Form 3160-3 (April 2004) •

### OCD-HOBBS

FORM APPROVED OMB No 1004-0137 Expires March 31, 2007

**UNITED STATES** DEPARTMENT OF THE INTERIOR **BUREAU OF LAND MANAGEMENT** 

MHE-119945 6. IfIndian, Allotee or Tribe Name

5. Lease Serial No.

#### APPLICATION FOR PERMIT TO DRILL OR REENTER

la. Type of work: X DRILL REEN	TER			7. If Unit or CA Agreen	nent, Name and No.
1b. Type of Well: Oil Well Gas Well Other  2 Name of Operator		e Zone Multip		8. Lease Name and We GAINER 27 9 API Well No.	1 No. 236566
THOMPSON, J. CLEO (11181) LEA COUNTY	CONTROLLI	ED WATER B	ASIN	30-025- 38L	163
3a. Address P.O. BOX 12577 ODESSA, TX 79768-2577	3b. Phone No. (432)550-	include area code 8887	2)	10. Field and Pool, or Ex	ploratory
4. Location of Well (Report location clearly and in according to the At surface 1900) FWL & 1700 FNL, UNIT F  Atproposed prod. Zone Per Phone (Call 5)	<u>ه</u>	•	ĺ	11. Sec., T. R. M. or Blk SEC. 27, T10S, R36F	
14. Distance in miles and direction from nearest town or p 15 MILES NE OF TATUM, NM				12 County or Parish LEA	13 State NM
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No. of ac	res in lease 20	17. Spac	sing Unit dedicated to this 80 330**	well
18 Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed 12,000	Depth	20. BLM/	BIA Bond No on file	
Elevations (Show whether DF, KDB, RT, GL, etc.) GL 4012'	2 2. Approxim 08/01/20	ate date work w	ill start*	2 3 Estimated duration 2 MONTHS	
	24. Attachi	ments			1
The following, completed in accordance with the requiren	nents of Onshor	e Oil and Gas O	rder No. 1	, shall be attached to this	form:
<ol> <li>Well plat certified by a registered surveyor.</li> <li>A Drilling Plan.</li> </ol>	) 4	Bondto cover f Item 20 above)		ions unless covered by an ex	xisting bond on file (so

- 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office)
- 5. Operator certification
- 6. Such other site specific information and/or plans as may be required by the authorized officer.

Tıtle	FIELD MANAGER	Office CARLSBAD FIELD (	DFFICE
	ed by(Signature) /s/ James Stovall	Name(Printed/Typed) /S/ James Stovall	Datfun 2 5 2007
	ATIONS MANAGER		
mt.t	y E Stemms	JIM STEVENS	05/03/2007
25. Sign	nature ( )	Name(Printed/Typea)	Date

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Conditions of approval, if any, are attached

APPROVAL FOR TWO YEARS

Title 18U S.C. Section 1001 and Title 43 U S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

\*(Instructions on page 2)

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS **ATTACHED** 

SEE ATTACHED FOR CONDITIONS OF APPROVAL District I
PO Box 1980, Hobbs, NM 88241-1980
District II
811 South First, Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV

2040 South Pacheco, Santa Fe, NM 87505

# State of New Mexico Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION 2040 South Pacheco Santa Fe, NM 87505 Form C-102
Revised October 18, 1994
Instructions on back

Submit to Appropriate District Office State Lease - 4 Copies Fee Lease - 3 Copies

■ AMENDED REPORT

#### WELL LOCATION AND ACREAGE DEDICATION PLAT

	PI Numb			<sup>2</sup> Pool Code		. /	³ Pool N	ame		
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OGRID	NO.	J	. Clec	Thom	pson Operan	or name			4	012'
11181					10 0	- T A'			<u> </u>	
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#### **DRILLING PROGRAM**

#### J. Cleo Thompson & James Cleo Thompson, Jr., L.P. Gainer 27 #1

1900' FWL & 1700' FNL, Sec. 27, T10S, R36E

In accordance with form 3160 and our application to drill, please find the following items as included in the proposed drilling program.

