



# Public Notice

**U.S. Army Corps  
Of Engineers** Permit Application No: SWG-2012-00906  
Date Issued: 18 January 2013  
Comments  
**Galveston District** Due: 20 February 2013

## U.S. ARMY CORPS OF ENGINEERS, GALVESTON DISTRICT

**PURPOSE OF PUBLIC NOTICE:** To inform you of a proposal for work in which you might be interested. It is also to solicit your comments and information to better enable us to make a reasonable decision on factors affecting the public interest. The U.S. Army Corps of Engineers (Corps) is not the entity proposing or performing the proposed work, nor has the Corps taken a position, in favor or against the proposed work.

**AUTHORITY:** This application will be reviewed pursuant to Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act (CWA).

**APPLICANT:** Mr. Stephen Trujillo  
Samson Exploration, LLC  
1300 Main Street, Suite 1900  
Houston, Texas 77002  
Telephone: 713-577-2038

**AGENT:** Ms. Jackie Gilliam  
Dixie Environmental Services Company, LP  
26902 Nichols Sawmill Road  
Magnolia, Texas 77355  
Telephone: 281-252-9799

**LOCATION:** The project site is located within a 731.64-square-mile area that includes wetlands, uplands, and open water habitat within and adjacent to waters of the U.S., including rivers, canals, lakes, and sloughs, in Brazoria and Galveston Counties, Texas. The project can be located on the U.S.G.S. quadrangle maps titled: Algoa, Angleton, Christmas Point, Christmas Point OE S, Danbury, Dickinson, Hitchcock, Hoskins Mound, Lake Como, Liverpool, Manvel, Mustang Bayou, Oyster Creek, Rosharon, San Luis Pass, Sea Isle, Texas City, and Virginia Point, Texas.

**CENTER OF PROJECT - LATITUDE & LONGITUDE (NAD 83):**  
Latitude: 29.46267 North; Longitude: -95.100492 West

**PROJECT DESCRIPTION:** The applicant proposes to conduct a 3-D survey that requires the deployment of motion sensing devices (geophones/hydrophones or receivers), which would be placed at regular intervals of 220 feet along parallel receiver lines spaced 1,760 feet apart. Geophones would be utilized on land, and hydrophones would be utilized in open water areas and wetlands, as applicable. The applicant's plans are enclosed in 8 sheets.

The primary energy source within the project area would be explosive charges. The charge depth and configuration proposed consists of single, 110-foot-deep holes drilled at intervals of 220 feet along each source line. Source line spacing on land, in wetlands, and in the Galveston Bay complex would be 1,760 feet. Each source location on land would be loaded with an 11-pound explosive charge, and the hole would be plugged in accordance with state regulations for the prevention of commingling of surface and ground water. In water, all source points will be plugged with bentonite (natural clay) and natural drill cuttings, where feasible.

Airguns would be utilized as the energy source in the Gulf of Mexico. Airgun releases would occur at intervals of 220 feet along each source line, and source lines would be spaced 440 feet apart, parallel to one another.

The enclosed maps illustrate pre-plot locations of source (orange) and receiver (pink) points, and below is a summary of proposed survey parameters:

1. Types of equipment to be used:
  - Highland Rigs (lands in majority of the project area)
  - Airgun Barge (Gulf of Mexico)
  - Airboat, Pontoon, or Marsh Buggy Drills (wetland areas and bays)
  - Mini-excavator (pits)
  - Trucks, ATVs, and UTVs
  - Marsh masters for survey and recording crews
  - Helicopters for recording crew
2. Diameter of drill holes: 4 inches
3. Size of energy charge: 11 pounds of explosives
4. Depth of drill holes: 110 feet
5. 220 feet between source points
6. 1,760 feet between source lines in the majority of the project area
7. 440 feet between source lines in the Gulf of Mexico
8. 220 feet between receiver points
9. 1,760 feet between receiver lines

**Surveying** within the project area is scheduled to meet the timing requirements set forth by the U.S. Fish and Wildlife Service (USFWS) and National Wildlife Refuge, and would consist of survey crews marking the proposed sites for source holes and receiver points. This would be accomplished using GPS, inertial, and/or conventional surveying methods, and hand-clearing of vegetation would be necessary along source and receiver lines within some portions of the project area. Clearing of vegetation may be necessary to obtain line-of-sight for conventional surveying and/or to allow for the safe passage of crews along seismic lines. Vegetation cutting would consist of brush, small trees, and branches, and would be accomplished through the use of chainsaws or machetes. Cutting would be limited to the minimum amount necessary to accomplish objectives.

