



U. S. Army Corps of Engineers
Fort Worth District

NOTICE TO OIL AND GAS LESSEES AND OPERATORS

U.S. Army Engineer District, Fort Worth

Permit Requirements

Oil and Gas Well Activities

The Corps of Engineers strives to create and maintain conditions under which the human and natural environments can exist in productive harmony. As a steward of the environment, the Corps acknowledges its responsibility to comply with environmental laws and regulations. Strict compliance is an integral part of the Corps' environmental ethic. The Corps is pro-active in its focus on environmental compliance at its Projects and facilities, including facilities under license on Corps administered lands.

Types of Permits

In connection with the Corps of Engineers Civil Works missions of flood control, water conservation, and associated natural and recreational resource management functions, the United States has acquired certain lands in fee and has acquired flowage easement estates in other lands. The fee acquisitions required either that the mineral rights be subordinated to mission purposes or that they be acquired.

Oil and gas operators wishing to occupy, use or enter on fee or easement lands for exploration or development of oil and gas must obtain written authorization in the form of an approval document from the District Engineer, U.S. Army Engineer District, Fort Worth, Texas. Use and occupancy of fee land normally requires an Approval. Use and occupancy of flowage easement land requires a Consent to Easement.

Approval Process Time

Oil and gas lessees or operators must make application in advance to allow sufficient time for the Corps of Engineers to conduct an evaluation of the impact of proposed activities, and to issue a written authorization prior to the anticipated starting date. Written authorization is required in advance of any oil and gas operation or construction activity on Government lands and on flowage easements. Complete applications must be submitted to the local Corps of Engineers Project Office a minimum of 90 days in advance of the proposed activity starting date. Addresses of the project offices within the Fort Worth District are listed in Appendix C. All applications will be processed as quickly as possible. Individual applications will be processed according to the date the complete application is filed. A higher priority due to an emergency, will be duly considered but no special consideration will be given simply because a late filing is made.

Application Procedure

Applications will take the form of a letter of application and a Surface Use and Operations Plan. Applications will be submitted to the attention of the Oil and Gas Coordinator in care of the local Corps of Engineers Reservoir or Project Manager. Submitting an application directly to the Fort Worth District Office will cause needless delay in processing the application. The original and four (4) copies are required. If the proposed activity is located on lands leased to the State of Texas, the original and six (6) copies are required.

Emergency Procedures and Approvals

Operators, as well as their contractors and subcontractors, will not commence any construction activity or operation on Government lands or flowage easements without the prior written approval of a Surface Use and Operations Plan. An approval may be oral only in the case of a profound environmental emergency. Any oral approval so received must be followed by a written application and Surface Use and Operations Plan and written approval thereof for confirmation.

Surface Use and Operations Plan Content

The letter of application and Surface Use and Operations Plan must provide a detailed description of all aspects of the proposed operation or activity, the magnitude of the surface disturbance involved and the procedures to be followed in rehabilitating the surface once the operation or construction activity has been completed.

In developing the Surface Use and Operations Plan, the operator will make use of all information available concerning the surface resources, environmental considerations, and rehabilitation procedures. The Plan will be reviewed for adequacy. A Plan that is considered inadequate will require modification. The Plan shall be developed in conformity with the stipulations and the guidelines provided by this *Notice*.

Operators have the responsibility to see that their exploration, development, production and construction operations are conducted in a manner which affords adequate safeguards for the environment, results in the proper rehabilitation of disturbed lands, assures the protection of the public's interests, health and safety and conforms to the best professional practice. In this regard, operators will be held fully accountable for their contractors' and subcontractors' compliance with the requirements of the approved Surface Use and Operations Plan.