### 1. Estimated tops of geological markers:

Rustler:	2,324'
Yates:	2,869'
Seven Rivers:	3,067
Queen:	3,591'
San Andres:	4,149'
Glorieta	5,554'
Tubb:	6,889'
ABO:	7,624
Wolfcamp:	8,812'
Base Three Brothers	9,321'
Cisco:	9,392'
Bough C:	9,466'
Canyon:	9,874'
Strawn:	10,424'
Atoka:	11,154'
Mississippi	11,362'
Woodford:	11,504'
Silurian:	11,606'
TD:	12,000

#### **2.** Estimated depths to water, oil, or gas formations.

Water: Surface water between 400' – 1400'

Oil: Possible in the Delaware below 5000'

Gas: Possible in the San Andres below 4,500 & the Wolfcamp, Strawn, Atoka

and Morrow.

#### **3.** Proposed Casing Program:

Hole Size	Setting Depth	Csg Size & Weight	Grade/Joint
17 ½"	0' to 500'	13 3/8", 48# per foot	H-40/ ST&C
12 1/4"	0' to 5100'	9 5/8", 40# per foot	J-55/ ST&C
8 3/4"	0' to 1,000'	5 ½", 17# per foot	P-110/ LTC
8 3/4"	1,000' to 10,000'	5 ½", 17# per foot	N-80/ LTC
8 3/4"	10,000' to 11,600'	5 ½", 17# per foot	P-110/LTC

#### DRILLING PROGRAM

#### J. Cleo Thompson & James Cleo Thompson, Jr., L.P. Gainer 27 #1

1900' FWL & 1700' FNL, Sec. 27, T10S, R36E Lea County, New Mexico

#### 4. Pressure Control Equipment:

The blowout preventer equipment (BOP) will be a 12", 5,000 psi working pressure stack with both blind and pipe rams. In addition a annular preventer rated to 5,000 psi will be installed on top of the stack. A diagram of the BOP stack and choke manifold is attached. All BOP and accessory equipment will be tested according to Onshore order #2 before drilling out with the 8 3/4" hole and tested weekly.

#### **5.** Proposed Mud Program:

Mud Program		Mud Weight	Viscosity	Waterloss
0' to 500' 500' to 2,100' 2,100' to 9,600'	Fresh Wtr Fresh Wtr Cut Brine	8.6 to 9.2 ppg 8.4 to 8.5 ppg 9.4 to 9.7 ppg	34 to 36 28 to 29 28 to 29	NC NC NC
9,600' to 11,600'	Brine	9.4 to 9.7 ppg	34 to 40	10 to 6 cc

#### **6.** Proposed Cementing Program:

13 3/8" Surface: Lead cement 228 sxs 35:65:6 "C" + 2% CaCl + 1/4 # Cello + 5#

LCM 1

Tail cement 200 sxs "C" + 2% CaCl. TOC at surface.

9 5/8" Int: Lead Cement 800 sxs 50:50:10 + 5% Salt + 5# LCM-1 + 1/4 #

CelloFlake

Tail Cement 200 sxs "C" + 2% CaCl. TOC at surface.

5  $\frac{1}{2}$ " Prod: Two stage cement job w/ DV tool at +/- 7,000"

1<sup>st</sup> stage - Pump 725 sxs 15-61-11 "H" + 6% FL 52 + 5% Salt + 3#

LCM.

 $2^{nd}$  stage - pump 800 sxs 35:65:6 + 3% FL-52 + 3% SMS + 2%

KCL + 1/4 # Cello Flake.

Tail Cement pump 750 sxs C + 1% FL-62 + 3% CD-32 + .2%

SMS.

#### 7. Auxiliary Equipment:

Blowout preventer, gas detector, kelly cock and stabbing valve.

#### **8.** Testing, Logging and Coring Program:

Drill Stem Tests: As deemed necessary in the Devonian

Logging: Platform Express TD to Intermediate Csg

(Possible FMI & Repeat Formation Tester)

#### **DRILLING PROGRAM**

J. Cleo Thompson & James Cleo Thompson, Jr., L.P. Gainer 27 #1

1900' FWL & 1700', FNL, Sec. 27, T10S, R36E Lea County, New Mexico

Coring: No coring anticipated

9. No abnormal pressures or temperatures are anticipated. In the event abnormal pressures are encountered the proposed mud program will be modified to safely handle the increased pressures. The estimated BHP is estimated to be 5100 psi with a temperature of 160 degrees.

