

Southwestern Energy Production Company 2350 N. Sam Houston Parkway East Suite 300 Houston, Texas 77032

# Hydrogen Sulfide (H<sub>2</sub>S) Contingency Plan



RECEIVED

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# And

# No Bluff #6

# And

Subsequent wells located on 80 acre lease

as noted on attached Survey Plat.

These wells are open drilling sites. H<sub>2</sub>S monitoring equipment and emergency response equipment will be used within 500' of the zones known to contain H<sup>2</sup>S, including warning signs, wind indicators and H<sup>2</sup>S monitor.

Assumed 100 ppm ROE = 3000' (Radius of Exposure) 100 ppm H<sup>2</sup>S concentration shall trigger activation of this plan.

### **Escape:**

Escape will be by taking the lease road going west approximately 0.2 miles. Continue past the "Y" intersection approximately 0.1 miles and turn right. Go northwest for approximately 1.0 miles to co. road #225 traveling northeast until the intersection of co. road #204. Travel northwest on co. road #204 until crossing hwy 82. 9.5 west is the town of Artesia.

### **Emergency Procedures**

In the case of a release of gas containing  $H_2S$ , the first responder(s) must isolate the area and prevent entry by other persons into the 100 ppm ROE. Additionally the first responder(s) must evacuate any public places encompassed by the 100 ppm ROE. First responder(s) must take care not to injure themselves during this operation. Company and/or local officials must be contacted to aid in this operation. Evacuation of the public should be beyond the 100 ppm ROE.

All responders must have training in the detection of  $H_2S$ , measures for protection against the gas, equipment used for protection and emergency response. Additionally, responders must be equipped with  $H_2S$  monitors and air packs in order to control the release. Use the "buddy system' to ensure no injuries during the response.

### **Ignition of Gas Source**

Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (SO<sub>2</sub>). Intentional ignition must be coordinated with the NMOCD and local officials. Additionally the NM State Police may become involved. NM State Police shall be the Incident Command on scene of any major release. Take care to protect downwind whenever there is an ignition of the gas

## Characteristics of H<sub>2</sub>S and SO<sub>2</sub>

Common Name	Chemical Formula	Specific Gravity	Threshold Limit	Hazardous Limit	Lethal Concentr- ation
Hydrogen Sulfide	H <sub>2</sub> S	1.189 Air = 1	10 ppm	100 ppm/hr	600 ppm
Sulfur Dioxide	SO <sub>2</sub>	2.21 Air = 1	2 ppm	N/A	1000 ppm

## **Contacting Authorities**

Southwestern Energy Production Company personnel must liaison with local and state agencies to ensure a proper response to a major release. Additionally, theNMOCD must be notified of the release as soon as possible but no later than 4 hours. Agencies will ask for information such as type and volume of release, wind direction, location of release, etc. Be prepared with all information available. The following call list of essential and potential responders has been prepared for use during a release. Southwestern Energy Production Company response must be in coordination with the State of New Mexico's 'Hazardous Materials Emergency Response Plan' (HMER)

Southwestern Energy Production Call List	Office	Cellular
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Bruce Drummon – Production Foreman	
Kurt Butler – Production Engineer	
Wilton Townsend – Drilling Consultant	
Sonny Bryan – Drilling Manager	281-618-4769713-502-4046
Mike McAllister – HSE Manager	281-618-4824713-560-0856

## **Agency Call List**

#### Eddy County (505)

### Artesia

State Police	
City Police	
Sheriff's Office	
Ambulance	
Fire Department	
LEPC (Local Emergency Planning Committee)	
NMOCD	

#### Carlsbad

State Police
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City Police	
Sheriff's Office	
Ambulance	
Fire Department	
LEPC (Local Emergency Planning Committee)	
US Bureau of Land Management	887-6544

New Mexico Emergency Response Commission (Santa Fe)	(505)476-9600
24 HR	(505) 827-9126
National Emergency Response Center (Washington, DC)	(800) 424-8802

# Other

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Wild Well Control	(281) 353-5481
Boots & Coots IWC	1-800-256-9688 or (281) 931-8884
Cudd Pressure Control	(915) 699-0139 or (915) 563-3356
Halliburton	(432) 682-4305
B. J. Services	(505) 392-5556
B.J. Services	(505)746-3140
Schlumberger	(505) 748-1391

Flight For Life -4000 24th St, Lubbock, TX	
Aerocare -Rr 3 Box 49f, Lubbock, TX	
Med Flight Air Amb 2301 Yale Blvd SE #D3, Albuq, NM	(505) 842-4433
S B Air Med Svc 2505 Clark Carr Loop SE, Albuq, NM	(505) 842-4949

DISTRICT I					State of N	ew Mexico			
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State of New Mexico

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VICINITY MAP



SEC. <u>36</u> TWP. <u>17-S</u> RGE. <u>27-E</u> SURVEY <u>N.M.P.M.</u> COUNTY <u>EDDY</u> DESCRIPTION <u>1450' FNL & 990' FWL</u> ELEVATION <u>3585'</u> SOUTHWESTERN ENERGY OPERATOR <u>PRODUCTION COMPANY</u> LEASE <u>NO BLUFF</u>

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# LOCATION VERIFICATION MAP

