001

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 3

AMENDED REPORT ☐
(highlight changes)

APPLICATION FOR PERMIT TO DRILL

5. MINERAL LEASE NO: ML43541	6. SURFACE: State
1A. TYPE OF WORK: DRILL ☑ REENTER ☐ DEEPEN ☐	7. IF INDIAN, ALLOTTEE OR TRIBE NAME:
B. TYPE OF WELL: OIL ☐ GAS ☑ OTHER _____ SINGLE ZONE ☑ MULTIPLE ZONE ☐	8. UNIT or CA AGREEMENT NAME: Jack Canyon
2. NAME OF OPERATOR: Bill Barrett Corporation	9. WELL NAME and NUMBER: Jack Canyon Unit State 14-32
3. ADDRESS OF OPERATOR: 1099 18th St, #2300 CITY Denver STATE CO ZIP 80202 / PHONE NUMBER: (303) 312-8120	10. FIELD AND POOL, OR WILDCAT: ~~Jack Canyon~~ undesignated
4. LOCATION OF WELL (FOOTAGES) AT SURFACE: 531' FSL 1,479' FWL 4397304 Y 39.72440 5722727 X -110.15142 AT PROPOSED PRODUCING ZONE: Same as above	11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SESW 32 12S 16E
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE: 67 miles /northeast of Wellington, UT	12. COUNTY: Carbon / 13. STATE: UTAH
15. DISTANCE TO NEAREST PROPERTY OR LEASE LINE (FEET): 531' - South Line	16. NUMBER OF ACRES IN LEASE: 640 / 17. NUMBER OF ACRES ASSIGNED TO THIS WELL: 160
18. DISTANCE TO NEAREST WELL (DRILLING, COMPLETED, OR APPLIED FOR) ON THIS LEASE (FEET): 2,300' - Jack Canyon #2-32	19. PROPOSED DEPTH: 6,950 / 20. BOND DESCRIPTION: UT1128
21. ELEVATIONS (SHOW WHETHER DF, RT, GR, ETC.): 6,921'	22. APPROXIMATE DATE WORK WILL START: 4/15/2003 / 23. ESTIMATED DURATION: 60-90 days

24. **PROPOSED CASING AND CEMENTING PROGRAM**

SIZE OF HOLE	CASING SIZE, GRADE, AND WEIGHT PER FOOT	SETTING DEPTH	CEMENT TYPE, QUANTITY, YIELD, AND SLURRY WEIGHT
12-1/4"	8-5/8" J-55 ST&C 24#	700	±515 sxs Premium 1.16ft3/sk 15.8 lbm/gal
7-7/8"	4-1/2" N-80 11.6#	6,950	±915 sxs 50/50 1.49ft3/sk 13.40lbm/gal

RECEIVED
MAR 19 2003
DIV OF OIL, GAS & MINING

25. **ATTACHMENTS**

VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES:

☑ WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER
☐ EVIDENCE OF DIVISION OF WATER RIGHTS APPROVAL FOR USE OF WATER
☑ COMPLETE DRILLING PLAN
☐ FORM 5, IF OPERATOR IS PERSON OR COMPANY OTHER THAN THE LEASE OWNER

NAME (PLEASE PRINT) Debra K. Stanberry TITLE Permit Specialist

SIGNATURE _____ DATE 3/13/2003

(This space for State use only)

API NUMBER ASSIGNED: 43-007-30913

APPROVAL:

CONFIDENTIAL
APPROVED BY THE STATE OF UTAH DIVISION OF OIL, GAS, AND MINING
DATE: 3-26-03
BY: _____

(11/2001) (See Instructions on Reverse Side)

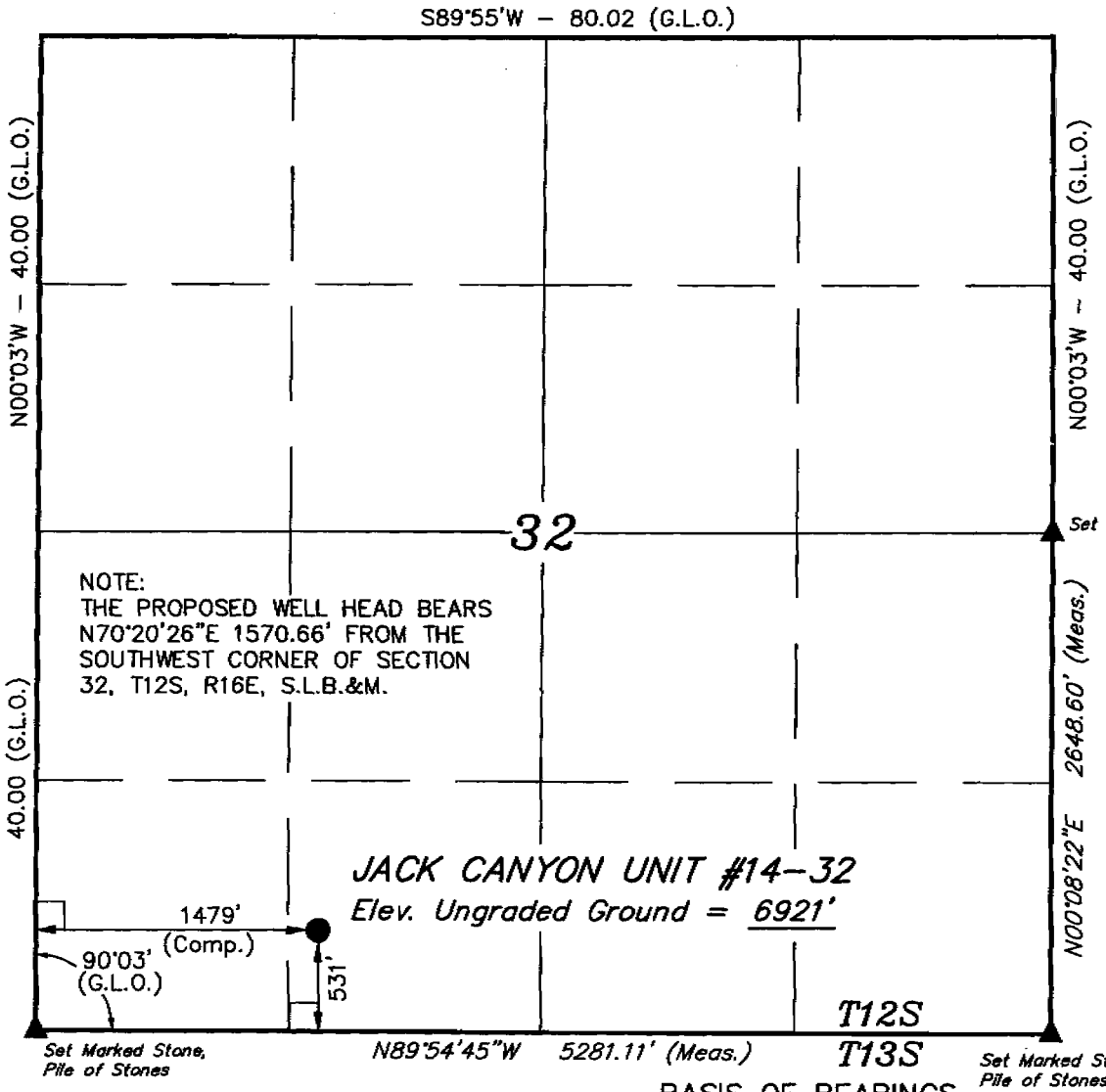
BILL BARRETT CORPORATION

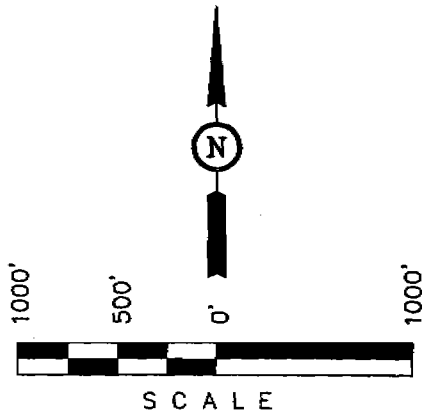
Well location, JACK CANYON UNIT #14-32, located as shown in the SE 1/4 SW 1/4 of Section 32, T12S, R16E, S.L.B.&M., Carbon County, Utah.

BASIS OF ELEVATION

TRIANGULATION STA. COTTON 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 QUAD. (TOPOGRAPHIC MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 7368 FEET.

T12S, R16E, S.L.B.&M.





CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED 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.

REGISTERED LAND SURVEYOR
REGISTRATION NO. 161319
STATE OF UTAH

BASIS OF BEARINGS

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

(AUTONOMOUS NAD 83)
LATITUDE = 39°43'28.55" (39.724597)
LONGITUDE = 110°09'07.65" (110.152125)

LEGEND:

└ = 90° SYMBOL
● = PROPOSED WELL HEAD.
▲ = SECTION CORNERS LOCATED.

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

SCALE: 1" = 1000'		DATE SURVEYED: 01-30-03	DATE DRAWN: 01-31-03
PARTY: J.F. A.F. D.R.B.		REFERENCES: G.L.O. PLAT	
WEATHER: COLD		FILE: BILL BARRETT CORPORATION	

002

Bill Barrett Corporation

March 13, 2003

Ms. Diana Mason
Utah Division of Oil, Gas, and Mining
1594 W North Temple, Suite 1210
Salt Lake City, UT 84114-5801

RECEIVED
MAR 19 2003
DIV. OF OIL, GAS & MINING

RE: Application for Permit to Drill
Bill Barrett Corporation
Jack Canyon Unit State #14-32 SW
531' FSL 1,479' FWL (SE/4 ~~NW~~/4)
Sec. 32 T12S R16E
Carbon County, Utah
State Lease #ML43541

Dear Ms. Mason:

Enclosed please find the Application for Permit to Drill (APD) for the above captioned well.

Please contact us at (303) 312-8120, if there are any questions.

Your early attention to this application is greatly appreciated. Thank you for your concern.

Very truly yours,

Debra K. Stanberry
Permit Specialist

DKS:slb

cc: Utah State Minerals
Banko Petroleum Management, Inc. (2 copies)

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

BILL BARRETT CORPORATION
Jack Canyon Unit State #14-32 SW
531' FSL 1,479' FWL (SE/4 ~~NW~~/4)
Sec. 32 T12S R16E
Carbon County, Utah
State Lease #ML43541

DRILLING PROGRAM
(Per Onshore Orders No. 1 & No. 2)

Please contact Mr. Ed Long, Asset Manager or Debra Stanberry, Permit Specialist at Bill Barrett Corporation (BBC), (303) 293-9100 if there are any questions or concerns regarding this Drilling Program.

This well is to be drilled as a tight hole. Unauthorized personnel are not to be allowed on the rig floor. BBC respectfully requests that all information regarding this well be kept confidential.

GROUND ELEVATION – 6,921' GL (6,936' KB est.)

SURFACE FORMATION – Green River — Fresh water possible

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

Wasatch	2,755'	Sandstone, shales & siltstones, some water, oil and/or gas bearing
North Horn	4,616'	Sandstone, shales & siltstones, some water, oil and/or gas bearing
Basal North Horn	6,190'	Sandstone, shales & siltstones, some water, oil and/or gas bearing
Price River (Mesaverde)	6,416'	Sandstone, shales & siltstones, some water, oil and/or gas bearing
TOTAL DEPTH	6,950'	(in Price River)

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

CASING PROGRAM

Total Depth	Hole Diameter	Casing Diameter	Casing Weight and Grade	Cement
0' – 700'	12-1/4"	8-5/8"	J-55 24# STC	±515 sxs Premium w/ 2% $CaCl_2$
0' – 6,950'	7-7/8"	4-1/2"	N-80 11.6# STC	To 2,200' (±915 sxs 50/50 Poz "Premium" w/ 2% Gel)

Yields Premium yield = 1.16 ft^3/sx
50/50 Poz "Premium" yield = 1.49 ft^3/sx
* Actual cement volume to be determined by caliper log.

ANTICIPATED PAY ZONES

Formation	Depth	Formation Type
Wasatch	2,755' – 3,155'	
North Horn	4,915' – 5,615'	Scattered lenticular sands
Basal North Horn	6,190' – 6,785'	Upper clean sand, lower washouts
Price River	6,416' – 6,900'	Scattered lenticular sands

PRESSURE CONTROL (See attached schematic diagram)
BOP's 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 rated working pressure of the stack assembly if a test plug is used. If a plug is not used, the stack assembly will be tested to the rated working pressure of the stack assembly or to 70% of the minimum internal yield of the casing, whichever is less. Annular type preventors will be pressure tested to 50% of their rated working pressure. All casing strings will be pressure tested to 0.22 psi/ft. or 1,500 psi, whichever is greater, not to exceed 70% of internal yield.

BOP REQUIREMENTS:

0' – 1,000'	No pressure control required.
1,000' – T.D.	11", 3,000 psi Annular Preventer
	11", 3,000 psi Blind Ram
	11", 3,000 psi Pipe Ram

Drilling Spool to accommodate choke and kill lines.
Ancillary and choke manifold to be rated at 3,000 psi.

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 as appropriate for 3,000 psi systems.

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

MUD PROGRAM

0' – 700'	Spud mud
700' – T.D	Air/mist or Low solids non-dispersed if conditions dictate
	M.W. 8.3 – 10.6 ppg
	Vis – 40-45 sec
	W.L. 15cc or less
	pH 7.0 - 8.5

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

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.

LOGGING, CORING TESTING PROGRAM

A) Logging: DIL-GR-SP, FDC-CNL-GR-CALIPER-Pe-Microlog, Sonic-GR, — All TD to surface
B) Coring: None anticipated
C) Testing: Possible DST – Price River Fm. Drill stem tests may be run on shows of interest.

ABNORMAL CONDITIONS

A) Pressures: Anticipate subnormal pressure gradients in the North Horn and Price River formations, possibly as low as 0.33-0.35 psi/ft.
B) Temperatures: No abnormal conditions are anticipated
C) H_2S: None anticipated
D) Estimated bottomhole pressure: 2,294 psi

ANTICIPATED START DATE

April 15, 2003

COMPLETION

The location pad will be of sufficient size to accommodate all completion activities and equipment. A string of 2-3/8" 4.7# N-80 tubing will be run or a flowing string. A Sundry Notice will be submitted with a revised completion program if warranted.

Jack Canyon Unit State 14-32
531' FSL 1,479' FWL SE /4 SW /4
Sec. 32 T 12S R 16E
Carbon County, Utah
ML43541

SURFACE CASING AND CENTRALIZER DESIGN

Proposed Total Depth:	6,950 '
Proposed Depth of Surface Casing:	700 '
Estimated Pressure Gradient:	0.33 psi/ft
Bottom Hole Pressure at	6,950 '
0.33 psi/ft x 6,950 ' =	2,294 psi
Hydrostatic Head of gas/oil mud:	0.22 psi/ft
0.22 psi/ft x 6,950 ' =	1,529 psi

Maximum Design Surface Pressure

Bottom Hole Pressure	–	Hydrostatic Head	=	
(0.33 psi/ft x 6,950 ')	–	(0.22 psi/ft x 6,950 ')	=	
2,294 psi	–	1,529 psi	=	765 psi

Casing Strengths 8-5/8" 24# K-55 ST&C

Wt.	Tension (lbs)	Burst (psi)	Collapse (psi)
24 #	381,000	2,950	1370
32 #	503,000	3,930	2,530

Safety Factors

Tension (Dry): 1.8 Burst: 1.0 Collapse: 1.125

Tension (Dry): 24 # / ft x 700 ' = 16,800 #

Safety Factor = $\frac{381{,}000 \text{ #}}{16{,}800 \text{ #}}$ = 22.68 ok

Burst: Safety Factor = $\frac{3{,}930 \text{ psi}}{765 \text{ psi}}$ = 5.14 ok

Collapse: Hydrostatic = 0.052 x 9.0 ppg x 700 ' = 328 psi

Safety Factor = $\frac{2{,}530 \text{ psi}}{328 \text{ psi}}$ = 7.72 ok

Use 700 ' 8-5/8' 24# K-55 ST&C

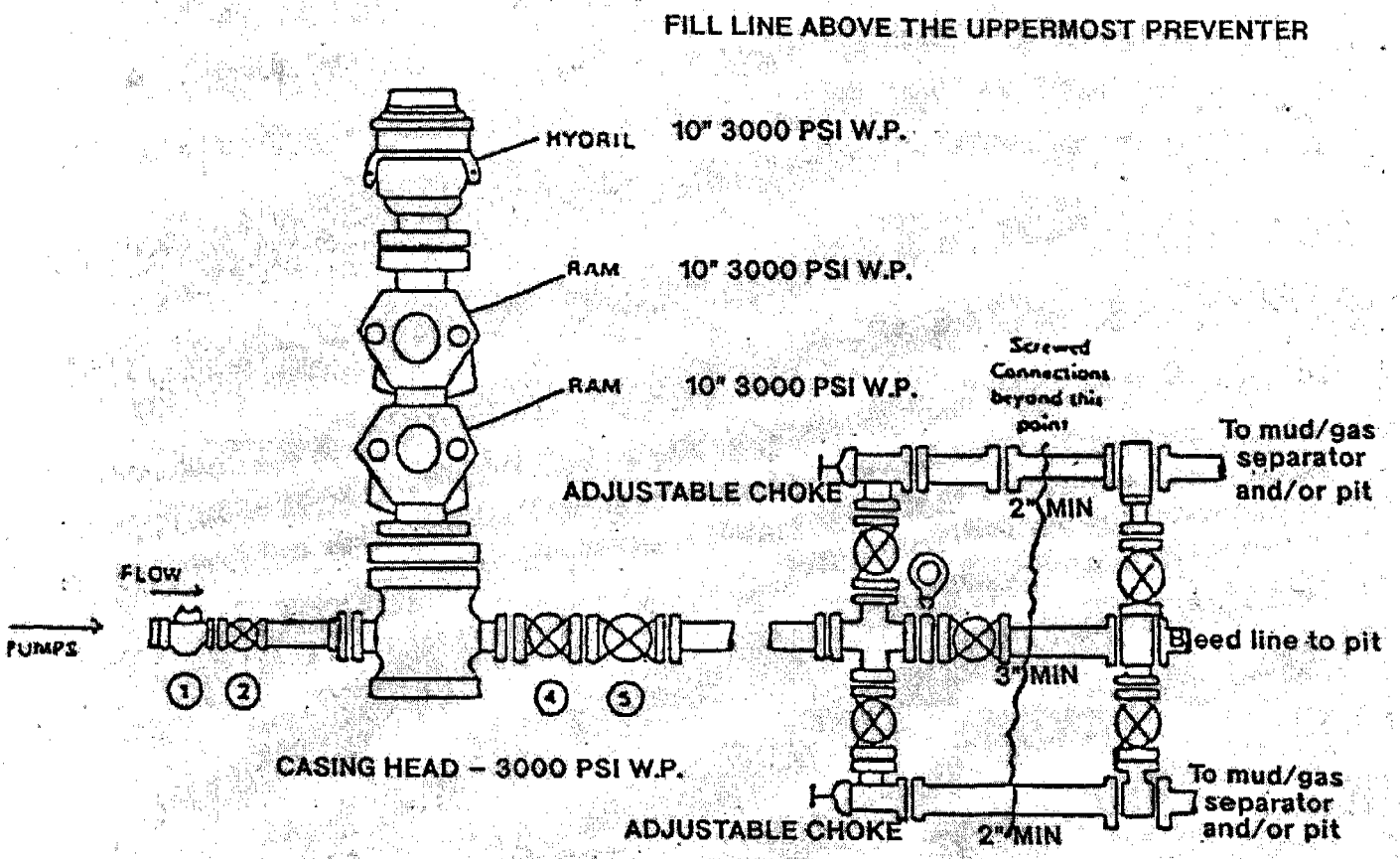
Use 3,000 psi minimum casinghead and BOP'

Centralizers
4 Total
1 near surface at 80'
1 10' up on bottom joint
2 on the first, second, and third collar from bottom.

Note that field experience indicates that additional centralizers greatly increase the chance of "sticking" the surface casing prior to reaching surface casing total depth.

MINIMUM
BOP Requirements

3000 PSI W.P.



KILL LINE

Valve #1 – Flanged check valve
Full working pressure of BOP

Valve #2 – Flanged, minimum 2" bore
Full working pressure of BOP

CHOKE LINE

Valves #4 & 5 – Flanged minimum 3" bore,
Full working pressure of BOP
(Note: An HCR can be used instead of Valve # 5)

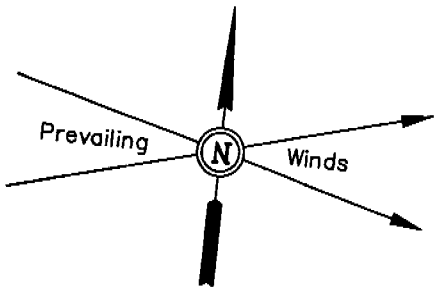
GENERAL RULES AND RECOMMENDATIONS

All lines to manifold are to be at right angles (90 deg.). No 45 deg. angles are to be used.
Blind flanges are to be used for blanking.
ALL studs and nuts are to be installed on all flanges.
Choke manifold may be screwed connections behind choke.

BILL BARRETT CORPORATION

LOCATION LAYOUT FOR

JACK CANYON UNIT #14-32
SECTION 32, T12S, R16E, S.L.B.&M.
531' FSL 1479' FWL



SCALE: 1" = 50'
DATE: 01-31-03
DRAWN BY: D.R.B.

C-2.9'
El. 923.2'

C-2.5'
El. 922.8'

F-3.2'
El. 917.1'

Topsoil Stockpile

Sta. 3+25

Approx. Top of Cut Slope

Approx. Toe of Fill Slope

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

DATA

CATWALK

150'

PIPE RACKS

Pit T.S.
El. 921.5'
C-1.2'

Flare Pit

C-0.6'
El. 920.9'

El. 929.8'
C-17.5'
(Btm. Pit)

RIG

DOG HOUSE

35'

115'

Sta. 1+75

F-7.9'
El. 912.4'

75'

RESERVE PIT
8' DEEP

PIT CAPACITY WITH 2' OF FREEBOARD = 5,480 Bbls.

10' WIDE BENCH

100'

1 1/2:1 (TYP.)

MUD TANKS

WATER

TRAILER

PUMP

MUD SHED

TOILET

HOPPER

Sta. 1+00

FUEL

POWER

TOOLS

FUEL

El. 930.6'
C-18.3'
(Btm. Pit)

El. 923.1'
C-2.8'

75'

175'

STORAGE TANK

Reserve Pit Backfill & Spoils Stockpile

TRASH

Round Corners as Needed

Sta. 0+00

C-2.4'
El. 922.7'

F-0.7'
El. 919.6'

F-5.0'
El. 915.3'

Proposed Access Road

Elev. Ungraded Ground at Location Stake = 6920.9'

Elev. Graded Ground at Location Stake = 6920.3'

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

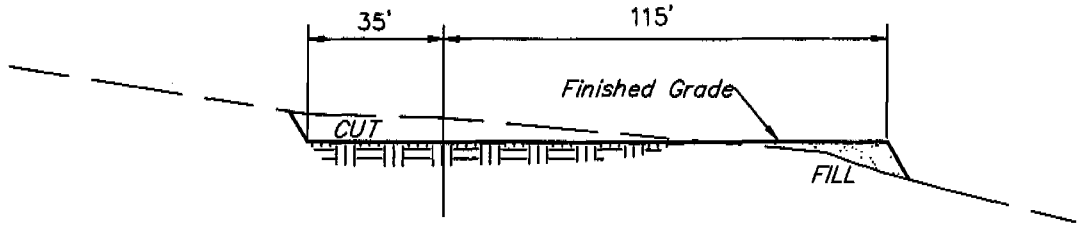
BILL BARRETT CORPORATION

TYPICAL CROSS SECTIONS FOR

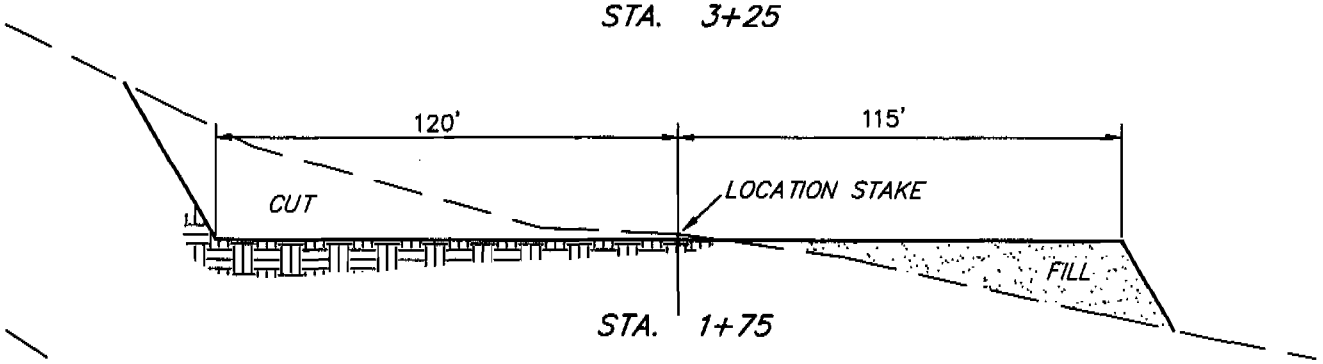
JACK CANYON UNIT #14-32
SECTION 32, T12S, R16E, S.L.B.&M.
531' FSL 1479' FWL

1" = 20'
X-Section Scale
1" = 50'

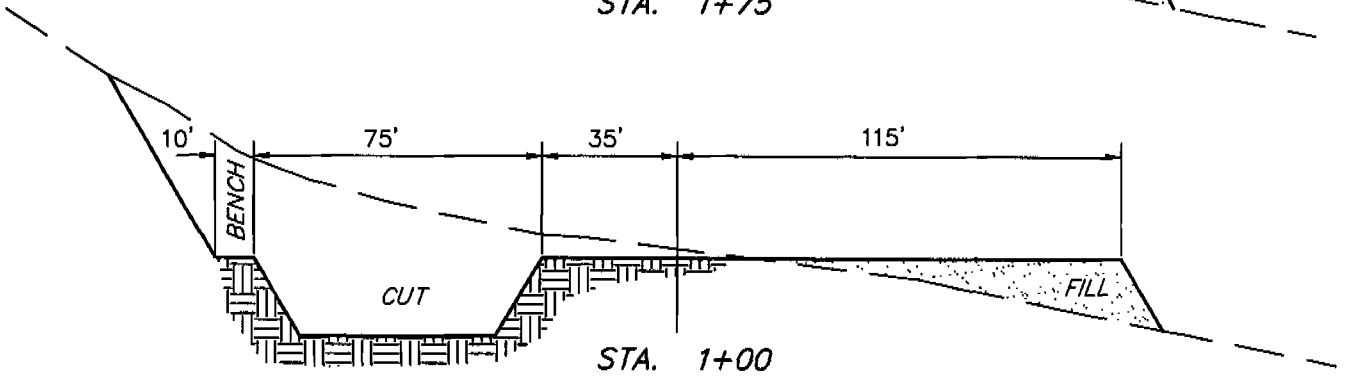
DATE: 01-31-03
DRAWN BY: D.R.B.



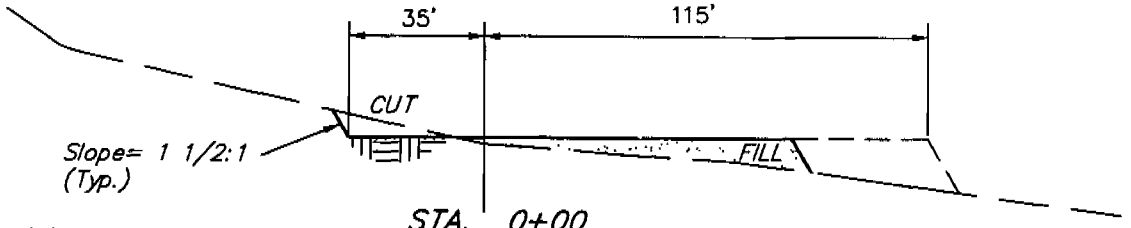
STA. 3+25



STA. 1+75



STA. 1+00



STA. 0+00

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

APPROXIMATE YARDAGES

CUT		
(6") Topsoil Stripping	=	1,090 Cu. Yds.
Remaining Location	=	5,430 Cu. Yds.
TOTAL CUT	=	6,520 CU.YDS.
FILL	=	3,940 CU.YDS.

EXCESS MATERIAL AFTER 5% COMPACTION	=	2,370 Cu. Yds.
Topsoil & Pit Backfill (1/2 Pit Vol.)	=	1,920 Cu. Yds.
EXCESS UNBALANCE (After Rehabilitation)	=	450 Cu. Yds.

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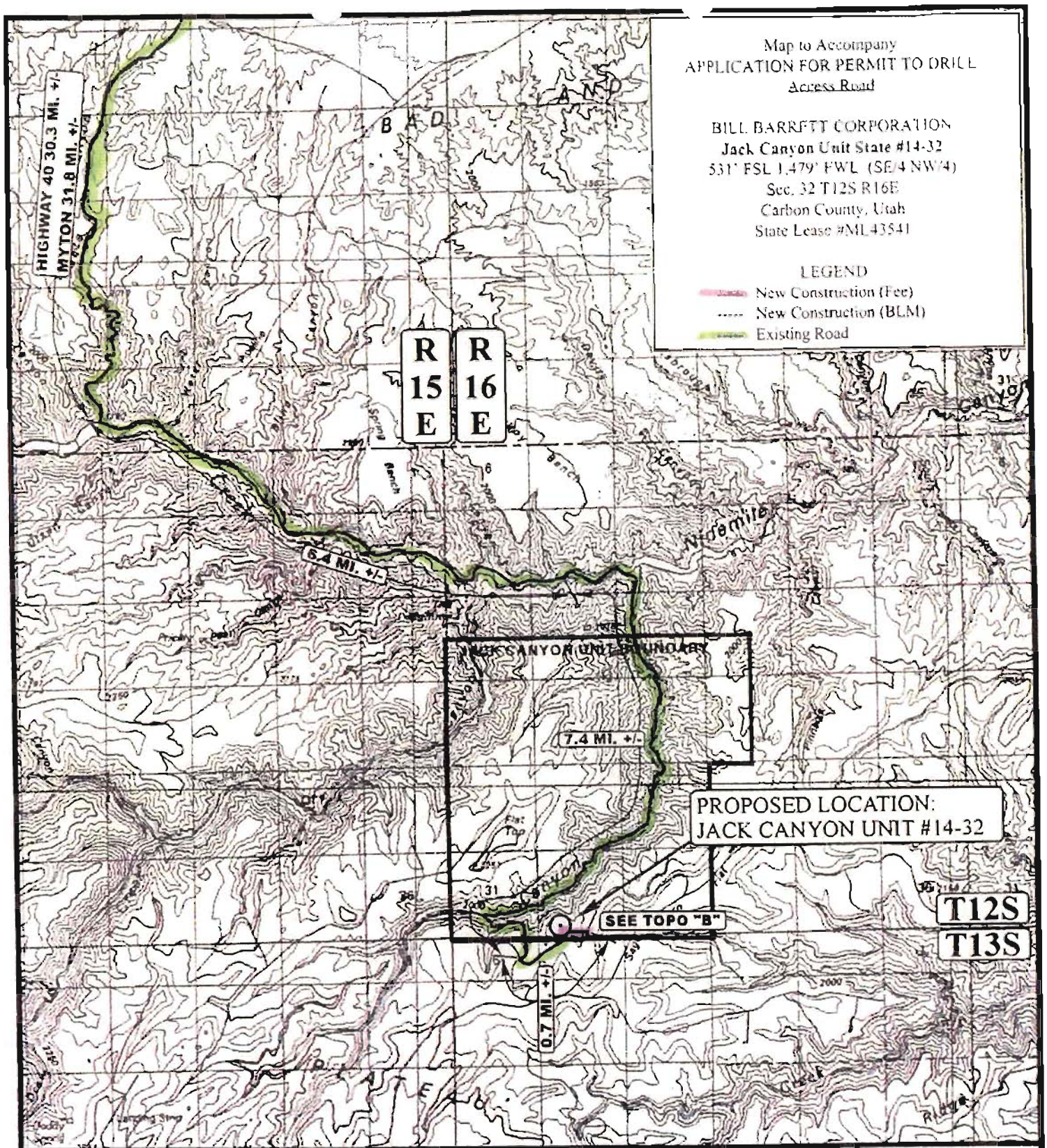
85 So. 200 East * Vernal, Utah 84078 * (435) 789-1017



LEGEND:

⊙ PROPOSED LOCATION

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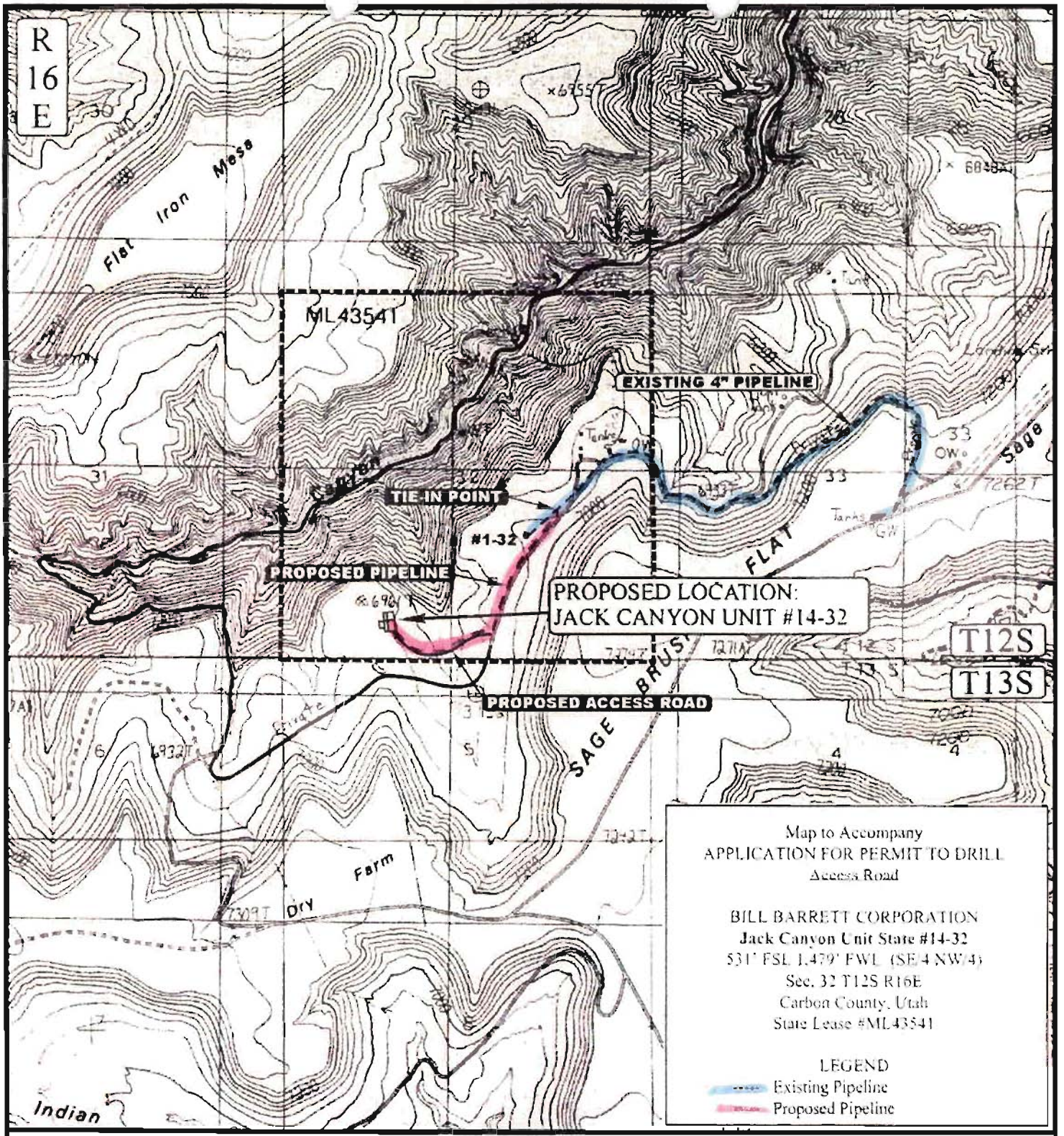
BILL BARRETT CORPORATION

JACK CANYON UNIT #14-32
SECTION 32, T12S, R16E, S.L.B.&M.
531' FSL 1479' FWL

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

TOPOGRAPHIC MAP	1 MONTH	31 DAY	03 YEAR	A TOPO
SCALE: 1" = 100,000	DRAWN BY: D.R.B.	REVISED: 02-10-03		



APPROXIMATE TOTAL PIPELINE DISTANCE = 3,730' +/-

LEGEND:

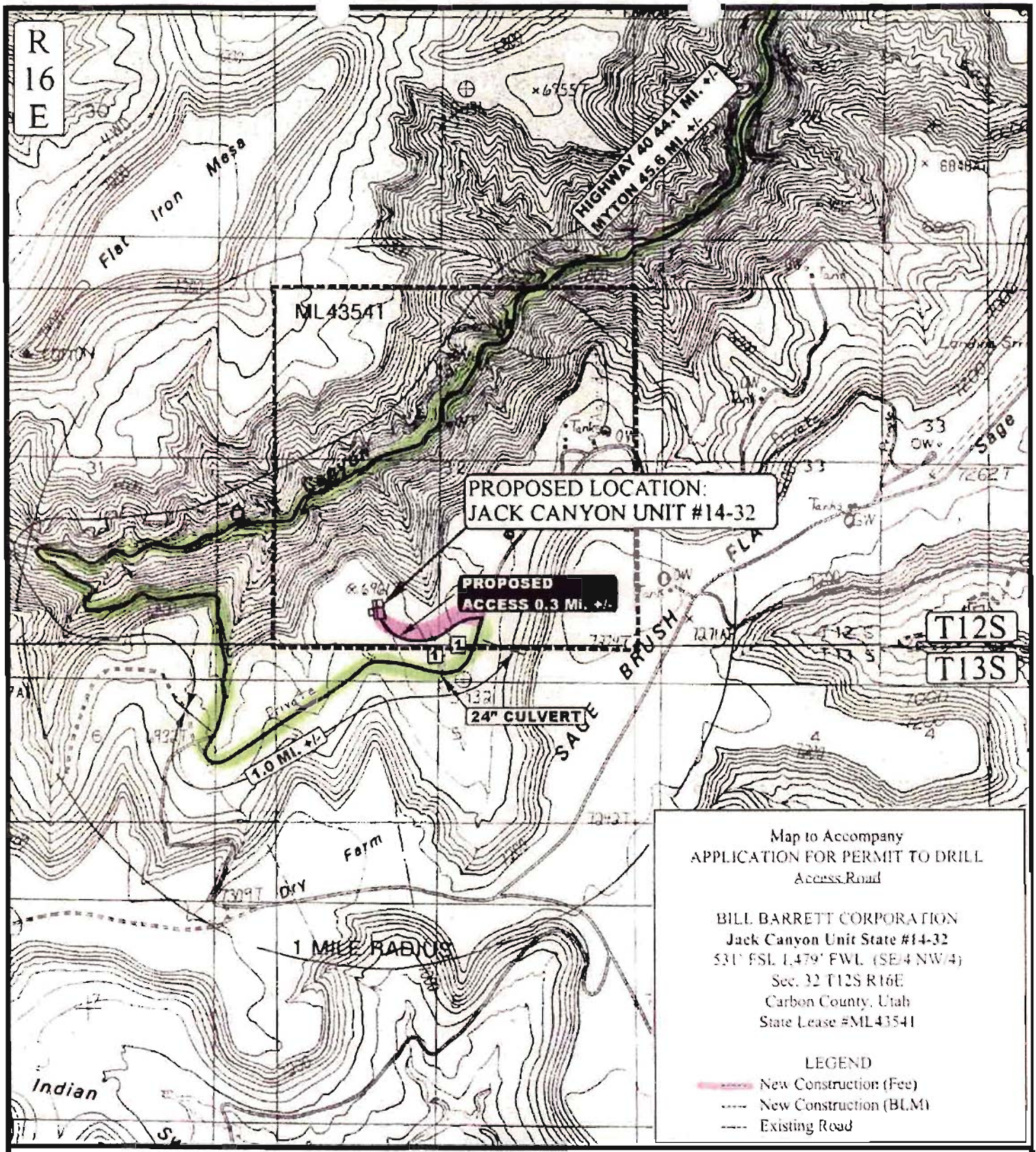
- EXISTING PIPELINE
- PROPOSED PIPELINE
- PROPOSED ACCESS

N

BILL BARRETT CORPORATION
JACK CANYON UNIT #14-32
SECTION 32, T12S, R16E, S.L.B.&M
531' FSL 1479' FWL

Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813
Email: uels@ensilink.com

TOPOGRAPHIC MAP	01 MONTH	31 DAY	03 YEAR
SCALE: 1" = 2000'	DRAWN BY: D.R.B.	REVISED: 02-10-03	C TOPO



LEGEND:

PROPOSED ACCESS ROAD

EXISTING ROAD

[1] LOW WATER CROSSING

N

BILL BARRETT CORPORATION

JACK CANYON UNIT #14-32

SECTION 32, T12S, R16E, S.L.B.&M.

531' FSL 1479' FWL

Uintah Engineering & Land Surveying

85 South 200 East Vernal, Utah 84078

(435) 789-1017 * FAX (435) 789-1813

TOPOGRAPHIC MAP	1 MONTH	31 DAY	03 YEAR	B TOPO
SCALE 1" = 2000'	DRAWN BY D.R.B.	REVISED 02-10-03		

BILL BARRETT CORPORATION

JACK CANYON UNIT #14-32

LOCATED IN DUCHESNE COUNTY, UTAH
SECTION 32, T12S, R16E, S.L.B.&M.

PHOTO: VIEW OF LOCATION STAKE **CAMERA ANGLE: EASTERLY**

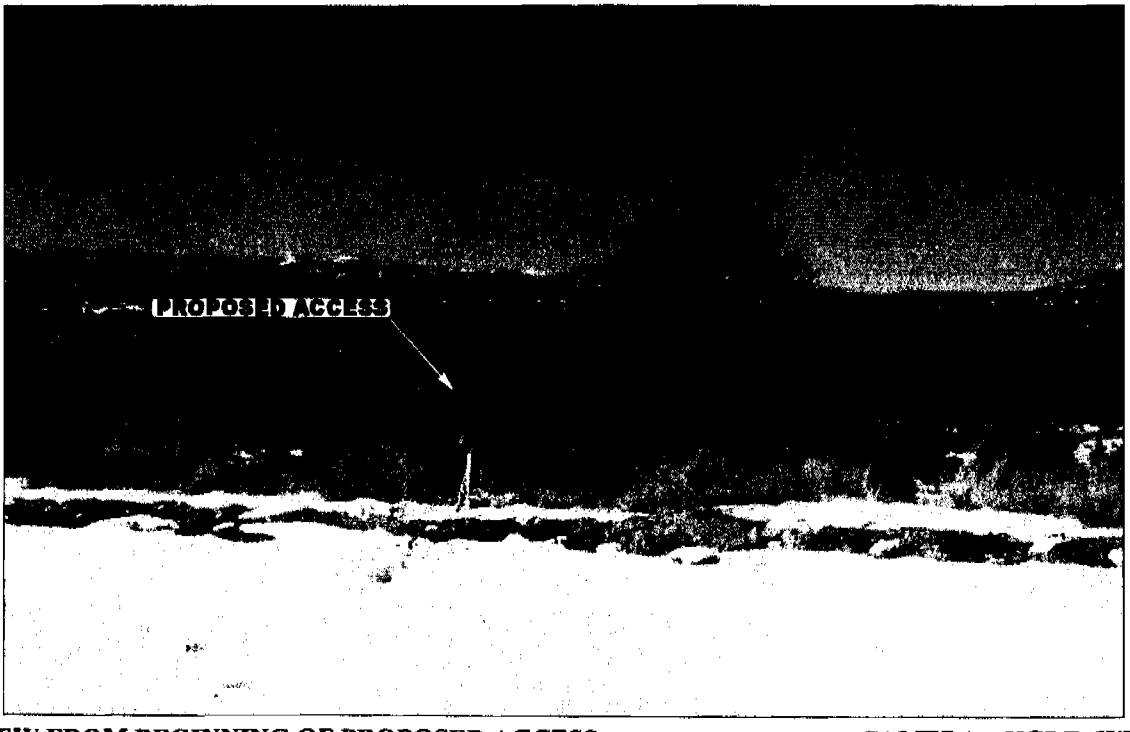


PHOTO: VIEW FROM BEGINNING OF PROPOSED ACCESS **CAMERA ANGLE: WESTERLY**

- Since 1964 -
Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
435-789-1017 uels@uelsinc.com

LOCATION PHOTOS	1 MONTH	31 DAY	03 YEAR	PHOTO
TAKEN BY: J.F.	DRAWN BY: D.R.B.	REVISED: 02-10-03		

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Utah State Office
P.O. Box 45155
Salt Lake City, Utah 84145-0155

IN REPLY REFER TO:
3160
(UT-922)

March 20, 2003

Memorandum

To: Assistant District Manager Minerals, Moab District

From: Michael Coulthard, Petroleum Engineer

Subject: 2003 Plan of Development Jack's Canyon Unit
Carbon County, Utah.

Pursuant to email between Diana Mason, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management. The following wells is planned for calendar year 2003 within the Jack's Canyon Unit, Carbon County, Utah.

API #	WELL NAME	LOCATION
(Proposed PZ Ferron)		
43-007-30913	Jack Canyon Unit State 14-32	Sec. 32 T12S R16E 0531 FSL 1479 FWL

This office has no objection to permitting the well at this time. Please be advised, this well will not qualify as the second obligation well for the unit.

/s/ Michael L. Coulthard

bcc: File - Jacks Canyon Unit
Division of Oil Gas and Mining
Agr. Sec. Chron
Fluid Chron

MCoulthard:mc:3-20-3

From: "Debbie Stanberry" <dstanberry@billbarrettcorp.com>
To: <DIANAMASON@UTAH.GOV>
Date: 3/21/03 2:40PM
Subject: PETERS POINT WELLS

DIANA:

TO ANSWER YOUR QUESTION EARLIER TODAY, BY INCREASING THE TOTAL DEPTH OF THE THREE PETERS POINT WELLS -- THE 36-2, [redacted] AND 36-4 THE TARGETED FORMATION AT 10,500' IS THE MANCOS FORMATION.

Regarding our water source: Bill Barrett Corporation will be utilizing an existing water well located in Cottonwood Canyon on State Lands. Section 32-T12S-R16E. Based on our files this authorization was granted by SITLA Right of Entry #4534 (Water right #90-1542) on August 21, 2002.

Please advise if you need anything further. Have a good weekend.

Debbie Stanberry
Permit Specialist
Bill Barrett Corporation
(303) 312-8120

003

WORKSHEET
APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 03/19/2003

API NO. ASSIGNED: 43-007-30913

WELL NAME: JACK CYN U ST 14-32
OPERATOR: BILL BARRETT CORP (N2165)
CONTACT: DEBRA STANBERRY

PHONE NUMBER: 303-312-8120

PROPOSED LOCATION:
SESW 32 120S 160E
SURFACE: 0531 FSL 1479 FWL
BOTTOM: 0531 FSL 1479 FWL
CARBON
UNDESIGNATED (2)

LEASE TYPE: 3 - State
LEASE NUMBER: ML43541
SURFACE OWNER: 3 - State

PROPOSED FORMATION: ~~PRSD~~

INSPECT LOCATN BY: / /

Tech Review	Initials	Date
Engineering	DKD	6/13/01
Geology		
Surface		

LATITUDE: 39.72440

LONGITUDE: 110.15142

RECEIVED AND/OR REVIEWED:

✓ Plat
✓ Bond: Fed[] Ind[] Sta[3] Fee[]
(No. UT1128)
N Potash (Y/N)
✓ Oil Shale 190-5 (B) or 190-3 or 190-13
Y Water Permit
(No [redacted])
N RDCC Review (Y/N)
(Date:)
NA Fee Surf Agreement (Y/N)

LOCATION AND SITING:

___ R649-2-3.
Unit JACKS CANYON
___ R649-3-2. General
Siting: 460 From Qtr/Qtr & 920' Between Wells
___ R649-3-3. [redacted] (NORTH HORN MESA VERDE) MANCOS
✓ Drilling Unit
Board Cause No: 157-03 (WASATCH)
Eff Date: 5-29-2001
Siting: 460' fr unit boundary
___ R649-3-11. Directional Drill

COMMENTS: Needs Presite (04-09-03)

STIPULATIONS: SOB
~~Spacing~~

ON-SITE PREDRILL EVALUATION
Division of Oil, Gas and Mining

OPERATOR: Barrett Corporation
WELL NAME & NUMBER: Jack Canyon Unit State 14-32
API NUMBER: 43-007-30913
LEASE: ML-43541 (STATE) **FIELD/UNIT:** Jack Canyon
LOCATION: 1/4,1/4 SE/SW **Sec:** 32 **TWP:** 12S **RNG:** 16E 531 FSL 1479 FWL
LEGAL WELL SITING: 460' from unit boundary for Wasatch. Statewide siting rule for lower portion of the hole.
GPS COORD (UTM): X = 572727 E; Y =4397304 N **SURFACE OWNER:** SITLA (State)

PARTICIPANTS

Dennis L. Ingram (DOGM); Mike Brady (dirt work); Fred Goodrich (Bill Barrett Corporation); Tony Wright and Floyd Bartlett (Utah Division of Wildlife Resources);

REGIONAL/LOCAL SETTING & TOPOGRAPHY

Located approximately 45.6 miles south of Myton, Utah and accessed from Wells Draw, Gate Canyon and finally Cottonwood Canyon. Well is staked half a mile east of Peter's Point Dugway that leads up from Cottonwood Canyon onto sloping ridge just south of rim overlooking Cottonwood in PJ habitat that slopes north/northeast toward canyon rim.

SURFACE USE PLAN

CURRENT SURFACE USE: Wildlife use, hunting and other recreational activities.

PROPOSED SURFACE DISTURBANCE: Have proposed 0.3 miles +/- plus location measuring 325'x 150'. (Reserve pit and spoils plus topsoil storage will be outside or in addition to location size measurements).

LOCATION OF EXISTING WELLS WITHIN A 1 MILE RADIUS: See GIS data base

LOCATION OF PRODUCTION FACILITIES AND PIPELINES: Proposed as gas well, equipment shall be set on new disturbance.

SOURCE OF CONSTRUCTION MATERIAL: Native cut and fill or borrowed material

ANCILLARY FACILITIES: None requested.

WASTE MANAGEMENT PLAN:

Submitted to division with Application to Drill.

ENVIRONMENTAL PARAMETERS

AFFECTED FLOODPLAINS AND/OR WETLANDS: Rim of Cottonwood Canyon only several hundred feet to the north; small stream flow in canyon bottom

FLORA/FAUNA: Pinion/juniper, Black Sagebrush, prickly pear cactus, native bunch grass, elk, deer, cougar, bear, bobcat, rabbit, birds of prey, other smaller song birds and insect life.

SOIL TYPE AND CHARACTERISTICS: Tan to light brown sandy loam with some clay.

SURFACE FORMATION & CHARACTERISTICS: Green River

EROSION/SEDIMENTATION/STABILITY: minor erosion, some sedimentation, no stability problems anticipated.

PALEONTOLOGICAL POTENTIAL: None observed during onsite visit.

RESERVE PIT

CHARACTERISTICS: Proposed on west side of location in cut and upwind of wellhead measuring 75'x 100'x 8' deep.

LINER REQUIREMENTS (Site Ranking Form attached): 35 points

SURFACE RESTORATION/RECLAMATION PLAN

According to Stile (State Lands) at time of reclamation. However, Tony Wright did provide Barrett with a seed mix for surface reclamation and requested the reserve pit be seeded after its closed and location after plugging.

SURFACE AGREEMENT: **Yes**

CULTURAL RESOURCES/ARCHAEOLOGY: Barrett was told to submit a copy of the arch survey to SITLA and the Division of Oil, Gas and Mining.

OTHER OBSERVATIONS/COMMENTS

Two washes along access road that drain north into Cottonwood Canyon, surface slopes north and east, sandstone outcroppings above and below location, jagged, deep canyon walls just north of location with live water in canyon floor, old rusty cans and jars on access and on location from hunting or recreation camps.

ATTACHMENTS

Photos of this location were taken and placed on file.

Dennis L. Ingram	April 3, 2003 1:30 pm
DOGM REPRESENTATIVE	DATE/TIME

Evaluation Ranking Criteria and Ranking Score
For Reserve and Onsite Pit Liner Requirements

Site-Specific Factors	Ranking	Site Ranking
Distance to Groundwater (feet)		
>200	0	
100 to 200	5	
75 to 100	10	
25 to 75	15	
<25 or recharge area	20	25
Distance to Surf. Water (feet)		
>1000	0	
300 to 1000	2	
200 to 300	10	
100 to 200	15	
< 100	20	0
Distance to Nearest Municipal Well (feet)		
>5280	0	
1320 to 5280	5	
500 to 1320	10	
<500	20	0
Distance to Other Wells (feet)		
>1320	0	
300 to 1320	10	
<300	20	0
Native Soil Type		
Low permeability	0	
Mod. permeability	10	
High permeability	20	10
Fluid Type		
Air/mist	0	
Fresh Water	5	
TDS >5000 and <10000	10	
TDS >10000 or Oil Base Mud Fluid containing significant levels of hazardous constituents	15 20	5
Drill Cuttings		
Normal Rock	0	
Salt or detrimental	10	0
Annual Precipitation (inches)		
<10	0	
10 to 20	5	
>20	10	0
Affected Populations		
<10	0	
10 to 30	6	
30 to 50	8	
>50	10	0
Presence of Nearby Utility Conduits		
Not Present	0	
Unknown	10	
Present	15	0

Final Score 35 (Level I Sensitivity)

Sensitivity Level I = 20 or more; total containment is required.
Sensitivity Level II = 15-19; lining is discretionary.
Sensitivity Level III = below 15; no specific lining is required.

DIVISION OF OIL, GAS AND MINING
APPLICATION FOR PERMIT TO DRILL
STATEMENT OF BASIS

OPERATOR: Bill Barrett Corporation
WELL NAME & NUMBER: Jack Canyon Unit State 14-32
API NUMBER: 43-007-30913
LOCATION: 1/4,1/4 SE/SW Sec: 32 TWP: 12S RNG: 16E 531 FSL 1479 FWL

Geology/Ground Water:

The base of the moderately saline water is at approximately 2,000 feet in this area. This location lies on the Green River Formation. The proposed location is in a recharge area for the aquifers of the upper Green River formation and fresh water can be expected to be found in the upper Green River. A search of Division of Water Rights records indicates one water wells within a 10,000 foot radius of the center of Section 32. This well is owned by SITLA and is listed as a stock watering well. The well is in section 32 and is producing water from a depth of 280'. The proposed casing and cement program should adequately protect any useable ground water.

Reviewer: Brad Hill **Date:** 04-09-2003

Surface:

An onsite of the surface area was done by the division, operator, and interested parties to take input and address concerns regarding the construction and drilling of said well. Ed Bonner with SITLA (State Lands) was notified by telephone and invited to the onsite meeting. The access road into this location was also on state land and had two washes approximately four feet deep that run north into Cottonwood Canyon. Mike Brady (the construction operator) claims they will utilize low water crossings and rip/rap those crossings with sandstone and pinion/cedar to minimize erosion. Sandstone outcroppings both above and below this bench indicate the need to line reserve pit to protect adjacent canyon from any leaking problems. Tony Wright with Utah Division of Wildlife Resources provided a seed mix to Barrett for reclamation of reserve pit and location for when remediation is done. Wright also stated area is big game winter habitat and requested a no drill window from November 1st til April 15th. Fresh elk tracks were observed in draw along proposed access road. Surface area at location has dense pinion/juniper stand cover.

Reviewer: Dennis L. Ingram **Date:** April 7, 2003

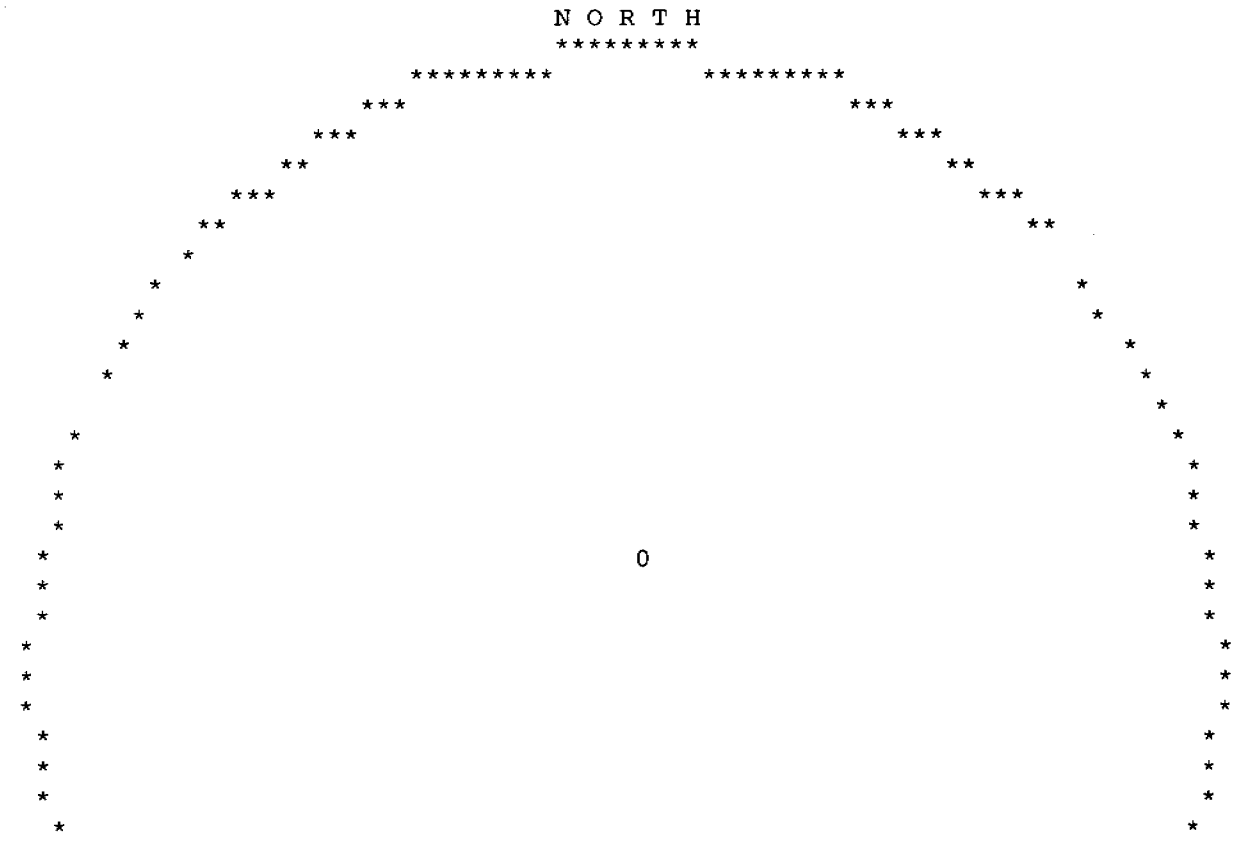
Conditions of Approval/Application for Permit to Drill:

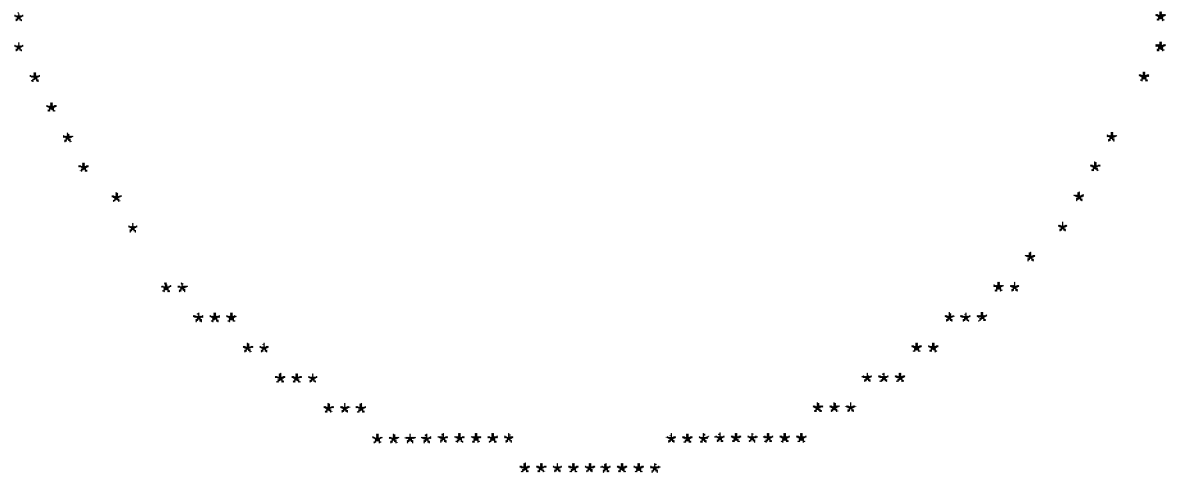
1. A synthetic liner with a minimum thickness of 12 mils shall be properly installed and maintained in the reserve pit.

UTAH DIVISION OF WATER RIGHTS
WATER RIGHT POINT OF DIVERSION PLOT CREATED WED, APR 9, 2003, 1:43 PM
PLOT SHOWS LOCATION OF 1 POINTS OF DIVERSION

PLOT OF AN AREA WITH A RADIUS OF 10000 FEET FROM A POINT
FEET, FEET OF THE CT CORNER,
SECTION 32 TOWNSHIP 12S RANGE 16E SL BASE AND MERIDIAN

PLOT SCALE IS APPROXIMATELY 1 INCH = 4000 FEET

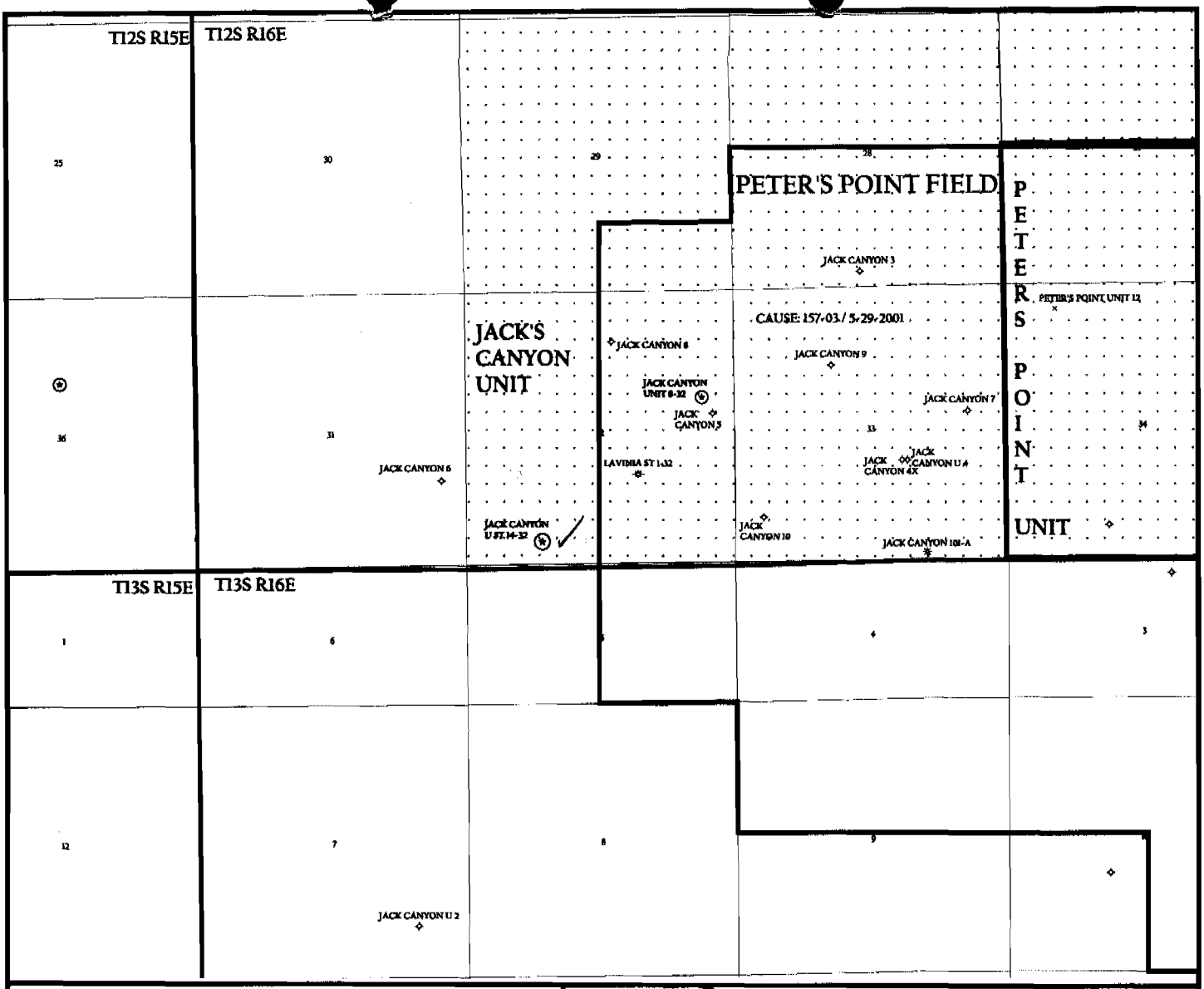




UTAH DIVISION OF WATER RIGHTS
NWPLAT POINT OF DIVERSION LOCATION PROGRAM

MAP CHAR	WATER RIGHT	QUANTITY CFS	AND/OR AC-FT	SOURCE DESCRIPTION or WELL INFO DIAMETER	DEPTH	YEAR LOG	POINT OF DIVERSION DESCRIPTION NORTH	EAST	CNR	SEC	TWN	RNG	B&
0	90 1542	.0150	.00	7	280	N	S 800	W 2300	NE	32	12S	16E	S

WATER USE(S): DOMESTIC STOCKWATERING OTHER PRIORITY DATE: 04/21/1
State of Utah School & Institutional Tru 675 East 500 South, 5th Floor Salt Lake City



OPERATOR: BILL BARRET CORP (N2165)

SEC. 32 T12S, R16E

FIELD: UNDESIGNATED (002)

COUNTY: CARBON

CAUSE: 157-03 / 5-29-2001

Utah Oil Gas and Mining

WELLS
- 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

UNIT STATUS
- EXPLORATORY
- GAS STORAGE
- NF PP OIL
- NF SECONDARY
- PENDING
- PI OIL
- PP GAS
- PP GEOTHERML
- PP OIL
- SECONDARY
- TERMINATED

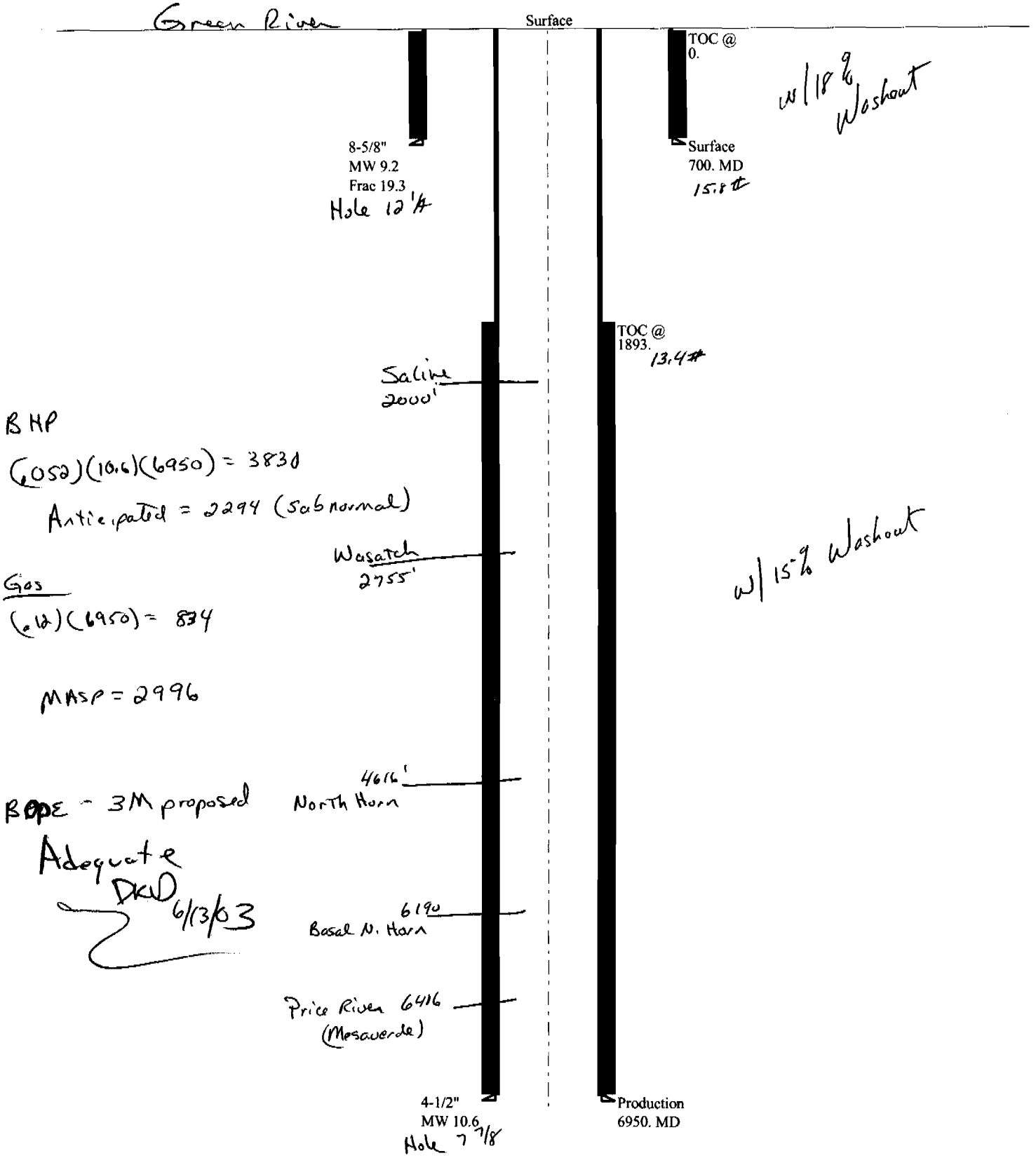
FIELD STATUS
- ABANDONED
- ACTIVE
- COMBINED
- INACTIVE
- PROPOSED
- STORAGE
- TERMINATED
- COUNTY BOUNDARY
- SECTION LINES
- TOWNSHIP LINES

N
W E
S

PREPARED BY: DIANA MASON
DATE: 19-MARCH-2003

6-03 Bill Barret Jack Canyon State 14-32

Casing Schematic



Well name:	**06-03 Bill Barret Jack Canyon State 14-32**
Operator:	**Bill Barret Corporation**
String type:	Surface
Project ID:	43-007-30913
Location:	Carbon County

Design parameters:

Collapse

Mud weight: 9.200 ppg
Design is based on evacuated pipe.

Burst

Max anticipated surface pressure: 22 psi
Internal gradient: 0.447 psi/ft
Calculated BHP 334 psi

No backup mud specified.

Minimum design factors:

Collapse:

Design factor 1.125

Burst:

Design factor 1.00

Tension:

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

Tension is based on air weight.
Neutral point: 603 ft

Environment:

H2S considered? No
Surface temperature: 65 °F
Bottom hole temperature: 75 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 185 ft

Cement top: Surface

Non-directional string.

Re subsequent strings:

Next setting depth: 5,000 ft
Next mud weight: 8.600 ppg
Next setting BHP: 2,234 psi
Fracture mud wt: 19.250 ppg
Fracture depth: 700 ft
Injection pressure 700 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 (ft³)
1	700	8.625	24.00	J-55	ST&C	700	700	7.972	33.7

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	334	1370	4.096	334	2950	8.82	17	244	14.53 J

Prepared by: Clinton Dworshak
Utah Div. of Oil & Mining

Date: June 12,2003
Salt Lake City, Utah

ENGINEERING STIPULATIONS: NONE
Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.
Collapse is based on a vertical depth of 700 ft, a mud weight of 9.2 ppg The casing is considered to be evacuated for collapse purposes.
Burst strength is not adjusted for tension.

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

Well name:	**06-03 Bill Barret Jack Canyon State 14-32**
Operator:	**Bill Barret Corporation**
String type:	Production
Project ID:	43-007-30913
Location:	Carbon County

Design parameters:

Collapse
Mud weight: 10.600 ppg
Design is based on evacuated pipe.

Burst
Max anticipated surface pressure: 722 psi
Internal gradient: 0.447 psi/ft
Calculated BHP 3,827 psi

No backup mud specified.

Minimum design factors:

Collapse:
Design factor 1.125

Burst:
Design factor 1.00

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

Tension is based on air weight.
Neutral point: 5,849 ft

Environment:
H2S considered? No
Surface temperature: 65 °F
Bottom hole temperature: 162 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 368 ft

Cement top: 1,893 ft

Non-directional string.

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	6950	4.5	11.60	N-80	LT&C	6950	6950	3.875	161.1

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	3827	6350	1.659	3827	7780	2.03	81	223	2.77 J

Prepared by: Clinton Dworshak
Utah Div. of Oil & Mining

Date: June 12,2003
Salt Lake City, Utah

ENGINEERING STIPULATIONS: NONE
Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.
Collapse is based on a vertical depth of 6950 ft, a mud weight of 10.6 ppg The casing is considered to be evacuated for collapse purposes.
Burst strength is not adjusted for tension.

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

From: Ed Bonner
To: Mason, Diana
Date: 5/7/03 9:04AM
Subject: Well Clearance

The following wells have been given cultural resource clearance by the Trust Lands Cultural Resources Group:

Bill Barrett Corporation
Jack Canyon Unit State 14-32

Gasco/Pannonian
Wilkin Ridge State 12-32-10-17

If you have any questions please give me a call.

CC: Baza, John; Garrison, LaVonne; Hunt, Gil

Bill Barrett Corporation

June 9, 2003

Ms. Diana Mason
Utah Division of Oil, Gas & Mining
1594 W North Temple, Suite 1210
Salt Lake City, Utah 84114-5801

Via Fax 801-359-3940

Re: Jack Canyon Unit State #14-32
Section 32-T12S-R16E
Carbon County, Utah

Gentlemen:

Bill Barrett Corporation (BBC) has submitted an Application for Permit to Drill for the captioned well. The subject location requires an exception location. In compliance with R649-3-3 Exception to General Location and Siting of Wells, BBC submits the following required information in its request for administrative approval for the exception:

1. BBC is the only owner within 460 foot radius of the proposed well location.
2. BBC is the only owner of all of the directly and diagonally offsetting drilling units.
3. BBC is requesting the exception location because the topography for a legal location is difficult and would require additional surface disturbance and expense.
4. BBC has provided a plat with the APD package indicating the requested location being 531' FSL and 1479' FWL.

BBC appreciated your prompt attention to this matter. Should you require any additional information, please contact the undersigned at 303-892-5635 or by e-mail at bgriffith12@hotmail.com.

Sincerely

William W. Griffith
Landman

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

Bill Barrett Corporation

June 9, 2003

Ms. Diana Mason
Utah Division of Oil, Gas & Mining
1594 W North Temple, Suite 1210
Salt Lake City, Utah 84114-5801

Via Fax 801-359-3940

Re: Jack Canyon Unit State #14-32
Section 32-T12S-R16E
Carbon County, Utah

Gentlemen:

Bill Barrett Corporation (BBC) has submitted an Application for Permit to Drill for the captioned well. The subject location requires an exception location. In compliance with R649-3-3 Exception to General Location and Siting of Wells, BBC submits the following required information in its request for administrative approval for the exception:

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Sincerely

William W. Griffith
Landman

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

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State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
Governor
Kathleen Clarke
Executive Director
Lowell P. Braxton
Division Director

1594 West North Temple, Suite 1210
PO Box 145801
Salt Lake City, Utah 84114-5801
801-538-5340
801-359-3940 (Fax)
801-538-7223 (TDD)

June 16, 2003

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

Re: Jack Canyon Unit State 14-32 Well, 531' FSL, 1479' FWL, SE SW, Sec. 32, T. 12 South, R. 16 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.

Appropriate information has been submitted to DOGM and administrative approval of the requested exception location is hereby 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 43-007-30913.

Sincerely,

John R. Baza
Associate Director

pab
Enclosures

cc: Carbon County Assessor
SITLA
Bureau of Land Management, Vernal District Office

Operator: Bill Barrett Corporation

Well Name & Number Jack Canyon Unit State 14-32

API Number: 43-007-30913

Lease: ML-43541

Location: SE SW **Sec.** 32 **T.** 12 South **R.** 16 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**
   The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:
   - 24 hours prior to cementing or testing casing
   - 24 hours prior to testing blowout prevention equipment
   - 24 hours prior to spudding the well
   - within 24 hours of any emergency changes made to the approved drilling program
   - prior to commencing operations to plug and abandon the well

   The following are Division of Oil, Gas and Mining contacts and their work telephone numbers (please leave a voice mail message if the person is not available to take the call):

   - Dan Jarvis at (801) 538-5338
   - Carol Daniels at (801) 538-5284 (spud)

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. Compliance with the State of Utah Antiquities Act forbids disturbance of archeological, historical, or paleontological remains. Should archeological, historical or paleontological remains be encountered during your operations, you are required to immediately suspend all operations and immediately inform the Trust Lands Administration and the Division of State History of the discovery of such remains.

5. Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis. (Copy Attached)

CONFIDENTIAL

FORM 9

005

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

5. LEASE DESIGNATION AND SERIAL NUMBER: ML43541

SUNDRY NOTICES AND REPORTS ON WELLS

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

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.

7. UNIT or CA AGREEMENT NAME: Jack Canyon

1. TYPE OF WELL: OIL WELL ☐ GAS WELL ☑ OTHER

8. WELL NAME and NUMBER: Jack Canyon Unit State 14-32

2. NAME OF OPERATOR: Bill Barrett Corporation

9. API NUMBER: 43-007-30913

3. ADDRESS OF OPERATOR: 1099 18th St, Ste 2300 CITY Denver STATE CO ZIP 80202

PHONE NUMBER: (303) 312-8120

10. FIELD AND POOL, OR WILDCAT: Jack Canyon

4. LOCATION OF WELL

FOOTAGES AT SURFACE: 531' FSL x 1479' FWL

COUNTY: Carbon

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SESW 32 12S 16E

STATE: UTAH

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

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

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

BILL BARRETT CORPORATION REQUESTS APPROVAL TO DEEPEN THIS WELL IN ORDER TO TEST THE MANCOS FORMATION. DUE TO THE INCREASED TOTAL DEPTH, CASING AND CEMENTING CHANGES ARE SET OUT BELOW:

INCREASE TOTAL DEPTH FROM 6,950' TO 10,000'

REVISE CASING PROGRAM AND ASSOCIATED CEMENT VOLUMES TO:

Size of Hole	Size of Casing	Weight per Foot	Setting Depth	Quantity of Cement
12-1/4"	9-5/8"	36#	1,000'	420 sx
7-7/8"	5-1/2"	17#	10,000'	1095 sx

PLEASE SEE ATTACHED CASING DESIGN SHEETS AND CEMENTING PROGRAM.

ANTICIPATED SPUD DATE JULY 15, 2003.

COPY SENT TO OPERATOR
Date: 07-01-03
Initials: CHD

NAME (PLEASE PRINT) Debra K. Stanberry TITLE Permit Specialist

SIGNATURE DATE June 25, 2003

(This space for State use only) APPROVED BY THE STATE OF UTAH DIVISION OF OIL, GAS, AND MINING
DATE: 7/1/03
BY:

RECEIVED
JUN 27 2003
DIV. OF OIL, GAS & MINING

(5/2000) (See Instructions on Reverse Side)

*Production Casing Cement Should be brought to 2500' min. as Proposed

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Well name: **Utah Nine Mile**
Operator: **Bill Barrett Corporation**
String type: Surface
Location: Uintah County

Design parameters:

Collapse
Mud weight: 9.500 ppg
Design is based on evacuated pipe.

Burst
Max anticipated surface pressure: 2,735 psi
Internal gradient: 0.220 psi/ft
Calculated BHP 2,955 psi

Annular backup: 9.50 ppg

Minimum design factors:

Collapse:
Design factor 1.125

Burst:
Design factor 1.00

Tension:
8 Round STC: 1.60 (J)
8 Round LTC: 1.60 (J)
Buttress: 1.60 (J)
Premium: 1.60 (J)
Body yield: 1.60 (B)

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

Environment:
H2S considered? No
Surface temperature: 60 °F
Bottom hole temperature: 74 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 1,000 ft
Minimum Drift: 8.750 in
Cement top: Surface

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)	Est. Cost (USD)
1	1000	9.625	36.00	J-55	LT&C	1000	1000	8.796	0

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	3613	1.32	31	453	14.64 J

Prepared by: Troy Schindler
Bill Barrett

Phone: (303) 312-8156
FAX: (303) 312-8195

Date: March 25,2003
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.

In addition, burst strength is biaxially adjusted for tension.

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

CONFIDENTIAL

Well name: **Utah Nine Mile**
Operator: **Bill Barrett Corporation**
String type: Production: Frac
Location: Uintah County

Design parameters:

Collapse
Mud weight: 9.500 ppg
Design is based on evacuated pipe.

Burst
Max anticipated surface pressure: 6,000 psi
Internal gradient: 0.023 psi/ft
Calculated BHP 6,234 psi
Annular backup: 9.50 ppg

Minimum design factors:

Collapse:
Design factor 1.125

Burst:
Design factor 1.20

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: 8,559 ft

Environment:
H2S considered? No
Surface temperature: 60 °F
Bottom hole temperature: 200 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 0,000 ft
Minimum Drift: 4.750 in
Cement top: 2,375 ft

Non-directional string.

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (USD)
1	10000	5.5	17.00	N-80	LT&C	10000	10000	4.767	0

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	6290	1.275	6000	8758	1.46	146	348	2.39 J

Prepared by: Troy Schindler, Bill Barrett
Phone: (303) 312-8156
FAX: (303) 312-8195
Date: March 25,2003
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.

In addition, burst strength is biaxially adjusted for tension.

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

CONFIDENTIAL

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

Nine Mile Canyon Cementing

Carbon County, Utah
United States of America

Surface and Production Casing Cementing Proposal

March 25, 2003
Version: 1

Submitted by:
Pat Kundert
Halliburton Energy Services
Denver 410 17th Co Us
410 Seventeenth St
Denver, Colorado 80202
303.899.4700

HALLIBURTON

HALLIBURTON

Job Recommendation — Surface Casing

Fluid Instructions
Fluid 1: Water Spacer
Water Spacer w/Gel

Fluid Density:	8.50 lbm/gal
Fluid Volume:	20 bbl

Fluid 2: Lead Cement – (700 – 0')
Halliburton Light Premium, 6% gel standard
2 % Calcium Chloride (Accelerator)
0.125 lbm/sk Poly-E-Flake (Lost Circulation Additive)

Fluid Weight	12.7 lbm/gal
Slurry Yield:	1.85 ft^3/sk
Total Mixing Fluid:	9.90 Gal/sk
Top of Fluid:	0 ft
Calculated Fill:	700 ft
Volume:	78.09 bbl
Calculated Sacks:	237.01 sks
Proposed Sacks:	**240 sks**

Fluid 3: Primary Cement – (TD – 700')
Premium Cement
94 lbm/sk Premium Cement (Cement-api)
2 % Calcium Chloride (Accelerator)
0.125 lbm/sk Poly-E-Flake (Lost Circulation Additive)

Fluid Weight	15.8 lbm/gal
Slurry Yield:	1.16 ft^3/sk
Total Mixing Fluid:	4.97 Gal/sk
Top of Fluid:	700 ft
Calculated Fill:	300 ft
Volume:	36.56 bbl
Calculated Sacks:	176.81 sks
Proposed Sacks:	**180 sks**

Detailed Pumping Schedule

Fluid #	Fluid Type	Fluid Name	Surface Density lbm/gal	Estimated Avg Rate bbl/min	Downhole Volume
1	Spacer	Water Spacer w/Gel	8.5	5.0	20 bbl
2	Cement	Halliburton Light Cement	12.7	5.0	240 sks
3	Cement	Premium Cement	15.8	5.0	180 sks

Job Recommendation — Production Casing

Fluid Instructions

Fluid 1: Water Spacer

Water Spacer

Fluid Density:	8.40 lbm/gal
Fluid Volume:	5 bbl

Fluid 2: Reactive Spacer

SUPER FLUSH 101

Fluid Density:	10 lbm/gal
Fluid Volume:	20 bbl

Fluid 3: Water Spacer

Water Spacer

Fluid Density:	8.40 lbm/gal
Fluid Volume:	5 bbl

Fluid 4: Primary Cement – (TD – 2500')

50/50 Poz Premium, 2% gel standard

3 %	KCL (Additive Material)	Fluid Weight	13.40 lbm/gal
0.75 %	Halad(R)-322 (Low Fluid Loss Control)	Slurry Yield:	1.49 ft^3/sk
3 lbm/sk	Silicalite Compacted (Light Weight Additive)	Total Mixing Fluid:	7.06 Gal/sk
0.2 %	FWCA (Free Water Control)	Top of Fluid:	2500 ft
0.125 lbm/sk	Poly-E-Flake (Lost Circulation Additive)	Calculated Fill:	7500 ft
1 lbm/sk	Granulite TR 1/4 (Lost Circulation Additive)	Volume:	290.22 bbl
		Calculated Sacks:	1093.61 sks
		Proposed Sacks:	**1095 sks**

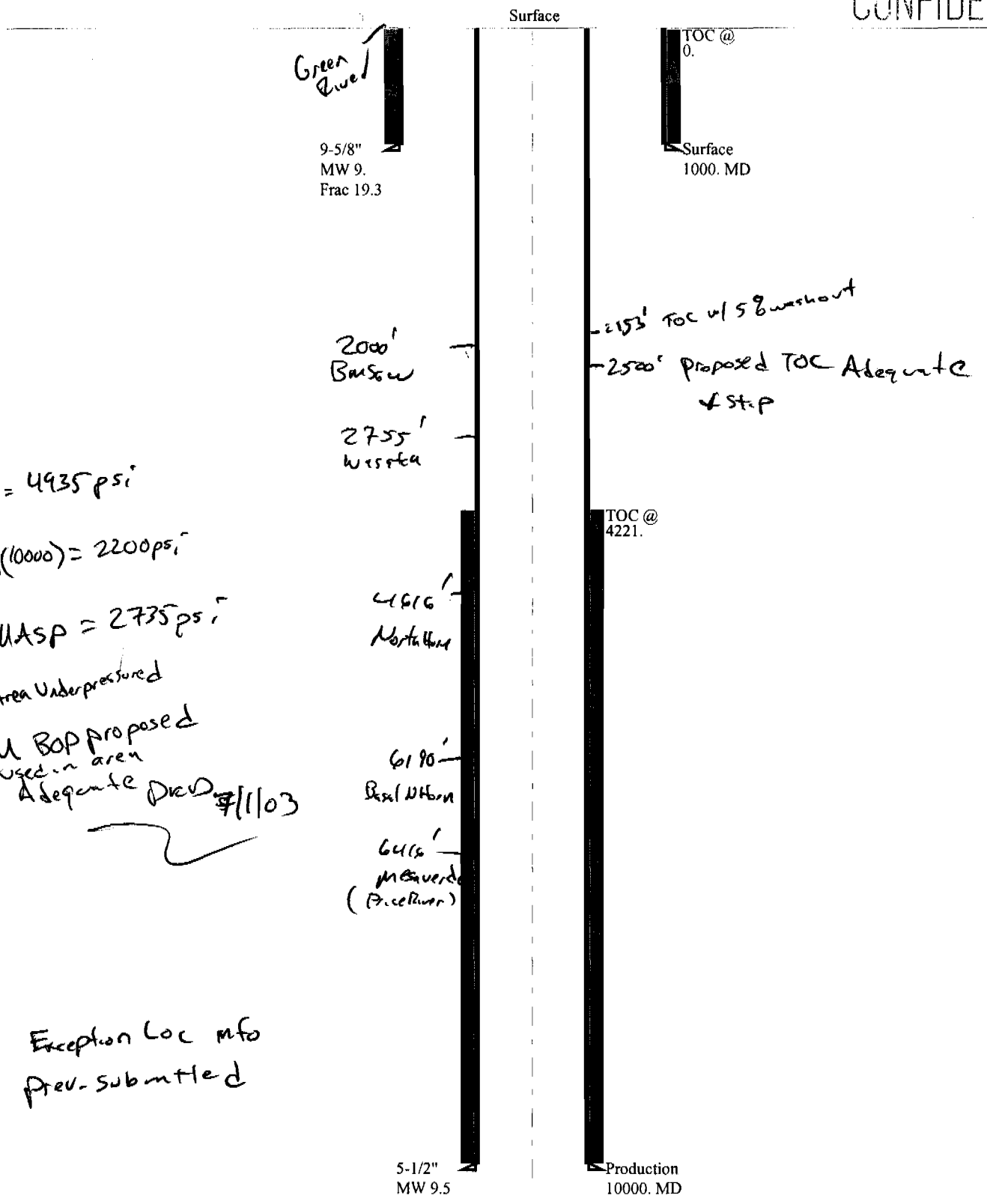
Detailed Pumping Schedule

Fluid #	Fluid Type	Fluid Name	Surface Density lbm/gal	Estimated Avg Rate bbl/min	Downhole Volume
1	Spacer	Water Spacer	8.4	5.0	5 bbl
2	Spacer	SUPER FLUSH 101	10.0	5.0	20 bbl
3	Spacer	Water Spacer	8.4	5.0	5 bbl
4	Cement	50/50 Pozmix, 2% gel Cement	13.4	5.0	1095 sks

07-03 Barrett Jack Canyon #14-32 rev

Casing Schematic

CONFIDENTIAL



CONFIDENTIAL

Well name:	**07-03 Barrett Jack Canyon #14-32 rev**
Operator:	**Bill Barrett Corporation**
String type:	Surface
Project ID:	43-007-30913
Location:	Duchesne Co.

Design parameters:

Collapse
Mud weight: 9.000 ppg
Design is based on evacuated pipe.

Burst
Max anticipated surface pressure: 880 psi
Internal gradient: 0.120 psi/ft
Calculated BHP 1,000 psi

No backup mud specified.

Minimum design factors:

Collapse:
Design factor 1.125

Burst:
Design factor 1.00

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

Tension is based on buoyed weight.
Neutral point: 867 ft

Environment:
H2S considered? No
Surface temperature: 75 °F
Bottom hole temperature: 89 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 375 ft

Cement top: Surface

Non-directional string.

Re subsequent strings:
Next setting depth: 10,000 ft
Next mud weight: 9.000 ppg
Next setting BHP: 4,675 psi
Fracture mud wt: 19.250 ppg
Fracture depth: 1,000 ft
Injection pressure 1,000 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)	Est. Cost ($)
1	1000	9.625	36.00	J-55	LT&C	1000	1000	8.796	8176

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	467	2020	4.32	1000	3520	3.52	31.2	453	14.52 J

Prepared by: Dustin K. Doucet
Utah Dept. of Natural Resources

Date: July 1,2003
Salt Lake City, Utah

ENGINEERING STIPULATIONS: NONE
Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.
Collapse is based on a vertical depth of 1000 ft, a mud weight of 9 ppg The casing is considered to be evacuated for collapse purposes.
Burst strength is not adjusted for tension.

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

CONFIDENTIAL

Well name:	**07-03 Barrett Jack Canyon #14-32 rev**
Operator:	**Bill Barrett Corporation**
String type:	Production
Project ID:	43-007-30913
Location:	Duchesne Co.

Design parameters:

Collapse
Mud weight: 9.500 ppg
Design is based on evacuated pipe.

Burst
Max anticipated surface pressure: 2,735 psi
Internal gradient: 0.220 psi/ft
Calculated BHP 4,935 psi

No backup mud specified.

Minimum design factors:

Collapse:
Design factor 1.125

Burst:
Design factor 1.00

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

Tension is based on buoyed weight.
Neutral point: 8,559 ft

Environment:
H2S considered? No
Surface temperature: 75 °F
Bottom hole temperature: 215 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 375 ft

Cement top: 4,221 ft

Non-directional string.

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost ($)
1	10000	5.5	17.00	N-80	LT&C	10000	10000	4.767	56362

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	6290	1.27	4935	7740	1.57	145.5	348	2.39 J

Prepared by: Dustin K. Doucet
Utah Dept. of Natural Resources

Date: July 1,2003
Salt Lake City, Utah

ENGINEERING STIPULATIONS: NONE
Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.
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.
Burst strength is not adjusted for tension.

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

006

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DIVISION OF OIL, GAS AND MINING

SPUDDING INFORMATION

Name of Company: **BILL BARRETT CORP**

Well Name: **JACK CYN U ST 14-32**

Api No: **43-007-30913** Lease Type: **STATE**

Section **32** Township **12S** Range **16E** County **CARBON**

Drilling Contractor **BILL MARTIN** RIG # **2**

SPUDDED:

Date **07/19/03**

Time

How **ROTARY**

Drilling will commence:

Reported by **RON CHAPAN**

Telephone # **1-435-790-0410**

Date **08/06/2003** Signed: **CHD**

FORM 6

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

007

ENTITY ACTION FORM

Operator: BILL BARRETT CORPORATION
Address: 1099 18th Street, Suite 2300
city Denver
state CO zip 80202

Operator Account Number: N 2165
Phone Number: (303) 312-8120

Well 1

API Number	Well Name		QQ	Sec	Twp	Rng	County
4300730913	Jack Canyon Unit State #14-32		SESW	32	12S	16E	Carbon
Action Code	Current Entity Number	New Entity Number	Spud Date			Entity Assignment Effective Date	
KB	99999	12274	8/1/2003			8/7/03	
Comments: MNCS CONFIDENTIAL							

Well 2

API Number	Well Name		QQ	Sec	Twp	Rng	County
Action Code	Current Entity Number	New Entity Number	Spud Date			Entity Assignment Effective Date	
Comments:							

Well 3

API Number	Well Name		QQ	Sec	Twp	Rng	County
Action Code	Current Entity Number	New Entity Number	Spud Date			Entity Assignment Effective Date	
Comments:							

ACTION CODES:
- A - Establish new entity for new well (single well only)
- B - Add new well to existing entity (group or unit well)
- C - Re-assign well from one existing entity to another existing entity
- D - Re-assign well from one existing entity to a new entity
- E - Other (Explain in 'comments' section)

Debra K. Stanberry
Name (Please Print)

Signature

Permit Specialist
Title

8/5/2003
Date

(5/2000)

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FORM 9

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

008

5. LEASE DESIGNATION AND SERIAL NUMBER: ML 43541

SUNDRY NOTICES AND REPORTS ON WELLS

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: n/a

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.

