EA-144

ATS-07-111

Form 3160-3
(February 2005)

OCD-HOBBS

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: ☑ DRILL ☐ REENTER	5. Lease Serial No. **NMLC 065194 ~~& NMLC 064881~~**
1b. Type of Well: ☐ Oil Well ☑ Gas Well ☐ Other ☑ Single Zone ☐ Multiple Zone	6. If Indian, Allotee or Tribe Name **N/A**
2. Name of Operator **Bold Energy, LP**	7. If Unit or CA Agreement, Name and No. **N/A**
3a. Address **415 W. Wall, Suite 500 Midland, TX 79701**	8. Lease Name and Well No. **Bell Lake #24**
3b. Phone No. *(include area code)* **432-686-1100**	9. API Well No. **30-025-38291**
4. Location of Well *(Report location clearly and in accordance with any State requirements.*)* At surface **Unit B, 660 FNL & 1980 FEL** At proposed prod. zone **Unit B, 660 FNL & 1980 FEL**	10. Field and Pool, or Exploratory **Bell Lake; Morrow, ~~(Gas)~~ North (Gas)**
	11. Sec., T. R. M. or Blk. and Survey or Area **Sec 7, T23S, R34E**
14. Distance in miles and direction from nearest town or post office* **Approximately 22 miles Northwest of Jal, 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) **660'**	16. No. of acres in lease **314.57**	17. Spacing Unit dedicated to this well **~~320~~ 314.57 ac**
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. **N/A**	19. Proposed Depth **13,550'**	20. BLM/BIA Bond No. on file **NMB 000314**
21. Elevations (Show whether DF, KDB, RT, GL, etc.) **3468'**	22. Approximate date work will start* **02/06/2006**	23. Estimated duration **52 - 60 days**

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, must be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification
6. Such other site specific information and/or plans as may be required by the BLM.

25. Signature Denise Menoud	Name *(Printed/Typed)* **Denise Menoud**	Date **11/08/2006**
Title **Regulatory Specialist, Agent for Bold Energy, LP**		
Approved by *(Signature)* /s/ James Stovall	Name *(Printed/Typed)* /s/ James Stovall	Date JAN 19 2007
Title FIELD MANAGER	Office CARLSBAD FIELD OFFICE	

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 1 YEAR

Title 18 U.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)

CAPITAN CONTROLLED WATER BASIN

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS
AND SPECIAL STIPULATIONS
ATTACHED

Received
Hobbs
OCD

EXHIBIT A

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240
DISTRICT II
1301 W. Grand Avenue, Artesia, NM 88210
DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410
DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

Form C-102
Revised October 12, 2005

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-025-38291	71920	Bell Lake; Morrow, North (Gas)

Property Code	Property Name	Well Number
35983	BELL LAKE	24

OGRID No.	Operator Name	Elevation
233545	BOLD ENERGY	3468'

Surface Location

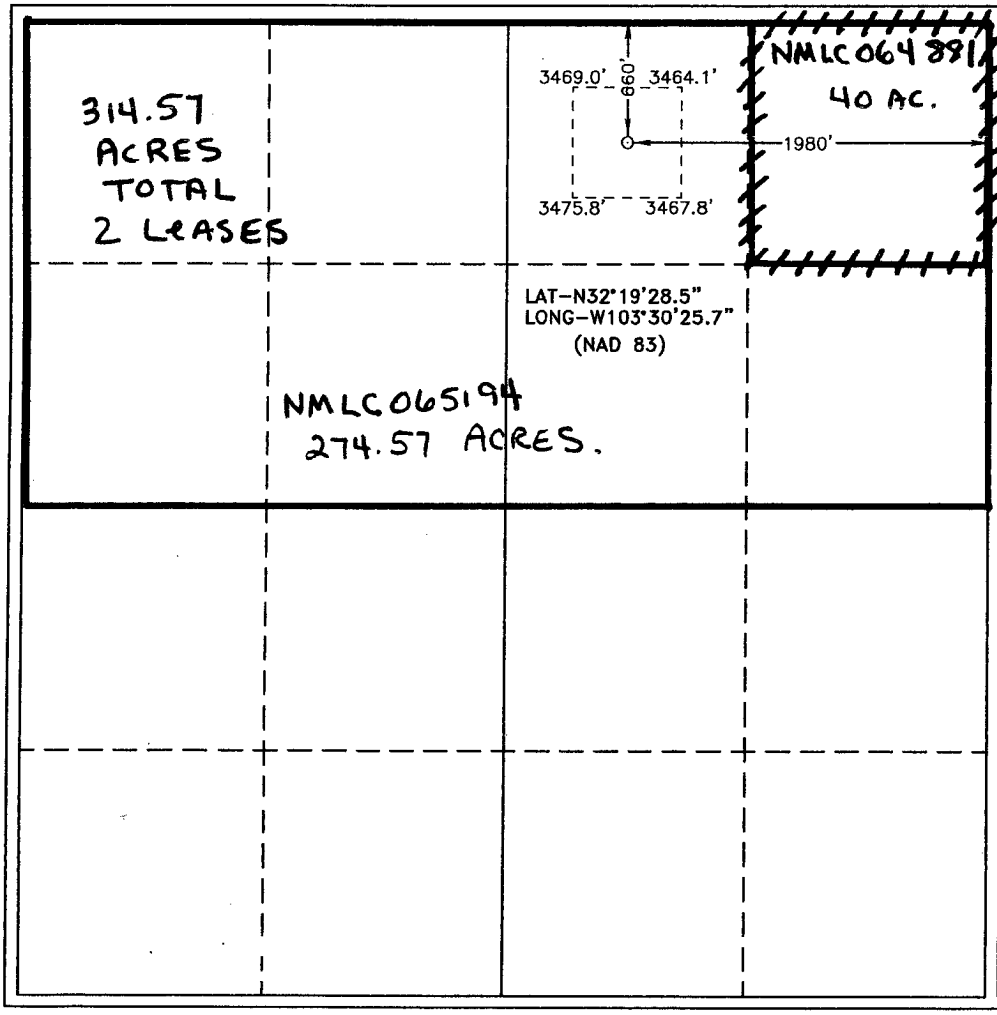
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	7	23 S	34 E		660	NORTH	1980	EAST	LEA

