

UNITED STATES

DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. Type of Work <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NMNM13376 & Fee	
1b. Type of Well <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name ---	
2. Name of Operator Black Hills Gas Resources, Inc.		E-mail: lbenally@bhep.com Contact: Lynn Benally	
3a. Address P.O. Box 249 Bloomfield NM 87413		3b. Phone No. (include area code) 505-634-1111	
4. Location of Well (Report location clearly and in accordance with any State Requirements.) At surface 590' FNL 1,280' FWL NW 1/4 NW 1/4 Lat: 36.82644 Long: 107.19761 At proposed production zone 1,000' FNL 660' FEL (NE/4 NE/4) - Lot 1		9. API Well No. 30-039-29969	
14. Distance in miles and direction from nearest town or post office. Well is approximately 52 miles east of Bloomfield, New Mexico.		10. Field and Pool, or Exploratory East Blanco / Pictured Cliffs	
15. Distance from proposed location to nearest property or lease line, ft. (Also nearest Drig, unit line, if any) Unit= n/a Lease= ±84'		11. Sec., T., R., M., or Blk. and Survey or Area Sec. 13 T 30N R 4W New Mexico PM	
16. No. of acres in lease 2042.68		12. County or parish Rio Arriba	
17. Spacing Unit dedicated to this well 319.32 3/4 3/2 N/2 -		13. State New Mexico	
18. Distance from proposed location to nearest well, drilling, completed or applied for, on this lease, ft. MC 30-04-11 44H ± 2,900'		19. Proposed depth 4,000' TVD	
20. BLM/BIA Bond No. on file NMB000230		21. Elevations (Show whether DF, KDB, RT, GL, etc.) 6,934' GR	
22. Approximate date work will start July 18, 2006		23. Estimated duration 45-60 days drlg + completion	

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall 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 shall 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 authorized officer.

25. Signature <i>Kathy L. Schneebeck</i>	Name (Printed/Typed) Kathy L. Schneebeck, 303-820-4480	Date June 15, 2006
---------------------------------------------	-----------------------------------------------------------	-----------------------

Title
Permit Agent for Black Hills Gas Resources, Inc.

Approved by (Signature) <i>[Signature]</i>	Name (Printed/Typed) AFM	Date 11/9/06
Title AFM	Office FFO	

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.

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.

(continued on page 2)

File App for PIT permit prior to constructing location.
HOLD C104 FOR directional / survey

NMOCD

10 11/14/06

DRILLING OPERATIONS AUTHORIZED ARE
TO COMPLY WITH ATTACHED
GENERAL REQUIREMENTS.

This action is subject to technical and
procedural review pursuant to 43 CFR 3165.3
and appeal pursuant to 43 CFR 3165.4

DISTRICT I
1625 N. French Dr., Hobbs, N.M. 88240

DISTRICT II
1301 W. Grand Ave., Artesia, N.M. 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, N.M. 87410

DISTRICT IV
1220 South St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.
Santa Fe, NM 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

¹ API Number 30-039-29969	² Pool Code 72400	³ Pool Name East Blanco / Pictured Cliffs
⁴ Property Code 36130	⁵ Property Name MANY CANYONS 30-04-13	⁶ Well Number 11
⁷ OGRID No. 013925	⁸ Operator Name BLACK HILLS GAS RESOURCES	⁹ Elevation 6934'