7. UNIT or CA AGREEMENT NAME: Jack Canyon

1. TYPE OF WELL: OIL WELL ☐ GAS WELL ☑ OTHER CONFIDENTIAL

8. WELL NAME and NUMBER: Jack Canyon Unit State 14-32

2. NAME OF OPERATOR: BILL BARRETT CORPORATION

9. API NUMBER: 4300730913

3. ADDRESS OF OPERATOR: 1099 18th St Ste 2300 CITY Denver STATE CO ZIP 80202

PHONE NUMBER: (303) 312-8120

10. FIELD AND POOL, OR WILDCAT: Jack Canyon/Mancos

4. LOCATION OF WELL

FOOTAGES AT SURFACE: 531' FSL x 1479' FWL

COUNTY: Carbon

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SESW 32 12S 16E S

STATE: UTAH

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

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

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

PLEASE SEE ATTACHED CHRONOLOGICAL DRILLING REPORTS FOR THIS WELL COVERING AUGUST 1, 2003 THROUGH AUGUST 8, 2003.

NAME (PLEASE PRINT) DEBRA K. STANBERRY TITLE PERMIT SPECIALIST

SIGNATURE [signature] DATE 8/8/2003

(This space for State use only)

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(5/2000) (See Instructions on Reverse Side)

REGULATORY DRILLING SUMMARY

Bill Barrett Corporation

Well : **Jack Canyon Unit State 14-32** API # : 43-007-30913 Operations Date : 8/8/2003

Surface Location : SWSE-32-12S-16 E 6th PM Area : Nine Mile Canyon Report # : 7

Spud Date : 8/1/2003 Days From Spud : 7 Depth At 06:00 : 6265

Morning Operations : Drilling 7 7/8" Hole @ 6265' (Formation: Basal North Horn @ 6190') Estimated Total Depth : 10000

Time To	Description
2:30:00 PM	Drill From 4165' To 4931' (766') Ft/Hr: 90.12'
3:00:00 PM	Rig Service: Functionally Operate Annular Preventor. Safety Meeting Held: Checking Pressure Guages.
6:00:00 AM	Drill From 4931' To 6265' (1334') Ft/Hr: 88.93'

Remarks :

Note: Days Since Lost Time Accident: 294

Note: Mud Motor - SN. 1010 - Total Hrs. 84.5
Shock Sub - SN. 993 - Total Hrs. 52

Note: Held Safety Meeting On All Event Changes

Mud Loggers Morning Report @ 05:00 AM.

Formation Top: Surface (Green River)
Projected Formation Tops: Wasatch @ 2800'
North Horn @ 4616' - Basal North Horn @ 6190' Price River "Mesaverde" @ 6416'
Formation Now Drilling In: Basal North Horn

Background Gas: 4 Units.
Connection Gas: 10 Units.

Gas Shows & Drilling Breaks: SEE DAILY MUD LOG

Well : **Jack Canyon Unit State 14-32** API # : 43-007-30913 Operations Date : 8/7/2003

Surface Location : SWSE-32-12S-16 E 6th PM Area : Nine Mile Canyon Report # : 6

Spud Date : 8/1/2003 Days From Spud : 6 Depth At 06:00 : 4165

Morning Operations : Drilling @ 4165' (Formation: Wasatch @ 2800') Surface "Green River" Estimated Total Depth : 10000

Time To	Description
3:30:00 PM	Drill From 1828' to 2792' (964') Ft/Hr: 101.47'
4:00:00 PM	Rig Service: Functionally Operate 4 1/2" Pipe Rams. Held Safety Meeting: Making Connections
8:30:00 PM	Drill From 2792' To 3353' (561') Ft/Hr: 124.67'
9:00:00 PM	Repair Clamp On Rotating Head (Grant Rotating Head)
11:00:00 PM	Drill From 3353' to 3567' (214' Ft/Hr: 107'
11:30:00 PM	Wire Line Survey @ 3459' - 1/2 degree (7 degree Instrument)
6:00:00 AM	Drill From 3567' To 4165' (598') Ft/Hr: 92'

Remarks :

Note: Days Since Lost Time Accident: 293

Note: Mud Motor - SN. 1010 - Total Hrs. 61
Shock Sub - SN. 993 - Total Hrs. 28.5

Spud 7 7/8" Hole @ 11:00 PM, 8/5/2003
Note: Held Safety Meeting On All Event Changes

Mud Loggers Morning Report @ 05:00 AM.

Formation Top: Surface (Green River)
Projected Formation Tops: Wasatch @ 2800'
North Horn @ 4616' - Basal North Horn @ 6190'
Formation Now Drilling In: Green River

Background Gas: 3 Units.
Connection Gas: 10 Units.

Gas Shows & Drilling Breaks: SEE DAILY MUD LOG

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REGULATORY DRILLING SUMMARY

Bill Barrett Corporation

Well : **Jack Canyon Unit State 14-32** API # : 43-007-30913 Operations Date : 8/6/2003

Surface Location : SWSE-32-12S-16 E 6th PM Area : Nine Mile Canyon Report # : 5

Spud Date : 8/1/2003 Days From Spud : 5 Depth At 06:00 : 1828

Morning Operations : Drill To 1828' (Formation: Green River) Estimated Total Depth : 10000

Time To	Description
7:00:00 AM	Cement 9 5/8" Surface Casing With Halliburton's Cementing Equipment. Note See Cementing Details.
8:00:00 AM	Observe Cement: Cement Down 20' From KB: "NO" Top Job: Released Halliburton's Cementing Equipment.
2:30:00 PM	Nipple Down 16" Conductor & Nipple Up 5K BOPE - Clean Cement Out Of Kill Line Valves.
8:00:00 PM	Test BOPE With Single Jack Testing & Service. Test Pipe Rams, Blind Rams, Choke Manifold, Manifold Lines, Kill Lines, Super Choke, Upper & Lower Kelly Valves, Dart Valve, TIW Valve. (Low Test 250 psi) + (High Test 5000 psi) Annular Preventor 2500 psi - 9 5/8" Casing To 2000 psi. (Casing Test 30 Minutes)
10:30:00 PM	Install Wear Bushing - P/U BHA - RIH - Tag Cement @ 987'
11:00:00 PM	Drill Cement & Float Collar @ 987' - Cement & Shoe @ 1043' (Wash & Ream From 1043' To 1060')
3:00:00 AM	Drill From 1060' To 1577' (517') Ft/Hr: 129.25'
4:00:00 AM	Wire Line Survey @ 1498' - 1 degree (7 degree Instrument) *Work On #1 Pump - *(Mis-Run On Survey-First Time)
6:00:00 AM	Drill From 1577' to 1828' (251') Ft/Hr: 125.50'

Remarks :

Note: Days Since Lost Time Accident: 292

Note: Mud Motor - SN. 1010 - Total Hrs. 38.5
Shock Sub - SN. 993 - Total Hrs. 6

Spud 7 7/8" Hole @ 11:00 PM, 8/5/2003
Note: Held Safety Meeting On All Event Changes
Note: Change Shale Shaker Screen To 175 Mesh

Note: Pason Rigged Up And In Operation - began Logging & Monitoring Gas @ 1060' - 11:00 PM, 08/05/2003.

Mud Loggers Morning Report @ 05:00 AM.

Formation Top: Surface (Green River)
Projected Formation Tops: Wasatch @ 2755'
North Horn @ 4616'
Formation Now Drilling In: Green River

Background Gas: 3 Units.
Connection Gas: 10 Units.

Gas Shows & Drilling Breaks: SEE DAILY MUD LOG

REGULATORY DRILLING SUMMARY

Bill Barrett Corporation

Well : **Jack Canyon Unit State 14-32** API # : 43-007-30913 Operations Date : 8/5/2003

Surface Location : SWSE-32-12S-16 E 6th PM Area : Nine Mile Canyon Report # : 4

Spud Date : 8/1/2003 Days From Spud : 4 Depth At 06:00 : 1060

Morning Operations : 9 5/8" Casing Landed @ 1043' - Cementing 9 5/8" Casing With Halliburton. T.D. 1 Estimated Total Depth : 10000

Time To	Description
11:00:00 AM	Rigging Up Patterson's Rig #77 - Rotary Table Equipment - Held Safety Meeting - Safety Clamps On All High Pressure Hoses.
3:00:00 PM	P/U BHA & Tag Fill @ 695' (Pick Up Kelly & Break Circulation @
3:30:00 PM	Pump Polymer Sweep
4:00:00 PM	Wire Line Survey @ 602' - 1/4 degree (7 degree Instrument)
4:30:00 PM	Dig Ditches Around Mud Tanks - "Safety Issue" Wash & Ream From 695' To 725' (30')
6:30:00 PM	Drill From 725' To 854' (129') Ft/Hr: 64.50'
8:30:00 PM	Rig Repair: Repack Swivel (Pull 2 Stds. Drill Collars - Repack Swivel - RIH With 2 Stds Of Drill Collars)
11:00:00 PM	Drill From 854' To 1060' (206') Ft/Hr: 82.40'
11:30:00 PM	Circulate, Condition Hole - Pump High Viscous Sweep
12:30:00 AM	Trip Out To Run 9 5/8" Casing
1:30:00 AM	Rig Up Westates Lay Down Machine & Lay Down 6-8" Drill Collars - Shock Sub - Mud Motor.
2:00:00 AM	Rig Up Westates Casing Equipment & Prepare To Run 9 5/8" Casing. Held Safety Meeting Between Westate's & Patterson's Personnel. "Running 9 5/8" Casing"
3:30:00 AM	Ran 24 Jts. (1021.97') + (Landing Joint - 19.80') 9 5/8", 36#, J-55, ST&C, 8rd, R-3 - R-2 "Paragon" Casing. Casing Landed @ 1043.00'
5:30:00 AM	Circulate, Condition Hole To Cement 9 5/8" Casing.
6:00:00 AM	Cement 9 5/8" Surface Casing With Halliburton's Cementing Equipment. Note See Cementing Details & Comments.

Remarks :

Mud Motor SN: 2014 - Total Hours = 42.5
Shock Sub - SN: - Total Hours = 42.5

Rig Note: Days Since Lost Time Accidents: 291
Note: Held Safety Meeting On All Event Changes
Note: Change Shale Shaker Screens To 110 Mesh.

Note: "Lead Cement" 240 sxs. (79 bbls) 65/35% Poz Cement With 6% Gel, 2% Calcium Chloride, 1/4 #/sx Flocele. Mixed @ 12.7 ppg With A Yield Of 1.85 Cu.Ft/Sx. (Water Requirements - 9.90 Gallons/Sack)
Note: "Tail Cement" 180 sxs. (37 bbls) Premium AG Cement With 2% Calcium Chloride, 1/4 #/sx Flocele. Mixed @ 15.8 ppg With A Yield Of 1.15 Cu.Ft/Sx. (Water Requirements 4.97 Gallons/Sack)

Cement With Halliburton, Test Pump Truck & Lines To 3,000 psi. Pump 10 bbls Fresh Water Spacer, Followed by 20 bbls Gel-Water Flush. Mixed & Pumped 240 sxs, (79 bbls) HLC-65/35% Poz (Lead) Cement With 6% Gel, 2% Calcium Chloride, 1/4 #/sx Flocele. Mixed @ 12.7 ppg with a Yield Of 1.85 Cu.Ft/sx. Followed by 180 sxs. (37 bbls) AG-300 (Tail) Cement With 2% Calcium Chloride, 1/4 #/sx Flocele. Mixed @ 15.8 ppg with A Yield Of 1.15 Cu.Ft/Sx. Shut Down, Drop Plug, Start (77.19 bbls) Of Fresh Water Displacement. Pumping @ A rate of 7 bpm, Slowing rate To 2 bpm the Last 12 bbls of Displacement. Final Lift Pressure 300 psi. Bumping Plug To 700 psi. Wait 2 Minutes, Release Pressure, Float Held. Good Returns Through Out Cement Job. Returned 30 bbls (91 sxs) 12.7 ppg "Lead" Cement To Reserve Pit.

Note: Waited 30 Minutes, Cement Fell 20' In Annulus
Note: "NO" Top Job. Cement In Place @ 07:00 am, 8/5/2003.

Note: State Of Utah (Department Of Natural Resources) Division Of Oil, Gas & Mining. (Dennis Ingram) 1-435-722-3417- Witnessed The Running Of 9 5/8" Casing & Cementing With Halliburton

REGULATORY DRILLING SUMMARY

Bill Barrett Corporation

Well : **Jack Canyon Unit State 14-32** API # : 43-007-30913 Operations Date : 8/4/2003

Surface Location : SWSE-32-12S-16 E 6th PM Area : Nine Mile Canyon Report # : 3

Spud Date : 8/1/2003 Days From Spud : 3 Depth At 06:00 : 725

Morning Operations : Prepare Rig #77 For Drilling Operations (Depth: 725' @ 06:00 AM, Aug. 4, 2003) Estimated Total Depth : 10000

Time To	Description
7:00:00 PM	August 3, 2003 - Started Moving Patterson Rig #77 From Peters Jack Canyon Unit State #8-32 To Jack Canyon Unit State #14-32 MIRURT- With R.W. Jones Trucking - 90% (Raise Derrick @ 5:45 pm, 2003) Release R.W. Jones Trucking @ 7:00 pm, 8/3/2003. Note: Small Location - (1) Pipe Tub Left Out
6:00:00 AM	Rigging Up Patterson's Rig #77 - Pre-Spud Safety Meeting Held. Making Sure Safety Lines & Belts Are Used. Prepare Patterson Rig #77 For Drilling Operations. Note: Clean Cement Out Of Flow-Line

Remarks :

Days Since Lost Time Accidents: 290

Note: Notified BLM (Don Stephens) 1-435-636-3608 @ 10:00 am, 8/3/03 - About 9 5/8" Surface Casing & Cementing Procedure.

Note: Notified BLM (Eric Jones) 1-435-259-2100 @ 09:30 am. 8/3/03 - About 9 5/8" Surface Casing & Cementing Procedure.

Note: Notified: State Of Utah Division Of Oil, Gas & Mining (Dennis Ingram) 1-435-722-3417 @ 10:00 pm, 8/3/03 - About 9 5/8" Surface Casing & Cementing Procedure.

Note: Notified: State Of Utah Division Of Oil, Gas & Mining (Carol Danials) 1-801-538-5284 @ 9:45 PM, 8/3/03 - About 9 5/8" Surface Casing & Cementing Procedure.

Note: Reynolds Transportation. Delivered 26 Jts. (1117.10') Thread On. 9.625", 36#, J-55, ST&C, 8rd, R-3 "Paragon" Casing.

Note: Problems Getting R.W. Jones Up First Dug Way. Chains were be-ing Used, before Problems occurred. Rained during the night, dug way was slippery. Late Start On Rig Move.

Well : **Jack Canyon Unit State 14-32** API # : 43-007-30913 Operations Date : 8/2/2003

Surface Location : SWSE-32-12S-16 E 6th PM Area : Nine Mile Canyon Report # : 2

Spud Date : 8/1/2003 Days From Spud : 1 Depth At 06:00 : 725

Morning Operations : Rigging Down Stubbs & Stubbs Air Rig - Prepare Rig For Move Estimated Total Depth : 10000

Remarks :

Time To	Description
3:00:00 AM	Drill 12 1/4" Hole From 300' To 725' (425') Ft/Hr: 20.24' - Note: Pump Sweep - Clean Hole - Prepare To POOH (LDDP)
6:00:00 AM	POOH With Drilling Assembly & Rig Down Stubbs & Stubbs Air Rig - Move Off Location.

Well : **Jack Canyon Unit State 14-32** API # : 43-007-30913 Operations Date : 8/1/2003

Surface Location : SWSE-32-12S-16 E 6th PM Area : Nine Mile Canyon Report # : 1

Spud Date : 8/1/2003 Days From Spud : 0 Depth At 06:00 : 300

Morning Operations : Drilling 12 1/4" Hole To 300' (Spud 12 1/4" Hole @)1:00 Am, August 1, 2003) Estimated Total Depth : 10000

Remarks :

Note: Nipple Up To 16" Conductor With Blooie Line
Note: Started Misting 12 1/4" Hole @ 150'

Time To	Description
1:00:00 AM	MIRU Stubbs & Stubbs Air Rig
6:00:00 AM	Spud 12 1/4" Air Hole @ 01:00 AM, August 1, 2003. Drill From 30' To 300' (270') Ft/Hr: 54'

FORM 9

009

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

5. LEASE DESIGNATION AND SERIAL NUMBER: ML 43541

SUNDRY NOTICES AND REPORTS ON WELLS

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: n/a

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.

7. UNIT or CA AGREEMENT NAME: Jack Canyon

1. TYPE OF WELL: OIL WELL ☐ GAS WELL ☑ OTHER CONFIDENTIAL

8. WELL NAME and NUMBER: Jack Canyon Unit State 14-32

2. NAME OF OPERATOR: BILL BARRETT CORPORATION

9. API NUMBER: 4300730913

3. ADDRESS OF OPERATOR: 1099 18th St Ste 2300 CITY Denver STATE CO ZIP 80202

PHONE NUMBER: (303) 312-8120

10. FIELD AND POOL, OR WILDCAT: Jack Canyon Unit/Mancos

4. LOCATION OF WELL

FOOTAGES AT SURFACE: 531' FSL x 1479' FWL

COUNTY: Carbon

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SESW 32 12S 16E S

STATE: UTAH

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

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

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

PLEASE SEE ATTACHED CHRONOLOGICAL DRILLING REPORTS FOR THIS WELL COVERING AUGUST 9, 2003 THROUGH AUGUST 15, 2003.

NAME (PLEASE PRINT) DEBRA K. STANBERRY TITLE PERMIT SPECIALIST

SIGNATURE DATE 8/15/2003

(This space for State use only)

RECEIVED
AUG 18 2003
DIV. OF OIL, GAS & MINING

(5/2000) (See Instructions on Reverse Side)

REGULATORY DRILLING SUMMARY

CONFIDENTIAL

Bill Barrett Corporation

Well : **Jack Canyon Unit State 14-32** API # : 43-007-30913 Operations Date : 8/15/2003

Surface Location : SWSE-32-12S-16 E 6th PM Area : Nine Mile Canyon Report # : 14

Spud Date : 8/1/2003 Days From Spud : 14 Depth At 06:00 : 8131

Morning Operations : Depth: 8131' "Tripping For Bit #7" Formation: Sego @ 7840' Estimated Total Depth : 10000

Time To	Description
8:30:00 AM	Wash & Ream From 7920' To 7936' (16')
1:00:00 PM	Drill From 7936' To 7990' (54') Ft/Hr: 12.00'
1:30:00 PM	Rig Service: Functionally Operate 4 1/2" Pipe Rams - Held Safety Meeting - Checking Crown-O-Matic
5:00:00 AM	Drill From 7990' To 8131' (141') Ft/Hr: 9.10'
6:00:00 AM	Pump Pill - POOH With Bit #6 - Observe Hole Closely "NO" Gain-Losses-Swabbing - "Hole Static"

Remarks :

Note: Days Since Lost Time Accident: 301

Note: Mud Motor - SN. 1010 - Total Hrs. 156.5 - L/D
SN. 1007 - Total Hrs. 32.5
Shock Sub - SN. 993 - Total Hrs. 156.5

Note: Held Safety Meeting On All Event Changes

Mud Loggers Morning Report @ 05:00 AM.

Formation Top: Surface (Green River)
Projected Formation Tops: Wasatch @ 2800'
North Horn @ 4616' - Basal North Horn @ 6190' - Price River "Mesaverde" @ 6400' - Bluecastle @ 7500' - Sego @ 7840' - Castlegate @ 8250' - Blackhawk @ 8515'

Formation Now Drilling In: Sego

Background Gas: 340 Units.
Connection Gas: 3291 Units
Trip Gas: 6010 Units. @ 7936'
Gas Shows & Drilling Breaks: SEE DAILY MUD LOG

Well : **Jack Canyon Unit State 14-32** API # : 43-007-30913 Operations Date : 8/14/2003

Surface Location : SWSE-32-12S-16 E 6th PM Area : Nine Mile Canyon Report # : 13

Spud Date : 8/1/2003 Days From Spud : 13 Depth At 06:00 : 7936

Morning Operations : Washing & Reaming To Bottom From 7890' (Formation: Sego @ 7780') Estimated Total Depth : 10000

Time To	Description
7:00:00 AM	RIH To 7744' (P/U Kelly & Break Circulation)
10:00:00 AM	Wash & Ream from 7748' To 7827' (79') 5K On Bit
4:30:00 PM	Drill From 7827' To 7898' (71') Ft/Hr: 10.92'
5:00:00 PM	Rig Service: Functionally Operate Annular Preventor: Safety Meeting Held: Working Tight Hole
11:00:00 PM	Drill From 7898' To 7936' (38') Ft/Hr: 6.33' (Note: Made Connection @ 7929' "Tight" over-pull 40K)
2:00:00 AM	Pump Pill - POOH - Observe Hole Closely - "NO" Gain-Losses-Swabbing - "Hole Static"
2:30:00 AM	Functionally Operate Blind Rams - Dress Bit #6 - Held Safety Meeting: Pulling & Setting Slips.
5:30:00 AM	Trip In Hole To 7890' (Break Circulation @ 4433') P/U Kelly & Break Circulation @ 7890
6:00:00 AM	Wash & Ream From 7890' To 7920' (30')

Remarks :

Note: Days Since Lost Time Accident: 300

Note: Mud Motor - SN. 1010 - Total Hrs. 156.5 - L/D
SN. 1007 - Total Hrs.12.5
Shock Sub - SN. 993 - Total Hrs. 136.5

Note: Held Safety Meeting On All Event Changes

Mud Loggers Morning Report @ 05:00 AM.

Formation Top: Surface (Green River)
Projected Formation Tops: Wasatch @ 2800'
North Horn @ 4616' - Basal North Horn @ 6190' - Price River "Mesaverde" @ 6400' - Bluecastle @ 7230' - Sego @ 7780' - Castlegate @ 8335' - Blackhawk @ 8550'
Formation Now Drilling In: Sego

Background Gas: 1200 Units.
Connection Gas: 9800 Units
Trip Gas: 10,213 Units. @ 7827'
Gas Shows & Drilling Breaks: SEE DAILY MUD LOG

REGULATORY DRILLING SUMMARY

CONFIDENTIAL

Bill Barrett Corporation

Well : **Jack Canyon Unit State 14-32** API # : 43-007-30913 Operations Date : 8/13/2003

Surface Location : SWSE-32-12S-16 E 6th PM Area : Nine Mile Canyon Report # : 12

Spud Date : 8/1/2003 Days From Spud : 12 Depth At 06:00 : 7827

Morning Operations : RIH After Rig Repairs: Depth - 7827' - (Formation: Bluecastle @ 7230') Estimated Total Depth : 10000

Time To	Description
8:30:00 AM	Drill From 7798' To 7827' (29') Ft/Hr: 11.60'
1:00:00 PM	Pump Pill - Drop Survey - POOH - "Work Through Tight Hole" Over-Pull 50K - From 7827' To 7765' - Observe Hole Closely: "NO" Gain-Losses- 5-Stds (463') Gained 4 bbls of Volume - Hole Swabbing - "Hole Static" Note: Over Torque 4 1/2" Drill Pipe From Down Hole.
1:30:00 PM	Functionally Operate Blind Rams - Lay Down Hunting Performance Mud Motor SN.1010 - Held Safety Meeting: Laying Down Mud Motor.
3:30:00 PM	Repair Rig: Install New Chain - #2 Input Shaft. Held Safety Meeting: Lock Out-Tag Out.
4:30:00 PM	Dress Bit #5 - P/U Hunting Performance Mud Motor SN. 1007 - RIH To 9 5/8" Casing Shoe @ 1043' Circulate Across Well Head
4:30:00 AM	Repair 1st & 3rd Gear - Installed Wrong From Rig Repairs On Jack Canyon Unit State #8-32
6:00:00 AM	Running In Hole With Bit #5 (Break Circulation @ 3679')

Remarks :

Note: Days Since Lost Time Accident: 299

Note: Mud Motor - SN. 1010 - Total Hrs. 156.5 - L/D
SN. 1007 - Total Hrs.
Shock Sub - SN. 993 - Total Hrs. 124

Note: Held Safety Meeting On All Event Changes

Mud Loggers Morning Report @ 05:00 AM.

Formation Top: Surface (Green River)
Projected Formation Tops: Wasatch @ 2800'
North Horn @ 4616' - Basal North Horn @ 6190' - Price River "Mesaverde" @ 6400' - Bluecastle @ 7230' - Castlegate @ 8335' - Blackhawk @ 8550'
Formation Now Drilling In: Bluecastle

Background Gas: 800 Units.
Connection Gas: 1000 Units

Gas Shows & Drilling Breaks: SEE DAILY MUD LOG

Well : **Jack Canyon Unit State 14-32** API # : 43-007-30913 Operations Date : 8/12/2003

Surface Location : SWSE-32-12S-16 E 6th PM Area : Nine Mile Canyon Report # : 11

Spud Date : 8/1/2003 Days From Spud : 11 Depth At 06:00 : 7798

Morning Operations : Drilling @ 7798' (Formation: Bluecastle @ 7230') Estimated Total Depth : 10000

Time To	Description
2:00:00 PM	Drill From 7464' to 7587' (123') Ft/Hr: 15.38'
2:30:00 PM	Rig Service: Functionally Operate 4 1/2" Pipe Rams - Safety Meeting Held: Pit Drill - Coordinate With Pusher & Companyman
6:00:00 AM	Drill From 7587' To 7798' (211') Ft/Hr: 13.61'

Remarks :

Note: Days Since Lost Time Accident: 298
Note: Centrafuge & Mud Cleaner In Service @ 10:00 AM, 8/9/2003.

Note: Mud Motor - SN. 1010 - Total Hrs. 156.5
Shock Sub - SN. 993 - Total Hrs. 124

Note: Held Safety Meeting On All Event Changes

Mud Loggers Morning Report @ 05:00 AM.

Formation Top: Surface (Green River)
Projected Formation Tops: Wasatch @ 2800'
North Horn @ 4616' - Basal North Horn @ 6190' - Price River "Mesaverde" @ 6400' - Bluecastle @ 7230' - Castlegate @ 8335' - Blackhawk @ 8550'
Formation Now Drilling In: Bluecastle

Background Gas: 300 Units.
Connection Gas: 500 Units

Gas Shows & Drilling Breaks: SEE DAILY MUD LOG

REGULATORY DRILLING SUMMARY

CONFIDENTIAL

Bill Barrett Corporation

Well : **Jack Canyon Unit State 14-32** API # : 43-007-30913 Operations Date : 8/11/2003

Surface Location : SWSE-32-12S-16 E 6th PM Area : Nine Mile Canyon Report # : 10

Spud Date : 8/1/2003 Days From Spud : 10 Depth At 06:00 : 7464

Morning Operations : Drilling @ 7464' (Formation: Bluecastle @ 7230') Estimated Total Depth : 10000

Time To	Description
8:00:00 AM	RIH To 6535' (P/U Kelly & Break Circulation)
9:00:00 AM	Wash & Ream From 6535' To 7209' (674')
2:00:00 PM	Drill From 7209' to 7248' (39') Ft/Hr: 7.80'
2:30:00 PM	Rig Service: Functionally Operate Annular Preventor: Held Safety Meeting: Mixing Chemicals & Wearing Proper Protective wear
6:00:00 AM	Drill From 7248' To 7464' (216') Ft/Hr: 13.94'

Remarks :

Note: Days Since Lost Time Accident: 297
Note: Centrafuge & Mud Cleaner In Service @ 10:00 AM, 8/9/2003.

Note: Mud Motor - SN. 1010 - Total Hrs. 133
Shock Sub - SN. 993 - Total Hrs. 100.5

Note: Held Safety Meeting On All Event Changes

Mud Loggers Morning Report @ 05:00 AM.

Formation Top: Surface (Green River)
Projected Formation Tops: Wasatch @ 2800' North Horn @ 4616' - Basal North Horn @ 6190' - Price River "Mesaverde" @ 6400' - Bluecastle @ 7230' - Castlegate @ 8335' - Blackhawk @ 8550'
Formation Now Drilling In: Bluecastle

Background Gas: 500 Units.
Connection Gas: 500 Units

"NO" Mud Logging Report on 8/10/2003

Gas Shows & Drilling Breaks: SEE DAILY MUD LOG

Well : **Jack Canyon Unit State 14-32** API # : 43-007-30913 Operations Date : 8/10/2003

Surface Location : SWSE-32-12S-16 E 6th PM Area : Nine Mile Canyon Report # : 9

Spud Date : 8/1/2003 Days From Spud : 9 Depth At 06:00 : 7209

Morning Operations : RIH To 5,000' @ Report Time (T.D. 7209') (Formation: Price River "Mesaverde") Estimated Total Depth : 10000

Time To	Description
9:30:00 AM	Drill From 6750' To 6941' (191') Ft/Hr: 54.57'
10:00:00 AM	Rig Service: Functionally Operate Annular Preventor: Safety Meeting Held: Visual Checking BOPE
10:30:00 PM	Drill From 6941' To 7209' (268') Ft/Hr: 21.44'
2:30:00 AM	Pump Pill - Drop Survey - POOH With Bit #3 - Observe Hole Closely "NO" Gain-Losses-Swabbing - "Hole Static"
3:00:00 AM	Functionally Operate Blind Rams - Dress Bit #4 - Held Safety Meeting: Cutting Drilling Line
3:30:00 AM	RIH To 9 5/8" Casing Shoe @ 1043' - Adjust Brakes & Slip & Cut 100' Of Drill Line
6:00:00 AM	RIH To 5000' (Break Circulation @ 3526') + Install Rotating Head Rubber

Remarks :

Note: Days Since Lost Time Accident: 296
Note: Centrafuge & Mud Cleaner In Service @ 10:00 AM, 8/9/2003.

Note: Mud Motor - SN. 1010 - Total Hrs. 112.5
Shock Sub - SN. 993 - Total Hrs. 80

Note: Held Safety Meeting On All Event Changes

Mud Loggers Morning Report @ 05:00 AM.

Formation Top: Surface (Green River)
Projected Formation Tops: Wasatch @ 2800' North Horn @ 4616' - Basal North Horn @ 6190' - Price River "Mesaverde" @ 6400' - Castlegate @ 8335' - Blackhawk @ 8550'
Formation Now Drilling In: Price River "Mesaverde"

Background Gas: 50 Units.
Connection Gas: 80 Units

"NO" Mud Logging Report on 8/10/2003

Gas Shows & Drilling Breaks: SEE DAILY MUD LOG

Note: Survey @ 7140' - 4 1/4 degrees.

REGULATORY DRILLING SUMMARY

Bill Barrett Corporation

Well : **Jack Canyon Unit State 14-32**		API # : 43-007-30913	Operations Date : 8/9/2003
Surface Location : SWSE-32-12S-16 E 6th PM		Area : Nine Mile Canyon	Report # : 8
Spud Date : 8/1/2003	Days From Spud : 8		Depth At 06:00 : 6750
Morning Operations : Drilling 7 7/8" Hole - 6750' (Formation: Price River "Mesaverde" @ 6400')			Estimated Total Depth : 10000

Time To	Description
12:00:00 PM	Drill From 6265' To 6568' (303') Ft/Hr: 50.50'
12:30:00 PM	Rig Service: Functionally Operate 4 1/2" Pipe Rams. Safety Meeting Held: Air Tugger
5:00:00 PM	Drill From 6568' to 6665' (97') Ft/Hr: 21.56'
8:30:00 PM	Pump Pill - Drop Survey - POOH W/Bit #2 - Observe Hole Closely "NO" Gain-Losses-Swabbing - "Hole Static"
8:30:00 PM	Functionally Operate Blind Rams - Dress Bit #3 - Held Safety Meeting: Trip Drill
9:30:00 PM	RIH To Casing Shoe @ 1043'
11:30:00 PM	Rig Repair: Repair Low Drum Chain. Safety Meeting Held: Lock Out & Tag - Personnel In Drawworks (Moving Parts)
1:30:00 AM	RIH To 6213' (Break Circulation @ 2650') P/U Kelly, Break Circulation @ 6213'
4:30:00 AM	Wash & Ream From 6213' to 6665' (452') Note: Driller Caught Kelly Hose On Stand-Pipe Censor - Looks Bad, But Still Holding Pressure.
6:00:00 AM	Drill From 6665' To 6750' (85') Ft/Hr: 56.67'

Remarks :

Note: Days Since Lost Time Accident: 295

Note: Mud Motor - SN. 1010 - Total Hrs. 96.5
Shock Sub - SN. 993 - Total Hrs. 64

Note: Held Safety Meeting On All Event Changes

Mud Loggers Morning Report @ 05:00 AM.

Formation Top: Surface (Green River)
Projected Formation Tops: Wasatch @ 2800' North Horn @ 4616' - Basal North Horn @ 6190' Price River "Mesaverde" @ 6400' - Castlegate @ 8335' - Blackhawk @ 8550'
Formation Now Drilling In: Price River "Mesaverde"

Background Gas: 4 Units.
Connection Gas: 10 Units.

Gas Shows & Drilling Breaks: SEE DAILY MUD LOG

Note: Survey @ 6614' - 4 3/4 degrees. (Maybe Fault)

FORM 9

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

010

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.

5. LEASE DESIGNATION AND SERIAL NUMBER:	ML 43541
6. IF INDIAN, ALLOTTEE OR TRIBE NAME:	n/a
7. UNIT or CA AGREEMENT NAME:	Jack Canyon
1. TYPE OF WELL: OIL WELL ☐ GAS WELL ☑ OTHER CONFIDENTIAL	8. WELL NAME and NUMBER: Jack Canyon Unit State 14-32
2. NAME OF OPERATOR: BILL BARRETT CORPORATION	9. API NUMBER: 4300730913
3. ADDRESS OF OPERATOR: 1099 18th St Ste 2300 CITY Denver STATE CO ZIP 80202 / PHONE NUMBER: (303) 312-8120	10. FIELD AND POOL, OR WILDCAT: Jack Canyon Unit/Mancos

4. LOCATION OF WELL

FOOTAGES AT SURFACE: 531' FSL x 1479' FEL — COUNTY: Carbon

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SESW 32 12S 16E S — STATE: UTAH

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

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

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

PLEASE SEE ATTACHED CHRONOLOGICAL DRILLING REPORTS FOR THIS WELL COVERING AUGUST 16, 2003 THROUGH AUGUST 22, 2003.

NAME (PLEASE PRINT) DEBRA K. STANBERRY TITLE PERMIT SPECIALIST

SIGNATURE _____ DATE 8/22/2003

(This space for State use only)

RECEIVED
AUG 25 2003
DIV. OF OIL, GAS & MINING

(5/2000) (See Instructions on Reverse Side)

REGULATORY DRILLING SUMMARY

CONFIDENTIAL

Bill Barrett Corporation

Well : **Jack Canyon Unit State 14-32** API # : 43-007-30913 Operations Date : 8/22/2003

Surface Location : SWSE-32-12S-16 E 6th PM Area : Nine Mile Canyon Report # : 21

Spud Date : 8/1/2003 Days From Spud : 21 Depth At 06:00 : 9090

Morning Operations : Changing Out Weight Indicators - Working Stuck Pipe @ 8934'- Using Surface Jai Estimated Total Depth : 10000

Time To	Description
8:00:00 AM	Slip & Cut 275' Of Drill Line (Safety Meeting Held - Cutting Drilling Line)
8:30:00 AM	Work Stuck Pipe @ 8942'
10:30:00 AM	Adjust Brakes & Allow To Cool
8:00:00 PM	Work Stuck Pipe @ 8942' - Good Circulation - Put 6 wraps of Torque In Drill Pipe (Rotary Table) Work Pipe 50K To 60K Over String Weight.
9:30:00 PM	Slip & Cut 100' Drill Line
11:59:59 PM	P/U Surface Jars - Check Pins In Derrick - Held Safety Meeting - Explained How Surface Jars Worked. Attempting To Jar Stuck Pipe Free. Weight Indicators are not working Properly.
5:00:00 AM	Work Surface Jars With-Out Reloading or Cocking Jars. Pulling Up To 250K and Slacking Off To 100K by weight Indicator Values.
6:00:00 AM	Installing New Weight Indicator.

Remarks :

WorkNote: Days Since Lost Time Accident: 308

Note: Mud Motor - SN. 1010 - Total Hrs. 156.5 - L/D
SN. 1007 - Total Hrs. 123
Shock Sub - SN. 993 - Total Hrs. 247 - L/D

Note: Held Safety Meeting On All Event Changes

Mud Loggers Morning Report @ 05:00 AM.

Formation Top: Surface (Green River)
Projected Formation Tops: Wasatch @ 2800' North Horn @ 4616' - Basal North Horn @ 6190' - Price River "Mesaverde" @ 6400' - Bluecastle @ 7500' - Sego @ 7840' - Castlegate @ 8250' - Blackhawk @ 8490' - Star Point "A" @ 8900' - Star Point "B" @ 9140'

Formation Now Drilling In: "Star Point "A"

Background Gas: 100 Units.
Connection Gas: 100 Units
Trip Gas: Working Stuck Pipe
Gas Shows & Drilling Breaks: SEE DAILY MUD LOG

Well : **Jack Canyon Unit State 14-32** API # : 43-007-30913 Operations Date : 8/21/2003

Surface Location : SWSE-32-12S-16 E 6th PM Area : Nine Mile Canyon Report # : 20

Spud Date : 8/1/2003 Days From Spud : 20 Depth At 06:00 : 9090

Morning Operations : Working Stuck Pipe @ 8934' - Drill Depth T.D. @9090' (Formation: Star Point "A" Estimated Total Depth : 10000

Time To	Description
9:30:00 AM	Drill From 9063' To 9090' (27') Ft/Hr: 7.71'
2:30:00 PM	Pump Pill - POOH - Observe Hole Closely - "NO" Gain-Losses-Swabbing - "Hole Static"
3:00:00 PM	Functionally Operate Blind Rams - L/D Shock Sub - Dress Bit #10 - Held Safety Meeting - Checking Snub Lines.
6:00:00 PM	RIH To 8586' (Break Circulation @ 3640') P/U Kelly & Break Circulation
7:00:00 PM	Work Tight Pipe @ 8586' (Work Pipe Free)
7:30:00 PM	RIH To 8936' (P/U Kelly @ 8936' & Break Circulation)
1:00:00 AM	Work Stuck Pipe @ 8936' - Good Circulation - Work Stuck Drilling Assembly, Pulling 50K To 60K Over String Weight. Mud Motor Turns Drilling Assembly. Work Drilling Assembly Down 6' - Stuck @ Bit 8942'
3:00:00 AM	Rig Repair - Repair Low Drum Chain
6:00:00 AM	Work Stuck Pipe @ 8942' - Good Circulation - Work Stuck Drilling Assembly, Pulling 50K To 60K Over String Weight - Mud motor Turns Assembly - Work Drilling Assembly Up 8' - Bit Stuck @ 8934' (Prepare To Cut Bad Drilling Line On Drum)

Remarks :

WorkNote: Days Since Lost Time Accident: 307

Note: Mud Motor - SN. 1010 - Total Hrs. 156.5 - L/D
SN. 1007 - Total Hrs. 123
Shock Sub - SN. 993 - Total Hrs. 247 - L/D

Note: Held Safety Meeting On All Event Changes

Mud Loggers Morning Report @ 05:00 AM.

Formation Top: Surface (Green River)
Projected Formation Tops: Wasatch @ 2800' North Horn @ 4616' - Basal North Horn @ 6190' - Price River "Mesaverde" @ 6400' - Bluecastle @ 7500' - Sego @ 7840' - Castlegate @ 8250' - Blackhawk @ 8490' - Star Point "A" @ 8900' - Star Point "B" @ 9140'

Formation Now Drilling In: "Star Point "A"

Background Gas: 500 Units.
Connection Gas: 165 Units
Trip Gas: 10,150 Units. @ 8936'
Gas Shows & Drilling Breaks: SEE DAILY MUD LOG

REGULATORY DRILLING SUMMARY

CONFIDENTIAL

Bill Barrett Corporation

Well : **Jack Canyon Unit State 14-32** API # : 43-007-30913 Operations Date : 8/20/2003

Surface Location : SWSE-32-12S-16 E 6th PM Area : Nine Mile Canyon Report # : 19

Spud Date : 8/1/2003 Days From Spud : 19 Depth At 06:00 : 9063

Morning Operations : Drilling @ 9063' (Formation: Star Point "A" @ 8900') Estimated Total Depth : 10000

Time To	Description
8:00:00 AM	Drill From 9000' To 9026' (26') Ft/Hr: 13.0'
8:30:00 AM	Rig Service: Functionally Operate 4 1/2" Pipe Rams: Held Safety Meeting: Operating Fork Lift.
10:30:00 AM	Drill From 9026' To 9051' (25') Ft/Hr: 12.50'
2:30:00 PM	Pump Pill - POOH With Bit # 8 - Observe Hole Closely - "NO" Gain-Losses-Swabbing - "Hole Static" - Held Trip Drill
3:00:00 PM	Functionally Operate Blind Rams - Dress Bit #9 - Held Safety Meeting - Rig Service - Greasing Crown.
6:00:00 PM	RIH To 8740' (Break Circulation @ 3797')
7:30:00 PM	Work Tight Hole @ 8740' (40K - 50K Over-Pull - String Weight) Safety Meeting Held: Working Tight Or Stuck Pipe)
8:00:00 PM	RIH To 8962' (P/U Kelly & Break Circulation @ 8962')
9:00:00 PM	Work Stuck Pipe @ 8962' (50K-60K Over-Pull) Note: Good Circulation, But Couldn't Move or Rotate Drilling Assembly) Gas To Surface - Work Drilling Assembly Free
5:00:00 AM	Wash & Ream From 8962' to 9051' (89')
6:00:00 AM	Drill From 9051' To 9063' (12') Ft/Hr: 12.0'

Remarks :

Note: Days Since Lost Time Accident: 306

Note: Mud Motor - SN. 1010 - Total Hrs. 156.5 - L/D
SN. 1007 - Total Hrs. 119.5
Shock Sub - SN. 993 - Total Hrs. 243.5

Note: Held Safety Meeting On All Event Changes

Mud Loggers Morning Report @ 05:00 AM.

Formation Top: Surface (Green River)
Projected Formation Tops: Wasatch @ 2800'
North Horn @ 4616' - Basal North Horn @ 6190' - Price River "Mesaverde" @ 6400' - Bluecastle @ 7500' - Sego @ 7840' - Castlegate @ 8250' - Blackhawk @ 8490' - Star Point "A" @ 8900' - Star Point "B" @ 9140'

Formation Now Drilling In: "Star Point "A"

Background Gas: 175 Units.
Connection Gas: 165 Units
Trip Gas: 8850 Units @ 8740'
Gas Shows & Drilling Breaks: SEE DAILY MUD LOG

Well : **Jack Canyon Unit State 14-32** API # : 43-007-30913 Operations Date : 8/19/2003

Surface Location : SWSE-32-12S-16 E 6th PM Area : Nine Mile Canyon Report # : 18

Spud Date : 8/1/2003 Days From Spud : 18 Depth At 06:00 : 9000

Morning Operations : Drilling @ 9000' (Formation: Star Point "A" @ 8900') Estimated Total Depth : 10000

Time To	Description
12:00:00 PM	Drill From 8734' To 8803' (69') Ft/Hr: 11.50'
12:30:00 PM	Rig Service: Functionally Operate Annular Preventor - Held Safety Meeting: Changing Tong Dies
6:00:00 AM	Drill From 8803' To 9000' (197') Ft/Hr: 11.26'

Remarks :

Note: Days Since Lost Time Accident: 305

Note: Mud Motor - SN. 1010 - Total Hrs. 156.5 - L/D
SN. 1007 - Total Hrs. 110.5
Shock Sub - SN. 993 - Total Hrs. 234.5

Note: Held Safety Meeting On All Event Changes

Mud Loggers Morning Report @ 05:00 AM.

Formation Top: Surface (Green River)
Projected Formation Tops: Wasatch @ 2800'
North Horn @ 4616' - Basal North Horn @ 6190' - Price River "Mesaverde" @ 6400' - Bluecastle @ 7500' - Sego @ 7840' - Castlegate @ 8250' - Blackhawk @ 8490' - Star Point "A" @ 8900' - Star Point "B" @ 9140'

Formation Now Drilling In: "Star Point "A"

Background Gas: 145 Units.
Connection Gas: 165 Units
Trip Gas: N/A
Gas Shows & Drilling Breaks: SEE DAILY MUD LOG

REGULATORY DRILLING SUMMARY

CONFIDENTIAL

Bill Barrett Corporation

Well : **Jack Canyon Unit State 14-32** API # : 43-007-30913 Operations Date : 8/18/2003

Surface Location : SWSE-32-12S-16 E 6th PM Area : Nine Mile Canyon Report # : 17

Spud Date : 8/1/2003 Days From Spud : 17 Depth At 06:00 : 8734

Morning Operations : Drilling @ 8734' (Formation: Blackhawk @ 8490') Estimated Total Depth : 10000

Time To	Description
7:30:00 AM	Drill From 8594' To 8608' (14') Ft/Hr: 9.33'
12:00:00 PM	Pump Pill - POOH With Bit # 7 - Observe Hole Closely - "NO" Gain-Losses-Swabbing - "Hole Static"
12:30:00 PM	Functionally Operate Blind Rams - Dress Bit #8 - Held Safety Meeting: Slipping & Cutting Drilling Line
1:00:00 PM	RIH To 1043' - (9 5/8" Casing Shoe @ 1043')
2:00:00 PM	Slip & Cut 100' Drill Line. (Held Safety Meeting: Hanging Blocks)
5:00:00 PM	RIH To 8538' (Break Circulation @ 3801') P/U Kelly & Break Circulation @ 8538'
5:30:00 PM	Wash & Ream From 8538' To 8608' (70')
6:00:00 AM	Drill From 8608' To 8734' (126') Ft/Hr: 10.08'

Remarks :

Note: Days Since Lost Time Accident: 304

Note: Mud Motor - SN. 1010 - Total Hrs. 156.5 - L/D
SN. 1007 - Total Hrs. 87
Shock Sub - SN. 993 - Total Hrs. 211

Note: Held Safety Meeting On All Event Changes

Mud Loggers Morning Report @ 05:00 AM.

Formation Top: Surface (Green River)
Projected Formation Tops: Wasatch @ 2800'
North Horn @ 4616' - Basal North Horn @ 6190' - Price River "Mesaverde" @ 6400' - Bluecastle @ 7500' - Sego @ 7840' - Castlegate @ 8250' - Blackhawk @ 8490' - Star Point "A" @ 8995' - Star Point "B" @ 9065'

Formation Now Drilling In: "Blackhawk"

Background Gas: 250 Units.
Connection Gas: 3800 Units
Trip Gas: 1024 Units. @ 8608'
Gas Shows & Drilling Breaks: SEE DAILY MUD LOG

Well : **Jack Canyon Unit State 14-32** API # : 43-007-30913 Operations Date : 8/17/2003

Surface Location : SWSE-32-12S-16 E 6th PM Area : Nine Mile Canyon Report # : 16

Spud Date : 8/1/2003 Days From Spud : 16 Depth At 06:00 : 8594

Morning Operations : Drilling @ 8594' (Formation: Blackhawk @ 8490') Estimated Total Depth : 10000

Time To	Description
9:00:00 AM	Drill From 8305' To 8364' (59') Ft/Hr: 19.67'
9:30:00 AM	Rig service: Functionally Operate 4 1/2" Pipe Rams - Held Safety Meeting - Unloading 5 1/2" Production Casing
6:00:00 AM	Drill From 8364' To 8594' (230') Ft/Hr: 11.22'

Remarks :

Note: Days Since Lost Time Accident: 303

Note: Mud Motor - SN. 1010 - Total Hrs. 156.5 - L/D
SN. 1007 - Total Hrs. 73
Shock Sub - SN. 993 - Total Hrs. 197

Note: Held Safety Meeting On All Event Changes

Mud Loggers Morning Report @ 05:00 AM.

Formation Top: Surface (Green River)
Projected Formation Tops: Wasatch @ 2800'
North Horn @ 4616' - Basal North Horn @ 6190' - Price River "Mesaverde" @ 6400' - Bluecastle @ 7500' - Sego @ 7840' - Castlegate @ 8250' - Blackhawk @ 8490' - Star Point "A" @ 8995' - Star Point "B" @ 9065'

Formation Now Drilling In: "Blackhawk"

Background Gas: 100 Units.
Connection Gas: 150 Units
Trip Gas: N/A
Gas Shows & Drilling Breaks: SEE DAILY MUD LOG

REGULATORY DRILLING SUMMARY

CONFIDENTIAL

Bill Barrett Corporation

Well : **Jack Canyon Unit State 14-32** API # : 43-007-30913 Operations Date : 8/16/2003

Surface Location : SWSE-32-12S-16 E 6th PM Area : Nine Mile Canyon Report # : 15

Spud Date : 8/1/2003 Days From Spud : 15 Depth At 06:00 : 8305

Morning Operations : Drilling @ 8305' (Formation: Castlegate @ 8250') Estimated Total Depth : 10000

Time To	Description
8:30:00 AM	POOH With Bit #6 - Observe Hole Closely "NO" Gain-Losses-Swabbing - "Hole Static"
9:00:00 AM	Functionally Operate Blind Rams - Dress Bit #7 - Held Safety Meeting - Welding On Rig "Hot Patch Control"
12:00:00 PM	RIH To 8085' (Break Circulation @ 3501') P/U Kelly & Break Circulation @ 8085'
12:30:00 PM	Wash & Ream From 8085' To 8131' (46')
4:30:00 PM	Drill From 8131' To 8177' (46') Ft/Hr: 11.50'
5:00:00 PM	Rig Service: Functionally Operate Annular Preventor - Safety Meeting Held: Directing Flow Through Gas Buster.
6:00:00 AM	Drill From 8177' To 8305' (128') Ft/Hr: 8.53'

Remarks :

Note: Days Since Lost Time Accident: 302

Note: Mud Motor - SN. 1010 - Total Hrs. 156.5 - L/D
SN. 1007 - Total Hrs. 49.5
Shock Sub - SN. 993 - Total Hrs. 173.5

Note: Held Safety Meeting On All Event Changes

Mud Loggers Morning Report @ 05:00 AM.

Formation Top: Surface (Green River)
Projected Formation Tops: Wasatch @ 2800' North Horn @ 4616' - Basal North Horn @ 6190' - Price River "Mesaverde" @ 6400' - Bluecastle @ 7500' - Sego @ 7840' - Castlegate @ 8250' - Blackhawk @ 8515' - Star Point "A" @ 8995'

Formation Now Drilling In: Castlegate

Background Gas: 340 Units.
Connection Gas: 500 Units
Trip Gas: 8800 Units. @ 8131'
Gas Shows & Drilling Breaks: SEE DAILY MUD LOG

CONFIDENTIAL

FORM 9

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

011

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.

5. LEASE DESIGNATION AND SERIAL NUMBER:	ML 43541
6. IF INDIAN, ALLOTTEE OR TRIBE NAME:	n/a
7. UNIT or CA AGREEMENT NAME:	Jack Canyon
1. TYPE OF WELL: OIL WELL ☐ GAS WELL ☑ OTHER	8. WELL NAME and NUMBER: Jack Canyon Unit State 14-32
2. NAME OF OPERATOR: BILL BARRETT CORPORATION	9. API NUMBER: 4300730913
3. ADDRESS OF OPERATOR: 1099 18th St Ste 2300 CITY Denver STATE CO ZIP 80202 / PHONE NUMBER: (303) 312-8120	10. FIELD AND POOL, OR WILDCAT: Jack Canyon Unit/Mancos
4. LOCATION OF WELL: FOOTAGES AT SURFACE: 531' FSL x 1479' FWL	COUNTY: Carbon
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SESW 32 12S 16E S	STATE: UTAH

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

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

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

PLEASE SEE ATTACHED CHRONOLOGICAL DRILLING REPORTS FOR THIS WELL COVERING AUGUST 23, 2003 THROUGH AUGUST 29, 2003.

NAME (PLEASE PRINT) DEBRA K. STANBERRY TITLE PERMIT SPECIALIST

SIGNATURE DATE 8/29/2003

(This space for State use only)

RECEIVED
SEP 02 2003
DIV OF OIL

(5/2000) (See Instructions on Reverse Side)

CONFIDENTIAL

REGULATORY DRILLING SUMMARY

Bill Barrett Corporation

Well : **Jack Canyon Unit State 14-32** API # : 43-007-30913 Operations Date : 8/29/2003

Surface Location : SWSE-32-12S-16 E 6th PM Area : Nine Mile Canyon Report # : 28

Spud Date : 8/1/2003 Days From Spud : 28 Depth At 06:00 : 9380

Morning Operations : Rig Released @ 10:00 PM, 8/28/2003. Note: Rigging Down Rotary Table Equipm Estimated Total Depth : 10000

Time To	Description
12:00:00 PM	Held Safety Meeting Between Franks/Westates & Pattersons Personnel - Running 5 1/2" Casing. Ran 202 Jts. (9384.17') 5.500", 17#, N-80, LT&C, 8rd, R-3 - R-2 "ALGOMA" Casing. Landed Casing @ 9380.00'
12:30:00 PM	Landed WellHead Inc. W92-Mandrel Casing Hanger 9 5/8" x 5 1/2" With 80,000 lbs Casing Weight. Rig Up Halliburton Circulating Swedge & Iron.
5:30:00 PM	Circulate, Condition Hole To Cement 5 1/2" Casing With Halliburton. (Gas To Surface) Rigging Up Halliburton's Cementing Equipment.
6:00:00 PM	Held Safety Meeting Between Halliburton's & Patterson's Personnel - Topic: Cementing Procedure
8:00:00 PM	Cement With Halliburton, Using Nitrogen. "See Comments Or Cement Details"
10:00:00 PM	Flush Out BOPE With Fresh Water & Clean Mud Tanks. Released Patterson Rig #77 @ 22:00 hours. 8/28/2003
6:00:00 AM	Rig Down For Field Move. Move Patterson Rig # 77 From Jack Canyon Unit State # 14-32 To Prickley Pear Unit #13-16. Approximately 45 Mile Move. R.W. Jones Trucking Will Be Transporting Rig.

Remarks :

Note: Days Since Last Time Accident: 315
Note: Rigged Up Halliburton, Held Safety Meeting, Tested Pump Truck & Lines to 5,000 lbs, N2 Lines To 9,000 lbs, Pump 10 bbls Fresh Water Spacer (8.34 ppg), Followed by (20 bbls) Foamed Super Flush (9.20 ppg) Flush/ spacer Additive, Followed by 10 bbls (8.34 ppg) Foamed Water Spacer, "Lead Cement" - Mixed & Pumped 860 sxs (225 bbls) 50/50 Poz Premium with 5 #/sx Silicalite, 20% SSA-1, .1% Versaset, .2% Diacel LWL, 1.5% Zonesealant 2000 (Foamer) Mixed @ 14.30 ppg With A Yield Of 1.47 Cu.Ft/Sx. (Foamed To 11.0 ppg With Nitrogen) "Tail Cement - Unfoamed" Mixed & Pumped 52 sxs (13.60 bbls) 50/50 Poz Premium With 5 #/sx Silicalite, 20% SSA-1, .1%Veraset, .2% Diacel LWL, 1.5% Zonesealant 2000 (Foamer) Mixed @ 14.3 ppg With A Yield Of 1.47 Cu.Ft/Sx. Shut Down, Drop Plug, Wash Pump Truck & Lines, Start 216.53 bbls (22 Gallons Clayfix II) Displacement Water, Pumping @ a Rate Of 8-6 BPM For the First 206 bbls, Slowing rate To 3 bpm the Last 10 bbls of Displacement. Final Lift Pressure 2300 psi, Bumping plug To 2800 psi. Wait 2 minutes, Releasing Pressure, Floats Held. Good Returns Through out Cement Job. Shut In Annulus With 150 psi. Rigged Up Halliburton Lines To Annulus To Pump Cap Cement. Pump 3 bbls (8.34 ppg) fresh Water Spacer, Mixed & pumped 75 sxs (20.0 bbls) 12-3 Thixotropic Cement With 12% Cal-seal, 3% Calcium Chloride. Mixed @ 14.6 ppg With a Yield Of 1.52 Cu.Ft/Sx. Pumped 3 bbls Of (8.34 ppg) Fresh water Spacer. Shut Annulus Valves With 650 psi on Annulus. Rig Down Halliburton's Cementing Equipment & Released From Job @ 22:00 hours, 8/28/2003. Note: Landed 9 5/8" x 5.500" Casing Mandrel With 80.000 lbs. Casing Weight On Well Head Hanger.

Estimated Top Of Cement @ 2000'

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REGULATORY DRILLING SUMMARY

CONFIDENTIAL

Bill Barrett Corporation

Well : **Jack Canyon Unit State 14-32** API # : 43-007-30913 Operations Date : 8/28/2003

Surface Location : SWSE-32-12S-16 E 6th PM Area : Nine Mile Canyon Report # : 27

Spud Date : 8/1/2003 Days From Spud : 27 Depth At 06:00 : 9380

Morning Operations : Rig Up To Frank's / Westates Casing Equipment To Run 5 1/2" Casing Estimated Total Depth : 10000

Time To	Description
2:30:00 PM	Rig Up Halliburton's Wire Line Equipment (Pressure Control Lubricator) First Run - GR-BCS-DSN-SDL-HRI (9 5/8" Csg Shoe @ 1041'- Logger's Depth) RIH To 9376' - Log Out From 9376' To 1041' (Casing Shoe) - Repeat Section From 9376' To 9070' - Rig Down & Release Halliburton's Open Hole Equipment @ 14:30 PM, 8/27/2003
5:30:00 PM	M/U BHA & RIH To 9380' Note: Depth Correction: Driller's Depth - 9368' / Steel Line Measurement - 9380.30' / Halliburton's Wire Line "E" Log Depth - 9376' - Made 12' Correction - From 9368' To 9380'
8:30:00 PM	Circulate, Condition Hole To Lay Down 4 1/2" Drill Pipe & (22) 6 1/2" Drill Collars. Rig Up Franks/Westates Service Inc. Lay Down Machine. Held Safety Meeting Between Franks/Westates & Pattersons Personnel - Laying Down 4 1/2" Drill Pipe In Pipe Tubs.
4:30:00 AM	Laying Down 4 1/2" Drill Pipe & (22) 6 1/2" Drill Collars. Break Kelly - Pull Wear Bushing
6:00:00 AM	Rig Up Franks/Westates Service Inc. Equipment To Run 5 1/2" Casing

Remarks :

Note: Days Since Lost Time Accident: 314

Note: Mud Motor - SN. 1010 - Total Hrs. 156.5 - L/D
SN. 1007 - Total Hrs. 123 - L/D
Shock Sub - SN. 993 - Total Hrs. 247 - L/D
SN. 2023 - Total Hrs. 10.5 hours.
T.D. 9368' @ 10:00 pm, 8/26/2003.

Driller's Depth - 9368'
Steel Line Measurement Depth - 9380.30'
Halliburton's Wire Line Depth - 9376'
Note:Made 12' Depth Correction From 9368' To 9380'

Note: Held Safety Meeting On All Event Changes

Mud Loggers Morning Report @ 05:00 AM.

Formation Top: Surface (Green River)
Projected Formation Tops: Wasatch @ 2800' North Horn @ 4616' - Basal North Horn @ 6190' - Price River "Mesaverde" @ 6400' - Bluecastle @ 7500' - Sego @ 7840' - Castlegate @ 8250' - Blackhawk @ 8490' - Star Point "A" @ 8900' - Star Point "B" @ 9140'

Formation Now Drilling In: "Mancos"

Background Gas: 38 Units.
Connection Gas: 98 Units
Trip Gas: 9800 Units @ 9380
Gas Shows & Drilling Breaks: SEE DAILY MUD LOG

Well : **Jack Canyon Unit State 14-32** API # : 43-007-30913 Operations Date : 8/27/2003

Surface Location : SWSE-32-12S-16 E 6th PM Area : Nine Mile Canyon Report # : 26

Spud Date : 8/1/2003 Days From Spud : 26 Depth At 06:00 : 9368

Morning Operations : T.D. 9368' (Formation: Mancos Shale) Note: Steel Line Measurement 9380.30' Estimated Total Depth : 10000

Time To	Description
7:30:00 AM	POOH With Bit #11 - Functionally Operated Blind Rams
8:00:00 AM	Dress Bit #12 - Held Safety Meeting - Checking Crown-O-Matic
11:30:00 AM	Trip In Hole To 9131' (No Fill On Bottom)
10:00:00 PM	Drill From 9131' To 9368' (237') Ft/Hr: 22.57' Note: T.D. 9368' @ 10:00 pm, 8/26/2003
10:30:00 PM	Pump Pill - POOH To Run Halliburton's "E" Log's - Observe Hole Closely - "NO" Gain-Losses- Swabbing - "Hole Static"
11:59:59 PM	Rig Repair - Driller Caught Brake Out Cable In Cathead Shaft. Couldn't Move Drilling Assemble Over 1.5 hours while repairing cable. (Depth-8582')
4:00:00 AM	POOH To Run Halliburton's "E" Logs. (SLM - 9380.30') Note: Bit Balled Up With Clay
6:00:00 AM	Wait On Halliburton's Wire Line Truck - Truck Had Mechanical Problems. (Ran Over Fire Wood That was Left In the Middle Of Road) Repaired Brake Air Cylinders.

Remarks :

Note: Days Since Lost Time Accident: 313

Note: Mud Motor - SN. 1010 - Total Hrs. 156.5 - L/D
SN. 1007 - Total Hrs. 123 - L/D
Shock Sub - SN. 993 - Total Hrs. 247 - L/D
SN. 2023 - Total Hrs. 10.5 hours.
T.D. 9368' @ 10:00 pm, 8/26/2003.

Note: Held Safety Meeting On All Event Changes

Mud Loggers Morning Report @ 05:00 AM.

Formation Top: Surface (Green River)
Projected Formation Tops: Wasatch @ 2800' North Horn @ 4616' - Basal North Horn @ 6190' - Price River "Mesaverde" @ 6400' - Bluecastle @ 7500' - Sego @ 7840' - Castlegate @ 8250' - Blackhawk @ 8490' - Star Point "A" @ 8900' - Star Point "B" @ 9140'

Formation Now Drilling In: "Mancos"

Background Gas: 38 Units.
Connection Gas: 98 Units
Trip Gas: 9800 Units @ 9131'
Gas Shows & Drilling Breaks: SEE DAILY MUD LOG

REGULATORY DRILLING SUMMARY

CONFIDENTIAL

Bill Barrett Corporation

Well : **Jack Canyon Unit State 14-32** API # : 43-007-30913 Operations Date : 8/26/2003

Surface Location : SWSE-32-12S-16 E 6th PM Area : Nine Mile Canyon Report # : 25

Spud Date : 8/1/2003 Days From Spud : 25 Depth At 06:00 : 9131

Morning Operations : Drill Depth @ 9131' - Tripping For Bit - Formation: Star Point "A" @ 8900' Estimated Total Depth : 10000

Time To	Description
7:00:00 AM	Lay Down Graco's Fishing Tools. Note: Functionally Operated Blind Rams.
7:30:00 AM	P/U New BHA / Held Safety Meeting / Laying Down Fishing Tools. RIH With BHA & 2 stds 4 1/2" Drill Pipe (9 5/8" Casing Shoe @ 1043')
9:00:00 AM	Slip & Cut 120' Of Drill Line. (Safety Meeting Held: Slipping & Cutting Drill Line
12:00:00 PM	Trip In Hole To 8503' (Layed Down 12 Jts 4 1/2" Drill Pipe.
7:30:00 PM	Wash & Ream From 8503' To 9090' (587')
9:30:00 PM	Drill From 9090' to 9109' (19') Ft/Hr: 9.50'
10:00:00 PM	Rig Repair: Work On #1 Pump (Change Piston)
3:00:00 AM	Drill From 9109' To 9131' (22') Ft/Hr: 4.40'
6:00:00 AM	Pump Pill - Drop Survey - POOH With Bit #11 - Observe Hole Closely - "NO" Gain-Losses-Swabbing - "Hole Static" Held Safety Meeting: Tripping Pipe (2) New Roughnecks on this tour.

Remarks :

Note: Days Since Lost Time Accident: 312

Note: Mud Motor - SN. 1010 - Total Hrs. 156.5 - L/D
SN. 1007 - Total Hrs. 123 - L/D
Shock Sub - SN. 993 - Total Hrs. 247 - L/D

Note: Held Safety Meeting On All Event Changes

Mud Loggers Morning Report @ 05:00 AM.

Formation Top: Surface (Green River)
Projected Formation Tops: Wasatch @ 2800'
North Horn @ 4616' - Basal North Horn @ 6190' - Price River "Mesaverde" @ 6400' - Bluecastle @ 7500' - Sego @ 7840' - Castlegate @ 8250' - Blackhawk @ 8490' - Star Point "A" @ 8900' - Star Point "B" @ 9140'

Formation Now Drilling In: "Star Point "A"

Background Gas: 52 Units.
Connection Gas: 62 Units
Trip Gas: 10,150 Units @ 9090'
Gas Shows & Drilling Breaks: SEE DAILY MUD LOG

Well : **Jack Canyon Unit State 14-32** API # : 43-007-30913 Operations Date : 8/25/2003

Surface Location : SWSE-32-12S-16 E 6th PM Area : Nine Mile Canyon Report # : 24

Spud Date : 8/1/2003 Days From Spud : 24 Depth At 06:00 : 9090

Morning Operations : Laying Down Fishing Equipment - Mud Motor - PDC Bit (Junk In Hole) Estimated Total Depth : 10000

Time To	Description
7:00:00 AM	P/U - Screw In Sub, Bumper Sub, Jar, Intensifier
10:30:00 AM	RIH To 8908' - Screw Into Fish - Good Circulation
10:30:00 PM	Working & Jarring Fish, Pull 280K - Slack Off 140K. Jar Fish Up 10' Feet before see-ing Any Free Travel - Pump (2) Jts. Out before All Free Travel - Pull (2) Stds 4 1/2" Drill Pipe
5:00:00 AM	Pump Pill & POOH - Observe Hole Closely - "NO" Gain-Losses-Swabbing - "Hole Static" Note: Layed Down 15 Jts. Drill Pipe (P/U For Fishing) Junk (Iron) In Hole - Mud Motor Has 1/8" Groove Cut In Motor, Quarter Way Around Motor, Where Bit Screws Onto Motor. 1" Groove Cut Into Mud Motor All The Way Around Motor 2 1/2' Feet From Bit End. Several Other Severe Markings On Mud Motor.
6:00:00 AM	Laying Down Fishing Equipment & Mud Motor - PDC Bit.

Remarks :

Note: Days Since Lost Time Accident: 311

Note: Mud Motor - SN. 1010 - Total Hrs. 156.5 - L/D
SN. 1007 - Total Hrs. 123
Shock Sub - SN. 993 - Total Hrs. 247 - L/D

Note: Held Safety Meeting On All Event Changes

Mud Loggers Morning Report @ 05:00 AM.

Formation Top: Surface (Green River)
Projected Formation Tops: Wasatch @ 2800'
North Horn @ 4616' - Basal North Horn @ 6190' - Price River "Mesaverde" @ 6400' - Bluecastle @ 7500' - Sego @ 7840' - Castlegate @ 8250' - Blackhawk @ 8490' - Star Point "A" @ 8900' - Star Point "B" @ 9140'

Formation Now Drilling In: "Star Point "A"

Background Gas: 300 Units.
Connection Gas: 300 Units
Trip Gas: 10,150 Units @ 9090'
Gas Shows & Drilling Breaks: SEE DAILY MUD LOG

REGULATORY DRILLING SUMMARY

CONFIDENTIAL

Bill Barrett Corporation

Well : **Jack Canyon Unit State 14-32** API # : 43-007-30913 Operations Date : 8/24/2003

Surface Location : SWSE-32-12S-16 E 6th PM Area : Nine Mile Canyon Report # : 23

Spud Date : 8/1/2003 Days From Spud : 23 Depth At 06:00 : 9090

Morning Operations : Fishing - Backed Off @ 8908' -P/U New Fishing Tools Estimated Total Depth : 10000

Time To	Description
12:30:00 PM	RIH With Fishing Tools, Screw into Fish @ 8880' - Jaring Stuck Pipe - Work & Jar Fish Down Hole 30' To 8910' - Couldn't Move Fish Up Hole. Could See Very Little Movement In Jars. Working & Jaring Fish - Pull 300K - Slack Off 140K - Install Torque Into Drill Pipe with Rotary Table.
1:00:00 PM	Attempt Manual Back Off - Successful - Backed Off Above Drill Collars - Screw Back into Fish With Positive Catch - Work Stuck Pipe With Hardly Any Jar Movement.
7:00:00 PM	Working & Jaring On Fish - Pull 300K - Slack Off 140K -Put Torque Down Hole With Rotary Table
11:59:59 PM	Rig Up Baker/Atlas Free Point Equipment & RIH To 8940' - Take Free Point Readings - Back Off @ 8908' - Pull 4 stds 4 1/2" Drill Pipe - R/D Baker/Atlas Equipment & Released From Job @ Midnight 24:00 hours, 8-23-2003
4:30:00 AM	POOH (Chain Out) Observe Hole Closely - "NO" Gain-Losses-Swabbing - "Hole Static"
5:30:00 AM	Lay Down Screw In Sub, Bumper Sub, Jar, Intensifier. Note: Jars Looked Good @ Surface
6:00:00 AM	P/U Screw In Sub, Bumper Sub, Jar, Intensifier

Remarks :

Note: Days Since Lost Time Accident: 310

Note: Mud Motor - SN. 1010 - Total Hrs. 156.5 - L/D
SN. 1007 - Total Hrs. 123
Shock Sub - SN. 993 - Total Hrs. 247 - L/D

Note: Held Safety Meeting On All Event Changes

Mud Loggers Morning Report @ 05:00 AM.

Formation Top: Surface (Green River)
Projected Formation Tops: Wasatch @ 2800'
North Horn @ 4616' - Basal North Horn @ 6190' - Price River "Mesaverde" @ 6400' - Bluecastle @ 7500' - Sego @ 7840' - Castlegate @ 8250' - Blackhawk @ 8490' - Star Point "A" @ 8900' - Star Point "B" @ 9140'

Formation Now Drilling In: "Star Point "A"

Background Gas: 300 Units.
Connection Gas: 300 Units
Trip Gas: 10,150 Units @ 9090'
Gas Shows & Drilling Breaks: SEE DAILY MUD LOG

Well : **Jack Canyon Unit State 14-32** API # : 43-007-30913 Operations Date : 8/23/2003

Surface Location : SWSE-32-12S-16 E 6th PM Area : Nine Mile Canyon Report # : 22

Spud Date : 8/1/2003 Days From Spud : 22 Depth At 06:00 : 9090

Morning Operations : Fishing - Back-Off @ 8880' - RIH With Fishing Tools Estimated Total Depth : 10000

Time To	Description
12:00:00 PM	L/D Surface Jars - P/U Kelly & Work Stuck Pipe @ 8936' - Good Circulation - Apply 8 Rounds Of Torque In Drill Pipe (Rotary Table) Pull 280K - Slack Of 100K
1:30:00 PM	Slip & Cut 290' Drill Line. (Safety Meeting Held: Hanging Blocks - Checking Deadman Clamps
3:00:00 PM	Working Stuck Pipe With Kelly - Pull To 280K - Slack-Off To 100K. Pump 115 spm @ 1850 psi. Work Pipe Up 8" Put 10 Rounds Of Toque In Drill String & Work Drilling Assembly.
3:30:00 PM	Held Safety Meeting With Baker/Atlas - Graco - Patterson's Personnel - Discussed Hanging Sheave & Back-Off Procedure
8:30:00 PM	Rig Up Baker/Atlas Free-Point Equipment & RIH To 8910' - Take Free Point Readings - Back Off @ 8880' - Pull 4 Stds 4 1/2" Drill Pipe - R/D Baker/Atlas Free Point-Back Off Equipment & Released From Job @ 20:30 pm. 8/22/2003
1:30:00 AM	POOH (Chain Out) Observe Hole Closely - "NO" Gain-Losses-Swabbing - "Hole Static" Lay Down (1) 6 1/2" Drill Collar (Free Point Collar)
2:00:00 AM	Functionally Operate Blind Rams - Held Safety Meeting - Picking Up Fishing Tools
6:00:00 AM	P/U Fishing Tools - Screw In Sub-Bumper Sub-Jar-X-Over-(6) Drill Collars-Intensifier-X-Over-(16) Drill Collars - RIH

Remarks :

Note: Days Since Lost Time Accident: 309

Note: Mud Motor - SN. 1010 - Total Hrs. 156.5 - L/D
SN. 1007 - Total Hrs. 123
Shock Sub - SN. 993 - Total Hrs. 247 - L/D

Note: Held Safety Meeting On All Event Changes

Mud Loggers Morning Report @ 05:00 AM.

Formation Top: Surface (Green River)
Projected Formation Tops: Wasatch @ 2800'
North Horn @ 4616' - Basal North Horn @ 6190' - Price River "Mesaverde" @ 6400' - Bluecastle @ 7500' - Sego @ 7840' - Castlegate @ 8250' - Blackhawk @ 8490' - Star Point "A" @ 8900' - Star Point "B" @ 9140'

Formation Now Drilling In: "Star Point "A"

Background Gas: 300 Units.
Connection Gas: 300 Units
Trip Gas: 10,150 Units @ 9090'
Gas Shows & Drilling Breaks: SEE DAILY MUD LOG

CONFIDENTIAL

FORM 9

012

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

5. LEASE DESIGNATION AND SERIAL NUMBER: ML 43541

SUNDRY NOTICES AND REPORTS ON WELLS

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: n/a

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.

7. UNIT or CA AGREEMENT NAME: Jack Canyon

1. TYPE OF WELL: OIL WELL ☐ GAS WELL ☑ OTHER

8. WELL NAME and NUMBER: Jack Canyon Unit State 14-32

2. NAME OF OPERATOR: BILL BARRETT CORPORATION

9. API NUMBER: 4300730913

3. ADDRESS OF OPERATOR: 1099 18th St Ste 2300 CITY Denver STATE CO ZIP 80202

PHONE NUMBER: (303) 312-8120

10. FIELD AND POOL, OR WILDCAT: Jack Canyon Unit/Mancos

4. LOCATION OF WELL

FOOTAGES AT SURFACE: 531' FSL x 1479' FEL

COUNTY: Carbon

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SESW 32 12S 16E S

STATE: UTAH

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

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

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

WELL IS CURRENTLY WAITING ON COMPLETION OPERATIONS TO COMMENCE.

RECEIVED

SEP 0 8 2003

DIV. OF OIL, GAS & MINING

NAME (PLEASE PRINT) DEBRA K. STANBERRY TITLE PERMIT SPECIALIST

SIGNATURE Debra K. Stanberry KDH DATE 9/5/2003

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(5/2000) (See Instructions on Reverse Side)

013

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

CONFIDENTIAL

FORM 9

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.

5. LEASE DESIGNATION AND SERIAL NUMBER:	ML 43541
6. IF INDIAN, ALLOTTEE OR TRIBE NAME:	n/a
7. UNIT or CA AGREEMENT NAME:	Jack Canyon
1. TYPE OF WELL: OIL WELL ☐ GAS WELL ☑ OTHER	8. WELL NAME and NUMBER: Jack Canyon Unit State 14-32
2. NAME OF OPERATOR: BILL BARRETT CORPORATION	9. API NUMBER: 4300730913
3. ADDRESS OF OPERATOR: 1099 18th St Ste 2300 CITY Denver STATE CO ZIP 80202	PHONE NUMBER: (303) 312-8120
	10. FIELD AND POOL, OR WILDCAT: Jack Canyon Unit/Mancos

4. LOCATION OF WELL

FOOTAGES AT SURFACE: 531' FSL x 1479' FEL

COUNTY: Carbon

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SESW 32 12S 16E S

STATE: UTAH

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

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

PLEASE SEE ATTACHED CHRONOLOGICAL COMPLETION REPORTS FOR THIS WELL COVERING DECEMBER 13, 2003 THROUGH DECEMBER 19, 2003.

NAME (PLEASE PRINT) DEBRA K. STANBERRY TITLE PERMIT SPECIALIST

SIGNATURE _____ DATE 12/19/2003

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DEC 22 2003
DIV. OF OIL, GAS & MI...

(5/2000) (See Instructions on Reverse Side)

REGULATORY COMPLETION SUMMARY

Bill Barrett Corporation

Well Name : **Jack Canyon Unit State 14-32** API : 43-007-30913 Area : Nine Mile Canyon

Ops Date : 12/13/2003 **Report # :** 6

Summary : MIRU HLS. Perf Spring Canyon & Aberdeen

End Time	Description
	Move in Halliburtion Wire Line Rig UP.
10:00:00 AM	Perf. Spring Canyon & Aberdeen. Pick up 4" Perf guns two 4ft. RIh Correlate to short Jt. run to perf depth check casing coller to depth. set to perf depth shoot Spring Canyon @ 9220-9224 three shots foot 120 phas. 23 grams. pull up to casing coller check to depth. set on perf depth perforate Aberdeen @ 9152-9156 POOH all shots fired.
1:00:00 PM	Shut In.

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REGULATORY COMPLETION SUMMARY

Bill Barrett Corporation

Well Name : **Jack Canyon Unit State 14-32** API : 43-007-30913 Area : Nine Mile Canyon

Ops Date : 12/17/2003 Report # : 10

Summary : MIRU HES. Frac equip. Frac Spring Canyon- Aberdeen Stage 1.(Set Composite Frac plug@8980 Perf Kenilworth 8905-07 & 8922-24. Made three attempts to Frac Stage 2 pressured up no formation break.

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End Time	Description
7:00:00 AM	SI
9:00:00 AM	MIRU HES Frac Equipment.
9:00:00 AM	Safety meeting
11:00:00 AM	pressure test
11:00:00 AM	Frac Stage 1, Spring Canyon-Aberdeen. 70Q. CO2 Foam Frac
12:00:00 PM	started Pad. lost truck dropped rate change over to stand by truck ,rate back up. formation break 4268 psi @ 5 BPM. Avg. Foam Rate 43 BPM, Avg. pressure 5000 psi, Max Foam Rate 45 BPM, Max Pressure 5317 PSI, Totel Fluid Pumped 17364 GAL. Totel CO2 Pumped 150 Tons. Totel Sand pumped 88000# in Formation 20 sacks short of design due to increasing pressure. Flush 50Q Slick water 500 gal. cap. Totel fluid pumped 522 BBLs. ISIP 3335. Frac Gradient: 0.80 psi/ft .
3:00:00 PM	Pick up composite frac plug, perf guns, RIH correlate to short joint, run to frac plug depth check casing collar to depth. set to plug depth. set frac plug @ 8980. pull up to perf depth check casing collar to depth. perf Kenilworth @ 8922-8924 3 SPF 120 phas. 23 grams. pull up perf gun stuck, flow well on 16/64 choke free guns. pull to perf depth check casing collar set on perf depth perf @ 8905-8907, 3 SPF 120 phaqs. 23 grams. POOH all shots fired.
5:00:00 PM	Start Frac stage 2 Kenilworth, pumping pad pressured up to Max pressure shut down. flowwell pit on 16/64 ck. 30 min. try to pump pad pressured up to max PSI. shut down. flow well to pit 1 hour. start pad pressured up to 6500 shut down small fall off. flow well to pit. on 16/64 ck
11:59:59 PM	Flow back Stage 1, Totel BBLs to recover 577 BBLs.

Well Name : **Jack Canyon Unit State 14-32** API : 43-007-30913 Area : Nine Mile Canyon

Ops Date : 12/16/2003 Report # : 9

Summary : Shut in Wait on Frac Equipment, Frac truck broke down wait on repair.

End Time	Description
	Shut in

Well Name : **Jack Canyon Unit State 14-32** API : 43-007-30913 Area : Nine Mile Canyon

Ops Date : 12/15/2003 Report # : 8

Summary : SI

End Time	Description
	SI

Well Name : **Jack Canyon Unit State 14-32** API : 43-007-30913 Area : Nine Mile Canyon

Ops Date : 12/14/2003 Report # : 7

Summary : SI. haul in sand

End Time	Description
	SI

REGULATORY COMPLETION SUMMARY

Bill Barrett Corporation

Well Name : **Jack Canyon Unit State 14-32** API : 43-007-30913 Area : Nine Mile Canyon

Ops Date : 12/19/2003 Report # : 12

Summary : Flow back stage 1&2,Rig HLS. Set frac plug and perf stage 3 Blackhawk. Frac Blackhawk Slick Water. Flow Back Stages 1-2&3 1085 BBL in Stage 3. Totel fluid to recover 1907 BBL.

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End Time	Description
6:00:00 AM	Flow Back stages 1&2. Flowing on 16/64 ck. 600 PSI, 9% CO2, 804.13 MMCF, Recovered 210 BBL, 822 left to recover. shut in 6 AM for wire line work.
8:00:00 AM	Shut in. Halliburtion wire line pick up perf guns& frac plug
10:00:00 AM	Perf Blackhawk. pick up 5K frac plug 2=1ft. guns.3SPF. 2= 2ft guns 3SPF.120 phas. RIH Correlate depth to short joint. run in to plug depth check casing coller to depth. set frac 5K frac plug @ 8860. pull up to perf depth check casing coller to depth perforate Black Hawk @ 8820-8821 3SPF 120 Phasing. pull up ck. casing coller to depth perf @ 8730-8731. 3spf 120 phas. pull to next set perf @ 8684-8686 3SPF 120 phas. pick up perf @ 8663-8665 3 spf 120 phasing. POOH shut in well.
10:30:00 AM	Laying down perf guns & plug setting sleeve, wire hanged up in lubricator broke line dropped tools in cellar. (no body got hurt).
10:35:00 AM	Pressure test lines frac & Co2
10:35:00 AM	Frac Blackhawk Stage 3. 20Q. CO2 Slickwater. Start Pad with designed rate with foam, but hit max pressure.6500psi. started pad again got break before bringing CO2 back on. Break 5418 @9.7 BPM. Avg. Foam Rate:42 BPM. Max. Foam Rate: 49.7 BPM. Avg. Pressure 5150PSI. Max Pressure 6500 PSI. Totel Fluid Pumped 42,746 GAL. Totel CO2 Pumped 44 Tons. Totel Sand in Formation 30,600 LB.(20/40 White Sand) Break 5418 PSI. ISIP 3494 PSI. Frac Gradient: 0.84 psi/ft. Could not hit 50 BPM as designed because of high pressure.
11:30:00 AM	Start Flow Back. 16/64 choke 2800 PSI, BBLS to recover 1085. Totel BBLS to recover from stages 1-2&3 = 1907.
11:59:59 PM	Flow back

Well Name : **Jack Canyon Unit State 14-32** API : 43-007-30913 Area : Nine Mile Canyon

Ops Date : 12/18/2003 Report # : 11

Summary : Flow back stage 1, 20/64 ck. @ 700PSI, Recovered 181 BBLs 396 to recover. Run in hole with gauge ring 4 5/8'.no tage. run to frac plug@8980 POOH. Frac Kenilworth

End Time	Description
7:00:00 AM	Flow back Stage 1, 20/64 choke 700 PSI, recovered 181 bbls. 396 left to recover.1697MMCF
10:00:00 AM	Pickup gauge ring 4 5/8" RIH no tage no sand, ran to frac plug @ 8980 POOH.
10:00:00 AM	Safety meet.
10:25:00 AM	Start Pad. Formation Break 4268 @ 5 BPM. Avg. Foam Rate 32 BPM. Max. Foam Rate 35 BPM. Avg. Pressure 4150 PSI. Max. Pressure 5985 PSI. Totel Fluid Pumped 23,891 Gal. Totel CO2 Pumped with cool down 151 Tons. totel Sand in Formation 92,300 LB. (20/40 white sand) Flush 50 Q. slickwater with 500 gal cap. ISIP 3156 Frac Gradient 0.79 Made three attempts to break zone at max pressure 6500 PSI.
12:30:00 PM	start flow back 2300 PSI 16/64 CK. CO2 Foam water. 636 BBLS Totel in well to Recover 1032 left.in stage 1&2
11:59:59 PM	Flow back Stages 1&2 16/64 ck 1032 bbl to recover

014

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 9

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.

5. LEASE DESIGNATION AND SERIAL NUMBER: ML 43541

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: n/a

7. UNIT or CA AGREEMENT NAME: Jack Canyon

1. TYPE OF WELL: OIL WELL ☐ GAS WELL ☑ OTHER ~~CONFIDENTIAL~~

8. WELL NAME and NUMBER: Jack Canyon Unit State 14-32

2. NAME OF OPERATOR: BILL BARRETT CORPORATION

9. API NUMBER: 4300730913

3. ADDRESS OF OPERATOR: 1099 18th St Ste 2300 CITY Denver STATE CO ZIP 80202

PHONE NUMBER: (303) 312-8120

10. FIELD AND POOL, OR WILDCAT: Jack Canyon Unit/Mancos

4. LOCATION OF WELL

FOOTAGES AT SURFACE: 531' FSL x 1479' FEL

COUNTY: Carbon

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SESW 32 12S 16E S

STATE: UTAH

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

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

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

PLEASE SEE ATTACHED CHRONOLOGICAL COMPLETION REPORTS FOR THIS WELL COVERING DECEMBER 20, 2003 THROUGH DECEMBER 28, 2003.

NAME (PLEASE PRINT) DEBRA K. STANBERRY TITLE PERMIT SPECIALIST

SIGNATURE DATE 12/29/2003

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RECEIVED
JAN 0 2 2004
DIV. OF OIL, GAS & MINING

(5/2000) (See Instructions on Reverse Side)

REGULATORY COMPLETION SUMMARY

CONFIDENTIAL

Bill Barrett Corporation

Well Name : **Jack Canyon Unit State 14-32** API : 43-007-30913 Area : Nine Mile Canyon

Ops Date : 12/20/2003 Report # : 13

Summary : Flow back stages 1-2&3 600psi 24/64 ck.19 hr flow recovered 525 BBLs. avg. 27.63 bph. 1382 bbl to recover

End Time	Description
7:00:00 AM	Flow back stages 1-2 and 3. casing flowing 600 psi . 24 choke. 2040 mmcf. 19 hours flowing recovered 525 bbl. 1382 left to recover. no CO2 test.
11:59:59 PM	Flow back frac stages 1-2&3 change choke to 18/64 recovering 10 to 15 bbl per hour.

REGULATORY COMPLETION SUMMARY

CONFIDENTIAL

Bill Barrett Corporation

Well Name : **Jack Canyon Unit State 14-32** API : 43-007-30913 Area : Nine Mile Canyon

Ops Date : 12/23/2003 Report # : 16

Summary : Flow back stages 1-2-3. HLS. perf Castlegate .set frac plug 3890 perf Sego 8307-58. frac stage 4. flow back

End Time	Description
7:00:00 AM	Flow back stages 1-2-3. 0 psi csg pressure.
10:30:00 AM	Pickup 3 3/8 Expendable 90 phasing 4 SPF. 23 grams. DP. run in hole correlate to short joint, run to perf depth check casing coller to depth perf 8426-8441. POOH pick up gun #2 RIH correlate to short joint, run to perf depth check casing coller depth set on perf depth,perf 8412-8426 4 SPf, 90phasng 25 gramsDP. POOH
12:30:00 PM	Pick up 5.5" frac plug and perf guns, RIH correlate to short joint run to plug depth check casing coller to depth, set on depth set frac plug @8390' . pull up check casing coller set on perf depth perforate Sego 8356-58. pull to perf depth perforate 8316-18. pull up check casig coller to depth set on perf depth perforate 8307-09 all shotes fired, 120 phasing 3SPF, 20 grams, .51 hole. POOH.Lay down tools.
1:00:00 PM	Safety meeting, pressure test pump lines.7500 psi.
2:00:00 PM	Frac Sego stage 4. CO2 Foam Frac. start pad, Formation Break @ 5736. 8 BPM. Avg. Foam Rate 39.7 Max Foam Rate 46.6, Avg. pressure 4915 PSI, Max Pressure 5736 PSI, Totel Fluid pumped 15,767 Gal. 442 BBLS. Totel CO2 Pumped 104 tons with cool down, Totel Sand pumped 54,000 lb. (20/40 white sand) 50 Q Flush 500 gal. cap. ISIP 3500 PSI / ft. frac gradient: 0.86 PSI / ft. (lost truck on fluid side in stage 6 dropped rate, came back on finished job)
2:30:00 PM	Start flow back 16/64 ck. 2800 psi, 1538 totel BBLS to recover.
11:59:59 PM	flow back stages 1-2-3-4

Well Name : **Jack Canyon Unit State 14-32** API : 43-007-30913 Area : Nine Mile Canyon

Ops Date : 12/22/2003 Report # : 15

Summary : Flow back stages 1-2&3 flowing on 48/64 ck. 50PSI, recovered 55 bbl.in 24 hrs. avg. 4.5 BPH. 710.47 MMCF, Co2 test 5%. 1096 BBL to recover

End Time	Description
7:00:00 AM	Flowing stages 1-2&3 flowing 50PSI. on 48/64 ck. recovered 55bbl in 24 hours. avg. 4.5BPH. 1096 BBLs. left to recover. CO2 test 5%. Blows dry gas 2 hours unloads fluid for 1 hour , heavy mist. goes back to dry gas.
11:59:59 PM	Flow back stages 1-2-3. 1096 BBL to recover.

Well Name : **Jack Canyon Unit State 14-32** API : 43-007-30913 Area : Nine Mile Canyon

Ops Date : 12/21/2003 Report # : 14

Summary : Flow back stages 1-2&3 1382 BBL to recover. flowing 350 psi, 24 ck. recovered 398 bbl.24 hours. avg. 16.58 bbl hour. 1151 bbls left to recover. CO2 test 22%, 928 MMCF

End Time	Description
7:00:00 AM	Flow back stages 1-2&3, flowing on 24/64 ck. 350 psi. recovered 398 bbls 24 hours. avg.16.58 bbl per hour. CO2 test 22%. 1151 bbls left to recover. Flowing light to Med. mist slugging dry to mist fluid. 928 MMCF.
11:59:59 PM	Flow back stages 1-2&3

REGULATORY COMPLETION SUMMARY

CONFIDENTIAL

Bill Barrett Corporation

Well Name : **Jack Canyon Unit State 14-32** API : 43-007-30913 Area : Nine Mile Canyon

Ops Date : 12/24/2003 Report # : 17

Summary : Flow back stages 1-2-3-4. Perf upper Sego 8130-32. Set frac plug, perf stage 5 Bluecastle. Frac Bluecastle. Flow back

End Time	Description
7:00:00 AM	Flow back Stages 1-4. flowng pressure 600 psi, 16/64 ck. recovered 407 bbl. avg. 24 bph. totel bbls to recover 1108.
10:00:00 AM	Pickup 3 3/8 Expendable guns, two foot.4 SPF, 90 phasing, 25 grams, .48 hole. RIH correlate to short joint run to perf depth check casing coller to depth, perf upper Sego @ 8130-8132 4 SFF. 90 phasing .48 hole. POOH guns did not fire. check guns(switch fired primer cord did not fire. rearm guns RIH) correlate to short joint run to depth check casing coller to depth, set on perf depth shoot upper Sego. POOH
12:00:00 PM	Pick up frac plug and perf guns 10 3SPF. RIH Correlate to short joint run to plug depth check casing coller depth pull up set 5K frac plug @ 8110. pull up check casing coller to depth perforate Bluecastle @ 8050-8060. POOH all shots fired.
1:30:00 PM	Frac Stage 5, 70 Q. CO2 Foam Frac. Start pad 8BPM Formation Break @4945
1:36:00 PM	Avg. Foam Rate 42 BPM, Avg. Pressure 4795 PSi, Max Foam Rate 47 BPM. Max Pressure 5550 psi. Avg.rate17.0 BPM,max rate 21.0 bpm, Totel fluid pumped 16,796 gal. Total CO2 Pumped 149 Tons with cool down. Total Sand pumped In formation 90200 lb.902 sxs, (20-40 white sand) flushed with 50 Q slickwater with 500 gal cap. ISIP 3684. Frac Gradient:0.90 psi / ft.
11:59:59 PM	Start flow back on 16/54 ck. 2800 psi. 467 BBLs pumped 1575 totel BBLs left to recover.

REGULATORY COMPLETION SUMMARY

CONFIDENTIAL
Bill Barrett Corporation

Well Name : **Jack Canyon Unit State 14-32** API : 43-007-30913 Area : Nine Mile Canyon

Ops Date : 12/28/2003 Report # : 21

Summary : Flow back stages 1 through 5. flowing 5 PSI on 18/64 ck. 9.74 MMCF. recovered 3 bbl. last 24 hours. avg. 0.125 bph. 1102 BBLs left to recover.

End Time	Description
11:59:59 PM	Flow back stages 1 through 5. flowing 5 psi on 18/64 ck. dry no fluid, 1102 BBLS left to recover,
7:00:00 AM	Shut in well.

Well Name : **Jack Canyon Unit State 14-32** API : 43-007-30913 Area : Nine Mile Canyon

Ops Date : 12/27/2003 Report # : 20

Summary : Flow back stages 1 through 5, 130 psi, 16/64 ck. recovered 10 bbl, 1105 left to recover, 191.46 MMCF. 26% C02 .

End Time	Description
7:00:00 AM	Flow back stages 1-5. flowing on 16/64 ck. 130 PSI, Recovered 10 BBL in 24 hours. avg. 0.41 BPH, Flowing 191.46 MMCF. CO2 test 26%. dry to light mist. Totel left to recover 1105.
11:59:59 PM	Flow back stages 1-5

Well Name : **Jack Canyon Unit State 14-32** API : 43-007-30913 Area : Nine Mile Canyon

Ops Date : 12/26/2003 Report # : 19

Summary : Flow back stages 1-5

End Time	Description
7:00:00 AM	Flow back stages 1 through 5. flowing on 16/64 choke 350 psi. Avg. hour rate 4.1 BPH recovered 99 BBL in 24 hours, 1115 BBls, flow rate 515.47 MMCF. CO2 26 %
11:59:59 PM	flow back stages 1 through 5

Well Name : **Jack Canyon Unit State 14-32** API : 43-007-30913 Area : Nine Mile Canyon

Ops Date : 12/25/2003 Report # : 18

Summary : Flow back stages 1-5 totel of 349 bbls recovered. Avg. 20 BPH. flow on 16/64 ck. 500 psi. 736.38 MMCF. totel left to recover 1226 BBL.no sand, co2, water foam.

