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Rodney Bailey  
HES Champion

## ChevronTexaco

Date: February 23, 2004

Oil Conservation Division  
1625 N. French Drive  
Hobbs NM 88240  
Attn: Paul Sheeley

Re: Radius of Exposure Up-Date,  
H2S Contingency Plan for ChevronTexaco Vacuum Field

Attached is the up-dated spread sheet showing some changes from the August 18, 2003 Radius of Exposure letter. Wells CVU 99 and CVU 73, originally CO2 injection wells, have been switched to water injection for an undetermined amount of time.

*N-2-18-34*  
Vacuum Grayburg San Andres Unit (VGSAU) Satellite 2 Radius of Exposure calculations show at 187 ft. the H2S is 500 ppm. The county road, 80 ft. from the Satellite, falls within the 500 ppm exposure area. There are no Public Areas, defined by Rule 118, in or near this Satellite.

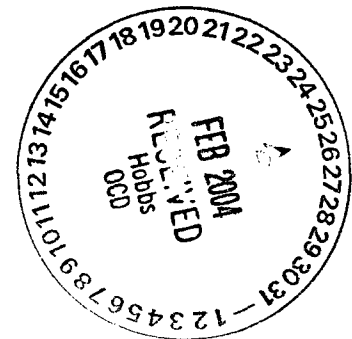
All ChevronTexaco employees and Contractors attend Safety Training each year which include H2S training. Table top drills are conducted through out the year in monthly safety meetings.

Attached is the H2S Contingency Plan for the ChevronTexaco Vacuum field including Satellite 2.  
If you have any question or additional information is needed please call me at 915-687-7251.

Sincerely,



Rodney Bailey  
ChevronTexaco  
HES Champion



## **H2S Contingency Plan for ChevronTexaco Buckeye Production and Plant**

### **ACTIVATION PROCEDURES**

This contingency plan is to be activated and the following procedures carried out whenever a H2S leak occurs that is potentially harmful to the public. Emergency phone numbers are posted on ChevronTexaco facilities.

#### **Warning**

If you must approach an area of Hydrogen Sulfide Gas Emission:

- Use appropriate fresh air equipment.
- Observe wind socks and stay upwind if possible.
- Wear personal monitor
- Have backup personnel standing by.

#### **Detection and Initial Procedure**

Company personnel detecting escape of hydrogen sulfide gas should immediately notify the Operations Supervisor in charge of the affected facility. If unavailable notify alternate Operations Supervisor, Facilities Representative or MP2 Planner. The person thus notified will be designated the on-scene coordinator. This person is responsible for further notifications and coordination of personnel and equipment until the leak is contained and the rupture repaired.

Communicate information regarding:

- \* Facility Name
- \* Location
- \* Relative volumes of escaping gas
- \* Nature of rupture, if known



In the event there are employees or private citizens in the vicinity, warn them to stay clear of the area by whatever means are available.

#### **Alert Procedure**

1. The on-scene coordinator will assess the severity of the leak. If the leak is severe and can not be immediately contained so that it ceases to be a threat to the public, continue with the rest of this contingency plan.

Designate a Company employee to monitor H2S concentrations downwind from the leak at the nearest public area, particularly residences. The employee should be equipped with fresh air pack, portable H2S monitor and telephone. If the H2S concentrations exceeds 10 ppm at a residence, the occupants should be notified to leave the area until repairs are made. Last page in this section provides instructions and information for evacuees.

