

**BUREAU OF LAND MANAGEMENT
SOUTHEASTERN STATES FIELD OFFICE
411 Briarwood Drive, Suite 404
Jackson, Mississippi 39206**

ENVIRONMENTAL ASSESSMENT (EA) FORM

ES-020-2012-65
ES-020-2013-04
ES-020-2013-09
ES-020-2013-01
ES-020-2013-02
ES-020-2013-03

PROJECT NAME: EOI #1581, Rapides Parish, Louisiana Lease EA
EOI #1672, Caddo Parish, Louisiana Lease EA
EOI #1711, Rapides Parish, Louisiana Lease EA
EOI #1714, Caddo Parish, Louisiana Lease EA
EOI #1715, Caddo Parish, Louisiana Lease EA
EOI #1716, Caddo Parish, Louisiana Lease EA

TECHNICAL REVIEW:

X	Program	Reviewer	Signature	Date
X	Air Quality	Alison McCartney Natural Resource Specialist	<i>Alison McCartney</i>	12/14/12
X	ACEC	Alison McCartney Natural Resource Specialist	ASM	12/14/12
X	Botanical including T&E Spp.	Alison McCartney Natural Resource Specialist	ASM	12/14/12
	Communications (Dispatch)			
X	Cultural/Paleontology	John Sullivan Archeologist	<i>[Signature]</i>	12/18/12
X	Energy Policy	Alison McCartney Natural Resource Specialist	ASM	12/14/12
X	Environmental Justice	Alison McCartney Natural Resource Specialist	ASM	12/14/12
	Farmlands (Prime & Unique)			
	Fire Management			
X	Floodplain	Alison McCartney Natural Resource Specialist	ASM	12/14/12
X	Hazardous Material	Brian Kennedy Physical Scientist	<i>Brian Kennedy</i>	12/14/12
X	Invasive & Non-Native Spp.	Alison McCartney Natural Resource Specialist	ASM	12/14/12
	Lands/Realty			

	Land Law Examiner			
	Law Enforcement			
X	Minerals	Alison McCartney Natural Resource Specialist	ASM	12/14/12
X	Native American Religious Concerns	John Sullivan Archeologist	ASM	12/18/12
	Operations			
	Range Management			
X	Recreation	Alison McCartney Natural Resource Specialist	ASM	12/14/12
X	Soils	Alison McCartney Natural Resource Specialist	ASM	12/14/12
	Surface Protection			
	Visual Resources			
	Water Rights			
X	Water Quality (Surface & Ground)	Alison McCartney Natural Resource Specialist	ASM	12/14/12
X	Wetlands/Riparian Zones	Alison McCartney Natural Resource Specialist	ASM	12/14/12
X	Wild & Scenic Rivers	Alison McCartney Natural Resource Specialist	ASM	12/14/12
X	Wilderness	Alison McCartney Natural Resource Specialist	ASM	12/14/12
	Wild Horse & Burro			
X	Wildlife including T&E Spp.	Alison McCartney Natural Resource Specialist	ASM	12/14/12

Prepared by: Alison McCartney
Alison McCartney
Natural Resource Specialist

Date: 12/14/12

Reviewed by: Gary Taylor
Gary Taylor
NEPA Coordinator

Date: 12/14/12

Reviewed by: Duane Winters
Duane Winters
Resource Supervisor

Date: 12/14/12

Reviewed by: William Bagnall
~~Brian Kennedy~~ **WILLIAM BAGNALL**
Acting Minerals Supervisor

Date: 12/18/12

FINDING OF NO SIGNIFICANT IMPACT/DECISION RECORD

FINDING OF NO SIGNIFICANT IMPACT

Based on the analysis of potential environmental impacts contained in the attached environmental assessment (EA), I have determined that the proposed action will not have any significant impacts on the human environment and an environmental impact statement (EIS) is not required.

Grace Hues acting for
Bruce Dawson

12-18-12

Date

Field Manager

DECISION RECORD

It is my decision to authorize the offer to lease for Oil and Gas the proposed tracts located in Rapides and Caddo Parishes, Louisiana Meridian, Louisiana with legal descriptions: T5N, R4W, Sec. 4, SWNW, Rapides Parish (38.02 acres) (EOI #1581), T20N, R14W, Sec. 8, SESW, Caddo Parish (39.88 acres) (EOI #1672), T3N, R1E, Sec. 9, Entire Section, Rapides Parish (22.16 acres) (EOI #1711), T20N, R16W, Sec. 32, Lots 1 & 3, Caddo Parish, (91.56 acres) (EOI #1714), T20N, R16W, Sec. 36, Lot 1, Caddo Parish (9.12 acres) (EOI #1715), T19N, R16W, Sec. 6, Lot 1 and Fractional NE Quarter, Caddo Parish (28.08 acres) (EOI #1716). These nominations are all located on privately owned land in Louisiana Meridian, Louisiana.

Rationale for Decision

The decision to allow the proposed action does not result in any undue or unnecessary environmental degradation and is consistent with the laws and regulations of the Federal, State, or local government. The proposed action was subject to a 30-day public review.

Larry Denny, DSD, Natural Resources

Date



United States Department of the Interior



BUREAU OF LAND MANAGEMENT

Southeastern States Field Office
411 Briarwood Drive, Suite 404
Jackson, Mississippi 39206

Environmental Assessment

ES-020-2012-65
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EOI #1581, Rapides Parish, Louisiana Lease EA
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EOI #1715, Caddo Parish, Louisiana Lease EA
EOI #1716, Caddo Parish, Louisiana Lease EA

Prepared by: Alison McCartney
Date: November 30, 2012

CH 1 – PURPOSE OF AND NEED FOR THE PROPOSED ACTION

Introduction

This environmental assessment (EA) is prepared to address six proposed federal oil and gas lease nominations in Caddo and Rapides Parishes, Louisiana pursuant to the Minerals Leasing Act of 1920, as amended. A federal oil and gas lease is a legal contract that grants exclusive rights to the lessee to develop federally owned oil and gas resources.

Need for the Proposed Action

The development of oil and natural gas is essential to meeting the nation's future needs for energy. Private exploration and development of federal oil and gas reserves are integral to the Bureau of Land Management's (BLM) oil and gas leasing programs under the authority of the Mineral Leasing Act 1920, as amended, the Mineral Leasing Act for Acquired Lands of 1947, as amended, the Federal Land Policy and Management Act of 1976 and the Energy Policy Act of 2005. The oil and gas leasing program managed by BLM encourages the development of domestic oil and gas reserves and reduction of U.S. dependence on foreign sources of energy. The tracts considered for lease in this analysis was nominated by Expressions of Interest (EOIs) from private industry.

On April 2, 2012 (EOI #1581), May 22, 2012 (EOI #1672), October 8, 2012 (EOI #1711), and September 4, 2012 (EOI #1714, 1715, and 1716), the BLM Southeastern States Field Office (SSFO) received a request from the BLM Eastern States Office for a National Environmental Policy Act (NEPA) analysis report on 228.82 acres of land with the following legal descriptions: T5N, R4W, Sec. 4, SWNW, Rapides Parish (38.02 acres) (EOI #1581), T20N, R14W, Sec. 8, SESW, Caddo Parish (39.88 acres) (EOI #1672), T3N, R1E, Sec. 9, Entire Section, Rapides Parish (22.16 acres) (EOI #1711), T20N, R16W, Sec. 32, Lots 1 & 3, Caddo Parish, (91.56 acres) (EOI #1714), T20N, R16W, Sec. 36, Lot 1, Caddo Parish (9.12 acres) (EOI #1715), T19N, R16W, Sec. 6, Lot 1 and Fractional NE Quarter, Caddo Parish (28.08 acres) (EOI #1716). These nominations are located on privately owned land in Louisiana Meridian, Louisiana.

Management Objectives of the Action

The objective of the proposed action is to make available for lease 228.82 acres in Caddo and Rapides Parishes, Louisiana to provide exclusive rights to the lessee to develop federally owned oil and gas resources.

Land Use Plan Conformance

The proposed action does not conflict with any known State or local planning, ordinance or zoning. This area is not covered by a BLM Resource Management Plan. According to the regulations at 43 CFR 1610.8 (b) (1), however, this environmental assessment will be used as a basis for making a decision on the proposal.

Applicable Regulatory Requirements and Required Coordination

Applicable regulatory requirements and required coordination for lease development of federal oil and gas minerals is authorized by several statutes including: The Mineral Leasing Act, as amended and supplemented (30 U.S.C. 181), The Mineral Leasing Act of 1947, as amended (30 U.S.C. 351-359), The National Historic Preservation Act, The American Indian Religious Freedom Act, The Native American Graves Protection and Repatriation Act, E.O. 13007, and/or other statutes and executive orders.

The following agencies/tribes were contacted (Appendix C):

U.S. Fish and Wildlife Service, Louisiana Ecological Services
Louisiana Natural Heritage Program
Louisiana State Historic Preservation Officer
Tunica-Biloxi Tribe of Louisiana
Caddo Nation of Oklahoma
Alabama Coushatta Tribe of Texas
Coushatta Indian Tribe
Chitimacha Tribe of Louisiana
Alabama-Quassarte Tribal Town
Thlopthlocco Tribal Town
Choctaw Nation of Oklahoma
Mississippi Band of Choctaw Indians
Seminole Tribe of Florida
Seminole Nation of Oklahoma
Jena Band of Choctaw
Quapaw Tribe of Oklahoma
Muscogee (Creek) Nation of Oklahoma
Alabama-Quassarte Tribal Town

The proposed leases were subject to public review for a 30-day period per publication of a newspaper of local distribution (Appendix E).

Decision(s) That Must Be Made

There are two decisions under consideration from the BLM for the proposed action. The first is to offer the federal oil and gas mineral estate for competitive leasing. The other decision would be to deny the action so that no development and surface disturbance would take place. BLM's policy is to promote oil and gas development as long as it meets the guidelines and regulations set forth by the National Environmental Policy Act of 1969 and other subsequent laws and policies passed by the U.S. Congress.

CH 2 – ALTERNATIVES INCLUDING THE PROPOSED ACTION

Introduction

Tracts of land have been nominated for a federal oil and gas lease in Caddo and Rapides Parishes, Louisiana. A federal oil and gas lease is a legal contract that grants exclusive rights to the lessee to develop oil and gas resources that may exist on split estate property.

Location

All six of the EOIs are located in Louisiana Meridian, Louisiana and have the following legal descriptions:

EOI #1581 - T5N, R4W, Sec. 4, SWNW, Rapides Parish (38.02 acres)

EOI #1672 - T20N, R14W, Sec. 8, SESW, Caddo Parish (39.88 acres)

EOI #1711 - T3N, R1E, Sec. 9, Entire Section, Rapides Parish (22.16 acres)

EOI #1714 - T20N, R16W, Sec. 32, Lots 1 & 3, Caddo Parish, (91.56 acres)

EOI #1715 - T20N, R16W, Sec. 36, Lot 1, Caddo Parish (9.12 acres)

EOI #1716 - T19N, R16W, Sec. 6, Lot 1 and Fractional NE Quarter, Caddo Parish (28.08 acres)

Proposed Action

The BLM, SSFO received six nominations or EOIs, to lease 228.82 acres of federal mineral estate for oil and gas development in Caddo and Rapides Parishes, Louisiana. The leases would give the lessee exclusive rights to explore and develop oil and gas reserves on the lease, but does not in itself authorize surface disturbing activities. The competitive lease provides exclusive rights to develop the federal oil and gas resources, but does not obligate the company to drill a well on the federal mineral estate. The lease can be used to consolidate acreage to meet well spacing requirements, and/or the mineral estate may be acquired for speculative value. The BLM will require applicants to adhere to stipulations and lease notices/best management practices for gas wells (Appendix B). The attached stipulations and lease notices/best management practices have been formulated while conducting our impact analysis and are made part of the proposed action.

The proposed nominations, if approved, would be offered for competitive sale with stipulations and notices generated through this and other consultations, as well as the National Environmental Policy Act (NEPA) process. Once awarded, the successful bidder is required to submit an Application for Permit to Drill (APD) to the BLM before any ground disturbance is authorized. In the APD, the company identifies a proposed drill site and provides the BLM with specific details on how and when they propose to drill the well within the constraints of the lease

document. Upon receipt of an APD, BLM conducts an onsite inspection with the company, and when possible the private land owner or surface managing agency. NEPA and the Endangered Species Act (ESA) requirements must also be met at the APD stage and in those cases where there is the potential to affect federally or state-listed species, a site specific biological assessment is written, including the results of any biological surveys that may be indicated. This is submitted to U.S. Fish and Wildlife Service and/or the state wildlife agency for consultation, as appropriate. The lessee is required, as per lease stipulations, to comply with the recommendations of these consultations.

Typically, after approval of an APD, the petroleum industry follows a general plan and process for all proposed drill sites, as follows:

Spacing for the tract will be 40 acres per well. Preparation for the drilling process includes construction of a road, drilling pad, and reserve pit. Constructed access roads normally have a running surface width of approximately 30 feet; the length is dependent upon the well site location in relation to existing roads or highways. The average length of road construction will be about 0.5 miles. Therefore, about 2 acres would be affected by road construction. Typically 2.5 acres are cleared and graded level for the construction of the drilling pad for a well. If the well is gas and productive, and the flowline is in the road, we can estimate that another 0.5 acres may be affected by flowline construction. The total disturbed area for drilling a productive well will be approximately 5 acres. These disturbances are typical for private or Federal Ownership well locations. The excavation reserve pit is usually about five feet deep and is lined with bentonite clay to retain drilling fluids, circulated mud, and cuttings. Plastic or butyl liners (or its equivalent), that meet state standards for thickness and quality, are used on occasions when soils are determined incapable of holding pit fluids.

Because of the cost of the drilling rig, drilling usually continues around the clock. Wells in this area are usually drilled in 30 days. Once drilling is completed, excess fluids are pumped out of the pit and disposed of in a state authorized disposal site and the cuttings are buried. Wells would be drilled by rotary drilling using mud as the circulating medium. Mud pumps would be used to force mud down the drillpipe, thereby forcing the rock cuttings out the wellbore. Water would normally be from a well drilled on the site, however, water could be pumped to the site from a local pond, stream or lake through a pipe laid on the surface. Approximately 1500 barrels of drilling mud would be typically kept on the location. If a tract is adjacent to a producing field and water production will be expected during the life of the field, separation, dehydration and other production processing may be necessary. Construction of facilities off the Federal lease may be needed to handle this processing. Some processing or temporary storage may be necessary on site.

During well pad construction, the topsoil is stockpiled to be used during restoration activities. If the well is successful, the drill pad would be reduced to about 100' x 100' with the remaining surface area, including the reserve pit, re-graded and restored as per the BLM and surface owner requirements. A lease notice in these proposed leases encourages the use of non-invasive cover plants during all restoration and stabilization activities. Final seed mixtures and plantings are determined with recommendations from BLM with approval of the land owner. The remaining

100' x 100' pad is maintained for the life of the well. The life of a productive well may be 25 years. Following abandonment, the pad is subject to the same restoration parameters.

The following information on the federal mineral tracts is based on information collected during site visits conducted in 2012, aerial photographs, and topographic maps. Mitigation methods for potential negative impacts are listed in Appendix B as lease stipulations and lease notices. These recommended lease stipulations and notices have been developed to provide general habitat protection and setbacks to exclude sensitive habitats from oil and gas development.

Recommended mitigation for the proposed action is suggested as stipulations for freshwater aquatic habitat, cultural resources and tribal consultations, endangered species and special plant species (Appendix B). Additional surveys may be required for special status species after site-specific proposals have been received by BLM during the development phase.

No Action

Under the No Action Alternative, the request to offer the proposed tracts for oil and gas lease would be denied. Potential economic benefits of production from this lease would be jeopardized.

CH. 3 – DESCRIPTION OF THE AFFECTED ENVIRONMENT

Introduction

EOIs #1581 and #1711 are located in Rapides Parish in south-central Louisiana. EOIs #1672, #1714, #1715, and #1716 are located in Caddo Parish in northwest Louisiana. The parcels are entirely within the West Gulf Coastal Plain Ecoregion within the Coastal Plain Province. This region is characterized by a southward facing plain of low, slightly hilly terrain that becomes a flat plain to the south and a broad marshy zone near the coast (USGS 1998).

All 6 nominations are located on privately owned land in Louisiana Meridian, Louisiana with the following legal descriptions: T5N, R4W, Sec. 4, SWNW, Rapides Parish (38.02 acres) (EOI #1581), T20N, R14W, Sec. 8, SESW, Caddo Parish (39.88 acres) (EOI #1672), T3N, R1E, Sec. 9, Entire Section, Rapides Parish (22.16 acres) (EOI #1711), T20N, R16W, Sec. 32, Lots 1 & 3, Caddo Parish, (91.56 acres) (EOI #1714), T20N, R16W, Sec. 36, Lot 1, Caddo Parish (9.12 acres) (EOI #1715), T19N, R16W, Sec. 6, Lot 1 and Fractional NE Quarter, Caddo Parish (28.08 acres) (EOI #1716). (Appendix A).

EOI #1581

This 40 acre parcel is located < 3 miles southwest of the town of Lena and Interstate 49. A parish road runs east/west through the northern half of the tract. A gas pipeline runs east/west through the southeast corner. Carnaham Creek is located right outside of the northwest boundary of the tract. This Creek drains into Cane River which is a tributary to the Red River. Approximately 50% of the tract is cleared while the remainder contains a mixed hardwood forest.

EOI #1672

This 40 acre tract is located <1 south of the town of Belcher and Highway 71. A gravel road runs north/south diagonally through the center of the tract. Several buildings are located in the northwest corner with 90% of the tract cleared. A small patch (< 5 acres) of planted hardwood trees is located just south of the buildings. Cowhide Bayou is located < 0.5 miles west and the Red River is located < 1 mile east of the tract.

EOI #1711

EOI #1711 consists of 22.16 acres and is located < 5 miles south of Alexandria. The tract is located on the bank of the Red River and is less than 2 miles east of Highway 1. A levee runs north/south through the middle and a parish road runs north/south through the east corner of the tract. Approximately 80% of the tract is cleared and consists of a grass pasture. The tract contains two strips of mixed hardwoods that surround areas that are wet for portions of the year.

EOI#1714

This 91.56 acre parcel is located ~ 5 miles west of the town of Mooringsport and Highway 169. A parish road runs east/west through the southern portion and 2 private roads run north/south through the center of the tract. There are several houses with ~ 65% of the tract cleared. The southern quarter of the tract contains a mixed hardwood/pine forest. Two intermittent creeks run through this area and the entire tract is within a floodplain. This tract is located on the southern bank of Caddo Lake.

EOI#1715

EOI #1715 consists of 9.12 acres and is located < 0.5 miles from the town of Mooringsport, Highway 169 and Caddo Lake. A road runs through the southern corner and there are several buildings on the tract. The parcel is located within a floodplain and ~ 90% consists of a mixed hardwood/pine forest.

EOI#1716

EOI #1716 consists of 2 separate tracts totaling 28.08 acres located less than 0.5 miles from one another. They both border Buzzard Bay in Caddo Lake. They are located < 1 mile west of EOI #1714. A road runs east/west on the northern boundary of the northern tract. There are several houses on both tracts although ~ 80% of the parcels consist of a mixed hardwood/pine forest.

Description of Project Area

Based on review of the elements listed on the SSFO NEPA Form and consideration of the Purpose and Need statement prepared for this EA, the following elements will be addressed in this EA: Air Quality, Environmental Justice, Cultural Resources, Native American Religious Concerns, Invasive/Exotic Species, Soils, Special Status Species, Migratory Birds of Concern, Wildlife and Vegetation, Wastes, Hazardous or Solid, Water Quality, Surface/Ground, Wetland/Riparian Areas/Floodplains, and Energy Policy.

Air Quality

The Clean Air Act of 1970, as amended, requires the establishment of National Ambient Air Quality Standards (NAAQS). Both primary and secondary standards are now in effect. Primary standards define levels of air quality that the Administrator of the Environmental Protection Agency (EPA) judges to be necessary, with an adequate margin of safety, to protect the public health. Secondary standards define levels of air quality that the Administrator of the EPA judges to be necessary to protect the public from any known or anticipated adverse effects of a pollutant. The NAAQS pollutants are monitored in Louisiana by the Louisiana Department of Environmental Quality (LDEQ). These include carbon monoxide, nitrogen dioxide, ozone, sulfur dioxide, total suspended particulate, particulate matter less than 10 microns, and lead. Ambient air quality measurements taken by the Louisiana Division for Environmental Quality (LDEQ) indicate that ambient air quality for the state is within the standards, except in the Baton Rouge area where air quality is in nonattainment for ozone (2008).

Environmental Justice

Title IV of the Civil Rights Act of 1964 and related statutes ensure that individuals are not excluded from participation in, denied the benefit of, or subjected to discrimination under any program or activity receiving federal assistance on the basis of race, color, national origin, age, sex, or disability. Executive Order 12898 on Environmental Justice directs that programs, policies, and activities not have a disproportionately high and adverse human health and environmental effect on minority and low-income populations.

Cultural Resources

A literature search was conducted at the Louisiana Division of Archaeology online site files which indicates that there are known historic properties (36 CFR 800.16(l)) near EOI #1581 and 1711. However, the tracts have not been surveyed for cultural resources. These tracts may have sites that would contribute important information about our country's prehistory. While the lands within EOI #1672, 1714, 1715 and 1716 have not been surveyed and there are no recorded sites within one mile of the leasing areas, the proposed lease areas may have sites that would qualify as historic properties (36 CFR 61). A professionally conducted survey for historic properties would add information on human utilization of this area.

Native American Religious Concerns

Federally recognized Native Americans have been contacted about this proposed undertaking. However, currently, there are no known sites used by Native Americans for religious purposes. There are no known Sacred Sites or traditional cultural properties on these tracts. If any such sites are present, access would be by an agreement between the landowner and the Native Americans. The BLM has no authority over access to these tracts. The BLM's responsibility is limited to the area of surface disturbance if or when a proposal for development is submitted.

Invasive Exotic Species

There are a number of non-native species that are considered invasive in Louisiana and are monitored by the Louisiana State University (LSU) Ag Center. The following provides a list of some of the invasive species that can be found in Louisiana:

COMMON NAME	SCIENTIFIC NAME
Alligator weed	<i>Alternanthera philoxeroides</i>
Japanese climbing fern	<i>Lygodium japonicum</i>
Chinaberry	<i>Melia azedarach</i>
Johnson grass	<i>Sorghum halepense</i>
Chinese privet	<i>Ligustrum sinense</i>
Japanese honeysuckle	<i>Lonicera japonica</i>
Brazilian verain	<i>Verbena brasiliensis</i>
Cogon grass	<i>Imperata cylindrica</i>
Chinese tallow tree	<i>Triadica sebifera</i>
Common salvinia	<i>Salvinia minima</i>
Hydrilla	<i>Hydrilla verticillata</i>
Mimosa	<i>Albizia julibrissin</i>
Water hyacinth	<i>Eichhornia crassipes</i>

Source: LSU, 2004; USDA 2007.

Japanese honeysuckle and Chinese privet were observed on EOI #1716. Invasive species were not observed on the other tracts.

Soils

EOI #1581

There are 3 soil types in this parcel: Kisatchie – Cadeville Association, hilly, Ruston fine sandy loam, 1-3% slopes, and Guyton Complex, frequently flooded. The Kisatchie – Cadeville Association comprises 65% of the tract with the Ruston fine sandy loam, comprising 18% and Guyton Complex 17%. Kisatchie – Cadeville Association can be found on side slopes. Its parent material is clayey marine deposits and it is well drained with a low available water capacity (about 3.7 inches). Ruston fine sandy loam can be found on hillslopes. Its parent material is Pleistocene loamy fluviomarine deposits and it is well drained with a moderate available water capacity (8.6 in.). Guyton Complex can be found on floodplains. Its parent material is loamy alluvium of halocene age and it is poorly drained with a high available water capacity (~ 11.9 in.).

EOI #1672

There are 3 soil types in this parcel: Moreland silty clay loam, Norwood silt loam, and Norwood silty clay loam. Moreland silty clay loam comprises 54% of the tract and is located in the northwest half, Norwood silt loam comprises 35%, and Norwood silty clay loam 11%. Moreland silty clay loam can be found on natural levees. Its parent material is red river clayey alluvium and it is somewhat poorly drained with a high available water capacity (about 9.7 inches).

Norwood silt loam can be found on natural levees. Its parent material is calcareous red river loamy alluvium and it is well drained with a high available water capacity (11.4 in.). Norwood silty clay loam can be found on natural levees. Its parent material is calcareous red river loamy alluvium and it is well drained with a high available water capacity (11.5 in.).

EOI #1711

There are 3 soil types in this parcel: Roxana very fine sandy loam, gently undulating, Levees-Borrow pit complex, nearly level to strongly sloping, and open water. Roxana very fine sandy loam comprises 89% of the tract, the Levees-Borrow pit complex runs north/south through the center of the tract and represents 10% of the acreage, and open water, representing 1% of the acreage is located in the south-central portion of the tract. Roxana very fine sandy loam can be found on natural levees. Its parent material is loamy alluvium and it is well drained with a high available water capacity (about 9.0 inches). Parent material for Levees-Borrow pit complex is spoil from pits.

EOI #1714

There are 4 soil types in this parcel: Keithville very fine sandy loam, 2 – 5% slopes, Forbing silt loam, 3 – 8% slopes, Metcalf-Messer complex, and Writeville-Messer complex. Keithville very fine sandy loam comprises 47% and is located in the center of the tract. Forbing silt loam comprises 34% of the tract, Metcalf-Messer complex 11%, and Writeville-Messer complex 8%. Keithville very fine sandy loam can be found on marine terraces. Its parent material is loamy over clayey alluvium and it is moderately well drained with a high available water capacity (about 10.8 inches). Forbing silt loam can be found on stream terraces. Its parent material is clayey alluvium and it is moderately well drained with a moderate available water capacity (8.1 in.). Metcalf-Messer complex can be found on stream terraces. Its parent material is loamy alluvium over clayey residuum weathered from sandstone and shale. It is somewhat poorly drained with a high available water capacity (10.3 in.). Writeville-Messer complex can be found in depressions. Its parent material is silty over clayey alluvium and it is poorly drained with a high available water capacity (11.3 in.).

EOI #1715

There are 3 soil types in this parcel: Woodtell fine sandy loam, 3 – 8% slopes, Keithville very fine sandy loam, 2 – 5% slopes, Guyton soils, frequently flooded. Woodtell fine sandy loam comprise 70% of the tract, Keithville very fine sandy loam 11%, and Guyton soils, 19%. Woodtell fine sandy loam can be found on interfluves. Its parent material is residuum weathered from sandstone and shale in the Wilcox and Cook Mountain formations of the Eocene age. Keithville very fine sandy loam can be found on marine terraces. Its parent material is loamy over clayey alluvium and it is moderately well drained with a high available water capacity (about 10.8 inches). Guyton soils can be found on flats. Its parent material is loamy alluvium of the Holocene age. It is poorly drained with a high available water capacity (12.0 in.).

EOI #1716

There are 2 soil types on the northern parcel: Forbing silt loam, 3 – 8% slopes and Metcalf-Messer complex. Forbing silt loam comprises 55% of the tract and Metcalf-Messer complex 45%. Forbing silt loam can be found on stream terraces. Its parent material is clayey alluvium and it is moderately well drained with a moderate available water capacity (8.1 in.). Metcalf-

Messer complex can be found on stream terraces. Its parent material is loamy alluvium over clayey residuum weathered from sandstone and shale. It is somewhat poorly drained with a high available water capacity (10.3 in.).

There are 2 soil types in the southern parcel: Gore silt loam, 1 – 5% slopes and Metcalf-Messer complex. Gore silt loam comprises 92% of the tract and Metcalf-Messer complex 8%. Gore silt loam can be found on terraces. Its parent material is clayey alluvium and it is moderately well drained with a moderate available water capacity (7.3 in.). Metcalf-Messer complex can be found on stream terraces. Its parent material is loamy alluvium over clayey residuum weathered from sandstone and shale. It is somewhat poorly drained with a high available water capacity (10.3 in.).

Special Status Species

The following provides a list of rare plant and animal species and communities that have been identified in Rapides Parish, Louisiana by the Louisiana Natural Heritage Program (EOIs #1581 and #1711):

Scientific Name	Common name	State Rank	Global Rank	State Status	Federal Status
<i>Aimophila aestivalis</i>	Bachman's Sparrow	S3	G3		
<i>Bottomland hardwood forest</i>	Bottomland Hardwood Forest	S4	G4G5		
<i>Camassia scilloides</i>	Atlantic Camas	S3	G4G5		
<i>Carex meadii</i>	Mead's Sedge	S3	G4G5		
<i>Cypress Swamp</i>	Cypress Swamp	S4	G4G5		
<i>Cypress-Tupelo Swamp</i>	Cypress-Tupelo Swamp	S4	G3G5		
<i>Cypripedium kentuckiense</i>	Southern Lady's-slipper	S1	G3		
<i>Haliaeetus leucocephalus</i>	Bald Eagle	S2N, S3B	G5	Endangered	Delisted
<i>Hardwood slope forest</i>	Hardwood slope forest	S3S4	G2G3		
<i>Mixed hardwood loblolly forest</i>	Mixed hardwood loblolly forest	S4	G3G4		
<i>Mustela frenata</i>	Long-tailed Weasel	S2S4	G5		
<i>Oenothera pilosella ssp. Sessilis</i>	Meadow Evening Primrose	S1?	G5T2Q		
<i>Picoides borealis</i>	Red-Cockaded Woodpecker	S2	G3	Endangered	LE
<i>Ratibidia pinnata</i>	Yellow Coneflower	S2?	G5		
<i>Small Stream Forest</i>	Small Stream Forest	S3	G3		
<i>Triphora trianthophora</i>	Nodding Pagonia	S2	G3G4		
<i>Waterbird Nesting Colony</i>	Waterbird Nesting Colony	SNR	GNR		
<i>Amsonia ludoviciana</i>	Louisiana Blue Star	S3	G3		
<i>Bayhead swamp</i>	Bayhead swamp	S3	G3?		
<i>Burmanna biflora</i>	Northern Burmannia	S3	G4G5		
<i>Carex microdonta</i>	Little Tooth Sedge	S3	G4		
<i>Chaetodipus hispidus</i>	Hispid Pocket Mouse	S2	G5		
<i>Cycleptus elongates</i>	Blue Sucker	S2S3	G3G4		
<i>Dichanthelium strigosum</i>	Rough-hair Witchgrass	S2?	G5		
<i>Dryopteris ludoviciana</i>	Southern Shield Wood-fern	S2	G4		
<i>Dulichium arundinaceum</i>	Three-way Sedge	S2	G5		
<i>Euphorbia discoidalis</i>	Summer spurge	S1	GNR		

<i>Faxonella creaseri</i>	Ouachita Fencing Crawfish	S2	G2		
<i>Fleming Calcareous Prairie</i>	Fleming Calcareous Prairie	S1	G1		
<i>Fleming glade</i>	Fleming glade	S1	G1		
<i>Helmitheros vermivorus</i>	Worm eating Warbler	S4B	G5		
<i>Hexalectris spicata</i>	Crested Coral-root	S2	G5		
<i>Lampsilis satura</i>	Sandbank Pocketbook	S2	G2		
<i>Leuctra szezytkoi</i>	Schoolhouses Springs Leuctran Stonefly	S2	G2		
<i>Lobelia flaccidifolia</i>	Coastal plain lobelia	S2?	G5		
<i>Macrolemys temminckii</i>	Alligator snapping turtle	S3	G3G4	Restricted harvest	
<i>Margaritifera hembeli</i>	Louisiana Pearlshell	S1	G1	Endangered	LT
<i>Mayaca fluviatilis</i>	Bog Moss	S2	G5		
<i>Melanthera nivea</i>	Snow Melanthera	S2	G5		
<i>Orconectes blacki</i>	Calcasieu Painted Crawfish	S2	G2		
<i>Orconectes hathawayi</i>	Teche Painted Crawfish	S3	G3		
<i>Oroconectes maletae</i>	Kisatchie Painted Crawfish	S2	G2		
<i>Orobanche uniflora</i>	Broomrape	S1	G5		
<i>Pandion haliaetus</i>	Osprey	S2B, S3N	G5		
<i>Pine flatwoods</i>	Pine flatwoods	S2	G2G3		
<i>Pituophis ruthveni</i>	Louisiana Pine Snake	S2S3	G2Q		C
<i>Plethodon kisatchie</i>	Louisiana Slimy Salamander	S1S2	G3G4Q		
<i>Plethodon serratus</i>	Southern Red-backed Salamander	S1	G5	Prohibited	
<i>Pleurobema riddellii</i>	Louisiana Pigtoe	S1S2	G1G2		
<i>Polyodon spathula</i>	Paddlefish	S3	G4	Prohibited	
<i>Procambarus jaculus</i>	Javelin Crawfish	S1S2	G4		
<i>Pteronotropis hubbsi</i>	Bluehead Shiner	S2	G3		
<i>Quercus rubra</i>	Red Oak	S1S3	G5		
<i>Rhynchospora miliacea</i>	Millet Beakrush	S2	G5		
<i>Rhynchospora scirpoides</i>	Long-beaked Baldrush	S3	G4		
<i>Schisandra glabra</i>	Scarlet Woodbine	S3	G3		
<i>Scirpus etuberculatus</i>	Bulrush	S1	G3G4		
<i>Shortleaf pine/oak-hickory forest</i>	Shortleaf pine/oak-hickory forest	S2S3	G2G3		
<i>Shrub swamp</i>	Shrub Swamp	S4	GNR		
<i>State champion tree</i>	State champion tree	SNR	GNR		
<i>Strophitus subvexus</i>	Southern Creekmussel	S1	G3		
<i>Strophitus undulates</i>	Squawfoot	S2	G5		
<i>Western acidic longleaf pine savannah</i>	Western Acidic Longleaf Pine Savannah	S1S2	G2G3		
<i>Western hillside seepage bog</i>	Western hillside seepage bog	S2	G2G3		
<i>Western upland longleaf pine forest</i>	Western upland longleaf pine forest	S2S3	G2G3		

Source: Louisiana Natural Heritage Program, 2007.

Note: S1 = critically imperiled in Louisiana because of extreme rarity (5 or fewer known extant populations) or because of some factor(s) making it especially vulnerable to extirpation S2 = imperiled in Louisiana because of rarity (6 to 20 known extant populations) or because of some factor(s) making it very vulnerable to extirpation S3 = rare and local throughout the state or found locally (even abundantly at some of its locations) in a restricted region of the state, or because of other factors making it vulnerable to extirpation (21 to 100 known extant populations).

