UNITED STATES GOVERNMENT
MEMORANDUM

February 2, 2005

To: Public Information (MS 5034)

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

Subject: Public Information copy of plan

Control #	-	N-08304
Type	-	Initial Exploration Plan
Lease(s)	-	OCS-G25008 Block - 64 West Delta Area
Operator	-	RIMCO Production Company, Inc.
Description	-	Well Protectors and Wells A, B, C, D, and E
Rig Type	-	JACKUP

Attached is a copy of the subject plan.

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

Elmo Cooper
Plan Coordinator

Site Type/Name	Botm Lse/Area/Blk	Surface Location	Surf Lse/Area/Blk
WP/A		498 FSL, 496 FEL	G25008/WD/64
WP/B		1498 FSL, 496 FEL	G25008/WD/64
WP/C		7032 FSL, 3294 FWL	G25008/WD/64
WP/D		3657 FNL, 4966 FEL	G25008/WD/64
WP/E		486 FNL, 892 FWL	G25008/WD/64
WELL/A	G25008/WD/64	498 FSL, 496 FEL	G25008/WD/64
WELL/B	G25008/WD/64	1498 FSL, 496 FEL	G25008/WD/64
WELL/C	G25008/WD/64	7032 FSL, 3294 FWL	G25008/WD/64
WELL/D	G25008/WD/64	3657 FNL, 4966 FEL	G25008/WD/64
WELL/E	G25008/WD/64	486 FNL, 892 FWL	G25008/WD/64

NOTED - SCHEXNAILDRE

PUBLIC COPY
February 1, 2005

INITIAL EXPLORATION PLAN

Lease Number:	OCS-G 25008
Area/Block:	West Delta Block 64
Prospect Name:	Not Applicable
Offshore:	Louisiana

Submitted by:

Peregrine Oil & Gas, L.P.
3 Riverway
Suite 630
Houston, Texas 77056

Lawson Fancher
(713) 589-6802
Lawson@peregrineoilandgas.com

Estimated start up date: April 1, 2005

Authorized Representative:
Cathy Thornton
J. Connor Consulting, Inc.
16225 Park Ten Place, Suite 700
Houston, Texas 77084
(281) 578-3388
cathy.thornton@jccteam.com

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

For MMS:
Plan No. N-8304
Assigned to: Elmo Cooper

PUBLIC COPY
December 22, 2004

INITIAL EXPLORATION PLAN

Lease Number:	OCS-G 25008
Area/Block:	West Delta Block 64
Prospect Name:	Not Applicable
Offshore:	Louisiana

Submitted by:

Peregrine Oil & Gas, L.P.
3 Riverway
Suite 630
Houston, Texas 77056

Lawson Fancher
(713) 589-6802
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cathy.thornton@jccteam.com

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

For MMS:
Plan No. _____
Assigned to: _____

PEREGRINE OIL & GAS, L.P.

INITIAL EXPLORATION PLAN

LEASE OCS-G 25008

WEST DELTA BLOCK 64

APPENDIX A
CONTENTS OF PLAN

Peregrine Oil & Gas, L.P. (Peregrine) is in the process of becoming the designated operator of the subject oil and gas lease.

(A) DESCRIPTION, OBJECTIVES AND SCHEDULE

Appendix J contains a Plan Information Form, which provides a description of proposed activities, objectives and a tentative schedule.

(B) LOCATION

Included as ***Attachment A-1*** is a map showing the locations of the proposed wells. There will not be any anchors associated with the proposed operations. A bathymetry map depicting water depths is included as ***Attachment A-2***. Additional well information is included in Appendix J, on the Well Information Form.

(C) DRILLING UNIT

Peregrine will utilize a typical jack-up type drilling rig during the proposed operations.

Single well protector structures will be installed over each proposed well location. A schematic of the proposed structures is included as ***Attachment A-3***.

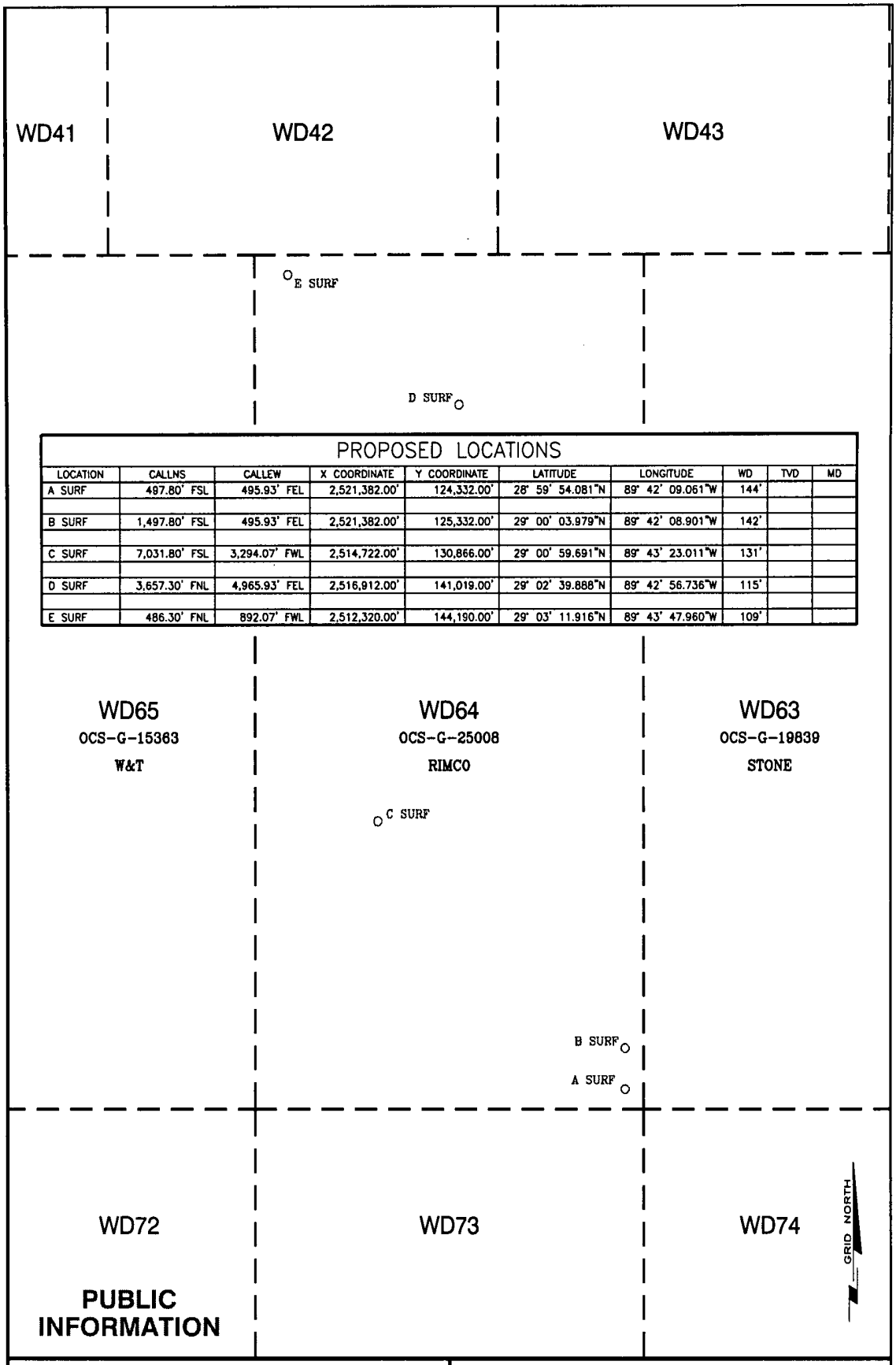
A description of the drilling unit is included in Appendix J, on the Plan Information Form. Rig specifications will be made a part of each Application for Permit to Drill.

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.

Peregrine 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.