¹⁰ Surface Location

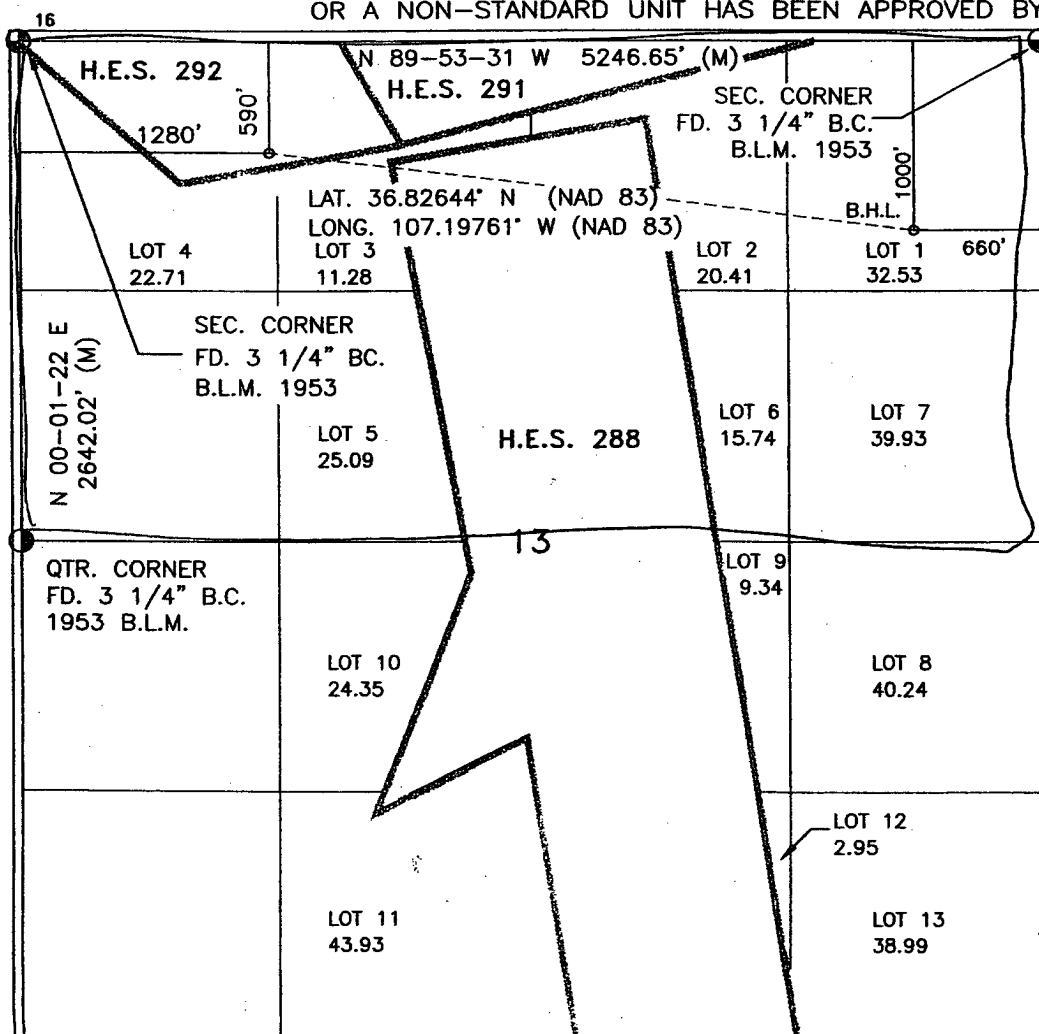
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	13	30-N	4-W	4	590	NORTH	1280	WEST	RIO ARRIBA

¹¹ 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
A	13	30-N	4-W	1	1000	NORTH	660	EAST	RIO ARRIBA

¹² Dedicated Acres See Attached 319.32	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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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



17 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 or has a right to drill this well at this 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.

Kathy L. Schneebeck June 15, 2006

Signature

Date

Kathy L. Schneebeck
Printed Name

Permit Agent for Black Hills

18 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 supervision, and that the same is true and correct to the best of my belief.

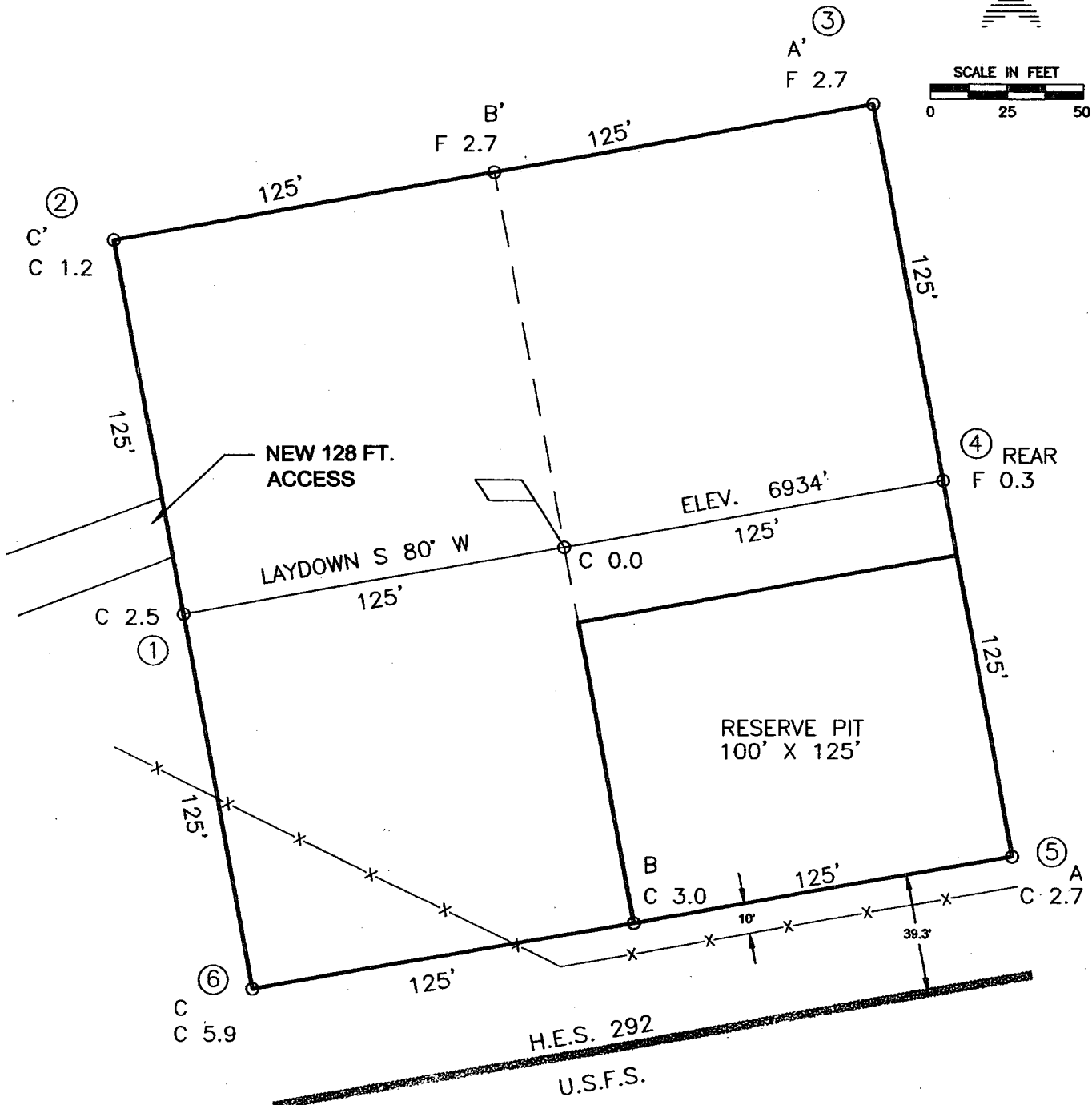
APR 15 2006
Date of Survey
Signature of Surveyor
JOHN A. VUKOVICH
NEW MEXICO
REGISTERED PROFESSIONAL SURVEYOR
14831
Certificate Number