**Drilling** would follow surveying and would be accomplished using highland drilling rigs on land; airboat drills, marsh buggy drills, or other lightweight equipment in wetlands, and airboat drills or pontoon drills in West Bay, as appropriate. During this phase of operations, drills would maneuver from source point to source point utilizing the route of least resistance. No mechanized clearing would be conducted ahead of the drilling equipment. Small trees and shrubs may be impacted in the paths of the drills. In some areas, use of mini-excavators to dig small pits may be necessary to obtain or temporarily store water for drilling.

One single hole would be drilled to 110 feet at each source point location, loaded with an 11-pound explosive charge, and holes on land would be plugged with bentonite in accordance with agency requirements for the prevention of commingling of surface and ground water. The diameter of a drilled hole is approximately 4 inches.

Drilling would be followed by recording operations. Land-based recording operations would be supported by helicopter to minimize impacts. Helicopters would lower cache bags containing equipment along the receiver lines, and crews would deploy this equipment along the receiver lines. Recording operations in open water and wetlands would be conducted using vessels. Depth of water and/or presence of natural resources [e.g. oysters and submerged aquatic vegetation (SAV)] would dictate the type and draft of the vessel used. For example, while most vessels will be outboard driven, airboats may be used in marsh areas or in areas of shallow water containing SAV, and equipment would consist of hydrophones.

**Recording** equipment would consist of geophones/hydrophones, cables, and data recording boxes (set directly on the ground or on floats in open water). Once enough equipment is laid out to complete a recording patch, the recording crew would proceed with airgun operations, and the detonation of shot holes.

For operations involving drilled shot holes, the charge in each hole would be remotely detonated, one at a time, and the resulting energy wave recorded. Crew members would travel through the area, hook a shooting pack up to each electronic detonating wire (cap), and detonate each charge.

**Airgun** operations would consist of a single airgun barge traveling along source lines, emitting energy in the form of compressed air at each source point location in the Gulf of Mexico. The compressed air released into the water column generates energy that reflects downward to the subsurface formations. This energy reflects off of the subsurface formations and is recorded at the surface with hydrophones.

Clean-up would be conducted in conjunction with operations. After charges are detonated and recording is completed in each swath (area between two receiver lines), all equipment, trash, and flagging would be completely removed from the area.

It is estimated that approximately eight months will be required to complete operations within the entire project area. However, there will not be a constant presence in any one area for the duration of the project. Operations would progress from west to east throughout the project area. As lines are completed on one side of the recording patch, equipment is picked up and moved to the other side.

Impacts from drilling and detonation of shot holes are minimal. Similarly, impacts from equipment travel in wetland areas are typically minimal, short-term, and localized to the source and receiver lines. Vegetation typically recovers along the lines within one to two growing seasons. Samson would be utilizing equipment best suited to the habitat in which the company is working in order to minimize impacts [i.e. airboats would likely be used in wetland areas containing standing water; lightweight, tracked buggies would likely be used in higher, more vegetated wetland areas; articulating drill buggies (highland rigs) would be used in upland areas, pontoon drills would likely be used in the bay, etc.].

This public notice is being issued based on information furnished by the applicant. This project information has not been verified by the Corps. The applicant's project plans are enclosed in 8 sheets, project design features for protection of sensitive resources (Attachment A) in 3 sheets, the calculation of impacts (Attachment B) in 3 sheets and the alternative analysis (Attachment C) in 2 sheets.

