

2012 HSE MANUAL EMERGENCY RESPONSE PLAN DEVINE TEST SITE



**EXPLORATION GEOPHYSICS LAB FIELD SITE
MEDINA COUNTY, TEXAS**



**BUREAU OF ECONOMIC GEOLOGY
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MEMORANDUM

To: All Users of the Devine Test Site

Welcome to the Devine Test Site! We at the Bureau of Economic Geology must vigilantly and continually remind ourselves and those who use the Devine Test Site of the utmost need for maintaining a safe and sound working environment. **Personal safety and environmental responsibility must at all times be our absolute first priority.**

The Bureau adopts the IAGC Land Geophysical Safety Manual as our general operating document for the Devine Test Site. You can download this manual on the IAGC website at <http://www.iagc.org/attachments/contentmanagers/108/iagclanv9.pdf>. In addition to this policy, the Bureau may from time to time produce more stringent policies regarding particular areas of concern. These policies will appear within this binder as well. **The purpose of this manual is to describe the site-specific Emergency Response Plan, local potential hazard information, nearest hospital, and emergency contacts.** Test Site users are responsible for possessing a working knowledge of all this material at all times. Should you have any questions, please contact the Bureau immediately for an answer; nothing is too trivial.

The Bureau's test-site manager is responsible for orienting you previous to your arrival at the Devine Test Site regarding all safety measures, emergency procedures, and security issues. Once you receive this information from the site manager and review the Emergency Response Plan, each member of the group working at the Devine Test Site will sign a certification form indicating that you have been trained and understand your roles and responsibilities.

Remember first and foremost to do things safely.

This is a living document. When changes occur or decisions made that affect the operation, all personnel will be informed and advised. With proper planning and common sense, every project done at the Devine Test Site will be completed in a safe manner, resulting in a successful job for all concerned.

MEDICAL EMERGENCY RESPONSE PLANS
DEVINE TEST SITE

GPS COORDINATES: 29° 6'21.59"N – 99° 8'31.71"W

IN THE EVENT OF A MEDICAL EMERGENCY, THE FOLLOWING STEPS SHALL BE TAKEN:

1) ASSESS THE INCIDENT SCENE USING S-E-T-U-P

Safety – YOUR safety first! If unsafe, report emergency immediately and request help.

Environment – Inspect environment for potential hazards

Traffic – Consider traffic conditions required to move victim if necessary

Unknown Hazards – Observe our surroundings for gases, electrical wiring or other hazards.

Protection – Protect yourself and the patient.

2) PERFORM INITIAL ASSESSMENT:

- A. Check for responsiveness by tapping victim on shoulder and shouting 'are you OK'.
- B. Assess **airway** doing the head-tilt chin technique (inspect mouth for foreign objects)
- C. Assess **breathing** by performing look, listen and feel technique (breath about every 5 seconds)
- D. Assess **circulation** by checking pulse in neck or wrist (80-100 beats per minute)

3) ACTIVATE EMERGENCY RESPONSE PROCEDURE (ERP):

- A. Contact your designated on-site First Aid Responder for assistance.
- B. First Aid Responder shall state the problem and give the location of the emergency to proper outside medical assistance.
- C. Contact an ambulance via cellular phone by calling 911, for the following: severe bleeding, broken bones, allergic reactions, breathing difficulties, suspected heart attack, severe burns, and sudden illness. Advanced medical personnel will determine if air transport is necessary.
- D. Locate the closest accessible road and gate to the incident site and give this information to the 911 operator.

- a. Devine Test Site: closest road: Road 733, nearest gate: metal gate entrance to DEVINE FIELD SITE, marked with large white sign.
- E. Designate someone who is familiar with the area to meet the ambulance and lead them to the victim.

4) ADMINISTER FIRST AID

- A. The First Aid Responder shall administer First Aid and/or CPR on the victim until Paramedics arrive at the scene of the incident.
- B. Maintain an open airway, monitor breathing, monitor circulation and control bleeding as necessary.
- C. Stabilize injured extremities with splints.

5) YOUR ON-SITE FIELD SUPERVISOR SHALL NOTIFY HIS/HER HSE ADVISOR AND PROJECT MANAGEMENT. The Bureau's test site manager should then be informed.