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
314.57			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Denise Menoud
Signature Date

Denise Menoud, Agent for Bold Energy, LP
Printed Name

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervison, and that the same is true and correct to the best of my belief.

SEPTEMBER 6, 2006
Date Surveyed

Signature & Seal of Professional Surveyor

GARY L. JONES
NEW MEXICO
7977
REGISTERED PROFESSIONAL LAND SURVEYOR

Certificate No. Gary L. Jones 7977

BASIN SURVEYS

OCD-HOBBS

Form 3160-5
(February 2005)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

SUNDRY NOTICES AND REPORTS ON WELLS
Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

5. Lease Serial No.
NMLC 085194 & NMLC 064881 LC 065194

6. If Indian, Allottee or Tribe Name
N/A

SUBMIT IN TRIPLICATE – *Other instructions on page 2.*

7. If Unit of CA/Agreement, Name and/or No.
N/A

1. Type of Well
☐ Oil Well ☑ Gas Well ☐ Other

8. Well Name and No.
Bell Lake #24

2. Name of Operator
Bold Energy, LP

9. API Well No.

3a. Address
415 W. Wall, Suite 500, Midland, TX 79701

3b. Phone No. *(include area code)*
432-686-1100

10. Field and Pool or Exploratory Area Antelope Ridge; North
Bell Lake, Morrow (Gas); Add ~~Bell Lake~~, Atoka (Gas)

4. Location of Well *(Footage, Sec., T.,R.,M., or Survey Description)*
SL: 660' FNL & 1980' FEL, Unit B, Sec 7, T23S, R34E

11. Country or Parish, State
Lea, NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☑ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Subsequent Report	☐ Casing Repair	☐ New Construction	☐ Recomplete	☑ Other Add the Atoka to the Drill Permit Application
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
☐ Final Abandonment Notice	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

PLEASE ADD THE ATOKA POOL TO THE APPLICATION FOR PERMIT TO DRILL THAT IS NOW BEING PROCESSED.
PLEASE SEE ATTACHED REVISED DRILLING PROGNOSIS.

Engineering OK
1/18/2007
Hobbs

14. I hereby certify that the foregoing is true and correct.
Name *(Printed/Typed)*
DENISE MENOUD

Title REGULATORY SPECIALIST, AGENT FOR BOLD ENERGY, LP

Signature Denise Menoud

Date 01/09/2007

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by /s/ James Stovall

Title FIELD MANAGER

Date JAN 19 2007

Conditions of approval, if any, are attached. Approval of this notice 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.

Office CARLSBAD FIELD OFFICE

Title 18 U.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)

Operator: Bold Energy, LP **Field:** Bell Lake (Morrow)

Well: Bell Lake Unit #24 **API:** 30 - 025 -

Drilling Permit Approved by NMOCD - **AFE:** N/A

General Information

Location: 660' FNL & 1980' FEL, Section 7 – T23S - R34E Lea County, New Mexico

Elevation: 3467' GL est **TD:** 13,550 **RKB:** 3485' est

Objective: **Atoka Bank @ 12580' Mrw A Sd @ 13380, B Sd @ 13540, C Sd @ 13640, D Sd @ 13710**