Amendment of the Surface Use and Operations Plan

The terms and conditions of the approved Surface Use and Operations Plan may not be altered unless approved in writing through an amendment to the approval document. Operators are required to obtain an amendment prior to undertaking any subsequent new construction, reconstruction, or alteration of existing facilities, including roads, dams, lines, pump jacks or other production facilities. This requirement applies to the re-entry of existing well bores for additional drilling activities. Sufficient information must be submitted to permit a complete evaluation of the proposed activities, as well any planned accommodations necessary to mitigate potential adverse environmental effects. Emergency repairs may be conducted without prior written approval provided that prompt notification is provided to the local Corps of Engineers Project Office.

Applications for amendments to approval documents shall reference the submitted or approved Surface Use and Operations Plan. Submit applications for amendments to the attention of the Oil and Gas Coordinator in care of the local Corps of Engineers Reservoir or Project Manager. Submitting an application for amendments to approval documents directly to the Fort Worth District Office will cause needless delay in processing the application. The original and four (4) copies are required. If the proposed activity is located on lands leased to the State of Texas, the original and six (6) copies are required. Addresses of the project offices within the Fort Worth District are listed in Appendix C.

Guidelines for Surface Use and Operation Plans

The following guidelines are provided for the preparation of a Surface Use and Operations Plan. In preparing the plan, operators should submit maps, facility layouts and narrative descriptions which adhere closely to the following:

1. LOCATION, EXISTING ROADS: A U.S. Army Corps of Engineers Real Estate Segment Map, USGS topographic 7.5' map, or county road map shall be used for locating the proposed well site. The proposed route to the location including appropriate distances from reference points to the point where the access route exits the highway or county road shall be shown. All roads proposed for access shall be appropriately labeled or color coded. All existing roads within a radius of three (3) miles from the location of a proposed well shall be shown, including information relative to the type of surface, condition, and load capacity. Any plans for the improvement and/or maintenance of existing roads shall also be stated. Information required by Items numbered 2, 3, 4, 5, 6, 7, and 9 herein may also be shown on this map, if appropriately labeled. Where activities are

proposed on lands leased to the Texas Parks and Wildlife Department (TPWD) applications will include a TPWD park facilities map with the location of the proposed activity noted.

2. **LOCATION OF PLANNED ACCESS ROADS:** This information is to be submitted on a map. Identify all permanent and temporary access roads that are to be constructed, or reconstructed in connection with the drilling and production of the proposed well. Width, turnouts, drainage design, location and size of culverts, and surfacing material, if any, shall be stated. At the time of submittal, the center line location of all proposed new or reconstructed roads shall be identified with the stakes being visible from any one to the next. Modification of proposed road design may be required after the location is approved for drilling. If the well is completed for production, final road design and construction may depend on the amount and type of hydrocarbon found by the well. Information shall also be furnished to indicate where existing fences will be cut and whether gates or cattle guards will be used. The discussion shall make reference to any existing gates and cattle guards.

3. **LOCATION OF EXISTING WELLS:** This information shall be submitted on a map. Include all wells (water, abandoned, temporarily abandoned, disposal etc.) within a one-mile radius of the location of the proposed well.

4. **LOCATION OF LEASEHOLD, TANK BATTERIES, PRODUCTION FACILITIES, AND PRODUCTION, GATHERING AND SERVICE LINES:** On a map, show the boundaries of the mineral leasehold or leaseholds. If pooling agreements are involved, show which leases are pooled. Provide copies of leases and agreements. Existing tank batteries, production facilities, and production, gathering, or service lines within a one-mile radius of the proposed location which are owned or controlled by the lessee or operator shall be shown. The type of each existing facility and the nature of each existing line (oil flow line, gas gathering line, injection line, water disposal line, etc.) shall be identified. Note which lines are buried. If new facilities (tank battery, other production equipment, and lines) are contemplated in the event production is established and those facilities are to be placed at locations other than on the well site itself, the map or plat furnished in this regard must also indicate the location of all proposed new facilities. The dimensions of these facilities, the proposed construction methods and materials, and the protective measures and devices to be employed to minimize hazards to livestock, waterfowl, and other wildlife will be stated. At the time of submittal, the approximate center location of all production facility locations and the center lines of proposed gathering and service lines will be staked. A plan for rehabilitation of all disturbed areas no longer needed for operations and maintenance will also be submitted.

