DO-12 APPENDIX 1

ENVIRONMENTAL SCREENING FORM

(REVISED November 2003)

This form should be attached to all documents sent to the regional director's office for signature. Sections A and B should be filled out by the project initiator (may be coupled with other park project initiation forms). Sections C, D, E, and G are to be completed by the interdisciplinary team members. While you may modify this form to fit your needs, you must ensure that the form includes information detailed below and must have your modifications reviewed and approved by the regional environmental coordinator.

A. PROJECT INFORMATION

Park Name

Big Thicket NPres

Project Number

17563

Project Type

3-D Geophysical Survey - Vibroseis (OTHER)

Project Location

County, State: Hardin, Texas

Project Originator/Coordinator

Haigler Pate

Project Title

Kerr McGee Oil & Gas Onshore LP's Kountze 3-D Seismic Survey - Plan of Operations

Supplement

Contract #/Contractor Name

Administrative Record Contact

<u>Haigler Pate</u>

Administrative Record Location

Headquarters Buildling, Kountze, TX

B. PROJECT DESCRIPTION/LOCATION [To begin the statutory compliance file, attach to this form, maps, site visit notes, agency consultation, data, reports, categorical exclusion form (if relevant), or other relevant materials.]

Kerr McGee Oil & Gas Onshore LP (Kerr McGee) has a National Park Service (NPS) approved plan of operations to conduct a three-dimensional geophysical (3-D seismic) survey in portions of the Big Sandy Creek Corridor, Lance Rosier, Turkey Creek, and Village Creek Corridor Units of Big Thicket National Preserve (Preserve). The 3-D seismic data collection is being accomplished using acoustic reflection methodology where sources of vibration are created and then recorded at various points along a grid to develop an image of the subsurface in three dimensions. The data will be utilized in the search for hydrocarbon resources in the area covered by the survey. For this operation, Kerr McGee is primarily utilizing explosive charges placed within shotholes approximately 100 feet in depth (source points) as the energy source to generate the vibrations. However, on lands owned by the United States within the project area, Kerr McGee proposed "cable-only" methodology where no source points would be placed. According to the approved plan of operations for the project, Kerr McGee's operations on federal lands are limited to surveying locations for receiver points, and the placement and subsequent removal of those receivers to record the vibrations generated at outside source points. Kerr McGee has requested that the National Park Service consider a supplement to the approved plan of operations for the Kountze 3-D seismic survey. Kerr McGee proposes to conduct vibroseis operations along Little

Rock Road in the Lance Rosier Unit of the Preserve in Hardin County, Texas. Eleven vibroseis points were completed along the eastern end of the road by Kerr McGee during the week of December 17, 2006. This activity occurred before the NPS became aware of the operation. The NPS informed Kerr McGee that the operations were occurring within the Preserve, and that such activity was not permitted under the existing plan of operations for the project. Kerr McGee is proposing vibroseis operations at an additional thirty-two points along the road. According to Kerr McGee, this represents approximately five hours of operations. These operations would be limited to the surface of Little Rock Road, and would consist of four vibroseis trucks in a line traveling up the road and conducting operations at each of the pre-determined points. The operations at each point would consist of positioning the trucks, lowering a 4 x 8 foot pressure plate from each truck until contact is made with the road surface, applying 44,000 lbs of pressure to the surface and then vibrating the plates in unison at a signal from a recording truck outside the Preserve. The energy from the vibrations would be received in the same manner as that produced outside the Preserve. Little Rock Road would be closed to traffic during the vibroseis operation. After the vibroseis operation is completed, the road surface would be re-graded by Kerr McGee. Kerr McGee would offset vibroseis operations from sites of resource concern as indicated by the NPS. Third-party monitors would observe the operations to ensure compliance with the supplemented plan of operations.

C. RESOURCE EFFECTS TO CONSIDER (Tailor the following to meet individual park/unit project needs.)

Please see section F (Instructions for Determining Appropriate NEPA Pathway) prior to completing this section. Also, use the process described in DO-12, 2.9 and 2.10; 3.5; 4.5(G) to (G)(5) and 5.4(F) to help determine the context, duration and intensity of effects on resources.