**2. Notify the HES Champion, Area Manager, and HES Manager.**

**Provide the following information if applicable:**

- \* Location and source of gas emissions.**
- \* Action being taken to contain the problem.**
- \* Cause of the leak, if known.**
- \* Time the emergency occurred or was first observed.**
- \* Estimate the area affected- - particularly around residences.**

- 3. Notify others whose services are needed: Ambulance, Fire Department, State Police, and /or County Sheriff.**
- 4. Dispatch field personnel to begin shutting in producers if the leak occurs at a production battery.**
- 5. Work with public safety officials in setting up road blocks and rerouting traffic if necessary.**
- 6. If possible to do so safely, shut off electricity and fuel gas to the affected facility.**

\*\*\*\*\*

**DO NOT APPROACH THE AFFECTED AREA  
WITHOUT PROPER BREATHING EQUIPMENT**

\*\*\*\*\*

**General Safety**

**While work is underway to contain the gas emissions:**

- Insure that workers in the area are correctly using safety equipment.**
- Be watchful of any situation that might compound the accident (ignition of natural gas, carelessness around equipment, wind shifts, etc.,).**
- Insure that no unauthorized persons enter the area of possible danger.**

- Monitor H<sub>2</sub>S concentrations downwind from leak at nearest public road or public area.

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

1. Extremely toxic, ranking second to Hydrogen Cyanide and five to six times more toxic than Carbon Monoxide.
2. Colorless
3. Offensive odor, often described as that of rotten eggs.
4. Heavier than air - specific gravity of 1.189 (air = 1.00 at 60 degrees F). Vapors may travel considerable distance to a source of ignition and flashback.
5. Forms an explosive mixture with air in concentrations between 4 and 46 percent by volume.
6. Auto-ignition point of 500 degrees F.
7. Burns with a blue flame and produces Sulfur Dioxide (SO<sub>2</sub>).
8. Soluble in both water and liquid hydrocarbons.
9. Produces irritation to eyes, throat, and respiratory system.
10. Threshold Limit Value (TLV) - maximum of eight hour exposure without respiratory equipment - 10 ppm.
11. Corrosive to all electrochemical series metals.
12. Boiling point ( -79 degrees F).

### Toxicity of H<sub>2</sub>S

1 ppm	Can smell
10 ppm	Acceptable ceiling concentration which an employee's exposure shall not exceed at any time during an 8- hour shift.

**\*\*\*\* OVER 10 PPM, PROTECTIVE EQUIPMENT WILL BE NECESSARY\*\*\*\***

50 PPM	Acceptable maximum peak above the acceptable ceiling concentration for an 8 - hour shift provided the employee's
100 ppm	Kills sense of smell in 3-15 mins; may burn eyes and throat.
200 ppm	Kills sense of smell rapidly, burns eyes and throat.
500 ppm	Loses sense of reasoning and balance. Respiratory disturbances in 2 to 15 minutes. Needs prompt artificial resuscitation.
700 ppm	Will become unconscious quickly. Breathing will stop and death will result if not rescued promptly. Immediate artificial resuscitation
1000 ppm	Unconscious at once. <u>PERMANENT BRAIN DAMAGE MAY RESULT UNLESS RESCUED PROMPTLY.</u>

### First Aid for H<sub>2</sub>S Poisoning

The average person may die in six minutes or less if their oxygen supply is cut off. It is often impossible to tell exactly when a person has stopped breathing. They may

be very near death when you first discover them. Therefore, artificial respiration must always be started as rapidly as possible.

**Mouth- to- Mouth Method ( Artificial Respiration)**

1. Clear victim's mouth and throat of any foreign matter.
2. Tilt head back to open air passage.
3. Hold jaw in jutting out position.
4. Pinch nose to prevent air leakage and make seal over mouth.
5. Blow into victim's mouth until chest rises.
6. Listen to victim exhale and watch chest fall as you raise your mouth to inhale.
7. Repeat about twelve times a minute for an adult.
8. If stomach rises, gently press on stomach to remove air, turning head to side is recommended.
9. As victim attempts to breath, coordinate your breathing with theirs.
10. After reviving victim - watch closely - treat for shock - Never leave victim alone.
11. Contact doctor.

**Treatment of H2S Eye Inflammation**

1. Irrigate the eyes with cool water.
2. Avoid medication of any kind unless prescribed by a physician.
3. Ice packs or cold compressed applied to the closed eyelids may reduce pain.
4. Transport victim to medical attention.