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



PROPOSED LOCATIONS

LOCATION	CALLNS	CALLEW	X COORDINATE	Y COORDINATE	LATITUDE	LONGITUDE	WD	TVD	MD
A SURF	497.80' FSL	495.93' FEL	2,521,382.00'	124,332.00'	28° 59' 54.081"N	89° 42' 09.061"W	144'		
B SURF	1,497.80' FSL	495.93' FEL	2,521,382.00'	125,332.00'	29° 00' 03.979"N	89° 42' 08.901"W	142'		
C SURF	7,031.80' FSL	3,294.07' FWL	2,514,722.00'	130,866.00'	29° 00' 59.691"N	89° 43' 23.011"W	131'		
D SURF	3,657.30' FNL	4,965.93' FEL	2,516,912.00'	141,019.00'	29° 02' 39.888"N	89° 42' 56.736"W	115'		
E SURF	486.30' FNL	892.07' FWL	2,512,320.00'	144,190.00'	29° 03' 11.916"N	89° 43' 47.960"W	109'		

PEREGRINE OIL & GAS

EXPLORATION PLAN
OCS-G-25008
BLOCK 64
WEST DELTA AREA
GULF OF MEXICO

FUGRO CHANCE INC.
200 Dulles Dr. Lafayette, Louisiana 70506-3001 (337) 237-1300

GEODETIC DATUM: NAD27
PROJECTION: LOUISIANA SOUTH
GRID UNITS: US SURVEY FEET

SCALE IN FEET 0 3,000'

Job No.: 04-3994 | Date: 12/08/04 | Drwn: VAG | Chart: 1 Of: 1

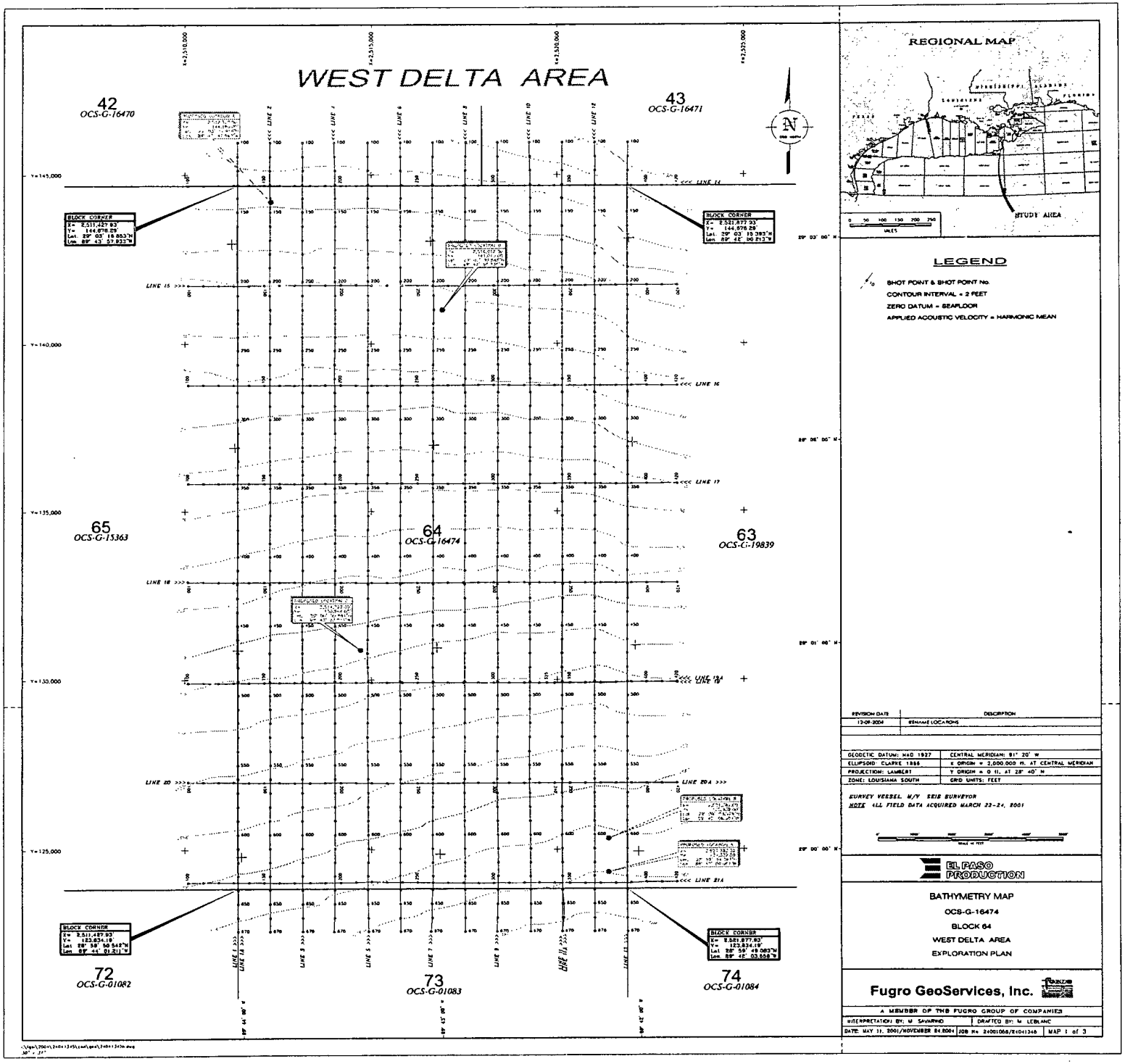
Dwgfile: O:\WellPermit\LAs\WD\Permit\64EP

DIGITAL COPY
ORIGINAL PLAT 12/08/04

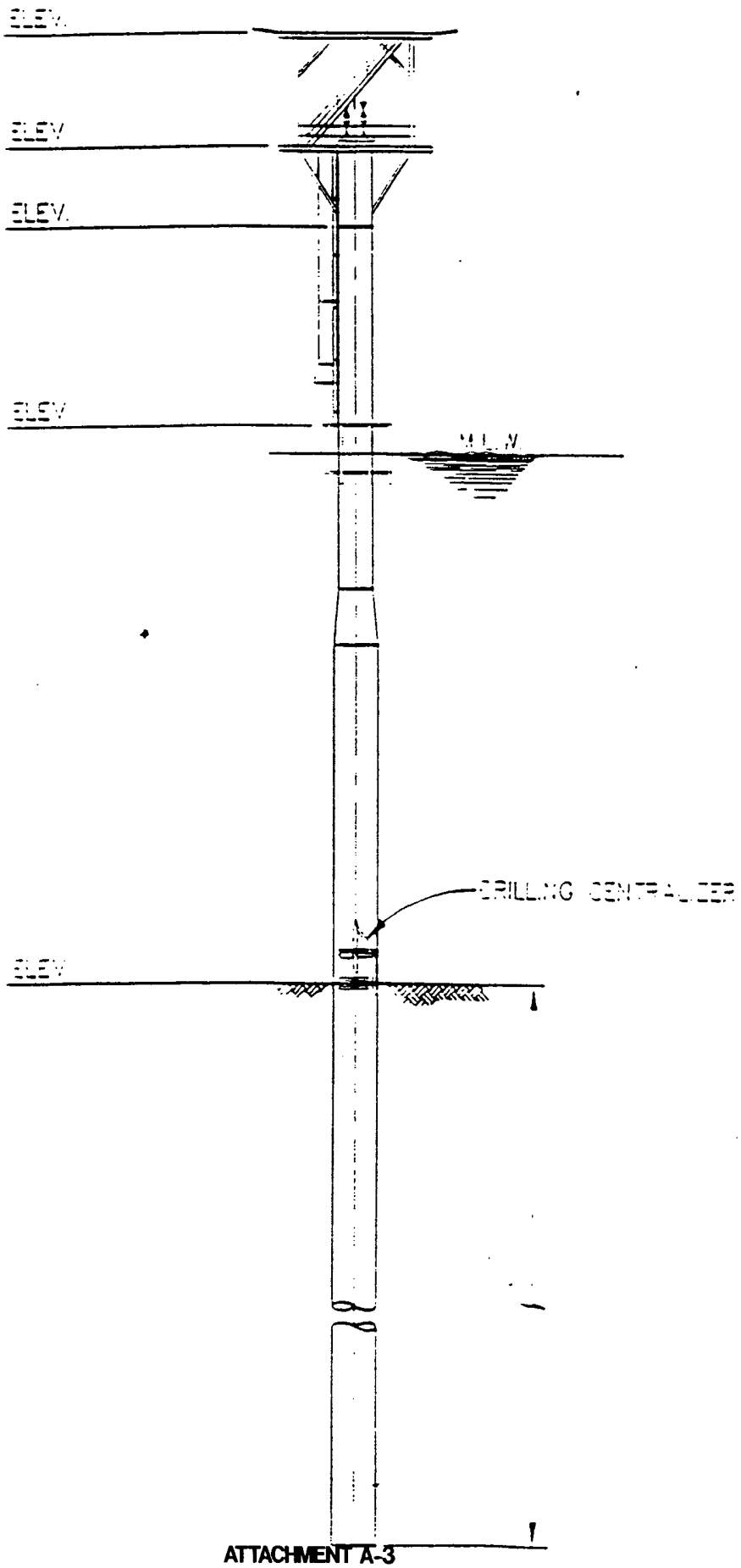
ATTACHMENT A-1

Printed: 12/9/04

ATTACHMENT A-2



TYPICAL WELL PROTECTOR CAISSON



ATTACHMENT A-3

APPENDIX B
GENERAL INFORMATION

(A) CONTACT

Inquiries may be made to the following authorized representative:

Cathy Thornton
J. Connor Consulting, Inc.
16225 Park Ten Place, Suite 700
Houston, Texas 77084
(281) 578-3388
E-mail address: cathy.thornton@jccteam.com

(B) PROSPECT NAME

Not applicable

(C) NEW OR UNUSUAL TECHNOLOGY

Peregrine 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 a lease 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 West Delta Block 64 located approximately 19 miles from the nearest shoreline and approximately 30 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	3
Supply Boat	3
Helicopter	As Needed

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 25008 West Delta Block 64.