None of these species were observed during the site visits.

Bald Eagle (*Haliaeetus leucocephalus*)

De-listed on June 28, 2007, the Bald Eagle continues to be protected under the Bald and Golden Eagle Protection Act of 1940 and the Migratory Bird Treaty Act. Bald Eagles typically nest in large trees located near coastlines, rivers, or lakes that support adequate foraging from October through mid-May. In southeastern Louisiana parishes, eagles typically nest in mature trees (e.g. bald cypress, sycamore, willow, etc.) near fresh to intermediate marshes or open water. Bald eagles may also nest in mature pine trees near large lakes in central and northern Louisiana.

Major threats to this species include habitat alteration, human disturbance, and environmental contaminants (I.E., organochlorine pesticides and lead). Furthermore, bald eagles are vulnerable to disturbance during courtship, nest building, egg laying incubation, and brooding. Disturbance during these periods may lead to nest abandonment, cracked and chilled eggs, and exposure of small young to the elements. Human activity near a nest late in the nesting cycle may also cause flightless birds to jump from the nest tree, thus reducing their chance of survival. There are several lakes < 0.5 miles north of EOI #1711 and the Red River is just outside the eastern boundary of the tract. Although there is no roosting habitat on the EOI itself that could support this species, it could be used for foraging habitat. EOI #1581 does not provide suitable foraging or preferred roosting habitat for bald eagles.

Red-cockaded Woodpecker (*Picoides borealis*)

The red-cockaded woodpecker is both federally and state-listed as endangered. RCWs roost and forage year-round and nest seasonally (i.e., April through July) in open, park-like stands of mature pine trees containing little hardwood component, a sparse midstory, and a well-developed herbaceous understory. RCWs can tolerate small numbers of overstory and midstory hardwoods at low densities found naturally in many southern pine forests, but they are not tolerant of dense midstories resulting from fire suppression or from overstocking of pine. Trees selected for cavity excavation are generally at least 60 years old, although the average stand age can be younger. The collection of one or more cavity trees plus a surrounding 200 foot wide buffer of continuous forest is known as a RCW cluster. RCW foraging habitat is located within one-half mile of the cluster and is comprised of pine and pine-hardwood stands (i.e., 50% or more of the dominant trees are pines) that are at least 30 years of age and have a moderately low average basal area (i.e., 40 – 80 square feet per acre) is preferred. There is no habitat on the proposed project sites that could support this species.

Louisiana Pearlshell (*Margaritifera hembeli*)

The Louisiana pearlshell is federally listed as endangered and state listed as threatened. This is a severely declining species that can be found in small streams in Rapides and Grant Parishes, Louisiana. Some researchers report that the species is limited to 22 headwater streams in the Red River basin. This species requires clear, moderately swift-flowing, perennial streams having a stable mineral substrate (such as gravel bottom or sandy bottom with rocky outcroppings). At present, the life history of this mussel is poorly understood. Research is ongoing to determine reproductive aspects of the species and to identify the host fish species. Preliminary results indicate that reproductive timing (i.e., spawning and glochidial release) likely occurs once annually in the February through April timeframe, but the host fish currently remains unknown.

Major threats to this species include loss of habitat, degradation of water quality, and impacts to stream morphology as a result of impoundments (both man-made and beaver dams), non-implementation of streamside best management practices during timber harvest operations, and lack of sufficient erosion control measures and maintenance during construction activities (e.g. well pad construction, road construction, road improvement or widening, bridge replacement or installation, culvert replacement or installation, gravel mining, etc.). In addition, unregulated instream activities and equipment use could result in direct impacts to individuals from stranding, trampling, or crushing. Additional information on threats and current status of this species can be found online at:

<http://www.fws.gov/southeast/5yearReviews/5yearreviews/louisianapearlshellmussel.pdf>

There is the potential that this species could occur in small streams on the proposed tracts.

The following is a list of threatened, endangered, and special concern animal and plant species and communities documented in Caddo Parish, LA by the Louisiana Natural Heritage Program (EOI #1672, #1714, #1715, and #1716):

Scientific Name	Common Name	State Rank	Global Rank	State Status	Federal Status
<i>Agalinis caddoensis</i>	Caddo Parish False-foxglove	SH	GH		
<i>Ambystoma tigrinum</i>	Eastern Tiger Salamander	S1	G5	Prohibited	PS
<i>Ammocrypta clara</i>	Western Sand Darter	S2	G3		
<i>Amorpha paniculata</i>	panicled indigobush	S2	GNR		
<i>Anemone berlandieri</i>	ten petal thimbleweed	S2	G4?		
<i>Astragalus soxmaniorum</i>	Soxman Milk-vetch	S2	G3		
<i>Bassariscus astutus</i>	Ringtail	S?	G5		
<i>Bottomland hardwood forest</i>	Bottomland Hardwood Forest	S4	G4G5		
<i>Burmammia biflora</i>	Northern Burmannia	S3	G4G5		
<i>Callirhoe alcaeoides</i>	Clustered Poppy-mallow	S1	G5?		
<i>Callirhoe digitata</i>	wine cup	S1	GNR		
<i>Callirhoe involucrata</i>	purple poppymallow	SH	GNR		
<i>Camassia scilloides</i>	Atlantic Camas	S3	G4G5		
<i>Carex arkansana</i>	Arkansas sedge	S1	G4		
<i>Carex decomposita</i>	Cypress-knee Sedge	S3	G3		
<i>Carex meadii</i>	Mead's Sedge	S3	G4G5		
<i>Ceanothus herbaceus</i>	Prairie Redroot	S1	G5		
<i>Cirsium engelmannii</i>	Cirsium Terraenigrae	SU	G4		
<i>Cooperia drummondii</i>	Evening Rainlily	S2	G5		
<i>Coreopsis intermedia</i>	Golden Wave Tickseed	S2	G3		
<i>Croton argyranthemus</i>	Silver Croton	S2	G5		
<i>Cyperus grayoides</i>	An Umbrella-sedge	S3	G3		
<i>Dalea phleoides</i>	Slim-spike Prairie-clover	S1	G4		
<i>Dalea villosa var. grisea</i>	Prarie-clover	S2	G5T4		
<i>Dodecatheon meadia</i>	Common Shooting-star	S2	G5		
<i>Draba cuneifolia</i>	Wedge-leaf Whitlow-grass	S1	G5		
<i>Dulichium arundinaceum</i>	Three-way Sedge	S2	G5		
<i>Echinacea purpurea</i>	Purple Coneflower	S2	G4		
<i>Eleocharis wolfii</i>	Wolf Spikerush	S3	G3G4		
<i>Eriogonum longifolium</i>	Long-leaved Wild-	S2	G4	PS	

	buckwheat				
<i>Eriogonum multiflorum</i>	Many-flowered Wild-buckwheat	S3	G5		
<i>Erythronium albidum</i>	White Trout-lily	S2	G5		
<i>Eumeces septentrionalis</i>	Southern Prairie Skink	S1	G5		
<i>Forested seep</i>	Forested Seep	S3	G3?		
<i>Forestiera ligustrina</i>	Upland Swamp Privet	S3	G4G5		
<i>Geocarpon minimum</i>	Earth-fruit	S2	G2		
<i>Gratiola flava</i>	flame hedgehyssop	S1	G4		
<i>Hardwood slope forest</i>	Hardwood Slope Forest	S3S4	G2G3		
<i>Helianthemum rosmarinifolium</i>	rosemary rockrose	S2	G4		
<i>Heuchera americana</i>	American Alumroot	S2	G5		
<i>Isotria verticillata</i>	Large Whorled Pogonia	S3	G5		
<i>Liatris tenuis</i>	Slender Gay-feather	S1	G3		
<i>Lipocarpha micrantha</i>	small flower hemicarpha	SH	G5		
<i>Loeflingia squarrosa</i> var. <i>squarrosa</i>	Spreading Pygmyleaf	S1	GNR		
<i>Lyonia mariana</i>	Stagger-bush	S1	G5		
<i>Marshallia caespitosa</i> var. <i>signata</i>	Barbara's Buttons	S1	G4T4		
<i>Matelea cynanchoides</i>	Prairie Milkvine	S1	G4G5		
<i>Minuartia drummondii</i>	Drummond's stitchwort	SRF	G5		
<i>Mirabilis albida</i>	Pale Umbrella-wort	S2	G5		
<i>Mixed hardwood-loblolly forest</i>	Mixed Hardwood-loblolly Forest	S4	G3G4		
<i>Monotropa hypopithys</i>	American Pinesap	S2	G5		
<i>Morse clay calcareous prairie</i>	Morse Clay Calcareous Prairie	S1	G1G2		
<i>Nemastylis geminiflora</i>	Prairie Pleat-leaf	S2S3	G4		
<i>Panicum flexile</i>	Wiry Witchgrass	S2	G5		
<i>Paronychia drummondii</i>	Drummond Nailwort	S2	G4G5		
<i>Pediomelum digitatum</i>	Palm-leaf Scarf-pea	S1	G5		
<i>Pediomelum hypogaeum</i> var. <i>subulatum</i>	Awl-shaped Scarf-pea	S2	G5T4		
<i>Penstemon murrayanus</i>	Cupleaf Beardtongue	S1	G4		
<i>Phacelia glabra</i>	smooth phacelia	S2	GNR		
<i>Phacelia strictiflora</i>	Phacelia	S2	G5		
<i>Picoides borealis</i>	Red-cockaded Woodpecker	S2	G3	Endangered	LE
<i>Plantago patagonica</i>	Woolly Plantain	S2	G5		
<i>Platanthera lacera</i>	Green-fringe Orchis	S1	G5		
<i>Polygonella americana</i>	Southern Jointweed	S2	G5		
<i>Polyodon spathula</i>	Paddlefish	S3	G4	Prohibited	
<i>Prunus gracilis</i>	Oklahoma Plum	S2	G4G5		
<i>Pseudacris streckeri</i>	Strecker's Chorus Frog	S1	G5		
<i>Quercus arkansana</i>	Arkansas Oak	S2	G3		
<i>Quercus macrocarpa</i>	Burr Oak	S1	G5		
<i>Quercus rubra</i>	Red Oak	S1S3	G5		

<i>Ratibida pinnata</i>	Yellow Coneflower	S2?	G5		
<i>Reithrodontomys humulis</i>	Eastern Harvest Mouse	S3S4	G5		
<i>Ribes curvatum</i>	Granite Gooseberry	S2	G4		
<u>Saline prairie</u>	Saline Prairie	S1	G1G2		
<i>Sanguinaria canadensis</i>	Bloodroot	S2	G5		
<i>Schedonnardus paniculatus</i>	tumble grass	S1	G5		
<i>Schoenolirion wrightii</i>	Texas Sunnybell	S2	G3		
<i>Scutellaria cardiophylla</i>	Heart-leaved Skullcap	S2	G4?		
<i>Sedum nuttallianum</i>	yellow stonecrop	S1	GNR		
<i>Selaginella arenicola</i> ssp. <i>riddellii</i>	Riddell's Spike Moss	S3	G4T4		
<u>Shortleaf pine/oak-hickory forest</u>	Shortleaf Pine/oak-hickory Forest	S2S3	G2G3		
<i>Silene stellata</i>	Starry Campion	S2	G5		
<i>Sitta carolinensis</i>	White-breasted Nuthatch	S2	G5		
<u>Small stream forest</u>	Small Stream Forest	S3	G3		
<i>Solanum dimidiatum</i>	Western Horse-nettle	S2S3	G5		
<i>Solidago auriculata</i>	Eared Goldenrod	S4	G4		
<i>State champion tree</i>	State Champion Tree	SNR	GNR		
<i>Sterna antillarum athalassos</i>	Interior Least Tern	S1B	G4T2Q	Endangered	PS:LE
<i>Streptanthus hyacinthoides</i>	Smooth Twistflower	S2	G4		
<i>Symphyotrichum drummondii</i> var. <i>texanum</i>	Texas Aster	S1?	G5TNR		
<i>Taenidia integerrima</i>	Yellow Pimpernell	S2	G5		
<i>Talinum parviflorum</i>	Small-flowered Flame-flower	S3	G5		
<i>Talinum rugospermum</i>	prairie flameflower	S1	G3G4		
<i>Tetragonotheca ludoviciana</i>	Louisiana Square-head	S3	G4		
<i>Thalictrum revolutum</i>	Windflower	S1	G5		
<i>Thelesperma filifolium</i>	Thread-leaved Green-thread	S1	G4G5		
<i>Trillium recurvatum</i>	Reflexed Trillium	S2	G5		
<i>Trillium texanum</i>	Texas Trillium	S1	G2G3Q		
<i>Triosteum angustifolium</i>	Yellowleaf Tinker's-weed	S2	G5		
<i>Triphora trianthophora</i>	Nodding Pogonia	S2	G3G4		
<i>Uvularia sessilifolia</i>	Sessile-leaved Bellwort	S2	G5		
<i>Viola pubescens</i>	Downy Yellow Violet	S1	G5		
<i>Vireo gilvus</i>	Warbling Vireo	S1B	G5		
<u>Waterbird Nesting Colony</u>	Waterbird Nesting Colony	SNR	GNR		
<u>Western xeric sandhill woodland</u>	Western Xeric Sandhill Woodland	S2S3	G2G3		
<i>Zigadenus leimanthoides</i>	Death Camus	S1	G4Q		
<i>Zigadenus nuttallii</i>	Nuttall Death Camas	S1	G5		
<i>Zornia bracteata</i>	Viperina	S2	G5?		

None of these species were observed during the site visits.

Red- cockaded Woodpecker

Habitat for the red-cockaded woodpecker, as described above is not available on any of these tracts and therefore would not be present.

Interior Least Tern (*Sterna antillarum athalassos*)

The interior least tern is an endangered migratory shorebird that breeds, nests, and rears its young on sparsely or non-vegetated portions of sand or gravel bars located mid-stream or along the shoreline in the Mississippi, Missouri, Arkansas, Ohio, Red and Rio Grande river systems and the rivers of central Texas. On the lower Mississippi River, the listed interior tern population is concentrated within approximately 500 river miles between its confluence with the Ohio River at Cairo, Illinois, and Vicksburg, Mississippi. In Louisiana, the interior least tern historically occurred along the Mississippi River north of Baton Rouge, but few birds have been observed in surveys conducted over the last few years. Interior least tern nesting colonies are known to occur along the Red River in northwestern and Central Louisiana. Major threats to this species include habitat loss, human disturbance at nesting colonies, and altered water flow patterns. There is potential for this species on the banks of Caddo Lake on EOIs #1714, #1715, and #1716. EOI #1672 does not contain suitable habitat for this species.

Earth Fruit (*Geocarpon minimum*)

Caddo Parish is known to support populations of the federally threatened earth fruit. The earth fruit is a tiny annual plant that completes its life cycle within 4 to 6 weeks and is rarely visible except during the flowering stage in March and April. Under optimal conditions the seeds remain in the nearby earth until the following spring when they complete another life cycle. The current known distribution of earth fruit is limited to the sandstone glades of Missouri and the saline prairies of Arkansas and Louisiana. In Louisiana, saline prairies are generally located as openings within or adjacent to forested habitat. These prairies are commonly characterized by a low, extensive coverage of sedges, grasses, and forbs, with few to no trees or shrubs. This topographic characteristic is a function of the soil chemistry, which precludes trees from going in the area and allows for specialized vegetation to establish. Because the earth fruit is not tolerant of competition from other herbaceous species, the plant often occurs on “slick spots,” which are small areas within a saline prairie that are either bare or have noticeably less vegetation than the surrounding area. In Louisiana, earth fruit is currently known to occur in saline prairies of Caddo, DeSoto, and Winn Parishes. The earth fruit is associated with the Bonn soil series in DeSoto and Caddo Parishes and with the Brimstone soil series in Winn Parish. However, in certain landscape positions, the soil survey may have mapped these soils under the Guyton soil Series. Major threats to this species include conversion of saline prairies to pastureland or other land uses, cattle grazing, habitat destruction through construction activities, and rutting via the use of heavy equipment and off-road vehicles. More information about the earth fruit can be found in the recovery plan at: http://ecos/fws.gov/docs/five_year_reviews/doc2487.pdf. Saline prairies are not found on any of the proposed leases, so this species is unlikely to occur.

Spague's Pipit (*Anthus spragueii*)

The Sprague's pipit, is a candidate species for federal listing as a threatened or endangered species. Candidate species are those taxa for which the U.S. Fish and Wildlife Service has on file sufficient information regarding biological vulnerability and threat(s) to support issuance of a proposal to list, but issuance of a proposed rule is currently precluded by higher priority listing

actions. This small passerine bird winters in Louisiana, arriving from its northern breeding grounds in September and remaining until April. Migration and wintering ecology of this species is poorly known, but Sprague's pipit exhibits a strong preference for open grassland (i.e., native prairie) with native grasses of intermediate height and thickness, and it avoids areas with too much shrub encroachment. Its use of an area is dependent upon habitat conditions. This species is a ground feeder and forages mainly on insects but will occasionally eat seeds.

There is currently no requirement under the Endangered Species Act for consultation regarding project impacts on candidate species. However, in the interest of conserving the Sprague's pipit, U.S. Fish and Wildlife Service, Louisiana Ecological Services (FWS LES) encourages avoiding project activities that would adversely affect this species or its habitat. Should it be federally listed as threatened or endangered in the future, consultation on project impacts to this species could then be necessary.

Migratory Bird Species of Concern

The following provides a list of migratory birds of conservation concern with the potential to occur on EOI #1711 or #1714 based on species preference for bottomland hardwood forests in all successional stages (Peterson 1980, Hamel 1992, and USFWS 2012). Because the nominated parcels have forests in several different successional stages, some of the species will have multiple suitability listings:

Species	Habitat Suitability
Little blue heron	Suitable, Optimal
Swallow-tailed kite	Marginal, Suitable, Optimal
Yellow Rail	Marginal
Red-headed woodpecker	Marginal, Suitable, Optimal
Wood thrush	Marginal, Optimal
Prairie warbler	Marginal
Cerulean warbler	Suitable
Prothonotary warbler	Suitable, Optimal
Worm-eating warbler	Marginal, Suitable
Swainson's warbler	Suitable, Optimal
Kentucky warbler	Marginal, Optimal
Louisiana waterthrush	Marginal

The following provides a list of migratory birds with the potential to occur on EOIs #1581, 1714, 1715, and 1716 based on species preference for pine/mixed hardwood forests in all successional stages:

Species	Habitat Suitability
American swallow-tailed kite	Marginal
American kestrel	Marginal, Suitable,

	Optimal
Chuck-will's-widow	Suitable, Optimal
Red-headed woodpecker	Marginal
Brown-headed nuthatch	Marginal
Bewick's wren	Marginal
Wood thrush	Marginal, Suitable
Prairie warbler	Marginal, Optimal
Worm-eating warbler	Marginal
Kentucky warbler	Marginal
Louisiana waterthrush	Marginal
Bachman's sparrow	Marginal, Suitable
Smith's Longspur	Marginal
Harris's sparrow	Marginal

No migratory bird species of concern are known to occur on the proposed tracts, although there is potential for use by several species.

Wildlife and Vegetation

EOI #1581

This 40 acre parcel is located < 3 miles southwest of the town of Lena and Interstate 49. A parish road runs east/west through the northern half of the tract. A gas pipeline runs east/west through the southeast corner. Carnaham Creek is located right outside of the northwest boundary of the tract. This Creek drains into Cane River which is a tributary to the Red River. Approximately 50% of the tract is cleared while the remainder contains a mixed hardwood/pine forest.

Dominant tree species include loblolly pine (*Pinus taeda*), southern red oak (*Quercus falcata*), white oak (*Q. alba*), red maple (*Acer rubrum*), and winged elm (*Ulmus alata*). Wildlife diversity is likely limited due to the amount of cleared land however common species are likely to occur including: white-tailed deer, southern short-tailed shrew (*Blarina caroliniensis*), big brown bat (*Eptesicus fuscus*), evening bat (*Nycticeius humeralis*), and golden mouse (*Ochrotomys nuttalli*). Bird species that likely occur on this tract include: chuck-will's-widow (*Caprimulgus carolinensis*), great crested flycatcher (*Myiarchus crinitus*), and Carolina chickadee (*Poecile carolinensis*). Reptile and amphibian species likely to occur include: southern leopard frog (*Rana utriculara*), northern cricket frog (*Acris crepitans crepitans*), southern copperhead (*Agkistrodon contortrix phaeogaster*), speckled kingsnake (*Lampropeltis getula holbrooki*), and box turtle (*Terrapene carolina triunguis*).

EOI #1672

This 40 acre tract is located <1 south of the town of Belcher and Highway 71. A gravel road runs north/south diagonally through the center of the tract. Several buildings are located in the northwest corner with 90% of the tract cleared land. A small patch (< 5 acres) of planted hardwood trees is located just south of the buildings. Cowhide Bayou is located < 0.5 miles west and the Red River is located < 1 mile east of the tract.

Wildlife is extremely limited on this tract due to the high percentage of cleared land. Some birds and insects might utilize the small patch of trees. Species that might occur include: American crow (*Corvus brachyrhynchos*) and blue jay (*Cyanocitta cristata*).

EOI #1711

EOI #1711 consists of 22.16 acres and is located < 5 miles south of Alexandria. The tract is located on the bank of the Red River and is less than 2 miles east of Highway 1. A levee runs north/south through the middle and a parish road runs north/south through the east corner of the tract. Approximately 80% of the tract is cleared and consists of a grass pasture. The tract contains two strips of mixed hardwoods that surround areas that are wet for portions of the year.

Dominant tree species include: water oak (*Q. nigra*), willow oak (*Q. phellos*), sugar berry (*Celtis laevigata*), and cow oak (*Q. michauxii*). Wildlife is likely limited due to the high percentage of cleared land however the strips of hardwoods and wet environment creates habitat for some species including: red-bellied woodpecker (*Melanerpes carolinus*), hairy woodpecker (*Picoides villosus*), tufted titmice (*Baeolophus bicolor*), scarlet tanager (*Piranga olivacea*), Fowler's toad (*Bufo fowleri*), common five-lined skink (*Eumeces fasciatus*), and buttermilk racer (*Coluber constrictor anthicus*).

EOI#1714

This 91.56 acre parcel is located ~ 5 miles west of the town of Mooringsport and Highway 169. A parish road runs east/west through the southern portion and 2 private roads run north/south through the center of the tract. There are several houses with ~ 65% of the tract cleared. The southern quarter of the tract contains a mixed hardwood/pine forest. Two intermittent creeks run through this area and the entire quarter is within a floodplain. This tract is located on the southern bank of Caddo Lake.

Dominant tree species include willow oak, black willow (*Salix nigra*), white oak, pecan (*Carya illinoensis*), yaupon (*Ilex yaupon*), red cedar (*Juniperus virginiana*), sweetgum (*Taxodium distichum*), loblolly pine, and water oak. Wildlife likely to occur includes: white-tailed deer, northern raccoon (*Procyon lotor*), nine-banded armadillo (*Dasypus novemcinctus*), red bat (*Lasiurus borealis*), and swamp rabbit (*Sylvilagus aquaticus*). Bird species that could occur include: bachman's warbler (*Vermivora bachmanii*), red-shouldered hawk (*Buteo lineatus*), and barred owl (*Strix varia*). Amphibians and reptiles that likely occur are: marbled salamander (*Ambystoma opacum*), southern dusky salamander (*Desmognathus auriculatus*), river cooter (*Pseudemys consinna*), red-eared slider (*Trachemys scripta elegans*), yellow-bellied water snake (*Nerodia erythrogaster flavigaster*), and diamondback water snake (*Nerodia rhombifer rhombifer*).

EOI#1715

EOI #1715 consists of 9.12 acres and is located < 0.5 miles from the town of Mooringsport, Highway 169 and Caddo Lake. A road runs through the southern corner and there are several buildings on the tract. The parcel is located within a floodplain and ~ 90% consists of a mixed hardwood/pine forest.

Dominant tree species include: loblolly pine, water oak, and willow oak. Wildlife likely to occur includes: white-tailed deer, northern raccoon, evening bat, flying squirrel (*Glaucomys volans*), barred owl, whip poor-will (*Caprimulgus vociferous*), blue jay, tufted titmouse, southern leopard frog, southern copperhead, and speckled kingsnake (*Lampropeltis getula holbrooki*),

EOI#1716

EOI #1716 consists of 2 separate tracts totaling 28.08 acres located less than 0.5 miles from one another. They both border Buzzard Bay in Caddo Lake. It is located < 1 mile west of EOI #1714. A road runs east/west on the northern boundary of the northern tract. There are several houses on both tracts although ~ 80% of the parcels consist of a mixed hardwood/pine forest.

Dominant tree species on the northern tract include willow oak, water oak, loblolly pine, sugar berry, southern red oak and eastern red cedar. Dominant tree species for the southern tract include water oak, live oak (*Q. virginiana*), sweetgum (*Liquidambar styracflua*), and loblolly pine. Due to the close proximity to the Lake, wildlife diversity is probably high for these two tracts. Mammals likely to occur on these tracts include: least shrew, Seminole bat (*Lasiurus seminolus*), Eastern woodrat (*Neotoma floridana*), and swamp rabbit. Bird species that could occur include: swallow-tailed kite (*Elanoides forficatus*), Mississippi kite (*Ictinia mississippiensis*), bachman's warbler, red-shouldered hawk, yellow-billed cuckoo (*Coccyzus americanus*), and barred owl. Amphibians and reptiles that likely occur are: marbled salamander (*Ambystoma opacum*), southern dusky salamander (*Desmognathus auriculatus*), eastern cricket frog (*Acris crepitans crepitans*), river cooter, red-eared slider, yellow-bellied water snake, and diamondback water snake.

Wastes, Hazardous or Solid

During the on site inspections, no hazardous or solid waste disposal site were found on the lease tracts.

Water Quality, Surface/Ground

Surface Water Quality

The most frequently cited suspected causes of impairment for all water bodies combined in Louisiana are fecal coliforms, primarily from septic tanks and municipal sewage treatment systems; low dissolved oxygen from sewage, agriculture, or natural causes; sediment-related problems such as turbidity, suspended solids, and siltation caused by agriculture, forestry, sewage systems, construction, hydro-modification, resource extraction, or natural processes; and mercury related to fish consumption advisories, due primarily to atmospheric deposition of mercury on the watershed. Many of the suspected sources of water quality impairment are known collectively as nonpoint source pollution because it typically does not come from a single point of discharge but runs across the land when it rains and is carried through small canals and streams to major water bodies (LDEQ 2008).

Many of Louisiana's water bodies remain impaired for the designated use of fish and wildlife propagation. This is largely because there are many possible causes and sources of impairment impacting this use, and any one of these causes can result in a water body being considered impaired for fish and wildlife propagation. There are more than 30 different suspected causes of

impairment reported as impacting fish and wildlife propagation. With the exception of mercury, all of the top eight suspected causes of impairment generally can be related to nonpoint sources of pollution. The remaining causes of impairment generally are related to various forms of industry, small business, or municipal sources (LDEQ 2008)

Ground Water Quality

The results of the Baseline Monitoring Program indicate that water quality is good in Louisiana aquifers. Although the overall quality of the state's ground water is good, there are more than 200 sites where active investigation or remediation of contaminated ground water is taking place, not including underground storage tank or Superfund sites. There also were 14 public water supply systems impacted by VOC contamination of ground water between 1989 and 2002 (GWPC 2009b).

The proposed sites are located within the Mississippi embayment aquifer system which consists of 6 aquifers that crop out as an arcuate band of poorly consolidated to unconsolidated, bedded sand, silt and clay. Geologic units of the aquifer system range from Late Cretaceous to middle Eocene in age. These tracts are located within the Middle Claiborne aquifer. Aquifers of the Mississippi embayment aquifer system consist of an interbedded sequence of poorly consolidated fluvial, deltaic, and marine deposits in which diagenesis or postdepositional geochemical processes have not greatly altered the original pattern of permeability. The hydraulic conductivity of the unconsolidated to poorly consolidated sediments that compose the aquifers of the Mississippi embayment aquifer system does not appear to have been greatly reduced by cementation or compactions. Consequently, the distribution of hydraulic conductivity and transmissivity of the Mississippi embayment aquifer system can be inferred from maps of sediment lithofacies, if a direct correlation between sediment type and aquifer permeability is assumed.

Wetlands/Riparian Areas/Floodplains

Carnaham Creek is located right outside of the northwest boundary of EOI #1581. This Creek drains into Cane River which is a tributary to the Red River. EOI #1711 is located on the bank of the Red River. EOIs #1714, 1715, and 1716 are on the bank of Caddo Lake.

Energy Policy

The area contains no features related to energy development, production, supply or distribution.

Ch. 4 - ENVIRONMENTAL IMPACTS OF THE PROPOSED ACTION AND ALTERNATIVES

Introduction

This chapter assesses potential environmental consequences associated with direct, indirect, and cumulative effects of the Proposed Action and alternatives.

Based on review of the elements listed on the JFO NEPA Form and consideration of the Purpose and Need statement prepared for this EA, the following elements will be addressed in this EA: Air Quality, Environmental Justice, Cultural Resources, Native American Religious Concerns, Invasive/Exotic Species, Soils, Special Status Species, Migratory Birds of Concern, Wildlife and Vegetation, Wastes, Hazardous or Solid, Water Quality, Surface/Ground, Wetland/Riparian Areas/Floodplains, and Energy Policy.

Air Quality

If the lease is developed for oil and gas production, impacts to air quality associated with construction, drilling, production and abandonment could come from the following sources: (1.) fugitive dust generated from vehicle traffic along dirt or gravel roads during transportation of employees and equipment; (2.) exhaust from heavy machinery, vehicles, compressors, drilling rig prime movers, generators, and other internal combustion engines used during site construction, drilling, flowline installation, production, and abandonment and other production equipment such as pumps, separators, heater treaters, boilers; and (3.) fugitive VOC escaping from leaky pipe valves, flanges, and storage tanks during loading of crude on to tank trucks, and accidental releases/spills of hydrocarbons.

Fugitive dust created during road, drill pad, flowline construction, and abandonment would increase suspended particulates in the air. Also, the regulated air pollutants nitrogen oxides (NOx), sulfur oxides (SOx), VOC, and particulates (Pm) will be emitted from the above referenced sources. These conditions could temporarily impact the ambient air quality in the immediate vicinity of the leased area. The generation of suspended particulates, a regulated pollutant, could cause a temporary and localized disturbance to people who work in the area. However, the impacts from the combined frequency and volume of fugitive dust and regulated air pollutants are expected to be minimal, very localized, and of short duration.

Environmental Justice

There is no adverse human health and environmental effects anticipated from potential development on minority and low-income populations in the areas surrounding this tract.

Cultural Resources and Native American Religious Concerns

Cultural resource surveys have not been conducted, therefore direct and indirect impacts may occur to cultural resources or to a potentially sacred Native American religious site if there is ground disturbance. Direct impacts are those such as completely destroying a site by bulldozing the area and workers picking up artifacts. Indirect impacts are those such as erosion or compaction of the soil on the site. However, if sites are located and recorded before ground disturbance begins, these impacts can be avoided or mitigated. A stipulation regarding cultural resources and Native American religious concerns applies to this lease (Appendix B) and is applicable for all the proposed parcels. The stipulation states that the BLM will not approve any ground disturbing activities that may affect historic properties and/or resources until it completes its obligations under applicable requirements of the National Historic Preservation Act and other authorities. If currently unknown burial sites are discovered during development activities

associated with this lease, these activities must cease immediately, applicable law on unknown burials will be followed and, if necessary, consultation with the appropriate tribe/group of federally recognized Native Americans will take place.

Invasive/Exotic Species

Surface disturbing activities have the potential to introduce or promote the spread of invasive, nonnative plant species. Impacts are dependent on the species planted during restoration activities and the management of the site during and following restoration. Revegetating areas after soil disturbance with competitive grasses greatly reduces the ability for invasive species to take hold in an area. The Natural Resources Conservation Service recommends the mixture below for revegetation efforts in Louisiana:

Blend #1 LA (weight in pure live seed or PLS lb/ac)

- Switchgrass 60% = 2.4 lb
- IL Bundleflower 20% = 2.4 lb
- Partridge Pea 15% = 1.2 lb
- Black-eyed Susan 3% = .03 lb
- Plains Coreopsis 2% = .02 lb

A lease notice regarding invasive/exotic species applies to this lease (Appendix B) and is applicable for all of the proposed parcels. The lease notice states that the use of native or non-invasive plants in seeding mixtures will be encouraged to stabilize disturbed areas and during restoration activities. Construction sites will be surveyed for invasive species prior to ground disturbance. If invasive species are found, the proper control measures will be used to either eradicate the species from the area or minimize its spread to other areas.

Soils

Well site and access road construction would have direct impacts to soils. These impacts would be limited to those areas where vegetation is removed and construction occurs. The direct impacts would be of two types: (1) physical removal, leveling and mixing of surface soils and (2) soil compaction. The first impact would be caused by site preparation for construction of the well pad, related structures, road construction, flowline construction and wind and water erosion after vegetation is removed. This would cause a mixing of soil horizons and cause a short term loss of soil productivity. The second impact, soil compaction, would be caused by vehicle and machinery travel. Compaction decreases air and water infiltration into the soil profile thus reducing soil productivity. The indirect impact would be that of erosion and siltation of drainages and streams. Prompt cultivation and re-vegetation of impacted soil areas should reduce the possibility of soil erosion thus preventing an increase of siltation into drainages or streams from run-off. Site specific conditions of approval would be developed prior to approval of an APD to address soil erosion.

Special Status Species

Bald Eagle

There is foraging habitat potential for the bald eagle on EOI #1711. BLM has concluded that the proposed lease “may affect, but is not likely to adversely affect” the bald eagle. As a result, informal consultation was initiated with FWS LES on 12/13/12 (Appendix C). FWS LES responded with the following information/recommendations: “comprehensive bald eagle survey data have not been collected by the Louisiana Department of Wildlife and Fisheries (LDWF) since 2008, and new active, inactive or alternate nests may have been constructed within or adjacent to the proposed project area since that time. FWS has developed the National Bald Eagle Management (NBEM) Guidelines to provide landowners, land managers, and others with information and recommendations to minimize potential project impacts to bald eagles, particularly where such impacts may constitute “disturbance,” which is prohibited by the BGEPA. A copy of the NBEM Guidelines is available at:

<http://www.fws.gov/southeast/es/baldeagle/NationalBaldEagleManagementGuidelines.pdf>. Those Guidelines recommend: (1) maintaining a specified distance between the activity and the nest (buffer area); (2) maintaining natural areas (preferably forested) between the activity and nest trees (landscape buffers); and (3) avoiding certain activities during the breeding season. During any project construction, on-site personnel should be informed of the possible presence of nesting bald eagles in the vicinity of the project boundary, and should identify, avoid, and immediately report any such nests to this office. If a bald eagle nest occurs or is discovered within 1,599 feet of the proposed project area then an evaluation must be performed to determine whether the project is likely to disturb nesting bald eagles. That evaluation may be conducted on-line at: <http://www.fws.gov/southeast/es/baldeagle>. Following completion of the evaluation, that website will provide a determination of whether additional consultation is necessary.