End Time	Description
7:00:00 AM	Flow back stages 1-5. flowing on 16/64 ck. 500 PSI. rate of 736.38 MMCF, recovered 349 bbls in 17 hours, avg. 20 BPH. 1226 BBL left to recover,
11:59:59 PM	Flow back stages 1-5

FORM 9

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

015

5. LEASE DESIGNATION AND SERIAL NUMBER: ML 43541

SUNDRY NOTICES AND REPORTS ON WELLS

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: n/a

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.

7. UNIT or CA AGREEMENT NAME: Jack Canyon

1. TYPE OF WELL: OIL WELL ☐ GAS WELL ☑ OTHER

8. WELL NAME and NUMBER: Jack Canyon Unit State 14-32

2. NAME OF OPERATOR: BILL BARRETT CORPORATION CONFIDENTIAL

9. API NUMBER: 4300730913

3. ADDRESS OF OPERATOR: 1099 18th St Ste 2300 CITY Denver STATE CO ZIP 80202

PHONE NUMBER: (303) 312-8120

10. FIELD AND POOL, OR WILDCAT: Jack Canyon Unit/Mancos

4. LOCATION OF WELL

FOOTAGES AT SURFACE: 531' FSL x 1479' FWL

COUNTY: Carbon

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SESW 32 12S 16E S

STATE: UTAH

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

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

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

PLEASE SEE ATTACHED CHRONOLOGICAL COMPLETION REPORTS FOR THIS WELL COVERING DECEMBER 29, 2003 THROUGH JANUARY 8, 2004.

NAME (PLEASE PRINT) DEBRA K. STANBERRY TITLE PERMIT SPECIALIST

SIGNATURE DATE 1/8/2004

(This space for State use only)

RECEIVED
JAN 12 2004
DIV. OF OIL, GAS & MINING

(5/2000) (See Instructions on Reverse Side)

REGULATORY COMPLETION SUMMARY

Bill Barrett Corporation

Well Name : **Jack Canyon Unit State 14-32** API : 43-007-30913 Area : Nine Mile Canyon

Ops Date : 12/30/2003 Report # : 23

Summary : Shut in 350 PSi. rig HLS. Fill over Lower Bluecastle 60 ft. Set frac plug, perf Bluecastle, safety, test lines, Frac Bluecastle.

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End Time	Description
7:00:00 AM	Shut In, 350 psi shut in 48 hours.
9:30:00 AM	Rig up wire line
10:30:00 AM	Pickup Frac plug and Perforating Guns,Open frac valve ice plug in frac head.
11:00:00 AM	pump truck pumped KCL water on ice plug in tree to thaw.
12:00:00 PM	RIH With 2=4ft guns and frac plug. tage fill @ 7990. 60 ft. fill over lower perfs Bluecastle.correlate to short joint pick up to setting depth check casing coller to depth, set frac plug @ 7920. pull up check casing coller to depth perforate Bluecastle @ 7870-7874 3, SPF 120 phasing .51 hole, 20 grams. pull to next set perforate Bluecastle @7786-7790 3, SPF.120 phasing .51 hole 20 grams. POOH. lay down tools . 360 psi on well.
1:00:00 PM	Safety meeting. Pressre test pump lines. and CO2 lines.
2:00:00 PM	Start CO2 Foam . CO2 Line frozen, computers to Blender stopped working. repair wires
3:00:00 PM	Frac stage 6 Bluecastle CO2 70Q. Formation break 6233 psi, @ 8 BPM. Avg, foam rate 49.1 BPM. Max foam rate 54.5 BPM. Avg. pressure 5147. Max pressure 6235 PSI. Avg, Rate 20.0 BPM. Max Rate 25.0 BPM. Totel fluid pumped 31,015 Gal. Totel CO2 Pumped 160 tons with cool down. Totel sand pumped 200,000 LB.2000 sacks. (20-40white sand) ISIP 4200 PSI / FT. Frac Gradient 0.98 psi / ft. 50 Q flush with 500 gal. cap. 805 bbls to recover.
4:40:00 PM	Pick up perf guns 3 3/8 expendable 90 deg. phasing 4 SPF. .48 DP.shot. 25 grams. RIH correlate to short joint. check casing coller to depth perforate Price River @ 6897-6899. set to depth perf @ 6852-6854, set to depth perf @ 6838-6842 POOH Lay down tools.
11:59:59 PM	Start flow back 16/64 choke. 2300 psi. 805 bbls to recover from stage 6. 1907 totel bbls to recover from well.

Well Name : **Jack Canyon Unit State 14-32** API : 43-007-30913 Area : Nine Mile Canyon

Ops Date : 12/29/2003 Report # : 22

Summary : Shut in

End Time	Description
	Shut in

CONFIDENTIAL

REGULATORY COMPLETION SUMMARY

Bill Barrett Corporation

Well Name : **Jack Canyon Unit State 14-32** API : 43-007-30913 Area : Nine Mile Canyon

Ops Date : 12/31/2003 Report # : 24

Summary : Flow back stages 1-6 well head frozen. hot oil truck steam tree & flow lines. recovered 30BBL .RIH set frac plug & perf U-Priceriver, Frac Price River. 2214 bbls to recover.

End Time	Description
9:00:00 AM	Rig Halliburtion wire line. Pick up 5. frac plug, 6 ft. perf gun. RIH correlate to short jt. run to frac plug depth check casing coller to depth. set frac plug #6 @ 6660. pull up check casing coller to depth set on perf depth perforate Upper Price River 6620-6626 3SPF. 120 phasing. .51 hole, 20 grams. POOH Lay down tools. rig down move off.
9:20:00 AM	Safety meeting. Pressure test frac lines and CO2 lines.7000PSI.
10:00:00 AM	Start 70Q. CO2, 30# purgel. Foam Frac. Stage 7. start Pad 9 BPM. formation never demonstrated a clean break 5,036#. Avg. Foam Rate 28.7 BPM. Max foam Rate 36 BPM. Avg.Rate 11.8 Max rate 15.0 bpm. Avg. pressure 5801 psi. Max Pressure 6500 psi. Totel fluid pumped 11,338 gal. 270 BBLs. Totel CO2 pumped 142 tons plus7 ton for cool down. 149 totel. screened out frac. surface pressure continued to climb in spite of increase in hydrostatic.incresed rate twice in attempt to counter increase net pressure. cutt sand early due to igh treating pressure. screened out on last sand stage. Totel sand in formation 32,000 lb. totel sand pumped 45,000 lb.20/40 White sand. ISIP NA. frac gradient:
10:30:00 AM	Start flow back 18/64 ck. 2800 psi.
11:59:59 PM	flow back Stages 1-7, 2521 bbls totel to recover in well.

REGULATORY COMPLETION SUMMARY

CONFIDENTIAL

Bill Barrett Corporation

Well Name : **Jack Canyon Unit State 14-32** API : 43-007-30913 Area : Nine Mile Canyon

Ops Date : 1/4/2004 Report # : 28

Summary : Flow back stages 1-7

End Time	Description
7:00:00 AM	Flow Back stages 1-7 Flowing on 18/64 choke. 1050 PSi, Recovered 522 BBLs last 24 hours, avg. 21.75 BPH. 522 BBLS left to recover. 2045 MMCF
11:59:59 PM	Flow back stages 1-7

Well Name : **Jack Canyon Unit State 14-32** API : 43-007-30913 Area : Nine Mile Canyon

Ops Date : 1/3/2004 Report # : 27

Summary : Flow back stages 1-7. Flow pressure 1300 psi on 18/64 choke. 24 hours flowing recovered 526 BBLS Avg. of 22 BPH. 1108 BBL left to recover, 20% Co2, Flow rate of 2026.26 MMCF.

End Time	Description
7:00:00 AM	Flow back stages 1-7. 1300 psi, on 18/64 ck. recovered 526 BBls in 24 hours avg of 22 BPH. 20 % CO2 . flow rate of 2026.26 MMCF.
11:59:59 PM	Flow back stages 1-7

Well Name : **Jack Canyon Unit State 14-32** API : 43-007-30913 Area : Nine Mile Canyon

Ops Date : 1/2/2004 Report # : 26

Summary : Flow back stages 1-7. flowing 1500 PSI, 18/64 choke, recovered 330 bbls in 24 hours av g. 13.75 BPH, BBLS left to recover 1634. flow rate of 2191.87MMCF. CO2 test 25%.

End Time	Description
7:00:00 AM	Flow back stages 1-7. flow pressure 1500 psi. 18/64 ck. recovered 330 bbls in 24 hours avg. of 13.75 BPH. 1634 BBL left to recover. flow rate of 2191.87 MMCF, CO2 test 25%.
11:59:59 PM	Flow back stages 1-7 1634 BBL left to recover.

Well Name : **Jack Canyon Unit State 14-32** API : 43-007-30913 Area : Nine Mile Canyon

Ops Date : 1/1/2004 Report # : 25

Summary : Flow back stages 1-7, 1600 PSI, 18/64 choke, 2493.86 MMCF 25% Co2

End Time	Description
7:00:00 AM	Flow back stages 1-7.
7:00:00 AM	Flowing on 18/64 choke,1600 PSi, Flow rate of 2493.86 MMCF, 25% Co2, 19 hours flowing, Avg,13 BBLs per hour. Start BBLs stages 1-7= 2214, recovered 250. 1964 BBLs left to recover.
11:59:59 PM	Flow back stages 1-7

REGULATORY COMPLETION SUMMARY

CONFIDENTIAL

Bill Barrett Corporation

Well Name : **Jack Canyon Unit State 14-32** API : 43-007-30913 Area : Nine Mile Canyon

Ops Date : 1/8/2004 Report # : 32

Summary : Flow back Stages 1-7 FCP 635, 18/64 ck.recovered 387 BBLS, 20 hours (1314 bbl over load) HLS Set kill plug 6500', RDMO HLS. ND Frac tree / NU BOP. Unload 2 3/8 N-80 tbg. 292 jts. tally pick Bit, B-sub, jt. XN,jt. X nip. tbg RIH.

End Time	Description
7:00:00 AM	Flow back stages 1-7 FCP 635 PSI, 18/64 ck. recovered 387 BBL.in 20 hours Avg. 19.35 BPH. 1314 BBL over load.
10:00:00 AM	HLS.pickup 5.5 solid composite bridge plug run in hole correlate to short jt. run in to set depth check casing coller to depth, set 5K kill plug @ 6500ft.POOH RDMO HLS.
12:00:00 PM	blow down well, nipple down frac tree. nipple up BOPs. rig work floor. to pick up tubing.
1:00:00 PM	Pull tubing truck to Loc. with Cat. walk cat down MTN. to pull tbg. truck. cat could not hold its self back had to rip ice off of hill before pulling truck. pull truck to top of hill. road to Loc.
2:00:00 PM	unload 23/8 N-80 tubing on seals, 292 joints
5:30:00 PM	Tally, pick up 4 3/4 Varel cone bit. 1 jt. 2 3/8 tbg. XN nipple (1.791 profile) 1 jt. 2 3/8 N-80 tbg. X nipple (1.875 profile) 189 JTS N-80 tbg.5800ft.
6:00:00 PM	Shut in.

Well Name : **Jack Canyon Unit State 14-32** API : 43-007-30913 Area : Nine Mile Canyon

Ops Date : 1/7/2004 Report # : 31

Summary : FCP 600 PSI. 18/64 ck. recovered 452 BBL. 927 BBL over load.CO2 1.5%. HES. set kill plug. frac plug upper slipes set in wire line BOP.rig down lubricator and BOPs. flow back stages 1-7

End Time	Description
7:00:00 AM	Flow back stages 1-7 CFP 600 PSi 18/64 ck. recovered 452 bbl. 927 BBL over load.
9:00:00 AM	MIRU HLS. to set kill plug.
10:00:00 AM	Frac valve would not open . ice in valve, flow and work valve to free ice behind gate.
1:00:00 PM	Valve open. try to run plug. plug would not move in lubricater. shut in well rig down wire line equipment frac plug upper slipes set in wire line BOPs. was able to push plug out of BOPs. didnt have extra plug to run. shut down wire line.
11:59:59 PM	Flow back stages 1-7 on 18/64 ck.

Well Name : **Jack Canyon Unit State 14-32** API : 43-007-30913 Area : Nine Mile Canyon

Ops Date : 1/6/2004 Report # : 30

Summary : Flow back stages 1-7. MIRU- WSU.

End Time	Description
7:00:00 AM	Flow back stages 1-7. Flowing 800 psi on 18/64 ck. recovered 530 bbls 475 bbl over load. Rate of 1340.44 MMCF, CO2 14 %.
5:00:00 PM	Move in rig up well service unit. shut down for night.
11:59:59 PM	Flow back stages 1-7

Well Name : **Jack Canyon Unit State 14-32** API : 43-007-30913 Area : Nine Mile Canyon

Ops Date : 1/5/2004 Report # : 29

Summary : Flow back stages 1-7 flowing on 18/64 ck. 1000 PSI.

End Time	Description
7:00:00 AM	Flow back stages 1-7. Flowing on 18/64 CK. 1000PSI. recovered 531 BBL. Last 24 hours. avg.of 22.12 BPH. 55 BBLs left to recover. flow rate of 1558.66 MMCF.
11:59:59 PM	Flow back. stages 1-7

016

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 9

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.

5. LEASE DESIGNATION AND SERIAL NUMBER: ML 43541
6. IF INDIAN, ALLOTTEE OR TRIBE NAME: n/a
7. UNIT or CA AGREEMENT NAME: Jack Canyon
8. WELL NAME and NUMBER: Jack Canyon Unit State 14-32
9. API NUMBER: 4300730913
10. FIELD AND POOL, OR WILDCAT: Jack Canyon Unit/Mancos

1. TYPE OF WELL: OIL WELL ☐ GAS WELL ☑ OTHER CONFIDENTIAL

2. NAME OF OPERATOR: BILL BARRETT CORPORATION

3. ADDRESS OF OPERATOR: 1099 18th St Ste 2300 CITY Denver STATE CO ZIP 80202 PHONE NUMBER: (303) 312-8120

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 531' FSL x 1479' FEL (W) COUNTY: Carbon
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SESW 32 12S 16E S STATE: UTAH

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

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

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

PLEASE SEE ATTACHED CHRONOLOGICAL COMPLETION REPORTS FOR THIS WELL COVERING JANUARY 9 THROUGH JANUARY 16, 2004.

NAME (PLEASE PRINT) DEBRA K. STANBERRY TITLE PERMIT SPECIALIST

SIGNATURE _____ DATE 1/16/2004

(This space for State use only)

RECEIVED
JAN 21 2004
DIV. OF OIL, GAS & MINING

(5/2000) (See Instructions on Reverse Side)

REGULATORY COMPLETION SUMMARY

Bill Barrett Corporation

Well Name : **Jack Canyon Unit State 14-32** API : 43-007-30913 Area : Nine Mile Canyon

Ops Date : 1/10/2004 Report # : 34

Summary : CSIP 1550. open well to pit blow down to 800 psi. pick up tbg. tage 8970, 10ft fill on plug clean/drill plug clean to PBTD 9290. circ hole . recovered 250 bbl, 1564 totel bbl over load

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End Time	Description
7:00:00 AM	SICP 1550 PSI
8:30:00 AM	Blow down casing on 24/64 choke drop pressure to 800 psi. pick up 2 3/8" tbg. tage fill on plug #1 @ 8970' 10ft. fill on frac plug 8980
11:00:00 AM	Start circ. with Weatherford foam air. unload well. clean out sand, drill frac plug #1 no pressure change on surface.
12:00:00 PM	push plug to 9230ft. in rate hole. break circ. drill last of frac plug. clean out to 9290 PBTD. circ. hole 1 hour with foam. recovered 250 BBLS, 1564 bbl over load.
2:00:00 PM	lay down 1 jt.Rig down power swivel. POOH to 6500 ft. pump tbg kill pull dart valve from tbg. RIH to 9260 ft. drop pump off ball. pump to shear off bit sub. pressure up to 4000 PSI.sub partly sheared off, could pump through sub but sub didnt shear off. three trys to pump off sub didnt shear. rig sand line with weight bars RIH tage sub pressure up tbg. to 400 psi on surface hit on sub with bars, sub sheared off. weight bars stuck in sub. work and jar bars free, POOH lay down swab equipment. 43/4 Varel cone bit and half of HES pumpoff sub on bottom @ 9288'
5:00:00 PM	Rig foam unit to tbg. foam out fluid used to pump off bit sub. pump balance kill in tbg.
5:45:00 PM	POOH 88 JTS. Tubing hanging at 6508 with KB. 208 JTS in well.
6:00:00 PM	Rig foam unit to tubing blow out kill fluid down tbg. up csg. shut in casing, pressure up well to 1000psi. flow back
6:30:00 PM	rig flow back lines off tubing to flow back tank.
7:00:00 PM	start flow back 48/64 ck.FTP 700 psi. SICP 725psi. 8PM change choke to 18/64 FTP

Well Name : **Jack Canyon Unit State 14-32** API : 43-007-30913 Area : Nine Mile Canyon

Ops Date : 1/9/2004 Report # : 33

Summary : Open well. pickup tbg. RIH tage kill plug, rig swivel. break circ. w/air unit. drill kill plug. 5 frac plugs, clean up with foam air.

End Time	Description
8:00:00 AM	SI. open well. pick up 2 3/8 tbg. tage kill plug @ 6500'
9:30:00 AM	Pick up power swivel, break circ. with Weatherford Foam Unit.
10:30:00 AM	Drill kill plug.500 PSI surface pressure increase.shut down air circ, flow to equallze pressure before plug would fall.
12:00:00 PM	pickup tbg. tage frac plug #6 @6660 no fill on plug, drill plug no pressure change. pick up 40jts. to plug #5 tage @ 7920 no fill on plug drill plug no pressure change at surface. FCP Avg. 500 to 600 psi. 48/choke.
2:00:00 AM	pick up 6 jts tage plug # 4 @ 8110 no fill on plug. drill plug no pressure change at surface.
3:00:00 PM	pick up tbg 9 jts. tage plug # 3 @ 8390 no fill on plug. drill plug no pressure change at surface.
4:00:00 PM	pick up tbg.15 jts. tage fill at 8847 tage 13 ft. fill on plug #2 clean out drill frac plug 8860. pressure increase of 100 PSI on surface. Foam Air clean up for 1 hour. CFP 350 on two 48/64 chokes heavy mist.
6:00:00 PM	Shut in

REGULATORY COMPLETION SUMMARY

Bill Barrett Corporation

Well Name : **Jack Canyon Unit State 14-32** API : 43-007-30913 Area : Nine Mile Canyon

Ops Date : 1/14/2004 Report # : 38

Summary : Flow back Stages 1-7, FTP 500 PSI, SICP 2080 PSI, 18/64 ck. Recovered 288 BBLS in 15 Hours, Avg. of 19.2 BPH, Totel BBLs over load 3248. CO 2 Test 1%. wait on production test.

End Time	Description
7:00:00 AM	Flow back stages 1-7. FTP 500 PSI. SICP 2080 PSi, 18/64 ck. recovered 288 bbls in 15 hours. avg. of 19.2 BPH. Totel of 3248 BBL over load. CO2 test 1%.
11:59:59 PM	Flow back

Well Name : **Jack Canyon Unit State 14-32** API : 43-007-30913 Area : Nine Mile Canyon

Ops Date : 1/13/2004 Report # : 37

Summary : Flow back Stages 1-7,Rig Schlumberger to Run Production Log,

End Time	Description
7:00:00 AM	Flow Back Stages 1-7,FTP 500 PSI, SICP 2050 PSI, 24/64 Ck. recovered 615 BBL. in 24 hours, Avg. 25.62 BPH. Totel of 2960 BBL over load.CO2 Test 1.5 %,
9:00:00 AM	Flow back stages 1-7
4:00:00 PM	MIRU Schlumberger to run production Log. RDMO
11:59:59 PM	Flow back stages 1-7

Well Name : **Jack Canyon Unit State 14-32** API : 43-007-30913 Area : Nine Mile Canyon

Ops Date : 1/12/2004 Report # : 36

Summary : Flow Back Stages 1-7, SICP 2000 PSI, FTP 550 PSI, 24/64 CK. recovered 517 BBLs in 24 hours, Avg. 21.5 BPH, Totel of 2345 BBLs over load.

End Time	Description
7:00:00 AM	Flow back stages 1-7, SICP 2000 PSi, FTP 550 PSI, recovered 517 BBLS in 24 hours, Avg. of 21.5 BPH, Totel of 2345 BBLS over load.
11:59:59 PM	Flow back stages 1-7

Well Name : **Jack Canyon Unit State 14-32** API : 43-007-30913 Area : Nine Mile Canyon

Ops Date : 1/11/2004 Report # : 35

Summary : Flow back Stages 1-7. SICP 1200 PSI. FTP 500 PSI. 18/64 ck. recovered 264 BBL Totel of 1828 over load.

End Time	Description
7:00:00 AM	Flow back stages 1-7. FTP 500 PSI, SICP 1200 PSI, 18/64 ck. recovered 264 BBLs in 12.5 hours. avg. 21.12 BPH. 1828 BBL over load.
11:59:59 PM	Flow back stages 1-7

REGULATORY COMPLETION SUMMARY

Bill Barrett Corporation

Well Name : **Jack Canyon Unit State 14-32** API : 43-007-30913 Area : Nine Mile Canyon

Ops Date : 1/16/2004 Report # : 40

Summary : SITP 275, SICP 790.Zone #19 open to tank blue down 2min. Fluid level 850 ft. swabbed 3 run recovered 18 bbls. well started flowing shut in 10:30 am. 1PM start flow back to tank. 850 psi flowing on 18/64 ck.

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End Time	Description
7:00:00 AM	SITP 275 psi, SICP 790PSI, 13.5 hours S.I.
8:00:00 AM	Open tubing to flow back tank, blown down in two min.
9:00:00 AM	Rig up swab equipment. first run fluid level at 850 ft. pulled 2.4 bbls. no gas cutt fluid.
9:30:00 AM	#2 run fluid level @ 2400 ft. pulled from 5840ft. gas cutt fluid. swabbed 6 bbls. no flow after swab run.
10:30:00 AM	# 3 run fluid level @ 2800 ft. pulled from 6400 ft. recovered 9.6 bbls, gas cutt . started flowing, shut in. totel bbls swabbed before flowing 18bbl. shut in.
1:00:00 PM	SITP 850. SICP 820. start flow back in tank on 18/64 choke,
2:00:00 PM	SICP 800 psi. TFP 485, flowing on 18/64 ck. recovered 16.89 BBLs. in one hour. fluid surging not a steady flow. no sand
3:00:00 PM	FTP 500. SICP 765. flowing on 18/64 ck. recovered 9.65 BBLs . in one hour. fluid surging not a steady flow. no sand. Totel BBLs 26.54
4:00:00 PM	SICP 745, FTP 400, 18/64 ck. recovered 6.02 BBL in one hour. fluid surging. some dry flow of gas no fluid for approximately 5 to 10 minutes at a time. Totel BBLs 32.56
5:00:00 PM	SICP 620, FTP 210 18/64 ck. recovered 4.83 BBLs in one hour, Fluid surging. dry gas for 10 min. Totel BBLs 37.39
11:59:59 PM	Flow Back Zone #19. Flow back crew for night.

Well Name : **Jack Canyon Unit State 14-32** API : 43-007-30913 Area : Nine Mile Canyon

Ops Date : 1/15/2004 Report # : 39

Summary : Flow back stages 1-7, FTP 500 psi.18/64 ck. SICP 2100 psi, 16 hours recovered 320 bbl. avg. 20 BPH. 3568 bbl over load. POOH with TBG. RIH HES.5.5 RTTS PKR set@ 9011'.& Retrievable Bridge plug set @9180'

End Time	Description
7:00:00 AM	Flow back stages 1-7, FTP 500psi 18/64 ck. SICP 2100 psi recovered 320 bl in 16 hours totel of 3568 BBL over load.
10:00:00 AM	Blow down csg. 20/64 ck . pump 20 bbl in tbg.to kill flow. POOH with tbg. from 6500 to 1300ft.42jts. pump 30 bbl kill. well flowing back . pump 30 more bbls totel of 60 well flowing.
12:00:00 PM	flow back kill fluid 60 bbl.
1:00:00 PM	pump kill of 100 bbls, well flowing pump 20 bbl . 120 totel bbl stopped flow pumped 20 bbl 140 totel kill fluid .
1:30:00 PM	POOH 42 jts. lay down pump off bit sub. pick up HES. 5.5 RTTS PKR. with 5.5 RBP
3:00:00 PM	RIH to 4500ft. well started flowing . pump 10 bbl tbg. kill , install stripper head rubber.
5:00:00 PM	RIH to Isolate perfs 9152-9156 Aberdeen, Set 5.5 RBP mod. 2 BV@ 9180ft. (10,000 # over string weight to pull off RBP sand on plug) Pull up to 9011ft. set 5.5 RTTS Packer with 13,000# setting on PKR..
5:30:00 PM	SIT, SIC

FORM 9

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

~~617~~

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.

5. LEASE DESIGNATION AND SERIAL NUMBER: ML 43541

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: n/a

7. UNIT or CA AGREEMENT NAME: Jack Canyon

1. TYPE OF WELL: OIL WELL ☐ GAS WELL ☑ OTHER CONFIDENTIAL

8. WELL NAME and NUMBER: Jack Canyon Unit State 14-32

2. NAME OF OPERATOR: BILL BARRETT CORPORATION

9. API NUMBER: 4300730913

3. ADDRESS OF OPERATOR: 1099 18th St Ste 2300 CITY Denver STATE CO ZIP 80202

PHONE NUMBER: (303) 312-8120

10. FIELD AND POOL, OR WILDCAT: Jack Canyon Unit/Mancos

4. LOCATION OF WELL

FOOTAGES AT SURFACE: 531' FSL x 1479' FEL

COUNTY: Carbon

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SESW 32 12S 16E S

STATE: UTAH

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

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

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

PLEASE SEE ATTACHED CHRONOLOGICAL COMPLETION REPORTS FOR THIS WELL COVERING JANUARY 17 THROUGH JANUARY 23, 2004.

NAME (PLEASE PRINT) DEBRA K. STANBERRY TITLE PERMIT SPECIALIST

SIGNATURE [signature] DATE 1/23/2004

(This space for State use only)

RECEIVED
JAN 26 2004
DIV. OF OIL, GAS & MINING

(5/2000) (See Instructions on Reverse Side)

REGULATORY COMPLETION SUMMARY

Bill Barrett Corporation

Well Name : **Jack Canyon Unit State 14-32** API : 43-007-30913 Area : Nine Mile Canyon

Ops Date : 1/17/2004 Report # : 41

Summary : Flow back Zone #19 Swab test and flow.recovered 5.9 bbl. totel fluid recovered 82.10 . pulled swab faster than gas&fluid entry. no fluid tage little blow after swab.

End Time	Description
7:00:00 AM	Flow Back Zone #19, SICP 920, FTP 50 psi, 20/64 ck. recovered 66.34 BBLs in 18 hours, Avg. 3.68 BPH.
1:00:00 PM	Flow Test Zone #19, SICP 940, FTP 30, 20/64 ck. recovered10.07 BBL in 6 hours, (totel BBL last 24 hours 76.14). avg. 3.17 BPH. no sand. slugs to light mist, dry gas.
3:00:00 PM	Flow Test Zone #19 Rig up swab,#1 run, No fluid level, pulled from 8975 ft. recovered 2.91 bbls.
4:00:00 PM	#2 run no fluid recovered 1.45 bbls. no blow after swab pulled.
4:30:00 PM	#3 run recovered .40 bbls, no fluid level , no flow after swab pull.
5:00:00 PM	#4 run. no fluid tage, no fluid recovered.
5:30:00 PM	#5 run . run swab no fluid tage. recovered 1.20 bbl no blow after swab. swab faster than fluid and gas entry. totel bbls swabbed 5.9 bbl. totel bbls recovered 82.10
6:00:00 PM	shut in for weekend.

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REGULATORY COMPLETION SUMMARY

Bill Barrett Corporation

CONFIDENTIAL

Well Name : **Jack Canyon Unit State 14-32** API : 43-007-30913 Area : Nine Mile Canyon

Ops Date : 1/21/2004 Report # : 43

Summary : SITP 0, SICP 1180, blow down csg, POOH w/tbg.& RTTS, pkr. pump top kill well flowing back kill fluid. totel bbls pumped 240. RTTS packer hanging @ 1160 ft. flow back kill fluid.totel bbls pumped 240. CSG and TBG. Shut in for night.

End Time	Description
7:00:00 AM	SITP 0.PSI. SICP 1180.
8:00:00 AM	Pump 15 bbl in tbg. Start flowing casing 20/64 ck.
11:00:00 AM	Pull out of hole with RTTS packer to 3500 ft. well started flowing up tbg. pump 30 bbl to turn flow. pull to 2500 ft. tbg. and casing flowing. pump 100 bbl to kill well couldnt. kill.
12:00:00 PM	flow back 130 bbls to rig tank.
2:00:00 PM	pump surface kill 150 bbl, POOH to 1160 ft.37 jts. left in hole. well started to flow try to top kill with 60 bbls could not turn flow, perssure stayed above 100psi.
4:00:00 PM	Flow back to rig tank. recover kill fluid.
5:00:00 PM	pumped 130 bbl could not turn flow, pumping pressure 250 psi, 5BPM could not kill .shut down pumping, well flowing.flow back most of kill fluid to pit. 240 totel bbls pumped for day.
5:30:00 PM	Shut in well. secured tubing in BOPS for night, drain equipment.

Well Name : **Jack Canyon Unit State 14-32** API : 43-007-30913 Area : Nine Mile Canyon

Ops Date : 1/20/2004 Report # : 42

Summary : SITP 2200 psi. SICP 1150psi. open, flow to tank 18/64 ck. CO2 3/4 %. dry gas choke freeze change to 20/64 flow back .release 5.5 pkr. RIH to RBP fill around fishen neck of tool.

End Time	Description
7:00:00 AM	Weekend pressure build up SITP 2200 PSI, SICP 1150 PSI,
8:45:00 AM	Start flow back on 18/64 ck. dry blow, CO2 test 3/4%, recovered 2.20 bbl. slug fluid to mist.
1:00:00 PM	Flow test,choke freezing off. change choke to 20/64, recovered 2.20 bbls. flowed totel of 4.40 bbls. flow pressure dropped to 20 PSI. pulled choke , light blow.
1:40:00 PM	pick up swab equipment, no fluid level in tbg. pulled swab from XN nipple 8975', recovered 2.75 bbls totel fluid 7.15 recovered.
2:20:00 PM	run swab no fluid level, pulled from 8975' recovered none gaugeable amount.little gas blow after swab pulled.
2:45:00 PM	RIH with swab no tage, pulled from 8975' recovered 2.0 bbl. little blow after pulling swab. flow stopped.
3:15:00 PM	RIH swab from 8975, recovered 2.60 bbls, pulled water sample, totel swabbed and flowed 11.75 bbls. (light blow after swab pulled.)
5:00:00 PM	Pump 35 bbl in tbg release 5.5 RTTS packer, pick up 5 jts tbg. RIH to RBP. @ 9180 tage at plug top. some fill around fishen neck. pump fluid to wash fill. couldnt retrive bridge plug. retriving tool wouldnt jay on to bridge plug. possible. rubber or composite frac plug on bridge plug. try to wash fill from neck of RBP. lay down 5 jts.
6:00:00 PM	Shut in for night. drain equipment.

REGULATORY COMPLETION SUMMARY

CONFIDENTIAL

Bill Barrett Corporation

Well Name : **Jack Canyon Unit State 14-32** API : 43-007-30913 Area : Nine Mile Canyon

Ops Date : 1/23/2004 Report # : 45

Summary : Flow Test Zones 8 through 18, U-Sego perfs 8130 through Kenilworth bottom perf 8924, FTP 100psi. SICP 1060psi. 15 hr. flow recovered 164.35 bbls. AVG. 10.95 BPH, CO2 test 1/2%.

End Time	Description
7:00:00 AM	Flow test. FTP 100Psi, SICP 1060 Psi. Zones 8-18 Kenilworth bottom perf 8924 through U-Sego perf 8130. 15 hour test recovered 164.35 BBLs. Avg. 10.95 BPH. CO2 test 1/2%. Sluging water and gas, Water sample 9 AM. and 5PM (flow report)
11:59:59 PM	Flow test Zones 8-18 U-Sego through Kenilworth.

Well Name : **Jack Canyon Unit State 14-32** API : 43-007-30913 Area : Nine Mile Canyon

Ops Date : 1/22/2004 Report # : 44

Summary : SITP 820 SICP 820. Blow down casing. Pump 50 bbl kill POOH, lay down PKR & retriving Head. Pick up PKR & Bridge plug RIH Set Plug @8950 set PKR @8103 .Swab in, Flow test Zones 8 through 18. Totel fluid recover 315 bbl before test.Test4PM

End Time	Description
7:00:00 AM	SITP, 820, SICP 820
9:00:00 AM	Open casing to pit 24/64 ck. blue gas off started to slug water.
9:30:00 AM	pump 50 BBL 3% KCL down casing kill flow.
10:30:00 AM	POOH with tubing and packer, 12 jts in well, start to flow. pump 20 bbl kill.POOH with tub. and packer.lay down 5.5 RTTS packer and retriving tool.
11:00:00 AM	Pick up 5.5 Champ Packer, 4ft. sub retriving Tool. 5.5 Bridge plug Model 2BV. Well not flowing start in hole with tools.
1:00:00 PM	RIH to 8950 with bridge plug, Set plug @ 8950' pull out of hole to 8100 ft.
1:40:00 PM	flow back 130 BBLS to rig tank. flow 110 bbl in flow back tank recovered 240 BBLs.
1:45:00 PM	Set HES. 5.5 Champ packer @ 8103' set 13000# down on packer Close pipe rams. Rig to flow tubing.
2:00:00 PM	start flow back, Zones 8 through 18 perfs from 8130 Sego, Castlegate, Blackhawk to 8924 Kenilworth. open to flow tank slug fluid twice died. rig swab,
2:30:00 PM	RIH with swab fluid level surface, pulled from 3500 ft. recovered 11.1 bbl. run swab fluid level @ 2200ft. pulled from 4100 ft. recovered 9.6 bbl. started flowing.totel swabbed 20.7 bbl. Totel BBLS recovered 240 bbls
3:00:00 PM	Flow to flow tank no choke. FTP 20 PSI. recovered 4.8 bbl
4:00:00 PM	flow to tank no ck. recovered 49.4 bbls. 1 hour, Totel BBLs recovered flowed, swabbed for day 315 BBL.
5:00:00 PM	Start Test 20/64 ck. FTP 300 Psi. SICP 950. recovered 6.03 bbl. slug water and gas.
11:59:59 PM	Flow Watch Crew

0,1-8

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 9

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.

5. LEASE DESIGNATION AND SERIAL NUMBER:	ML 43541
6. IF INDIAN, ALLOTTEE OR TRIBE NAME:	n/a
7. UNIT or CA AGREEMENT NAME:	Jack Canyon
1. TYPE OF WELL: OIL WELL ☐ GAS WELL ☑ OTHER CONFIDENTIAL	8. WELL NAME and NUMBER: Jack Canyon Unit State 14-32
2. NAME OF OPERATOR: BILL BARRETT CORPORATION	9. API NUMBER: 4300730913
3. ADDRESS OF OPERATOR: 1099 18th St Ste 2300 CITY Denver STATE CO ZIP 80202 / PHONE NUMBER: (303) 312-8120	10. FIELD AND POOL, OR WILDCAT: Jack Canyon Unit/Mancos

4. LOCATION OF WELL

FOOTAGES AT SURFACE: 531' FSL x 1479' FEL — COUNTY: Carbon

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SESW 32 12S 16E S — STATE: UTAH

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

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

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

PLEASE SEE ATTACHED CHRONOLOGICAL COMPLETION REPORTS FOR THIS WELL COVERING JANUARY 24 THROUGH JANUARY 29, 2004.

RECEIVED
FEB 02 2004
DIV. OF OIL, GAS & MINING

NAME (PLEASE PRINT) DEBRA K. STANBERRY — TITLE PERMIT SPECIALIST

SIGNATURE _____ DATE 1/30/2004

(This space for State use only)

(5/2000) (See Instructions on Reverse Side)

REGULATORY COMPLETION SUMMARY

Bill Barrett Corporation

Well Name : **Jack Canyon Unit State 14-32** API : 43-007-30913 Area : Nine Mile Canyon

Ops Date : 1/26/2004 Report # : 48

Summary : Flow testing, Perfs8130-8924, FTP 120, SICP 1040, 24 hr.recovered 113.76 BBl. totel recovered 621.14. CO2 test 15%

End Time	Description
7:00:00 AM	Flow test, FTP 120, SICP 1040. 24 hr. test recovered 113.76 BBL. Totel recovered 621.14. sluging water and gas. Co2 test 15%. (flow report)
11:59:59 PM	Flow testing.

Well Name : **Jack Canyon Unit State 14-32** API : 43-007-30913 Area : Nine Mile Canyon

Ops Date : 1/25/2004 Report # : 47

Summary : flow test, perfs 8130-8924, FTP 145, SICP 1040, recovered 146.87 BBL 23 hr flowing. totel 507.38 bbls. CO2 8%. 2hours of dry gas blow.

End Time	Description
7:00:00 AM	Flow testing, perfs. 8130-8924, U-Sego to Kenilworth. SICP 1040, FTP 145, 23 hours flow time recovered 146.87 BBLS. Avg. 6.38 BPH. totel recovered 507.38 BBLs, Co2 test 8%. two hours in flow had dry blow no fluid. (flow report)
11:59:59 PM	Flow test

Well Name : **Jack Canyon Unit State 14-32** API : 43-007-30913 Area : Nine Mile Canyon

Ops Date : 1/24/2004 Report # : 46

Summary : flow back SICP 1050, FTP 190 20/64 ck. recover 196.16 bb in 23.5 hours. totel recovered 360.51 bbl. avg 8.34 BPH. CO2 test 12%

End Time	Description
7:00:00 AM	flow test, Upper Sego to Kenilworth perfs 8130 to 8924.
7:00:00 AM	SICP 1050, FTP 190, 20/64 ck. 23.5 hours flowing. recovered 196.16 bbls. avg. 8.34 BPH. totel recovered 360.51, sluging water and gas.
9:30:00 AM	flow test. flare gas. (CO2 Test 12%.) dry gas burnable, couldnt see flair, wouldnt burn with fluid flowing. (flow report)
11:59:59 PM	flow testing in flow back tank.

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REGULATORY COMPLETION SUMMARY

Bill Barrett Corporation

Well Name : **Jack Canyon Unit State 14-32** API : 43-007-30913 Area : Nine Mile Canyon

Ops Date : 1/29/2004 Report # : 51

Summary : frozen tubing valve.thaw with hot water.SICP 550. SITP. pump15 bbl tbg kll<RIH with retriving head. release retrivable bridge plug POOH to 7900 set bridge plug. POOH.with retrive head . RIH w/ 51/2" Champ PKR w/retriving head set @7825. swab

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End Time	Description
8:00:00 AM	frozen tubing valve ,heat water to thaw valve.SICP 550, SITP
9:00:00 AM	pump 15 bbl down tubing open well RIH with retriving head.
12:30:00 PM	Pick up tubing off ground tage bridge @8950 no fill on plug. had hard time latching on plug, pumping down tubing to wash tool neck for retriving head. and equalize pressure.pulling 25000# over to release tool.(pumped 70 BBLs.)
1:00:00 PM	Pull out of hole to 7900 ft. set 5 1/2" HES 2BV cup type plug 252 joints.
4:30:00 PM	Pull out of hole with retriving head. pick up HES. 51/2" Champ packer with retriving head. RIH 250 joints. Set packer @7825' (Perfs to test Bluecastle 7870-7874).
5:30:00 PM	rig to swab. fluid level @ 1500ft. run 2 fluid level 1500 ft. run #3 fluid level @ 1700 gas cutt fluid started to flow before swab pulled. recovered 40 BBLs
6:00:00 PM	Flow test in flow tank, no gauge amount of pressure no choke in line, sluging fluid. small amount of gas. drain equipment.
7:00:00 PM	well died at 7PM

Well Name : **Jack Canyon Unit State 14-32** API : 43-007-30913 Area : Nine Mile Canyon

Ops Date : 1/28/2004 Report # : 50

Summary : SITP 900, SICP 1060, blow down tbg,pump 25 bbl down tbg. release HES PKR. (packer wouldnt go down hole) POOH. TIH with retriving head 152 jts. 4750 ft. (metal shavings in slip body / two cracks in slip body slides)

End Time	Description
7:00:00 AM	SICP1060, SITP 900, Blow down tbg. pump 25 bbl kill down tbg. release PKR.
1:00:00 PM	packer released could not go down hole, start flowing casing to pit. work packer to free stuck slipes. pulled to 7800' flow well around packer could not free slipes to running position.
4:00:00 PM	POOH with tbg. pump 80 BBL kill, recovered 50 bbl pumped 80bbl. pull to 3000 ft. pump 50 bbl kill. pull out with packer. pull down packer looking for problem. found metal shavings in slip body and two cracks in slip body slides.may have been keeping "J" slide from moving.
5:30:00 PM	pick up retriving head for bridge plug. RIH to4760 ft. 152 joints.
6:00:00 PM	Shut in, drain equipment.

Well Name : **Jack Canyon Unit State 14-32** API : 43-007-30913 Area : Nine Mile Canyon

Ops Date : 1/27/2004 Report # : 49

Summary : Flow test FTP 90. SICP 1060, 24hrs, recovered 96.23 bbls. Avg. 4.00 BPH. Totel recovered 717.37. 3 hrs dry gas blow. CO2 test 12%. totel BBLs flowed 744.37.

End Time	Description
7:00:00 AM	Flow test. Perfs 8130 to 8924, FTP 90. SICP 1060, 20/64 ck. 24 hrs. recovered 96.23 bbl, Avg. 4.00 BPH, Totel recover 717.37 BBLs. 3 hr. dry blow gas. CO2 12% (flow report)
3:00:00 PM	flow test, FTP 90. SICP 1060. recovered 26.9 bbl.8 hr. flow. Avg.3.36 BPH. Totel BBLs. Flowed 744.27.
5:00:00 PM	Drain flow back tank. change out valves on tank. ready equipment to move tools.
5:00:00 PM	Shut in for night

FORM 9

019

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

5. LEASE DESIGNATION AND SERIAL NUMBER: ML 43541

SUNDRY NOTICES AND REPORTS ON WELLS

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: n/a

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.

7. UNIT or CA AGREEMENT NAME: Jack Canyon

1. TYPE OF WELL: OIL WELL ☐ GAS WELL ☑ OTHER CONFIDENTIAL

8. WELL NAME and NUMBER: Jack Canyon Unit State 14-32

2. NAME OF OPERATOR: BILL BARRETT CORPORATION

9. API NUMBER: 4300730913

3. ADDRESS OF OPERATOR: 1099 18th St Ste 2300 CITY Denver STATE CO ZIP 80202

PHONE NUMBER: (303) 312-8120

10. FIELD AND POOL, OR WILDCAT: Jack Canyon Unit/Mancos

4. LOCATION OF WELL

FOOTAGES AT SURFACE: 531' FSL x 1479' FEL

COUNTY: Carbon

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SESW 32 12S 16E S

STATE: UTAH

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

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

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

PLEASE SEE ATTACHED CHRONOLOGICAL COMPLETION REPORTS FOR THIS WELL COVERING JANUARY 30 THROUGH FEBRUARY 5, 2004.

NAME (PLEASE PRINT) DEBRA K. STANBERRY TITLE PERMIT SPECIALIST

SIGNATURE DATE 2/6/2004

(This space for State use only)

RECEIVED
FEB 0 9 2004
DIV. OF OIL, GAS & MINING

(5/2000) (See Instructions on Reverse Side)

REGULATORY COMPLETION SUMMARY

Bill Barrett Corporation

Well Name : **Jack Canyon Unit State 14-32** API : 43-007-30913 Area : Nine Mile Canyon

Ops Date : 1/30/2004 Report # : 52

Summary : SITP. 0. SICP 0.Test Bluecastle 7870-7874, swab, fluid level 1000 ft. made 25 swab runs recovered 239.61 bbls. light blow after each run. well wouldnt flow. Casing CSIP 2PM 1350 PSI. release packer, RIH tage 12' fill on RBP, SDFN

End Time	Description
7:00:00 AM	SITP 0. SICP 0.
2:00:00 PM	Pick up swab RIH tage fluid @ 1000 Ft. made 24 swab runs recovered 239.61 BBLs, no flow after swab runs. lowest fluid level was 2500 ft. deepest swab pulled from 5700 ft. last 9 runs fluid level 500 ft. avg. 10 BBLs each run.
5:00:00 PM	ready well to move tools.
6:00:00 PM	pump 20 BBLs down tbg. Release HES. Champ packer pick up two joints tubing. run in hole with packer tage sand fill 7887 12 ft. sand fill on RBP. lay down two joints shut in for night.
6:00:00 PM	Shut in, drain equipment.

CONFIDENTIAL

REGULATORY COMPLETION SUMMARY

Bill Barrett Corporation

Well Name : **Jack Canyon Unit State 14-32** API : 43-007-30913 Area : Nine Mile Canyon

Ops Date : 2/5/2004 Report # : 56

Summary : flowing to pit 24/64 ck. sluging fluid. FTP 220 psi. change to flow tank. well shut in for production work. 5pm open well to flow tank o psi on tbg. no flow.

End Time	Description
	Enter the description here

CONFIDENTIAL

Well Name : **Jack Canyon Unit State 14-32** API : 43-007-30913 Area : Nine Mile Canyon

Ops Date : 2/4/2004 Report # : 55

Summary : flowing to pit. 450 psi. flowing to flow tank.24/64 ck.420 psi.

End Time	Description
7:00:00 AM	flowing to pit. 24/64 ck.450 psi
8:00:00 AM	run flow line to flow tank. 24/64 ck.
1:30:00 PM	flowing 5.5 hours recovered 180 bbls. avg of 32 BPH. 420 psi.gas cutt fluid.
3:00:00 PM	flowed 8 hours recovered 266 BBls. avg. 33.25 BPH, 350 psi.
11:59:59 PM	flow to pit over night to clean up. on 24/64 ck.

Well Name : **Jack Canyon Unit State 14-32** API : 43-007-30913 Area : Nine Mile Canyon

Ops Date : 2/3/2004 Report # : 54

Summary : SICP 1050. blow down casing pump 50 BBL kill, RIH with 2 3/8 tbg. production string.248 jts. 7772'. land on hanger. ND BOP, NU Tree.Flowing tbg. to pit. RDMO WSU.

End Time	Description
7:00:00 AM	Shut in over weekend. SICP 1050.
8:00:00 AM	Blow down casing, nipple up stripper head. pump 50 BBL Kill
11:00:00 AM	RIH with 2 3/8 notched coller one jt. X nipple one jt. XN nipple 246 jts. land on tbg. hanger. 7772'. totel tubing in well 248 joints.
12:00:00 PM	Land tbg. on hanger. ND BOPS, NU Well Head Tree.
3:00:00 PM	Rig down well service equipment. rig down well service Rig.
5:00:00 PM	tubing flowing to flow back manifold through two 24/64 chokes, 520 psi.

Well Name : **Jack Canyon Unit State 14-32** API : 43-007-30913 Area : Nine Mile Canyon

Ops Date : 1/31/2004 Report # : 53

Summary : SITP O. SICP 1300. POOH w/PKR. RIH W/retriving head. wash sand off plug release POOH.MIRU WWS.RIH with CIBP, set @7825, POOH RDMO

End Time	Description
7:00:00 AM	SITP 0. SICP 1300.
9:30:00 AM	Open well pull out of hole with HES, 5 1/2" packer pump 50 BBL kill down casing.
11:00:00 AM	Pick up 5 1/2" retriving head trip in hole pump 5bbl kill down tbg. tage sand fill @7888
11:45:00 AM	well flowing up casing unload kill fluid before washing sand.
12:30:00 PM	start pumping down tubing ,flowing up casing to pit. wash 12 ft. sand off bridge plug circ. up casing 20 min.latch on to bridge plug release plug.
3:30:00 PM	POOH with HES bridge plug. kill well as needed, pumped 90 BBLs. recovered 90 bbll + 50 BBLs. 140 totel bbls.
6:00:00 PM	Move in Weatherford intervention Services, Wire Line. Rig up pickup 51/2"Cast Iron Bridge Plug, RIH correlate to short joint @7132' run to setting depth check casing coller to depth set plug @7825 POOH rig down Weatherford Wire line move out. Close and lock BOPS for week end.
6:00:00 PM	Shut in for weekend.

Bill Barrett Corporation

020

February 10, 2004

Carol: I just today found out that this 14-32 well did indeed have first sales December 25, 2003. The daily report for that date shows that they were flowing back the frac stages. Sales line must have been right there and they just put the gas to the sales line. It was very minimal. I think something like 30 mcf for the entire month of December. But nonetheless it is the actual date of first sales.

I will get started on this completion report as well.

Debbie Stanberry
(303) 312-8120

RECEIVED
FEB 17 2004
DIV. OF OIL, GAS & MINING

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

021

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 9

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.

5. LEASE DESIGNATION AND SERIAL NUMBER:	ML 43541
6. IF INDIAN, ALLOTTEE OR TRIBE NAME:	n/a
7. UNIT or CA AGREEMENT NAME:	Jack Canyon
1. TYPE OF WELL: OIL WELL ☐ GAS WELL ☑ OTHER CONFIDENTIAL	8. WELL NAME and NUMBER: Jack Canyon Unit State 14-32
2. NAME OF OPERATOR: BILL BARRETT CORPORATION	9. API NUMBER: 4300730913
3. ADDRESS OF OPERATOR: 1099 18th St Ste 2300 CITY Denver STATE CO ZIP 80202 / PHONE NUMBER: (303) 312-8120	10. FIELD AND POOL, OR WILDCAT: Jack Canyon Unit/Mancos

4. LOCATION OF WELL

FOOTAGES AT SURFACE: 531' FSL x 1479' FEL — COUNTY: Carbon

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SESW 32 12S 16E S — STATE: UTAH

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

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

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

PLEASE SEE ATTACHED CHRONOLOGICAL COMPLETION REPORTS FOR THIS WELL COVERING FEBRUARY 6 THROUGH FEBRUARY 12, 2004.

NAME (PLEASE PRINT) DEBRA K. STANBERRY — TITLE PERMIT SPECIALIST

SIGNATURE _____ — DATE 2/13/2004

RECEIVED
FEB 17 2004
DIV. OF OIL, GAS & MINING

(This space for State use only)

(5/2000) (See Instructions on Reverse Side)

REGULATORY COMPLETION SUMMARY

CONFIDENTIAL

Bill Barrett Corporation

Well Name : **Jack Canyon Unit State 14-32** API : 43-007-30913 Area : Nine Mile Canyon

Ops Date : 2/10/2004 Report # : 61

Summary : check PSI. SITP 0, SICP 2150, rig to flow casing to pit. ND tree. NU BOPS. POOH with tubing & notched collar 100 bbls pumped to kill well. RIH w/ HES Mod. 2 BV-R.Bridge plug.set@7815. pull back to 6622 with tbg. swab in flow tbg.350 psi 24 ck.

End Time	Description
7:00:00 AM	SITP 0. SICP 2150 psi.
10:30:00 AM	Nipple down well head tree, casing valve frozen and flow line. nipple up BOPS.
1:00:00 PM	strip tubing hanger out. RIH tage cast Iron bridge plug @ 7825. lay down 2 jts. POOH standing tubing in derrick.249 jts notched collar. pumped 100 bbl top kill to get out of hole.
3:00:00 PM	pick up HES. 5 1/2" Model 2 B V. bridge plug. RIH to set bridge plug @ 7815, recovered 165BBls trace of sand in rig tank. pull out of hole to 6622 . 211 jts in well.
5:00:00 PM	rig swab run in hole fluid level surface. one run well flowing.
11:59:59 PM	rig flow line to flowback tank on 24/64 ck. 350 psi, SICP 550 psi.

Well Name : **Jack Canyon Unit State 14-32** API : 43-007-30913 Area : Nine Mile Canyon

Ops Date : 2/9/2004 Report # : 60

Summary : SI

End Time	Description
	shut in

Well Name : **Jack Canyon Unit State 14-32** API : 43-007-30913 Area : Nine Mile Canyon

Ops Date : 2/8/2004 Report # : 59

Summary : SI

End Time	Description
	shut in

Well Name : **Jack Canyon Unit State 14-32** API : 43-007-30913 Area : Nine Mile Canyon

Ops Date : 2/7/2004 Report # : 58

Summary : 0- PSI on tubing.no flow. MIRU WSU.

End Time	Description
7:00:00 AM	Check tubing for pressure. 0 psi.
3:00:00 PM	shut in
5:00:00 PM	road pulling unit to Loc. Rig up Well service unit. shut down for weekend.

Well Name : **Jack Canyon Unit State 14-32** API : 43-007-30913 Area : Nine Mile Canyon

Ops Date : 2/6/2004 Report # : 57

Summary : O-PSI on tbg.

End Time	Description
	Enter the description here

REGULATORY COMPLETION SUMMARY

CONFIDENTIAL

Bill Barrett Corporation

Well Name : **Jack Canyon Unit State 14-32** API : 43-007-30913 Area : Nine Mile Canyon

Ops Date : 2/13/2004 Report # : 64

Summary : Production

End Time	Description
	Enter the description here

Well Name : **Jack Canyon Unit State 14-32** API : 43-007-30913 Area : Nine Mile Canyon

Ops Date : 2/12/2004 Report # : 63

Summary : Flow back.recovered 371 BBLs, 14 Hr. Avg.26.51 BPH. Run tbg. from derrick. lay down 37 jts. land well on hanger @ 210 jts 6590.86. rig down equipment and WSU. MO

End Time	Description
7:00:00 AM	Flow back to flow tank, 24/64 ck. recovered 371 bbls. 14 hours, avg. 26.51 bph.
9:00:00 AM	pump 10 bbl tbg. kll RIH with tubing from derrick 18 stds. POOH lay down 37 joints .
10:30:00 AM	Land tubing on hanger @6590.86 210 joints in well. landing KB, 15.00 + .80 tbg. hanger. 208 jts. 2.375 N-80 tbg. X-N nipple 1.875 profile. 1 jt. N-80, X nipple 1.791 profile, 1 jt.23/8 .HES. Retriving tool for 5.5 RBP.@ 7815' hanger locked down.
11:30:00 AM	Nipple down BOPs, Nipple up Well head and flow lines.
1:00:00 PM	Rig down well service equipment, and pulling Unit.
3:00:00 PM	Move out Pulling unit, Cat snub Rig off Mountain, road to Harmon Canyon.

Well Name : **Jack Canyon Unit State 14-32** API : 43-007-30913 Area : Nine Mile Canyon

Ops Date : 2/11/2004 Report # : 62

Summary : SICP 1200, FTP 190, flowing on 24/64 ck. flow to flow back tank. gauge flowback water and pressure.

End Time	Description
7:00:00 AM	SICP 1200, FTP 190, flowing to pit on 24/64 ck.
8:00:00 AM	SICP 1225, FTP 200, 24/64 ck recovered 21.71 BBL
9:00:00 AM	SICP 1225, FTP 200, 24 ck, recovered 24.12 BBl
10:00:00 AM	SICP 1250, FTP 220, 24 ck. recovered 26.54 BBL.
11:00:00 AM	SICP 1300, FTP 200, 24 ck. recovered 26.54 BBL
12:00:00 PM	SICP 1300, FTP 210, 24 ck. recovered 28.95 bbl
1:00:00 PM	SICP 1350, FTP 200, 24 ck. recovered 24.12 bbl
2:00:00 PM	SICP 1350, FTP 210, 24 ck. recovered 24.12 bbl. totel bbls 7 hours 176.11. AVG.25.14 BPH
3:00:00 PM	SICP 1375, FTP 210, 24 ck. recovered 19.30 bbl.
4:00:00 PM	SICP 1400, FTP 200, 24 ck. recovered 26.35 bbl
4:30:00 PM	SICP 1400, FTP 210, 24 ck. recovered 16.14 bbl one half hour. totel bbls. 9.5 hours 237.94
5:00:00 PM	DRAIN FLOW TANK to pit 6" in tank (Avg. 25.04 BPH)
11:59:59 PM	flow to flow tank over night. 24 ck.

022

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 6

ENTITY ACTION FORM

Operator: Bill Barrett Corp

Operator Account Number: N 2165

Address: 1099 18th St Suite 2300

city Denver

state CO zip 80202

Phone Number: (303) 312-8121

Well 1

API Number	Well Name		QQ	Sec	Twp	Rng	County
4300730460	Jacks Cyn U 8-32		SENE	32	12S	16E	Carbon
Action Code	**Current Entity Number**	**New Entity Number**	**Spud Date**			**Entity Assignment Effective Date**	
D	12274	14057	5/6/2003			2/26/2004	

Comments: New Entity needed to match Unit requirements of Mesaverde and below. DOGM corrected error. ER

Well 2

API Number	Well Name		QQ	Sec	Twp	Rng	County
4300730913	Jacks Cyn U ST 14-32		SESW	32	12S	16E	Carbon
Action Code	**Current Entity Number**	**New Entity Number**	**Spud Date**			**Entity Assignment Effective Date**	
D	12274	14057	7/19/2003			2/26/2004	

Comments: New Entity needed to match Unit requirements of Mesaverde and below. DOGM corrected error. ER

Well 3

API Number	Well Name		QQ	Sec	Twp	Rng	County
Action Code	**Current Entity Number**	**New Entity Number**	**Spud Date**			**Entity Assignment Effective Date**	

Comments:

ACTION CODES:

- **A** - Establish new entity for new well (single well only)
- **B** - Add new well to existing entity (group or unit well)
- **C** - Re-assign well from one existing entity to another existing entity
- **D** - Re-assign well from one existing entity to a new entity
- **E** - Other (Explain in 'comments' section)

RECEIVED
FEB 26 2004
DIV. OF OIL, GAS & MINING

Earlene Russell For DOGM

Name (Please Print)

E Russell

Signature

Engineering Tech

Title

2/26/2004

Date

(5/2000)

023

CONFIDENTIAL

AMENDED REPORT ☐ (highlight changes) FORM 8

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

CONFIDENTIAL PERIOD EXPIRED ON 3-12-05

5. LEASE DESIGNATION AND SERIAL NUMBER: ML 43541

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: n/a

1a. TYPE OF WELL: OIL WELL ☐ GAS WELL ☑ DRY ☐ OTHER

7. UNIT or CA AGREEMENT NAME: JACK CANYON UNIT

b. TYPE OF WORK: NEW WELL ☑ HORIZ. LATS. ☐ DEEP-EN ☐ RE-ENTRY ☐ DIFF. RESVR. ☐ OTHER

8. WELL NAME and NUMBER: Jack Canyon Unit State #14-32

2. NAME OF OPERATOR: BILL BARRETT CORPORTION

9. API NUMBER: 4300730913

3. ADDRESS OF OPERATOR: 1099 18th St Ste 2300 CITY Denver STATE CO ZIP 80202

PHONE NUMBER: (303) 312-8120

10 FIELD AND POOL, OR WILDCAT: Jack Canyon/Mesaverde

4. LOCATION OF WELL (FOOTAGES)
AT SURFACE: 531' FSL x 1479' FEL
AT TOP PRODUCING INTERVAL REPORTED BELOW: same
AT TOTAL DEPTH: same

RECEIVED APR 05 2004 DIV. OF OIL, GAS & MINING

11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SESW 32 12S 16E S

12. COUNTY: CARBON

13. STATE: UTAH

14. DATE SPUDDED:	15. DATE T.D. REACHED:	16. DATE COMPLETED:	ABANDONED ☐	READY TO PRODUCE ☐	17. ELEVATIONS (DF, RKB, RT, GL):
8/1/2003	8/26/2003	2/12/2004			6921' GL

18. TOTAL DEPTH: MD 9,380 TVD	19. PLUG BACK T.D.: MD 9,290 TVD	20. IF MULTIPLE COMPLETIONS, HOW MANY? *	21. DEPTH BRIDGE PLUG SET: MD 7,825 TVD
		n/a	

22. TYPE ELECTRIC AND OTHER MECHANICAL LOGS RUN (Submit copy of each)
Special Density Dual Spaced Neutron; High Resolution Induction; Cement Bond Log, "SONIC/DELTA T"

23.

WAS WELL CORED?	NO ☑	YES ☐	(Submit analysis)
WAS DST RUN?	NO ☑	YES ☐	(Submit report)
DIRECTIONAL SURVEY?	NO ☑	YES ☐	(Submit copy)

24. CASING AND LINER RECORD (Report all strings set in well)

HOLE SIZE	SIZE/GRADE	WEIGHT (#/ft.)	TOP (MD)	BOTTOM (MD)	STAGE CEMENTER DEPTH	CEMENT TYPE & NO. OF SACKS	SLURRY VOLUME (BBL)	CEMENT TOP **	AMOUNT PULLED
12-1/4"	9-5/8 J55	36#	0	1,043		poz/ag 420		surface/CIR	
7-7/8"	5-1/2 N80	17#	0	9,361		POZ 987		2000'/CBL	

25. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
2-3/8"	6,591							

26. PRODUCING INTERVALS

FORMATION NAME	TOP (MD)	BOTTOM (MD)	TOP (TVD)	BOTTOM (TVD)
(A) Mesaverde	6,620	7,790		
(B)				
(C)				
(D)				

27. PERFORATION RECORD

INTERVAL (Top/Bot - MD)	SIZE	NO. HOLES	PERFORATION STATUS
9,220 9,224	0.51	12	Open ☑ Squeezed ☐
9,152 9,156	0.51	12	Open ☑ Squeezed ☐
8,922 8,924	0.51	6	Open ☑ Squeezed ☐
8,905 8,907	0.51	6	Open ☑ Squeezed ☐

28. ACID, FRACTURE, TREATMENT, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL	AMOUNT AND TYPE OF MATERIAL
9152 - 9224	70Q CO2 foam frac: 150 tons CO2, 88,000# 20/40 sand, 307 bbls fluid
8905 - 8924	70Q CO2 foam frac: 151 tons CO2, 92,300# 20/40 sand, 466 bbls fluid
8663 - 8821	70Q CO2 foam frac: 44 tons CO2, 30,640# 20/40 sand, 848 bbls slickwater

29. ENCLOSED ATTACHMENTS:

☐ ELECTRICAL/MECHANICAL LOGS ☐ GEOLOGIC REPORT ☐ DST REPORT ☐ DIRECTIONAL SURVEY
☐ SUNDRY NOTICE FOR PLUGGING AND CEMENT VERIFICATION ☐ CORE ANALYSIS ☐ OTHER:

30. WELL STATUS: SI

(5/2000)

(CONTINUED ON BACK)

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31. INITIAL PRODUCTION — **INTERVAL A (As shown in Item #26)**

DATE FIRST PRODUCED:	TEST DATE:	HOURS TESTED:	TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
12/25/2003							

CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:
										open

INTERVAL B (As shown in Item #26)

DATE FIRST PRODUCED:	TEST DATE:	HOURS TESTED:	TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:

CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

INTERVAL C (As shown in Item #26)

DATE FIRST PRODUCED:	TEST DATE:	HOURS TESTED:	TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:

CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

INTERVAL D (As shown in Item #26)

DATE FIRST PRODUCED:	TEST DATE:	HOURS TESTED:	TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:

CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

32. DISPOSITION OF GAS (Sold, Used for Fuel, Vented, Etc.)

SOLD

33. SUMMARY OF POROUS ZONES (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

34. FORMATION (Log) MARKERS:

Formation	Top (MD)	Bottom (MD)	Descriptions, Contents, etc.	Name	Top (Measured Depth)
				Wasatch	2,907
				Base Eocene	3,750
				North Horn	4,711
				Price River	6,443
				Base UPR	6,650
				Bluecastle	7,734
				Sego	8,080
				Castlegate	8,410
				Blackhawk	8,606
				Kenilworth	8,901

35. ADDITIONAL REMARKS (Include plugging procedure)

Logs previously submitted by Halliburton under separate cover. Completion report continued on attached page.

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records.

NAME (PLEASE PRINT) Debra K. Stanberry TITLE Permit Specialist

SIGNATURE DATE 4/1/2004

This report must be submitted within 30 days of

- completing or plugging a new well
- drilling horizontal laterals from an existing well bore
- recompleting to a different producing formation
- reentering a previously plugged and abandoned well
- significantly deepening an existing well bore below the previous bottom-hole depth
- drilling hydrocarbon exploratory holes, such as core samples and stratigraphic tests

* ITEM 20: Show the number of completions if production is measured separately from two or more formations.

** ITEM 24: Cement Top – Show how reported top(s) of cement were determined (circulated (CIR), calculated (CAL), cement bond log (CBL), temperature survey (TS)).

Send to: Utah Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801

Phone: 801-538-5340

Fax: 801-359-3940

(5/2000)

CONFIDENTIAL

JACK CANYON UNIT STATE #14-32
43-007-30913

27. Perforation Record

Perforated Inteval	Size	No. of Holes	Perf. Status	
8,820 - 8,821'	0.51	3	below CIBP	
8,730 - 8,731'	0.51	3	below CIBP	
8,684 - 8,686'	0.51	6	below CIBP	
8,663 - 8,665'	0.51	6	below CIBP	
8,426 - 8,441'	0.51	60	below CIBP	
8,412 - 8,426'	0.51	56	below CIBP	
8,356 - 8,358'	0.51	9	below CIBP	
8,316 - 8,318'	0.51	9	below CIBP	
8,307 - 8,309'	0.51	9	below CIBP	
8,050 - 8,060'	0.51	30	below CIBP	
7,870 - 7,874'	0.51	12	below CIBP	
7,786 - 7,790'	0.51	12	OPEN	
6,897 - 6,899'	0.51	8	OPEN	
6,852 - 6,854'	0.51	8	OPEN	
6,838 - 6,842'	0.51	16	OPEN	
6,620 - 6,626'	0.51	18	OPEN	

28. Acid,Fracture Treatment, Cement Squeeze, Etc.

Depth Interval	Amount and Type of Material
8,307' - 8,358'	70Q CO_2 FOAM FRAC: 104 tons CO_2; 54,000# 20/40 sand; 279 bbls fluid
8,050' - 8,060'	70Q CO_2 FOAM FRAC: 149 tons CO_2; 90,200# 20/40 sand; 315 bbls fluid
7,786' - 7,874'	70Q CO_2 FOAM FRAC: 160 tons CO_2; 200,000# 20/40 sand; 653 bbls fluid
6,620' - 6,626'	70Q CO_2 FOAM FRAC: 142 tons CO_2; 45,000# 20/40 sand; 230 bbls fluid

34 Formation (Log) Markers

FORMATION NAME	TOP (MD)
Aberdeen	9,146'
Spring Canyon	9,217'

35 Additional Remarks

Well has encountered problems. Currently SI pending further evaluation.
This well did have "first sales" December 25, 2003 while flowing back frac stages.
The sales line was in close proximity and the gas was put into the sales line.
Approximately 30 mcf has been produced and sold from this well to date.

Well file

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Utah State Office
P.O. Box 45155
Salt Lake City, UT 84145-0155
http://www.blm.gov

IN REPLY REFER TO:
3160
(U-922)

August 15, 2005

Certified Mail - Return Receipt Requested

Bill Barrett Corporation
attn: Doug Gundry White
1099 18th Street
Suite 2300
Denver, CO 80202

43007309 13
S 32 T 12S R16E

Re: Invalidation of Jack's Canyon Unit
Carbon County, Utah

Gentlemen:

In accordance with the Certification and Determination of the Jack's Canyon Unit Agreement, said unit agreement is hereby declared *invalid ab initio.*

The decision is based on your failure to commence drilling requirements within specified timeframes as outlined in Section 9 of the Jack's Canyon Unit Agreement.

You have the right to request a State Director Review of our decision as specified in 43 CFR 3165.3. Such request including all supporting documentation, must be filed in writing within twenty (20) business days of this notice to State Director (U-920), Bureau of Land Management, P.O. Box 45155, Salt Lake City, Utah 84145-0155. As stated in the regulations at 43 CFR 3165.3(e), a request for State Director Review does not automatically suspend the decision.

Sincerely,

/s/ Terry L. Catlin

Terry L. Catlin
Acting Chief, Branch of Fluid Minerals

bcc: DM Moab
Jack's Canyon Unit File
Mary Higgins U-942
Division of Oil, Gas, and Mining
SITLA
Agr. Sec. Chron.
Fluid Chron
Tickler (August 2005)

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 6

ENTITY ACTION FORM

Operator: Bill Barrett Corp

Operator Account Number: N 2165

Address: 1099 18th St, Suite 2300

city Denver

state CO zip 80208

Phone Number: (303) 312-8121

Well 1

API Number	Well Name		QQ	Sec	Twp	Rng	County
4300730913	Jacks Cyn U ST 14-32		SESW	32	12S	16E	Carbon
Action Code	**Current Entity Number**	**New Entity Number**	**Spud Date**			**Entity Assignment Effective Date**	
D	14057	15166				1/31/2006	
Comments: Unit invalidated by BLM effective 8/15/2005; New entity number assigned at request of SITLA so each well would have it's own entity. MVRD -K							

Well 2

API Number	Well Name		QQ	Sec	Twp	Rng	County
4300730460	Jacks Cyn U 8-32		SENE	32	12S	16E	Carbon
Action Code	**Current Entity Number**	**New Entity Number**	**Spud Date**			**Entity Assignment Effective Date**	
D	14057	15167				1/31/2006	
Comments: Unit invalidated by BLM effective 8/15/2005; New entity number assigned at request of SITLA so each well would have it's own entity. MVRD							

Well 3

API Number	Well Name		QQ	Sec	Twp	Rng	County
Action Code	**Current Entity Number**	**New Entity Number**	**Spud Date**			**Entity Assignment Effective Date**	
Comments:							

ACTION CODES:

- **A** - Establish new entity for new well (single well only)
- **B** - Add new well to existing entity (group or unit well)
- **C** - Re-assign well from one existing entity to another existing entity
- **D** - Re-assign well from one existing entity to a new entity
- **E** - Other (Explain in 'comments' section)

RECEIVED
JAN 31 2006
DIV. OF OIL, GAS & MINING

Earlene Russell for DOGM
Name (Please Print)

Earlene Russell
Signature

Engineering Technician — 1/31/2006
Title — **Date**

(5/2000)

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 28, 2008

CERTIFIED MAIL NO.: 7004 2510 0004 1824 5773

43 007 30913
Jack Cyn U St 14-32
12S 16E 32

Mr. Doug Gundy-White
Bill Barrett Corporation
1099 18th Street, Suite 2300
Denver, CO 80202

Re: Extended Shut-in and Temporarily Abandoned Well Requirements for Wells on Fee or State Leases

Dear Mr. Gundy-White:

As of July 2008, Bill Barrett Corporation has three (3) State Mineral Lease Wells (see attachment A) that are in non-compliance with the requirements for extended shut-in or temporarily abandoned (SI/TA) status. Wells SI/TA beyond twelve (12) consecutive months require the filing of a Sundry Notice in accordance with R649-3-36-1 for Utah Division of Oil, Gas & Mining ("Division") approval. Wells with five (5) years non-activity or non-productivity shall be plugged, unless the Division grants approval for extended shut-in time upon a showing of good cause by the operator (R649-3-36-1.3.3).

For extended SI/TA consideration the operator shall provide the Division with the following:

1. Reasons for SI/TA of the well (R649-3-36-1.1).

2. The length of time the well is expected to be SI/TA (R649-3-36-1.2), and

3. An explanation and supporting data if necessary, for showing the well has integrity, meaning that the casing, cement, equipment condition, static fluid level, pressure, existence or absence of Underground Sources of Drinking Water and other factors do not make the well a risk to public health and safety or the environment (R649-3-36-1.3).

1594 West North Temple, Suite 1210, PO Box 145801, Salt Lake City, UT 84114-5801
telephone (801) 538-5340 • facsimile (801) 359-3940 • TTY (801) 538-7458 • *www.ogm.utah.gov*

UTAH DNR OIL, GAS & MINING

Submitting the information suggested below may help show well integrity and may help qualify your well for extended SI/TA. **Note: As of July 1, 2003, wells in violation of the SI/TA rule R649-3-36 may be subject to full cost bonding (R649-3-1-4.2, 4.3).**

1. Wellbore diagram, and

2. Copy of recent casing pressure test, and

3. Current pressures on the wellbore (tubing pressure, casing pressure, and casing/casing annuli pressure) showing wellbore has integrity, and

4. Fluid level in the wellbore, and

5. An explanation of how the submitted information proves integrity.

If the required information is not received within 30 days of the date of this notice, further actions will be initiated. If you have any questions concerning this matter, please contact me at (801) 538-5281.

Sincerely,

Dustin K. Doucet
Petroleum Engineer

JP/js
Enclosure

cc: Jim Davis, SITLA
Well File
Compliance File

ATTACHMENT A

	Well Name	Location	API	Lease Type	Years Inactive
1	Jack Cyn U ST 14-32	SESW Sec 32-T12S-R16E	43-007-30913	State	3 years 8 months
2	Jack Canyon Unit 8-32	SENE Sec 32-T12S-R16E	43-007-30460	State	3 years 9 months
3	Peters Point ST 6-2D-13-16	NWSE Sec 02-T13S-R16E	43-007-31017	ML-48386	3 years 7 months

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 9

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.

5. LEASE DESIGNATION AND SERIAL NUMBER:	ML 43541
6. IF INDIAN, ALLOTTEE OR TRIBE NAME:	N/A
7. UNIT or CA AGREEMENT NAME:	Jack Canyon
1. TYPE OF WELL: OIL WELL ☐ GAS WELL ☑ OTHER	8. WELL NAME and NUMBER: Jack Canyon Unit State 14-32
2. NAME OF OPERATOR: Bill Barrett Corporation	9. API NUMBER: 4300730913
3. ADDRESS OF OPERATOR: 1099 18th Street, Suite 2300 CITY Denver STATE CO ZIP 80202 / PHONE NUMBER: (303) 312-8168	10. FIELD AND POOL, OR WILDCAT: Jack Canyon

4. LOCATION OF WELL

FOOTAGES AT SURFACE: 531' FSL, 1479 FWL — COUNTY: Carbon

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SESW 32 12S 16E — STATE: UTAH

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

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

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

This well is involved in lengthy litigation, resulting in BBC being precluded from entry and operations for the last several years. Upon resolution of the legal matters, BBC plans to enter the property and return the well to a producing status.

All casing and tubing run in the hole was new. From 12/2004 to 08/2005 the well produced 1.2 mmcf gas, (no oil) and 767 bbls water. At the time the well was last shut-in, wellhead casing pressure was 300#, tubing was also 300#. Annulus pressure data is not available. A wellbore diagram is attached.

Although the well site cannot be accessed, BBC is confident that well integrity is intact. Additionally, distant visual inspections of the site indicate no apparent surface modifications have occurred since the well was last shut-in.

COPY SENT TO OPERATOR
Date: 9·23·2008
Initials: KS

NAME (PLEASE PRINT) Tracey Fallang — TITLE Environmental/Regulatory Analyst

SIGNATURE Tracey Fallang — DATE 8/28/2008

(This space for State use only)

APPROVED BY THE STATE OF UTAH DIVISION OF OIL, GAS, AND MINING
DATE: 9/17/08
BY: Dustin Doucet
* Ext. Valid through 9/1/09

RECEIVED
SEP 08 2008
DIV. OF OIL, GAS & MINING

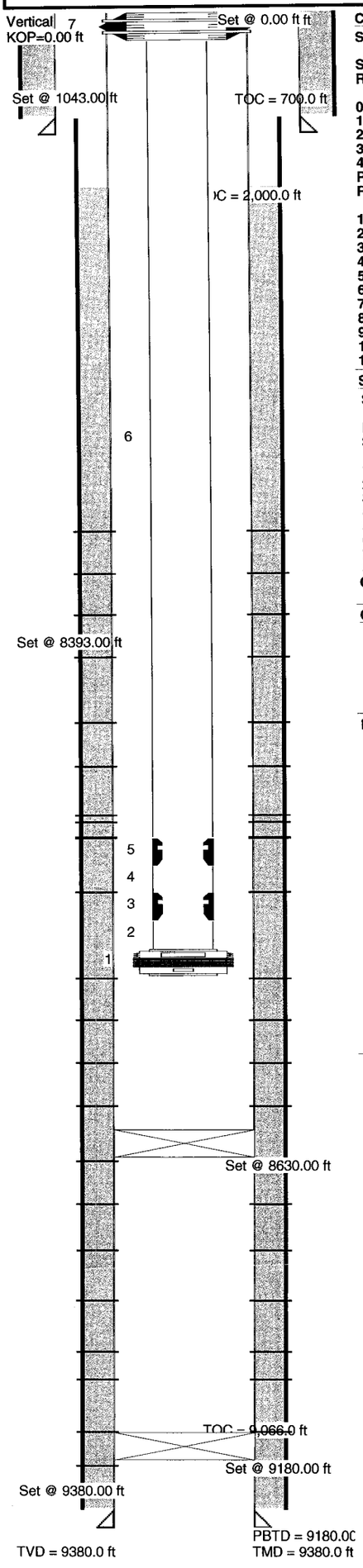
(5/2000) (See Instructions on Reverse Side)

Data Downhole Schematic

WELLCORE

Location Information

Business Unit	Bottom Hole Location	Well Name
Operations	SWSE-32-12S-16E-W6M	Jack Canyon Unit State #14-32-12-16
Project	API / License #	GL (ft) KB to GL (ft) KB (ft)
Uinta	43-007-30913	6921.0 0.0
Phase/Area	County	Summary Sections
West Tavaputs	Carbon	Casing Details, String Summary, Other Equipme
Surface Location	Summary Name	
SWSE-32-12S-16E-W6M	Bill Barrett Corporation	



Casing Details

Section	Hole Size (in)	Hole Depth (ft)	Casing Size (in)	Set At Depth (ft)
Surface	12.25	1060.00	9.63	1043.00

Run Order	Component	# Of	Length (ft)	Weight (lbs/ft)	Grade	OD (in)	ID (in)	Top (ft)	Bottom (ft)
0	Casing	1	19.80	36.00	J-55	9.63	8.92	-2.27	17.53
1	Shoe	1	1.50	36.00	J-55	9.63	0.00	1041.50	1043.00
2	Casing	1	43.19	36.00	J-55	9.63	8.92	998.31	1041.50
3	Collar	1	2.00	36.00	J-55	9.63	0.00	996.31	998.31
4	Casing	23	978.78	36.00	J-55	9.63	8.92	17.53	996.31

Production	7.88	9380.00	5.50	9380.00

Run Order	Component	# Of	Length (ft)	Weight (lbs/ft)	Grade	OD (in)	ID (in)	Top (ft)	Bottom (ft)
1	Shoe	1	1.50	17.00	N-80	5.50	0.00	9378.50	9380.00
2	Casing	1	47.28	17.00	N-80	5.50	4.89	9331.22	9378.50
3	Collar	1	2.00	17.00	N-80	5.50	0.00	9329.22	9331.22
4	Casing	23	1044.96	17.00	N-80	5.50	4.89	8284.26	9329.22
5	Casing	1	22.88	17.00	N-80	5.50	4.89	8261.38	8284.26
6	Casing	24	1104.40	17.00	N-80	5.50	4.89	7156.98	8261.38
7	Casing	1	22.93	17.00	N-80	5.50	4.89	7134.05	7156.98
8	Casing	24	1122.04	17.00	N-80	5.50	4.89	6012.01	7134.05
9	Casing	1	22.92	17.00	N-80	5.50	4.89	5989.09	6012.01
10	Casing	127	5973.46	17.00	N-80	5.50	4.89	15.63	5989.09
11	Casing	1	19.80	17.00	N-80	5.50	4.89	-4.17	15.63

String Summary Details

String Type	String #	Set At Depth (ft)	Install Date	Burst Pressure (psi)	Capacity	Run Inside
Production	1	8393.00	12/8/2005			

Section #	Component	Model	# Of	Length (ft)	Weight (lbs/ft)	Grade	OD (in)	Top (ft)	Bottom (ft)
1	Packer-Injection Disposal		0	4.25			4.70	8388.75	8393.00
2	Tubing		0	30.30			2.88	8358.45	8388.75
3	Nipple - Profile		0	1.40			2.88	8357.05	8358.45
4	Tubing		0	31.38			2.88	8325.67	8357.05
5	Nipple - Profile		0	1.15			2.88	8324.52	8325.67
6	Tubing		0	8307.86			2.88	16.66	8324.52
7	Tubing Hanger		0	0.80			7.00	15.86	16.66
8			0	15.00				0.86	15.86

Comments

Other Equipment

Item	Depth (ft)	Length (ft)	Install Date	Comments
Bridge Plug - Permanent	8630.00	0.00	7/16/2005	
Bridge Plug - Permanent	0.00	0.00	7/16/2005	
Bridge Plug - Permanent	0.00	0.00	7/16/2005	
Bridge Plug - Permanent	9180.00	0.00	2/9/2004	

Perforations

Int. #	Formation	Perf. Date	Perf. Top (ft)	Int Bottom (ft)	Status
1			9152.00	9156.00	
			9220.00	9224.00	
2			8905.00	8907.00	
			8922.00	8924.00	
3	Blackhawk		8663.00	8665.00	
			8684.00	8686.00	
			8730.00	8731.00	
			8820.00	8821.00	
3.1	Castlegate		8492.00	8510.00	
3.2	Castlegate		8462.00	8476.00	
3.5	Castlegate		8412.00	8426.00	
			8426.00	8441.00	
4	Neslen		8307.00	8309.00	
			8316.00	8318.00	
			8356.00	8358.00	
4.5	Neslen		8130.00	8132.00	
5	Bluecastle		8050.00	8060.00	
6	Bluecastle		7786.00	7790.00	
			7870.00	7874.00	
6.5	Price River		6838.00	6842.00	
			6852.00	6854.00	
			6897.00	6899.00	
7	Price River		6620.00	6626.00	

API Well No: 43007309130000

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

5.LEASE DESIGNATION AND SERIAL NUMBER: ML43541

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.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME:

1. TYPE OF WELL
Gas Well

8. WELL NAME and NUMBER:
JACK CYN U ST 14-32

2. NAME OF OPERATOR:
BILL BARRETT CORP

9. API NUMBER:
43007309130000

3. ADDRESS OF OPERATOR:
1099 18th Street Ste 2300 , Denver, CO, 80202

PHONE NUMBER:
303 312-8128 Ext

9. FIELD and POOL or WILDCAT:
UNDESIGNATED

4. LOCATION OF WELL
FOOTAGES AT SURFACE:
0531 FSL 1479 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:
Qtr/Qtr: SESW Section: 32 Township: 12.0S Range: 16.0E Meridian: S

COUNTY:
CARBON

STATE:
UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
✓ NOTICE OF INTENT Approximate date work will start: 6/15/2009	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
	☐ CHANGE WELL STATUS	✓ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
☐ SPUD REPORT Date of Spud:	✓ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
☐ DRILLING REPORT Report Date:	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

This sundry is being submitted to request approval to recomplete this well. BBC proposes to perf and flowback an additional ten stages on this well in the Mesaverde and Wasatch formations to increase production. In addition, in accordance with Utah Division of Oil, Gas, and Mining's Rule 649-3-22, Completion Into Two or More Pools, BBC requests approval to commingle the formations as noted above. Gas composition is similar across all formations. The pressure profile across the formations are similar and BBC does not anticipate any cross flow. Production is considered to be from one pool. In the event allocation by zone or interval is required, BBC would use representative sampling obtain from production logs and allocate on a % basis. Details are attached.

Approved by the Utah Division of Oil, Gas and Mining

Date: June 15, 2009

By:

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Tracey Fallang	303 312-8134	Regulatory Analyst
SIGNATURE		**DATE**
N/A		5/28/2009

RECEIVED May 28, 2009

API Well No: 43007309130000

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

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7.UNIT or CA AGREEMENT NAME:

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Gas Well

8. WELL NAME and NUMBER:
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BILL BARRETT CORP

9. API NUMBER:
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303 312-8128 Ext

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UNDESIGNATED

4. LOCATION OF WELL
FOOTAGES AT SURFACE:
0531 FSL 1479 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:
Qtr/Qtr: SESW Section: 32 Township: 12.0S Range: 16.0E Meridian: S

COUNTY:
CARBON

STATE:
UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
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☐ SUBSEQUENT REPORT Date of Work Completion:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
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	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
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☐ DRILLING REPORT Report Date:	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

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Approved by the Utah Division of Oil, Gas and Mining

Date: June 15, 2009

By:

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Tracey Fallang	303 312-8134	Regulatory Analyst
SIGNATURE		**DATE**
N/A		5/28/2009

RECEIVED May 28, 2009

Bill Barrett Corporation

Jack Canyon Unit #14-32-12-16

531' FSL, 1,479' FWL
Section 32, T12S-R16E
Carbon County, UT
API #: 43-007-30913
AFE #: 10862R

Objective:

Rig up work over rig, pull existing tubing and prepare well for recompletion of the Dark Canyon, North Horn, and Upper Wasatch formations. MIRU Halliburton and CO_2 providers and frac stages R1 – R10 per procedures below.

Current Wellbore Configuration:

Surface Casing: 9-5/8" 36.0# J-55 Set @ 1,043'
Production Casing: 5-1/2", 17.0# N-80 set @ 9,380' MD/TVD
* - All depths are give as KB depths. Rig KB = 16.0'
Production Casing Properties:

ID:	4.892"
Drift:	4.767"
Capacity:	0.0232 bbl/ft
Burst Pressure:	7,740 psi
Collapse Pressure:	6,280 psi

Production Tubing: 2-7/8", 6.5#, N-80 EUE, 8rd tubing set @ 8,393' (251 Jts.)
Production Tubing Properties:

ID:	2.441"
Drift:	2.347"
Capacity:	0.00579 bbl/ft
Burst Pressure:	10,570 psi
Collapse Pressure:	11,160 psi

PBTD = 8,630' (CIBP)

Current Well Status:

Shut in.

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Re-Completion Procedure:

1. Contact BBC production personnel in the Roosevelt office and inform them of planned activity: (435) 725-3515.
2. Survey location and existing equipment on location (re-spot equipment as necessary).
3. Prepare location as necessary for work over rig and frac equipment.
    a. Verify rig anchors are properly placed and available for use, re-set if necessary.
    b. Verify that location size is sufficient to accommodate frac and CO_2 equipment.
4. MIRU work over rig, spot in necessary equipment.
5. Top kill well with fresh or lease water.
6. ND production tree and nipple up BOP's.
7. Pick up on tubing and un-set packer:
    a. HES 5.5 17# PLS packer with 30,000 # shear
    b. Set with 20,000 lb compression
8. Pull out of hole with existing tubing string, EOT is at 8,393'.
    a. Wellhead Inc. tubing hanger (0.80')
    b. 268 Joints of 2-7/8", 6.5#, N-80, EUE tubing
    c. X Nipple (2.313" ID)
    d. 1 joint 2-7/8", 6.5#, N-80, EUE tubing
    e. XN Nipple (2.205" ID)
    f. 1 joint 2-3/8", 4.7#, N-80, EUE tubing
    g. PLS packer.
9. Top kill well if needed with fresh or lease water.
10. PU 4.75" bit and casing scraper, RIH to PBTD @ 8,630'
    a. Collect samples of any cuttings returning to surface for analysis.
        i. Send all samples to Halliburton's lab.
11. POOH with bit and casing scraper, LD tubing onto trailer.
12. Transfer N-80 tubing to separate location for storage while fracturing.
13. Top kill well, ND BOP's NU frac tree.
14. RD and move out work over rig.
15. RU Schlumberger wireline unit.
16. RIH with gauge ring to PBTD, making sure wellbore is clear.
17. RIH and set solid CBP @ +/- 6,560'
18. POOH with wireline.
19. Pressure test existing 5-1/2" N-80 production casing to 5,000 psi (approximately 70% of rated burst)
    a. Utilize methanol for test if temperatures dictate.
    b. Notify Denver office of pressure test results.
20. MIRU Halliburton frac equipment and CO_2 vessels, prepare for frac.
21. Pressure test all surface lines prior to beginning pumping.

RECEIVED May 28, 2009

22. RIH with SLB wireline and perforate stage **R1**, Dark Canyon, as follows with 1 SPF, 180 phasing, 0.34" EH with SLB Power-Jet Omega guns.
    a. 6,450' – 6,460'
    b. 6,470' – 6,480'
    c. 6,495' – 6,505'
    d. Note: correlate all depths to CBL.
23. POOH with wireline and spent perforating guns, verify that all shots fired.
24. Pressure test Halliburton surface lines and equipment.
25. Frac Stage **R1**, Dark Canyon, per Halliburton's recommendation with 70Q CO_2.
26. RIH with SLB wireline and set composite flow through frac plug @ +/-6,250'.
27. RIH with SLB wireline and perforate stage **R2**, North Horn, as follows with 3 SPF, 120 phasing, 0.34" EH with SLB Power-Jet Omega guns.
    a. 6,190 – 6,200'
    b. Note: correlate all depths to CBL.
28. POOH with wireline and spent perforating guns, verify that all shots fired.
29. Pressure test Halliburton surface lines and equipment.
30. Frac Stage **R2**, North Horn, per Halliburton's recommendation with 70Q CO_2.
31. RIH with SLB wireline and set composite flow through frac plug @ +/- 6,000'
32. Perforate stage **R3**, North Horn, as follows with 3 SPF, 120 phasing, 0.34" EH with SLB Power-Jet Omega guns.
    a. 5,935 – 5,945'
    b. Note: correlate all depths to CBL.
33. POOH with wireline and spent perforating guns, verify that all shots fired.
34. Pressure test Halliburton surface lines and equipment.
35. Frac Stage **R3**, North Horn, per Halliburton's recommendation with 70Q CO_2.
36. RIH with SLB wireline and set composite flow through frac plug @ +/- 5,300'
37. Perforate stage **R4**, North Horn, as follows with 3 SPF, 120 phasing, 0.34" EH with SLB Power-Jet Omega guns.
    a. 5,240 – 5,250'
    b. Note: correlate all depths to CBL.
38. POOH with wireline and spent perforating guns, verify that all shots fired.
39. Pressure test Halliburton surface lines and equipment.
40. Frac Stage **R4**, North Horn, per Halliburton's recommendation with 70Q CO_2.
41. RIH with SLB wireline and set composite flow through frac plug @ +/- 5,130'
42. Perforate stage **R5**, North Horn, as follows with 3 SPF, 120 phasing, 0.34" EH with SLB Power-Jet Omega guns.
    a. 5,067 – 5,077'
    b. Note: correlate all depths to CBL.
43. POOH with wireline and spent perforating guns, verify that all shots fired.
44. Pressure test Halliburton surface lines and equipment.
45. Frac Stage **R5**, North Horn, per Halliburton's recommendation with 70Q CO_2.
46. RIH with SLB wireline and set composite flow through frac plug @ +/- 3,040'
47. Perforate stage **R6**, Middle Wasatch, as follows with 3 SPF, 120 phasing, 0.34" EH with SLB Power-Jet Omega guns.
    a. 4,457 – 4,465'
    b. 4,580 – 4,584'

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c. Note: correlate all depths to CBL.

48. POOH with wireline and spent perforating guns, verify that all shots fired.
49. Pressure test Halliburton surface lines and equipment.
50. Frac Stage **R6**, Middle Wasatch, per Halliburton's recommendation with 70Q CO_2.
51. RIH with SLB wireline and set composite flow through frac plug @ +/- 2,760'
52. Perforate stage **R7**, Uteland Butte, as follows with 1 SPF, 180 phasing, 0.34" EH with SLB Power-Jet Omega guns.
    a. 4,004 – 4,006'
    b. 4,018 – 4,022'
    c. 4,026 – 4,028'
    d. 4,035 – 4,037'
    e. 4,040 - 4,042'
    f. 4,045 – 4,047'
    g. 4,054 – 4,060'
    h. 4,100 – 4,104'
    i. Note: correlate all depths to CBL.
53. POOH with wireline and spent perforating guns, verify that all shots fired.
54. Pressure test Halliburton surface lines and equipment.
55. Frac Stage **R7**, Uteland Butte, per Halliburton's recommendation with 70Q CO_2.
56. RIH with SLB wireline and set composite flow through frac plug @ +/- 3,980'
57. Perforate stage **R8**, Uteland Butte, as follows with 3 SPF, 120 phasing, 0.34" EH with SLB Power-Jet Omega guns.
    a. 5,3,956 – 3,966'
    b. Note: correlate all depths to CBL.
58. POOH with wireline and spent perforating guns, verify that all shots fired.
59. Pressure test Halliburton surface lines and equipment.
60. Frac Stage **R8**, Uteland Butte, per Halliburton's recommendation with 70Q CO_2.
61. RIH with SLB wireline and set composite flow through frac plug @ +/- 5,130'
62. Perforate stage **R9**, Uteland Butte, as follows with 1 SPF, 180 phasing, 0.34" EH with SLB Power-Jet Omega guns.
    a. 3,770 – 3,780'
    b. 3,820 – 3,830'
    c. Note: correlate all depths to CBL.
63. POOH with wireline and spent perforating guns, verify that all shots fired.
64. Pressure test Halliburton surface lines and equipment.
65. Frac Stage **R9**, Uteland Butte, per Halliburton's recommendation with 70Q CO_2.
66. RIH with SLB wireline and set composite flow through frac plug @ +/- 3,710'
67. Perforate stage **R10**, Uteland Butte, as follows with 3 SPF, 120 phasing, 0.34" EH with SLB Power-Jet Omega guns.
    a. 3,610 – 3,614'
    b. 3,659 – 3,663'
    c. Note: correlate all depths to CBL.
68. POOH with wireline and spent perforating guns, verify that all shots fired.
69. Frac Stage **R10**, Uteland Butte, per Halliburton's recommendation with 70Q CO_2.
70. Rig down and move out Halliburton equipment and Schlumberger wireline.

71. Begin flowback of stages R1 – R10 through flow test equipment.
    a. Note: the shallow zones are expected to produce oil/condensate, be prepared to transfer these liquids to BBC production tanks.
72. Evaluate well based on flowback performance. A decision will be made based on well potential how to proceed.

