UNITED STATES GOVERNMENT
MEMORANDUM

February 24, 2005

To: Public Information (MS 5034)

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

Subject: Public Information copy of plan

Control #	-	N-08348
Type	-	Initial Development Operations Coordinations Document
Lease(s)	-	OCS-G14482 Block - 346 Eugene Island Area OCS-G21647 Block - 345 Eugene Island Area
Operator	-	Apache Corporation
Description	-	Well A
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.

Robert Stringfellow
Plan Coordinator

Site Type/Name	Botm Lse/Area/Blk	Surface Location	Surf Lse/Area/Blk
FIXED/A		3298 FNL, 3543 FWL	G14482/EI/346
WELL/A	G21647/EI/345	3298 FNL, 3543 FWL	G14482/EI/346

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NOTED-SCHEXNAILDRE

2000 POST OAK BOULEVARD / SUITE 100 / HOUSTON, TEXAS 77056-4400 CORPORATION

(713) 296 6000
WWW.APACHECORP.COM

February 18, 2005

CONTROL No. N-8348
REVIEWER: Robert Stringfellow
PHONE: (504) 736-2437

MINERALS MANAGEMENT SERVICE
RECEIVED
FEB 22 2005
FIELD OPERATIONS
Plans Section, GOM OCS Region, New Orleans, LA

Mr. Donald C. Howard
Regional Supervisor
Office of Field Operations
U.S. Department of the Interior
Minerals Management Service
1201 Elmwood Park Boulevard
New Orleans, LA 70123-2394

Attention: Mr. Nick Wetzel

RE: Initial Development Operations Coordination Document
Lease OCS-G 21647, Eugene Island Block 345
OCS Federal Waters, Gulf of Mexico, Offshore, Louisiana

Gentlemen:

Apache Corporation (Apache) hereby submits to your office an Initial Development Operations Coordination Document for Lease OCS-G 21647, Eugene Island Block 345, Offshore, Louisiana.

This lease is due to expire on June 30, 2005. It is highly possible that Apache will have a rig available to drill this well as early as April 5, 2005. Therefore, your expedient review and approval of the subject plan would be greatly appreciated.

Should you have any questions or require any additional information, please contact Cheryl Powell, J. Connor Consulting, Inc. at (281) 578-3388.

Sincerely,

Darrell Donaldson, Jr.

Darrell Donaldson
Senior Staff Landman

DD:CRP

PUBLIC COPY
February 18, 2005

INITIAL DEVELOPMENT OPERATIONS COORDINATION DOCUMENT

Lease Number (s):	OCS-G 21647
Area/Block:	Eugene Island Block 345
Prospect Name:	N/A
Offshore:	Louisiana

Submitted by:

Apache Corporation
2000 Post Oak Blvd.
Suite 100
Houston, Texas 77056

Darrell Donaldson
(713) 296-6000
Darrell.donaldson@apachecorp.com

Estimated start up date: April 5, 2005

Authorized Representative:
Cheryl Powell
J. Connor Consulting, Inc.
16225 Park Ten Place, Suite 700
Houston, Texas 77084
(281) 578-3388
cheryl.powell@jccteam.com

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

For MMS:
Plan No. _____
Assigned to: _____

APACHE CORPORATION

INITIAL

DEVELOPMENT OPERATIONS COORDINATON DOCUMENT

LEASE OCS-G 21647

EUGENE ISLAND BLOCK 345

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

APPENDIX A
CONTENTS OF PLAN

Apache Corporation (Apache) is in the process of becoming the designated operator of the subject oil and gas lease.

(A) DESCRIPTION, OBJECTIVES AND SCHEDULE

This DOCD provides for the drilling and completion of one well off of the existing A platform in Eugene Island Block 346 and commencement of production from the target sands as detailed in Appendix C of this DOCD.

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

(B) LOCATION

Included as ***Attachment A-1*** is a map showing the proposed locations of wells and facilities A bathymetry map has been previously submitted. Additional well information is included in Appendix J, on the Plan Information Form.

(C) DRILLING UNIT

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

Safety features on the drilling unit will include well control, pollution prevention, welding procedures, 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.

Apache will ensure employees and contractor personnel engaged in well control or production safety operations understand and can properly perform their duties.

