



June 27, 2007

Ms. Diana Whitney  
State of Utah  
Division of Oil, Gas and Mining  
1594 West North Temple, Suite 1210  
P.O. Box 145801  
Salt Lake City, Utah 84114-5801

RE: Directional Drilling R649-3-11  
Prickly Pear Unit Federal #16-28D-12-15  
Surface: 979' FNL & 866'FWL NWNW, 34-T12S-R15E  
Bottom Hole: 660' FSL & 660' FEL SESE, 28-T12S-R15E  
Carbon County, Utah

Dear Ms. Whitney:

Pursuant to the filing of Bill Barrett Corporation's ("BBC") Application for Permit to Drill ("APD") regarding the above referenced well, we are hereby submitting this letter in accordance with Oil & Gas Conservation Rule R649-3-11 pertaining to the "Exception to Location and Siting of Wells."

- The above-mentioned proposed location is within the Prickly Pear Unit Area;
- BBC is permitting this well as a directional well in order to minimize surface disturbance. By locating the well at the surface location and directionally drilling from this location, BBC will be able to utilize the existing road and pipelines in the area;
- BBC hereby certifies that it is the sole working interest owner within 460 feet of the entire directional well bore.

Based on the information provided, BBC requests that the permit be granted pursuant to R649-3-11. If you should have any questions or need further information, please contact me at 303-312-8129.

Sincerely,

A handwritten signature in black ink, appearing to read 'Doug Gundry-White', written over a white background.

Doug Gundry-White  
Senior Landman

**RECEIVED**  
**JUN 29 2007**  
DIV. OF OIL, GAS & MINING

1099 18TH STREET  
SUITE 2300  
DENVER, CO 80202  
P 303.293.9100  
F 303.291.0420

# COPY

Form 3160-3  
(April 2004)

**BBC  
CONFIDENTIAL**

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: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. <b>UTU-73671 SH/UTU-73670 BH</b>
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 n/a
2. Name of Operator <b>BILL BARRETT CORPORATION</b>		7. If Unit or CA Agreement, Name and No. <b>Prickly Pear Unit/UTU-079487</b>
3a. Address <b>1099 18th Street, Suite 2300 Denver CO 80202</b>		8. Lease Name and Well No. <b>Prickly Pear Unit Fed 16-28D-12-15</b>
3b. Phone No. (include area code) <b>(303) 312-8134</b>		9. API Well No. <b>pending 43-007-31301</b>
4. Location of Well (Report location clearly and in accordance with any State requirements.)* At surface <b>NWNW, 979' FNL, 866' FWL</b> At proposed prod. zone <b>SESE, 660' FSL, 660' FEL, Sec. 28, T12S-R15E</b>		10. Field and Pool, or Exploratory <b>Nine Mile/Wasatch-Mesaverde</b>
14. Distance in miles and direction from nearest town or post office* <b>approximately 51 miles from Myton, Utah</b>		11. Sec., T, R, M. or Blk. and Survey or Area <b>Sec. 34, T12S-R15E</b>
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) <b>979' SH / 660' BH</b>	16. No. of acres in lease <b>1440 (SH and BH)</b>	17. Spacing Unit dedicated to this well <b>40 acres</b>
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. <b>16' SH / 1555' BH</b>	19. Proposed Depth <b>7800'</b>	20. BLM/BIA Bond No. on file <b>Nationwide Bond #WYB000040</b>
21. Elevations (Show whether DF, KDB, RT, GL, etc.) <b>7365' ungraded ground</b>	22. Approximate date work will start* <b>2008</b>	23. Estimated duration <b>45 days</b>

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.  | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).    |
| 2. A Drilling Plan.   | 5. Operator certification  |
| 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). | 6. Such other site specific information and/or plans as may be required by the authorized officer. |

25. Signature <i>Tracey Fallang</i>	Name (Printed/Typed) <b>Tracey Fallang</b>	Date <b>6/27/07</b>
Title <b>Environmental/Regulatory Analyst</b>		
Approved by (Signature) <i>Bradley G. Hill</i>	Name (Printed/Typed) <b>BRADLEY G. HILL</b>	Date <b>07-03-07</b>
Title <b>ENVIRONMENTAL MANAGER</b>		

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.

\*(Instructions on page 2)

Surf  
566097x  
43984024  
39.734836  
-110.228662

BHL  
565629x  
43988974  
39.739326  
-110.234081

**Federal Approval of this  
Action is Necessary**

**RECEIVED**  
**JUN 29 2007**  
DIV. OF OIL, GAS & MINING

28

T12S, R15E, S.L.B.&M.

BILL BARRETT CORPORATION

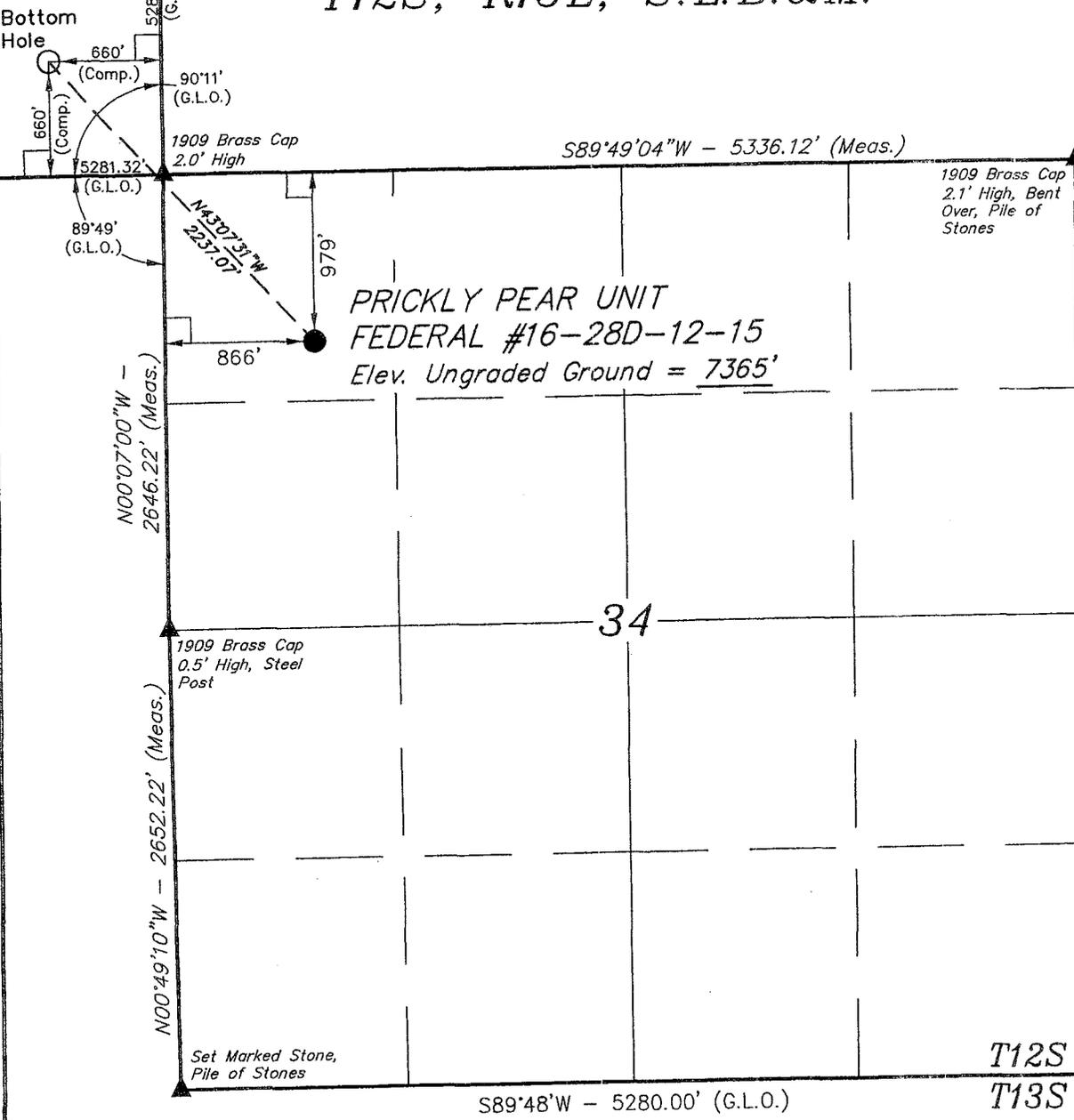
Well location, PRICKLY PEAR UNIT FEDERAL #16-28D-12-15, located as shown in the NW 1/4 NW 1/4 of Section 34, T12S, R15E, S.L.B.&M., Carbon County, Utah.

BASIS OF ELEVATION

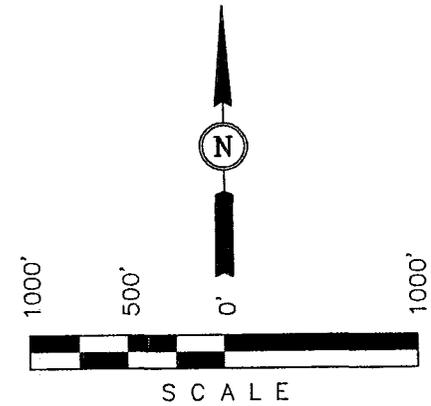
COTTON TRIANGULATION STATION LOCATED IN THE NW 1/4 OF SECTION 31, T12S, R16E, S.L.B.&M., TAKEN FROM THE TWIN HOLLOW QUADRANGLE, UTAH, CARBON COUNTY, 7.5 MINUTE SERIES (TOPOGRAPHICAL MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 7386 FEET.

BASIS OF BEARINGS

BASIS OF BEARINGS IS A G.P.S. OBSERVATION.



N00°01'W - 5280.00' (G.L.O.)



CERTIFICATION

THIS IS TO CERTIFY THAT THE ABOVE WAS OBTAINED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

*Robert L. Barrett*

REGISTERED LAND SURVEYOR  
REGISTRATION NO. 161319  
STATE OF UTAH

UINTAH ENGINEERING & LAND SURVEYING  
85 SOUTH 200 EAST - VERNAL, UTAH 84078  
(435) 789-1017

LEGEND:

- └─┘ = 90° SYMBOL
- = PROPOSED WELL HEAD.
- ▲ = SECTION CORNERS LOCATED.

(NAD 83)  
 LATITUDE = 39°44'05.44" (39.734844)  
 LONGITUDE = 110°13'46.09" (110.229469)  
 (NAD 27)  
 LATITUDE = 39°44'05.57" (39.734881)  
 LONGITUDE = 110°13'43.53" (110.228758)

SCALE 1" = 1000'	DATE SURVEYED: 08-22-06	DATE DRAWN: 08-24-06
PARTY B.H. F.Y. P.M.	REFERENCES G.L.O. PLAT	
WEATHER HOT	FILE BILL BARRETT CORPORATION	

**HAZARDOUS MATERIAL DECLARATION**

FOR WELL NO. PRICKLY PEAR UNIT FEDERAL #16-28D-12-15  
LEASE NO. UTU 73671 SH / UTU 73670 BH

Bill Barrett Corporation guarantees that during the drilling and completion of the above referenced well, we will not use, produce, or store, transport or dispose 10,000# annually of any of the hazardous chemicals contained in the Environmental Protection Agency's consolidated list of chemicals subject to reporting under Title III Super Amendments and Reauthorization Act (SARA) of 1986.

Bill Barrett Corporation guarantees that during the drilling and completion of the above referenced well, we will use, produce, store, transport, or dispose less than the threshold planning quantity (TPQ) of any extremely hazardous substances as defined in 40 CFR 355.

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## DRILLING PROGRAM

BILL BARRETT CORPORATION

### Prickly Pear Unit Federal #16-28D-12-15

NWNW, 979' FNL, 866' FWL, Sec. 34-T12S-R15E (Surface Hole)

SESE, 660' FSL, 660' FEL, Sec. 28-T12S-R15E (Bottom Hole)

Carbon County, Utah

1 – 2. Estimated Tops of Geological Markers and Formations Expected to Contain Water, Oil and Gas and Other Minerals

<u>Formation</u>	<u>Depth – MD</u>	<u>Depth – TVD</u>
Green River	Surface	Surface
Wasatch	3000'*	2879'*
North Horn	4995'*	4679'*
Dark Canyon	6710'*	6259'*
Price River	6955'*	6499'*
TD	7800'*	7300'*

**PROSPECTIVE PAY**

\*Members of the Mesaverde formation and Wasatch formation (inclusive of the North Horn) are primary objectives for oil/gas.

3. BOP and Pressure Containment Data

<u>Depth Intervals</u>	<u>BOP Equipment</u>
0 – 1000'	No pressure control required
1000' – TD	11" 3000# Ram Type BOP 11" 3000# Annular BOP
- Drilling spool to accommodate choke and kill lines;	
- Ancillary and choke manifold to be rated @ 3000 psi;	
- Ancillary equipment and choke manifold rated at 3,000#. All BOP and BOPE tests will be in accordance with the requirements of onshore Order No. 2;	
- The BLM and the State of Utah Division of Oil, Gas and Mining will be notified 24 hours in advance of all BOP pressure tests.	
- BOP hand wheels may be underneath the sub-structure of the rig if the drilling rig used is set up to operate most efficiently in this manner.	

4. Casing Program

<u>Hole Size</u>	<u>SETTING DEPTH</u>		<u>Casing Size</u>	<u>Casing Weight</u>	<u>Casing Grade</u>	<u>Thread</u>	<u>Condition</u>
	<u>(FROM)</u>	<u>(TO)</u>					
12 1/4"	surface	1,000'	9 5/8"	36#	J or K 55	ST&C	New
8 3/4"	surface	7,300'	5 1/2"	17#	N-80	LT&C	New

Note: Pending evaluation of anticipated stress on the production casing, BBC may use 5 1/2", 20# P-110 LT&C production casing instead of the 17# N-80. BBC is also evaluating the benefit of using 4-1/2", 11.6#, I-80, LT&C production casing and wishes to have that option approved in this APD. The 4-1/2" casing design sheet is included in this package. Cement volumes would be adjusted accordingly.

5. Cementing Program

9 5/8" Surface Casing	Approximately 240 sx Halliburton Light Premium with additives mixed at 12.7 ppg (yield = 1.85 ft <sup>3</sup> /sx) and 170 sx Premium cement with additives mixed at 15.8 ppg (yield = 1.16 ft <sup>3</sup> /sx) circulated to surface with 100% excess
5 1/2" Production Casing	Approximately 1420 sx 50/50 Poz Premium cement with additives mixed at 13.4 ppg (yield = 1.49 ft <sup>3</sup> /sx). Top of cement to be determined by log and sample evaluation; estimated TOC 900'.
Note: Actual volumes to be calculated from caliper log.	

6. Mud Program

<u>Interval</u>	<u>Weight</u>	<u>Viscosity</u>	<u>Fluid Loss (API filtrate)</u>	<u>Remarks</u>
0 - 40'	8.3 - 8.6	27 - 40	--	Native Spud Mud
40' - 1000'	8.3 - 8.6	27 - 40	15 cc or less	Native/Gel/Lime
1000' - TD	8.6 - 9.5	38-46	15 cc or less	LSND/DAP
Note: Sufficient mud materials to maintain mud properties, control lost circulation and to contain "kicks" will be available at wellsite. BBC may require minor amounts of diesel to be added to its fluid system in order to reduce tork and drag.				
Note: In the event air drilling should occur at this location:				
<ul style="list-style-type: none"> <li>- Fresh water would be used to suppress the dust coming out. The blooie line, approximately 37' long and 6" diameter, would run from the pit to the wellhead. There is no ignition system as burnable gas should not be encountered.</li> <li>- Capacity of compressor: 1250SCFM with an 1170 SCFM on standby, which would be located very near the wellbore. The compressor has switches to shut off should any problems be encountered.</li> <li>- The rig has mud pumps capable of pumping the kill fluid (fresh water), of which there is 500 bbls on location at all times.</li> </ul>				

7. Testing, Logging and Core Programs

Cores	None anticipated;
Testing	None anticipated; drill stem tests may be run on shows of interest;
Sampling	30' to 50' samples; surface casing to TD. Preserve samples all show intervals;
Surveys	Run every 1000' and on trips, slope only;
Logging	DIL-GR-SP, FDC-CNL-GR-CAL-Pe-Microlog, Sonic-GR, all TD to surface.