1. Marine Protected Species

Lease Stipulation No. 6 is meant to reduce the potential taking of marine protected species. Peregrine 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.

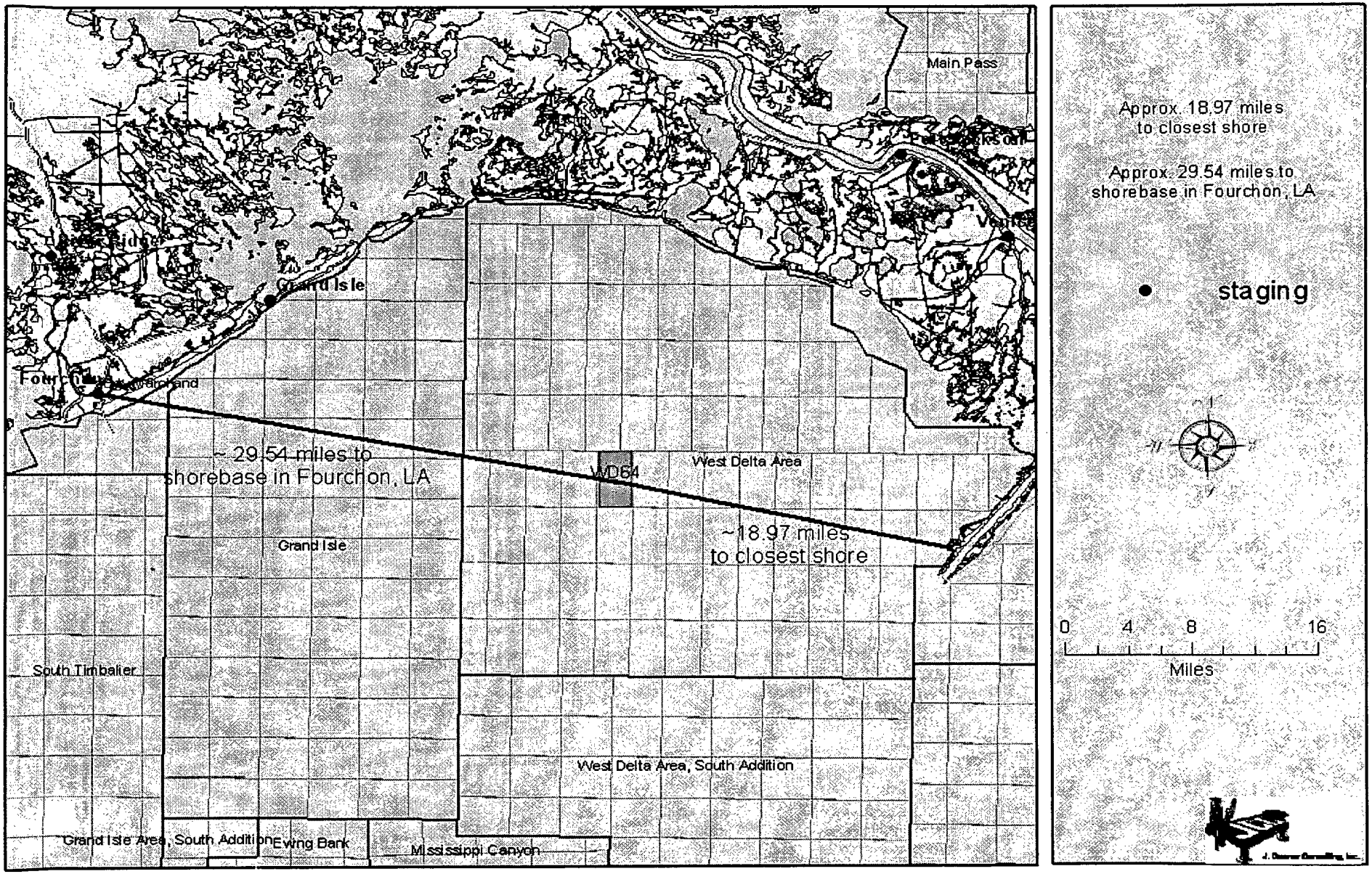
SPECIAL CONDITIONS

There are no related OCS facilities other than those proposed in this plan.

ARCHAEOLOGY SURVEY BLOCKS

Review of the data obtained during the shallow hazard study does not indicate the presence of any historic period shipwrecks.

Peregrine Oil and Gas, L.P.
West Delta Block 64



ATTACHMENT B-1

APPENDIX C
GEOLOGICAL, GEOPHYSICAL, AND H_2S INFORMATION

(A) STRUCTURE CONTOUR MAPS

Current structure contour maps drawn on the top of each prospective hydrocarbon sand, showing the entire lease block, the location of each proposed well, and the locations of geological cross-sections are included as proprietary data.

(B) TRAPPING FEATURES

proprietary data

(C) DEPTH OF GEOPRESSURE

proprietary data

(D) INTERPRETED 3-D SEISMIC LINES

Attached to one Proprietary Information copy of this plan are interpreted 3-D seismic lines. These lines are migrated, annotated with depth scale, and are within 500' of the surface locations of the proposed wells.

(E) GEOLOGICAL STRUCTURE CROSS-SECTIONS

Interpreted geological structure cross-sections showing the location and depth of each proposed well and at least one key horizon or objective sand are included as proprietary data.

(F) SHALLOW HAZARDS REPORT

A shallow hazards survey was conducted over West Delta Block 64.

Copies of the report have been previously submitted to the Minerals Management Service.

(G) SHALLOW HAZARDS ASSESSMENT

A shallow hazards assessment has been prepared for each proposed surface location, evaluating seafloor and subsurface geological and manmade features and conditions that may adversely affect drilling operations, and is included as ***Attachments C-15 through C-19.***

(H) HIGH-RESOLUTION SEISMIC LINES

Attached to one Proprietary Copy of this Plan are annotated high-resolution seismic lines. These lines are the closest high-resolution seismic lines to the proposed surface locations.

(I) STRATIGRAPHIC COLUMN

A generalized biostratigraphic/lithostratigraphic column depicting each well from the seafloor to total depth, with each horizon labeled, is included as proprietary data.

(J) TIME VS DEPTH TABLES

Sufficient well control data for the target areas proposed in this EP exists; therefore, seismic time versus depth tables for the proposed well locations are not required.

(K) HYDROGEN SULFIDE INFORMATION

In accordance with Title 30 CFR 250. 490(c) and NTL No. 2003-G17, Peregrine requests that West Delta Block 64 be classified by the MMS as H_2S absent.

FUGRO GEOSERVICES, INC.

December 9, 2004

Peregrine Oil & Gas
Three Riverway
Suite 630
Houston, Texas 77056

Attention: Lawson Fancher

Re: **Exploration Plan - Site Clearance Letter**
Proposed Well "A" Surface Location
Block 64, West Delta Area (OCS-G-25008)
FGSI Job No. 2404-1345 (based on Job No. 2401-1056)

Gentlemen:

Peregrine Oil & Gas contracted Fugro GeoServices, Inc. to assess seafloor and subbottom conditions at the proposed Well "A" surface location in the southeast portion of Block 64 (OCS-G-25008), West Delta (WD) Area. The survey area exists within the Louisiana South coordinate system. This letter is intended to address specific seafloor and subbottom conditions within 1,000 feet of the proposed well surface location.

Introduction

The Minerals Management Service stipulates that available geologic and geophysical data may be used for a shallow hazards analysis for each proposed drilling or platform site in an Exploration Plan (EP). This site clearance letter is issued as a supplement to a May 2001, high-resolution geophysical survey shallow hazards report by Fugro GeoServices, Inc. (FGSI Job No. 2401-1056) prepared for El Paso Production. The proposed surface location has been projected on the Bathymetry Map and Hazard Map from the original 2001 report. Fugro GeoServices, Inc. conducted the data acquisition. Senior Geologist Mark Savarino completed the geohazard interpretation and initial preparation of the shallow hazards portion of the report. All aspects of the 2001 Shallow Hazards Report and this Exploration Plan site clearance letter meet the latest Mineral Management Service guidelines. This site clearance hazard assessment was determined from the prior report interpretation and related maps, tables, and figures. An updated infrastructure base map (scale: 1"=1,000') was created that shows current man-made structures within the lease and has been included with this interpretive letter report. However, Fugro GeoServices, Inc. cannot be responsible for any debris, which may have been discarded and exist within the survey area since the 2001 survey.