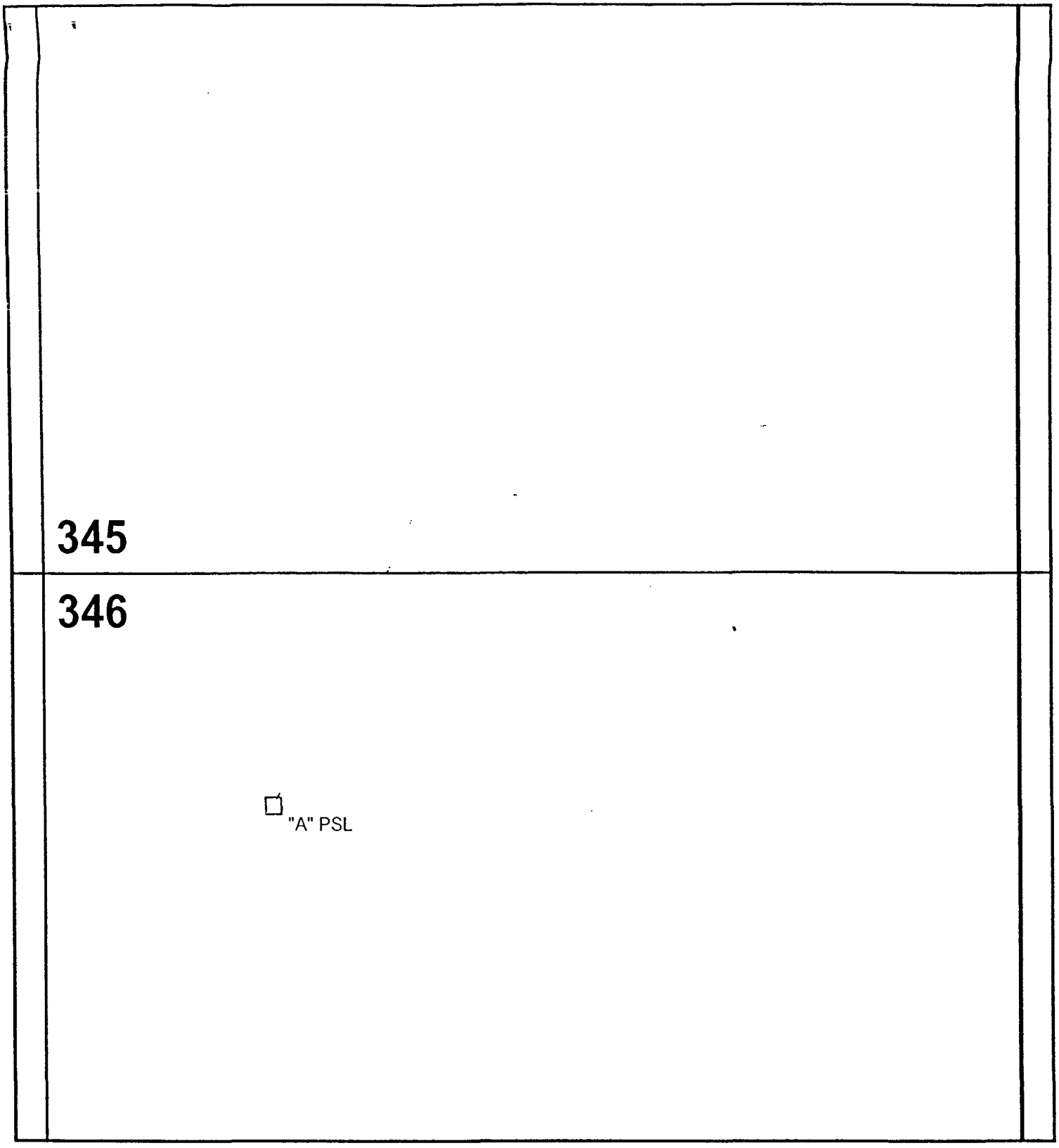
Pollution prevention measures include installation of curbs, gutters, drip pans, and drains on drilling deck areas to collect all contaminants and debris.

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

(D) PRODUCTION FACILITIES

The subject well will be protected by the existing 4-pile A platform in Eugene Island Block 346. A schematic of the existing structure has been previously submitted.

Produced gas will flow via the existing 16" pipeline to the A platform in Eugene Island Block 327 and produced oil will flow via the existing 8" pipeline to a subsea tie-in location in Eugene Island Block 369.



ATTACHMENT A-1

"A" PSL El 346
X=1,988,520.88'
Y=-182,861.33'
3543.10' FWL
3298.09' FNL
Lat 28°09' 49.97"
Lng 91°21' 41.40"

0 2000' 4000'

Apache
CORPORATION
OFFSHORE REGION

EUGENE ISLAND BLOCKS 345/346
OFFSHORE LOUISIANA

DOCD
Proposed Well "A"
SURFACE & BOTTOMHOLE

CONTOUR INTERVAL:	DATE: 02-09-05
INTERPRETATION BY:	DRAFTED BY: EJ
SCALE: 1"=2000'	APPROVED BY: N/A
AREA: Eugene Island	FILE: e:\345346docd_plts_psb.dwg

1. Was the structure installed within the last 5 years? **Yes** If so, do your proposed activities require a structural modification that would increase loading on the structure beyond the original design? ***No***
2. Will the structure change from unmanned to manned? ***No***
3. Are you adding facilities to the structure which will result in 10% or greater change from original design parameters? ***No***
4. Will your proposed activities increase loading on structure resulting in 10% or greater change from original design parameters? ***No***
5. Is your deck height adequate according to API RP2A-WSD Section 17.2.4? ***Yes***
6. Has the structure undergone an annual topsides inspection? Was any damage discovered by this inspection? ***No***
7. Has the structure undergone an underwater inspection within the last 5 years? **Yes** Was any damage discovered by this inspection? ***No***