Bill Barrett Corporation  
Drilling Program  
Prickly Pear Unit Federal #16-28D-12-15  
Carbon County, Utah

**8. Anticipated Abnormal Pressures or Temperatures**

No abnormal pressures or temperatures or other hazards are anticipated.

Maximum anticipated bottom hole pressure equals approximately 3606 psi\* and maximum anticipated surface pressure equals approximately 2000 psi\*\* (bottom hole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot).

\*Max Mud Wt x 0.052 x TD = A (bottom hole pressure)

\*\*Maximum surface pressure = A - (0.22 x TD)

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**9. Auxiliary Equipment**

- a) Upper kelly cock; lower Kelly cock will be installed while drilling
- b) Inside BOP or stab-in valve (available on rig floor)
- c) Safety valve(s) and subs to fit all string connections in use
- d) Mud monitoring will be visually observed

**10. Drilling Schedule**

Location Construction:	2008, date to be determined
Spud:	2008, date to be determined
Duration:	15 days drilling time
	30 days completion time

## PRESSURE CONTROL EQUIPMENT – Schematic Attached

**A. Type:** Eleven (11) Inch Double Gate Hydraulic BOP with Eleven (11) Inch Annular Preventer. The blow out preventer will be equipped as follows:

1. One (1) blind ram (above).
2. One (1) pipe ram (below).
3. Drilling spool with two (2) side outlets (choke side 3-inch minimum, kill side 2-inch minimum).
4. 3-inch diameter choke line.
5. Two (2) choke line valves (3-inch minimum).
6. Kill line (2-inch minimum).
7. Two (2) chokes.
8. Two (2) kill line valves, one of which shall be a check valve (2-inch minimum).
9. Upper kelly cock valve with handles available.
10. Safety valve(s) & subs to fit all drill string connections in use.
11. Pressure gauge on choke manifold.
12. Fill-up line above the uppermost preventer.

**B. Pressure Rating:** 3,000 psi

**C. Testing Procedure:**

### Annular Preventer

At a minimum, the Annular Preventer will be pressure tested to 50% of the rated working pressure for a period of ten (10) minutes or until provisions of the test are met, whichever is longer.

At a minimum the above pressure test will be performed:

1. When the annular preventer is initially installed;
2. Whenever any seal subject to test pressure is broken;
3. Following related repairs; and
4. At thirty (30) day intervals.

In addition, the Annular Preventer will be functionally operated at least weekly.

### Blow-Out Preventer

At a minimum, the BOP, choke manifold, and related equipment will be pressure tested to the approved working pressure of the BOP stack (if isolated from the surface casing by a test plug) or to 70% of the internal yield strength of the surface casing (if the BOP is not isolated from the casing by a test plug). Pressure will be

maintained for a period of at least ten (10) minutes or until the requirements of the test are met, whichever is longer.

At a minimum, the above pressure test will be performed:

1. When the BOP is initially installed;
2. Whenever any seal subject to test pressure is broken;
3. Following related repairs; and
4. At thirty (30) day intervals.

In addition the pipe and blind rams will be activated each trip, but not more than once each day. All BOP drills and tests will be recorded in the IADC driller's log.

#### **D. Choke Manifold Equipment:**

All choke lines will be straight lines unless turns use tee blocks or are targeted with running tees, and will be anchored to prevent whip and vibration.

#### **E. Accumulator:**

The accumulator will have sufficient capacity to open the hydraulically-controlled choke line valve (if so equipped), close all rams plus the annular preventer, and retain a minimum of 200 psi above precharge on the closing manifold without the use of closing unit pumps. The fluid reservoir capacity will be double the usable fluid volume of the accumulator system capacity and the fluid level of the reservoir will be maintained at the manufacturer's recommendations.

The BOP system will have two (2) independent power sources to close the preventers. Nitrogen bottles (3 minimum) will be one (1) of these independent power sources and will maintain a charge equal to the manufacturer's specifications.

The accumulator precharge pressure test will be conducted prior to connecting the closing unit to the BOP stack and at least once every six (6) months thereafter. The accumulator pressure will be corrected if the measured precharge pressure is found to be above or below the maximum or minimum limits specified in the *Onshore Oil & Gas Order Number 2*.

A manual locking device (i.e. hand wheels) or automatic locking device will be installed on all systems of 2M or greater. A valve will be installed in the closing line as close as possible to the annular preventer to act as a locking device. This valve will be maintained in the open position and will be closed only when the power source for the accumulator is inoperative.

Remote controls shall be readily accessible to the driller. Remote controls for all 3M or greater systems will be capable of closing all preventers. Remote controls for 5M or greater systems will be capable of both opening and closing all preventers. Master controls will be at the accumulator and will be capable of opening and closing all preventers and the choke line valve (if so equipped).

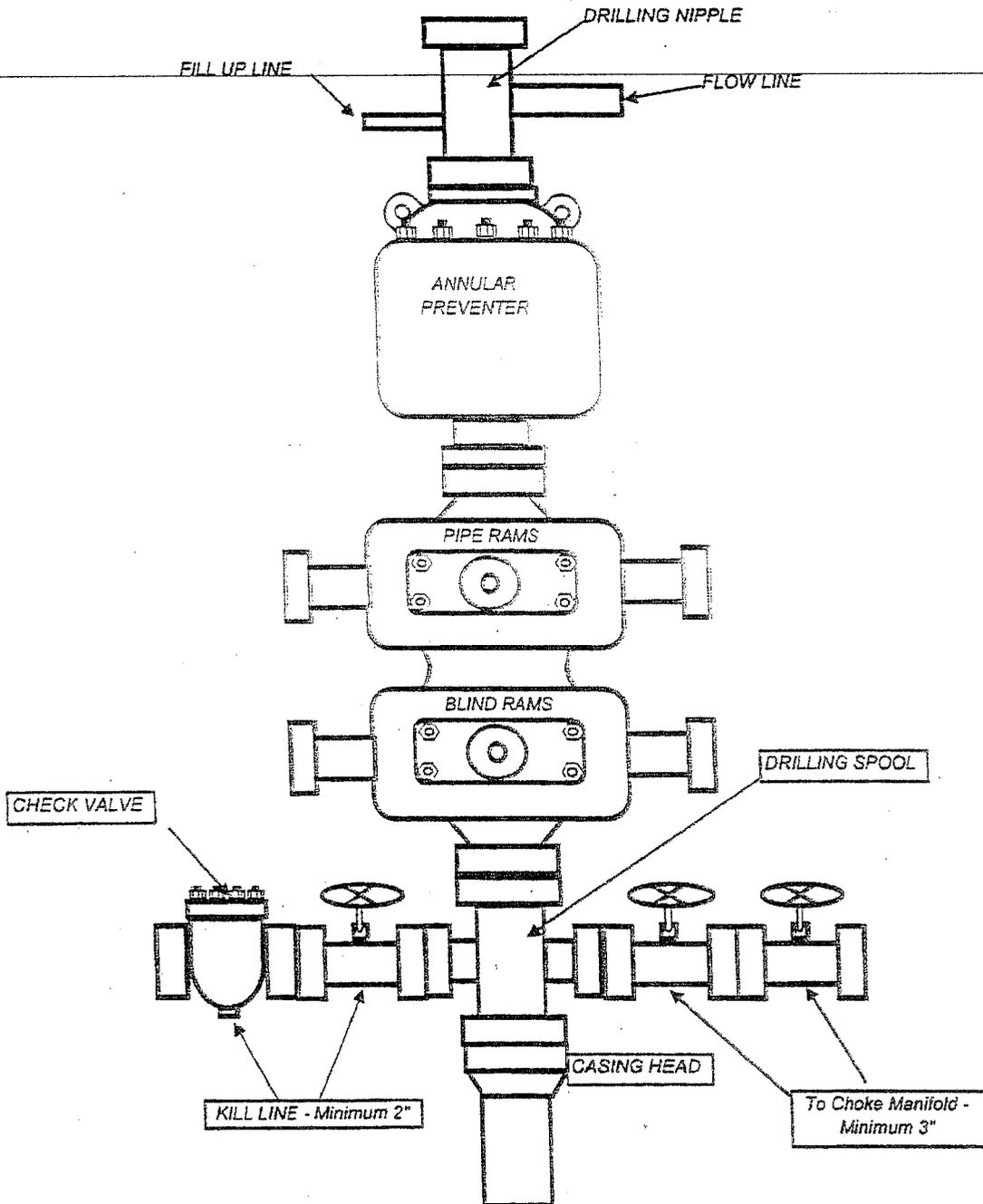
**F. Miscellaneous Information:**

The Blow-Out Preventer and related pressure control equipment will be installed, tested and maintained in compliance with the specifications in and requirements of *Onshore Oil & Gas Order Number 2*. The choke manifold will be located outside the rig sub-structure. The hydraulic BOP closing unit will be located at least twenty-five (25) feet from the well head but readily accessible to the driller. Exact locations and configurations of the hydraulic BOP closing unit will depend upon the particular rig contracted to drill this hole.

A flare line will be installed after the choke manifold, extending 125 feet (minimum) from the center of the drill hole to a separate flare pit.

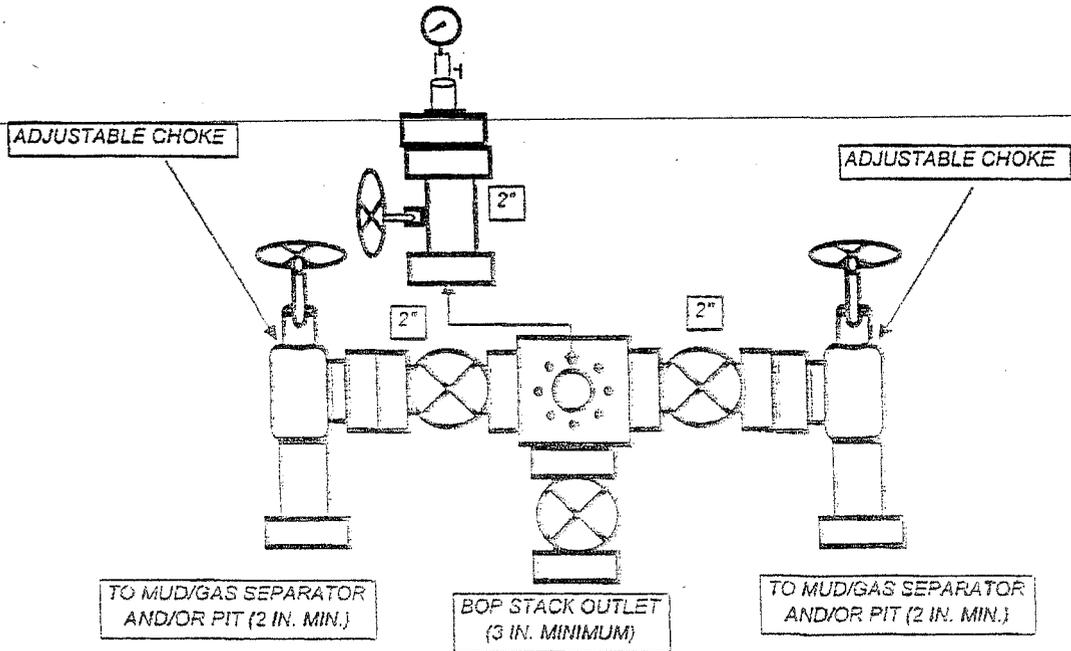
# BILL BARRETT CORPORATION

## TYPICAL 3,000 p.s.i. BLOWOUT PREVENTER



# BILL BARRETT CORPORATION

## TYPICAL 3,000 p.s.i. CHOKE MANIFOLD



Well name: **Utah: West Tavaputs Field**  
 Operator: **Bill Barrett**  
 String type: **Surface**  
 Location: **Carbon County, UT**

**Design parameters:**  
Collapse  
 Mud weight: 9.50 ppg  
 Design is based on evacuated pipe.

**Minimum design factors:**  
Collapse:  
 Design factor 1.125

**Environment:**  
 H2S considered? No  
 Surface temperature: 75.00 °F  
 Bottom hole temperature: 89 °F  
 Temperature gradient: 1.40 °F/100ft  
 Minimum section length: 1,000 ft

Burst  
 Design factor 1.00  
 Cement top: Surface

Burst  
 Max anticipated surface pressure: 2,735 psi  
 Internal gradient: 0.22 psi/ft  
 Calculated BHP 2,955 psi

Annular backup: 9.50 ppg

Tension:  
 8 Round STC: 1.80 (J)  
 8 Round LTC: 1.80 (J)  
 Buttress: 1.80 (J)  
 Premium: 1.80 (J)  
 Body yield: 1.80 (B)

Tension is based on buoyed weight.  
 Neutral point: 859 ft

Non-directional string.

Re subsequent strings:  
 Next setting depth: 10,000 ft  
 Next mud weight: 9.500 ppg  
 Next setting BHP: 4,935 psi  
 Fracture mud wt: 10,000 ppg  
 Fracture depth: 10,000 ft  
 Injection pressure: 5,195 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Internal Capacity (ft <sup>3</sup> )
1	1000	9.625	36.00	J/K-55	ST&C	1000	1000	8.796	71.2

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (Kips)	Tension Strength (Kips)	Tension Design Factor
1	493	2020	4.094	2735	3520	1.29	31	453	14.64 J

Prepared by: **Dominic Spencer**  
 by: **Bill Barrett**

Phone: (303) 312-8143  
 FAX: (303) 312-8195

Date: **August 1, 2003**  
 Denver, Colorado

Remarks:  
 Collapse is based on a vertical depth of 1000 ft, a mud weight of 9.5 ppg. The casing is considered to be evacuated for collapse purposes.  
 Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Engineering responsibility for use of this design will be that of the purchaser.

Well name:	Utah: West Tavaputs
Operator:	Bill Barrett
String type:	Production
Location:	Carbon County, UT

Design parameters:  
**Collapse**  
Mud weight: 9.50 ppg

Minimum design factors:  
**Collapse:**  
Design factor 1.125

Environment:  
H2S considered? No  
Surface temperature: 75.00 °F  
Bottom hole temperature: 215 °F  
Temperature gradient: 1.40 °F/100ft  
Minimum section length: 1,500 ft

Design is based on evacuated pipe.

**Burst:**  
Design factor 1.00

Cement top: 2,375 ft

**Burst**  
Max anticipated surface pressure: 4,705 psi  
Internal gradient: 0.02 psi/ft  
Calculated BHP: 4,935 psi

**Tension:**  
8 Round STC: 1.80 (J)  
8 Round LTC: 1.80 (J)  
Butress: 1.80 (J)  
Premium: 1.80 (J)  
Body yield: 1.80 (B)

Non-directional string.

Annular backup: 9.50 ppg

Tension is based on buoyed weight.  
Neutral point: 8,550 ft

Run Sec	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Internal Capacity (ft³)
1	10000	5.5	17.00	N-80	LT&C	10000	10000	4.767	344.6

Run Sec	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (Kips)	Tension Strength (Kips)	Tension Design Factor
1	4935	6290	1.275	4705	7740	1.65	146	348	2.39 J

Prepared Dominic Spencer  
by: Bill Barrett

Phone: (303) 312-8143  
FAX: (303) 312-8195

Date: August 1, 2003  
Denver, Colorado

Remarks:  
Collapse is based on a vertical depth of 10000 ft, a mud weight of 9.5 ppg. The casing is considered to be evacuated for collapse purposes.  
Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Engineering responsibility for use of this design will be that of the purchaser.