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Bill Barrett Corporation

Jack Canyon # 14-32

531' FSL & 1479' FWL
SWSE Sec 32-T12-R16E
Carbon Co., UT

API: 43-007-3091300000
WI: 1.0000000
NRI: 0.7800339

Last mod: 1/5/2006 JMM
Status: **Converting to SWD**

ACTUAL CASTLEGATE SWD WELL

GL: 6,921'
RKB: 6,937'
Spud: 8/1/2003
Rig Release: 8/28/2003
Completed: 2/12/2004
1st Sales: 12/25/2003

Abbreviated Proceedure for Convertion to SWD
1) Pull existing 2-3/8" tubing;
2) Retrieve RBP @7,815';
3) Mill out BP @7,825';
4) Clean out well to 8,650';
5) Set CIBP + 50' cement @8,630'. TOC @+/- 8,580',
6) Set permanent packer @+/- 8,390 on 2-7/8" tubing.
SWD planned for **maximum** 1,700 bwpd @1,500 psi

2-7/8" 6.5# N-80 EUE 8rd Tubing Injection String

OD:	2.875"	Burst:	10,570 psi
ID:	2.441"	Collapse:	11,170 psi
Drift:	2.347"	Yield:	145 kips
Capacity:	0.005788 bbls/ft		

Top Upper Price River: 6,443'

Base Upper Price River: 6,650'

Top Bluecastle: 7,740'

Top Upper Sego: 8,080'

Top Castlegate: 8,410'

Castlegate Interval Perforations

3-3/8" Exp: 25g; 90°; 4spf; (12-23-03)	56 shots	14'	8,412'	8,426'
	60 shots	15'	8,426'	8,441'
3-3/8" Exp: 39g; 90°; 4spf; (08-25-05)	56 shots	14'	8,462'	8,476'
	72 shots	18'	8,492'	8,510'
	244 shots	61'		

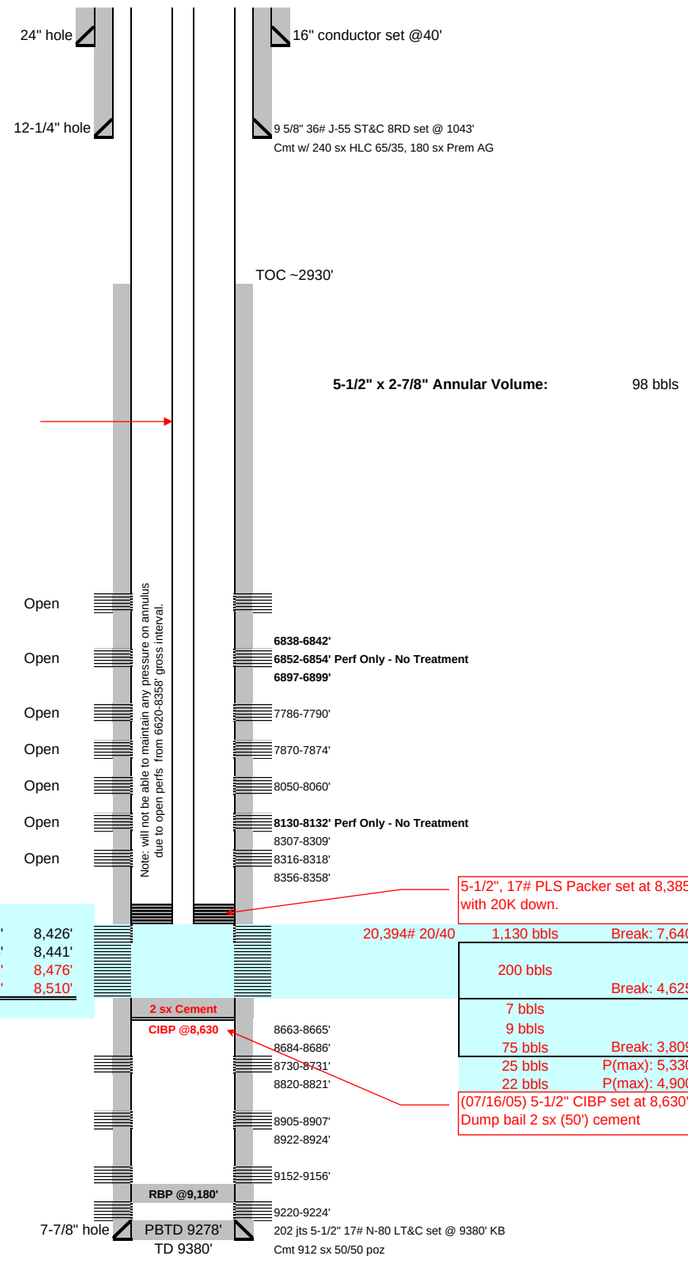
Top Blackhawk: 8,606'

Kenilworth

Aberdeen

Spring Canyon

5-1/2" 17# N-80 LT&C specs:
ID-4.892"
Drift-4.767'
Burst-7740 psi
Collapse-6280 psi



5-1/2" x 2-7/8" Annular Volume: 98 bbls

20,394# 20/40	1,130 bbls	Break: 7,640 psi	Break: 12.0 bpm	P(avg): 7,326 psi	R(avg): 23.1 bpm	8,385'	8,580'	ISDP: 3,288 psi	FG: 0.83 psi/ft	12/18/2005	Castlegate Slickwater Frac
				P(avg): 5,060 psi	R(avg): 4.3 bpm	8,393'	8,454'	ISDP: 2,850 psi	FG: 0.77 psi/ft		3rd Castlegate acid breakdown + 25 balls
	200 bbls			P(avg): 2,780 psi	R(avg): 4.8 bpm	8,455'	8,485'	ISDP: 0 psi	Communication	9/28/2005	2nd Castlegate acid breakdown
		Break: 4,625 psi	Break: 3.5 bpm	P(avg): 2,750 psi	R(avg): 4.8 bpm	8,485'	8,525'	ISDP: 0 psi	Communication		1st Castlegate acid breakdown
	7 bbls			P(min): 2,835 psi	R(min): 0.3 bpm	8,397'	8,580'	ISDP: 2,585 psi	FG: 0.74 psi/ft		
	9 bbls			P(min): 2,900 psi	R(min): 1.0 bpm	8,397'	8,580'	ISDP: 2,616 psi	FG: 0.74 psi/ft	8/25/2005	3rd Castlegate breakdown attempt.
	75 bbls	Break: 3,809 psi	Break: 3.9 bpm	P(max): 5,988 psi	R(max): 5.0 bpm	8,397'	8,580'	ISDP: 2,850 psi	FG: 0.77 psi/ft		
	25 bbls	P(max): 5,330 psi	R(max): 3.3 bpm	P(max): 5,330 psi	R(max): 3.3 bpm			NA	NA	7/27/2005	2nd Castlegate breakdown attempt
	22 bbls	P(max): 4,900 psi	R(max): 2.3 bpm	P(max): 4,900 psi	R(max): 2.3 bpm			NA	NA	7/26/2005	1st Castlegate breakdown attempt

(07/16/05) 5-1/2" CIBP set at 8,630'
Dump bail 2 sx (50') cement

AFFIDAVIT

Affiant on oath swears that the following statements are true:

My Name is Douglas W. G. Gundry-White. I am a Senior Landman with Bill Barrett Corporation (BBC). BBC has submitted Sundry Notices to commingle production from the Mesaverde and Wasatch formations in the Jack Canyon Unit State 14-32 located in the SESW of Section 32, Township 12 South, Range 16 East and the Jack Canyon Unit State 8-32 located in the SENE of Section 32, Township 12 South, Range 16 East. In compliance with the Utah OGM regulation R649-3-22, I have provided a copy of the Sundry Notices, by certified mail, to the owners as listed below of all contiguous oil and gas leases or drilling units overlying the pool.

State of Utah
School and Institutional Trust Lands Administration
675 East 500 South, Suite 500
Salt Lake City, UT 84102

Bureau of Land Management
440 W. 200 S., Suite 500
Salt Lake City, Utah 84101

Petro Canada Res (USA) Inc.
999 18th Street, #600
Denver, CO 80202-2499

EOG Resources Inc.
P. O. Box 4362
Houston, TX 77210-4362

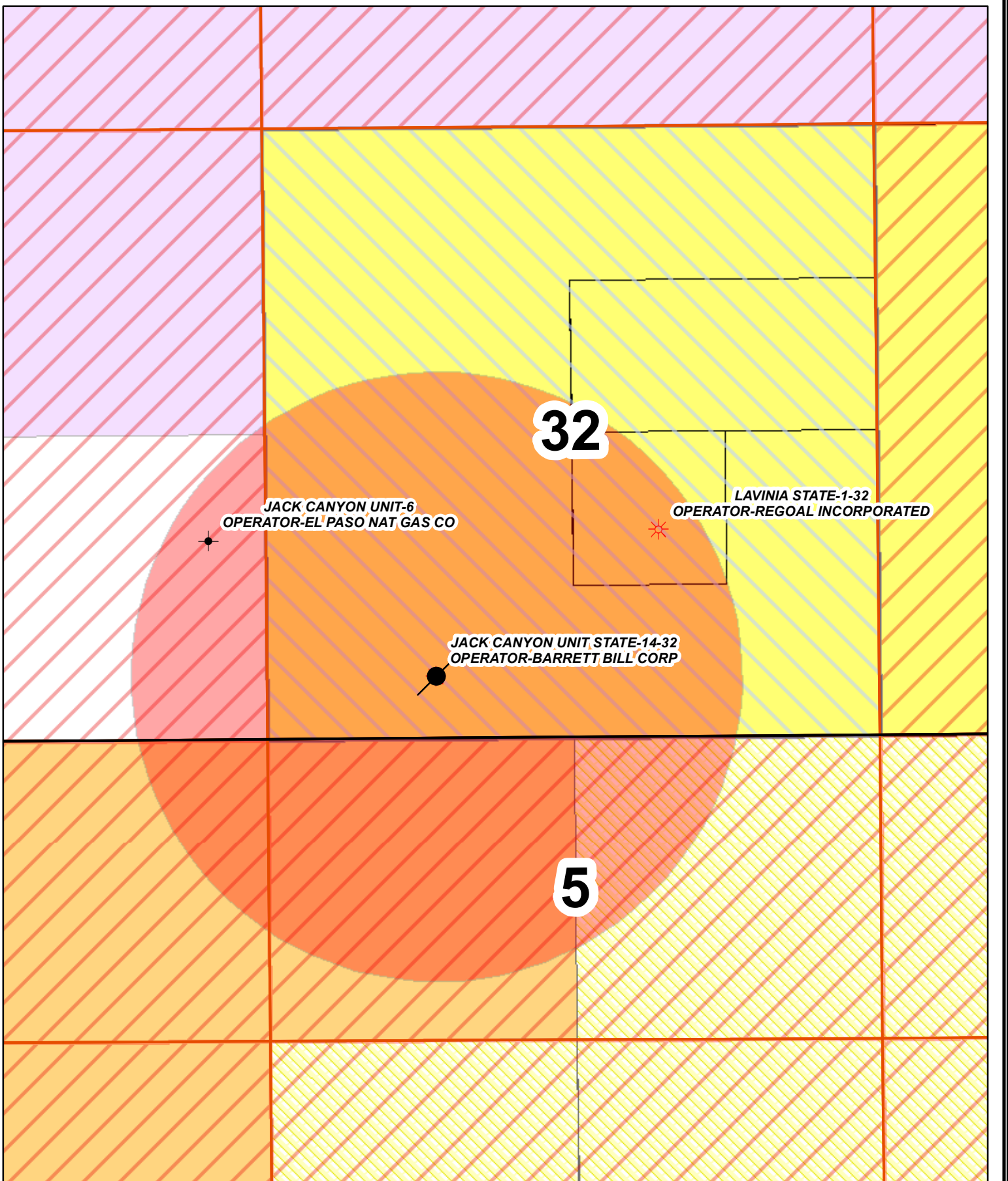
Gasco Production Co.
8 Inverness Dr. E #100
Englewood, CO 80112

XTO Energy, Inc.
810 Houston St.
Fort Worth, TX 76102-6298

Regoal Inc.
7096 South 4000 East
Price, UT 84501

Date: 5/28/09 Affiant

Douglas W. G. Gundry-White



Bill Barrett Corporation

PROPOSED INJECTION WELL
Well Location, JACK CANYON STATE #14-32
Located as shown in the SWSW 1/4
of Section 32, T12S-R16E Carbon County, Utah

Wells
- 14-32 Proposed Injection Well
- D&A
- GAS
- 1/2 Mile Well Buffer

Surface
- FEDERAL SURFACE
- STATE SURFACE

Leased
- BILL BARRETT CORP.
- BILL BARRETT CORP (PENDING)
- EOG-75% / GASCO-25%
- PETRO CANADA

N

RECEIVED May 28, 2009

Bill Barrett Corporation

May 28, 2009

Utah Division of Oil, Gas & Mining
1594 W. North Temple, Suite 1210
Salt Lake City, UT 84116
Attention: Dustin Doucet

RE: Sundry Notices
Jack Canyon Unit State 14-32 API #43-007-30913
Jack Canyon Unit State 8-32 API #43-007-30460
Carbon Co., UT

Dear Mr. Doucet:

Bill Barrett Corporation has submitted Sundry Notices to commingle production from the Mesaverde and Wasatch formations in the subject wells. We enclosed herewith copies of the Sundry Notices together with plats showing the leases and wells in the area and a Affidavit confirming notice pursuant to the Utah OGM regulations.

Should you require additional information in this regard, please feel free to contact me at 303-312-8129. Your earliest attention to this matter is most appreciated.

BILL BARRETT CORPORATION

Doug Gundry-White
Senior Landman

Enclosures

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

Bill Barrett Corporation

May 28, 2009 Certified Mail 7008 1830 0000 4985 6744

State of Utah
School and Institutional Trust Lands Administration
675 East 500 South, Suite 500
Salt Lake City, UT 84102

RE: Sundry Notices
Jack Canyon Unit State 14-32
Jack Canyon Unit State 8-32
Section 32, T12S - R16E
Carbon Co., UT

Gentlemen:

Bill Barrett Corporation has submitted Sundry Notices to commingle production from the Mesaverde and Wasatch formations in the JCU State 14-32 and JCU State 8-32 wells. As required by the Utah OGM regulations R649-3-22, BBC has enclosed copies of the completed Sundry Notices.

Should you require additional information in this regard, please feel free to contact me at 303-312-8129.

BILL BARRETT CORPORATION

Doug Gundry-White
Senior Landman

Enclosures

RECEIVED May 28, 2009

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

Bill Barrett Corporation

May 28, 2009

Bureau of Land Management
440 W. 200 S., Suite 500
Salt Lake City, Utah 84101

Certified Mail 7008 1830 0000 5158 6998

RE: Sundry Notices
Jack Canyon Unit State 14-32
Jack Canyon Unit State 8-32
Section 32, T12S - R16E
Carbon Co., UT

Gentlemen:

Bill Barrett Corporation has submitted Sundry Notices to commingle production from the Mesaverde and Wasatch formations in the JCU State 14-32 and JCU State 8-32 wells. As required by the Utah OGM regulations R649-3-22, BBC has enclosed copies of the completed Sundry Notices.

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BILL BARRETT CORPORATION

Doug Gundry-White
Senior Landman

Enclosures

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

Bill Barrett Corporation

May 28, 2009

Petro Canada Res (USA) Inc.
999 18th Street, #600
Denver, CO 80202-2499

Certified Mail 7008 1830 0000 5160 8409

RE: Sundry Notices
Jack Canyon Unit State 14-32
Section 32, T12S - R16E
Carbon Co., UT

Gentlemen:

Bill Barrett Corporation has submitted Sundry Notices to commingle production from the Mesaverde and Wasatch formations in the JCU State 14-32 well. As required by the Utah OGM regulations R649-3-22, BBC has enclosed a copy of the completed Sundry Notices.

Should you require additional information in this regard, please feel free to contact me at 303-312-8129.

BILL BARRETT CORPORATION

Doug Gundry-White
Senior Landman

Enclosures

RECEIVED May 28, 2009

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

Bill Barrett Corporation

May 28, 2009

EOG Resources, Inc.
P. O. Box 4362
Houston, TX 77210-4362

Certified Mail 7008 1830 0000 5160 8423

RE: Sundry Notices
Jack Canyon Unit State 14-32
Jack Canyon Unit State 8-32
Section 32, T12S - R16E
Carbon Co., UT

Gentlemen:

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Should you require additional information in this regard, please feel free to contact me at 303-312-8129.

BILL BARRETT CORPORATION

Doug Gundry-White
Senior Landman

Enclosures

RECEIVED May 28, 2009

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

Bill Barrett Corporation

May 28, 2009

Gasco Production Co.
8 Inverness Dr. E, #100
Englewood, CO 80112

Certified Mail 7008 1830 0000 5160 8393

RE: Sundry Notices
Jack Canyon Unit State 14-32
Jack Canyon Unit State 8-32
Section 32, T12S - R16E
Carbon Co., UT

Gentlemen:

Bill Barrett Corporation has submitted Sundry Notices to commingle production from the Mesaverde and Wasatch formations in the JCU State 14-32 and JCU State 8-32 wells. As required by the Utah OGM regulations R649-3-22, BBC has enclosed copies of the completed Sundry Notices.

Should you require additional information in this regard, please feel free to contact me at 303-312-8129.

BILL BARRETT CORPORATION

Doug Gundry-White
Senior Landman

Enclosures

RECEIVED May 28, 2009

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

Bill Barrett Corporation

May 28, 2009

XTO Energy, Inc.
810 Houston St.
Fort Worth, TX 76102-6298

Certified Mail 7008 1830 0000 5160 8416

RE: Sundry Notices
Jack Canyon Unit State 14-32
Jack Canyon Unit State 8-32
Section 32, T12S - R16E
Carbon Co., UT

Gentlemen:

Bill Barrett Corporation has submitted Sundry Notices to commingle production from the Mesaverde and Wasatch formations in the JCU State 14-32 and JCU State 8-32 wells. As required by the Utah OGM regulations R649-3-22, BBC has enclosed copies of the completed Sundry Notices.

Should you require additional information in this regard, please feel free to contact me at 303-312-8129.

BILL BARRETT CORPORATION

Doug Gundry-White
Senior Landman

Enclosures

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

Bill Barrett Corporation

May 28, 2009

Regoal, Inc.
7096 South 4000 East
Price, UT 84501

Certified Mail 7008 1830 0000 5160 8461

RE: Sundry Notices
Jack Canyon Unit State 14-32
Jack Canyon Unit State 8-32
Section 32, T12S - R16E
Carbon Co., UT

Gentlemen:

Bill Barrett Corporation has submitted Sundry Notices to commingle production from the Mesaverde and Wasatch formations in the JCU State 14-32 and JCU State 8-32 wells. As required by the Utah OGM regulations R649-3-22, BBC has enclosed copies of the completed Sundry Notices.

Should you require additional information in this regard, please feel free to contact me at 303-312-8129.

BILL BARRETT CORPORATION

Doug Gundry-White
Senior Landman

Enclosures

RECEIVED May 28, 2009

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

INSPECTION FORM 6

STATE OF UTAH
DIVISION OF OIL GAS AND MINING

INJECTION WELL - PRESSURE TEST

Well Name: Jack Canyon St 14-32 API Number: 43-007-30913
Qtr/Qtr: SW/SE Section: 32 Township: 12S Range: 16E
Company Name: Bill Barrett
Lease: State ✓ Fee ____ Federal ____ Indian ____
Inspector: Dennis Ingram Date: 11/16/09

Initial Conditions:

Tubing - Rate: Ø Pressure: Sack psi

Casing/Tubing Annulus - Pressure: 1575 psi

Conditions During Test:

Time (Minutes)	Annulus Pressure	Tubing Pressure
0	1575	Ø
5	1575	Ø
10	1575	Ø
15	1575	Ø
20	1575	Ø
25	1575	Ø
30	1575	Ø

Results: Pass/Fail

Conditions After Test:

Tubing Pressure: Ø psi

Casing/Tubing Annulus Pressure: 1575 psi

COMMENTS: Tested @ 11:15 AM Gauges - No Chart

Russell Evans
Operator Representative

API Well No: 43007309130000

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

5.LEASE DESIGNATION AND SERIAL NUMBER: ML43541

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.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME:

1. TYPE OF WELL
Gas Well

8. WELL NAME and NUMBER:
JACK CYN U ST 14-32

2. NAME OF OPERATOR:
BILL BARRETT CORP

9. API NUMBER:
43007309130000

3. ADDRESS OF OPERATOR:
1099 18th Street Ste 2300 , Denver, CO, 80202

PHONE NUMBER:
303 312-8128 Ext

9. FIELD and POOL or WILDCAT:
UNDESIGNATED

4. LOCATION OF WELL
FOOTAGES AT SURFACE:
0531 FSL 1479 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:
Qtr/Qtr: SESW Section: 32 Township: 12.0S Range: 16.0E Meridian: S

COUNTY:
CARBON

STATE:
UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
✓ NOTICE OF INTENT Approximate date work will start: 1/4/2010	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ DRILLING REPORT Report Date:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	✓ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Bill Barrett Corporation (BBC) is filing this sundry to request a one year extension to the SI TA status. A mechanical integrity test was conducted on 11/16/2009 and witnessed by Dennis Ingram. BBC is currently evaluating plans conversion plans on this wellbore to a saltwater disposal well.

Approved by the Utah Division of Oil, Gas and Mining

Date: January 11, 2010

By:

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Tracey Fallang	303 312-8134	Regulatory Analyst
SIGNATURE		**DATE**
N/A		1/4/2010

The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

Sundry Conditions of Approval Well Number 43007309130000

SI/TA Extension valid through 12/1/2010. See Division pressure test worksheet signed and dated 11/16/2009 showing successful MIT.

Approved by the
Utah Division of
Oil, Gas and Mining

Date: January 11, 2010

By:

RECEIVED
SEP 13 2010
DIV. OF OIL, GAS & MINING

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

AMENDED REPORT ☑ (highlight changes) — FORM 8

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. LEASE DESIGNATION AND SERIAL NUMBER: ML43541
6. IF INDIAN, ALLOTTEE OR TRIBE NAME: N/A
7. UNIT or CA AGREEMENT NAME: Jack Canyon Unit
8. WELL NAME and NUMBER: Jack Canyon Unit State #14-32
9. API NUMBER: 4300730913
10. FIELD AND POOL, OR WILDCAT: Jack Canyon/Mesaverde
11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SESW 32 12S 16E
12. COUNTY: Carbon
13. STATE: UTAH

1a. TYPE OF WELL: OIL WELL ☐ GAS WELL ☑ DRY ☐ OTHER
b. TYPE OF WORK: NEW WELL ☑ HORIZ. LATS. ☐ DEEP-EN ☐ RE-ENTRY ☐ DIFF. RESVR. ☐ OTHER
2. NAME OF OPERATOR: Bill Barrett Corporation
3. ADDRESS OF OPERATOR: 1099 18th St., Suite 2300 CITY Denver STATE CO ZIP 80202
PHONE NUMBER: (303) 312-8134
4. LOCATION OF WELL (FOOTAGES)
AT SURFACE: 531' FSL, 1479' FEL
AT TOP PRODUCING INTERVAL REPORTED BELOW: Same
AT TOTAL DEPTH: Same

14. DATE SPUDDED: 8/1/2003
15. DATE T.D. REACHED: 8/26/2003
16. DATE COMPLETED: 2/12/2004 ABANDONED ☐ READY TO PRODUCE ☑
17. ELEVATIONS (DF, RKB, RT, GL): 6921' GL
18. TOTAL DEPTH: MD 9,380 TVD
19. PLUG BACK T.D.: MD 8,580 TVD
20. IF MULTIPLE COMPLETIONS, HOW MANY? *
21. DEPTH BRIDGE PLUG SET: MD 8,630 TVD

22. TYPE ELECTRIC AND OTHER MECHANICAL LOGS RUN (Submit copy of each)
Special Density Dual Spaced Neutron; High Resolution Induction; CBL; Sonic/Delta "T"

23.
WAS WELL CORED? NO ☑ YES ☐ (Submit analysis)
WAS DST RUN? NO ☑ YES ☐ (Submit report)
DIRECTIONAL SURVEY? NO ☑ YES ☐ (Submit copy)

24. CASING AND LINER RECORD (Report all strings set in well)

HOLE SIZE	SIZE/GRADE	WEIGHT (#/ft.)	TOP (MD)	BOTTOM (MD)	STAGE CEMENTER DEPTH	CEMENT TYPE & NO. OF SACKS	SLURRY VOLUME (BBL)	CEMENT TOP **	AMOUNT PULLED
12 1/4"	9 5/8 J-55	36#	0	1,043		poz/ag 420		surface/CIR	
7 7/8"	5 1/2 N80	17#	0	9,361		POZ 987		2,000'/CBL	

25. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
2 7/8"	6,587	6,569						

26. PRODUCING INTERVALS

FORMATION NAME	TOP (MD)	BOTTOM (MD)	TOP (TVD)	BOTTOM (TVD)
(A) Mesaverde	6,620	8,510		
(B)				
(C)				
(D)				

27. PERFORATION RECORD

INTERVAL (Top/Bot - MD)		SIZE	NO. HOLES	PERFORATION STATUS
9,220	9,224	0.51	12	Open ☑ Squeezed ☐
9,152	9,156	0.51	12	Open ☑ Squeezed ☐
8,922	8,924	0.51	6	Open ☑ Squeezed ☐
8,905	8,907	0.51	6	Open ☑ Squeezed ☐

28. ACID, FRACTURE, TREATMENT, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL	AMOUNT AND TYPE OF MATERIAL
9152'-9224'	70Q CO2 foam frac: 150 tons CO2, 88,000# 20/40 sand, 307 bbls fluid
8905'-8924'	70Q CO2 foam frac: 151 tons CO2, 92,300# 20/40 sand, 466 bbls fluid
8663'-8221'	70Q CO2 foam frac: 44 tons CO2, 30,640# 20/40 sand, 848 bbls slickwater

29. ENCLOSED ATTACHMENTS:
☐ ELECTRICAL/MECHANICAL LOGS ☐ GEOLOGIC REPORT ☐ DST REPORT ☐ DIRECTIONAL SURVEY
☐ SUNDRY NOTICE FOR PLUGGING AND CEMENT VERIFICATION ☐ CORE ANALYSIS ☐ OTHER:

30. WELL STATUS: S ~~SWD INJ~~

(5/2000)

(CONTINUED ON BACK)

31. INITIAL PRODUCTION

INTERVAL A (As shown in Item #26)

DATE FIRST PRODUCED:	TEST DATE:	HOURS TESTED:	TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
12/25/2003							

CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:
										Open

INTERVAL B (As shown in Item #26)

DATE FIRST PRODUCED:	TEST DATE:	HOURS TESTED:	TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:

CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

INTERVAL C (As shown in Item #26)

DATE FIRST PRODUCED:	TEST DATE:	HOURS TESTED:	TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:

CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

INTERVAL D (As shown in Item #26)

DATE FIRST PRODUCED:	TEST DATE:	HOURS TESTED:	TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:

CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

32. DISPOSITION OF GAS (Sold, Used for Fuel, Vented, Etc.)

Sold

33. SUMMARY OF POROUS ZONES (Include Aquifers):

Show all important zones of porosity and contents thereof; Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

34. FORMATION (Log) MARKERS:

Formation	Top (MD)	Bottom (MD)	Descriptions, Contents, etc.	Name	Top (Measured Depth)
				Wasatch	2,907
				Base Eocene	3,750
				North Horn	4,711
				Price River	6,443
				Base UPR	6,650
				Bluecastle	7,734
				Sego	8,080
				Castlegate	8,410
				Blackhawk	8,606
				Kenilworth	8,901

35. ADDITIONAL REMARKS (Include plugging procedure)

Logs previously submitted by Halliburton under separate cover. Completion report continued on attached page.

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records.

NAME (PLEASE PRINT) Patrick Knoll TITLE Permit Analyst

SIGNATURE DATE 9/14/2010

This report must be submitted within 30 days of

- completing or plugging a new well
- drilling horizontal laterals from an existing well bore
- recompleting to a different producing formation
- reentering a previously plugged and abandoned well
- significantly deepening an existing well bore below the previous bottom-hole depth
- drilling hydrocarbon exploratory holes, such as core samples and stratigraphic tests

* ITEM 20: Show the number of completions if production is measured separately from two or more formations.

** ITEM 24: Cement Top – Show how reported top(s) of cement were determined (circulated (CIR), calculated (CAL), cement bond log (CBL), temperature survey (TS)).

Send to: Utah Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801

Phone: 801-538-5340

Fax: 801-359-3940

(5/2000)

Jack Canyon Unit State #14-32

API#: 43-007-30913

27. Perforation Record			
Perforated Interval	Size	No. of Holes	Perf Status
8,820' - 8,821'	0.51	3	Below CIBP
8,730' - 8,731'	0.51	3	Below CIBP
8,684' - 8,686'	0.51	6	Below CIBP
8,663' - 8,665'	0.51	6	Below CIBP
8,492' - 8,510	0.51	54	Open
8,462' - 8,476'	0.51	42	Open
8,426' - 8,441'	0.51	60	Open
8,412' - 8,426'	0.51	56	Open
8,379' - 8,380'	0.51	3	Open
8,356' - 8,358'	0.51	9	Open
8,316' - 8,318'	0.51	9	Open
8,307' - 8,309'	0.51	9	Open
8,130' - 8,132'	0.51	6	Open
8,050' - 8,060'	0.51	30	Open
7,870' - 7,874'	0.51	12	Open
7,786' - 7,790'	0.51	12	Open
6,897' - 6,899'	0.51	8	Open
6,852' - 6,854'	0.51	8	Open
6,838' - 6,842'	0.51	16	Open
6,820' - 6,826	0.51	18	Open

28. Acid, Fracture Treatment, Cement Squeeze, Etc.	
8,307' - 8,358'	70Q CO2 foam frac: 104 tons CO2, 54,000# 20/40 sand, 279 bbls fluid
8,050' - 8,060'	70Q CO2 foam frac: 149 tons CO2, 90,200# 20/40 sand, 315 bbls fluid
7,786' - 7,874'	70Q CO2 foam frac: 160 tons CO2, 200,000# 20/40 sand, 653 bbls fluid
6,620' - 6,626'	70Q CO2 foam frac: 142 tons CO2, 45,000# 20/40 sand, 230 bbls fluid

34. Formation (Log) Markers	
Formation Name	**Top (MD)**
Aberdeen	9,146'
Spring Canyon	9,217'

API Well No: 43007309130000

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

5.LEASE DESIGNATION AND SERIAL NUMBER: ML43541

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.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME:

1. TYPE OF WELL: Gas Well

8. WELL NAME and NUMBER: JACK CYN U ST 14-32

2. NAME OF OPERATOR: BILL BARRETT CORP

9. API NUMBER: 43007309130000

3. ADDRESS OF OPERATOR: 1099 18th Street Ste 2300 , Denver, CO, 80202

PHONE NUMBER: 303 312-8164 Ext

9. FIELD and POOL or WILDCAT: UNDESIGNATED

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 0531 FSL 1479 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SESW Section: 32 Township: 12.0S Range: 16.0E Meridian: S

COUNTY: CARBON

STATE: UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
✓ SUBSEQUENT REPORT Date of Work Completion: 9/13/2010	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ DRILLING REPORT Report Date:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	✓ OTHER	OTHER: UIC Start-up

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

This sundry is being submitted as notification that injection began 9/13/2010 on this SWD.

Accepted by the Utah Division of Oil, Gas and Mining

Date: September 20, 2010

By: Dustin Doucet

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Tracey Fallang	303 312-8134	Regulatory Analyst
SIGNATURE N/A		**DATE** 9/14/2010

RECEIVED September 14, 2010

GARY R. HERBERT
Governor
GREGORY S. BELL
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

UNDERGROUND INJECTION CONTROL PERMIT

Cause No. UIC-317.1

Operator: Bill Barrett Corporation

Well: Jack Canyon Unit State 14-32

Location: Section 32, Township 12 South, Range16 East (SLBM)

County: Carbon

API No.: 43-007-30913

Well Type: Salt Water Disposal Well

Stipulations of Permit Approval

1. Approval for conversion to Injection Well issued on April 5, 2010.
2. Maximum Allowable Surface Pressure: 2,769 psi.
3. Corresponding Injection Rate: As limited by pressure.
4. Injection Interval: Perforations between 6,620' and 8,510' into an interval that includes the lower Colton/Wasatch Formation, including the Dark Canyon Conglomerate beds (North Horn Formation?) and the Price River Formation of the Mesaverde Group.

Approved by: Don Staley
Don Staley
Acting Associate Director

5/10/2010
Date

DTS/CK/js
cc: Bruce Suchomel, Environmental Protection Agency
Bureau of Land Management, Price
Carbon County Planning

N:\O&G Reviewed Docs\ChronFile\UIC\Bill Barrett

1594 West North Temple, Suite 1210, PO Box 145801, Salt Lake City, UT 84114 -5801
telephone (801) 538-5340 • facsimile (801) 359-3940 • TTY (801) 538-7458 • *www.ogm.utah.gov*

UTAH DNR
OIL, GAS & MINING

DIVISION OF OIL, GAS AND MINING
UNDERGROUND INJECTION CONTROL PROGRAM

PERMIT STATEMENT OF BASIS

Applicant: Bill Barrett Corp. **Well:** Jack Canyon Unit State 14-32

Location: S 32, T12S, R16E, Carbon Co., UT **API:** 43-007-30913

Ownership Issues:

The well is located on state lands administered by the School and Institutional Trust Lands Administration (SITLA). An affidavit of notification of operators, mineral owners, and surface owners located within a one-half (1/2) mile radius has been provided.

Well Integrity:

Description of the Casings and Cement:

CASING PROGRAM

String Type	Hole Size	Depth	Feet	Casing Diameter	Weight	Grade	Connection Type
Conductor	24"	40'	40"	16"			
Surface	12 ¼"	1043'	1043'	9-5/8"	36#	J-55	ST&C
Production	7 7/8"	9380'	9380'	5 ½ "	17#	N-80	LT&C

CEMENT PROGRAM

String Type	DV Depth	Stage Lead/Tail	Cement Bottom	Cement Top	Number Sacks	Cement Type	Cement Yield	Cement Weight
Conductor			40'					
Surface		Lead	1005'	Surface	240	HLC 65/35	1.85	12.7

		Tail			180	PremiumAG	1.15	15.8
Production			9380'	740' (CBL)	912	50/50 POZ Premium	1.47	14.3

Bill Barrett Corporation proposes to inject produced waters from the Peters Point Field area (the North Horn Formation, including the Dark Canyon Conglomerate beds (operator's terminology), and the Mesaverde Group's Price River Formation) and inject into an interval that includes the lowest Colton Formation (North Horn?) (Dark Canyon Conglomerate) and the upper Mesaverde Group (Price River Formation, including the Bluecastle Sandstone Member, the Neslen Formation and the Castlegate Sandstone). Currently utilized perforations extend from 6,620' to 8,510' TD. The conversion procedure specifies landing 2 7/8" injection tubing with a subsequent MIT upon successful conversion. They propose to inject at a maximum rate of 3,500 barrels of commingled local field-produced water per day at an amended injection pressure of 2,769 psig. They anticipate an Average Disposal Rate of 1,500 bwpd.

The Operator's Cement Bond Log (CBL) reveals marginally sufficient cement, with a bond index of 80% or greater, to permit the well so the Division of Oil, Gas and Mining (DOGM) will require two (2) Radioactive Tracer (RAT) surveys to verify that injectate isn't moving beyond the permitted injection interval behind the casing. The first RAT survey should be conducted six (6) months after the Date of First Injection and the second should be conducted two (2) years after the Date of First Injection. The Operator should request DOGM witnessing of these RAT surveys by Sundry Notice.

Ground Water Protection:

High quality water, water with Total Dissolved Solids (TDS) concentrations less than 800 milligrams / liter (mg/l), issues from springs and streams that arise from within Tertiary and upper Cretaceous strata along the Tavaputs Plateau. Determinations

of the base of moderately saline ground water in nearby drilled wells indicates that it is estimated to be encountered at an elevation of about 3,000 feet (about 4,700 feet Total Depth) in the subject well. The proposed injection zone in the subject well is about 1,900 feet below the base of moderately saline ground water and is therefore unlikely to contaminate any quality fresh water resource. The 5½" production casing was cemented up to 2,920 feet (Top of the Wasatch Formation) according to the CBL as reported on the casing schematic. This provides 3,700 feet of cemented production casing and should prove adequate to protect superjacent aquifers containing quality water resources if the RAT surveys are conducted for confirmation of isolation.

TDS values of water samples obtained from likely contributor produced water source wells in the area ranged from 31,375 to 62,352 mg/l. The commingled connate water from the Jack Canyon Unit State 14-32 proposed injection interval was obtained from a tank stored on location and tested at 16,636 mg/l.

The proposed injection interval includes the Dark Canyon Conglomerate beds of the Colton/Wasatch Formation (North Horn Formation?) and the sandstones of the Mesaverde Group down to the Castlegate Sandstone, inclusive. The United States Geological Survey (USGS) construes the Wasatch and Green River Formations to generally be a Confining Unit. It generally construes the Mesaverde Group sandstones to comprise an Aquifer. The top of the proposed injection perforations are at 6,620 feet TD, some 1,900′ below the Base of Moderately Saline Ground Water and are unlikely to meet the standard for classification as an Underground Source of Drinking Water (USDW). The uppermost perforations are in the Dark Canyon Conglomerate Beds of the Wasatch Formation, which has been sampled and analyses indicate Total Dissolved Solids (TDS) values ranging from 42,000 mg/l to 59,000 mg/l. Overall, the analyses of the produced waters from likely representative source wells range from 22,000 to 59,000 mg/l of TDS. Comingled

connate waters from the subject well were analyzed to range from about 17,000 mg/l to 38,000 mg/l TDS.

A step rate test (SRT) is not planned for this well. Instead, Division management has elected to accept calculated Maximum Allowable Surface Pressures and fracture gradients based on observations from production well fracture stimulation data (Initial Shut In Pressures and the fluid pressure gradient of 0.4417 psi/ft). The methodology for establishing acceptable injection pressures was found to be acceptable but, during dialogue regarding the procedure with the operator's engineer, it ultimately resulted in a reduction in the UIC Form 1requested injection pressure, owing to further analysis of the data contained in the frac operation logs.

The Dark Canyon Conglomerate of the Colton/Wasatch Formation (North Horn-?) is added to the Mesaverde Aquifer within the injection interval. Both aquifers are below the Green River/Wasatch Confining Unit, which is the first recognized, contiguous confining unit above the injection interval, although there are probably several unrecognized intervals capable of serving as confinement in the intervening column. There is some confusion regarding the details of the stratigraphy of the area and in the literature. The Utah Geological Survey currently assigns the Dark Canyon Conglomerate to the Eocene-age Wasatch Formation (Colton west of the Green River) with a hiatus below the Dark Canyon Conglomerate but atop the Cretaceous/Paleocene - age Tuscher Formation (Hintze & Kowallis, 2009, Chart 80 – Cisco – Harley Dome – Book Cliffs). Bill Barrett Corporation indicates that the North Horn Formation (straddles T/K boundary) sits above the Dark Canyon in their correlations in the Peters Point area of the Tavaputs Plateau and, presumably, that suggests a Cretaceous age for the Dark Canyon Conglomerate.

The subject well appears to be situated on the north flank of the WNW trending trace of the Garmesa Fault, which is expressed at the surface as a system of joints,

faults and grabens. This system is about 1½ miles SSW of the proposed salt-water disposal well and extends for about 5 miles to the northwest and 17 miles to the southeast from the nearest point of the system to the subject well. Surface mapping reveals that the system is known to extend to depth at least to the top of the Colton (Wasatch) Formation. In this area the Colton/Wasatch Formation is the basal stratigraphic unit of the Wasatch-Green River Confining Unit as well as being the stratigraphic unit at the floor of the relatively nearby wild and scenic Desolation Canyon section of the Green River. There is about 2,900′ of vertical separation between the top of the injection zone (6,620″ TD) and the base of the Colton Formation (Base of the Eocene). It is not known with complete certainty if the fractures/faults penetrate into the upper Colton/Wasatch Formation. If the fracture/fault system was accessed, it could potentially present a conduit for the movement of injectate toward the Green River. I consider this to be an unlikely scenario owing to the great vertical separation and the greater likelihood that the preponderant shales of the Colton/Wasatch, the North Horn and the Price River Formations will serve for confinement and the cement and casing will prevent the vertical migration of injectate. I do not consider the foregoing discussion to pose a significant impediment to granting an injection permit for this well, but it is presented merely to confirm consideration.

After reviewing the application and documentation submitted by Bill Barrett Corporation, I find that the injection of the proposed fields area produced waters into the proposed injection interval in the Jack Canyon Unit State 14-32 well, will cause no diminution of the quality of the already poor quality water in the injection zone. After injection ceases, increased pressure about the wellbore will abate over time. It is therefore to be concluded that no long term negative surficial or ground water impacts are anticipated resultant of the proposed injection operation.

Oil/Gas & Other Mineral Resources Protection:

A review of production records of the fields in the area reveals that most of the production is coming from the Wasatch and North Horn Formations and the Mesaverde Group. Some minor production has also come from the Mancos Shale, the Dakota Sandstone and perhaps even from the lower Mesaverde Group. Some of the productive sands are of fluvial origin and, while giving the appearance of being correlative, are typically discontinuous and therefore not contiguous reservoirs and unlikely to interfere with the pressures in the productive reservoirs higher on the structure. Although this is not the case with all the productive units, they are all productive up dip from this well. No other known potentially producible mineral or hydrocarbon zones are reported in the area.

The operator proposes to inject into some strata that are also productive in the area to both the east and northwest at distances of 2.17 and 1.8 miles, respectively, from the subject well. Another deeper shut in gas well is in the same section within a mile of the subject well. The Dark Canyon Conglomerate and sandstones of the Bluecastle Member and Castlegate Sandstone Member are at least more contiguous if not essentially tabular. The producing wells to east and northwest generally appear to be shallower and terminate in the Price River formation. That Formation, and the Neslen Formation, generally appear to present as discontinuous sandstones. As such, they would likely present no problem for arguments of being disposal zones rather than injection zones. All other producing wells are structurally higher than the subject well, although the structural gain to the west on the correlative Price River level is cited to only be 17′. Structural gains on all other levels are cited to be in excess of 100′. Apparently there is Garmesa Fault Zone involved Mesaverde Group faulting evident in the seismic information that fails to propagate up into shallow fresh water bearing strata (termination in the lower North Horn), which seem to have taken no taint from below, so it is not considered a potential conduit for contamination. If there were a likelihood of injection well

behavior owing to the proposed operations, it would most likely affect Dark Canyon Conglomerate productivity because it is relatively tabular. These strata are relatively thick, contiguous and present a significant disposition capacity, however, they are also less permeable and the operator will only inject into the lower strata. My suggestion is to have the operator report any such behavior by requiring occasional testing/analysis to document impacts or lack thereof, but to otherwise permit the activity.

The well records of the Division document that there are two other wells within the half (1/2) mile area of review (AOR). These are the Jack Canyon #6 (4300710345) and the Lavinia State 1-32 (4300730380). The latter well is considerably shallow to the subject well injection zones and TD′d at 5305′ with a plug back to 4002′. The Jack Canyon #6 was drilled to only 2420′ TD so it is also shallow to the subject well injection zones.

Bonding:

Bill Barrett Corporation has a $120,000 blanket surety bond in place, which ensures plugging of this well. Bond No. LPM4138148 was issued by Fidelity and Deposit Company of Maryland.

Actions Taken and Further Approvals Needed:

Notice of this application was published in the Salt Lake Tribune and the Carbon County Sun Advocate. In addition, copies of the notice were provided to the Environmental Protection Agency (EPA), Region VIII, Bureau of Land Management (BLM) Price, Carbon County Planning, and the Operator.

A properly designed and constructed water disposal well, combined with periodic mechanical integrity tests, poses no threat to fresh or useable groundwater

supplies.

The Division staff recommends approval of this application contingent upon no additional or unforeseen information being presented that is relevant to this analysis or modifies the data presented herein.

Reviewer(s): Christopher J. Kierst Date: 8/5/2010

From: Chris Bairrington <cbairrington@billbarrettcorp.com>
To: "chriskierst@utah.gov" <chriskierst@utah.gov>, "markreinbold@utah.gov" <...
Date: 7/15/2010 11:07 AM
Subject: Jack Canyon 14-32 Pressure Data
Attachments: CB Jack Canyon 14-32 Stage 4.xls; CB Jack Canyon 14-32 Stage 5.xls; CB Jack Canyon 14-32 Stage 6.xls; CB Jack Canyon 14-32 Stage 7.xls; 14-32 SWD Pressures.xls

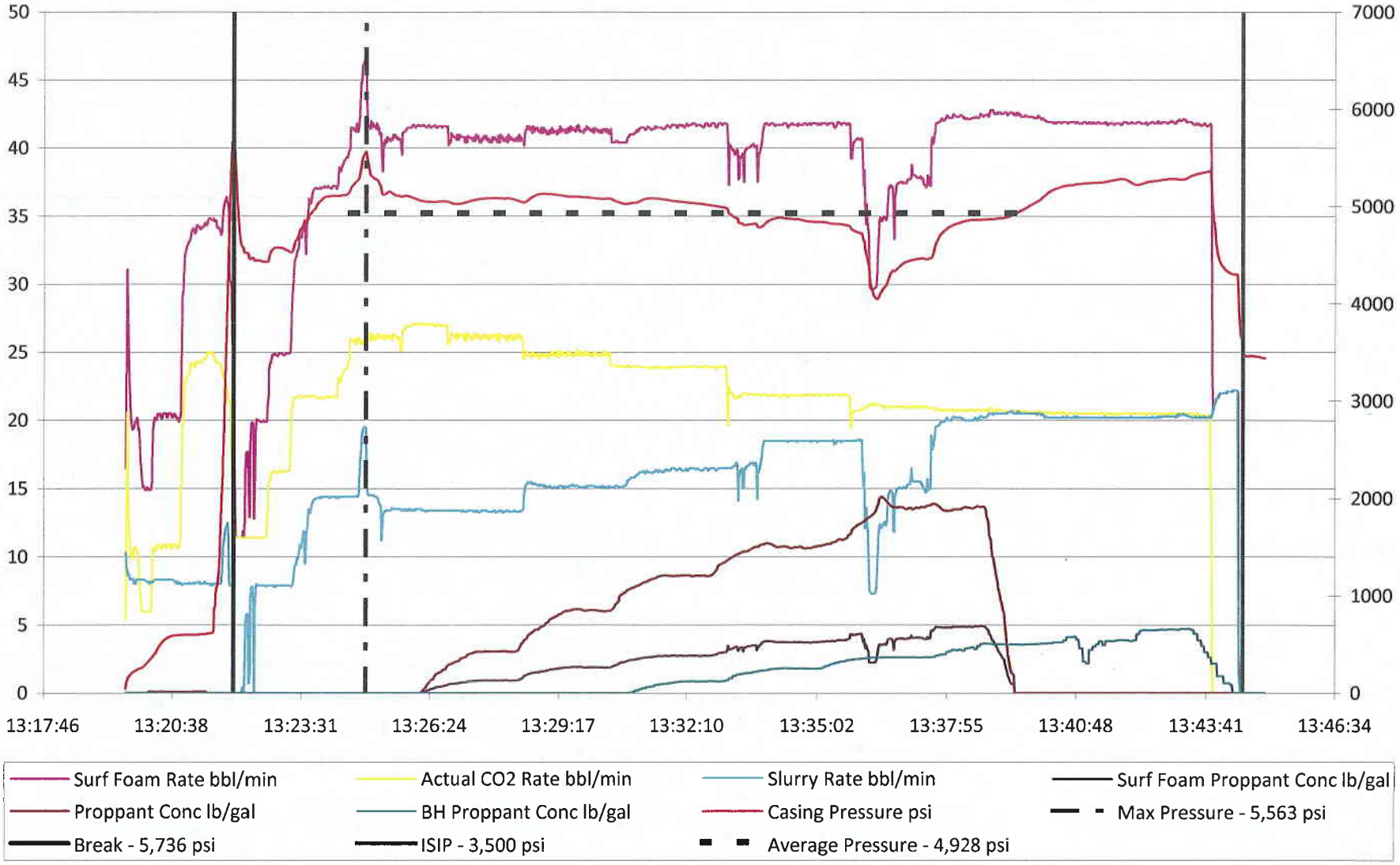
Mark,

Attached is the physical data from the frac's performed on the Jack Canyon 14-32 for Stages 4-7 (Disposal zones currently open).

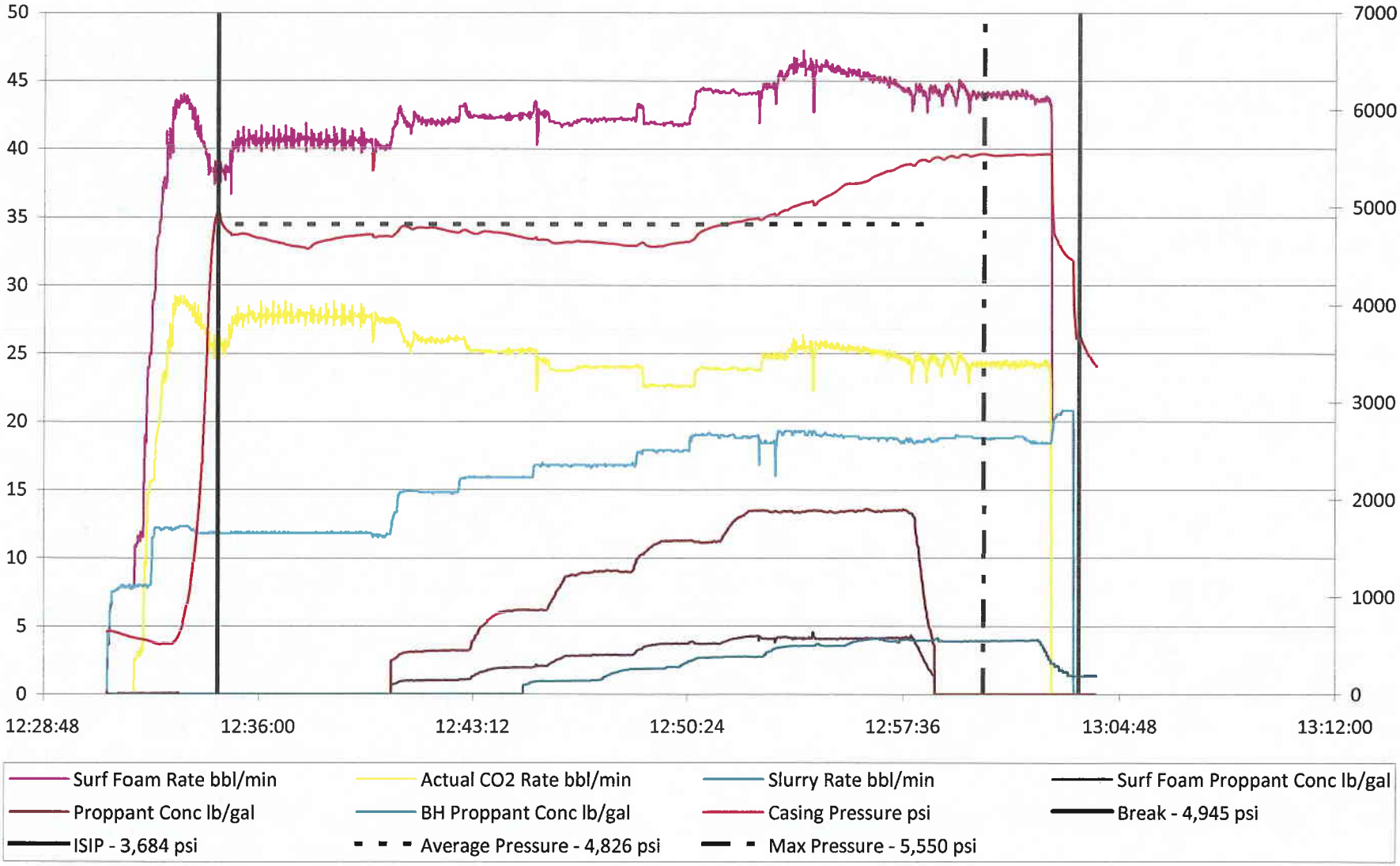
I have also amended the pressure data calculation sheet (14-32 SWD Pressures.xls) to clearly show the calculations used for obtaining the max surface pressure BBC is requesting. If you have any questions please feel free to contact me at 303-312-8511.

Chris R. Bairrington | Direct: 303.312.8511 | Cell: 303.877.5239 | Fax: 303.291.0420
Operations Engineer - 1099 18th St. Suite 2300, Denver, CO 80202
cbairrington@billbarrettcorp.com<mailto:cbairrington@billbarrettcorp.com>
[cid:image001.jpg@01CB240C.9143FAB0]

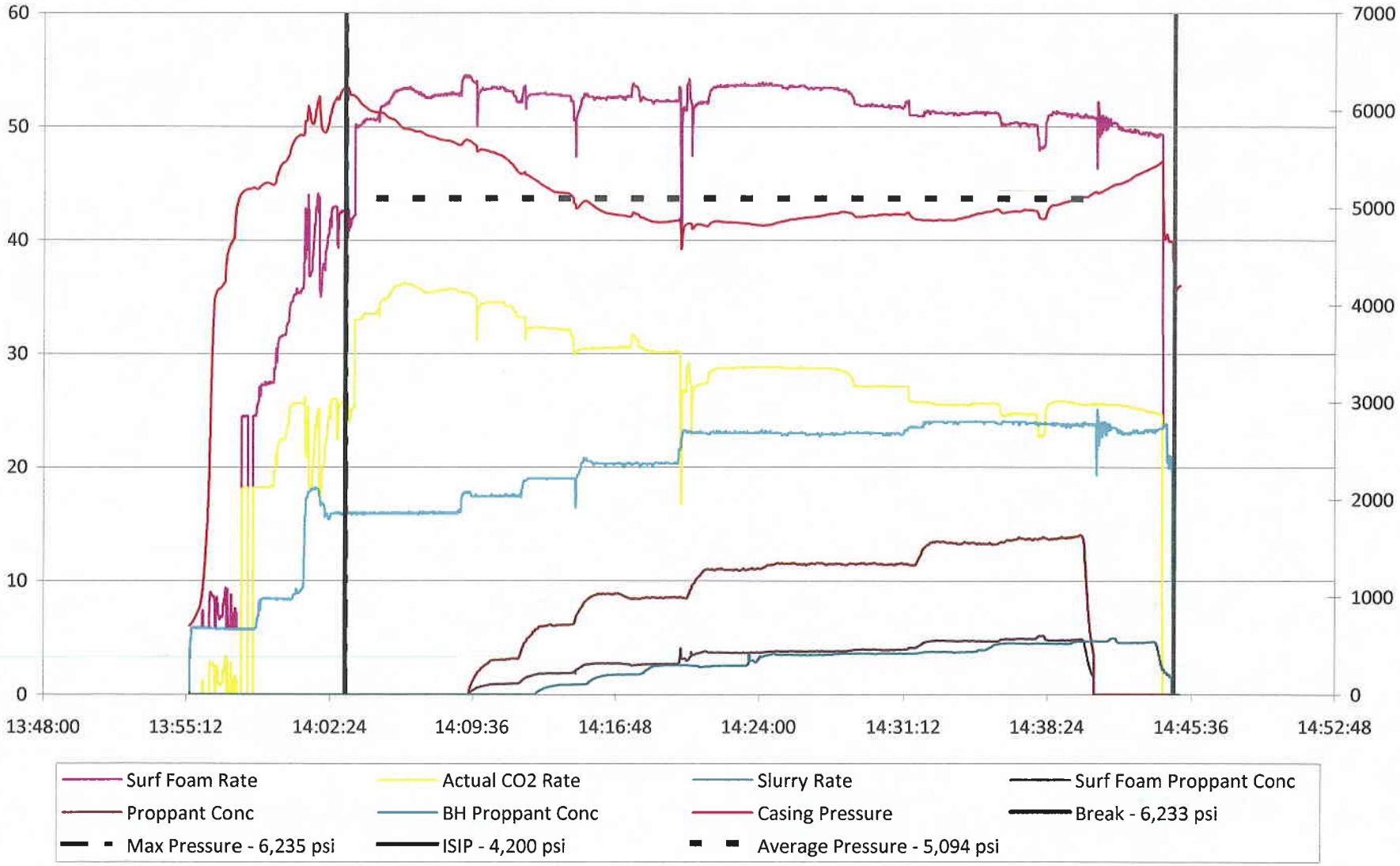
Jack Canyon 14-32 Stage 4



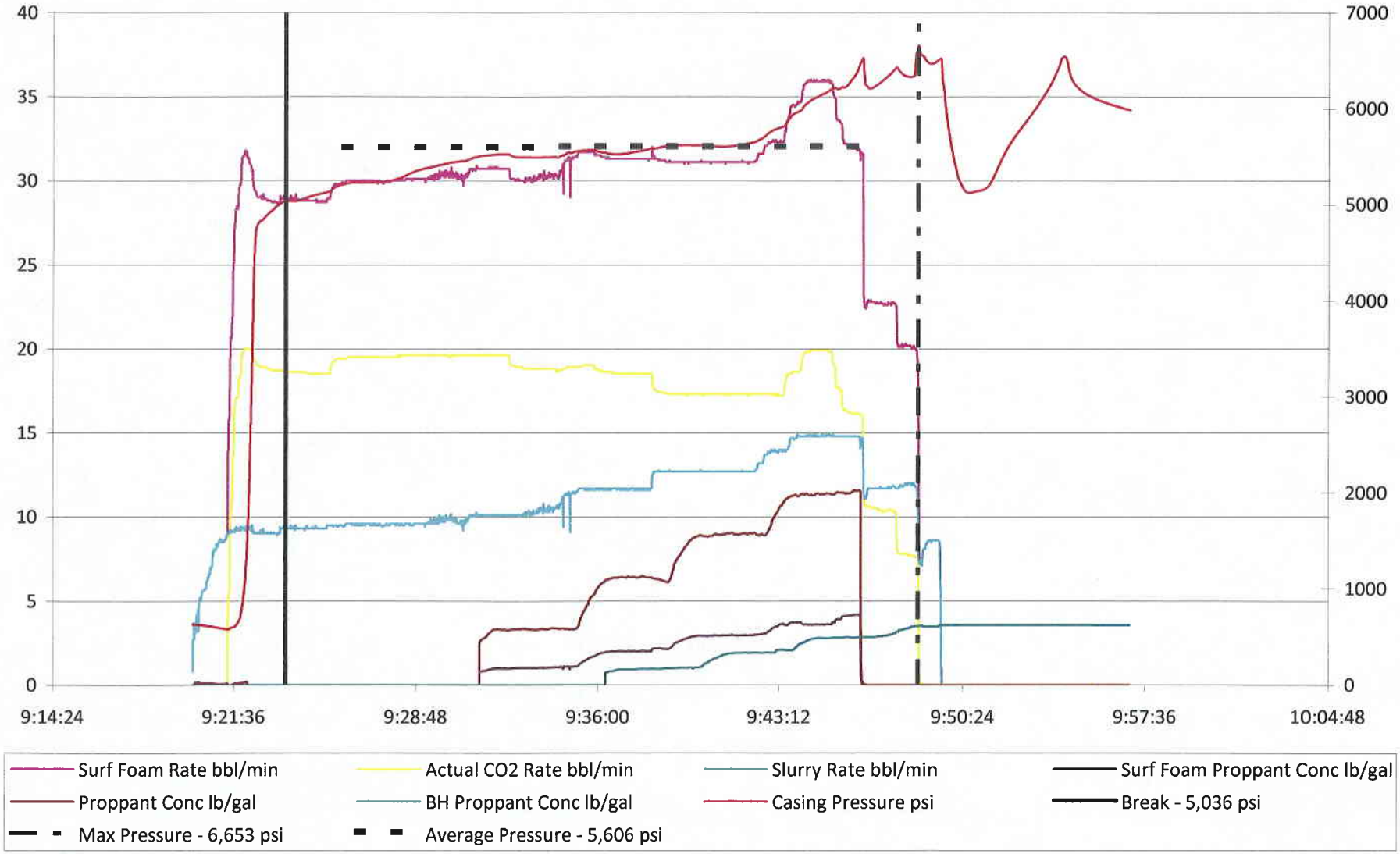
Jack Canyon 14-32 Stage 5



Jack Canyon 14-32 Stage 6



Jack Canyon 14-32 Stage 7



Chris Kierst - Frac Gradient and SRT on Jack Canyon State 14-32 SWD Well

From: Chris Bairrington <cbairrington@billbarrettcorp.com>
To: Tracey Fallang <tfallang@billbarrettcorp.com>, "chriskierst@utah.gov" <c...
Date: 6/16/2010 4:07 PM
Subject: Frac Gradient and SRT on Jack Canyon State 14-32 SWD Well
Attachments: SKMBT_C35110061616040.pdf

Chris,

The .4417 psi/ft was the water gradient that was used for calculating the Bottom Hole Pressure. We used a 1.02 sg to calculate the .4417 psi/ft. Our combined water weight was a 1.024 off the last analysis I sent for our Saturation Index findings, but with changes in this number a 1.02 sg assumption should be satisfactory. The original attempt at a step rate test yielded pressure results that were very similar to calculated frictional pressures we expected at 4 BPM & 6 BPM. At that time the results of a SRT are not conclusive as the only pressure observed was not supplied by the formation, but by the pipe walls. Therefore unless we can get to a very high injection rate (20+ BPM would be a guess & down csg) I do not see the SRT as being conclusive. Additionally our injection rates will be far less than the 4 BPM seen during the original attempt of a SRT.

The only data that can be used at this time is the ISIP observed at the time of original completions. I have attached the executive summary reports from the jobs for further backup.

If you have any further questions or would like to discuss over the phone please don't hesitate to give me a call at 303-312-8511.

Chris

From: Chris Kierst [mailto:chriskierst@utah.gov]
Sent: Monday, June 14, 2010 9:02 AM
To: Tracey Fallang
Subject: Frac Gradient and SRT on Jack Canyon State 14-32 SWD Well

Hi Tracey!
Would you please ask your colleagues to provide an attribution of the source of the 0.4417 psi/ft. frac gradient they proffer to calculate their requested max injection pressure. We generally prefer to have an acceptable Step Rate Test (SRT - we have guidelines available to qualify the test) run on the injection interval. We will permit a well by alternative means, absent an SRT, if there are grounds. We are not aware of any such grounds for this well. If you folks have a reason why an SRT can't be successful on this well please inform the Division and we'll consider some alternatives.

EXECUTIVE SUMMARY

On December 22, 2003, HES stimulated Zone 4 of Jack Canyon 14-32 with the following:

API Number:	43-007-30913		
Formation:	Castlegate		
Top Perf:	8,307	ft	
Bottom Perf:	8,358	ft	
Fluid System:	70Q CO2 30# Purgel LT		
Base Fluid:	8.48	lb/gal	
Breakers:	OptiFlo II	(Encapsulated Oxidizer)	
	SP	(Oxidizer)	
Avg. Foam Rate:	39.7	BPM	
Avg. Pressure:	4,915	psi	
Max. Foam Rate:	46.6	BPM	
Max. Pressure:	5,736	psi	
Total Fluid Pumped:	15,767	gal	
Total CO2 Pumped:	94	tons	(Plus 10 tons prime up)
Total Sand in Formation:	54,000	lb	(20/40 White Sand)
Break:	5,732	psi	
ISIP:	3,500	psi	
Frac. Gradient:	0.86	psi/ft	

No fluid or electrical problems. Job pumped as designed.
Pump truck on fluid side went down in stage 6. Had no effect on job.
Flushed with 50Q slickwater with a 500 gallon fluid cap.

Please feel free to contact me at (435) 789-2550 if you have any questions or concerns.
Thank you.

Vernon J. Fitchette
Technical Professional
Halliburton Energy Services, Vernal UT

EXECUTIVE SUMMARY

On December 23, 2003, HES stimulated Zone 5 of Jack Canyon 14-32 with the following:

API Number:	43-007-30913		
Formation:	Bluecastle/Sego		
Top Perf:	8,050	ft	
Bottom Perf:	8,060	ft	
Fluid System:	70Q CO2 30# Purgel LT		
Base Fluid:	8.48	lb/gal	
Breakers:	OptiFlo II	(Encapsulated Oxidizer)	
	SP	(Oxidizer)	
Avg. Foam Rate:	42	BPM	
Avg. Pressure:	4,795	psi	
Max. Foam Rate:	47	BPM	
Max. Pressure:	5,550	psi	
Total Fluid Pumped:	16,796	gal	
Total CO2 Pumped:	142	tons	(Plus 7 tons prime up)
Total Sand in Formation:	90,200	lb	(20/40 White Sand)
Break:	4,945	psi	
ISIP:	3,684	psi	
Frac. Gradient:	0.90	psi/ft	

No fluid, mechanical or electrical problems. Job pumped as designed.

Flushed with 50Q slickwater with a 500 gallon fluid cap.

Please feel free to contact me at (435) 789-2550 if you have any questions or concerns.
Thank you.

Vernon J. Fitchette
Technical Professional
Halliburton Energy Services, Vernal UT

EXECUTIVE SUMMARY

On December 29, 2003, HES stimulated Zone 6 of Jack Canyon 14-32 with the following:

API Number:	43-007-30913		
Formation:	Bluecastle		
Top Perf:	7,786	ft	
Bottom Perf:	7,874	ft	
Fluid System:	70Q CO2 30# Purgel LT		
Base Fluid:	8.48	lb/gal	
Breakers:	OptiFlo II	(Encapsulated Oxidizer)	
	SP	(Oxidizer)	
Avg. Foam Rate:	49.1	BPM	
Avg. Pressure:	5,147	psi	
Max. Foam Rate:	54.5	BPM	
Max. Pressure:	6,235	psi	
Total Fluid Pumped:	31,015	gal	
Total CO2 Pumped:	250	tons	(Plus 10 tons prime up)
Total Sand In Formation:	200,000	lb	(20/40 White Sand)
Break:	6,233	psi	
ISIP:	4,200	psi	
Frac. Gradient:	0.98	psi/ft	

No fluid, mechanical or electrical problems. Job pumped as designed.
Flushed with 50Q slickwater with a 500 gallon fluid cap.

Please feel free to contact me at (435) 789-2550 if you have any questions or concerns.
Thank you.

Vernon J. Fitchette
Technical Professional
Halliburton Energy Services, Vernal UT

EXECUTIVE SUMMARY

On December 30, 2003, HES stimulated Zone 7 of Jack Canyon 14-32 with the following:

API Number:	43-007-30913		
Formation:	Price River		
Top Perf:	6,620	ft	
Bottom Perf:	6,626	ft	
Fluid System:	70Q CO2 30# Purgel LT		
Base Fluid:	8.48	lb/gal	
Breakers:	OptiFlo II	(Encapsulated Oxidizer)	
	SP	(Oxidizer)	
Avg. Foam Rate:	28.7	BPM	
Avg. Pressure:	5,801	psi	
Max. Foam Rate:	36	BPM	
Max. Pressure:	6,500	psi	
Total Fluid Pumped:	11,338	gal	
Total CO2 Pumped:	142	tons	(Plus 7 tons prime up)
Total Sand In Formation:	32,000	lb	(20/40 White Sand)
Total Sand Pumped:	45,000	lb	(20/40 White Sand)
Break:	5,036	psi	
ISIP:	5,801	psi	
Frac. Gradient:	1.32	psi/ft	

Fracture never really demonstrated a clean break.
The surface pressure continued to climb in spite of increase in hydrostatic.
Increased rate twice in an attempt to counter increase in net pressure.
Cut sand early due to high treating pressure.
Job screened out in last sand stage.

Please feel free to contact me at (435) 789-2550 if you have any questions or concerns.
Thank you.

Vernon J. Fitchette
Technical Professional
Halliburton Energy Services, Vernal UT

Chris Kierst - Saturation Index Calculations

From: Chris Bairrington <cbairrington@billbarrettcorp.com>
To: "chriskierst@utah.gov" <chriskierst@utah.gov>
Date: 6/8/2010 4:11 PM
Subject: Saturation Index Calculations
CC: Tracey Fallang <tfallang@billbarrettcorp.com>
Attachments: SKMBT_C35110060815550.pdf

Chris,

Attached are water compatibility runs for all our water combinations we will see in our field. I scanned them all in one pdf file so you would have them together & also attached a summary chart at the beginning for quick reference. Anything less than 1 on the saturation index would indicate we have a very mild scaling tendency, and we probably do not need any chemical when pumping these waters (Our field combination was a .7). The only water I see an issue with is water from our North Horn formation & it gives a 1.76 SI. This however is treatable according to our chemical company Nalco with small amounts of scale inhibitor. Regardless of the attached scale inhibitor will be utilized in this well for protection, as this wellbore is a vital part of our current & future operations in the area.

If you need anything further please feel free to give me a call at 303-312-8511.

Regards,
Chris

Temp = 180 F	
Pressure = 250psi	
Commingled Formation	**Saturation Index**
Injection Formation Only	0.88
Price River	0.78
Dark Canyon	0.84
North Horn	1.76
All Formations	0.7

Water Analysis Report

Field : Bill Barrett	**Sample Date :** 5/1/2010
County : Duchesne	**Formation :**
Location : JCU 14-32 Only	**Rock Type :**
Lab ID : Bill Barrett	**Depth :**
Comments : Saturation Index at 180 Degrees & 250 psi is .88. Anything less than 1 is acceptable.	

CATIONS	mg/l	meq/l
Potassium	2,963.6	75.80
Sodium	10,539.5	458.44
Calcium	1,867.1	93.17
Magnesium	339.6	27.94
Iron	38.7	1.39
Barium	0.0	0.00
Strontium	0.0	0.00
SUM +	15,748.5	656.74

ANIONS	mg/l	meq/l
Sulfate	1,070.3	22.28
Chloride	21,768.7	614.02
Carbonate	0.0	0.00
Bicarbonate	1,246.9	20.44
Bromide	0.0	0.00
Organic Acids	0.0	0.00
Hydroxide	0.0	0.00
SUM -	24,085.8	656.74

Solids

Total Dissolved Solids @180°C	39,086	mg/l
Total Solids, Calc less CO_2	39,086	mg/l
Total Solids, Calculated	39,834	mg/l
Total Solids, NaCl equivalents	34,143	mg/l
Chloride as NaCl	26,793	mg/l
NaCl% of Total Dissolved Solids	67.26	%
Accuracy	0.00	Sigma

Sample Conditions

pH, s.u. (Field)	6.71	s.u.
Sample Pressure	6.00	psia
Mole% CO_2, Gas	30.00	%
pH, s.u. (from CO_2)	6.76	s.u.
Surface Temp	60	°F
Downhole Temp	125	°F
Ionic Strength	0.759	μ

Dissolved Gases

Bisulfide ion, HS^-	0.0	mg/l
Hydrogen Sulfide, H_2S	0.0	mg/l
Total Sulfide	0.0	mg/l

Dissolved O_2, aq	0.0	ppb
Measured CO_2, aq	13.6	mg/l
Calculated CO_2, aq	175.6	mg/l

Other Properties

Calcium Hardness as $CaCO_3$	4,661.6	mg/l
Magnesium Hardness as $CaCO_3$	1,398.4	mg/l
Total Hardness as $CaCO_3$	6,060.0	mg/l
Hardness, grains	352.88	grains/gallon

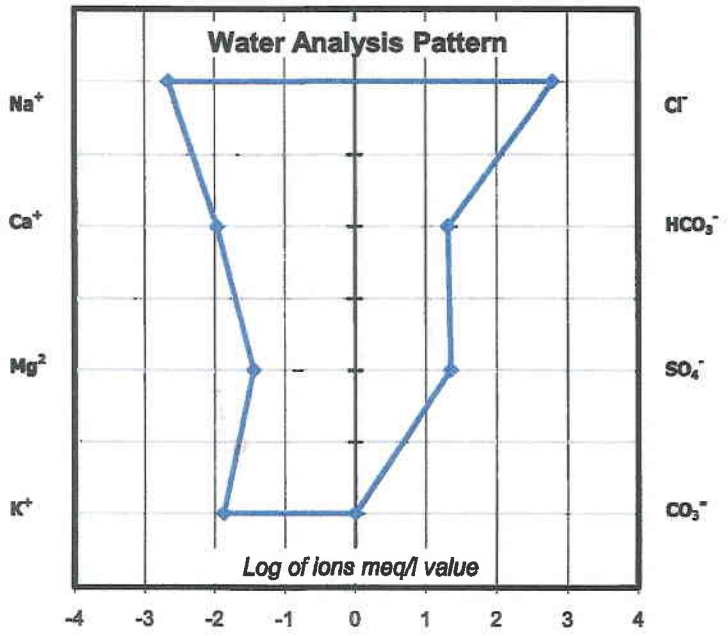
Specific Gravity	1.028	measured
Specific Gravity	1.028	calculated
Resistivity, 68°F	0.196	ohm-cm
Conductivity 25°C	51,020	μmhos/cm

Microbiological

Sulfate Reducing	nd
Aerobic Bacteria	nd

Scaling Conditions

Calcium Carbonate	$CaCO_3$	+
Calcium Sulfate	$CaSO_4$	- - -
Barium Sulfate	$BaSO_4$	-
Strontium Sulfate	$SrSO_4$	-



Probable Mineral Residue, Dry

Calculation error = 0 %

COMPOUND	mg/l
NaCl	26,792.6
KCl	5,651.0
CaCl2	2,817.8
Ca(HCO3)2	1,629.3
CaSO4	1,516.9
MgCl2	1,330.3

Note: nd denotes 'Not Determined'
Analyzed by: Creg Wilkins
Approved: Creg Wilkins
12/17/03 v947MDCarney

Production Scaling Tendency Analysis Report

Bill Barrett

JCU 14-32 Only

Location : JCU 14-32 Only	Analyzed by : Creg Wilkins
Field : Bill Barrett	Sample Date : 5/1/2010
County : Duchesne	Lab ID : Bill Barrett
Formation :	Sigma : 0.00
Comments : Saturation Index at 180 Degrees & 250 psi is .88. Anything less than 1 is acceptable.	

CATIONS		mg/L	meq/L	ANIONS		mg/L	meq/L
Sodium	Na^+	10,539.5	458.44	Chloride	Cl^-	21,768.7	614.02
Potassium	K^+	2,963.6	75.80	Bromide	Br^-	0.0	0.000
Calcium	Ca^{++}	1,867.1	93.17	Sulfate	$SO_4^=$	1,070.3	22.28
Magnesium	Mg^{++}	339.6	27.94	Bicarbonate	HCO_3^-	1,246.9	20.44
Barium	Ba^{++}	0.0	0.00	Carbonate	$CO_3^=$	0.0	0.00
Strontium	Sr^{++}	0.0	0.00	Organic Acids as Acetate		0.0	0.00
Iron	Fe^{++}	38.7	1.39	Hydroxide	OH^-	0.0	0.00
	SUM+	15,748.5	656.74		SUM-	24,085.8	656.74

Probable Mineral Residue, Dry	
Compound	mg/L
NaCl	26,792.6
KCl	5,651.0
CaCl2	2,817.8
Ca(HCO3)2	1,629.3
CaSO4	1,516.9
MgCl2	1,330.3

TDS (calc'd)=	39,834 mg/l	Bisulfide ion	0.0 mg/l	Dissolved O_2, aq	0.0 ppb	Surface Temp	60 °F
TDS@180°C=	39,086 mg/l	Hydrogen Sulfide	0.0 mg/l	FIELD CO_2, aq	13.6 mg/l	Downhole Temp	125 °F
Calc Mole%CO_2=	30.00 %	Total Sulfides	0.0 mg/l	Calc CO_2, aq	175.6 mg/l	Ionic Strength	0.759 μ
						Field pH, s.u. =	6.71

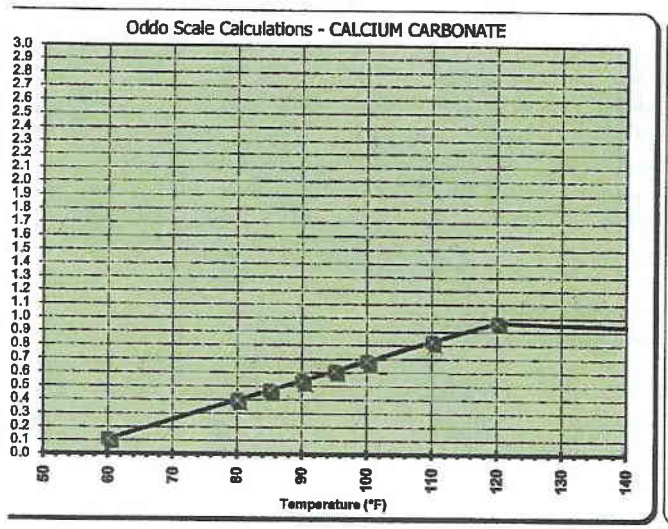
Location	Temperature °F	Pressure psia	pH calculated	SI $CaCO_3$	$CaSO_4 \cdot 2H_2O$ Gypsum	$CaSO_4 \cdot \frac{1}{2}H_2O$ Hemi hydrate	$CaSO_4$ Anhydrite	SI $BaSO_4$	SI $SrSO_4$	
A	60	30.0	6.06	+0.11	-0.49	-0.50	-0.98			1
B	80	30.0	6.14	+0.40	-0.50	-0.52	-0.85			2
C	85	30.0	6.16	+0.47	-0.51	-0.52	-0.82			3
D	90	30.0	6.18	+0.54	-0.52	-0.52	-0.79			4
E	95	30.0	6.20	+0.61	-0.52	-0.53	-0.76			5
F	100	30.0	6.21	+0.68	-0.52	-0.53	-0.73			6
G	110	30.0	6.25	+0.83	-0.53	-0.53	-0.66			7
H	120	30.0	6.29	+0.97	-0.53	-0.53	-0.60			8
Downhole Conditions	180	250.0	5.58	+0.88	-0.52	-0.62	-0.26			9
Max formation temp	110	10.0	6.73	+1.30	-0.50	-0.53	-0.66			1
Max formation temp	110	20.0	6.43	+1.00	-0.53	-0.53	-0.66			2
Max formation temp	110	25.0	6.33	+0.90	-0.53	-0.53	-0.66			3
Max formation temp	110	50.0	6.03	+0.60	-0.53	-0.53	-0.67			4
Max formation temp	110	100.0	5.73	+0.30	-0.53	-0.54	-0.67			5
Max formation temp	110	250.0	5.33	-0.11	-0.54	-0.55	-0.67			6
Max formation temp	110	500.0	5.02	-0.43	-0.55	-0.56	-0.68			7
Max formation temp	110	600.0	4.94	-0.51	-0.56	-0.57	-0.68			8
Max formation temp	110	700.0	4.88	-0.58	-0.57	-0.58	-0.69			9
Max formation temp	110	800.0	4.82	-0.65	-0.57	-0.59	-0.69			10
Max formation temp	110	900.0	4.76	-0.71	-0.58	-0.59	-0.69			11
Max formation temp	110	1,000.0	4.72	-0.76	-0.58	-0.60	-0.70			12
Max formation temp	110	1,250.0	4.62	-0.87	-0.60	-0.62	-0.70			13

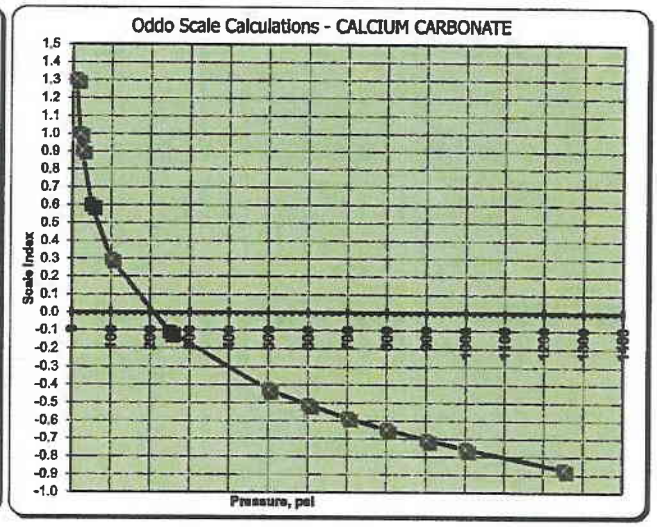
Calculations based upon Oddo Tomson Equations, v1.04.17.98

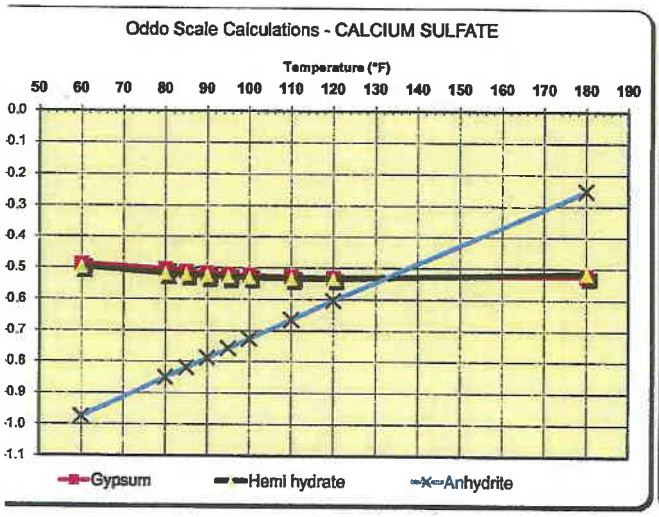
12/17/2003 v947MDCarney

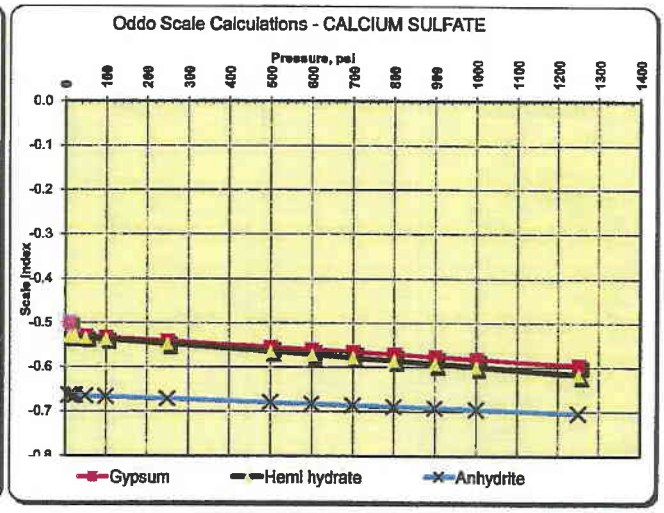
Production Scaling Tendency Analysis Report

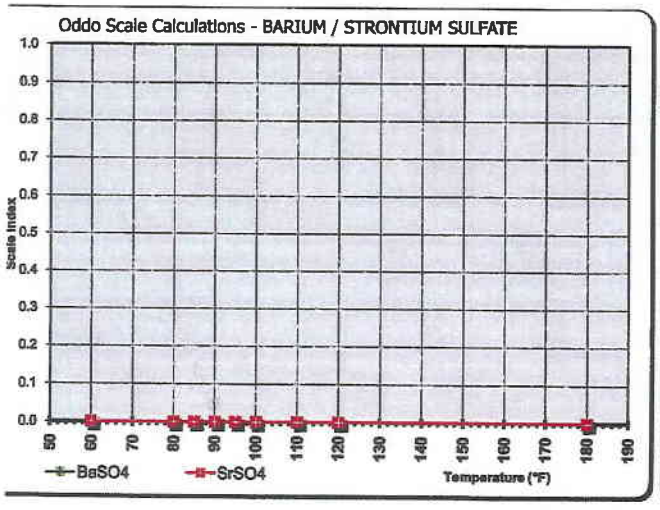
Bill Barrett **JCU 14-32 Only**

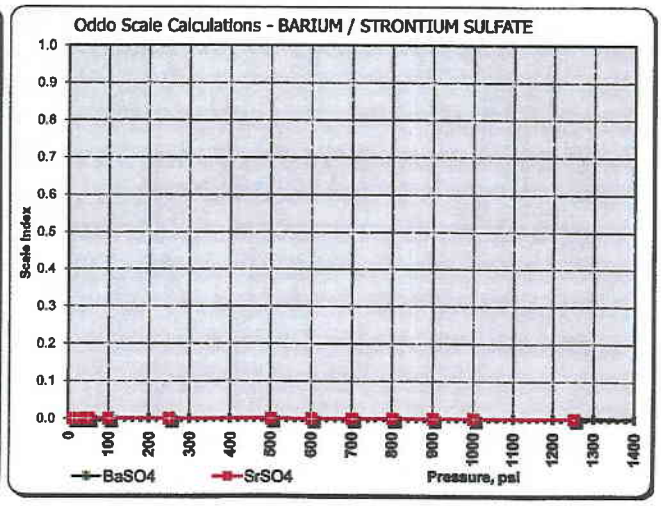












Production Scaling Tendency Analysis Report

Bill Barrett — JCU 14-32 With Pr River

Location : JCU 14-32 With Pr River	Analyzed by : Creg Wilkins
Field : Bill Barrett	Sample Date : 5/1/2010
County : Duchesne	Lab ID : Bill Barrett
Formation :	Sigma : 0.00
Comments : Saturation Index at 180 Degrees & 250 psi is .75. Anything less than 1 is acceptable.	

Probable Mineral Residue, Dry	
Compound	mg/L
NaCl	23,941.2
KCl	6,032.2
CaCl2	2,748.0
MgCl2	1,880.8
CaSO4	1,477.8
Ca(HCO3)2	1,061.3

CATIONS		mg/L	meq/L	ANIONS		mg/L	meq/L
Sodium	Na^+	9,417.9	409.65	Chloride	Cl^-	20,907.4	589.72
Potassium	K^+	3,163.5	80.91	Bromide	Br^-	0.0	0.000
Calcium	Ca^{++}	1,689.9	84.33	Sulfate	$SO_4^=$	1,042.7	21.71
Magnesium	Mg^{++}	480.1	39.51	Bicarbonate	HCO_3^-	812.2	13.31
Barium	Ba^{++}	0.0	0.00	Carbonate	$CO_3^=$	0.0	0.00
Strontium	Sr^{++}	0.0	0.00	Organic Acids as Acetate		0.0	0.00
Iron	Fe^{++}	288.8	10.34	Hydroxide	OH^-	0.0	0.00
	SUM+	15,040.2	624.74		SUM-	22,762.3	624.74

TDS (calc'd)=	37,802 mg/l	Bisulfide ion	0.0 mg/l	Dissolved O_2, aq	0.0 ppb	Surface Temp	60 °F
TDS@180°C=	37,315 mg/l	Hydrogen Sulfide	0.0 mg/l	FIELD CO_2, aq	6.2 mg/l	Downhole Temp	125 °F
Calc Mole%CO_2=	15.00 %	Total Sulfides	0.0 mg/l	Calc CO_2, aq	88.2 mg/l	Ionic Strength	0.730 μ
						Field pH, s.u. =	6.88

Location	Temperature °F	Pressure psia	pH calculated	SI $CaCO_3$	$CaSO_4 \cdot 2H_2O$ Gypsum	$CaSO_4 \cdot \frac{1}{2}H_2O$ Hemi hydrate	$CaSO_4$ Anhydrite	SI $BaSO_4$	SI $SrSO_4$	
A	60	30.0	6.17	+0.01	-0.53	-0.54	-1.03			1
B	80	30.0	6.25	+0.29	-0.55	-0.56	-0.90			2
C	85	30.0	6.27	+0.37	-0.56	-0.56	-0.87			3
D	90	30.0	6.29	+0.44	-0.56	-0.57	-0.84			4
E	95	30.0	6.31	+0.51	-0.56	-0.57	-0.81			5
F	100	30.0	6.33	+0.58	-0.57	-0.57	-0.78			6
G	110	30.0	6.37	+0.72	-0.57	-0.58	-0.71			7
H	120	30.0	6.40	+0.86	-0.58	-0.58	-0.65			8
Downhole Conditions	180	250.0	5.69	+0.78	-0.57	-0.58	-0.30			9
Max formation temp	110	10.0	6.84	+1.20	-0.54	-0.58	-0.71			1
Max formation temp	110	20.0	6.54	+0.90	-0.57	-0.58	-0.71			2
Max formation temp	110	25.0	6.45	+0.80	-0.57	-0.58	-0.71			3
Max formation temp	110	50.0	6.14	+0.50	-0.58	-0.58	-0.71			4
Max formation temp	110	100.0	5.84	+0.19	-0.58	-0.58	-0.72			5
Max formation temp	110	250.0	5.44	-0.21	-0.59	-0.59	-0.72			6
Max formation temp	110	500.0	5.14	-0.53	-0.60	-0.61	-0.73			7
Max formation temp	110	600.0	5.06	-0.61	-0.61	-0.62	-0.73			8
Max formation temp	110	700.0	4.99	-0.69	-0.61	-0.62	-0.74			9
Max formation temp	110	800.0	4.93	-0.75	-0.62	-0.63	-0.74			10
Max formation temp	110	900.0	4.88	-0.81	-0.62	-0.64	-0.74			11
Max formation temp	110	1,000.0	4.83	-0.88	-0.63	-0.64	-0.75			12
Max formation temp	110	1,250.0	4.73	-0.97	-0.64	-0.66	-0.75			13

Calculations based upon Oddo Tomson Equations, v1.04.17.98

12/17/2003 v947MDCarney

Water Analysis Report

Field : Bill Barrett	**Sample Date : 5/1/2010**
County : Duchesne	**Formation :**
Location : JCU 14-32 With Pr River	**Rock Type :**
Lab ID : Bill Barrett	**Depth :**
Comments : Saturation Index at 180 Degrees & 250 psi is .78. Anything less than 1 is acceptable.	