5. **LOCATION AND TYPE OF WATER SUPPLY** (rivers, creeks, lakes, ponds and wells): This information may be shown on a plat or map or may be a written description. The source of all water to be used in drilling the proposed well must be noted. The method of transporting the water shall be stated, and any access roads crossing fee or easement land which are needed will be described in Items numbered 1. or 2. as appropriate. If a quick line is to be used include a description of the route of this line. If water is to be removed from the reservoir, identify the point of diversion on the shore line. Describe the method to be used to set and secure water pumps.

Approval of the Surface Use and Operations Plan does not relieve the operator from obtaining any other authorization which may be required for the use of such water. Include a copy of the contract or authorization document. If a water supply well is to be drilled on the lease, it must be so stated under this item.

6. **SOURCE OF CONSTRUCTION MATERIALS:** This information may be shown on a plat or map or may be a written description. The proposed source, character and use of all construction materials such as timber, sand, gravel, stone, and soil shall be stated. Any access roads crossing Federal land which are needed to haul such materials should be described in Items numbered 1. or 2. as appropriate. Include under this item a statement that all construction materials are free of contamination.

7. **METHODS FOR HANDLING WASTE DISPOSAL:** Describe the methods and location proposed for the safe containment and disposal of each type of waste material (cuttings, drilling muds, garbage, salts, chemicals, and sewage) which results from the drilling of the proposed well. Likewise, the narrative should include plans for the eventual disposal of drilling fluids and any produced oil or water recovered during testing operations. Identify the location of waste material disposal tracking documents.

8. **ANCILLARY FACILITIES:** The Plan or subsequent amendments to the Plan shall identify all ancillary facilities as to their location, land area required, and the methods and standards to be employed in their construction. Such facilities shall be shown on a map.

9. **WELL SITE LAYOUT:** A plat of the well site layout drawn to a scale of not less than 1 inch equalling 50 feet is required. Include cross section diagrams of the drill pad showing all cuts and fills in relation to topography. Include the proposed location of the closed mud system and skimming system steel tanks, steel pits (reserve, and trash), pipe racks, access roads, turnaround areas, parking areas, living facilities, water well, gas flare and associated structures and soil material stockpiles. Indicate the orientation of the rig with respect to the pad and other facilities. Include in this item a statement that steel tanks will be used and that no dug pits will be used. Until the location is approved, it will be necessary to stake on the ground the actual location of the well and the exterior dimensions of the pad. The stakes shall be appropriately marked to indicate proper cuts and fills to the dirt contractor.

10. **PLANS FOR RESTORATION OF THE SURFACE:** State the proposed plan for surface restoration upon completion of the operation. Include the determination of the reshaped topography, the drainage system, the segregation, containment, removal and disposal of spoils and waste materials. Indicate the surface manipulations, the re-vegetation methods, the soil treatments and amendments and any other practices necessary to rehabilitate all disturbed areas including any access roads no longer needed. A proposed timetable for the commencement and completion of rehabilitation operations must be provided. Identify the location of waste material disposal tracking documents.

11. **TOPOGRAPHIC, GEOLOGIC AND CULTURAL INFORMATION:** This information may

be shown on a USGS 7.5' topographic map or may be a written description. Identify in relation to the proposed operation the proximity to steep hillsides, gullies, water wells, ponds, streams, occupied dwellings, other facilities and archaeological, historical or cultural sites. Applications will include a written archaeological survey report of all areas to be disturbed. The report is not required on flowage easement land. If a cultural resource site will be adversely affected, activities must be relocated to miss the site, or the operator will satisfactorily mitigate the site. The operator will be responsible for archaeological, historical and cultural clearance of any area where soil disturbance will occur. Information concerning required cuts and fills during the construction of roads and the location of and all construction practices necessary to accommodate potential geologic hazards shall be discussed.