10. H2S: None expected

11. Anticipated Start Date: August 1, 2007

Anticipated Drilling Time: Approximately 30 to 40 days

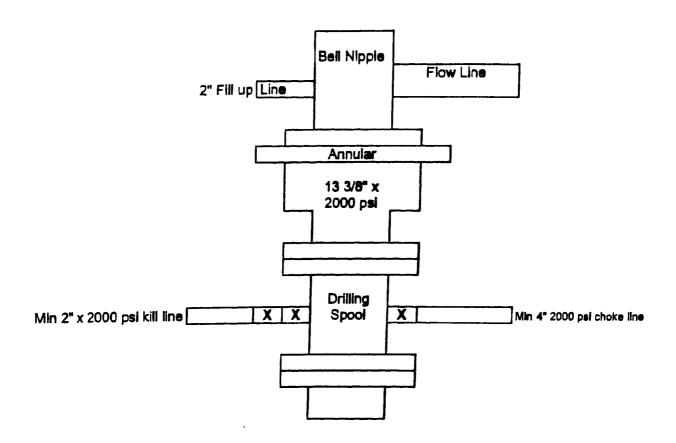


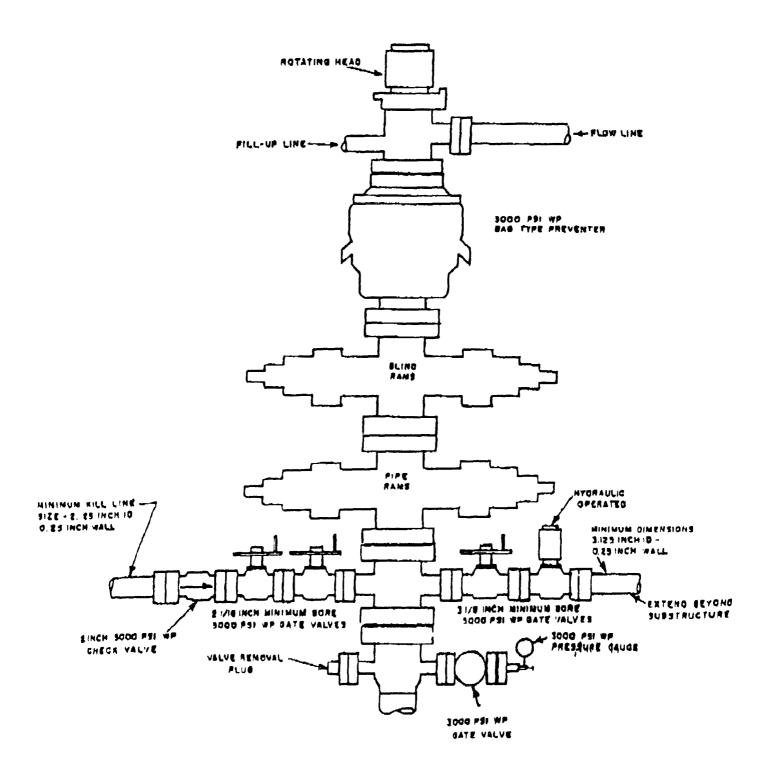
Exhibit #2

J. Cleo Thompson & James Cleo Thompson, Jr., L.P. Gainer 27, Well No.

Q. Located 1900; FWL & 1700; FNL Section 27, T10S, R36E, Lea County, NM

J. Cleo Thompson & James Cleo Thompson, Jr., L.P.
Gainer 27, Well No.
Located 1900 FWL & 1700 FNL
Section 27, T10S, R36E, Lea County, NM

# 5000 PSI WORKING PRESSURE BLOWOUT PREVENTER STACK EXHIBIT C-1



#### Revised 06/04/2007

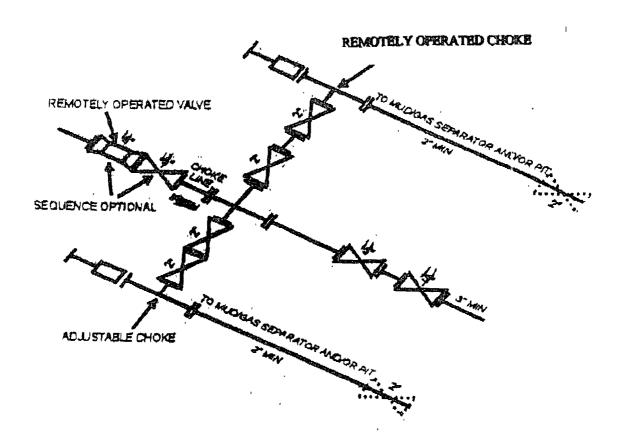
J. Cleo Thompson & James Cleo Thompson, Jr., L.P.