Well name:	West Tavaputs General
Operator:	Bill Barrett
String type:	Production
Location:	Carbon County, Utah

**Design parameters:**

Collapse  
Mud weight: 9.50 ppg

**Minimum design factors:**

Collapse:  
Design factor 1.125

**Environment:**

H2S considered? No  
Surface temperature: 75.00 °F  
Bottom hole temperature: 189 °F  
Temperature gradient: 1.40 °F/100ft  
Minimum section length: 1,500 ft

Design is based on evacuated pipe.

Burst:

Design factor 1.00

Cement top: 2,500 ft

Burst

Max anticipated surface pressure: 2,226 psi  
Internal gradient: 0.22 psi/ft  
Calculated BHP 4,016 psi

Tension:

8 Round STC: 1.80 (J)  
8 Round LTC: 1.80 (J)  
Bultruss: 1.60 (J)  
Premium: 1.50 (J)  
Body yield: 1.50 (B)

Directional Info - Build & Drop

Kick-off point: 1000 ft  
Departure at shoe: 2165 ft  
Maximum dogleg: 2 °/100ft  
Inclination at shoe: 0

No backup mud specified.

Tension is based on buoyed weight.  
Neutral point: 7,560 ft

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Internal Capacity (ft³)
1	8730	5.5	20.00	P-110	LT&C	8138	8730	4.653	353.3
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (Kips)	Tension Strength (Kips)	Tension Design Factor
1	4016	11100	2.764	4016	12630	3.14	139	548	3.93 J

Prepared Dominic Spencer  
by: Bill Barrett Corporation

Phone: (303) 312-8143  
FAX: (303) 312-8195

Date: August 25, 2004  
Denver, Colorado

**Remarks:**

Collapse is based on a vertical depth of 8138 ft, a mud weight of 9.5 ppg. The casing is considered to be evacuated for collapse purposes.  
Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a tensile load which is added to the axial load.

Engineering responsibility for use of this design will be that of the purchaser.

Well name:	West Tavaputs General
Operator:	Bill Barrett Corporation
String type:	Production

**Design parameters:**

Collapse  
Mud weight: 9.50 ppg

Design is based on evacuated pipe.

**Minimum design factors:**

Collapse:  
Design factor 1.125

Burst:  
Design factor 1.00

**Environment:**

H2S considered? No  
Surface temperature: 60.00 °F

Bottom hole temperature: 200 °F  
Temperature gradient: 1.40 °F/100ft  
Minimum section length: 1,500 ft  
Cement top: 2,500 ft

**Burst:**

Max anticipated surface pressure: 2,735 psi  
Internal gradient: 0.22 psi/ft  
Calculated BHP 4,935 psi

No backup mud specified.

Tension:  
8 Round STC: 1.80 (J)  
8 Round LTC: 1.80 (J)  
Buttress: 1.80 (J)  
Premium: 1.80 (J)  
Body yield: 1.80 (B)

Non-directional string.

Tension is based on buoyed weight.  
Neutral point: 8,580 #

Run Seq	Segment Length (ft)	Nominal Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Internal Capacity (ft³)
1	10000	4.5	11.60	I-80	LT&C	10000	10000	3.875	231.8

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (Kips)	Tension Strength (Kips)	Tension Design Factor
1	4935	6350	1.287	4935	7780	1.58	100	223	2.24 J

Prepared Dominic Spencer  
by: Bill Barrett

Phone: (303) 312-8143  
FAX: (303) 312-8195

Date: December 13, 2005  
Denver, Colorado

**Remarks:**

Collapse is based on a vertical depth of 10000 ft, a mud weight of 9.5 ppg. The casing is considered to be evacuated for collapse purposes.  
Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.



# Bill Barrett Corporation

## NINE MILE CEMENT VOLUMES

Well Name: Prickly Pear Unit Federal 16-28D-12-15

### Surface Hole Data:

Total Depth:	1,000'
Top of Cement:	0'
OD of Hole:	12.250"
OD of Casing:	9.625"

### Calculated Data:

Lead Volume:	219.2	ft <sup>3</sup>
Lead Fill:	700'	
Tail Volume:	94.0	ft <sup>3</sup>
Tail Fill:	300'	

### Cement Data:

Lead Yield:	1.85	ft <sup>3</sup> /sk
Tail Yield:	1.16	ft <sup>3</sup> /sk
% Excess:	100%	

### Calculated # of Sacks:

# SK's Lead:	240
# SK's Tail:	170

### Production Hole Data:

Total Depth:	7,300'
Top of Cement:	900'
OD of Hole:	8.750"
OD of Casing:	5.500"

### Calculated Data:

Lead Volume:	1616.6	ft <sup>3</sup>
Lead Fill:	6,400'	

### Cement Data:

Lead Yield:	1.49	ft <sup>3</sup> /sk
% Excess:	30%	

### Calculated # of Sacks:

# SK's Lead:	1420
--------------	------

**Prickly Pear Unit Federal 16-28D-12-15 Proposed Cementing Program**

<u>Job Recommendation</u>	<u>Surface Casing</u>
<b>Lead Cement - (700' - 0')</b>	
Halliburton Light Premium	Fluid Weight: 12.7 lbm/gal
2.0% Calcium Chloride	Slurry Yield: 1.85 ft <sup>3</sup> /sk
0.125 lbm/sk Ploy-E-Flake	Total Mixing Fluid: 9.9 Gal/sk
	Top of Fluid: 0'
	Calculated Fill: 700'
	Volume: 78.09 bbl
	<b>Proposed Sacks: 240 sks</b>
<b>Tail Cement - (1000' - 700')</b>	
Premium Cement	Fluid Weight: 15.8 lbm/gal
94 lbm/sk Premium Cement	Slurry Yield: 1.16 ft <sup>3</sup> /sk
2.0% Calcium Chloride	Total Mixing Fluid: 4.97 Gal/sk
0.125 lbm/sk Ploy-E-Flake	Top of Fluid: 700'
	Calculated Fill: 300'
	Volume: 33.47 bbl
	<b>Proposed Sacks: 170 sks</b>

<u>Job Recommendation</u>	<u>Production Casing</u>
<b>Lead Cement - (7300' - 900')</b>	
50/50 Poz Premium	Fluid Weight: 13.4 lbm/gal
3.0 % KCL	Slurry Yield: 1.49 ft <sup>3</sup> /sk
0.75% Halad®-322	Total Mixing Fluid: 7.06 Gal/sk
3.0 lbm/sk Silicalite Compacted	Top of Fluid: 900'
0.2% FWCA	Calculated Fill: 6,400'
0.125 lbm/sk Poly-E-Flake	Volume: 374.28 bbl
1.0 lbm/sk Granulite TR 1/4	<b>Proposed Sacks: 1420 sks</b>

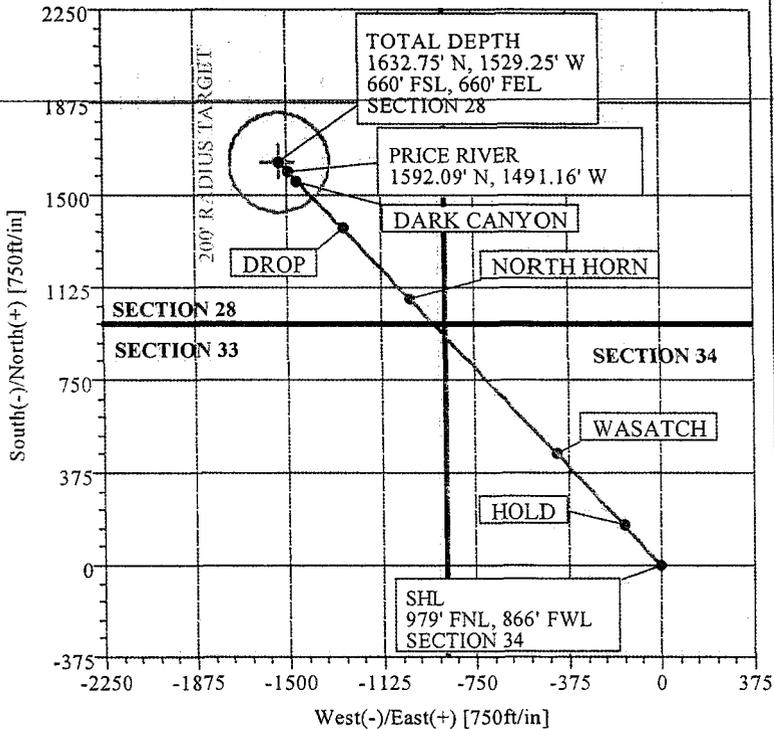
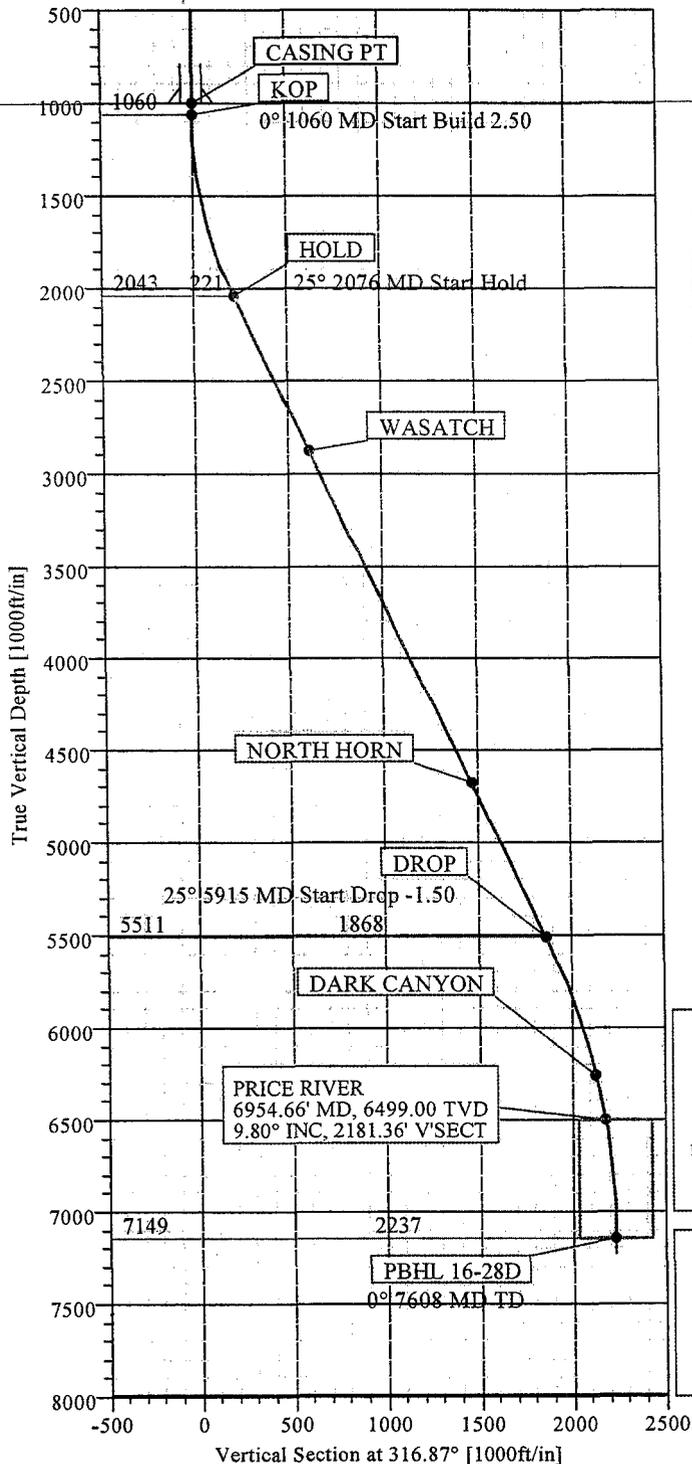


PRICKLY PEAR #16-28D-12-15  
SECTION 34 T12S R15E  
979' FNL, 866' FWL  
CARBON COUNTY, UTAH

SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	316.87	0.00	0.00	0.00	0.00	0.00	0.00	
2	1060.00	0.00	316.87	1060.00	0.00	0.00	0.00	0.00	0.00	
3	2075.89	25.40	316.87	2042.94	161.66	-151.41	2.50	316.87	221.49	
4	5914.70	25.40	316.87	5510.76	1363.32	-1276.90	0.00	0.00	1867.92	
5	7607.84	0.00	316.87	7149.00	1632.75	-1529.25	1.50	180.00	2237.07	PBHL 16-28D

WELL DETAILS							
Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
PRICKLY PEAR UF #16-28D-12-15	22.04	-23.04	7074694.58	1997701.29	39°44'05.438N	110°13'46.095W	N/A

KB ELEVATION: 7380'  
GR ELEVATION: 7364'



SITE DETAILS	
PRICKLY PEAR UF 14-27D PAD	
Site Centre Latitude:	39°44'05.220N
Longitude:	110°13'45.800W
Ground Level:	7364.00
Positional Uncertainty:	0.00
Convergence:	0.81

FIELD DETAILS	
CARBON COUNTY, UTAH	
Geodetic System:	US State Plane Coordinate System 1983
Ellipsoid:	GRS 1980
Zone:	Utah, Central Zone
Magnetic Model:	bggm2005
System Datum:	Mean Sea Level
Local North:	True North

FORMATION TOP DETAILS			
No.	TVDPath	MDPath	Formation
1	2879.00	3001.39	WASATCH
2	4679.00	4993.95	NORTH HORN
3	6259.00	6709.58	DARK CANYON
4	6499.00	6954.66	PRICE RIVER

# Weatherford Drilling Services

## PROPOSAL PLAN REPORT



<b>Company:</b> BILL BARRETT CORP	<b>Date:</b> 10/17/2006	<b>Time:</b> 09:29:56	<b>Page:</b> 1
<b>Field:</b> CARBON COUNTY, UTAH	<b>Co-ordinate(N/E) Reference:</b> Well: PRICKLY PEAR UF #16-28D-12-15		
<b>Site:</b> PRICKLY PEAR UF 14-27D PAD	<b>Vertical (TVD) Reference:</b> SITE 7380.0		
<b>Well:</b> PRICKLY PEAR UF #16-28D-12-15	<b>Section (VS) Reference:</b> Well (0.00N,0.00E,316.87Azi)		
<b>Wellpath:</b> 1	<b>Survey Calculation Method:</b> Minimum Curvature	<b>Db:</b> Sybase	

**Field:** CARBON COUNTY, UTAH

**Map System:** US State Plane Coordinate System 1983      **Map Zone:** Utah, Central Zone  
**Geo Datum:** GRS 1980      **Coordinate System:** Well Centre  
**Sys Datum:** Mean Sea Level      **Geomagnetic Model:** bggm2005

**Site:** PRICKLY PEAR UF 14-27D PAD

**Site Position:**      **Northing:** 7074672.87 ft      **Latitude:** 39 44 5.220 N  
**From:** Geographic      **Easting:** 1997724.65 ft      **Longitude:** 110 13 45.800 W  
**Position Uncertainty:** 0.00 ft      **North Reference:** True  
**Ground Level:** 7364.00 ft      **Grid Convergence:** 0.81 deg

**Well:** PRICKLY PEAR UF #16-28D-12-15      **Slot Name:**  
 979' FNL 866' FWL SECT 34-T12S-R15E

**Well Position:**      **+N/-S** 22.04 ft      **Northing:** 7074694.58 ft      **Latitude:** 39 44 5.438 N  
                          **+E/-W** -23.04 ft      **Easting:** 1997701.29 ft      **Longitude:** 110 13 46.095 W  
**Position Uncertainty:** 0.00 ft