Are any impacts possible on the following physical, natural or cultural resources?	Yes	No	N/A	Data Needed to Determine/Notes
Geological resources – soils, bedrock, streambeds, etc.	X			Negligible to minor adverse impacts from soil compression confined to the existing right-of-way are expected from the operation of vibroseis equipment. Vibroseis operations utilize lower energies than seismic shots. Therefore, these impacts are expected to be confined to the road surface. The road surface

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				would be re-graded by Kerr McGee. This is expected to create negligible to minor impacts from soil movement and compression within the existing right-of-way, as well as
				temporarily increasing the possibility of sediment movement. Sheet flow drainage with increased sediment loading could indirectly affect soils, water quality, and fish and wildlife.
2. From geohazards		X		
3. Air quality	X			Negligible to minor adverse impacts are expected due to the operation of heavy equipment. Emissions are expected to be dissipated from the area over a short time period. Emissions could create indirect impacts to wildlife and Preserve visitors in the area.
4. Soundscapes	X			Negligible to minor adverse impacts are expected from the operation of heavy equipment. These impacts are expected to be generally confined to the area of operations, and are expected to last approximately 5 hours. Noise impacts could create indirect impacts to wildlife and Preserve visitors in the area.
5. Water quality or quantity	X			Negligible adverse impacts from increased sediment loads are possible. Any leak or spill from equipment is expected to be noted and mitigated quickly, but negligible impacts from spilled equipment fluids are also possible. These impacts could indirectly affect fish and wildlife in the area.
		X		
6. Streamflow characteristics	<u> </u>		X	<u> </u>
7. Marine or estuarine resources			\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	
8. Floodplains or wetlands		X		
9. Land use, including occupancy, income, values, ownership, type of use			X	
10. Rare or unusual vegetation – old growth timber, riparian, alpine		X		
11. Species of special concern (plant or animal; state or federal listed or proposed for listing) or their habitat		X		
12. Unique ecosystems, biosphere reserves, World Heritage Sites	X			BITH is a UNESCO Biosphere Reserve. No change to this classification is expected as a result of this proposal.
13. Unique or important wildlife or wildlife habitat		X		
14. Unique or important fish or fish habitat		X		
15. Introduce or promote non-native species (plant or animal)	X			No introduction or promotion of non-natives is expected as a result of the proposal. However, it is possible that non-native species could be

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			introduced into new areas. Vehicles or
			equipment (vibroseis and grader) could
			transport non-native propagules.
	X		Little Rock Road will be temporarilty closed
16. Recreation resources, including			for the duration of the operations. This closure
supply, demand, visitation, activities, etc.			is expected to last five hours during vibroseis
, ,			operations. The time it would take to complete
			grading operations is unknown.
	X		Negligible to minor adverse impacts from crew
Visitor experience, aesthetic			and equipment presence on Little Rock Road.
resources			The operation of equipment is expected to
			elevate noise levels in the immediate area and
			produce emmissions. Both could indirectly
			affect Preserve visitors. These impacts are
			expected to be negligible and temporary.
	-	37	expected to be negligible and temporary.
10.01/		X	
18. Cultural resources including cultural			
landscapes, ethnographic resources			27 11 11 1
	X		Negligible.
19. Socioeconomics, including			
employment, occupation, income			
changes, tax base, infrastructure			
		X	
20. Minority and low income			
populations, ethnography, size, migration			
patterns, etc.			
		X	
21. Energy resources			
		X	
22. Other agency or tribal land use plans			
or policies			
		$\overline{\mathbf{x}}$	
23. Resource, including energy,			
conservation potential			
Contraction potential	†	+x	
24. Urban quality, gateway communities,		A	
etc.		X	
25 1 4		^	
25. Long-term management of resources			
or land/resource productivity		- X7	
		X	
26. Other important environment			
resources (e.g. geothermal,			
paleontological resources)?			

D. MANDATORY CRITERIA

Mandatory Criteria: If	Yes	No	N/A	Data Needed to Determine/Notes
implemented, would the				
proposal:				
		X		
A. Have material adverse effects on				
public health or safety?				

B. Have adverse effects on such unique characteristics as historic or cultural resources; park, recreation, or refuge lands; wilderness areas; wild or scenic rivers; national natural landmarks; sole or principal drinking water aquifers; prime farmlands; wetlands; floodplains; or ecologically significant or critical areas, including those listed on the National Register of Natural Landmarks?	X	
C. Have highly controversial environmental effects?	A	
D. Have highly uncertain and potentially significant environmental effects or involve unique or unknown environmental risks?	X	
E. Establish a precedent for future action or represent a decision in principle about future actions with potentially significant environmental effects?	X	
F. Be directly related to other actions with individually insignificant, but cumulatively significant, environmental effects?	X	
G. Have adverse effects on properties listed or eligible for listing on the National Register of Historic Places?	Х	
H. Have adverse effects on species listed or proposed to be listed on the List of Endangered or Threatened Species or have adverse effects on designated Critical Habitat for these species?	X	
I. Require compliance with Executive Order 11988 (Floodplain Management), Executive Order 11990 (Protection of Wetlands), or the Fish and Wildlife Coordination Act?	X	
J. Threaten to violate a federal, state, local, or tribal law or requirement imposed for the protection of the environment?	X	
K. Involve unresolved conflicts concerning alternative uses of available resources (NEPA sec. 102(2)(E)?	X	
L. Have a disproportionate, significant adverse effect on low-income or minority populations (EO 12898)?	X	