Drilling Contractor: Nabors Drilling #142

Contractor Office: 432 / 550-7808 **Superintendent:**

Rig Phone: 432 / 664-9947 **Toolpushers:** Hoss Crutcher / Roy Brumfield

Sierra Supervisor: **Rig Site / Cell:**

Drilling Program

Hole Size	Depth	Casing	Weight	Grade	Connect	Cement	TOC
17 ½"	700'	13 3/8"	48	H-40	STC	700 sx	Surface
12 ¼"	5100'	9 5/8"	40	HCK-55 J-55	LTC LTC	1700 sx	Surface
8 ¾"	12,000'	7"	26	HCP-110	LTC	900 sx	4800'
6 1/8"	13,550'	4 ½"	13.5	P-110	LTC	250 sx	11,500'

Wellhead / BOPE

Wellhead	13 5/8" - 3K SOW	13 5/8" - 3K x 11" - 5K	11" - 5K x 7 1/16" - 10K
BOPE	SRRAG	13 5/8" - 5K Stack	RH as needed – 5K

Mud Program

Interval	Type	MW	VIS	FL
0 – 700'	FW - Spud	8.4 - 9.2	32 - 34	NC
700 – 5100'	Brine	10.0	28 - 30	NC
5100 – 11,400'	FW / Cut Brine	8.4 - 9.0	28 - 30	NC
11,400 – 12,000'	Cut Brine – Polymer & Starch	9.0 - 9.6	36 - 40	< 20
12,000 – 13,550	Brine – Polymer & Starch	10.0 – 12.5	36 - 40	< 10

Company: Baroid Drilling Fluids, Inc. **Office:** 432 / 686-4574 *Fax* 432 / 686-4590

Engineers:

Warehouse:

Geological Data

Geologist: John Worrall **Phone:** 505 / 622-5893 office 432-230-9431 cell
Home: 505-622-2768

Estimated Formation Tops: (KB=3485)
MAIN OBJECTIVES: Atoka Bank@12580, Mrw A Sd @ 13380, B Sd @ 13540, C Sd @ 13640, D Sd @ 13710

Formation	Subsea	MD	Formation	Subsea	MD
Rustler	2455'	1030'	Wolfcamp	-7795'	11280'
Salt	2285'	1200'	Strawn	-8285'	11770'
Anhydrite	355'	3130'	Atoka	-8575'	12060'
Salt	-365'	3850'	Morrow Clast	-9365'	12850'
Anhydrite	-875'	4360'	Lower Morrow	-9840'	13325'
Delaware	-1385'	4870'	Lower Mrw Sd	-9935'	13420'
Bone Spring	-4985'	8470'	TD	-10065'	13550'

Evaluation Program

Mud Logs: 5100' to TD **Mud Logger:** WOODCO Logging / Paul Amancio

Phone: Jim Wood 505 / 887-2469 office 505 / 361-3059 cell

DST / Coring Intervals: None Anticipated

E-Log Suite: Triple Combo (2 runs) from TD - 9 5/8" shoe. Pull GR - N to surface. SWC & RFT as directed

Logging Company: Halliburton **Contact:** Richard Kelley

Location: Hobbs, New Mexico **Phone:** 505 / 914-0324 (cell) 505 748-1753 (office)

Completion

Completion is expected to be a single Morrow gas well. Morrow will be selectively perfed and stimulated down 4 ½" casing. Completion assembly will consist of 2 3/8" tbg open-ended.

Emergency Contacts / Notifications

Sierra Engineering	Drilling Superintendent	Russ Ginanni	432 / 425-7450 cell 432 / 683-8000 off
Bold Energy, LP	President	Joe Castillo	432 / 230-0202 cell 432 / 686-1100 off
Bold Energy, LP	VP – Engineering	David Cox	432 / 230-9778 cell 432 / 686-1100 off
NMOCD	District 1 - Hobbs	Notifications After Hours Pager	505 / 393-6161 505 / 370-7106