**Wellpath:** 1

<b>Current Datum:</b> SITE	<b>Height</b> 7380.00 ft	<b>Drilled From:</b> Surface	
<b>Magnetic Data:</b> 10/17/2006		<b>Tie-on Depth:</b> 0.00 ft	
<b>Field Strength:</b> 52590 nT		<b>Above System Datum:</b> Mean Sea Level	
<b>Vertical Section:</b> Depth From (TVD)	<b>+N/-S</b>	<b>Declination:</b> 11.93 deg	
ft	ft	<b>Mag Dip Angle:</b> 65.65 deg	
0.00	0.00	<b>+E/-W</b>	<b>Direction</b>
		ft	deg
		0.00	316.87

**Plan:** Plan #1      **Date Composed:** 10/17/2006  
**Principal:** Yes      **Version:** 1  
                                  **Tied-to:** From Surface

**Plan Section Information**

MD	Incl	Azim	TVD	+N/-S	+E/-W	DLS	Build	Turn	TFO	Target
ft	deg	deg	ft	ft	ft	deg/100ft	deg/100ft	deg/100ft	deg	
0.00	0.00	316.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1060.00	0.00	316.87	1060.00	0.00	0.00	0.00	0.00	0.00	0.00	
2075.89	25.40	316.87	2042.94	161.66	-151.41	2.50	2.50	0.00	316.87	
5914.70	25.40	316.87	5510.76	1363.32	-1276.90	0.00	0.00	0.00	0.00	
7607.84	0.00	316.87	7149.00	1632.75	-1529.25	1.50	-1.50	0.00	180.00	PBHL 16-28D

**Survey**

MD	Incl	Azim	TVD	N/S	E/W	VS	Build	Turn	DLS	Comment
ft	deg	deg	ft	ft	ft	ft	deg/100ft	deg/100ft	deg/100ft	
1000.00	0.00	316.87	1000.00	0.00	0.00	0.00	0.00	0.00	0.00	CASING PT
1060.00	0.00	316.87	1060.00	0.00	0.00	0.00	0.00	0.00	0.00	KOP
1100.00	1.00	316.87	1100.00	0.25	-0.24	0.35	2.50	0.00	2.50	
1200.00	3.50	316.87	1199.91	3.12	-2.92	4.27	2.50	0.00	2.50	
1300.00	6.00	316.87	1299.56	9.16	-8.58	12.55	2.50	0.00	2.50	
1400.00	8.50	316.87	1398.75	18.37	-17.21	25.17	2.50	0.00	2.50	
1500.00	11.00	316.87	1497.30	30.73	-28.78	42.11	2.50	0.00	2.50	
1600.00	13.50	316.87	1595.02	46.22	-43.29	63.32	2.50	0.00	2.50	
1700.00	16.00	316.87	1691.71	64.80	-60.69	88.78	2.50	0.00	2.50	
1800.00	18.50	316.87	1787.21	86.44	-80.96	118.43	2.50	0.00	2.50	
1900.00	21.00	316.87	1881.32	111.10	-104.06	152.22	2.50	0.00	2.50	
2000.00	23.50	316.87	1973.87	138.74	-129.94	190.08	2.50	0.00	2.50	
2075.89	25.40	316.87	2042.94	161.66	-151.41	221.49	2.50	0.00	2.50	HOLD
2100.00	25.40	316.87	2064.73	169.21	-158.48	231.83	0.00	0.00	0.00	
2200.00	25.40	316.87	2155.06	200.51	-187.80	274.72	0.00	0.00	0.00	
2300.00	25.40	316.87	2245.40	231.81	-217.12	317.61	0.00	0.00	0.00	

# Weatherford Drilling Services

## PROPOSAL PLAN REPORT



<b>Company:</b> BILL BARRETT CORP	<b>Date:</b> 10/17/2006	<b>Time:</b> 09:29:56	<b>Page:</b> 2
<b>Field:</b> CARBON COUNTY, UTAH	<b>Co-ordinate(NE) Reference:</b>	Well: PRICKLY PEAR UF #16-28D-12-15	
<b>Site:</b> PRICKLY PEAR UF 14-27D PAD	<b>Vertical (TVD) Reference:</b>	SITE 7380.0	
<b>Well:</b> PRICKLY PEAR UF #16-28D-12-15	<b>Section (VS) Reference:</b>	Well (0.00N,0.00E,316.87Azi)	
<b>Wellpath:</b> 1	<b>Survey Calculation Method:</b>	Minimum Curvature	<b>Db:</b> Sybase

**Survey**

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	Build deg/100ft	Turn deg/100ft	DLS deg/100ft	Comment
2400.00	25.40	316.87	2335.73	263.11	-246.44	360.50	0.00	0.00	0.00	
2500.00	25.40	316.87	2426.07	294.42	-275.75	403.39	0.00	0.00	0.00	
2600.00	25.40	316.87	2516.41	325.72	-305.07	446.28	0.00	0.00	0.00	
2700.00	25.40	316.87	2606.74	357.02	-334.39	489.17	0.00	0.00	0.00	
2800.00	25.40	316.87	2697.08	388.33	-363.71	532.06	0.00	0.00	0.00	
2900.00	25.40	316.87	2787.41	419.63	-393.03	574.94	0.00	0.00	0.00	
3000.00	25.40	316.87	2877.75	450.93	-422.35	617.83	0.00	0.00	0.00	
3001.39	25.40	316.87	2879.00	451.37	-422.75	618.43	0.00	0.00	0.00	WASATCH
3100.00	25.40	316.87	2968.08	482.24	-451.67	660.72	0.00	0.00	0.00	
3200.00	25.40	316.87	3058.42	513.54	-480.99	703.61	0.00	0.00	0.00	
3300.00	25.40	316.87	3148.76	544.84	-510.30	746.50	0.00	0.00	0.00	
3400.00	25.40	316.87	3239.09	576.15	-539.62	789.39	0.00	0.00	0.00	
3500.00	25.40	316.87	3329.43	607.45	-568.94	832.28	0.00	0.00	0.00	
3600.00	25.40	316.87	3419.76	638.75	-598.26	875.17	0.00	0.00	0.00	
3700.00	25.40	316.87	3510.10	670.05	-627.58	918.06	0.00	0.00	0.00	
3800.00	25.40	316.87	3600.43	701.36	-656.90	960.95	0.00	0.00	0.00	
3900.00	25.40	316.87	3690.77	732.66	-686.22	1003.83	0.00	0.00	0.00	
4000.00	25.40	316.87	3781.11	763.96	-715.53	1046.72	0.00	0.00	0.00	
4100.00	25.40	316.87	3871.44	795.27	-744.85	1089.61	0.00	0.00	0.00	
4200.00	25.40	316.87	3961.78	826.57	-774.17	1132.50	0.00	0.00	0.00	
4300.00	25.40	316.87	4052.11	857.87	-803.49	1175.39	0.00	0.00	0.00	
4400.00	25.40	316.87	4142.45	889.18	-832.81	1218.28	0.00	0.00	0.00	
4500.00	25.40	316.87	4232.78	920.48	-862.13	1261.17	0.00	0.00	0.00	
4600.00	25.40	316.87	4323.12	951.78	-891.45	1304.06	0.00	0.00	0.00	
4700.00	25.40	316.87	4413.45	983.09	-920.77	1346.95	0.00	0.00	0.00	
4800.00	25.40	316.87	4503.79	1014.39	-950.08	1389.84	0.00	0.00	0.00	
4900.00	25.40	316.87	4594.13	1045.69	-979.40	1432.72	0.00	0.00	0.00	
4993.95	25.40	316.87	4679.00	1075.10	-1006.95	1473.02	0.00	0.00	0.00	NORTH HORN
5000.00	25.40	316.87	4684.46	1076.99	-1008.72	1475.61	0.00	0.00	0.00	
5100.00	25.40	316.87	4774.80	1108.30	-1038.04	1518.50	0.00	0.00	0.00	
5200.00	25.40	316.87	4865.13	1139.60	-1067.36	1561.39	0.00	0.00	0.00	
5300.00	25.40	316.87	4955.47	1170.90	-1096.68	1604.28	0.00	0.00	0.00	
5400.00	25.40	316.87	5045.80	1202.21	-1126.00	1647.17	0.00	0.00	0.00	
5500.00	25.40	316.87	5136.14	1233.51	-1155.32	1690.06	0.00	0.00	0.00	
5600.00	25.40	316.87	5226.48	1264.81	-1184.63	1732.95	0.00	0.00	0.00	
5700.00	25.40	316.87	5316.81	1296.12	-1213.95	1775.84	0.00	0.00	0.00	
5800.00	25.40	316.87	5407.15	1327.42	-1243.27	1818.73	0.00	0.00	0.00	
5900.00	25.40	316.87	5497.48	1358.72	-1272.59	1861.61	0.00	0.00	0.00	
5914.70	25.40	316.87	5510.76	1363.32	-1276.90	1867.92	0.00	0.00	0.00	DROP
6000.00	24.12	316.87	5588.22	1389.39	-1301.32	1903.64	-1.50	0.00	1.50	
6100.00	22.62	316.87	5680.02	1418.34	-1328.43	1943.30	-1.50	0.00	1.50	
6200.00	21.12	316.87	5772.82	1445.53	-1353.89	1980.55	-1.50	0.00	1.50	
6300.00	19.62	316.87	5866.56	1470.93	-1377.68	2015.35	-1.50	0.00	1.50	
6400.00	18.12	316.87	5961.19	1494.53	-1399.79	2047.69	-1.50	0.00	1.50	
6500.00	16.62	316.87	6056.63	1516.32	-1420.19	2077.54	-1.50	0.00	1.50	
6600.00	15.12	316.87	6152.81	1536.27	-1438.88	2104.88	-1.50	0.00	1.50	
6700.00	13.62	316.87	6249.68	1554.38	-1455.85	2129.69	-1.50	0.00	1.50	
6709.58	13.47	316.87	6259.00	1556.02	-1457.38	2131.94	-1.50	0.00	1.50	DARK CANYON
6800.00	12.12	316.87	6347.17	1570.63	-1471.07	2151.96	-1.50	0.00	1.50	
6900.00	10.62	316.87	6445.20	1585.02	-1484.54	2171.67	-1.50	0.00	1.50	
6954.66	9.80	316.87	6499.00	1592.09	-1491.16	2181.36	-1.50	0.00	1.50	PRICE RIVER
7000.00	9.12	316.87	6543.72	1597.53	-1496.26	2188.81	-1.50	0.00	1.50	
7100.00	7.62	316.87	6642.65	1608.15	-1506.20	2203.36	-1.50	0.00	1.50	

# Weatherford Drilling Services

## PROPOSAL PLAN REPORT



<b>Company:</b> BILL BARRETT CORP	<b>Date:</b> 10/17/2006	<b>Time:</b> 09:29:56	<b>Page:</b> 3
<b>Field:</b> CARBON COUNTY, UTAH	<b>Co-ordinate(NE) Reference:</b>	Well: PRICKLY PEAR UF #16-28D-12-15	
<b>Site:</b> PRICKLY PEAR UF 14-27D PAD	<b>Vertical (TVD) Reference:</b>	SITE 7380.0	
<b>Well:</b> PRICKLY PEAR UF #16-28D-12-15	<b>Section (VS) Reference:</b>	Well (0.00N,0.00E,316.87Azi)	
<b>Wellpath:</b> 1	<b>Survey Calculation Method:</b>	Minimum Curvature	<b>Db:</b> Sybase

### Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	Build deg/100ft	Turn deg/100ft	DLS deg/100ft	Comment
7200.00	6.12	316.87	6741.93	1616.88	-1514.38	2215.32	-1.50	0.00	1.50	
7300.00	4.62	316.87	6841.49	1623.70	-1520.77	2224.67	-1.50	0.00	1.50	
7400.00	3.12	316.87	6941.26	1628.63	-1525.38	2231.42	-1.50	0.00	1.50	
7500.00	1.62	316.87	7041.17	1631.64	-1528.21	2235.55	-1.50	0.00	1.50	
7600.00	0.12	316.87	7141.16	1632.75	-1529.24	2237.06	-1.50	0.00	1.50	
7607.84	0.00	316.87	7149.00	1632.75	-1529.25	2237.07	-1.50	0.00	1.50	PBHL 16-28D

### Annotation

MD ft	TVD ft	
1060.00	1060.00	KOP
2075.89	2042.95	HOLD
5914.70	5510.76	DROP
6954.66	6499.00	PRICE RIVER
7607.84	7149.00	PBHL 16-28D

### Formations

MD ft	TVD ft	Formations	Lithology	Dip Angle deg	Dip Direction deg
3001.39	2879.00	WASATCH		0.00	0.00
4993.95	4679.00	NORTH HORN		0.00	0.00
6709.58	6259.00	DARK CANYON		0.00	0.00
6954.66	6499.00	PRICE RIVER		0.00	0.00

### Casing Points

MD ft	TVD ft	Diameter in	Hole Size in	Name
1000.00	1000.00	0.000	0.000	CASING PT

### Targets

Name	Description		TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	Latitude			Longitude				
	Dip.	Dir.						Deg	Min	Sec	Deg	Min	Sec		
PBHL 16-28D -Circle (Radius: 200) -Plan hit target			7149.00	1632.75	-1529.25	7076305.44	1996149.01	39	44	21.575	N	110	14	5.673	W

## SURFACE USE PLAN

BILL BARRETT CORPORATION

Prickly Pear Unit Federal #16-28D-12-15

NWNW, 979' FNL, 866' FWL, Sec. 34-T12S-R15E (Surface Hole)

SESE, 660' FSL, 660' FEL, Sec. 28-T12S-R15E (Bottom Hole)

Carbon County, Utah

---

The onsite for this location was conducted on 5/22/2007.

This directional well is the last of three wells to be drilled from this pad (one directional well, the 14-27D-12-15 will be drilled first and the 4-34-12-15 will be drilled second).

The dirt contractor will be provided with an approved copy of the surface use plan of operations before initiating construction.

1. Existing Roads:

- a. The proposed well site is located approximately 51 miles from Myton, Utah. Maps reflecting directions to the proposed well site are included (see Topographic maps A and B).
- b. The use of roads under State and County Road Department maintenance is necessary to access the Prickly Pear Unit. However, an encroachment permit is not anticipated since no upgrades to the State or County road systems are proposed at this time.
- c. All existing roads will be maintained and kept in good repair during all phases of operation.
- d. Vehicle operators will obey posted speed restrictions and observe safe speeds commensurate with road and weather conditions.
- e. Since no improvements are anticipated to the State, County or BLM access roads, no topsoil stripping will occur.
- f. An off-lease federal right-of-way for the access road and utility corridor is not anticipated at this time since existing roads are being utilized into the Prickly Pear Unit area. All new construction will be within the Unit.

2. Planned Access Road:

- a. From the existing road, +/- 0.1 miles (528') of new access road is required trending west. A road design plan is not anticipated at this time.
- b. The new access road will consist of an 18' travel surface within a 32' temporary disturbance area. The proposed access has been placed to minimize impact to the environment and natural drainage of the area.
- c. BLM approval to construct this new access road is requested with this application.