On September, 11, 2009, FWS published two federal regulations establishing the authority to issue permits for non-purposeful bald eagle take (typically disturbance) and eagle nest take when recommendations of the NBEM Guidelines cannot be achieved. Permits may be issued for nest take only under the following circumstances were: (1) necessary to alleviate a safety emergency to people or eagles, (2) necessary to ensure public health and safety, (3) the nest prevents the use of a human-engineered structure, or (4) the activity or mitigation for the activity will provide a net benefit to eagles. Except in emergencies, only inactive nests may be permitted to be taken. The Division of Migratory Birds for the Southeast Region of the FWS (phone: 404-679-7051, e-mail: SEmigratorybirds@fws.gov) has the lead role in conducting consultations and issuance of permits. Should there be a need for further assistance interpreting guidelines, avoidance measures, or performing an on-line project evaluation, FWS LES can be contacted at: 337-291-3118.”

Although effects from the proposed leases are not likely for the bald eagle, BLM stipulations and lease notices regarding bald eagles also apply to this proposal, due to potential future changes in species habits, habitat, and range and changes in our knowledge thereof. The stipulation states that no surface occupancy or disturbance will be permitted within a 660-foot buffer zone (1,500-foot buffer zone in LA) around active or inactive bald eagle nests and communal roost sites to avoid impact to nesting eagles, including impact to courtship and nesting behavior, egg laying and incubation, and feeding and fledging activity. Also, BLM-permitted projects will not remove

trees suitable for nesting within a 0.5-mile buffer zone around active or inactive bald eagle nests and communal roost sites to protect foraging habitat, promote nest fidelity, and maintain habitat integrity around bald eagle nests and communal roosting sites.

Louisiana Pearlshell

There is potential for the Louisiana pearlshell to occur in small streams on EOIs #1711 and 1581. BLM has concluded that the proposed leases “may affect, but is not likely to adversely affect” the Louisiana pearlshell. FWS LES has recommended that if the proposed project has the potential to directly or indirectly affect individuals or their habitat, further consultation will be necessary.

Interior Least Tern

There is potential for the interior least tern to occur on the banks of Caddo Lake on EOIs #1714, #1715, and #1716. BLM has concluded that the proposed leases “may affect, but is not likely to adversely affect” the interior least tern. Recommendations from FWS LEC given through informal consultation is “the absence of nesting interior least terns should be confirmed before initiating any work in or adjacent to the Red or Mississippi Rivers during the breeding season (May 15 to August 31, depending upon river stages). In order to minimize impacts to nesting terns, FWS LES recommends that no activity should be conducted within 650 feet of a nesting colony and no disturbance to suitable nesting habitat (including changes in river morphology) should result from implementation of the proposed project. If nesting least terns are observed in proximity to the project area during the breeding season, all work should cease and FWS LES should be contacted immediately for further consultation. Should the proposed project directly or indirectly affect interior least terns or suitable nesting habitat within the Red or Mississippi Rivers, further consultation with FWS LES will be necessary.”

Although effects from the proposed leases are not likely for the interior least tern, BLM stipulations and lease notices regarding interior least tern also apply to this proposal, due to potential future changes in species habits, habitat, and range and changes in our knowledge thereof. The stipulation is a seasonal limitation which states that there will be no surface disturbance within a 650 foot buffer (LA) and 1,000 foot buffer (AR and KY) from sandbars on the Mississippi, Ohio, Arkansas, and Red Rivers during interior least tern nesting season (May 15-August 31), to protect interior least tern nesting and feeding habitat.

Red-cockaded Woodpecker

There is no potential for RCWs on the proposed project sites due to a lack of suitable habitat. BLM has concluded with a “no effect” determination for this species from the proposed projects. Through informal consultation FWS LES responded by saying, “If the proposed project area does not contain suitable nesting and/or foraging habitat as defined above, further consultation with FWS LES will not be necessary. However, if potential RCW nesting or foraging habitat is located within the project area, all suitable nesting habitat within the project area and within a one-half mile radius from such habitat should be carefully surveyed by a qualified biologist for the presence of RCW cavity trees in accordance with the survey protocol found in Appendix 4 of the RCW Recovery Plan (2003), which can be found online at: http://www.fws.gov/rcwrecovery/recovery_plan.html.

FWS LES requests that they receive a copy of the survey report, which should include the following details:

1. Survey methodology including dates, qualifications of survey personnel, size of survey area, and transect density;
2. Pine stand characteristics including number of acres of suitable nesting and/or foraging habitat, tree species, basal area and number of pine stems 10 inches or greater per acre, percent cover of pine trees greater than 60 years of age, species of dominant vegetation within each canopy layer, understory conditions, and species composition (several representative photographs should be included);
3. Number of active and inactive RCW cavity trees observed and the condition of the cavities (e.g. resin flow, shape of cavity, start-holes);
4. Presence or absence of RCWs; and
5. Topographic quadrangle maps which illustrate areas of adequate RCW nesting and/or foraging habitat, cluster sites, and cavity tree locations relative to proposed construction activities.

If implementation of the proposed projects have the potential to directly or indirectly affect RCW individuals or their habitat, further consultation with FWS LES will be necessary.

Although effects from the proposed leases are not likely for the RCW, BLM stipulations and lease notices regarding RCWs also apply to this proposal, due to potential future changes in species habits, habitat, and range and changes in our knowledge thereof. The stipulation states that no surface occupancy or disturbance will be permitted within 0.5 mile of a red-cockaded woodpecker cluster, defined as the area containing all active and inactive cavity trees and a 200-foot buffer zone surrounding that area. Vehicle use is prohibited within a cluster except for through-travel on existing, maintained, paved roads.

Earth Fruit

Because there is no suitable habitat for the earth fruit on the proposed leases, BLM has concluded with a “no effect” determination for this species. The response from FWS LES was, “Because no saline prairie was described within the proposed project area, no further consultation on earth fruit would be required due to lack of suitable habitat.

Sprague’s Pipit

Because this species is not currently listed and there is no suitable habitat located on the proposed project sites, BLM has concluded with a “no effect determination for Sprague’s pipit from the proposed projects. Response from FWS LES was, “There is currently no requirement under the Endangered Species act for consultation regarding project impacts on candidate species. In the interest of conserving the Sprague’s pipit, we encourage you to avoid project activities that would adversely affect this species or its habitat. Should it be federally listed as threatened or endangered in the future, however, further consultation on project impacts to this species could then be necessary. “

BLM also consulted with Louisiana Natural Heritage Program (LNHP) on 12/13/12 (Appendix C). LNHP replied that, “the Personnel of the Habitat Section of the Coastal and Nongame

Resources Division have reviewed the preliminary data for the proposed project. After careful review of our database, no impacts to rare, threatened, or endangered species or critical habitats are anticipated for the proposed project. No state or federal parks, wildlife refuges, scenic streams, or wildlife management areas are known at the specified sites within Louisiana's boundaries."

Approval of the proposed leases does not in itself authorize any ground disturbance. If there is any future ground disturbance activities, the lessee will be required to submit an Application for Permit to Drill (APD). Additional consultation with FWS will occur at this time, if necessary. Stipulations and lease notices regarding rare species apply to this proposal. The stipulation states that the BLM may recommend modifications to exploration and development proposals to further the conservation and management objectives for threatened, endangered, or other special status plant or animal species or their habitat to avoid BLM-approved activity that would contribute to a need to list such a species or their habitat. The lease notice gives recommendations for disposing produced water in such a way as to protect aquatic habitats for and to avoid potential impacts to special status fish, mussels, turtles, snails, plants, and migratory birds.

To protect threatened, endangered, candidate, proposed, and BLM sensitive plant species a second stipulation applies to this lease and applies to all proposed parcels. The stipulation states that all suitable special status plant species habitat will be identified during environmental review of any proposed surface use activity. If field examination indicates that habitat of one or more of these species is present, the BLM will require a survey by a qualified botanist for special status plants during periods appropriate to each species. Operations will not be allowed in areas where sensitive plants would be affected.

Migratory Bird Species of Concern

The lists of migratory birds that have the potential to occur on the proposed tracts are based on the presence of bottomland hardwood forests in all successional stages for EOI #1711 and 1714 and mixed pine/hardwood forests for EOI #1581, 1714, 1715, and 1716. Nesting and foraging habitat for birds will be altered dramatically if forests are cut for oil and gas development. Many of the species with the potential to occur on these tracts could move to similar habitats in surrounding areas. After the wells are put into production and during reclamation activities bird species diversity would be altered depending on successional stage of the site and adequacy of restoration efforts.

To protect perch and roosting sites and terrestrial habitats for and to avoid potential impacts to migratory birds and federally listed wildlife a lease notice applies to this lease and applies to all proposed parcels. The lease notice provides recommendations regarding reserve pits, maximum design speeds for roads, and power line construction to minimize effects on migratory birds.

Wildlife and Vegetation

The Reasonable Foreseeable Development Scenario (RFD) for EOI # 1581 predicts that 1 federal well will be drilled from 1 pad. The total disturbance predicted would be 6.51 acres, with 5.74

acres disturbed for the well pad and pit, 1.23 acres for the access road, and 0.46 acres reclaimed. The RFD for EOI # 1672 predicts that multiple wells will be drilled horizontally from 1 drilling pad. The total disturbance predicted would be 5.95 acres, with 5.74 acres disturbed for the well pad and pit, 0.55 acres for the access road, and 0.34 acres reclaimed. The RFD for EOI # 1711 predicts that 4 wells will be drilled from 1 pad. The total disturbance predicted would be 6.08 acres, with 5.74 acres disturbed for the well pad and pit, 0.68 acres for the access road, and 0.34 acres reclaimed. The RFD for EOI # 1714 predicts that multiple wells will be horizontally drilled from 1 pad. The total disturbance predicted would be 6.43 acres, with 5.74 acres disturbed for the well pad and pit, 1.03 acres for the access road, and 0.34 acres reclaimed. The RFD for EOI # 1715 predicts that multiple wells will be horizontally drilled from 1 pad. The total disturbance predicted would be 6.23 acres, with 5.74 acres disturbed for the well pad and pit, 0.83 acres for the access road, and 0.34 acres reclaimed. The RFD for EOI # 1716 predicts that multiple wells will be horizontally drilled from 1 pad. The total disturbance predicted would be 5.74 acres, with 5.74 acres disturbed for the well pad and pit, 0.34 acres for the access road, and 0.34 acres reclaimed (Appendix D).

Many of the species expected to occur on these sites have broad habitat requirements and would continue to be found in a variety of habitats in the surrounding areas. Wildlife use of the sites after wells are put into production would vary depending on vegetation and succession stage. Once put into production, well pads would be reduced in size and reserve pits would be graded and seeded. The producing well sites would be subject to regular maintenance and inspection. Wildlife use of sites is dependent on the adequacy of restoration. However, over the life of the wells, some of the acreage would be excluded from utilization by most wildlife species.

Wastes, Hazardous or Solid

The operations would typically generate the following wastes; (a) discharge of drilling fluids and cuttings into the reserve pits; (b) wastes generated from used lubrication oils, hydraulic fluids, and other fluids used during production of oil and gas, some of which may be characteristic or listed hazardous waste; and (c) service company wastes from exploration and production activities as well as containment of some general trash. Certain wastes unique to the exploration, development, and production of crude oil and natural gas have been exempted from Federal Regulations as hazardous waste under Subtitle C of the Resource Conservation and Recovery Act (RCRA) of 1976. The exempt waste must be intrinsic to exploration, development or production activities and is not generated as part of a transportation or manufacturing operation. The drilling fluids, drill cuttings, and produced waters are classified as a RCRA exempt waste, and the proposed action would not introduce hazardous substances into the environment if they are managed and disposed of properly under Federal, State, and local waste management regulations and guidelines.

Water Quality, Surface/Ground

Construction would cause some minor erosion and re-deposition of soil a short distance away from the construction area. Due to the topography within and around these parcels, Black Lake and the surrounding wetlands could serve as an accumulation point for surface runoff, re-deposited sediments via erosion, and developmental effluent. Site specific conditions of approval

would be developed prior to approval of an APD to protect surface water quality. This may include but is not limited to construction of ditches, berms, terraces or other similar structures. Areas not needed for production would be reclaimed and stabilized to control erosion.

Improper casing and/or cementation can result in contamination of ground water aquifers. The BLM requires that the operator must isolate freshwater-bearing formations and other usable water containing 10,000 ppm or less of total dissolved solids (TDS) and other mineral-bearing formations and protect them from contamination by using proper casings. In addition, the BLM requires lining the reserve and water pit with a suitable liner on a case-by-case basis.

Wetlands/Riparian Areas/Floodplains

No disturbance would be permitted within 250 feet of streams, rivers, wetlands or springs. Because EOI #1711 is located on the bank of the Red River and EOI # 1714, 1715, and 1716 are located on the bank of Caddo Lake, the majority of each of these parcels would not allow surface occupancy.

No Action

Under this alternative, the parcels within the proposed action would remain unleased at this point in time. It could be offered for leasing in the future, but may be subject to additional environmental analysis at that point in time. If the parcels were not leased there would be no direct impacts to the potential drill location and therefore no effects on all of the critical elements above except Cultural Resources and Native American Religious Concerns (see below). As compared to the proposed action, there would be less disturbance resulting from oil and gas related actions.

Cultural Resources

If the area is not leased and cultural resource surveys are not conducted, direct and indirect impacts may occur. Direct impacts are those such as completely destroying a site by “relic hunters” or by people picking up artifacts. Other direct impacts may be the mixing of layers in a site by plowing or the destruction of a site by land leveling. Indirect impacts are those such as after timber thinning or clear-cutting erosion of the remains of a site. Hunting activities may cause other impacts to the surface such as the deposition of spent ammunition shells and other items. However, the use of the property is the purview of the land owner, and any cultural resource site and its artifacts are the property of the land owner.

Native American Religious Concerns

Under this alternative, places of Native American Religious Practice could be impacted by activities of the landowner, unless there was a formal agreement between the landowner and the Native American tribe. Direct impacts could be the destruction of a site, and an indirect impact could be the landowner placing a fee on the use of the area.

Cumulative Impacts

Cumulative impacts are the impacts to the environment which result from the incremental impact of the action when added to other past, present, and reasonable foreseeable future actions. Since the proposed action would not authorize surface occupancy, no environmental impacts are anticipated on the lease. Hence, the proposed action will not contribute to the impacts to other past, present, or reasonable foreseeable actions. For Cultural Resources and Native American Religious Concerns this is dependent upon cultural resource surveys being conducted.

Energy Policy

Energy Policy Act of 2005 – Sets forth an energy research and development program covering: (1) energy efficiency; (2) renewable energy; (3) oil and gas; (4) coal; (5) Indian energy; (6) nuclear matters and security; (7) vehicles and motor fuels, including ethanol; (8) hydrogen; (9) electricity; (10) energy tax incentives; (11) hydropower and geothermal energy; and (12) climate change technology.

Title III: Oil and Gas

Subtitle B: Natural Gas

(Sec. 313) Designates FERC as the lead agency for coordinating federal permits and other authorizations and compliance with the National Environmental Policy Act of 1969 (NEPA). Directs FERC to establish a schedule for all federal authorizations.

Subtitle C: Production

(Sec. 322) Amends the Safe Drinking Water Act to exclude from the definition of underground injection the underground injection of fluids or propping agents (other than diesel fuels) pursuant to hydraulic fracturing operations related to oil or gas, or geothermal production activities.

Subtitle F: Access to Federal Lands

(Sec. 361) Requires the Secretary of the Interior to perform an internal review of current federal onshore oil and gas leasing and permitting practices.

(Sec. 364) Amends the Energy Act of 2000 to revise the requirement that the Secretary of the Interior, when inventorying all onshore federal lands, identify impediments or restrictions upon oil and gas development.

(Sec. 366) Amends the Mineral Leasing Act to set deadlines for an expedited permit application process.

(Sec. 368) Prescribes guidelines governing energy right-of-way corridors on federal land.

Directs the Secretaries of Agriculture, of Commerce, of Defense, of Energy, and of the Interior (the Secretaries), in consultation with FERC, states, tribal or local government entities, affected utility industries, and other interested persons, are directed to consult with each other and to: (1) designate corridors for oil, gas, and hydrogen pipelines and electricity transmission and distribution facilities on federal land in the 11 contiguous Western States; (2) incorporate the designated corridors into the relevant energy land use and resource management or equivalent plans; and (3) ensure that additional corridors are promptly identified and designated.

(Sec. 371) Amends the Mineral Leasing Act to cite conditions for the reinstatement of oil and gas leases terminated for certain failure to pay rentals.

Subtitle G: Miscellaneous

(Sec. 390) States that action by the Secretary of the Interior in managing the public lands, or the Secretary of Agriculture in managing National Forest System Lands, with respect to certain oil or gas drilling related activities shall be subject to rebuttable presumption that the use of a categorical exclusion under NEPA would apply if the activity is conducted pursuant to the Mineral Leasing Act for the purpose of exploration or development of oil or gas.

CH. 5 - LIST OF AGENCIES AND PERSONS CONSULTED:

The following agencies/tribes were contacted (Appendix C):

U.S. Fish and Wildlife Service, Louisiana Ecological Services
Louisiana Natural Heritage Program
Louisiana State Historic Preservation Officer
Tunica-Biloxi Tribe
Caddo Indian Tribe
Chickasaw Nation
Alabama Coushatta Tribe
Coushatta Tribe
Chitimacha Tribe of Louisiana
Alabama-Quassarte Tribal Town
Muscogee (Creek) Nation of Oklahoma
Thlopthlocco Tribal Town
Choctaw Nation of Oklahoma
Mississippi Band of Choctaw
Quapaw Tribe of Oklahoma

Literature Cited

LDEQ, Louisiana Department of Environmental Quality. 2008. Final Draft 2008 Louisiana Water Quality Inventory: Integrated Report.

LDWF, Louisiana Department of Wildlife and Fisheries. 2004. Rare Species Tracking List and Fact Sheet. Louisiana Natural Heritage Program.

Hamel, P. 1992. The Land Manager's Guide to the Birds of the South.

Peterson, R. 1980. Birds of Eastern and Central North America.

USDA, United States Department of Agriculture. 2007. Nonindigenous Species List – Louisiana. Southeast Ecological Science Center.

USFWS, U.S. Fish and Wildlife Service. 2002. Birds of Conservation Concern.

List of Preparers

Specialist Name

Title, Organization

Alison McCartney

Natural Resource Specialist

John Sullivan

Archaeologist

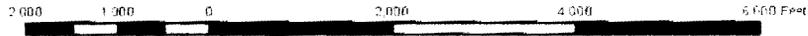
Gary Taylor

Planning and Environmental Coordinator

APPENDIX A

Proposed Lease Tract Locations

Proposed Federal Oil and Gas Lease
EOI 1581



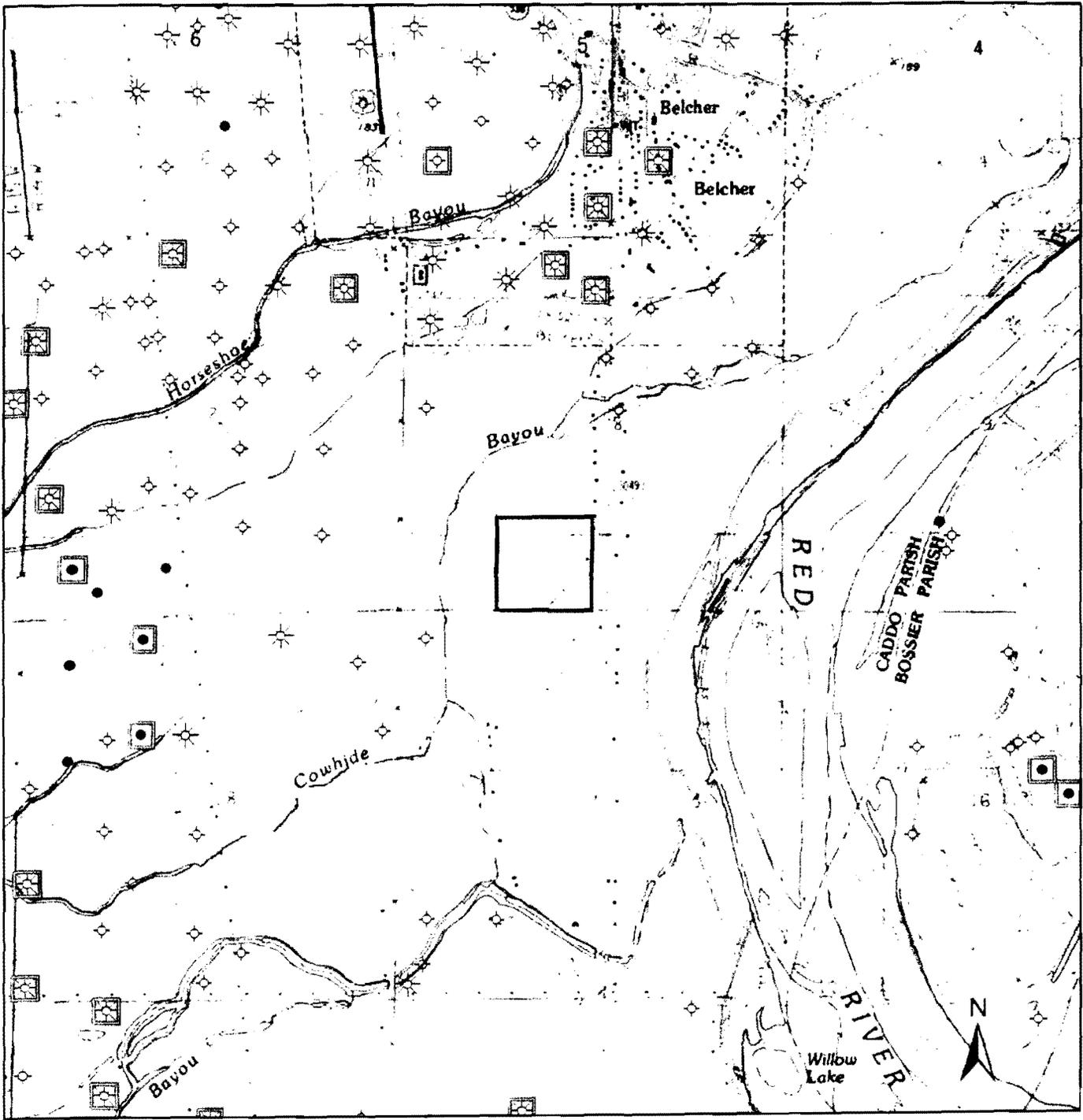
Proposed Lease Area
 Oil and Gas Wells
 Dry Hole, Temporarily Abandoned

Proposed Lease Area:
 Rapides Parish, Louisiana, Louisiana Meridian
 T. 5N., R. 4W., Sec. 4, SWNW
 Approximately 38.02 acres.

U.S. Department of the Interior
 Bureau of Land Management
 Eastern States
 Southeastern States Field Office
 Jackson, Mississippi

This map contains portions of the following USGS 1:24,000 Topographic Quadrangle: Lena
 No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or
 completeness of this data for individual use or aggregate use with other data.

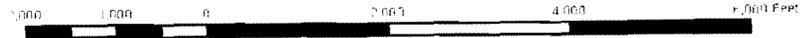
Proposed Federal Oil and Gas Lease
EOI 1672



Proposed Lease Area

Oil and Gas Wells

- ◇ Dry Hole, Temporarily Abandoned
- Oil Well
- ⊛ Gas Well
- Inactive Wells



Proposed Lease Area:
Caddo Parish, Louisiana, Louisiana Meridian
T 20N., R. 14W., Sec. 8, SESW
Approximately 39.88 acres.

U.S. Department of the Interior
Bureau of Land Management
Eastern States, Jackson Field Office
Jackson, Mississippi

This map contains portions of the following USGS 1:24,000 Topographic Quadrangles. Gilliam, Dix

No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of this data for individual use or aggregate use with other data.

Proposed Federal Oil and Gas Lease
EOI 1711



0 1,000 2,000 4,000 6,000 Feet

 Proposed Lease Area

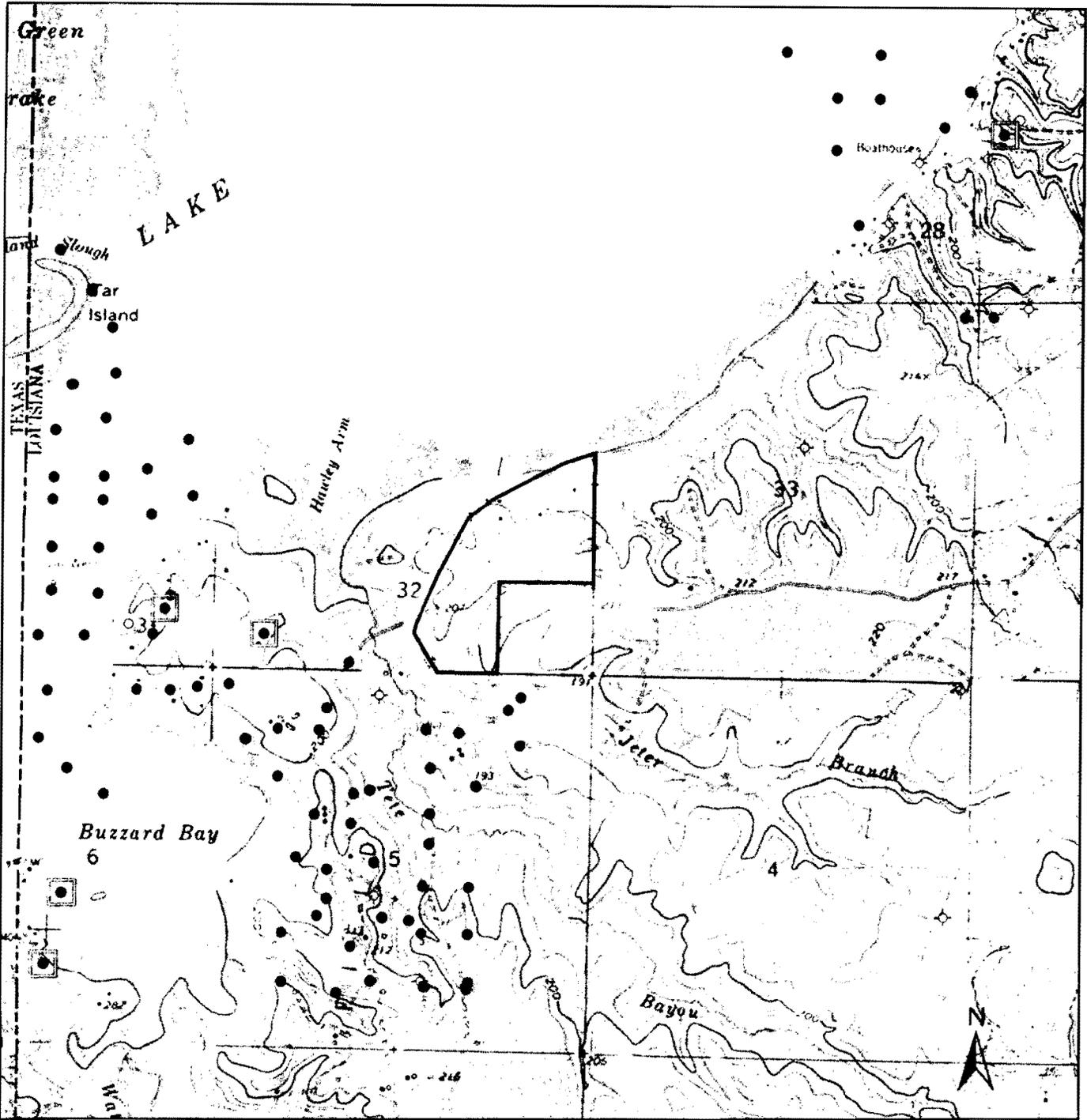
Proposed Lease Area:
Rapides Parish, Louisiana, Louisiana Meridian
T. 3N., R. 1E., Sec. 9, Entire section
Approximately 22.16 acres.

U.S. Department of the Interior
Bureau of Land Management
Eastern States
Southeastern States Field Office
Jackson, Mississippi

This map contains portions of the following USGS 1:24,000 Topographic Quadrangles: Latanier, Woodworth East, Alexandria, Libuse

No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of this data for individual use or aggregate use with other data.

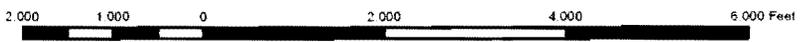
Proposed Federal Oil and Gas Lease
EOI 1714



Proposed Lease Area

Oil and Gas Wells

- ◻ Dry Hole, Temporarily Abandoned
- Oil Well
- Inj. Srv. CO2 Storage, WDW, Pseudo Orig. Mining Borhole
- ◻ Inactive Wells

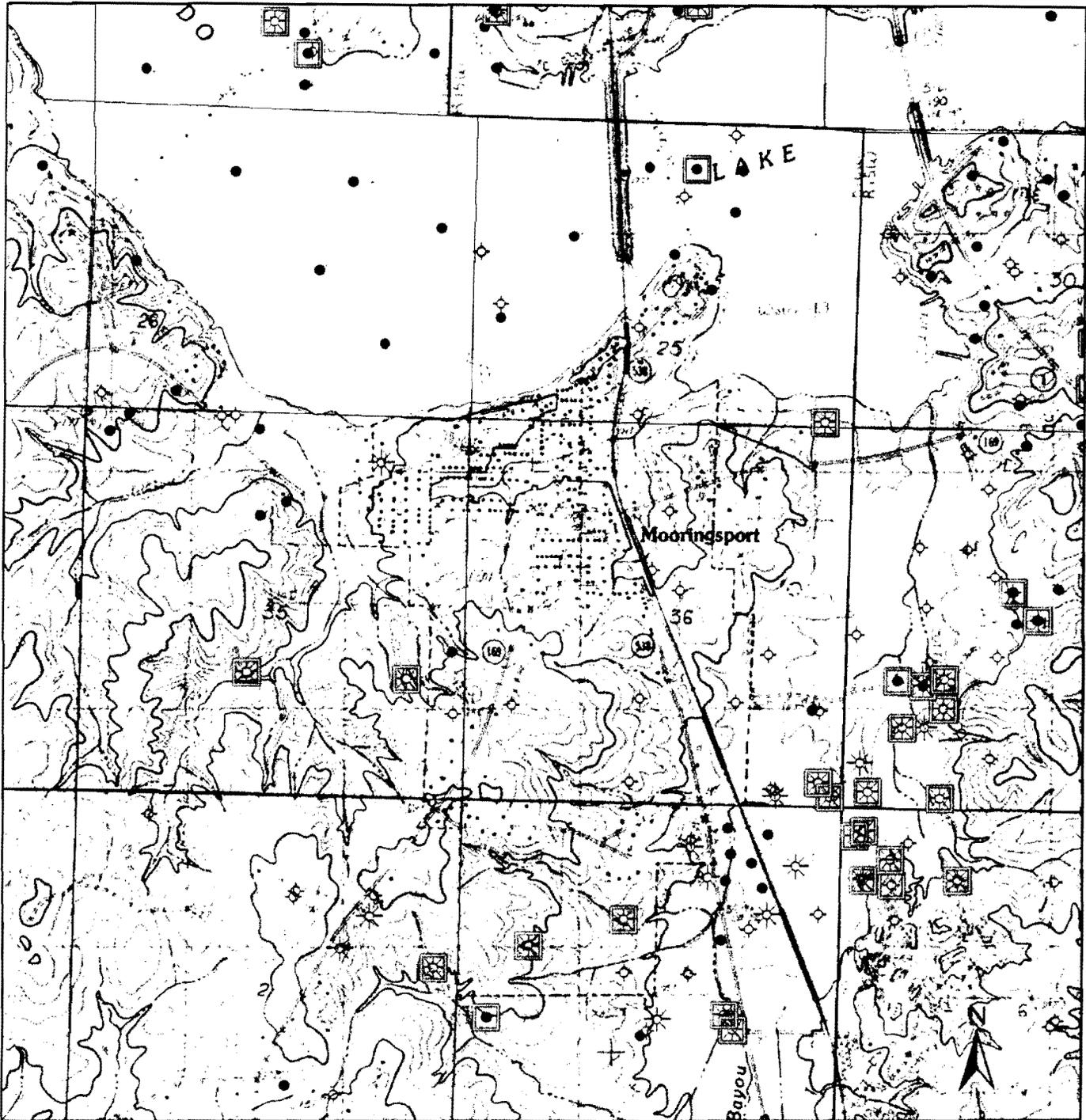


Proposed Lease Area:
Caddo Parish, Louisiana, Louisiana Meridian
T 20N., R. 16W., Sec.32, Lots 1 and 3
Approximately 91.56 acres.

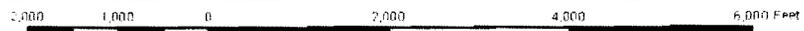
U.S. Department of the Interior
Bureau of Land Management
Eastern States
Southeastern States Field Office
Jackson, Mississippi

This map contains portions of the following USGS 1:24,000 Topographic Quadrangles: Potters Point, Mooningsport
No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of this data for individual use or aggregate use with other data.