Gainer 27 #1

1703' FWL & 1732'FNL, Sec. 27, T10S, R36E

Lea County, New Mexico

5M Choke Manifold Schematic



# **H2S CONTINGENCY PLAN**

J. Cleo Thompson Gainer 27 #1

Gainer 27 #1
Unit F: Section 27, T10S-R36
1900', FWL, 1700', FNL
Lea County, NM

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#### **SCOPE**

This plan establishes J. Cleo Thompson guidelines for all company and contract employees whose duties may involve exposure to hydrogen sulfide gas (H2S) on the Gainer 27 #1. This well is located 1900' FWL & 1700' FNL in Unit F, Section 27 of the Township 10-S, Range 36-E of Lea County, New Mexico. This plan also establishes procedure for isolation of the work site and evacuating the public on the condition that:

- A. There is a release of H<sub>2</sub>S that compasses the radius of exposure (ROE) in this plan,
- B. There are persons and/or roads within the ROE and,
- C. There is the endangerment of human or animal life within the ROE.

#### **OBJECTIVE**

The objective of the *J. Cleo Thompson Company* is to:

- A. Prevent any and all accidents, and to prevent the uncontrolled release of H2S into the atmosphere and,
- B. Provide proper evacuation procedures to cope with emergencies and,
- C. Provide immediate and adequate medical attention should in injury occur.

It should be noted that J. Cleo Thompson does not expect there top be any release of H2S into the atmosphere but has taken the necessary steps to react properly to and control any hazards encountered on any of our facilities.

#### **GENERAL EMERGENCY ACTION**

### In the event of an emergency, the following action should be initiated,

- 1. All personnel shall immediately evacuate to an up-wind and up-hill "safe breathing" area.
- 2. Those who must enter the hazard area must wear positive pressure self-contained breathing apparatus and must use other appropriate safety equipment as outlined on page 10.
- 3. Isolate the well, if possible.
- 4. Use the "Buddy System" at all times.
- 5. Account for all personnel and take appropriate action as necessary for personnel safety.
- 6. Display the appropriate color warning flag to describe the type of emergency.
- 7. The *J. Cleo Thompson* supervisor will assess the situation and assign duties to various persons to bring the situation under control. The *J. Cleo Thompson* supervisor will assign the notification of local emergency response agencies and residents. Media inquiries are be referred to:

J. Cleo Thompson 325 North St. Paul, Suite 4300 Dallas, Texas 75201

## J. CLEO THOMPSON EMERGENCY CALL OUT NUMBERS

NAME	OFFICE NUMBER	CELLULAR NUMBER	HOME NUMBER
Johnnie Holder Drilling Foreman	(432)550-8887	(432)556-9325	(432)363-8054
Jim Stevens Operations Manager	(432)550-8887	(432)664-2917	(432)563-5504
John Hughes Production Foreman	(432)634-8403	(432)661-5313	(806)287-1225

J. Cleo Thompson is aware and will abide by city; county and state burn ban policies.

# Emergency Notification Numbers Lea County, NM

Organization or Agency	Phone Number
New Mexico State Police	(505)885-3137
Lea County Sheriff's Department	(505)396-3611
Tatum Sheriff's Department	(505)398-4444
Emergency Medical Service (Ambulance)	911
State Emergency Response Center Max Johnson (Chairman)	(505)476-9620
Tatum Fire Department	911
Bureau Land Management (District II)	(505)234-5972
Oil Conservation Division (District II)	(505)748-1283
National Response Center (NRC)	(800)424-8802
Chemtrec	(800)424-9300
Midland Safety & Health	(432)520-3838

## **Gainer 27 #1**

Neighboring Residents to Gainer 27 #1

**NONE** 

EMERGENCY PROCEDURES FOR UNCONTROLLABLE RELEASE OF HYDROGEN SULFIDE GAS (H2S)

# EMERGENCY PROCEDURES FOR UNCONTROLLABLE RELEASE OF HYDROGEN SULFIDE GAS (H2S)

- 1. Secure and don self-contained breathing apparatus.
- 2. Remove all personnel to up-wind and up-hill "safe breathing" zone.
- 3. Contact all concerned employees and immediate supervisor for instructions.
- 4. Take steps to protect and/or remove the general public to an upwind area away from source of H2S.
- 5. Deny entry to unnecessary personnel.
- 6. Notify necessary public safety personnel:
  - a. State Police if on or near a state road
- b. Sheriff's Department if on or near a county road (For assistance in the evacuation of the general public and to help maintain roadblocks)

- 7. Contact the Bureau of Land Management (BLM)
- 8. While attempting to control the release, maintain tight security and safety procedures.
- 9. Use the "Buddy System" when entering any hazardous area.