A preliminary review of this application indicates that an Environmental Impact Statement (EIS) is not required. Since permit assessment is a continuing process, this preliminary determination of EIS requirement will be changed if data or information brought forth in the coordination process is of a significant nature.

Our evaluation will also follow the guidelines published by the U.S. Environmental Protection Agency pursuant to Section 404 (b)(1) of the CWA.

#### **OTHER AGENCY AUTHORIZATIONS:**

The Texas Railroad Commission will review this application under Section 401 of the CWA to determine if the work would comply with State water quality standards.

Texas Coastal Zone consistency certification is required. The applicant has stated that the project is consistent with the Texas Coastal Management Program goals and policies and will be conducted in a manner consistent with the program.

**NATIONAL REGISTER OF HISTORIC PLACES:** The staff archaeologist has reviewed the latest published version of the National Register of Historic Places, lists of properties determined eligible, and other sources of information. The following is current knowledge of the presence or absence of historic properties and the effects of the undertaking upon these properties:

The proposed activity has the potential to impact historic properties within the permit area. Therefore, the applicant is requested to produce a detailed Sensitive Area Avoidance Plan for the proposed seismic project.

**THREATENED AND ENDANGERED SPECIES:** Threatened and/or endangered species or their critical habitat may be affected by the proposed work. Preliminary information indicates that the proposed project area encompasses areas designated by the USFWS as critical habitat for the Piping plover (*Charadrius melodus*). Additionally, five federally-listed threatened or endangered sea turtles could potentially occur in the project area. As a result, informal consultation with the USFWS and the National Marine Fisheries Service (NMFS) will be initiated to assess the effects on endangered species within the project area.

**ESSENTIAL FISH HABITAT:** This notice initiates the Essential Fish Habitat consultation requirements of the Magnuson-Stevens Fishery Conservation and Management Act. Our initial determination is that the proposed action would not have a substantial adverse impact on Essential Fish Habitat or federally managed fisheries in the Gulf of Mexico. Our final determination relative to project impacts and the need for mitigation measures is subject to review by and coordination with the NMFS.

**PUBLIC INTEREST REVIEW FACTORS:** This application will be reviewed in accordance with 33 CFR 320-332, the Regulatory Programs of the Corps, and other pertinent laws, regulations and executive orders. The decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts, of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefits, which reasonably may be expected to accrue from the proposal, must be balanced against its reasonably foreseeable detriments. All factors, which may be relevant to the proposal, will be considered: among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shore erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs and, in general, the needs and welfare of the people.

**SOLICITATION OF COMMENTS:** The Corps is soliciting comments from the public, Federal, State, and local agencies and officials, Indian tribes, and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Impact Assessment and/or an EIS pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

This public notice is being distributed to all known interested persons in order to assist in developing facts upon which a decision by the Corps may be based. For accuracy and completeness of the record, all data in support of or in opposition to the proposed work should be submitted in writing setting forth sufficient detail to furnish a clear understanding of the reasons for support or opposition.

**PUBLIC HEARING:** The purpose of a public hearing is to solicit additional information to assist in the evaluation of the proposed project. Prior to the close of the comment period, any person may make a written request for a public hearing, setting forth the particular reasons for the request. The District Engineer will determine if the reasons identified for holding a public hearing are sufficient to warrant that a public hearing be held. If a public hearing is warranted, all known interested persons will be notified of the time, date, and location.

**CLOSE OF COMMENT PERIOD:** All comments pertaining to this public notice must reach this office on or before **20 February 2013**. Extensions of the comment period may be granted for valid reasons provided a written request is received by the limiting date. **If no comments are received by that date, it will be considered that there are no objections.** Comments and requests for additional information should reference our File Number, **SWG-2012-00906**, and should be submitted to:

Natalie Rund  
Regulatory Branch, CESWG-PE-RE  
U.S. Army Corps of Engineers  
P.O. Box 1229  
Galveston, Texas 77553-1229  
409-766-6384 Phone  
409-766-6301 Fax  
swg\_public\_notice@usace.army.mil

DISTRICT ENGINEER  
GALVESTON DISTRICT  
CORPS OF ENGINEERS