CATIONS	mg/l	meq/l
Potassium	3,163.5	80.91
Sodium	9,417.9	409.65
Calcium	1,689.9	84.33
Magnesium	480.1	39.51
Iron	288.8	10.34
Barium	0.0	0.00
Strontium	0.0	0.00
SUM +	15,040.2	624.74

ANIONS	mg/l	meq/l
Sulfate	1,042.7	21.71
Chloride	20,907.4	589.72
Carbonate	0.0	0.00
Bicarbonate	812.2	13.31
Bromide	0.0	0.00
Organic Acids	0.0	0.00
Hydroxide	0.0	0.00
SUM -	22,762.3	624.74

Solids

Total Dissolved Solids @180°C	37,315	mg/l
Total Solids, Calc less CO_2	37,315	mg/l
Total Solids, Calculated	37,802	mg/l
Total Solids, NaCl equivalents	32,083	mg/l
Chloride as NaCl	23,941	mg/l
NaCl% of Total Dissolved Solids	63.33	%
Accuracy	0.00	Sigma

Sample Conditions

pH, s.u. (Field)	6.88	s.u.
Sample Pressure	6.00	psia
Mole% CO_2, Gas	15.00	%
pH, s.u. (from CO_2)	6.87	s.u.
Surface Temp	60	°F
Downhole Temp	125	°F
Ionic Strength	0.730	μ

Dissolved Gases

Bisulfide ion, HS^-	0.0	mg/l
Hydrogen Sulfide, H_2S	0.0	mg/l
Total Sulfide	0.0	mg/l

Dissolved O_2, aq	0.0	ppb
Measured CO_2, aq	6.2	mg/l
Calculated CO_2, aq	88.2	mg/l

Other Properties

Calcium Hardness as $CaCO_3$	4,219.3	mg/l
Magnesium Hardness as $CaCO_3$	1,976.7	mg/l
Total Hardness as $CaCO_3$	6,196.0	mg/l
Hardness, grains	360.80	grains/gallon

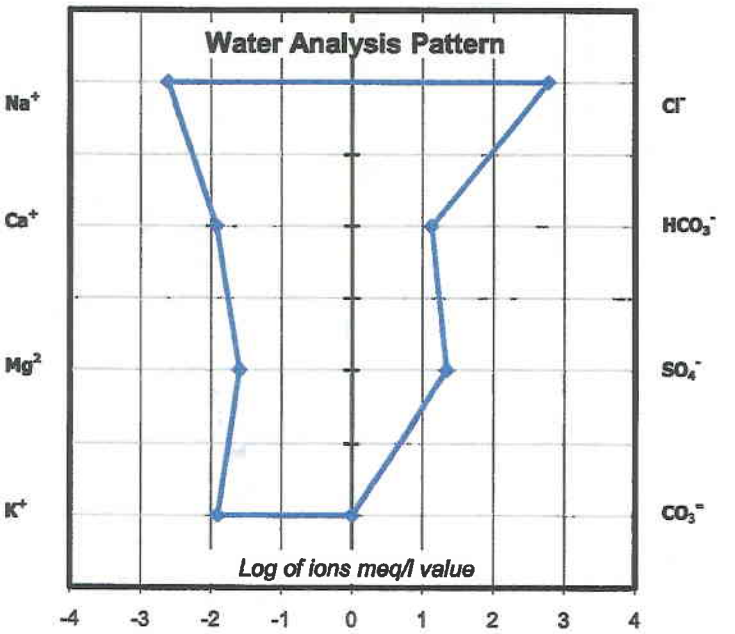
Specific Gravity	1.026	measured
Specific Gravity	1.026	calculated
Resistivity, 68°F	0.201	ohm-cm
Conductivity 25°C	49,751	μmhos/cm

Microbiological

Sulfate Reducing	nd
Aerobic Bacteria	nd

Scaling Conditions

Calcium Carbonate	$CaCO_3$	+
Calcium Sulfate	$CaSO_4$	- - -
Barium Sulfate	$BaSO_4$	-
Strontium Sulfate	$SrSO_4$	-



Probable Mineral Residue, Dry

Calculation error = 0 %

COMPOUND	mg/l
NaCl	23,941.2
KCl	6,032.2
CaCl2	2,748.0
MgCl2	1,880.8
CaSO4	1,477.8
Ca(HCO3)2	1,061.3

Note: nd denotes 'Not Determined'

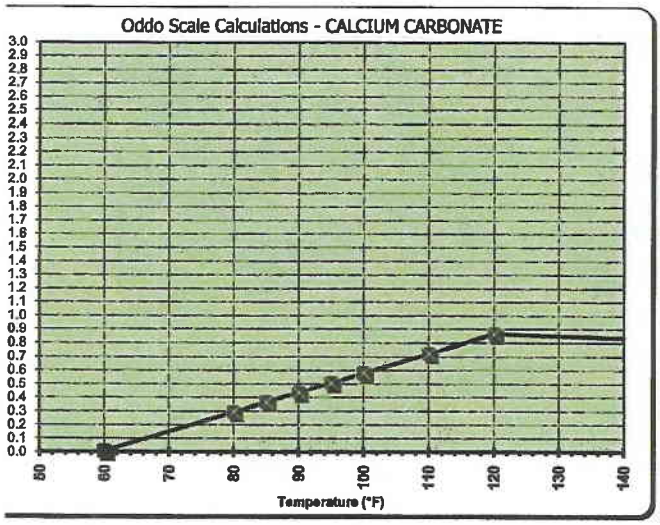
Analyzed by: Creg Wilkins

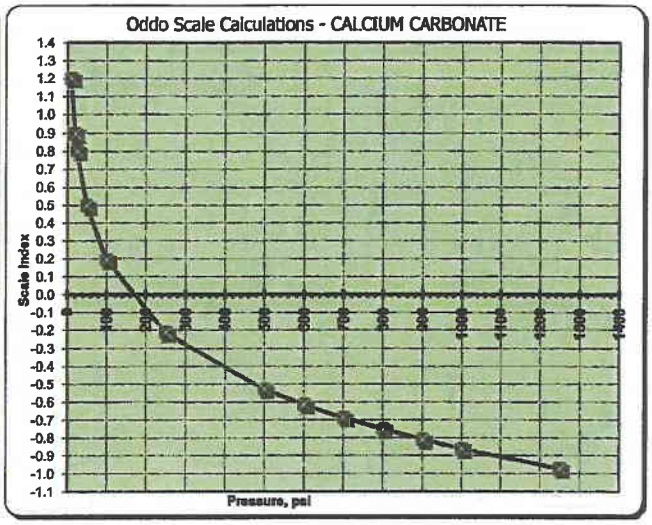
Approved: Creg Wilkins

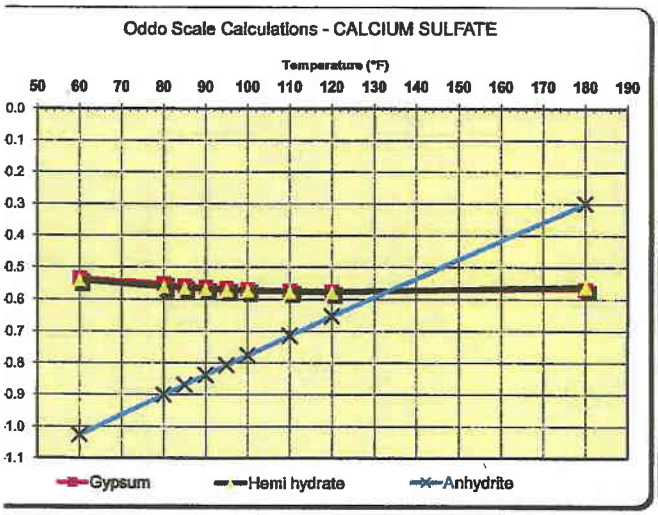
12/17/03 v947MDCarney

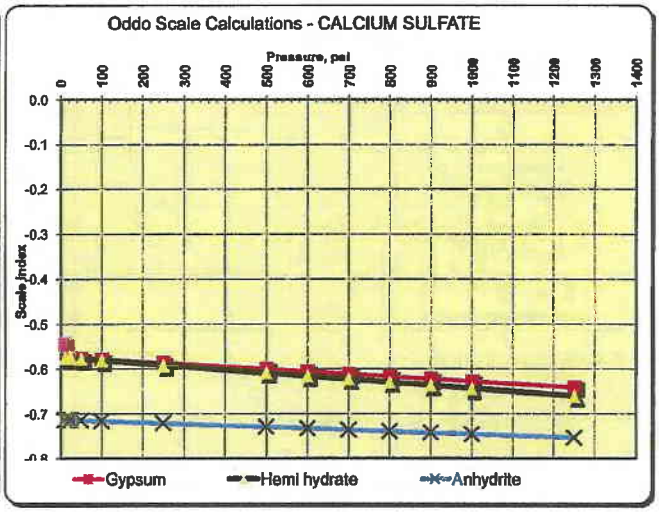
Production Scaling Tendency Analysis Report

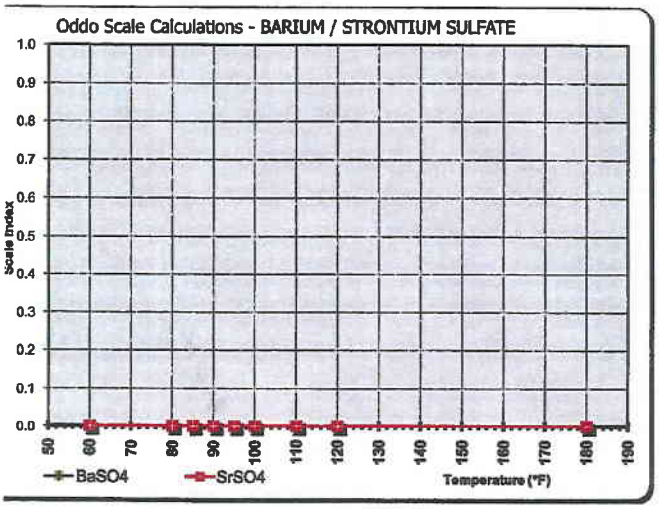
Bill Barrett **JCU 14-32 With Pr River**

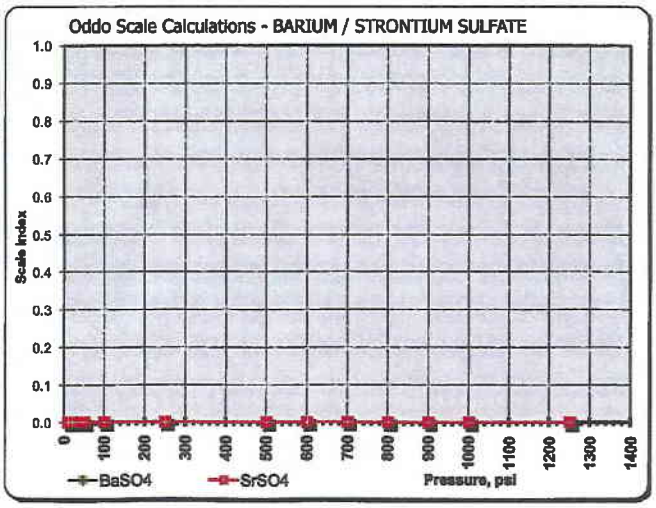












Water Analysis Report

Field : Bill Barrett	**Sample Date : 5/1/2010**
County : Duchesne	**Formation :**
Location : JCU 14-32 With Dark Canyon	**Rock Type :**
Lab ID : Bill Barrett	**Depth :**
Comments : Saturation Index at 180 Degrees & 250 psi is .84. Anything less than 1 is acceptable.	

CATIONS	mg/l	meq/l
Potassium	2,058.1	52.64
Sodium	9,540.4	414.98
Calcium	1,391.3	69.42
Magnesium	294.6	24.24
Iron	48.7	1.74
Barium	0.0	0.00
Strontium	0.0	0.00
SUM +	13,333.0	563.02

ANIONS	mg/l	meq/l
Sulfate	1,942.9	40.45
Chloride	18,086.3	510.15
Carbonate	0.0	0.00
Bicarbonate	757.6	12.42
Bromide	0.0	0.00
Organic Acids	0.0	0.00
Hydroxide	0.0	0.00
SUM -	20,786.8	563.02

Solids

Total Dissolved Solids @180°C	33,665	mg/l
Total Solids, Calc less CO_2	33,665	mg/l
Total Solids, Calculated	34,120	mg/l
Total Solids, NaCl equivalents	29,547	mg/l
Chloride as NaCl	24,253	mg/l
NaCl% of Total Dissolved Solids	71.08	%
Accuracy	0.00	Sigma

Sample Conditions

pH, s.u. (Field)	7.05	s.u.
Sample Pressure	6.00	psia
Mole% CO_2, Gas	10.00	%
pH, s.u. (from CO_2)	7.01	s.u.
Surface Temp	60	°F
Downhole Temp	125	°F
Ionic Strength	0.653	μ

Dissolved Gases

Bisulfide Ion, HS^-	0.0	mg/l
Hydrogen Sulfide, H_2S	0.0	mg/l
Total Sulfide	0.0	mg/l

Dissolved O_2, aq	0.0	ppb
Measured CO_2, aq	3.8	mg/l
Calculated CO_2, aq	59.6	mg/l

Other Properties

Calcium Hardness as $CaCO_3$	3,473.6	mg/l
Magnesium Hardness as $CaCO_3$	1,212.4	mg/l
Total Hardness as $CaCO_3$	4,686.0	mg/l
Hardness, grains	272.87	grains/gallon

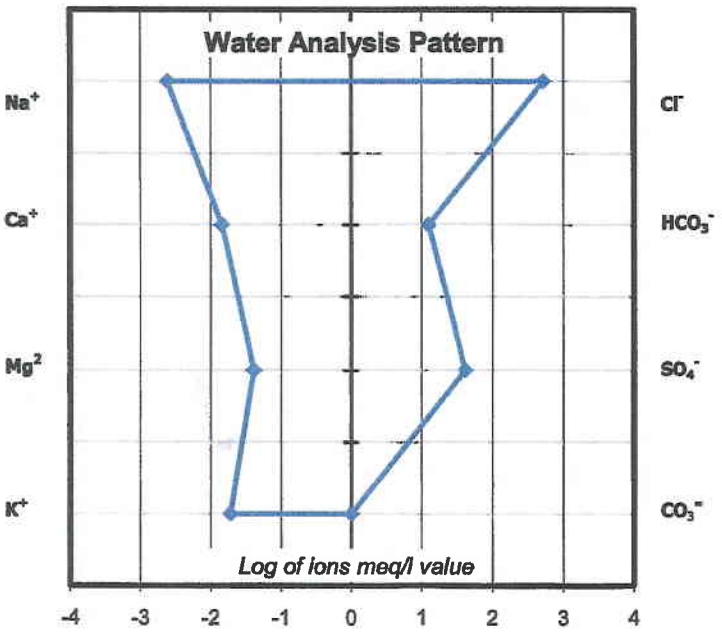
Specific Gravity	1.024	measured
Specific Gravity	1.024	calculated
Resistivity, 68°F	0.234	ohm-cm
Conductivity 25°C	42,735	μmhos/cm

Microbiological

Sulfate Reducing	nd
Aerobic Bacteria	nd

Scaling Conditions

Calcium Carbonate	$CaCO_3$	+
Calcium Sulfate	$CaSO_4$	- - -
Barium Sulfate	$BaSO_4$	-
Strontium Sulfate	$SrSO_4$	-



Probable Mineral Residue, Dry

Calculation error = 0 %

COMPOUND	mg/l
NaCl	24,252.7
KCl	3,924.3
CaSO4	2,753.5
MgCl2	1,153.9
Ca(HCO3)2	990.0
CaCl2	929.8

Note: nd denotes 'Not Determined'
Analyzed by: Creg Wilkins
Approved: Creg Wilkins
12/17/03 v947MDCarney

Production Scaling Tendency Analysis Report

Bill Barrett **JCU 14-32 With Dark Canyon**

Location : JCU 14-32 With Dark Canyon	Analyzed by : Creg Wilkins
Field : Bill Barrett	Sample Date : 5/1/2010
County : Duchesne	Lab ID : Bill Barrett
Formation :	Sigma : 0.00

Comments : Saturation Index at 180 Degrees & 250 psi is .84. Anything less than 1 is acceptable.

CATIONS		mg/L	meq/L	ANIONS		mg/L	meq/L
Sodium	Na^+	9,540.4	414.98	Chloride	Cl^-	18,066.3	510.15
Potassium	K^+	2,058.1	52.64	Bromide	Br^-	0.0	0.000
Calcium	Ca^{++}	1,391.3	69.42	Sulfate	$SO_4^=$	1,842.9	40.45
Magnesium	Mg^{++}	294.6	24.24	Bicarbonate	HCO_3^-	757.6	12.42
Barium	Ba^{++}	0.0	0.00	Carbonate	$CO_3^=$	0.0	0.00
Strontium	Sr^{++}	0.0	0.00	Organic Acids as Acetate		0.0	0.00
Iron	Fe^{++}	48.7	1.74	Hydroxide	OH^-	0.0	0.00
	SUM+	13,333.0	563.02		SUM-	20,786.8	563.02

Probable Mineral Residue, Dry	
Compound	mg/L
NaCl	24,252.7
KCl	3,924.3
CaSO4	2,753.5
MgCl2	1,153.9
Ca(HCO3)2	990.0
CaCl2	929.8

TDS (calc'd)=	34,120 mg/l	Bisulfide ion	0.0 mg/l	Dissolved O_2, aq	0.0 ppb	Surface Temp	60 °F
TDS@180°C=	33,665 mg/l	Hydrogen Sulfide	0.0 mg/l	FIELD CO_2, aq	3.8 mg/l	Downhole Temp	125 °F
Calc Mole%CO_2=	10.00 %	Total Sulfides	0.0 mg/l	Calc CO_2, aq	59.6 mg/l	Ionic Strength	0.653 μ
						Field pH, s.u. =	7.05

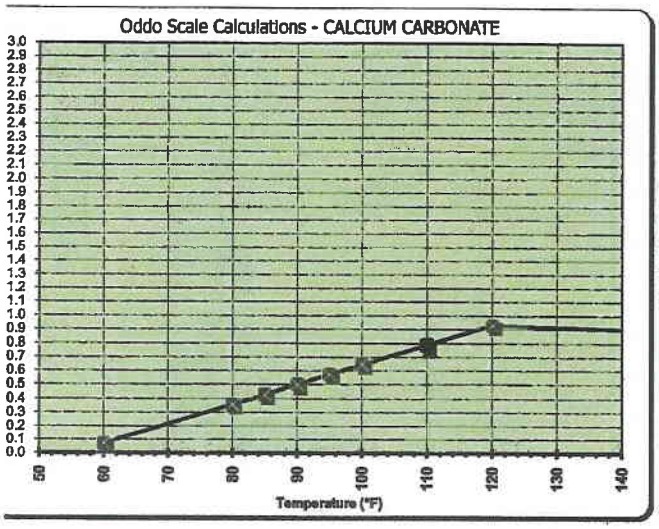
Location	Temperature °F	Pressure psia	pH calculated	SI $CaCO_3$	$CaSO_4 \cdot 2H_2O$ Gypsum	$CaSO_4 \cdot \frac{1}{2}H_2O$ Hemi hydrate	$CaSO_4$ Anhydrite	SI $BaSO_4$	SI $SrSO_4$	
A	60	30.0	6.32	+0.07	-0.32	-0.32	-0.82			1
B	80	30.0	6.40	+0.36	-0.33	-0.34	-0.69			2
C	85	30.0	6.42	+0.43	-0.34	-0.34	-0.66			3
D	90	30.0	6.44	+0.50	-0.34	-0.34	-0.63			4
E	95	30.0	6.46	+0.57	-0.34	-0.35	-0.60			5
F	100	30.0	6.48	+0.64	-0.35	-0.35	-0.56			6
G	110	30.0	6.51	+0.79	-0.35	-0.35	-0.50			7
H	120	30.0	6.55	+0.93	-0.35	-0.35	-0.44			8
Downhole Conditions	180	250.0	5.84	+0.84	-0.34	-0.33	-0.08			9
Max formation temp	110	10.0	6.99	+1.26	-0.32	-0.35	-0.50			1
Max formation temp	110	20.0	6.69	+0.96	-0.35	-0.35	-0.50			2
Max formation temp	110	25.0	6.59	+0.87	-0.35	-0.35	-0.50			3
Max formation temp	110	50.0	6.29	+0.56	-0.35	-0.35	-0.50			4
Max formation temp	110	100.0	5.99	+0.26	-0.36	-0.36	-0.50			5
Max formation temp	110	250.0	5.59	-0.15	-0.37	-0.37	-0.51			6
Max formation temp	110	500.0	5.29	-0.47	-0.38	-0.38	-0.52			7
Max formation temp	110	600.0	5.21	-0.55	-0.38	-0.39	-0.52			8
Max formation temp	110	700.0	5.14	-0.62	-0.39	-0.40	-0.52			9
Max formation temp	110	800.0	5.08	-0.69	-0.40	-0.40	-0.53			10
Max formation temp	110	900.0	5.03	-0.75	-0.40	-0.41	-0.53			11
Max formation temp	110	1,000.0	4.98	-0.80	-0.41	-0.42	-0.53			12
Max formation temp	110	1,250.0	4.88	-0.91	-0.42	-0.44	-0.54			13

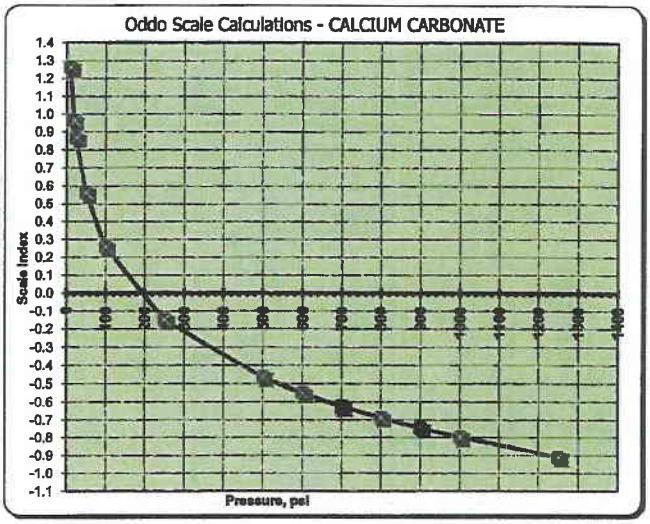
Calculations based upon Oddo Tomson Equations, v1.04.17.98

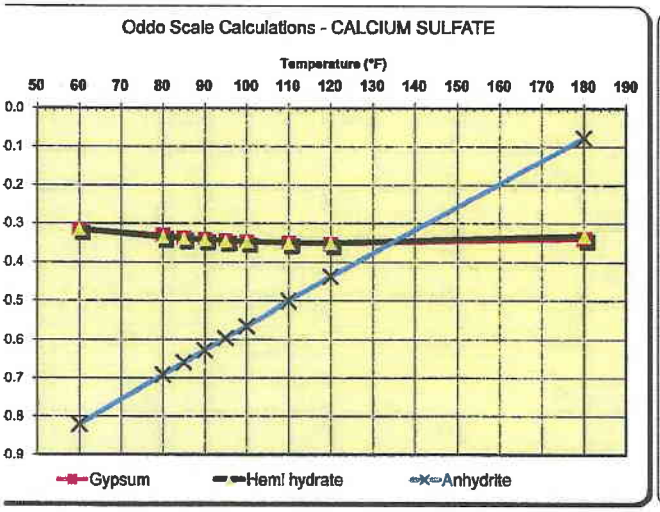
12/17/2003 v947MDCarney

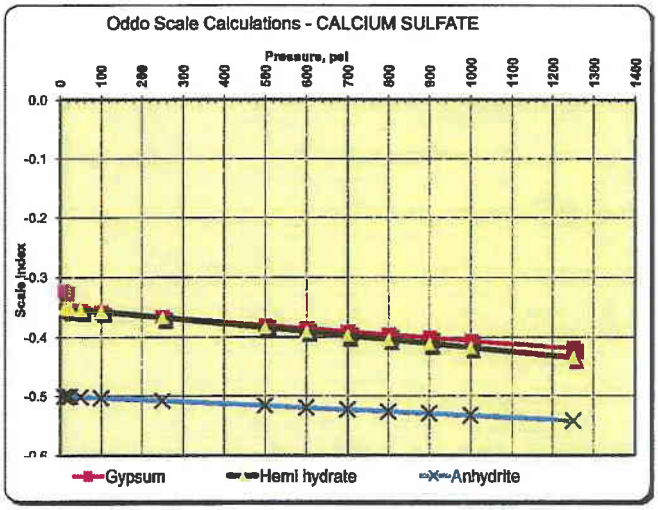
Production Scaling Tendency Analysis Report

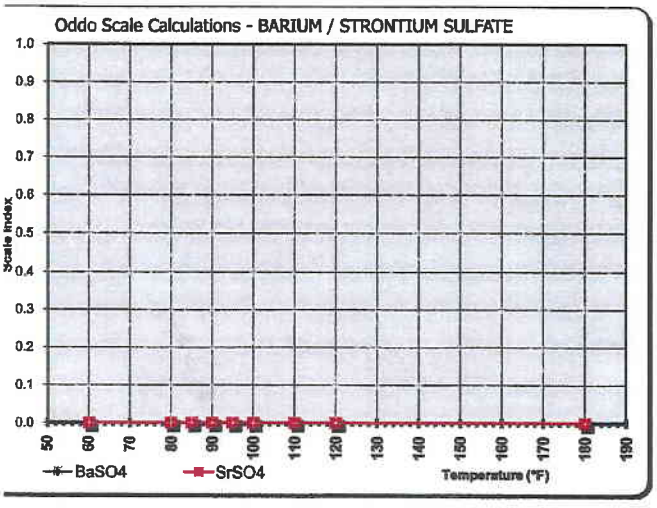
Bill Barrett **JCU 14-32 With Dark Canyon**

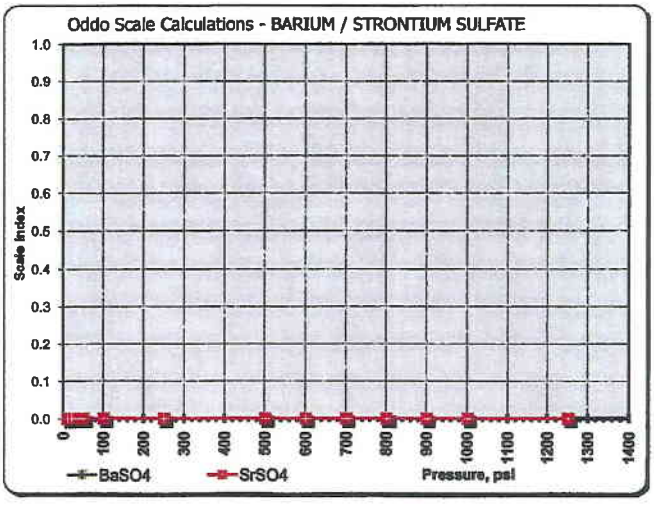












Water Analysis Report

Field : Bill Barrett	**Sample Date :** 5/1/2010
County : Duchesne	**Formation :**
Location : JCU 14-32 With North Horn	**Rock Type :**
Lab ID : Bill Barrett	**Depth :**
Comments : Saturation Index at 180 Degrees & 250 psi is 1.76. This is a high scaling tendency, but is treatable with scale inhibitor.	

CATIONS	mg/l	meq/l
Potassium	5,649.7	144.50
Sodium	6,638.1	288.74
Calcium	957.6	47.78
Magnesium	217.5	17.90
Iron	3.2	0.11
Barium	0.0	0.00
Strontium	0.0	0.00
SUM +	13,466.1	499.03

ANIONS	mg/l	meq/l
Sulfate	1,280.6	26.66
Chloride	16,364.1	461.57
Carbonate	0.0	0.00
Bicarbonate	658.6	10.80
Bromide	0.0	0.00
Organic Acids	0.0	0.00
Hydroxide	0.0	0.00
SUM -	18,303.3	499.03

Solids

Total Dissolved Solids @180°C	31,374	mg/l
Total Solids, Calc less CO_2	31,374	mg/l
Total Solids, Calculated	31,769	mg/l
Total Solids, NaCl equivalents	24,122	mg/l
Chloride as NaCl	16,875	mg/l
NaCl% of Total Dissolved Solids	53.12	%
Accuracy	0.00	Sigma

Sample Conditions

pH, s.u. (Field)	8.12	s.u.
Sample Pressure	6.00	psia
Mole% CO_2, Gas	0.70	%
pH, s.u. (from CO_2)	8.11	s.u.
Surface Temp	60	°F
Downhole Temp	125	°F
Ionic Strength	0.563	μ

Dissolved Gases

Bisulfide Ion, HS^-	0.0	mg/l
Hydrogen Sulfide, H_2S	0.0	mg/l
Total Sulfide	0.0	mg/l

Dissolved O_2, aq	0.0	ppb
Measured CO_2, aq	0.3	mg/l
Calculated CO_2, aq	4.2	mg/l

Other Properties

Calcium Hardness as $CaCO_3$	2,390.9	mg/l
Magnesium Hardness as $CaCO_3$	895.1	mg/l
Total Hardness as $CaCO_3$	3,286.0	mg/l
Hardness, grains	191.35	grains/gallon

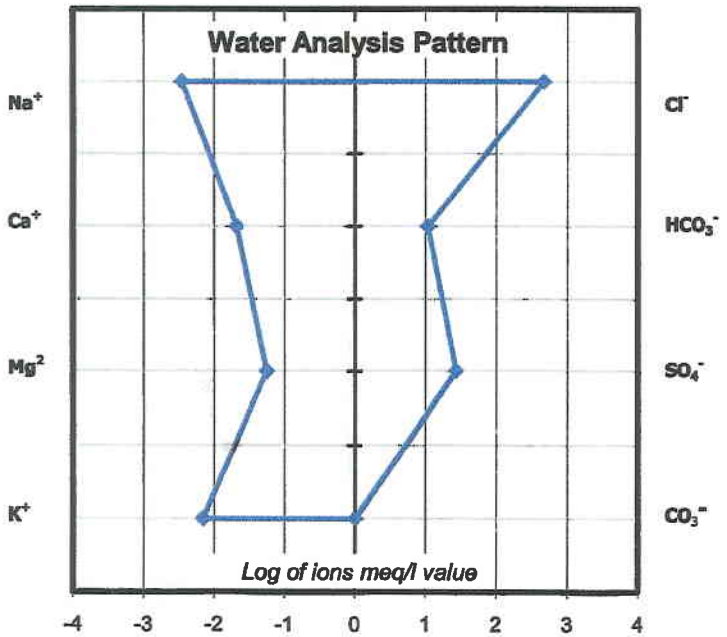
Specific Gravity	1.022	measured
Specific Gravity	1.022	calculated
Resistivity, 68°F	0.252	ohm-cm
Conductivity 25°C	39,683	μmhos/cm

Microbiological

Sulfate Reducing	nd
Aerobic Bacteria	nd

Scaling Conditions

Calcium Carbonate	$CaCO_3$	+
Calcium Sulfate	$CaSO_4$	- - -
Barium Sulfate	$BaSO_4$	-
Strontium Sulfate	$SrSO_4$	-



Probable Mineral Residue, Dry

Calculation error = 0 %

COMPOUND	mg/l
NaCl	16,874.8
KCl	10,767.5
CaSO4	1,815.0
Ca(HCO3)2	860.6
MgCl2	852.1
CaCl2	582.8

Note: nd denotes 'Not Determined'
Analyzed by: Creg Wilkins
Approved: Creg Wilkins
12/17/03 v947MDCarney

Production Scaling Tendency Analysis Report

Bill Barrett JCU 14-32 With North Horn

Location : JCU 14-32 With North Horn	Analyzed by : Creg Wilkins
Field : Bill Barrett	Sample Date : 5/1/2010
County : Duchesne	Lab ID : Bill Barrett
Formation :	Sigma : 0.00

Comments : Saturation Index at 180 Degrees & 250 psi is 1.76. This is a high scaling tendency, but is treatable with scale inhibitor.

CATIONS		mg/L	meq/L	ANIONS		mg/L	meq/L
Sodium	Na^+	6,638.1	288.74	Chloride	Cl^-	16,364.1	461.57
Potassium	K^+	5,649.7	144.50	Bromide	Br^-	0.0	0.000
Calcium	Ca^{++}	957.6	47.78	Sulfate	$SO_4^=$	1,280.6	26.66
Magnesium	Mg^{++}	217.5	17.90	Bicarbonate	HCO_3^-	658.6	10.80
Barium	Ba^{++}	0.0	0.00	Carbonate	$CO_3^=$	0.0	0.00
Strontium	Sr^{++}	0.0	0.00	Organic Acids as Acetate		0.0	0.00
Iron	Fe^{++}	3.2	0.11	Hydroxide	OH^-	0.0	0.00
	SUM+	13,466.1	499.03		SUM-	18,303.3	499.03

Probable Mineral Residue, Dry	
Compound	mg/L
NaCl	16,874.8
KCl	10,767.5
CaSO4	1,815.0
Ca(HCO3)2	860.6
MgCl2	852.1
CaCl2	582.8

TDS (calc'd)=	31,769 mg/l	Bisulfide ion	0.0 mg/l	Dissolved O_2, aq	0.0 ppb	Surface Temp	60 °F
TDS@180°C=	31,374 mg/l	Hydrogen Sulfide	0.0 mg/l	FIELD CO_2, aq	0.3 mg/l	Downhole Temp	125 °F
Calc Mole%CO_2=	0.70 %	Total Sulfides	0.0 mg/l	Calc CO_2, aq	4.2 mg/l	Ionic Strength	0.563 μ
						Field pH, s.u. =	8.12

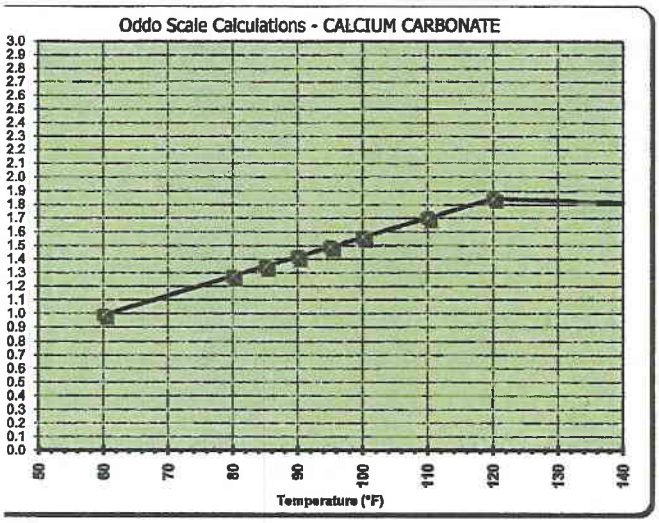
Location	Temperature °F	Pressure psia	pH calculated	SI $CaCO_3$	$CaSO_4 \cdot 2H_2O$ Gypsum	$CaSO_4 \cdot \frac{1}{2}H_2O$ Hemi hydrate	$CaSO_4$ Anhydrite	SI $BaSO_4$	SI $SrSO_4$	
A	60	30.0	7.41	+0.99	-0.61	-0.59	-1.12			1
B	80	30.0	7.49	+1.27	-0.62	-0.61	-0.99			2
C	85	30.0	7.51	+1.35	-0.62	-0.62	-0.95			3
D	90	30.0	7.53	+1.42	-0.63	-0.62	-0.92			4
E	95	30.0	7.55	+1.49	-0.63	-0.62	-0.89			5
F	100	30.0	7.57	+1.56	-0.63	-0.62	-0.85			6
G	110	30.0	7.61	+1.70	-0.63	-0.62	-0.79			7
H	120	30.0	7.65	+1.84	-0.63	-0.62	-0.72			8
Downhole Conditions	180	250.0	6.95	+1.76	-0.61	-0.60	-0.35			9
Max formation temp	110	10.0	8.09	+2.18	-0.60	-0.62	-0.79			1
Max formation temp	110	20.0	7.79	+1.88	-0.63	-0.62	-0.79			2
Max formation temp	110	25.0	7.69	+1.76	-0.63	-0.62	-0.79			3
Max formation temp	110	50.0	7.39	+1.48	-0.64	-0.63	-0.79			4
Max formation temp	110	100.0	7.09	+1.17	-0.64	-0.63	-0.79			5
Max formation temp	110	250.0	6.69	+0.77	-0.65	-0.64	-0.80			6
Max formation temp	110	500.0	6.38	+0.45	-0.66	-0.66	-0.80			7
Max formation temp	110	600.0	6.30	+0.37	-0.67	-0.66	-0.81			8
Max formation temp	110	700.0	6.23	+0.29	-0.67	-0.67	-0.81			9
Max formation temp	110	800.0	6.17	+0.23	-0.68	-0.68	-0.81			10
Max formation temp	110	900.0	6.12	+0.17	-0.68	-0.68	-0.82			11
Max formation temp	110	1,000.0	6.07	+0.12	-0.69	-0.69	-0.82			12
Max formation temp	110	1,250.0	5.97	+0.01	-0.70	-0.71	-0.83			13

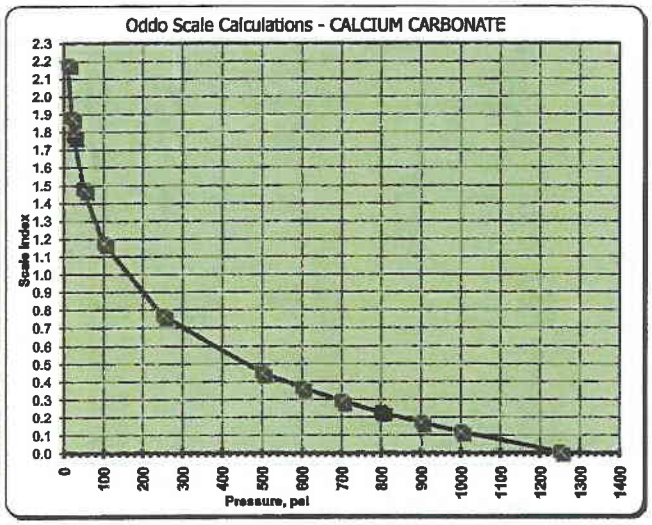
Calculations based upon Oddo Tomson Equations, v1.04.17.98

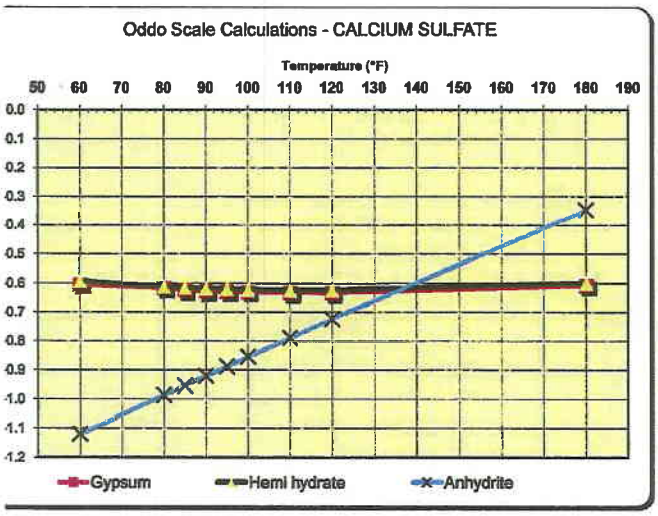
12/17/2003 v947MDCarney

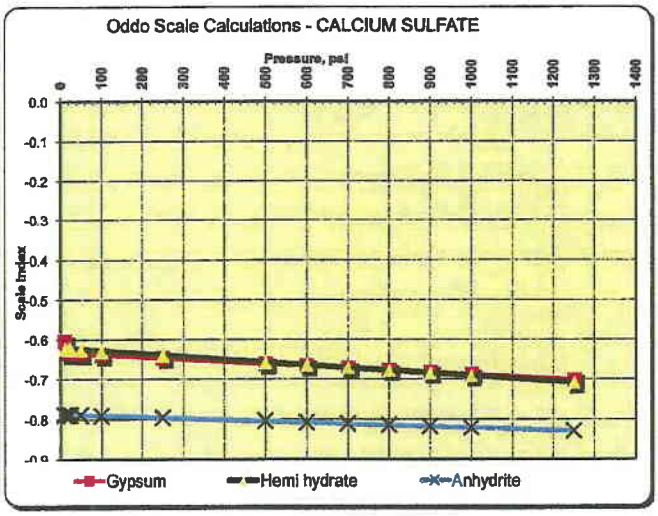
Production Scaling Tendency Analysis Report

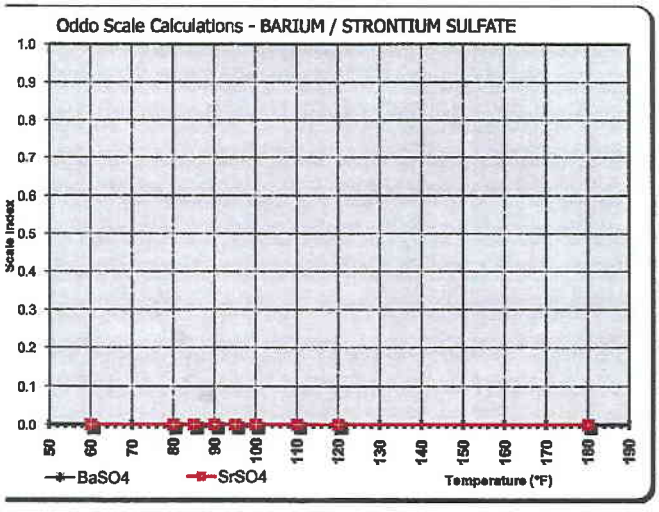
Bill Barrett **JCU 14-32 With North Horn**

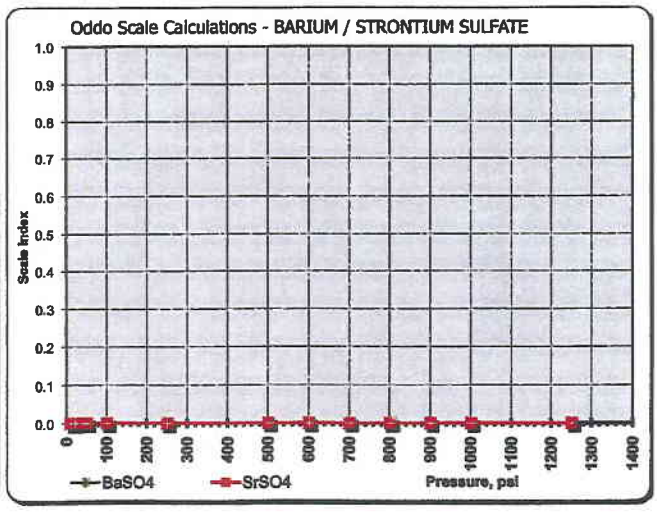












Water Analysis Report

Field : Bill Barrett	**Sample Date :** 5/1/2010
County : Duchesne	**Formation :**
Location : JCU 14-32 Comingled	**Rock Type :**
Lab ID : Bill Barrett	**Depth :**
Comments : Saturation Index at 180 Degrees & 250 psi is ,70. Anything less than 1 is acceptable.	

CATIONS	mg/l	meq/l	ANIONS	mg/l	meq/l
Potassium	2,339.0	59.82	Sulfate	1,011.6	21.06
Sodium	10,183.8	442.97	Chloride	19,287.8	544.04
Calcium	1,159.6	57.87	Carbonate	0.0	0.00
Magnesium	176.0	14.48	Bicarbonate	700.6	11.48
Iron	40.2	1.44	Bromide	0.0	0.00
Barium	0.0	0.00	Organic Acids	0.0	0.00
Strontium	0.0	0.00	Hydroxide	0.0	0.00
SUM +	13,898.6	576.58	SUM -	21,000.0	576.58

Solids

Total Dissolved Solids @180°C	34,478	mg/l
Total Solids, Calc less CO_2	34,478	mg/l
Total Solids, Calculated	34,899	mg/l
Total Solids, NaCl equivalents	30,724	mg/l
Chloride as NaCl	25,888	mg/l
NaCl% of Total Dissolved Solids	74.18	%
Accuracy	0.00	Sigma

Sample Conditions

pH, s.u. (Field)	6.97	s.u.
Sample Pressure	6.00	psia
Mole% CO_2, Gas	10.00	%
pH, s.u. (from CO_2)	6.98	s.u.
Surface Temp	60	°F
Downhole Temp	125	°F
Ionic Strength	0.646	μ

Dissolved Gases

Bisulfide Ion, HS^-	0.0	mg/l
Hydrogen Sulfide, H_2S	0.0	mg/l
Total Sulfide	0.0	mg/l

Dissolved O_2, aq	0.0	ppb
Measured CO_2, aq	4.2	mg/l
Calculated CO_2, aq	59.7	mg/l

Other Properties

Calcium Hardness as $CaCO_3$	2,895.3	mg/l
Magnesium Hardness as $CaCO_3$	724.7	mg/l
Total Hardness as $CaCO_3$	3,620.0	mg/l
Hardness, grains	210.80	grains/gallon

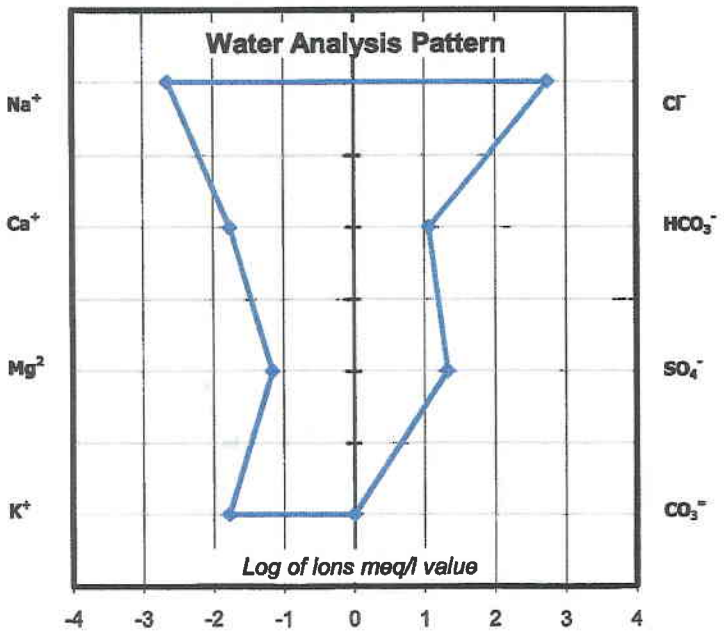
Specific Gravity	1.024	measured
Specific Gravity	1.024	calculated
Resistivity, 68°F	0.217	ohm-cm
Conductivity 25°C	46,083	μmhos/cm

Microbiological

Sulfate Reducing	nd
Aerobic Bacteria	nd

Scaling Conditions

Calcium Carbonate	$CaCO_3$	+
Calcium Sulfate	$CaSO_4$	- - -
Barium Sulfate	$BaSO_4$	-
Strontium Sulfate	$SrSO_4$	-



Probable Mineral Residue, Dry

Calculation error = 0 %

COMPOUND	mg/l
NaCl	25,888.3
KCl	4,460.0
CaSO4	1,433.7
CaCl2	1,415.5
Ca(HCO3)2	915.5
MgCl2	689.5

Note: nd denotes 'Not Determined'
Analyzed by: Creg Wilkins
Approved: Creg Wilkins
12/17/03 v947MDCarney

Production Scaling Tendency Analysis Report

Bill Barrett — JCU 14-32 Comingled

Location : JCU 14-32 Comingled	Analyzed by : Creg Wilkins
Field : Bill Barrett	Sample Date : 5/1/2010
County : Duchesne	Lab ID : Bill Barrett
Formation :	Sigma : 0.00
Comments : 0	

CATIONS		mg/L	meq/L	ANIONS		mg/L	meq/L
Sodium	Na^+	10,183.8	442.97	Chloride	Cl^-	19,287.8	544.04
Potassium	K^+	2,339.0	59.82	Bromide	Br^-	0.0	0.000
Calcium	Ca^{++}	1,159.6	57.87	Sulfate	$SO_4^{=}$	1,011.6	21.06
Magnesium	Mg^{++}	176.0	14.48	Bicarbonate	HCO_3^-	700.6	11.48
Barium	Ba^{++}	0.0	0.00	Carbonate	$CO_3^{=}$	0.0	0.00
Strontium	Sr^{++}	0.0	0.00	Organic Acids as Acetate		0.0	0.00
Iron	Fe^{++}	40.2	1.44	Hydroxide	OH^-	0.0	0.00
	SUM+	13,898.6	576.58		SUM-	21,000.0	576.58

Probable Mineral Residue, Dry	
Compound	mg/L
NaCl	25,888.3
KCl	4,460.0
CaSO4	1,433.7
CaCl2	1,415.5
Ca(HCO3)2	915.5
MgCl2	689.5

TDS (calc'd)=	34,899 mg/l	Bisulfide Ion	0.0 mg/l	Dissolved O_2, aq	0.0 nd	Surface Temp	60 °F
TDS@180°C=	34,478 mg/l	Hydrogen Sulfide	0.0 mg/l	FIELD CO_2, aq	4.2 mg/l	Downhole Temp	125 °F
Calc Mole%CO_2=	10.00 %	Total Sulfides	0.0 mg/l	Calc CO_2, aq	59.7 mg/l	Ionic Strength	0.646 μ
						Field pH, s.u. =	6.97

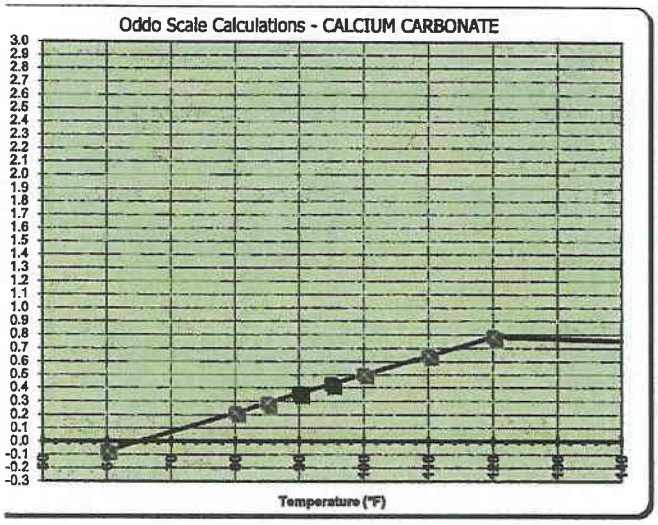
Location	Temperature °F	Pressure psia	pH calculated	SI $CaCO_3$	$CaSO_4 \cdot 2H_2O$ Gypsum	$CaSO_4 \cdot \frac{1}{2}H_2O$ Hemi hydrate	$CaSO_4$ Anhydrite	SI $BaSO_4$	SI $SrSO_4$	
A	60	30.0	6.28	-0.07	-0.66	-0.66	-1.16			1
B	80	30.0	6.36	+0.21	-0.67	-0.67	-1.03			2
C	85	30.0	6.38	+0.29	-0.68	-0.68	-1.00			3
D	90	30.0	6.40	+0.36	-0.68	-0.68	-0.97			4
E	95	30.0	6.42	+0.43	-0.68	-0.68	-0.93			5
F	100	30.0	6.44	+0.50	-0.68	-0.68	-0.90			6
G	110	30.0	6.48	+0.64	-0.69	-0.69	-0.84			7
H	120	30.0	6.52	+0.78	-0.69	-0.69	-0.77			8
Downhole Conditions	180	250.0	5.81	+0.70	-0.67	-0.66	-0.40			9
Max formation temp	110	10.0	6.96	+1.12	-0.66	-0.68	-0.84			1
Max formation temp	110	20.0	6.66	+0.82	-0.69	-0.69	-0.84			2
Max formation temp	110	25.0	6.56	+0.72	-0.69	-0.69	-0.84			3
Max formation temp	110	50.0	6.26	+0.42	-0.69	-0.69	-0.84			4
Max formation temp	110	100.0	5.96	+0.11	-0.69	-0.69	-0.84			5
Max formation temp	110	250.0	5.56	-0.29	-0.70	-0.70	-0.85			6
Max formation temp	110	500.0	5.25	-0.61	-0.72	-0.72	-0.85			7
Max formation temp	110	600.0	5.17	-0.69	-0.72	-0.73	-0.86			8
Max formation temp	110	700.0	5.10	-0.77	-0.73	-0.73	-0.86			9
Max formation temp	110	800.0	5.04	-0.83	-0.73	-0.74	-0.86			10
Max formation temp	110	900.0	4.99	-0.89	-0.74	-0.75	-0.87			11
Max formation temp	110	1,000.0	4.94	-0.94	-0.74	-0.75	-0.87			12
Max formation temp	110	1,250.0	4.84	-1.05	-0.76	-0.77	-0.88			13

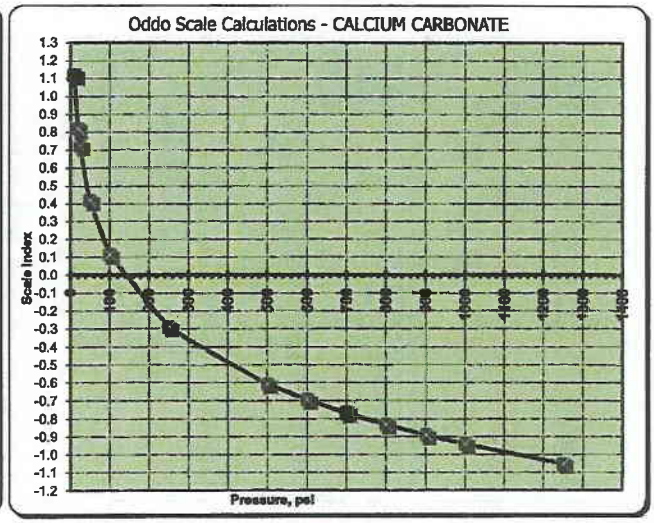
Calculations based upon Oddo Tomson Equations, v1.04.17.98

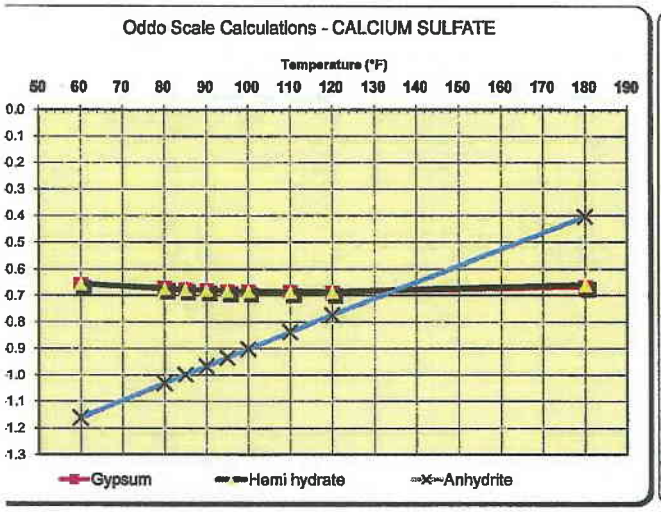
12/17/2003 v947MDCarney

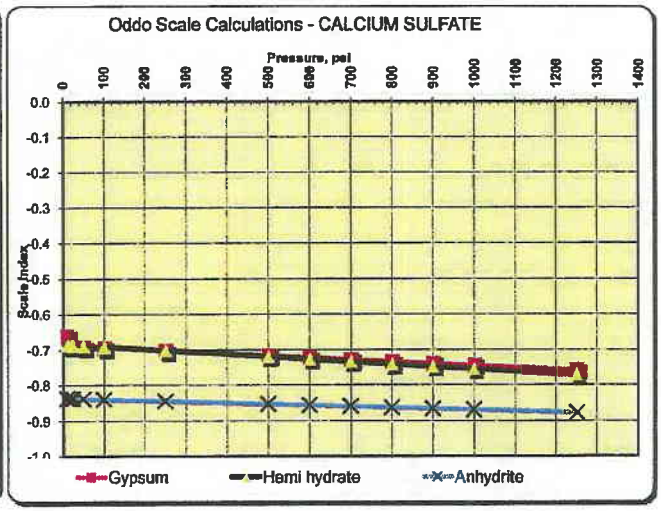
Production Scaling Tendency Analysis Report

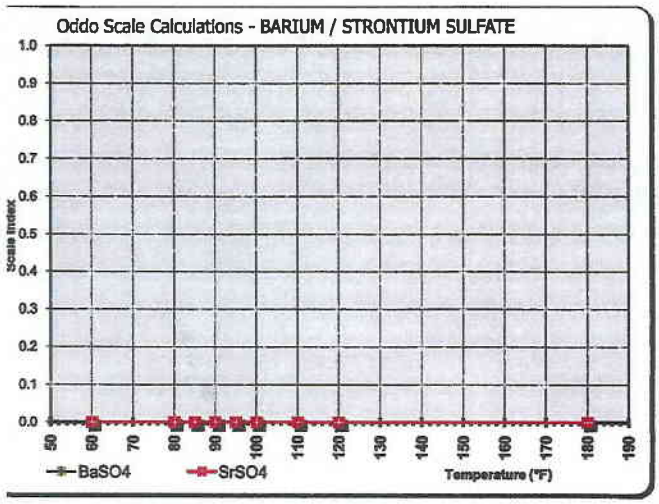
Bill Barrett **JCU 14-32 Comingled**

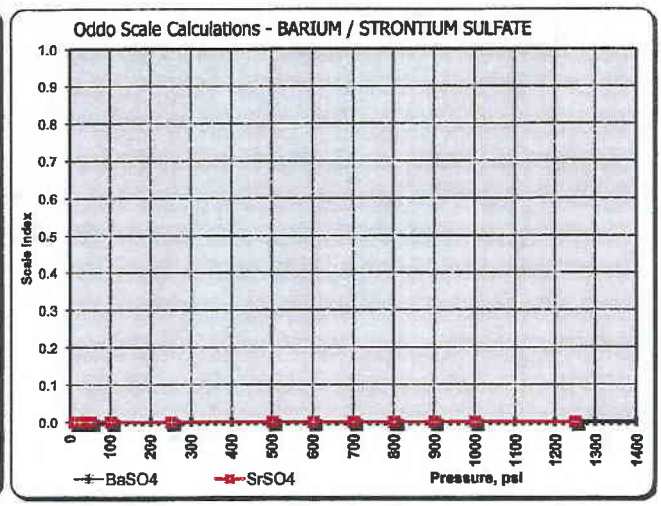












Chris Kierst - Water Analysis Scaling Tendency Needed

From: Chris Bairrington <cbairrington@billbarrettcorp.com>
To: "chriskierst@utah.gov" <chriskierst@utah.gov>
Date: 5/18/2010 4:11 PM
Subject: Water Analysis Scaling Tendency Needed
CC: Tracey Fallang <tfallang@billbarrettcorp.com>
Attachments: 20091917 Jack Canyon 14-32 Tank Water Analysis.xls; Peter's Point Average Water Analysis (V2).xls

Chris,

Attached is what I have sent to our water lab. If you have anything to add, please let me know.

Thanks,
Chris
303-312-8511

Attached are two documents. One is a Nalco analysis performed on the water sitting in tanks on the JCU 14-32 location. The second is an average analysis for Peters Point water drawn from multiple wells over multiple years.

I am needing a scaling tendency performed with the tank water & all the combined reports on the Average Water Analysis document.

1.) Nalco Tank Water Analysis vs Commingled (Column B)

2.) Nalco Tank Water Analysis vs North Horn (Column C)

3.) Nalco Tank Water Analysis vs Price River (Column D)

4.) Nalco Tank Water Analysis vs Dark Canyon (Column E)

5.) Nalco Tank Water Analysis vs Deep (Column F)

Thanks,
Chris

NALCO

Water Analysis Report

Field : 0	**Sample Date : 9/17/2009**
County : 0	**Formation :**
Location : Jack Canyon 14-32 Tank	**Rock Type :**
Lab ID : XTO	**Depth :**
Comments : Mn 0.70 ppm PO4	

CATIONS	mg/l	meq/l	ANIONS	mg/l	meq/l
Potassium	2,325.0	59.47	**Sulfate**	960.0	19.99
Sodium	4,476.8	194.73	**Chloride**	8,400.0	236.93
Calcium	96.0	4.79	**Carbonate**	0.0	0.00
Magnesium	107.4	8.84	**Bicarbonate**	671.0	11.00
Iron	2.4	0.09	**Bromide**	0.0	0.00
Barium	0.0	0.00	**Organic Acids**	0.0	0.00
Strontium	0.0	0.00	**Hydroxide**	0.0	0.00
SUM +	**7,007.6**	**267.92**	**SUM -**	**10,031.0**	**267.92**

Solids

Total Dissolved Solids @180°C	16,636	mg/l
Total Solids, Calc less CO_2	16,636	mg/l
Total Solids, Calculated	17,039	mg/l
Total Solids, NaCl equivalents	13,783	mg/l
Chloride as NaCl	11,381	mg/l
NaCl% of Total Dissolved Solids	66.79	%
Accuracy	0.00	Sigma

Sample Conditions

pH, s.u. (Field)	8.17	s.u.
Sample Pressure	6.00	psia
Mole% CO_2, Gas	0.64	%
pH, s.u. (from CO_2)	8.17	s.u.
Surface Temp	60	°F
Downhole Temp	125	°F
Ionic Strength	0.290	μ

Dissolved Gases

Bisulfide ion, HS^-	1.9	mg/l
Hydrogen Sulfide, H_2S	0.1	mg/l
Total Sulfide	2.0	mg/l

Dissolved O_2, aq	0.0	ppb
Measured CO_2, aq	100.0	mg/l
Calculated CO_2, aq	4.1	mg/l

Other Properties

Calcium Hardness as $CaCO_3$	239.7	mg/l
Magnesium Hardness as $CaCO_3$	442.3	mg/l
Total Hardness as $CaCO_3$	682.0	mg/l
Hardness, grains	39.71	grains/gallon

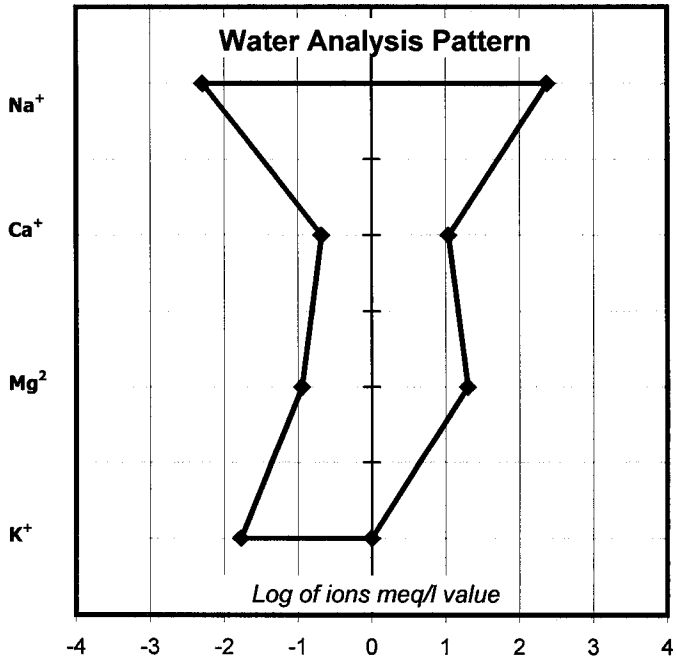
Specific Gravity	1.012	measured
Specific Gravity	1.012	calculated
Resistivity, 68°F	1.220	ohm-cm
Conductivity 25°C	8,197	μmhos/cm

Microbiological

Sulfate Reducing	0	
Aerobic Bacteria	0	Col/mL

Scaling Conditions

Calcium Carbonate	$CaCO_3$	+
Calcium Sulfate	$CaSO_4$	- - -
Barium Sulfate	$BaSO_4$	-
Strontium Sulfate	$SrSO_4$	-



Probable Mineral Residue, Dry

Calculation error = 0 %

COMPOUND	mg/l
NaCl	10,376.6
KCl	4,427.1
Na2SO4	1,220.1
Mg(HCO3)2	441.1
Ca(HCO3)2	388.2
MgSO4	169.0

Note: nd denotes 'Not Determined'

Analyzed by: Andrea Craig-Newman

Approved: Creg Wilkins

12/17/03 v947MDCarney

Formation	**Commingled**	**North Horn**	**Pr River**	**Dark Canyon**	**Deep**
Specific Gravity	**1.022****	**1.026**	**1.043**	**1.038**	**1.043**
Temp (Surface °F)	**80.18****	**68.62**	**75.60**	**70.04**	**70.52**
pH (Field su)	**6.67**	**8.09**	**6.63**	**6.77**	**6.54**
Resistivity (ohm-cm)	**0.428****	**0.320**	**0.558**	**0.294**	**0.416**
Iron (mg/l)	**77.9**	**3.9**	**575.0**	**95.0**	**75.0**
Potassium (mg/l)	**2,352****	**8,972**	**4,000**	**1,790**	**3,600**
Chlorides (mg/l)	**30,171**	**24,325**	**33,405**	**27,766**	**35,125**
Calcium (mg/l)	**2,223**	**1,819**	**3,283**	**2,686**	**3,637**
Magnesium (mg/l)	**245****	**328**	**853**	**482**	**572**
Sulfates (mg/l)	**1,063****	**1,601**	**1,125**	**2,925**	**1,180**
Carbonates (mg/l)	**0****	**158**	**0**	**0**	**0**
Bicarbonates (mg/l)	**730**	**646**	**953**	**844**	**1,822**
Sodium (mg/l)	**10,027****	**8,906**	**14,818**	**15,167**	**16,562**
TDS (mg/l)	**31,375****	**46,763**	**59,010**	**50,900**	**62,352**
Comments	108 samples 43 wells	9 samples 2 wells	2 samples 1 well	5 samples 1 well	5 samples 3 wells

GARY R. HERBERT
Governor
GREGORY S. BELL
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

April 5, 2010

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

Subject: Application for Class II Injection Permit, Jack Canyon State 14-32 Well, Section 32, Township 12 South, Range 16 East, Carbon County, Utah
API 43-007-30913

Dear Sir:

Pursuant to Utah Admin. Code R649-5-3-3, the Division of Oil, Gas and Mining (the "Division") issues its administrative approval for conversion of the referenced well to a Class II injection well. Accordingly, the following stipulations shall apply for full compliance with this approval and a permit may be issued upon compliance with the stipulations.

1. Conformance with all conditions and requirements of the complete application submitted by Bill Barrett Corporation.

2. Compliance with all applicable requirements for the operation, maintenance and reporting for Underground Injection Control ("UIC") Class II injection wells pursuant to Utah Admin. Code R649-1 et seq.

3. A casing/tubing pressure test shall be conducted prior to commencing injection.

Note that this letter does not constitute final approval to commence injection operations. This approval is only temporary and allows Bill Barrett Corporation to perform activities and gather information necessary for the Division to issue a Class II Underground Injection Control permit.

If you have any questions regarding this approval or the necessary requirements, please contact Christopher Kierst at (801) 538-5337.

Sincerely,

Gil Hunt
Associate Director

GLH/CJK/js
cc: Bruce Suchomel, Environmental Protection Agency
Carbon County Commission

N:\O&G Reviewed Docs\ChronFile\UIC\Bill Barrett

From: Tracey Fallang <tfallang@billbarrettcorp.com>
To: Chris Kierst <chriskierst@utah.gov>
Date: 4/5/2010 4:17 PM
Subject: RE: FW: JCU 14-32 - Notice of Agency Action
Attachments: Jack Canyon 14 _DeepRecommendation No further completion operations_ _2_.pdf

The proposed interval should be 6620 to 8510. I have attached a revised procedure.

From: Chris Kierst [mailto:chriskierst@utah.gov]
Sent: Monday, April 05, 2010 11:41 AM
To: Tracey Fallang
Subject: Re: FW: JCU 14-32 - Notice of Agency Action

Tracey,
Your UIC Form 1 says that you want a Proposed Injection Interval from 6620 to 8510. Your SWD Conversion Procedure indicates a preference for "permanent injection into the existing perforations from 6620-8318". What is correct?

>>> Tracey Fallang <tfallang@billbarrettcorp.com> 3/26/2010 11:04 AM >>>
Hey Chris, I believe the comment period is up now on this. No comments I take it, huh? And, I'm sure you have the application reviewed, correct! Ha, ha....

Thanks!

From: Chris Kierst <chriskierst@utah.gov<mailto:chriskierst@utah.gov>>
To: Tracey Fallang <tfallang@billbarrettcorp.com<mailto:tfallang@billbarrettcorp.com>>
Date: Mar 16 2010 - 2:43pm

Not yet. I'll let you know if I hear about any, although I'll be out on leave for a week starting tonight.

>>> Tracey Fallang <tfallang@billbarrettcorp.com<mailto:tfallang@billbarrettcorp.com>> 3/16/2010 2:38 PM >>>

Chris, curious, have you received any comments to date on this? Thanks.

Bill Barrett Corporation

Jack Canyon Unit #14-32-12-16

531' FSL, 1,479' FWL
Section 32, T12S-R16E
Carbon County, UT
API #: 43-007-30913
AFE #: 10862R

Summary & Objective:

October 26th, 2009 Bill Barrett Corporation rigged up on the Jack Canyon 14-32-12-16 to determine injection capabilities for existing deep perforations at the following depths.
6,620'-6,626'
6,838-6,842'
6,852-6,854'
6,897-6,899'
7,786-7,790'
7,870-7,874'
8,050-8,060'
8,130-8,132'
8,307-8,309'
8,316-8,318'
8,356-8,358
8,379-8,380
8,412-8,426
8,426-8,441
8,462-8,476
8,492-8,510

A packer was set @ 6,545' and injection was established
4 BPM – 210 psi
6 BPM – 1,000 psi

Post injection testing an MIT was performed on the backside and 1,575psi was held for 30 minutes, observed by Dennis Ingram.

Bill Barrett Corporation is proposing the following action for permanent injection into the existing perforations from 6,620-8,510'.

Current Wellbore Configuration:

Surface Casing: 9-5/8" 36.0# J-55 Set @ 1,043'
Production Casing: 5-1/2", 17.0# N-80 set @ 9,380' MD/TVD
* - All depths are give as KB depths. Rig KB = 16.0'
Production Casing Properties:

ID:	4.892"
Drift:	4.767"
Capacity:	0.0232 bbl/ft
Burst Pressure:	7,740 psi
Collapse Pressure:	6,280 psi

Production Tubing: 2-7/8", 6.5#, N-80 EU E, 8rd tubing set @ 6,545' (213 Jts.)
- HES Production pkr @ 6,545'
Production Tubing Properties:

ID:	2.441"
Drift:	2.347"
Capacity:	0.00579 bbl/ft
Burst Pressure:	10,570 psi
Collapse Pressure:	11,160 psi

PBTD = 8,630' (CIBP)

Current Well Status:

Shut in.

Re-Completion Procedure:

1. Contact BBC production personnel in the Roosevelt office and inform them of planned activity: (435) 725-3515.
2. Survey location and existing equipment on location (re-spot equipment as necessary).
3. Prepare location as necessary for work over rig and frac equipment.
    a. Verify rig anchors are properly placed and available for use, re-set if necessary.
    b. Verify that location size is sufficient to accommodate frac equipment.
4. MIRU work over rig, spot in necessary equipment.
5. Top kill well with fresh or lease water.
6. ND production tree and nipple up BOP's.
7. TOOH w/ 212 jts 2-7/8" tbg, XN Nipple, 1 jt 2-7/8" tbg, HES PLS production Pkr & LD
8. MUPU X Nipple, 5' TK-15 lined 2-7/8" pup jt, 5.5" injection pkr, on/off tool, TK-15 lined 2-7/8" tbg
9. Set 5.5" injection pkr @ +/- 6,545' (within 100' of top perf @ 6,620')
10. Establish injection with rig pumps of 4 BPM, & report back to Chris Bairrington – BBC Denver 303-312-8511.

11. RU rig pumps on backside & pressure test to 1,500psi & hold for 1 hour. Report pressure integrity test back to Chris Bairrington – 303-312-8511
12. If pressure test holds, RDMOL
13. Contact State official & schedule MIT within 48 hours of moving off location.
14. Report MIT official results back to BBC Denver.

AFFIDAVIT OF PUBLICATION

STATE OF UTAH)

ss.

County of Carbon,)

I, Richard Shaw, on oath, say that I am the Publisher of the Sun Advocate, a twice-weekly newspaper of general circulation, published at Price, State a true copy of which is hereto attached, was published in the full issue of such newspaper for 1 (One) consecutive issues, and the first publication was on the 16th day of March, 2010, and that the last publication of such notice was in the issue of such newspaper dated the 16th day of March 2010.

Richard Shaw – Publisher

Subscribed and sworn to before me this 16th day of March, 2010.

Notary Public My commission expires January 10, 2011 Residing at Price, Utah

Publication fee, $ 124.80

LINDA THAYN
NOTARY PUBLIC-STATE OF UTAH
645 EAST MAIN
PRICE, UTAH 84501
COMM. EXP. 01-10-2011

BEFORE THE DIVISION OF OIL, GAS AND MINING
DEPARTMENT OF NATURAL RESOURCES
STATE OF UTAH
NOTICE OF AGENCY ACTION
CAUSE NO. UIC 317.1

IN THE MATTER OF THE APPLICATION OF BILL BARRETT CORPORATIONFOR ADMINISTRATIVE APPROVAL OF THE JACK CANYON UNIT 14-32SWD WELL LOCATED IN SECTION 32, TOWNSHIP 12S, RANGE 16E, CARBONCOUNTY, UTAH, AS A CLASS II INJECTION WELL.

THE STATE OF UTAH TO ALL PERSONS INTERESTED IN THE ABOVE ENTITLED MATTER.

Notice is hereby given that the Division of Oil, Gas and Mining (the "Division") is commencing an informal adjudicative proceeding to consider the application of the Bill Barrett Corporationfor administrative approval of the Jack Canyon Unit 14-32 SWD I, located in SE/4 SW/4, Section 32, Township 12S, Range 16E, Salt LakeMeridian, CarbonCounty, Utah, for conversion to a Class II injection well. The adjudicative proceedings will be conducted informally according to Utah Admin. Rule R649-10, Administrative Procedures.

Selected zones in the Dark Canyon Conglomerate Beds of the Wasatch Formation and the sandstones of the Mesa Verde Group will be used for water injection. The maximum requested injection pressure and rate for this well will be determined based on fracture gradient information submitted by Bill Barrett Corporation.

Any person desiring to object to the proposed application or otherwise intervene in the proceeding, must file a written protest or notice of intervention with the Division within fifteen days following publication of this notice. The Division's Presiding Officer for the proceeding is Gil Hunt, Associate Director, at P.O. Box 145801, Salt Lake City, Utah 84114-5801, phone number (801) 538-5340. If such a protest or notice of intervention is received, a hearing will be scheduled in accordance with the aforementioned administrative procedure rule. Protestants and/or interveners should be prepared to demonstrate at the hearing how this matter affects their interests.

Dated this 10th day of March, 2010

STATE OF UTAH
DIVISION OF OIL, GAS & MINING
/s/
Gil Hunt
Associate Director

Published in the Sun Advocate March 16, 2010.

4770 S. 5600 W.
P.O. POX 704005
WEST VALLEY CITY, UTAH 84170
FED.TAX I.D.# 87-0217663

The Salt Lake Tribune MEDIAone A NEWSPAPER AGENCY COMPANY Morning News

CUSTOMER'S COPY

PROOF OF PUBLICATION

CUSTOMER NAME AND ADDRESS	ACCOUNT NUMBER	DATE
DIV OF OIL-GAS & MINING, 1594 W NORTH TEMP #1210 P.O. BOX 145801 SALT LAKE CITY, UT 84114	9001402352	3/15/2010

ACCOUNT NAME	
DIV OF OIL-GAS & MINING,	
TELEPHONE	ADORDER# / INVOICE NUMBER
8015385340	0000556123 /
SCHEDULE	
Start 03/13/2010	End 03/13/2010
CUST. REF. NO.	
Jack Canyon Unit 14	
CAPTION	
BEFORE THE DIVISION OF OIL, GAS AND MINI	
SIZE	
53 Lines	2.00 COLUMN
TIMES	RATE
4	
MISC. CHARGES	AD CHARGES
	TOTAL COST
	183.08

BEFORE THE DIVISION OF OIL, GAS AND MINING
DEPARTMENT OF NATURAL RESOURCES
STATE OF UTAH
NOTICE OF AGENCY ACTION
CAUSE NO. UIC 317.1

IN THE MATTER OF THE APPLICATION OF BILL BARRETT CORPORATION FOR ADMINISTRATIVE APPROVAL OF THE JACK CANYON UNIT 14-32 SWD WELL LOCATED IN SECTION 32, TOWNSHIP 12S, RANGE 16E, CARBON COUNTY, UTAH, AS A CLASS II INJECTION WELL.

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Dated this 10th day of March, 2010

STATE OF UTAH
DIVISION OF OIL, GAS & MINING
/s/ Gil Hunt
Gil Hunt
Associate Director

556123 UPAXLP

AFFIDAVIT OF PUBLICATION

AS NEWSPAPER AGENCY CORPORATION LEGAL BOOKER, I CERTIFY THAT THE ATTACHED ADVERTISEMENT OF **BEFORE THE DIVISION OF OIL, GAS AND MINI** FOR **DIV OF OIL-GAS & MINING,** WAS PUBLISHED BY THE NEWSPAPER AGENCY CORPORATION, AGENT FOR THE SALT LAKE TRIBUNE AND DESERET NEWS, DAILY NEWSPAPERS PRINTED IN THE ENGLISH LANGUAGE WITH GENERAL CIRCULATION IN UTAH, AND PUBLISHED IN SALT LAKE CITY, SALT LAKE COUNTY IN THE STATE OF UTAH. NOTICE IS ALSO POSTED ON UTAHLEGALS.COM ON THE SAME DAY AS THE FIRST NEWSPAPER PUBLICATION DATE AND REMAINS ON UTAHLEGALS.COM INDEFINATELY.

PUBLISHED ON Start 03/13/2010 End 03/13/2010

SIGNATURE

VIRGINIA CRAFT
Notary Public, State of Utah
Commission # 581469
My Commission Expires
January 12, 2014

DATE 3/15/2010

Virginia Craft

THIS IS NOT A STATEMENT BUT A "PROOF OF PUBLICATION"
PLEASE PAY FROM BILLING STATEMENT

BEFORE THE DIVISION OF OIL, GAS AND MINING
DEPARTMENT OF NATURAL RESOURCES
STATE OF UTAH
NOTICE OF AGENCY ACTION
CAUSE NO. UIC 317.1

IN THE MATTER OF THE APPLICATION OF BILL BARRETT CORPORATION FOR ADMINISTRATIVE APPROVAL OF THE JACK CANYON UNIT 14-32 SWD WELL LOCATED IN SECTION 32, TOWNSHIP 12S, RANGE 16E, CARBON COUNTY, UTAH, AS A CLASS II INJECTION WELL.

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Dated this 10th day of March, 2010

STATE OF UTAH
DIVISION OF OIL, GAS & MINING

Gil Hunt
Associate Director

Bill Barrett Corporation
Jack Canyon Unit 14-32 SWD
Cause No. UIC 317.1

Publication Notices were sent to the following:

Bill Barrett Corporation
1099 18th Street, Suite2300
Denver, CO 80202

Sun Advocate
845 East Main
Price, UT 84501
via e-mail legals@sunad.com

Salt Lake Tribune
P O Box 45838
Salt Lake City, UT 84145
via e-mail naclegal@mediaoneutah.com

Price Field Office
Bureau of Land Management
P O Box 7004
Price, UT 84501

Carbon County Planning
120 East Main Street
Price, UT 84501

Bruce Suchomel
US EPA Region VIII
MS 8-P-W-GW
1595 Wynkoop St
Denver, CO 80202-1129

Jean Sweet

Jean Sweet - RE: Notice of Agency Action - Jack Canyon Unit 14-32 SWD Cause No. UIC 317.1

From: "NAC Legal" <naclegal@mediaoneutah.com>
To: "'Jean Sweet'" <jsweet@utah.gov>
Date: 3/10/2010 12:47 PM
Subject: RE: Notice of Agency Action - Jack Canyon Unit 14-32 SWD Cause No. UIC 317.1

Ad #556123 is scheduled to run March 13 in Salt Lake Tribune, Deseret News and on the website utahlegals.com .

Total charge is $183.08. Please check the ad in the papers.

Thank you,

Lynn Valdez

MediaOne of Utah,

a Newspaper Agency Company

4770 South 5600 West

West Valley City, Utah 84118

Ph.: 801-204-6245

Email: naclegal@mediaoneutah.com

From: Jean Sweet [mailto:jsweet@utah.gov]
Sent: Wednesday, March 10, 2010 11:42 AM
To: naclegal@mediaoneutah.com
Subject: Notice of Agency Action – Jack Canyon Unit 14-32 SWD Cause No. UIC 317.1

To whom it May Concern:

Enclosed is a copy of the referenced Notice of Agency Action. Please publish the Notice, once only, as

soon as possible. Please notify me via e-mail of the date it will be published. My e-mail address is: jsweet@utah.gov .

Please send proof of publication and billing for **account #** 9001402352 to:

Division of Oil, Gas and Mining
PO Box 145801
Salt Lake City, UT 84114-5801

Sincerely,

Jean Sweet, Executive Secretary
Utah Div. of Oil, Gas & Mining
1594 West Temple, Suite 1210
Salt Lake City, UT
801-538-5329
jsweet@utah.gov

GARY R. HERBERT
Governor
GREG BELL
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

March 10, 2010

SENT VIA E-MAIL naclegal@mediaoneutah.com

Salt Lake Tribune
PO Box 45838
Salt Lake City, UT 84145

Subject: Notice of Agency Action – Jack Canyon Unit 14-32 SWD Cause No. UIC 317.1

To whom it May Concern:

Enclosed is a copy of the referenced Notice of Agency Action. Please publish the Notice, once only, as soon as possible. Please notify me via e-mail of the date it will be published. My e-mail address is: jsweet@utah.gov .

Please send proof of publication and billing for **account #** 9001402352 to:

Division of Oil, Gas and Mining
Suite 1210
PO Box 145801
Salt Lake City, UT 84114-5801

Sincerely,

Jean Sweet

Jean Sweet
Executive Secretary

Enclosure

Jean Sweet - Re: Notice of Agency Action – Jack Canyon Unit 14-32 SWD Cause No. UIC 317.1

From: Sun Advocate Legals <legals@sunad.com>
To: Jean Sweet <jsweet@utah.gov>
Date: 3/10/2010 2:58 PM
Subject: Re: Notice of Agency Action – Jack Canyon Unit 14-32 SWD Cause No. UIC 317.1

Received, notice will appear March 16, 2010 in the Sun Advocate as requested.

Kelly Wilkinson
Production Manager
Legal Advertising Manager
Sun Advocate
Emery County Progress
435.637.0732 x32

On 3/10/2010 11:41 AM, Jean Sweet wrote:

> To whom it May Concern:
>
> Enclosed is a copy of the referenced Notice of Agency Action. Please publish the Notice, once only, as soon as possible. Please notify me via e-mail of the date it will be published. My e-mail address is: jsweet@utah.gov .
>
> Please send proof of publication and billing to:
>
> Division of Oil, Gas and Mining
> PO Box 145801
> Salt Lake City, UT 84114-5801
>
> Sincerely,
>
> Jean Sweet, Executive Secretary
> Utah Div. of Oil, Gas & Mining
> 1594 West Temple, Suite 1210
> Salt Lake City, UT
> 801-538-5329
> jsweet@utah.gov

GARY R. HERBERT
Governor
GREG BELL
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

March 10, 2010

SENT VIA E-MAIL legals@sunad.com

Sun Advocate
845 East Main
Price, UT 84501

Subject: Notice of Agency Action – Jack Canyon Unit 14-32 SWD Cause No. UIC 317.1

To whom it May Concern:

Enclosed is a copy of the referenced Notice of Agency Action. Please publish the Notice, once only, as soon as possible. Please notify me via e-mail of the date it will be published. My e-mail address is: jsweet@utah.gov .

Please send proof of publication and billing to:

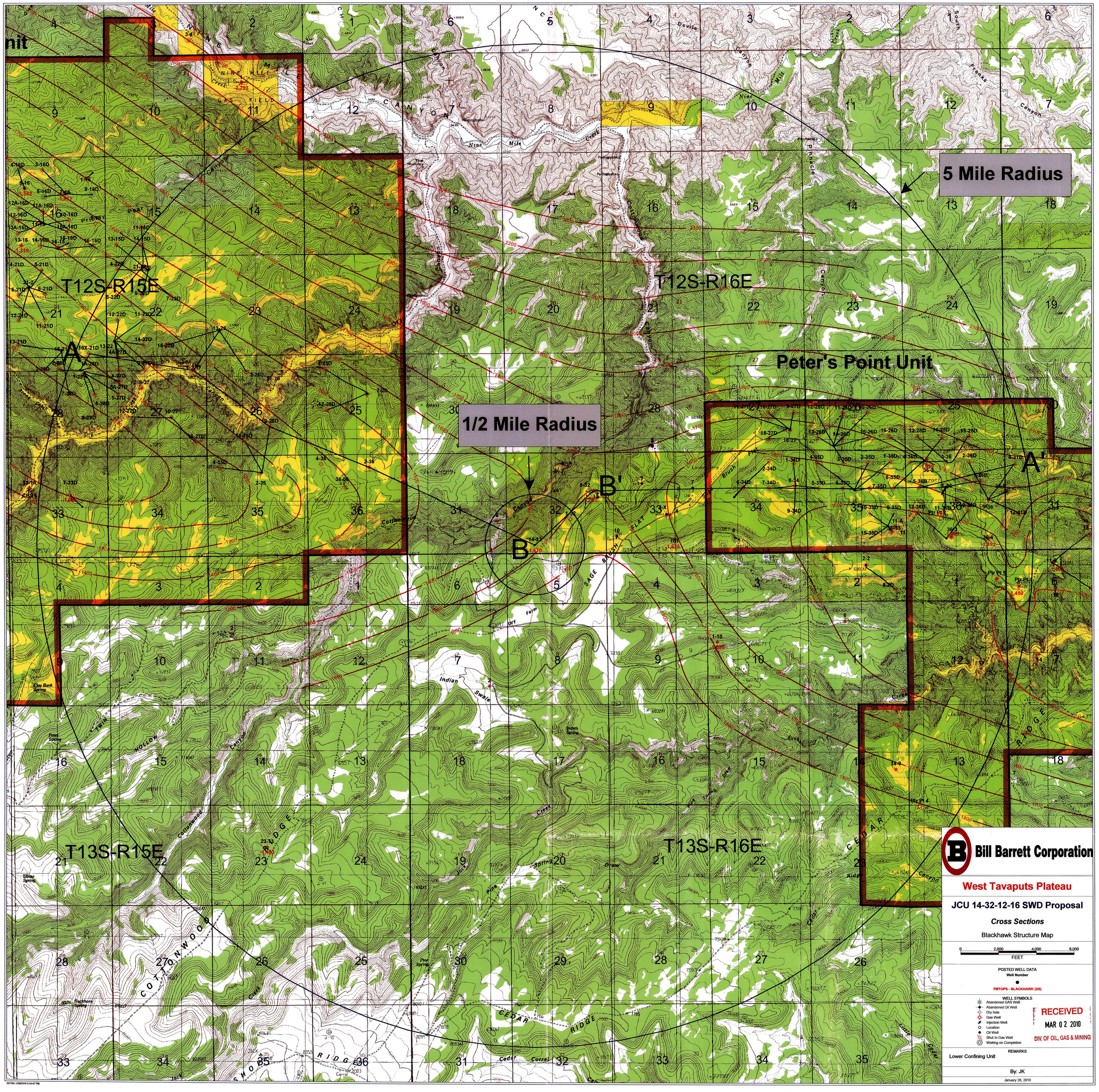
Division of Oil, Gas and Mining
Suite 1210
PO Box 145801
Salt Lake City, UT 84114-5801

Sincerely,

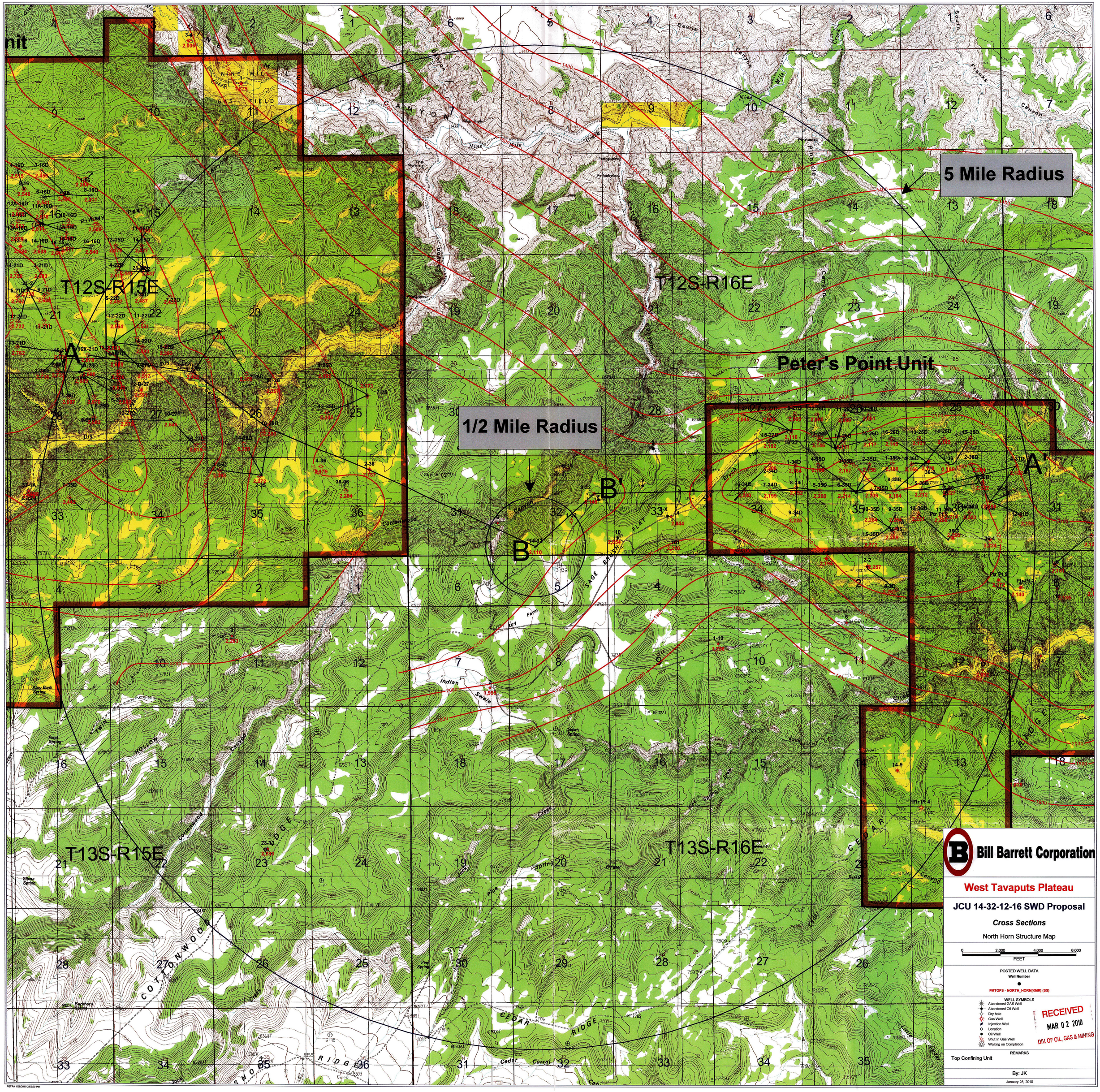
Jean Sweet

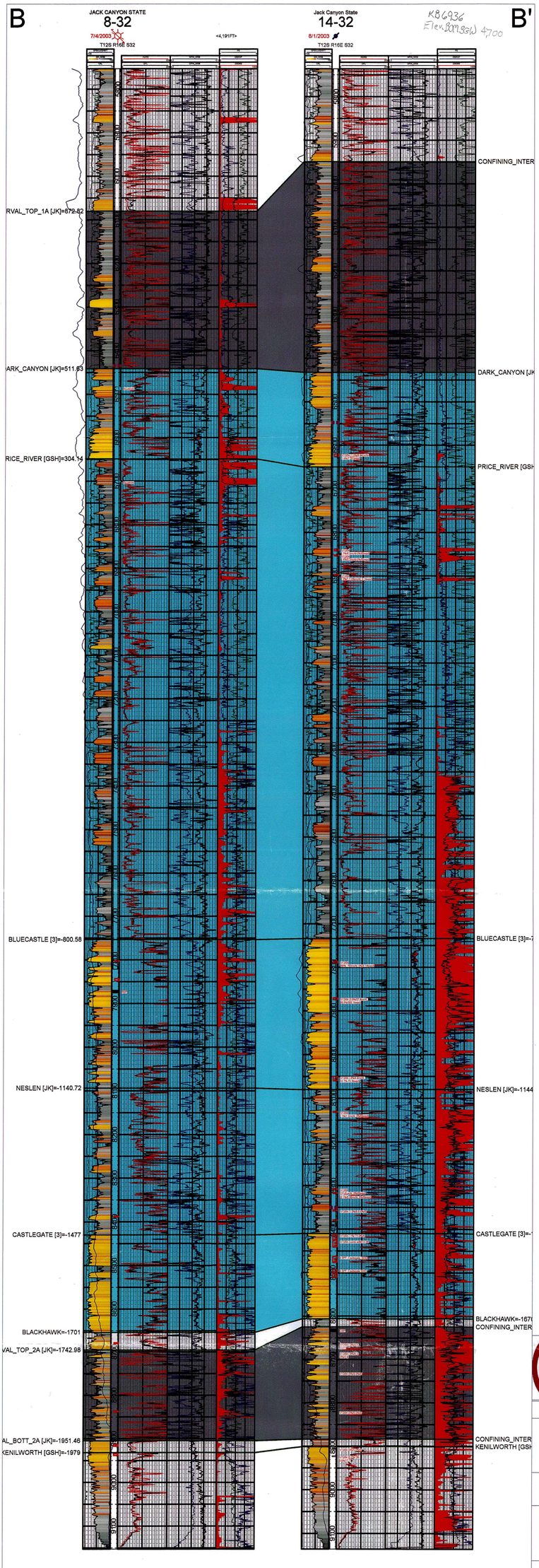
Jean Sweet
Executive Secretary

Enclosure



PETRA 1/28/2010 3:14:47 PM


5 Mile Radius
1/2 Mile Radius
Peter's Point Unit
T12S-R15E
T12S-R16E
T13S-R15E
T13S-R16E
A
A'
B
B'
Bill Barrett Corporation
West Tavaputs Plateau
JCU 14-32-12-16 SWD Proposal
Cross Sections
North Horn Structure Map
0 2,000 4,000 6,000
FEET
POSTED WELL DATA
Well Number
FMTOPS - NORTH_HORN[KMR] (SS)
WELL SYMBOLS
Abandoned GAS Well
Abandoned Oil Well
Dry hole
Gas Well
Injection Well
Location
Oil Well
Shut In Gas Well
Waiting on Completion
RECEIVED
MAR 02 2010
DIV. OF OIL, GAS & MINING
REMARKS
Top Confining Unit
By: JK
January 28, 2010
PETRA 1/28/2010 2:52:20 PM



30380 Wells Draw Butte Mbr 2935
Wasatch 2882

32913 Wasatch 2907

Bill Barrett Corporation

Uinta Basin/West Tavaputs Plateau

JCU #14-32-12-16 SWD

Injection and confining intervals

N/S, B-B'

Horizontal Scale = 10000.0
Vertical Scale = 50.0
Vertical Exaggeration = 200.0x

Well Name
Well Number
WELL - SPUD ●
Twn-Rge-Sec

CORES SHOWS DST/WLT IP CASING

SDWL

GAS
OIL
WATER
OTHER

LINER

PERFS

ACTIVE INACTIVE OPENHOLE BRIDGEPLUG CMNTPLUG PACKER PROPOSED SQUEEZED JUNK

By: JK

January 29,2010 2:02 PM

RECEIVED
MAR 02 2010
DIV. OF OIL, GAS & MINING

PETRA 1/29/2010 2:03:19 PM (14-32 SWD_DeepNS.CSP)

A

A'

Priddy Pear
16X-21D
6/17/2009
T12S R15E S29
<5,799FT>

Priddy Pear
1-27D
4/23/2009
T12S R15E S23
<5,430FT>

Priddy Pear
10-26D
8/5/2007
T12S R15E S35
<5,570FT>

Priddy Pear
2-36
10/23/2006
T12S R15E S36
<5,874FT>

Jack Canyon State
14-32
8/1/2003
T12S R16E S32
<6,191FT>

JACK CANYON STATE
8-32
7/4/2003
T12S R16E S32
<7,970FT>

Peter's Point
6-34D
8/6/2005
T12S R16E S34
<5,239FT>

Peter's Point
6-35D
7/7/2009
T12S R16E S35
<6,123FT>

Peter's Point
5-36D
1/21/2009
T12S R16E S36
<6,759FT>

Peter's Point
4-31D
8/11/2005
T12S R16E S06

CONFINING_INTERVAL_TOP_1A [JK]=1316.96

CONFINING_INTERVAL_BOTT_1A [JK]=1012.79

DARK_CANYON [JK]=962.13

PRICE_RIVER [GSH]=752.3

CONFINING_INTERVAL_TOP_1A [JK]=925.66

CONFINING_INTERVAL_BOTT_1A [JK]=647.23

DARK_CANYON [JK]=612.38

PRICE_RIVER [GSH]=406.51

(BLUECASTLE [3]=0)

BLUECASTLE [3]=-715.51

(NESLEN [JK]=0)

NESLEN [JK]=-1026.59

(CASTLEGATE [3]=0)

CASTLEGATE [3]=0)

(BLACKHAWK=0)
(CONFINING_INTERVAL_TOP_2A [JK]=0)

(BLACKHAWK=0)
(CONFINING_INTERVAL_TOP_2A [JK]=0)

(CONFINING_INTERVAL_BOTT_2A [JK]=0)
(KENILWORTH [GSH]=0)

(CONFINING_INTERVAL_BOTT_2A [JK]=0)
(KENILWORTH [GSH]=0)

Bill Barrett Corporation

Uinta Basin/West Tavaputs Plateau

JCU #14-32-12-16 SWD

Injection and confining intervals

A to A', West to East

Horizontal Scale = 10000.0
Vertical Scale = 50.0
Vertical Exaggeration = 200.0x

Well Name
Well Number
WELL - SPUD ●
Twn-Rge-Sec

CORES: SDWL
SHOWS: GAS, OIL, WATER, OTHER
DST/WLT
IP
CASING
LINER
PERFS: ACTIVE, INACTIVE, OPENHOLE, BRIDGEPLUG, FRACPLUG, PACKER, PROPOSED, SQUEEZED, JUNK

By: JK

January 29,2010 7:02 AM

RECEIVED
MAR 02 2010
DIV. OF OIL, GAS & MINING

PETRA 1/28/2010 7:05:53 AM (14-32 SWD_DeepEW.CSP)

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

UIC FORM 1

APPLICATION FOR INJECTION WELL

Name of Operator: BILL BARRETT CORPORATION	Utah Account Number: N 2165	Well Name and Number: Jack Canyon State 14-32
Address of Operator: 1099 18th St. CITY Denver STATE CO ZIP 80202	Phone Number: (303) 312-8134	API Number: 4300730913
Location of Well Footage : 531' FSL, 1479' FWL SESW QQ, Section, Township, Range: SWSE 32 12S 16E County : Carbon State : UTAH		Field or Unit Name: Undesignated Lease Designation and Number: ML 43541

Is this application for expansion of an existing project?	Yes ☐	No ☑
Will the proposed well be used for: Enhanced Recovery?	Yes ☐	No ☑
Disposal?	Yes ☑	No ☐
Storage?	Yes ☐	No ☑
Is this application for a new well to be drilled?	Yes ☐	No ☑
If this application is for an existing well, has a casing test been performed?	Yes ☑	No ☐

Date of test: 10/26/2009

Proposed injection interval: from 6,620 to 8,510

Proposed maximum injection: rate 3,500 bpd pressure 3,150 psig

Proposed injection zone contains oil ☐, gas ☑, and / or fresh water ☐ within ½ mile of the well.

