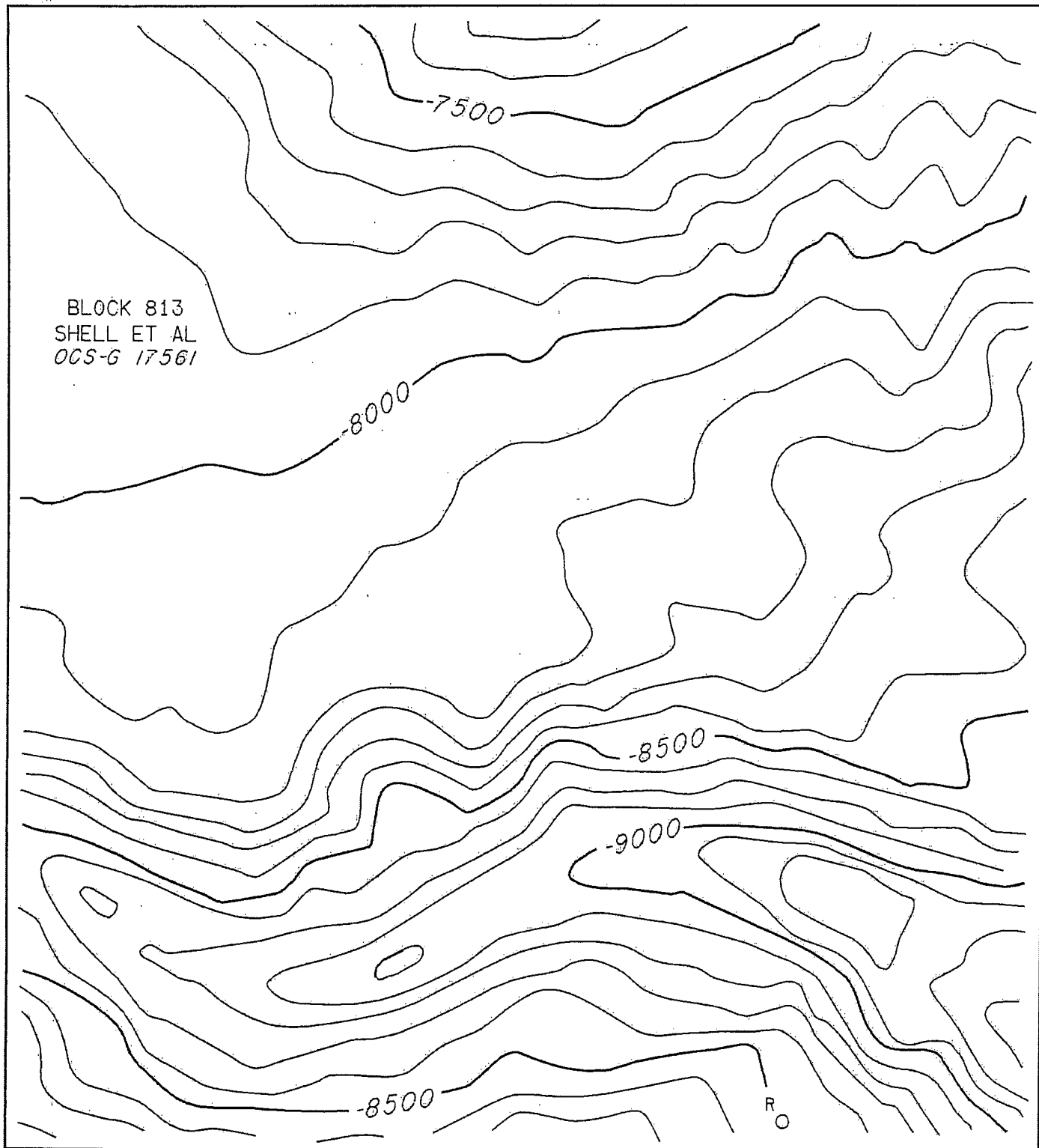
For some years the maximum burst pressure to be used in the design of casing strings has been taken as one third the bottom hole hydrostatic pressure anticipated for the next casing string. This is assumed to be the maximum pressure reached as the top of a kick "bubble" is circulated out of a well. Calculations show that in almost all situations that this would require a kick of over 100 barrels and a differential into the well of +500 psi and therefore the design is conservative. The pipe burst safety factor used in the casing design is 1.25 including "triaxial loading" conditions of internal pressure and axial load.

In designing the casing string for collapse the internal pressure profile to be used in the design calculations is full evacuation to 1/3 depth of the next casing point (max. 5000 ft. evacuation) and mud gradient from this point to the casing shoe. The collapse design safety factor used in the selection of the casing is 1.0.

The casing design for a given casing string must also be designed to accommodate axial loads as well as internal and external pressures. An axial load case of the weight of the casing string hanging from the wellhead in a full column of drilling fluid without applied pressure with a factor of safety of 1.5 is used.

X=1,013,760.00'
Y=9,504,000.00'

X=1,029,600.00'
Y=9,504,000.00'

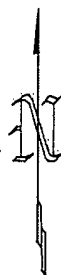


X=1,013,760.00'
Y=9,488,160.00'

X=1,029,600.00'
Y=9,488,160.00'

○ PROPOSED SURFACE LOCATION

R 3914' FEL & 421' FSL OF AC BLK. 813
X=1,025,686.00' Y=9,488,581.00'



ATTACHMENT *A2A*

SHELL
PROPOSED SURFACE LOCATION AND BATHYMETRY
EXPLORATION PLAN

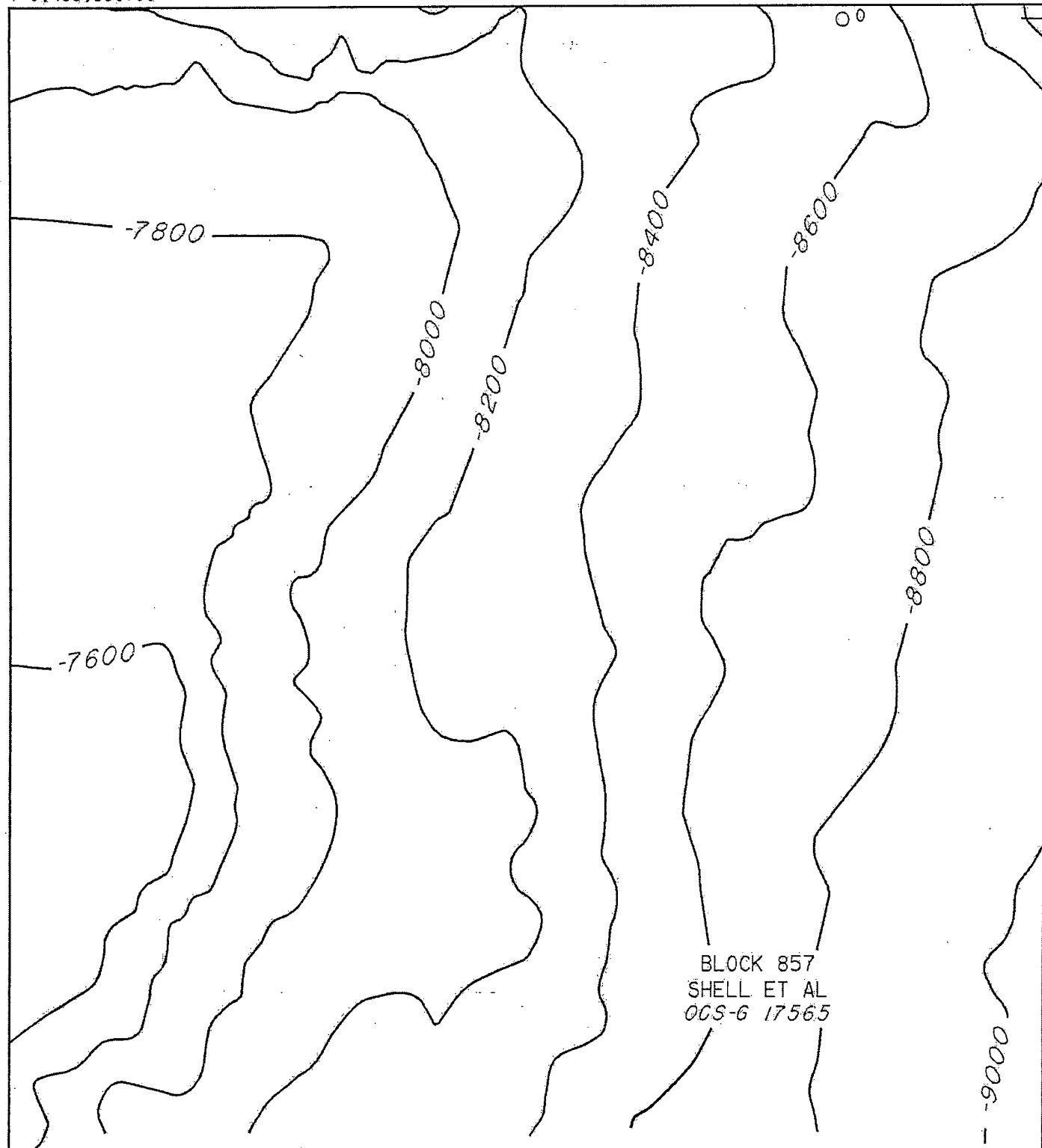
SHELL ET AL OCS-G 17561, BLOCK 813

ALAMINOS CANYON AREA
OFFSHORE LOUISIANA

0 2000'