Fugro GeoServices, Inc. acquired the high-resolution geophysical data aboard the *R/V Seis Surveyor* March 22-24, 2001. The survey grid consisted of thirteen (13) north-south primary tracklines (Lines 1-13) spaced 300 meters (~984 feet) apart and eight east-west oriented tielines (Lines 14-21) spaced 900 meters (~2,953 feet) apart. To ensure record quality, a few of the tracklines were rerun and have been designated with a letter suffix, therefore Line 11A is a rerun of Line 11. Each navigation fix is 12.5 meters (41 feet) apart and every tenth fix (125 meters or 410 feet) is shown on the study maps. The survey grid was designed to provide complete coverage of the seafloor with the sonar and a representative sampling with all other systems.

Geophysical instruments utilized during the survey included: Sea-Bird Electronics Seacat SBE 19-01 Velocimeter, Odom Echotrac DF-3200 Echo Sounder, O.R.E 3.5 kHz Pinger Subbottom Profiler, EdgeTech SMS 260 (100 kHz) Side Scan Sonar, GeoMetrics G801/803 Proton Magnetometer, and Seismic Systems, Inc. 90 cubic inch GI Air Gun Subbottom Profiler. Horizontal positioning of the survey vessel was accomplished with the FUGRO STARFIX® Differential Global Positioning System, which has a field accuracy of ±3 meters.

FUGRO GEOSERVICES, INC.

Peregrine Oil & Gas proposes to drill at the following surface location within Block 64, West Delta Area:

Proposed Well "A" Surface Location
497.80' FSL; 495.93' FEL
X=2,521,382.00', Y=124,332.00'
Latitude: 28° 59' 54.081"N, Longitude: 89° 42' 03.061"W

Geologic Interpretation

- The water depth at the proposed location is -144 feet with zero datum being sea level. The seafloor is generally flat with a slope toward the south-southeast at an average gradient of 9 feet/mile (0.10°). There are no topographic anomalies within 1,000 feet of the planned well surface location.
- Side scan sonar data generally displayed a smooth seafloor of light to moderate reflectivity across the survey area. Occasional water column anomalies, representing fish and shrimp were observed in the survey area. No unidentified sonar contacts were observed within 1,000 feet of the planned well location.
- Seafloor soils in the area are reported to consist of very soft to soft silty clay. Sediment cores were not obtained in conjunction with this survey and specific bottom sediments cannot be determined from the acquired data set. A site/foundation investigation utilizing sediment cores or borings is suggested to determine sediment type and precise geotechnical properties at the proposed well surface location.
- Average acoustic penetration of the subbottom profiler (pinger) data is approximately 30 feet below the seafloor. This sediment sequence consists of uneven, parallel reflectors (laminar deposits) as well as truncated reflectors. The limited penetration is primarily due to disseminated biogenic gas saturated (acoustically amorphous to transparent) deposits beneath the parallel reflectors. This low-pressure biogenic gas (mostly methane and carbon dioxide) attenuates the high frequency subbottom profiler signal and masks any deeper features such as faults, etc. The gas saturation in the sediments is a natural phenomenon in the Gulf of Mexico, which could reduce the shear strength and bearing capacity of foundation soils and possibly indicates deeper gas. No evidence of buried channels or faulting was observed.
- The air gun data depict uneven parallel reflectors of various amplitude to a depth of 3,900 feet (1.5 seconds). No faulting was observed, but several moderate amplitude seismic anomalies (possible "bright spots") were observed. None of the observed amplitude anomalies exist within 1,000 feet of the planned well location. Seismic amplitude analysis is a subjective process and all available seismic data collected in the vicinity of the proposed well location should be inspected.
- No known man-made structures or unidentified magnetic anomalies exist within 1,000 feet of the proposed well location.

Conclusions

Based on the previous referenced report and study maps, the proposed well surface location appears clear of both geologic and man-made hazards. Please refer to the Shallow Hazards Report (May 2001) for further information. We appreciate the opportunity to work with you on this project and look forward to continuing as your geohazards consultants. Please contact us (337-268-3240) if you have any questions or if we can be of further assistance.

Sincerely,

Mark Savarino

Mark Savarino
Senior Geologist

FUGRO GEOSERVICES, INC.

December 9, 2004

Peregrine Oil & Gas
Three Riverway
Suite 630
Houston, Texas 77056

Attention: Lawson Fancher

Re: **Exploration Plan - Site Clearance Letter**
Proposed Well "B" Surface Location
Block 64, West Delta Area (OCS-G-25008)
FGSI Job No. 2404-1345 (based on Job No. 2401-1056)

Gentlemen:

Peregrine Oil & Gas contracted Fugro GeoServices, Inc. to assess seafloor and subbottom conditions at the proposed Well "B" surface location in the southeast portion of Block 64 (OCS-G-25008), West Delta (WD) Area. The survey area exists within the Louisiana South coordinate system. This letter is intended to address specific seafloor and subbottom conditions within 1,000 feet of the proposed well surface location.

Introduction

The Minerals Management Service stipulates that available geologic and geophysical data may be used for a shallow hazards analysis for each proposed drilling or platform site in an Exploration Plan (EP). This site clearance letter is issued as a supplement to a May 2001, high-resolution geophysical survey shallow hazards report by Fugro GeoServices, Inc. (FGSI Job No. 2401-1056) prepared for El Paso Production. The proposed surface location has been projected on the Bathymetry Map and Hazard Map from the original 2001 report. Fugro GeoServices, Inc. conducted the data acquisition. Senior Geologist Mark Savarino completed the geohazard interpretation and initial preparation of the shallow hazards portion of the report. All aspects of the 2001 Shallow Hazards Report and this Exploration Plan site clearance letter meet the latest Mineral Management Service guidelines. This site clearance hazard assessment was determined from the prior report interpretation and related maps, tables, and figures. An updated infrastructure base map (scale: 1"=1,000') was created that shows current man-made structures within the lease and has been included with this interpretive letter report. However, Fugro GeoServices, Inc. cannot be responsible for any debris, which may have been discarded and exist within the survey area since the 2001 survey.

Fugro GeoServices, Inc. acquired the high-resolution geophysical data aboard the *R/V Seis Surveyor* March 22-24, 2001. The survey grid consisted of thirteen (13) north-south primary tracklines (Lines 1-13) spaced 300 meters (~984 feet) apart and eight east-west oriented tielines (Lines 14-21) spaced 900 meters (~2,953 feet) apart. To ensure record quality, a few of the tracklines were rerun and have been designated with a letter suffix, therefore Line 11A is a rerun of Line 11. Each navigation fix is 12.5 meters (41 feet) apart and every tenth fix (125 meters or 410 feet) is shown on the study maps. The survey grid was designed to provide complete coverage of the seafloor with the sonar and a representative sampling with all other systems.

Geophysical instruments utilized during the survey included: Sea-Bird Electronics Seacat SBE 19-01 Velocimeter, Odom Echotrac DF-3200 Echo Sounder, O.R.E 3.5 kHz Pinger Subbottom Profiler, EdgeTech SMS 260 (100 kHz) Side Scan Sonar, GeoMetrics G801/803 Proton Magnetometer, and Seismic Systems, Inc. 90 cubic inch GI Air Gun Subbottom Profiler. Horizontal positioning of the survey vessel was accomplished with the FUGRO STARFIX® Differential Global Positioning System, which has a field accuracy of ±3 meters.

FUGRO GEOSERVICES, INC.