Directions

BOLD ENERGY, LP

Bell Lake #24

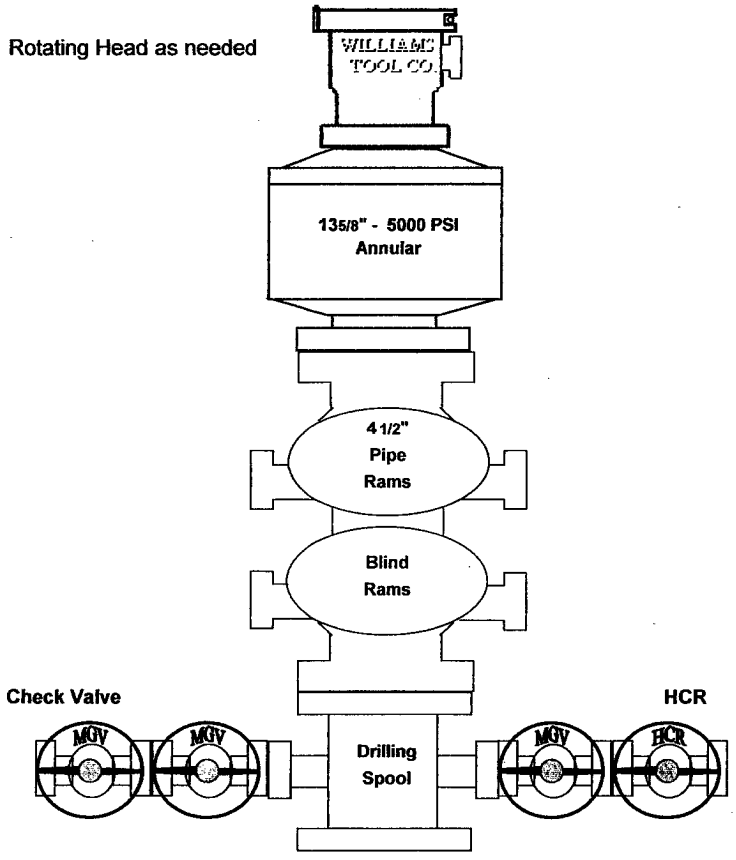
660' FNL & 1980' FEL

Section 7 - T23S - R34E

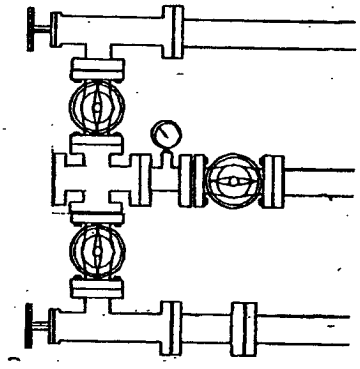
Lea County, New Mexico

Installed on 13 3/8" Surface Csg & Utilized Until 7" Intermediate Set

13 5/8" - 5K Stack



Remote Adjustable Choke



Adjustable choke

4 1/16" 5000 psi WP Double Valve Choke Manifold

BOLD ENERGY, LP

Bell Lake #24

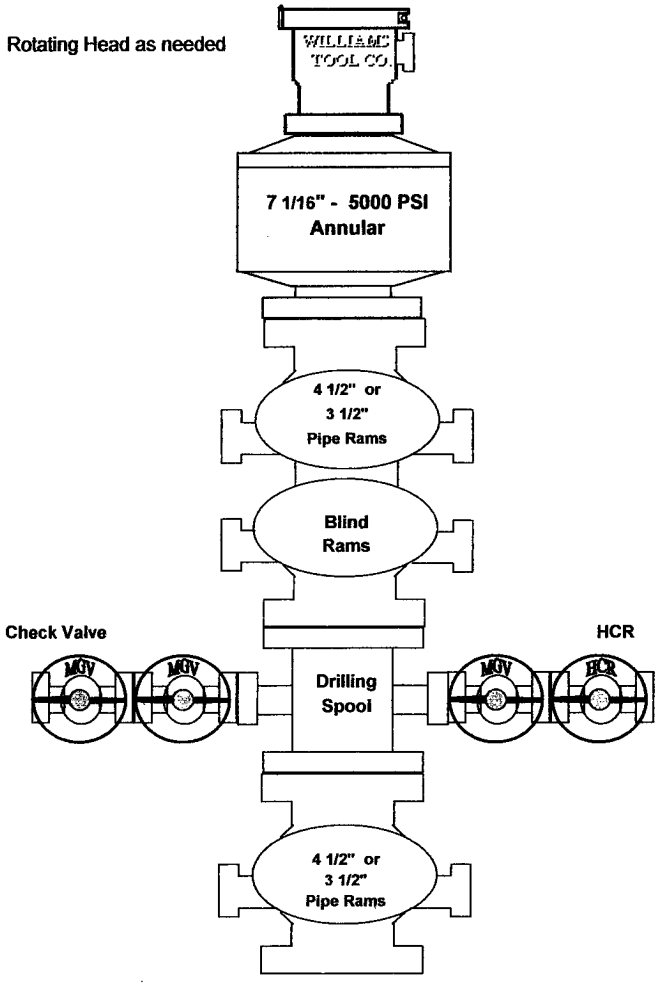
660' FNL & 1980' FEL

Section 7 - T23S - R34E

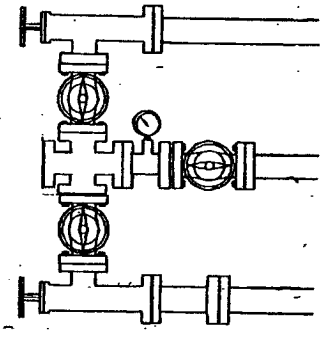
Lea County, New Mexico

Installed on 7" Intermediate Csg & Utilized to TD

7 1/16" - 10K Stack



Remote Adjustable Choke



Adjustable choke

4 1/16" 10,000 psi WP Double Valve Choke Manifold

BOLD ENERGY, LP

HYDROGEN SULFIDE (H2S) CONTINGENCY PLAN
FOR DRILLING / COMPLETING / WORKOVER / FACILITY
WITH THE EXPECTATION OF H2S IN EXCESS OF 100 PPM

BELL LAKE #24
NEW DRILL WELL
660' FNL & 1980' FEL
SECTION 7, T23S, R34E
LEA COUNTY, NEW MEXICO

This well / facility is not expected to have H2S, but the following is submitted as requested.