The responsibility of this plan is with the <u>J. Cleo Thompson</u> supervisor(s) who shall be in complete command during the emergency.

# IGNITION PROCEDURES FOR UNCONTROLLABLE WELL CONDITIONS

The decision to ignite the well is the decision of the company supervisor(s). This decision should be made only as a last resort and in a situation where it is determined that:

- Human life and/or property are endangered
- There is no hope of controlling the blowout under the prevailing conditions at the well.

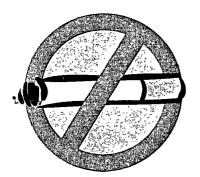
#### INSTRUCTIONS FOR IGNITING THE RELEASE

- 1. Two personnel are required for the ignition operation. They must wear positive self-contained breathing apparatus and a D-ring style full body safety harness with a non-flammable safety rope attached. (Must be an OSHA approved body harness)
- 2. One (safety) person will test the atmosphere for explosive gases with an approved Triple-range (H2S, O2, LFL) monitor.
- 3. Primary method of ignition shall be with 25mm flare gun with range of approximately 500 feet.
- 4. Ignite up-wind and do not approach any closer than is warranted.
- 5. Select a safe ignition site, which offers ultimate egress.
- 6. Before activating flare gun, check for presence of combustible gas.
- 7. After ignition, continue emergency action and procedure as before.
- 8. All unassigned personnel will limit their actions to those directed by the company supervisor.

After the well is ignited, burning H2S will produce SO2, which is also highly toxic. Do not assume the area is safe after the well is ignited.

A NO SMOKING POLICY shall be strictly enforced on location at all times.





**NO SMOKING** 

## **EMERGENCY EQUIPMENT REQUIREMENTS**

#### 1. Respiratory Protection

- Rescue Units (SCBA's): One (1) unit shall be placed at each briefing area and 2 shall be stored in the safety trailer.
- Work/Escape Units: Four (4) units shall be stored on the rig floor connected to the safety trailer with sufficient hose to allow workers to adequately perform duties with minimal restriction.
- Emergency Escape Units: Four (4) units shall be stored in the top dog house for emergency evacuation purposes.

#### 2. Signs and Flags

One (1) Condition Sign shall be placed at location entrance with the following language:

#### DANGER H2S

POTENTIAL DANGER (GREEN)

### MODERATE DANGER (YELLOW OR ORANGE)

## EXTREME DANGER (RED)

Condition flags shall be displayed at the sign in one of the designations:

# Green/normal conditions Yellow or Orange / potential danger Red/danger, H2S Present

- 3. Briefing Area: Two (2) briefings areas, designed by signs, shall be located perpendicular to each other and be easily visible and readily accessible.
- **4.** Windsocks: Two (2) windsocks shall be strategically placed where they are easily visible from all points.

#### 5. Hydrogen Sulfide Detectors and Alarms:

- One (1) stationary H2S monitor with three sensors shall be located on the rig in the top dog house. The H2S monitor shall be calibrated to alarm at 10PPM for the low alarm (visual alarm) and 15 PPM for the high alarm (audible alarm). Calibrations shall be checked every 30 days or as needed. The sensors shall be located as follows:
- #1 Rig Floor
- #2 Bell Nipple
- #3 Flow line or where the well bore fluid is discharged
- A gas sampling pump, with detector tubes capable of measuring H2S gas, shall be located in the safety trailer.

#### 6. Additional Rescue Equipment

- One hundred Feet (100') of 5/8" OSHA approved rope.
- Two (2) OSHA approved full body harness
- One (1) Stretcher

#### 7. Fire Extinguishers:

■ One (1) 20#, Class ABC fire extinguisher shall be located in the safety trailer.

#### 8. Communication:

■ Cellular Phones/Mobile Phones or two-way radios shell be available via the vehicles on location and on the rig floor.