WELL PAD DIAGRAM

COMPANY: BLACK HILLS GAS RESOURCES
 LEASE: MANY CANYONS 30-04-13 No. 11H
 FOOTAGE: 590 FNL 1280 FWL
 SEC.: 13, TWN: 30-N, RNG: 4-W, NMPM
 ELEVATION: 6934'




SCALE IN FEET
 0 25 50



NOTE:

DAGGETT ENTERPRISES, INC. IS NOT LIABLE FOR UNDERGROUND UTILITIES OR PIPELINES. NEW MEXICO ONE CALL TO BE NOTIFIED 48 HOURS PRIOR TO EXCAVATION OR CONSTRUCTION.

REVISION:	DATE:	REVISED BY:
CORRECT ACCESS LENGTH	04/11/06	B.L.
 Daggett Enterprises, Inc. Surveying and Oil Field Services P. O. Box 15068 • Farmington, NM 87401 Phone (505) 326-1772 • Fax (505) 326-6019 NEW MEXICO L.S. 14831		
DRAWN BY: B.L.	CADFILE: MN412PLB	
ROW#: MN412	DATE: 06/20/05	

WELL PAD CROSS-SECTIONAL DIAGRAM

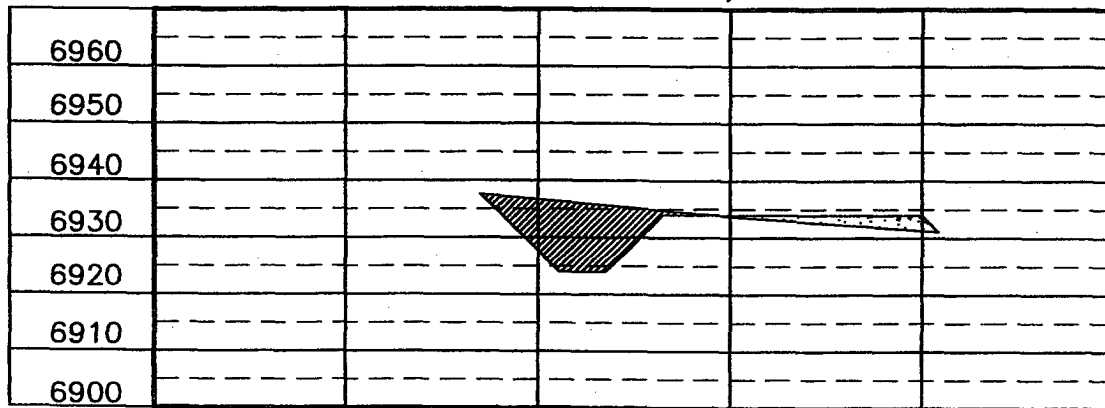
COMPANY: BLACK HILLS GAS RESOURCES
 LEASE: MANY CANYONS 30-04-13 No.11H
 FOOTAGE: 590 FNL, 1280' FWL
 SEC.: 13, TWN: 30-N, RNG: 4-W, NMPM
 ELEVATION: 6934'

NOTE:

DAGGETT ENTERPRISES, INC. IS NOT LIABLE FOR UNDERGROUND UTILITIES OR PIPELINES. NEW MEXICO ONE CALL TO BE NOTIFIED 48 HOURS PRIOR TO EXCAVATION OR CONSTRUCTION.