X=1,013,760.00'
Y=9,488,160.00'

X=1,029,600.00'
Y=9,488,160.00'

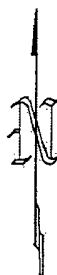


X=1,013,760.00'
Y=9,472,320.00'

X=1,029,600.00'
Y=9,472,320.00'

○ PROPOSED SURFACE LOCATION

0 3135' FEL & 194' FNL OF AC BLK. 857
X=1,026,465.00' Y=9,487,966.00'



ATTACHMENT A2B

SHELL

PROPOSED SURFACE LOCATION AND BATHYMETRY
EXPLORATION PLAN

SHELL ET AL OCS-G 17565, BLOCK 857

ALAMINOS CANYON AREA
OFFSHORE LOUISIANA

0 2000'

Supplemental Exploration Plan
OCS-G 17565, Alaminos Canyon Block 857
OCS-G 17561, Alaminos Canyon Block 813
Offshore Texas

APPENDIX B
GENERAL INFORMATION

CONTACT

Sylvia Bellone,
281-544-5598
Sylvia.bellone@shell.com
281-544-2238 Fax

PROSPECT NAME

Great White

NEW OR UNUSUAL TECHNOLOGY

No new or unusual technology is proposed in this operation.

BONDING INFORMATION

SOI's area wide bond coverage is \$3,000,000 and complies with the Letter to Lessees and Operators dated November 5, 1993. (30 CFR Part 256)

ONSHORE BASE AND SUPPORT VESSELS

The onshore support base for air transportation will be the existing PHI Heliport located at 2215 Terminal Drive, Galveston, TX 77554. The onshore support base for water traffic will be Fourchon Terminal operated by Shell and located on Bayou LaFourche, south of Leesville, LA approximately 3 miles from the Gulf of Mexico. Distances to the proposed location are shown on Appendix B-2.

No expansion of the terminals will be required for the planned activity.

SUPPORT VESSELS

<u>ITEM</u>	<u>SIZE OR MODEL</u>	<u>USE</u>	<u>TRIPS PER WEEK</u>
Boats	240 ±	Crew/Work	4/7
Helicopter	Bell 214 or 412 Boelkow 105 Sikorsky S-76	Crew Change and Misc.	14

LEASE STIPULATIONS

Lease OCS-G 17565, AC 857 and OCS-G 17561, AC 813, were issued effective January 1, 1997, to Shell Offshore Inc for a period of ten years.

AC 857 & 813 are not a part of any Biological Sensitive Area, Shipping Fairway, or Archeological Area. They are located in Military Warning Area W-602. Shell will enter into an agreement with the commander of that area prior to commencing water or air traffic