M. Restrict access to and ceremonial use of Indian sacred sites by Indian religious practitioners or adversely affect the physical integrity of such sacred sites (EO 130007)?	X	
N. Contribute to the introduction, continued existence, or spread of federally listed noxious weeds (Federal Noxious Weed Control Act)?	X	
O. Contribute to the introduction, continued existence, or spread of nonnative invasive species or actions that may promote the introduction, growth or expansion of the range of non-native invasive species (EO 13112)?	X	See C.15 above.
P. Require a permit from a federal, state, or local agency to proceed, unless the agency from which the permit is required agrees that a CE is appropriate?	X	
Q. Have the potential for significant impact as indicated by a federal, state, or local agency or Indian tribe?	X	
R. Have the potential to be controversial because of disagreement over possible environmental effects?	X	
S. Have the potential to violate the NPS Organic Act by impairing park resources or values?	X	

E. OTHER INFORMATION (Please answer the following questions/provide requested information.)

Are personnel preparing this form familiar with the site? Yes

Did personnel conduct a site visit? **Yes** (If yes, attach meeting notes or additional pages noting when site visit took place, who attended, etc.)

Is the project in an approved plan such as a General Management Plan or an Implementation Plan with an accompanying environmental document? Yes

If so, plan name

BITH GMP

ls t	the p	proje	ect stil	l consistent	with	the ap	proved	plan?	Yes	(I†	no,	pre	pare	plan/.	EA	l or	EIS.	.)
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Is the environi	mental	document	accurate and up-to-date? N/A (If no, prepare plan/EA o)}
<i>EIS.)</i> FONSI	ROD	(Check)	Date approved	

Are there any interested or affected agencies or parties? **Yes**Did you make a diligent effort to contact them? **Yes**

Has consultation with all affected agencies or tribes been completed? **Yes** (If so, attach additional pages detailing the consultation, including the name, the dates, and a summary of comments from other agencies or tribal contacts.)

Are there any connected, cumulative, or similar actions as part of the proposed action? **Yes** (If so, attach additional pages detailing the other actions.)

Notes

Operations within the Preserve are a small portion of a larger operation. See Project Description. Because most adverse effects are short-term, there is no contribution to the cumulative impact scenario from the proposed supplement for most resources. Cumulative impacts to the soils of Little Rock Road are expected due to compression, soil movement and sedimentation.

F. INSTRUCTIONS FOR DETERMINING APPROPRIATE NEPA PATHWAY

First, always check DO-12, section 3.2, "Process to Follow" in determining whether the action is categorically excluded from additional NEPA analyses. Other sections within DO-12, including sections 2.9 and 2.10; 3.5; 4.5(G)(4) and (G)(5), and 5.4(F), should also be consulted in determining the appropriate NEPA pathway. Complete the following tasks: conduct a site visit or ensure that staff is familiar with the site's specifics; consult with affected agencies, and/or tribes; and interested public and complete this environmental screening form.

If your action is described in DO-12 section 3.3, "CE's for Which No Formal Documentation is Necessary," follow the instructions indicated in that section.

If your action is not described in DO-12, section 3.3, and IS described is section 3.4, AND you checked yes or identified "data needed to determine" impacts in any block in section D (Mandatory Criteria), this is an indication that there is potential for significant impacts to the human environment, therefore, you must prepare an EA or EIS or supply missing information to determine context, duration and intensity of impacts.

If your action is described in section 3.4 and NO is checked for all boxes in section D (Mandatory Criteria), BUT you have initially checked "yes" in section C (Resource Effects to Consider) during internal scoping, this means that the team should do additional analyses to determine the context, duration and intensity of effects. If the magnitude of effects is then determined to be at the negligible or minor level, then usually there is no potential for significant impacts, then an EA or EIS is not required. If, however, during internal scoping and further investigation, resource effects still remain unknown, or are at the minor to moderate level of intensity, and the potential for significant impacts may be likely, an EA or EIS is required.

In all cases, data collected to determine the appropriate NEPA pathway must be included in the administrative record.

G. INTERDISCIPLINARY TEAM SIGNATORY (All interdisciplinary team members must sign.)

By signing this form, you affirm the following: you have either completed a site visit or are familiar with the specifics of the site; you have consulted with affected agencies and tribes; and you, to the best of your knowledge, have answered the questions posed in the checklist correctly.

Field of Expertise	Date Signed
Biologist, Oil+ Gener	12/22/2006
Field of Expertise	Date Signed
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	Biologist, Oil+Genes Openationes

H. SUPERVISORY SIGNATORY

Based on the environmental impact information contained in the statutory compliance file and in this environmental screening form, environmental documentation for this stage of the subject project is complete.

Recommended:		
Compliance Specialist	Telephone Number	Date
AA	409-951-6822	12/22/2006
Approved:		
Superintendent	Telephone Number	Date
De Worde		12/22/2006