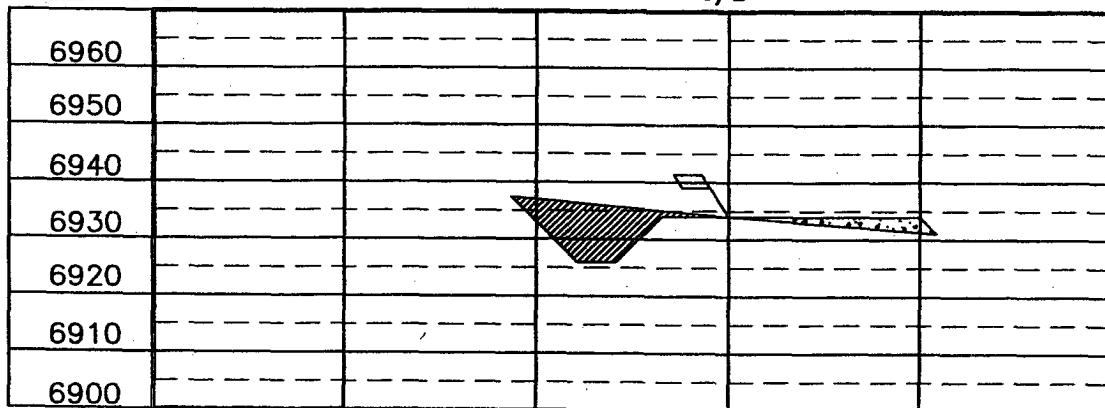
ELEV. A-A'

C/L



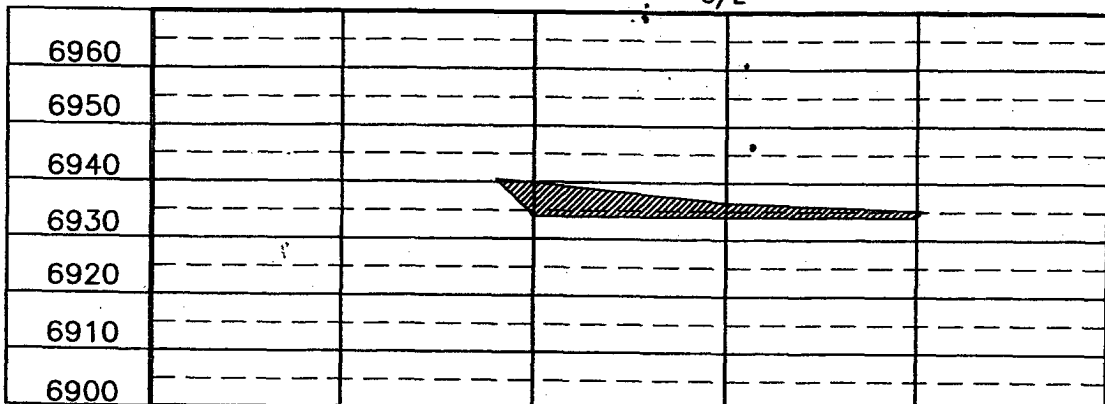
ELEV. B-B'

C/L



ELEV. C-C'

C/L



REF. DWG. MN412PL8 WELL PAD DIAGRAM

REVISION:	DATE:	REVISED BY:
<p>Daggett Enterprises, Inc. Surveying and Oil Field Services P. O. Box 15088 • Farmington, NM 87401 Phone (505) 326-1772 • Fax (505) 326-8019 NEW MEXICO L.S. 14831</p>		
<p>DRAWN BY: B.L. ROW# MN412</p>	<p>TOOPLD: MN412CF8 DATE: 06/20/05</p>	

C102 Attachment

12) Dedicated Acres

~~102.14~~ acres fee

~~217.18~~ acres federal

~~319.32~~ total acres

N/2: (a/d/a Lots 1-7, SW/4NW/4 – federal, and that portion of H.E.S. 288, H.E.S. 291 and H.E.S. 292 located in the N/2 of Section 13)

Black Hills Gas Resources, Inc.
Many Canyons 30-04-13 11H
Surface: 590' FNL 1,280' FWL (NW/4 NW/4) – H.E.S. 292
BHL: ±1,000' FNL ±660' FEL (NE/4 NE/4) – Lot 1
Sec. 13 T30N R4W
Rio Arriba County, New Mexico
Surface Lease: Fee
Mineral Lease: NMNM13376 & Fee

DRILLING PROGRAM

This APD is filed under the APD process as stated in Onshore Order No. 1 and supporting Bureau of Land Management (BLM) documents. This APD process may include an on-site meeting as determined by BLM, at which time the specific concerns of Black Hills Gas Resources, Inc. (Black Hills) and BLM will be discussed. Best efforts will be made to address specific concerns of the BLM representatives.

Please contact Lynn Benally at 505-634-1111 (office) or 505-793-6336 (cell) to schedule an on-site meeting, if necessary.

This is a new vertical and horizontal well to be drilled into the Pictured Cliffs formation. See also the attached Horizontal Drilling Program.