- d. A maximum grade of 10% will be maintained throughout the project with minimum cuts and fills, as necessary, to access the well.
- e. The access road will be constructed using standard equipment and techniques. Bulldozers and/or road graders would first clear vegetation and topsoil from the ROW. These materials may be windrowed for future redistribution during the reclamation process. The surface would be crowned to facilitate drainage to a borrow ditch on each side of the road designed to minimize erosion potential. Following completion of the wells on the pad, graveling or capping the roadbed would be performed as necessary to provide a well constructed, safe road.
- f. Following completion of all wells planned on the pad, the road will be reduced to an 18-foot wide running surface and reclaimed according to the specifications of the appropriate agency or private land owner.
- g. A turnout is not proposed.
- h. 18" diameter culverts will be installed as necessary. Adequate drainage structures, where necessary, will be incorporated into the remainder of the road.
- i. No surfacing material will come from Indian lands or off-lease Federal lands. BBC requests that any excess rock from construction of the pad be used for surfacing of the access road, if necessary. Any additional materials needs may come from either existing SITLA Materials Permits (370, 385, 396) or from federal wells within the Prickly Pear unit.
- j. No gates or cattle guards are anticipated at this time.
- k. Surface disturbance and vehicular travel will be limited to the approved location access road. Adequate signs will be posted, as necessary, to warn the public of project related traffic.
- l. All access roads and surface disturbing activities will conform to the appropriate standard, no higher than necessary, to accommodate their intended function adequately as outlined in the Bureau of Land Management and Forest Service publication: Surface Operating Standards for Oil and Gas Exploration and Development, Fourth Edition – 2006.
- m. The operator will be responsible for all maintenance of the access road including drainage structures. It is BBC's intent to maintain the newly constructed access road to this wellsite.

3. Location of Existing Wells:

- a. Following is a list of wells with surface hole locations within a one-mile radius of the proposed well:
  - i. water wells none
  - ii. injection wells none
  - iii. disposal wells none
  - iv. drilling wells none
  - v. temp shut-in wells one

vi. producing wells	five
vii. abandoned wells	one

- b. Topographic Map C may not include all wells noted in A. above if new wells have been drilled since the date of the plat. An additional map has been included indicating current locations.

4. Location of Production Facilities (see enclosed "proposed facility layout plat"):

- a. Some permanent structures/facilities will be shared between this proposed well and the additional wells to be drilled from this pad. Each well will have its own meter run and separator. Pending the evaluation of completion operations, additional water and/or oil tanks may be added if necessary.
- b. All permanent above-ground structures will be painted a flat, non-reflective Olive Black to match the standard environmental colors. All facilities will be painted the designated color at the time of installation. Facilities required to comply with the Occupational Safety and Health Act (OSHA) may be excluded.
- c. Site security guidelines identified in 43 CFR 3162.7-5 and Onshore Oil and Gas Order No. 3 will be adhered to.
- d. A gas meter run will be constructed and located on lease within 500 feet of the wellhead. Meter runs will be housed and/or fenced. All gas production and measurement shall comply with the provisions of 43 CFR 3162.7-3, Onshore Oil and Gas Order No. 5, and American Gas Association (AGA) Report No. 3. Use of an electronic flow meter (EFM) for gas measurement purposes is requested with this application.
- e. A tank battery(s) will be constructed on this lease consisting of tanks no larger than 300 barrels (per on-site request); it will be surrounded by a berm sufficient to contain the storage capacity of 1.5 times the single largest tank inside the berm. All loading lines and valves will be placed inside the berm surrounding the tank battery or will have a secondary containment vessel. All liquid hydrocarbon production and measurement shall conform to the provisions of 43 CFR 3162.7-2 and Onshore Oil and Gas Order No. 4 for the measurement of oil. BBC requests permission to install the necessary production/operation facilities with this application.
- f. Any necessary pits will be properly fenced to prevent any wildlife and livestock entry.
- g. All access roads will be maintained as necessary to prevent erosion and accommodate year-round traffic as practicable. The roads will be maintained in a safe, useable condition.
- h. The site will require periodic maintenance to ensure that drainages are kept open and free of debris, ice and snow, and that surfaces are properly treated to reduce erosion, fugitive dust, and impacts to adjacent areas.
- i. A gas pipeline (approximately 1160' of up to 10" pipe) is associated with this application and is being applied for at this time. The proposed gas pipeline will traverse southeast from the well pad approximately 528', turning south west along the existing road, and will trench under the road to tie in to an existing surface-laid 10" pipeline.

- j. As per notes taken during the May 22<sup>nd</sup> onsite, soil conditions do not permit BBC to bury this pipeline without causing an additional 20' of disturbance (total disturbance 72'). BBC therefore proposes to surface-lay this pipeline. The proposed steel gas pipeline will lie within a 20' utility corridor immediately adjacent to the 32' disturbed area for the new access road as well as the existing road (see Topographic Map D).
- k. As referred to in (j). above, the line will not be buried in areas with bedrock at or near surface that would require blasting to loosen rock before excavation for burial of the pipeline. A table of the actual pipeline corridor width required is noted below for the different scenarios. **BBC is requesting a 20' utility corridor but actual disturbance will be based on the applicable scenario, which in this case would be surface-laid.**

Surface-Laid:	20' utility corridor + 32' road corridor = 52' TOTAL
	Estimated disturbance for utility to be minimal, if any, within the 20' requested. Total disturbance would be 32'.
Buried:	20' utility corridor + 32' road corridor = 52' TOTAL
	Estimated disturbance for utility to include all 20' requested. Total disturbance would be 52'.
Buried with Blasting:	40' utility corridor + 32' road corridor = 72' TOTAL
	Estimated disturbance for utility to include all 20' requested. Total disturbance would be 72'.

- l. The determination to bury or surface lay the pipeline will be made by the Authorized Officer at the time of construction. In this particular case, discussions did occur at the on-site that this pipeline would be surface-laid.
  - m. BBC intends on stringing the pipeline on the surface, welding many joints into long lengths, dragging the long lengths into position and then completing a final welding pass to join the long lengths together. The welded joints will remain on the surface. BBC intends on connecting the pipeline together utilizing conventional welding technology.
5. Location and Type of Water Supply:
- a. Bill Barrett Corporation will use water consistent with approvals granted by the Utah State Engineer's Office under Application Number 90-1846 (T76109) which expires March 27, 2008 or an existing water well in Sec. 13, T12S-R14E granted by the Utah State Engineer's Office under Application Number 90-1844 (T75896) which expires September 5, 2007.
  - b. Water use for this location will most likely be diverted from a point of diversion in the E ¼ of Section 11, T13S-R15E or from a well in the N ¼ of Section 32, T12S-R16E. Bobtail trucks would haul the water, traveling Cottonwood Canyon road to Flat Iron Mesa road and north along existing well access roads to the proposed pad.
6. Source of Construction Material:
- a. The use of materials will conform to 43 CFR 3610.2-3.
  - b. No construction materials will be taken off-lease.

- c. If any additional gravel is required, it will be obtained from a SITLA approved gravel pit, existing SITLA materials permits or will be taken from federal BBC locations within the Prickly Pear unit.

7. Methods of Handling Waste Disposal:

- a. All wastes associated with this application will be contained and disposed of utilizing approved facilities.
  - b. Drill cuttings will be contained and buried on site.
  - c. The reserve pit will be located outboard of the location along the south side of the pad.
- 
- d. The reserve pit will be constructed so as not to leak, break or allow any discharge.
  - e. If necessary, the reserve pit will be lined with 12 mil minimum thickness plastic nylon reinforced liner material. The liner will overlay a felt-liner pad only if rock is encountered during excavation. The pit liner will overlap the pit walls and be anchored with dirt and/or rocks to hold it in place. No trash, scrap pipe, etc., that could puncture the liner will be disposed of in the pit. Pit walls will be sloped no greater than 2:1. A minimum 2-foot freeboard will be maintained in the pit at all times during the drilling and completion operations.
  - f. The reserve pit has been located in cut material. Three sides of the reserve pit will be fenced before drilling starts. The fourth side will be fenced as soon as drilling is completed and shall remain until the pit is dry. After the reserve pit has dried, all areas not needed for production will be rehabilitated.
  - g. No chemicals subject to reporting under SARA Title III (hazardous materials) in an amount greater than 10,000 pounds will be used, produced, stored, transported or disposed of annually in association with the drilling, testing or completion of the well. Furthermore, no extremely hazardous substances, as defined in 40 CFR 355, in threshold planning quantities will be used, produced, stored, transported or disposed of in association with the drilling, testing or completion of the well.
  - h. Trash will be contained in a trash cage or roll-off container and hauled away to an approved disposal site as necessary but no later than at the completion of drilling operations. The contents of the trash container will be hauled off periodically to the approved Carbon or Uintah County Landfill.
  - i. Produced fluids from the well other than water will be produced into a test tank until such time as construction of production facilities is completed. Any spills of oil, gas, salt water or other produced fluids will be cleaned up and removed.
  - j. After initial clean-up and based on volumes, BBC will install a tank (maximum size 400 barrel capacity) to contain produced waste water. After first production, produced wastewater will be confined to a lined pit or storage tank for a period not to exceed ninety (90) days. Thereafter, produced water will be used in further drilling and completion activities, evaporated in the pit, or hauled to R & I Disposal, a State approved disposal facility.

- k. Any salts and/or chemicals, which are an integral part of the drilling system, will be disposed of in the same manner as the drilling fluid.
  - l. Sanitary facilities will be on site at all times during operations. Sewage will be placed in a portable chemical toilet and the toilet replaced periodically utilizing a licensed contractor to transport by truck the portable chemical toilet so that its contents can be delivered to the Price or Vernal Wastewater Treatment Facility in accordance with state and county regulations.
  - m. Any liquid hydrocarbons produced during completion work will be contained in test tanks on the well location. The tanks will be removed from location at a later date.
- 
- n. A flare pit may be constructed a minimum of 110' from the wellhead and may be used during completion work. In the event a flare pit proves to be unworkable in this situation, a flare stack will be installed. BBC will flow back as much fluid and gas as possible into pressurized vessels, separating the fluid from the gas. The fluid will then be either returned to the reserve pit or placed into a tank. Gas will be then directed into the flare pit or the flare stack and a constant source of ignition will be on site. This should eliminate any fires in and around the reserve pit. Natural gas will be directed to the pipeline as soon as pipeline gas quality standards are met. By eliminating condensate on the reserve pit and discharge of gas within the reserve pit, potential for damage to the pit liner will be minimized.
  - o. Any hydrocarbons floating on the surface of the reserve pit will be removed as soon as possible after drilling and completion operations are finished.
  - p. If hydrocarbons are present on the reserve pit and are not removed shortly after drilling or completion operations cease, the reserve pit will be flagged overhead or covered with wire or plastic mesh to protect migrating birds.
8. Ancillary Facilities:
- a. Garbage containers and portable toilets are the only ancillary facilities proposed in this application
9. Well Site Layout:
- a. The well will be properly identified in accordance with 43 CFR 3162.6.
  - b. The rig layout and cross section diagrams are enclosed (see Location Layout and Cross Section Plats).
  - c. The pad and road designs are consistent with BLM specifications.
  - d. The pad has been staked at its maximum size of 447' x 175' with a reserve pit size of 190' x 100'.
  - e. All surface disturbing activities will be supervised by a qualified, responsible company representative who is aware of the terms and conditions of the APD and specifications in the approved plans.

- f. All cut and fill slopes will be such that stability can be maintained for the life of the activity.
- g. Diversion ditches will be constructed, if necessary, around the well site to prevent surface waters from entering the well site area.
- h. The stockpiled topsoil (first 6 inches or maximum available) will be stored in a windrow on the uphill side of the location to prevent any possible contamination. All topsoil will be stockpiled for reclamation in such a way as to prevent soil loss and contamination.
- i. Pits will remain fenced until site cleanup.
- j. ~~If air drilling occurs, the blooie line will be located at least 100 feet from the well head and will run from the wellhead directly to the pit.~~
- k. Water application may be implemented if necessary to minimize the amount of fugitive dust.

10. Plan for Restoration of the Surface:

- a. Site reclamation for a producing well(s) will be accomplished for portions of the site not required for the continued operation of the well(s) on this pad.
- b. The operator will control noxious weeds along access road use authorizations, pipeline route authorizations, well sites or other applicable facilities by spraying or mechanical removal. A list of noxious weeds may be obtained from the BLM or the appropriate county extension office. On BLM administered land it is required that a Pesticide Use Proposal be submitted and approved prior to the application of herbicides, pesticides or possibly hazardous chemicals.
- c. Upon well completion, any hydrocarbons in the pit shall be removed in accordance with 43 CFR 3162.7-1. The reserve pit will be allowed to dry prior to the commencement of backfilling work. No attempts will be made to backfill the reserve pit until the pit is free of standing water. Once the reserve pit is dry, the plastic nylon reinforced liner shall be torn and perforated before backfilling of the reserve pit. Rat and mouse holes will be filled and compacted from bottom to top immediately upon release of the drilling rig from location.
- d. The reserve pit and that portion of the location not needed for production facilities/operations will be recontoured to the approximate natural contours. Areas not used for production purposes will be backfilled and blended into the surrounding terrain, reseeded and erosion control measures installed. Erosion control measures will be adhered to after slope reduction. Mulching, erosion control measures and fertilization may be required to achieve acceptable stabilization. Back slopes and fore slopes will be reduced as practical and scarified with the contour. The reserved topsoil will be evenly distributed over the slopes and scarified along the contour. Slopes will be seeded with the BLM specified seed mix. Reclamation operations for the well pad are expected to require one week and will begin when the fluids in the reserve pit have evaporated. Seeding will take place either during the fall (prior to ground frost) or spring (after frost leaves the ground) months. Restoration of un-needed portions of the pad will commence as soon as practical after the installation of production facilities.

- e. The cut and fill slopes and all other disturbed areas not needed for the production operation will be top-soiled and revegetated. Prior to reseeding, all disturbed areas will be scarified and left with a rough surface. The site will then be seeded and/or planted as prescribed by the BLM. The BLM recommended seed mix will be detailed within their approval documents. Topsoil salvaged from the drill site and stored for more than one year will be placed at the location indicated on the well site layout drawing and graded to a depth optimum to maintain topsoil viability, seeded with the BLM prescribed seed mixture and covered with mulch for protection from wind and water erosion and to discourage the invasion of weeds.
  - f. Salvaged topsoil from the road (if any) and the drill site will be evenly re-spread over cut and fill surfaces not actively used during the production phase. Upon final reclamation at the end of the project life, topsoil spread on these surfaces will be used for the overall reclamation effort.
- 

11. Surface and Mineral Ownership:

- a. Surface ownership – Federal under the management of the Bureau of Land Management – Price Field Office, 125 South 600 West, Price Utah 84078; (435) 636-3600.
- b. Mineral ownership – Federal under the management of the Bureau of Land Management – Price Field Office, 125 South 600 West, Price Utah 84078; (435) 636-3600.

12. Other Information:

- a. Montgomery Archaeological Consultants has conducted a Class III archeological survey. A copy of the report has been submitted under separate cover to the appropriate agencies by Montgomery as MOAC Report No. 06-482, dated September 15, 2006.
- b. BBC will identify areas in our drilling program where fluids escaping the wellbore and exiting onto a hillside might occur. In those cases, BBC will be ready with cement and/or fluid loss compounds (types of lost circulation fluids) to heal up vags and cracks. Upon individual evaluation of the proposed well sites, BBC may air drill the hole to surface casing depth if necessary.
- c. A combustor may be installed at this location for control of associated condensate tank emissions. A combustor ranges from 24” to 48” wide and is approximately 10’ tall. Combustor placement would be on existing disturbance and would not be closer than 100’ to any tank or wellhead.

OPERATOR CERTIFICATION

Certification:

I hereby certify that I, or someone under my direction supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filings of false statements.

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Executed this 27<sup>th</sup> day of June 2007  
Name: Tracey Fallang  
Position Title: Regulatory Analyst  
Address: 1099 18<sup>th</sup> Street, Suite 2300, Denver, CO 80202  
Telephone: 303-312-8134  
Field Representative Fred Goodrich  
Address: 1820 W. Hwy 40, Roosevelt, UT 84066  
Telephone: 435-725-3515  
E-mail: \_\_\_\_\_

Tracey Fallang  
Tracey Fallang, Environmental/Regulatory Analyst

# BILL BARRETT CORPORATION

PRICKLY PEAR UNIT FEDERAL #4-34-12-15, #14-27D-12-15 & #16-28D-12-15  
LOCATED IN CARBON COUNTY, UTAH  
SECTION 34, T12S, R15E, S.L.B.&M.