List of attachments: FULL APPLICATION PACKAGE AND ATTACHMENTS ARE ENCLOSED

ATTACH ADDITIONAL INFORMATION AS REQUIRED BY CURRENT UTAH OIL AND GAS CONSERVATION GENERAL RULES

I hereby certify that this report is true and complete to the best of my knowledge.

Name (Please Print) Tracey Fallang Title Regulatory Analyst

Signature Tracey Fallang Date 2/26/2010

RECEIVED
MAR 02 2010
DIV. OF OIL, GAS & MINING

(5/2002)

UNDERGROUND INJECTION CONTROL

PERMIT APPLICATION

Jack Canyon # 14-32
531' FSL & 1479' FWL
SESW ~~SWSE~~ **SEC. 32, T12N, R16E**
Carbon County, Utah
API NO. 43-007-30913

February 26, 2010

Prepared for:
Utah Department of Natural Resources
Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
P.O. Box 145801
Salt Lake City, UT 84114-5801

Prepared by:

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

LIST OF ATTACHMENTS

Attachment No. 1	Area Map
Attachment No. 2	Site Map – Radius Map of Adjacent Wells
Attachment No. 3	Map of Water Wells in the Vicinity of Subject Well
Attachment No. 4	Structure Maps of the North Horn and Blackhawk and Formations
Attachment No. 5	Cross-Sections of the Injection Formation
Attachment No. 6	Disposal Evaluation Formation Evaluation of Hydrocarbon Production
Attachment No. 7	List of Wells that will utilize the Injection Well
Attachment No. 8	Water Analyses Summary of Injection Water Analysis
Attachment No. 9	Completions Data of Wells within AOR
Attachment No. 10	Surface Ownership Map List of Owners Affidavit Notification
Attachment No. 11	Well bore diagram for the UIC well SWD Conversion Procedure
Attachment No. 12	P&A Procedure
Attachment No. 13	MIT Procedure
Attachment No. 14	Fracture Gradient

SUMMARY DOCUMENT
UIC WELL APPLICATION
JACK CANYON STATE 14-32
531' FSL & 1479' FWL
~~SWSE~~ SEC 32, T12N, R16E
CARBON COUNTY, UTAH
API # 43-007-30913

SE.SW
CK

The following document contains information provided in support of Bill Barrett Corporation (BBC) application for the conversion of the Jack Canyon Unit State 14-32 well as an injection well into the Price River, Blue Castle, Nelson and Castlegate formations.

1. Jack Canyon Unit State 14-32 is a state well approximately 2 miles west of Peters Point Unit. BBC is the operator and major working interest owner of wells in the Peters Point Unit. BBC's business address is provided below:

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

2. Enclosed as Attachment No. 1 is an area map showing the Jack Canyon Unit State14-32 including surrounding oil and gas wells.

3. Attachment No. 2 is a site map of the subject well. This plat shows a circle of 1/2 mile radius centered on the Jack Canyon Unit State 14-32. The 1/2 mile radius encompasses the area of the review (AOR), within which BBC is required to investigate all wells for mechanical integrity. The Jack Canyon 6 (P&A) and the Lavina St 1-32 (S/I) are located within this 1/2 mile radius.

   Both of these offset wells are completed in the Wasatch formation and are over 3000 feet higher than the top of the target injection zones.

   There are two water source wells within one mile of the Jack Canyon State 14-32: Water Rights Numbers 0890001M00 and 90-1542. Attachment No. 3 is a map of the two water source wells. These are shallow water wells and are no deeper than approximately 100 feet.

4. Injection Zone – The Price River, Blue Castle, Neslen and Castlegate formations are already perforated in the Jack Canyon 14-32 and have proven to be non productive intervals for oil and gas. Due to lack of gas production & high TDS these zones are being recommended for injection. The upper bounding bed for the Price River formation is 60+ feet of impermeable shale and sandstone formation with little to no porosity and very low permeability separating it from the Blue Castle formation. The lower bounding bed for the Price River and upper bounding bed for the Blue Castle is 90 feet of impermeable shale and sandstone formation with little to no porosity and very low permeability. There is an upper bounding bed separating the

also Dark Canyon

Neslen and Blue Castle formation of 40 feet and a lower bounding bed separating the Neslen and Castlegate formation of 50 feet, each bed containing impermeable shale and sandstone formation with little to no porosity and very low permeability.

Attachment No. 4 is a structure map showing the North Horn and Blackhawk Formations. In addition to the confining beds between the formations there is an upper and lower confining bed for the whole injection interval. Both of the beds contain impermeable shale and sandstone formations with little to no porosity and very low permeability. The upper bed is about 480' thick and is located between 5950' and 6430'. The lower bed is about 250' thick and located between 8625' and 8885'. These two beds are shown on the cross-section contained in Attachment No. 5.

5. BBC has prepared a statement of support that reviews the disposal evaluation, structural position, sand discontinuity, and proposed interval fill-up. This statement is contained in Attachment No. 6.

   BBC has also prepared a discussion concerning a formation evaluation of the hydrocarbon production of the oil and gas formations in the vicinity of the disposal well. This is also contained in Attachment No. 6.

6. All waters proposed for disposal in both the Jack Canyon Unit State14-32-12-16 will be from Bill Barrett Corporation field production activities within the Peters Point Unit. Current average water production rates from the Peters Point Unit are 500 BPD and future drilling and completion activity would add 1,000 BPD in disposal needs. A majority of injection water taken to this well will be produced from the same formation as being requested for injection, and will be compatible and like water quality.

   No 3rd party waters will be accepted for disposal.

   Attachment No. 7 is a list of wells that will utilize the injection well.

7. Laboratory water analyses for wells that will utilize the UIC well are contained in Attachment No. 8. Also contained in this attachment are a summary of the water quality from the injection formations and a summary of produced water to be injected.

8. Completion data of the wells within a ½ mile radius of proposed injection well is included as Attachment No. 9.

9. Aquifer Exemption - BBC is requesting aquifer exemption for the injection formations in the vicinity of the subject SWD well. The reasons for the exemption are:
   1. The formations are located at a depth that makes recovery economically impractical;
   2. The formations are hydrocarbon producing;
   3. The formation water contains inorganic and organic compounds that make it impractical to treat to drinking water standards;

4. The TDS of the formations are over 31,376 mg/L.

10. Electronic copies of the CBL and the open hole logs are on file with DOGM.

11. Attachment No. 10 contains an ownership map of the AOR, a list of owners, and an affidavit stating that all the owners were notified and were provided with a copy of the application. The application was sent by certified mail.

12. The well is currently cased and completed as indicated in the Attachment No. 11 (well bore diagram). The SWD conversion procedure is also contained in Attachment No. 11.

13. The P&A procedure for this well is contained in Attachment No. 12.

14. BBC will conduct an MIT test, a step rate test and a static bottom-hole pressure test. An MIT procedure is contained in Attachment No. 13. The conversion work will be completed and submitted to UDOGM for approval.

15. The fracture gradient will be calculated once the well is completed in the injection formations. The requested maximum surface pressure is 3150 psig and an average of 1575 psig (50% x Max psig). Attachment No.14 is a summary of pressure gradients.

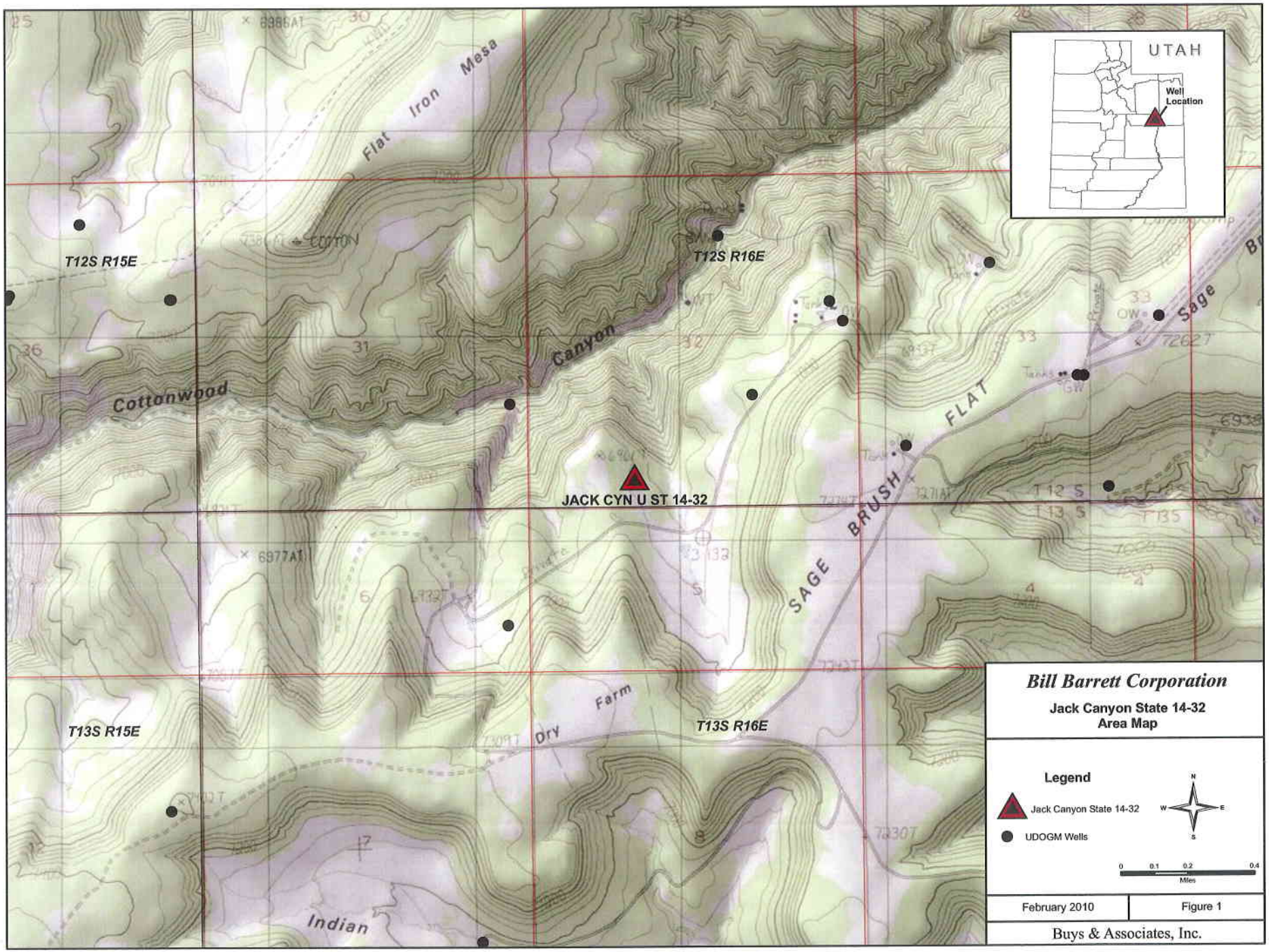
    It is anticipated that the average injection rate will be 1,500 bwpd with a maximum of 3,500 bwpd.

16. BBC will complete and operate this well under bond number is LPM4138147.

17. BBC will install various gauges on the well so that the injection pressure, tubing/casing annulus pressure can be monitored. The well will be equipped with a flow meter with a cumulative volume recorder.

ATTACHMENT NO. 1

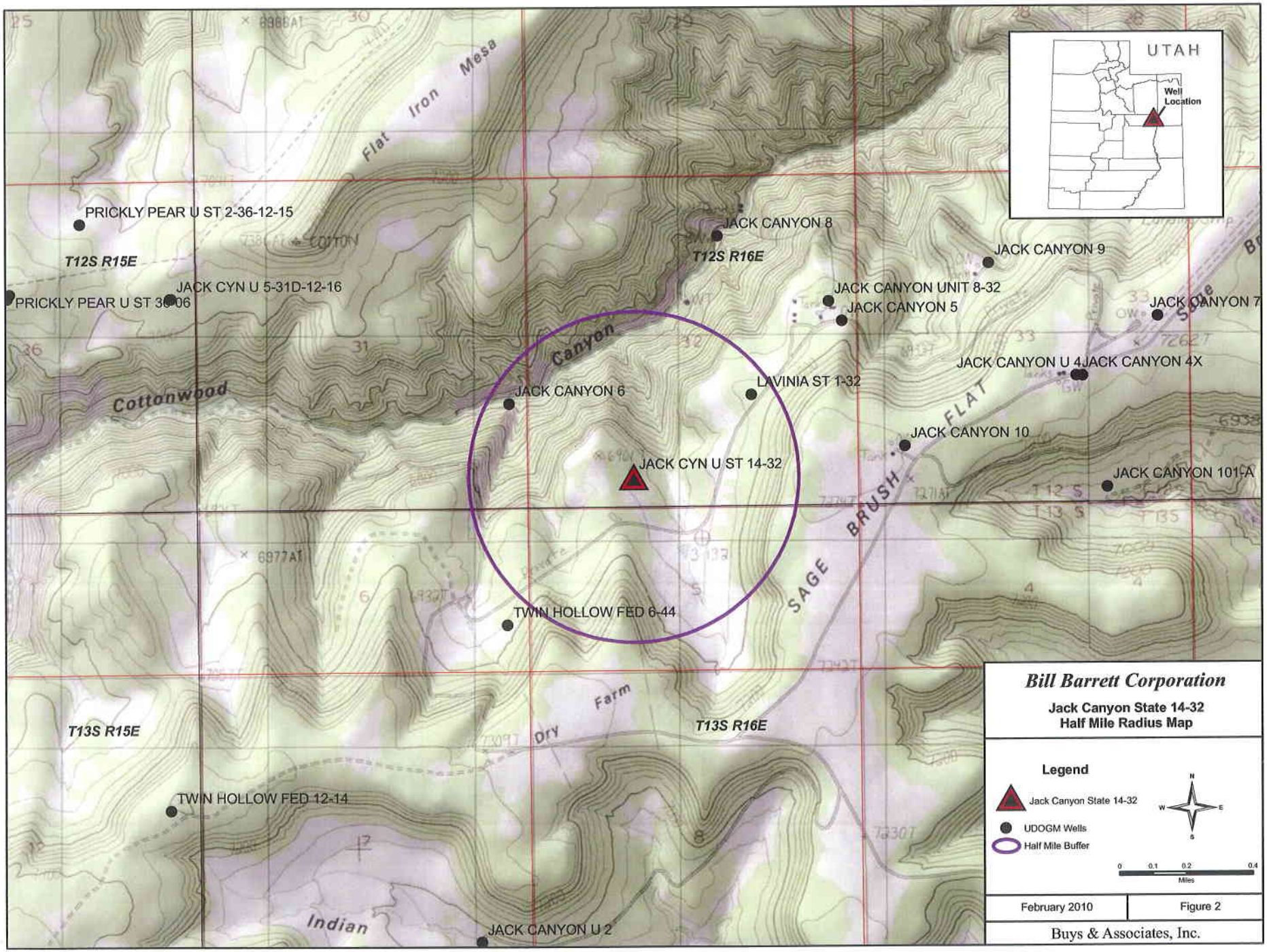
AREA MAP


UTAH
Well Location
T12S R15E
T12S R16E
T13S R15E
T13S R16E
JACK CYN U ST 14-32
Flat Iron Mesa
Cottonwood Canyon
SAGE BRUSH FLAT
Dry Farm
Indian
Sage
Bill Barrett Corporation
Jack Canyon State 14-32
Area Map
Legend
Jack Canyon State 14-32
UDOGM Wells
N
W
E
S
0 0.1 0.2 0.4
Miles
February 2010
Figure 1
Buys & Associates, Inc.

ATTACHMENT NO. 2

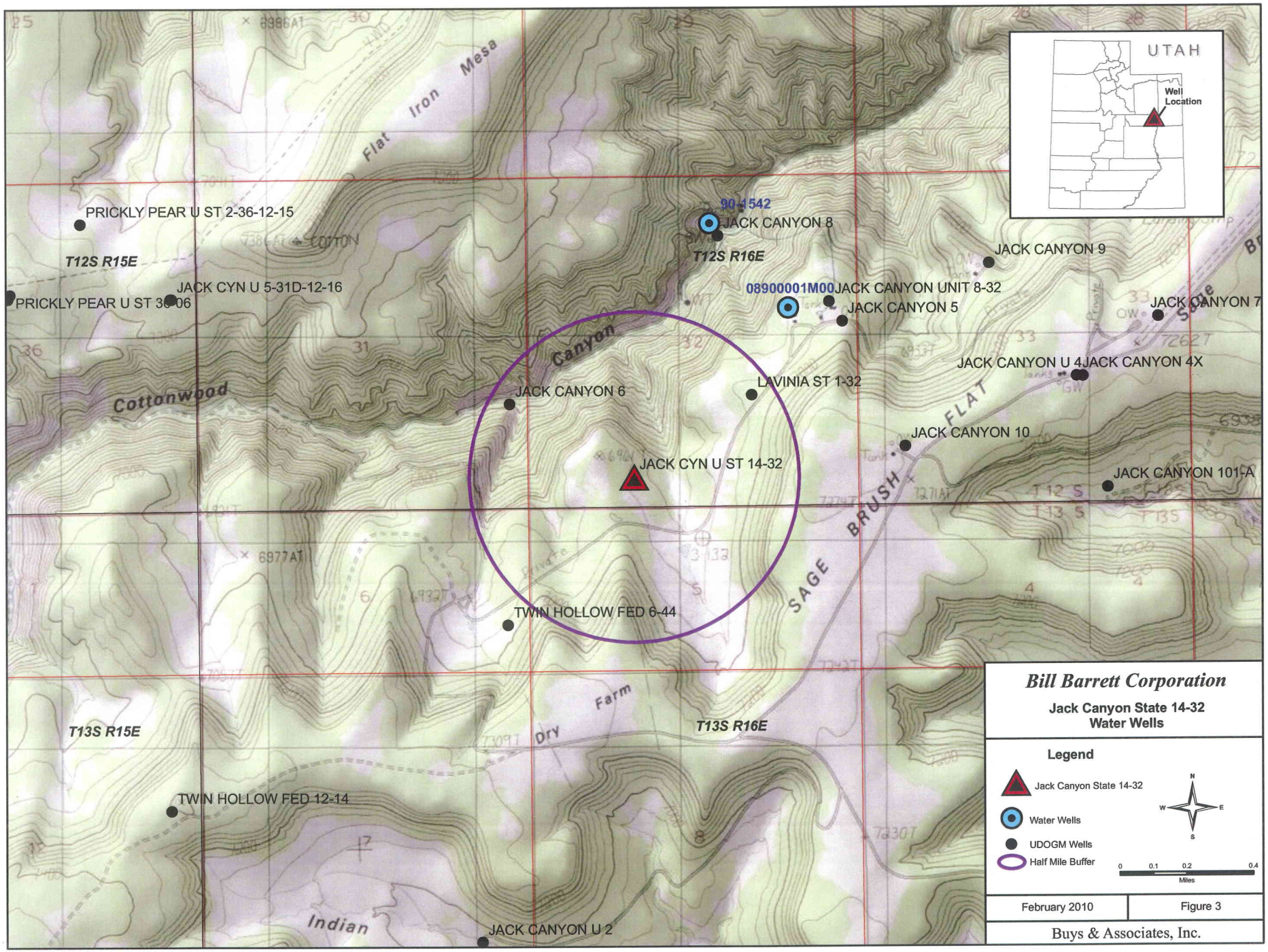
SITE MAP

RADIUS MAP OF
ADJACENT WELLS


UTAH
Well Location
PRICKLY PEAR U ST 2-36-12-15
T12S R15E
JACK CYN U 5-31D-12-16
PRICKLY PEAR U ST 36-06
JACK CANYON 8
T12S R16E
JACK CANYON 9
JACK CANYON UNIT 8-32
JACK CANYON 5
JACK CANYON 7
JACK CANYON U 4
JACK CANYON 4X
LAVINIA ST 1-32
JACK CANYON 6
JACK CANYON 10
JACK CYN U ST 14-32
JACK CANYON 101-A
TWIN HOLLOW FED 6-44
T13S R15E
T13S R16E
TWIN HOLLOW FED 12-14
JACK CANYON U 2
Flat Iron Mesa
Cottonwood Canyon
SAGE BRUSH FLAT
Dry Farm
Indian
Bill Barrett Corporation
Jack Canyon State 14-32
Half Mile Radius Map
Legend
Jack Canyon State 14-32
UDOGM Wells
Half Mile Buffer
N
W
E
S
0 0.1 0.2 0.4
Miles
February 2010
Figure 2
Buys & Associates, Inc.

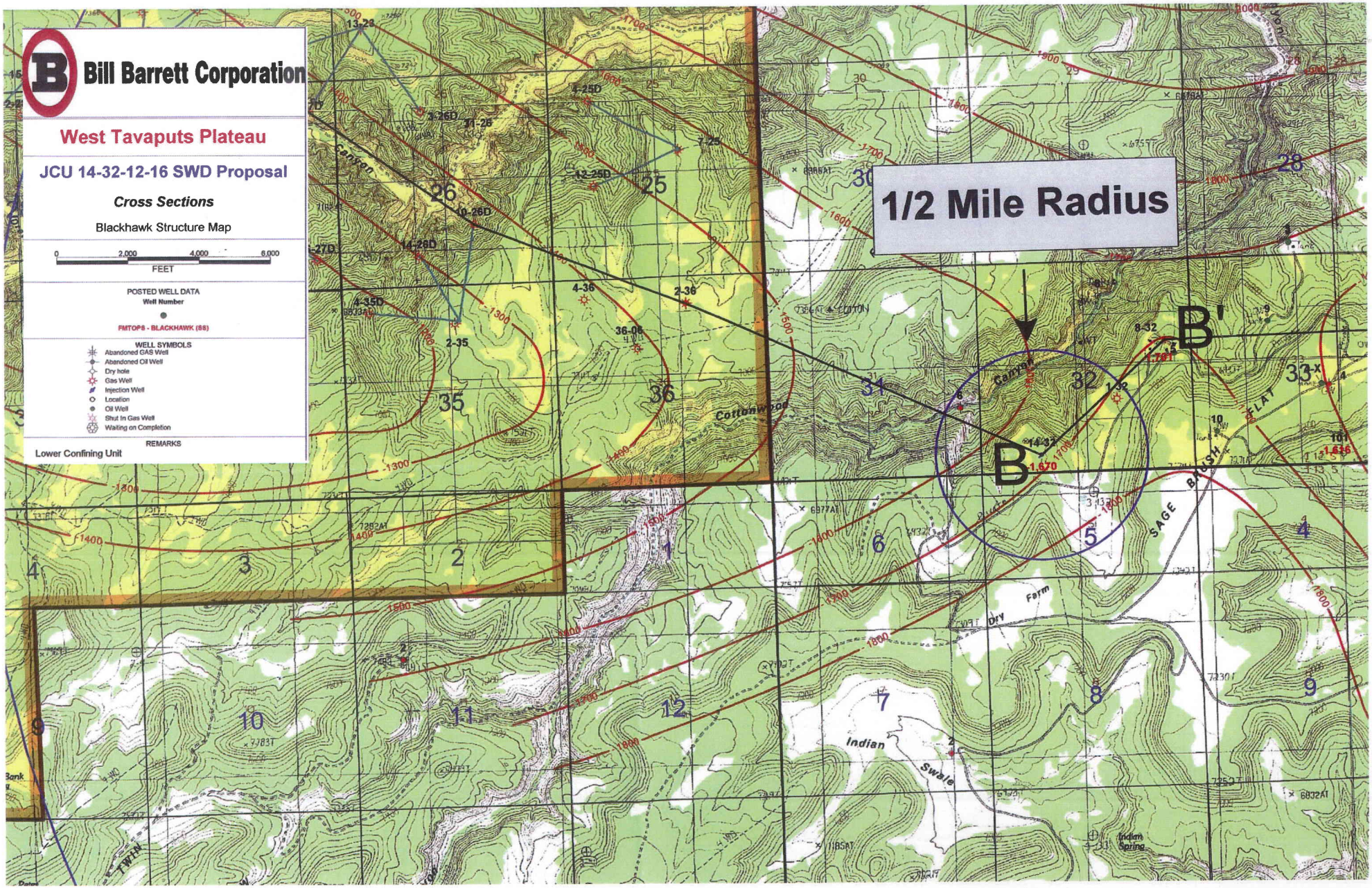
ATTACHMENT NO. 3

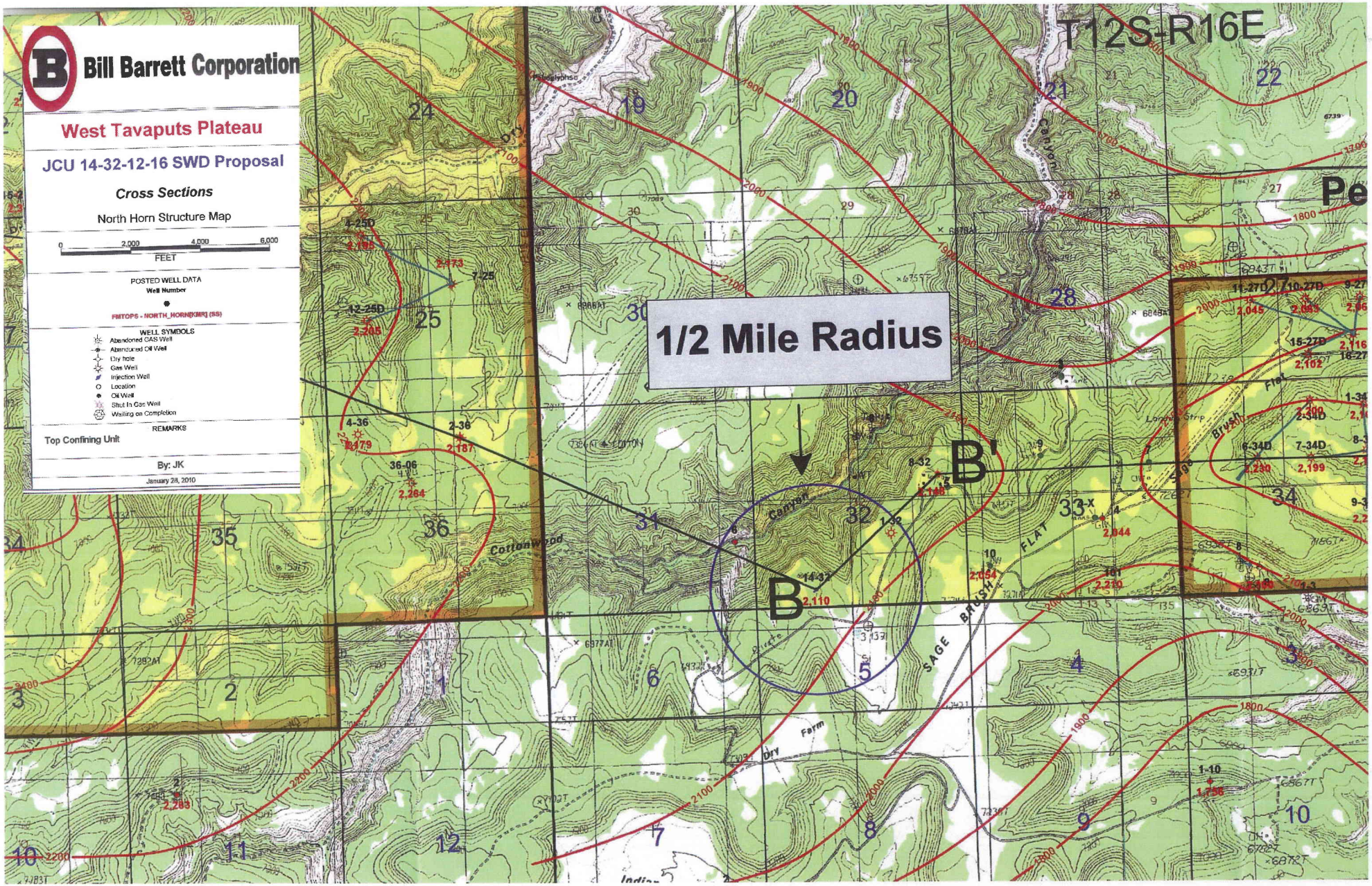
MAP OF WATER WELLS LOCATED IN THE VACINITY OF THE SUBJECT WELL


UTAH
Well Location
PRICKLY PEAR U ST 2-36-12-15
T12S R15E
JACK CYN U 5-31D-12-16
PRICKLY PEAR U ST 36-06
90-1542
JACK CANYON 8
T12S R16E
JACK CANYON 9
08900001M00JACK CANYON UNIT 8-32
JACK CANYON 5
JACK CANYON 7
JACK CANYON U 4JACK CANYON 4X
LAVINIA ST 1-32
JACK CANYON 6
JACK CANYON 10
JACK CYN U ST 14-32
JACK CANYON 101-A
TWIN HOLLOW FED 6-44
T13S R15E
T13S R16E
TWIN HOLLOW FED 12-14
JACK CANYON U 2
Flat Iron Mesa
Cottonwood Canyon
SAGE BRUSH FLAT
Dry Farm
Indian
Bill Barrett Corporation
Jack Canyon State 14-32
Water Wells
Legend
Jack Canyon State 14-32
Water Wells
UDOGM Wells
Half Mile Buffer
N
W
E
S
0 0.1 0.2 0.4
Miles
February 2010
Figure 3
Buys & Associates, Inc.

ATTACHMENT NO. 4

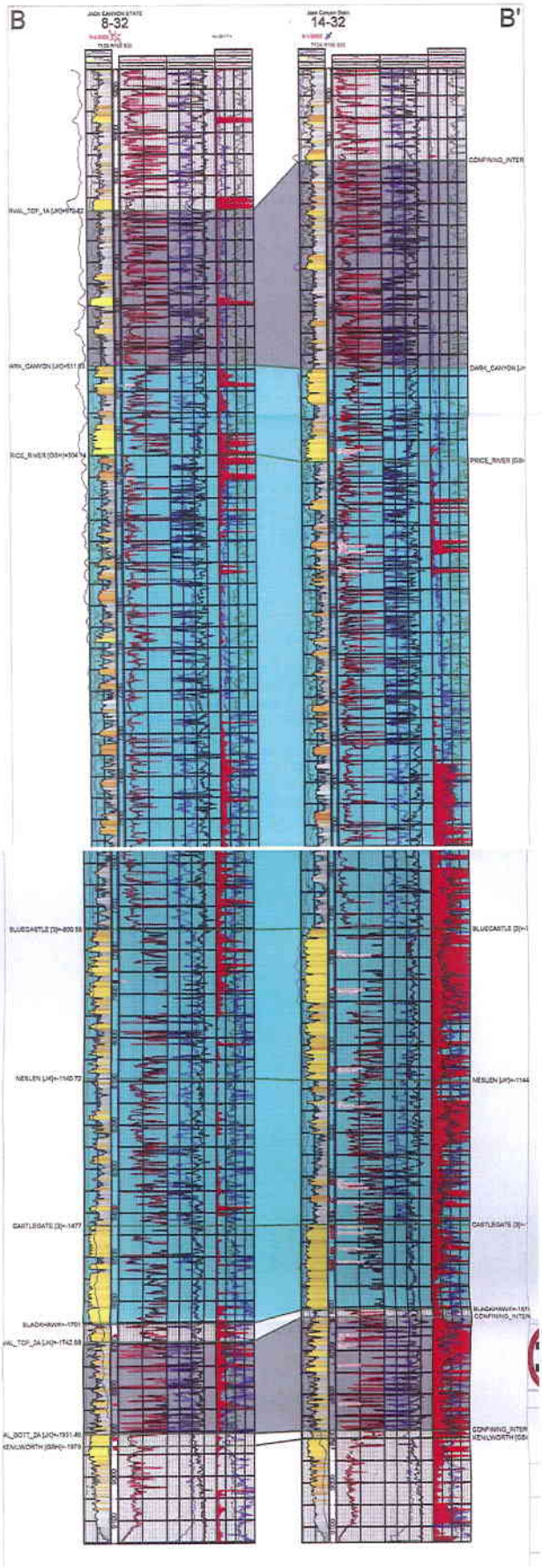
NORTH HORN AND BLACKHAWK STRUCTURE MAPS

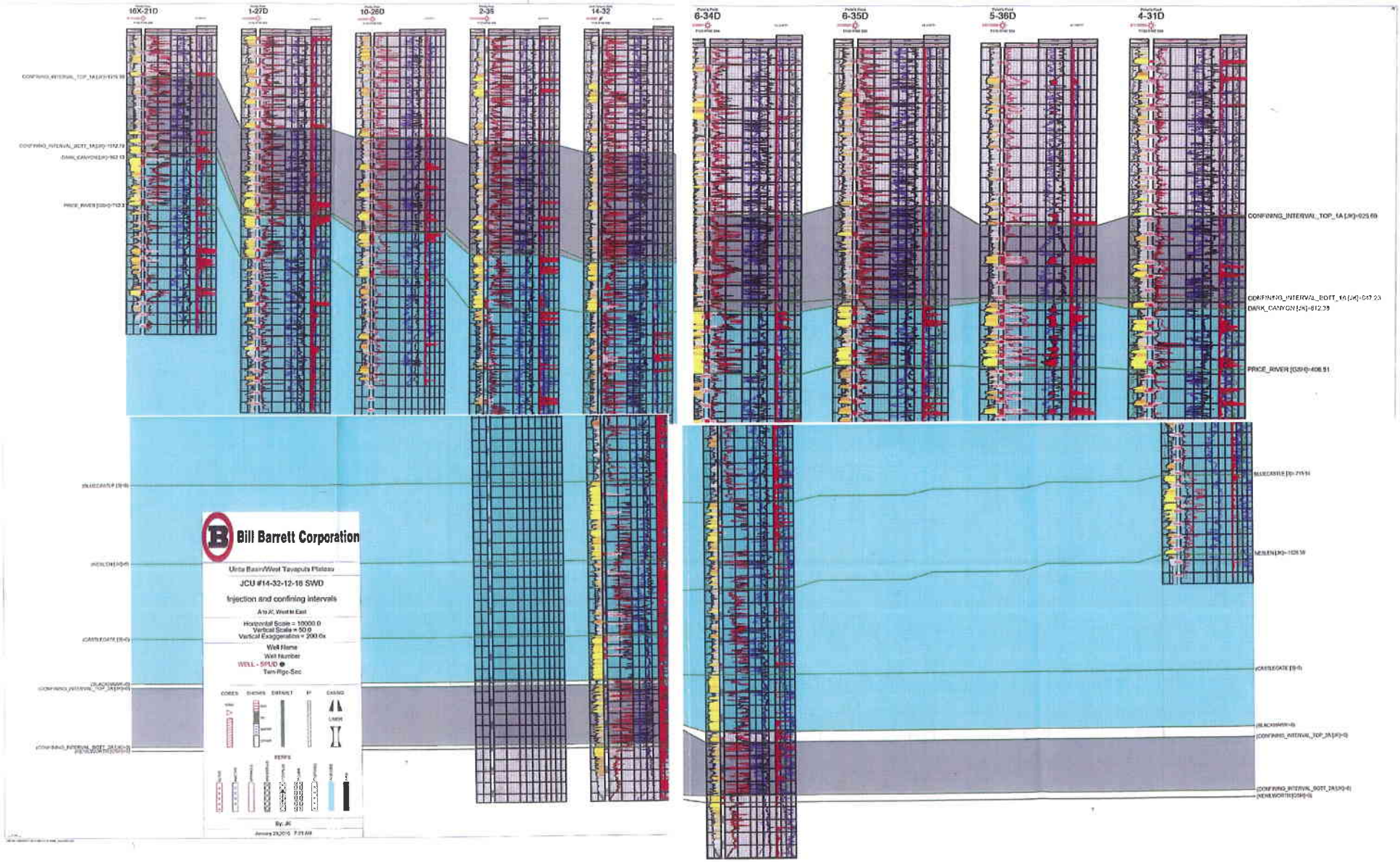

Bill Barrett Corporation
West Tavaputs Plateau
JCU 14-32-12-16 SWD Proposal
Cross Sections
Blackhawk Structure Map
0 2,000 4,000 6,000
FEET
POSTED WELL DATA
Well Number
FMTOPS - BLACKHAWK (SS)
WELL SYMBOLS
Abandoned GAS Well
Abandoned Oil Well
Dry hole
Gas Well
Injection Well
Location
Oil Well
Shut In Gas Well
Waiting on Completion
REMARKS
Lower Confining Unit
1/2 Mile Radius
B
B'
13-23
4-25D
4-26D
21-26
12-25D
14-26D
4-36
2-36
36-06
4-35D
2-35
8-32
14-32
1-32
Canyon
Cottonwood
SAGE
FLAT
Dry
Farm
Indian
Swale
TWIN
Indian Spring


Bill Barrett Corporation
West Tavaputs Plateau
JCU 14-32-12-16 SWD Proposal
Cross Sections
North Horn Structure Map
0 2,000 4,000 6,000
FEET
POSTED WELL DATA
Well Number
FMTOPS - NORTH_HORN(KMR) (SS)
WELL SYMBOLS
Abandoned GAS Well
Abandoned Oil Well
Dry hole
Gas Well
Injection Well
Location
Oil Well
Shut In Gas Well
Waiting on Completion
REMARKS
Top Confining Unit
By: JK
January 28, 2010
T12S-R16E
1/2 Mile Radius
B
B'
4-25D
12-25D
7-25
4-36
2-36
36-06
8-32
14-32
1-32
11-27D
10-27D
15-27D
16-27
6-34D
7-34D
2-34D
1-10
Cottonwood
Canyon
Sage Brush Flat
Dry Farm
Brush
Pe

ATTACHMENT NO. 5

CROSS-SECTIONS OF THE INJECTION FORMATION


B
JACK CANYON STATE
8-32
B'
14-32
CONFINING_INTER
DARK_CANYON
PRICE_RIVER
BLUECASTLE
NEOLEN
CASTLEGATE
BLACKHAWK
CONFINING_INTER
KENILWORTH


16X-21D
1-27D
10-28D
2-33
14-32
6-34D
6-35D
5-36D
4-31D
CONFINING_INTERVAL_TOP_1A [JK]=925.69
CONFINING_INTERVAL_BOTT_1A [JK]=947.23
DARK_CANYON [JK]=812.39
PRICE_RIVER [GRN]=408.51
Bill Barrett Corporation
Uinta Basin/West Tavaputs Plateau
JCU #14-32-12-16 SWD
Injection and confining intervals
Ans JK, West to East
Horizontal Scale = 10000.0
Vertical Scale = 50.0
Vertical Exaggeration = 200.0x
Well Name
Well Number
WELL - SPUD
Twn-Rge-Sec
CORES
SHOWS
DSTs/ICT
IP
CASING
LINER
PERFS
By: JK

ATTACHMENT NO. 6

DISPOSAL EVALUATION
FORMATION EVALUATION OF HYDROCARBON PRODUCTION

Statement in support of Water Disposal application in opposition to Water Injection application

Disposal Evaluation Request

It is the request of Bill Barrett Corporation that the submitted application, for water disposal in the Jack Canyon field, be evaluated based on water disposal and not water injection. Our reasoning behind this request is based on the distance from producing wells with perforated, correlative sands, structural position of the proposed disposal intervals in the proposed water disposal wells, and the fact the injection sands are approximately 3235' below correlative producing sands in the Lavinia 1-32, the nearest producing offset well. The Lavinia 1-32 is 2350' away and at a bearing on N54E (Az 54deg) from the JCU 14-32. The maximum horizontal stress, as indicated by cross-dipole sonic logs, image logs and microseismic surveys, indicate a maximum horizontal stress direction of N50W (Az 310 deg.), and injected fluid would preferentially trend that direction.

Structural Position

Based on the supplied structure map and well log analysis it is evident that the proposed disposal well, is down-dip from economic production in Prickly Pear, to the west of the injection well and down-dip from Peter's Point wells to the east. The nearest economic gas production, with correlative perforated sands, from the proposed disposal intervals lies more that 1.8 miles from the proposed disposal well, to the west, in Prickly Pear Unit; Prickly Pear 2-36-12-15. From the disposal intervals in the Price River, Bluecastle and Castlegate, structural map and logs positions indicate a 17', approximately 300' and approximately 375' increase in elevation from the proposed injection well, respectively.

To the east, the closest producing wells is the 6-34D-12-16, at a distance of 2.17 miles and is structurally higher in the Price River, Bluecastle and Castlegate by 105', approximately 100', and approximately 175', in the stratigraphically equivalent zones, respectively.

Lastly, seismic data suggest a fault may intersect the borehole somewhere in the vicinity of the Neslen formation. However, drilling reports noted a static hole with no lost circulation or returns at any point during the drilling of the well. Seismic data suggests that the fault plane dips north and terminates up hole in the lower portion of the North Horn. The disposal zone is isolated by numerous shale intervals and the moderately saline top is 3500'- 4000' above the top of the inferred fault zone. Therefore, the injection zone should be isolated from all freshwater zones and disposal water will be injected into zones of like water quality. If the lower zones were not isolated from the higher freshwater zones and there was a fault extending up into the shallow freshwater zones, they would have been contaminated by hyper saline through chemical dispersion and fresh water would not exist in the shallow aquifer.

Sand Discontinuity

The proposed disposal intervals, in the Price River formation, are generally comprised of discontinuous sand bodies. An outcrop study conducted in the Thompson and Sego Canyon area revealed an average sand body width of the Neslen formation of

399' and Lower Farrer formation including Bluecastle equivalent, of 903'. However, in looking at the cross sections, it is evident that the Price River sands are lenticular, discontinuous in nature, and it is likely the Bluecastle and Castlegate are more continuous than the outcrop study would suggest. Whether they are hydrologically "connected" or if baffles and/or barriers will decrease permeability and injection at some point, is unknown.

Proposed Interval Fill-up

A common tool to evaluate the potential for waterflooding success is to calculate the required amount of water before reservoir pressurization could begin to occur. It is typical for this calculation to assume radial displacement and to consider, interval by interval, the porosity corrected vertical thickness (phi*h) for the assumed allocation of injected water. In this case, we will calculate elliptical displacement, as a result of our microseismic work, which will result in the most pessimistic estimate.

The following tables summarize for each of the proposed disposal wells, sand interval reservoir properties and resulting fill-up for a ½ mile radius:

Jack Canyon #14-32-12-16	Net Sand Thickness (ft)	Porosity %	Porosity-Feet (phi*h) (ft)	Average Water Saturation %	1/2 mile radius volume (bbls)
Dark Canyon	47.0	0.069	3.24	0.336	8,397,594
Price River	10.0	0.080	0.80	0.500	1,559,911
Bluecastle	146.0	0.067	9.84	0.238	29,228,959
Neslen	15.0	0.070	1.05	0.269	2,993,274
Castlegate *	133.5	0.066	8.77	0.249	25,679,132
					67,858,871
				Castlegate	-25,679,132
					42,179,739
			Ellipse aspect ratio 3.5:1		**12,051,354**

* Denotes a formation in which a previous step rate test indicated pump-in pressures, exceeded feasible limits.

Based on the above calculations over 12 million barrels of water would have to be disposed into the JCU 14-32-12-16 before any reservoir effect would be seen at ½ mile from the wellbore.

Summary

As a result of the above arguments and calculations, Bill Barrett Corporation feels justified to request that the submitted application for water disposal into the Jack Canyon 14-32-12-16 be evaluated as such and not on water injection criteria.

10345 SC@#6
3038D Lou.St 1-32

725.67
572664
439~~7509~~
303.41

The Jack's Canyon Unit 14-32 proposed injection zones are structurally lower than the correlative zones on Prickly Pear and Peter's Point anticlines. Based on the supplied structure maps and well log tops, it is evident that the proposed disposal well, is down-dip from economic production in Prickly Pear, to the west of the injection well and down-dip from Peter's Point wells to the east. The nearest economic gas production, with correlative perforated sands, from the proposed disposal intervals lies more that 1.8 miles from the proposed disposal well, to the west, in Prickly Pear Unit; Prickly Pear 2-35-12-15. From the disposal intervals in the Price River, Bluecastle and Castlegate, the structural map indicates a 17', approximately 300' and approximately 375' increase in elevation from the proposed injection well, respectively.

To the east, the closest producing wells is the Peter's Point 6-34D-12-16, at a distance of 2.17 miles and the 6-34D is structurally higher in the Price River, Bluecastle and Castlegate by 105', approximately 100', and approximately 175', in the stratigraphically equivalent zones, respectively.

The general consensus, when consulting all the cross-dipole data and a microseismic survey done in the Prickly Pear #1-20-12-15, is that the principle horizontal stress is N50W and likewise hydraulic fracturing created a fracture pattern ellipse, with an aspect ration of 3.5:1, with the long axis oriented N50W, in the Prickly Pear #1-20.

There are some en echelon faults that have been mapped by a 3D seismic survey, propagating from the Garmesa fault zone, in the Mesaverde at an approximately 90 degree angle from the long axis of the predicted injection wing orientation, but possibly intersecting the well in the Neslen formation. This fracture pattern and hydraulic conveyance regime would transport and store water in an ellipse aligned with the Prickly Pear 7-25-12-15 pad, but at a distance of 2.26 miles and 17' to 375' of difference in structural elevation. The southeasterly wing of injection would be directed in an area where there are no producing wells.

ATTACHMENT NO. 7

LIST OF PRODUCTION WELLS THAT WILL UTILIZE THE DISPOSAL WELL

UWI/API	LABEL	SYM
430073007000	5-14-PETERS POINT	GAS
430073002300	9-PTRS PT UNIT	GAS
430071539300	4-PTRS PT UNIT	GAS
430071539100	2-PTRS PT UNIT	GAS
430073076100	36-2-PtrsPtFed	GAS
430073076200	36-3-PtrPtFed	GAS
430073076300	36-4-PtrsPtFed	GAS
430071021600	1-PETERS POINT UNIT	GAS
430071021600	1-PETERS POINT UNIT	GAS
430073098200	11-6-13-17	GAS
430073096500	16-35-12-16	GAS
430073131800	16-27-12-16	GAS
430073127900	8-34-12-16	GAS
430073127500	6-35D-12-16	GAS
430073129300	7-1D-13-16 Ultra Dee	GAS
430073100500	16-31D-12-17	GAS
430073100400	16-6D-13-17	GAS
430073101000	2-36D-12-16	GAS
430073100900	12-31D-12-17	GAS
430073101100	9-36-12-16	GAS
430073081000	4-31D-12-17	GAS
430073085900	6-7D-13-17 Deep	GAS
430073102400	8-35D-12-16	GAS
430073081200	16-26D-12-16	GAS
430073076400	14-25D-12-16	GAS
430073115800	2-12D-13-16 Deep	GAS
430073127700	14-26D-12-16	GAS
430073128100	6-34D-12-16	GAS
430073127200	6-36-12-16	GAS
430073127100	3-36-12-16	GAS
430073117500	12-36D-12-16	GAS
430073117400	10-36D-12-16	GAS
430073126100	15-6D-13-17 Deep	GAS
430073104900	4-12D-13-16 Deep ST	GAS
430073141100	9-27D-12-16	GAS
430073140900	11-27D-12-16	GAS
430073141000	15-27D-12-16	GAS
430073140600	10-26D-12-16	GAS
430073140400	15-26D-12-16	GAS
430073140700	11-26D-12-16	GAS
430073135200	13-25D-12-16	GAS
430073140300	13-26D-12-16	GAS
430073140800	12-26D-12-16	GAS
430073142700	1-34D-12-16	GAS
430073142800	7-34D-12-16	GAS
430073140500	3-35D-12-16	GAS
430073134500	2-35D-12-16	GAS
430073136500	1-35D-12-16	GAS
430073147400	10-35D-12-16	WOC
430073147600	9-35D-12-16	WOC

36-01 not on list

- analyses

430073142900	5-35D-12-16	GAS
430073134700	4-35D-12-16	GAS
430073134600	7-35D-12-16	GAS
430073134800	7-36D-12-16	GAS
430073135000	5-36D-12-16	GAS
430073135100	15-25D-12-16	GAS
430073131900	10-27D-12-16	GAS
430073132600	2-7D-13-17 Deep	GAS
430073132000	2-34D-12-16	GAS
430073134900	11-36D-12-16	GAS
430073135300	4-36D-12-16	GAS
430073046000	8-32	GAS

GAS	Currently Producing
WOC	Waiting on Completion

ATTACHMENT NO. 8

WATER ANALYSIS

Peter's Point Field

Formation	Specific Gravity	Temp (Surface °F)	pH (Field su)	Resistivity (ohm-cm)	Iron (mg/l)	Potassium (mg/l)	Chlorides (mg/l)	Calcium (mg/l)	Magnesium (mg/l)	Sulfates (mg/l)	Carbonates (mg/l)	Bicarbonates (mg/l)	Sodium (mg/l)	TDS (mg/l)	Comments
Commingled	1.022**	80.18**	6.67	0.428**	77.9	2,352**	30,171	2,223	245**	1,063**	0**	730	10,027**	31,375**	108 samples 43 wells
North Horn	1.026	68.62	8.09	0.320	3.9	8,972	24,325	1,819	328	1,601	158	646	8,906	46,763	9 samples 2 wells
Pr River	1.043	75.60	6.63	0.558	575.0	4,000	33,405	3,283	853	1,125	0	953	14,818	59,010	2 samples 1 well
Dark Canyon	1.038	70.04	6.77	0.294	95.0	1,790	27,766	2,686	482	2,925	0	844	15,167	50,900	5 samples 1 well
Deep	1.043	70.52	6.54	0.416	75.0	3,600	35,125	3,637	572	1,180	0	1,822	16,562	62,352	5 samples 3 wells

** 14 Samples

Formation	Chlorides (mg/l)	Calculated NaCL (mg/l)	TDS (mg/l)
Wasatch	16418-19453	27070-32074	NA
North Horn	26054-30656	42958-50545	30895-36935
Dark Canyon	27000 -41700	44769-68753	42200 -58900
Price River	22300 - 27600	36887-45491	30000 - 40000
Bluecastle	12300 -15000	NA	23000 - 27000
Castlegate	12500	NA	25000 - 28000

TDS 23000 – 59,000

WATER ANALYSIS REPORT

BILL BARRETT CORP.
Roosevelt, UT

Sampled: 03-MAR-2008
Reported: 17-MAR-2008
Field Rep: Welch, B701k01 James 91002986

	P-PR 15-18 S0303165	PETERS PT 6-7D 81617 S0303166	PRICKLY PEAR 2-35 S0303167	PETERS PT 9-36 81567 S0303168
pH	8.0	4.4	6.9	6.7
Specific Conductance, at 25°C, µmhos	65900	40800	97200	99300
Alkalinity, "P" as $CaCO_3$, ppm	0	0	0	0
Alkalinity, "M" as $CaCO_3$, ppm	1920	45	885	579
Sulfur, Total, as SO_4, ppm	1790	178	747	1060
Chloride, as Cl, ppm	26200	17600	A	43200
Hardness, Total, as $CaCO_3$, ppm	4420	997	12400	8770
Calcium Hardness, Total, as $CaCO_3$, ppm	3140	791	9930	7030
Magnesium Hardness, Total, as $CaCO_3$, ppm	1220	170	2290	1630
Barium, Total, as Ba, ppm	1.8	4.3	14.9	1.8
Strontium, Total, as Sr, ppm	47	29	133	101
Copper, Total, as Cu, ppm	< 0.5	1.2	0.06	< 0.05
Iron, Total, as Fe, ppm	6.5	9690	68	36
Sodium, as Na, ppm	15700	3350	19100	23600
Potassium, as K, ppm	438	604	623	453
Aluminum, Total, as Al, ppm	< 1	11.3	0.1	0.1

WATER ANALYSIS REPORT

BILL BARRETT CORP.
Roosevelt, UT

Sampled: 03-MAR-2008
Reported: 17-MAR-2008
Field Rep: Welch, B701k01 James 91002986

	P-PR 15-18 S0303165	PETERS PT 6-7D 81617 S0303166	PRICKLY PEAR 2-35 S0303167	PETERS PT 9-36 81567 S0303168
Manganese, Total, as Mn, ppm	1.2	112	1.6	0.65
Silica, Total, as SiO_2, ppm	37	19.9	27	26

WATER ANALYSIS REPORT

BILL BARRETT CORP.
Roosevelt, UT

Sampled: 03-MAR-2008
Reported: 17-MAR-2008
Field Rep: Welch, B701k01 James
91002986

	PETERS PT 4-12D-1316 S0303169
pH	5.9
Specific Conductance, at 25°C, µmhos	3770
Alkalinity, "P" as $CaCO_3$, ppm	0
Alkalinity, "M" as $CaCO_3$, ppm	88
Sulfur, Total, as SO_4, ppm	5.5
Chloride, as Cl, ppm	1210
Hardness, Total, as $CaCO_3$, ppm	191
Calcium Hardness, Total, as $CaCO_3$, ppm	151
Magnesium Hardness, Total, as $CaCO_3$, ppm	33
Barium, Total, as Ba, ppm	2.2
Strontium, Total, as Sr, ppm	5.1
Copper, Total, as Cu, ppm	0.10
Iron, Total, as Fe, ppm	189
Sodium, as Na, ppm	753
Potassium, as K, ppm	63
Aluminum, Total, as Al, ppm	0.9

WATER ANALYSIS REPORT

BILL BARRETT CORP.
Roosevelt, UT

Sampled: 03-MAR-2008
Reported: 17-MAR-2008
Field Rep: Welch, B701k01 James
91002986

	PETERS PT 4-12D-1316 S0303169
Manganese, Total, as Mn, ppm	2.6
Silica, Total, as SiO_2, ppm	5.0

WATER ANALYSIS REPORT

BILL BARRETT CORP.
Roosevelt, UT

Sampled: 03-MAR-2008
Reported: 17-MAR-2008
Field Rep: Welch, B701k01 James
91002986

Result Legend

A - This test was aborted for cause. More detail is provided below.

Water Analysis Report

09-Aug-04

Date Sampled : 15-Jul-04
Date Received : 16-Jul-04
Date Reported : 22-Jul-04

Bill Barrett Corporation

Field : Nine Mile Canyon
Lease : Peters Point

UT

Location : Peters Point 36-02

Attention : Fred Goodrich
cc1 :

Sample Point : water tank

Salesman : Larry Curtis

cc2 :
cc3 :

Analyst : Karen Hawkins

Allen

Comments :

CATIONS

Calcium :	1,608	mg/l
Magnesium :	5	mg/l
Barium :		mg/l
Strontium :		mg/l
Iron :	36.0	mg/l
Manganese :		mg/l
Sodium :	11259	mg/l

ANIONS

Chloride :	19,200	mg/l
Carbonate :	0	mg/l
Bicarbonate :	610	mg/l
Sulfate :	903	mg/l mg/l mg/l

pH (field) :	6.94	
Temperature :	85	degrees F
Ionic Strength :	0.57	
Resistivity :		ohm/meters
Ammonia :		ppm

Specific Gravity :	1.025	grams/ml
Total Dissolved Solids :	33,621	ppm
CO2 in Water :	300	mg/l
CO2 in Gas :	0.03	mole %
H2S in Water :		mg/l
Dissolved Oxygen :		ppm

SI calculations based on Tomson-Oddo parameters

Calcite (CaCO3) SI :	-0.61	Calcite PTB :	N/A
Calcite (CaCO3) SI @ 100 F :	-0.45	Calcite PTB @ 100 F :	N/A
Calcite (CaCO3) SI @ 120 F :	-0.24	Calcite PTB @ 120 F :	N/A
Calcite (CaCO3) SI @ 140 F :	-0.02	Calcite PTB @ 140 F :	N/A
Calcite (CaCO3) SI @ 160 F :	0.20	Calcite PTB @ 160 F :	65.7
Calcite (CaCO3) SI @ 180 F :	0.43	Calcite PTB @ 180 F :	125.9
Calcite (CaCO3) SI @ 200 F :	0.67	Calcite PTB @ 200 F :	177.9
Gypsum (CaSO4) SI :	-0.65	Gypsum PTB :	N/A
Barite (BaSO4) SI :	N/A	Barite PTB :	N/A
Celestite (SrSO4) SI :	N/A	Celestite PTB :	N/A

Water Analysis Report

09-Aug-04

Date Sampled : 15-Jul-04
Date Received : 16-Jul-04
Date Reported : 22-Jul-04

Bill Barrett Corporation

Field : Nine Mile Canyon
Lease : Peters Point

UT

Location : Peters Point 36-01

Attention : Fred Goodrich
cc1 :

Sample Point : water tank

Salesman : Larry Curtis

cc2 :
cc3 :

Analyst : Karen Hawkins

Allen

Comments :

CATIONS

Calcium :	1,088	mg/l
Magnesium :	146	mg/l
Barium :		mg/l
Strontium :		mg/l
Iron :	5.0	mg/l
Manganese :		mg/l
Sodium :	11519	mg/l

ANIONS

Chloride :	19,200	mg/l
Carbonate :	0	mg/l
Bicarbonate :	866	mg/l
Sulfate :	555	mg/l mg/l mg/l

pH (field) :	6.60		**Specific Gravity :**	1.025	grams/ml
Temperature :	85	degrees F	**Total Dissolved Solids :**	33,379	ppm
Ionic Strength :	0.57		**CO2 in Water :**	300	mg/l
			CO2 in Gas :	0.03	mole %
Resistivity :		ohm/meters	**H2S in Water :**		mg/l
Ammonia :		ppm	**Dissolved Oxygen :**		ppm

SI calculations based on Tomson-Oddo parameters

Calcite (CaCO3) SI :	-0.47	Calcite PTB :	N/A
Calcite (CaCO3) SI @ 100 F :	-0.32	Calcite PTB @ 100 F :	N/A
Calcite (CaCO3) SI @ 120 F :	-0.11	Calcite PTB @ 120 F :	N/A
Calcite (CaCO3) SI @ 140 F :	0.11	Calcite PTB @ 140 F :	46.6
Calcite (CaCO3) SI @ 160 F :	0.34	Calcite PTB @ 160 F :	136.0
Calcite (CaCO3) SI @ 180 F :	0.57	Calcite PTB @ 180 F :	205.9
Calcite (CaCO3) SI @ 200 F :	0.81	Calcite PTB @ 200 F :	266.2
Gypsum (CaSO4) SI :	-1.02	Gypsum PTB :	N/A
Barite (BaSO4) SI :	N/A	Barite PTB :	N/A
Celestite (SrSO4) SI :	N/A	Celestite PTB :	N/A

Water Analysis Report

09-Aug-04

Date Sampled : 15-Jul-04
Date Received : 16-Jul-04
Date Reported : 22-Jul-04

Bill Barrett Corporation

Field : Nine Mile Canyon
Lease : Peters Point

UT

Location : Peters Point 36-03

Attention : Fred Goodrich
cc1 :

Sample Point : water tank

Salesman : Larry Curtis

cc2 :
cc3 :

Analyst : Karen Hawkins

Allen

Comments :

CATIONS

Calcium :	1,600	mg/l
Magnesium :	58	mg/l
Barium :		mg/l
Strontium :		mg/l
Iron :	25.0	mg/l
Manganese :		mg/l
Sodium :	12650	mg/l

ANIONS

Chloride :	21,800	mg/l
Carbonate :	0	mg/l
Bicarbonate :	878	mg/l
Sulfate :	265	mg/l mg/l mg/l

pH (field) :	6.95		**Specific Gravity :**	1.025	grams/ml
Temperature :	85	degrees F	**Total Dissolved Solids :**	37,276	ppm
Ionic Strength :	0.63		**CO2 in Water :**	300	mg/l
			CO2 in Gas :	0.03	mole %
Resistivity :		ohm/meters	**H2S in Water :**		mg/l
Ammonia :		ppm	**Dissolved Oxygen :**		ppm

SI calculations based on Tomson-Oddo parameters

Calcite (CaCO3) SI :	-0.34	Calcite PTB :	N/A
Calcite (CaCO3) SI @ 100 F :	-0.19	Calcite PTB @ 100 F :	N/A
Calcite (CaCO3) SI @ 120 F :	0.02	Calcite PTB @ 120 F :	7.9
Calcite (CaCO3) SI @ 140 F :	0.24	Calcite PTB @ 140 F :	106.4
Calcite (CaCO3) SI @ 160 F :	0.47	Calcite PTB @ 160 F :	189.1
Calcite (CaCO3) SI @ 180 F :	0.70	Calcite PTB @ 180 F :	256.1
Calcite (CaCO3) SI @ 200 F :	0.94	Calcite PTB @ 200 F :	311.2
Gypsum (CaSO4) SI :	-1.20	Gypsum PTB :	N/A
Barite (BaSO4) SI :	N/A	Barite PTB :	N/A
Celestite (SrSO4) SI :	N/A	Celestite PTB :	N/A

Champion Technologies — Water Analysis Report

Date Sampled :	19-Aug-09
Date Received :	18-Aug-09
Date Reported :	19-Aug-09

Bill Barrett Corporation

UT

Attention : Fred Goodrich
cc1 :
cc2 :
cc3 :

Comments : ACID GASES RAN IN LAB.

Field : Nine Mile Canyon
Lease : Jack Canyon State
Location : Jack Canyon 14-32
Sample Point : water tank
Salesman : Larry Curtis
Analyst : Karen Hawkins Allen

CATIONS

Calcium :	192	mg/l
Magnesium :	168	mg/l
Barium :		mg/l
Strontium :		mg/l
Iron :	3.0	mg/l
Manganese :		mg/l
Sodium :	13869	mg/l

ANIONS

Chloride :	19,200	mg/l
Carbonate :	0	mg/l
Bicarbonate :	1,266	mg/l
Sulfate :	3,088	mg/l

pH (field) :	11.98		**Specific Gravity :**	1.040	grams/ml
Temperature :	85	degrees F	**CO2 in Water :**	1	mg/l
Ionic Strength :	0.63		**Mole % CO2 in Gas:**		mole %
Dissolved Solids :	37,786	ppm	**H2S in Water :**		mg/l
Resistivity :		ohm-meters	**H2S in gas :**		ppm
Ammonia :		ppm	**Dissolved Oxygen :**		ppm

SI calculations based on Tomson-Oddo parameters

Calcite (CaCO3) SI :	1.53	Calcite PTB :	159.7
Calcite (CaCO3) SI @ 100 F :	1.69	Calcite PTB @ 100 F :	162.2
Calcite (CaCO3) SI @ 120 F :	1.90	Calcite PTB @ 120 F :	164.4
Calcite (CaCO3) SI @ 140 F :	2.12	Calcite PTB @ 140 F :	165.8
Calcite (CaCO3) SI @ 160 F :	2.34	Calcite PTB @ 160 F :	166.6
Calcite (CaCO3) SI @ 180 F :	2.57	Calcite PTB @ 180 F :	167.1
Calcite (CaCO3) SI @ 200 F :	2.81	Calcite PTB @ 200 F :	167.4
Gypsum (CaSO4) SI :	-1.05	Gypsum PTB :	N/A
Barite (BaSO4) SI :	N/A	Barite PTB :	N/A
Celestite (SrSO4) SI :	N/A	Celestite PTB :	N/A

NALCO

Water Analysis Report

Field : 0	**Sample Date : 9/17/2009**
County : 0	**Formation :**
Location : Jack Canyon 14-32 Tank	**Rock Type :**
Lab ID : XTO	**Depth :**
Comments : Mn 0.70 ppm PO4	

CATIONS	mg/l	meq/l	ANIONS	mg/l	meq/l
Potassium	2,325.0	59.47	**Sulfate**	960.0	19.99
Sodium	4,476.8	194.73	**Chloride**	8,400.0	236.93
Calcium	96.0	4.79	**Carbonate**	0.0	0.00
Magnesium	107.4	8.84	**Bicarbonate**	671.0	11.00
Iron	2.4	0.09	**Bromide**	0.0	0.00
Barium	0.0	0.00	**Organic Acids**	0.0	0.00
Strontium	0.0	0.00	**Hydroxide**	0.0	0.00
SUM +	**7,007.6**	267.92	**SUM -**	**10,031.0**	267.92

Solids

Total Dissolved Solids @180°C	16,636	mg/l
Total Solids, Calc less CO_2	16,636	mg/l
Total Solids, Calculated	17,039	mg/l
Total Solids, NaCl equivalents	13,783	mg/l
Chloride as NaCl	11,381	mg/l
NaCl% of Total Dissolved Solids	66.79	%
Accuracy	0.00	Sigma

Sample Conditions

pH, s.u. (Field)	8.17	s.u.
Sample Pressure	6.00	psia
Mole% CO_2, Gas	0.64	%
pH, s.u. (from CO_2)	8.17	s.u.
Surface Temp	60	°F
Downhole Temp	125	°F
Ionic Strength	0.290	μ

Dissolved Gases

Bisulfide Ion, HS^-	1.9	mg/l
Hydrogen Sulfide, H_2S	0.1	mg/l
Total Sulfide	2.0	mg/l

Dissolved O_2, aq	0.0	ppb
Measured CO_2, aq	100.0	mg/l
Calculated CO_2, aq	4.1	mg/l

Other Properties

Calcium Hardness as $CaCO_3$	239.7	mg/l
Magnesium Hardness as $CaCO_3$	442.3	mg/l
Total Hardness as $CaCO_3$	682.0	mg/l
Hardness, grains	39.71	grains/gallon

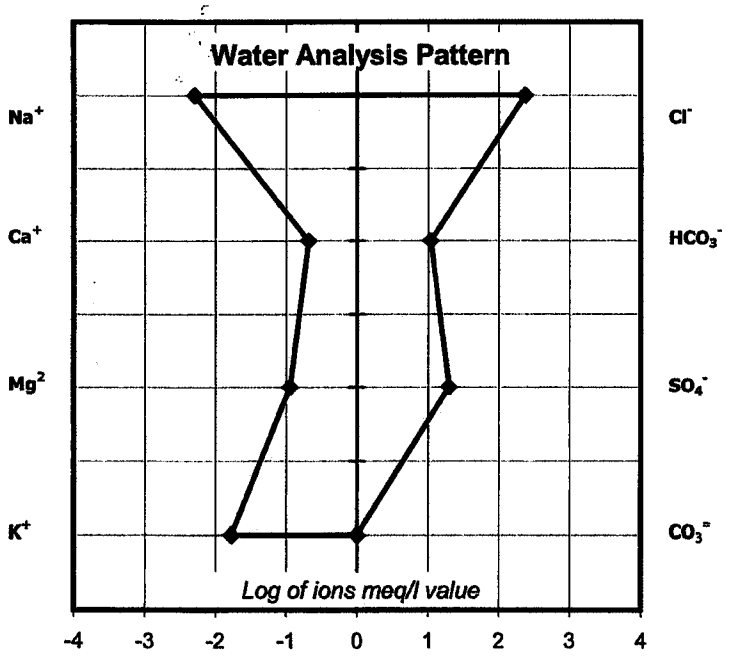
Specific Gravity	1.012	measured
Specific Gravity	1.012	calculated
Resistivity, 68°F	1.220	ohm-cm
Conductivity 25°C	8,197	μmhos/cm

Microbiological

Sulfate Reducing	0	
Aerobic Bacteria	0	Col/mL

Scaling Conditions

Calcium Carbonate	$CaCO_3$	+
Calcium Sulfate	$CaSO_4$	- - -
Barium Sulfate	$BaSO_4$	-
Strontium Sulfate	$SrSO_4$	-



Probable Mineral Residue, Dry

Calculation error = 0 %

COMPOUND	mg/l
NaCl	10,376.6
KCl	4,427.1
Na2SO4	1,220.1
Mg(HCO3)2	441.1
Ca(HCO3)2	388.2
MgSO4	169.0

Note: nd denotes 'Not Determined'

Analyzed by: Andrea Craig-Newman

Approved: Creg Wilkins

12/17/03 v947MDCarney

CUSTOMER REPORT

HALLIBURTON ENERGY SERVICES

1085 E. Main/ Vernal, Utah 84078 / Telephone: 435-789-2550 Lab Ext. 552 / Fax: 435-781-7576

WATER ANALYSIS

Date Tested:	Jan. 23, 2003	Project #:	V04-W020, 021
Date Received:	Jan. 23, 2003		

Company:	**Bill Barrett Corp.**	
Lease/ Well #:	Jack Canyon 14-32	Perf's @ 8130' & 8924'

Sample **1-22-04** Formation/ Date:		9:00AM	5:00PM
Specific Gravity		1.016	1.016
Temperature	°F	62.1	62.9
pH		7.42	7.24
Resistivity	Ω*m	0.912	0.917
Iron	mg/L	0	5
Potassium	mg/L	800	700
Chlorides	mg/L	11800	12400
Calcium	mg/L	935	980
Magnesium	mg/L	205	160
Sulfates	mg/L	1750	1565
Carbonates	mg/L	0	0
Bicarbonates	mg/L	2975	2905
Sodium (calculated)	mg/L	7680	8035
TDS	mg/L	26145	26750
Comments:			

Respectfully Submitted By,

Lori Vian

Lab Technician

CUSTOMER REPORT

HALLIBURTON ENERGY SERVICES

1085 E. Main/ Vernal, Utah 84078 / Telephone: 435-789-2550 Lab Ext. 552 / Fax: 435-781-7576

WATER ANALYSIS

Date Tested:	Jan. 15, 2004	Project #:	V04-W012
Date Received:	Jan. 15, 2004		

Company:	**Bill Barrett Corp.**	
Lease/ Well #:	Jack Canyon 14-32	All Stages

Sample **1-14-04** Formation/ Date:		
Specific Gravity		1.014
Temperature	°F	57.4
pH		7.53
Resistivity	Ω*m	2.14
Iron	mg/L	0
Potassium	mg/L	550
Chlorides	mg/L	5200
Calcium	mg/L	1065
Magnesium	mg/L	60
Sulfates	mg/L	4375
Carbonates	mg/L	0
Bicarbonates	mg/L	2195
Sodium (calculated)	mg/L	4625
TDS	mg/L	18075
Comments:		

Respectfully Submitted By,

Lori Vian

Lab Technician

ATTACHMENT NO. 9

COMPLETIONS DATA OF WELLS WITHIN THE AOR

WELL COMPLETION DATA

	SURFACE CASING				PRODUCTION CASING			
WELL	SIZE	DEPTH	CEMENT AMOUNT	CEMENT TOP	SIZE	DEPTH	CEMENT AMOUNT	ESTIMATED CEMENT TOP
Jack Canyon State 14-32 TD = 9380' Shut-in	9 5/8 24#	1043'	420 sx	Surface	5 ½ 17#	9380	987 sx	2930'
Jack Canyon Unit 6 TD = 2410' P&A'd	9 5/8	138'	80 sx	85'	7" 20#	2400'	200 SX	UNK
Lavinia State 1-32 TD = 5305' Shut-in	8-5/8" 24#	455'	350sx	surface	5-1/2" 173	4026	688 SX	UNK

ATTACHMENT NO. 10

SURFACE OWNERSHIP MAP
LIST OF OWNERS AND
AFFIDAVIT NOTIFICATION

Bill Barrett Corporation

AFFIDAVIT OF NOTICE

Jack Canyon Unit State 14-32
SESW Sec. 32, T12S, R16E
Carbon County, UT
API #4300730913

I, Huntington T. Walker, Sr. VP – Land with Bill Barrett Corporation (BBC) certify that a true and correct copy of UIC Form 1 Application for Injection Well with supplemental ownership information was provided, by certified mail, to the following operators, owners and surface owners located within a one-half (1/2) miles radius exposure of the location pursuant to R649-5-2.12 of the Oil and Gas Conservation, General Rules.

State of Utah
School and Institutional Trust Lands Administration
675 East 500 South, Suite 500
Salt Lake City, UT 84102

Gasco Production Co.
8 Inverness Dr. E. #100
Englewood, CO 80112

Bureau of Land Management
125 South 600 West
Price, Utah 84501

Regoal Inc.
7096 South 4000 East
Price, UT 84501

Petro Canada Res (USA) Inc.
999 18th Street, #600
Denver, CO 80202-2499

EOG Resources Inc.
P. O. Box 4362
Houston, TX 77210-4362

Affiant

Huntington T. Walker, Sr. VP - Land

February 23, 2010

State of Colorado)
)
County of Denver)

Before me, the undersigned, on the date as given above, personally appeared Huntington T. Walker to me to be the person whose name is subscribed to the foregoing instrument for the purpose and consideration therein expressed.

Given my hand seal.

Notary Public

My commission expires: 10/16/2013

LEE VASKEY
NOTARY PUBLIC
STATE OF COLORADO
MY COMMISSION EXPIRES 10/16/2013

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

Bill Barrett Corporation

February 23, 2010

State of Utah - SITLA
675 East 500 South, Suite 500
Salt Lake City, UT 84102

BLM – Price Field Office
125 South 600 West
Price, Utah 84501

Petro Canada Res (USA) Inc.
999 18th Street, #600
Denver, CO 80202-2499

EOG Resources Inc.
P. O. Box 4362
Houston, TX 77210-4362

Gasco Production Co.
8 Inverness Dr. E #100
Englewood, CO 80112

Regoal Inc.
7096 South 4000 East
Price, UT 84501

Re: Jack Canyon Unit State 14-32
SESW 32, T12S R16E
Carbon County, UT

Bill Barrett Corporation has submitted an Application for Injection Well for the JCU 14-32 well. A copy of the application and ownership map is being provided, by certified mail, to the operators, owners and surface owners located within a one-half (1/2) miles radius of the location pursuant to Utah OGM regulation R649-5-2.12.

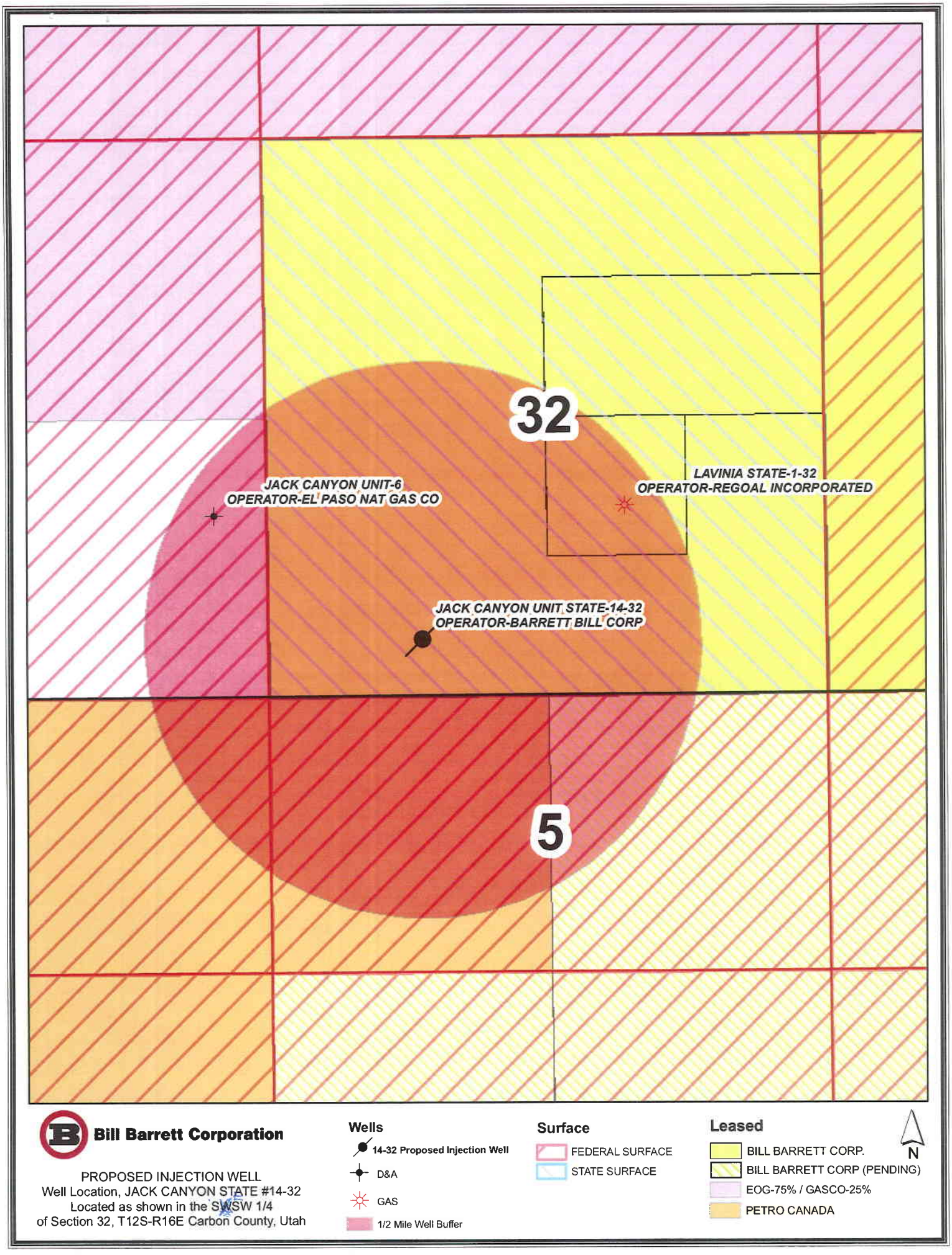
Should you require additional information, please feel free to contact me at 303-312-8513.

BILL BARRETT CORPORATION

Vicki L. Wambolt
Landman

enclosures

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


32
JACK CANYON UNIT-6
OPERATOR-EL PASO NAT GAS CO
LAVINIA STATE-1-32
OPERATOR-REGOAL INCORPORATED
JACK CANYON UNIT STATE-14-32
OPERATOR-BARRETT BILL CORP
5
Bill Barrett Corporation
PROPOSED INJECTION WELL
Well Location, JACK CANYON STATE #14-32
Located as shown in the SWSW 1/4
of Section 32, T12S-R16E Carbon County, Utah
Wells
14-32 Proposed Injection Well
D&A
GAS
1/2 Mile Well Buffer
Surface
FEDERAL SURFACE
STATE SURFACE
Leased
BILL BARRETT CORP.
BILL BARRETT CORP (PENDING)
EOG-75% / GASCO-25%
PETRO CANADA
N

ATTACHMENT NO. 11

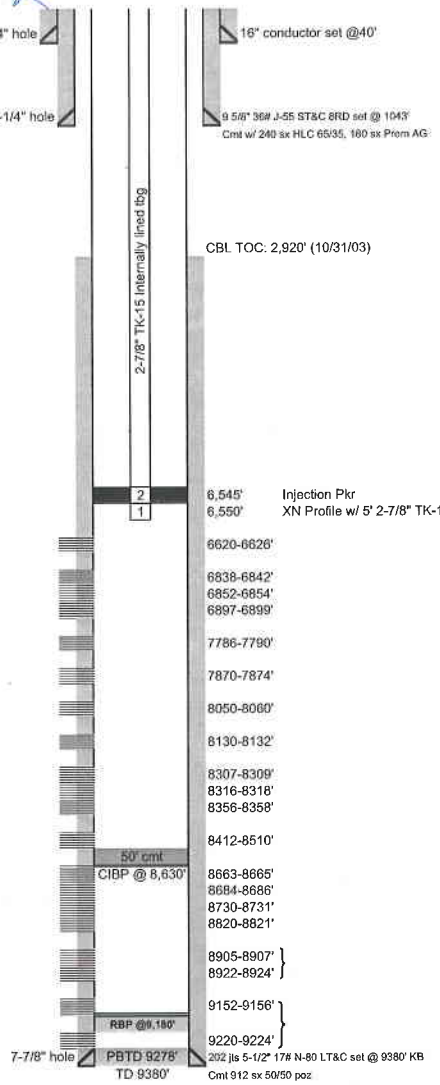
WELL BORE DIAGRAM FOR THE UIC WELL AND SWD CONVERSION PROCEDURE

Jack Canyon # 14-32
531' FSL & 1479' FWL
SWSE Sec 32-T12-R16E
Carbon Co., UT

API: 43-007-3091300000
WI. 1.0000000
NRI: 0.7800339

Last mod: 2/22/2010 CRB

CURRENT WELLBOERE SCHEMATIC
GL: 6,921'
RKB: 6,937'
Spud: 8/1/2003
Rig Release: 8/28/2003
Completed: 2/12/2004
1st Sales: 12/25/2003



U. Price River 6620-6626'
Price River 6838-6842', 6852-6854', 6897-6899'
Bluecastle 7786-7790'
Bluecastle 7870-7874'
Bluecastle 8050-8060'
Sego 8130-8132'
Sego 8307-8309', 8316-8318', 8356-8358'
Castlegate 8412-8510'
Blackhawk 8663-8665', 8684-8686', 8730-8731', 8820-8821'
Kenilworth 8905-8907', 8922-8924'
Aberdeen 9152-9156'
Spring Canyon 9220-9224'

5-1/2" 17# N-80 LT&C specs:
ID-4.892"
Drift-4.767"
Burst-7740 psi
Collapse-6280 psi

rparham

2/26/2010

Bill Barrett Corporation

Jack Canyon # 14-32
531' FSL & 1479' FWL
SWSE Sec 32-T12-R16E

Bill Barrett Corporation

Jack Canyon Unit #14-32-12-16

531' FSL, 1,479' FWL
Section 32, T12S-R16E
Carbon County, UT
API #: 43-007-30913
AFE #: 10862R

Summary & Objective:

October 26th, 2009 Bill Barrett Corporation rigged up on the Jack Canyon 14-32-12-16 to determine injection capabilities for existing deep perforations at the following depths.
6,620'-6,626'
6,838-6,842'
6,852-6,854'
6,897-6,899'
7,786-7,790'
7,870-7,874'
8,050-8,060'
8,130-8,132'
8,307-8,309'
8,316-8,318'
8,356-8,358
8,379-8,380
8,412-8,426
8,426-8,441
8,462-8,476
8,492-8,510

A packer was set @ 6,545' and injection was established
4 BPM – 210 psi
6 BPM – 1,000 psi

Post injection testing an MIT was performed on the backside and 1,575psi was held for 30 minutes, observed by Dennis Ingram.

Bill Barrett Corporation is proposing the following action for permanent injection into the existing perforations from 6,620-8,318'. 8510 on UIC Form 1

ID:	4.892"
Drift:	4.767"
Capacity:	0.0232 bbl/ft
Burst Pressure:	7,740 psi
Collapse Pressure:	6,280 psi

Production Tubing: 2-7/8", 6.5#, N-80 EUE, 8rd tubing set @ 6,545' (213 Jts.)
- HES Production pkr @ 6,545'

Production Tubing Properties:

ID:	2.441"
Drift:	2.347"
Capacity:	0.00579 bbl/ft
Burst Pressure:	10,570 psi
Collapse Pressure:	11,160 psi

PBTD = 8,630' (CIBP)

Current Well Status:

Shut in.

Re-Completion Procedure:

1. Contact BBC production personnel in the Roosevelt office and inform them of planned activity: (435) 725-3515.
2. Survey location and existing equipment on location (re-spot equipment as necessary).
3. Prepare location as necessary for work over rig and frac equipment.
    a. Verify rig anchors are properly placed and available for use, re-set if necessary.
    b. Verify that location size is sufficient to accommodate frac equipment.
4. MIRU work over rig, spot in necessary equipment.
5. Top kill well with fresh or lease water.
6. ND production tree and nipple up BOP's.
7. TOOH w/ 212 jts 2-7/8" tbg, XN Nipple, 1 jt 2-7/8" tbg, HES PLS production Pkr & LD
8. MUPU X Nipple, 5' TK-15 lined 2-7/8" pup jt, 5.5" injection pkr, on/off tool, TK-15 lined 2-7/8" tbg
9. Set 5.5" injection pkr @ +/- 6,545' (within 100' of top perf @ 6,620')
10. Establish injection with rig pumps of 4 BPM, & report back to Chris Bairrington – BBC Denver 303-312-8511.
11. RU rig pumps on backside & pressure test to 1,500psi & hold for 1 hour. Report pressure integrity test back to Chris Bairrington – 303-312-8511
12. If pressure test holds, RDMOL
13. Contact State official & schedule MIT within 48 hours of moving off location.
14. Report MIT official results back to BBC Denver.

ATTACHMENT NO. 12

P&A PROCEDURE

PLUG AND ABANDONMENT PROCEDURE

Jack Canyon State 14-32

1. Obtain authorization from regulatory agencies for P&A procedures.

2. Rig up pulling unit. Install BOP. Release packers. Trip out of hole with tubing string.

3. RIH Set CIBP @ 6545'

4. Trip in hole with 2-7/8" tubing. Establish pump rate, pump and squeeze with 30 sxs Class G cement above CIBP. This will be a 200' cement plug.

5. Raise the tubing to 5950' and pump 30 sx of Class G cement for a 200' cement plug

6. Raise the tubing to 2930' and pump 30 sx of Class G cement for a 200' cement plug.

7. Raise the tubing to 1043' and pump 15 sx of Class G cement for a 100' cement plug.

8. Set 50' cement plug (8 sx of G cement) from 50' to surface.

9. Cut off wellhead and install plate and identification P&A post marker. Weld to casing.

10. File reports with the agencies and reclaim surface location.

ATTACHMENT NO. 13

MIT PROCEDURE

Mechanical Integrity Test Procedure

Integrity testing can be accomplished by pressuring up the annulus between the casing and the 2 7/8 inch tubing. The pressure and duration of the test will be as required by UDOGM.

Test Procedure Details:

1. Notify the Agency 48 hours prior to starting test.
2. MIRU Service Unit
3. Bleed off pressure, if any, on 5 1/2" production casing. .
4. ND wellhead and NU BOP.
5. Fill the tubing/casing annulus with a non-corrosive liquid 24 hours prior to the test.
6. Pressure up casing; tubing annulus to 1500 psi for 14 minutes (or per UDOGM instructions).
7. Record the testing pressures on a chart recorder.
8. If pressure holds, ND BOP and NU wellhead.
9. Prepare a report of the test including the pressure test chart and forward to the UDOGM for approval.

ATTACHMENT NO. 14

FRACTURE GRADIENT

Bill Barrett Corporation
West Tavaputs Field SWD Well Application

Maximum Allowable Surface Pressure Calculations
Based on Observed Fracture Gradients

Water SG=1.02 Gradient=0.4417 psi/ft

Jack Canyon State 14-32

Depth (ft) Midperf Calculation	Observed ISIP (psig)	Calculated Btm Hole (psig)	Resulting Frac Grad (psi/ft)
8332	3500	7180.2	0.86
8055	3684	7241.9	0.90
7830	4200	7658.5	0.98
6623	6305	9230.4	1.39

Requested Max Surface Pressure=3150 psig

ISIP Data Collected during initial completion treatments

Calculated Bottom Hole Pressure = ISIP + 0.4417 x Depth
Resulting Frac Gradient=Calculated Btm Hole Pressure/Depth

Requested Max Surface Pressure < 90% x ISIP
Anticipated Avg Surface Pressure=50% x Max Surface Pressure

Anticipated Avg Disposal Rate=1500 bwpd
Requested Maximum Disposal Rate=3500 bwpd

Water for injection would come from BBC wells within the Peters Point Unit

From: Tracey Fallang <tfallang@billbarrettcorp.com>
To: dustindoucet@utah.gov
Date: 11/4/2009 12:59 PM
Subject: Update on JCU 14-32 Step-Rate and JCU 8-32

Dustin, just an update on where we are at on these two wells. As you know, we had filed requests for extended shut-in on both wells that expired 9/1/09. Here is the current status of each and what we are proposing moving forward:

JCU 14-32: This is the well that we are converting to a disposal well. We did end up performing the step-rate test of the existing perfs deeper in the well last week and they did take water. We will be submitting our final/complete SWD application within the next couple of weeks. In addition, we are ready to perform the MIT test and had hoped to do it this week but between BBC contractor and DOGM, we couldn't schedule the dates due to availability conflicts. At the time the MIT is done (which may be a couple of weeks from now), I will submit a sundry of the results and plans for conversion.

JCU 8-32: Same story here on the MIT test. We will do this at concurrent with the JCU 14-32 and then file another extension sundry for temp shut-in status.

Let me know if you need anything else from me at this point other than this update.

Thanks.

CC: chriskierst@utah.gov

From: Tracey Fallang <tfallang@billbarrettcorp.com>
To: CHRISKIERST@utah.gov
Date: 10/1/2009 11:25 AM
Subject: FW: Jack Canyon 14-32 Water sample

Chris, attached is the water sample you requested that we provide to be able to perform a step-rate test on the existing perfs in this well to determine if we can inject into these or if we will need to move up in the well and propose new perfs.

The water sample came from Castlegate, Sego, Bluecastle & Dark Canyon formation commingled. The sample is about half the TDS of normal zones in the field, but looks to be very similar to Aberdeen water from deeper in the well. Being as it was commingled and has been sitting for so long this sample might not be completely indicative of formation fluid from these zones. If we could rig up on the well & pull tbg we could swab in water from the entire wellbore & determine a true water composition. We would like to then begin the step-rate test.

I am also attaching the proposed injection test procedure and a current wellbore diagram. We would like to get this test underway immediately.

Thanks Chris.

Bill Barrett Corporation

Jack Canyon Unit #14-32-12-16

531' FSL, 1,479' FWL
Section 32, T12S-R16E
Carbon County, UT
API #: 43-007-30913
AFE #: 10862R

Objective:

Rig up work over rig, pull existing 5.5" PLS pkr to 6,570' & set. MIRU HES & perform step rate test on existing completed non-productive intervals.

Current Wellbore Configuration:

Surface Casing: 9-5/8" 36.0# J-55 Set @ 1,043'
Production Casing: 5-1/2", 17.0# N-80 set @ 9,380' MD/TVD
* - All depths are give as KB depths. Rig KB = 16.0'
Production Casing Properties:

ID:	4.892"
Drift:	4.767"
Capacity:	0.0232 bbl/ft
Burst Pressure:	7,740 psi
Collapse Pressure:	6,280 psi

Production Tubing: 2-7/8", 6.5#, N-80 EUE, 8rd tubing set @ 8,393' (251 Jts.)
Production Tubing Properties:

ID:	2.441"
Drift:	2.347"
Capacity:	0.00579 bbl/ft
Burst Pressure:	10,570 psi
Collapse Pressure:	11,160 psi

PBTD = 8,630' (CIBP)

Current Well Status:

Shut in.

Re-Completion Procedure:

1. **Notify State official 48 hours prior to moving on location.**
2. Contact BBC production personnel in the Roosevelt office and inform them of planned activity: (435) 725-3515.
3. Survey location and existing equipment on location (re-spot equipment as necessary).
4. Prepare location as necessary for work over rig and frac equipment.
    a. Verify rig anchors are properly placed and available for use, re-set if necessary.
    b. Verify that location size is sufficient to accommodate frac and CO_2 equipment.
5. MIRU work over rig, spot in necessary equipment.
6. Top kill well with fresh or lease water.
7. ND production tree and nipple up BOP's.
8. Pick up on tubing and un-set packer:
    a. HES 5.5 17# PLS packer with 30,000 # shear
    b. Set with 20,000 lb compression
9. Trip out of hole with existing tubing string to 6,570' (50' above top perf).
10. Set HES 5.5" 17# PLS packer @ 6,570' +/-.
11. MIRU HES & pressure test backside to 1,500# for 15 minutes.
12. RU HES & perform step rate test down tbg on existing perfs from 6,620' – 8,510' as per designed by HES with max injection rate of 3,150#.
13. Evaluate validity of step rate test for future injection potential into existing non-productive intervals.