SURFACE FORMATION – San Jose

GROUND ELEVATION – 6,934'

ESTIMATED FORMATION TOPS - (Water, oil, gas and/or other mineral-bearing formations)

San Jose	Surface	Sandstone, shales & siltstones
Nacimiento	1,870'	Sandstone, shales & siltstones
Ojo Alamo	3,080'	Sandstone, shales & siltstones
Kirkland	3,300'	Sandstone, shales & siltstones
Fruitland Coal	3,440'	Sandstone, shales & siltstones
Pictured Cliffs	3,644'	Sandstone, shales & siltstones

TOTAL DEPTH	4,000'	TVD
	7,077.71'	MD (length of horizontal section)

Estimated depths of anticipated fresh water, oil, or gas:

Tertiary

San Jose	surface	Gas
Nacimiento	1,870'	Gas
Ojo Alamo	3,080'	Gas
Fruitland Coal	3,440'	Gas
Pictured Cliffs	3,644'	Gas

HORIZONTAL DRILLING PROGRAM

A) Kick Off Point is estimated to be at $\pm 3,648'$ TVD

5 1/2" casing will be set to 4000'. will come up hole to KOP & mill through casing for horizontal hole.

Depth	Hole Diameter	Casing Diameter	Casing Weight and Grade	Cement
0' - 250'	12-1/4"	8-5/8"	J-55 24# ST&C New	To surface (± 175 sxs Standard Cement containing 2% CaCl ₂ and 0.25 lb/sx LCM) **
0' - 4,000'	7-7/8"	5-1/2"	J-55 15.5# LT&C New	TD to surface (Lead: ± 300 sxs Lite Standard Cement. Tail: 400 sxs 50:50 POZ containing 0.25 lb/sx LCM) * **
3,648' (KOP) - End of Lateral Bore	4-3/4"	2-7/8"	PH-6 (Liner)	None

* Actual cement volume to be determined by caliper log.

** Cement will be circulated to surface.

Yields:

Surface: Standard Cement yield: = $1.2 \text{ ft}^3/\text{sx}$ (mixed at 15.6 lb/gal)

Production: Lite Standard Cement yield: = $1.59 \text{ ft}^3/\text{sx}$ (mixed at 13.4 lb/gal)

50:50 POZ yield = $1.27 \text{ ft}^3/\text{sx}$ (mixed at 14.15 lb/gal)

All fresh water and prospectively valuable minerals encountered during drilling, will be recorded by depth and protected.

PRESSURE CONTROL

BOPs and choke manifold will be installed and pressure tested before drilling out under surface casing (subsequent pressure test will be performed whenever pressure seals are broken), and then will be checked daily as to mechanical operating condition. BOP's will be pressure tested at least once every 30 days. Ram type preventors and related pressure control equipment will be pressure tested to 1,000 psi. Annular type preventor will be pressure tested to 50% of the rated working pressure, not to exceed 1,000 psi. All casing strings will be pressure tested to 0.22 psi/ft. or 1,000 psi, whichever is greater, not to exceed 70% of internal yield.

BOP to be either double gate rams or an annular preventor as per Onshore Order No. 2.

Statement on Accumulator System and Location of Hydraulic Controls

The drilling rig has not yet been selected for this well. Selection will take place after approval of this application. Manual and/or hydraulic controls will be in compliance with Onshore Order No. 2 for 2M systems.

A remote accumulator will be used. Pressures, capacities, location of remote hydraulic and manual controls will be identified at the time of the BLM supervised BOP test.

MUD PROGRAM

0' - ~~300'~~ 250' Fresh water - M.W. 8.5 ppg, Vis 30-33
~~250'~~ 300' - TD' Clean Faze - Low solids non-dispersed
 M.W.: 8.5 - 9.2 ppg
 Vis.: 28 - 50 sec
 W.L.: 15cc or less

Sufficient mud materials to maintain mud properties, control lost circulation and to contain "kick" will be available at wellsite.

AUXILIARY EQUIPMENT

- A) A Kelly cock will be kept in the drill string at all times
- B) Inside BOP or stab-in valve (available on rig floor)
- C) Mud monitoring will be visually observed

LOGGING, CORING, TESTING PROGRAM

- A) Logging: DIL-CNL-FDC-GR - TD - BSC (GR to surface)
Sonic (BSC to TD)
- B) Coring: None
- C) Testing: Possible DST - None anticipated. Drill stem tests may be run on shows of interest