6) AFTER EVACUATION IS COMPLETE, OPERATIONS MAY RESUME

NOTE: DO NOT TRANSPORT AN UNCONSCIOUS PERSON OR ANYONE WITH A SUSPECTED HEAD OR NECK INJURY WITHOUT ADVANCED MEDICAL PERSONNEL PRESENT FOR ASSISTANCE.

FIRST AID PROCEDURES
DEVINE TEST SITE

GPS COORDINATES: 29° 6'21.59"N – 99° 8'31.71"W

First aid can be defined as the immediate and temporary care given the victim of an accident or sudden illness until the services of a physician can be obtained. Effective first aid consists of common sense and a few simple rules.

THE FOLLOWING CONDITIONS REQUIRE THAT BASIC LIFE SUPPORT PROCEDURES BE USED IMMEDIATELY:

- Severe bleeding – if large blood vessels are severed, enough blood can be lost in one or two minutes to cause death.
- No breathing/circulation – death or brain damage can occur in four to six minutes if breathing or circulation is not restored.
- Poisoning – every second counts in preventing further injury.

The primary objective in first aid is to sustain life by utilizing basic life support techniques to:

1. Maintain an airway
2. Maintain breathing
3. Maintain circulation
4. Control bleeding
5. Treat for shock
6. Get medical care for the victim

The first aid provider must avoid panic, offer reassurance, inspire confidence, and do no more than necessary until medical help arrives.

THE FOLLOWING SUBSECTIONS ARE INTENDED AS ONLY GENERAL GUIDELINES, AND DO NOT SUPERCEDE A QUALIFIED FIRST AID/CPR COURSE.

BEE AND WASP ENCOUNTER PROCEDURES **DEVINE TEST SITE**

GPS COORDINATES: 29° 6'21.59"N – 99° 8'31.71"W

The presence of Africanized (killer) bees, native wild bees, and many species of wasps and hornets may be noted by those visiting the project site.

All personnel will inform the on-site HSE Advisor of any known allergy, or past reaction, to bee, wasp, or hornet stings.

If a “nest” is detected, all personnel will leave the area immediately. Call in the location of the “nest” to the Bureau site manager. The area will be flagged as a hazard and its location written down for marking on the hazard map.

IF A STING OR ATTACK OCCURS, THE FOLLOWING STEPS SHALL BE TAKEN:

1. Remove the stinger if present
2. Wash the wound
3. Apply cold pack
4. Watch for signs and symptoms of allergic reaction that might include:
 - Rash
 - Tightness of the chest and throat
 - Swelling of the face, neck and tongue
 - Excessive swelling
 - Dizziness
 - Difficulty in breathing

NOTE: If any of these signs or symptoms occur, activate the emergency response procedure.

5. Report the incident to your HSE supervisor and to the Bureau site manager immediately

SNAKE BITE PROCEDURES DEVINE TEST SITE

GPS COORDINATES: 29° 6'21.59"N – 99° 8'31.71"W

IN THE EVENT OF SNAKEBITE INCIDENT, THE FOLLOWING STEPS SHALL BE TAKEN:

Assess the incident using S-E-T-U-P:

Safety – YOUR safety first! If unsafe, report emergency immediately and request help.

Environment – Inspect environment for potential hazards

Traffic – Consider traffic conditions required to move victim if necessary

Unknown Hazards – Observe your surroundings for gases, electrical wiring or other hazards.

Protection – Protect yourself and the patient.

The signs and symptoms of a snake bite are as follows:

- Swelling and pain at the bite site
- Headache (do not give aspirin)
- Nausea
- Vomiting
- Joint pain and muscle cramps.

1. Keep the victim calm and as still as possible. Preferably in a prone position.
2. DO NOT elevate the bitten area. This will only hasten the spread of the venom. Try to keep the bite lower than the heart.
3. Treat for shock.
4. Attempt to identify the snake by a method that will not expose someone else to additional danger.
5. Transport the victim to a medical facility immediately.