#### TOXIC EFFECTS OF HYDROGEN SULFIDE

Hydrogen Sulfide (H2S) is extremely toxic. The accepting ceiling concentration for an eight (8) hour exposure is 10PPM, which is .001% by volume. Hydrogen sulfide (H2S) is colorless. Hydrogen Sulfide (H2S) is heavier than air, the specific gravity is equal to 1.19, which is 20% heavier than ambient temp air, which is 1.00. Hydrogen sulfide (H2S) can form an explosive mixture with air between 4.3% and 46.0%. By volume hydrogen sulfide (H2S) is as toxic as hydrogen cyanide and is between 5-6 times more toxic than carbon monoxide.

#### **TOXICITY OF VARIOUS GASES**

Common Name	Chemical Formula	Specific Gravity	Threshold Limit <sup>1</sup>	Hazardous Limit <sup>2</sup>	Lethal Concentration <sup>3</sup>
Hydrogen Cyanide	HCN	0.94	10 PPM 150 ppm/Hr		300PM
Hydrogen Sulfide	H2S	1.189	10 PPM <sup>4</sup> 15 PPM <sup>5</sup>	100 PPM/Hr	600 PM
Sulfur Dioxide	SO2	2.21	2 PPM	N/A	100 PPM
Chlorine	CL2	2.45	1 PPM	4 PPM/Hr	1000 PPM
Carbon Monoxide	СО	.97	50 PPM	400 PPM/Hr	1000 PPM
Carbon Dioxide	CO2	1.52	5000 PPM	5%	10%
Methane	СН4	0.55	90,000 PPM	Combustible @5%	N/A

- (1)Threshold limit Concentration at which it is believed that all workers may be repeatedly exposed, day after day with out adverse effects also referred to as Time Weighted Average (TWA).
- (2) Hazardous limit Concentration that may cause death
- (3) Lethal concentration Concentration that will cause death with short-term exposure
- (4) Threshold limit 10PPM NIOSH guide to chemical hazards
- (5) Short term threshold limit Concentration higher than Threshold limit with limits placed on time one can be exposed. Exposure time is limited to 15 minutes followed by one (1) hour in fresh air. This cycle can be repeated for four (4) times during a normal eight (8) hour work day.

## PHYSICAL EFFECTS OF HYDROGEN SULFIDE (H2S)

(Concentrations are calculated @ 15.00 psia and 60 ° F.)

Co	ncentrations	Physical Effects
0.0001%	10 PPM	Obvious & unpleasant odor. Safe for eight
		(8) hour exposure.
0.005%	50 PPM	Can cause some flu-like systems and can
		cause pneumonia
0.01%	100 PPM	<b>IDLH</b> <sup>1</sup> . Kills the sense of smell in 3 to 15
		minutes. May irritate eyes and throat.
0.02%	200 PPM	Kills the sense of smell rapidly. Severely
		irritates eyes and throat. Severe flu-like
		symptoms after 4 or more hours may cause
		lung damage and/or death.
0.06%	600 PPM	Loss of consciousness quickly, death will
		result if not rescued promptly.

(1) Immediately dangerous to life or heath

# **TOXICITY OF HYDROGEN SULFIDE**

H2S % (PPM)	0-2	0-15	15 – 30	30 Minutes	1-4	4 - 8	8 – 48
` ,	Minutes	Minutes	Minutes	to 1 Hours	Hours	Hours	Hours
0.005 (50 ppm) 0.010 (100 ppm)				Mild Conjunctivitis; Respiratory Tract Irritation			
0.010 (100 ppm) 0.015 (150 ppm)		Coughing; Irritation of eyes; loss of sense of smell	Disturbed Respiration Pain in eyes; Sleepiness	Throat	Salivation & Mucous Discharge; Sharp Pain in eyes; Coughing	Increased Symptoms*	Hemorrha; & Death*
0.015 (150 ppm) 0.020 (200 ppm)		Loss of Sense of Smell	Throat & Eye Irritation	Throat & Eye Irritation	Difficult breathing, Blurred Vision, Light & Shy	Serious irritating Effects	Hemorrha, & Death*
0.025 (250 ppm) 0.035 (350 ppm)	Irritation of Eye and Loss of Sense of Smell	Irritation of Eyes	Painful Secretion of Tears, Weariness	Light & Shy; Nasal Catarrh, Pain in Eyes, Difficult Breathing	Hemorrhage & Death		
0.035 (350 ppm)		Irritation of Eye and Loss of Sense of Smell	Difficult Respiration; Coughing, Irritation of Eyes	Increased Irritation of Eyes & Nasal Tract; Dull pain in Head; Weariness; Light & Shy	Dizziness, Weakness; Increased Irritation; Death	Death*	
0.050 (500 ppm)	Coughing, Collapse & Unconsciousness	Respiratory Disturbances; Irritation of Eyes; Collapse	Serious Eye Irritation; Palpitation of Heart, Few Cases of Death	Severe pain in eyes and head, Dizziness; Trembling of Extremities; Great Weakness & Death*			
0.060 (600 ppm) 0.070 (700 ppm) 0.080 (800 ppm) 0.100 (1000 ppm) 1.150 (1500 ppm)	Collapse* Unconsciousness Death*	Collapse* Unconsciousness Death					