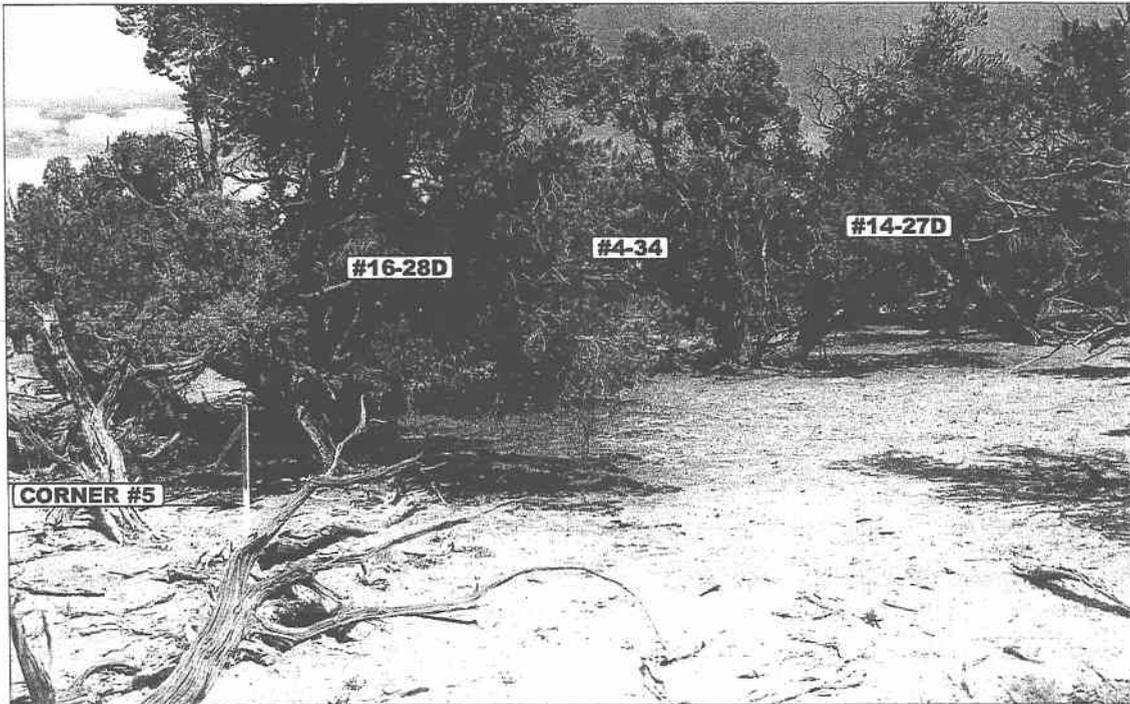


PHOTO: VIEW FROM CORNER #5 TO LOCATION STAKES

CAMERA ANGLE: NORTHEASTERLY



PHOTO: VIEW FROM BEGINNING OF PROPOSED ACCESS

CAMERA ANGLE: NORTHEASTERLY



- Since 1964 -

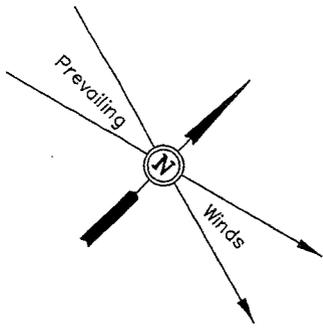
**UELS** Uintah Engineering & Land Surveying  
85 South 200 East Vernal, Utah 84078  
435-789-1017 uels@uelsinc.com

LOCATION PHOTOS	08	25	06	PHOTO
	MONTH	DAY	YEAR	
TAKEN BY: B.H.	DRAWN BY: C.P.	REVISED: 00-00-00		

# BILL BARRETT CORPORATION

## LOCATION LAYOUT FOR

PRICKLY PEAR UNIT FEDERAL #4-34-12-15,  
 #14-27D-12-15 & #16-28D-12-15  
 SECTION 34, T12S, R15E, S.L.B.&M.  
 NW 1/4 NW 1/4



SCALE: 1" = 60'  
 DATE: 08-24-06  
 DRAWN BY: P.M.

F-3.5'  
 El. 60.3'

Sta. 4+47

C-1.6'  
 El. 65.4'

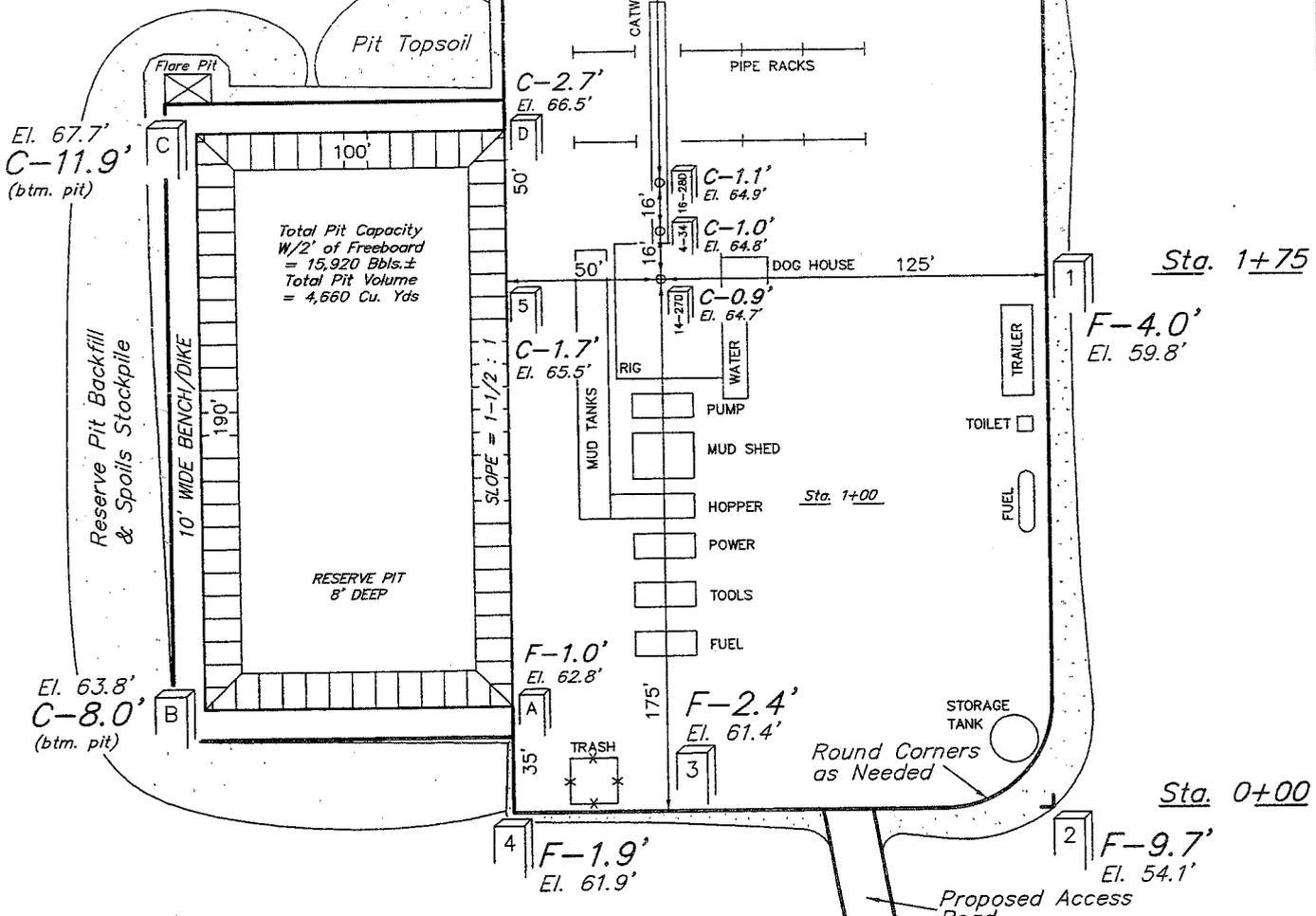
C-1.6'  
 El. 65.4'

Approx.  
 Toe of  
 Fill Slope



**NOTE:**  
 Flare Pit is to  
 be located a min.  
 of 100' from the  
 Well Head.

Approx.  
 Top of  
 Cut Slope



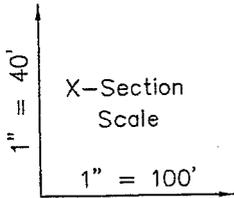
Elev. Ungraded Ground At #14-27D Loc. Stake = 7364.7'  
 FINISHED GRADE ELEV. AT #14-27D LOC. STAKE = 7363.8'

UINTAH ENGINEERING & LAND SURVEYING  
 85 So. 200 East \* Vernal, Utah 84078 \* (435) 789-1017

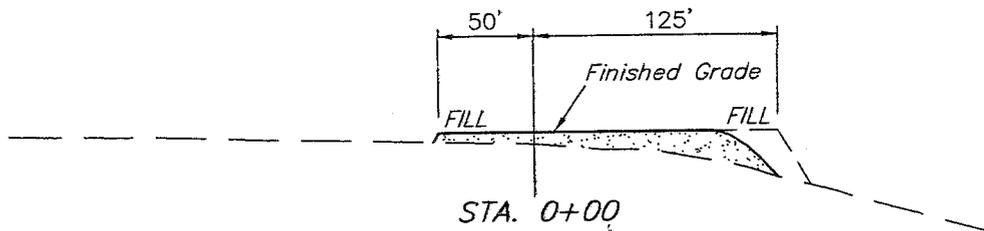
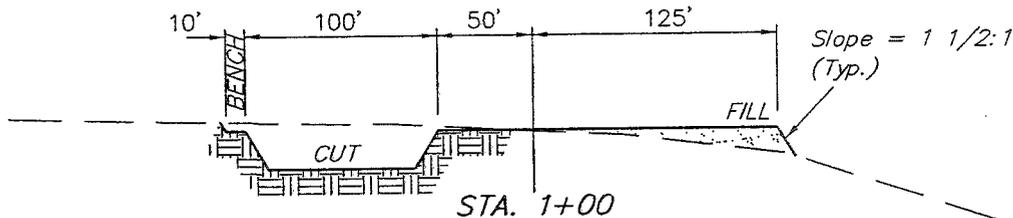
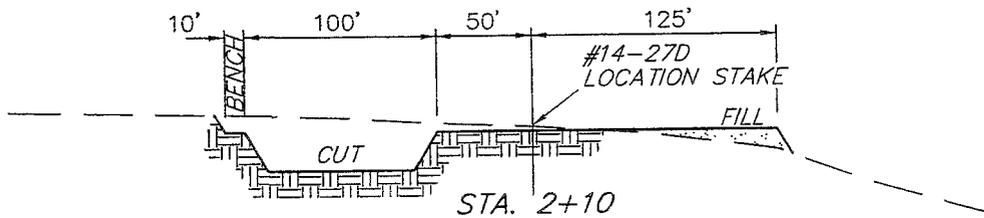
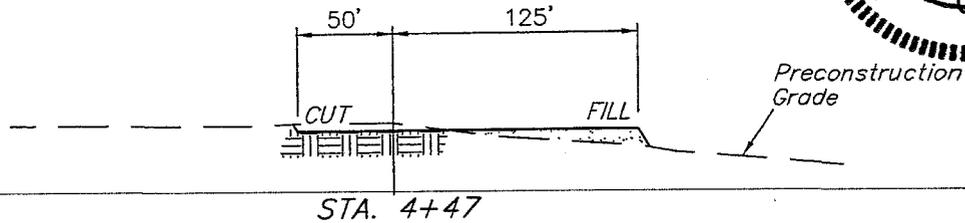
# BILL BARRETT CORPORATION

## TYPICAL CROSS SECTIONS FOR

PRICKLY PEAR UNIT FEDERAL #4-34-12-15,  
 #14-27D-12-15 & #16-28D-12-15  
 SECTION 34, T12S, R15E, S.L.B.&M.  
 NW 1/4 NW 1/4



DATE: 08-24-06  
 DRAWN BY: P.M.



**NOTE:**

Topsoil should not be Stripped Below Finished Grade on Substructure Area.

*Estimated Disturbance:*

*Rd = 2.873 acres  
 Road = (32') = 0.38 acres  
 Pipeline = 0.533 acres  
 of if surface*

**\* NOTE:**

FILL QUANTITY INCLUDES 5% FOR COMPACTION

**APPROXIMATE YARDAGES**

<b>CUT</b>	
(6") Topsoil Stripping	= 2,070 Cu. Yds.
Remaining Location	= 7,480 Cu. Yds.
<b>TOTAL CUT</b>	<b>= 9,550 CU.YDS.</b>
<b>FILL</b>	<b>= 5,150 CU.YDS.</b>

EXCESS MATERIAL	= 4,400 Cu. Yds.
Topsoil & Pit Backfill (1/2 Pit Vol.)	= 4,400 Cu. Yds.
EXCESS UNBALANCE (After Interim Rehabilitation)	= 0 Cu. Yds.

MYTON 31.8 MI. +/-  
HIGHWAY 40 30.3 MI. +/-

DUCHESNE CO.  
CARBON CO.