**H2S Contingency Plan**

**Resident Evacuation Information Sheet**

1. Hello, my name is \_\_\_\_\_. I work for ChevronTexaco.
2. There has been an accidental release of H2S gas from a production facility located close to your residence.
3. The H2S gas being released is toxic and represents a potential hazard.
4. Please leave the area immediately by the quickest means available, until the leak is repaired.
5. ChevronTexaco, will reimburse you for motel/hotel accommodations during the time of the emergency. We ask that you stay at the Hobbs Holiday Inn Express in Hobbs or the Stevens Motel in Carlsbad. You will be notified when the danger has passed and you can return home.
6. If you stay elsewhere, please notify ChevronTexaco at (505)396-4414 so that we can contact you when the danger has passed.

## **BUCKEYE EMERGENCY ACTION SHEET**

### **EMPLOYEE (At Scene):**

1. Notify Supervisor and request Emergency Assistance.
2. Summarize the Nature and Severity of the Accident. Include any Special Equipment Needed or Precautions to take when Approaching the Scene.
3. Request Additional Assistance. If You are Properly Trained and if You can do so Without Compromising your Personal Safety, Rescue the Injured and Administer First Aid.

### **PERSON IN CHARGE (At Scene):**

1. Coordinate the Activities at the Scene.
2. Request and/or Direct Additional Equipment or Assistance as Needed.
3. Assess the Need for Roadblocks, Public Evacuation, or Downwind Monitors.

### **SUPERVISOR (At Office):**

1. Direct Phone Calls to Emergency Services (i.e. Ambulance, Fire Dept., Police, etc.). Provide Directions to Emergency Services.
2. Assign Someone to Assist Office Assistance to help Manage Incoming Calls.
3. Designate a Staging Area, Proceed to the Staging Area and Direct Employee Assignments.
4. Coordinate Public Evacuation, Roadblocks, and Equipment Movement. Assign Personnel to Monitor Downwind Concentrations, etc.
5. Work with the Media.
6. Notify Others as Necessary (Operations Manager, Asset Team Leader, E&S, OCD, BLM, etc).

### **ALL EMPLOYEES (During the Emergency):**

1. If You are Near the Scene, Use Your Best Judgement and Assist as Possible by Rendering Aid, as a Spotter for Emergency Vehicles, etc.
2. If you are directed by a Supervisor. Report to the Staging Area for Instructions.

### **SPILLS**

Notify the Supervisor who will determine the extent of the hazard from the MSDS.

If the substance cannot be identified, it must be assumed to be flammable and toxic; use appropriate personal protective equipment.

When possible to do so safely, shut off the flow of the fluid or disconnect the power source to the emergency area to eliminate any further discharge. If equipment may act as a source of ignition (fired vessels or electrical equipment), shut off the power or fuel to prevent a fire or explosion, only if it can be done safely and if doing so, it will not provide an ignition source.

Attempt to identify the material being discharged (i.e. Tretolite KP-306).

Proceed with spill containment and cleanup procedures to prevent further damage.

### **FIRES**

Identify the material on fire and, if necessary, consult the MSDS for proper extinguishing agent, special precautions and required personal protective equipment.

If possible to do so safely, shut off the fuel feeding the fire.

If the fire is small, attempt to contain it or put it out with portable fire extinguishers, shovels, etc., if so trained.

Cooperate with and take direction from local fire agencies.