INCLEMENT WEATHER PROCEDURES
DEVINE TEST SITE

GPS COORDINATES: 29° 6'21.59"N – 99° 8'31.71"W

IN THE EVENT OF INCLEMENT WEATHER, THE FOLLOWING STEPS SHALL BE TAKEN:

1. Crew personnel shall keep a weather eye for lightning:
 - a. In the event lightning is sighted, notify your supervisor immediately and give direction of sighting.
 - b. To determine the distance between you and the lightning, count the number of seconds between the lightning and thunder, divide by five for the distance in miles.
 - c. Once it is determined the storm is headed toward operations or is within 5 miles of the operations, shut down operations/procedures shall be initiated by the supervisor.
 - d. Keep away from tank batteries, cable fences and tall objects such as trees and power lines. Stay inside vehicles, if available, until lightning passes.

2. In the event of severe weather (i.e. severe thunderstorm, hurricane, or tornado):
 - a. Notify your supervisor at once
 - b. At the direction of the supervisor, crew personnel shall assemble at the nearest designated head-count area. The observer will determine whether to wait out the storm, move to a safer area, or return to town after all personnel are accounted for.

3. Tornado Safety:
 - a. In open country, lie flat in the nearest depression, such as a ditch or ravine. Be alert to the possibility of flash flooding.
 - b. In a town, seek inside shelter and stay away from doors and windows. Take cover against inside walls or under heavy furniture if able.
 - c. Basements or tornado shelter are most preferable, but not always available. If you utilize an underground evacuation, ensure adequate air inlet/outlet and confirm that the area is free of gas, debris, and water.

HEAT-RELATED INJURY PROCEDURES
DEVINE TEST SITE

GPS COORDINATES: 29° 6'21.59"N – 99° 8'31.71"W

The temperatures can be extreme in South Texas during the summer months, with temperatures often above 100 degrees Fahrenheit. Heat exhaustion and heat strokes happen often when high temperatures and extreme physical exertion are combined.

Heat exhaustion and heat stroke should be taken very seriously due to the fact that it is often difficult to distinguish the difference between them. Both are serious conditions, but heat stroke can be fatal. Even with advanced medical attention, 50-percent of all heat stroke victims do not survive.

Heat exhaustion and heat stroke have similar symptoms, but the signs are different. A heat exhaustion victim can become a heat stroke victim rapidly without first aid being administered quickly.

HEAT EXHAUSTION:
Signs and Symptoms

Nausea	Vomiting	Dizziness	Disorientation
Headache	Fatigue	Profuse sweating	Cool & clammy skin

TREATMENT:

Move the victim to a cool, shaded area and elevate the legs slightly to prevent or treat shock. Remove excess clothing and wet the victim down with water (do not pour ice water on the victim). Fan the victim. Have the victim drink water (do not let the victim drink too quickly). Refusing water, vomiting, or lessening of consciousness mean that the victim's condition is getting worse.

HEAT STROKE:
Signs and Symptoms

Nausea	Vomiting	Dizziness	Disorientation
Headache	Fatigue	Red, hot, dry skin	Delirium
Loss of consciousness		Rapid, shallow breathing	Rapid, weak pulse

TREATMENT:

Call 911. This is a life-threatening emergency. This victim will need advanced medical treatment. Move the victim to a cool, shaded area and elevate the legs slightly to prevent or treat shock. Remove excess clothing and wet the victim down with water. Fan the victim. If conscious, have the victim drink water (do not let the victim drink too quickly). Apply cold packs to the armpits, groin area, and neck.

FIRE EVACUATION PROCEDURES
DEVINE TEST SITE

GPS COORDINATES: 29° 6'21.59"N – 99° 8'31.71"W

IN THE EVENT OF A FIRE, THE FOLLOWING STEPS SHALL BE TAKEN:

1. Survey the scene and note the following:
 - a. Location of fire (e.g., near building or trailer)
 - b. Which direction it is traveling
 - c. At what speed it is traveling (e.g., fast, slow)
 - d. How large is the fire (e.g., length, width, acres)
 - e. What is burning (e.g., building, oil, gas, trees, grass)
2. If you are unable to contain the fire with extinguishers, get out of the area or leave the building.
3. Inform key personnel – call for Emergency Services (see last page of manual).
 - a. Call the Bureau site manager