--- WATER ROUTE
--- AIR ROUTE

ATTACHMENT *B2A*

SHELL

LEASE VICINITY & TRANSPORTATION ROUTES
EXPLORATION PLAN

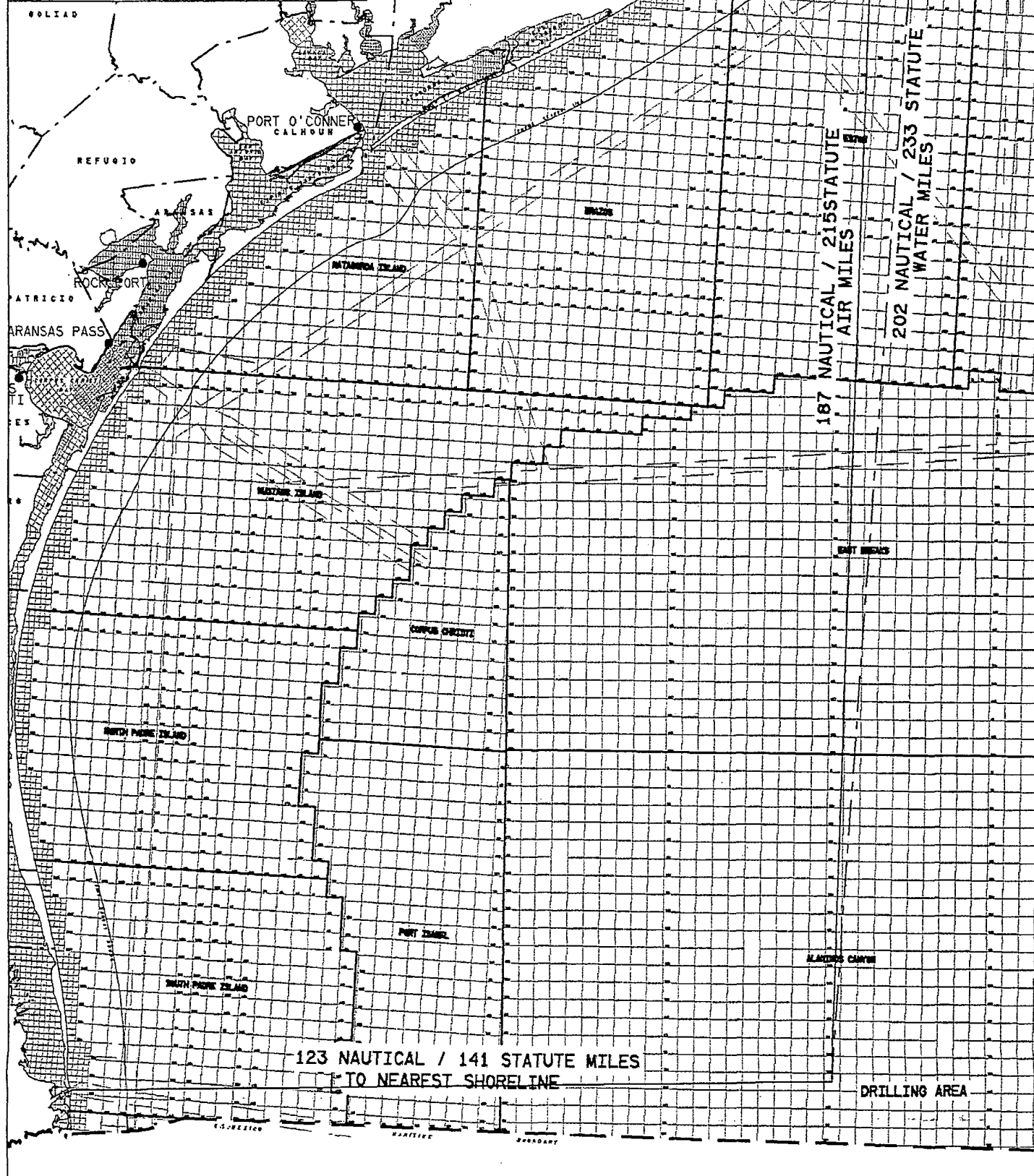
OCS-G 17561, ALAMINOS CANYON 813

ALAMINOS CANYON 813 UNIT

OFFSHORE TEXAS

0 10 20
NAUTICAL MILES

PI005234.PER-1028



--- WATER ROUTE
--- AIR ROUTE

ATTACHMENT *B2B*

SHELL

LEASE VICINITY & TRANSPORTATION ROUTES
EXPLORATION PLAN

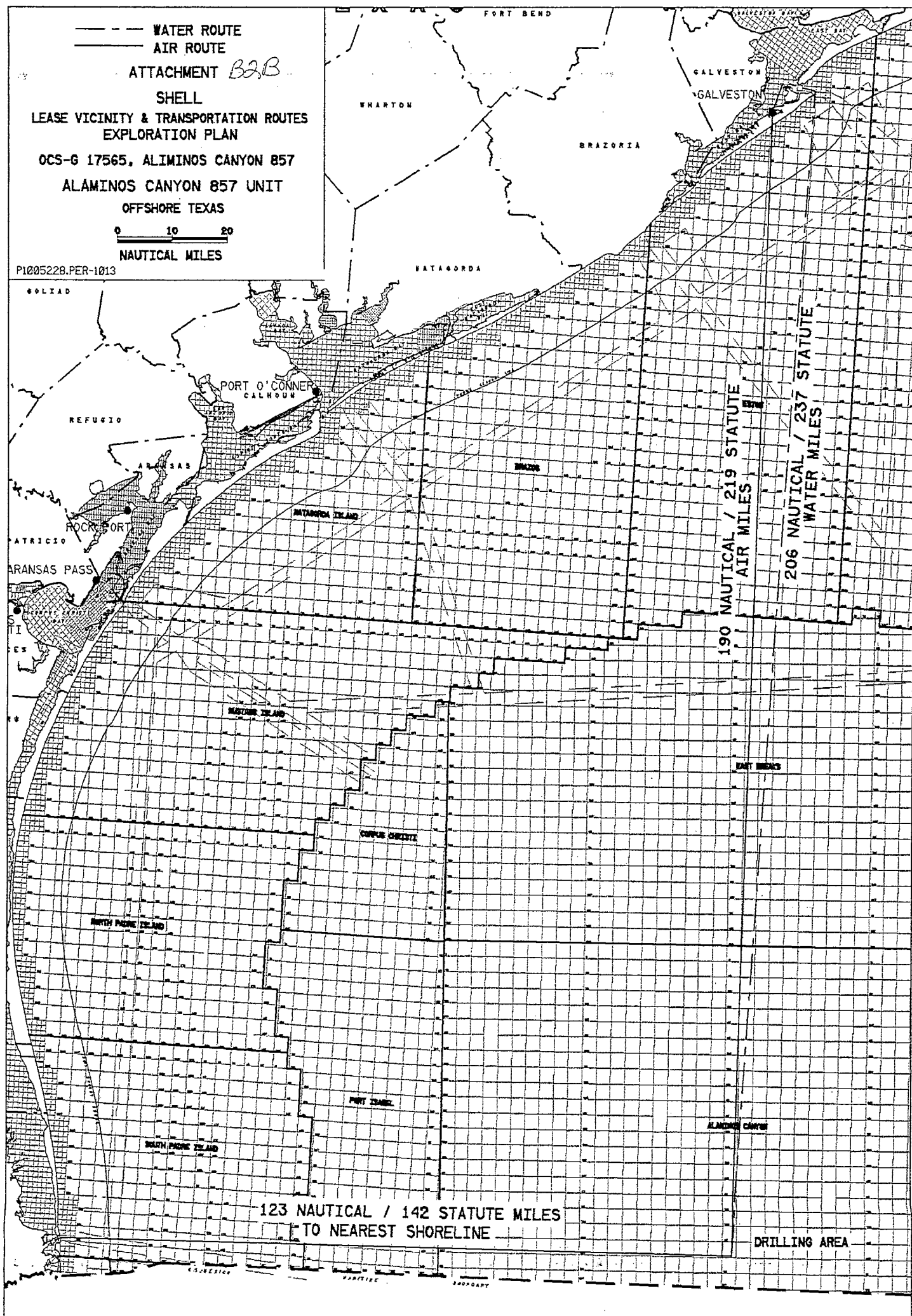
OCS-G 17565, ALIMINOS CANYON 857

ALAMINOS CANYON 857 UNIT

OFFSHORE TEXAS

0 10 20
NAUTICAL MILES

P1005228.PER-1013



APPENDIX C

Geological Geophysical, and H2S Information

Structure Contour Maps

Omitted from Public Information

Interpreted 2D or 3-D seismic lines

Omitted from Public Information

Geological Structure Cross-Sections

Omitted from Public Information

Shallow Hazards Report

Omitted from Public Information

Shallow Hazards Assessment

See Attachment C-7

High-Resolution Seismic Lines

Omitted from Public Information

Stratigraphic Column with Time vs Depth Tables

Omitted from Public Information

Description of Geological Objectives

Omitted from Public Information

Hydrogen Sulfide Determination

Based on 30 CFR 250.67 (c), SOI requests that the Regional Supervisor, Field Operations, determine the zones in the proposed drilling operations in this plan are classified as an area where the absence of H₂S has been confirmed.

Supplemental Exploration Plan
OCS-G 17565, Alaminos Canyon Block 857
OCS-G 17561, Alaminos Canyon Block 813
Offshore Texas

SHALLOW HAZARDS,
SITE SPECIFIC COMMENTS, AND
CHEMOSYNTHETIC ORGANISMS COMMENTS

History

Geoscience Earth & Marine Services, Inc. (GEMS) prepared a Geologic and Stratigraphic Assessment Report (Number 0600-271) for Shell on 21 May 2001. The report covers blocks 856, 857, 900 and 901 in Alaminos Canyon of the Gulf of Mexico. GEMS prepared a Geologic and Stratigraphic Assessment (Number 0202-563) for Shell on September 11, 2002 that covers block 813 in Alaminos Canyon. GEMS prepared a Seafloor and Near-Surface Geologic Assessment (Number 0204-780) for Shell on July 28, 2004. This report is based on high resolution data acquired by an autonomous underwater vehicle (AUV), and covers Blocks 812-814, 856-858 and 900-902.

Shell submitted and received MMS approval to drill Proposed Locations A-O. Shell now requests approval to drill Proposed Locations R in Block 813 and O in Block 857 using the drillship Discoverer Spirit.

Based on a high-resolution geophysical survey, which consists of reprocessed 3-D seismic, Enhanced Surface Renderings and Enhanced Surface Renderings with amplitudes applied, and AUV data (multi-beam bathymetry, side scan sonar, and sub-bottom profiles), Proposed Locations O and R appear suitable for the planned activity.

OCS PLAN INFORMATION FORM

General Information											
Type of OCS Plan:		☒ Exploration Plan (EP)		Development Operations Coordination Document (DOCD)							
Company Name: Shell Offshore Inc.				MMS Operator Number: 0689							
Address: P. O. Box 576				Contact Person: Sylvia A. Bellone							
Houston, TX 77001-0576				Phone Number: (281) 544-5598							
				E-Mail Address: Sylvia.bellone@shell.com							
Lease(s): OCS-G 1756117565		Area: AC		Block(s): 813, 857		Project Name (If Applicable): Great White					
Objective(s):		☐ Oil	☐ Gas	☐ Sulphur	☐ Salt	Onshore Base: Fourchon, Galveston, TX		Distance to Closest Land (Miles): 141			
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) Boreholes for Platform					
Have you submitted or do you plan to submit a Conservation Information Document to accompany this plan?						☐ Yes	☒ No				
Do you propose to use new or unusual technology to conduct your activities?						☐ Yes	☒ No				
Do you propose any facility that will serve as a host facility for deepwater subsea development?						☐ Yes	☒ No				
Do you propose any activities that may disturb an MMS-designated high-probability archaeological area?						☐ Yes	☒ No				
Have all of the surface locations of your proposed activities been previously reviewed and approved by MMS?						☐ Yes	☒ No				
Tentative Schedule of Proposed Activities											
Proposed Activity				Start Date		End Date		No. of Days			
Drill Well O				1/15/06		2/5/06		21			
Drill Well R				2/6/06		2/20/06		15			
Description of Drilling Rig				Description of Production Platform							
☐	Jackup		☒	Drillship		☐	Caisson		☐	Tension leg platform	
☐	Gorilla Jackup		☐	Platform rig		☐	Well protector		☐	Compliant tower	
☐	Semisubmersible		☐	Submersible		☐	Fixed platform		☐	Guyed tower	
☐	DP Semisubmersible		☐	Other (Attach Description)		☐	Subsea manifold		☐	Floating production system	
Drilling Rig Name (If Known): Nautilus				Spar				Other (Attach Description)			
Description of Lease Term Pipelines											
From (Facility/Area/Block)				To (Facility/Area/Block)				Diameter (Inches)		Length (Feet)	
NA											

C-11

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): O				Subsea Completion	
Anchor Radius (if applicable) in feet:				X	Yes No
Surface Location		Bottom-Hole Location (For Wells)			
Lease No.	OCS-G 17565	OCS-G 17565			
Area Name	Alaminos Canyon	Alaminos Canyon			
Block No.	857	857			
Blockline Departures (in feet)	N/S Departure: 194' FNL	N/S Departure: 194' FNL			
	E/W Departure: 3135' FEL	E/W Departure: 3135' FEL			
Lambert X-Y coordinates	X: 1,026,465'	X: 1,026,465'			
	Y: 9,487,966	Y: 9,487,966			
Latitude/ Longitude	Latitude: 26.13608254	Latitude: 26.13608254			
	Longitude: -94.87179915	Longitude: -94.87179915			
TVD (Feet): 10650'		MD (Feet): 10750'		Water Depth (Feet): 8525'	
Anchor Locations for Drilling Rig or Construction Barge (If anchor radius supplied above, not					
Anchor Name or No.	Area	Block	X Coordinate	Y Coordinate	Length of Anchor Chain on Seafloor
Paperwork Reduction Act of 1995 Statement: The Paperwork Reduction Act of 1995 (44 U.S.C. Chapter 35) requires us to inform you that MMS collects this information as part of an applicant's Exploration Plan or Development Operations Coordination Document submitted for MMS approval. We use the information to facilitate our review and data entry for OCS plans. We will protect proprietary data according to the Freedom of Information Act and 30 CFR 250.196. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid Office of Management and Budget Control Number. The use of this form is voluntary. The public reporting burden for this form is included in the burden for preparing Exploration Plans and Development Operations Coordination Documents. We estimate that burden to average 580 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to the Information Collection Clearance Officer, Mail Stop 4230, Minerals Management Service, 1849 C Street, N.W., Washington, DC 20240.					