### **TORNADOS OR FUNNEL CLOUDS**

If a tornado is sighted approaching the area, employees shall immediately notify the supervisor(s). The supervisor will coordinate notification of the other employees. In the event of a tornado people in buildings should move toward the interior corridors/offices/rooms. The greatest damage will be that of flying glass & objects; therefore, they should attempt to locate where a maximum number of walls are between them & the exterior of the building

<b>ChevronTexaco Contact</b>					<b>Phone:</b>	<b>505-496-4414</b>
<b>VACUUM FIELD OFFICE</b>					<b>Fax:</b>	<b>505-396-6913</b>
<b>HCR 60, Box 423</b>					<b>Phys. Address:</b>	<b>56 Texas Camp</b>
<b>Lovington, NM 88260</b>						
<b>Name</b>	<b>Office</b>	<b>Ext.</b>	<b>Cell</b>	<b>Pager</b>	<b>Home</b>	<b>Position</b>
Minchew, Wayne	396-4414	101	505-631-9119	800-410-9119	806-592-8043	Operations Sup.
Boland, Glenn	396-4414	104	505-631-9120	800-884-0785	505-396-5439	Field Specialist
Booker, Lloyd	396-4414	106	505-631-9121		505-392-5348	Field Specialist
Brown, Maxey	396-4414	108	505-631-9015		505-396-0233	Field Specialist
Burt, Mark	396-4414	121	505-631-9036	800-557-9036	505-392-8124	Field Specialist
Coor, Roy	396-4414	111	505-631-4413		505-396-2544	Field Specialist
Garcia, George	396-4414	110	505-631-9123	800-464-9743	505-392-2595	Workover Rep.
Hill, Bobby	396-4414	118	505-631-9108	888-941-4898	505-396-2382	Art Lift/Corr Rep.
Holdridge, Mike	396-4414	105	505-631-9124		505-393-8726	Field Specialist
Humphrey, Patsi	396-4414	103	505-631-9125	888-551-3265	505-396-5027	Maint. Planner
Jackson, Steve	396-4414	113	505-631-9046	800-588-0791	505-393-6597	Electrician
Morales, Javier	396-4414	114	505-631-9040	800-588-0775	505-396-7570	Electronic Inst. Spec.
Munoz, Linda	396-4414	116	505-631-9126		505-392-4137	Field Specialist
Owens, Jeanette	396-4414	122			505-392-8636	Office Assistant
Rabb, William	396-4414	109	505-631-9132		505-392-0672	Field Specialist
Ridenour, Larry	396-4414	102	505-631-9110	800-588-0786	505-396-5485	Facility Rep.
Sipes, John	396-4414	107	505-631-9129		505-392-3673	Field Specialist