ENDANGERED SPECIES SIGHTING PROCEDURES
DEVINE TEST SITE

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IN THE EVENT AN ANIMAL OR PLANT THAT HAS BEEN IDENTIFIED AS BEING ENDANGERED IS SIGHTED, THE FOLLOWING STEPS SHALL BE TAKEN:

1. Do not attempt to follow or in any way disturb the animal.
2. Mark the area of the sighting on a map (if available). If a plant is found, mark the area clearly so that it will be protected.
3. Call in the sighting to your supervisor.

Supervisory personnel will immediately contact the Bureau site manager.

The Bureau site manager will contact appropriate personnel and agencies.

PERSONNEL COUNT – LOST PERSON PROCEDURES
DEVINE TEST SITE

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The following procedure is designed to facilitate head counts at various staging areas to prevent the possibility of a worker or guest being overlooked and left in the field should an emergency occur, and the procedure for locating that worker or guest.

All personnel will sign in each morning at their regularly scheduled on-site safety meeting. A daily sign-in sheet will include guests upon their arrival. These guests must receive a safety briefing. This daily sign-in sheet will be the list used in the event an emergency occurs that requires employees to gather at designated head-count areas.

IN THE EVENT THAT AN INDIVIDUAL IS RECOGNIZED AS MISSING FROM A HEAD-COUNT, THE FOLLOWING STEPS SHALL BE TAKEN:

1. Any other designated head-count areas will be contacted to determine if the individual may have gone to a different head-count area.
2. If no other area can account for the missing individual, your on-site manager will be notified immediately of the situation.
3. The missing individual's supervisor will ascertain the area of the project where that individual was working, and all available personnel will proceed with an immediate search of that area once the emergency has ended.

If you are the lost person, remain calm and make yourself as visible as possible. Move to as open an area as you can find and wait for help to arrive. Use your vest or hard hat as a signal.

NOTABLE HAZARDS
DEVINE TEST SITE

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- Vehicles
- Oil field infrastructure, three deep wells and several shallow test holes on property
- Power lines, power poles, and electrical boxes
- Potential of heat-related illness
- Heavy underbrush, thorn bushes
- Snake bites, insect stings
- Bee attacks
- Narrow dirt roads
- Barbed wire fence lines
- Thunderstorms
- Potential lack of communications