Proposed Federal Oil and Gas Lease
EOI 1715



Proposed Lease Area
Oil and Gas Wells
 Dry Hole, Temporarily Abandoned
 Oil Well
 Gas Well
 Inj. Srv. CO₂ Storage, WDW, Pseudo Orig, Mining Borhole
 Inactive Wells

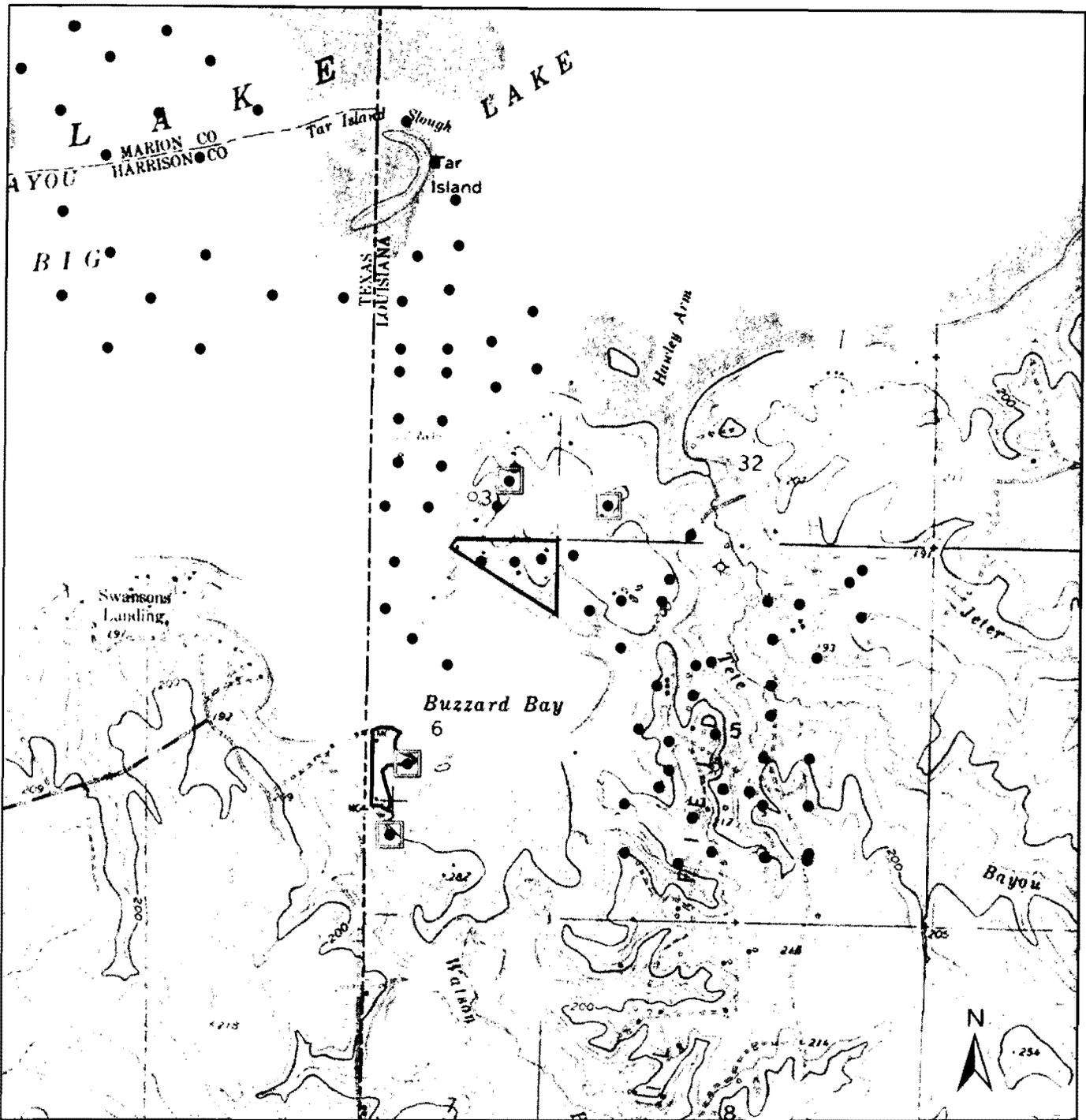


Proposed Lease Area:
Caddo Parish, Louisiana, Louisiana Meridian
T. 20N., R. 16W., Sec. 36 Lots 1
Approximately 9.12 acres.

U.S. Department of the Interior
Bureau of Land Management
Eastern States
Southeastern States Field Office
Jackson, Mississippi

This map contains portions of the following USGS 1:24,000 Topographic Quadrangle, Mooringsport
No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or
completeness of this data for individual use or aggregate use with other data.

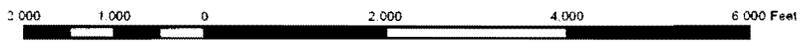
Proposed Federal Oil and Gas Lease
EOI 1716



Proposed Lease Area

Oil and Gas Wells

- ⊕ Dry Hole, Temporarily Abandoned
- Oil Well
- Inj. Srv. CO2 Storage, WDW, Pseudo Orig, Mining Borhole
- Inactive Wells



Proposed Lease Area:
Caddo Parish, Louisiana, Louisiana Meridian
T. 19N., R. 16W., Sec. 6, Lots 1 and Fractional
NE Quarter
Approximately 28.08 acres.

U.S. Department of the Interior
Bureau of Land Management
Eastern States
Southeastern States Field Office
Jackson, Mississippi

This map contains portions of the following USGS 1:24,000 Topographic Quadrangle: Potters Point

No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of this data for individual use or aggregate use with other data.

APPENDIX B

Proposed Lease Stipulations and Lease Notices

Stipulations

Cultural Resources and Tribal Consultation

Stipulation: This lease may be found to contain historic properties and/or resources protected under the National Historic Preservation Act (NHPA), American Indian Religious Freedom Act, Native American Graves Protection and Repatriation Act, E.O. 13007, or other statutes and executive orders. The BLM will not approve any ground disturbing activities that may affect any such properties or resources until it completes its obligations under applicable requirements of the NHPA and other authorities. These obligations may include a requirement that you provide a cultural resources survey conducted by a professional archaeologist approved by the State Historic Preservation Office (SHPO). If currently unknown burial sites are discovered during development activities associated with this lease, these activities must cease immediately, applicable law on unknown burials will be followed and, if necessary, consultation with the appropriate tribe/group of federally recognized Native Americans will take place. The BLM may require modification to exploration or development proposals to protect such properties, or disapprove any activity that is likely to result in adverse effects that cannot be successfully avoided, minimized or mitigated.

Endangered Species

Stipulation: The lease area may now or hereafter contain plants, animals, or their habitats determined to be threatened, endangered, or other special status species. BLM may recommend modifications to exploration and development proposals to further its conservation and management objective to avoid BLM-approved activity that will contribute to a need to list such a species or their habitat. BLM may require modifications to or disapprove proposed activity that is likely to result in jeopardy to the continued existence of a proposed or listed threatened or endangered species or result in the destruction or adverse modification of a designated or proposed critical habitat. BLM will not approve any ground-disturbing activity that may affect any such species or critical habitat until it completes its obligations under applicable requirements of the Endangered Species Act as amended, 16 U.S.C. ' 1531 et seq., including completion of any required procedure for conference or consultation.

Exception: None

Modification: None

Waiver: None

Sensitive Plant Species

Stipulation (CSU): All suitable special status plant species habitat will be identified during environmental review of any proposed surface use activity. If field examination indicates that habitat of one or more of these species is present, the BLM will require a survey by a qualified botanist for special status plants during periods appropriate to each species. Operations will not be allowed in areas where sensitive plants would be affected.

Objective: To protect threatened, endangered, candidate, proposed, and BLM sensitive plant species.

Exception: An exception may be granted if the operator agrees to implement measures developed in consultation with USFWS and in coordination with State agencies.

Modification: The stipulation may be modified if it is determined that a portion of the lease area does not contain sensitive plant species habitat.

Waiver: The stipulation may be waived if, based on field surveys, it is determined that the lease area does not contain sensitive plant species habitat.

Freshwater Aquatic Habitat

This stipulation applies to EOI #1581, 1711, 1714, 1715, and 1716.

Stipulation (NSO): No surface occupancy or disturbance, including discharges, are permitted within 250 feet of a river, stream, wetland spring, headwater, wet meadow, wet pine savanna, pond, tributary, lake, coastal slough, sand bar, vernal pools, calcareous seepage marsh, or small, marshy calcareous stream. If the slope exceeds 10 percent, the buffer may be extended to 600 feet to provide adequate protection for aquatic habitats and associated species.

Objective: To protect the water quality of watersheds and natural stream substrate and morphology and to avoid potential impacts to aquatic species and their habitat.

Exception: An exception may be granted if the operator agrees to 1) span creeks, rivers, wetlands, and floodplains by attaching pipelines to bridges; 2) directionally drill wells and pipelines from upland sites under creeks, rivers, other waters, and wetlands or 3) implement other measures developed in consultation with USFWS and in coordination with State agencies.

Modification: The buffer may be reduced if the adjacent waterway has been surveyed for 100 yards upstream and 300 yards downstream of the site, and the results document the lack of suitable/occupied/critical habitat for listed species which may be affected by the project, as determined by the BLM and USFWS.

Waiver: None

Bald Eagle

This stipulation applies to EOI #1711.

Stipulation (NSO): No surface occupancy or disturbance will be permitted within a 660-foot buffer zone (1,500-foot buffer zone in LA) around active or inactive bald eagle nests and communal roost sites.

Objective: To avoid impact to nesting eagles, including impact to courtship and nesting behavior, egg laying and incubation, and feeding and fledging activity.

Exception: An exception may be granted if the operator agrees to implement measures

developed in consultation with USFWS and appropriate State agencies.

Modification: This stipulation may be modified to remain consistent with Federal or State guidelines or if a portion of the stipulated area is no longer within the 660-foot buffer zone (1,500-foot buffer zone in LA).

Waiver: This stipulation may be waived if no suitable nest sites are within 660 feet (1,500 feet in LA) of any portion of the leased tract or if documented evidence can be provided that an inactive nest within 660 feet (1,500 feet in LA) has not been used for at least 5 years.

Bald Eagle

This stipulation applies to EOI #1711.

Stipulation (CSU): BLM-permitted projects will not remove trees suitable for nesting within a 0.5-mile buffer zone around active or inactive bald eagle nests and communal roost sites.

Objective: To protect foraging habitat, promote nest fidelity, and maintain habitat integrity around bald eagle nests and communal roosting sites.

Exception: An exception may be granted if the operator agrees to implement measures developed in consultation with USFWS and in coordination with State agencies.

Modification: This stipulation may be modified to remain consistent with Federal and State guidelines or if a portion of the stipulated area is no longer within the 0.5-mile buffer zone.

Waiver: This stipulation may be waived if no nest or communal roosting site can be identified within 0.5 miles of the leased tract or if the applicant can document that no sites have been used by bald eagles for 5 consecutive years.

Interior Least Tern

This stipulation applies to EOIs #1714, 1715, and 1716:

Stipulation: Seasonal Limitation: No surface disturbance within a 650foot buffer (LA) and 1,000foot buffer (AR and KY) from sandbars on the Mississippi, Ohio, Arkansas, and Red Rivers. during interior least tern nesting season (May 15-August 31).

Objective: To protect interior least tern nesting and feeding habitat.

Exception: An exception may be granted if the operator agrees to implement measures developed in consultation with the USFWS and in coordination with State agencies.

Modification: Temporary surface use may be permitted if USFWS concurs that the action would not adversely affect least tern or suitable habitat.

Waiver: This stipulation may be waived if suitable interior least tern habitat does not occur within 650 feet (LA) or 1,000 feet (AR and KY) of the leased tract.

Red-cockaded Woodpecker

Stipulation (NSO): No surface occupancy or disturbance within 0.5 mile of a red-cockaded woodpecker cluster, defined as the area containing all active and inactive cavity trees and a 200-foot buffer zone surrounding that area. Vehicle use is prohibited within a cluster except for through-travel on existing, maintained, paved roads.

Objective: To protect red-cockaded woodpecker nest sites from disturbance and habitat degradation.

Exception: An exception may be granted to allow surface occupancy within 0.5 mile of a cluster if the operator agrees to measures developed in consultation with USFWS and in coordination with State agencies.

Modification: This stipulation may be modified if a portion of the stipulated area is no longer within the 0.5-mile buffer zone.

Waiver: This stipulation may be waived if no cluster can be identified within 0.5 mile of the leased tract.

Lease Notices/Best Management Practices

Disposal of Produced Water

Objective: To protect aquatic habitats for and to avoid potential impacts to special status fish, mussels, turtles, snails, plants, and migratory birds.

The preferred method for disposal of produced water will be through reinjection to a permeable formation with total dissolved solids (TDS) content higher than 10,000 milligrams per liter (mg/L) where the aquifer is not hydrologically connected to caves, wetlands, or surface water. In Alabama, the injection of produced water is regulated by the Alabama State Oil and Gas Board. In Mississippi, the injection of produced water is regulated by the Mississippi Department of Environmental Quality (MDEQ) and the Mississippi Oil and Gas Board.

If reinjection is not practicable, closed-containment treatment systems should be used to contain and treat produced water for those contaminants and sediments exceeding State standards or EPA criteria. Salt content of any surface ponds for produced water, pigging pits, or other fluids must be less than 7,500 microsiemens per centimeter ($\mu\text{S}/\text{cm}$). If surface pond salt content is greater than 7,500 $\mu\text{S}/\text{cm}$, if other bird toxicity is present, or if the surface exhibits sheen, then the ponds must be netted or covered with floating balls, or other methods must be used to exclude migratory birds.

Produced waters may be released into an impounded reservoir if there is documentation that the discharge site and affected waters do not support special status species, are not designated critical habitat, and State and Federal water quality standards/criteria are met.

Produced waters may be released into a stream/river if the discharge site and affected waters have been recently surveyed and lack special status species, or if the applicant conducts approved surveys documenting the absence of special status species, State and Federal water quality standards/criteria are met, and a National Pollution Discharge Elimination System (NPDES) permit is obtained. The applicant should be aware that some species can be surveyed only during certain times of the year.

Produced waters may be released into a stream/river if the applicant can document that the produced waters would not adversely affect special status species. Water quality tests would be conducted on stream segment(s) or other locations proposed as discharge points, volumes to be released, and any settling ponds or other treatments proposed to improve wastewater quality. The water quality test data, any monitoring proposed, and other available information about general coalbed methane effluent characteristics (from published or unpublished literature) shall be reviewed by USFWS. Information about timing of the releases in relation to low water and other planned BMPs would also be required. Testing would include analysis of the discharge site and affected waters for chemical oxygen demand (COD), conductivity, total suspended solids (TSS), As, Hg, Se, and polycyclic aromatic hydrocarbons (PAH). Dissolved oxygen and ammonia standards/criteria must be met in bottom waters if they support listed benthic or epibenthic species. If a special status species has been documented to be more sensitive than State/Federal standards/criteria, site-specific standards for that species may be imposed. Calculations would be

based on State standards (or Federal CCC criteria for protection of freshwater aquatic life when the State has not determined a standard for these parameters).

Migratory Birds and Federally Listed Wildlife

Objective: To protect perch and roosting sites and terrestrial habitats for and to avoid potential impacts to migratory birds and federally listed wildlife.

Any reserve pit that is not closed within 10 days after a well is completed and that contains water must be netted or covered with floating balls, or another method must be used to exclude migratory birds.

All powerlines must be built to protect raptors and other migratory birds, including bald eagles, from accidental electrocution, using methods detailed by the Avian Power Line Interaction Committee (APLIC 2006)

Perching and Nesting Birds and Bats

Objective: To prevent birds and bats from entering or nesting in or on open vent stack equipment.

Open vent stack equipment, such as heater-treaters, separators, and dehydrator units, will be designed and constructed to prevent birds and bats from entering or nesting in or on such units and, to the extent practical, to discourage birds from perching on the stacks. Installing cone-shaped mesh covers on all open vents is one suggested method. Flat mesh covers are not expected to discourage perching and will not be acceptable.

Invasive and Non-Native Species

Objective: To discourage the spread of invasive, non-native plants.

Use of native or non-invasive plants in seeding mixtures will be encouraged to stabilize disturbed areas and during restoration activities. Construction sites will be surveyed for invasive species prior to ground disturbance. If invasive species are found, the proper control measures will be used to either eradicate the species from the area or minimize its spread to other areas. If cogongrass is found on site, equipment will be washed before exiting the site to prevent the spread of this highly invasive species to other locations. Post-construction monitoring for cogongrass and other invasive plant species should be conducted to ensure early detection control. In the case of split-estate lands, final seed mixtures will be formulated in consultation with the private landowner.

Pesticide Application

Objective: To protect the water quality of watersheds and natural stream substrate and morphology supporting special status species and their host species.

Any ground application of herbicides or other pesticides, sterilants, or adjuvants within 150 feet of listed species or habitat will require site-specific control measures developed in coordination or formal consultation with USFWS. No aerial application of herbicides or pesticides will be permitted.

APPENDIX C

Correspondence



United States Department of the Interior



FISH AND WILDLIFE SERVICE
646 Cajundome Blvd.
Suite 400
Lafayette, Louisiana 70506

January 9, 2012

Ms. Alison McCartney
Permit Section Chief, Regulatory Branch
Bureau of Land Management
411 Briarwood Drive
Jackson, MS 39206

Dear Ms. McCartney:

Please reference your December 13, 2012, electronic mail and attachment requesting initiation of informal consultation under Section 7 of the Endangered Species Act (ESA) of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) for six oil and gas lease nominations in Rapides and Caddo Parishes, Louisiana. The Fish and Wildlife Service (Service) has reviewed the information and offers the following comments in accordance with the ESA, the Migratory Bird Treaty Act (MBTA) (40 Stat. 755, as amended; 16 U.S.C. 703 et seq.), and the Bald and Golden Eagle Protection Act (BGEPA) (54 Stat. 250, as amended, 16 U.S.C. 668a-d).

Six Expressions of Interest (EOI) have been submitted to the Bureau of Land management (BLM) to offer the federal mineral estate at these locations for competitive bid to lease. At this time, minerals exploration and drilling, or any ground disturbing activity, is not a part of the proposed project. However, if the EOIs were leased in the future, they would likely be subject to minerals development at that time. Thus, BLM has specified that consultation with the Service would be re-initiated prior to implementation of any ground disturbing activities on a minerals lease.

The information provided in your document described the six EOIs as follows:

EOI #1581 is a 40-acre tract that is located < 3 miles southwest of the town of Lena and Interstate 49 in Rapides Parish. A parish road runs east-west through the northern half of the tract. A gas pipeline runs east-west through the southeast corner. Carnaham Creek is located just outside of the northwest boundary of the tract. This Creek drains into Cane River, which is a tributary to the Red River. Approximately 50% of the tract is cleared while the remainder contains a mixed hardwood/pine forest. Dominant tree species include the following: loblolly pine (*Pinus taeda*), southern red oak (*Quercus falcata*), white oak (*Q. alba*), red maple (*Acer rubrum*), and winged elm (*Ulmus alata*). There are three soil types in this parcel: Kisatchie –

Cadeville Association, hilly (65% of the tract); Ruston fine sandy loam, 1-3% slopes (18%); and Guyton Complex, frequently flooded (17%).

EOI #1672 is a 40-acre tract that is located < 1 mile south of the town of Belcher and Highway 71 in Caddo Parish. A gravel road runs north-south diagonally through the center of the tract. Several buildings are located in the northwest corner with 90% of the tract being cleared land. A small patch (< 5 acres) of planted hardwood trees is located just south of the buildings. Cowhide Bayou is located < 0.5 mile west and the Red River is located < 1 mile east of the tract. Planted pecan trees are located on the parcel. Wildlife is extremely limited on this tract due to the high percentage of cleared land. There are three soil types in this parcel: Moreland silty clay loam (54% of tract); Norwood silt loam (35%); and Norwood silty clay loam (11%).

EOI #1711 consists of 22.16 acres and is located < 5 miles south of Alexandria in Rapides Parish. The tract is located on the bank of the Red River and is less than 2 miles east of Highway 1. A levee runs north-south through the middle and a parish road runs north-south through the east corner of the tract. Approximately 80% of the tract is cleared and consists of a grass pasture. The tract contains two strips of mixed hardwoods that surround areas that are wet for portions of the year. Dominant tree species include the following: water oak (*Q. nigra*), willow oak (*Q. phellos*), sugar berry (*Celtis laevigata*), and cow oak (*Q. michauxii*). There are three soil types in this parcel: Roxana very fine sandy loam, gently undulating (89% of tract); Levees- Borrow pit complex, nearly level to strongly sloping (10%); and open water (1%).

EOI#1714 consists of 91.56 acres and is located 5 miles west of the town of Mooringsport and Highway 169 in Caddo Parish. A parish road runs east-west through the southern portion and two private roads run north-south through the center of the tract. There are several houses and 65% of the tract has been cleared. The southern quarter of the tract contains a mixed hardwood/pine forest. Two intermittent creeks run through this area and the entire quarter is within a floodplain. This tract is located on the southern bank of Caddo Lake. Dominant tree species include the following: willow oak, black willow (*Salix nigra*), white oak, pecan (*Carya illinoensis*), yaupon (*Ilex yaupon*), red cedar (*Juniperus virginiana*), sweetgum (*Taxodium distichum*), loblolly pine, and water oak. There are four soil types in this parcel: Keithville very fine sandy loam, 2 – 5% slopes (47% of the tract); Forbing silt loam, 3 – 8% slopes (34%); Metcalf-Messer complex (11%); and Writeville-Messer complex (8%).

EOI #1715 consists of 9.12 acres and is located < 0.5 mile from the town of Mooringsport, Highway 169, and Caddo Lake in Caddo Parish. A road runs through the southern corner and there are several buildings on the tract. The parcel is located within a floodplain and 90% consists of a mixed hardwood/pine forest. Dominant tree species include the following: loblolly pine, water oak, and willow oak. There are three soil types in this parcel: Woodtell fine sandy loam, 3 – 8% slopes (70% of the tract); Keithville very fine sandy loam, 2 – 5% slopes (11%); Guyton soils, frequently flooded (19%).

EOI #1716 consists of two separate tracts totaling 28.08 acres located < 0.5 mile from one

another. They both border Buzzard Bay in Caddo Lake in Caddo Parish. This EOI is located < 1 mile west of EOI #1714. A road runs east-west on the northern boundary of the northern tract. There are several houses on both tracts, although 80% of the parcels consist of a mixed hardwood/pine forest. Dominant tree species on the northern tract include the following: willow oak, water oak, loblolly pine, sugar berry, southern red oak and eastern red cedar. Dominant tree species for the southern tract include the following: water oak, live oak (*Q. virginiana*), sweetgum (*Liquidambar styracflua*), and loblolly pine. Due to the close proximity to the Lake, wildlife diversity is probably high for these two tracts. There are two soil types on the northern parcel: Forbing silt loam, 3 – 8% slopes (55% of the tract) and Metcalf-Messer complex (45%). There are two soil types in the southern parcel: Gore silt loam, 1 – 5% slopes (92% of the tract) and Metcalf-Messer complex (8%).

Red-cockaded Woodpecker

Both Rapides and Caddo Parishes are known to be inhabited by the endangered red-cockaded woodpecker (RCW, *Picoides borealis*). RCWs roost and forage year-round and nest seasonally (i.e., April through July) in open, park-like stands of mature pine trees containing little hardwood component, a sparse midstory, and a well-developed herbaceous understory. RCWs can tolerate small numbers of overstory and midstory hardwoods at low densities found naturally in many southern pine forests, but they are not tolerant of dense midstories resulting from fire suppression or from overstocking of pine. Trees selected for cavity excavation are generally at least 60 years old, although the average stand age can be younger. The collection of one or more cavity trees plus a surrounding 200 foot wide buffer of continuous forest is known as a RCW cluster. RCW foraging habitat is located within one-half mile of the cluster and is comprised of pine and pine-hardwood stands (i.e., 50 percent or more of the dominant trees are pines) that are at least 30 years of age and have a moderately low average basal area (i.e., 40 – 80 square feet per acre is preferred).

If the proposed project area does not contain suitable nesting and/or foraging habitat as defined above, further consultation with the Service will not be necessary. However, if potential RCW nesting or foraging habitat is located within the project area, all suitable nesting habitat within the project area and within a one-half mile radius from such habitat should be carefully surveyed by a qualified biologist for the presence of RCW cavity trees in accordance with the survey protocol found in Appendix 4 of the RCW Recovery Plan (2003), which can be found online at http://www.fws.gov/rcwrecovery/recovery_plan.html. We request that you provide this office with a copy of the survey report, which should include the following details:

1. survey methodology including dates, qualifications of survey personnel, size of survey area, and transect density;
2. pine stand characteristics including number of acres of suitable nesting and/or foraging habitat, tree species, basal area and number of pine stems 10 inches or greater per acre, percent cover of pine trees greater than 60 years of age, species of dominant vegetation within each canopy layer, understory conditions and species composition (several representative photographs

should be included);

3. number of active and inactive RCW cavity trees observed and the condition of the cavities (e.g., resin flow, shape of cavity, start-holes);
4. presence or absence of RCWs; and
5. topographic quadrangle maps which illustrate areas of adequate RCW nesting and/or foraging habitat, cluster sites, and cavity tree locations relative to proposed construction activities.

If implementation of the proposed project has the potential to directly or indirectly affect RCW individuals or their habitat, further consultation with this office will be necessary.

Interior Least Tern

The interior least tern (*Sterna antillarum*) is an endangered migratory shorebird that breeds, nests, and rears its young on sparsely or non-vegetated portions of sand or gravel bars located mid-stream or along the shoreline in the Mississippi, Missouri, Arkansas, Ohio, Red and Rio Grande river systems and the rivers of central Texas. On the lower Mississippi River, the listed interior least tern population is concentrated within approximately 500 river miles between its confluence with the Ohio River at Cairo, Illinois, and Vicksburg, Mississippi. In Louisiana, the interior least tern historically occurred along the Mississippi River north of Baton Rouge, but few birds have been observed in surveys conducted over the last few years. Interior least tern nesting colonies are known to occur along the Red River in northwestern and Central Louisiana. Major threats to this species include habitat loss, human disturbance at nesting colonies, and altered water flow patterns.

The absence of nesting interior least terns should be confirmed before initiating any work in or adjacent to the Red or Mississippi Rivers during the breeding season (May 15 to August 31, depending upon river stages). In order to minimize impacts to nesting terns, the Service recommends that no activity should be conducted within 650 feet of a nesting colony (Martin and Lester 1990) and no disturbance to suitable nesting habitat (including changes in river morphology) should result from implementation of the proposed project. If nesting least terns are observed in proximity to the project area during the breeding season, all work should cease and the Service should be contacted immediately for further consultation. Should the proposed project directly or indirectly affect interior least terns or suitable nesting habitat within the Red or Mississippi Rivers, further consultation with this office will be necessary.

Louisiana Pearlshell Mussel

The threatened Louisiana pearlshell mussel (LPM; *Margaritifera hembeli*), is a freshwater species found only in Louisiana in Rapides and Grant Parishes. The shell of the Louisiana pearlshell mussel is oblong with moderately full beaks, no obvious sculpture, and its surface has uneven growth lines. The epidermis is brown to blackish and the nacre is white to purple with

numerous pits. Adults are about 3.9 inches long, 2.0 inches high, and 1.2 inches wide. The LPM requires clear, moderately swift-flowing, perennial streams having stable mineral substrate (such as gravel bottom or sandy bottom with rocky outcroppings). This mussel is known to occur in the tributaries of Bayou Boeuf and Bayou Rapides in Rapides Parish, specifically Bayou Clear, Brown Creek, Burney Branch, Castor Creek, Clear Creek, Haikey's Creek, Little Bayou Clear, Little Brushy Creek, Little Loving Creek, Long Branch, Loving Creek, Mack Branch, Patterson Branch, Valentine Creek, and Williamson Branch. The species is known to occur in the tributaries of Bayou Rigolette in Grant Parish, specifically Beaver Creek, Black Creek, Chandler Creek, Clear Branch, Coleman Branch, Cress Creek, Cypress Creek, Gladly Hollow, Gray Creek, Hudson Creek, James Branch, Jordan Creek, Moccasin Branch, and Swafford Creek.

At present, the life history of this mussel is poorly understood. Research is ongoing to determine reproductive aspects of the species and to identify the host fish species. Preliminary results indicate that reproductive timing (i.e., spawning and glochidial release) likely occurs once annually in the February through April timeframe, but the host fish currently remains unknown.

Major threats to the LPM include loss of habitat, degradation of water quality, and impacts to stream morphology as a result of impoundments (both man-made and beaver dams), non-implementation of streamside best management practices during timber harvest operations, and lack of sufficient erosion control measures and maintenance during construction activities (e.g., well pad construction, road construction, road improvement or widening, bridge replacement or installation, culvert replacement or installation, gravel mining, etc.). In addition, unregulated in-stream activities and equipment use could result in direct impacts to LPM individuals from stranding, trampling, or crushing. Additional information on threats and current status of this species can be found online at:

<http://www.fws.gov/southeast/5yearReviews/5yearreviews/louisianapearlshellmussel.pdf>.

If the proposed project has the potential to directly or indirectly affect LPM individuals or their habitat, further consultation with this office will be necessary.

Earth Fruit

Caddo Parish is known to support populations of the federally threatened earth fruit (*Geocarpon minimum*). The earth fruit is a tiny annual plant that completes its life cycle within 4 to 6 weeks and is rarely visible except during the flowering stage in March and April. The flowers, which are inconspicuous in the leaf axils, have a greenish-red calyx and no petals. The fruit (a capsule) splits open into three parts at maturity, releasing numerous 0.02-inch-long seeds. Young plants are dull gray, turn reddish-purple at maturity, and then diminish at the end of the life cycle. Under optimal conditions, the seeds remain in the nearby earth until the following spring when they complete another life cycle.

The current known distribution of earth fruit is limited to the sandstone glades of Missouri and the saline prairies of Arkansas and Louisiana. In Louisiana, saline prairies are generally located as openings within or adjacent to forested habitat. These prairies are commonly characterized by

a low, extensive coverage of sedges, grasses, and forbs, with few to no trees or shrubs. This topographic characteristic is a function of the soil chemistry, which precludes trees from growing in the area and allows for specialized vegetation to establish. Because the earth fruit is not tolerant of competition from other herbaceous species, the plant often occurs on “slick spots,” which are small areas within a saline prairie that are either bare or have noticeably less vegetation than the surrounding area. In Louisiana, earth fruit is currently known to occur in saline prairies of Caddo, DeSoto, and Winn Parishes. The earth fruit is associated with the Bonn soil series in DeSoto and Caddo Parishes and with the Brimstone soil series in Winn Parish. However, in certain landscape positions, the soil survey may have mapped these soils under the Guyton soil series. Major threats to this species include conversion of saline prairies to pastureland or other land uses, cattle grazing, habitat destruction through construction activities, and rutting via the use of heavy equipment and off-road vehicles. More information about the earth fruit can be found in the recovery plan at http://ecos.fws.gov/docs/recovery_plan/930726.pdf or in the species’ 5-year review at http://ecos.fws.gov/docs/five_year_review/doc2487.pdf.

Soils for each EOI were characterized in the information you provided to our office. Because no saline prairie was described within the proposed project area, no further consultation on earth fruit would be required due to lack of suitable habitat.

Sprague’s Pipit

The Sprague’s pipit (*Anthus spragueii*), is a candidate species for federal listing as a threatened or endangered species. Candidate species are those taxa for which the Service has on file sufficient information regarding biological vulnerability and threat(s) to support issuance of a proposal to list, but issuance of a proposed rule is currently precluded by higher priority listing actions. Sprague’s pipit is a small (4 to 6 inches in length) passerine bird with a plain buffy face, a large eye-ring, and buff and blackish streaking on the crown, nape, and under parts. It winters in Louisiana, arriving from its northern breeding grounds in September and remaining until April. Migration and wintering ecology of this species is poorly known, but Sprague’s pipit exhibits a strong preference for open grassland (i.e., native prairie) with native grasses of intermediate height and thickness, and it avoids areas with too much shrub encroachment. Its use of an area is dependent upon habitat conditions. This species is a ground feeder and forages mainly on insects but will occasionally eat seeds.

There is currently no requirement under the Endangered Species Act for consultation regarding project impacts on candidate species. In the interest of conserving the Sprague’s pipit, we encourage you to avoid project activities that would adversely affect this species or its habitat. Should it be federally listed as threatened or endangered in the future, however, further consultation on project impacts to this species could then be necessary.

Bald Eagle

The proposed project is located in an area that contains suitable habitat for nesting bald eagles (*Haliaeetus leucocephalus*) which were officially removed from the List of Endangered and Threatened Species as of August 8, 2007. However, the bald eagle remains protected under the

MBTA and the BGEPA. Comprehensive bald eagle survey data have not been collected by the Louisiana Department of Wildlife and Fisheries (LDWF) since 2008, and new active, inactive, or alternate nests may have been constructed within or adjacent to the proposed project area since that time.

Bald eagles typically nest in large trees located near coastlines, rivers, or lakes that support adequate foraging from October through mid-May. In southeastern Louisiana parishes, eagles typically nest in mature trees (e.g., baldcypress, sycamore, willow, etc.) near fresh to intermediate marshes or open water. Bald eagles may also nest in mature pine trees near large lakes in central and northern Louisiana. Major threats to this species include habitat alteration, human disturbance, and environmental contaminants (i.e., organochlorine pesticides and lead). Furthermore, bald eagles are vulnerable to disturbance during courtship, nest building, egg laying, incubation, and brooding. Disturbance during these periods may lead to nest abandonment, cracked and chilled eggs, and exposure of small young to the elements. Human activity near a nest late in the nesting cycle may also cause flightless birds to jump from the nest tree, thus reducing their chance of survival.

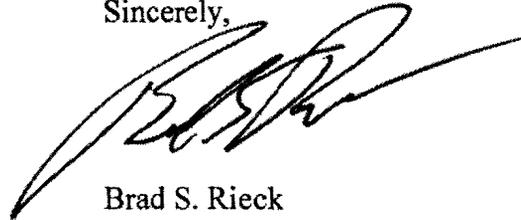
The Service developed the National Bald Eagle Management (NBEM) Guidelines to provide landowners, land managers, and others with information and recommendations to minimize potential project impacts to bald eagles, particularly where such impacts may constitute “disturbance,” which is prohibited by the BGEPA. A copy of the NBEM Guidelines is available at: <http://www.fws.gov/southeast/es/baldeagle/NationalBaldEagleManagementGuidelines.pdf>. Those Guidelines recommend: (1) maintaining a specified distance between the activity and the nest (buffer area); (2) maintaining natural areas (preferably forested) between the activity and nest trees (landscape buffers); and (3) avoiding certain activities during the breeding season. During any project construction, on-site personnel should be informed of the possible presence of nesting bald eagles in the vicinity of the project boundary, and should identify, avoid, and immediately report any such nests to this office. If a bald eagle nest occurs or is discovered within 1,500 feet of the proposed project area, then an evaluation must be performed to determine whether the project is likely to disturb nesting bald eagles. That evaluation may be conducted on-line at: <http://www.fws.gov/southeast/es/baldeagle>. Following completion of the evaluation, that website will provide a determination of whether additional consultation is necessary.