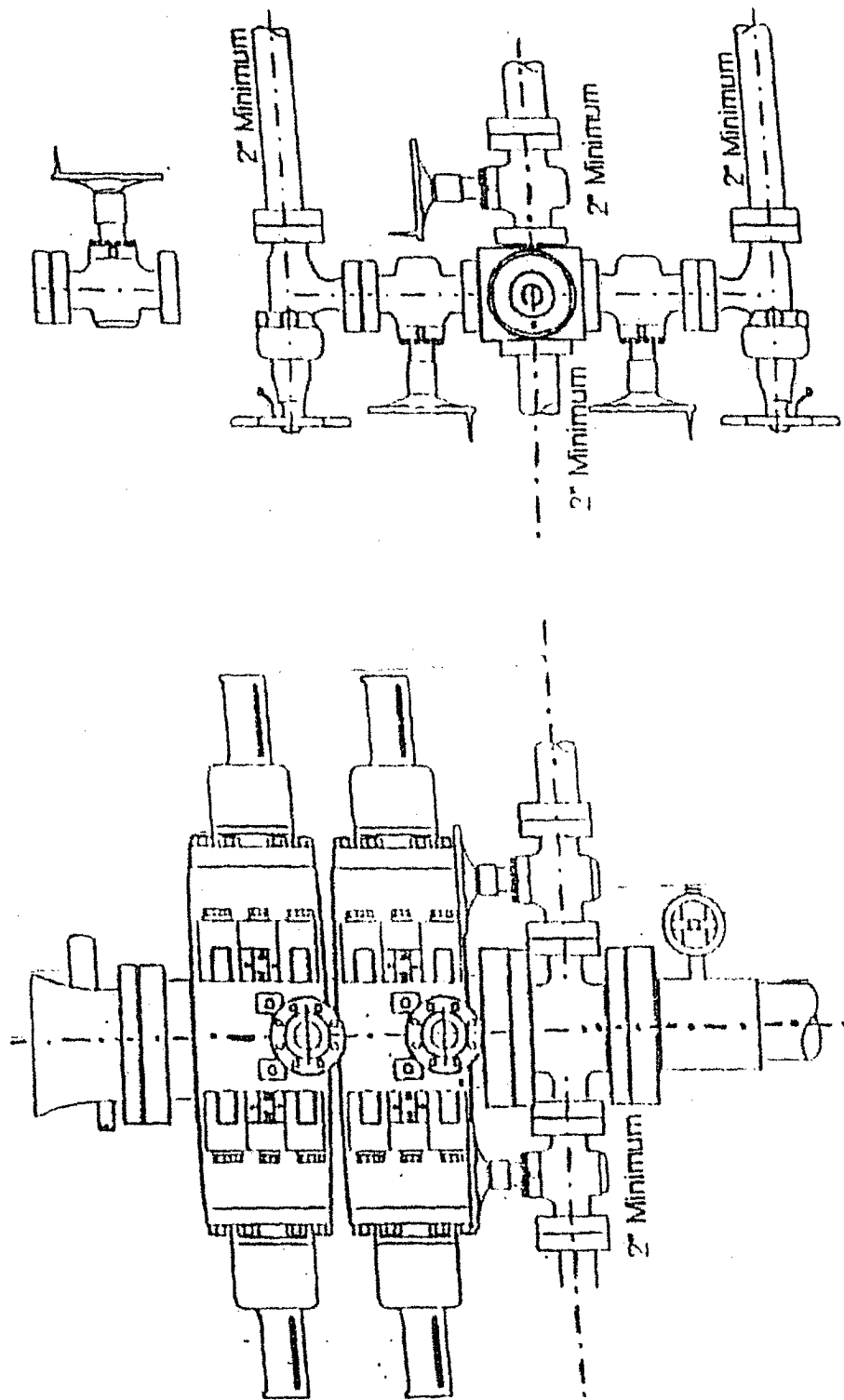
ABNORMAL CONDITIONS

- A) Pressures: No abnormal conditions are anticipated
Bottom hole pressure gradient - 0.31 psi/ft
- B) Temperatures: No abnormal conditions are anticipated
- C) H₂S: See H₂S Plan if H₂S is encountered.
- D) Estimated bottomhole pressure: 1,240 psi