APPENDIX B
GENERAL INFORMATION

(A) CONTACT

Inquiries may be made to the following authorized representative:

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

(B) PROJECT NAME

Not applicable

(C) PRODUCTION RATES AND LIFE OF RESERVOIR

Type of Production	Average Estimated Rates	Estimated Peak
1) Crude Oil		
2) Gas		
3) Condensate		
Estimated Life of the Reservoir =		

(D) NEW OR UNUSUAL TECHNOLOGY

Apache does not propose to use any new or unusual technology to carry out the proposed development/production 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.

(E) BONDING INFORMATION

The bond requirements for the activities and facilities proposed in this DOCD are satisfied by an area wide bond, furnished and maintained according to 30 CFR 256, subpart I; NTL No. N2000-G16, "Guidelines for General Lease Surety Bonds", dated September 7, 2000.

(F) ONSHORE BASE AND SUPPORT VESSELS

A Vicinity Map is included as ***Attachment B-1*** showing Eugene Island Block 345 located approximately 65 miles from the nearest shoreline and approximately 95 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	
	Drilling & Completion	Production Operations
Crew Boat	3	N/A
Supply Boat	3	1
Helicopter	3	As needed

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

(G) LEASE STIPULATIONS

The following lease stipulations are attached to OCS-G 21647, Eugene Island Block 345.

1. Military Warning Area (MWA)

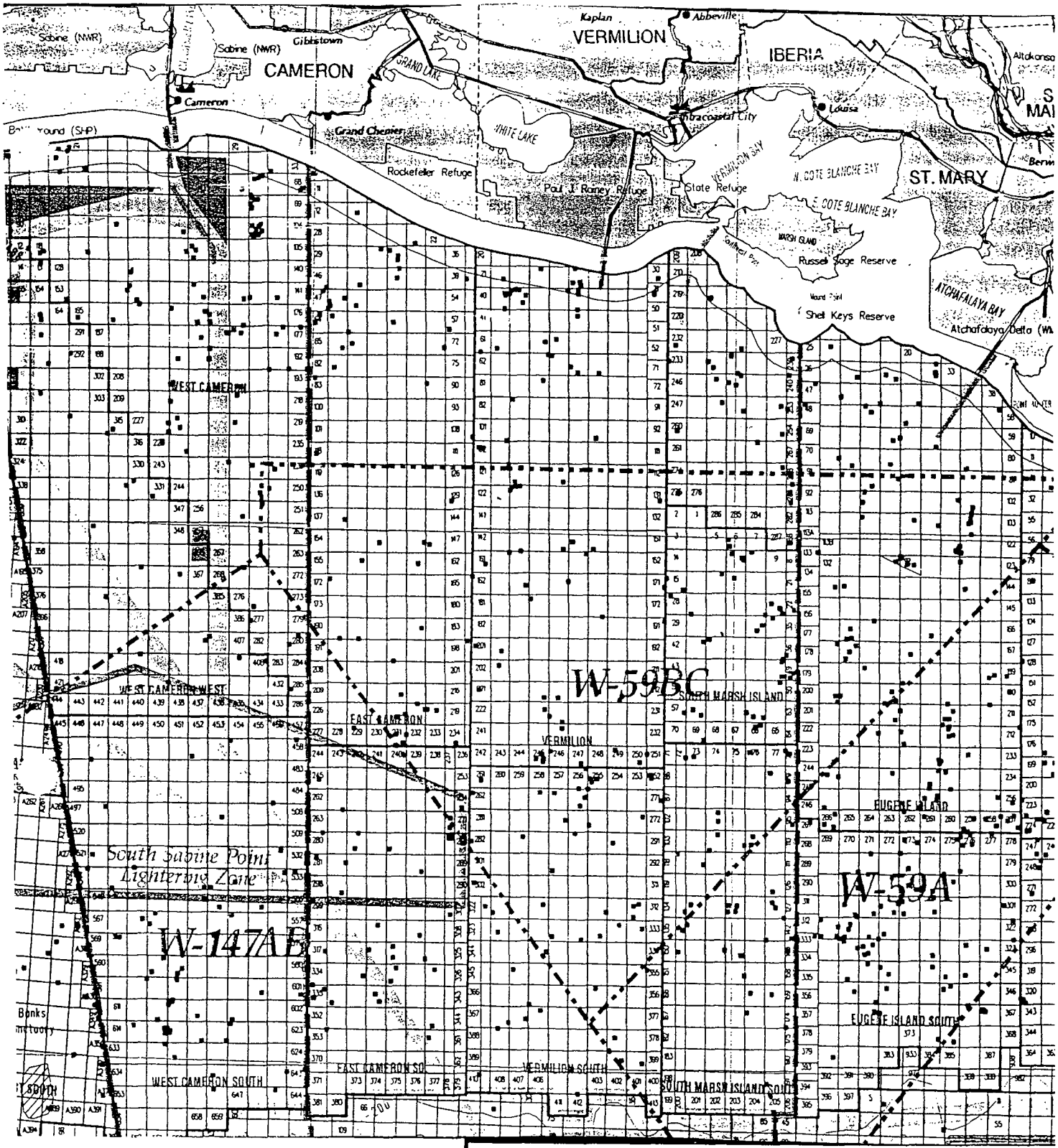
Eugene Island Block 345 is located within designated MWA-59A. The Naval Air Station will be contacted in order to coordinate and control the electromagnetic emissions during the proposed operations.