On September 11, 2009, the Service published two federal regulations establishing the authority to issue permits for non-purposeful bald eagle take (typically disturbance) and eagle nest take when recommendations of the NBEM Guidelines cannot be achieved. Permits may be issued for nest take only under the following circumstances where: (1) necessary to alleviate a safety emergency to people or eagles, (2) necessary to ensure public health and safety, (3) the nest prevents the use of a human-engineered structure, or (4) the activity or mitigation for the activity will provide a net benefit to eagles. Except in emergencies, only inactive nests may be permitted to be taken. The Division of Migratory Birds for the Southeast Region of the Service (phone: 404/679-7051, e-mail: SEmigratorybirds@fws.gov) has the lead role in conducting consultations

and issuance of permits. Should you need further assistance interpreting the guidelines, avoidance measures, or performing an on-line project evaluation, please contact this office.

We appreciate the opportunity to consult with you on the proposed project. If you need further assistance, please contact Monica Sikes of this office at 337/291-3118.

Sincerely,



Brad S. Rieck
Deputy Supervisor
Louisiana Ecological Services

cc: LDWF, Natural Heritage Program, Baton Rouge, LA

Literature Cited

Martin, R.P., and G.D. Lester. 1990. The Atlas and Census of Wading Bird and Seabird Nesting Colonies of Louisiana: 1990. Louisiana Department of Wildlife and Fisheries – Louisiana Natural Heritage Program. Special Publication No. 3 for the U.S. Department of Interior – Fish and Wildlife Service. Contract No. 14-16-0004-89-963. 182 pp.

U.S. Fish and Wildlife Service. 2003. Recovery plan for the red-cockaded woodpecker (*Picoides borealis*): second revision. U.S. Fish and Wildlife Service, Atlanta, GA. 296 pp.



BOBBY JINDAL
GOVERNOR

State of Louisiana
DEPARTMENT OF WILDLIFE AND FISHERIES
OFFICE OF WILDLIFE

ROBERT J. BARHAM
SECRETARY
JIMMY L. ANTHONY
ASSISTANT SECRETARY

Date January 11, 2013

Name Alison McCartney

Company Bureau of Land Management

Street Address 411 Briarwood Drive, Suite 404

City, State, Zip Jackson, MS 39206

Project EOI #1581, # 1672, # 1711, #1714 - 1716

Project ID 62013

Invoice Number 13011101

Personnel of the Habitat Section of the Coastal & Nongame Resources Division have reviewed the preliminary data for the captioned project. After careful review of our database, no impacts to rare, threatened, or endangered species or critical habitats are anticipated for the proposed project. No state or federal parks, wildlife refuges, scenic streams, or wildlife management areas are known at the specified site within Louisiana's boundaries.

The Louisiana Natural Heritage Program (LNHP) has compiled data on rare, endangered, or otherwise significant plant and animal species, plant communities, and other natural features throughout the state of Louisiana. Heritage reports summarize the existing information known at the time of the request regarding the location in question. The quantity and quality of data collected by the LNHP are dependent on the research and observations of many individuals. In most cases, this information is not the result of comprehensive or site-specific field surveys; many natural areas in Louisiana have not been surveyed. This report does not address the occurrence of wetlands at the site in question. Heritage reports should not be considered final statements on the biological elements or areas being considered, nor should they be substituted for on-site surveys required for environmental assessments. LNHP requires that this office be acknowledged in all reports as the source of all data provided here. If at any time Heritage tracked species are encountered within the project area, please contact the LNHP Data Manager at 225-765-2643. If you have any questions, or need additional information, please call 225-765-2357.

Sincerely,

Amity Bass, Coordinator
Natural Heritage Program



United States Department of the Interior



Bureau of Land Management

Southeastern States Field Office

411 Briarwood Drive, Suite 404

Jackson, Mississippi 39206

<http://www.es.blm.gov>

IN REPLY REFER TO:

8100 (020) JMS Rapides Parishes, LA EOI 1581

Sept. 25, 2012

Ms. Pam Breaux
State Historic Preservation Officer
Louisiana Office of Cultural Development
P.O. Box 44247
Baton Rouge, LA 70804-44247

Dear Ms. Breaux:

The Bureau of Land Management (BLM) has received an Expression of Interest (EOI 1581) to lease federal minerals under privately owned surface, i.e. split-estate minerals. The Bureau's reasonably foreseeable development scenario (RFD) for this proposed lease is 1 well from 1 pad to be constructed on private surface with no more than 6.97 acres total, this includes access road, pipelines and pad, to be disturbed accessing federal minerals. The legal locations of the approximately 38.02 acres of federal mineral tracts are as follows (map enclosed):

Louisiana Meridian

Rapides Parish (Lena Quadrangle)

T. 5 N., R. 4 W., Sec. 4, SWNW (Approx. 38.02 ac.)

Development locations have not been determined on a site-specific basis. Specific locations proposed for development are determined by the developer and surface owners. The BLM's surface responsibilities rest only within the boundaries of any proposed development.

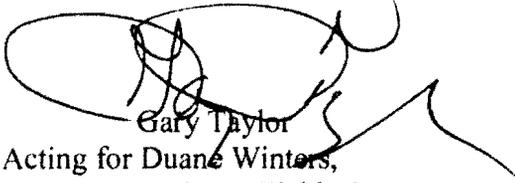
A review of the Louisiana Division of Archaeology online site files shows no sites within the lease sale area or within one mile of area. An archaeological survey will be required before any development and or ground disturbing activities begin. Also the report must be approved by both



the Louisiana Division of Archaeology and the BLM before any ground disturbing activities take place. Any needed consultation will be concluded before ground-disturbing activities begin.

Your concurrence of these procedures for Section 106 compliance is requested in 30 days. If you have any questions or concerns, please contact John M. Sullivan, Archeologist, at (601) 977-5439 or email at John_M_Sullivan@BLM.Gov.

Sincerely,



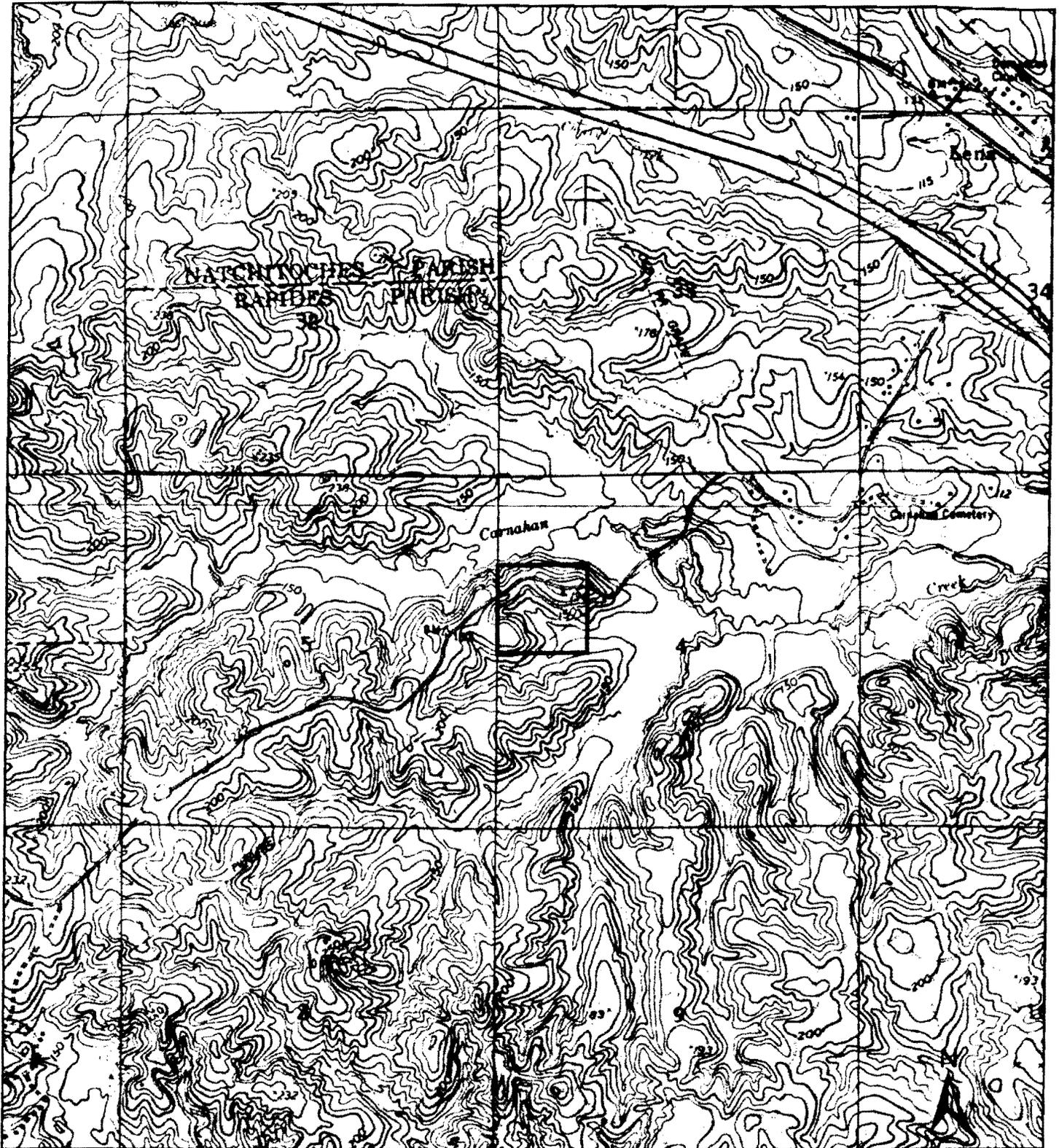
Gary Taylor
Acting for Duane Winters,
Assistant Field Manager
Division of Lands and Renewable Resources

Enclosure
1 Map

bc:
JFO CF & RF
ES RF
DWinters
AMcCartney
ES020: JMSullivan:09/25/12:601-977-5400:Rapides.T.5N.R.4W.Sec.4.EOI 1581.SHPO.Ltr



Proposed Federal Oil and Gas Lease
EOI 1581



2,000 1,000 0 2,000 4,000 6,000 Feet

 Proposed Lease Area

Proposed Lease Area:
Rapides Parish, Louisiana Meridian
T 5N., R. 4W., Sec. 4. SWNW
Approximately 38.02 acres.

U.S. Department of the Interior
Bureau of Land Management
Eastern States
Southeastern States Field Office
Jackson, Mississippi

This map contains portions of the following USGS 1:24,000 Topographic Quadrangle: Lena

No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of this data for individual use or aggregate use with other data.



United States Department of the Interior



Bureau of Land Management

Southeastern States Field Office

411 Briarwood Drive, Suite 404

Jackson, Mississippi 39206

<http://www.es.blm.gov>

IN REPLY REFER TO:

8100 (020) JMS Rapides Parishes, LA EOI 1581

Sept. 25, 2012

Gregory Pyle, Chief
Choctaw Nation of Oklahoma
Drawer 1210
Durant, Oklahoma 74702-1210

Dear Chief Pyle:

The Bureau of Land Management (BLM) has received an Expression of Interest (EOI 1581) to lease federal minerals under privately owned surface, i.e. split-estate minerals. The Bureau's reasonably foreseeable development scenario (RFD) for this proposed lease is 1 well from 1 pad to be constructed on private surface with no more than 6.97 acres total, this includes access road, pipelines and pad, to be disturbed accessing federal minerals. The legal locations of the approximately 38.02 acres of federal mineral tracts are as follows (map enclosed):

Louisiana Meridian

Rapides Parish (Lena Quadrangle)

T. 5 N., R. 4 W., Sec. 4, SWNW (Approx. 38.02 ac.)

Development locations have not been determined on a site-specific basis. Specific locations proposed for development are determined by the developer and surface owners. The BLM's surface responsibilities rest only within the boundaries of any proposed development.

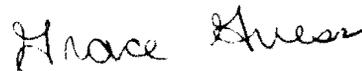
A review of the Louisiana Division of Archaeology online site files shows no sites within the lease sale area or within one mile of area. An archaeological survey will be required before any development and or ground disturbing activities begin. Also the report must be approved by both the Louisiana Division of Archaeology and the BLM before any ground disturbing activities take place. Any needed consultation will be concluded before ground-disturbing activities begin.



If you are aware of any sites or areas which are currently used for religious purposes or are recognized as sacred sites on these privately owned lands, please let us know the locations so that impacts will not occur. As provided by law, these locations will be held in confidence.

Your information is requested within 30 days. If you have any questions, comments, or concerns about the BLM's processes or procedures concerning its consideration of cultural resources for this undertaking, please contact John M. Sullivan, Archaeologist, at (601) 977-5400 or email at John_M_Sullivan@BLM.Gov.

Sincerely,



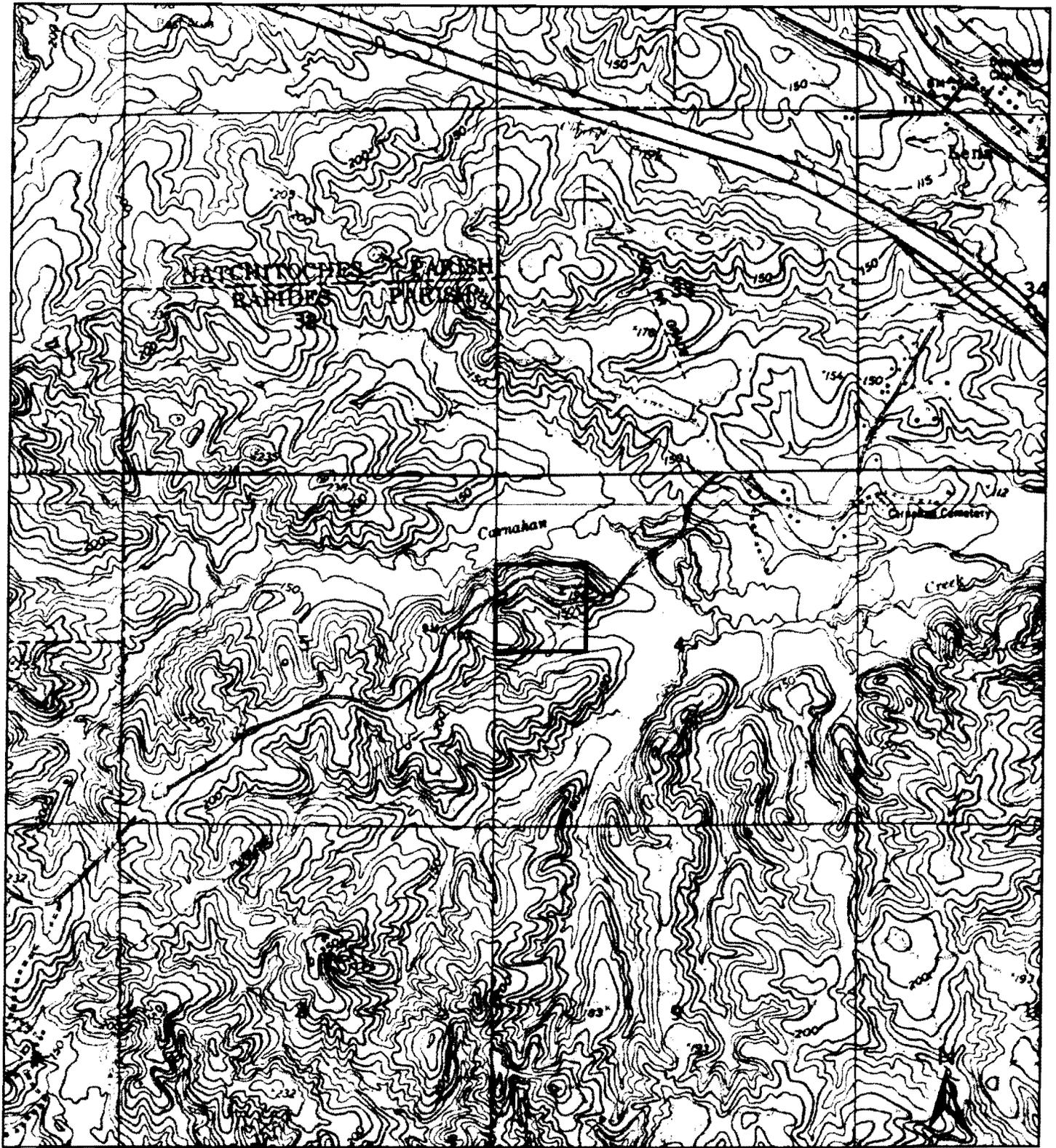
Grace Guess,
Associate Field Manager
Acting for Bruce Dawson,
Field Manager

Enclosure
1 Map

cc via email: Ian Thompson PhD, RPA, THPO, Tribal Archaeologist
Johnnie L. Jacobs, Section 106 Coordinator



Proposed Federal Oil and Gas Lease
EOI 1581



Proposed Lease Area

Proposed Lease Area:
Rapides Parish, Louisiana, Louisiana Meridian
T. 5N., R. 4W., Sec. 4, SWNW
Approximately 38.02 acres.

U.S. Department of the Interior
Bureau of Land Management
Eastern States
Southeastern States Field Office
Jackson, Mississippi

This map contains portions of the following USGS 1:24,000 Topographic Quadrangle: Lena

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United States Department of the Interior



Bureau of Land Management

Southeastern States Field Office

411 Briarwood Drive, Suite 404

Jackson, Mississippi 39206

<http://www.es.blm.gov>

IN REPLY REFER TO: 8100 (020) JMS Caddo Parish EOI 1672

Dec. 10, 2012

Chairman Earl Barbry, Sr.
Tunica-Biloxi Tribe of Louisiana
P.O. Box 332
Marksville, Louisiana 70523

Dear Chairman Barbry:

The Bureau of Land Management (BLM) has received an Expression of Interest (EOI 1672) to lease federal minerals under privately owned surface, i.e. split-estate minerals. The Bureau's Reasonably Foreseeable Development Scenario for this proposed lease is multiple horizontal wells from one pad to be constructed on private surface with no more than 6.29 acres total, access road and pads, to be disturbed accessing federal minerals. The legal locations of the approximately 39.88 acres of federal mineral tracts are as follows (map enclosed):

Louisiana Meridian

Caddo Parish (Gilliam and Dixie Quadrangles)

T. 20 N., R. 14 W., Sec. 8, SESW (Approx. 39.88 ac.)

However, proposed development locations have not been determined on a site-specific basis. Specific locations proposed for development are determined by the developer and surface owners. The BLM's surface responsibilities rest only within the boundaries of any proposed development. A review of the Louisiana Division of Archaeology online site files shows sites within one mile of the proposed lease sale.

A section of the lease document will state that before the BLM approves any development proposal, a survey that meets current professional standards and a report that meets Louisiana Division of Archaeology requirements. The report must be approved by both the Louisiana



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Division of Archaeology and the BLM before any ground disturbing activities take place. Any needed consultation will be concluded before ground-disturbing activities begin.

In addition, a stipulation will be included in the lease document which covers accidental discovery and requires additional consultation with you and the Louisiana Division of Archaeology. This stipulation will also be included in the permitting documents when, or if, a development proposal is submitted.

If you are aware of any sites within the proposed lease area which are currently being used for religious purposes or are recognized as sacred sites on these privately owned lands, please let us know so that additional consultation can be conducted and so that impacts will not occur. As provided by law, any specific location information will be held in confidence. Your information is requested within 30 days.

If you have any questions or comments, please contact John M. Sullivan, Archeologist, at (601) 977-5439 or John_M_Sullivan@BLM.Gov.

Sincerely,

**Original Signed
Duane Winters**

Duane Winters
Assistant Field Manager, Division of Lands and
Renewable Resources
Acting for Bruce Dawson,
Field Manager

Enclosures

1 - Map

cc via email: Mr. Earl Barbry, Jr., Tribal Historic Preservation Officer

bc:

SSFO CF & RF

ES RF

DWinters

~~AMcCartney~~

ES020: JMSullivan:12/10/12:601-977-5400:Caddo.T.20N.R.14W.Sec.8.EOI 1672.NA.Ltr



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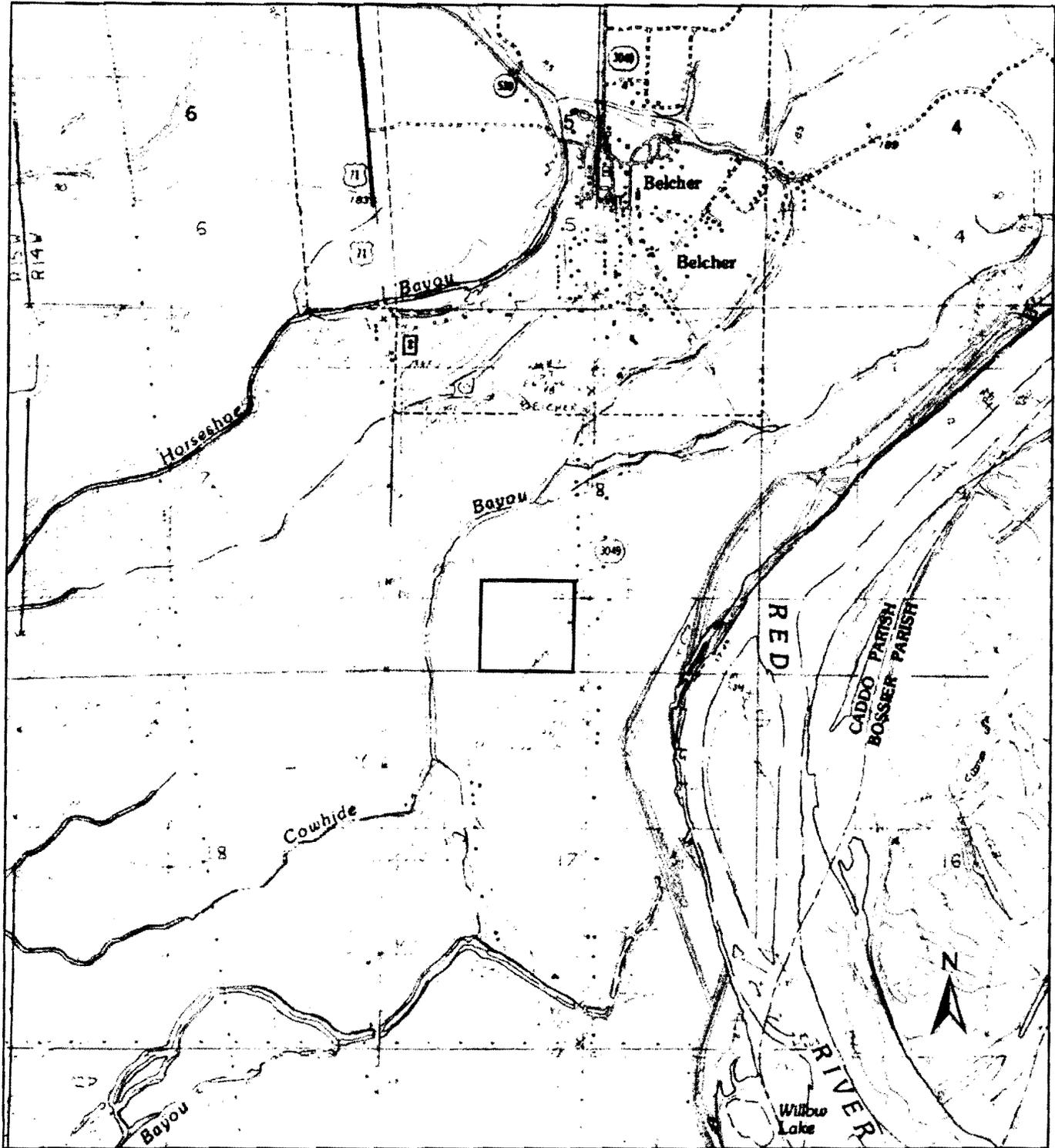
Original to:	cc: to these:
Mr. Earl Barbry, Sr., Chairman Tunica-Biloxi Tribe of Louisiana P.O. Box 331 Marksville, Louisiana 70523	Mr. Earl Barbry, Jr., Tribal Historic Preservation Officer Tunica - Biloxi Tribe 151 Melacon Dr. Marksville, LA 71351 earlii@tunica.org
Oscola Clayton Sylestine, Chairman Alabama-Coushatta Tribe of Texas 571 State Park Road 56 Livingston, TX 77351	Bryant J. Celestine, Historical Preservation Alabama-Coushatta Tribe of Texas 571 State Park Road 56 Livingston, TX 77351 celestine.bryant@actribe.org
Kevin Sickey, Chairman Coushatta Indian Tribe P.O. Box 818 Elton, LA 70532	Send Hard Copy Linda Langley, Tribal Historic Preservation Officer Mike Tarpley, Deputy THPO P.O. Box 818 Elton, LA 70532 llangley@mneese.edu; kokua.aina57@gmail.com
John Paul Darden, Chairman Chitimacha Tribe of Louisiana P.O. Box 661 Charenton, LA 70523	Kimberly S. Walden, Tribal Historic Preservation Officer Chitimacha Tribe of Louisiana P.O. Box 661 Charenton, LA 70523 kim@chitimacha.gov
John Berrey, Chairman Quapaw Tribe of Oklahoma P.O. Box 765 Quapaw, Oklahoma 74345	Jean Ann Lambert, Cultural/Historic Preservation Office P.O. Box 1556 Miami, OK 74355 jlambert@quapawtribe.com
Brenda Shemayne Edwards, Chairwoman Caddo Nation of Oklahoma P.O. Box 487 Binger, Oklahoma 73009	Mr. Robert Cast, Tribal Historic Preservation Officer Caddo Nation of Oklahoma P.O. Box 487 Binger, OK 73009 rcast@caddonation.org; mbotone@caddonation.org
A.D. Ellis, Principal Chief Muscogee (Creek) Nation of Oklahoma P.O. Box 580 Okmulgee, Oklahoma 74447	Emman Spain, Cultural/Historic Preservation Office Muscogee (Creek) Nation of Oklahoma P.O. Box 580 Okmulgee, OK 74447 espain@muscogeenation-nsn.gov
Leonard Harjo, Principal Chief Seminole Nation of Oklahoma P.O. Box 1498 Wewoka, Oklahoma 74884	Natalie Deer, Cultural Preservation Office P.O. Box 1768 Seminole, OK 74868-1768 ndeere@seminolenation.com



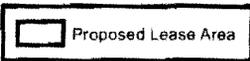
Original to:	cc: to these:
Only send email to Preservation Officer Tarpie Yargee, Chief Alabama-Quassarte Tribal Town P.O. Box 187 Wetumka, OK 74883	Augustine Asbury, 2nd Chief/ Cultural Preservation Officer P.O. Box 187 Wetumka, OK 74883 aqtccultural@yahoo.com
Only send email to Preservation Officer Gregory Pyle, Chief Choctaw Nation of Oklahoma Drawer 1210 Durant, Oklahoma 74702-1210	Ian Thompson PhD, RPA, THPO, Tribal Archaeologist, Director Historic Preservation Dept. Johnnie L. Jacobs, Section 106 Coordinator 580-775-0914, 580-920-3181 (Fax) 1-800-522-6170 ext. 2216 P.O. Drawer 1210 Durant, OK 74702 ithompson@choctawnation.com; jjacobs@choctawnation.com
B. Cheryl Smith, Chief Jena Band of Choctaw P.O. Box 2717 Jena LA 71342	Dana Masters, Tribal Council and Cultural Preservation Officer Jena Band of Choctaw P.O. Box 2717 Jena LA 71342 danammasters@aol.com
Phyliss J. Anderson, Chief Mississippi Band of Choctaw Indians P.O. Box 6010 Philadelphia, MS 39350	Mr. Ken Carleton, Tribal Historic Preservation Officer Mississippi Band of Choctaw Indians P.O. Box 6257 Philadelphia, MS 39350 kcarleton@choctaw.org
George Scott, Mekko Thlopthocco Tribal Town P.O. Box 188 Okemah, Oklahoma 74859	Charles Coleman, Cultural/Historic Preservation Office P.O. Box 188 Okemah, Oklahoma 74859 chascoleman@prodgy.net



Proposed Federal Oil and Gas Lease
EOI 1672



2,000 1,000 0 2,000 4,000 6,000 8,000 Feet

 Proposed Lease Area

Proposed Lease Area:
Caddo Parish, Louisiana, Louisiana Meridian
T. 20N., R. 14W., Sec. 8, SESW
Approximately 39.88 acres.

U.S. Department of the Interior
Bureau of Land Management
Eastern States, Jackson Field Office
Jackson, Mississippi

This map contains portions of the following USGS 1:24,000 Topographic Quadrangles: Gilliam, Dixie

No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of this data for individual use or aggregate use with other data.



United States Department of the Interior



Bureau of Land Management

Southeastern States Field Office

411 Briarwood Drive, Suite 404

Jackson, Mississippi 39206

<http://www.es.blm.gov>

IN REPLY REFER TO:

8100 (020) JMS Rapides Parishes, LA EOI 1711

Dec. 10, 2012

Chairman Earl Barbry, Sr.
Tunica-Biloxi Tribe of Louisiana
P.O. Box 332
Marksville, Louisiana 70523

Dear Chairman Barbry:

The Bureau of Land Management (BLM) has received an Expression of Interest (EOI 1711) to lease federal minerals under privately owned surface, i.e. split-estate minerals. The Bureau's reasonably foreseeable development scenario (RFD) for this proposed lease is 4 wells from 1 pad to be constructed on private surface with no more than 6.42 acres total, this includes access road, pipelines and pad, to be disturbed accessing federal minerals. The legal locations of the approximately 22.16 acres of federal mineral tracts are as follows (map enclosed):

Louisiana Meridian

Rapides Parish (Latanier, Woodworth East, Alexandria and Libuse Quadrangles)

T. 3 N., R. 1 E., Sec. 9, Entire Section (Approx. 22.16 ac.)

Development locations have not been determined on a site-specific basis. Specific locations proposed for development are determined by the developer and surface owners. The BLM's surface responsibilities rest only within the boundaries of any proposed development.

A review of the Louisiana Division of Archaeology online site files shows no sites within the lease sale area although there are some sites within one mile of the proposed lease area. An archaeological survey will be required before any development and or ground disturbing activities begin. Also the report must be approved by both the Louisiana Division of Archaeology and the BLM before any ground disturbing activities take place. Any needed consultation will be concluded before ground-disturbing activities begin.



If you are aware of any sites or areas which are currently used for religious purposes or are recognized as sacred sites on these privately owned lands, please let us know the locations so that impacts will not occur. As provided by law, these locations will be held in confidence.

Your information is requested within 30 days. If you have any questions, comments, or concerns about the BLM's processes or procedures concerning its consideration of cultural resources for this undertaking, please contact John M. Sullivan, Archaeologist, at (601) 977-5400 or email at John_M_Sullivan@BLM.Gov.