2-M SYSTEM

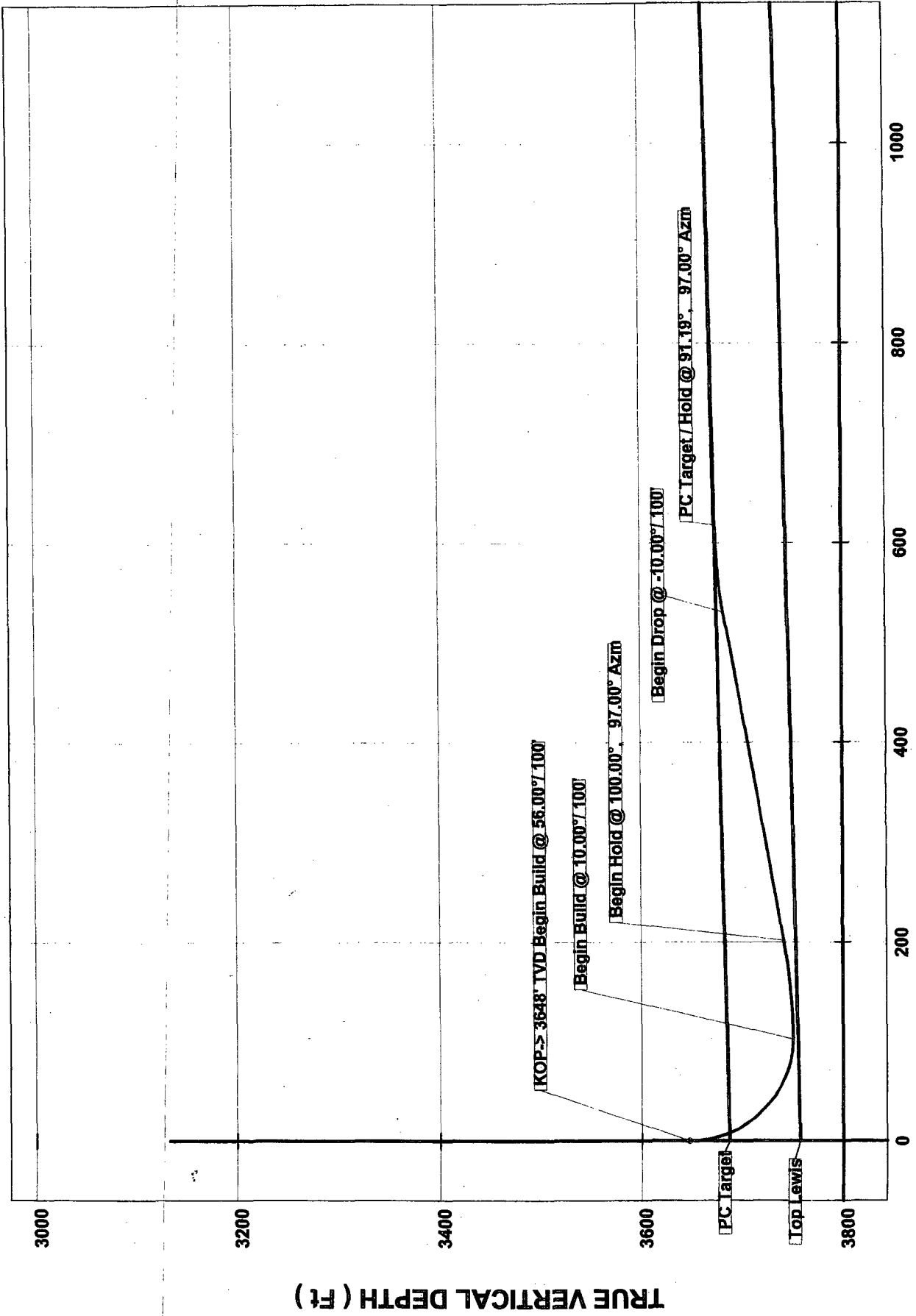
Black Hills Gas Resources, Inc.

ANNULAR PREVENTOR MAY BE SUBSTITUTED FOR DOUBLE GATE PREVENTORS
BOP PRESSURE TEST TO 1,000 PSI



Job Number: 61xxx
Company: Black Hills E&P
Lease/Well: Many Canyons 30-04-13 #11H
Location: Rio Arriba Co., NM