12. **LESSEE'S OR OPERATOR'S REPRESENTATIVE AND AMENDMENTS:** Include the name, address and phone and FAX numbers of the operator's field representative who is responsible for assuring compliance with the approved Surface Use and Operations Plan.

13. **HOLD HARMLESS STATEMENT:** Any approval will require that the operator will hold the United States, and the State of Texas harmless from the operator's activities.

14. **FINANCIAL AND TECHNICAL CAPABILITY:** Operators shall submit evidence of financial and technical capability for their proposed operations.

15. **SPILL PREVENTION CONTROL AND COUNTERMEASURE PLAN:** Operators shall submit a Spill Prevention Control and Countermeasure (SPCC) plan statement for all units to be considered in the request. The plan shall address both exploration and production activities and shall conform to 40 CFR 112.7 in content and format.

16. **STIPULATIONS:** The Surface Use and Operations Plan will conform to the stipulations which follow.

16.1. **Pollution Control:** It is the responsibility of the operator to comply with all applicable Federal, state, county and municipal laws, concerning stream, air and noise pollution. All dredge or fill operations below the elevation of the conservation pool of the reservoir [found in Appendix B under "404 Elevation"] or in wetland areas will require a separate permit from the Corps of Engineers in accordance with Section 404 of the Clean Water Act.

16.2. **Erosion Control:** All earthwork shall be planned and conducted to minimize the duration of exposure of unprotected soils. Operators shall control erosion and sedimentation by measures such as berms, dikes, drains, sedimentation basins, grassing, mulching, etc. Temporary control measures shall be used until permanent measures can be established. Run-off from work areas shall be controlled, diverted, retarded, etc., to protect the natural drainage courses. Sedimentation or erosion damage of natural drainage courses that result from the operator's activities will be repaired or restored by the operator to the satisfaction of the Reservoir Manager.

16.3. **Tank Batteries:** Policy prohibits placement of tank batteries on Government land unless

there exists an overriding technical requirement which requires an exception. Economic considerations alone are not sufficient justification for placement of tank batteries on Government land. Where private surface is part of the leasehold, the tank batteries will be located on private land. The bottom elevation of tank battery fluid containing equipment such as storage tanks, gun barrel tanks, separators, heater treaters, etc., shall be located above the flood pool of the reservoir. Battery equipment shall be diked to prevent spread of liquid in case of leakage. The diked area shall have a capacity of not less than the volume of the largest tank plus 10 percent of the volume of other tanks and equipment enclosed. Flow lines located outside diked areas will be placed underground.

16.4. Well Heads: Well sites will be located above the five year pool of the reservoir. Well heads planned for locations below the flood pool of the reservoir will be fitted with a storm choke or with a well head enclosure capable of protecting the well head from floating debris.

16.5. Control of Operations: Operators will control their activities to approved work areas. The operator will not remove, cut, deface, injure, or destroy land resources including trees, shrubs, vines, grasses, top soil and land forms outside the approved work areas. Cable, ropes or guys will not be attached to any trees for anchorage.

16.6. Solid Waste Control: Materials, except clearing vegetative debris, will not be burned but will be placed in containers which are emptied on a regular schedule. Waste materials shall be recycled wherever possible. Where recycling of waste materials is not possible, waste materials shall be hauled to and disposed of in landfill sites operated in accordance with state and local regulations. Operators may be required to furnish documentation of the disposal of waste materials. Clearing vegetative debris may be burned where suitable sites exist, approved by the Reservoir Manager on a case by case basis and accordance with state and local regulations. Operators may be required to utilize cleared vegetative debris in habitat restoration or to remove cleared vegetative debris from the Government Land if not burned. Temporary toilets (portable or vault type) must be provided until such time as all drilling activities are completed.