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): R					Subsea Completion
Anchor Radius (if applicable) in feet:					☒ Yes ☐ No
	Surface Location		Bottom-Hole Location (For Wells)		
Lease No.	OCS-G 17561		OCS-G 17561		
Area Name	Alaminos Canyon		Alaminos Canyon		
Block No.	813		813		
Blockline Departures (in feet)	N/S Departure: 421' FSL		N/S Departure: 421' FSL		
	E/W Departure: 3914' FEL		E/W Departure: 3914' FEL		
Lambert X-Y coordinates	X: 1,025,686		X: 1,025,686		
	Y: 9,488,581		Y: 9,488,581		
Latitude/ Longitude	Latitude: 26.13774347		Latitude: 26.13774347		
	Longitude: -94.87420014		Longitude: -94.87420014		
	TVD (Feet): 10650'		MD (Feet): 10750'		Water Depth (Feet): 8490'
Anchor Locations for Drilling Rig or Construction Barge (If anchor radius supplied above, not					
Anchor Name or No.	Area	Block	X Coordinate	Y Coordinate	Length of Anchor Chain on Seafloor
Paperwork Reduction Act of 1995 Statement: The Paperwork Reduction Act of 1995 (44 U.S.C. Chapter 35) requires us to inform you that MMS collects this information as part of an applicant's Exploration Plan or Development Operations Coordination Document submitted for MMS approval. We use the information to facilitate our review and data entry for OCS plans. We will protect proprietary data according to the Freedom of Information Act and 30 CFR 250.196. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid Office of Management and Budget Control Number. The use of this form is voluntary. The public reporting burden for this form is included in the burden for preparing Exploration Plans and Development Operations Coordination Documents. We estimate that burden to average 580 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to the Information Collection Clearance Officer, Mail Stop 4230, Minerals Management Service, 1849 C Street, N.W., Washington, DC 20240.					

Supplemental Exploration Plan
OCS-G 17565, Alaminos Canyon Block 857
OCS-G 17561, Alaminos Canyon Block 813
Offshore Texas

ANCHOR PATTERN

Not Applicable

Appendix D-1

Supplemental Exploration Plan
OCS-G 17565, Alaminos Canyon Block 857
OCS-G 17561, Alaminos Canyon Block 813
Offshore Texas

ROV SURVEY PLAN

In accordance with the provisions of NTL No. 2003-G03, Remotely Operated Vehicle Surveys in Deepwater, the following surveys will be conducted at the site of AC 813 & 857.

Survey #1 will be conducted using the Rig based ROV equipped with video imaging capabilities prior to commencing operations on the well. The survey pattern will consist of six transects centered on the existing well with tracks extending 100 meters away from the well on bearings of 30°, 90°, 150°, 210°, 270°, and 330°. The seafloor will be videotaped continuously along each track and close-up footage recorded of any animals or features as per NTL No. 2003-G03. An identical survey will be conducted following drilling operations but prior to moving the rig off location. During both surveys, all biological and physical observations will be documented in accordance with NTL No. 2003-G03 using Form MMS-141. Complete documentation, including videotapes, of both surveys will be submitted to the GOMR within 60 days of the final survey.

ARCHEOLOGICAL INFORMATION

AC Blocks 813 & 857 are not identified as having a high probability of archeological features.

Supplemental Exploration Plan
OCS-G 17565, Alaminos Canyon Block 857
OCS-G 17561, Alaminos Canyon Block 813
Offshore Texas

WASTES TO BE DISCHARGED

APPENDIX E

Type of Waste	Approximate Composition	Amount to be Discharged	Maximum Discharge Rate	Treatment Method	Treatment and/or Storage Discharge Location and Discharge Method
Drilling Fluids – WBM	Water-based drilling mud	64,800 bbls/well	1,000 bbls/hour	Minimization – Enhanced Solids Control Process	AC 857 Overboard and seafloor discharge prior to marine riser installation.
Drill Cuttings – WBM	Formation cuttings containing water-based mud	650 bbls/well	650 bbls/day	Enhanced Solids Control Process	AC 857 Cuttings Chute and Discharged at mudline prior to riser installation
Drill Cuttings – SBM	Formation cuttings containing synthetic-based mud	0 bbls/well	0 bbls/day	NA	NA
Excess Cement	Portland cement including additives and washdown water	240 bbls/well	NA	NA	AC 857 Discharged at seafloor
Produced Water	NA	NA	NA	NA	NA
Sanitary Waste	Human body waste from toilets	25 gal/day/person	5,000 gal/day	USCG-approved MSD with chlorination	AC 857 Starboard Caisson
Domestic Waste	Discharge from galley, showers, sinks	75 gal/day/person	15,000 gal/day	Food grinder	AC 857 Starboard Caisson
Deck Drainage	Platform washings and rainwater	Dependent on rainfall	15 bbls/hour (Maximum separator discharge)	Oily water is treated in Oily Water Separator	AC 857 Starboard Caisson
Well treatment, workover or completion fluids	NA	NA	NA	NA	NA
Uncontaminated Seawater	Seawater without the addition of chemicals	163,242 bpd cooling 130,594 bpd firewater bypass	N/A	N/A	AC 857 Starboard Caisson
Uncontaminated Freshwater	Freshwater without the addition of chemicals	N/A	NA	NA	AC 857 Starboard Caisson
Desalination Unit Water	Concentrated brine from the process of producing freshwater from seawater	400 gal/day of water production	N/A	N/A	AC 857 Cuttings Chute

Uncontaminated Ballast Water	Seawater used to maintain proper draft	413,610 bbls	4,308 bbls/hour	N/A	AC 857 Starboard Caisson
Blowout Preventer Fluid	Stackmagic 200/0/5% glycol based on 2% mixture with potable water	0 bbls	0 gals/day	NA	NA

E-1

WASTES TO BE DISPOSED OF

Type of Waste	Approximate Composition	Projected Amount	Rate per Day	Name/Location of Disposal Facility	Treatment and/or Storage, Transport and disposal Method
Drilling Fluids SBM	Synthetic-based drilling mud	0 bbls	0 bbls	NA	NA
Drilling Fluids Oil Based	NA	NA	NA	NA	NA
Oil Contaminated produced sand	NA	N/A	NA	NA	NA
Waste Oil	NA	NA	NA	NA	NA
Produced Water	N/A	N/A	NA	NA	NA
Trash and Debris	Plastic, Paper, Aluminum, Glass, and other refuse	120 cubic meters	1 cubic meter	Sorting and recycling	Recyclables to ARC, New Iberia, LA Non- recyclables to landfill at Avondale, LA Transported in big bags.
NORM	NA	NA	NA	N/A	NA
Well Treatment, Completion, or Workover Fluids	N/A	N/A	NA	N/A	NA
Chemical Product Wastes	NA	NA	NA	NA	NA

*Water based mud will be utilized for this geotechnical well. No whole synthetic based mud will be used or discharged.

E2

Supplemental Exploration Plan
OCS-G 17565, Alaminos Canyon Block 857
OCS-G 17561, Alaminos Canyon Block 813
Offshore Texas

APPENDIX F

OIL SPILL AND CHEMICAL INFORMATION

Regional OSRP Information:

A. Shell Offshore Companies Oil Spill Response Plan (OSRP) was approved by the MMS on November 26, 2001. A biannual update was submitted to the MMS for the OSRP on May 30, 2003 and a revision submitted December 4, 2003, approved January 20, 2004. These updates were approved by the MMS January 20, 2004. Activities proposed in this plan will be covered by this OSRP. Copies of the OSRP are available for review in the Shell Offshore Inc.'s Regulatory Affairs Library in New Orleans and at the MMS Field Operations, Gulf of Mexico OCS Region, office.

B. OSRO Information:

The names of SOI's OSROs are: O'Brein (OOPS), Marine Spill Response Corporation (MSRC), and National Response Corporation (NRC).

C. Worst case scenario comparison:

Category	Regional OSRP	EP
Type of Activity ¹	Exploration Drilling	Drill Ship
Facility Location (area/block)	MC 762	AC 913, 857
Facility Designation ²	A Platform	NA
Distance to Nearest Shoreline (miles)	50	141
Volume ³		
Storage tanks (total)	NA	NA
Flowlines (on facility)	NA	NA
Lease term pipelines	NA	NA
Uncontrolled blowout (volume per day)	80,000 BOPD	22,500 BOPD
Total Volume	80,000	22,500
Type of Oil(s) - (crude oil, condensate, diesel)	Crude oil	Crude Oil
API Gravity(s) ⁴	28°	32°

Footnotes:

1. Types of activities include pipeline, platform, caisson, subsea completion or manifold, and mobile drilling rig.
2. E.g., Well No. 2, Platform JA, Pipeline Segment No. 6373.
3. Your regional OSRP worst-case scenario volume must be taken from the appropriate section of your regional OSRP. For EP's, the worst-case scenario volume must be determined by using the daily worst-case discharge volume determined using the guidance at 30 CFR 254.47(b). For DOCD's, the daily worst-case discharge volume must be determined by using the guidance at 30 CFR 254.47 (a) and/or (b), as appropriate.
4. Provide API gravity of all oils given under "Type of Oil(s)" above. Estimate for EP's.

Since SOI has the capability to respond to the worst-case spill scenario included in its approved regional OSRP approved on January 20, 2004, and since the worst-case scenario determined for this plan does not replace the worst case scenario in our approved regional OSRP, I hereby certify that SOI has the capability to respond, the maximum extent practicable, to a worst-case discharge, or a substantial threat of such a discharge, resulting from the activities proposed in our plan.