Peregrine Oil & Gas proposes to drill at the following surface location within Block 64, West Delta Area:

Proposed Well "B" Surface Location
1,497.80' FSL; 495.93' FEL
X=2,521,382.00', Y=125,332.00'
Latitude: 29° 00' 03.979"N, Longitude: 89° 42' 08.901"W

Geologic Interpretation

- The water depth at the proposed location is -142 feet with zero datum being sea level. The seafloor is generally flat with a slope toward the south-southeast at an average gradient of 9 feet/mile (0.10°). There are no topographic anomalies within 1,000 feet of the planned well surface location.
- Side scan sonar data generally displayed a smooth seafloor of light to moderate reflectivity across the survey area. Occasional water column anomalies, representing fish and shrimp were observed in the survey area. No unidentified sonar contacts were observed within 1,000 feet of the planned well location.
- Seafloor soils in the area are reported to consist of very soft to soft silty clay. Sediment cores were not obtained in conjunction with this survey and specific bottom sediments cannot be determined from the acquired data set. A site/foundation investigation utilizing sediment cores or borings is suggested to determine sediment type and precise geotechnical properties at the proposed well surface location.
- Average acoustic penetration of the subbottom profiler (pinger) data is approximately 30 feet below the seafloor across the majority of the lease. This upper sediment sequence consists of uneven, parallel reflectors (laminar deposits) as well as truncated reflectors. The limited penetration is primarily due to disseminated biogenic gas saturated (acoustically amorphous to transparent) deposits beneath the parallel reflectors. This low-pressure biogenic gas (mostly methane and carbon dioxide) attenuates the high frequency subbottom profiler signal and masks any deeper features such as faults, etc. The gas saturation in the sediments is a natural phenomenon in the Gulf of Mexico, which could reduce the shear strength and bearing capacity of foundation soils and possibly indicates deeper gas. No evidence of buried channels or faulting was observed.
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- No known man-made structures or unidentified magnetic anomalies exist within 1,000 feet of the proposed well location.

Conclusions

Based on the previous referenced report and study maps, the proposed well surface location appears clear of both geologic and man-made hazards. Please refer to the Shallow Hazards Report (May 2001) for further information. We appreciate the opportunity to work with you on this project and look forward to continuing as your geohazards consultants. Please contact us (337-268-3240) if you have any questions or if we can be of further assistance.

Sincerely,

Mark Savarino

Mark Savarino
Senior Geologist

FUGRO GEOSERVICES, INC.

December 9, 2004

Peregrine Oil & Gas
Three Riverway
Suite 630
Houston, Texas 77056

Attention: Lawson Fancher

Re: **Exploration Plan - Site Clearance Letter**
Proposed Well "C" Surface Location
Block 64, West Delta Area (OCS-G-25008)
FGSI Job No. 2404-1345 (based on Job No. 2401-1056)

Gentlemen:

Peregrine Oil & Gas contracted Fugro GeoServices, Inc. to assess seafloor and subbottom conditions at the proposed Well "C" surface location in the west-central portion of Block 64 (OCS-G-25008), West Delta (WD) Area. The survey area exists within the Louisiana South coordinate system. This letter is intended to address specific seafloor and subbottom conditions within 1,000 feet of the proposed well surface location.

Introduction

The Minerals Management Service stipulates that available geologic and geophysical data may be used for a shallow hazards analysis for each proposed drilling or platform site in an Exploration Plan (EP). This site clearance letter is issued as a supplement to a May 2001, high-resolution geophysical survey shallow hazards report by Fugro GeoServices, Inc. (FGSI Job No. 2401-1056) prepared for El Paso Production. The proposed surface location has been projected on the Bathymetry Map and Hazard Map from the original 2001 report. Fugro GeoServices, Inc. conducted the data acquisition. Senior Geologist Mark Savarino completed the geohazard interpretation and initial preparation of the shallow hazards portion of the report. All aspects of the 2001 Shallow Hazards Report and this Exploration Plan site clearance letter meet the latest Mineral Management Service guidelines. This site clearance hazard assessment was determined from the prior report interpretation and related maps, tables, and figures. An updated infrastructure base map (scale: 1"=1,000') was created that shows current man-made structures within the lease and has been included with this interpretive letter report. However, Fugro GeoServices, Inc. cannot be responsible for any debris, which may have been discarded and exist within the survey area since the 2001 survey.

Fugro GeoServices, Inc. acquired the high-resolution geophysical data aboard the *R/V Seis Surveyor* March 22-24, 2001. The survey grid consisted of thirteen (13) north-south primary tracklines (Lines 1-13) spaced 300 meters (~984 feet) apart and eight east-west oriented tielines (Lines 14-21) spaced 900 meters (~2,953 feet) apart. To ensure record quality, a few of the tracklines were rerun and have been designated with a letter suffix, therefore Line 11A is a rerun of Line 11. Each navigation fix is 12.5 meters (41 feet) apart and every tenth fix (125 meters or 410 feet) is shown on the study maps. The survey grid was designed to provide complete coverage of the seafloor with the sonar and a representative sampling with all other systems.

Geophysical instruments utilized during the survey included: Sea-Bird Electronics Seacat SBE 19-01 Velocimeter, Odom Echotrac DF-3200 Echo Sounder, O.R.E 3.5 kHz Pinger Subbottom Profiler, EdgeTech SMS 260 (100 kHz) Side Scan Sonar, GeoMetrics G801/803 Proton Magnetometer, and Seismic Systems, Inc. 90 cubic inch GI Air Gun Subbottom Profiler. Horizontal positioning of the survey vessel was accomplished with the FUGRO STARFIX® Differential Global Positioning System, which has a field accuracy of ±3 meters.

FUGRO GEOSERVICES, INC.

Peregrine Oil & Gas proposes to drill at the following surface location within Block 64, West Delta Area:

Proposed Well "C" Surface Location
7,031.80' FSL; 3,294.07' FWL
X=2,514,722.00', Y=130,866.00'
Latitude: 29° 00' 59.691"N, Longitude: 89° 43' 23.011"W

Geologic Interpretation

- The water depth at the proposed location is -131 feet with zero datum being sea level. The seafloor is generally flat with a slope toward the south-southeast at an average gradient of 9 feet/mile (0.10°). There are no topographic anomalies within 1,000 feet of the planned well surface location.
- Side scan sonar data generally displayed a smooth seafloor of light to moderate reflectivity across the survey area. Occasional water column anomalies, representing fish and shrimp were observed in the survey area. No unidentified sonar contacts were observed within 1,000 feet of the planned well location.
- Seafloor soils in the area are reported to consist of very soft to soft silty clay. Sediment cores were not obtained in conjunction with this survey and specific bottom sediments cannot be determined from the acquired data set. A site/foundation investigation utilizing sediment cores or borings is suggested to determine sediment type and precise geotechnical properties at the proposed well surface location.
- Average acoustic penetration of the subbottom profiler (pinger) data is approximately 30 feet below the seafloor across the majority of the lease. This upper sediment sequence consists of uneven, parallel reflectors (laminar deposits) as well as truncated reflectors. The limited penetration is primarily due to disseminated biogenic gas saturated (acoustically amorphous to transparent) deposits beneath the parallel reflectors. This low-pressure biogenic gas (mostly methane and carbon dioxide) attenuates the high frequency subbottom profiler signal and masks any deeper features such as faults, etc. The gas saturation in the sediments is a natural phenomenon in the Gulf of Mexico, which could reduce the shear strength and bearing capacity of foundation soils and possibly indicates deeper gas. No evidence of buried channels or faulting was observed.
- The air gun data depict uneven parallel reflectors of various amplitude to a depth of 3,900 feet (1.5 seconds). No faulting was observed, but several moderate amplitude seismic anomalies (possible "bright spots") were observed. None of the observed amplitude anomalies exist within 1,000 feet of the planned well location. Seismic amplitude analysis is a subjective process and all available seismic data collected in the vicinity of the proposed well location should be inspected.
- No known man-made structures or unidentified magnetic anomalies exist within 1,000 feet of the proposed well location.

Conclusions

Based on the previous referenced report and study maps, the proposed well surface location appears clear of both geologic and man-made hazards. Please refer to the Shallow Hazards Report (May 2001) for further information. We appreciate the opportunity to work with you on this project and look forward to continuing as your geohazards consultants. Please contact us (337-268-3240) if you have any questions or if we can be of further assistance.

Sincerely,

Mark Savarino

Mark Savarino
Senior Geologist

FUGRO GEOSERVICES, INC.

December 9, 2004

Peregrine Oil & Gas
Three Riverway
Suite 630
Houston, Texas 77056

Attention: Lawson Fancher

Re: **Exploration Plan - Site Clearance Letter**
Proposed Well "D" Surface Location
Block 64, West Delta Area (OCS-G-25008)
FGSI Job No. 2404-1345 (based on Job No. 2401-1056)

Gentlemen:

Peregrine Oil & Gas contracted Fugro GeoServices, Inc. to assess seafloor and subbottom conditions at the proposed Well "D" surface location in the north-central portion of Block 64 (OCS-G-25008), West Delta (WD) Area. The survey area exists within the Louisiana South coordinate system. This letter is intended to address specific seafloor and subbottom conditions within 1,000 feet of the proposed well surface location.