16.7. Chemical Waste Control: Chemical wastes including lubricants and fuels drained or spilled from equipment and salt water produced with oil and gas will be collected and stored in containers that will prevent pollution and will be removed from the Government Land and disposed of in accordance with Federal, state, and local regulations. Identify the location of chemical waste material disposal tracking documents. Operators may be required to furnish documentation of the disposal of waste materials.

16.8. Well Testing: Tanks shall be provided for containing all fluid produced in well tests. No test fluid will be discharged into earthen pits. No dug pits will be permitted. Steel tanks will be used throughout all phases of all oil and gas activities. Where gas will be flared the location of a vertical flare shall insure the safety of surrounding vegetation. Containment for vertical flares shall be constructed above the surface of material free of contamination.

16.9. Electrical Safety and Operations: A cutoff switch will be provided above elevation of the

flood pool of the reservoir [found in Appendix A] to disconnect service during times of high water. If electrical service lines cross the areas within the flood pool of the reservoir, the low sag point of the line shall be no less than fifty-five feet (55') above the flood pool elevation. Wells requiring a pumping unit must be powered electrically, except for those areas where the construction of a utility line will result in severe environmental damage. Underground utility lines are preferred. Easements for electric utilities are not included in oil and gas approval documents. A separate easement is required. The utility company providing the electrical power must apply for the easement.

16.10 Drilling Cleanup: After completion of drilling operations, the operator will remove all drilling equipment and debris from the site. Facilities not required for production such as drilling and work area foundations and structures, roads, dikes, etc., will be removed or obliterated. Restoration to the exact original contours is not required; however, excavation and filling will be required to restore the area to near natural conditions. Disturbed areas shall be disced, graded, and filled as required, topsoil spread to a depth of 6 inches over the entire area and the entire disturbed area sprigged, seeded, or sodded with a grass species approved by the Reservoir Manager. Disturbed areas will be mitigated in time to prevent invasion and infestation by invader species. The operator will maintain the area free of erosion until the vegetative cover is re-established.

16.11. Fence and Sign Requirements: After all drilling activities are completed and the well is put into production, the well head area (includes pumping unit where used) and the tank battery will be protected to prevent unauthorized personnel from entry. This will require an eight (8) foot, climb-proof, chain link fence with gate or gates capable of being locked. Tank batteries shall be secured in the same manner as the well head area. A five (5) strand barbed wire fence with a cattle guard and steel gate capable of being locked is required to enclose the pad at its exterior dimensions. The gates are required to be kept closed and locked at all times, except during the actual service of the well and associated structures. The operator will furnish a combination padlock for each gate, and will provide the Reservoir Manager with the combination to all locks at the time the approval is issued. Signs identifying the operator and well are required at the well head, at the tank battery serving the well and at the point of vehicular entry to the lease. In park areas warning signs will be placed on all production pad exterior fences and on the well head area and tank battery enclosures. Warning signs shall be of a size sufficient for recognition from a minimum distance of fifty (50) feet, and shall identify the site as a hazard area, warn the reservoir visitor not to enter and contain the operator's name and twenty-four hour emergency telephone number.

16.12. Resource Mitigation: Corps of Engineer personnel will specify the natural resource mitigation and recreation resource mitigation requirements, which in the form of a resource mitigation plan, will be appended to any approval document.

16.13 Post Production Cleanup: Upon termination of production, or the termination, revocation or voluntary relinquishment of any approval document, the operator shall promptly vacate the premises, remove all property and restore the site to a condition approximating its prior condition

that is satisfactory to the Reservoir Manager. The operator shall notify the local Corps of Engineers Project Office of its intention to plug and abandon prior to commencement of plugging and abandonment activities. Facilities which are no longer necessary, such as roads, dikes, steel pits, tanks, anchors, foundations, structures, pipelines, etc. will be removed or obliterated. Excavation and filling will be required to restore the area to near natural conditions. Disturbed areas shall be disced, filled and graded and topsoil spread to a depth of six inches over the entire area. The entire area will be sprigged, seeded or sodded with a grass species approved by the Reservoir Manager. The operator will maintain the area free of erosion until vegetation cover is re-established. Disturbed areas will be mitigated in time to prevent invasion and infestation by invader species. If mutually agreed, access roads may be left in place for future use by the Government. All drill holes will be properly plugged and cemented in such a manner as to prevent damage and/or contamination to all upper water zones by reason of formation, migration or surface percolation in accordance with current state regulations governing the plugging of abandoned wells or test holes. A copy of all plugging reports shall be furnished to the Reservoir Manager.