(H) RELATED OCS FACILITIES AND OPERATIONS

The existing A platform in Eugene Island Block 346 processes production from the existing wells and will also process production from the proposed well in Eugene Island Block 345. There are not any pipelines proposed under this plan.

(I) TRANSPORTATION INFORMATION

The gas is metered and transported from the existing A platform via a 16" existing gas pipeline to the existing A platform in Eugene Island Block 327. The oil is metered and transported via an existing 8" pipeline to a subsea tie-in location in Eugene Island Block 369.



Apache Corporation

Eugene Island Block 345/346

VICINITY MAP

Eugene Island Block 345 is located approximately 65 miles from the nearest shoreline and 95 miles from the onshore support base located in Fourchon, Louisiana.

ATTACHMENT B-1

APPENDIX C
GEOLOGICAL, GEOPHYSICAL, AND H_2S INFORMATION

(A) STRUCTURE CONTOUR MAPS

(B) TRAPPING FEATURES –

(C) DEPTH OF GEOPRESSURE –

(D) INTERPRETED 2-D AND/OR 3-D SEISMIC LINES
MMS approved the surface location of the proposed well in a previously submitted EP/DOCD; therefore, this information is not being submitted.

(E) GEOLOGICAL STRUCTURE CROSS-SECTIONS

(F) SHALLOW HAZARDS REPORT
A shallow hazards survey was conducted over Eugene Island Block 346.

A Shallow Hazards Report was previously submitted to MMS.

(G) SHALLOW HAZARDS ASSESSMENT
The proposed operations will be conducted from an MMS approved surface location; therefore, a shallow hazards assessment is not being provided.

(H) HIGH-RESOLUTION SEISMIC LINES
The proposed operations will be conducted from a previously approved surface location; therefore high-resolution seismic lines are not being submitted.

(I) STRATIGRAPHIC COLUMN

(J) HYDROGEN SULFIDE INFORMATION
In accordance with Title 30 CFR 250.417(c), Apache requests that Eugene Island Block 345 be classified by the MMS as H_2S absent.

APPENDIX D
BIOLOGICAL AND PHYSICAL INFORMATION

CHEMOSYNTHETIC INFORMATION

This DOCD 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

Eugene Island Block 345 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 Development Operation Coordination Document 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.

Waste and Discharges Information

Disposal Table Example (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
Waste Oil	3.43 bbl/yr	0.009 bbl/day	Fourchon, Louisiana	Pack in drums and transport to an onshore Incineration site
Trash and debris	9270 $ft^{3/yr}$	25.4 ft^3 /day	BFI, Fourchon, LA	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

Apache Corporation's Regional Oil Spill Response Plan (OSRP) was approved on September 23, 2004 and the last amendment was approved on September 22, 2004. Activities proposed in this DOCD will be covered by the Regional OSRP.

3. OSRO INFORMATION

Apache'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	DOCD WCD
Type of Activity	Production	Production
Facility Location	MP 140	EI 346
Facility Designation	Platform B	Platform A
Distance to Nearest Shoreline (miles)	12	65
Volume Storage tanks (total) Flowlines (on facility) Lease pipelines Uncontrolled blowout Total Volume	 5625 1325 1500 8450	 1400 200 100 1700
Type of Oil(s) (crude, condensate, diesel)	Crude	Crude
API Gravity	30°	28°

Apache has determined that the worst-case scenario from the activities proposed in this DOCD does not supercede the worst-case scenario from our approved regional OSRP for for far-shore activities.

Since Apache has the capability to respond to the worst-case spill scenario included in its regional OSRP approved on September 23, 2003, and since the worst-case scenario determined for our DOCD does not replace the worst-case scenario in our regional OSRP, I hereby certify that Apache 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 DOCD.