Sincerely,

**Original Signed
Bruce Dawson**

Bruce Dawson,
Field Manager

Enclosure
1 Map

cc via email: Mr. Earl Barbry, Jr., Tribal Historic Preservation Officer

Same letter sent as an original w/ a cc via email: to the attached list.

bc:

JFO CF & RF

ES RF

DWinters

AMcCartney

ES020: JMSullivan:12/10/12:601-977-5400:Rapides.T.3N.R.1E.Sec.9.EOI 1711.NA.Ltr



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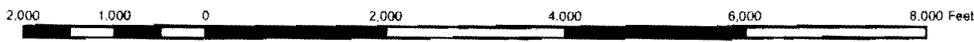
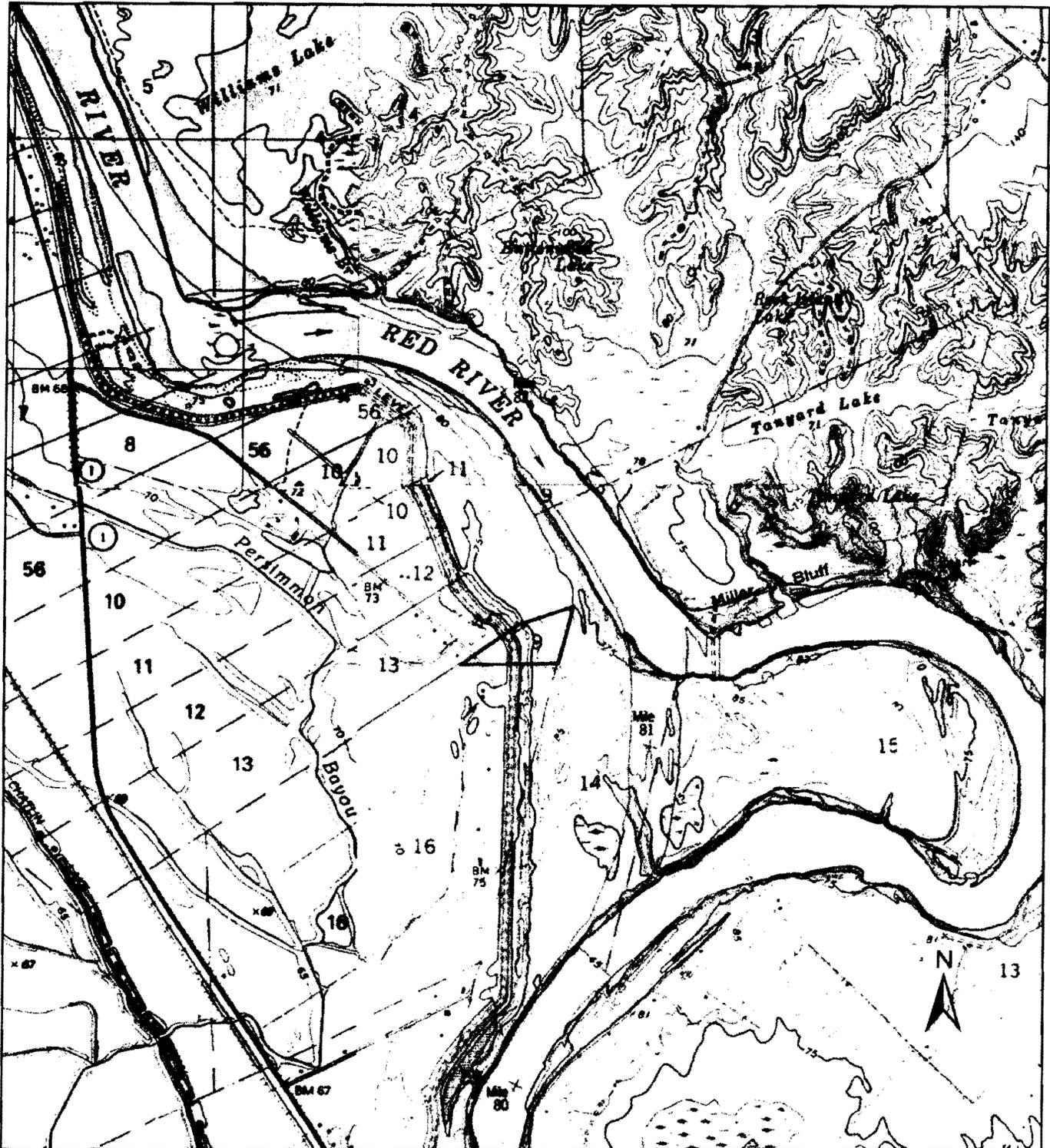
Original to:	cc: to these:
Mr. Earl Barbry, Sr., Chairman Tunica-Biloxi Tribe of Louisiana P.O. Box 331 Marksville, Louisiana 70523	Mr. Earl Barbry, Jr., Tribal Historic Preservation Officer Tunica - Biloxi Tribe 151 Melacon Dr. Marksville, LA 71351 earlii@tunica.org
Brenda Shemayne Edwards, Chairwoman Caddo Nation of Oklahoma P.O. Box 487 Binger, Oklahoma 73009	Mr. Robert Cast, Tribal Historic Preservation Officer Caddo Nation of Oklahoma P.O. Box 487 Binger, OK 73009 rcast@caddonation.org; mbotone@caddonation.org
Oscola Clayton Sylestine, Chairman Alabama-Coushatta Tribe of Texas 571 State Park Road 56 Livingston, TX 77351	Bryant J. Celestine, Historical Preservation Alabama-Coushatta Tribe of Texas 571 State Park Road 56 Livingston, TX 77351 celestine.bryant@actribe.org
Kevin Sickey, Chairman Coushatta Indian Tribe P.O. Box 818 Elton, LA 70532 Mail both by email	Linda Langley, Tribal Historic Preservation Officer Mike Tarpley, Deputy THPO P.O. Box 818 Elton, LA 70532 llangley@meneese.edu; kokua.aina57@gmail.com
John Paul Darden, Chairman Chitimacha Tribe of Louisiana P.O. Box 661 Charenton, LA 70523	Kimberly S. Walden, Tribal Historic Preservation Officer Chitimacha Tribe of Louisiana P.O. Box 661 Charenton, LA 70523 kim@chitimacha.gov
Only send to Preservation Officer Tarpie Yargee, Chief Alabama-Quassarte Tribal Town P.O. Box 187 Wetumka, OK 74883	Augustine Asbury, 2nd Chief/ Cultural Preservation Officer P.O. Box 187 Wetumka, OK 74883 aqttcultural@yahoo.com
George Scott, Mekko Thlopthlocco Tribal Town P.O. Box 188 Okemah, Oklahoma 74859	Charles Coleman, Cultural/Historic Preservation Office P.O. Box 188 Okemah, Oklahoma 74859 chasecoleman@prodgy.net



Original to:	cc: to these:
<p>Only send email to Preservation Officer Gregory Pyle, Chief Choctaw Nation of Oklahoma Drawer 1210 Durant, Oklahoma 74702-1210</p>	<p>Ian Thompson PhD, RPA, THPO, Tribal Archaeologist, Director Historic Preservation Dept. Ms. Johnnie Jacobs, Section 106 Coordinator 580-775-0914, 580-920-3181 (Fax) 1-800-522-6170 ext. 2216 P.O. Drawer 1210 Durant, OK 74702 ithompson@choctawnation.com; jjacobs@choctawnation.com</p>
<p>Phyliss J. Anderson, Chief Mississippi Band of Choctaw Indians P.O. Box 6010 Philadelphia, MS 39350</p>	<p>Mr. Ken Carleton, Tribal Historic Preservation Officer Mississippi Band of Choctaw Indians P.O. Box 6257 Philadelphia, MS 39350 kcarleton@choctaw.org</p>
<p>James E. Billie, Chairman 6300 Stirling Road Hollywood, Florida 33024</p>	<p>Dr. Paul N. Backhouse, Tribal Historic Preservation Officer Bradley M. Mueller, M.A., Compliance Review Supervisor 30290 Josie Billie Hwy, PMB 1004 Clewiston, FL 33440 (863) 983-6549 (863) 983-6549 ext. 12262 paulbackhouse@semtribe.com; bradleymueller@semtribe.com ElliottYork@semtribe.com; AlisonSwing@semtribe.com</p>
<p>Leonard Harjo, Principal Chief Seminole Nation of Oklahoma P.O. Box 1498 Wewoka, Oklahoma 74884</p>	<p>Natalie Deer, Cultural Preservation Office P.O. Box 1768 Seminole, OK 74868-1768 ndcere@seminolenation.com</p>
<p>B. Cheryl Smith, Chief Jena Band of Choctaw P.O. Box 2717 Jena LA 71342</p>	<p>Dana Masters, Tribal Council and Tribal Historic Preservation Officer Jena Band of Choctaw P.O. Box 2717 Jena LA 71342 danammasters@aol.com</p>



Proposed Federal Oil and Gas Lease
EOI 1711



 Proposed Lease Area

Proposed Lease Area:
Rapides Parish, Louisiana, Louisiana Meridian
T. 3N., R. 1E., Sec. 9, Entire section
Approximately 22.16 acres.

U.S. Department of the Interior
Bureau of Land Management
Eastern States
Southeastern States Field Office
Jackson, Mississippi

This map contains portions of the following USGS 1:24,000 Topographic Quadrangles: Latanier, Woodworth East, Alexandria, Libuse

No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of this data for individual use or aggregate use with other data.



United States Department of the Interior



Bureau of Land Management

Southeastern States Field Office

411 Briarwood Drive, Suite 404

Jackson, Mississippi 39206

<http://www.es.blm.gov>

IN REPLY REFER TO: 8100 (020) JMS Caddo Parish EOI 1672

Dec. 10, 2012

Ms. Pam Breaux
State Historic Preservation Officer
Louisiana Office of Cultural Development
P.O. Box 44247
Baton Rouge, LA 70804-44247

Dear Ms. Breaux:

The Bureau of Land Management (BLM) has received an Expression of Interest (EOI 1672) to lease federal minerals under privately owned surface, i.e. split-estate minerals. The Bureau's Reasonably Foreseeable Development Scenario for this proposed lease is multiple horizontal wells from one pad to be constructed on private surface with no more than 6.29 acres total, access road and pads, to be disturbed accessing federal minerals. The legal locations of the approximately 39.88 acres of federal mineral tracts are as follows (map enclosed):

Louisiana Meridian
Caddo Parish (Gilliam and Dixie Quadrangles)
T. 20 N., R. 14 W., Sec. 8, SESW (Approx. 39.88 ac.)

However, proposed development locations have not been determined on a site-specific basis. Specific locations proposed for development are determined by the developer and surface owners. The BLM's surface responsibilities rest only within the boundaries of any proposed development. A review of the Louisiana Division of Archaeology online site files shows sites within one mile of the proposed lease sale.

A section of the lease document will state that before the BLM approves any development proposal, a survey that meets current professional standards and a report that meets Louisiana Division of Archaeology requirements. The report must be approved by both the Louisiana



Division of Archaeology and the BLM before any ground disturbing activities take place. Any needed consultation will be concluded before ground-disturbing activities begin.

Your concurrence of these procedures for Section 106 compliance is requested in 30 days. If you have any questions or concerns, please contact John M. Sullivan, Archeologist, at (601) 977-5439 or email at John_M_Sullivan@BLM.Gov.

Sincerely,

**Original Signed
Duane Winters**

Duane Winters
Assistant Field Manager
Division of Lands and Renewable Resources

Enclosures
1- Map

bc:

SSFO CF & RF

ES RF

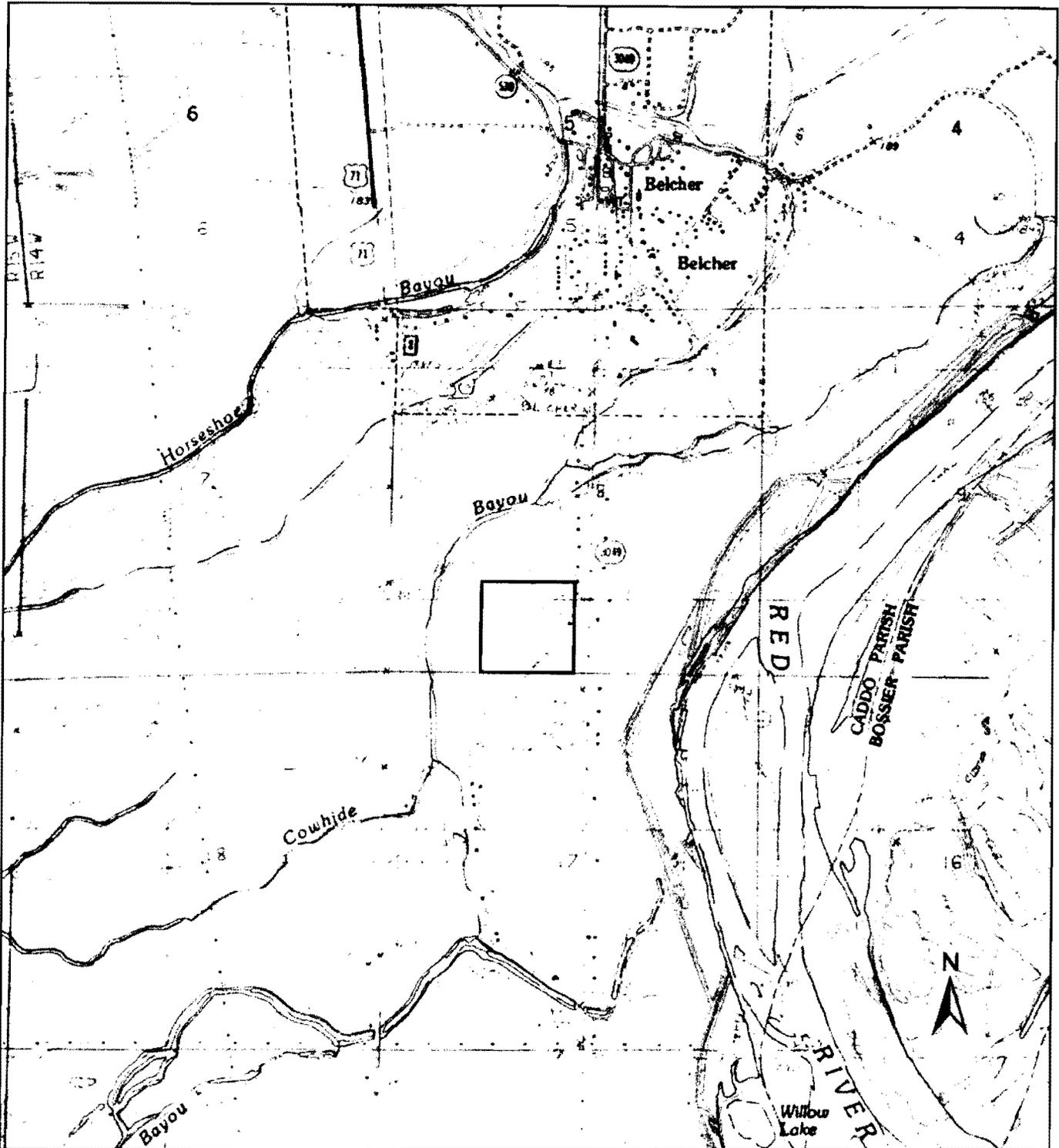
DWinters

AMcCartney

ES020: JMSullivan:12/10/12:601-977-5400:Caddo.T.20N.R.14W.Sec.8.EOI 1672.SHPO.Ltr



Proposed Federal Oil and Gas Lease
EOI 1672



2,000 1,000 0 2,000 4,000 6,000 8,000 Feet

 Proposed Lease Area

Proposed Lease Area:
Caddo Parish, Louisiana, Louisiana Meridian
T. 20N., R. 14W., Sec. 8, SESW
Approximately 39.88 acres.

U.S. Department of the Interior
Bureau of Land Management
Eastern States, Jackson Field Office
Jackson, Mississippi

This map contains portions of the following USGS 1:24,000 Topographic Quadrangles: Gilliam, Dixie

No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of this data for individual use or aggregate use with other data.



United States Department of the Interior



Bureau of Land Management

Southeastern States Field Office

411 Briarwood Drive, Suite 404

Jackson, Mississippi 39206

<http://www.es.blm.gov>

IN REPLY REFER TO:

8100 (020) JMS Rapides Parishes, LA EOI 1711

Dec. 10, 2012

Ms. Pam Breaux
State Historic Preservation Officer
Louisiana Office of Cultural Development
P.O. Box 44247
Baton Rouge, LA 70804-44247

Dear Ms. Breaux:

The Bureau of Land Management (BLM) has received an Expression of Interest (EOI 1711) to lease federal minerals under privately owned surface, i.e. split-estate minerals. The Bureau's reasonably foreseeable development scenario (RFD) for this proposed lease is 4 wells from 1 pad to be constructed on private surface with no more than 6.42 acres total, this includes access road, pipelines and pad, to be disturbed accessing federal minerals. The legal locations of the approximately 22.16 acres of federal mineral tracts are as follows (map enclosed):

Louisiana Meridian

Rapides Parish (Latanier, Woodworth East, Alexandria and Libuse Quadrangles)

T. 3 N., R. 1 E., Sec. 9, Entire Section (Approx. 22.16 ac.)

Development locations have not been determined on a site-specific basis. Specific locations proposed for development are determined by the developer and surface owners. The BLM's surface responsibilities rest only within the boundaries of any proposed development.

A review of the Louisiana Division of Archaeology online site files shows no sites within the lease sale area although there are some sites within one mile of the proposed lease area. An archaeological survey will be required before any development and or ground disturbing activities begin. Also the report must be approved by both the Louisiana Division of



Archaeology and the BLM before any ground disturbing activities take place. Any needed consultation will be concluded before ground-disturbing activities begin.

Your concurrence of these procedures for Section 106 compliance is requested in 30 days. If you have any questions or concerns, please contact John M. Sullivan, Archeologist, at (601) 977-5439 or email at John_M_Sullivan@BLM.Gov.

Sincerely,
Original Signed
Duane Winters

Duane Winters,
Assistant Field Manager
Division of Lands and Renewable Resources

Enclosure
1 Map

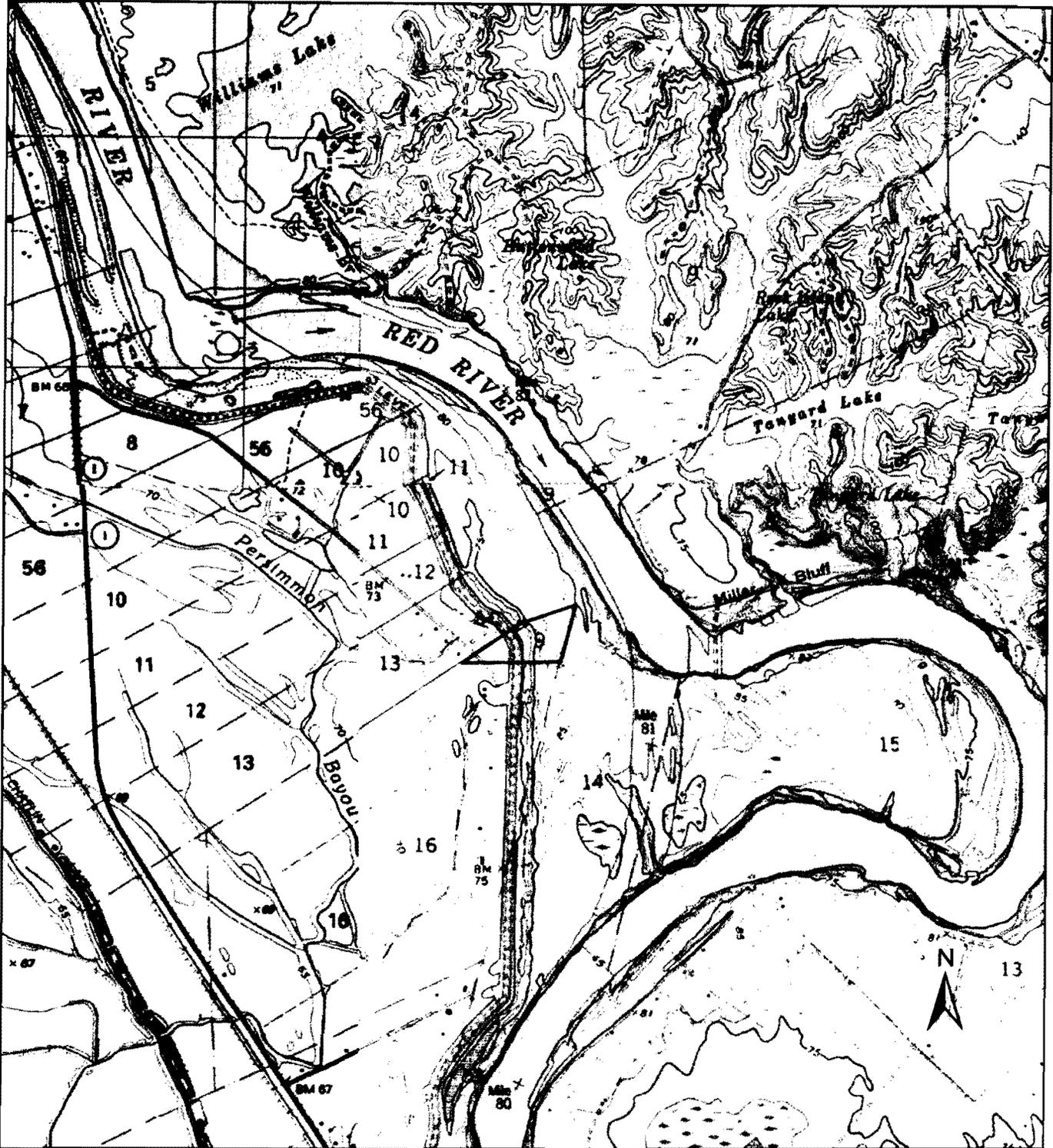
bc:
JFO CF & RF
ES RF
DWinters
AMcCartney
ES020: JMSullivan:12/10/12:601-977-5400:Rapides.T.3N.R.1E.Sec.9.EOI 1711.SHPO.Ltr



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Proposed Federal Oil and Gas Lease
EOI 1711



 Proposed Lease Area

Proposed Lease Area:
Rapides Parish, Louisiana, Louisiana Meridian
T. 3N., R. 1E., Sec. 9, Entire section
Approximately 22.16 acres.

U.S. Department of the Interior
Bureau of Land Management
Eastern States
Southeastern States Field Office
Jackson, Mississippi

This map contains portions of the following USGS 1:24,000 Topographic Quadrangles: Latanier, Woodworth East, Alexandria, Libuse

No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of this data for individual use or aggregate use with other data.



United States Department of the Interior



Bureau of Land Management

Southeastern States Field Office

411 Briarwood Drive, Suite 404

Jackson, Mississippi 39206

<http://www.es.blm.gov>

IN REPLY REFER TO: 8100 (020) JMS Caddo Parish EOI 1714

Dec. 10, 2012

Chairman Earl Barbry, Sr.
Tunica-Biloxi Tribe of Louisiana
P.O. Box 332
Marksville, Louisiana 70523

Dear Chairman Barbry:

The Bureau of Land Management (BLM) has received an Expression of Interest (EOI 1714) to lease federal minerals under privately owned surface, i.e. split-estate minerals. The Bureau's Reasonably Foreseeable Development Scenario for this proposed lease is multiple horizontal wells from one pad to be constructed on private surface with no more than 6.77 acres total, access road and pads, to be disturbed accessing federal minerals. The legal locations of the approximately 91.56 acres of federal mineral tracts are as follows (map enclosed):

Louisiana Meridian

Caddo Parish (Potters Point and Moorningsport Quadrangles)

T. 20 N., R. 16 W., Sec. 32, Lots 1 and 3 (Approx. 91.56 ac.)

However, proposed development locations have not been determined on a site-specific basis. Specific locations proposed for development are determined by the developer and surface owners. The BLM's surface responsibilities rest only within the boundaries of any proposed development. A review of the Louisiana Division of Archaeology online site files shows sites within one mile of the proposed lease sale.

A section of the lease document will state that before the BLM approves any development proposal, a survey that meets current professional standards and a report that meets Louisiana Division of Archaeology requirements. The report must be approved by both the Louisiana



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Division of Archaeology and the BLM before any ground disturbing activities take place. Any needed consultation will be concluded before ground-disturbing activities begin.

In addition, a stipulation will be included in the lease document which covers accidental discovery and requires additional consultation with you and the Louisiana Division of Archaeology. This stipulation will also be included in the permitting documents when, or if, a development proposal is submitted.

If you are aware of any sites within the proposed lease area which are currently being used for religious purposes or are recognized as sacred sites on these privately owned lands, please let us know so that additional consultation can be conducted and so that impacts will not occur. As provided by law, any specific location information will be held in confidence. Your information is requested within 30 days.

If you have any questions or comments, please contact John M. Sullivan, Archeologist, at (601) 977-5439 or John_M_Sullivan@BLM.Gov.

Sincerely,
Original Signed
Duane Winters

Duane Winters
Assistant Field Manager, Division of Lands and
Renewable Resources
Acting for Bruce Dawson,
Field Manager

Enclosures
1 - Map

cc via email: Mr. Earl Barbry, Jr., Tribal Historic Preservation Officer

bc:
SSFO CF & RF
ES RF
DWinters
~~AMcCartney~~

ES020: JMSullivan:12/10/12:601-977-5400:Caddo.T.20N.R.16W.Sec.32.EOI 1714.NA.Ltr



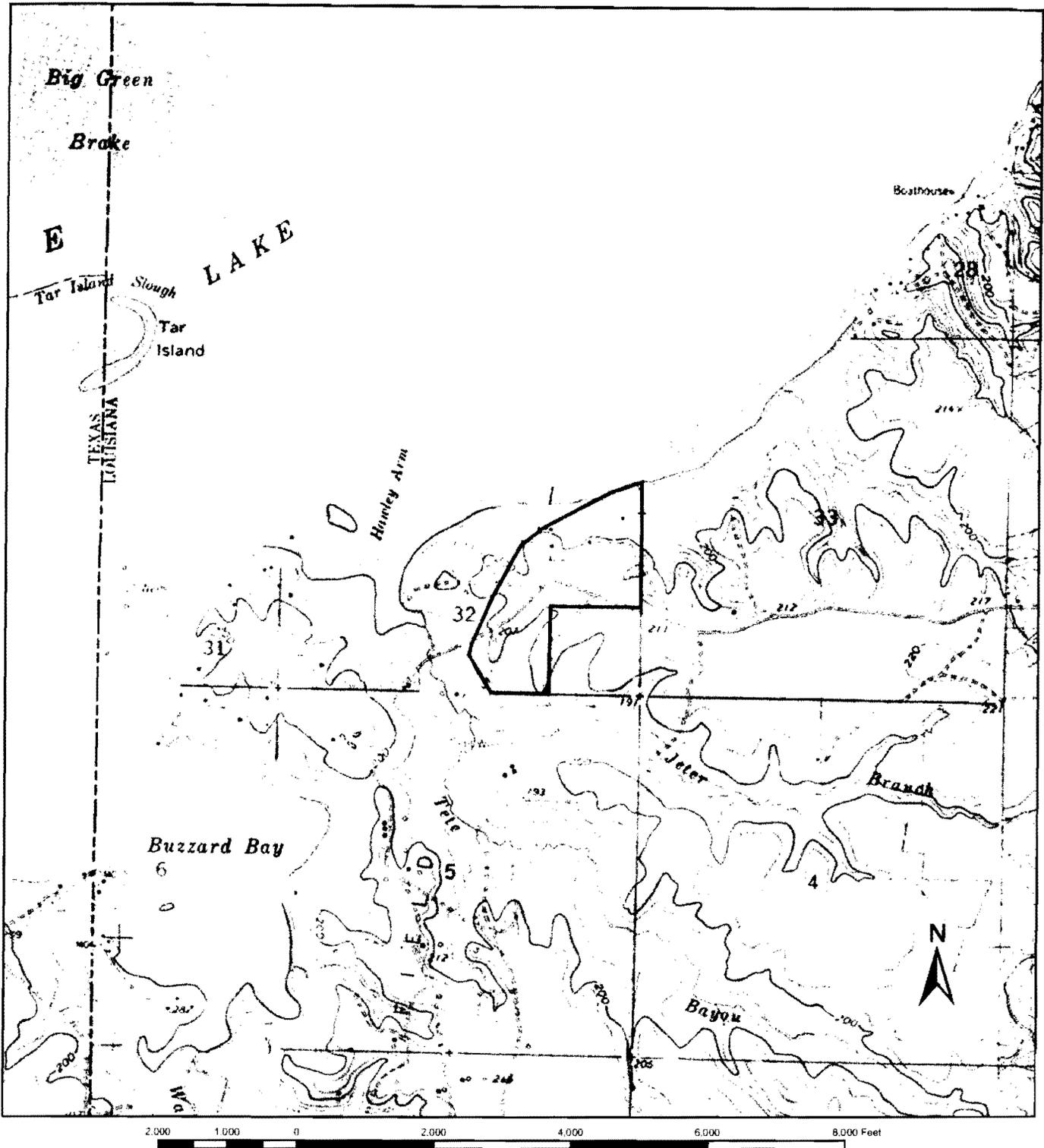
Original to:	cc: to these:
Mr. Earl Barbry, Sr., Chairman Tunica-Biloxi Tribe of Louisiana P.O. Box 331 Marksville, Louisiana 70523	Mr. Earl Barbry, Jr., Tribal Historic Preservation Officer Tunica - Biloxi Tribe 151 Melacon Dr. Marksville, LA 71351 carlii@tunica.org
Oscola Clayton Sylestine, Chairman Alabama-Coushatta Tribe of Texas 571 State Park Road 56 Livingston, TX 77351	Bryant J. Celestine, Historical Preservation Alabama-Coushatta Tribe of Texas 571 State Park Road 56 Livingston, TX 77351 celestine.bryant@actribe.org
Kevin Sickey, Chairman Coushatta Indian Tribe P.O. Box 818 Elton, LA 70532	Send Hard Copy Linda Langley, Tribal Historic Preservation Officer Mike Tarpley, Deputy THPO P.O. Box 818 Elton, LA 70532 llangley@mceese.edu; kokua.aina57@gmail.com
John Paul Darden, Chairman Chitimacha Tribe of Louisiana P.O. Box 661 Charenton, LA 70523	Kimberly S. Walden, Tribal Historic Preservation Officer Chitimacha Tribe of Louisiana P.O. Box 661 Charenton, LA 70523 kim@chitimacha.gov
John Berrey, Chairman Quapaw Tribe of Oklahoma P.O. Box 765 Quapaw, Oklahoma 74345	Jean Ann Lambert, Cultural/Historic Preservation Office P.O. Box 1556 Miami, OK 74355 jlambert@quapawtribe.com
Brenda Shemayne Edwards, Chairwoman Caddo Nation of Oklahoma P.O. Box 487 Binger, Oklahoma 73009	Mr. Robert Cast, Tribal Historic Preservation Officer Caddo Nation of Oklahoma P.O. Box 487 Binger, OK 73009 reast@caddonation.org; mboone@caddonation.org
A.D. Ellis, Principal Chief Muscogee (Creek) Nation of Oklahoma P.O. Box 580 Okmulgee, Oklahoma 74447	Emman Spain, Cultural/Historic Preservation Office Muscogee (Creek) Nation of Oklahoma P.O. Box 580 Okmulgee, OK 74447 espain@muscogeenation-nsn.gov
Leonard Harjo, Principal Chief Seminole Nation of Oklahoma P.O. Box 1498 Wewoka, Oklahoma 74884	Natalie Deer, Cultural Preservation Office P.O. Box 1768 Seminole, OK 74868-1768 ndeere@seminolenation.com



Original to:	cc: to these:
<p>Only send email to Preservation Officer Tarpie Yargee, Chief Alabama-Quassarte Tribal Town P.O. Box 187 Wetumka, OK 74883</p>	<p>Augustine Asbury, 2nd Chief/ Cultural Preservation Officer P.O. Box 187 Wetumka, OK 74883 aqtccultural@yahoo.com</p>
<p>Only send email to Preservation Officer Gregory Pyle, Chief Choctaw Nation of Oklahoma Drawer 1210 Durant, Oklahoma 74702-1210</p>	<p>Ian Thompson PhD, RPA, THPO, Tribal Archaeologist, Director Historic Preservation Dept. Johnnie L. Jacobs, Section 106 Coordinator 580-775-0914, 580-920-3181 (Fax) 1-800-522-6170 ext. 2216 P.O. Drawer 1210 Durant, OK 74702 ithompson@choctawnation.com; jjacobs@choctawnation.com</p>
<p>B. Cheryl Smith, Chief Jena Band of Choctaw P.O. Box 2717 Jena LA 71342</p>	<p>Dana Masters, Tribal Council and Cultural Preservation Officer Jena Band of Choctaw P.O. Box 2717 Jena LA 71342 danammasters@aol.com</p>
<p>Phyliss J. Anderson, Chief Mississippi Band of Choctaw Indians P.O. Box 6010 Philadelphia, MS 39350</p>	<p>Mr. Ken Carleton, Tribal Historic Preservation Officer Mississippi Band of Choctaw Indians P.O. Box 6257 Philadelphia, MS 39350 kcarleton@choctaw.org</p>
<p>George Scott, Mekko Thlopthlocco Tribal Town P.O. Box 188 Okemah, Oklahoma 74859</p>	<p>Charles Coleman, Cultural/Historic Preservation Office P.O. Box 188 Okemah, Oklahoma 74859 chascoleman@prodgy.net</p>



Proposed Federal Oil and Gas Lease
EOI 1714



 Proposed Lease Area

Proposed Lease Area:
Caddo Parish, Louisiana, Louisiana Meridian
T. 20N., R. 16W., Sec.32, Lots 1 and 3
Approximately 91.56 acres.

U.S. Department of the Interior
Bureau of Land Management
Eastern States
Southeastern States Field Office
Jackson, Mississippi

This map contains portions of the following USGS 1:24,000 Topographic Quadrangles: Potters Point, Moorningsport

No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of this data for individual use or aggregate use with other data.



United States Department of the Interior



Bureau of Land Management

Southeastern States Field Office

411 Briarwood Drive, Suite 404

Jackson, Mississippi 39206

<http://www.es.blm.gov>

IN REPLY REFER TO: 8100 (020) JMS Caddo Parish EOI 1714

Dec. 10, 2012

Ms. Pam Breaux
State Historic Preservation Officer
Louisiana Office of Cultural Development
P.O. Box 44247
Baton Rouge, LA 70804-44247

Dear Ms. Breaux:

The Bureau of Land Management (BLM) has received an Expression of Interest (EOI 1714) to lease federal minerals under privately owned surface, i.e. split-estate minerals. The Bureau's Reasonably Foreseeable Development Scenario for this proposed lease is multiple horizontal wells from one pad to be constructed on private surface with no more than 6.77 acres total, access road and pads, to be disturbed accessing federal minerals. The legal locations of the approximately 91.56 acres of federal mineral tracts are as follows (map enclosed):

Louisiana Meridian

Caddo Parish (Potters Point and Moorningsport Quadrangles)

T. 20 N., R. 16 W., Sec. 32, Lots 1 and 3 (Approx. 91.56 ac.)

However, proposed development locations have not been determined on a site-specific basis. Specific locations proposed for development are determined by the developer and surface owners. The BLM's surface responsibilities rest only within the boundaries of any proposed development. A review of the Louisiana Division of Archaeology online site files shows sites within one mile of the proposed lease sale.

A section of the lease document will state that before the BLM approves any development proposal, a survey that meets current professional standards and a report that meets Louisiana Division of Archaeology requirements. The report must be approved by both the Louisiana



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Division of Archaeology and the BLM before any ground disturbing activities take place. Any needed consultation will be concluded before ground-disturbing activities begin.

Your concurrence of these procedures for Section 106 compliance is requested in 30 days. If you have any questions or concerns, please contact John M. Sullivan, Archeologist, at (601) 977-5439 or email at John_M_Sullivan@BLM.Gov.

Sincerely,

**Original Signed
Duane Winters**

Duane Winters
Assistant Field Manager
Division of Lands and Renewable Resources

Enclosures

1- Map

bc:

SSFO CF & RF

ES RF

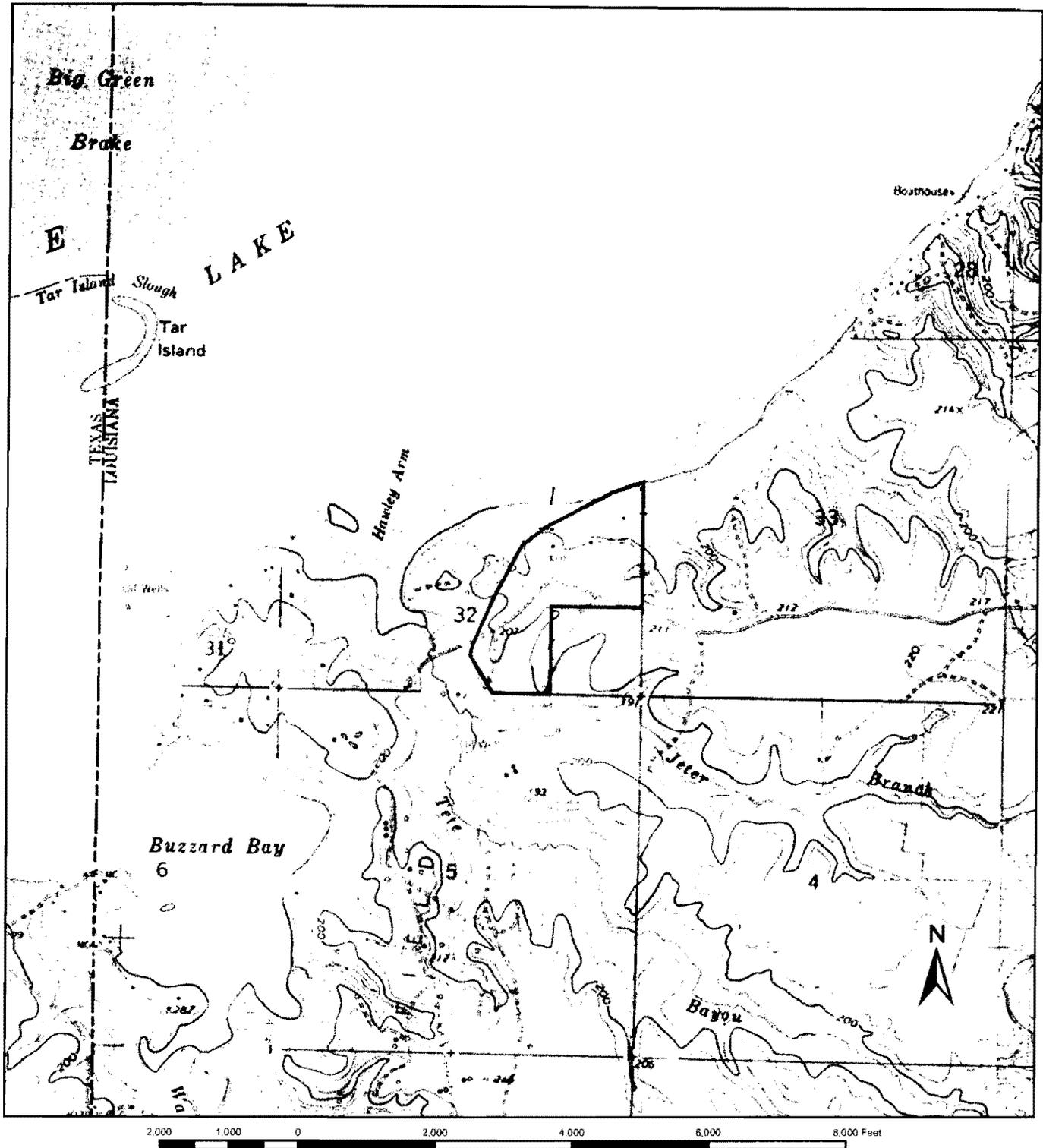
DWinters

AMcCartney

ES020: JMSullivan:12/10/12:601-977-5400:Caddo.T.20N.R.16W.Sec.32.EOI 1714.SHPO.Ltr



Proposed Federal Oil and Gas Lease
EOI 1714



 Proposed Lease Area

Proposed Lease Area:
Caddo Parish, Louisiana, Louisiana Meridian
T. 20N., R. 16W., Sec. 32, Lots 1 and 3
Approximately 91.56 acres.