2794-S Thompson St., Houston, TX 77063
(713) 627-4323
www.bhenergy.com

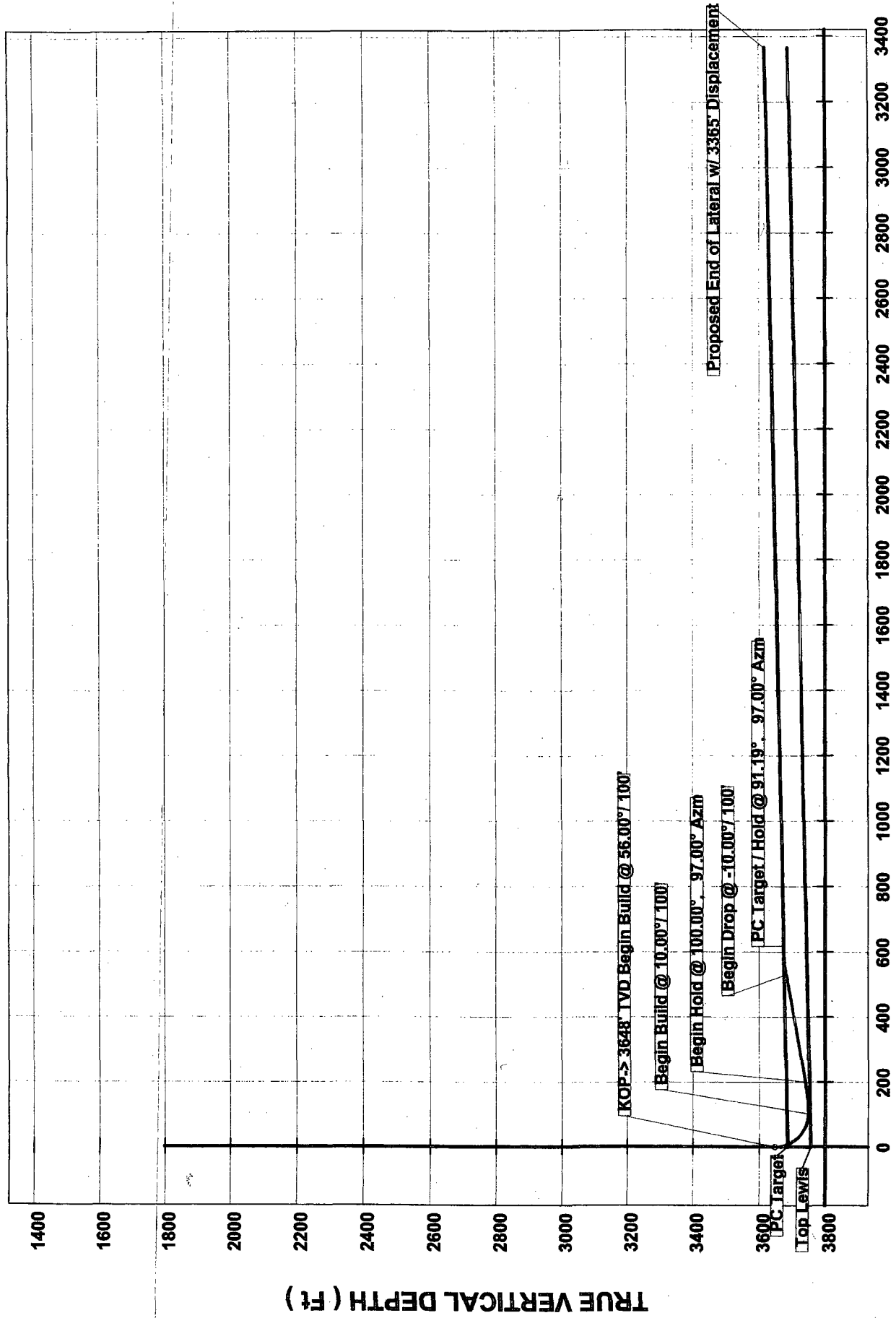


VERTICAL SECTION (Ft) @ 97.00°

Job Number: 61xxx
Company: Black Hills E&P
Lease/Well: Many Canyons 30-04-13 #11H
Location: Rio Arriba Co., NM



1794-4 Transmitted By: Houston, TX 77060
(713) 255-0222
www.blackhillsenergy.com



VERTICAL SECTION (Ft) @ 97.00°

Hydrogen Sulfide Drilling Operations Plan

I. Hydrogen Sulfide Training

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will receive training from a qualified instructor in the following areas prior to commencing drilling operations on this well:

1. The hazards and characteristics of hydrogen sulfide (H₂S).
2. The proper use and maintenance of personal protective equipment and life support systems.
3. The proper use of H₂S detectors, alarms, warning systems, briefing areas, evacuation procedures, and prevailing winds.
4. The proper techniques for first aid and rescue procedures.

In addition, supervisory personnel will be trained in the following areas:

1. The effects of H₂S on metal components. If high tensile tubulars are to be used, personnel will be trained in their special maintenance requirements.
2. Corrective action and shut-in procedures when drilling or reworking a well and blowout prevention and well control procedures.
3. The contents and requirements of the H₂S Drilling Operations Plan and the Public Protection Plan.

There will be an initial training session just prior to encountering a known or probable H₂S zone (within 3 days or 500 feet) and weekly H₂S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H₂S Drilling Operations Plan and the Public Protection Plan. This plan shall be available at the well site. All personnel will be required to carry documentation that they have received the proper training.

II. H₂S Safety Equipment and Systems

Note: All H₂S safety equipment and systems, if necessary, will be installed, tested, and operational when drilling reaches a depth of 500 feet above or three days prior to penetrating the first zone containing or reasonably expected to contain H₂S.

A. Well control equipment:

1. Choke manifold with a minimum of one remote choke.
2. Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit.

Black Hills Gas Resources, Inc.

B. Protective equipment for essential personnel:

1. Mark II Surviveair 30-minute units located in the doghouse and at briefing areas, as indicated on well site diagram.

C. H₂S detection and monitoring equipment:

1. Two portable H₂S monitors positioned on location for best coverage and response. These units have warning lights and audible sirens when H₂S levels of 10 ppm are reached.

D. Visual warning systems:

1. Wind direction indicators as shown on well site diagram.
2. Caution/Danger signs shall be posted on roads providing direct access to location. Signs will be painted a high visibility yellow with black lettering of sufficient size to be readable at a reasonable distance from the immediate location. Bilingual signs will be used when appropriate. See example attached.

E. Mud program:

1. The mud program has been designed to minimize the volume of H₂S circulated to the surface. Proper mud weight, safe drilling practices, and the use of H₂S scavengers will minimize hazards when penetrating H₂S bearing zones.

F. Metallurgy:

1. All drill strings, casings, tubing, wellhead, blowout preventors, drilling spools, kill lines, choke manifold and lines, and valves shall be suitable for H₂S service.
2. All elastomers used for packing and seals shall be H₂S trim.

G. Communication:

1. Cellular telephone communications in company vehicles.

H. Well testing:

1. Drill stem testing will be performed with a minimum number of personnel in the immediate vicinity which are necessary to safely and adequately conduct the test. The drill stem testing will be conducted during daylight hours and formation fluids will not be flowed to the surface. All drill stem testing operations conducted in an H₂S environment will use the closed chamber method of testing.