TABLE OF CONTENTS

GENERAL H2S EMERGENCY ACTIONS

In the event of any evidence of H2S emergency, the following plan will be initiated:

1. All personnel will immediately evacuate to an up-wind and if possible up-hill "safe area".

2. If for any reason a person must enter the hazardous area, they must wear a SCBA (self-contained breathing apparatus).

3. Always use the "buddy system".

4. Isolate the well / problem if possible.

5. Account for all personnel.

6. Display the proper colors warning all unsuspecting personnel of the danger at hand.

7. Contact the company representative as soon as possible if not at the location (use the enclosed call list as instructed).

At this point the company representative will evaluate the situation and coordinate the necessary duties to bring the situation under control, and if necessary, the notification of emergency response agencies and residents.

EMERGENCY PROCEDURES FOR AN UNCONTROLLABLE RELEASE OF H2S

1. All personnel will don the self-contained breathing apparatus.

2. Remove all personnel to the "safe area: (always use the "buddy system").

3. Contact company representative if not on location.

4. Set in motion the steps to protect and / or remove the general public to any upwind "safe are". Maintain strict security and safety procedures while dealing with the source.
5. No entry to any unauthorized personnel.

6. Notify the appropriate agencies:
   City Police - City streets
   State Police - State Roads
   County Sheriff - County Roads

7. Call the NMOCD.

If at this time the supervising person determines the release of H2S cannot be contained to the site location and the general public is in harms way, he will immediately notify public safety personnel.

EMERGENCY CALL LIST

Contact	Office	Cell	Home
Shannon Klier (drilling / completions)	432-686-1100	432-296-8602	432-669-6341
Donny Money (production)	432-686-1100	432-661-8803	
Joseph Castillo	432-686-1100	432-230-0202	

EMERGENCY RESPONSE NUMBERS
Lea County, New Mexico

State Police - Hobbs	**505-392-5588**
Lea County Sheriff - Hobbs	**505-393-2515**
Lea County Emergency Management - Hobbs	**505-397-9231**
State Emergency Response Center (SERC)	**505-476-9620**
Hobbs Police / Fire / Ambulance Department	**505-397-9340**
New Mexico Oil Conservation Division - Hobbs	**505-393-6161**
Callaway Safety Equipment, Inc.	**505-392-2973**

PROTECTION OF THE GENERAL (ROE) RADIUS OF EXPOSURE

In the event greater than 100 ppg H2S is present, the ROE calculations will be done to determine if the following is warranted:

* 100 ppm at any public area (any place not associated with this site)

* 500 ppm at any public road (any road which the general public may travel).

* 100 ppm radius of 3000' will be assumed if there is insufficient data to do the calculations, and there is a reasonable expectation that H2S could be present in concentrations greater than 100 ppm in the gas mixture.

Calculation for the 100 ppm ROE:

X = [(1.589)(concentration)(Q)] (0.6258)

Calculation for the 500 ppm ROE:

X = [(0.4546)(concentration)(Q)] (.06258)

(H2S concentrations in decimal form)

10,000 ppm + = .01
1,000 ppm + = .001
100 ppm + = .0001
10 ppm + = .00001

EXAMPLE: If a well / facility has been determined to have 150 ppm H2S in the gas mixture and the well / facility is producing at a gas rate of 200 MCFD then:

ROE for 100 ppm X=[(1.589)(.00010)(200,000)] (0.6258)
X=8.8'
ROE for 500 ppm X=[(.4546)(.00050)(200,000)] (0.6258)
X=10.9'

These calculations will be forwarded to the appropriate NMOCD district office when applicable.

PUBLIC EVACUATION PLAN

When the supervisor has determined that the general public will be involved, the following plan will be implemented.

1. Notification of the emergency response agencies of the hazardous condition and implement evacuation procedures.

2. A trained person in H2S safety shall monitor with detection equipment the H2S concentration, wind and area of exposure. This person will determine the outer perimeter of the hazardous area. The extent of the evacuation area will be determined from the data being collected. Monitoring shall continue until the situation has been resolved. All monitoring equipment shall be UL approved for use in Class I Groups A, B, C & D, Division I hazardous locations. All monitors will have a minimum capability of measuring H2S, oxygen, and flammable values.

3. Law enforcement shall be notified to set up necessary barriers and maintain such for the duration of the situation as well as aid in the evacuation procedure.