Facility tanks, production vessels. Provide information on tanks and/or production vessels at the facility (including barges, drilling rigs, platform, etc.) that will store oil, as defined at 30 CFR 254.6. List only those tanks with a capacity of 25 barrels or more.

Type of Storage Tank	Type of Facility	Tank Capacity (bbls)	Number of Tanks	Total Capacity (bbls)	Fluid Gravity (API)
Crude Oil Storage	Drill Rig	24,073	6	144,438	Crude
Fuel Oil Tks	Drill Rig	16,620	2	33,241	Marine Diesel (0.87 SG)
Fuel Oil Settling Tk	Drill Rig	836	2	1,673	Marine Diesel (0.87 SG)
Fuel Oil Day Tk	Drill Rig	836	2	1,673	Marine Diesel (0.87 SG)
Emer. Gen. Fuel oil	Drill Rig	100	1	100	Marine Diesel (0.87 SG)
Lube Oil Storage	Drill Rig	66	1	66	Lube Oil (0.93 SG)
Diesel Oil Drain P	Drill Rig	36	1	36	
Diesel Oil Drain P	Drill Rig	117	1	117	
Diesel Oil Overflow	Drill Rig	825	1	825	
L.O. Dirty Tank	Drill Rig	352	1	352	Lube Oil (0.93 SG)
Sludge Tank	Drill Rig	295	1	295	
L.O. Thruster Hyd. Tk Stbd	Drill Rig	180	1	180	Hydraulic Oil (0.93 SG)
L.O. Thruster Hyd. Tk Port	Drill Rig	186	1	186	Hydraulic Oil (0.93 SG)
Active Mud tanks	Drill Rig	496	12	5962	Drilling Mud
Reserve Mud Tanks	Drill Rig	1496	6	8981	Drilling Mud
Slug Tanks	Drill Rig	100	4	400	Drilling Mud
Trip Tanks	Drill Rig	100	3	300	Drilling Mud

FGBNMS Monitoring Plans:

Not applicable to this plan.

Supplemental Exploration Plan
OCS-G 17565, Alaminos Canyon Block 857
OCS-G 17561, Alaminos Canyon Block 813
Offshore Texas

AIR EMISSIONS

APPENDIX G

Screening Questions for EP's	Yes	No
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
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 ₂ S 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

(1) If you answer *no* to all of the above screening questions from the appropriate table, provide:

(a) Summary information regarding the peak year emissions for both Plan Emissions and Complex Total Emissions, if applicable. This information is compiled on the summary form of the two sets of worksheets. You can submit either these summary forms or use the format below. You do not need to include the entire set of worksheets.

Air Pollutant	Plan Emission Amounts ¹ (tons)	Calculated Exemption Amounts ² (tons)	Calculated Complex Total Emission Amounts ³ (tons)
Carbon monoxide CO	81.78	80869.4	NA
Particulate matter (PM)	10.90	3862.8	NA
Sulphur dioxide (SO ₂)	50.02	3862.8	NA
Nitrogen oxides (NO _x)	374.83	3862.8	NA
Volatile organic compounds (VOC)	11.24	3862.8	NA

¹ For activities proposed in your EP or DOCD, 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

OCS PLAN INFORMATION FORM

General Information											
Type of OCS Plan:		☒ Exploration Plan (EP)		☐ Development Operations Coordination Document (DOCD)							
Company Name: Shell Offshore Inc.				MMS Operator Number: 0689							
Address: P. O. Box 576				Contact Person: Sylvia A. Bellone							
Houston, TX 77001-0576				Phone Number: (281) 544-5598							
				E-Mail Address: Sylvia.bellone@shell.com							
Lease(s): OCS-G 1756117565			Area: AC		Block(s): 813, 857		Project Name (If Applicable): Great White				
Objective(s):		☐ Oil	☐ Gas	☐ Sulphur	☐ Salt	Onshore Base: Fourchon, Galveston, TX			Distance to Closest Land (Miles): 141		
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) Geotechnical Boreholes for Platform				
Have you submitted or do you plan to submit a Conservation Information Document to accompany this plan?								☐ Yes	☒ No		
Do you propose to use new or unusual technology to conduct your activities?								☐ Yes	☒ No		
Do you propose any facility that will serve as a host facility for deepwater subsea development?								☐ Yes	☒ No		
Do you propose any activities that may disturb an MMS-designated high-probability archaeological area?								☐ Yes	☒ No		
Have all of the surface locations of your proposed activities been previously reviewed and approved by MMS?								☐ Yes	☒ No		
Tentative Schedule of Proposed Activities											
Proposed Activity					Start Date		End Date		No. of Days		
Drill Well O					1/15/06		2/5/06		21		
Drill Well R					2/6/06		2/20/06		15		
Description of Drilling Rig					Description of Production Platform						
☐	Jackup		☒	Drillship	☐	Caisson		☐ Tension leg platform			
☐	Gorilla Jackup		☐	Platform rig	☐	Well protector		☐ Compliant tower			
☐	Semisubmersible		☐	Submersible	☐	Fixed platform		☐ Guyed tower			
☐	DP Semisubmersible		☐	Other (Attach Description)	☐	Subsea manifold		☐ Floating production system			
Drilling Rig Name (If Known): Nautilus					☐	Spar		☐ Other (Attach Description)			
Description of Lease Term Pipelines											
From (Facility/Area/Block)				To (Facility/Area/Block)				Diameter (Inches)		Length (Feet)	
NA											

OCS PLAN INFORMATION FORM (CONTINUED)
Include one copy of this page for each proposed well/structure

Proposed Well/Structure Location			
Well or Structure Name/Number (If renaming well or structure, reference previous name): O			Subsea Completion
Anchor Radius (if applicable) in feet:			☒ Yes ☐ No
	Surface Location	Bottom Hole Location (For Wells)	
Lease No.	OCS-G 17565		
Area Name	Alaminos Canyon		
Block No.	857		
Blockline Departures (in feet)	N/S Departure: 194' FNL		
	E/W Departure: 3135' FEL		
Lambert X-Y coordinates	X: 1,026,465'		
	Y: 9,487,966		
Latitude/ Longitude	Latitude: 26.13608254		
	Longitude: -94.87179915		
	TVD (Feet):	MD (Feet):	Water Depth (Feet): 8525'

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

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

Paperwork Reduction Act of 1995 Statement: The Paperwork Reduction Act of 1995 (44 U.S.C. Chapter 35) requires us to inform you that MMS collects this information as part of an applicant's Exploration Plan or Development Operations Coordination Document submitted for MMS approval. We use the information to facilitate our review and data entry for OCS plans. We will protect proprietary data according to the Freedom of Information Act and 30 CFR 250.196. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid Office of Management and Budget Control Number. The use of this form is voluntary. The public reporting burden for this form is included in the burden for preparing Exploration Plans and Development Operations Coordination Documents. We estimate that burden to average 580 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to the Information Collection Clearance Officer, Mail Stop 4230, Minerals Management Service, 1849 C Street, N.W., Washington, DC 20240.

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): R					Subsea Completion
Anchor Radius (if applicable) in feet:					☒ Yes ☐ No
	Surface Location		Bottom-Hole Location (For Wells)		
Lease No.	OCS-G 17561				
Area Name	Alaminos Canyon				
Block No.	813				
Blockline Departures (in feet)	N/S Departure: 421' FSL				
	E/W Departure: 3914' FEL				
Lambert X-Y coordinates	X: 1,025,686				
	Y: 9,488,581				
Latitude/Longitude	Latitude: 26.13774347				
	Longitude: -94.87420014				
	TVD (Feet):		MD (Feet):	Water Depth (Feet): 8490'	
Anchor Locations for Drilling Rig or Construction Barge (If anchor radius supplied above, not					
Anchor Name or No.	Area	Block	X Coordinate	Y Coordinate	Length of Anchor Chain on Seafloor
Paperwork Reduction Act of 1995 Statement: The Paperwork Reduction Act of 1995 (44 U.S.C. Chapter 35) requires us to inform you that MMS collects this information as part of an applicant's Exploration Plan or Development Operations Coordination Document submitted for MMS approval. We use the information to facilitate our review and data entry for OCS plans. We will protect proprietary data according to the Freedom of Information Act and 30 CFR 250.196. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid Office of Management and Budget Control Number. The use of this form is voluntary. The public reporting burden for this form is included in the burden for preparing Exploration Plans and Development Operations Coordination Documents. We estimate that burden to average 580 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to the Information Collection Clearance Officer, Mail Stop 4230, Minerals Management Service, 1849 C Street, N.W., Washington, DC 20240.					



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sylvia.bellone@shell.com

November 10, 2005

Mr. Don Howard
Regional Supervisor
Office of Field Operations
Minerals Management Service
1201 Elmwood Park Boulevard
New Orleans, LA 70123-2394

Dear Mr. Howard

SUBJECT: Supplemental Exploration Plan
OCS-G 17565, Alaminos Canyon Block 857
OCS-G 17561, Alaminos Canyon Block 813
Offshore Texas

In compliance with 30 CFR 250.204 and NTL 2003-G17 giving Exploration Plan guidelines, Shell Offshore Inc. (SOI) requests your approval of this Supplemental Exploration Plan to drill Well Locations O and R. If the Nautilus Discoverer Spirit is available drilling could commence as early as January 15, 2006.