Introduction
The Minerals Management Service stipulates that available geologic and geophysical data may be used for a shallow hazards analysis for each proposed drilling or platform site in an Exploration Plan (EP). This site clearance letter is issued as a supplement to a May 2001, high-resolution geophysical survey shallow hazards report by Fugro GeoServices, Inc. (FGSI Job No. 2401-1056) prepared for El Paso Production. The proposed surface location has been projected on the Bathymetry Map and Hazard Map from the original 2001 report. Fugro GeoServices, Inc. conducted the data acquisition. Senior Geologist Mark Savarino completed the geohazard interpretation and initial preparation of the shallow hazards portion of the report. All aspects of the 2001 Shallow Hazards Report and this Exploration Plan site clearance letter meet the latest Mineral Management Service guidelines. This site clearance hazard assessment was determined from the prior report interpretation and related maps, tables, and figures. An updated infrastructure base map (scale: 1"=1,000') was created that shows current man-made structures within the lease and has been included with this interpretive letter report. However, Fugro GeoServices, Inc. cannot be responsible for any debris, which may have been discarded and exist within the survey area since the 2001 survey.

Fugro GeoServices, Inc. acquired the high-resolution geophysical data aboard the *R/V Seis Surveyor* March 22-24, 2001. The survey grid consisted of thirteen (13) north-south primary tracklines (Lines 1-13) spaced 300 meters (~984 feet) apart and eight east-west oriented tielines (Lines 14-21) spaced 900 meters (~2,953 feet) apart. To ensure record quality, a few of the tracklines were rerun and have been designated with a letter suffix, therefore Line 11A is a rerun of Line 11. Each navigation fix is 12.5 meters (41 feet) apart and every tenth fix (125 meters or 410 feet) is shown on the study maps. The survey grid was designed to provide complete coverage of the seafloor with the sonar and a representative sampling with all other systems.

Geophysical instruments utilized during the survey included: Sea-Bird Electronics Seacat SBE 19-01 Velocimeter, Odom Echotrac DF-3200 Echo Sounder, O.R.E 3.5 kHz Pinger Subbottom Profiler, EdgeTech SMS 260 (100 kHz) Side Scan Sonar, GeoMetrics G801/803 Proton Magnetometer, and Seismic Systems, Inc. 90 cubic inch GI Air Gun Subbottom Profiler. Horizontal positioning of the survey vessel was accomplished with the FUGRO STARFIX® Differential Global Positioning System, which has a field accuracy of ±3 meters.

FUGRO GEOSERVICES, INC.

Peregrine Oil & Gas proposes to drill at the following surface location within Block 64, West Delta Area:

Proposed Well "D" Surface Location
3,657.30' FNL; 4,965.93' FEL
X=2,516,912.00', Y=141,019.00'
Latitude: 29° 02' 39.888"N, Longitude: 89° 42' 56.736"W

Geologic Interpretation

- The water depth at the proposed location is -115 feet with zero datum being sea level. The seafloor is generally flat with a slope toward the south-southeast at an average gradient of 9 feet/mile (0.10°). There are no topographic anomalies within 1,000 feet of the planned well surface location.
- Side scan sonar data generally displayed a smooth seafloor of light to moderate reflectivity across the survey area. Occasional water column anomalies, representing fish and shrimp were observed in the survey area. No unidentified sonar contacts were observed within 1,000 feet of the planned well location.
- Seafloor soils in the area are reported to consist of very soft to soft silty clay. Sediment cores were not obtained in conjunction with this survey and specific bottom sediments cannot be determined from the acquired data set. A site/foundation investigation utilizing sediment cores or borings is suggested to determine sediment type and precise geotechnical properties at the proposed well surface location.
- Average acoustic penetration of the subbottom profiler (pinger) data is approximately 30 feet below the seafloor across the majority of the lease. This upper sediment sequence consists of uneven, parallel reflectors (laminar deposits) as well as truncated reflectors. The limited penetration is primarily due to disseminated biogenic gas saturated (acoustically amorphous to transparent) deposits beneath the parallel reflectors. This low-pressure biogenic gas (mostly methane and carbon dioxide) attenuates the high frequency subbottom profiler signal and masks any deeper features such as faults, etc. The gas saturation in the sediments is a natural phenomenon in the Gulf of Mexico, which could reduce the shear strength and bearing capacity of foundation soils and possibly indicates deeper gas. No evidence of buried channels or faulting was observed.
- The air gun data depict uneven parallel reflectors of various amplitude to a depth of 3,900 feet (1.5 seconds). No faulting was observed, but several moderate amplitude seismic anomalies (possible "bright spots") were observed. An observed amplitude anomaly (874 feet below the seafloor) exists approximately 350 feet east of the planned well location. Seismic amplitude analysis is a subjective process and all available seismic data collected in the vicinity of the proposed well location should be inspected.
- No known man-made structures or unidentified magnetic anomalies exist within 1,000 feet of the proposed well location.

Conclusions

Based on the previous referenced report and study maps, the proposed well surface location appears clear of both geologic and man-made hazards. Please refer to the Shallow Hazards Report (May 2001) for further information. We appreciate the opportunity to work with you on this project and look forward to continuing as your geohazards consultants. Please contact us (337-268-3240) if you have any questions or if we can be of further assistance.

Sincerely,

Mark Savarino

Mark Savarino
Senior Geologist

FUGRO GEOSERVICES, INC.

December 9, 2004

Peregrine Oil & Gas
Three Riverway
Suite 630
Houston, Texas 77056

Attention: Lawson Fancher

Re: **Exploration Plan - Site Clearance Letter**
Proposed Well "E" Surface Location
Block 64, West Delta Area (OCS-G-25008)
FGSI Job No. 2404-1345 (based on Job No. 2401-1056)

Gentlemen:

Peregrine Oil & Gas contracted Fugro GeoServices, Inc. to assess seafloor and subbottom conditions at the proposed Well "E" surface location in the northwest portion of Block 64 (OCS-G-25008), West Delta (WD) Area. The survey area exists within the Louisiana South coordinate system. This letter is intended to address specific seafloor and subbottom conditions within 1,000 feet of the proposed well surface location.

Introduction

The Minerals Management Service stipulates that available geologic and geophysical data may be used for a shallow hazards analysis for each proposed drilling or platform site in an Exploration Plan (EP). This site clearance letter is issued as a supplement to a May 2001, high-resolution geophysical survey shallow hazards report by Fugro GeoServices, Inc. (FGSI Job No. 2401-1056) prepared for El Paso Production. The proposed surface location has been projected on the Bathymetry Map and Hazard Map from the original 2001 report. Fugro GeoServices, Inc. conducted the data acquisition. Senior Geologist Mark Savarino completed the geohazard interpretation and initial preparation of the shallow hazards portion of the report. All aspects of the 2001 Shallow Hazards Report and this Exploration Plan site clearance letter meet the latest Mineral Management Service guidelines. This site clearance hazard assessment was determined from the prior report interpretation and related maps, tables, and figures. An updated infrastructure base map (scale: 1"=1,000') was created that shows current man-made structures within the lease and has been included with this interpretive letter report. However, Fugro GeoServices, Inc. cannot be responsible for any debris, which may have been discarded and exist within the survey area since the 2001 survey.

Fugro GeoServices, Inc. acquired the high-resolution geophysical data aboard the *R/V Seis Surveyor* March 22-24, 2001. The survey grid consisted of thirteen (13) north-south primary tracklines (Lines 1-13) spaced 300 meters (~984 feet) apart and eight east-west oriented tielines (Lines 14-21) spaced 900 meters (~2,953 feet) apart. To ensure record quality, a few of the tracklines were rerun and have been designated with a letter suffix, therefore Line 11A is a rerun of Line 11. Each navigation fix is 12.5 meters (41 feet) apart and every tenth fix (125 meters or 410 feet) is shown on the study maps. The survey grid was designed to provide complete coverage of the seafloor with the sonar and a representative sampling with all other systems.

Geophysical instruments utilized during the survey included: Sea-Bird Electronics Seacat SBE 19-01 Velocimeter, Odom Echotrac DF-3200 Echo Sounder, O.R.E 3.5 kHz Pinger Subbottom Profiler, EdgeTech SMS 260 (100 kHz) Side Scan Sonar, GeoMetrics G801/803 Proton Magnetometer, and Seismic Systems, Inc. 90 cubic inch GI Air Gun Subbottom Profiler. Horizontal positioning of the survey vessel was accomplished with the FUGRO STARFIX® Differential Global Positioning System, which has a field accuracy of ±3 meters.

FUGRO GEOSERVICES, INC.