HOSPITAL MAPS and SITE MAPS

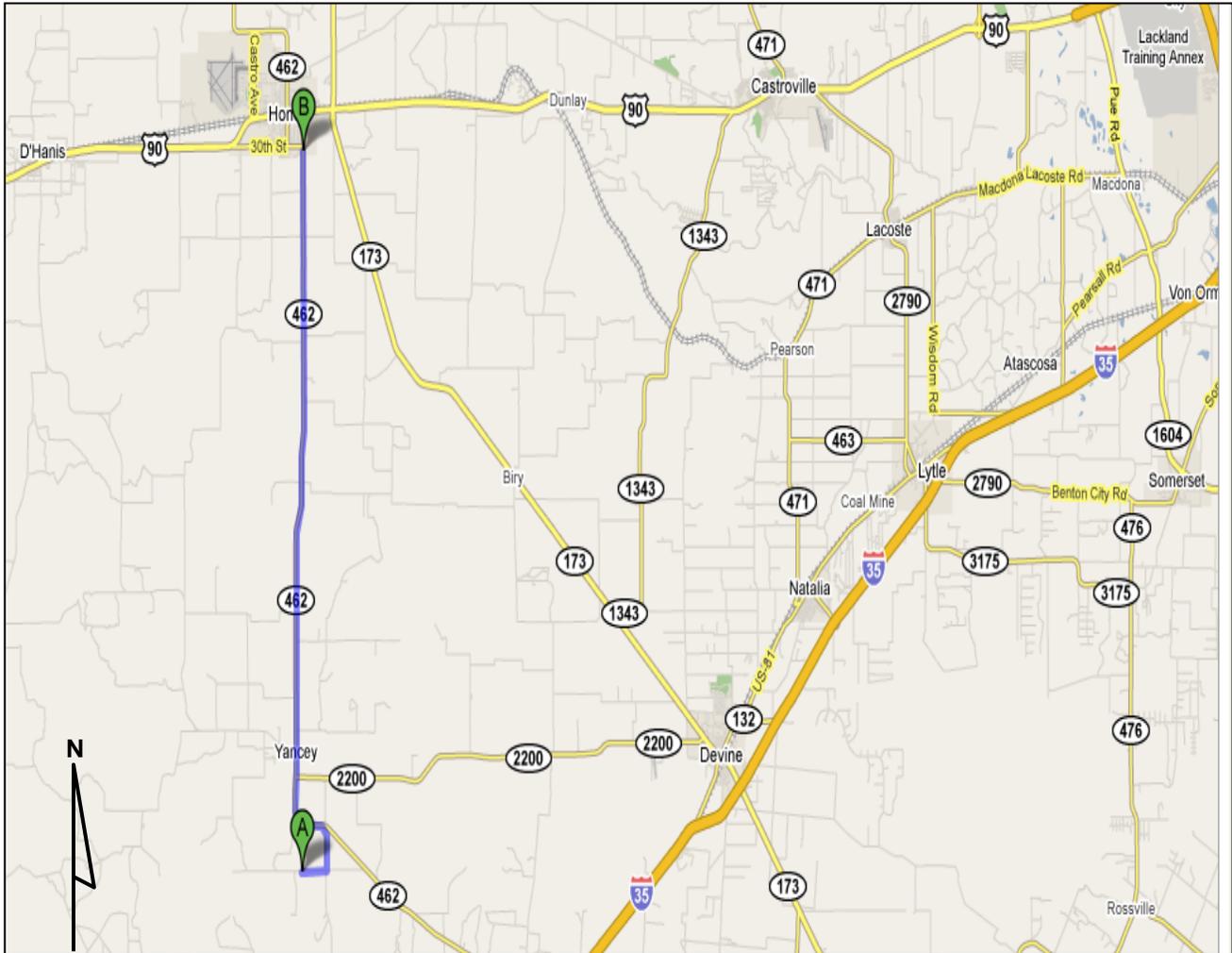
DEVINE, TEXAS

GPS COORDINATES: 29° 6'21.59"N – 99° 8'31.71"W

Hospital Route Map

MEDINA COMMUNITY HOSPITAL

3100 Avenue E • Hondo, TX 78861
Phone: (830) 426-7700 • Phone: (830) 741-4677
Toll Free: (800) 895-7851



Hospital Route from Devine Test Site:

From Devine Test Site (Point A) take CR-733 East towards CR-749 for about a mile. Make a left (North) onto CR-749, follow for about a mile. Turn left onto FM-462 and follow for approximately 16 miles. FM-462 will turn into Avenue E. The hospital (Point B) is located on the left.

SEE NEXT PAGE FOR DETAIL.