Location O was originally approved in Plan S6246 effective September 9, 2003. The O location is being revised in this plan and we are adding a new location, R, to our plans for the subject leases.

Three copies of the Shallow Hazards Report were previously submitted.

This Plan consists of a series of attachments, as detailed in Attachment 1, describing our intended operations. The attachments we desire to be exempted from disclosure under the Freedom of Information Act are marked "Confidential" and excluded from the Public Information Copies of this submittal.

Should you require additional information, please contact me as indicated above.

Kind regards

Sylvia A. Bellone

Supplemental Exploration Plan
OCS-G 17565, Alaminos Canyon Block 857
OCS-G 17561, Alaminos Canyon Block 813
Offshore Texas

APPENDIX	DESCRIPTION
A-1	Project Description, Location & Drilling Unit Information
A-2, A&B	Surface Location and Bathymetry Map
B-1	General Information (Contact, Prospect Name, New or Unusual Technology, Bond Information, Onshore Base & Support Vessels, Lease Stipulations)
B-2, A&B	Vicinity Map
C-1	Anchor Radius Plats - NOT APPLICABLE
C-2	Enhanced Seafloor Renderings
C-3*	Geological Description, H ₂ S Determination
C-4*, A&B	Geologic Structure Maps
C-5*, A&B	Geologic Cross Sections
C-6*	Shallow Hazards Report (Previously submitted)
C-7*	Shallow Hazards Site Specific Comments
C-8*, A&B	Time Migration Seismic Lines (Original only)
C-9*, A&B	Stratigraphic Column with Time vs Depth Table
C-10*, A&B	Bottom Hole Locations Plat
C-11*	OCS Plan Information Form (Appendix J), Confidential
D-1	Chemosynthetic Information - SEE ATTACHMENT C-7
D-2	ROV Survey Plan, & Archeological Information
E-1	Discharge Information
E-2	Waste Information
F	Oil Spill Information
G-1	Projected Air Emissions
H-1	Environmental Impact Analysis
I	Coastal Zone Management Consistency Information (Not applicable)
J	OCS Plan Information Form, Public Information

*Confidential Information that has been omitted from the Public Information copies of the plan

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ENVIRONMENTAL IMPACT ANALYSIS

APPENDIX H

SUPPLEMENTAL EXPLORATION PLAN

**ALAMINOS CANYON BLOCK 857, LEASE OCS-G 17565
ALAMINOS CANYON BLOCK 813, LEASE OCS-G 17561**

**GULF OF MEXICO
OFFSHORE, TEXAS
*AREA I***

PREPARED FOR

SHELL OFFSHORE, INC.

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Shell Offshore, Inc.
P. O. Box 61933
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Lafayette, LA 70505
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DESCRIPTION OF THE PROPOSED ACTION

This Environmental Impact Analysis addresses the exploratory activities proposed by Shell Offshore, Inc. (SOI) in Alaminos Canyon Blocks 857 & 813. The proposed activities will be located approximately 141 miles from the Texas shoreline in water depths from 8490 feet to 8525 feet. As proposed, the Exploration Plan (EP) provides for the drilling of 2 wells from a dynamically positioned drill ship. The wells are planned to be drilled beginning January 15, 2006. The drilling is expected to take approximately 18 days per well.

A shorebase in Galveston, Texas and in Fourchon, Louisiana will be utilized to support the proposed activities. Eight (14) helicopter trips, two (7) workboats and one (4) crewboat trip per week will be required for the proposed activities.

The shorebases are capable of providing all necessary support functions. The proposed activities will help to maintain the base at its present level of activity. No expansion of the physical facilities is expected to result from the work planned in conjunction with these blocks. Support vessels will normally move to the blocks via the most direct route, however, vessels operating in the field may travel from other facilities nearby. To ensure that activities in support of OCS operations do not adversely impact endangered or threatened species, all helicopter flights over national parks and wildlife refuges will adhere to a minimum altitude of 2000 feet as required by the Federal Aviation Administration.

The proposed activities will be carried out and completed with the guarantee that:

- The best available and safest technologies will be utilized throughout the project. This includes meeting all applicable requirements for equipment types, general project layout, safety systems, and equipment and monitoring systems.
- All operations will be covered by an approved Oil Spill Response Plan.
- All applicable Federal, State, and Local requirements regarding air emissions and water quality and discharge for the proposed activities, as well as any other permit conditions, will be complied with.
- The proposed activities described in detail in the EP comply with the enforceable policies of Texas's approved Coastal Management Program and will be conducted in a manner consistent with such program.

(A) Environmental Impact Analysis Worksheet

Impact Producing Factors (IPFs) that have the potential to cause impacts to the listed environmental resources are identified by an "x" in the space under each IPF category associated with the proposed activities. If it was determined an IPF would not impact a particular environmental resource, the space was left blank. For those cells that are noted by an "X", a statement is provided as to the applicability to the proposed operations, and, where there may be an effect, an analysis of the effect is provided. If other environmental resources at or near the activity's site that are not included on the worksheet are identified, they are addressed, as well.

Environmental Resources	Impact Producing Factors (IPFs) Categories and Examples					
	Emission s (air, noise, light, etc.)	Effluents (muds, cuttings, other discharges to water column or seafloor)	Physical disturbances to seafloor (rig/anchor emplacements, etc.)	Wastes sent to shore (for treatment or disposal)	Accidents (oil spills, chemical spills, H2S releases)	Discarded trash and debris
Site-specific at Offshore Location						
Designated topographic features						
Pinnacle Trend area live bottoms						
Eastern Gulf live bottoms						
Chemosynthetic communities		X	X			
Water quality		X			X	
Fisheries					X	
Marine mammals	X	X			X	X
Sea turtles	X	X			X	X
Air quality	X					
Shipwreck sites (known or potential)						
Prehistoric archaeological sites						
Vicinity of Offshore Location						
Essential fish habitat					X	
Marine and pelagic birds					X	X
Public health and safety						
Coastal and Offshore						
Beaches					X	X
Wetlands					X	
Shore birds and coastal nesting birds					X	
Coastal wildlife refuges					X	
Wilderness areas					X	
Other Resources Identified						

(B) Analysis

Site-specific at Offshore Location:

Accidents: It is unlikely that an accidental surface or subsurface oil spill would occur from the proposed activities. As per the MMS, the volume of spill incidents in U.S. waters has been on a steady downward trend since 1973, and there has been a general downward trend in the number of spills over 1,000 barrels. The majority of spills since 1973 involved discharges of between 1 and 100 gallons. The total volume of oil spilled per year is significantly declining and the total volume spilled in 2000 is at the lowest amount in over 25 years. In addition, spills from tank vessels account for the majority of volume of oil spilled and the rates for spills $\geq 1,000$ barrels from OCS platforms, tankers and barges continues to decline. The decline in oil spill volume represents the combined effects of an increasingly effective campaign of positive prevention and preparedness to protect U.S. waters from oil pollution.

Large oil spills associated with OCS activities are low-probability events. There was an 89% decline in the volume of oil spilled per billion barrels produced from OCS operations during 1980 through the present, a period when oil production has been increasing. The MMS attributes this improvement to MMS operational requirements, ongoing efforts by the oil and gas industry to enhance safety and pollution prevention, and the evolution and improvement of offshore technology. (OCS EIS/EA MMS 2002-052, page 4-57 & page 4-195)

The activities proposed in this plan will be covered by our regional OSRP (Refer to information submitted in Appendix F of the EP).

1. Designated topographic features

Potential Impact Producing Factors: Effluents, physical disturbances to the seafloor, accidents.

There are no IPF's from the proposed activities that are expected to cause impacts to topographic features. The distance from the site-specific offshore location of the proposed activities to the closest designated topographic feature Bank is as follows: Approximately 130 miles from Applebaum Bank.

Accidents: It is unlikely that an accidental oil spill would occur from the proposed activities. Oil from a spill is not an issue due to the distance of these blocks from a designated topographic area. (Please refer to the data under the heading "Accidents" at the beginning of Section "B".) In addition, the activities proposed in this plan will be covered by our regional OSRP (Refer to information submitted in Appendix F of the EP).

2. Pinnacle trend area live bottoms

Potential Impact Producing Factors: Effluents, physical disturbances to the seafloor, accidents.

There are no IPF's from the proposed activities that could cause impacts to pinnacle trend area live bottoms. The site-specific offshore location of the proposed activities is nearly 500 miles away from the closest pinnacle trend live bottom stipulated block.

Accidents: It is unlikely that an accidental surface or subsurface oil spill would occur from the proposed activities. (Please refer to the data under the heading "Accidents" at the beginning of Section "B".) In addition, the activities proposed in this plan will be covered by our regional OSRP (Refer to information submitted in Appendix F of the EP).