U.S. Department of the Interior
Bureau of Land Management
Eastern States
Southeastern States Field Office
Jackson, Mississippi

This map contains portions of the following USGS 1:24,000 Topographic Quadrangles: Potters Point, Moorningsport

No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of this data for individual use or aggregate use with other data.



United States Department of the Interior



Bureau of Land Management

Southeastern States Field Office

411 Briarwood Drive, Suite 404

Jackson, Mississippi 39206

<http://www.es.blm.gov>

IN REPLY REFER TO: 8100 (020) JMS Caddo Parish EOI 1715

Dec. 10, 2012

Chairman Earl Barbry, Sr.
Tunica-Biloxi Tribe of Louisiana
P.O. Box 332
Marksville, Louisiana 70523

Dear Chairman Barbry:

The Bureau of Land Management (BLM) has received an Expression of Interest (EOI 1715) to lease federal minerals under privately owned surface, i.e. split-estate minerals. The Bureau's Reasonably Foreseeable Development Scenario for this proposed lease is multiple horizontal wells from one pad to be constructed on private surface with no more than 6.57 acres total, access road and pads, to be disturbed accessing federal minerals. The legal locations of the approximately 9.1 acres of federal mineral tracts are as follows (map enclosed):

Louisiana Meridian

Caddo Parish (Moorningsport Quadrangle)

T. 20 N., R. 16 W., Sec. 36, Lots 1 (Approx. 9.1 ac.)

However, proposed development locations have not been determined on a site-specific basis. Specific locations proposed for development are determined by the developer and surface owners. The BLM's surface responsibilities rest only within the boundaries of any proposed development. A review of the Louisiana Division of Archaeology online site files shows sites within one mile of the proposed lease sale.

A section of the lease document will state that before the BLM approves any development proposal, a survey that meets current professional standards and a report that meets Louisiana Division of Archaeology requirements. The report must be approved by both the Louisiana



Division of Archaeology and the BLM before any ground disturbing activities take place. Any needed consultation will be concluded before ground-disturbing activities begin.

In addition, a stipulation will be included in the lease document which covers accidental discovery and requires additional consultation with you and the Louisiana Division of Archaeology. This stipulation will also be included in the permitting documents when, or if, a development proposal is submitted.

If you are aware of any sites within the proposed lease area which are currently being used for religious purposes or are recognized as sacred sites on these privately owned lands, please let us know so that additional consultation can be conducted and so that impacts will not occur. As provided by law, any specific location information will be held in confidence. Your information is requested within 30 days.

If you have any questions or comments, please contact John M. Sullivan, Archeologist, at (601) 977-5439 or John_M_Sullivan@BLM.Gov.

Sincerely,

Original Signed
Duane Winters

Duane Winters
Assistant Field Manager, Division of Lands and
Renewable Resources
Acting for Bruce Dawson,
Field Manager

Enclosures

1 - Map

cc via email: Mr. Earl Barbry, Jr., Tribal Historic Preservation Officer

bc:

SSFO CF & RF

ES RF

DWinters

AMcCartney

ES020: JMSullivan:12/10/12:601-977-5400:Caddo.T.20N.R.16W.Sec.36.EOI 1715.NA.Ltr



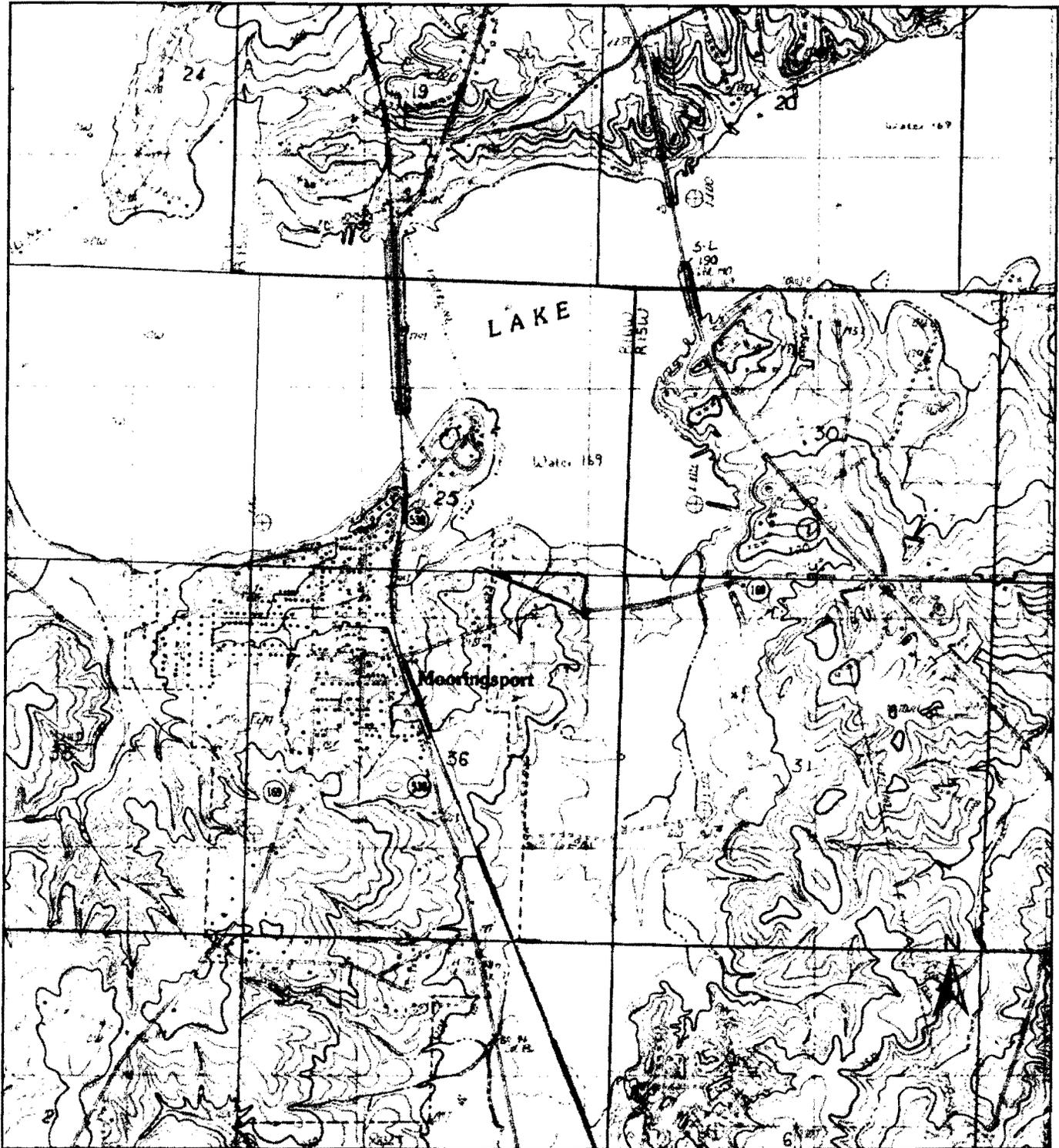
Original to:	cc: to these:
Mr. Earl Barbry, Sr., Chairman Tunica-Biloxi Tribe of Louisiana P.O. Box 331 Marksville, Louisiana 70523	Mr. Earl Barbry, Jr., Tribal Historic Preservation Officer Tunica - Biloxi Tribe 151 Melacon Dr. Marksville, LA 71351 earlii@tunica.org
Oscola Clayton Sylestine, Chairman Alabama-Coushatta Tribe of Texas 571 State Park Road 56 Livingston, TX 77351	Bryant J. Celestine, Historical Preservation Alabama-Coushatta Tribe of Texas 571 State Park Road 56 Livingston, TX 77351 celestine.bryant@actribe.org
Kevin Sickey, Chairman Coushatta Indian Tribe P.O. Box 818 Elton, LA 70532	Send Hard Copy Linda Langley, Tribal Historic Preservation Officer Mike Tarpley, Deputy THPO P.O. Box 818 Elton, LA 70532 llangley@mencese.edu; kokua.aina57@gmail.com
John Paul Darden, Chairman Chitimacha Tribe of Louisiana P.O. Box 661 Charenton, LA 70523	Kimberly S. Walden, Tribal Historic Preservation Officer Chitimacha Tribe of Louisiana P.O. Box 661 Charenton, LA 70523 kim@chitimacha.gov
John Berrey, Chairman Quapaw Tribe of Oklahoma P.O. Box 765 Quapaw, Oklahoma 74345	Jean Ann Lambert, Cultural/Historic Preservation Office P.O. Box 1556 Miami, OK 74355 jlambert@quapawtribe.com
Brenda Shemayme Edwards, Chairwoman Caddo Nation of Oklahoma P.O. Box 487 Binger, Oklahoma 73009	Mr. Robert Cast, Tribal Historic Preservation Officer Caddo Nation of Oklahoma P.O. Box 487 Binger, OK 73009 reast@caddonation.org; mbotone@caddonation.org
A.D. Ellis, Principal Chief Muscogee (Creek) Nation of Oklahoma P.O. Box 580 Okmulgee, Oklahoma 74447	Emman Spain, Cultural/Historic Preservation Office Muscogee (Creek) Nation of Oklahoma P.O. Box 580 Okmulgee, OK 74447 espain@muscogeenation-nsn.gov
Leonard Harjo, Principal Chief Seminole Nation of Oklahoma P.O. Box 1498 Wewoka, Oklahoma 74884	Natalie Deer, Cultural Preservation Office P.O. Box 1768 Seminole, OK 74868-1768 ndeere@seminolenation.com



Original to:	cc: to these:
<p>Only send email to Preservation Officer Tarpie Yargee, Chief Alabama-Quassarte Tribal Town P.O. Box 187 Wetumka, OK 74883</p>	<p>Augustine Asbury, 2nd Chief/ Cultural Preservation Officer P.O. Box 187 Wetumka, OK 74883 aqttcultural@yahoo.com</p>
<p>Only send email to Preservation Officer Gregory Pyle, Chief Choctaw Nation of Oklahoma Drawer 1210 Durant, Oklahoma 74702-1210</p>	<p>Ian Thompson PhD, RPA, THPO, Tribal Archaeologist, Director Historic Preservation Dept. Johnnie L. Jacobs, Section 106 Coordinator 580-775-0914, 580-920-3181 (Fax) 1-800-522-6170 ext. 2216 P.O. Drawer 1210 Durant, OK 74702 ithompson@choctawnation.com; jjacobs@choctawnation.com</p>
<p>B. Cheryl Smith, Chief Jena Band of Choctaw P.O. Box 2717 Jena LA 71342</p>	<p>Dana Masters, Tribal Council and Cultural Preservation Officer Jena Band of Choctaw P.O. Box 2717 Jena LA 71342 danammasters@aol.com</p>
<p>Phyliss J. Anderson, Chief Mississippi Band of Choctaw Indians P.O. Box 6010 Philadelphia, MS 39350</p>	<p>Mr. Ken Carleton, Tribal Historic Preservation Officer Mississippi Band of Choctaw Indians P.O. Box 6257 Philadelphia, MS 39350 kcarleton@choctaw.org</p>
<p>George Scott, Mekko Thlopthlocco Tribal Town P.O. Box 188 Okemah, Oklahoma 74859</p>	<p>Charles Coleman, Cultural/Historic Preservation Office P.O. Box 188 Okemah, Oklahoma 74859 chascoleman@prodgy.net</p>



Proposed Federal Oil and Gas Lease
EOI 1715



2,000 1,000 0 2,000 4,000 6,000 8,000 Feet

Proposed Lease Area

Proposed Lease Area:
Caddo Parish, Louisiana, Louisiana Meridian
T. 20N., R. 16W., Sec. 36 Lots 1
Approximately 9.1 acres.

U.S. Department of the Interior
Bureau of Land Management
Eastern States
Southeastern States Field Office
Jackson, Mississippi

This map contains portions of the following USGS 1:24,000 Topographic Quadrangle: Mooringport

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United States Department of the Interior



Bureau of Land Management

Southeastern States Field Office

411 Briarwood Drive, Suite 404

Jackson, Mississippi 39206

<http://www.es.blm.gov>

IN REPLY REFER TO: 8100 (020) JMS Caddo Parish EOI 1715

Dec. 10, 2012

Ms. Pam Breaux
State Historic Preservation Officer
Louisiana Office of Cultural Development
P.O. Box 44247
Baton Rouge, LA 70804-44247

Dear Ms. Breaux:

The Bureau of Land Management (BLM) has received an Expression of Interest (EOI 1715) to lease federal minerals under privately owned surface, i.e. split-estate minerals. The Bureau's Reasonably Foreseeable Development Scenario for this proposed lease is multiple horizontal wells from one pad to be constructed on private surface with no more than 6.57 acres total, access road and pads, to be disturbed accessing federal minerals. The legal locations of the approximately 9.1 acres of federal mineral tracts are as follows (map enclosed):

Louisiana Meridian
Caddo Parish (Moorningsport Quadrangle)
T. 20 N., R. 16 W., Sec. 36, Lots 1 (Approx. 9.1 ac.)

However, proposed development locations have not been determined on a site-specific basis. Specific locations proposed for development are determined by the developer and surface owners. The BLM's surface responsibilities rest only within the boundaries of any proposed development. A review of the Louisiana Division of Archaeology online site files shows sites within one mile of the proposed lease sale.

A section of the lease document will state that before the BLM approves any development proposal, a survey that meets current professional standards and a report that meets Louisiana Division of Archaeology requirements. The report must be approved by both the Louisiana



Division of Archaeology and the BLM before any ground disturbing activities take place. Any needed consultation will be concluded before ground-disturbing activities begin.

Your concurrence of these procedures for Section 106 compliance is requested in 30 days. If you have any questions or concerns, please contact John M. Sullivan, Archeologist, at (601) 977-5439 or email at John_M_Sullivan@BLM.Gov.

Sincerely,

**Original Signed
Duane Winters**

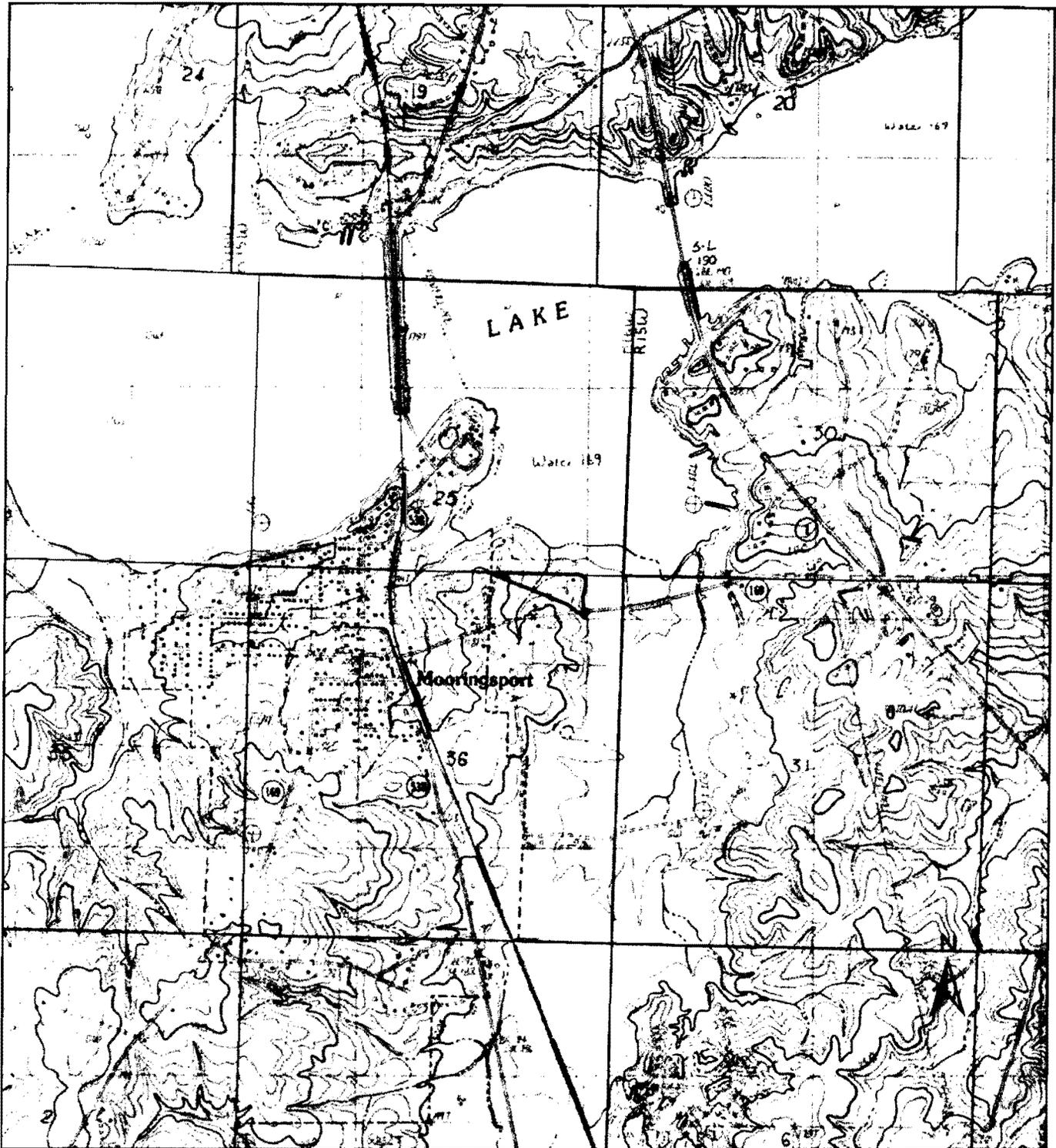
Duane Winters
Assistant Field Manager
Division of Lands and Renewable Resources

Enclosures
1- Map

bc:
SSFO CF & RF
ES RF
DWinters
AMcCartney
ES020: JMSullivan:12/10/12:601-977-5400:Caddo.T.20N.R.16W.Sec.36.EOI 1715.SHPO.Ltr



Proposed Federal Oil and Gas Lease
EOI 1715



2,000 1,000 0 2,000 4,000 6,000 8,000 Feet

Proposed Lease Area

Proposed Lease Area:
Caddo Parish, Louisiana, Louisiana Meridian
T. 20N., R. 16W., Sec 36 Lots 1
Approximately 9.1 acres.

U.S. Department of the Interior
Bureau of Land Management
Eastern States
Southeastern States Field Office
Jackson, Mississippi

This map contains portions of the following USGS 1:24,000 Topographic Quadrangle: Mooringsport

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United States Department of the Interior



Bureau of Land Management

Southeastern States Field Office

411 Briarwood Drive, Suite 404

Jackson, Mississippi 39206

<http://www.es.blm.gov>

IN REPLY REFER TO: 8100 (020) JMS Caddo Parish EOI 1716

Dec. 10, 2012

Chairman Earl Barbry, Sr.
Tunica-Biloxi Tribe of Louisiana
P.O. Box 332
Marksville, Louisiana 70523

Dear Chairman Barbry:

The Bureau of Land Management (BLM) has received an Expression of Interest (EOI 1716) to lease federal minerals under privately owned surface, i.e. split-estate minerals. The Bureau's Reasonably Foreseeable Development Scenario for this proposed lease is multiple horizontal wells from one pad to be constructed on private surface with no more than 28.08 acres total, access road and pads, to be disturbed accessing federal minerals. The legal locations of the approximately 6.08 acres of federal mineral tracts are as follows (map enclosed):

Louisiana Meridian

Caddo Parish (Potters Point Quadrangle)

T. 19 N., R. 16 W., Sec. 36, Lots 1 (Approx. 9.1 ac.)

However, proposed development locations have not been determined on a site-specific basis. Specific locations proposed for development are determined by the developer and surface owners. The BLM's surface responsibilities rest only within the boundaries of any proposed development. A review of the Louisiana Division of Archaeology online site files shows sites within one mile of the proposed lease sale.

A section of the lease document will state that before the BLM approves any development proposal, a survey that meets current professional standards and a report that meets Louisiana Division of Archaeology requirements. The report must be approved by both the Louisiana



WILD HORSES & BURROS • CADASTRAL SURVEY • GENERAL LAND OFFICE RECORDS • MINERALS • RENEWABLE RESOURCES



Division of Archaeology and the BLM before any ground disturbing activities take place. Any needed consultation will be concluded before ground-disturbing activities begin.

In addition, a stipulation will be included in the lease document which covers accidental discovery and requires additional consultation with you and the Louisiana Division of Archaeology. This stipulation will also be included in the permitting documents when, or if, a development proposal is submitted.

If you are aware of any sites within the proposed lease area which are currently being used for religious purposes or are recognized as sacred sites on these privately owned lands, please let us know so that additional consultation can be conducted and so that impacts will not occur. As provided by law, any specific location information will be held in confidence. Your information is requested within 30 days.

If you have any questions or comments, please contact John M. Sullivan, Archeologist, at (601) 977-5439 or John_M_Sullivan@BLM.Gov.

Sincerely,

Original Signed
Duane Winters

Duane Winters

Assistant Field Manager, Division of Lands and
Renewable Resources

Acting for Bruce Dawson,
Field Manager

Enclosures

1 - Map

cc via email: Mr. Earl Barbry, Jr., Tribal Historic Preservation Officer

bc:

SSFO CF & RF

ES RF

DWinters

AMcCartney

ES020: JMSullivan:12/10/12:601-977-5400:Caddo.T.19N.R.16W.Sec.6.EOI 1716.NA.Ltr



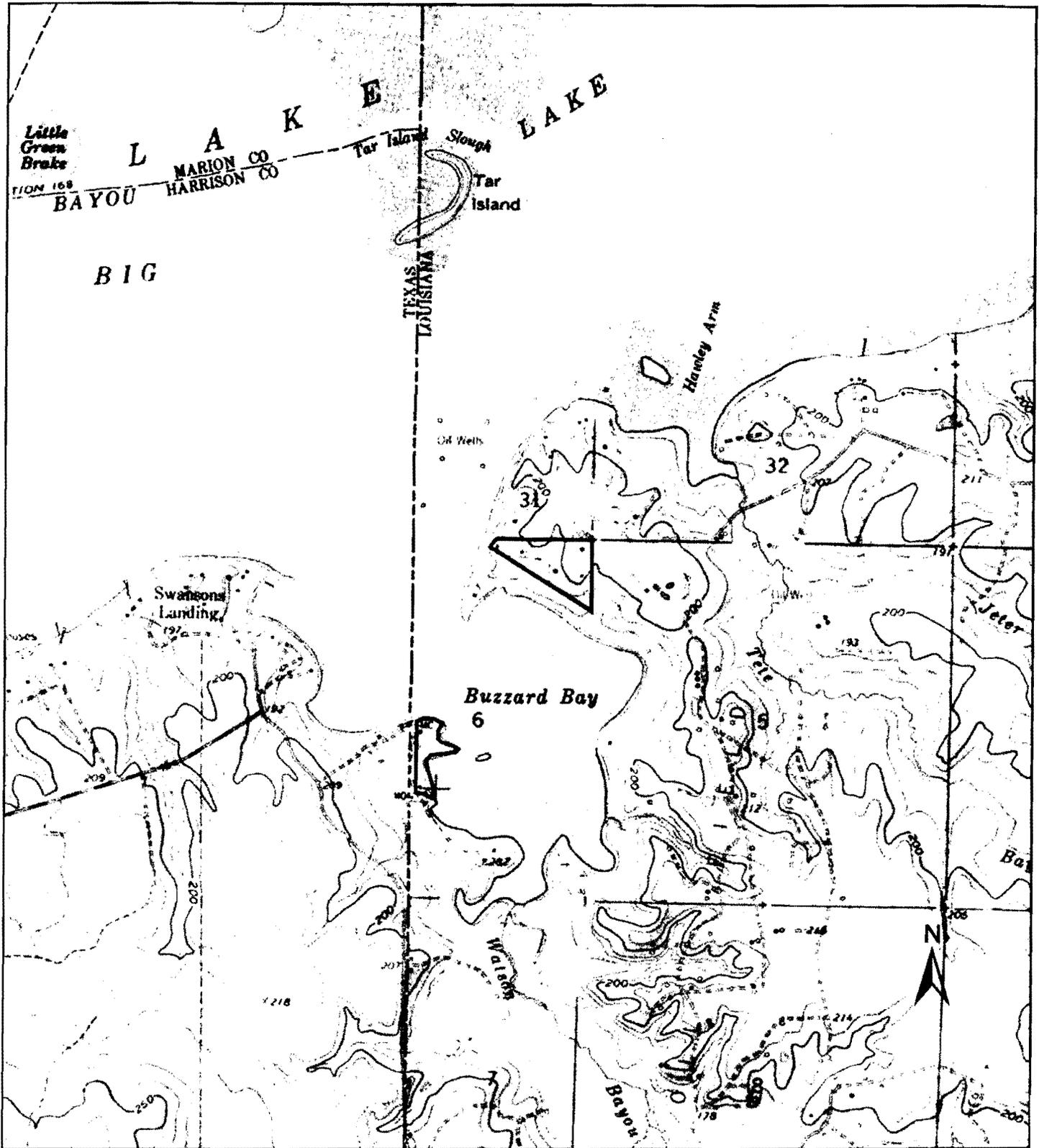
Original to:	cc: to these:
Mr. Earl Barbry, Sr., Chairman Tunica-Biloxi Tribe of Louisiana P.O. Box 331 Marksville, Louisiana 70523	Mr. Earl Barbry, Jr., Tribal Historic Preservation Officer Tunica - Biloxi Tribe 151 Melacon Dr. Marksville, LA 71351 earlii@tunica.org
Oscola Clayton Sylestine, Chairman Alabama-Coushatta Tribe of Texas 571 State Park Road 56 Livingston, TX 77351	Bryant J. Celestine, Historical Preservation Alabama-Coushatta Tribe of Texas 571 State Park Road 56 Livingston, TX 77351 celestine.bryant@actribe.org
Kevin Sickey, Chairman Coushatta Indian Tribe P.O. Box 818 Elton, LA 70532	Send Hard Copy Linda Langley, Tribal Historic Preservation Officer Mike Tarpley, Deputy THPO P.O. Box 818 Elton, LA 70532 llangley@mencese.edu; kokua.aina57@gmail.com
John Paul Darden, Chairman Chitimacha Tribe of Louisiana P.O. Box 661 Charenton, LA 70523	Kimberly S. Walden, Tribal Historic Preservation Officer Chitimacha Tribe of Louisiana P.O. Box 661 Charenton, LA 70523 kim@chitimacha.gov
John Berrey, Chairman Quapaw Tribe of Oklahoma P.O. Box 765 Quapaw, Oklahoma 74345	Jean Ann Lambert, Cultural/Historic Preservation Office P.O. Box 1556 Miami, OK 74355 jlambert@quapawtribe.com
Brenda Shemayme Edwards, Chairwoman Caddo Nation of Oklahoma P.O. Box 487 Binger, Oklahoma 73009	Mr. Robert Cast, Tribal Historic Preservation Officer Caddo Nation of Oklahoma P.O. Box 487 Binger, OK 73009 rcast@caddonation.org; mbotone@caddonation.org
A.D. Ellis, Principal Chief Muscogee (Creek) Nation of Oklahoma P.O. Box 580 Okmulgee, Oklahoma 74447	Emman Spain, Cultural/Historic Preservation Office Muscogee (Creek) Nation of Oklahoma P.O. Box 580 Okmulgee, OK 74447 espain@muscogeenation-nsn.gov
Leonard Harjo, Principal Chief Seminole Nation of Oklahoma P.O. Box 1498 Wewoka, Oklahoma 74884	Natalie Deer, Cultural Preservation Office P.O. Box 1768 Seminole, OK 74868-1768 ndecre@seminolenation.com

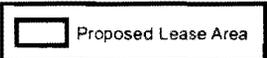


Original to:	cc: to these:
Only send email to Preservation Officer Tarpie Yargee, Chief Alabama-Quassarte Tribal Town P.O. Box 187 Wetumka, OK 74883	Augustine Asbury, 2nd Chief/ Cultural Preservation Officer P.O. Box 187 Wetumka, OK 74883 aqtccultural@yahoo.com
Only send email to reservation Officer Gregory Pyle, Chief Choctaw Nation of Oklahoma Drawer 1210 Durant, Oklahoma 74702-1210	Ian Thompson PhD, RPA, THPO, Tribal Archaeologist, Director Historic Preservation Dept. Johnnie L. Jacobs, Section 106 Coordinator 580-775-0914, 580-920-3181 (Fax) 1-800-522-6170 ext. 2216 P.O. Drawer 1210 Durant, OK 74702 ithompson@choctawnation.com; jjacobs@choctawnation.com
B. Cheryl Smith, Chief Jena Band of Choctaw P.O. Box 2717 Jena LA 71342	Dana Masters, Tribal Council and Cultural Preservation Officer Jena Band of Choctaw P.O. Box 2717 Jena LA 71342 danammasters@aol.com
Phyliss J. Anderson, Chief Mississippi Band of Choctaw Indians P.O. Box 6010 Philadelphia, MS 39350	Mr. Ken Carleton, Tribal Historic Preservation Officer Mississippi Band of Choctaw Indians P.O. Box 6257 Philadelphia, MS 39350 kcarleton@choctaw.org
George Scott, Mekko Thlopthlocco Tribal Town P.O. Box 188 Okemah, Oklahoma 74859	Charles Coleman, Cultural/Historic Preservation Office P.O. Box 188 Okemah, Oklahoma 74859 chascolemans@prodgy.net



Proposed Federal Oil and Gas Lease
EOI 1716



 Proposed Lease Area

Proposed Lease Area:
Caddo Parish, Louisiana, Louisiana Meridian
T. 19N., R. 16W., Sec.6, Lots 1 and Fractional
NE Quarter
Approximately 28.08 acres.

U.S. Department of the Interior
Bureau of Land Management
Eastern States
Southeastern States Field Office
Jackson, Mississippi

This map contains portions of the following USGS 1:24,000 Topographic Quadrangle: Potters Point

No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of this data for individual use or aggregate use with other data.



United States Department of the Interior



Bureau of Land Management

Southeastern States Field Office
411 Briarwood Drive, Suite 404
Jackson, Mississippi 39206
<http://www.es.blm.gov>

IN REPLY REFER TO: 8100 (020) JMS Caddo Parish EOI 1716

Dec. 10, 2012

Ms. Pam Breaux
State Historic Preservation Officer
Louisiana Office of Cultural Development
P.O. Box 44247
Baton Rouge, LA 70804-44247

Dear Ms. Breaux:

The Bureau of Land Management (BLM) has received an Expression of Interest (EOI 1716) to lease federal minerals under privately owned surface, i.e. split-estate minerals. The Bureau's Reasonably Foreseeable Development Scenario for this proposed lease is multiple horizontal wells from one pad to be constructed on private surface with no more than 28.08 acres total, access road and pads, to be disturbed accessing federal minerals. The legal locations of the approximately 6.08 acres of federal mineral tracts are as follows (map enclosed):

Louisiana Meridian

Caddo Parish (Potters Point Quadrangle)

T. 19 N., R. 16 W., Sec. 6, Lots 1 and fractional NENE (Approx. 9.1 ac.)

However, proposed development locations have not been determined on a site-specific basis. Specific locations proposed for development are determined by the developer and surface owners. The BLM's surface responsibilities rest only within the boundaries of any proposed development. A review of the Louisiana Division of Archaeology online site files shows sites within one mile of the proposed lease sale.

A section of the lease document will state that before the BLM approves any development proposal, a survey that meets current professional standards and a report that meets Louisiana Division of Archaeology requirements. The report must be approved by both the Louisiana



Division of Archaeology and the BLM before any ground disturbing activities take place. Any needed consultation will be concluded before ground-disturbing activities begin.

Your concurrence of these procedures for Section 106 compliance is requested in 30 days. If you have any questions or concerns, please contact John M. Sullivan, Archeologist, at (601) 977-5439 or email at John_M_Sullivan@BLM.Gov.