4. The company representative shall stay in communication with all agencies throughout the duration of the situation and inform such agencies when the situation has been contained and the effected area is safe to enter.

PROCEDURE FOR IGNITING AN UNCONTROLLABLE CONDITION

The decision to ignite a well should be a last resort and one, if not both, of the following pertain:

1. Human life and / or property are endangered.

2. There is no hope of bringing the situation under control with the prevailing conditions at the site.

Instructions for Igniting the Well:

1. Two people are required. They must be equipped with positive pressure, self-contained breathing apparatus and "D"-ring style, full body, OSHA approved safety harness. Non-flammable rope will be attached.

2. One of the people will be a qualified safety person who will test the atmosphere for H2S, oxygen and LFL. The other person will be the company representative.

3. Ignite upwind from a distance no closer than necessary. Make sure that where you ignite from has the maximum escape avenue available. A 25mm flare gun with a range of approximately +/- 500 feet shall be used to ignite the gas.

4. Before igniting, check for the presence of combustible gases.

5. After igniting, continue emergency actions and procedures as before.

REQUIRED EMERGENCY EQUIPMENT

1. Breathing Apparatus

* Rescue Packs (SCBA) – 1 unit shall be placed at each breathing area, 2 shall be stored in the safety trailer.

* Work / Escape Packs – 4 packs shall be stored on the rig floor with sufficient air hose not to restrict work activity.

* Emergency Escape Packs – 4 packs shall be stored in the doghouse for emergency evacuation.

2. Signage and Flagging

* One Color Code Condition Sign will be placed at the entrance to the site reflecting the possible conditions at the site.

* A Colored Condition flag will be on display reflecting the condition at the site at that time.

3. Briefing Area

* Two perpendicular areas will be designated by signs and readily accessible.

4. Windsocks

* Two windsocks will be placed in strategic locations, visible from all angles.

5. H2S Detectors and Alarms

* The stationary detector with three (3) sensors will be placed in the upper dog house if equipped, set to visually alarm @ 10 ppm and audible alarm @ 15 ppm. Calibrate a minimum of every 30 days or as needed. The three sensors will be placed in the following places: (Gas sample tubes will be stored in the safety trailer):

* Rig Floor
* Bell Nipple
* End of flow line or where well bore fluid is being discharged

6. Auxiliary Rescue Equipment

* Stretcher
* Two OSHA full body harnesses
* 100' of 5/8" OSHA approved rope
* One 20 lb. Class ABC fire extinguisher
* Communication via cell phones on location and vehicles on location

USING SELF-CONTAINED BREATHING AIR EQUIPMENT (SCBA)

1. SCBA should be worn when any of the following are performed:

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

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

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

4. Contact lenses are never allowed with SCBA.

5. When breaking out any line where H2S can reasonably be expected.

6. After each use, the SCBA unit shall be cleaned, disinfected, serviced and inspected.

7. All SCBA shall be inspected monthly.

RESCUE & FIRST AID FOR VICTIMS OF H2S POISONING

* Do not panic.

* Remain calm and think.

* Get on the breathing apparatus.

* Remove the victim to the safe breathing area as quickly as possible, upwind and uphill from 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.

Toxic Effects of H2S Poisoning

Hydrogen Sulfide is extremely toxic. The acceptable ceiling concentration for eight-hour exposure is 10 PPM, which is .001% by volume. Hydrogen Sulfide is heavier than air (specific gravity-1.192) and is colorless and transparent. Hydrogen Sulfide is almost as toxic as Hydrogen Cyanide and is 5-6 times more toxic that Carbon Monoxide. Occupational exposure limits for Hydrogen sulfide and other gasses are compared below in Table 1. toxicity table for H2S and physical effects are shown in Table II.

Table 1
Permissible Exposure Limits of Various Gasses

Common Name	Symbol	Sp. Gravity	TLV	STEL	IDLH
Hydrogen Cyanide	HCN	.94	4.7 ppm	C	
Hydrogen Sulfide	H2S	1.192	10 ppm	15 ppm	100 ppm
Sulfide Dioxide	SO2	2.21	2 ppm	5 ppm	
Chlorine	CL	2.45	.5 ppm	1 ppm	
Carbon Monoxide	CO	.97	25 ppm	200 ppm	
Carbon Dioxide	CO2	1.52	5000 ppm	30,000 ppm	
Methane	CH4	.55	4.7% LEL	14% UEL	

Definitions

A. TLV – Threshold Limit Value is the concentration employees may be exposed to based on a TWA (time weighted average) for eight (8) hours in one day for 40 hours in one (1) week. This is set by ACGIH (American Conference of Governmental Hygienists and regulated by OSHA.

B. STEL – Short Term Exposure Limit is the 15 minute average concentration an employee may be exposed to providing that the highest exposure never exceeds the OEL (Occupational Exposure Limit). The OEL for H2S is 19 PPM.