<sup>\*</sup>Data secured from experiments of dogs, which have susceptibility similar to men/women.

<sup>\*\*</sup>PPM parts per million

#### THE USE OF SELF-CONTAINED BREATHING AIR EQUIPMENT

#### SCBA should be worn when:

- Working near the top or on top of any tank.
- Disconnecting any line where H2S can reasonably be expected.
- Sampling air in the area to determine if toxic concentration of H2S exist.
- Working in areas where over 10PPM of H2S has been detected.
- At any time there is a doubt as to the H2S level in the area to be entered.

Air quality testing shall be continuous throughout the entire operation if a container is breeched or in a hazardous location.

All personnel shall be trained in the use of SCBA prior to working in a potentially hazardous location.

Facial hair and standard eyeglasses are not allowed with SCBA use.

Contact lenses are never allowed with the use of SCBA.

The SCBA shall be inspected monthly.

After each use, the SCBA shall be cleaned, disinfected, serviced, inspected and refilled to proper specifications.

# RESCUE & FIRST AID FOR VICTIMS OF HYROGEN SULFIDE (H2S) POISONING

Do not panic!

Remain calm and think with your head and not your heart.

Don breathing apparatus

Protect yourself, then remove victim to fresh air as quickly as possible. When evacuating: walk not run, upwind and uphill from the source or crosswind to achieve upwind.

Notify emergency response personnel

Provide artificial respiration and/or CPR, as necessary.

Remove all contaminated clothing to avoid further exposure.

A minimum of two (2) personnel on location shall be trained in CPR and First Aid.

#### **CONDITIONS OF APPROVAL - DRILLING**

**Operator's Name:** 

J. CLEO THOMPSON

Well Name & No.

1 – GAINER 27

Location:

1732' FNL & 1703' FWL – SEC 27 – T10S – R36E - LEA

Lease:

NM-112945

#### I. DRILLING OPERATIONS REQUIREMENTS:

**A.** The Bureau of Land Management (BLM) is to be notified a minimum of 4 hours in advance for a representative to witness:

.....

- 1. Spudding well
- 2. Setting and/or Cementing of all casing strings
- 3. BOPE tests
  - Lea County call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (505) 393-3612
- **B.** A Hydrogen Sulfide (H2S) Drilling Plan should be activated 500 feet prior to drilling into the **Yates** formation at approximately **2600** feet.
- **C.** Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
- **D.** If floor controls are required, (3M or Greater) controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.

#### II. CASING:

- A. The 13-3/8 inch surface casing shall be set at 500 feet and cemented to the surface.
  - 1. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with a surface log readout will be used or a cement bond log shall be run to verify the top of the cement.
  - 2. Wait on cement (WOC) time for a primary cement job will be a minimum of 12 hours for a non-water basin, 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compression strength, whichever is greater. (This is to include the lead cement)
  - 3. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compression strength, whichever is greater.
  - 4. If cement falls back, remedial action will be done prior to drilling out that string.
- **B.** The minimum required fill of cement behind the <u>9-5/8</u> inch intermediate casing is <u>circulate cement to the surface</u>. If cement does not circulate see A.1 thru 4.
- C. The minimum required fill of cement behind the <u>5-1/2</u> inch production casing is <u>tie back cement 200</u> feet into the 9-5/8 inch casing.

**D.** If hardband drill pipe is rotated inside casing; returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool I joints of the drill pipe will be installed prior to continuing drilling operations.