APPENDIX A

Elevation Requirements for Tank Battery Locations and Electrical Disconnect Switches

Project Name	Elevation Requirement (N.G.V.D.)
Aquilla.....	553.0
B.A. Steinhagen.....	85.0
Bardwell.....	439.0
Belton.....	631.0
Benbrook.....	724.0
Canyon.....	943.0
Cooper.....	446.2
Grapevine.....	560.0
Granger.....	528.0
Hords Creek.....	1,920.0
Joe Pool.....	536.0
Lake Georgetown.....	834.0
Lake O' the Pines.....	249.5
Lavon.....	503.5
Lewisville.....	535.0
Navarro Mills.....	443.0
O.C. Fisher.....	1,938.5
Proctor.....	1,197.0
Ray Roberts.....	640.5
Sam Rayburn.....	176.0
Somerville.....	258.0
Stillhouse Hollow.....	666.0
Waco.....	500.0
Whitney.....	571.0
White Oak Creek.....	259.5
Wright Patman.....	259.5

Note: Each proposed tank battery location is reviewed individually. In some cases, a tank battery may need to be placed at an elevation higher than those listed above.

APPENDIX B

Elevations for Five Year Frequency Pool and Elevations Below Which an Activity May Require Authorization Under of Section 404 of the Clean Water Act, as Amended.

Project Elev.	Five Year Pool	Section 404
Aquilla.....	543.8.....	525.0
B.A. Steinhagen.....	84.0.....	83.0
Bardwell.....	432.0.....	421.0
Belton.....	605.0.....	594.0
Benbrook.....	697.1.....	694.0
Canyon.....	918.0.....	909.0
Cooper.....	443.4.....	440.2
Grapevine.....	542.0.....	535.0
Granger.....	511.0.....	504.0
Hords Creek.....	1,902.0.....	1,900.0
Joe Pool.....	524.5.....	522.0
Georgetown.....	802.2.....	791.0
Lake O' the Pines.....	236.0.....	230.0
Lavon.....	496.0.....	492.0
Lewisville.....	524.0.....	522.0
Navarro Mills.....	438.0.....	424.5
O.C. Fisher.....	1,909.0.....	1,908.5
Proctor.....	1,172.0.....	1,162.0
Ray Roberts.....	632.5.....	632.5
Sam Rayburn.....	171.0.....	164.0
Somerville.....	245.0.....	238.0
Stillhouse Hollow.....	632.0.....	622.0
Waco.....	470.0.....	455.0
Whitney.....	550.0.....	533.0
White Oak Creek.....	242.7.....	227.5
Wright Patman.....	242.7.....	227.5

Note: The Section 404 elevations represent the normal, or conservation pool of each lake. All areas below these elevations fall within the jurisdiction of Section 404 of the Clean Water Act. Other areas at each lake, including wetlands, streams, and ponds may also fall within the jurisdiction of Section 404.

APPENDIX C

Aquilla Lake Office, P.O. Box 5038, Laguna Park Rural Station, Clifton, TX 76638-5038, (817) 622-3243

B.A. Steinhagen, Town Bluff Project Office, 890 FM 92, Woodville, Texas 75979-9631

Bardwell Project Office, Route 4, Box 60, Ennis, TX 75119-9563, (817) 875-5711

Belton Lake Office, 99 FM 2271, Belton, TX 76513-9717, (817) 939-8016

Benbrook Project Office, P.O. Box 26619, Fort Worth, TX 76126-0619, (817) 292-2400