C. IDLH – Immediately Dangerous to Life and Health is the concentration that has been determined by the ACGIH to cause serious health problems or death if exposed to this level. The IDLH for H2S is 100 PPM.

D. TWA – Time Weighted Average is the average concentration of any chemical or gas for an eight (8) hour period. This is the concentration that any employee may be exposed to based on an TWA.

TABLE II
Toxicity Table of H2S

Percent %	PPM	Physical Effects
.0001	1	Can smell less than 1 ppm.
.001	10	TLV for 8 hours of exposure
.0015	15	STEL for 15 minutes of exposure
.01	100	Immediately Dangerous to Life & Health. Kills sense of smell in 3 to 5 minutes.
.02	200	Kills sense of smell quickly, may burn eyes and throat.
.05	500	Dizziness, cessation of breathing begins in a few minutes.
.07	700	Unconscious quickly, death will result if not rescued promptly.
.10	1000	Death will result unless rescued promptly. Artificial resuscitation may be necessary.

PHYSICAL PROPERTIES OF H2S

The properties of all gasses are usually described in the context of seven major categories:

COLOR
ODOR
VAPOR DENSITY
EXPLOSIVE LIMITS
FLAMMABILITY
SOLUBILITY (IN WATER)
BOILING POINT

Hydrogen Sulfide is no exception. Information from these categories should be considered in order to provide a fairly complete picture of the properties of the gas.

COLOR – TRANSPARENT

Hydrogen Sulfide is colorless so it is invisible. This fact simply means that you can't rely on your eyes to detect its presence, a fact that makes the gas extremely dangerous to be around.

ODOR – ROTTEN EGGS

Hydrogen Sulfide has a distinctive offensive smell, similar to "rotten eggs". For this reason it earned its common name "sour gas". However, H2S, even in low concentrations, is so toxic that it attacks and quickly impairs a victim's sense of smell, so it could be fatal to rely on your nose as a detection device.

VAPOR DENSITY – SPECIFIC GRAVITY OF 1.192

Hydrogen Sulfide is heavier than air so it tends to settle in low-lying areas like pits, cellars or tanks. If you find yourself in a location where H2S is known to exist, protect yourself. Whenever possible, work in an area upwind and keep to higher ground.

EXPLOSIVE LIMITS – 4.3% TO 46%

Mixed with the right proportion of air or oxygen, H2S will ignite and burn or explode, producing another alarming element of danger besides poisoning.

FLAMMABILITY

Hydrogen Sulfide will burn readily with a distinctive clear blue flame, producing Sulfur Dioxide (SO2), another hazardous gas that irritates the eyes and lungs.

SOLUBILITY – 4 TO 1 RATIO WITH WATER

Hydrogen Sulfide can be dissolved in liquids, which means that it can be present in any container or vessel used to carry or hold well fluids including oil, water, emulsion and sludge. The solubility of H2S is dependent on temperature and pressure, but if conditions are right, simply agitating a fluid containing H2S may release the gas into the air.

BOILING POINT – (-76 degrees Fahrenheit)

Liquefied Hydrogen Sulfide boils at a very low temperature, so it is usually found as a gas.

1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

For drilling and production facilities, submit to appropriate NMOCD District Office.
For downstream facilities, submit to Santa Fe office

COPY

Pit or Below-Grade Tank Registration or Closure

Is pit or below-grade tank covered by a "general plan"? Yes ☐ No X
Type of action: Registration of a pit or below-grade tank X Closure of a pit or below-grade tank ☐

Operator: Bold Energy, LP Telephone: 432-685-9158 (Agent); (432) 686-1100 (Bold) e-mail address: denise@graysurfacespecialties.com
Address: 415 W. Wall, Suite 500, Midland, TX 79701
Facility or well name: Bell Lake #24 API #: U/L or Qtr/Qtr: B Sec 7 T 23S R 34E
County: Lea Latitude: N32 deg, 19', 28.5" Longitude: W103 deg, 30', 25.7" NAD: 1927 ☐ 1983 X
Surface Owner: Federal X State ☐ Private ☐ Indian ☐

Pit	**Below-grade tank**
Type: Drilling X Production ☐ Disposal ☐ Workover ☐ Emergency ☐ Lined X Unlined ☐ Liner type: Synthetic X Thickness 12 mil Clay ☐ Pit Volume 20,000 bbl	Volume: ____bbl Type of fluid: _____ Construction material: _____ Double-walled, with leak detection? Yes ☐ If not, explain why not. _____

Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.) > 100'	Less than 50 feet 50 feet or more, but less than 100 feet 100 feet or more	 0	(20 points) (10 points) (0 points)
Wellhead protection area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources.)	Yes No	 0	(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	 0	(20 points) (10 points) (0 points)
	Ranking Score (Total Points)	**0**	

If this is a pit closure: (1) Attach a 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 remedial action taken including remediation start date and end date. (4) Groundwater encountered: No ☐ Yes ☐ If yes, show depth below ground surface_____ft. and attach sample results. (5) Attach soil sample results and a diagram of sample locations and excavations.