5. FACILITY TANKS, PRODUCTION VESSELS

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 rig	4688	1	4688	32.4°
Production	Platform	670	2	1340	28°

6. SPILL RESPONSE SITES

Primary Response Equipment Location	Preplanned Staging Location
Houma, LA	Fourchon, LA

7. DIESEL OIL SUPPLY VESSELS

a. Size of fuel supply vessel:	140'
b. Carrying capacity of fuel supply vessel:	27000 gallons
c. Frequency of fuel transfers:	Quarterly
d Route fuel supply vessel will take:	Fourchon, Louisiana to Eugene Island Block 346, A platform

8. SUPPORT VESSELS FUEL TANKS

The estimated total storage capacity (maximum per class of vessel in the field at any given time) of fuel tanks on the vessels supporting activities in this Plan are as follows:

Type of Vessels	Number in Field Simultaneously	Estimated Maximum Fuel Tank Storage Capacity
b. Supply Vessels	1	27000 gallons
b. Crew Vessels	1	8000 gallons

9. PRODUCED LIQUID HYDROCARBONS TRANSPORTATION VESSELS

Apache does not propose transfer of stored production and/or hydrocarbons from well testing activities under this DOCD.

10. OIL- AND SYNTHETIC-BASED DRILLING FLUIDS

Apache does not propose the use of oil or synthetic based drilling fluids for this DOCD.

11. BLOWOUT SCENARIO

Should a blowout occur, the formation types present in the GOM tend to bridge over in most cases. If the wellhead and BOP system is still in tact, wellbore intervention should be possible in as little as 7 to 10 days. In a relief well scenario, rig availability is typically not an issue. The time required to drill a relief well would be in the 10 - 14 day range depending on the well intersection depth.

13. SPILL RESPONSE DISCUSSION FOR NEPA ANALYSIS

SPILL RESPONSE DISCUSSION

For the purpose of NEPA and Coastal Zone Management Act analysis, the largest spill response originating from the proposed activity would be the loss of the largest single fuel tank on the drilling rig, which is 4,688 barrels of diesel fuel with an API gravity of 32.4°. For the purpose of this discussion, the spill site is the surface location in EI 346.

Land Segment and Resource Identification

Trajectories of a spill and the probability of it impacting a land segment have been projected utilizing information in MMS Oil Spill Risk Analysis Model (OSRAM) for the Central and Western Gulf of Mexico available on MMS website. The results are shown in Figure F-1.

The MMS OSRAM identifies a 11% probability of impact to the shorelines of Cameron Parish, Louisiana within thirty days. Cameron Parish includes the east side of Sabine Lake, Sabine National Wildlife Refuge, Calcasieu Lake, Lacassine National Wildlife Refuge (inland) and Grand Lake; along the Gulf beach from Sabine Pass to Big Constance Lake in Rockefeller Wildlife Refuge. This region is composed of open public beaches, marshlands and swamps. It

serves as a habitat for numerous birds, finfish and other animals, including several rare, threatened and endangered species. Additional discussion of protection strategies for potentially affected resources is included in Apache's Regional Oil Spill Response Plan.

Response

Apache will make every effort to respond to the Worst Case Discharge as effectively as possible. A description of the response equipment available to contain and recover the Worst Case Discharge is shown in Figure F-2.

Using the estimated chemical and physical characteristics of diesel fuel, an ADIOS weathering model was run on a similar product from the ADIOS oil database. The results indicate 54% of the product would be evaporated/dispersed within 12 hours, leaving approximately 2,157 barrels on the water.

Figure F-2 outlines equipment, personnel, materials and support vessels as well as temporary storage equipment to be considered in order to cope with an initial spill of 4,688 bbls. The list estimates individual times needed for procurement, load out, travel time to the site and deployment. If appropriate, 4 sorties (8,000 gallons) from the DC-4 and 3 sorties (3,000 gallons) from the DC-3 should disperse approximately 4,714 barrels of oil.

Offshore response strategies may also include attempting to skim utilizing the HOSS Barge and two FRUs with a total derated skimming capacity of 49,800 barrels. Temporary storage associated with the identified skimming equipment equals 4,530 barrels. If additional temporary storage is needed, a temporary storage barge may be mobilized. **SAFETY IS FIRST PRIORITY. AIR MONITORING WILL BE ACCOMPLISHED AND OPERATIONS DEEMED SAFE PRIOR TO ANY CONTAINMENT/SKIMMING ATTEMPTS**

If the spill went unabated, shoreline impact in coastal environments would depend upon existing environmental conditions. Onshore response may include the deployment of shoreline boom on beach areas, or protection and sorbent boom in vegetated areas. Strategies would be based upon surveillance and real time trajectories that depict areas of potential impact given actual sea and weather conditions. Strategies from the Southeast Louisiana Area Contingency Plans (ACP), and Unified Command would be consulted to ensure that environmental and special economic resources would be correctly identified and prioritized to ensure optimal protection. ACPs depict the protection response modes applicable for oil spill clean-up operations. Each response mode is schematically represented to show optimum deployment and operation of the equipment in areas of environmental concern. Supervisory personnel have the option to modify the deployment and operation of equipment allowing a more effective response to site-specific circumstances.

FIGURE F-1
TRAJECTORY BY LAND SEGMENT

Trajectory of a spill and the probability of it impacting a land segment have been projected utilizing Apache's WCD and information in MMS Oil Spill Risk Analysis Model (OSRAM) for the Central and Western Gulf of Mexico available on MMS website using thirty (30) day impact. The results are tabulated below.