Sincerely,

**Original Signed
Duane Winters**

Duane Winters
Assistant Field Manager
Division of Lands and Renewable Resources

Enclosures
1- Map

bc:

SSFO CF & RF

ES RF

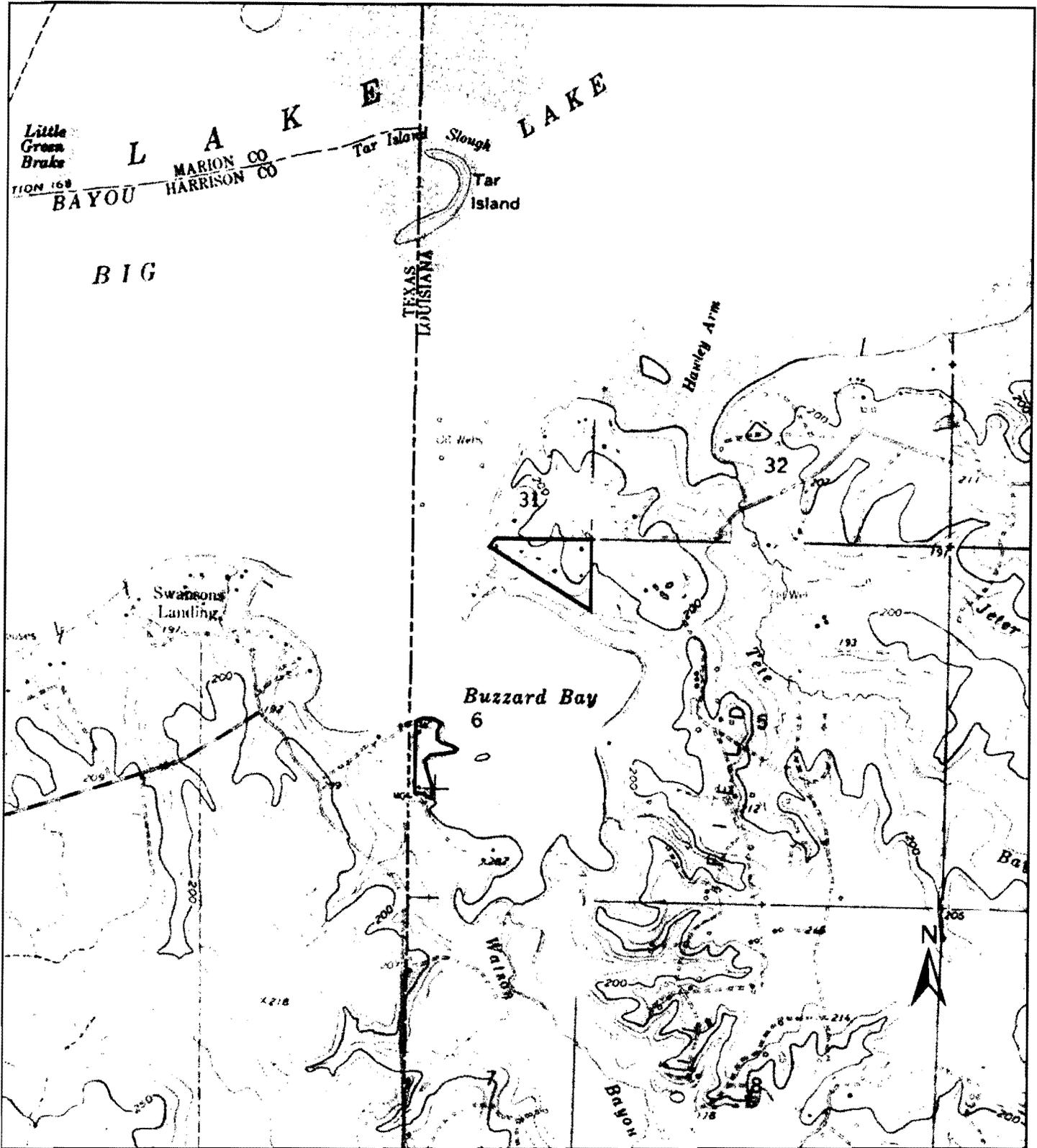
DWinters

~~AMcCartney~~

ES020: JMSullivan:12/10/12:601-977-5400:Caddo.T.19N.R.16W.Sec.6.EOI 1716.SHPO.Ltr



Proposed Federal Oil and Gas Lease
EOI 1716



 Proposed Lease Area

Proposed Lease Area:
Caddo Parish, Louisiana, Louisiana Meridian
T. 19N., R. 16W., Sec. 6, Lots 1 and Fractional
NE Quarter
Approximately 28.08 acres.

U.S. Department of the Interior
Bureau of Land Management
Eastern States
Southeastern States Field Office
Jackson, Mississippi

This map contains portions of the following USGS 1:24,000 Topographic Quadrangle: Potters Point

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Appendix D

Reasonably Foreseeable Development Scenario

REASONABLY FORESEEABLE DEVELOPMENT SCENARIO

Case File Number: EOI 1581

Project Number:

Acres: 38.02

Location: Louisiana Meridian, Rapides Parish, T5N, R4W, Sec. 4, SWNW

I. Reasonably Foreseeable Development

A. RFD Baseline Scenario Assumptions and Discussion

Objective horizon is Austin Chalk through Tuscaloosa Marine Shale. Commodity is oil and natural gas.

Federal acreage will be incorporated into a state determined drilling unit. Drilling and production units are 640 to 1280 acres. Project multiple wells, 1 federal well, drilled from 1 pad.

A 30' wide well access road will be constructed consisting of a 16' wide travel surface with a 7' buffer on each side.

If productive, multiple wells may be drilled from the existing pad.

If productive, oil and gas handling and production facilities will be constructed on the existing pad.

If productive, the reserve pit and part of the drill pad will be reclaimed when drilling and completion activities are concluded.

All disturbed acreage will be reclaimed if the well is non-productive.

B. Surface Disturbance Due to Oil and Gas Activity

Access Road: 1.23 acres (1800' X 30')

Well Pad & Pit: 5.74 acres (500' X 500')

Utility and/or Pipeline R.O.W: 0 – use access road ROW

Initial Disturbance: 6.97 acres

Partial Reclamation of Drill Site: 0.46 acres

Net Disturbance for Productive Well: 6.51 acres

REASONABLY FORESEEABLE DEVELOPMENT SCENARIO

Case File Number: EOI 1672

Project Number:

Acres: 39.89 acres

Location: Louisiana Meridian, Caddo Parish, LA, T20N-R14W, Sec. 8, SESW

I. Reasonably Foreseeable Development

A. RFD Baseline Scenario Assumptions and Discussion

Objective horizon is Bossier/Haynesville shale thru Lower Smackover Brown Dense. Commodities are natural gas (Bossier/Haynesville) and crude oil (Lower Smackover)

Federal acreage will be incorporated into a state determined drilling unit. Drilling and production units are variable between 640 and 1280 acres. Project multiple wells to be horizontally drilled from 1 drilling pad.

A 30' wide well access road will be constructed consisting of a 16' wide travel surface with a 7' buffer on each side.

Oil and gas occurrence potential is high. Oil and gas development potential is high.

If productive, oil and gas handling and production facilities will be constructed on the existing pad.

If productive, the reserve pit and part of the drill pad will be reclaimed when drilling and completion activities are concluded.

All disturbed acreage will be reclaimed if the well is non-productive.

B. Surface Disturbance Due to Oil and Gas Activity

Access Road: 0.55 acres (800'X30')

Well Pad & Pit: 5.74 acres (500'X500')

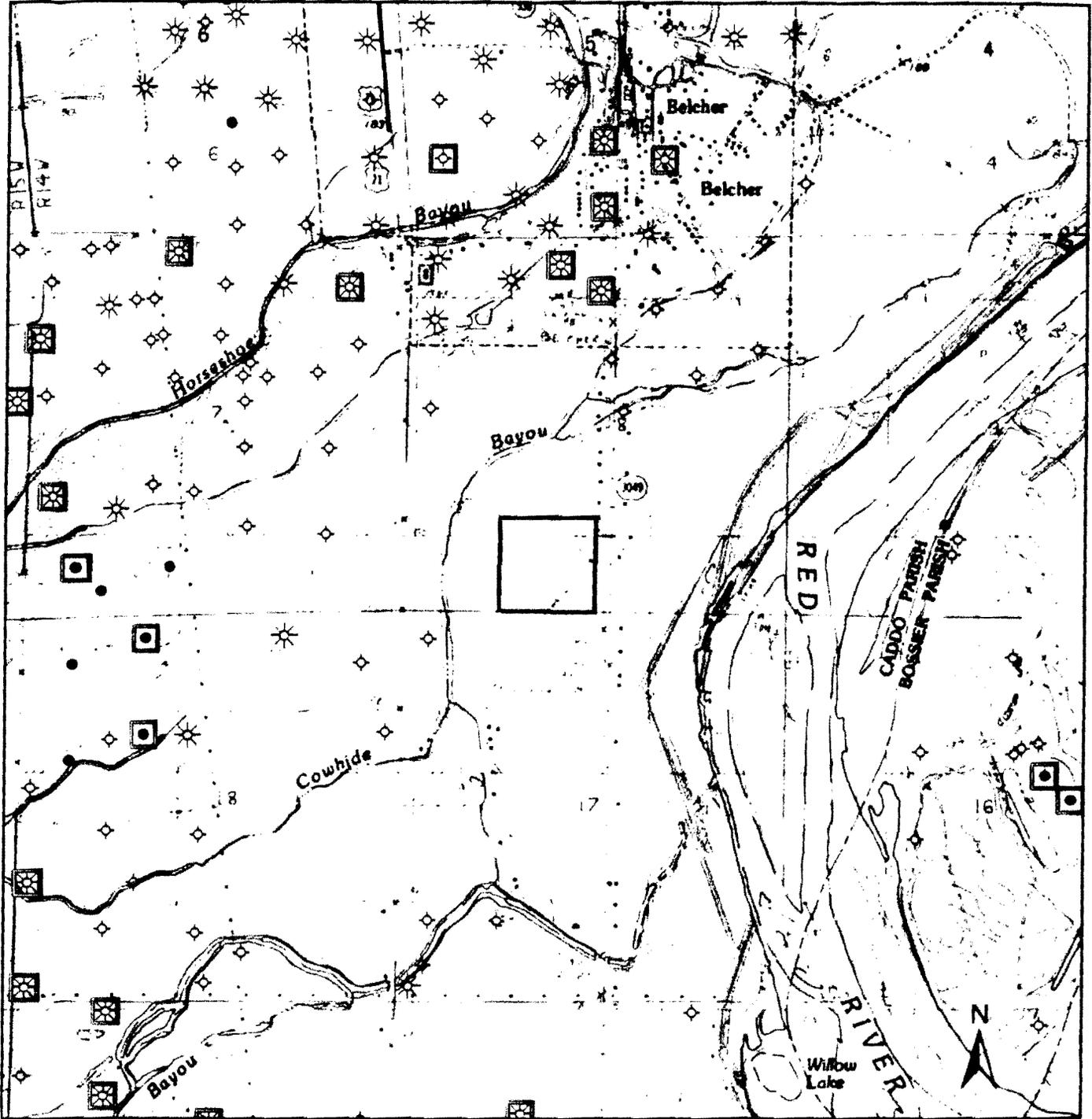
Utility and/or Pipeline R.O.W: 0 – Use access road ROW

Initial Disturbance: 6.29 acres

Partial Reclamation of Drill Site: 0.34 acres (100'X150')

Net Disturbance for Productive Wells: 5.95 acres

Proposed Federal Oil and Gas Lease
EOI 1672



2,000 1,000 0 2,000 4,000 6,000 Feet

Proposed Lease Area

Oil and Gas Wells

- ◇ Dry Hole, Temporarily Abandoned
- Oil Well
- ☆ Gas Well
- Inactive Wells

Proposed Lease Area:
Caddo Parish, Louisiana, Louisiana Meridian
T. 20N., R. 14W., Sec. 8, SESW
Approximately 39.88 acres.

U.S. Department of the Interior
Bureau of Land Management
Eastern States, Jackson Field Office
Jackson, Mississippi

This map contains portions of the following USGS 1:24,000 Topographic Quadrangles: Gilliam, Dix

No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of this data for individual use or aggregate use with other data.

REASONABLY FORESEEABLE DEVELOPMENT SCENARIO

Case File Number: EOI 1711

Project Number:

Acres: 22.16 acres

Location: Louisiana Meridian, Rapides Parish, T3N-R1E, Sec.9, entire section.

I. Reasonably Foreseeable Development

A. RFD Baseline Scenario Assumptions and Discussion

Objective horizon is Austin Chalk and Tuscaloosa Marine Shale. Commodity is Oil and associated natural gas. Project 4 wells drilled from 1 pad.

Federal acreage will be incorporated into a state determined drilling unit. Drilling and production units are 1280 acres.

A 30' wide well access road will be constructed consisting of a 16' wide travel surface with a 7' buffer on each side.

If productive, multiple wells may be drilled from the existing pad.

If productive, oil and gas handling and production facilities will be constructed on the existing pad.

If productive, the reserve pit and part of the drill pad will be reclaimed when drilling and completion activities are concluded.

All disturbed acreage will be reclaimed if the well is non-productive.

B. Surface Disturbance Due to Oil and Gas Activity

Access Road: 0.68 acres (1000'X30')

Well Pad & Pit: 5.74 acres (500'X500')

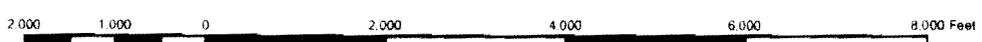
Utility and/or Pipeline R.O.W: 0 – Use access road ROW

Initial Disturbance: 6.42 acres

Partial Reclamation of Drill Site: 0.34 acres

Net Disturbance for Productive Well: 6.08 acres

Proposed Federal Oil and Gas Lease
EOI 1711



 Proposed Lease Area

Proposed Lease Area:
Rapides Parish, Louisiana, Louisiana Meridian
T. 3N., R. 1E., Sec. 9, Entire section
Approximately 22.16 acres.

U.S. Department of the Interior
Bureau of Land Management
Eastern States
Southeastern States Field Office
Jackson, Mississippi

This map contains portions of the following USGS 1:24,000 Topographic Quadrangles: Latanier, Woodworth East, Alexandria, Libuse

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REASONABLY FORESEEABLE DEVELOPMENT SCENARIO

Case File Number: EOI 1714

Project Number:

Acres: 91.56 acres

Location: Louisiana Meridian, Caddo Parish, LA, T20N-R16W, Sec. 32, Lots 1 and 3

I. Reasonably Foreseeable Development

A. RFD Baseline Scenario Assumptions and Discussion

Objective horizon is Bossier/Haynesville shale thru Lower Smackover Brown Dense. Commodities are natural gas (Bossier/Haynesville) and crude oil (Lower Smackover)

Federal acreage will be incorporated into a state determined drilling unit. Drilling and production units are variable between 640 and 1280 acres. Project multiple wells to be horizontally drilled from 1 drilling pad.

A 30' wide well access road will be constructed consisting of a 16' wide travel surface with a 7' buffer on each side.

Oil and gas occurrence potential is high. Oil and gas development potential is high.

If productive, oil and gas handling and production facilities will be constructed on the existing pad.

If productive, the reserve pit and part of the drill pad will be reclaimed when drilling and completion activities are concluded.

All disturbed acreage will be reclaimed if the well is non-productive.

B. Surface Disturbance Due to Oil and Gas Activity

Access Road: 1.03 acres (1500'X30')

Well Pad & Pit: 5.74 acres (500'X500')

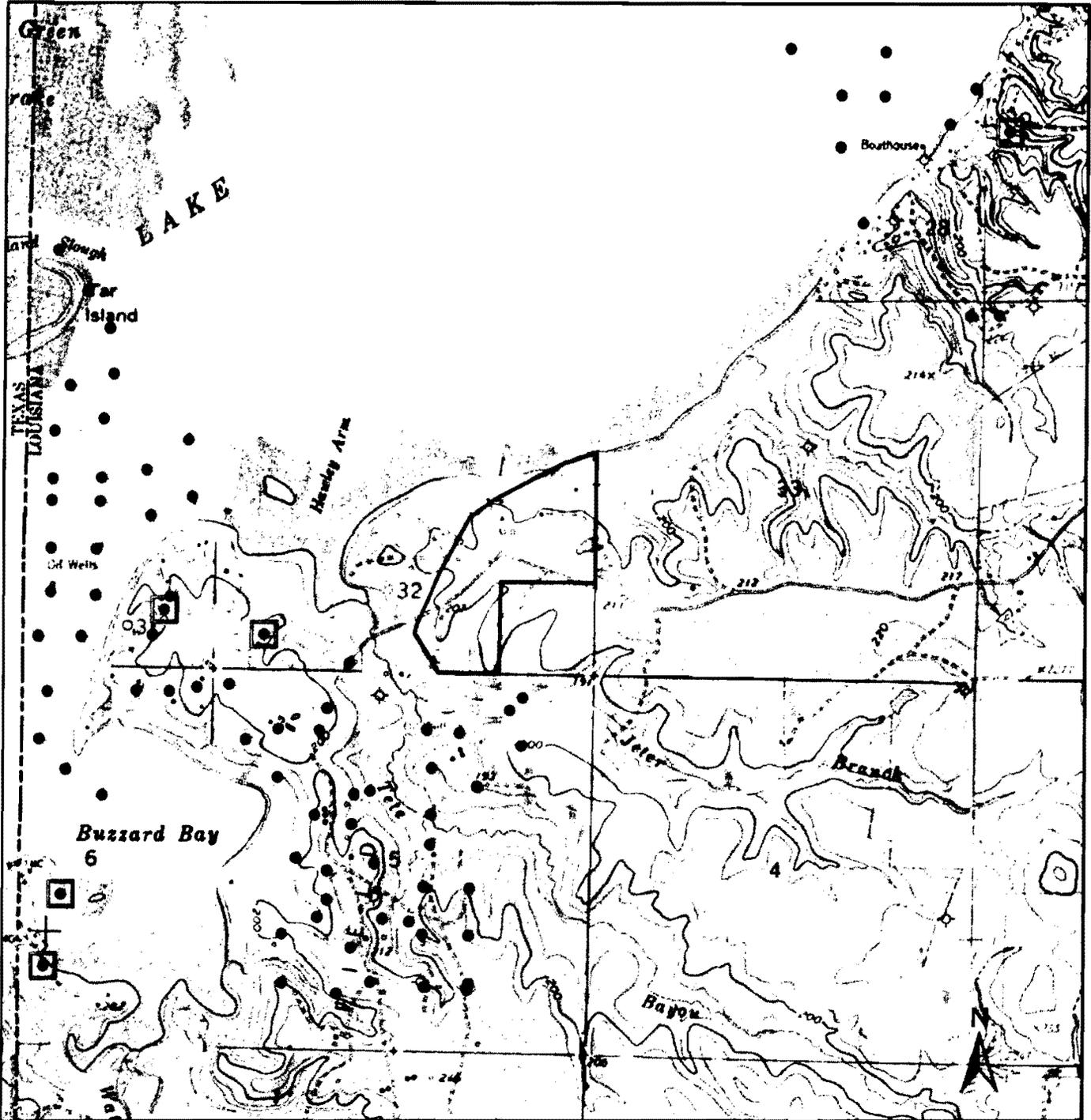
Utility and/or Pipeline R.O.W: 0 – Use access road ROW

Initial Disturbance: 6.77 acres

Partial Reclamation of Drill Site: 0.34 acres (100'X150')

Net Disturbance for Productive Wells: 6.43 acres

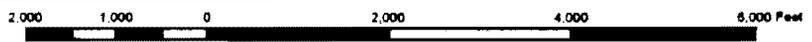
Proposed Federal Oil and Gas Lease
EOI 1714



Proposed Lease Area

Oil and Gas Wells

- ◇ Dry Hole, Temporarily Abandoned
- Oil Well
- _w Inj. Srv. CO₂ Storage, WDW, Pseudo Orig. Mining Borhole
- Inactive Wells



Proposed Lease Area:
Caddo Parish, Louisiana, Louisiana Meridian
T. 20N., R. 16W., Sec.32, Lots 1 and 3
Approximately 91.56 acres.

U.S. Department of the Interior
Bureau of Land Management
Eastern States
Southeastern States Field Office
Jackson, Mississippi

This map contains portions of the following USGS 1:24,000 Topographic Quadrangles: Potters Point, Moomingsport

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REASONABLY FORESEEABLE DEVELOPMENT SCENARIO

Case File Number: EOI 1715

Project Number:

Acres: 9.12 acres

Location: Louisiana Meridian, Caddo Parish, LA, T20N-R16W, Sec. 36, Lot 1

I. Reasonably Foreseeable Development

A. RFD Baseline Scenario Assumptions and Discussion

Objective horizon is Bossier/Haynesville shale thru Lower Smackover Brown Dense. Commodities are natural gas (Bossier/Haynesville) and crude oil (Lower Smackover)

acreage with be incorporated into a state determined drilling unit. Drilling and production units are variable between 640 and 1280 acres. Project multiple wells to be horizontally drilled from 1 drilling pad.

A 16' wide well access road will be constructed consisting of a 16' wide travel lane with a 7' buffer on each side.

Oil and gas occurrence potential is high. Oil and gas development potential is high.

If productive, oil and gas handling and production facilities will be constructed on the existing pad.

If productive, the reserve pit and part of the drill pad will be reclaimed when drilling and completion activities are concluded.

All disturbed acreage will be reclaimed if the well is non-productive.

B. Surface Disturbance Due to Oil and Gas Activity

Access Road: 0.83 acres (1200'X30')

Well Pad & Pit: 5.74 acres (500'X500')

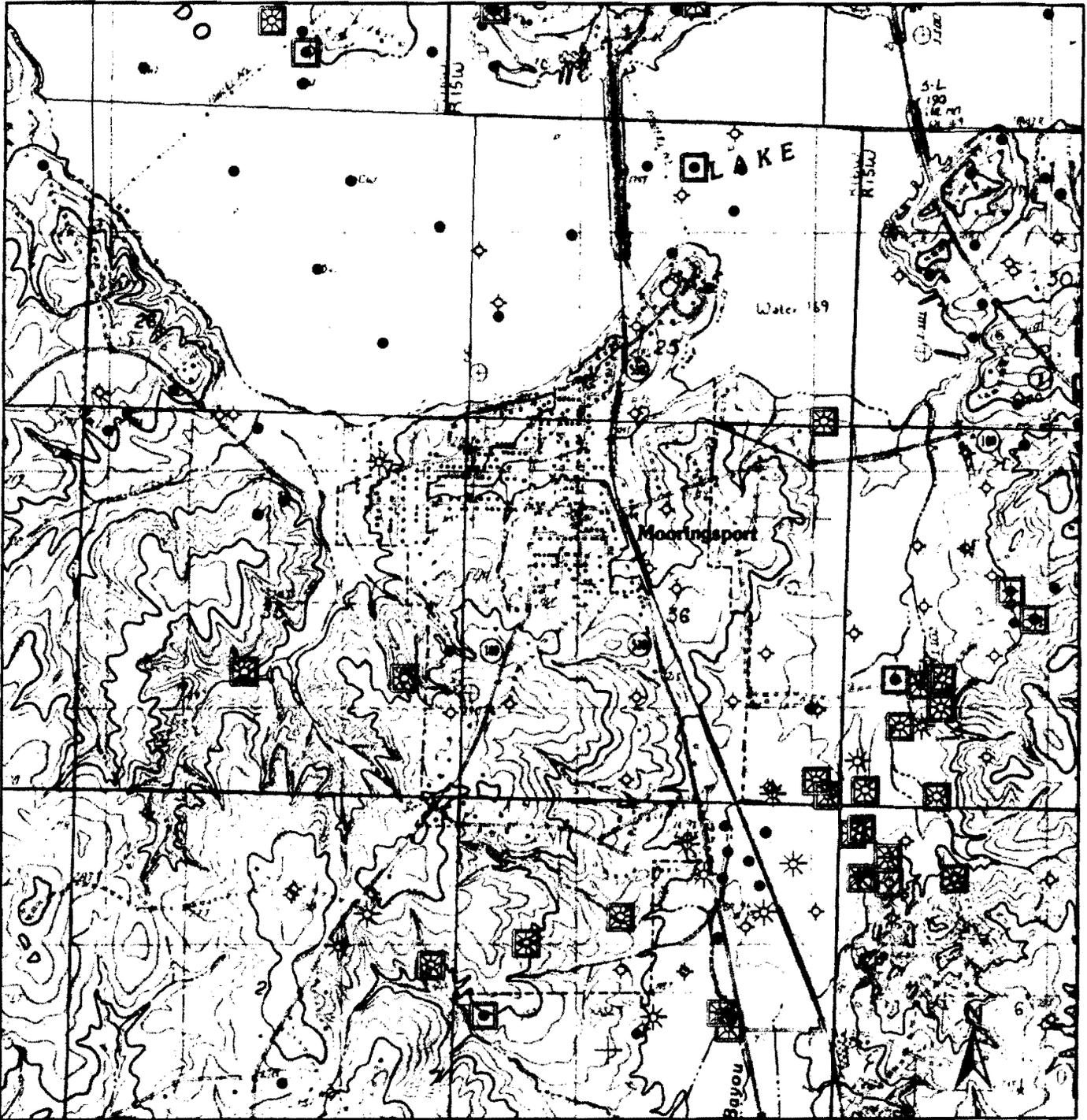
Utility and/or Pipeline R.O.W: 0 – Use access road ROW

Initial Disturbance: 6.57 acres

Partial Reclamation of Drill Site: 0.34 acres (100'X150')

Net Disturbance for Productive Wells: 6.23 acres

Proposed Federal Oil and Gas Lease
EOI 1715



7,000 1,000 0 2,000 4,000 6,000 Feet

	Proposed Lease Area
Oil and Gas Wells	
	Dry Hole, Temporarily Abandoned
	Oil Well
	Gas Well
	Inj. Srv. CO2 Storage, WDW, Pseudo Orig, Mining Borehole
	Inactive Wells

Proposed Lease Area:
Caddo Parish, Louisiana, Louisiana Meridian
T. 20N., R. 16W., Sec. 36 Lots 1
Approximately 9.12 acres.

U.S. Department of the Interior
Bureau of Land Management
Eastern States
Southeastern States Field Office
Jackson, Mississippi

This map contains portions of the following USGS 1:24,000 Topographic Quadrangle: Mooringsport
No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of this data for individual use or aggregate use with other data.

REASONABLY FORESEEABLE DEVELOPMENT SCENARIO

Case File Number: EOI 1716

Project Number:

Acres: 28.08 acres

Location: Louisiana Meridian, Caddo Parish, LA, T19N-R16W, Sec. 6, Lot 1 and fractional NENE

I. Reasonably Foreseeable Development

A. RFD Baseline Scenario Assumptions and Discussion

Objective horizon is Bossier/Haynesville shale thru Lower Smackover Brown Dense. Commodities are natural gas (Bossier/Haynesville) and crude oil (Lower Smackover)

Federal acreage will be incorporated into a state determined drilling unit. Drilling and production units are variable between 640 and 1280 acres. Project multiple wells to be horizontally drilled from 1 drilling pad.

A 30' wide well access road will be constructed consisting of a 16' wide travel surface with a 7' buffer on each side.

Oil and gas occurrence potential is high. Oil and gas development potential is high.

If productive, oil and gas handling and production facilities will be constructed on the existing pad.

If productive, the reserve pit and part of the drill pad will be reclaimed when drilling and completion activities are concluded.

All disturbed acreage will be reclaimed if the well is non-productive.

B. Surface Disturbance Due to Oil and Gas Activity

Access Road: 0.34 acres (500'X30')

Well Pad & Pit: 5.74 acres (500'X500')

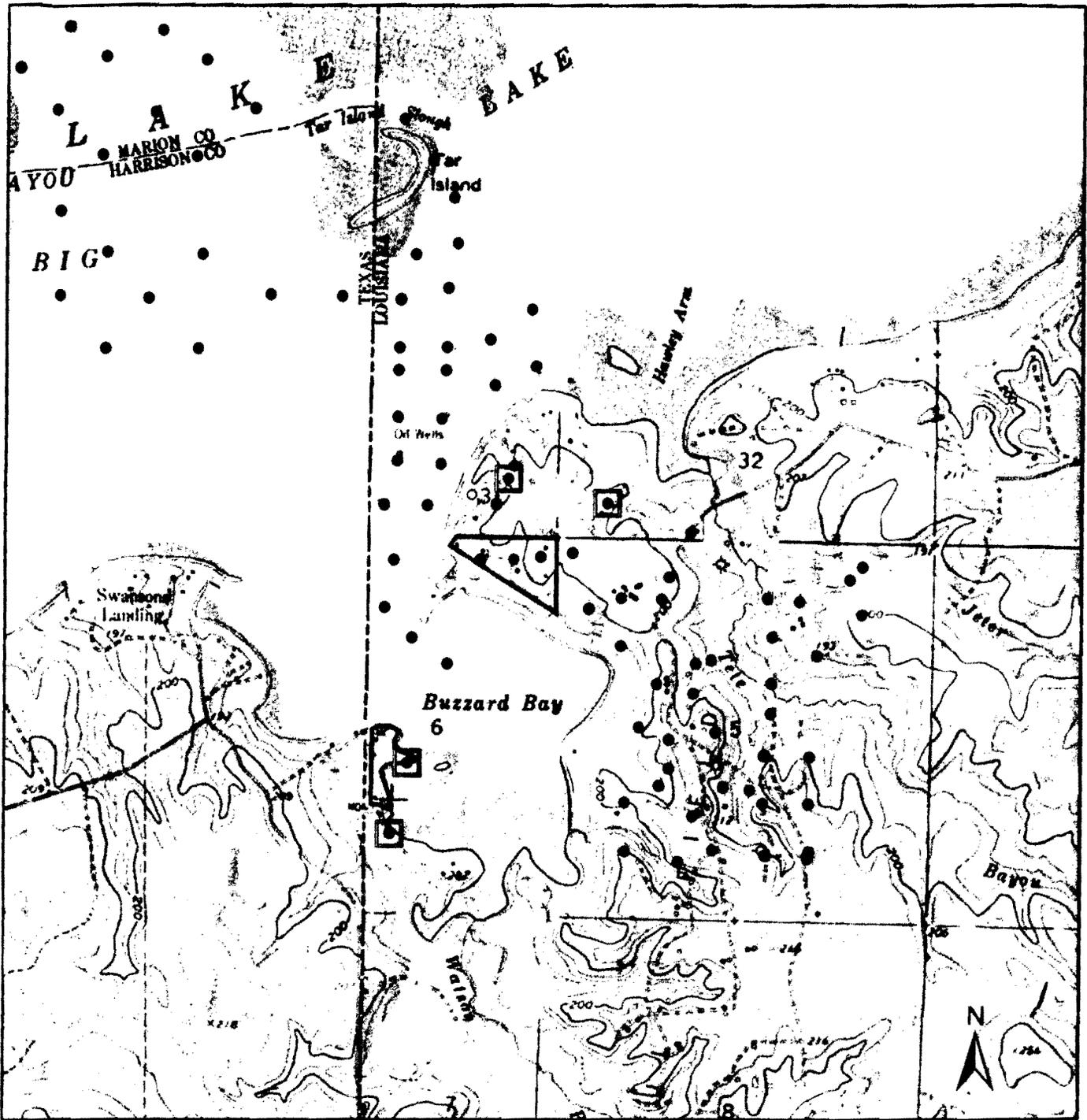
Utility and/or Pipeline R.O.W: 0 – Use access road ROW

Initial Disturbance: 6.08 acres

Partial Reclamation of Drill Site: 0.34 acres (100'X150')

Net Disturbance for Productive Wells: 5.74 acres

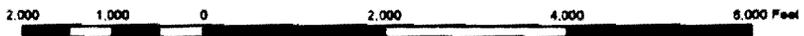
Proposed Federal Oil and Gas Lease
EOI 1716



Proposed Lease Area

Oil and Gas Wells

- ◇ Dry Hole, Temporarily Abandoned
- Oil Well
- (N), Srv. CO2, Storage, WDW, Pseudo Orig, Mining Borhole
- Inactive Wells



Proposed Lease Area:
Caddo Parish, Louisiana, Louisiana Meridian
T. 19N., R. 18W., Sec. 8, Lots 1 and Fractional
NE Quarter
Approximately 28.08 acres.

U.S. Department of the Interior
Bureau of Land Management
Eastern States
Southeastern States Field Office
Jackson, Mississippi

This map contains portions of the following USGS 1:24,000 Topographic Quadrangle: Potters Point

No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of this data for individual use or aggregate use with other data.

APPENDIX E

Public Notice

Management, Southeastern States Field Office will prepare an environmental assessment document to consider leasing federally owned mineral estate for oil and gas exploration and development.

The locations of the tracts are as follows:

T12N, R7W, Sec. 19, Lot 8, Sec. 20, SWNW, Sec. 30, Lots 5 - 14, Sec. 31, Lots 1 - 16, Sec. 32, Lots 5 - 12, Natchitoches and Red River Parishes, (1321.29 acres) (EOI #716), T15N, R11W, Sec. 2, NWNE, Lots 6 and 8, Bossier Parish, (79.48 acres) (EOI #817), T11N, R11W, Sec. 2, Lots 2, 4, and 6, DeSoto Parish, (54.02 acres) (EOI #823), T15N, R10W, Sec. 30, Lot 5 and Sec. 32, Lot 10 DeSoto Parish, (4.4 acres) (EOI #901), T14S, R18E, Sec. 19, S2SW, Lafourche Parish, (75.48 acres) (EOI #1493), T15N, R11W, Sec. 12, Fractional part of Lots 11 and 17, Bossier Parish, (7.24 acres) (EOI #1549), T5N, R4W, Sec. 4, SWNW, Rapides Parish, (38.02 acres) (EOI #1581), T20N, R14W, Sec. 8, SESW, Caddo Parish, (39.88 acres) (EOI #1672), T3N, R1E, Section 9, Rapides Parish, (22.16 acres) (EOI #1711), T20N, R16W, Sec. 32, Lots 1 & 3, Caddo Parish (91.56 acres) (EOI #1714), T20N, R16W, Sec. 36, Lot 1, Caddo Parish, (9.12 acres) (EOI #1715), and T19N, R16W, Sec. 6, Lot 1 and Fractional NE Quarter, Caddo Parish (28.08 acres) (EOI #1716). All parcels are located in Louisiana Meridian, Louisiana.

The analysis will be prepared by an interdisciplinary team. An issue to be addressed by the team is to identify environmental impacts, and what restrictions may be necessary to avoid or mitigate identified impacts. The public is invited to participate by submitting comments on environmental issues with land use or by submitting other issues for consideration with the land use. Comments will be accepted through December 9, 2012. Send comments to Bureau of Land Management, Southeastern States Field Office, 411 Briarwood Drive, Suite 404, Jackson, MS 39206.

For further information contact Alison McCartney with the Southeast-

ern States Field Office at (601) 977-5407.

Bruce E. Dawson
Field Manager

The Times
November 9, 2012

The Times

PROOF OF PUBLICATION

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STATE OF LOUISIANA

PARISH OF CADDO

Before me, the undersigned authority, personally came and appeared

NOV 12 2012
BUREAU OF LAND MANAGEMENT
BLO

Connie Vinson-Carey, personally known to me

Who being duly sworn, deposes and says that she is the Assistant to the Classified Advertising Manager of The Times, and that the attached Advertisement published entitled:

**The Bureau of Land Management,
Southeastern States Field Office
will prepare an environmental assessment document to
consider leasing federally owned mineral estate
for oil and gas exploration and development.**

Notice published in The Times on November 9, 2012

November 9, 2012

(Signed) Connie Vinson-Carey

Sworn to and subscribed before me this 9th day of November, 2012

Diana Woodard Barber



DIANA WOODARD BARBER
Notary Public
Notary ID No. 60491
Caddo Parish, Louisiana

(Notary)