Additional Comments:

I hereby certify that the information above is true and complete to the best of my knowledge and belief. **I further certify that the above-described pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines X, a general permit ☐, or an (attached) alternative OCD-approved plan ☐.**

Date: 11/08/2006
Printed Name/Title: Denise Menoud, Regulatory Specialist, Agent for Bold Energy, LP. Signature Denise Menoud

Your certification and NMOCD approval of this application/closure does 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, District Supervisor Signature _____ Date: FEB 22 2007

CONDITIONS OF APPROVAL - DRILLING

Operator's Name: **Bold Energy LP**
Well Name & No. **Bell Lake # 24**
Location: **660'FNL, 1980'FEL, SEC7, T23S, R34E, Lea County, NM**
Lease: **LC-065194**

I. DRILLING OPERATIONS REQUIREMENTS:

1. The Bureau of Land Management (BLM) is to be notified at the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (505) 361-2822 - for wells in Eddy County; and the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (505) 393-3612 for wells in Lea County, in sufficient time for a representative to witness:

A. Spudding

B. Cementing casing: **13.375** inch **9.625** inch 7 inch, **4.5** inch

C. BOP tests

2. A Hydrogen Sulfide (H2S) Drilling Plan should be activated prior to drilling into the **Cherry Canyon** Formation. A copy of the plan shall be posted at the drilling site.

3 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.

4. Submit a Sundry Notice (Form 3160-5, one original and five copies) for each casing string, describing the casing and cementing operations. Include pertinent information such as; spud date, hole size, casing (size, weight, grade and thread type), cement (type, quantity and top), water zones and problems or hazards encountered. The Sundry shall be submitted within 15 days of completion of each casing string. The reports may be combined into the same Sundry if they fall within the same 15 day time frame.

5. The API No. assigned to the well by NMOCD shall be included on the subsequent report of setting the first casing string.

6. A Communitization Agreement covering the acreage dedicated to this well must be filed for approval with the BLM. The effective date of the agreement shall be prior to any sales.

7. Gamma-Ray/Neutron logs shall be run from the base of the Salado Formation to the surface; cable speed not to exceed 30 feet per minute.

II. CASING:

1. The **13.375** inch surface casing shall be set at **approximately 700 feet**, below usable water and cement circulated to the surface. If cement does not circulate to the surface the appropriate BLM office shall be notified and a temperature survey or cement bond log shall be run to verify the top of the cement. Remedial cementing shall be completed prior to drilling out that string.

2. The minimum required fill of cement behind the **9.625** inch salt protection casing is **circulate cement to the surface.**

3. The minimum required fill of cement behind the 7 inch intermediate casing is **circulate cement to at least 300 feet above the shoe of the 9.625 inch casing.**

4. The minimum required fill of cement behind the **5-1/2** inch production casing is **cement shall extend upward a minimum of 500 feet above the base of the 7 inch; intermediate casing string.**

5. Whenever a casing string is cemented in the R-111-P Potash Area, cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

III. PRESSURE CONTROL:

1. All BOP systems and related equipment shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2. The BOP and related equipment shall be installed and operational before drilling below the **13.375** inch casing shoe and shall be tested as described in Onshore Order No. 2. Any equipment failing to test satisfactorily shall be repaired or replaced.

2. Minimum working pressure of the blowout preventer and related equipment (BOPE) required for drilling the **surface and 9.625 inch intermediate** casing shall be 2000 psi. **Minimum** working pressure of the blowout preventer and related equipment (BOPE) required for drilling the **7 inch intermediate** casing shall be **5000** psi. **Minimum** working pressure of the blowout preventer and related equipment (BOPE) required for drilling **below the 7 inch casing shall be 10,000 psi**.

3. The appropriate BLM office shall be notified in sufficient time for a representative to witness the tests.
- A variance to test the_____ to the reduced pressure of ___psi with the rig pumps is approved.
- The tests shall be done by an independent service company.
- The results of the test shall be reported to the appropriate BLM office.
- Testing fluid must be water or an appropriate clear liquid suitable for sub-freezing temperatures. Use of drilling mud for testing is not permitted since it can mask small leaks.
- Testing must be done in a safe workman-like manner. Hard line connections shall be required.
- BOPE must be tested prior to drilling into the **Wolfcamp** Formation by an independent service company.

IV. DRILLING MUD:

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the **Wolfcamp** Formation, and shall be used until production casing is run and cemented. Monitoring equipment shall consist of the following:

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.
4. **Fresh water based mud will be used to drill from surface to the top of the Rustler Formation.**

Engineering may be contacted at 505-706-2779 for variances if necessary.

Fwright 1/9/07