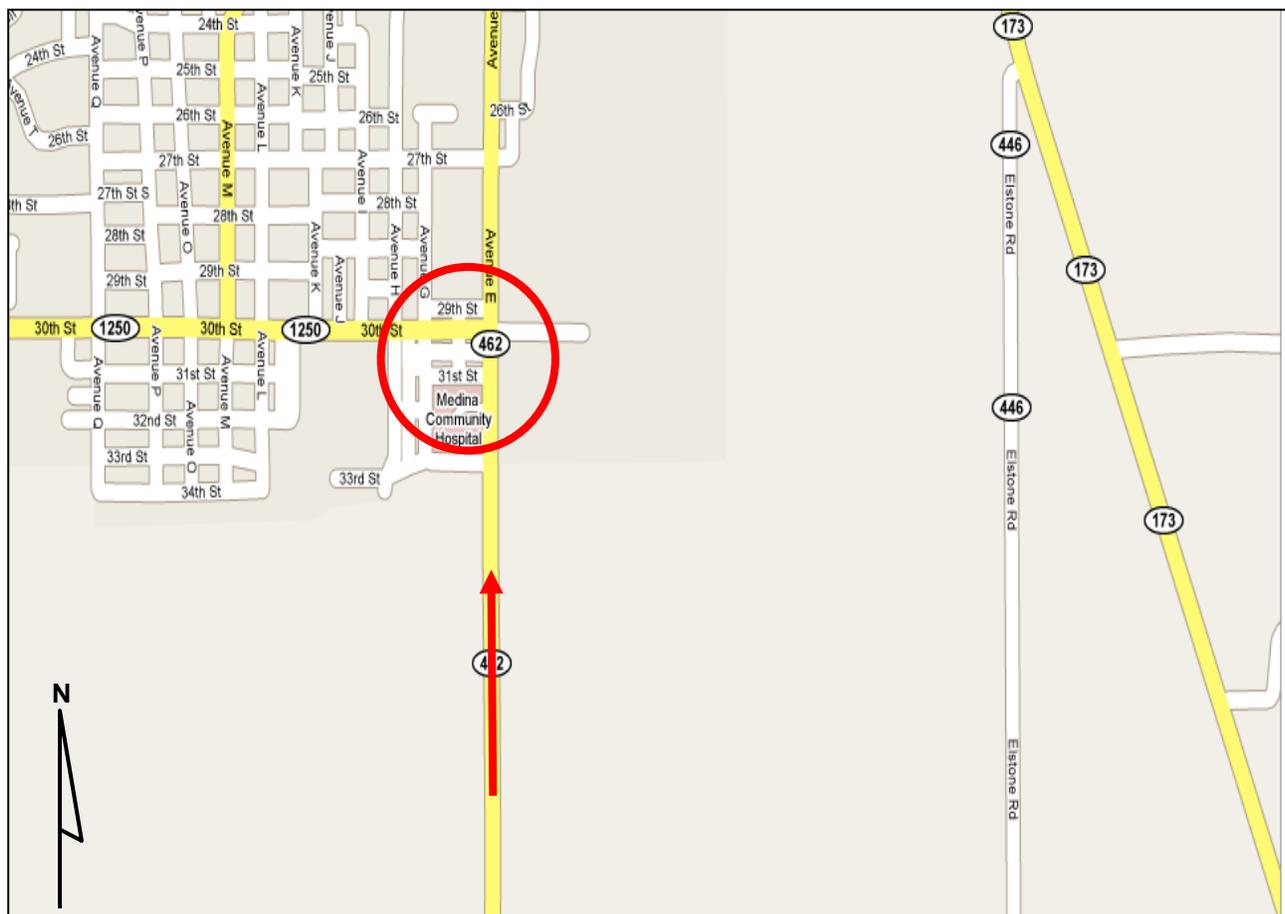
Detailed Hospital Map

MEDINA COMMUNITY HOSPITAL

3100 Avenue E • Hondo, TX 78861

Phone: (830) 426-7700 • Phone: (830) 741-4677

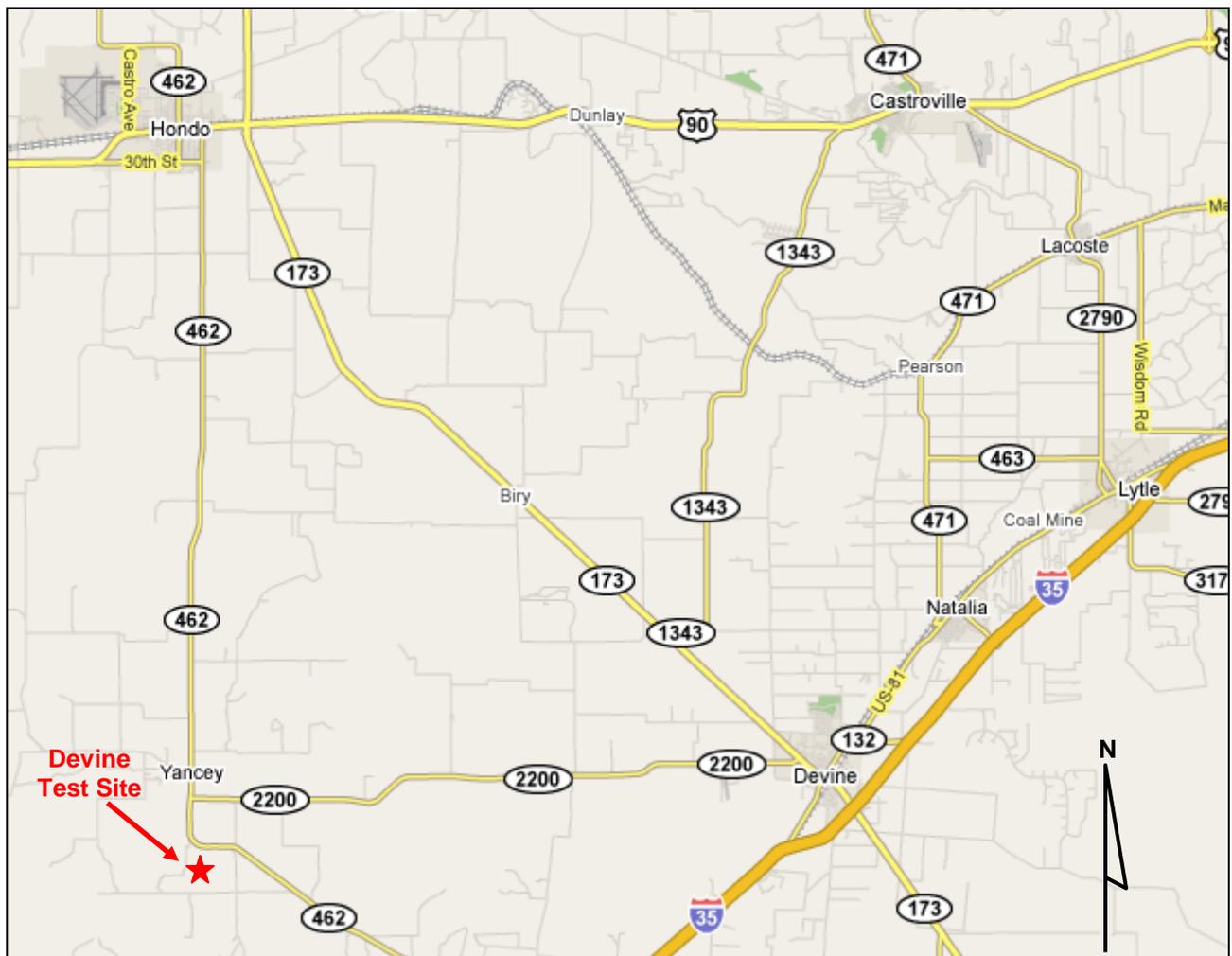
Toll Free: (800) 895-7851



SEE PREVIOUS PAGE FOR DIRECTIONS FROM DEVINE TEST SITE TO HOSPITAL. DISTANCE IS APPROXIMATELY 16 MILES. THIS MAP SHOWS LOCATION OF HOSPITAL IN THE COMMUNITY OF HONDO, TX.