Peregrine Oil & Gas proposes to drill at the following surface location within Block 64, West Delta Area:

Proposed Well "E" Surface Location
486.30' FNL; 892.07' FWL
X=2,512,320.00', Y=144,190.00'
Latitude: 29° 03' 11.916"N, Longitude: 89° 43' 47.960"W

Geologic Interpretation

- The water depth at the proposed location is -109 feet with zero datum being sea level. The seafloor is generally flat with a slope toward the south-southeast at an average gradient of 9 feet/mile (0.10°). There are no topographic anomalies within 1,000 feet of the planned well surface location.
- Side scan sonar data generally displayed a smooth seafloor of light to moderate reflectivity across the survey area. Occasional water column anomalies, representing fish and shrimp were observed in the survey area. No unidentified sonar contacts were observed within 1,000 feet of the planned well location.
- Seafloor soils in the area are reported to consist of very soft to soft silty clay. Sediment cores were not obtained in conjunction with this survey and specific bottom sediments cannot be determined from the acquired data set. A site/foundation investigation utilizing sediment cores or borings is suggested to determine sediment type and precise geotechnical properties at the proposed well surface location.
- Average acoustic penetration of the subbottom profiler (pinger) data is approximately 30 feet below the seafloor across the majority of the lease. This upper sediment sequence consists of uneven, parallel reflectors (laminar deposits) as well as truncated reflectors. The limited penetration is primarily due to disseminated biogenic gas saturated (acoustically amorphous to transparent) deposits beneath the parallel reflectors. This low-pressure biogenic gas (mostly methane and carbon dioxide) attenuates the high frequency subbottom profiler signal and masks any deeper features such as faults, etc. The gas saturation in the sediments is a natural phenomenon in the Gulf of Mexico, which could reduce the shear strength and bearing capacity of foundation soils and possibly indicates deeper gas. No evidence of buried channels or faulting was observed.
- The air gun data depict uneven parallel reflectors of various amplitude to a depth of 3,900 feet (1.5 seconds). No faulting was observed, but several moderate amplitude seismic anomalies (possible "bright spots") were observed. None of the observed amplitude anomalies exist within 1,000 feet of the planned well location. Seismic amplitude analysis is a subjective process and all available seismic data collected in the vicinity of the proposed well location should be inspected.
- No known man-made structures or unidentified magnetic anomalies exist within 1,000 feet of the proposed well location.

Conclusions

Based on the previous referenced report and study maps, the proposed well surface location appears clear of both geologic and man-made hazards. Please refer to the Shallow Hazards Report (May 2001) for further information. We appreciate the opportunity to work with you on this project and look forward to continuing as your geohazards consultants. Please contact us (337-268-3240) if you have any questions or if we can be of further assistance.

Sincerely,

Mark Savarino

Mark Savarino
Senior Geologist

APPENDIX D
BIOLOGICAL AND PHYSICAL INFORMATION

CHEMOSYNTHETIC INFORMATION

This EP does not propose activities that could disturb seafloor areas in water depths of 400 meters (1312 feet) or greater; therefore, chemosynthetic information is not required.

TOPOGRAPHIC FEATURES INFORMATION

The activities proposed in this plan will not take place within 500 feet of any identified topographic feature; therefore, topographic features information is not required.

LIVE BOTTOM (PINNACLE TREND) INFORMATION

West Delta Block 64 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.

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).

Discharge information is not required per NTL No. 2003-G17.

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
Trash and debris	1,000 ft^3	3 ft^3 /day	Waste Management, Carlyss, Louisiana	Transport in storage bins on crew boat to shorebase; truck to landfill

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

APPENDIX F
OIL SPILL INFORMATION

1. Site-Specific OSRP N/A

2. Regional OSRP Information

Peregrine Oil & Gas, L.P.'s Regional Oil Spill Response Plan (OSRP) will be submitted on or before December 22, 2004. Activities proposed in this EP will be covered by the Regional OSRP.

3. OSRO Information

Peregrine'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.

4. Worst-Case Scenario Comparison

Category	Regional OSRP WCD	EP WCD
Type of Activity	Exploratory Drilling	Exploratory Drilling
Facility Location (Area/Block)	WD64	WD 64
Facility Designation	Well Locations A, B, C, D & E	Well Locations A, B, C, D & E
Distance to Nearest Shoreline (miles)	19	19
Volume Storage tanks (total) Uncontrolled blowout Total Volume	 NA 100 100	 NA 100 100
Type of Oil(s) (crude, condensate, diesel)	Condensate	Condensate
API Gravity	45°	45°

Peregrine has determined that the worst-case scenario from the activities proposed in this EP do not supercede the worst-case scenario from our approved regional OSRP for exploratory activities.

Since Peregrine has the capability to respond to the worst-case spill scenario included in our regional OSRP approved on or before December 22, 2004, and since the worst-case scenario determined for our EP does not replace the worst-case scenario in our regional OSRP, I hereby certify that Peregrine has the capability to respond, to the maximum extent practicable, to a worst-case discharge, or a substantial threat of such a discharge, resulting from the activities proposed in our EP.

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)	Jack-up	1418	2	2836	32.4°
Production	NA	NA	NA	NA	NA

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)	13.86	632.70	13.86
Sulphur dioxide (SO_2)	63.58	632.70	63.58
Nitrogen oxides (NO_x)	476.43	632.70	476.43
Volatile organic compounds (VOC)	14.29	632.70	14.29
Carbon Monoxide (CO)	103.95	24209.25	103.95

[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.

This information was calculated by: Cathy Thornton
(281) 578-3388
cathy.thornton@jccteam.com

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

APPENDIX H
ENVIRONMENTAL IMPACT ANALYSIS (EIA)

(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:
   - o 4-mile zone of the Flower Garden Banks, or the 3-mile zone of Stetson Bank;
   - o 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;
   - o Essential Fish Habitat (EFH) criteria of 500 ft. from any no-activity zone; or
   - o 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 West Delta Block 64

Proposed operations consist of the drilling and completion of Well Locations A, B, C, D, and E; and installation of well protector structures over each proposed location.

1. Designated Topographic Features

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

Physical disturbances to the seafloor: West Delta Block 64 is 28 miles from the closest designated Topographic Features Stipulation Block (Sackett Bank); therefore, no adverse impacts are expected.

Effluents: West Delta Block 64 is 28 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 Peregrine'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: West Delta Block 64 is 76 miles from the closest live bottom (pinnacle trend) area; therefore, no adverse impacts are expected.

Effluents: West Delta Block 64 is 76 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 Peregrine'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: West Delta Block 64 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: West Delta Block 64 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 Peregrine'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

There are no IPFs (including emissions, physical disturbances to the seafloor, wastes sent to shore for disposal, or accidents) from the proposed activities that could cause impacts to chemosynthetic communities.

Operations proposed in this plan are in water depths of 144 feet. High-density chemosynthetic communities are found only in water depths greater than 1,312 feet (400 meters); therefore, Peregrine's proposed operations in West Delta Block 64 would not cause impacts to chemosynthetic communities.

5. Water Quality

IPFs that could result in water quality degradation from the proposed operations in West Delta Block 64 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 Peregrine'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 West Delta Block 64 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 Peregrine'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 West Delta Block 64 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).

Peregrine 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 Peregrine'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 Peregrine'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). Peregrine 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 Peregrine'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

West Delta Block 64 is located 75 miles from the Breton Wilderness Area and 19 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 West Delta Block 64 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 West Delta Block 64 include disturbances to the seafloor. West Delta Block 64 is not located in or adjacent to an OCS block designated by MMS as having a high probability for occurrence of shipwrecks. Peregrine 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 West Delta Block 64 include disturbances to the seafloor (structure emplacement) and accidents (oil spill). West Delta Block 64 is located outside the Archaeological Prehistoric high probability line. Peregrine 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 Peregrine'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 West Delta Block 64 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 Peregrine'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 Peregrine'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). Peregrine 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 (19 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 Peregrine'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). Peregrine 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

Salt marshes and seagrass beds fringe the coastal areas of the Gulf of Mexico. Due to the distance from shore (19 miles), accidents (oil spills) represent an IPF which could impact these resources.

Accidents: Level of impact from an oil spill will depend on oil concentrations contacting vegetation, kind of oil spilled, types of vegetation affected, season of the year, pre-existing stress level of the vegetation, soil types, and numerous other factors. Light-oiling impacts will cause plant die-back with recovery within two growing seasons without artificial replanting. However, it is unlikely that an oil spill would occur from the proposed activities (refer to **Item 5**, Water quality). If a spill were to occur, response capabilities as outlined in Peregrine's Regional OSRP (refer to information submitted in Appendix F) would be implemented.

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 wetlands.