3. Eastern Gulf live bottoms

Potential Impact Producing Factors: Effluents, physical disturbances to the seafloor, accidents.

There are no IPF's from the proposed activities that could cause impacts to Eastern Gulf live bottoms. The site-specific offshore location of the proposed activities is located in the Central Gulf off of the coast of Texas.

Accidents: It is unlikely that an accidental oil spill would occur from the proposed activities. Any oil spill resulting from the proposed action would not be expected to cause adverse impacts to eastern gulf live bottoms because of the distance from these features (Please refer to the data under the heading "Accidents" at the beginning of Section "B".) In addition, the activities proposed in this plan will be covered by our regional OSRP (Refer to information submitted in Appendix F of the EP.

4. Chemosynthetic communities

Potential Impact Producing Factors: Effluents, physical disturbances to the seafloor.

IPF's from the proposed activities do have the possibility to cause impacts to chemosynthetic communities because the potential for chemosynthetic communities does exist in Alaminos Canyon Block 857 & 813, which are in water depths over 400 meters. The proposed activity is located at least 30 miles from Alaminos Canyon Block 645 in which known chemosynthetic community sites are located.

Effluents: Because of the great water depths, discharges of drilling fluids and cuttings at the surface are spread across broader areas of the seafloor in thin accumulations, with low impact expected.

Physical Disturbances to the Seafloor: Chemosynthetic communities are susceptible to physical impacts from anchoring, however any potential impacts will be prevented by following the guidance in **NTL No. 2000-G20**, "Deepwater Chemosynthetic Communities."

5. Water quality

Potential Impact Producing Factors: Effluents and accidents.

Effluents: All discharges will be made in accordance with a general National Pollutant Discharge Elimination System (NPDES) permit issued by U.S. Environmental Protection Agency (USEPA), therefore operational discharges are not expected to cause significant adverse impacts to water quality.

Accidents: If a spill were to occur, the dissolved components and small oil droplets would temporarily affect the water quality of marine waters. Dispersion by currents and microbial degradation would remove the oil from the water column or dilute the constituents to background levels, although it is unlikely that an accidental surface or subsurface oil spill would occur from the proposed activities. (Please refer to the data under the heading "Accidents" at the beginning of Section "B".) In addition, the activities proposed in this plan will be covered by our regional OSRP (Refer to information submitted in Appendix F of the EP.

6. Fisheries

Potential Impact Producing Factors: Effluents, accidents.

Effluents: Discharges are diluted and dispersed to very near background levels at a distance of 1000 m and are undetectable at a distance of 3000 m from the discharge point, therefore having little effect on fisheries.

Accidents: If an accidental oil spill were to occur as a result of the proposed action, it would possibly have the potential to cause some detrimental effects to fisheries. If a spill were to occur in open waters of the OCS proximate to mobile adult finfish or shellfish, the effects would likely be sublethal and the extent of damage would be reduced to the capability of adult fish and shellfish to avoid a spill, to metabolize hydrocarbons, and to excrete both metabolites and parent compounds. However, it is unlikely that an accidental surface or subsurface oil spill would occur from the proposed activities. (Please refer to the data under the heading "Accidents" at the beginning of Section "B".) In addition, the activities proposed in this plan will be covered by our regional OSRP (Refer to information submitted in Appendix F of the EP.

7. Marine mammals

Potential Impact Producing Factors: Effluents, noise, and accidents (including accidental oil spills, vessel traffic, and loss of trash and debris)

Effluents: All discharges will be made in accordance with a general National Pollutant Discharge Elimination System (NPDES) permit issued by U.S. Environmental Protection Agency (USEPA), therefore operational discharges are diluted and unlikely to cause any direct effects.

Noise: All phases of offshore petroleum exploration and production produce an acoustically wide range of sounds at frequencies and intensities that can be detected by cetaceans. Underwater strong noise levels may often be low, steady, and not very disturbing. Some sounds could mask their reception of sounds produced for echolocation and communication. Noise from service-vessel traffic may also produce a startle and/or avoidance reaction from cetaceans. These sounds may frighten, annoy or distract marine mammals and lead to physiological and behavioral disturbances. Tolerance for noise is often demonstrated, but this does not prove that the animals are unaffected by noise; for example, they may become stressed, making them more vulnerable to parasites, disease, environmental contaminants, and/or predation. Of animals responding to noise, females in late pregnancy or lactating would probably be most affected. Temporary disturbances to cetaceans may occur on occasion as helicopters approach or depart OCS facilities, if animals are near the facility. Such disturbance is believed negligible.

An FAA advisory encourages pilots to maintain higher than minimum altitudes over noise-sensitive areas. Corporate helicopter policy states that helicopters should maintain a minimum altitude of 700 feet while in transit offshore and 500 feet while working between platforms. In addition, under the authority of the Marine Mammal Protection Act, NOAA fisheries guidelines and regulations include provisions specifying helicopters to maintain an altitude of 1000 ft within 100 yards of marine mammals. It is unlikely that cetaceans would be affected by routine OCS helicopter traffic operating at these altitudes, provided pilots do not alter their flight patterns to more closely observe marine

mammals they see. Occasional overflights probably have no long-term consequences on cetaceans.

Accidents: It is unlikely that an accidental surface or subsurface oil spill would occur from the proposed activities. (Please refer to the data under the heading "Accidents" at the beginning of Section "B".) In addition, the activities proposed in this plan will be covered by our regional OSRP (refer to information submitted in Appendix F).

Disturbances such as noise may stress animals, weaken their immune systems, and make them more vulnerable to parasites and diseases that normally would not be fatal. Collisions between cetaceans and ships could cause serious injury or death (Laist et al., 2001). Sperm whales are one of 11 whale species that are hit commonly by ships (Laist et al., 2001). Collisions between OCS vessels and cetaceans within the project area are expected to be unusual events.

In accordance with **NTL No. 2003-G10 - Vessel Strike Avoidance and Injured/Dead Protected Species Reporting**, to reduce the potential taking of marine protected species, SOI shall follow the guidelines specified in the NTL.

Protected Species Identification Training - Vessel crews shall continue to use a Gulf of Mexico reference guide that includes and helps identify the 28 species of whales and dolphins, 5 species of sea turtles and the single species of manatee that might be encountered in the Gulf of Mexico OCS.

Vessel Strike Avoidance

- Vessel operators and crews shall maintain a vigilant watch for marine mammals and slow down or stop the vessel to avoid striking protected species.
- When whales are sighted, a distance of 90 meters or greater from the whale shall be maintained
- When small cetaceans are sighted, a distance of 45 meters or greater shall be maintained whenever possible.
- When cetaceans are sighted while a vessel is underway, an attempt to remain parallel to the animal's course shall be made. Excessive speed or abrupt changes in direction shall be avoided until the cetacean has left the area.
- When pods or large assemblages of cetaceans are observed near an underway vessel, speed shall be reduced to 10 knots or less, since cetaceans at the surface may indicate the presence of submerged animals near the vessel.
- Whales may surface in unpredictable locations or approach slowly moving vessels. When animals are sighted in the vessel's path or in close proximity to a moving vessel, speed shall be reduced and the engine shifted to neutral. The engines will not be engaged until the animals are clear of the area.

Injured/Dead Protected Species Reporting - Vessel crews shall report sightings of any injured or dead marine mammals immediately, regardless of whether the injury or death is caused by our vessel, to either of phone numbers referenced in the NTL. If the injury or death was caused by a collision with our vessel, SOI will notify MMS within 24 hours of the strike and provide the information specified in the NTL.

In accordance with **NTL No. 2003-G11** - Marine Trash and Debris Awareness and Elimination, to reduce the threat of marine mammals being exposed to marine trash and debris, SOI's workers and contractors shall exercise special caution when handling and disposing of small items and packaging materials. Placards with specified language shall be posted in the manner described in the NTL. Annual training and certification for SOI's offshore employees and contractors will be carried out as described in the NTL.

8. Sea turtles

Potential Impact Producing Factors: Effluents, noise, brightly lit platforms and accidents, (including accidental oil spills, vessel traffic, noise, and loss of trash and debris)

Effluents: All discharges will be made in accordance with a general National Pollutant Discharge Elimination System (NPDES) permit issued by U.S. Environmental Protection Agency (USEPA), therefore operational discharges are diluted and considered to have sublethal effects.

Noise: All phases of offshore petroleum exploration and production produce an acoustically wide range of sounds at frequencies and intensities that could possibly be detected by sea turtles. It is assumed that aircraft noise could be heard by a sea turtle at or near the surface and cause the animal to alter its normal behavior pattern. Noise may cause a startle response and produce temporary sublethal stress.

Brightly Lit Platforms: Brightly lit offshore facilities present a potential danger to hatchlings. Hatchlings are known to be attracted to light and may orient toward lighted offshore structures. If this occurs, hatchling predation may increase since large birds and predatory fishes also congregate around structures.

Accidents: It is unlikely that an accidental surface or subsurface oil spill would occur from the proposed activities. (Please refer to the data under the heading "Accidents" at the beginning of Section "B".) In addition, the activities proposed in this plan will be covered by our regional OSRP (refer to information submitted in Appendix F).