AREA MAP DEVINE TEST SITE

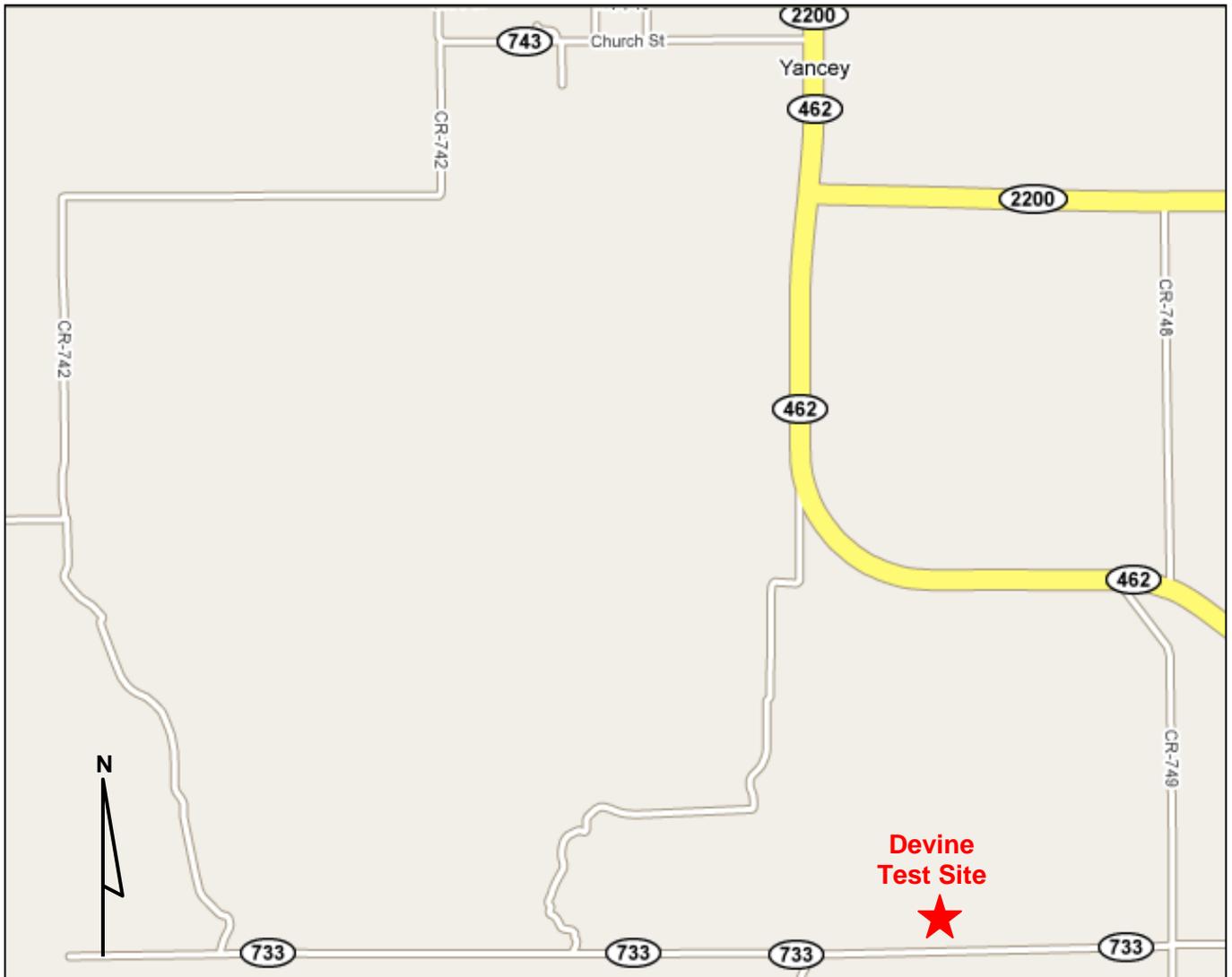
GPS COORDINATES: 29° 6'21.59"N – 99° 8'31.71"W



DETAILED AREA MAP

DEVINE TEST SITE

GPS COORDINATES: 29° 6'21.59"N – 99° 8'31.71"W



LIST OF CONTACTS
DEVINE TEST SITE

GPS COORDINATES: 29° 6'21.59"N – 99° 8'31.71"W

**Bureau of Economic Geology
Site Managers**

Bob Hardage 512-471-0300

Mike De Angelo 512-232-3373

BEG Reception 512-471-1534

Emergency Response

MEDINA COUNTY SHERIFF'S OFFICE

- Emergency Assistance
911
- General Information
830-741-6150
- Emergency Dispatch
830-741-6153
830-665-8000

DEVINE POLICE DEPARTMENT
830-663-4403

HIGHWAY PATROL

- Emergency Assistance
911
- Roadside Assistance
(800) 525-5555

NATIONAL SPILL RESPONSE
800-424-8802
202-267-2675

AMBULANCE

- Emergency Assistance
911
- Devine EMS
830-663-2121

FIRE DEPARTMENT

- Emergency Assistance
911
- Devine Vol. Fire Dept.
830-665-4246

POISON CONTROL CENTER
1-800-222-1222

ANIMAL CONTROL OFFICER
830-663-2804

TEXAS DEPT. OF PUBLIC SAFETY
830-665-8035