**New Mexico One Call System 1-800-321-2537**

### **EMERGENCY CONTACTS**

**County Sheriff: - 911 or 505-393-2515 (Hobbs); 505-397-9546 (Lovington)**

**Ambulance: - 911 or 505-397-9265 (Hobbs); 505-398-2811 (Lovington)**

**Fire Department: - 911 or 505-397-9308 (Hobbs); 505-396-2359 (Lovington)**

**Local Police Department: - 911 or 505-397-9265 (Hobbs); 505-396-2811 (Lovington)**

**State Police: - 911 or 505-392-5588**

**Oil Conservation Department - Lorie Wrotenbery - 505-476-3440**

### **Regulatory Agencies:**

**State Land Office - Ray Powell - 505-827-5760**

**Bureau of Land Management - Michelle Chavez - 505-438-7400**

**New Mexico Environment Department - Peter Maggiore - 505 827-1494**

Battery/Well	H2S <sup>(1)</sup> Concentration	Gas Volume <sup>(2)</sup> cu ft	100 ppm ROE feet	500 ppm ROE feet	Distance to Public Road	COMMENTS	Unit Letter, Sec, Township, Range	API Number
Central Vacuum Unit	10000	300000	200	92	180 ft	Battery	2-31-17S-35E	
Vacuum Grayburg San Andres Unit	20000	50000	101	46	135 ft	Battery		
West Vacuum Unit	3000	99000	47	22	278 ft	Battery		
Hobbs "N" State #1	4000	7000	11	5	48 ft	Producing	D-8-18S-35E	3002503108
CVU # 115	0	0	0	0	73 ft	CO2 Injector	J-6-18S-35E	3002525800
CVU # 110	10000	35000	52	24	200 ft	Producing	J-6-18S-35E	3002503084
New Mexico "AB" State #9	6000	50000	47	22	150 ft	Producing	P-6-18S-35E	3002530139
New Mexico "AB" State	0	0	0	0	125 ft	Disconnected		
CVU # 104	10000	30000	47	22	60 ft	Producing	F6-18S-35E	3002503078
VGWU # 127	60000	0	0	0	55 ft	Producer	F-6-18S-35E	3002521292
CVU # 99	5000	0	0	0	60 ft	Injector	5-6-18S-35E	3002525710
VGWU # 122	60000	0	0	0	120 ft	Injector	4-6-18S-35E	3002531877
CVU # 162	10000	160000	135	62	105 ft	Producing	4-6-18S-35E	3002528182
VGWU # 116	60000	0	0	0	105 ft	Producer	4-6-18S-35E	3002520753
CVU # 73	5000	0	0	0	105 ft	Injector	H-36-17S-34E	3002525728
VGWU # 82	60000	0	0	0	105 ft	Injector	I-36-17S-34E	3002531840
VGWU # 68	60000	0	0	0	105 ft	Injector	H-36-17S-34E	3002531839
CVU # 58	10000	0	0	0	105 ft	CO2 Injector	A-36-17S-34E	3002525724
CVU # 43	10000	0	0	0	105 ft	CO2 Injector	A-36-17S-34E	3002525706
VGWU # 55	60000	0	0	0	105 ft	Injector	P-25-17S-34E	3002531817
VGWU # 42	60000	0	0	0	105 ft	Injector	4-30-17S-35E	3002531815
CVU # 11	10000	1000	6	3	120 ft	Producing	2-30-17S-35E	3002502947
CVU # 138	10000	0	0	0	138 ft	CO2 Injector	P-36-17S-34E	3002525999
CVU # 84	10000	0	0	0	105 ft	CO2 Injector	I-36-17S-34E	3002525732
VGWU # 96	60000	0	0	0	110 ft	Injector	I-36-17S-34E	3002531844
VGSAU # 258	20000	53000	104	48	105 ft.	Producing	1-01-18S-34E	3002532009
VGWU # 115	60000	26000	133	61	105 ft	Producing	1-1-18S-34E	3002531131
VGSAU # 158	20000	33000	78	35	120 ft	Producing	2-1-18S-34E	3002530718
VGWU # 114	60000	26000	133	61	75 ft	Producing	2-1-18S-34E	3002531132
VGSAU # 249	20000	0	0	0	105 ft	Injector	F-1-18S-34E	3002535563
VGSAU Sat. # 2	20000	471000	410	187	80 ft	Producing	F-1-18S-34E	
VGSAU # 149	20000	0	0	0	75 ft	Injector	3-1-18S-34E	3002530847
VGSAU # 48	20000	0	0	0	75 ft	Injector	F-1-18S-34E	3002524322
VGSAU # 148	20000	0	0	0	75 ft	Injector	4-1-18S-34E	3002530799



VGSAU # 147	20000	0	0	0	75 ft	Injector	H-2-18S-34E	3002530798
VGSAU # 52	20000	14000	45	21	135 ft	Producing	3-2-18S-34E	3002502267
NM "Z" State #1			0	0		SWD Well	3-2-18S-34E	3002529988
VGSAU Sat. # 4	20000	99000	154	71	135 ft	Producing	3-2-18S-34E	
VGSAU # 152	20000	18000	53	24	90 ft	Producing	4-2-18S-34E	3002530803
VGSAU # 51	20000	12000	41	19	75 ft	Producing	4-2-18S-34E	3002502266
WVU # 46	3000	14000	14	6	75 ft	Producing	1-3-18S34E	3002502282
WVU # 57	3000	0	0	0	90 ft	Injector	P-34-17S-34E	3002533599
NVAWU # 4	40	0	0	0	300 ft	Injector	N-15-17S-34E	3002523735