3. Shore Birds and Coastal Nesting Birds

Breton Wilderness Area NWR (75 miles from West Delta Block 64) is a highly productive habitat for wildlife. Thousands of shore birds use the refuge as a wintering area. Also, wading birds nest on the refuge. The Breton Wilderness Area NWA provides habitat for colonies of nesting wading birds and seabirds as well as wintering shorebirds and waterfowl. The most abundant nesters are brown pelicans, laughing gulls, and royal, Caspian, and sandwich terns. IPFs from the proposed activities that could cause impacts to shore birds and coastal nesting birds are accidents (oil spills) and discarded trash and debris.

Accidents: Oil spills could cause impacts to shore birds and coastal nesting birds. The birds most vulnerable to direct effects of oiling include those species that spend most of their time swimming on and under the sea surface, and often aggregate in dense flocks (Piatt et al., 1990; Vauk et al., 1989). Coastal birds, including shorebirds, waders, marsh birds, and certain water fowl, may be the hardest hit indirectly through destruction of their feeding habitat and/or food source (Hansen, 1981; Vermeer and Vermeer, 1975). Direct oiling of coastal birds and certain seabirds is usually minor; many of these birds are merely stained as a result of their foraging behaviors. Birds can ingest oil when feeding on contaminated food items or drinking contaminated water.

Oil-spill cleanup operations will result in additional disturbance of coastal birds after a spill. 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 being 19 miles, Peregrine would immediately implement the response capabilities outlined in their 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). Peregrine 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: West Delta Block 64 is approximately 75 miles from the Breton Wilderness Area NWR. Management goals of the Breton Wilderness Area NWR are waterfowl habitat management, marsh restoration, providing sanctuary for nesting and wintering seabirds, and providing sandy beach habitat for a variety of wildlife species. IPFs from the proposed activities that could cause impacts to this coastal wildlife refuge are accidents (oil spills) and discarded trash and debris.

Impacts to shore birds and coastal nesting birds and to the beach, was covered in previous sections. Other wildlife species found on the refuges include nutria, rabbits, raccoons, alligators, and loggerhead turtles. Impacts to loggerhead turtles were also covered under a previous section.

It is unlikely that an oil spill would occur from the proposed activities (refer to **Item 5**, Water quality). Response capabilities would be implemented, no impacts are expected. The activities proposed in this plan will be covered by Peregrine'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 (75 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 Peregrine'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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Balazs, G.H. 1985. Impact of ocean debris on marine turtles: entanglement and ingestion. In: Shomura, R.S. and H.O. Yoshida, eds. Proceedings, Workshop on the Fate and Impact of Marine Debris, 26-29 November 1984, Honolulu, HI. U.S. Dept. of Commerce. NOAA Tech. Memo. NOAA-TM-NMFS-SWFC-54. Pp 387-429.

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Vermeer, K. and R. Vermeer, 1975 Oil threat to birds on the Canadian west coast. The Canadian Field-Naturalist. 89:278-298.

Although not cited, the following were utilized in preparing this EIA:

- Hazard Surveys
- MMS EIS's:
  - GOM Deepwater Operations and Activities. Environmental Assessment. MMS 2000-001
  - GOM Central and Western Planning Areas Sales 166 and 168 Final Environmental Impact Statement. MMS 96-0058

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

WEST DELTA BLOCK 64

OCS-G 25008

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)

Peregrine Oil & Gas, L.P.
Lessee or Operator

Certifying Official

December 21, 2004
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:	Peregrine Oil & Gas, L.P.			MMS Operator Number:	2777
Address:	3 Riverway Suite 630 Houston, Texas		Contact Person:	Cathy Thornton	
			Phone Number:	(281) 578-3388	
			Email Address:	cathy.thornton@jccteam.com	
Lease: G25008	Area: West Delta		Block: 64	Project Name (If Applicable):	Not Applicable
Objective(s): ☐Oil ☒Gas ☐Sulphur ☐Salt			Onshore Base: Fourchon, LA	Distance to Closest Land (Miles): 19	

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 my MMS?		Yes	X	No

Tentative Schedule of Proposed Activities

Proposed Activity	Start Date	End Date	No. of Days
Drill and Complete Well Location A – Install Well Protector Structure	02/01/05	03/17/05	45
Drill and Complete Well Location B – Install Well Protector Structure	03/18/05	05/01/05	45
Drill and Complete Well Location C – Install Well Protector Structure	05/02/05	06/15/05	45
Drill and Complete Well Location D – Install Well Protector Structure	01/01/06	02/14/06	45
Drill and Complete Well Location E – Install Well Protector Structure	02/15/06	03/31/06	45

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 (Describe)	☐ Subsea manifold	☐ Floating production system
☐ Drilling Rig Name (If Known):		☐ Spar	☐ Other (Attach description)

Description of Lease Term Pipelines

From (Facility/Area/Block)	T0 (Facility/Area/Block)	Diameter (inches)	Length (Feet)	Product

Proposed Well/Structure Location						
Well or Structure Name/Number: Location A				Subsea Completion	☐ Yes	☒ No
Anchor Radius (if applicable) in feet: N/A						
	Surface Location			**Bottom-Hole Location (For Wells)**		
Lease No.	OCS-G 25008					
Area Name	West Delta					
Block No.	64					
Blockline Departures (in feet)	N/S Departure: 497.80' FSL					
	E/W Departure: 495.93' FEL					
Lambert X-Y coordinates	X = 2,521,382.00'					
	Y = 124,332.00'					
Latitude/ Longitude	Latitude: 28° 59' 54.081"					
	Longitude: 89° 42' 09.061"					
	TVD (Feet):		MD (Feet):		Water Depth (Feet):	144'

Proposed Well/Structure Location							
Well or Structure Name/Number: Location B					Subsea Completion	☐ Yes	☒ No
Anchor Radius (if applicable) in feet: N/A							
	Surface Location				**Bottom-Hole Location (For Wells)**		
Lease No.	OCS-G 25008						
Area Name	West Delta						
Block No.	64						
Blockline Departures (in feet)	N/S Departure: 1497.80' FSL						
	E/W Departure: 495.93' FEL						
Lambert X-Y coordinates	X = 2,521,382.00'						
	Y = 125,332.00'						
Latitude/ Longitude	Latitude: 29° 00' 03.979"						
	Longitude: 89° 42' 08.901"						
	TVD (Feet):		MD (Feet):		Water Depth (Feet):	142'	

Proposed Well/Structure Location							
Well or Structure Name/Number: Location C					Subsea Completion	☐ Yes	☒ No
Anchor Radius (if applicable) in feet: N/A							
	Surface Location				**Bottom-Hole Location (For Wells)**		
Lease No.	OCS-G 25008						
Area Name	West Delta						
Block No.	64						
Blockline Departures (in feet)	N/S Departure: 7031.80' FSL						
	E/W Departure: 3294.07' FWL						
Lambert X-Y coordinates	X = 2,514,722.00'						
	Y = 130,866.00'						
Latitude/ Longitude	Latitude: 29° 00' 59.691"						
	Longitude: 89° 43' 23.011"						
	TVD (Feet):		MD (Feet):		Water Depth (Feet):	131'	

Proposed Well/Structure Location							
Well or Structure Name/Number: Location D					Subsea Completion	☐ Yes	☒ No
Anchor Radius (if applicable) in feet: N/A							
	Surface Location				**Bottom-Hole Location (For Wells)**		
Lease No.	OCS-G 25008						
Area Name	West Delta						
Block No.	64						
Blockline Departures (in feet)	N/S Departure: 3657.30' FNL						
	E/W Departure: 4965.93' FEL						
Lambert X-Y coordinates	X = 2,516,912.00'						
	Y = 141,019.00'						
Latitude/ Longitude	Latitude: 29° 02' 39.888"						
	Longitude: 89° 42' 56.736"						
	TVD (Feet):		MD (Feet):		Water Depth (Feet):	115'	

Proposed Well/Structure Location						
Well or Structure Name/Number: Location E					Subsea Completion	☐ Yes ☒ No
Anchor Radius (if applicable) in feet: N/A						
	Surface Location				**Bottom-Hole Location (For Wells)**	
Lease No.	OCS-G 25008					
Area Name	West Delta					
Block No.	64					
Blockline Departures (in feet)	N/S Departure: 486.30' FNL					
	E/W Departure: 892.07' FWL					
Lambert X-Y coordinates	X = 2,512,320.00'					
	Y = 144,190.00'					
Latitude/ Longitude	Latitude: 29° 03' 11.916"					
	Longitude: 89° 43' 47.960"					
	TVD (Feet):		MD (Feet):		Water Depth (Feet):	109'