#### **III. PRESSURE CONTROL:**

- **A.** All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and Chap. 17 API RP 53.
- **B.** Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be <u>2000 (2M)</u> PSI.
- C. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the <u>9-5/8</u> Intermediate casing shoe shall be <u>5000 (5M)</u> PSI.
- **D.** The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
  - 1. The tests shall be done by an independent service company.
  - 2. The results of the test shall be reported to the appropriate BLM office.
  - 3. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
  - 4. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi in accordance with API RP 53. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes-without a test-plug.

#### **IV. DRILLING MUD:**

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the <u>Wolfcamp</u> formation, and shall be used until production casing is run and cemented.

- 1. Recording pit level indicator to indicate volume gains and losses.
- 2. Mud measuring device for accurately determining the mud volumes necessary to fill the hole during trips.
- 3. Flow-sensor on the flow line to warn of abnormal mud returns from the well

LBabyak 6/7/07

<u>District I</u> 1625 N French Dr., Hobbs, NM 88240 District II . 1301 W Grand Avenue, Artesia, NM 88210 <u>District III</u> 1000 Rio Brazos Road, Aztec, NM 87410 District IV

1220S St Francis Dr, Santa Fe, NM 87505

#### State of New Mexico Energy Minerals and Natural Resources

Oil Conservation Division

For drilling and production facilities, submitto appropriate NMOCD District Office.
For downstreamfacilities, submit to Santa Fe

Form C-144

June 1, 2004

### 1220 South St. Francis Dr. Santa Fe, NM 87505 Pit or Below-Grade Tank Registrationor Closure

Is pit or below-grade tank covered by a "general plan"? Yes \( \subseteq \) No \( \overline{X} \)  Type of action: Registration of a pit or below-grade tank \( \overline{X} \) Closure of a pit or below-grade tank \( \overline{\subset} \)		
Operator THOMPSON, J. CLEO Telephone (432)550-8887e-mail address jstevens@jcleo.com  Address P.O. BOX 12577 ODESSA, TX 79768-2577  Facilityor well name: GAINER 27, WELL #1 API# 30-325- 38465 U/lor Qtr/Qtr F Sec 27 T 10S R 36E  County: LEA Latitude Longitude NAD. 1927 1983 Surface Owner Federal State Private Indian		
Pit  Type. Drilling \[ \begin{align*} \text{Production}  \text{Disposal}  \text{Workover}  \text{Emergency}  \text{Lined} \[ \begin{align*} \text{Unlined}   \text{Liner type: Synthetic} \[ \begin{align*} \text{Thickness} \frac{12}{mil} & Clay  \text{Pit Volume}  \text{bbl} \end{align*}	Below-gradetank  Volumebbl Type of fluid  Constructionmaterial:  Double-walled,with leak detection? Yes If no	t, explain why not.
Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.) $\approx 75^{-4}$	Less than 50 feet  50 feet or more, but less than 100 feet  100 feet or more	(20 points) (10 points) ( 0 points)
Wellheadprotectionarea: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources.)	Yes	(20 points) ( 0 points)
Distance to surface water (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)	Less than 200 feet  200 feet or more, but less than 1000 feet  1000 feet or more	(20 points) (10 points)
Ranking Score (Total Points)    If this is a pit closure   (1) attacha diagram of the facility showing the pit's relationship to other equipment and tanks   (2) Indicate disposal location   (check the onsite box if your are burying in place) onsite   offsite   If offsite, name of facility   (3) Attach a general description of semble distribution asken including remediation start date and end date   (4) Groundwaterencountered: No   Yes   If yes, show depth below groundsurface   (5) Attach soil sample results and a diagram of sample locations and excavations.    Additional Comments   Received   (5)   Received   (5)   (6)   (6)   (7)		
I hereby certify that the informationabove is true and complete to the best of my knowledge and belief I further certify that the above-described pit or below-gradetank has been/will be constructed or closed according to NMOCD guidelines [X], a general permit, or an (attached) alternative OCD-approved plan  Date. 05/03/2007  Printed Name/Title JIM STEVENS OPERATIONS MANAGER Signature  Your certification and NMOCD approval of this application/closuredoes not relieve the operator of liability should the contents of the pit or tank contaminate ground water or otherwise endanger public health or the environment. Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and/or regulations.  Approval  Printed Name/Title CHRIS WILLIAMS IDIST SURV. Signature		
Trinco reality rice Chilly Williams / DISA Sut V.	Signature June W Juli	Date. Date.