Area/Block	OCS-G	Launch Area	Land Segment and/or Resource	Conditional Probability (%) within 30 days
Drill, complete & produce 1 well 45 miles from shore Eugene Island 345 (from surface location in EI 346)	G 21647	C40	Calhoun, TX	1
			Matagorda, TX	3
			Brazoria, TX	1
			Galveston, TX	5
			Jefferson, TX	5
			Cameron, LA	**11**
			Vermilion, LA	4
			Iberia, LA	2
			St. Mary, LA	1
			Terrebonne, LA	4
			Lafourche, LA	1
			Plaquemines, LA	2

WCD Scenario – Development Drilling – BASED ON LOSS OF THE LARGEST SINGLE FUEL TANK ON THE RIG (65 miles from shore)
Jack-up Drilling Rig, Eugene Island 345 (from surface location in EI 346)
4,688 bbls of diesel fuel, API Gravity 32.4°

FIGURE F-2 Equipment Response Time to: Eugene Island 346

	EQUIPMENT TYPE	Derated Capacity (BBLS)	Storage (BBLS)	No. of Units	Owner/ Location	Initial Staging	Hours To Staging Area	TOTAL Time to Procure (1)	Time to Load Out (2)	Travel Time (Staging/ Spill) (3)	Time to Deploy (4)	TOTAL Estimated Response Time
A	DC 4 Spray Aircraft	--	--	1	ASI/HOUMA	HOUMA	0					
	DC 3 Spray Aircraft	--	--	1	ASI/HOUMA	HOUMA	0					
	Spotter Plane			1	ASI/HOUMA	HOUMA	0					
	Spotter Personnel			2	ASI/HOUMA	HOUMA	1					
	Dispersant				CGA/HOUMA	HOUMA	0	1	1	1.5	0	3.5
B	HOSS Barge	43,000	4,130	1	CGA/HOUMA	FOURCHON	0					
	Operators			12	STARS	FOURCHON	2					
	Tugs			3	Vessel of Opportunity	FOURCHON	4	4	1	15	1	21
C	FRU/Expandi	6,800	400	2	CGA/HOUMA	FOURCHON	0					
	Operators			12	STARS*	FOURCHON	2					
	Utility Boat			2	Vessel of Opportunity	FOURCHON	2					
	Crew Boat			2	Vessel of Opportunity	FOURCHON	2	2	1	7	1	11
D	**INITIAL SUPPORT**											
	Spotter Helo	--	--	1	PHI/HOUMA	SPILL SITE	1	1	--	1.5	--	2.5
	Surveillance Helo	--	--	1	PHI/HOUMA	SPILL SITE	1	1	--	1.5	--	2.5
	Hand Held Radios	--	--		STARS*	HOUMA	1.5	1.5	--	1.5	--	3
	TOTAL	49,800	4,530									

*STARS contractor called out by MSRC

APPENDIX G
AIR EMISSIONS INFORMATION

AIR EMISSIONS INFORMATION (If any of these answers are "yes" – the spreadsheets need to be submitted)

Screening Questions for DOCD'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
Does or will the facility complex associated with your proposed development and production activities process production from eight or more wells?		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 in excess of the criteria set forth under 250.1105(a)(2) and (3)?		X
Do you propose to burn produced hydrocarbon liquids?		X
Are your proposed development and production activities located within 25 miles from shore?		X
Are your proposed development and production activities located within 200 kilometers of the Breton Wilderness Area?		X

Summary Information

Summary information regarding the peak year emissions for Plan Emissions and Complex Total Emissions is provided in the table below.

Air Pollutant	Plan Emission Amounts[1] (tons)	Calculated Exemption Amounts[2] (tons)	Calculated Complex Total Emission Amounts[3] (tons)
Carbon Monoxide (CO)	66.79	54965.20	79.62
Particular matter (PM)	6.27	2164.50	6.45
Sulphur dioxide (SO_2)	28.67	2164.50	29.45
Nitrogen oxides (NO_x)	251.52	2164.50	278.63
Volatile organic compounds (VOC)	7.14	2164.50	7.72

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

This information was calculated by: Cheryl Powell
(281) 578-3388
Cheryl.powell@jccteam.com

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

Apache Corporation

Initial Development and Coordination Document
Eugene Island Block 345 (Surface location is in Eugene Island Block 346)
OCS-G 21647

(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 Eugene Island 345 (Surface location is in Eugene Island Block 346)

Proposed operations consist of the drilling, completion, and production of one well in Eugene Island Block 345, off of the existing platform "A" in Eugene Island Block 346. The surface drilling location for the well is in Eugene Island Block 346.

1. Designated Topographic Features

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

Physical disturbances to the seafloor: Eugene Island 346 (Surface location for bottom hole in Eugene Island Block 345) is 19 miles from the closest designated Topographic Features Stipulation Block (Ewing Bank-1); therefore, no adverse impacts are expected.