Canyon Lake Project Office, HDC4, Canyon Lake, TX 78133-4112, (210-964-3341

Cooper Lake Project Office, P.O. Box 461, Cooper, TX 75432-0461, (903) 945-2108

Grapevine Lake Project Office, 110 Fairway Drive, Grapevine, TX 76051-3495, (817) 481-4541

Granger Lake Office, Route 1, Box 172, Granger, TX 76530-9712, (512) 859-2668

Hords Creek Project Office, HCR 75, Box 33, Coleman, TX 76834-9320, (915) 625-2322

Joe Pool Project Office, P.O. Box 26619, Fort Worth, TX 76126-0619, (817) 292-2400

Georgetown Lake Office, Route 5, Box 500, Georgetown, TX 78626-9551, (512) 863-3016

Lake O' the Pines Project Office, P.O. Drawer W, Jefferson, TX 75657-0660, (903) 665-8441

Lavon Project Office, P.O. Drawer 1660, Wylie, TX 75098-1660, (214) 442-3141

Lewisville Project Office, 1801 North Miller Street, Lewisville, TX 75067-1821, (214) 434-1666

Navarro Mills Project Office, Route 4, Box 60, Ennis, TX 75119-9563, (817) 875-5711

O.C. Fisher Project Office, 3900 Mercedes, San Angelo, TX 76901-2630 (915) 949-4757

Proctor Lake Office, Route 1, Box 71-A, Comanche, TX 76442-9201, (817) 879-2424

Ray Roberts Project Office, 1801 North Miller Street, Lewisville, TX 75067-1821,
(214) 434-1666

Sam Rayburn Project Office, Route 3, Box 486, Jasper, TX 75951-9598, (409) 384-5716

Somerville Lake Office, P.O. Box 549, Somerville, TX 77879-0549, (409) 596-1622

Stillhouse Hollow Lake Office, Route 3, Box 3407, Belton, TX 76513-9503, (817) 939-2461

Waco Lake Office, Route 10, Box 173-G, Waco, TX 76708-9602, (817) 756-5359

Whitney Lake Office, P.O. Box 5038, Laguna Park Rural Station, Clifton, TX 76638-5038, (817) 622-3243

White Oak Creek Office, P.O. Box 1817, Texarkana, TX 75504-1817, (903) 832-8781

Wright Patman Lake Office, P.O. Box 1817, Texarkana, TX 75504-1817, (903) 832-8781

APPENDIX D

SURFACE MANAGEMENT AGENCY STIPULATIONS – TOWN BLUFF PROJECT

1. NSO/ND....No Surface Occupancy and No Drilling

This stipulation applies to all Corps of Engineers (COE) fee ownership within 3000 horizontal feet of prime facilities critical to the operation of Town Bluff Project. These facilities include the dam, spillway, outlet structure, levees and related structures. This stipulation allows the identified area to be included in a lease for the purpose of becoming a part of a drilling unit so that the United States will share in the royalty.

2. NSO/DD....No Surface Occupancy, Open for Directional Drilling

This stipulation applies to all designated parks, recreation areas, public use areas, wildlife management areas, archeological and historical sites, trails and roads, and the lake surface at the conservation pool elevation of 83.0' N.G.V.D. Directional drilling is permitted from outside the identified areas where occupancy is allowed.

3. NSO/ELEV....No Surface Occupancy Based on Elevation

This stipulation prohibits surface occupancy on all lands lying at or below the elevation of the spillway crest or tainter gate sill where alternative surface ownership is available within the same drilling unit. At Town Bluff Project, the spillway crest is at elevation 85.0' N.G.V.D. If no alternative surface ownership is available, in no case will surface occupancy be permitted below the 25-year frequency pool (as calculated by COE hydraulics engineering staff) or within 1000 horizontal feet from the lake surface at the conservation pool elevation of 83.0' N.G.V.D. The purpose of this stipulation is to protect the integrity of Town Bluff Project land and water resources.