Bill Barrett Corporation

Jack Canyon # 14-32
531' FSL & 1479' FWL
SWSE Sec 32-T12-R18E
Carbon Co., UT

API: 43-007-30913000000
Wi: 1.0000000
NRI: 0.7800339
AFE: 10882D

Last mod: 8/21/2009 CRB
Status: SI Gas Well

Current WBD
GL: 6,921'
RKB: 6,937'
Spud: 8/1/2003
Rig Release: 8/29/2003
Completed: 12/29/2005
1st Sales: 12/25/2003

24" hole
12-1/4" hole
7-7/8" hole

16" conductor set @40'

9 5/8" 36# J-55 STAGE TOOL set @ 1943'

Tubing Detail as of 12/23/05		
KB Elevation	16.00'	
Tubing Hnager	0.5'	16.00'
2 3/8" 2.875# N-80	9,307.65'	16.5'
2 3/8" N-80 "X" Nipple	2.15'	9329.65'
2 3/8" 2.875# N-80	31.38'	9331.81'
2 3/8" N-80 "X" Nipple	1.42'	9367.19'
2 3/8" 2.875# N-80	30.30'	9368.59'
HES PLS Pkr	4.25'	9398.89'
END OF TUBING	9,403.14'	

Fill: 240-HLC 65/35% CMT-POZ, 6% gel, 2% cacl, 1/4#/sx flocele; 1.86ft3/sk, 12.7ppg
Tail: 180-Premium AG, 2% cacl, 1/4#/sx flocele; 1.15ft3/sk, 15.8pph

TOC ~2930'

5-1/2" x 2-7/8" Annular Volume: 98 bbls

OD 2.875" Burst 10,570 psi
ID 2.441" Collapse 11,170 psi
Drift 2.347" Yield 145 kips
Capacity 0.005788 bbls/ft

Top Dark Canyon: 6,441'

Base Dark Canyon: 6,830'

Top Bluecastle: 7,749'

Top Upper Sego: 8,055'

Top Castlegate: 8,410'

Top Blackhawk: 8,690'

Kenilworth

Aberdeen

Spring Canyon

HES PLS Pkr @ 8,385'

5-1/2" 17# N-80 LT&C specs:
ID-4.892"
Drift-4.767"
Burst-7740 psi
Collapse-6280 psi

90' cmt
CIBP @8,830

PBTD 9278'
TD 9380'

Stg. #	Top Perf	Bot. Perf	# Holes	Inj. Rate	WHTP	20/40	Gel Wtr.	Flush Wtr.	CO2	ISIP
1	9,152	9,224	24	43	4,903	88,000	17,364	4,455	149	3,335
2	8,905	8,924	12	33	4,171	92,300	23,691	4,339	136	3,156
3	8,663	8,821	16	42	5,508	30,649	42,746	7,116	39	3,494
4	8,462	8,476	56	24	7,393	20,394	47,453	2,108	-	3,288
5	8,307	8,358	27	40	5,023	5,400	15,757	4,046	94	3,500
6	8,050	8,060	30	42	4,822	90,200	16,796	3,560	142	3,884
7	7,786	7,974	24	18	5,284	200,000	31,015	3,578	250	4,200
8	8,620	8,626	16	39	5,979	45,000	11,342	1,684	106	5,305

Stg. #	Avg. Rate	Max Rate	Avg. Press	Max Press	ISIP	Frac Grad
1	42.5	43.0	4,903	5,284	3,335	0.80
2	32.5	35.0	4,171	5,985	3,156	0.79
3	42.2	48.0	5,508	6,500	3,494	0.84
4	24.2	25.0	7,393	7,839	3,288	0.83
5	39.7	41.0	5,023	5,736	3,500	0.86
6	42.5	45.0	4,822	5,135	3,884	0.88
7	19.3	23.9	5,284	6,235	4,200	0.96
8	30.3	34.0	5,979	6,653	5,305	1.39

Open
Open
Open
Open
Open
Open

6835-6842'
6852-6854' Perf Only - No Treatment
6897-6899'
7785-7790'
7870-7874'
8050-8060'
8130-8132' Perf Only - No Treatment
8307-8309'
8316-8318'
8356-8358'
8412-8426'
8428-8441'
8492-8511'
8462-8478'
8682-8684'
8684-8686'
8730-8731'
8820-8821'
8905-8907'
8922-8924'
8183-8196' Perf'd 12/14/05
9220-9224' Perf'd 12/14/05

202 jts 5-1/2" 17# N-80 LT&C set @ 9380' KB
Fill: 860-50/50 POZ, 5#/sx silicalite, 20% SSA-1, .1% versaset, .2% dacal LWL, 1.5% commetarol 20000 foamer; 1.47ft3/sk, 14.3ppg
Tail: 52-50/50 POZ, 5#/sx silicalite, 20% SSA-1, .1% versaset, .2% dacal LWL, 1.5% commetarol 20000 foamer; 1.47ft3/sk, 14.3ppg

Rpts
7
0
0
0
7
0
0
7
11

Production Water Report and Scaling Tendencies

Creg Wilkins 12/17/03 Version : 947

Analysis by :	Andrea Craig-Newman
Field :	
County :	
Lab ID# :	XTO
Sample Date :	17-Sep-09
Location :	Jack Canyon 14-32 Tank
Formation :	
Depth :	
Rock Type:	
Porosity:	
Permeability:	

INPUT Sample Temp °F :	60.0	INPUT TDS @180 °C, mg/L	16,636
INPUT Downhole Temp °F :	125.0	Calc TDS (less CO2), mg/L	16,636
INPUT Sample Press :	6.0	INPUT Resistivity @ 68°F	1.220
INPUT sample pH, su	8.17	Calculated Resistivity @ 68°F	1.220
Input mole % CO_2	0.64	Input Conductivity, µmhos/cm	8,197
pH resulting from CO_2	8.17	Calc Cond@25 °C, µmhos/cm	8,197
Calc Carbon Dioxide (Aq), mg/L	4.1	INPUT Density @ STP, g/mL	1.012
Carbon Dioxide, CO_2 mg/L	100.0	Calc Density @STP, g/mL	1.012
Total Sulfide, mg/L	2.0	MicroBiological - # of bottles turned	
Dissolved Oxygen, ppm		SRBs :	0
Dissolved Oxygen, ppb	0.0	Aerobic Bacteria :	0

K^+	2,325.0
Na^+	4,476.8
Na^+ by Diff	+ 0.00
Ca^{++}	96.0
Mg^{++}	107.4
Fe^{++}	2.4
Ba^{++}	0.0
Sr^{++}	0.0
Br^-	0.0
$SO_4^=$	960.0
Cl^-	8,400.0
$CO_3^=$	0.0
HCO_3^-	671.0
OH^-	0.0
Organic Acid	0.0

Note: Organic Acids as Acetate

Fluid Type

Titrations - if values are placed in mls or digits - results will transfer to Water Report

Parameter	mls	Digits		Sample Size	Normality	Results
CO_2	0	0.0	0	100	3.636	
H_2S	0	0.0	0	10	0.3998	
T reading	0	0.0	0	100	8.0	
P reading	0	0.0	0	100	1.6	
Ca^{++}	0	0.0	0	50	0.8	
THardness	0	0.0	0	50	0.8	
Cl	0	0.0	0	1	2.256	

Comments: Mn 0.70 ppm PO4

Production Scaling Tendency Analysis Report

0 Jack Canyon 14-32 Tank

Location : Jack Canyon 14-32 Tank	Analyzed by : Andrea Craig-Newman
Field : 0	Sample Date : 9/17/2009
County : 0	Lab ID : XTO
	Sigma : 0.00
Comments : Mn 0.70 ppm PO4	

Probable Mineral Residue, Dry	
Compound	mg/L
NaCl	10,376.6
KCl	4,427.1
Na2SO4	1,220.1
Mg(HCO3)2	441.1
Ca(HCO3)2	388.2
MgSO4	169.0

CATIONS		mg/L	meq/L	ANIONS		mg/L	meq/L
Sodium	Na^+	**4,476.8**	194.73	Chloride	Cl^-	**8,400.0**	236.93
Potassium	K^+	**2,325.0**	59.47	Bromide	Br^-	**0.0**	0.000
Calcium	Ca^{++}	**96.0**	4.79	Sulfate	$SO_4^=$	**960.0**	19.99
Magnesium	Mg^{++}	**107.4**	8.84	Bicarbonate	HCO_3^-	**671.0**	11.00
Barium	Ba^{++}	**0.0**	0.00	Carbonate	$CO_3^=$	**0.0**	0.00
Strontium	Sr^{++}	**0.0**	0.00	Organic Acids as Acetate		**0.0**	0.00
Iron	Fe^{++}	**2.4**	0.09	Hydroxide	OH^-	**0.0**	0.00
	SUM+	7,007.6	267.92		**SUM**	10,031.0	267.92

TDS (calc'd)=	17,039 mg/l	Bisulfide ion	1.9 mg/l	Dissolved O_2, aq	0.0 ppb	Surface Temp	60 °F
TDS@180°C=	16,636 mg/l	Hydrogen Sulfide	0.1 mg/l	FIELD CO_2, aq	100.0 mg/l	Downhole Temp	125 °F
Calc Mole%CO_2=	0.64%	Total Sulfides	2.0 mg/l	Calc CO_2, aq	4.1 mg/l	Ionic Strength	0.290 μ
						Field pH, s.u. =	8.17

Location	Temperature °F	Pressure psia	pH calculated	SI $CaCO_3$	$CaSO_4 \cdot 2H_2O$ Gypsum	$CaSO_4 \cdot \frac{1}{2}H_2O$ Hemi hydrate	$CaSO_4$ Anhydrite	SI $BaSO_4$	SI $SrSO_4$	
A	60	30.0	7.47	+0.26	-1.55	-1.48	-2.07			1
B	80	30.0	7.56	+0.54	-1.55	-1.49	-1.92			2
C	85	30.0	7.58	+0.61	-1.56	-1.50	-1.88			3
D	90	30.0	7.60	+0.68	-1.56	-1.50	-1.85			4
E	95	30.0	7.62	+0.76	-1.56	-1.50	-1.81			5
F	100	30.0	7.65	+0.83	-1.56	-1.50	-1.77			6
G	110	30.0	7.69	+0.97	-1.55	-1.50	-1.70			7
H	120	30.0	7.73	+1.11	-1.55	-1.50	-1.63			8
I	130	30.0	7.77	+1.25	-1.54	-1.50	-1.55			9
Max formation temp	110	10.0	8.16	+1.45	-1.52	-1.50	-1.70			1
Max formation temp	110	20.0	7.86	+1.15	-1.55	-1.50	-1.70			2
Max formation temp	110	25.0	7.77	+1.05	-1.55	-1.50	-1.70			3
Max formation temp	110	50.0	7.47	+0.75	-1.56	-1.50	-1.70			4
Max formation temp	110	100.0	7.16	+0.44	-1.56	-1.51	-1.70			5
Max formation temp	110	250.0	6.76	+0.03	-1.57	-1.52	-1.71			6
Max formation temp	110	500.0	6.46	-0.28	-1.58	-1.53	-1.71			7
Max formation temp	110	600.0	6.38	-0.37	-1.59	-1.54	-1.72			8
Max formation temp	110	700.0	6.31	-0.44	-1.59	-1.55	-1.72			9
Max formation temp	110	800.0	6.25	-0.51	-1.60	-1.56	-1.72			10
Max formation temp	110	900.0	6.20	-0.56	-1.60	-1.56	-1.73			11
Max formation temp	110	1,000.0	6.15	-0.61	-1.61	-1.57	-1.73			12
Max formation temp	110	1,250.0	6.05	-0.73	-1.62	-1.59	-1.74			13

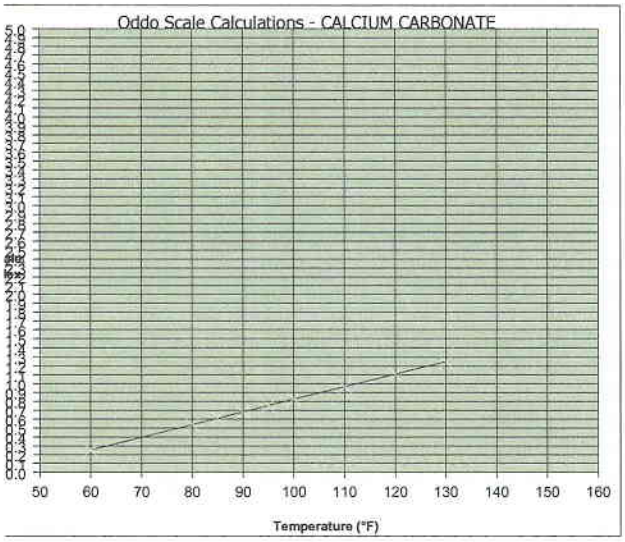
Calculations based upon Oddo Tomson Equations, v1.04.17.98

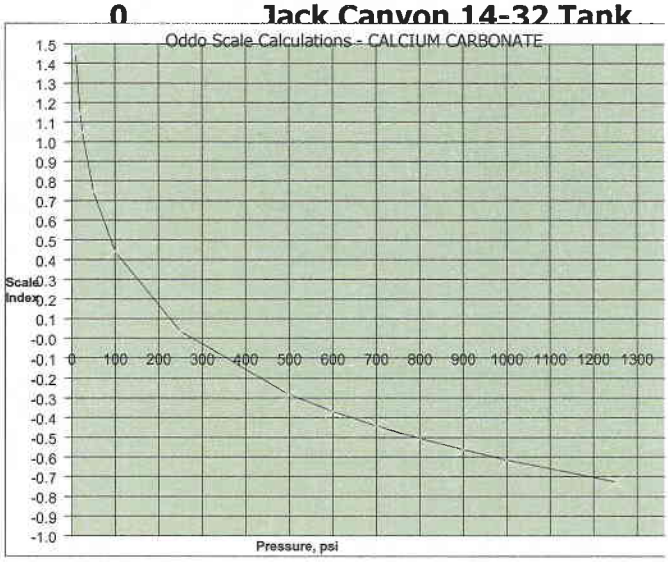
12/17/03v947MDCarney

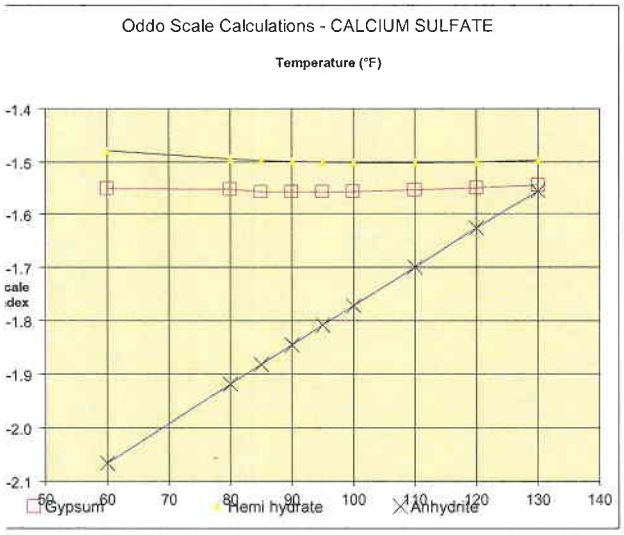
NALCO

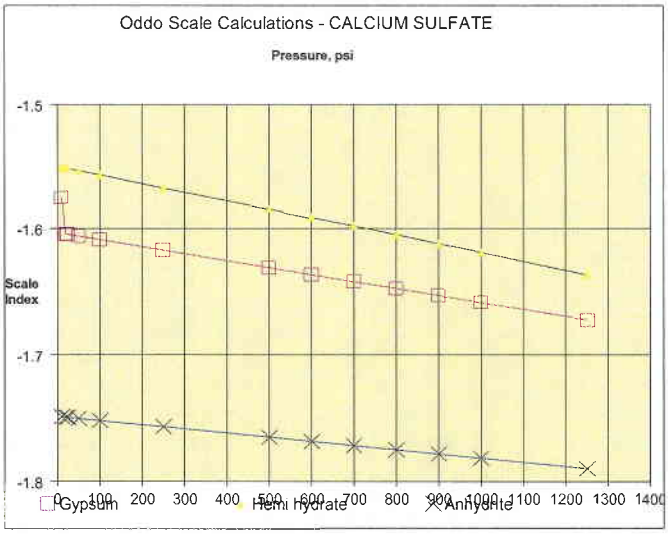
Production Scaling Tendency Analysis Report

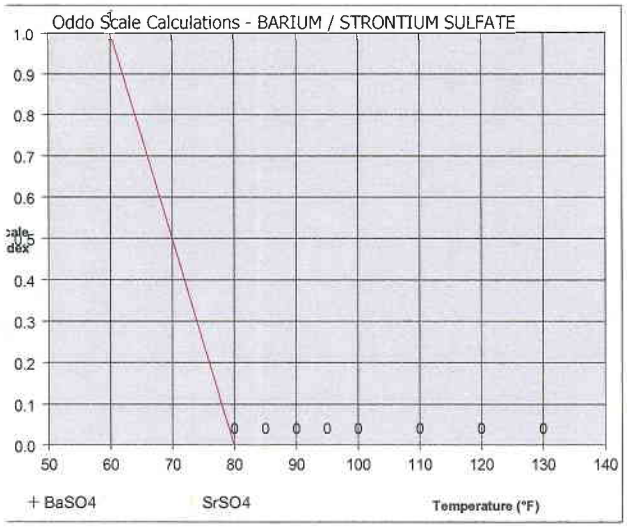
0 Jack Canyon 14-32 Tank

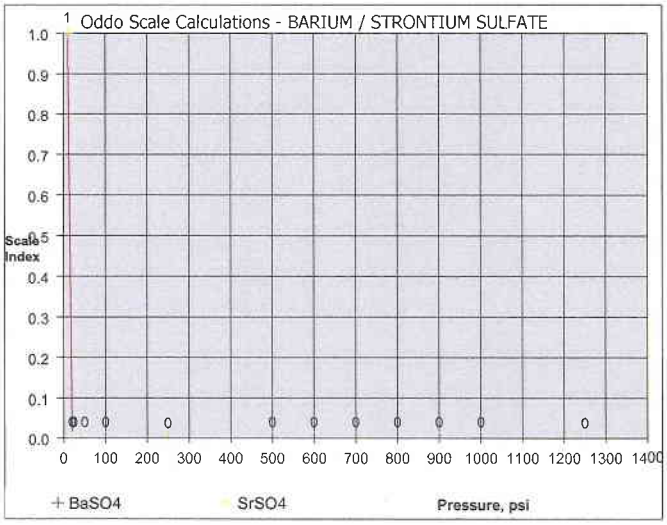












Water Analysis Report

Field : 0	**Sample Date : 9/17/2009**
County : 0	**Formation :**
Location : Jack Canyon 14-32 Tank	**Rock Type :**
Lab ID : XTO	**Depth :**
Comments : Mn 0.70 ppm PO4	

CATIONS	mg/l	meq/l	ANIONS	mg/l	meq/l
Potassium	2,325.0	59.47	**Sulfate**	960.0	19.99
Sodium	4,476.8	194.73	**Chloride**	8,400.0	236.93
Calcium	96.0	4.79	**Carbonate**	0.0	0.00
Magnesium	107.4	8.84	**Bicarbonate**	671.0	11.00
Iron	2.4	0.09	**Bromide**	0.0	0.00
Barium	0.0	0.00	**Organic Acids**	0.0	0.00
Strontium	0.0	0.00	**Hydroxide**	0.0	0.00
SUM +	**7,007.6**	**267.92**	**SUM -**	**10,031.0**	**267.92**

Solids

Total Dissolved Solids @180°C	16,636 mg/l
Total Solids, Calc less CO_2	16,636 mg/l
Total Solids, Calculated	17,039 mg/l
Total Solids, NaCl equivalents	13,783 mg/l
Chloride as NaCl	11,381 mg/l
NaCl% of Total Dissolved Solids	66.79 %
Accuracy	0.00 Sigma

Sample Conditions

pH, s.u. (Field)	8.17 s.u.
Sample Pressure	6.00 psia
Mole% CO_2, Gas	0.64 %
pH, s.u. (from CO_2)	8.17 s.u.
Surface Temp	60 °F
Downhole Temp	125 °F
Ionic Strength	0.290 µ

Dissolved Gases

Bisulfide ion, HS^-	1.9 mg/l	Dissolved O_2, aq	0.0 ppb
Hydrogen Sulfide, H_2S	0.1 mg/l	Measured CO_2, aq	100.0 mg/l
Total Sulfide	2.0 mg/l	Calculated CO_2, aq	4.1 mg/l

Other Properties

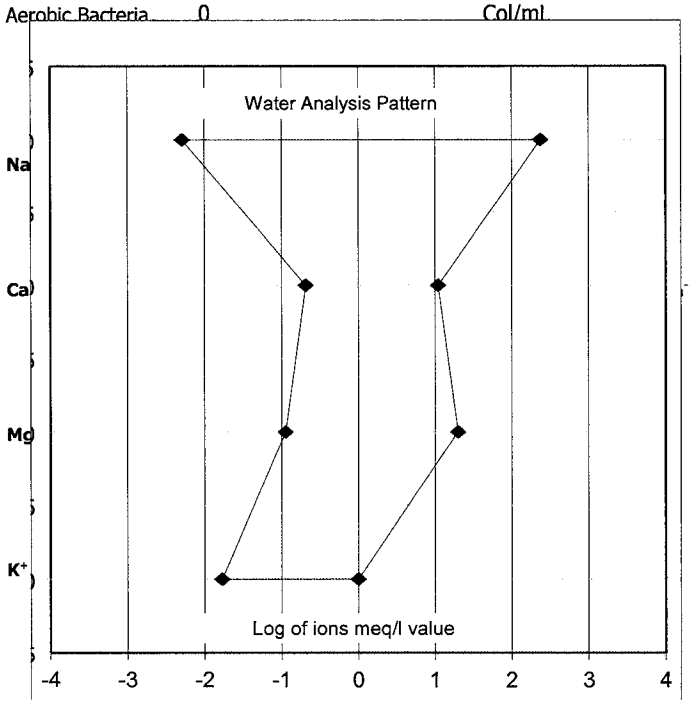
Calcium Hardness as $CaCO_3$	239.7 mg/l	Specific Gravity	1.012 measured
Magnesium Hardness as $CaCO_3$	442.3 mg/l	Specific Gravity	1.012 calculated
Total Hardness as $CaCO_3$	682.0 mg/l	Resistivity, 68°F	1.220 ohm-cm
Hardness, grains	39.71 grains/gallon	Conductivity 25°C	8,197 µmhos/cm

Microbiological

Sulfate Reducing	0	
Aerobic Bacteria	0	Col/ml

Scaling Conditions

Calcium Carbonate	$CaCO_3$ +
Calcium Sulfate	$CaSO_4$ - - -
Barium Sulfate	$BaSO_4$ -
Strontium Sulfate	$SrSO_4$ -



Probable Mineral Residue, Dry

Calculation error = 0 %

COMPOUND	mg/l
NaCl	10,376.6
KCl	4,427.1
Na2SO4	1,220.1
Mg(HCO3)2	441.1
Ca(HCO3)2	388.2
MgSO4	169.0

Note: nd denotes 'Not Determined'

Analyzed by: Andrea Craig-Newman

Approved: Creg Wilkins

12/17/03 v947MDCarney

From: Tracey Fallang <tfallang@billbarrettcorp.com>
To: CHRISKIERST@utah.gov; DUSTINDOUCET@utah.gov
Date: 9/1/2009 2:00 PM
Subject: FW: Jack Canyon 14-32-12-16 Injection Test Procedure 09-01-09.doc

Dustin, following up our conversation today, here is the injection test procedure we would propose to be able to test the existing perfs and also satisfy the MIT requirements to renew the shut-in status request.

The initial SWD application we prepared/discussed with Chris (but had not formally submitted yet) was for new perfs higher in the well. We are hoping to avoid revising that to include the existing perfs until we know that the existing perfs would take water.

Let me know your thoughts. Thanks.

From: Chris Bairrington
Sent: Tuesday, September 01, 2009 1:52 PM
To: Tracey Fallang; Greg Hinds
Subject: Jack Canyon 14-32-12-16 Injection Test Procedure 09-01-09.doc

Bill Barrett Corporation

Jack Canyon # 14-32
531' FSL & 1479' FWL
SWSE Sec 32-T12-R16E
Carbon Co., UT

API: 43-007-30913600000
WI: 1.0000000
NRI: 0.7800339
AFE: 10882D

Last mod: 8/20/2009 CRB
Status: SI Gas Well

Current WBD
GL: 8,021'
RKB: 8,037'
Spud: 8/1/2003
Rig Release: 8/28/2003
Completed: 12/23/2005
1st Sales: 12/25/2003

Tubing Detail as of 12/23/05		
RB Elevation	15.00'	
Tubing Hnager	0.5'	15.00
2 3/8" 2.875# N-80	6307.80'	15.5
2 3/8" N-80 "X" Nipple	2.15'	6323.80'
2 3/8" 2.875# N-80	31.39'	6325.95'
2 3/8" N-80 "X" Nipple	1.40'	6357.34'
2 3/8" 2.875# N-80	30.39'	6358.74'
HES PLS Pkr	4.25'	6389.89'
END OF TUBING	6393.14'	

24" hole
12-1/4" hole
7-7/8" hole

16" conductor set @40'
9 5/8" 36# J-55 ST&C 8RD set @ 1043'

FR. 240-HLC 65/35% CMT-POZ, 6% gel, 2% cacl, 1/4#/sx flocele; 1.85ft3/sk, 12.7ppg
Tail: 180-Premium AG, 2% cacl, 1/4#/sx flocele; 1.15ft3/sk, 15.8ppg

TOC ~2930'

5-1/2" x 2-7/8" Annular Volume: 98 bbls

OD 2.875" Burst 10,570 psi
ID 2.441" Collapse 11,170 psi
Drift 2.347" Yield 145 klbs
Capacity 0.005788 bbls/ft

Top Dark Canyon: 8,441'
Base Dark Canyon: 8,650'
Top Bluecastle: 7,743'
Top Upper Sego: 8,598'
Top Castlegate: 8,410'
Top Blackhawk: 8,688'
Kenilworth
Aberdeen
Spring Canyon

HES PLS Pkr @ 8,385'

5-1/2" 17# N-80 LT&C specs:
ID-4.892"
Drift-4.767"
Burst-7740 psi
Collapse-6280 psi

Open
Open
Open
Open
Open
Open

8638-8642'
8652-8654' Perf Only - No Treatment
8697-8699'
7786-7790'
7870-7874'
8055-8060'
8130-8132' Perf Only - No Treatment
8307-8309'
8318-8319'
8356-8358'
8412-8420'
8426-8441'
8492-8518'
8492-8498'
8503-8505'
8594-8596'
8730-8734'
8820-8824'
8900-8902'
8922-8924'

8952-8956' Perf'd 12/14/05
9220-9224' Perf'd 12/14/05

202 jts 5-1/2" 17# N-80 LT&C set @ 9380' KB
FR. 860-50/50 POZ, 58#/sx silicalite, 20% SSA-1, 1% versaset, .2% dacal LWL, 1.5% zonesealant 20000 foamer; 1.47ft3/sk, 14.3ppg
Tail: 52-50/50 POZ, 58#/sx silicalite, 20% SSA-1, 1% versaset, .2% dacal LWL, 1.5% zonesealant 20000 foamer; 1.47ft3/sk, 14.3ppg

PBTD 9278'
TD 9380'

Stg. #	Top Perf	Bot. Perf	# Holes	Inj. Rate	WHTP	20/40	Gel WTr.	Flush Wtr	CO2	ISIP
1	9,152	9,224	24	43	4,993	80,000	17,364	4,455	140	3,336
2	8,905	8,924	12	33	4,171	62,300	23,691	4,339	136	3,156
3	8,663	8,821	18	42	5,508	30,640	42,746	7,116	39	3,494
4	8,462	8,476	56	24	7,393	20,394	47,453	2,108	-	3,288
5	8,307	8,358	27	49	5,023	5,400	15,767	4,046	94	3,500
6	8,050	8,060	30	42	4,822	90,200	18,796	3,560	142	3,684
7	7,786	7,874	24	10	6,284	200,000	31,015	3,578	250	4,200
8	6,620	6,626	16	30	5,979	45,000	11,342	1,684	108	6,305

Stg. #	Avg. Rate	Max Rate	Avg. Press	Max Press	ISIP	Frac Grad
1	42.5	43.0	4,903	5,284	3,335	0.80
2	32.5	35.0	4,171	5,985	3,156	0.79
3	42.2	48.0	5,508	6,500	3,494	0.84
4	24.2	25.0	7,393	7,839	3,288	0.83
5	39.7	41.0	5,023	5,736	3,500	0.86
6	42.5	45.0	4,822	5,135	3,684	0.88
7	19.3	23.8	5,284	6,235	4,200	0.96
8	30.3	34.0	5,979	6,653	6,305	1.39

Bill Barrett Corporation

Jack Canyon Unit #14-32-12-16

531' FSL, 1,479' FWL
Section 32, T12S-R16E
Carbon County, UT
API #: 43-007-30913
AFE #: 10862R

Objective:

Rig up work over rig, pull existing 5.5" PLS pkr to 6,570' & set. MIRU HES & perform step rate test on existing completed non-productive intervals.

Current Wellbore Configuration:

Surface Casing: 9-5/8" 36.0# J-55 Set @ 1,043'
Production Casing: 5-1/2", 17.0# N-80 set @ 9,380' MD/TVD
* - All depths are give as KB depths. Rig KB = 16.0'
Production Casing Properties:

ID:	4.892"
Drift:	4.767"
Capacity:	0.0232 bbl/ft
Burst Pressure:	7,740 psi
Collapse Pressure:	6,280 psi

Production Tubing: 2-7/8", 6.5#, N-80 EUE, 8rd tubing set @ 8,393' (251 Jts.)
Production Tubing Properties:

ID:	2.441"
Drift:	2.347"
Capacity:	0.00579 bbl/ft
Burst Pressure:	10,570 psi
Collapse Pressure:	11,160 psi

PBTD = 8,630' (CIBP)

Current Well Status:

Shut in.

Re-Completion Procedure:

1. **Notify State official 48 hours prior to moving on location.**
2. Contact BBC production personnel in the Roosevelt office and inform them of planned activity: (435) 725-3515.
3. Survey location and existing equipment on location (re-spot equipment as necessary).
4. Prepare location as necessary for work over rig and frac equipment.
    a. Verify rig anchors are properly placed and available for use, re-set if necessary.
    b. Verify that location size is sufficient to accommodate frac and CO_2 equipment.
5. MIRU work over rig, spot in necessary equipment.
6. Top kill well with fresh or lease water.
7. ND production tree and nipple up BOP's.
8. Pick up on tubing and un-set packer:
    a. HES 5.5 17# PLS packer with 30,000 # shear
    b. Set with 20,000 lb compression
9. Trip out of hole with existing tubing string to 6,570' (50' above top perf).
10. Set HES 5.5" 17# PLS packer @ 6,570' +/-.
11. MIRU HES & pressure test backside to 1,500# for 15 minutes.
12. RU HES & perform step rate test down tbg on existing perfs from 6,620' – 8,510' as per designed by HES with max injection rate of 3,150#.
13. Evaluate validity of step rate test for future injection potential into existing non-productive intervals.

8/31/09

Jack Canyon Unit 14-32 4300730913

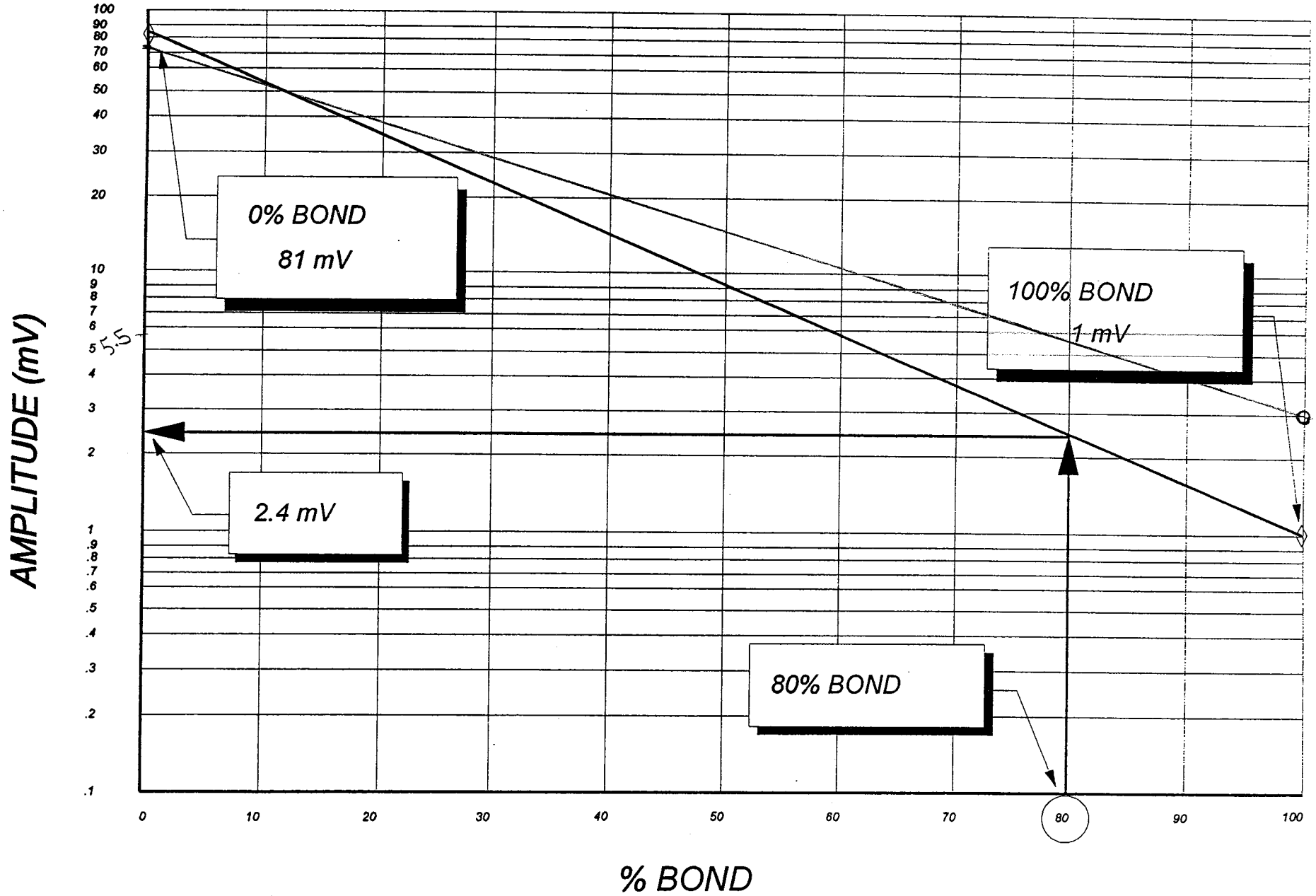


TABLE 2 - TRAVEL TIMES AND AMPLITUDES FOR FREE PIPE
(3 FT RECEIVER)

CASING SIZE (in)	CASING WEIGHT (lb/ft)	TRAVEL TIME (μs)		AMPLITUDE (mV)
		1-11/16" TOOL	3-5/8" TOOL	
4-1/2	9.5	252	233	81
	11.6	250	232	81
	13.5	249	230	81
5	15.0	257	238	76
	18.0	255	236	76
	20.3	253	235	76
5-1/2	15.5	266	248	72
	17.0	265	247	72
	20.0	264	245	72
	23.0	262	243	72
7	23.0	291	271	62
	26.0	289	270	62
	29.0	288	268	62
	32.0	286	267	62
	35.0	284	265	62
	38.0	283	264	62
7-5/8	26.4	301	281	59
	29.7	299	280	59
	33.7	297	278	59
	39.0	295	276	59
9-5/8	40.0	333	313	51
	43.5	332	311	51
	47.0	330	310	51
	53.5	328	309	51
10-3/4	40.5	354	333	48
	45.5	352	332	48
	51.0	350	330	48
	55.5	349	328	48

Bill Barrett Corporation

Last mod: 8/20/2009 CRB
Status: SI Gas Well

Current WBD
GL: 6,921'
RKB: 6,937'
Spud: 8/1/2003
Rig Release: 8/20/2003
Completed: 12/23/2005
1st Sales: 12/25/2003

Jack Canyon # 14-32
531' FSL & 1479' FWL
SWSE Sec 32-T12-R16E
Carbon Co., UT

API: 43-007-3091300000
WI: 1.0000000
NRI: 0.7800339
AFE: 10862D

Tubing Detail as of 12/23/05		
KB Elevation	15.00'	
Tubing Hnager	0.8'	15.00'
2 3/8" 2.875# N-80	8307.86'	15.8'
2 3/8" N-80 "X" Nipple	2.15'	8323.66'
2 3/8" 2.875# N-80	31.38'	8325.81'
2 3/8" N-80 "X" Nipple	1.40'	8357.19'
2 3/8" 2.875# N-80	30.30'	8358.59'
HES PLS Pkr	4.25'	8388.89'
END OF TUBING	8393.14'	

Days
2
0
0
0
2
0
0
7
11

24" hole
12-1/4" hole
16" conductor set @40'
9 5/8" 36# J-55 ST&C BRD set @ 1043'

Fill: 240-HLC 65/35% CMT-POZ, 6% gel, 2% cacl, 1/4#/sx flocele; 1.85ft3/sk, 12.7ppg
Tail: 180-Premium AG, 2% cacl, 1/4#/sx flocele; 1.15ft3/sk, 15.8ppg

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5-1/2" x 2-7/8" Annular Volumes: 98 bbls

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ID 2.441" Collapse 11,170 psi
Drift 2.347" Yield: 145 klps
Capacity 0.005788 bbls/ft

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Base Dark Canyon: 6,650'

Top Bluecastle: 7,740'

Top Upper Sego: 8,060'

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Top Blackhawk: 8,606'

Kenilworth

Aberdeen

Spring Canyon

5-1/2" 17# N-80 LT&C specs:
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Drift-4.767"
Burst-7740 psi
Collapse-6280 psi

HES PLS Pkr @ 8,385'

50' cmt
CIBP @8,630

XBP @9,180'

7-7/8" hole
PBTD 9278'
TD 9380'

Open
Open
Open
Open
Open
Open
Open

6616-6643'
6652-6654' Perf Only - No Treatment
6687-6690'
7786-7790'
7870-7874'
8050-8060'
8130-8132' Perf Only - No Treatment
8307-8309'
8316-8318'
8356-8358'
8412-8426'
8426-8441'
8492-8510'
8462-8476'
8663-8665'
8684-8686'
8730-8731'
8820-8821'
8905-8907'
8922-8924'
9152-9156' Perfs 12/16/05
9220-9224' Perfs 12/16/05
202 jts 5-1/2" 17# N-80 LT&C set @ 9380' KB
Fill: 550-50/50 POZ, 35%v silicalite, 20% SSA-1, .1% versaset, .2% diacel LWL, 1.5% econolite, 20000 foamer, 1.47ft3/sk, 14.5ppg
Tail: 52-50/50 POZ, 35%v silicalite, 20% SSA-1, .1% versaset, .2% diacel LWL, 1.5% econolite, 20000 foamer, 1.47ft3/sk, 14.3ppg

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7	19.3	23.9	5,284	6,235	4,200	0.98
8	30.3	34.0	5,979	6,653	6,305	1.39

BEFORE THE DIVISION OF OIL, GAS AND MINING
DEPARTMENT OF NATURAL RESOURCES
STATE OF UTAH
NOTICE OF AGENCY ACTION
CAUSE NO. UIC 317.1

IN THE MATTER OF THE APPLICATION OF BILL BARRETT CORPORATION FOR ADMINISTRATIVE APPROVAL OF THE JACK CANYON UNIT 14-32 SWD WELL LOCATED IN SECTION 32, TOWNSHIP 12S, RANGE 16E, CARBON COUNTY, UTAH, AS A CLASS II INJECTION WELL.

THE STATE OF UTAH TO ALL PERSONS INTERESTED IN THE ABOVE ENTITLED MATTER.

Notice is hereby given that the Division of Oil, Gas and Mining (the "Division") is commencing an informal adjudicative proceeding to consider the application of the Bill Barrett Corporation for administrative approval of the Jack Canyon Unit 14-32 SWD well, located in SE/4 SW/4, Section 32, Township 12S, Range 16E, Salt Lake Meridian, Carbon County, Utah, for conversion to a Class II injection well. The adjudicative proceedings will be conducted informally according to Utah Admin. Rule R649-10, Administrative Procedures.

Selected zones in the Wasatch Formation will be used for water injection. The maximum requested injection pressure and rate for this well will be determined based on fracture gradient information submitted by Bill Barrett Corporation.

Any person desiring to object to the proposed application or otherwise intervene in the proceeding, must file a written protest or notice of intervention with the Division within fifteen days following publication of this notice. The Division's Presiding Officer for the proceeding is Gil Hunt, Associate Director, at P.O. Box 145801, Salt Lake City, Utah 84114-5801, phone number (801) 538-5340. If such a protest or notice of intervention is received, a hearing will be scheduled in accordance with the aforementioned administrative procedure rule. Protestants and/or interveners should be prepared to demonstrate at the hearing how this matter affects their interests.

Dated this 13th day of August, 2009

STATE OF UTAH
DIVISION OF OIL, GAS & MINING

Gil Hunt
Associate Director

Bill Barrett Corporation
Jack Canyon Unit 14-32 SWD
Cause No. UIC 317.1

Publication Notices were sent to the following:

Bill Barrett Corporation
1099 18th Street, Suite2300
Denver, CO 80202

Sun Advocate
845 East Main
Price, UT 84501
via e-mail legals@sunad.com

The Salt Lake Tribune
P O Box 45838
Salt Lake City, UT 84145
via e-mail naclegal@mediaoneutah.com

Price Field Office
Bureau of Land Management
P O Box 7004
Price, UT 84501

Carbon County Planning
120 East Main Street
Price, UT 84501

Bruce Suchomel
US EPA Region VIII
MS 8-P-W-GW
1595 Wynkoop St
Denver, CO 80202-1129

Jean Sweet

From: Sun Advocate Legals <legals@sunad.com>
To: Jean Sweet <jsweet@utah.gov>
Date: 8/16/2009 10:20 PM
Subject: Re: Notice of Agency Action - Bill Barrett Jack Canyon Unit 14-32 SWD UIC 317.1

Jean,

Your ad has been received and is scheduled to be printed in the August 18th Sun Advocate. If you have any questions, please let us know.

Jason Bailey
Sun Advocate
435-637-0732

Jean Sweet wrote:
> Sun Advocate
> 845 East Main
> Price, UT 84501
>
> Subject: Notice of Agency Action – Jack Canyon Unit 14-32 SWD Cause
> No. UIC 317.1
>
> To whom it May Concern:
>
> Enclosed is a copy of the referenced Notice of Agency Action. Please
> publish the Notice, once only, as soon as possible. Please notify me
> via e-mail of the date it will be published. My e-mail address is:
> jsweet@utah.gov.
>
> Please send proof of publication and billing to:
>
> Division of Oil, Gas and Mining
> Suite 1210
> PO Box 145801
> Salt Lake City, UT 84114-5801
>
> Sincerely,
>
>
> Jean Sweet, Executive Secretary
> Utah Div. of Oil, Gas & Mining
> 1594 West Temple
> Salt Lake City, UT
> 801-538-5329
> jsweet@utah.gov
>
>

Jean Sweet - Notice of Agency Action - Bill Barrett Jack Canyon Unit 14-32 SWD UIC 317.1

From: Jean Sweet
To: legals@sunad.com
Date: 8/13/2009 2:10 PM
Subject: Notice of Agency Action - Bill Barrett Jack Canyon Unit 14-32 SWD UIC 317.1
Attachments: 20090813 Jack Canyon Unit 14-32 SWD Newspapers Notice of Agency Action.doc; 20090813 Bill Barrett Jack Canyon Unit 14-32 SWD Sun Advocate Notice of Agency Action.pdf

Sun Advocate
845 East Main
Price, UT 84501

Subject: Notice of Agency Action – Jack Canyon Unit 14-32 SWD Cause No. UIC 317.1

To whom it May Concern:

Enclosed is a copy of the referenced Notice of Agency Action. Please publish the Notice, once only, as soon as possible. Please notify me via e-mail of the date it will be published. My e-mail address is: jsweet@utah.gov .

Please send proof of publication and billing to:

Division of Oil, Gas and Mining
Suite 1210
PO Box 145801
Salt Lake City, UT 84114-5801

Sincerely,

Jean Sweet, Executive Secretary
Utah Div. of Oil, Gas & Mining
1594 West Temple
Salt Lake City, UT
801-538-5329
jsweet@utah.gov

August 13, 2009

SENT VIA E-MAIL legals@sunad.com

Sun Advocate
845 East Main
Price, UT 84501

Subject: Notice of Agency Action – Jack Canyon Unit 14-32 SWD Cause No. UIC 317.1

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Division of Oil, Gas and Mining
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PO Box 145801
Salt Lake City, UT 84114-5801

Sincerely,

Jean Sweet
Executive Secretary

Enclosure

Jean Sweet - RE: Notice of Agency Action - Bill Barrett Jack Canyon Unit 14-32 SWD UIC 317.1

From: "NAC Legal" <naclegal@mediaoneutah.com> SL Tribune
To: "'Jean Sweet'" <jsweet@utah.gov>
Date: 8/13/2009 4:57 PM
Subject: RE: Notice of Agency Action - Bill Barrett Jack Canyon Unit 14-32 SWD UIC 317.1

Ad #486711 is scheduled to run August 18 and the total charge is $132.50.

Please check the ad in the paper.

Thank you,

Lynn Valdez

MediaOne of Utah,

a Newspaper Agency Company

4770 South 5600 West

West Valley City, Utah 84118

Ph.: 801-237-2720

Email: naclegal@mediaoneutah.com

From: Jean Sweet [mailto:jsweet@utah.gov]
Sent: Thursday, August 13, 2009 2:42 PM
To: naclegal@mediaoneutah.com
Subject: Notice of Agency Action - Bill Barrett Jack Canyon Unit 14-32 SWD UIC 317.1

Salt Lake Tribune
PO Box 45838
Salt Lake City, UT 84145

Subject: Notice of Agency Action – Jack Canyon Unit 14-32 SWD Cause No. UIC 317.1

To whom it May Concern:

Enclosed is a copy of the referenced Notice of Agency Action. Please publish the Notice, once only, as soon as possible. Please notify me via e-mail of the date it will be published. My e-mail address is: jsweet@utah.gov .

Please send proof of publication and billing for **account** # 9001402352 to:

Division of Oil, Gas and Mining
Suite 1210
PO Box 145801
Salt Lake City, UT 84114-5801

Sincerely,

Jean Sweet, ExecutiveSecretary
Utah Div. of Oil, Gas & Mining
1594 West Temple
Salt Lake City, UT
801-538-5329
jsweet@utah.gov

Jean Sweet - Notice of Agency Action - Bill Barrett Jack Canyon Unit 14-32 SWD UIC 317.1

From: Jean Sweet
To: naclegal@mediaoneutah.com
Date: 8/13/2009 2:42 PM
Subject: Notice of Agency Action - Bill Barrett Jack Canyon Unit 14-32 SWD UIC 317.1
Attachments: 20090813 Bill Barrett Jack Canyon Unit 14-32 SWD SL Trib Notice of Agency Action.pdf; 20090813 Bill Barrett Jack Canyon Unit 14-32 SWD Newspapers Notice of Agency Action.doc

Salt Lake Tribune
PO Box 45838
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Division of Oil, Gas and Mining
Suite 1210
PO Box 145801
Salt Lake City, UT 84114-5801

Sincerely,

Jean Sweet, Executive Secretary
Utah Div. of Oil, Gas & Mining
1594 West Temple
Salt Lake City, UT
801-538-5329
jsweet@utah.gov

August 13, 2009

SENT VIA E-MAIL naclegal@mediaoneutah.com

Salt Lake Tribune
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Salt Lake City, UT 84145

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Suite 1210
PO Box 145801
Salt Lake City, UT 84114-5801

Sincerely,

Jean Sweet
Executive Secretary

Enclosure

4770 S. 5600 W.
P.O. POX 704005
WEST VALLEY CITY, UTAH 84170
FED.TAX I.D.# 87-0217663

The Salt Lake Tribune MEDIAone of Utah Morning News

CUSTOMER'S COPY

PROOF OF PUBLICATION

CUSTOMER NAME AND ADDRESS	ACCOUNT NUMBER	DATE
DIV OF OIL-GAS & MINING, 1594 W NORTH TEMP #1210 P.O. BOX 145801 SALT LAKE CITY, UT 84114	9001402352	8/19/2009

ACCOUNT NAME	
DIV OF OIL-GAS & MINING,	
TELEPHONE	ADORDER# / INVOICE NUMBER
8015385340	0000486711 /
SCHEDULE	
Start 08/18/2009	End 08/18/2009
CUST. REF. NO.	
CAPTION	
BEFORE THE DIVISION OF OIL, GAS AND MINI	
SIZE	
51 Lines	2.00 COLUMN
TIMES	RATE
2	
MISC. CHARGES	AD CHARGES
	TOTAL COST
	132.50

BEFORE THE DIVISION OF OIL, GAS AND MINING
DEPARTMENT OF NATURAL RESOURCES
STATE OF UTAH
NOTICE OF AGENCY ACTION
CAUSE NO. UIC 317.1

IN THE MATTER OF THE APPLICATION OF BILL BARRETT CORPORATION FOR ADMINISTRATIVE APPROVAL OF THE JACK CANYON UNIT 14-32 SWD WELL LOCATED IN SECTION 32, TOWNSHIP 12S, RANGE 16E, CARBON COUNTY, UTAH, AS A CLASS II INJECTION WELL.

THE STATE OF UTAH TO ALL PERSONS INTERESTED IN THE ABOVE ENTITLED MATTER.

Notice is hereby given that the Division of Oil, Gas and Mining (the "Division") is commencing an informal adjudicative proceeding to consider the application of the Bill Barrett Corporation for administrative approval of the Jack Canyon Unit 14-32 SWD well, located in SE/4 SW/4, Section 32, Township 12S, Range 16E, Salt Lake Meridian, Carbon County, Utah, for conversion to a Class II injection well. The adjudicative proceedings will be conducted informally according to Utah Admin. Rule R649-10, Administrative Procedures.

Selected zones in the Wasatch Formation will be used for water injection. The maximum requested injection pressure and rate for this well will be determined based on fracture gradient information submitted by Bill Barrett Corporation.

Any person desiring to object to the proposed application or otherwise intervene in the proceeding, must file a written protest or notice of intervention with the Division within fifteen days following publication of this notice. The Division's Presiding Officer for the proceeding is Gil Hunt, Associate Director, at P.O. Box 145801, Salt Lake City, Utah 84114-5801, phone number (801) 538-5340. If such a protest or notice of intervention is received, a hearing will be scheduled in accordance with the aforementioned administrative procedure rule. Protestants and/or interveners should be prepared to demonstrate at the hearing how this matter affects their interests.

Dated this 13th day of August, 2009

STATE OF UTAH
DIVISION OF OIL, GAS & MINING

Gil Hunt
Associate Director

486711 UPAXLP

COPY

AFFIDAVIT OF PUBLICATION

AS NEWSPAPER AGENCY CORPORATION LEGAL BOOKER, I CERTIFY THAT THE ATTACHED ADVERTISEMENT OF BEFORE THE DIVISION OF OIL, GAS AND MINI FOR DIV OF OIL-GAS & MINING, WAS PUBLISHED BY THE NEWSPAPER AGENCY CORPORATION, AGENT FOR THE SALT LAKE TRIBUNE AND DESERET NEWS, DAILY NEWSPAPERS PRINTED IN THE ENGLISH LANGUAGE WITH GENERAL CIRCULATION IN UTAH, AND PUBLISHED IN SALT LAKE CITY, SALT LAKE COUNTY IN THE STATE OF UTAH.

PUBLISHED ON Start 08/18/2009 End 08/18/2009

SIGNATURE

8/19/2009

Notary Public
ELIZABETH G. CORDOVA
6462 West 4200 South
West Valley City, Utah 84128
My Commission Expires
January 16, 2010
State of Utah

THIS IS NOT A STATEMENT BUT A "PROOF OF PUBLICATION"
PLEASE PAY FROM BILLING STATEMENT

PUBLIC NOTICE

BEFORE THE DIVISION OF OIL, GAS AND MINING DEPARTMENT OF NATURAL RESOURCES STATE OF UTAH NOTICE OF AGENCY ACTION CAUSE NO. UIC 317.1 IN THE MATTER OF THE APPLICATION OF BILL BARRETT CORPORATION FOR ADMINISTRATIVE APPROVAL OF THE JACK CANYON UNIT 14-32 SWD WELL LOCATED IN SECTION 32, TOWNSHIP 12S, RANGE 16E, CARBON COUNTY, UTAH, AS A CLASS II INJECTION WELL. THE STATE OF UTAH TO ALL PERSONS INTERESTED IN THE ABOVE ENTITLED MATTER. Notice is hereby given that the Division of Oil, Gas and Mining (the "Division") is commencing an informal adjudicative proceeding to consider the application of the Bill Barrett Corporation for administrative approval of the Jack Canyon Unit 14-32 SWD well, located in SE/4 SW/4, Section 32, Township 12S, Range 16E, Salt Lake Meridian, Carbon County, Utah, for conversion to a Class II injection well. The adjudicative proceedings will be conducted informally according to Utah Admin. Rule R649-10, Administrative Procedures. Selected zones in the Wasatch Formation will be used for water injection. The maximum requested injection pressure and rate for this well will be determined based on fracture gradient information submitted by Bill Barrett Corporation. Any person desiring to object to the proposed application or otherwise intervene in the proceeding, must file a written protest or notice of intervention with the Division within fifteen days following publication of this notice. The Division's Presiding Officer for the proceeding is Gil Hunt, Associate Director, at P.O. Box 145801, Salt Lake City, Utah 84114-5801, phone number (801) 538-5340. If such a protest or notice of intervention is received, a hearing will be scheduled in accordance with the aforementioned administrative procedure rule. Protestants and/or interveners should be prepared to demonstrate at the hearing how this matter affects their interests. Dated this 13th day of August, 2009 STATE OF UTAH DIVISION OF OIL, GAS & MINING Gil Hunt Associate Director Bill Barrett Corporation Jack Canyon Unit 14-32 SWD Cause No. UIC 317.1 Published in the Sun Advocate August 18, 2009.

AFFIDAVIT OF PUBLICATION

STATE OF UTAH)

ss.

County of Carbon,)

I, Richard Shaw, on oath, say that I am the Publisher of the Sun Advocate, a twice-weekly newspaper of general circulation, published at Price, State a true copy of which is hereto attached, was published in the full issue of such newspaper for 1 (One) consecutive issues, and the first publication was on the 18th day of August, 2009, and that the last publication of such notice was in the issue of such newspaper dated the 18th day of August, 2009.

Richard Shaw - Publisher

Subscribed and sworn to before me this 18th day of August, 2009.

Notary Public My commission expires January 10, 2011 Residing at Price, Utah

Publication fee, $ 133.12

LINDA THAYN
NOTARY PUBLIC-STATE OF UTAH
645 EAST MAIN
PRICE, UTAH 84501
COMM. EXP. 01-10-2011

PUBLIC NOTICE

BEFORE THE DIVISION OF OIL, GAS AND MINING
DEPARTMENT OF NATURAL RESOURCES
STATE OF UTAH
NOTICE OF AGENCY ACTION
CAUSE NO. UIC 317.1

IN THE MATTER OF THE APPLICATION OF BILL BARRETT CORPORATION FOR ADMINISTRATIVE APPROVAL OF THE JACK CANYON UNIT 14-32 SWD WELL LOCATED IN SECTION 32, TOWNSHIP 12S, RANGE 16E, CARBON COUNTY, UTAH, AS A CLASS II INJECTION WELL.

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Dated this 13th day of August, 2009

STATE OF UTAH
DIVISION OF OIL, GAS & MINING

Gil Hunt
Associate Director

Bill Barrett Corporation
Jack Canyon Unit 14-32 SWD
Cause No. UIC 317.1

Published in the Sun Advocate August 18, 2009.

COPY

Chris Kierst - SWD application

From: Tracey Fallang <tfallang@billbarrettcorp.com>
To: Chris Kierst <chriskierst@utah.gov>
Date: 7/21/2009 12:12 PM
Subject: SWD application
Attachments: 14-32 SWD Pressures.xls; 14-32 x-section with confining beds.pdf

Chris, we are preparing to submit another SWD application and after the first one was quite a lengthy/difficult process, I had a few questions upfront to hopefully ease any pain on this one:

1) Can we go in and complete an injection test now on the existing perfs now to see if they take water? I believe you let us do this on the Prickly Pear 12-24 for a few days but couldn't remember.
2) Under 2.7.2, requiring that we provide "A sample of the fluid in the formation into which the fluid is being injected." If we don't have one from the Wasatch here, could we provide it after we frac the additional zones?
3) Under 2.7.3 , "the compatibility of the fluids". Fluid compatibility has been determined with the current operations in the field. We commingle these fluids from Wasatch through the Mesaverde in wells we operate. What do we need to provide exactly?
4) Under 2.9, "Evidence and data to support a finding that the proposed injection well will not initiate fractures through the overlying strata or a confining interval that could enable the injected fluid or formation fluid to enter any fresh water strata". Will the attached two documents suffice for this requirement? If not, what else do we need here?
5) Under 2.11, "A review of the mechanical condition of each well within a one-half mile radius of the proposed injection well to assure that no conduit exists that could enable fluids to migrate up or down the wellbore and enter improper intervals". Would the confining beds attachment cover this? If not, what do we supply as the one well that is within a ½ mile radius is not BBCs.
6) The plan was to conduct a step-rate test after we land tbg in the well & have backside integrity. Once we have an injection well, we would run tbg and perform this test. Is this acceptable?
7) The affidavit that requires we submit a copy of the application, is this just the 1st page (the UIC form) or do we submit the entire application to them?

Thank you!

Bill Barrett Corporation

West Tavaputs Field SWD Well Application

Maximum Allowable Surface Pressure Calculations
Based on Observed Fracture Gradients

Water SG=1.02 Gradient=0.4417 psi/ft

Jack Canyon State 14-32

Depth (ft)	Observed ISIP (psig)	Calculated Btm Hole (psig)	Resulting Frac Grad (psi/ft)
6620	N/A	N/A	N/A
7786	4200	7639.1	0.98
8050	3684	7239.7	0.90
8307	3500	7169.2	0.86
8393	2850	6557.2	N/A
8412	3288	7003.6	0.83
8455	N/A	N/A	N/A
8485	N/A	N/A	N/A
8663	3494	7320.4	0.84
8905	3156	7089.3	0.79
9152	3335	7377.4	0.80

Requested Max Surface Pressure=2000 psig

ISIP Data Collected during initial completion treatments

Calculated Bottom Hole Pressure = ISIP + 0.4417 x Depth
Resulting Frac Gradient=Calculated Btm Hole Pressure/Depth

Requested Max Surface Pressure < 90% x ISIP
Anticipated Avg Surface Pressure=75% x Max Surface Pressure

Anticipated Avg Disposal Rate=1000 bwpd
Requested Maximum Disposal Rate=2000 bwpd

Only water from wells within the Peter's Point Unit will be injected into the Jack Canyon State 14-32

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

UIC FORM 1

APPLICATION FOR INJECTION WELL

Name of Operator	Utah Account Number	Well Name and Number
Bill Barrett Corporation	N 2165	Jack Canyon Unit 14-32
Address of Operator	**Phone Number**	**API Number**
1099 18th Street, Suite Denver CO 80202	(303) 312-8134	4300730913
Location of Well		**Field or Unit Name**
Footage : 531' FSL, 1479' FWL County : Carbon		N/A
QQ, Section, Township, Range: SESW 32 12S 16E State : UTAH		**Lease Designation and Number** ML 43541

Is this application for expansion of an existing project?		Yes ☑	No ☐
Will the proposed well be used for:	Enhanced Recovery?	Yes ☐	No ☑
	Disposal?	Yes ☑	No ☐
	Storage?	Yes ☐	No ☑
Is this application for a new well to be drilled?		Yes ☐	No ☑
If this application is for an existing well, has a casing test been performed?		Yes ☐	No ☑
Date of test:			

Proposed injection interval: from 3,565 to 4,230

Proposed maximum injection: rate 3,500 bpd pressure 2,200 psig

Proposed injection zone contains oil ☐, gas ☐, and / or fresh water ☐ within ½ mile of the well.

List of attachments: Requirements as per Rule R649-5-2

ATTACH ADDITIONAL INFORMATION AS REQUIRED BY CURRENT UTAH OIL AND GAS CONSERVATION GENERAL RULES

I hereby certify that this report is true and complete to the best of my knowledge.

Name (Please Print) Tracey Fallang Title Regulatory Analyst

Signature _____ Date _____

(5/2002)

Bill Barrett Corporation

AFFIDAVIT OF NOTICE

Jack Canyon Unit State 14-32
SESW Section 32, Township 12 South, Range 16 East
Carbon County, UT
API #4300730913

I, Douglas W. G. Gundry-White, Senior Landman with Bill Barrett Corporation (BBC) certify that a true and correct copy of UIC Form 1 Application for Injection Well with supplemental ownership information was provided, by certified mail, to the following operators, owners and surface owners located within a one-half (1/2) miles radius exposure of the location pursuant to R649-5-2.12 of the Oil and Gas Conservation, General Rules.

State of Utah
School and Institutional Trust Lands Administration
675 East 500 South, Suite 500
Salt Lake City, UT 84102

Bureau of Land Management
125 South 600 West
Price, Utah 84501

Petro Canada Res (USA) Inc.
999 18th Street, #600
Denver, CO 80202-2499

EOG Resources Inc.
P. O. Box 4362
Houston, TX 77210-4362

Gasco Production Co.
8 Inverness Dr. E #100
Englewood, CO 80112

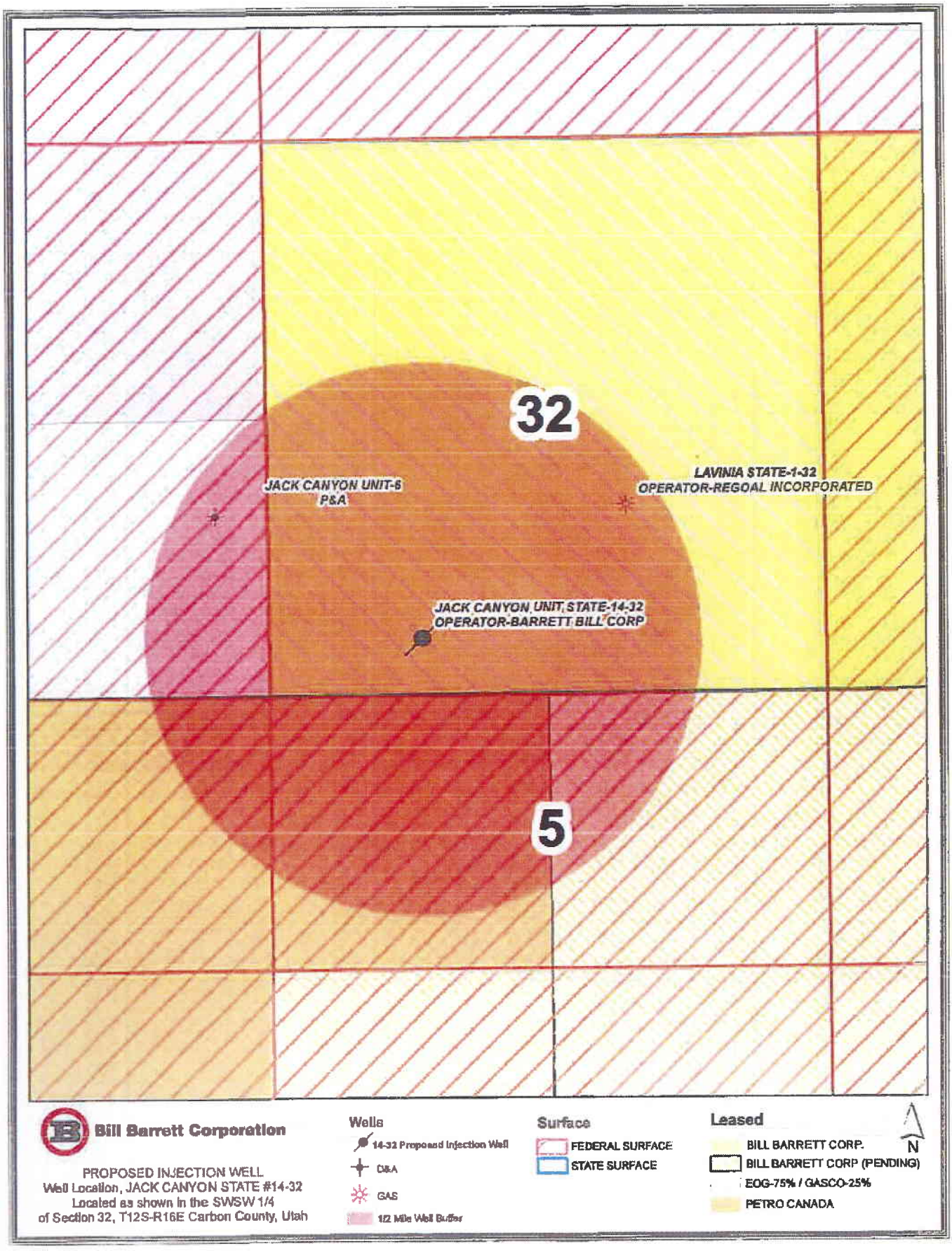
Regoal Inc.
7096 South 4000 East
Price, UT 84501

Affiant

Douglas W. G. Gundry-White

July 21, 2009

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


32
JACK CANYON UNIT-6
P&A
LAVINIA STATE-1-32
OPERATOR-REGOAL INCORPORATED
JACK CANYON UNIT, STATE-14-32
OPERATOR-BARRETT BILL CORP
5
Bill Barrett Corporation
PROPOSED INJECTION WELL
Well Location, JACK CANYON STATE #14-32
Located as shown in the SWSW 1/4
of Section 32, T12S-R16E Carbon County, Utah
Wells
14-32 Proposed Injection Well
D&A
GAS
1/2 Mile Well Buffer
Surface
FEDERAL SURFACE
STATE SURFACE
Leased
BILL BARRETT CORP.
BILL BARRETT CORP (PENDING)
EOG-75% / GASCO-25%
PETRO CANADA
N

BILL BARRETT CORPORATION

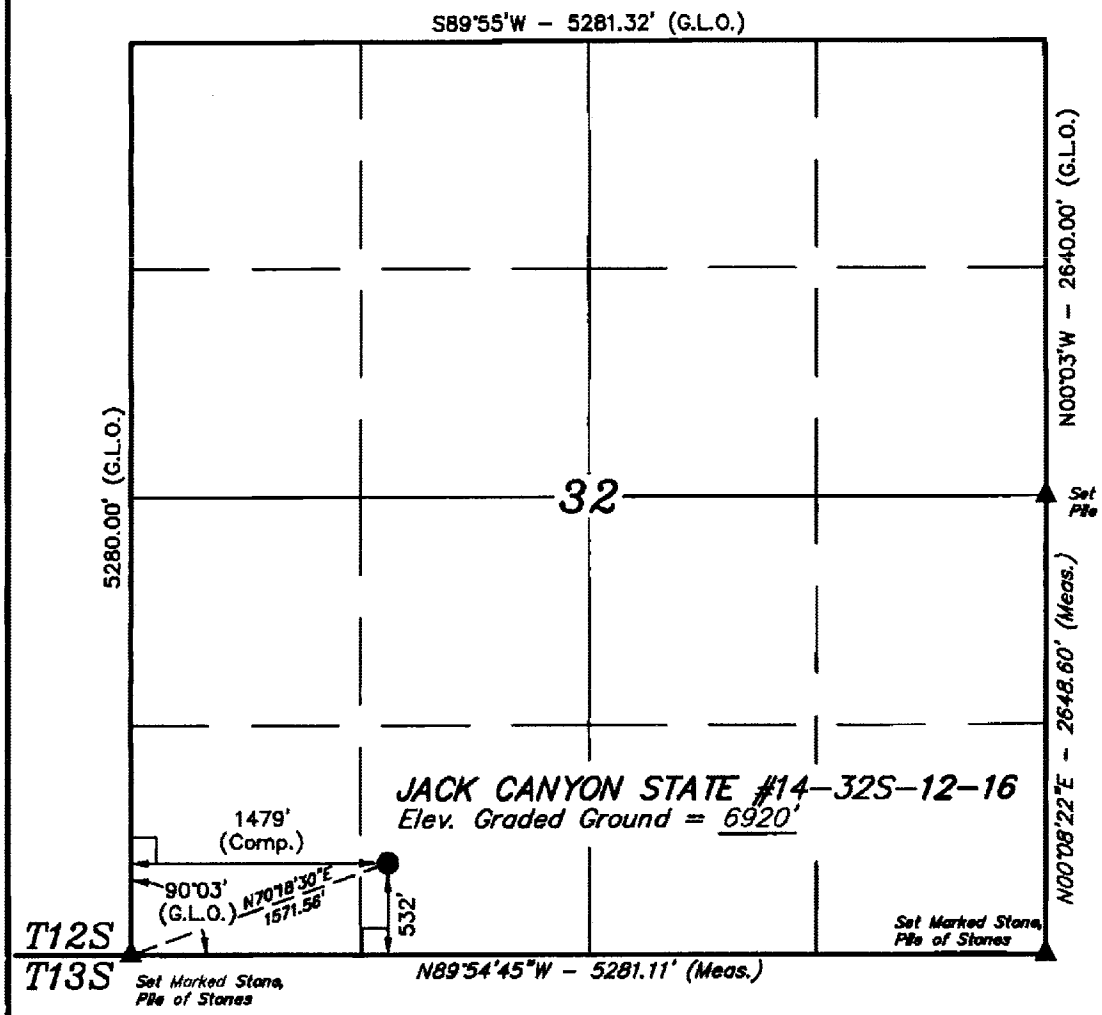
Well location, JACK CANYON STATE #14-32S-12-16, located as shown in the SE 1/4 SW 1/4 of Section 32, T12S, R16E, S.L.B.&M., Carbon County, Utah.

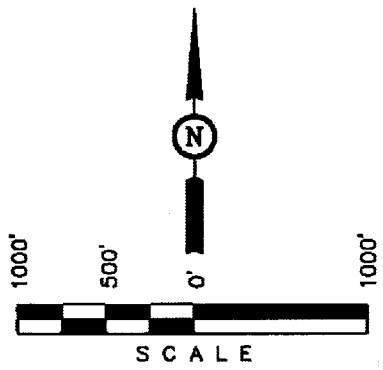
BASIS OF ELEVATION

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.





CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED 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.

REGISTERED LAND SURVEYOR
REGISTRATION NO. 161318
STATE OF UTAH

LEGEND:

└ = 90° SYMBOL

● = PROPOSED WELL HEAD.

▲ = SECTION CORNERS LOCATED.

(NAD 83)
LATITUDE = 39°43'28.51" (39.724586)
LONGITUDE = 110°09'07.68" (110.152133)
(NAD 27)
LATITUDE = 39°43'28.64" (39.724622)
LONGITUDE = 110°09'05.13" (110.151425)

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

SCALE: 1" = 1000'	DATE SURVEYED: 06-01-09	DATE DRAWN: 06-04-09
PARTY: D.R. A.F. C.H.	REFERENCES: G.L.O. PLAT	
WEATHER: WARM	FILE: BILL BARRETT CORPORATION	

BILL BARRETT CORPORATION

TYPICAL CROSS SECTIONS FOR

JACK CANYON STATE #14-32S-12-16

SECTION 32, T12S, R16E, S.L.B.&M.

532' FSL 1479' FWL

FIGURE #2

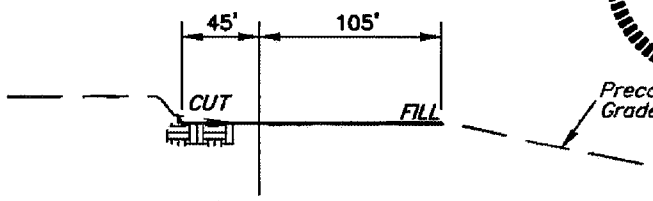
1" = 40' X-Section Scale

1" = 100'

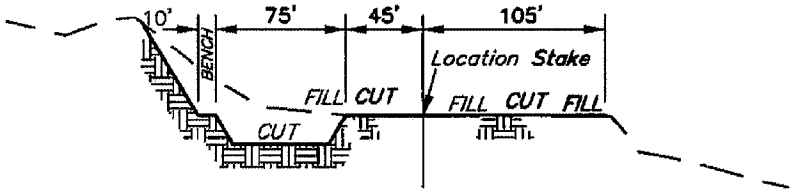
DATE: 06-04-09

Drawn By: C.H.

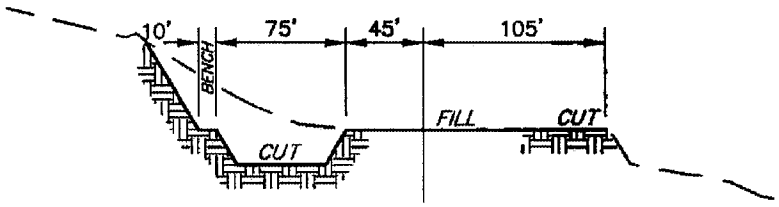
REGISTERED LAND SURVEYOR No. 161319 ROBERT L. KAY STATE OF UTAH



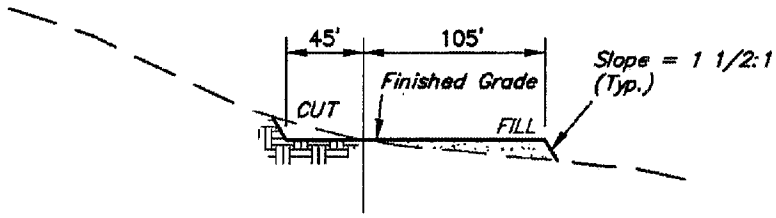
STA. 3+89



STA. 2+40



STA. 1+90



STA. 0+00

APPROXIMATE ACREAGES

NEW DISTURBANCE = ±0.213 ACRES

EXISTING DISTURBANCE = ±2.366 ACRES

TOTAL = ±2.579 ACRES

* *NOTE: FILL QUANTITY INCLUDES 5% FOR COMPACTION*

APPROXIMATE YARDAGES

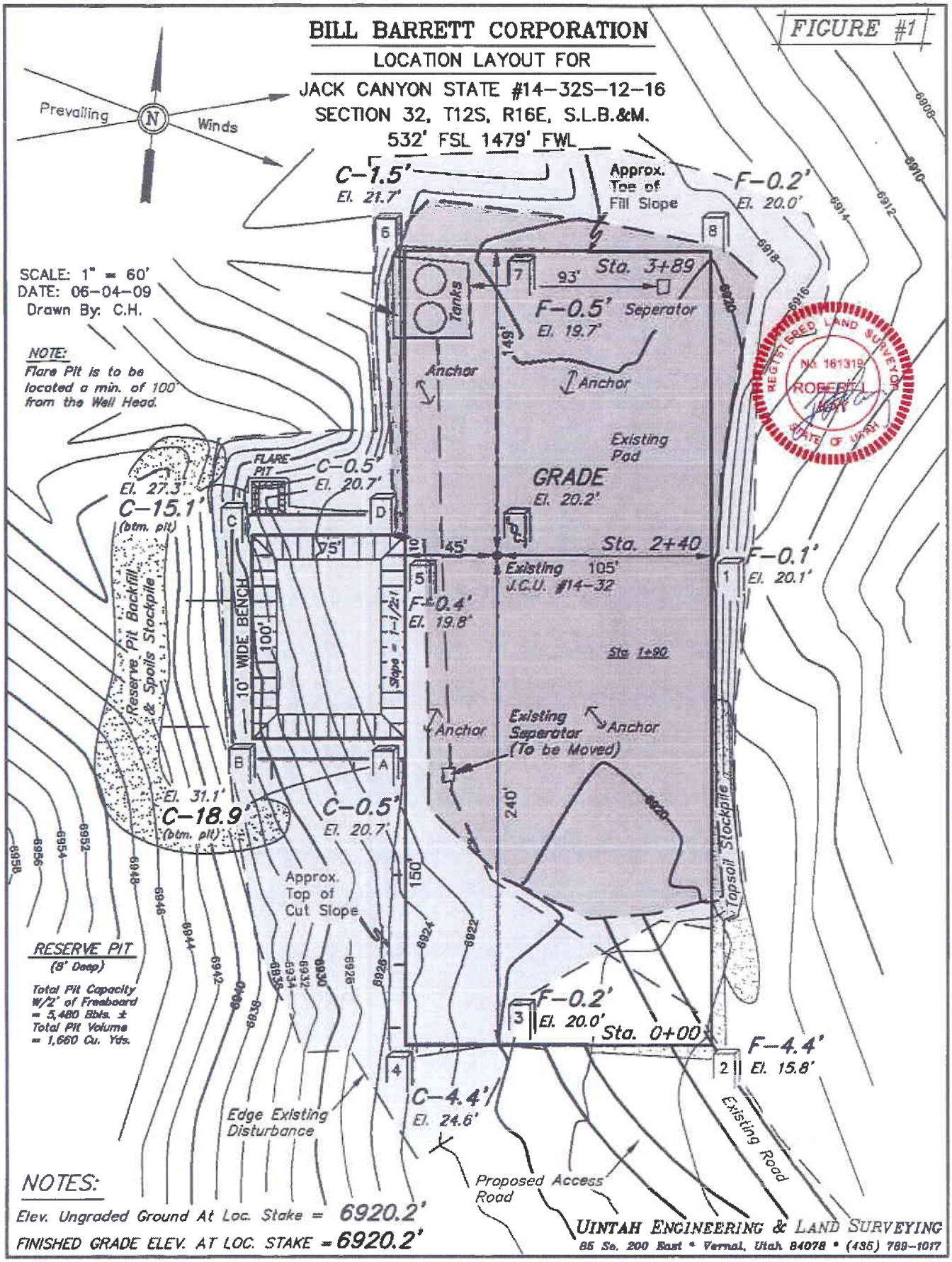
CUT

(6") Topsoil Stripping (New Construction Only)	=	*430* Cu. Yds.
Remaining Location	=	*4,950* Cu. Yds.
TOTAL CUT	=	*5,380* CU.YDS.
FILL	=	*1,050* CU.YDS.

EXCESS MATERIAL	=	*4,330* Cu. Yds.
Topsoil & Pit Backfill (1/2 Pit Vol.)	=	*1,260* Cu. Yds.
EXCESS UNBALANCE (After Interim Rehabilitation)	=	*3,070* Cu. Yds.

UINTAH ENGINEERING & LAND SURVEYING

*85 So. 200 East * Vernal, Utah 84078 * (435) 789-1017*


BILL BARRETT CORPORATION
LOCATION LAYOUT FOR
JACK CANYON STATE #14-32S-12-16
SECTION 32, T12S, R16E, S.L.B.&M.
532' FSL 1479' FWL
FIGURE #1
Prevailing Winds
N
SCALE: 1" = 60'
DATE: 06-04-09
Drawn By: C.H.
NOTE:
Flare Pit is to be located a min. of 100' from the Well Head.
C-1.5'
El. 21.7'
Approx. Top of Fill Slope
F-0.2'
El. 20.0'
Sta. 3+89
93'
Tanks
F-0.5'
El. 19.7'
Seperator
149'
Anchor
Anchor
Existing Pad
GRADE
El. 20.2'
FLARE PIT
C-0.5'
El. 20.7'
El. 27.3'
C-15.1'
(btm. pit)
C
D
75'
10
45'
Sta. 2+40
Existing J.C.U. #14-32
105'
F-0.1'
El. 20.1'
5
F-0.4'
El. 19.8'
Reserve Pit Backfill & Spoils Stockpile
10' WIDE BENCH
100'
Slope = 1-1/2:1
Sta. 1+90
Anchor
Existing Seperator (To be Moved)
Anchor
B
A
El. 31.1'
C-18.9'
(btm. pit)
C-0.5'
El. 20.7'
240'
Topsoil Stockpile
Approx. Top of Cut Slope
150'
RESERVE PIT
(8' Deep)
Total Pit Capacity W/2' of Freeboard = 5,460 Bbls. ±
Total Pit Volume = 1,660 Cu. Yds.
F-0.2'
El. 20.0'
3
Sta. 0+00
F-4.4'
El. 15.8'
2
4
C-4.4'
El. 24.6'
Edge Existing Disturbance
Proposed Access Road
Existing Road
NOTES:
Elev. Ungraded Ground At Loc. Stake = 6920.2'
FINISHED GRADE ELEV. AT LOC. STAKE = 6920.2'
REGISTERED LAND SURVEYOR
No. 161319
ROBERT L.
STATE OF UTAH
UINTAH ENGINEERING & LAND SURVEYING
85 So. 200 East • Vernal, Utah 84078 • (435) 789-1017

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 29, 2009

CERTIFIED MAIL NO.: 7004 1160 0003 0190 3072

43 007 30913
Jack Cyn St U 14-32
12S 16E 32

Mr. Brian C. Bryner
Smith Hartvigsen, PLLC
215 South State Street, Ste 600
Salt Lake City, UT 84111

Subject: Response to objection to Bill Barrett Corporations applications to commingle producing formations in the Jack Canyon Unit 8-32 well and the Jack CYN U ST 14-32 well

Dear Mr. Bryner:

This letter is to inform you that the referenced applications for recompletion and commingling were approved on June 15, 2009 at approximately 2:30 p.m. According to administrative rule R649-3-22, the application may be considered and approved by the division without a hearing if no owners file written objections within 15 days after the date the application is filed with the Division of Oil, Gas and Mining (Division). The applications were filed with the Division on May 28, 2009. The 15 days expired on June 12, 2009. The Division processed and approved the requests on the afternoon of the next business day. Your objection was received at 5:12 p.m. on June 15, 2009. This did not meet the 15-day requirement as allowed in the rule.

The Division did review and take into consideration the spacing (particularly Cause No. 157-03) in the area before approving. The Division did not find any reason to deny Bill Barrett Corporations (BBC) requests.

Subsequent to receiving your untimely objection, the Division did review your objections and took another look at BBC's request. It is the Divisions understanding that from your objections you felt that Cause No. 157-03 should revert back to Cause No. 157-01 and that the subject wells would not be allowed to produce from the Lower Green River and Wasatch formations. In reviewing the Order in Cause No. 157-03, the Division did not find any support of this being the Board of Oil, Gas and Mining (Board) desire. In fact, the Board specifically vacated Cause No's. 157-01 and 157-02 and stated that upon contraction of the federal units that

the lands would again become subject to the general siting rule (R649-3-2). Further, the evidence presented and acknowledged in the Cause No. 157-03 order stated that the maximum area that can be efficiently and economically drained by one well does not exceed 160 acres. This is a finding of the Board and does not support reverting back to two wells per section (as supported in the 157-2 Order) or to one well per section (as supported in the 157-1 Order).

After reviewing your objections, the Division still finds no reason to deny BBC's requests. If you do not agree with the Division's decision, you can appeal to the Board in accordance with rule R649-10-6. If you have any questions concerning this matter, please contact me at (801) 538-5281.

Sincerely,

Dustin K. Doucet
Petroleum Engineer

DKD/js
cc: Doug Gundry-White, Bill Barrett Corp.
Well File

N:\O&G Reviewed Docs\ChronFile\PetroleumEngineer\Commingle

7004 1160 0003 0190 3072

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CERTIFIED MAIL™ RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

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Certified Fee	
Return Reciept Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement	
Total Posta	

7/1/09

Postmark Here

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Street, Apt. N or PO Box Nc
City, State, Zi

BRIAN C BRYNER
SMITH HARTVIGSEN PLLC
215 S STATE ST STE 600
SALT LAKE CITY UT 84111

PS Form 3800, June 2002 — See Reverse for Instructions

SENDER: *COMPLETE THIS SECTION*

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

BRIAN C BRYNER
SMITH HARTVIGSEN PLLC
215 S STATE ST STE 600
SALT LAKE CITY UT 84111

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X [signature] ☐ Agent ☐ Addressee

B. Received by *(Printed Name)* Sierra Sommer C. Date of Delivery 7/2/09

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☑ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? *(Extra Fee)* ☐ Yes

2. Article Number
(Transfer from service label) 7004 1160 0003 0190 3072

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IN THE UTAH DIVISION OF OIL, GAS & MINING

In the Matter of: Applications of Bill Barrett Corporation to Recomplete the Jack Canyon Unit 8-32 Well (API No. 43007304600000) and Jack Canyon Unit 14-32 Well (API No. 43007309130000), and to Complete Into Two or More Pools (Commingle Producing Formations)	**OBJECTION TO APPLICATIONS TO COMMINGLE PRODUCING FORMATIONS** Docket No. _____

Pursuant to Utah Admin. Code Rule R649-3-22.3.1, Regoal, Inc. ("Regoal") hereby objects to the applications of Bill Barrett Corporation ("BBC") to complete into two or more pools to commingle producing formations.

FACT BACKGROUND

Regoal, Inc. is the owner and operator of the Lavinia 1-32 Well ("Lavinia Well"), located in Section 32, Township 12 South, Range 16 East, SLBM, Carbon County, Utah ("Section 32"). The Lavinia Well primarily produces natural gas, but also produces small quantities of oil. The Lavinia Well was completed by Mission Energy, LLC ("Mission Energy"), Regoal's predecessor-in-interest, in 1997.

The land in Section 32 has at all times relevant been owned by the Utah State and Institutional Trust Lands Administration ("SITLA"). Section 32 overlies several gas and oil producing formations, including, from shallowest to deepest, the Green River Formation, Wasatch Formation, and Mesaverde Formation. In 1974 the drilling and spacing unit for the area in and around Section 32 was set at 640 acres for production of gas from the Lower Green River transition zone and the Wasatch Formation. (*See* Order, Cause No. 157-1, dated Nov. 24, 1974, attached hereto as Exhibit A ("Order 157-1")).

At the time the Lavinia Well was completed in 1997, Mission Energy held two SITLA mineral leases that collectively covered the entire 640 acres of Section 32 from the surface to the center of the earth: ML-43541 (covering 560 acres) and ML-43798 (covering 80 acres). Mission filed and received approval of an Application for Permit to Drill the Lavinia Well in September 1997 on land covered by ML-43541. The Lavinia Well was (and is) completed to a depth of approximately 3,398 feet and draws its production from the Wasatch Formation.

Shortly after completion of the Lavinia Well, the Jack's Canyon Unit was created in early 1998, with Mission Energy designated as the unit operator. In June 2000, Mission allegedly transferred all of its interests in Section 32, specifically the ML-43541 and ML-43798 leases, to Wasatch Oil & Gas Corp. ("WOGC"), with the exception of the Lavinia Well and the 40-acre section of the ML-43541 lease from the surface to a depth of 3, 398 feet (located NW¼ of SE¼ of Section 32). In September 2000, SITLA granted WOGC's request to partition the ML-43541 lease into two sections: the Lavinia Well 40-acre section to a depth of 3,398 feet, identified as ML-43541, and a 520-acre section now identified as ML-43541-A. Thus, SITLA records now show three mineral leases in Section 32: (1) ML-43541 (40 acres, with rights from the surface to a depth of 3,398 feet); (2) ML-43541-A (520 acres, with rights from surface to center of the

earth, and from 3,398 feet to center of the earth underneath the 40-acres of ML-43541); and (3) ML-43798 (80 acres, with rights from surface to center of the earth).

In 2001, at the request of Wasatch Oil & Gas, LLC ("Wasatch"), successor to WOGC, the Board of Oil, Gas and Mining entered an order modifying the drilling and spacing units established by Order 157-1. (*See* Findings of Fact, Conclusions of Law, and Order, Cause No. 157-03, attached hereto as Exhibit B ("Order 157-3").)

Thereafter, BBC acquired Wasatch's interests in mineral leases ML-43541-A and ML-43798 and was appointed operator of the Jack Canyon Unit on about April 1, 2002. In 2003, BBC drilled two new gas wells in Section 32, the "8-32 Well" and the "14-32 Well," on either side of the Lavinia Well. These wells are completed at a total depth of over 9,000 feet and draw their production from the Mesaverde formation. The 8-32 Well and 14-32 Well are connected to BBC's gas gathering system, and BBC began reporting production from those wells in December 2003, although the wells have been shut-in and no production has been reported since 2004. On August 15, 2005, the BLM declared the Jack's Canyon Unit Agreement invalid for failure to commence drilling requirements. (*See* Letter from BLM dated August 15, 2005, attached hereto as Exhibit C.)

Since 2001, Regoal and its related entities and affiliates have been engaged in litigation with BBC and BBC's predecessors-in-interest regarding title to SITLA leases ML-43541-A and ML-43798, among other leases not at issue here. A trial was held in October 2008 in Seventh District Court for the State of Utah (Case No. 010700991), in which the court ruled that BBC holds title to the leases. No final order or final judgment has yet been entered quieting title to the leases, and the case is still pending before the district court.

Nevertheless, on May 28, 2009, BBC filed two Sundry Notices to request approval to recomplete the wells and commingle producing formations. Specifically, BBC proposes to perf and flowback additional stages on the wells "in the Mesaverde and Wasatch formations to increase production," and "requests approval to commingle the formations." (*See* Sundry Notices and Reports on Wells, dated May 28, 2009, attached hereto as Exhibit D). For the reasons set forth below, Regoal objects to BBC's applications to recomplete the wells to produce gas from the Wasatch Formation and to commingle production from the Mesaverde and Wasatch Formations.

OBJECTION

1. **The Spacing for Production from the Wasatch Formation is 640-acres.**

Order 157-3 temporarily vacated the effect of Order 157-1 establishing 640-acre spacing for the Lavinia Well in the Wasatch Formation, but upon dissolution of the Jack Canyon Unit the spacing reverted to 640-acres established under Order 157-1. As such, BBC's applications to produce the 8-32 and 14-32 from the Wasatch Formation within Section 32 violates Order 157-1 and the 640-acre spacing established thereunder.

Order 157-1 established "640-acres drilling and spacing units . . . for production of gas from the stratigraphic interval between the base of the Green River Formation and the top of the Mesaverde Formation, which interval expressly includes the Lower Green River transition zone and the Wasatch Formation." (*See* Order 157-1, at 2, ¶1.) The 640-acre spacing applied to all of Section 32, (*see id.* at 3), and expressly provided that "[n]ot more than one well shall be drilled on any drilling or spacing unit for the production of gas from the formations and zones described above," (*see id.* at 4, ¶3). Order 157-2 was entered in 1982 amending the spacing for lands not

within Section 32. Thus, Order 157-1 was in effect and applied to the Lavinia Well when it was approved, drilled, and completed in 1997.

Subsequently in 2001, under Order 157-3, the Board found that "vacating the Orders [157-1 and 157-2] . . . within the Peters Point Unit and Jack Canyon Unit so long as such units exist is necessary and appropriate," and that vacating the Orders "during the existence of the Peters Point Unit and the Jack Canyon Unit will promote the public interest, prevent waste, increase ultimate recovery and protect correlative rights of all owners within said unit boundaries." (*See* Order 157-3, at 5–6, ¶¶19, 20.) Vacating the Orders was appropriate because, according to the Board, "[t]he existence of the Peters Point Unit and the Jack Canyon Unit . . . insures that the objectives of the Utah Oil & Gas Conservation Act, namely the prevention of waste, the obtaining of the greatest ultimate recovery of unitized substances, and the protection of the correlative rights of all owners, will be accomplished." (*See* Order 157-3, at 5, ¶16.) Thus, under Order 157-3, the spacing for gas wells within the Jack Canyon Unit was to be established by the Jack Canyon Unit Agreement and Unit Operating Agreement.

In the absence of the Jack Canyon Unit, the prevention of waste, increase in ultimate recovery, and protection of correlative rights could not be ensured. Thus, Order 157-3 vacated Order 157-1 only "during the existence of the . . . Jack Canyon Unit." (*See* Order 157-3, at 6, ¶20.) At such time as the Jack Canyon Unit would no longer exist, the protections afforded by Order 157-1 would be necessary and appropriate, and thus the spacing would revert to the 640 acres established under Order 157-1.

The Jack Canyon Unit did indeed dissolve in 2005 while BBC acted as operator. BBC became the successor operator in 2004, but failed to fulfill its contractual obligations necessary to maintain and continue the Jack Canyon Unit. As a result, the Jack Canyon Unit dissolved and

ceased to exist as of August 15, 2005. Accordingly, the temporary vacation of Order 157-1 terminated, and the spacing applicable to the lands within Section 32 reverted to the 640-acre spacing established under Order 157-1. BBC's applications now to produce gas from the Wasatch formation and to commingle such gas with its production from the Mesaverde Formation violates the clear drilling and spacing requirements of Order 157-1. Accordingly, Regoal respectfully objects to BBC's application to commingle gas production from the Wasatch Formation.

2. Order 157-3 Does Not Apply to the SITLA Mineral Leases in Section 32.

Additionally, Order 157-3 does not alter or vacate the 640-acre spacing assigned to the SITLA leases in Section 32 by Order 157-1. Order 157-3 found that "well location and density patterns within . . . the Jack Canyon Unit" would be determined by the Unit Agreement, Unit Operating Agreement, and "the annual plans of unit development approved by the BLM." (*See* Order 157-3, at 5, ¶18.) It also specified that the location of all pending and future applications for permit to drill within the Jack Canyon Unit "will be subject to approval by the BLM." (*Id.*) In fact, vacation of the Orders was deemed appropriate "to account for topographical, archeological, geological and environmental restrictions imposed upon federal leases within the areas currently included within the Orders." (*Id.* ¶19.) Thus, the Order authorized "[t]he spacing and siting of surface and bottom-hole locations at such locations as may be approved by the BLM . . ." (*Id.* at 6, ¶D.)

However, all leases within Section 32 (ML-43541, ML-43541-A, and ML-43798) are SITLA leases, and the BLM has no jurisdiction or authority to regulate the siting of wells on SITLA lands. Given the lack of such authority and the protections offered by BLM required

annual plans and approval for surface and bottom-hole location siting, it is evident that Order 157-3 did not intend to vacate Order 157-1 as applied to SITLA lands and leases.

3. BBC's 8-32 Well and 14-32 Well are Vertical Wells and Do Not Justify Vacation of Order 157-1 to Allow Directional Drilling.

Order 157-3 further justified vacation of Order 157-3 and the establishment of smaller spacing units because "[a]dvances in drilling technology that have developed since the entry of the Orders [157-1 and 157-2] will allow the development of reserves in areas of adverse topography via the use of directional drilling techniques." (*See* Order 157-3, at 4, ¶14.) Such rationale does not support a deviation from the 640-acre spacing established by Order 157-1 in the present Applications of BBC because neither the 8-32 Well nor 14-32 Well is directionally-drilled. Rather, both wells were completed in 2003 as vertical wells. In the present Applications, BBC merely requests to "perf and flowback" additional stages "in the Mesaverde and Wasatch formations to increase production." (*See* Exhibit D.) Accordingly, it would prejudice Regoal to allow BBC to commingle gas production from the Wasatch Formation and Mesaverde Formation by holding Order 157-1 to be vacated by Order 157-3.

CONCLUSION

Regoal, Inc. objects to BBC's applications to recomplete the 8-32 Well and 14-32 Well and to commingle production of gas from the Wasatch Formation and Mesaverde Formation. Upon BBC's dissolution of the Jack Canyon Unit, the drilling and spacing units established for Section 32 reverted to 640 acres as established by Order 157-1 for production from the Wasatch Formation. BBC's requests now violate Order 157-1 by seeking to produce gas from the Wasatch Formation. Accordingly, Regoal requests that BBC's applications to recomplete the 8-32 Well and 14-32 Well into and produce from the Wasatch Formation be denied.

Respectfully submitted this 15th day of June, 2009.

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CERTIFICATE OF SERVICE

I hereby certify that on the 15th day of June, 2009, I caused a true and correct copy of the foregoing **OBJECTION TO APPLICATIONS TO COMMINGLE PRODUCING FORMATIONS** to be mailed via U.S. mail to the following:

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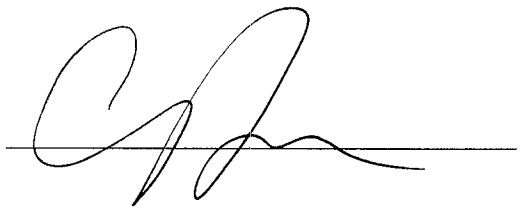

BEFORE THE BOARD OF OIL AND GAS CONSERVATION
DEPARTMENT OF NATURAL RESOURCES
OF THE STATE OF UTAH

IN THE MATTER OF THE APPLICATION OF KIMBARK ASSOCIATES FOR AN ORDER ESTABLISHING 640 ACRE DRILLING AND SPACING UNITS IN THE PETERS POINT UNIT/JACK CANYON AREA IN CARBON COUNTY, UTAH.	ORDER CAUSE NO. 157-1

This Cause, pursuant to application of Kimbark Associates and to notice duly and regularly given the Board was scheduled for hearing before the Board of Oil and Gas Conservation of the State of Utah on Wednesday October 16, 1974, which hearing was set over upon motion of the Applicant to November 20, 1974, and came on for hearing at 10:00 A.M. on Wednesday, November 20, 1974 in the Executive Conference Room, Holiday Inn, 1659 West North Temple, Salt Lake City, Utah.

The entire Board, with the absence of James P. Cowley, was present; Guy N. Cardon, presiding. Appearance was made by Robert G. Pruitt, Jr., Attorney, on behalf of Kimbark Associates. Other officials present were:

Cleon B. Feight, Director of the Division of Oil and Gas Conservation.
Paul Burchell, Petroleum Engineer of the Division of Oil and Gas Conservation.

Evidence in support of the Application was introduced through witnesses Walter K. Arbuckle, petroleum geologist, and William R. Thurston, geologist. Both witnesses are partners of Kimbark Associates.

No objection to the granting of the Application was filed or expressed at the hearing.

FINDINGS OF FACT

The Board finds in this matter as follows:

1. Due and regular notice of the time, place and purpose of the hearing was given to all interested parties in form

EXHIBIT 18

157-1

Exhibit "P-2"

and manner and within the time required by law.

2. The Board has jurisdiction over the matter covered by said Application and over all the parties interested therein, and has jurisdiction to make and promulgate the Order hereinafter set forth.