Effluents: Eugene Island 346 (Surface location for bottom hole in Eugene Island Block 345) is 19 miles from the closest designated Topographic Features Stipulation Block (Ewing Bank-1); 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 Apache Corporation'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: Eugene Island 346 (Surface location for bottom hole in Eugene Island Block 345) is 190 miles from the closest live bottom (pinnacle trend) area; therefore, no adverse impacts are expected.

Effluents: Eugene Island 346 (Surface location for bottom hole in Eugene Island Block 345) is 190 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 Apache Corporation'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: Eugene Island 346 (Surface location for bottom hole in Eugene Island Block 345) 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: Eugene Island 346 (Surface location for bottom hole in Eugene Island Block 345) 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 Apache Corporation'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 315 feet. High-density chemosynthetic communities are found only in water depths greater than 1,312 feet (400 meters); therefore, Apache Corporation's proposed operations in Eugene Island 346 (Surface location for bottom hole in Eugene Island Block 345) would not cause impacts to chemosynthetic communities.

5. Water Quality

IPFs that could result in water quality degradation from the proposed operations in Eugene Island 346 (Surface location for bottom hole in Eugene Island Block 345) 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 Apache Corporation'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 Eugene Island 346 (Surface location for bottom hole in Eugene Island Block 345) 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 Apache Corporation'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 Eugene Island 346 (Surface location for bottom hole in Eugene Island Block 345) 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).

Apache Corporation 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 Apache Corporation'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 Apache Corporation'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). Apache Corporation 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 Apache Corporation'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

The projected air emissions identified in Appendix G are not expected to affect the OCS air quality primarily due to distance to the shore or to any Prevention of Significant Deterioration Class I air quality area such as the Breton Wilderness Area. Eugene Island 346 (Surface location for bottom hole in Eugene Island Block 345) is beyond the 200 kilometer (124 mile) buffer for the Breton Wilderness Area and is 65 miles from the coastline. Therefore, no special mitigation, monitoring, or reporting requirements apply with respect to air emissions.

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 Eugene Island 346 (Surface location for bottom hole in Eugene Island Block 345) 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 could 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 Eugene Island 346 (Surface location for bottom hole in Eugene Island Block 345) include disturbances to the seafloor. Eugene Island 346 (Surface location for bottom hole in Eugene Island Block 345) is not located in or adjacent to an OCS block designated by MMS as having a high probability for occurrence of shipwrecks. Apache Corporation 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 Eugene Island 346 (Surface location for bottom hole in Eugene Island Block 345) include disturbances to the seafloor (structure emplacement) and accidents (oil spill). Eugene Island 346 (Surface location for bottom hole in Eugene Island Block 345) is located outside the Archaeological Prehistoric high probability line. Apache Corporation 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 Apache Corporation'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 Eugene Island 346 (Surface location for bottom hole in Eugene Island Block 345) 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 Apache Corporation'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 Apache Corporation'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). Apache Corporation 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 (65 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 Apache Corporation'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). Apache Corporation will operate in accordance with the regulations and also avoid accidental loss of solid waste items by maintaining waste management plans, manifesting trash sent to shore, and using special precautions such as covering outside trash bins to prevent accidental loss of solid waste. Special caution will be exercised when handling and disposing of small items and packaging materials, particularly those made of non-biodegradable, environmentally persistent materials such as plastic or glass.

Informational placards will be posted on all vessels and facilities having sleeping or food preparation capabilities. All offshore personnel, including contractors and other support services-related personnel (e.g. helicopter pilots, vessel captains and boat crews) will be indoctrinated on waste procedures, and will view the video (or Microsoft PowerPoint presentation), "All Washed Up: The Beach Litter Problem". Thereafter, all personnel will view the marine trash and debris training video annually.

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

2. Wetlands

Accidents: Oil spills could cause impacts to wetlands, however, it is unlikely that an oil spill would occur from the proposed activities (refer to **Item 5**, Water Quality). Due to the distance from shore (65 miles) and the response capabilities that would be implemented, no impacts are expected. The activities proposed in this plan will be covered by Apache Corporation's Regional OSRP (refer to information submitted in **Appendix F**).

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

3. Shore Birds and Coastal Nesting Birds

Accidents: Oil spills could cause impacts to shore birds and coastal nesting birds. However, it is unlikely that an oil spill would occur from the proposed activities (refer to **Item 5**, Water Quality). Given the distance from shore (65 miles) and the response capabilities that would be implemented, no impacts are expected. The activities proposed in this plan will be covered by Apache Corporation's Regional OSRP (refer to information submitted in **Appendix F**).