PROPOSED LOCATION:  
PRICKLY PEAR UNIT FEDERAL #4-34-  
12-15, #14-27D-12-15 & #16-28D-12-15

T12S  
T13S

SEE TOPO "B"

1.5 MI. +/-

0.5 MI. +/-

4.1 MI. +/-

6.4 MI. +/-

R  
14  
E  
R  
15  
E

LEGEND:

○ PROPOSED LOCATION



BILL BARRETT CORPORATION

PRICKLY PEAR UNIT FEDERAL #4-34-12-15,  
#14-27D-12-15 & #16-28D-12-15  
SECTION 34, T12S, R15E, S.L.B.&M.  
NW 1/4 NW 1/4



Utah Engineering & Land Surveying  
85 South 200 East Vernal, Utah 84078  
(435) 789-1017 \* FAX (435) 789-1813

TOPOGRAPHIC  
MAP

08 25 06  
MONTH DAY YEAR

SCALE: 1:100,000 DRAWN BY: C.P. REVISED: 00-00-00



R  
15  
E

**PROPOSED LOCATION:  
PRICKLY PEAR UNIT FEDERAL #4-34-  
12-15, #14-27D-12-15 & #16-28D-12-15**

**PROPOSED ACCESS 0.1 MI. +/-**

0.9 MI. +/-

1.2 MI. +/-

**MYTON 50.7 MI. +/-  
HIGHWAY 40 49.2 MI. +/-**

T12S

T13S

**LEGEND:**

- EXISTING ROAD
- - - - - PROPOSED ACCESS ROAD



**BILL BARRETT CORPORATION**

**PRICKLY PEAR UNIT FEDERAL #4-34-12-15,  
#14-27D-12-15 & #16-28D-12-15  
SECTION 34, T12S, R15E, S.L.B.&M.  
NW 1/4 NW 1/4**



**Uintah Engineering & Land Surveying**  
85 South 200 East Vernal, Utah 84078  
(435) 789-1017 \* FAX (435) 789-1813

**TOPOGRAPHIC  
MAP**

**08 25 06**  
MONTH DAY YEAR

SCALE: 1" = 2000' DRAWN BY: C.P. REVISED: 00-00-00



R  
15  
E

PROPOSED LOCATION:  
PRICKLY PEAR UNIT FEDERAL #4-34-  
12-15, #14-27D-12-15 & #16-28D-12-15

T12S

T13S

**LEGEND:**

- ⊗ DISPOSAL WELLS
- PRODUCING WELLS
- ⬮ SHUT IN WELLS
- ⊗ WATER WELLS
- ABANDONED WELLS
- TEMPORARILY ABANDONED

**BILL BARRETT CORPORATION**

PRICKLY PEAR UNIT FEDERAL #4-34-12-15,  
#14-27D-12-15 & #16-28D-12-15  
SECTION 34, T12S, R15E, S.L.B.&M.  
NW 1/4 NW 1/4

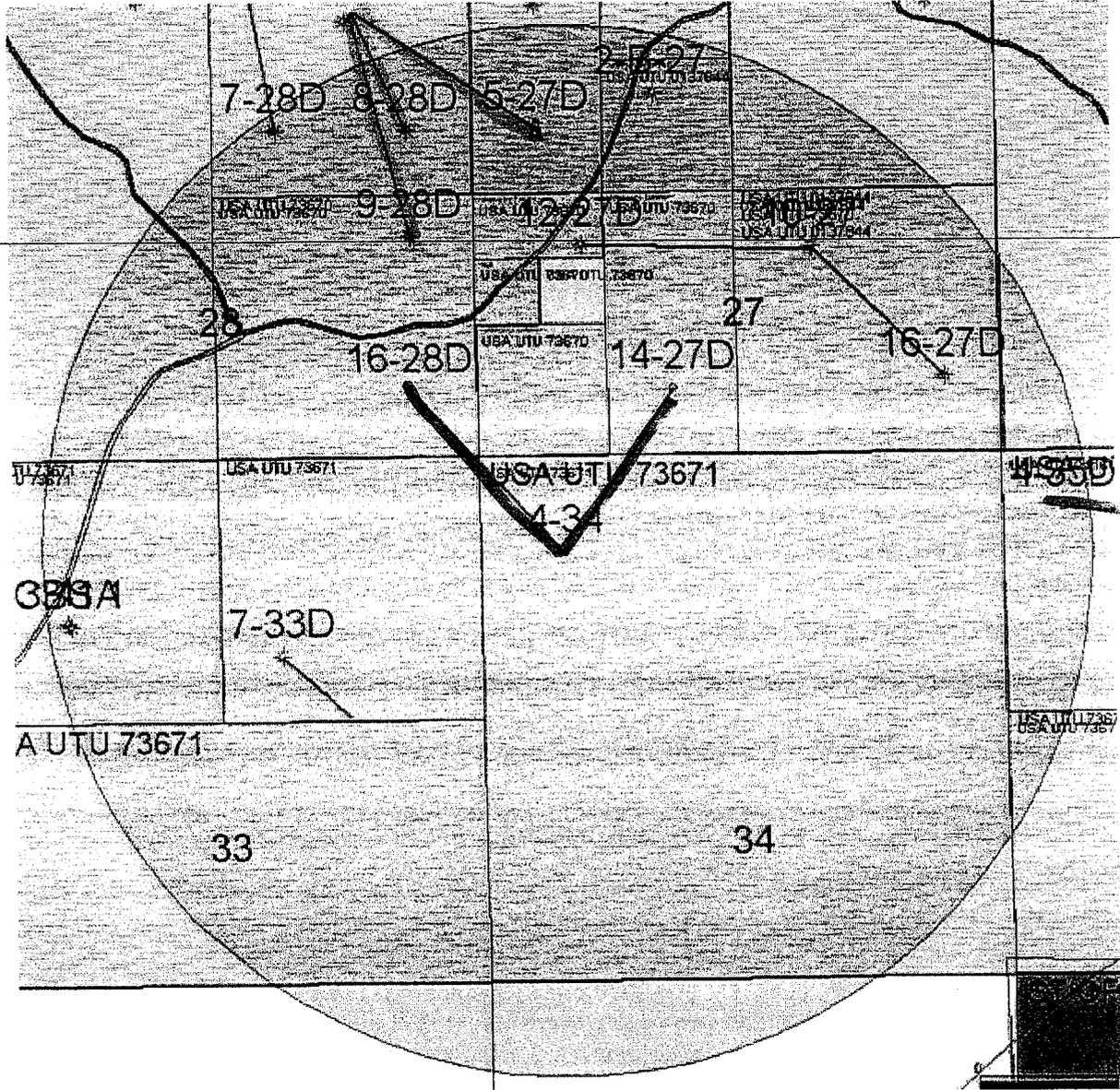
**U E L S**  
Uintah Engineering & Land Surveying  
85 South 200 East Vernal, Utah 84078  
(435) 789-1017 \* FAX (435) 789-1813



**TOPOGRAPHIC** 08 25 06  
**MAP** MONTH DAY YEAR  
SCALE: 1" = 2000' DRAWN BY: C.P. REVISED: 00-00-00



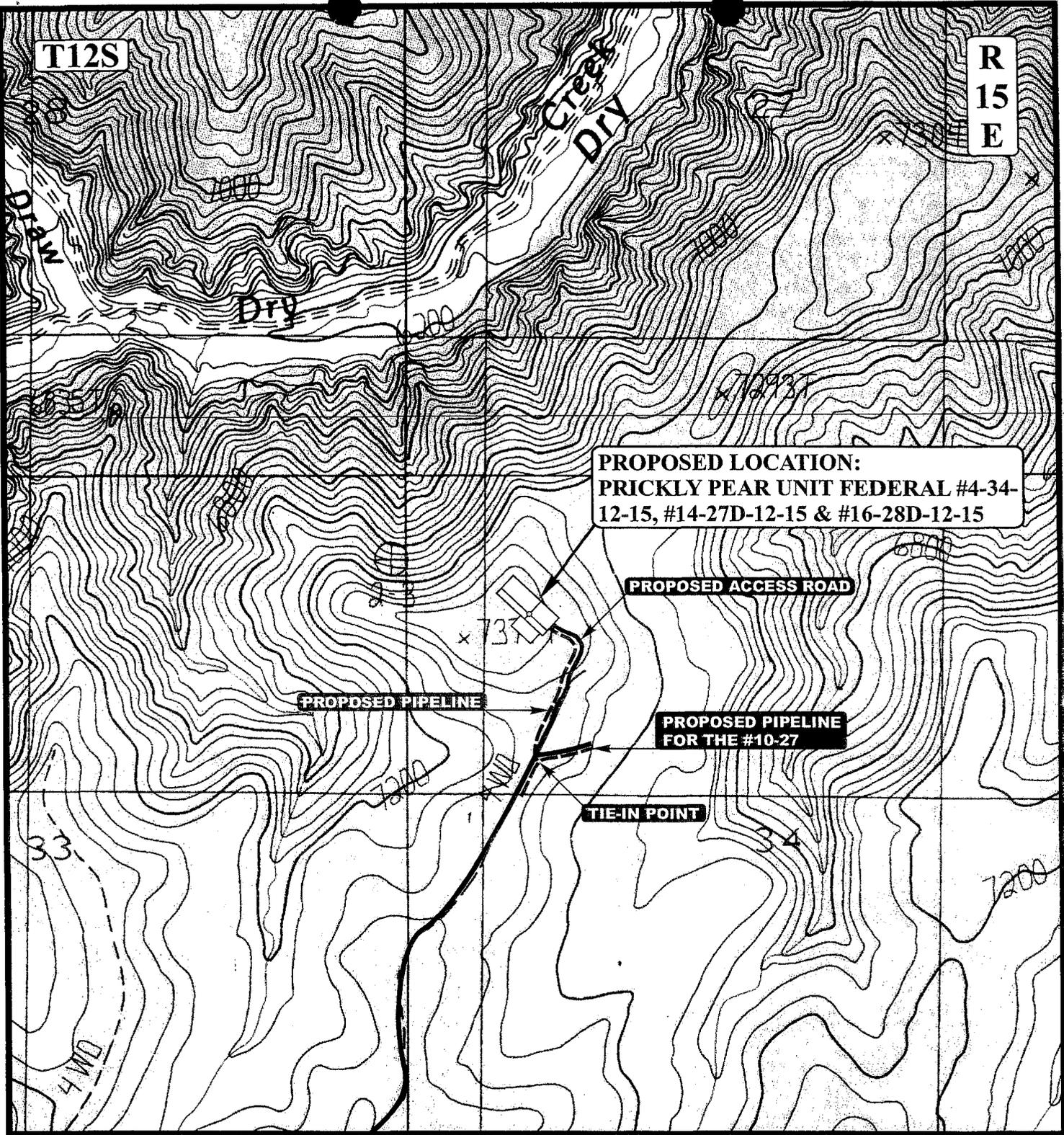
ADDENDUM TO TOPOGRAPHIC MAP C



— Proposed  
○ WO Completion

T12S

R  
15  
E



**PROPOSED LOCATION:**  
**PRICKLY PEAR UNIT FEDERAL #4-34-12-15, #14-27D-12-15 & #16-28D-12-15**

**PROPOSED ACCESS ROAD**

**PROPOSED PIPELINE**

**PROPOSED PIPELINE FOR THE #10-27**

**TIE-IN POINT**

**APPROXIMATE TOTAL PIPELINE DISTANCE = 1,160' +/-**

**LEGEND:**

- PROPOSED ACCESS ROAD
- PROPOSED PIPELINE
- PROPOSED PIPELINE (SERVICING OTHER WELLS)



**BILL BARRETT CORPORATION**

**PRICKLY PEAR UNIT FEDERAL #4-34-12-15,  
 #14-27D-12-15 & #16-28D-12-15  
 SECTION 34, T12S, R15E, S.L.B.&M.  
 NW 1/4 NW 1/4**



**Uintah Engineering & Land Surveying**  
 85 South 200 East Vernal, Utah 84078  
 (435) 789-1017 \* FAX (435) 789-1813

**TOPOGRAPHIC** 08 25 06  
**MAP** MONTH DAY YEAR  
 SCALE: 1" = 1000' DRAWN BY: C.P. REVISED: 00-00-00



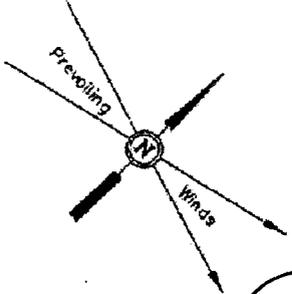
# Facility Layout

BILL BARRETT CORPORATION

LOCATION LAYOUT FOR

PRICKLY PEAR UNIT FEDERAL #4-34-12-15,  
#14-27D-12-15 & #16-28D-12-15  
SECTION 34, T12S, R15E, S.L.B.&M.  
NW 1/4 NW 1/4

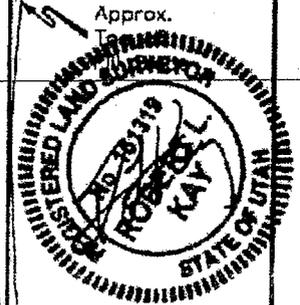
**Option A**



SCALE: 1" = 60'  
DATE: 08-24-06  
DRAWN BY: P.M.

F-3.5'  
El. 60.3'

Sta. 4+42



Sta. 1+75

F-4.0'  
El. 59.8'

Sta. 0+00

**NOTE:**  
Flare Pit is to be located a min. of 100' from the Well Head.

El. 67.7'  
C-11.9'  
(btm. pit)

El. 63.8'  
C-8.0'  
(btm. pit)

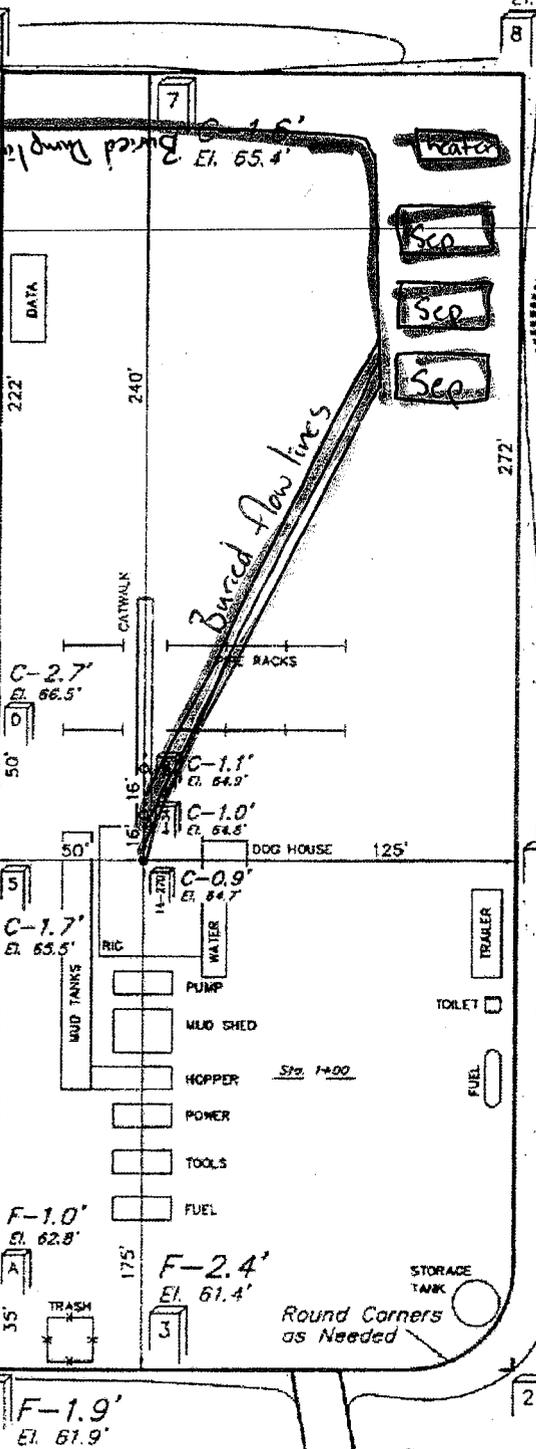
Total Pit Capacity  
w/2' of Freeboard  
= 13,920 Bbls. ±  
Total Pit Volume  
= 4,660 Cu. Yds

Reserve Pit Backfill  
& Spoils Stockpile

10' WIDE BENCH/DIKE

RESERVE PIT  
8' DEEP

SCOPE = 1-1/2 : 1



Elev. Ungraded Ground At #14-27D Loc. Stake = 7364.7'  
FINISHED GRADE ELEV. AT #14-27D LOC. STAKE = 7363.8'

UINTAH ENGINEERING & LAND SURVEYING  
85 So. 200 East • Vernal, Utah 84078 • (435) 789-1017

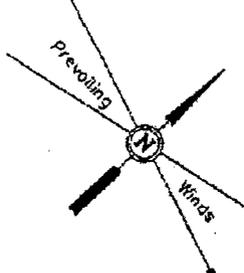
# Facility Layout

BILL BARRETT CORPORATION

LOCATION LAYOUT FOR

PRICKLY PEAR UNIT FEDERAL #4-34-12-15,  
 #14-27D-12-15 & #16-28D-12-15  
 SECTION 34, T12S, R15E, S.L.B.&M.  
 NW 1/4 NW 1/4

