

<p align="center"><b>U.S Department of Interior</b> Bureau of Indian Affairs</p>	<p>1. WORK PROJECT/ACTIVITY <b>Oil &amp; Gas Field Operations (Wildland fires)</b></p>	<p>2. LOCATION <b>Southern Ute Reservation</b></p>	<p>3. UNIT <b>Southern Ute Agency</b></p>
<p><b>JOB HAZARD ANALYSIS (JHA)</b> References-BIA Safety and Health Handbook (Instructions on Reverse)</p>	<p>4. NAME OF ANALYST <b>Howard Richards Jr.</b></p>	<p>5. JOB TITLE <b>SUPV Forestry Technician</b></p>	<p>6. DATE PREPARED <b>3/12/2009</b></p>
<p>7. TASKS/PROCEDURES</p>	<p>8. HAZARDS</p>	<p>9. ABATEMENT ACTIONS Engineering Controls * Substitution * Administrative Controls * PPE</p>	
<p><b>Driving</b></p>	<p><b>Unimproved Roads</b></p>	<p>Use Caution when driving on these roads as they may be narrow and have rolling hills with limited sight distance. Be aware of industry traffic and be on the lookout for oil and gas infrastructure. Avoid backing if possible and use a spotter when necessary. Avoid using these roads during rain storms and at <b>least</b> one half hour after the storm.</p>	
<p><b>Rights-of-ways</b></p>	<p><b>Hazardous Materials, High Pressure Pipelines and Industrial Equipment</b></p>	<p>Operations, staging areas, safety zones, engines, dozers and other emergency vehicles should avoid the use of rights-of-way. Ask your local dispatcher to notify the appropriate utility representative. Do not assume pipelines are buried deeply or are directly under their makers. Dozer operators and bosses need to be extremely cautious. Avoid backing if possible and use a spotter when necessary.</p>	
<p><b>Well Pads</b></p>	<p><b>Open pits, dumps, anchor hooks, edges of the well pads, Oil and gas structures personnel, vehicles and equipment such as pump jacks, well heads, exposed high pressure pipe, separation vessels, and other miscellaneous materials</b></p>	<p>Always maintain situational awareness when you are in the area of a well pad. Seek out oil and gas personnel to get information on condition of the surrounding oil and gas fields. Notify dispatch center of the owner, type of oil and gas facility, location in reference to the fire and any other information available pertaining to the oil and gas field and the fire. Be aware of open pits and dumps and their danger as they may contain discharging gas. Avoid parking on well pads due to fact that pump jacks, well heads may leak toxic and/or flammable gases. Edges of pads are not compact enough to hold heavy weighted vehicles (engines, tenders) for long periods of time. Anchor hooks and other miscellaneous materials may be hard to see due to enviromental changes ( smoke, low light, and night operations ).</p>	
<p><b>Gases/Chemicals</b></p>	<p><b>Exposure to Hazardous Gas (Hydrogen Sulfide H2S, Methane Gas CH4) and other chemicals (drilling mud, caustics, solvents, glycol, CO2, fuels)</b></p>	<p>Brief for Hazardous Materials and the dangers of H2S/CH4 Hazardous Gasses to personnel. If at all possible, avoid working in areas where Hazardous Gasses and Materials are present. Personnel must know the symptoms of H2S exposure. CPR and first aid training will be provided to all fire personnel per agency policy -at lower concentrations smells like "rotten eggs" can cause headaches, eye disorders, nausea, vomiting, and chronic bronchitis. -at higher concentrations it deadens sense of smell, at 1000 PPM (parts per million) can paralyze the respiratory system and result in cunvulsions or death.</p>	

**Gases/Chemicals (cont)**

- H<sub>2</sub>S is explosive –as much as so possible, avoid sparks or ignition sources.
- Avoid enclosed areas.
- Look for warning signs on Oil & Gas pads.
- Avoid low-lying areas such as ravines, ditches, or gullies – higher concentrations of deadly gases tend to accumulate in these areas.

10. LINE OFFICER SIGNATURE

11. TITLE

12. DATE

**/ JHA Instructions (References-BIA Safety and Health Handbook)**

The JHA shall identify the location of the work project or activity, the name of employee(s) writing the JHA, the date(s) of development, and the name of the appropriate line officer approving it. The supervisor acknowledges that employees have read and understand the contents, have received the required training, and are qualified to perform the work project or activity.

**Blocks 1, 2, 3, 4, 5, and 6:** Self-explanatory.

**Block 7:** Identify all tasks and procedures associated with the work project or activity that have potential to cause injury or illness to personnel and damage to property or material. Include emergency evacuation procedures (EEP).

**Block 8:** Identify all known or suspect hazards associated with each respective task/procedure listed in block 7. For example:

- a. Research past accidents/incidents
- b. Research the Health and Safety Handbook or other appropriate literature.
- c. Discuss the work project/activity with participants
- d. Observe the work project/activity
- e. A combination of the above

**Block 9:** Identify appropriate actions to reduce or eliminate the hazards identified in block 8. Abatement measures listed below are in the order of the preferred abatement method:

- a. Engineering Controls (the most desirable method of abatement).  
For example, ergonomically designed tools, equipment, and furniture.
- b. Substitution. For example, switching to high flash point, non-toxic solvents.
- c. Administrative Controls. For example, limiting exposure by reducing the work schedule; establishing appropriate procedures and practices.
- d. PPE (least desirable method of abatement). For example, using hearing protection when working with or close to portable machines (chain saws, rock drills portable water pumps)
- e. A combination of the above.

**Block 10:** The JHA must be reviewed and approved by a line officer. Attach a copy of the JHA as justification for purchase orders when procuring PPE.

**Blocks 11 and 12:** Self-explanatory.

**Emergency Evacuation Instructions**

Work supervisors and crew members are responsible for developing and discussing field emergency evacuation procedures (EEP) and alternatives in the event a person(s) becomes seriously ill or injured at the worksite.

Be prepared to provide the following information:

- a. Nature of the accident or injury (avoid using victim's name).
- b. Type of assistance needed, if any (ground, air, or water evacuation)
- c. Location of accident or injury, best access route into the worksite (road name/number), identifiable ground/air landmarks.
- d. Radio frequency(s).
- e. Contact person.
- f. Local hazards to ground vehicles or aviation.
- g. Weather conditions (wind speed & direction, visibility, temp).
- h. Topography.
- i. Number of person(s) to be transported
- j. Estimated weight of passengers for air/water evacuation.

The items listed above serve only as guidelines for the development of emergency evacuation procedures.

**JHA and Emergency Evacuation Procedures Acknowledgment**

We, the undersigned work leader and crew members, acknowledge participation in the development of this JHA (as applicable) and accompanying emergency evacuation procedures. We have thoroughly discussed and understand the provisions of each of these documents:

**SIGNATURE**

**DATE**

**SIGNATURE**

**DATE**

\_\_\_\_\_

\_\_\_\_\_

**Work Leader**

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_