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

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

In accordance with **NTL No. 2003-G10** - Vessel Strike Avoidance and Injured/Dead Protected Species Reporting, to reduce the potential taking of marine protected species, SOI shall follow the guidelines specified in the NTL.

Protected Species Identification Training - Vessel crews shall continue to use a Gulf of Mexico reference guide that includes and helps identify the 28 species of whales and dolphins, 5 species of sea turtles and the single species of manatee that might be encountered in the Gulf of Mexico OCS.

Vessel Strike Avoidance - Vessel operators and crews shall maintain a vigilant watch for sea turtles and slow down or stop the vessel to avoid striking protected species.

Injured/Dead Protected Species Reporting - Vessel crews shall report sightings of any injured or dead marine mammals immediately, regardless of whether the injury or death is caused by our vessel, to either of phone numbers referenced in the NTL. If the injury or death was caused by a collision with our vessel, SOI will notify MMS within 24 hours of the strike and provide the information specified in the NTL.

In accordance with **NTL No. 2003-G11** - Marine Trash and Debris Awareness and Elimination, to reduce the threat of sea turtles being exposed to marine trash and debris, SOI's workers and contractors shall exercise special caution when handling and disposing of small items and packaging materials. Placards with specified language shall be posted in the manner described in the NTL. Annual training and certification for SOI's offshore employees and contractors will be carried out as described in the NTL.

9. Air quality

Potential Impact Producing Factors: Emissions.

Emissions: There would be a limited degree of air quality degradation in the immediate vicinity of the proposed activities. Air quality analysis of the proposed activities indicated that the emissions are well below the MMS exemption level. (Refer to information submitted in Appendix G of the EP.

10. Shipwreck sites (known or potential)

Potential Impact Producing Factors: Physical disturbances to the seafloor.

There are no IPF's from the proposed activities that could cause impacts to known or potential shipwreck sites. As per MMS's list of Archaeological Survey blocks referenced in NTL 2005-G07, the proposed activities are not in a block that has been determined to have a high potential for containing archaeological properties.

11. Prehistoric archaeological sites

Potential Impact Producing Factors: Physical disturbances to the seafloor.

There are no IPF's from the proposed activities that could cause impacts to prehistoric archaeological sites. As per MMS's list of Archaeological Survey blocks referenced in NTL 2005-G07, the proposed activities are not in a block that has been determined to have a high potential for containing archaeological properties.

Vicinity of Offshore Location:

1. Essential fish habitat

Potential Impact Producing Factors: Effluents, physical disturbances to the seafloor, and accidents.

Effluents: All discharges will be made in accordance with a general National Pollutant Discharge Elimination System (NPDES) permit issued by U.S. Environmental Protection Agency (USEPA), therefore operational discharges are diluted and will not deleteriously effect essential fish habitat.

Physical Disturbances to the Seafloor: Offshore essential fish habitat includes pinnacles and topographic features. No impacts to these features will result from the proposed activities.

Accidents: An accidental oil spill that may occur as a result of the proposed action has the potential to cause some detrimental effects on essential fish habitat. However, it is unlikely that an accidental surface or subsurface oil spill would occur from the proposed activities. If a spill were to occur in open waters of the OCS proximate to mobile adult finfish or shellfish, the effects would likely be sublethal and the extent of damage would be reduced to the capability of adult fish and shellfish to avoid a spill, to metabolize hydrocarbons, and to excrete both metabolites and parent compounds. The activities proposed in this plan will be covered by our regional OSRP (Refer to information submitted in Appendix F of the EP.

2. Marine and pelagic birds

Potential Impact Producing Factors: Noise, emissions, effluents, accidental oil spills and discarded trash and debris.

Noise: Disturbances from helicopter or service-vessel traffic can result from the mechanical noise or physical presence of the vehicle. To alleviate this, the FAA and corporate helicopter policies advise pilots to maintain minimum altitudes when in transit and while working between platforms. Compliance with the specified minimum altitude requirements greatly reduces the effects of aircraft disturbance on birds.

Emissions: Emissions of pollutants into the atmosphere shall be at concentrations far below those that could harm marine and pelagic birds.

Effluents: Operational discharges could affect seabirds that remain and feed in the vicinity of offshore OCS structures.

Accidents: An accidental oil spill that may occur as a result of the proposed action has the potential to impact marine and pelagic birds—birds could become oiled. However, it is unlikely that an accidental oil spill would occur from the proposed activities. The activities proposed in this plan will be covered by our regional OSRP (refer to information submitted in accordance with NTL 2002-G08 Appendix F).

Birds are susceptible to entanglement in floating, submerged, and beached marine debris. In accordance with **NTL No. 2003-G11 - Marine Trash and Debris Awareness and Elimination**, to reduce the threat of marine mammals being exposed to marine trash and debris, SOI's workers and contractors shall exercise special caution when handling and disposing of small items and packaging materials. Placards with specified language shall be posted in the

manner described in the NTL. Annual training and certification for SOI's offshore employees and contractors will be carried out as described in the NTL.

3. Public health and safety due to accidents

Potential Impact Producing Factors: Accidental H₂S releases

There are no IPF's from the proposed activities that could cause impacts to public health and safety. In accordance with 30 CFR 250.417(c) and NTL 2002-G08 (Appendix C) we have submitted sufficient information to justify our request that the area of our proposed activities be classified by MMS as H₂S absent.

Coastal and Onshore:

1. Beaches

Potential Impact Producing Factors: Accidents, discarded trash and debris.

Accidents: An accidental oil spill from the proposed activities could cause impacts to beaches. However, due to the distance from shore (138 miles) and the response capabilities that would be implemented, no significant adverse impacts are expected. Both the historical spill data and the combined trajectory/risk calculations referenced in the publication OCS EIS/EA MMS 2002-052 indicate there is little risk of contact or impact to the coastline and associated environmental resources. The activities proposed in this plan will be covered by our regional OSRP (Refer to information submitted in Appendix F of the EP.

In accordance with **NTL No. 2003-G11** - Marine Trash and Debris Awareness and Elimination, to reduce the threat of beached marine trash and debris, SOI's workers and contractors shall exercise special caution when handling and disposing of small items and packaging materials. Placards with specified language shall be posted in the manner described in the NTL. Annual training and certification for SOI's offshore employees and contractors will be carried out as described in the NTL.

2. Wetlands

Potential Impact Producing Factors: Accidents.

Accidents: An accidental oil spill from the proposed activities could cause impacts to wetlands. However, due to the distance from shore (138 miles) and the response capabilities that would be implemented, no significant adverse impacts are expected. Both the historical spill data and the combined trajectory/risk calculations referenced in the publication OCS EIS/EA MMS 2002-052 indicate there is little risk of contact or impact to the coastline and associated environmental resources. The activities proposed in this plan will be covered by our regional OSRP (Refer to information submitted in Appendix F of the EP.)

3. Shore birds and coastal nesting birds

Potential Impact Producing Factors: Accidents.

Accidents: An accidental oil spill from the proposed activities could cause impacts to shore birds and coastal nesting birds. However, due to the distance from shore (141 miles) and the response capabilities that would be implemented, no significant adverse impacts are expected. Both the historical spill data and the combined trajectory/risk calculations referenced in the publication OCS EIS/EA MMS 2002-052 indicate there is little risk of contact or impact to the coastline and associated environmental resources. The activities proposed in this plan will be

covered by our regional OSRP (refer to information submitted in Appendix F of the EP).

4. Coastal wildlife refuges

Potential Impact Producing Factors: Accidents.

Accidents: An accidental oil spill from the proposed activities could cause impacts to coastal wildlife refuges. However, due to the distance from shore (138 miles) and the response capabilities that would be implemented, no significant adverse impacts are expected. Both the historical spill data and the combined trajectory/risk calculations referenced in the publication OCS EIS/EA MMS 2002-052 indicate there is little risk of contact or impact to the coastline and associated environmental resources. The activities proposed in this plan will be covered by our regional OSRP (Refer to information submitted in Appendix F of the EP.)

5. Wilderness areas

Potential Impact Producing Factors: Accidents.

Accidents: An accidental oil spill from the proposed activities could cause impacts to wilderness areas. However, due to the distance from shore (140 miles) and the response capabilities that would be implemented, no significant adverse impacts are expected. Both the historical spill data and the combined trajectory/risk calculations referenced in the publication OCS EIS/EA MMS 2002-052 indicate there is little risk of contact or impact to the coastline and associated environmental resources. The activities proposed in this plan will be covered by our regional OSRP (Refer to information submitted in Appendix F of the EP.)

Other Environmental Resources Identified:

No other environmental resources were identified.

(C) Impacts on 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:

Although not always cited, the following were utilized in preparing the EJA:

MMS NTL No. 2002-G08

MMS NTL No. 98-20

MMS NTL No. 2000-G20

MMS NTL No. 2003-G06

MMS NTL No. 2003-G07

Shallow Hazard Assessment Survey Report

MMS OCS EIS/EA MMS 2002-052

Authors: Geraci and St. Aubin, 1980

Laist et al., 2001