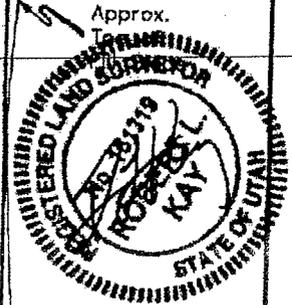
Option B



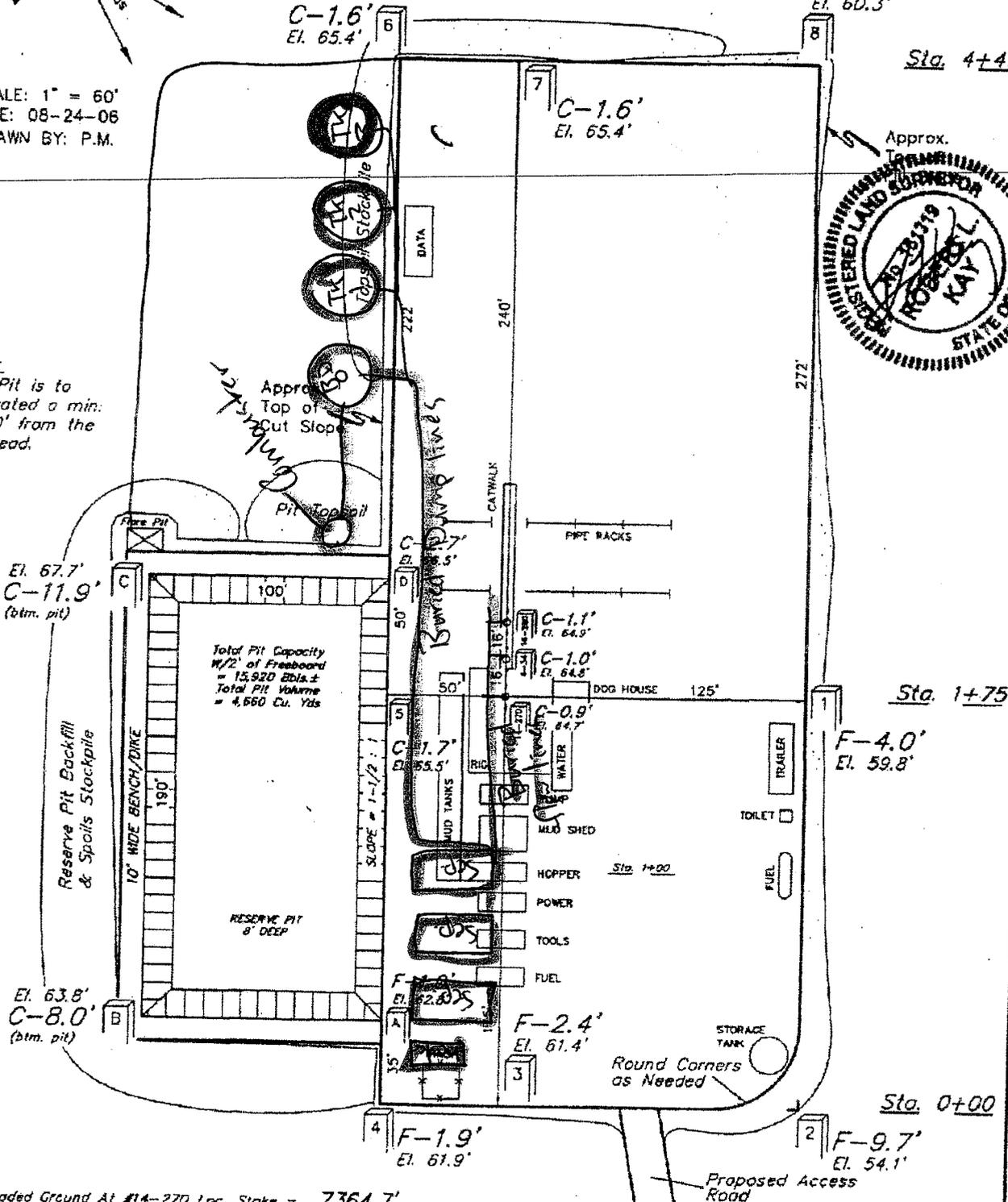
SCALE: 1" = 60'  
 DATE: 08-24-06  
 DRAWN BY: P.M.

F-3.5'  
 El. 60.3'

Sta. 4+47



NOTE:  
 Flare Pit is to be located a min. of 100' from the Well Head.



Approx. Top of Cut Slope

Handwritten note: *2-2-10-10-10*

Handwritten note: *Semi-Dumping Line*

Handwritten note: *SLOPE = 1-1/2:1*

Handwritten note: *RESERVE PIT 8' DEEP*

Handwritten note: *Round Corners as Needed*

Elev. Ungraded Ground At #14-27D Loc. Stake = 7364.7'  
 FINISHED GRADE ELEV. AT #14-27D LOC. STAKE = 7363.8'

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 85 So. 200 East • Vernal, Utah 84078 • (438) 789-1017

**WORKSHEET  
APPLICATION FOR PERMIT TO DRILL**

APD RECEIVED: 06/29/2007

API NO. ASSIGNED: 43-007-31301

WELL NAME: PPU FED 16-28D-12-15  
 OPERATOR: BILL BARRETT CORP ( N2165 )  
 CONTACT: TRACEY FALLANG

PHONE NUMBER: 303-312-8134

PROPOSED LOCATION:

*SE SE*

NWNW 34 120S 150E  
 SURFACE: 0979 FNL 0866 FWL  
 BOTTOM: 0660 FSL 0660 FEL *Sec 28*  
 COUNTY: CARBON  
 LATITUDE: 39.73484 LONGITUDE: -110.2287  
 UTM SURF EASTINGS: 566097 NORTHINGS: 4398402  
 FIELD NAME: NINE MILE CANYON ( 35 )

INSPECT LOCATN BY: / /		
Tech Review	Initials	Date
Engineering		
Geology		
Surface		

LEASE TYPE: 1 - Federal  
 LEASE NUMBER: UTU-73670 / surf lease utu-73671  
 SURFACE OWNER: 1 - Federal

PROPOSED FORMATION: PRRV  
 COALBED METHANE WELL? NO

RECEIVED AND/OR REVIEWED:

- Plat
- Bond: Fed[1] Ind[] Sta[] Fee[]  
(No. WYB000040 )
- Potash (Y/N)
- Oil Shale 190-5 (B) or 190-3 or 190-13
- Water Permit  
(No. 90-1846 )
- RDCC Review (Y/N)  
(Date: \_\_\_\_\_ )
- Fee Surf Agreement (Y/N)
- Intent to Commingle (Y/N)

LOCATION AND SITING:

- R649-2-3.
- Unit: PRICKLY PEAR *OK*
- R649-3-2. General  
Siting: 460' From Qtr/Qtr & 920' Between Wells
- R649-3-3. Exception
- Drilling Unit  
Board Cause No: 2561  
Eff Date: 12-16-2004  
Siting: 460' from W. side of 6' wide common. Tract
- R649-3-11. Directional Drill

COMMENTS: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

STIPULATIONS: 1- Federal Approval  
 \_\_\_\_\_  
 \_\_\_\_\_

T12S R15E

**NINE MILE CANYON FIELD  
PRICKLY PEAR UNIT**  
CAUSE: 256-1 / 12-16-2004

CLAYBANK  
SPRINGS 33-1A

PRICKLY PEAR U  
FED 7-33D-12-15

PRICKLY PEAR  
U FED 16-34

PRICKLY PEAR U FED 9-28D-12-15  
PRICKLY PEAR U FED 1-28-12-15  
PRICKLY PEAR U FED 8-28D-12-15  
PRICKLY PEAR U FED 5-27D-12-15

BHL  
4-27D-12-15

BHL  
3-27D-12-15

BHL  
1-27D-12-15

BHL  
3-28D-12-15

BHL  
7-28D-12-15

BHL  
8-28D-12-15

BHL  
5-27D-12-15

\*  
STONE  
CABIN FED  
2-B-27

BHL  
9-28D-12-15

BHL  
12-27D-12-15

PRICKLY PEAR U FED 10-27-12-15  
PRICKLY PEAR U FED 12-27D-12-15  
PRICKLY PEAR U FED 16-27D-12-15

PRICKLY PEAR  
UNIT 27-3

BHL  
16-28D-12-15

BHL  
14-27D-12-15

BHL  
16-27D-12-15

PPU FED 16-28D-12-15  
PPU FED 14-27D-12-15  
PPU FED 4-34-12-15

T13S R15E

OPERATOR: BILL BARRETT CORP (N2165)

SEC: 34 T.12S R.15E

FIELD: NINE MILE CANYON (35)

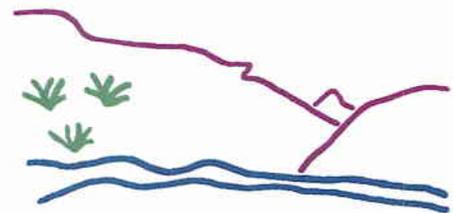
COUNTY: CARBON

CAUSE: 256-1 / 12-16-2004

- Field Status**
- ABANDONED
  - ACTIVE
  - COMBINED
  - INACTIVE
  - PROPOSED
  - STORAGE
  - TERMINATED

- Unit Status**
- EXPLORATORY
  - GAS STORAGE
  - NF PP OIL
  - NF SECONDARY
  - PENDING
  - PI OIL
  - PP GAS
  - PP GEOTHERML
  - PP OIL
  - SECONDARY
  - TERMINATED

- Wells Status**
- GAS INJECTION
  - GAS STORAGE
  - LOCATION ABANDONED
  - NEW LOCATION
  - PLUGGED & ABANDONED
  - PRODUCING GAS
  - PRODUCING OIL
  - SHUT-IN GAS
  - SHUT-IN OIL
  - TEMP. ABANDONED
  - TEST WELL
  - WATER INJECTION
  - WATER SUPPLY
  - WATER DISPOSAL
  - DRILLING



Utah Oil Gas and Mining



PREPARED BY: DIANA MASON  
DATE: 2-JULY-2007



JON M. HUNTSMAN, JR.  
Governor

GARY R. HERBERT  
Lieutenant Governor

# State of Utah

## DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER  
Executive Director

### Division of Oil Gas and Mining

JOHN R. BAZA  
Division Director

July 3, 2007

Bill Barrett Corporation  
1099 18th Street, Suite 2300  
Denver, CO 80202

Re: Prickly Pear Unit Federal 16-28D-12-15 Well, Surface Location 979' FNL, 866' FWL, NW NW, Sec. 34, T. 12 South, R. 15 East, Bottom Location 660' FSL, 660' FEL, SE SE, Sec. 28, T. 12 South, R. 15 East, Carbon County, Utah

Gentlemen:

Pursuant to the provisions and requirements of Utah Code Ann. § 40-6-1 *et seq.*, Utah Administrative Code R649-3-1 *et seq.*, and the attached Conditions of Approval, approval to drill the referenced well is granted.

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. The API identification number assigned to this well is 43-007-31301.

Sincerely,

Gil Hunt  
Associate Director

pab  
Enclosures

cc: Carbon County Assessor  
Bureau of Land Management, Moab Office



Operator: Bill Barrett Corporation  
Well Name & Number Prickly Pear Unit Federal 16-28D-12-15  
API Number: 43-007-31301  
Lease: UTU-73671 SH/73670 BH

Surface Location: NW NW      Sec. 34      T. 12 South      R. 15 East  
Bottom Location: SE SE      Sec. 28      T. 12 South      R. 15 East

### Conditions of Approval

#### 1. General

Compliance with the requirements of Utah Admin. R. 649-1 *et seq.*, the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

#### 2. Notification Requirements

Notify the Division within 24 hours of spudding the well.

- Contact Carol Daniels at (801) 538-5284

Notify the Division prior to commencing operations to plug and abandon the well.

- Contact Dustin Doucet at (801) 538-5281      (801) 733-0983 home

#### 3. Reporting Requirements

All required reports, forms and submittals will be promptly filed with the Division, including but not limited to the Entity Action Form (Form 6), Report of Water Encountered During Drilling (Form 7), Weekly Progress Reports for drilling and completion operations, and Sundry Notices and Reports on Wells requesting approval of change of plans or other operational actions.

4. State approval of this well does not supersede the required federal approval, which must be obtained prior to drilling.

5. In accordance with Utah Admin. R.649-3-11, Directional Drilling, the operator shall submit a complete angular deviation and directional survey report to the Division within 30 days following completion of the well.

**CONFIDENTIAL**

**SUNDRY NOTICES AND REPORTS ON WELLS**

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

1. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER _____		5. LEASE DESIGNATION AND SERIAL NUMBER: UTU-73671 SH/UTU-73670 BH
2. NAME OF OPERATOR: BILL BARRETT CORPORATION		6. IF INDIAN, ALLOTTEE OR TRIBE NAME: n/a
3. ADDRESS OF OPERATOR: 1099 18th Street, Suite 2300 CITY Denver STATE CO ZIP 80202		7. UNIT or CA AGREEMENT NAME: Prickly Pear/UTU-79487
4. LOCATION OF WELL FOOTAGES AT SURFACE: 979' FNL, 866' FWL		8. WELL NAME and NUMBER: Prickly Pear Unit Federal 16-28D-12-75
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NWNW 34 12S 15E		9. API NUMBER: 4300731301
COUNTY: Carbon		10. FIELD AND POOL, OR WILDCAT: Nine Mile/Wasatch-Mesaverde
STATE: UTAH		

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will start: _____	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARILY ABANDON
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR
	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLARE
<input type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of work completion: _____	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/RESUME)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input checked="" type="checkbox"/> OTHER: <u>Permit Extension</u>
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.  
This sundry is being submitted to request an extension on the APD which expires on 7/3/08.

Approved by the  
Utah Division of  
Oil, Gas and Mining

Date: 06-18-08  
By: [Signature]

COPY SENT TO OPERATOR  
Date: 6.19.2008  
Initials: KS

NAME (PLEASE PRINT) <u>Tracey Fallang</u>	TITLE <u>Environmental/Regulatory Analyst</u>
SIGNATURE <u>[Signature]</u>	DATE <u>6/16/2008</u>

(This space for State use only)

**RECEIVED**  
**JUN 17 2008**

**Application for Permit to Drill  
Request for Permit Extension  
Validation**

(this form should accompany the Sundry Notice requesting permit extension)

**API:** 4300731301  
**Well Name:** Prickly Pear Unit Federal 16-28D-12-15  
**Location:** NWNW, Sec. 34, T12S-R15E  
**Company Permit Issued to:** Bill Barrett Corporation  
**Date Original Permit Issued:** 7/3/2007

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision.

Following is a checklist of some items related to the application, which should be verified.

If located on private land, has the ownership changed, if so, has the surface agreement been updated? Yes  No  N/A

Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location? Yes  No

Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well? Yes  No

Have there been any changes to the access route including ownership, or right-of-way, which could affect the proposed location? Yes  No

Has the approved source of water for drilling changed? Yes  No

Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation? Yes  No

Is bonding still in place, which covers this proposed well? Yes  No

Mary Fallang  
Signature

6/16/2008

Date

Title: Environmental/Regulatory Analyst

Representing: Bill Barrett Corporation

RECEIVED

JUN 17 2008

DIV. OF OIL, GAS & MINING



JON M. HUNTSMAN, JR.  
Governor

GARY R. HERBERT  
Lieutenant Governor

# State of Utah

## DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER  
Executive Director

### Division of Oil, Gas and Mining

JOHN R. BAZA  
Division Director

June 16, 2009

Bill Barrett Corporation  
1099 18<sup>th</sup> Street, Suite 2300  
Denver, Colorado 80202

Re: APD Rescinded – Prickly Pear U Fed 16-28D-12-15, Sec. 34 T.12S,  
R.15E, Carbon County, Utah API No. 43-007-31301

Ladies and Gentlemen:

The Application for Permit to Drill (APD) for the subject well was approved by the Division of Oil, Gas and Mining (Division) on July 3, 2007. On June 18, 2008, the Division granted a one-year APD extension. On July 21, 2009, you said in an email "If we did not send in to extend, we do not want them extended".

No drilling activity at this location has been reported to the division. Therefore, approval to drill the well is hereby rescinded, effective July 21, 2009.

A new APD must be filed with this office for approval prior to the commencement of any future work on the subject location.

If any previously unreported operations have been performed on this well location, it is imperative that you notify the Division immediately.

Sincerely,

Diana Mason  
Environmental Scientist

cc: Well File  
Bureau of Land Management, Price