Discarded trash and debris: Coastal and marine birds are highly susceptible to entanglement in floating, submerged, and beached marine debris: specifically plastics. Operators are prohibited from deliberately discharging debris as mandated by MARPOL-Annex V and the Marine Plastic Pollution Research and Control Act, and regulations imposed by various agencies including the United States Coast Guard (USCG) and the Environmental Protection Agency (EPA). Apache Corporation will operate in accordance with the regulations and also avoid accidental loss of solid waste items by maintaining waste management plans, manifesting trash sent to shore, and using special precautions such as covering outside trash bins to prevent accidental loss of solid waste. Special caution will be exercised when handling and disposing of small items and packaging materials, particularly those made of non-biodegradable, environmentally persistent materials such as plastic or glass.

Informational placards will be posted on vessels and every facility that has sleeping or food preparation capabilities. All offshore personnel, including contractors and other support services-related personnel (e.g. helicopter pilots, vessel captains and boat crews) will be indoctrinated on waste procedures, and will view the video (or Microsoft PowerPoint presentation), "All Washed Up: The Beach Litter Problem". Thereafter, all personnel will view the marine trash and debris training video annually.

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

4. Coastal Wildlife Refuges

Accidents: An accidental oil spill from the proposed activities could cause impacts to coastal wildlife refuges. However, it is unlikely that an oil spill would occur from the proposed activities (refer to Item 5, Water Quality). Due to the distance from shore (65 miles) and the response capabilities that would be implemented, no impacts are expected. The activities proposed in this plan will be covered by Apache Corporation'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 (160 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 Apache Corporation'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

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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 MANAGEMENT CONSISTENCY INFORMATION

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

COASTAL ZONE MANAGEMENT
CONSISTENCY CERTIFICATION
INITIAL
DEVELOPMENT OPERATIONS COORDINATION DOCUMENT
EUGENE ISLAND BLOCK 345
OCS-G 21647

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)

Apache Corporation

Lessee or Operator

Certifying Official

2/18/05

Date

PLAN INFORMATION FORM

GENERAL INFORMATION

Type of OCS Plan:		Exploration Plan (EP)	X	Development Operations Coordination Document (DOCD)
Company Name:	Apache Corporation			MMS Operator Number: 00105
Address:	2000 Post Oak Suite 100 Houston, TX 77056	Contact Person: Cheryl Powell Phone Number: (281) 578-3388 Email Address: Cheryl.powell@jccteam.com		
Lease: G 21647	Area: Eugene Island	Block: 345	Project Name (If Applicable): N/A	
Objective(s): ☐Oil ☒Gas ☐Sulphur ☐Salt		Onshore Base: Fourchon, LA	Distance to Closest Land (Miles): 65	

Description of Proposed Activities (Mark all that apply)

☐ Exploration drilling	☒ Development drilling
☒ Well completion	☐ Installation of production platform
☐ Well test flaring	☐ Installation of production facilities
☐ Installation of well protection structure	☐ Installation of satellite structure
☐ Installation of subsea wellheads and/or manifolds	☐ Installation of lease term pipelines
☐ Temporary well abandonment	☒ Commence production
☐ Other (specify and describe)	

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

Tentative Schedule of Proposed Activities

Proposed Activity	Start Date	End Date	No. of Days
Drill and complete Well Location A	04/05/05	05/13/05	39
Commence Production	05/15/05	12/31/07	2 years

Description of Drilling Rig		Description of Production Platform	
☒ Jackup	☐ Drillship	☐ Caisson	☐ Tension leg platform
☒ Gorilla Jackup	☐ Platform rig	☐ Well protector	☐ Compliant tower
☐ Semisubmersible	☐ Submersible	☒ Fixed platform	☐ Guyed tower
☐ DP Semisubmersible	☐ Other (Attach Description)	☐ Subsea manifold	☐ Floating production system
☐ Drilling Rig Name (If Known):		☐ Spar	☐ Other (Attach description)

Description of Lease Term Pipelines

From (Facility/Eugene Island Block 345)	T0 (Facility/Eugene Island Block 345)	Diameter (inches)	Length (Feet)	Product
N/A				

Proposed Well/Structure Location						
Well or Structure Name/Number: Well Location A				Subsea Completion	☐ Yes	☒ No
Anchor Radius (if applicable) in feet: N/A						
	Surface Location			**Bottom-Hole Location (For Wells)**		
Lease No.	G 14482			G 21647		
Area Name	Eugene Island			Eugene Island		
Block No.	346			345		
Blockline Departures (in feet)	N/S Departure: 3298.09' FNL			N/S Departure:		
	E/W Departure: 3543.10' FWL			E/W Departure:		
Lambert X-Y coordinates	X = 1,988,520.88'					
	Y = 182,861.33'					
Latitude/ Longitude	Latitude: 28°09'49.97"			Latitude:		
	Longitude: 91°21'41.40"			Longitude:		
	TVD (Feet):		MD (Feet):		Water Depth (Feet):	315'

Anchor Locations for Drilling Rig or Construction Barge		
Anchor Name or No.	X Coordinate	Y Coordinate
1	X =	Y =
2	X =	Y =
3	X =	Y =
4	X =	Y =
5	X =	Y =
6	X =	Y =
7	X =	Y =
8	X =	Y =