3. The lands covered by said Application are underlain by a common source of supply from which gas and associated hydrocarbons can be produced from the stratigraphic interval between the base of the Green River Formation and the top of the Mesa Verde Formation, which interval expressly includes the Lower Green River transition zone and the Wasatch Formation.

4. Conditions encountered in drilling wells and producing gas and related hydrocarbons within the lands, such as rugged topography and difficulty of access, together with poor economics of producing low yield wells under conditions of high drilling costs and expensive pipeline connections, dictate that this common field be developed with the minimum number of well locations and that such well locations be sited within large spacing units according to existing access and topographic restraints.

5. The establishment of 640-acre spacing and drilling units is appropriate to comply with good field development and operating practices, and to guarantee equitable distribution of revenues from existing and future producing wells. This spacing is appropriate for gas spacing only, and the Board makes no finding as to the spacing of oil or other hydrocarbons.

ORDER

Therefore, it is unanimously ordered by the Board of Oil and Gas Conservation that:

1. 640-acres drilling and spacing units be and the same are hereby established for production of gas from the stratigraphic interval between the base of the Green River Formation and the top of the Mesa Verde Formation, which interval expressly includes the Lower Green River transition zone and the Wasatch Formation. Underlying the following described lands in Carbon County, Utah

according to the spacing pattern set out below:

Township 12 South, Range 16 East

Unit #1	Section 25
Unit #2	Section 26
Unit #3	Section 27
Unit #4	Section 28
Unit #5	Section 29
Unit #6	Section 32
Unit #7	Section 33
Unit #8	Section 34
Unit #9	Section 35
Unit #10	Section 36

Township 12 South, Range 17 East

Unit #11	Section 30
Unit #12	Section 31
Unit #13	Section 32

Township 13 South, Range 16 East

Unit #14	All of Section 1 and N½ Section 12
Unit #15	S½ of Section 12 and N½ Section 13
Unit #16	S½ of Section 13 and N½ Section 24

Township 13 South, Range 17 East

Unit #20	All of Section 4 and N½ of Section 9
Unit #21	All of Section 5 and N½ of Section 8
Unit #22	All of Section 6 and N½ of Section 7
Unit #23	S½ of Section 7 and N½ of Section 18
Unit #24	S½ of Section 8 and N½ of Section 17
Unit #25	S½ of Section 9 and N½ of Section 16

Upon application of the applicant at the hearing, Units 17, 18 and 19 (covering Sections 14, 23, S½ of Section 24 and the N½ of Section 25, T. 13 S., R. 16 E.) included in the original application are deleted

from this Order.

2. The drilling and spacing units for the subject area shall consist of the above described and designated units, based upon the surveyed government sections or combination of portions of such sections.

3. Not more than one well shall be drilled on any drilling or spacing unit for the production of gas from the formations and zones described above.

4. Any existing well producing from the designated interval within a spacing unit shall be the well for said spacing unit, and that future wells shall be located, to the extent feasible with respect to topography, access and economic considerations, as far as possible from the boundary of the spacing unit, but that any future well producing from the designated interval within such spacing unit shall satisfy the requirements of this Order.

Dated this 20th day of November, 1974.

Board of Oil and Gas Conservation

By _____
Guy N. Cardon

By _____
Charles R. Henderson

By _____
Robert R. Norman

By _____
Hyrum Lee

FILED

MAY 29 2001

SECRETARY, BOARD OF OIL, GAS & MINING

BEFORE THE BOARD OF OIL, GAS AND MINING

DEPARTMENT OF NATURAL RESOURCES

STATE OF UTAH

IN THE MATTER OF THE REQUEST FOR AGENCY ACTION OF WASATCH OIL & GAS LLC FOR AN ORDER VACATING THE ORDERS IN CAUSE NUMBER 157-1 AND CAUSE NUMBER 157-2, AND SUSPENDING R649-3-2 INSOFAR AS IT APPLIES TO THE PETERS POINT UNIT LOCATED IN TOWNSHIPS 12 AND 13 SOUTH, RANGES 16 AND 17 EAST, AND THE JACK CANYON UNIT LOCATED IN TOWNSHIP 12 SOUTH, RANGE 16 EAST, CARBON COUNTY, UTAH	**FINDINGS OF FACT, CONCLUSIONS OF LAW, AND ORDER** Docket No. 2001-012 Cause No. 157-03

FINDINGS OF FACT, CONCLUSIONS OF LAW, AND ORDER

Pursuant to the Request for Agency Action ("Request") of Wasatch Oil & Gas LLC ("Wasatch"), this cause came before the Board of Oil, Gas and Mining ("Board") on April 25, 2001. Chairman Dave D. Lauriski conducted the proceedings of the hearing. All members of the Board participated in the hearing: Robert J. Bayer, Stephanie B. Cartwright, Elise L. Erler, W. Allan Mashburn, J. James Peacock, and Kent R. Petersen. Philip C. Pugsley, Assistant Attorney General, appeared on behalf of the Board.

EXHIBIT 19

John S. Kirkham of the law firm Stoel Rives LLP represented Wasatch. Appearing as witnesses for Wasatch were Heggie Wilson, a certified landman affiliated with Stonegate Resources, LLC; Mary McPherson, a geologist with McPherson Geologic Consulting; and Dan Hall, a degreed petroleum engineer with Energy Operating Company, Inc.

Thomas A. Mitchell, Assistant Attorney General, and John R. Baza, Associate Director, appeared on behalf of the Division of Oil, Gas and Mining ("Division").

NOW THEREFORE, the Board, having considered the Request, the testimony of the witnesses and the arguments and exhibits presented at the April 25, 2001 hearing and being fully advised, now makes and enters the following:

FINDINGS OF FACT AND CONCLUSIONS OF LAW

1. Due and regular notice of the time, place and purpose of the April 25, 2001 hearing was given to all interested parties as required by law and the rules and regulations of the Board.

2. The Board has jurisdiction over the subject matter of this Request pursuant to the provisions of § 40-6-5 Utah Code Annotated and has jurisdiction over all parties interested therein.

3. Wasatch is a limited liability company authorized to transact business in the State of Utah.

4. Wasatch is the unit operator of the Peters Point Unit and the Jack Canyon Unit, both "federal" units approved by a duly authorized officer of the Bureau of Land Management ("BLM").

5. Wasatch is a working interest owner in the Peters Point Unit and the Jack Canyon Unit.

6. Wasatch provided the information concerning the identity of all parties potentially interested in the matters which were the subject of the Request. The only parties having a direct interest in this matter are the working interest owners, royalty owners and overriding royalty owners in the lands included within the land area described in the Orders. The names and current mailing addresses as contained in Wasatch's records of these interested parties are set forth on Exhibit "P-1" which was made a part of the record. The information on Exhibit "P-1" was amended on the Board's records prior to the sending of the Notice of Hearing to reflect the best information available with respect to the current addresses of all interested parties.

7. The lands affected by the Orders in Cause Nos. 157-1 and 157-2 are more particularly set forth in the Orders made a part of the record as Exhibits "P-2" and "P-3."

8. Exhibit "P-4," which was made a part of the record, is a map identified as the "East Nine Mile Canyon Complex" and it depicts the exterior boundaries of the areas described in the Orders. Also depicted on Exhibit "P-4" are the exterior boundaries of the Peters Point Unit (including its Participating Areas), the Jack Canyon Unit and the leases that presently exist in the immediate vicinity of the boundaries of the land area covered by those two unit agreements.

9. Exhibit "P-5" as made a part of the record depicts a generalized stratigraphic column for the area of the Orders.

10. The Order in Cause No. 157-1 established 640 acre drilling and spacing units for the production of gas from the stratigraphic interval between the base of the Green River Formation and the top of the Mesa Verde Formation, which interval expressly includes the Lower Green River Transition Zone and the Wasatch Formation (Order No. 157-1, at paragraph 1).

11. In its Findings of Fact, the Order in Cause No 157-2 determined that the lands identified in the application were underlain by sources of supply consisting of non-contiguous sands with limited interconnection and that the acreage to be drained by any well within the lands covered by the application "would not be in excess of 320 acres." (Order 157-2, at paragraph 4).

12. The sandstone reservoirs in the area covered by the Orders are fluvial in nature, primarily meandering streams systems and fan deltas. By definition, these types of fluvial systems are generally characterized by heterogeneity within a small geographical area and therefore cannot be drained or developed adequately within the current Orders.

13. Subsequent exploration and drilling within the area of the Orders has demonstrated that the maximum area that can be efficiently and economically drained by one well does not exceed 160 acres.

14. Advances in drilling technology that have developed since the entry of the Orders will allow the development of reserves in areas of adverse topography via the use of directional drilling techniques.

15. All lands contained within the Orders, the Peters Point Unit and the Jack Canyon Unit are either state or federal lands.

16. The existence of the Peters Point Unit and the Jack Canyon Unit, covering substantially all of the lands within the area covered by Order Nos. 157-1 and 157-2, insures that the objectives of the Utah Oil & Gas Conservation Act, namely the prevention of waste, the obtaining of the greatest ultimate recovery of unitized substances, and the protection of the correlative rights of all owners, will be accomplished.

17. Wasatch has pending before the Division of Oil, Gas & Mining, applications for permit to drill with respect to the Peters Point 36-2, Peters Point 36-3 and Peters Point 36-4 wells, all of which will not satisfy the spacing as required by the Order in Cause No. 157-1.

18. But for the existence of the Orders, well location and density patterns within both the Peters Point Unit and the Jack Canyon Unit would be determined in accordance with the terms of the respective Unit Agreements, the Unit Operating Agreements and the annual plans of unit development approved by the BLM. The location of the currently pending applications for permit to drill, as well as all subsequent applications for permit to drill, within the areas of Order No. 157-1 and Order No. 157-2 within the Peters Point Unit and the Jack Canyon Unit will be subject to approval by the BLM.

19. In order to allow the greatest flexibility for orderly development and to account for topographical, archeological, geological and environmental restrictions imposed upon federal lessees within the areas currently included within the Orders, an order of the Board vacating the Orders and suspending the application of Utah Administrative Rule R649-3-2

within the Peters Point Unit and the Jack Canyon Unit so long as such units exist is necessary and appropriate. Upon contraction of said units, the lands eliminated from the Unit Area shall automatically become subject to Utah Administrative Rule R649-3-2.

20. The vacation of the Orders and the suspension of Utah Administrative Rule R649-3-2 during the existence of the Peters Points Unit and the Jack Canyon Unit will promote the public interest, prevent waste, increase ultimate recovery and protect correlative rights of all owners within said unit boundaries.

21. Based upon its unanimous vote, the Board decided to grant the Request.

ORDER

Based upon the Findings of Fact and Conclusions of Law set forth above, IT IS HEREBY ORDERED THAT:

A. The Order in Cause No. 157-1 as entered on November 20, 1974 is hereby vacated;

B. The Order in Cause No. 157-2 as entered on April 29, 1982 is hereby vacated;

C. The application of Utah Administrative Rule R649-3-2 insofar as it applies to the areas contained within the Peters Point Unit and the Jack Canyon Unit as they presently exist or as they subsequently may be expanded or contracted, is hereby suspended;

D. The spacing and siting of surface and bottom-hole locations at such locations as may be approved by the BLM subject to the condition that in no event shall the bottom-hole location of any well approach closer than 460 feet to the exterior boundary of the existing units is hereby authorized.

E. Pursuant to Utah Administrative Code R641 and Utah Code Ann. § 63-46b-6 to -10 (1953, as amended), the Board has considered and decided this matter as a formal adjudication.

F. This Findings of Fact, Conclusion of Law and Order ("Order") is based exclusively on evidence of record in the adjudicative proceeding or on facts officially noted, and constitutes the signed written order stating the Board's decision and the reasons for the decision, all as required by the Utah Administrative Procedures Act, Utah Code Ann. § 63-46b-10 and Utah Administrative Code R641-109.

G. Notice re Right to Seek Judicial Review by the Utah Supreme Court or to Request Board Reconsideration: As required by Utah Code Ann. § 63-46b-10(e) to -10(g) (1953, as amended), the Board hereby notifies all parties in interest that they have the right to seek judicial review of this final Board Order in this formal adjudication by filing a timely appeal with the Utah Supreme Court within 30 days after the date that this Order is issued. Utah Code Ann. § 63-46b-14(3)(a) and -16 (1953, as amended). As an alternative to seeking immediate judicial review, and not as a prerequisite to seeking judicial review, the Board also hereby notifies parties that they may elect to request that the Board reconsider this Order, which constitutes a final agency action of the Board. Utah Code Ann. § 63-46b-13, entitled, "Agency review - Reconsideration," states:

> (1)(a) Within 20 days after the date that an order is issued for which review by the agency or by a superior agency under Section 63-46b-12 is unavailable, and if the order would otherwise constitute final agency action, any party may file a written request for reconsideration with the agency, stating the specific grounds upon which relief is requested.

(b) Unless otherwise provided by statute, the filing of the request is not a prerequisite for seeking judicial review of the order.
(2) The request for reconsideration shall be filed with the agency and one copy shall be sent by mail to each party by the person making the request.
(3)(a) The agency head, or a person designated for that purpose, shall issue a written order granting the request or denying the request.
(b) If the agency head or the person designated for that purpose does not issue an order within 20 days after the filing of the request, the request for reconsideration shall be considered to be denied.

Id. The Board also hereby notifies the parties that Utah Administrative Code R641-110-100, which is part of a group of Board rules entitled, "Rehearing and Modification of Existing Orders," states:

> Any person affected by a final order or decision of the Board may file a petition for rehearing. Unless otherwise provided, a petition for rehearing must be filed no later than the 10th day of the month following the date of signing of the final order or decision for which the rehearing is sought. A copy of such petition will be served on each other party to the proceeding no later than the 15th day of that month.

Id. See Utah Administrative Code R641-110-200 for the required contents of a petition for rehearing. If there is any conflict between the deadline in Utah Code Ann § 63-46b-13 (1953, as amended) and the deadline in Utah Administrative Code R641-110-100 for moving to rehear this matter, the Board hereby rules that the later of the two deadlines shall be available to any party moving to rehear this matter. If the Board later denies a timely petition for rehearing, the party may still seek judicial review of the Order by perfecting a timely appeal with the Utah Supreme Court within 30 days thereafter.

H. The Board retains continuing jurisdiction over all the parties and over the subject matter of this Cause, except to the extent said jurisdiction may be divested by the filing of a timely appeal to seek judicial review of this Order by the Utah Supreme Court.

I. For all purposes, the Chairman's signature on a faxed copy of this Order shall be deemed the equivalent of a signed original.

ISSUED this 29th day of May, 2001.

STATE OF UTAH
BOARD OF OIL, GAS AND MINING

By Elise L Erler
Elise L. Erler, Acting Chairman

CERTIFICATE OF MAILING

I hereby certify that I caused a true and correct copy of the foregoing "Findings of Fact, Conclusions of Law, and Order" in Docket No. 2001-012, Cause No. 157-03 to be mailed with postage prepaid, this 30 day of May, 2001, to the following:

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Salt Lake City, Utah 84114-5801
(Hand Delivered)

Working Interest Owners

Stonegate Resources
4994 E. Meadows Drive
Park City, Utah 84098

Sapient Energy Corp.
8801 South Yale, Suite 150
Tulsa, Oklahoma 74137

Mission Energy, LLC
519 Encinitas Blvd., Suite 109
Encinitas, California 92024-3738

Wasatch Oil & Gas
P.O. Box 699
Farmington, Utah 84025

LiTMus EPO, L.L.C.
3607 E. Briarwood Avenue
Littleton, Colorado 80122

R. G. Davis, Project Landman
EOG Resources, Inc.
600 17th Street, Suite 1100 N
Denver, Colorado 80202

RGR000467

Royalty Owners

Bureau of Land Management
Utah State Office
Attn: Robert A. Henricks
324 South State, Suite 301
P.O. Box 45155
Salt Lake City, Utah 84145-0155

School and Institutional
Trust Lands Administration
Attn: LaVonne Garrison
& Thomas Faddies
675 East 500 South, Suite 500
Salt Lake City, Utah 84102-2818

Overriding Royalty Owners

Centennial OGM, LLC
1641 California Street
Denver, Colorado 80202

Denver Minerals Partnership
1525 West Hinsdale Drive
Littleton, Colorado 80120

Elliott A. Riggs
P.O. Box 711
Farmington, New Mexico 87499-0711

Fred H. Carr
535 W. Yellowstone, Suite 202
Casper, Wyoming 82601

J.M. Huber Corporation
Oil & Gas Division
11451 Katy Fwy., #400
Houston, Texas 77079-2001

Steven G. Shaddock
925 St. Andrews Lane
Louisville, Colorado 80027

Sandefer Capital Partners, L.P.
515 Congress Ave., #1875
Austin, Texas 78701

Tamara Sutton
1408 Cambridge Road
Lansing, Michigan 48911

Belle Oil & Gas, Inc.
93 South 5th Avenue
Clarion, Pennsylvania 16214

Randall G. Browning, MD, Trustee
Tri-City Emergency Medical Group
Retirement Trust FBO
4051 Sunnyhill Drive
Carlsbad, California 92008

Henzel Company, LLC
3025 South St. Paul Street
Denver, Colorado 80210-6760

Irrevocable Trust of (Undeliverable)
Richard Craig Krause Trust
Richard L. Krause, Trustee
305 E. Willow Road
Prospect Heights, Illinois 60070

Richard P. Burris, Trustee
Tri-City Emergency Medical Group
Retirement Plan Trust, U/A dated 11-1-89
7226 Aviara Drive
Carlsbad, California 92009

AA Production, Inc.
c/o 3 Radnor Corp. CTR Suite 400
Radnor, Pennsylvania 19807

Carol Lee Hatch
1939 South 300 West, Suite 200
Salt Lake City, Utah 84115

George T. Snell
[ADDRESS UNKNOWN]

John R. Anderson
1939 South 300 West, Suite 200
Salt Lake City, Utah 84115

Kaiser-Francis Oil Company
P.O. Box 840234
Dallas, Texas 75234-0234

Lane Lasrich
2597 E. Bridger Blvd.
Sandy, Utah 84093

Wilma Bordeaux
L/K/A/ 6661 South Village Road
Salt Lake City, Utah 84110

Zar E. Hayes
2349 Maywood Drive
Salt Lake City, Utah 84109

Anderman Oils, L.L.C.
1776 Lincoln Street, Suite 500
Denver, Colorado 80203

St. Mary Land & Exploration Company
1776 Lincoln Street, Suite 1100
Denver, Colorado 80203

John and Lois Haun Family Partnership
1238 County Road 23
Evergreen, Colorado 80439

Robert P. Davison and
Stasia W. Davison
5 Tamarac Lane
Englewood, Colorado 80110

Wells Petroleum, Inc.
602 Park Point Drive, #225
Golden, Colorado 80401

Ralph H. Smith
7060 S. Yale, Suite 800
Tulsa, Oklahoma 74136-5741

Dona M. Mohan
1776 Lincoln Street, Suite 500
Denver, Colorado 80203

Diane Holland

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Utah State Office
P.O. Box 45155
Salt Lake City, UT 84145-0155
http://www.blm.gov

TAKE PRIDE IN AMERICA

IN REPLY REFER TO:
3160
(U-922)

August 15, 2005

Certified Mail - Return Receipt Requested

Bill Barrett Corporation
attn: Doug Gundry White
1099 18th Street
Suite 2300
Denver, CO 80202

Re: Invalidation of Jack's Canyon Unit
Carbon County, Utah

Gentlemen:

In accordance with the Certification and Determination of the Jack's Canyon Unit Agreement, said unit agreement is hereby declared *invalid ab initio.*

The decision is based on your failure to commence drilling requirements within specified timeframes as outlined in Section 9 of the Jack's Canyon Unit Agreement.

You have the right to request a State Director Review of our decision as specified in 43 CFR 3165.3. Such request including all supporting documentation, must be filed in writing within twenty (20) business days of this notice to State Director (U-920), Bureau of Land Management, P.O. Box 45155, Salt Lake City, Utah 84145-0155. As stated in the regulations at 43 CFR 3165.3(e), a request for State Director Review does not automatically suspend the decision.

Sincerely,

Terry L. Catlin
Acting Chief, Branch of Fluid Minerals

BBC01788

API Well No: 43007304600000

FORM 9

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

5.LEASE DESIGNATION AND SERIAL NUMBER: ML-43541

SUNDRY NOTICES AND REPORTS ON WELLS

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

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.

7.UNIT or CA AGREEMENT NAME:

1. TYPE OF WELL: Gas Well

8. WELL NAME and NUMBER: JACK CANYON UNIT 8-32

2. NAME OF OPERATOR: BILL BARRETT CORP

9. API NUMBER: 43007304600000

3. ADDRESS OF OPERATOR: 1099 18th Street Ste 2300 , Denver, CO, 80202

PHONE NUMBER: 303 312-8128 Ext

9. FIELD and POOL or WILDCAT: PETER'S POINT

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 2021 FNL 0652 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SENE Section: 32 Township: 12.0S Range: 16.0E Meridian: S

COUNTY: CARBON

STATE: UTAH

11.

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

TYPE OF SUBMISSION	TYPE OF ACTION		
✓ NOTICE OF INTENT Approximate date work will start: 6/15/2009	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
	☐ CHANGE WELL STATUS	✓ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
☐ SPUD REPORT Date of Spud:	✓ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
☐ DRILLING REPORT Report Date:	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

This sundry is being submitted to request approval to recomplete this well. BBC proposes to perf and flowback an additional seven stages on this well in the Mesaverde and Wasatch formations to increase production. In addition, in accordance with Utah Division of Oil, Gas, and Mining's Rule 649-3-22, Completion Into Two or More Pools, BBC requests approval to commingle the formations as noted above. Gas composition is similar across all formations. The pressure profile across the formations are similar and BBC does not anticipate any cross flow. Production is considered to be from one pool. In the event allocation by zone or interval is required, BBC would use representative sampling obtain from production logs and allocate on a % basis. Details are attached.

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Tracey Fallang	303 312-8134	Regulatory Analyst
SIGNATURE N/A		DATE 5/28/2009

RECEIVED May 28, 2009

API Well No: 43007309130000

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9 5.LEASE DESIGNATION AND SERIAL NUMBER: ML43541
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.	6. IF INDIAN, ALLOTTEE OR TRIBE NAME: 7.UNIT or CA AGREEMENT NAME:
1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: JACK CYN U ST 14-32
2. NAME OF OPERATOR: BILL BARRETT CORP	9. API NUMBER: 43007309130000
3. ADDRESS OF OPERATOR: 1099 18th Street Ste 2300 , Denver, CO, 80202 PHONE NUMBER: 303 312-8128 Ext	9. FIELD and POOL or WILDCAT: UNDESIGNATED
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0531 FSL 1479 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SESW Section: 32 Township: 12.0S Range: 16.0E Meridian: S	COUNTY: CARBON STATE: UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
✓ NOTICE OF INTENT Approximate date work will start: 6/15/2009	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
	☐ CHANGE WELL STATUS	✓ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
☐ SPUD REPORT Date of Spud:	✓ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
☐ DRILLING REPORT Report Date:	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

This sundry is being submitted to request approval to recomplete this well. BBC proposes to perf and flowback an additional ten stages on this well in the Mesaverde and Wasatch formations to increase production. In addition, in accordance with Utah Division of Oil, Gas, and Mining's Rule 649-3-22, Completion Into Two or More Pools, BBC requests approval to commingle the formations as noted above. Gas composition is similar across all formations. The pressure profile across the formations are similar and BBC does not anticipate any cross flow. Production is considered to be from one pool. In the event allocation by zone or interval is required, BBC would use representative sampling obtain from production logs and allocate on a % basis. Details are attached.

NAME (PLEASE PRINT) Tracey Fallang	PHONE NUMBER 303 312-8134	TITLE Regulatory Analyst
SIGNATURE N/A		DATE 5/28/2009

RECEIVED May 28, 2009

Bill Barrett Corporation

JACK CANYON UNIT 14-32

SURFACE LOCATION: 531' FSL & 1,479' FWL
SWSE SECTION 32-T12S-R16E
CARBON COUNTY, UTAH
API: 43-007-3091300
LEASE: UT10083

January 25, 2005

Jack Canyon Unit 14-32 Basic Well Data:

BBC WI:	100.000%
Elevation:	GL = 6,921' KB = 6,936'
Spud:	08/01/03
Completed:	02/12/04
TD:	9,380' MD
BHT: (OH)	178 degrees F
Cumulative Gas:	353 mcf
Cumulative Oil:	388 bbls
Cumulative Water:	767 bbls
Current Status:	SI Gas well
Surface Casing:	9-5/8", 36.00#, J-55, ST&C Set @ 1,043' Cemented w/ 240 sx 65/35 Poz (1.85 ft3/sk @12.7 ppg) and 180 sx Prem AG (1.15 ft3/sk @15.8 ppg) Displaced with 77 bbls fresh water. (30 bbls lead to surface) Date: 08-05-03
Production Casing:	5-1/2", 17#, N-80, LT&C Set @ 9,380'. Float Collar @ 9,329' Drift Dia. 4.767" Burst 7,740 psi Collapse 6,290 psi Cemented w/ 912 sks 50/50 Poz (1.47 ft3/sk @ 14.3 ppg). N2 foamed to 11.2 ppg Displaced with 217 bbl Clayfix water. Date: 08-28-03
TOC:	2,950' (CBL dated 10-31-03)
PBTD:	RBP @7,815', CIBP @7,825' & 9,180'
Production Tubing:	210 jts 2-3/8", 4.7#, N-80, EUE 8rd landed @6,590.61' KB

Bill Barrett Corporation

JACK CANYON UNIT 14-32
SURFACE LOCATION: 531' FSL & 1,479' FWL
SWSE SECTION 32-T12S-R16E
CARBON COUNTY, UTAH
API: 43-007-3091300
LEASE: UT10083

Table of Current Completion by Perforated Interval:

Status	Name	Perforations	Phi	Sw	FG	Comments
Open	U Price River	6,620'-26'	0.09	0.55	0.81	Perf:3 SPF, 120 deg phasing, .51 in dia; Frac: 11,342 gal 30# Pur Gel, 45,000# 20/40 sd, 142 tons of CO2, Bkdn: 5036psi
Open	Bluecastle	6,838'-42'	0.12	0.80		Perf Only:4 SPF, 90 deg phasing, .48 in dia
Open		6,852'-54'	0.13	0.57		
Open		6,897'-99'	0.06	0.51		
Open		7,786'-90'	0.06	0.51	0.90	Perf:3 SPF, 120 deg phasing, .51 in dia; Frac: 31,015 gal 30# Pur Gel, 200,000# 20/40 sd, 250 tons of CO2, Bkdn: 6233psi
Behind CIBP		7,870'-74'	0.07	0.68		
Behind CIBP		8,050'-60'	0.08	0.51	0.88	Perf:3 SPF, 120 deg phasing, .51 in dia; Frac: 16,796 gal 30# Pur Gel, 90,200# 20/40 sd, 142 tons of CO2, Bkdn: 4945psi
Behind CIBP	Sego	8,130'-32'	0.06	0.66		Perf: 3 SPF, 120 deg phasing, .50 in dia
Behind CIBP		8,307'-09'	0.10	0.41	0.86	Perf: 3 SPF, 120 deg phasing, .50 in dia; Frac: 15,767 gal 30# Pur Gel, 54,000# 20/40 sd, 94 tons of CO2, Bkdn: 5732psi
Behind CIBP		8,316'-18'	0.08	0.56		
Behind CIBP		8,356'-58'	0.07	0.39		
Behind CIBP	**Castlegate**	**8,412'-41'**	**0.07**	**0.457**	**0.80**	**Perf Only: 4 SPF, 90 deg phasing, .50 in dia**
Behind CIBP	Blackhawk	8,663'-65'	0.06	0.42	0.84	Perf:3 SPF, 120 deg phasing, .50 in dia; Frac: 42,746 gal 30# Pur Gel, 30,640# 20/40 sd, 39 tons of CO2, Bkdn: 5418psi
Behind CIBP		8,684'-86'	0.08	0.36		
Behind CIBP		8,730'-31'	0.08	0.21		
Behind CIBP		8,820'-21'	0.09	0.55		
Behind CIBP		8,905'-07'	0.08	0.65	0.79	Perf:3 SPF, 120 deg phasing, .50 in dia; Frac: 23,891 gal 30# Pur Gel, 92,300# 20/40 sd, 136 tons of CO2, Bkdn: 6400psi
Behind CIBP	Kenilworth	8,922'-24'	0.09	0.75		
Behind CIBP	Aberdeen	9,152'-56'	0.08	0.94	0.80	Perf:3 SPF, 120 deg phasing, .50 in dia; Frac: 17,364 gal 30# Pur Gel, 88,000# 20/40 sd, 140 tons of CO2, Bkdn: 4268psi
Behind CIBP	Spring Canyon	9,220'-24'	0.06	0.63		
	5-1/2" Casing	**9,380'**				**17# N-80; 912 sx cmt; TOC: 2,930'**

Bill Barrett Corporation

JACK CANYON UNIT 14-32

SURFACE LOCATION: 531' FSL & 1,479' FWL
SWSE SECTION 32-T12S-R16E
CARBON COUNTY, UTAH
API: 43-007-3091300
LEASE: UT10083

Proposed Procedure for Conversion to Salt Water Disposal

1) Top kill well, POOH with 2-3/8" tubing string.

2) TIH with RBP retrieving tool on 2-3/8" tubing and retrieve RBP at 7,815'.

3) TIH with 4-3/4" "Metal Muncher" type mill. RU foam unit and mill out CIBP at 7,825'. TIH washing all CIBP debris to below 8,650'.

4) Circulate well clean at 8,650'. POOH and LD 2-3/8".

5) RU SL/EL, make gauge run to 8,650 and set 5-1/2" CIBP at +/- 8,630'. Dump bail +/- 6 sacks cement (50' cement) on top of CIBP. PBTD will now be TOC at +/- 8,580'.

6) MU 5-1/2" packer and TIH on 2-7/8" injection string. Set packer at +/- 8,390' and evaluate existing Castlegate perforations: Take representative Castlegate water sample and perform Castlegate step rate injectivity test.

   Note: Due to existing perforations from 6,620' – 8,358' (gross interval) a mechanical integrity test will be impossible on the 2-7/8" x 5-1/2" annulus.

7) Commence salt water Disposal.

Bill Barrett Corporation

JACK CANYON UNIT 14-32

SURFACE LOCATION: 531' FSL & 1,479' FWL
SWSE SECTION 32-T12S-R16E
CARBON COUNTY, UTAH
API: 43-007-3091300
LEASE: UT10083

Salt Water Disposal Plant Operating Data:

Produced water from BBC operated wells in the Nine Mile Field area T12S – T13S and R13E – R17E is currently averaging 210 bwpd. Based upon projected development activity in the area future volumes are expected to be between 300 bwpd and 500 bwpd. Produced water originates from the Spring Canyon formation up through the shallow Wasatch and Green River Sands. Produced water quality varies in salinity: 12,000 - 30,000 mg/l cl^-; Hardness: 850 - 1,500 mg/l Ca^{++}; TDS: 19,000 - 51,000 ppm. No compatibility issues are anticipated with injection into the Castlegate.

1) The injection pump will be a reconditioned National J-60-L triplex pump capable of 1,700 bwpd at 1,500 psi. The power plant will be a new 1,200 rpm, 60 HP, 3 phase, 60 Hz, 460 V electric motor.

2) The daily salt water injection volume is projected to be between 250 bwpd and 500 bwpd.

3) Initial injection pressures of 0 psi – 1,000 psi are anticipated.

   Fracture gradient for the Castlegate Formation is estimated at 0.80 psi/ft. This is based upon fracture treatment of the Castlegate in the BBC Peters Point 36-4 (SESE 36-12S-16E). The specific gravity of swabbed Castlegate Formation water in the Peters Point 36-4 was 1.02.

   Maximum Surface Pressure is calculated as follows:

   $P_s = [FG \text{ psi/ft} - 0.433 \text{ psi/ft } (SG)] D_{TVD} \text{ ft}$

   $P_s = [0.80 \text{ psi/ft} - 0.433 \text{ psi/ft } (1.02)] 8{,}427 \text{ ft} = \boxed{3{,}020 \text{ psig}}$

   Where:

   P_s = Surface Pressure, psig
   FG = Fracture Gradient, psi/ft
   SG = Specific Gravity
   D = True Vertical Depth to perforation mid point, ft.

Salt Water Disposal Plant Operating Data (continued):

4) Injection pressures must be kept below 3,020 psig to prevent fracture initiation. **Note:** Injection was established at 3.1 bpm and 1,730 psig prior to squeezing Castlegate perforations at 8,224' in the BBC Peters Point 36-4 well.

5) Murphy type suction and discharge pressure safety switching will be installed on all triplex relief, suction and discharge piping. A 10' x 20' x 8' x 9' steel building with shed type roofing will be constructed to house the drain system, main plant skid, filtration system and control panel for a 5HP centrifugal transfer pump and all other electrical components.

6) Storage capacity on location will be 1,200 bbls (3 x 400 bbl tanks).

Fluid flow characterization of the Castlegate Sandstone:

Interpretation of reservoir partitioning through permeability and porosity analysis; Southern Wasatch Plateau, Utah

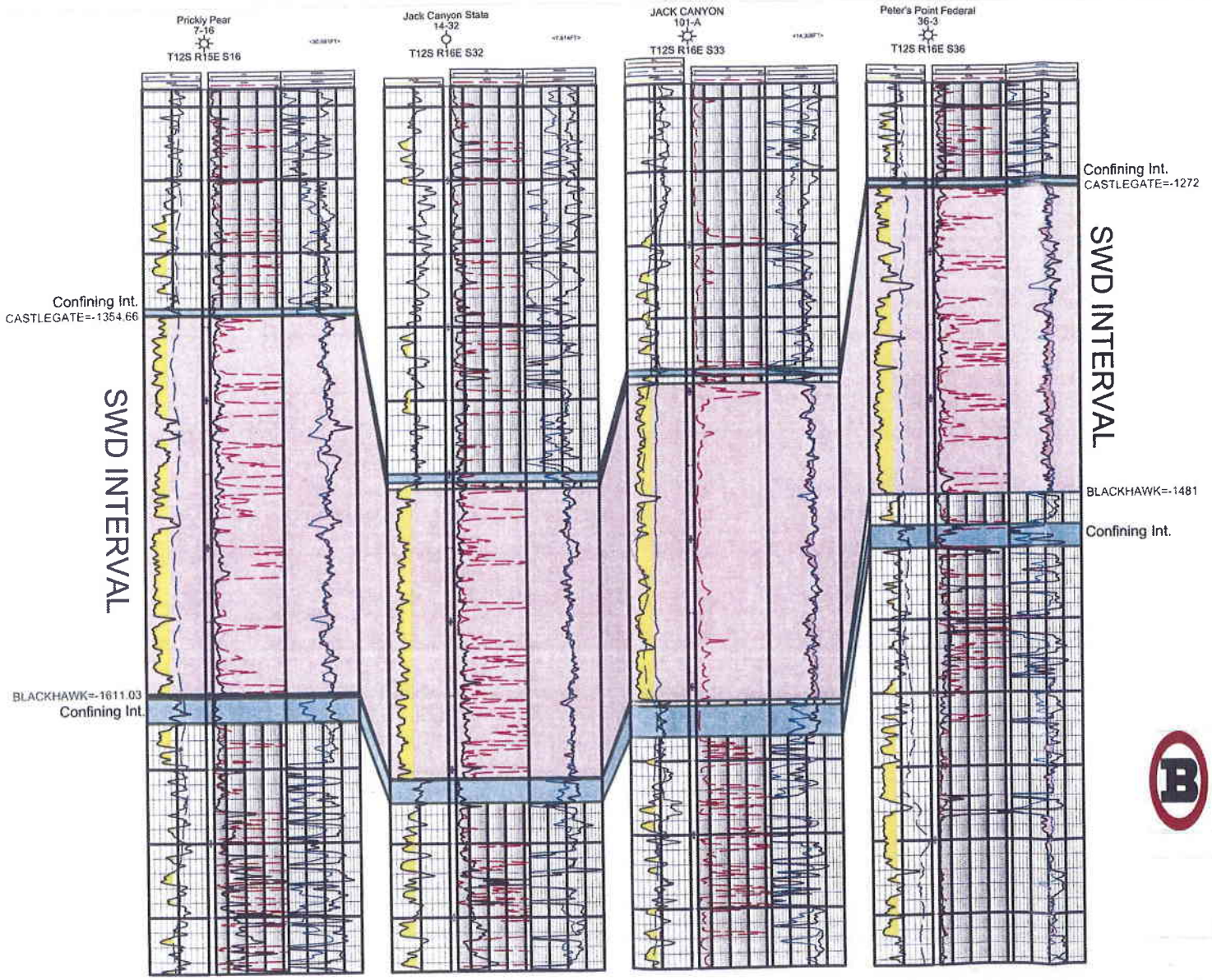
Brian J. Black[1], Thomas H. Morris[2], and Alan L. Mayo[2]. (1) Department of Geology, Brigham Young University, S-389 ESC, Provo, UT 84602, phone: (801) 371-6337, fax: (801)378-8143, bjb@geology.byu.edu, (2) Department of Geology, Brigham Young University, Provo, UT 84602

The **Castlegate** Sandstone is a water-bearing formation within the Wasatch Plateau in east-central Utah. The depositional system of the **Castlegate** is that of a high gradient braided fluvial system. Although the formation as a whole is laterally continuous over long distances, local variations in permeability and porosity of the sandstone are present.

Measured sections show that the sandstone is dominated by high- and low-angle trough cross-stratification. Convolute bedding and minor amounts of planar-laminated beds are also present. Grain size ranges from very fine sand to pebbles. The moderately sorted sandstone contains mostly upper medium- to lower coarse-grained sand. Stream channel geometry varies throughout the sandstone but is generally around 20-30 meters wide and 2-3 meters deep.

NW

SE



Bill Barrett Corporation

Uinta Basin

Nine Mile Canyon

Jack Canyon 14-32

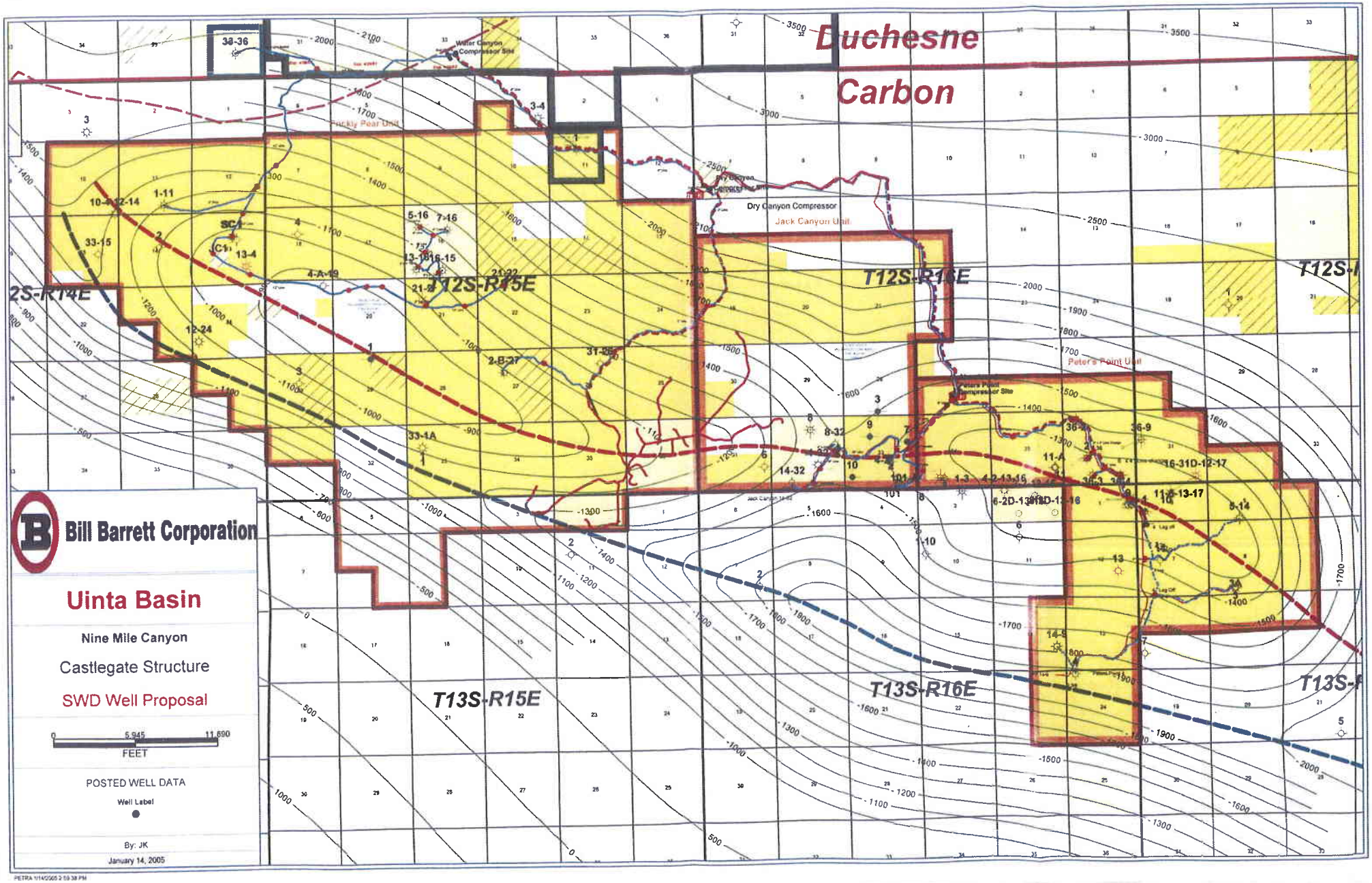
Castlegate SWD Well Cross-section

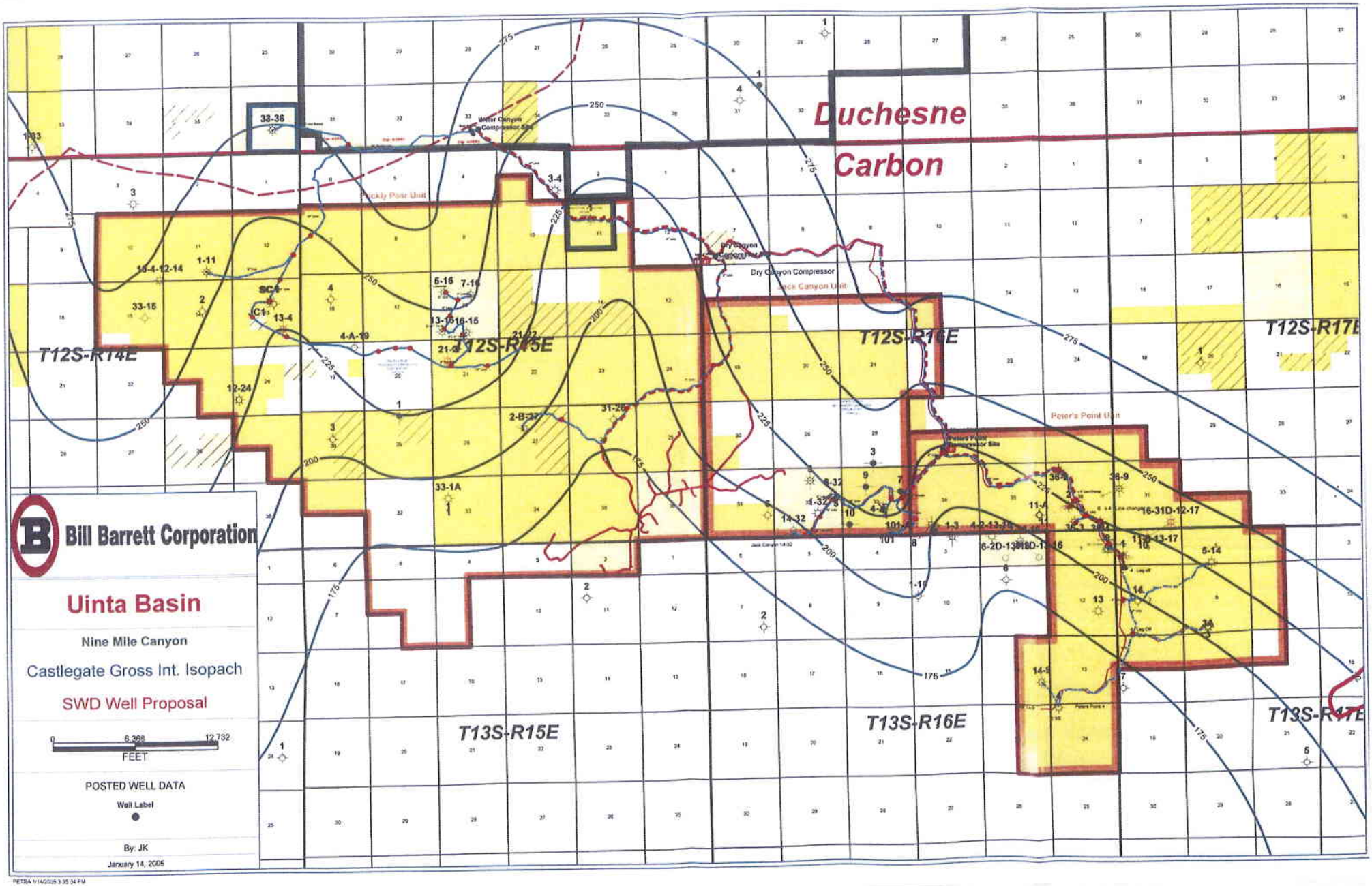
Horizontal Scale = 1.0
Vertical Scale = 20.0
Vertical Exaggeration = 0.1x

By: JK

January 14,2005 2:49 PM

PETRA 1/14/2005 2:49:19 PM


Duchesne
Carbon
T12S-R15E
T12S-R16E
T13S-R15E
T13S-R16E
Dry Canyon Compressor
Jack Canyon Unit
Peter's Point Unit
Bill Barrett Corporation
Uinta Basin
Nine Mile Canyon
Castlegate Structure
SWD Well Proposal
0
5,945
11,890
FEET
POSTED WELL DATA
Well Label
By: JK
January 14, 2005


Duchesne
Carbon
T12S-R14E
T12S-R15E
T12S-R16E
T12S-R17E
T13S-R15E
T13S-R16E
T13S-R17E
Bill Barrett Corporation
Uinta Basin
Nine Mile Canyon
Castlegate Gross Int. Isopach
SWD Well Proposal
0
6,366
12,732
FEET
POSTED WELL DATA
Well Label
By: JK
January 14, 2005
Dry Canyon Compressor
Peter's Point Unit
Jack Canyon Unit
Prickly Pear Unit

Bill Barrett Corporation

JACK CANYON UNIT 14-32
SURFACE LOCATION: 531' FSL & 1,479' FWL
SWSE SECTION 32-T12S-R16E
CARBON COUNTY, UTAH
API: 43-007-3091300
LEASE: UT10083

Fluid flow characterization of the Castlegate Sandstone (continued):

Permeability and porosity values from core-plugs show that some bedforms and second- and third-order bounding surfaces can act has barriers and baffles to **fluid flow** and can compartmentalize the reservoir. Permeability readings ranged from less than 1.00 millidarcy to more than 5,000 millidarcies and porosity ranged from 6% up to 27%. Geophysical well logs show that the **Castlegate** has mud-rich zones within the sandstone that can partition both vertical and lateral **fluid flow** through the rock. Bounding surfaces as well as low permeability layers may stop vertical recharge of surface water to subsurface coal mining depths.

Impact of Salt Water Injection into the Castlegate Formation:

- **Overlying strata** are protected from Castlegate Formation perforations: 8,412' – 41' by 5-1/2" 17# N-80 production casing cemented from TD at 9,380' to TOC at 2,920'. The Cement Bond Log dated 10/31/03 shows >90% cement bond from TD up through 6,900' in 7.89" (Caliper Log) diameter hole.

- **Surface injection pressures** would have to exceed 3,000 psi (FG = 0.80 psi/ft) to initiate fractures in the Castlegate Formation allowing injected fluids to migrate upwards.

- **Fresh water Aquifers** in the Jack Canyon 14-32 wellbore are protected by 9-5/8" 36# J-55 surface casing cemented from 1,043' to surface with 420 sacks of cement in 12-1/4" open hole.

- **Nearby Wellbores** within a ½ mile radius of Jack Canyon 14-32:

Name	Operator	Location	Distance & Direction	Status
Jack Canyon Unit 06	El Paso Corp.	NESE 31-12S-16E	2,293' @329°	TD 2,410'; Wasatch; P&A'd in 1956
Lavinia State 1-32	Regoal	NWSE 32-12S-16E	2,291' @33°	Active 4,002' Wasatch gas well.

Bill Barrett Corporation

JACK CANYON UNIT 14-32
SURFACE LOCATION: 531' FSL & 1,479' FWL
SWSE SECTION 32-T12S-R16E
CARBON COUNTY, UTAH
API: 43-007-3091300
LEASE: UT10083

Impact of Salt Water Injection into the Castlegate Formation (continued):

The risk of observable pressure increases at either the Jack Canyon Unit 06 (TD: 2,410') or the Lavinia State 1-32 (TD: 5,305'; PBTD: 4,002') locations due to prolonged saltwater injection into the Castlegate Formation (mid perf: 8,427') at Jack Canyon Unit 14-32 is extremely minimal due to.

1) 5,545' of vertical and 2,291' of horizontal separation between the Castlegate Formation and open perforations in the Lavinia State 1-32 wellbore.

2) A radial flow model of injection pressure diffusion in the Castlegate Formation was run in an attempt to predict any adverse effects on nearby wellbores due to prolonged water injection at JCU 14-32. Assumptions are that the Castlegate has infinite aerial extent, constant rock and fluid properties and uniform pressure prior to injection. Results indicate a pressure increase of **260 psi ½ mile from the JCU 14-32 after 120 days of continued injection at 400 bwpd.** This result assumes a 0.1 md average permeability. Additional cases for 1.0 md, 5.0 md and 10.0 md average permeability predict less pressure increase as higher average permeability allows injection pressure to diffuse at a higher rate. Departure from these estimated pressures will be indicated by increasing surface injection pressures.

Bill Barrett Corporation

JACK CANYON UNIT 14-32
SURFACE LOCATION: 531' FSL & 1,479' FWL
SWSE SECTION 32-T12S-R16E
CARBON COUNTY, UTAH
API: 43-007-3091300
LEASE: UT10083

Table of Castlegate Injection Pressure Diffusion Results:

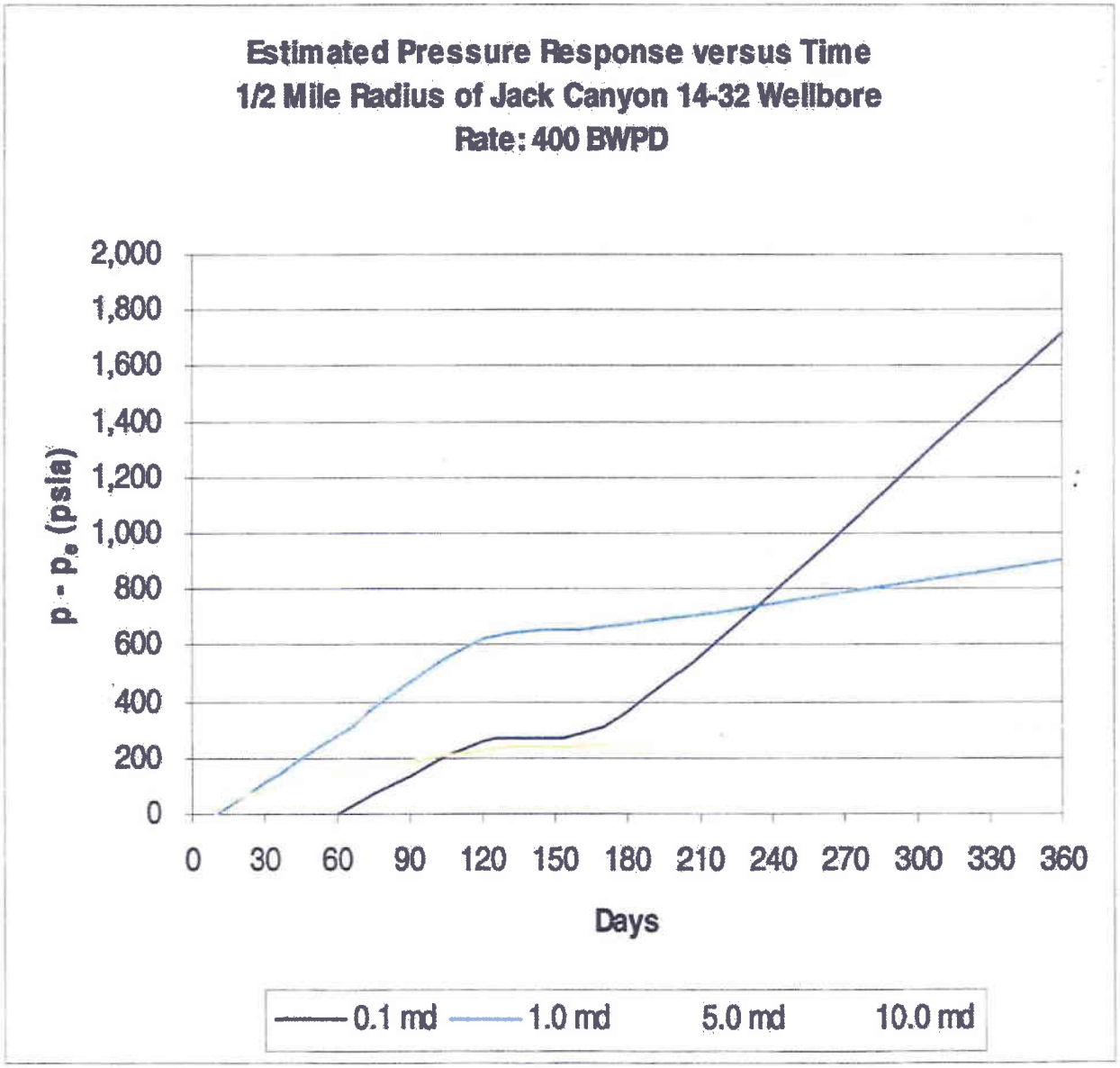
k (md)	η	t (days)	x	Ei[-x]	p - pe (psia)
0.10	5,010	10	26.2	0.00	0
0.10	5,010	30	8.7	0.00	0
0.10	5,010	60	4.4	0.00	1
0.10	5,010	120	2.2	-0.05	260
0.10	5,010	180	1.5	-0.07	364
0.10	5,010	360	0.7	-0.33	1717
1.00	42,588	10	3.1	-0.01	5
1.00	42,588	30	1.0	-0.22	114
1.00	42,588	60	0.5	-0.55	286
1.00	42,588	120	0.26	-1.20	625
1.00	42,588	180	0.17	-1.30	677
1.00	42,588	360	0.09	-1.75	911
5.00	141,959	10	0.924	-0.25	26
5.00	141,959	30	0.308	-0.90	94
5.00	141,959	60	0.154	-1.40	146
5.00	141,959	120	0.077	-2.20	229
5.00	141,959	180	0.051	-2.40	250
5.00	141,959	360	0.026	-3.00	312
10.00	212,938	10	0.616	-0.45	23
10.00	212,938	30	0.205	-1.22	63
10.00	212,938	60	0.103	-1.83	95
10.00	212,938	120	0.051	-2.45	128
10.00	212,938	180	0.034	-2.92	152
10.00	212,938	360	0.017	-3.50	182

Bill Barrett Corporation

JACK CANYON UNIT 14-32

SURFACE LOCATION: 531' FSL & 1,479' FWL
SWSE SECTION 32-T12S-R16E
CARBON COUNTY, UTAH
API: 43-007-3091300
LEASE: UT10083

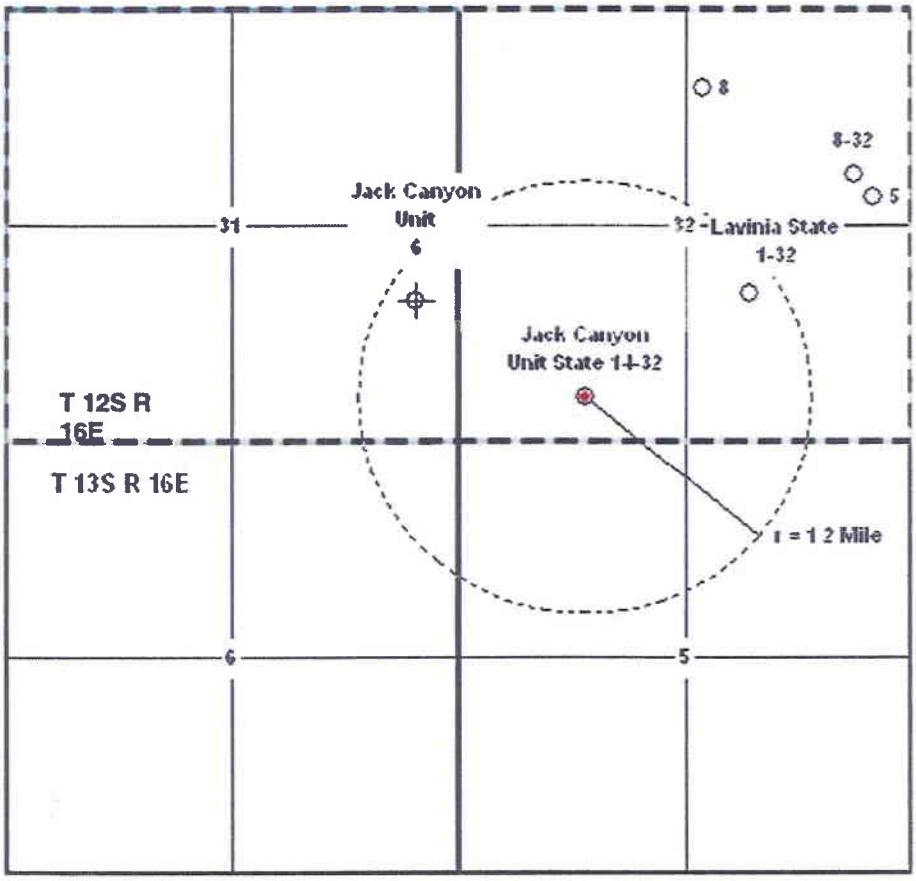
Plot of Injection Pressure Diffusion Results:



Bill Barrett Corporation

JACK CANYON UNIT 14-32
SURFACE LOCATION: 531' FSL & 1,479' FWL
SWSE SECTION 32-T12S-R16E
CARBON COUNTY, UTAH
API: 43-007-3091300
LEASE: UT10083

Surface Location and Ownership Map



SURFACE OWNERSHIP AND OPERATORS: Section 31 - 100% BLM; Section 32 - 100% State of Utah School & Institutional Trust Land Administration

Operator: EOG 37.5% WI; Dominion 37.5% WI; Gasco 25% WI

Operator: BBC 100% WI

Operator: Regoal 100% WI

Jack Canyon Unit Boundary

Unleased Federal

Tar Sands

Bill Barrett Corporation

JACK CANYON UNIT 14-32
SURFACE LOCATION: 531' FSL & 1,479' FWL
SWSE SECTION 32-T12S-R16E
CARBON COUNTY, UTAH
API: 43-007-3091300
LEASE: UT10083

Physical condition of all wellbores within a ½ mile radius:

Two wellbores exist within a ½ mile radius of the Jack Canyon 14-32.

	Well Name	Operator	Location	Distance Direction	Status
(1)	Jack Canyon Unit 06	El Paso Natural Gas	NESE 31-12S-16E	2,293' @329^0	P&A'd
(2)	Lavinia State 1-32	Regoal, Inc.	NWSE 32-12S-16E	2,291' @33^0	Wasatch gas well

Jack Canyon Unit 06: API: 4300710345; Spud: 07-05-56; TD: 2,410' in Wasatch; P&A'd: 07-26-56; Surface Casing: 9-5/8" at 138'; Intervals Tested: Wasatch (2,220' – 40'); Wasatch (2,297' – 2,317'); Source: PI/Dwights.

State plugging records shoe that the Jack Canyon Unit 06 well was drilled and abandoned 07-26-56. Plug #1: (2,265' – 2,330') 25 sx cmt; Plug #2: (1,990' – 2,055') 25 sx cmt; Plug #3: (900' – 980') 30 sx cmt; Plug #4: (90' – 180') 30 sx cmt.

Lavinia State 1-32: API: 4300730380; Spud: 01-12-98; TD: 5,305' 02-08-98 in Wasatch; Original Operator: Mission Energy; Surface Casing: 8-5/8" at 455'; Production Casing: 5-1/2" at 4,026'; Perforations: Wasatch (3,014' – 36'& 3,120' – 36') 108,000# gelled water frac; Wasatch (3,228' – 39' & 3,266' – 72') 52,147# gelled water frac; Wasatch (3,381' – 90' & 3,394' – 98') 51,000# gelled water frac; Completion: 2-7/8" tubing at 3,021' with packer at 2,993' 08-23-98; First Production: 07-99; Last Production: 12-03; Cum Gas: 24,529 mcf; Cum Oil: 531 bbls; Cum Water: 876 bbls; Source: PI/Dwights.

The Lavinia State 1-32 well is outside operated by Regoal, Inc. BBC has no working interest in this well and consequently, no information on the condition of the wellbore beyond what is available in the scout data.

Area Water Samples

Water Analysis Report

24-Jun-04

Date Sampled : 05-Apr-04
Date Received : 07-Apr-04
Date Reported : 12-Apr-04

Bill Barrett Corporation

UT

Attention : Fred Goodrich
cc1 :
cc2 :
cc3 :
Comments :

Field : Nine Mile/Peters Point
Lease : Prickley Pear
Location : Prickley Pear 07-16
Sample Point : wellhead
Salesman : Larry Curtis
Analyst : Karen Hawkins Allen

CATIONS

Calcium :	4,600	mg/l
Magnesium :	194	mg/l
Barium :		mg/l
Strontium :		mg/l
mg/l		mg/l
Iron :	75.0	mg/l
Sodium :	15552	mg/l

ANIONS

Chloride :	31,800	mg/l
Carbonate :	0	mg/l
Bicarbonate :	488	mg/l
Sulfate :	813	mg/l

pH (field) :	6.34	
grams/ml		
Temperature :	85	degrees F
Ionic Strength :	0.92	
Resistivity :		ohm/meters
Ammonia :		ppm

Specific Gravity :	1.055	
Total Dissolved Solids :	53,522	ppm
CO2 in Water :	352	mg/l
CO2 in Gas :	0.03	mole %
H2S in Water :	7.0	mg/l
Dissolved Oxygen :		ppm

SI calculations based on Tomson-Oddo parameters

Calcite (CaCO3) SI :	-0.63	Calcite PTB :	N/A
Calcite (CaCO3) SI @ 100 F :	-0.48	Calcite PTB @ 100 F :	N/A
Calcite (CaCO3) SI @ 120 F :	-0.26	Calcite PTB @ 120 F :	N/A
Calcite (CaCO3) SI @ 140 F :	-0.05	Calcite PTB @ 140 F :	N/A
Calcite (CaCO3) SI @ 160 F :	0.18	Calcite PTB @ 160 F :	50.4
Calcite (CaCO3) SI @ 180 F :	0.41	Calcite PTB @ 180 F :	102.9
Calcite (CaCO3) SI @ 200 F :	0.65	Calcite PTB @ 200 F :	144.5
Gypsum (CaSO4) SI :	-0.40	Gypsum PTB :	N/A
Barite (BaSO4) SI :	N/A	Barite PTB :	N/A
Celestite (SrSO4) SI :	N/A	Celestite PTB :	N/A

CUSTOMER REPORT

HALLIBURTON ENERGY SERVICES

1085 E. Main/ Vernal, Utah 84078 / Telephone: 435-789-2550 Lab Ext. 552 / Fax: 435-781-7576

WATER ANALYSIS

Date Tested:	Aug. 10, 2004	Project #:	V04-W270
Date Received:	Aug. 6, 2004		

Company:	**Bill Barrett Corp.**	
Lease/ Well #:	Peters Point #1	Eocene Sand perf's.@ 3530-40'

Sample **8-5-04** Formation/ Date:		
Specific Gravity		1.011
Temperature	°F	69.4
pH		7.73
Resistivity	Ω*m	0.634
Iron	mg/L	0
Potassium	mg/L	500
Chlorides	mg/L	1240
Calcium	mg/L	665
Magnesium	mg/L	105
Sulfates	mg/L	8750
Carbonates	mg/L	0
Bicarbonates	mg/L	245
Sodium (calculated)	mg/L	3820
TDS	mg/L	15320
Comments:		

Respectfully Submitted By,

Lori Vian

Lab Technician

CUSTOMER REPORT

HALLIBURTON ENERGY SERVICES

1085 E. Main/ Vernal, Utah 84078 / Telephone: 435-789-2550 Lab Ext. 552 / Fax: 435-781-7576

WATER ANALYSIS

Date Tested:	July 16, 2004	Project #:	V04-W233, 234, & 235
Date Received:	July 15, 2004		

Company:	**Bill Barrett Corp.**
Lease/ Well #:	Peters Point

Sample **7-15-04** Formation/ Date:		36-2 12:25PM	36-3 12:00PM	36-4 12:01PM
Specific Gravity		1.022	1.018	1.020
Temperature	°F	72.3	72.0	72.9
pH		6.80	7.39	7.20
Resistivity	Ω*m	0.252	0.292	0.282
Iron	mg/L	25	0	0
Potassium	mg/L	4000	400	350
Chlorides	mg/L	20295	17575	17820
Calcium	mg/L	1535	1265	1310
Magnesium	mg/L	325	310	310
Sulfates	mg/L	1500	450	450
Carbonates	mg/L	0	0	0
Bicarbonates	mg/L	560	730	975
Sodium (calculated)	mg/L	9355	9605	9835
TDS	mg/L	37595	30335	31050
Comments:				

Respectfully Submitted By,

Lori Vian

Lab Technician

Water Analysis Report 09-Aug-04

Date Sampled : 15-Jul-04
Date Received : 16-Jul-04
Date Reported : 22-Jul-04

Bill Barrett Corporation

State

UT

State 08-32

Attention : Fred Goodrich
cc1 :

cc2 :
cc3 :

Allen

Comments :

Field : Nine Mile Canyon
Lease : Jack Canyon

Location : Jack Canyon

Sample Point : water tank

Salesman : Larry Curtis

Analyst : Karen Hawkins

CATIONS

Calcium :	1,072	mg/l
Magnesium :	267	mg/l
Barium :		mg/l
Strontium :		mg/l
Iron :	10.0	mg/l
Manganese :		mg/l
Sodium :	8964	mg/l

ANIONS

Chloride :	15,000	mg/l
Carbonate :	0	mg/l
Bicarbonate :	1,476	mg/l
Sulfate :	868	mg/l mg/l

pH (field) :	6.97	
Temperature :	85	degrees F
Ionic Strength :	0.47	
Resistivity :		ohm/meters
Ammonia :		ppm

Specific Gravity :	1.025	grams/ml
Total Dissolved Solids :	27,657	ppm
CO2 in Water :	300	mg/l
CO2 in Gas :	0.03	mole %
H2S in Water :		mg/l
Dissolved Oxygen :		ppm

SI calculations based on Tomson-Oddo parameters

Calcite ($CaCO_3$) SI :	0.09	Calcite PTB :	58.6
Calcite ($CaCO_3$) SI @ 100 F :	0.24	Calcite PTB @ 100 F :	146.5
Calcite ($CaCO_3$) SI @ 120 F :	0.45	Calcite PTB @ 120 F :	256.3
Calcite ($CaCO_3$) SI @ 140 F :	0.67	Calcite PTB @ 140 F :	351.5
Calcite ($CaCO_3$) SI @ 160 F :	0.89	Calcite PTB @ 160 F :	432.1
Calcite ($CaCO_3$) SI @ 180 F :	1.13	Calcite PTB @ 180 F :	507.1
Calcite ($CaCO_3$) SI @ 200 F :	1.37	Calcite PTB @ 200 F :	567.6
Gypsum ($CaSO_4$) SI :	-0.81	Gypsum PTB :	N/A
Barite ($BaSO_4$) SI :	N/A	Barite PTB :	N/A
Celestite ($SrSO_4$) SI :	N/A	Celestite PTB :	N/A

Water Analysis Report

24-Jun-04

Date Sampled : 05-Apr-04
Date Received : 07-Apr-04
Date Reported : 12-Apr-04

Bill Barrett Corporation

UT

Attention : Fred Goodrich
cc1 :
cc2 :
cc3 :
Comments :

Field : Nine Mile/Peters Point
Lease : Prickley Pear
Location : Prickley Pear 16-15
Sample Point : wellhead
Salesman : Larry Curtis
Analyst : Karen Hawkins Allen

CATIONS

Calcium :	4,200	mg/l
Magnesium :	413	mg/l
Barium :		mg/l
Strontium :		mg/l
mg/l		mg/l
Iron :	34.0	mg/l
Sodium :	16891	mg/l

ANIONS

Chloride :	34,000	mg/l
Carbonate :	0	mg/l
Bicarbonate :	532	mg/l
Sulfate :	503	mg/l

pH (field) :	6.54	
grams/ml		
Temperature :	85	degrees F
Ionic Strength :	0.98	
Resistivity :		ohm/meters
Ammonia :		ppm

Specific Gravity :	1.045	
Total Dissolved Solids :	56,573	ppm
CO2 in Water :	440	mg/l
CO2 in Gas :	0.03	mole %
H2S in Water :	7.0	mg/l
Dissolved Oxygen :		ppm

SI calculations based on Tomson-Oddo parameters

Calcite (CaCO3) SI :	-0.71	Calcite PTB :	N/A
Calcite (CaCO3) SI @ 100 F :	-0.56	Calcite PTB @ 100 F :	N/A
Calcite (CaCO3) SI @ 120 F :	-0.35	Calcite PTB @ 120 F :	N/A
Calcite (CaCO3) SI @ 140 F :	-0.13	Calcite PTB @ 140 F :	N/A
Calcite (CaCO3) SI @ 160 F :	0.09	Calcite PTB @ 160 F :	28.6
Calcite (CaCO3) SI @ 180 F :	0.33	Calcite PTB @ 180 F :	93.1
Calcite (CaCO3) SI @ 200 F :	0.56	Calcite PTB @ 200 F :	142.0
Gypsum (CaSO4) SI :	-0.66	Gypsum PTB :	N/A
Barite (BaSO4) SI :	N/A	Barite PTB :	N/A
Celestite (SrSO4) SI :	N/A	Celestite PTB :	N/A

Water Analysis Report 09-Aug-04

Date Sampled : 14-Jul-04
Date Received : 15-Jul-04
Date Reported : 22-Jul-04

Bill Barrett Corporation

UT

Attention : Fred Goodrich
cc1 :
cc2 :
cc3 :
Allen
Comments :

Field : Nine Mile Canyon
Lease : Argile
Location : Argile 33-36
Sample Point : wellhead
Salesman : Larry Curtis
Analyst : Karen Hawkins

CATIONS

Calcium :	320	mg/l
Magnesium :	73	mg/l
Barium :		mg/l
Strontium :		mg/l
Iron :	26.0	mg/l
Manganese :		mg/l
Sodium :	3842	mg/l

ANIONS

Chloride :	4,800	mg/l	
Carbonate :	0	mg/l	
Bicarbonate :	2,806	mg/l	
Sulfate :	370	mg/l	mg/l

pH (field) :	4.72		**Specific Gravity :**	1.050	grams/ml
Temperature :	85	degrees F	**Total Dissolved Solids :**	12,237	ppm
Ionic Strength :	0.19		**CO2 in Water :**	300	mg/l
			CO2 in Gas :	0.03	mole %
Resistivity :		ohm/meters	**H2S in Water :**		mg/l
Ammonia :		ppm	**Dissolved Oxygen :**		ppm

SI calculations based on Tomson-Oddo parameters

Calcite (CaCO3) SI :	0.59	Calcite PTB :	188.0
Calcite (CaCO3) SI @ 100 F :	0.74	Calcite PTB @ 100 F :	212.0
Calcite (CaCO3) SI @ 120 F :	0.95	Calcite PTB @ 120 F :	236.6
Calcite (CaCO3) SI @ 140 F :	1.17	Calcite PTB @ 140 F :	253.0
Calcite (CaCO3) SI @ 160 F :	1.40	Calcite PTB @ 160 F :	264.0
Calcite (CaCO3) SI @ 180 F :	1.63	Calcite PTB @ 180 F :	270.3
Calcite (CaCO3) SI @ 200 F :	1.87	Calcite PTB @ 200 F :	274.4
Gypsum (CaSO4) SI :	-1.48	Gypsum PTB :	N/A
Barite (BaSO4) SI :	N/A	Barite PTB :	N/A
Celestite (SrSO4) SI :	N/A	Celestite PTB :	N/A

Water Analysis Report

12-Aug-04

Date Sampled : 28-Jul-04
Date Received : 29-Jul-04
Date Reported : 12-Aug-04

Bill Barrett Corporation

UT

Attention : Fred Goodrich
cc1 :
cc2 :
cc3 :
Comments :

Field : Nine Mile Canyon
Lease : Peters Point
Location : [redacted]
Sample Point : wellhead
Salesman : Larry Curtis
Analyst : Karen Hawkins Allen

BLUE CASTLE PRICE RIVER

CATIONS

Calcium :	96	mg/l
Magnesium :	87	mg/l
Barium :		mg/l
Strontium :		mg/l
Iron :	5.0	mg/l
Manganese :		mg/l
Sodium :	6508	mg/l

ANIONS

Chloride :	6,200	mg/l
Carbonate :	0	mg/l
Bicarbonate :	2,440	mg/l
Sulfate :	3,850	mg/l mg/l mg/l

pH (field) :	6.92		**Specific Gravity :**	1.020 grams/ml
Temperature :	85	degrees F	**Total Dissolved Solids :**	19,186 ppm
Ionic Strength :	0.30		**CO2 in Water :**	300 mg/l
			CO2 in Gas :	0.03 mole %
Resistivity :		ohm/meters	**H2S in Water :**	mg/l
Ammonia :		ppm	**Dissolved Oxygen :**	ppm

SI calculations based on Tomson-Oddo parameters

Calcite (CaCO3) SI :	-0.29	Calcite PTB :	N/A
Calcite (CaCO3) SI @ 100 F :	-0.13	Calcite PTB @ 100 F :	N/A
Calcite (CaCO3) SI @ 120 F :	0.08	Calcite PTB @ 120 F :	13.1
Calcite (CaCO3) SI @ 140 F :	0.30	Calcite PTB @ 140 F :	39.3
Calcite (CaCO3) SI @ 160 F :	0.52	Calcite PTB @ 160 F :	56.4
Calcite (CaCO3) SI @ 180 F :	0.75	Calcite PTB @ 180 F :	67.5
Calcite (CaCO3) SI @ 200 F :	0.99	Calcite PTB @ 200 F :	74.4
Gypsum (CaSO4) SI :	-1.16	Gypsum PTB :	N/A
Barite (BaSO4) SI :	N/A	Barite PTB :	N/A
Celestite (SrSO4) SI :	N/A	Celestite PTB :	N/A

CUSTOMER REPORT

HALLIBURTON ENERGY SERVICES

1085 E. Main/ Vernal, Utah 84078 / Telephone: 435-789-2550 Lab Ext. 552 / Fax: 435-781-7576

WATER ANALYSIS

Date Tested:	June 13, 2003	Project #:	V03-W125, 126, 127
Date Received:	June 12, 2003		

Company:	**Bill Barrett Corp.**
Lease/ Well #:	Peters Point #36-4

CASTLEGATE FROM SWAB TEST 06-11-03 ; 06-10 PRIOR TO SQUEEZE

Sample Formation/ Date:		6-10-03 2:30pm #1	7:00a m #2	12:00pm #3
Specific Gravity		1.021	1.020	1.020
Temperature	°F	67.6	69.4	67.5
pH		7.26	7.10	6.80
Resistivity	Ω*m	0.595	0.607	0.618
Iron	mg/L	3	35	20
Potassium	mg/L	700	200	500
Chlorides	mg/L	12985	13180	12790
Calcium	mg/L	865	835	820
Magnesium	mg/L	285	265	190
Sulfates	mg/L	5000	4375	3125
Carbonates	mg/L	0	0	0
Bicarbonates	mg/L	2195	2000	3125
Sodium (calculated)	mg/L	9690	9815	8945
TDS	mg/L	31725	30700	28405
Comments:				

Respectfully Submitted By,

Lori Vian

Lab Technician

CONFIDENTIAL

AMENDED REPORT ☐ FORM 8
(highlight changes)

023

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. LEASE DESIGNATION AND SERIAL NUMBER: ML 43541

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: n/a

1a. TYPE OF WELL: OIL WELL ☐ GAS WELL ☑ DRY ☐ OTHER

7. UNIT or CA AGREEMENT NAME: JACK CANYON UNIT

b. TYPE OF WORK: NEW WELL ☑ HORIZ. LATS. ☐ DEEP-EN ☐ RE-ENTRY ☐ DIFF. RESVR. ☐ OTHER

PERIOD EXPIRED ON 3-12-05

8. WELL NAME and NUMBER: Jack Canyon Unit State #14-32

2. NAME OF OPERATOR: BILL BARRETT CORPORTION

9. API NUMBER: 4300730913

3. ADDRESS OF OPERATOR: 1099 18th St Ste 2300 CITY Denver STATE CO ZIP 80202

PHONE NUMBER: (303) 312-8120

10 FIELD AND POOL, OR WILDCAT: Jack Canyon/Mesaverde

4. LOCATION OF WELL (FOOTAGES)
AT SURFACE: 531' FSL x 1479' FEL
AT TOP PRODUCING INTERVAL REPORTED BELOW: same
AT TOTAL DEPTH: same

RECEIVED
APR 05 2004
DIV OF OIL, GAS & MINING

11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SESW 32 12S 16E S

12. COUNTY: CARBON

13. STATE: UTAH

14. DATE SPUDDED: 8/1/2003

15. DATE T.D. REACHED: 8/26/2003

16. DATE COMPLETED: 2/12/2004 ABANDONED ☐ READY TO PRODUCE ☐

17. ELEVATIONS (DF, RKB, RT, GL): 6921' GL

18. TOTAL DEPTH: MD 9,380 TVD

19. PLUG BACK T.D.: MD 9,290 TVD

20. IF MULTIPLE COMPLETIONS, HOW MANY? * n/a

21. DEPTH BRIDGE PLUG SET: MD 7,825 TVD

22. TYPE ELECTRIC AND OTHER MECHANICAL LOGS RUN (Submit copy of each)
Special Density Dual Spaced Neutron; High Resolution Induction; Cement Bond Log, SONIC/DELTA 'T'

23.
WAS WELL CORED? NO ☑ YES ☐ (Submit analysis)
WAS DST RUN? NO ☑ YES ☐ (Submit report)
DIRECTIONAL SURVEY? NO ☑ YES ☐ (Submit copy)

24. CASING AND LINER RECORD (Report all strings set in well)

HOLE SIZE	SIZE/GRADE	WEIGHT (#/ft.)	TOP (MD)	BOTTOM (MD)	STAGE CEMENTER DEPTH	CEMENT TYPE & NO. OF SACKS	SLURRY VOLUME (BBL)	CEMENT TOP **	AMOUNT PULLED
12-1/4"	9-5/8 J55	36#	0	1,043		poz/ag 420		surface/CIR	
7-7/8"	5-1/2 N80	17#	0	9,361		POZ 987		2000'/CBL	

25. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
2-3/8"	6,591							

26. PRODUCING INTERVALS

FORMATION NAME	TOP (MD)	BOTTOM (MD)	TOP (TVD)	BOTTOM (TVD)
(A) Mesaverde	6,620	7,790		
(B)				
(C)				
(D)				

27. PERFORATION RECORD

INTERVAL (Top/Bot - MD)	SIZE	NO. HOLES	PERFORATION STATUS
9,220 9,224	0.51	12	Open ☑ Squeezed ☐
9,152 9,156	0.51	12	Open ☑ Squeezed ☐
8,922 8,924	0.51	6	Open ☑ Squeezed ☐
8,905 8,907	0.51	6	Open ☑ Squeezed ☐

28. ACID, FRACTURE, TREATMENT, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL	AMOUNT AND TYPE OF MATERIAL
9152 - 9224	70Q CO2 foam frac: 150 tons CO2, 88,000# 20/40 sand, 307 bbls fluid
8905 - 8924	70Q CO2 foam frac: 151 tons CO2, 92,300# 20/40 sand, 466 bbls fluid
8663 - 8821	70Q CO2 foam frac: 44 tons CO2, 30,640# 20/40 sand, 848 bbls slickwater

29. ENCLOSED ATTACHMENTS:

☐ ELECTRICAL/MECHANICAL LOGS ☐ GEOLOGIC REPORT ☐ DST REPORT ☐ DIRECTIONAL SURVEY
☐ SUNDRY NOTICE FOR PLUGGING AND CEMENT VERIFICATION ☐ CORE ANALYSIS ☐ OTHER:

30. WELL STATUS: SI

(5/2000)

(CONTINUED ON BACK)

Bill Barrett Corporation

Jack Canyon # 14-32

531' FSL & 1479' FWL
SWSE Sec 32-T12-R16E
Carbon Co., UT

API: 43-007-3091300000
WI: 1.0000000
NRI: 0.7800339

Last mod: 1/5/2006 JMM
Status: **Converting to SWD**

ACTUAL CASTLEGATE SWD WELL

GL: 6,921'
RKB: 6,937'
Spud: 8/1/2003
Rig Release: 8/28/2003
Completed: 2/12/2004
1st Sales: 12/25/2003

Abbreviated Proceedure for Convertion to SWD

1) Pull existing 2-3/8" tubing;
2) Retrieve RBP @7,815';
3) Mill out BP @7,825';
4) Clean out well to 8,650';
5) Set CIBP + 50' cement @8,630'. TOC @+/- 8,580',
6) Set permanent packer @+/- 8,390 on 2-7/8" tubing.
SWD planned for **maximum** 1,700 bwpd @1,500 psi

2-7/8" 6.5# N-80 EUE 8rd Tubing Injection String

OD:	2.875"	Burst:	10,570 psi
ID:	2.441"	Collapse:	11,170 psi
Drift:	2.347"	Yield:	145 kips
Capacity:	0.005788 bbls/ft		

24" hole
12-1/4" hole
16" conductor set @40'
9 5/8" 36# J-55 ST&C 8RD set @ 1043'
Cmt w/ 240 sx HLC 65/35, 180 sx Prem AG

TOC ~2930'

5-1/2" x 2-7/8" Annular Volume: 98 bbls

Top Upper Price River:	6,443'
Base Upper Price River:	6,650'
Top Bluecastle:	7,740'
Top Upper Sego:	8,080'
Top Castlegate:	8,410'
Top Blackhawk:	8,606'
Kenilworth	
Aberdeen	
Spring Canyon	

Note: will not be able to maintain any pressure on annulus due to open perfs from 6620-8358' gross interval.

Open			6838-6842'	
Open			6852-6854'	Perf Only - No Treatment
			6897-6899'	
Open			7786-7790'	
Open			7870-7874'	
Open			8050-8060'	
Open			8130-8132'	Perf Only - No Treatment
Open			8307-8309'	
Open			8316-8318'	
			8356-8358'	

Castlegate Interval Perforations

3-3/8" Exp: 25g; 90°; 4spf; (12-23-03)	56 shots	14'	8,412'	8,426'
	60 shots	15'	8,426'	8,441'
3-3/8" Exp: 39g; 90°; 4spf; (08-25-05)	56 shots	14'	8,462'	8,476'
	72 shots	18'	8,492'	8,510'
	244 shots	61'		

5-1/2" 17# N-80 LT&C specs:
ID-4.892"
Drift-4.767'
Burst-7740 psi
Collapse-6280 psi

5-1/2", 17# PLS Packer set at 8,385' with 20K down.

2 sx Cement
CIBP @8,630

(07/16/05) 5-1/2" CIBP set at 8,630'
Dump bail 2 sx (50') cement

20,394# 20/40	1,130 bbls	Break: 7,640 psi	Break: 12.0 bpm	P(avg): 7,326 psi	R(avg): 23.1 bpm	8,385'	8,580'	ISDP: 3,288 psi	FG: 0.83 psi/ft	12/18/2005	Castlegate Slickwater Frac
				P(avg): 5,060 psi	R(avg): 4.3 bpm	8,393'	8,454'	ISDP: 2,850 psi	FG: 0.77 psi/ft		3rd Castlegate acid breakdown + 25 balls
	200 bbls			P(avg): 2,780 psi	R(avg): 4.8 bpm	8,455'	8,485'	ISDP: 0 psi	Communication	9/28/2005	2nd Castlegate acid breakdown
		Break: 4,625 psi	Break: 3.5 bpm	P(avg): 2,750 psi	R(avg): 4.8 bpm	8,485'	8,525'	ISDP: 0 psi	Communication		1st Castlegate acid breakdown
	7 bbls			P(min): 2,835 psi	R(min): 0.3 bpm	8,397'	8,580'	ISDP: 2,585 psi	FG: 0.74 psi/ft		
	9 bbls			P(min): 2,900 psi	R(min): 1.0 bpm	8,397'	8,580'	ISDP: 2,616 psi	FG: 0.74 psi/ft	8/25/2005	3rd Castlegate breakdown attempt.
	75 bbls	Break: 3,809 psi	Break: 3.9 bpm	P(max): 5,988 psi	R(max): 5.0 bpm	8,397'	8,580'	ISDP: 2,850 psi	FG: 0.77 psi/ft		
	25 bbls	P(max): 5,330 psi	R(max): 3.3 bpm	P(max): 5,330 psi	R(max): 3.3 bpm			NA	NA	7/27/2005	2nd Castlegate breakdown attempt
	22 bbls	P(max): 4,900 psi	R(max): 2.3 bpm	P(max): 4,900 psi	R(max): 2.3 bpm			NA	NA	7/26/2005	1st Castlegate breakdown attempt

		8663-8665'	
		8684-8686'	
		8730-8731'	
		8820-8821'	
		8905-8907'	
		8922-8924'	
		9152-9156'	
	RBP @9,180'		
		9220-9224'	

7-7/8" hole
PBTD 9278'
TD 9380'

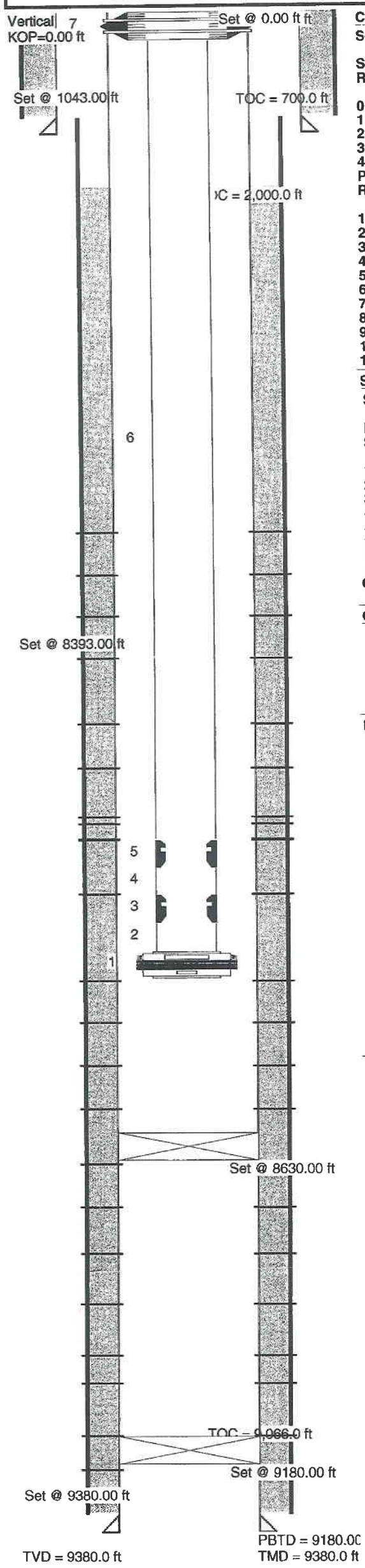
202 jts 5-1/2" 17# N-80 LT&C set @ 9380' KB
Cmt 912 sx 50/50 poz

Data Downhole Schematic

WELLCORE

Location Information

Business Unit	Bottom Hole Location	Well Name
Operations	SWSE-32-12S-16E-W6M	Jack Canyon Unit State #14-32-12-16
Project	API / License #	GL (ft) KB to GL (ft) KB (ft)
Uinta	43-007-30913	6921.0 0.0
Phase/Area	County	Summary Sections
West Tavaputs	Carbon	Casing Details, String Summary, Other Equipme
Surface Location	Summary Name	
SWSE-32-12S-16E-W6M	Bill Barrett Corporation	



Casing Details

Section	Hole Size (in)	Hole Depth (ft)	Casing Size (in)	Set At Depth (ft)
Surface	12.25	1060.00	9.63	1043.00

Run Order	Component	# Of	Length (ft)	Weight (lbs/ft)	Grade	OD (in)	ID (in)	Top (ft)	Bottom (ft)
0	Casing	1	19.80	36.00	J-55	9.63	8.92	-2.27	17.53
1	Shoe	1	1.50	36.00	J-55	9.63	0.00	1041.50	1043.00
2	Casing	1	43.19	36.00	J-55	9.63	8.92	998.31	1041.50
3	Collar	1	2.00	36.00	J-55	9.63	0.00	996.31	998.31
4	Casing	23	978.78	36.00	J-55	9.63	8.92	17.53	996.31
Production	7.88	9380.00	5.50	9380.00					
Run Order	Component	# Of	Length (ft)	Weight (lbs/ft)	Grade	OD (in)	ID (in)	Top (ft)	Bottom (ft)
1	Shoe	1	1.50	17.00	N-80	5.50	0.00	9378.50	9380.00
2	Casing	1	47.28	17.00	N-80	5.50	4.89	9331.22	9378.50
3	Collar	1	2.00	17.00	N-80	5.50	0.00	9329.22	9331.22
4	Casing	23	1044.96	17.00	N-80	5.50	4.89	8284.26	9329.22
5	Casing	1	22.88	17.00	N-80	5.50	4.89	8261.38	8284.26
6	Casing	24	1104.40	17.00	N-80	5.50	4.89	7156.98	8261.38
7	Casing	1	22.93	17.00	N-80	5.50	4.89	7134.05	7156.98
8	Casing	24	1122.04	17.00	N-80	5.50	4.89	6012.01	7134.05
9	Casing	1	22.92	17.00	N-80	5.50	4.89	5989.09	6012.01
10	Casing	127	5973.46	17.00	N-80	5.50	4.89	15.63	5989.09
11	Casing	1	19.80	17.00	N-80	5.50	4.89	-4.17	15.63

String Summary Details

String Type	String #	Set At Depth (ft)	Install Date	Burst Pressure	Capacity (psi)	Run Inside
Production	1	8393.00	12/8/2005			

Section #	Component	Model	# Of	Length (ft)	Weight (lbs/ft)	Grade	OD (in)	Top (ft)	Bottom (ft)
1	Packer-Injection Disposal		0	4.25			4.70	8388.75	8393.00
2	Tubing		0	30.30			2.88	8358.45	8388.75
3	Nipple - Profile		0	1.40			2.88	8357.05	8358.45
4	Tubing		0	31.38			2.88	8325.67	8357.05
5	Nipple - Profile		0	1.15			2.88	8324.52	8325.67
6	Tubing		0	8307.86			2.88	16.66	8324.52
7	Tubing Hanger		0	0.80			7.00	15.86	16.66
8			0	15.00				0.86	15.86

Comments

Other Equipment

Item	Depth (ft)	Length (ft)	Install Date	Comments
Bridge Plug - Permanent	8630.00	0.00	7/16/2005	
Bridge Plug - Permanent	0.00	0.00	7/16/2005	
Bridge Plug - Permanent	0.00	0.00	7/16/2005	
Bridge Plug - Permanent	9180.00	0.00	2/9/2004	

Perforations

Int. #	Formation	Perf. Date	Perf. Top (ft)	Int Bottom (ft)	Status
1			9152.00	9156.00	
			9220.00	9224.00	
2			8905.00	8907.00	
			8922.00	8924.00	
3	Blackhawk		8663.00	8665.00	
			8684.00	8686.00	
			8730.00	8731.00	
			8820.00	8821.00	
3.1	Castlegate		8492.00	8510.00	
3.2	Castlegate		8462.00	8476.00	
3.5	Castlegate		8412.00	8426.00	
			8426.00	8441.00	
4	Neslen		8307.00	8309.00	
			8316.00	8318.00	
			8356.00	8358.00	
4.5	Neslen		8130.00	8132.00	
5	Bluecastle		8050.00	8060.00	
6	Bluecastle		7786.00	7790.00	
			7870.00	7874.00	
6.5	Price River		6838.00	6842.00	
			6852.00	6854.00	
			6897.00	6899.00	
7	Price River		6620.00	6626.00	

NW

SE

PICKRELL-GOVT
1
7/31/1982
5,610
T12S R15E S11
SE NW
8,450

<28,751FT>

Jack Canyon State
14-32
8/1/2003
8,936
T12S R16E S32
SESW
9,380

<10,979FT>

PETERS POINT-FED
1-10
8/16/1972
9,750
T13S R16E S10
SW SW NW
9,127

NESLEN [JK]=-1631

CASTLEGATE=-1500

BLACKHAWK=-1694.67

KENILWORTH [GSH]=-2020

ABERDEEN [GSH]=-2255

SPRING_CANYON [GSH]=-2

Confining Interval

CASTLEGATE=-2079

SWD Interval

BLACKHAWK=-2293

Confining Interval

PETRA 2/22/2005 2:59:16 PM

Bill Barrett Corporation

Uinta Basin

Nine Mile Canyon

Jack Canyon #14-32

Castlegate SWD Well N-S Cross-section

Horizontal Scale = 1.0
Vertical Scale = 50.0
Vertical Exaggeration = 0.0x

By: JK

February 22,2005 2:59 PM

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

5.LEASE DESIGNATION AND SERIAL NUMBER: ML43541

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.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME:

1. TYPE OF WELL
Water Disposal Well

8. WELL NAME and NUMBER: JACK CYN U ST 14-32

2. NAME OF OPERATOR:
BILL BARRETT CORP

9. API NUMBER: 43007309130000

3. ADDRESS OF OPERATOR:
1099 18th Street Ste 2300 , Denver, CO, 80202

PHONE NUMBER:
303 312-8164 Ext

9. FIELD and POOL or WILDCAT: UNDESIGNATED

4. LOCATION OF WELL
FOOTAGES AT SURFACE:
0531 FSL 1479 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:
Qtr/Qtr: SESW Section: 32 Township: 12.0S Range: 16.0E Meridian: S

COUNTY: CARBON

STATE: UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
✓ NOTICE OF INTENT Approximate date work will start: 11/20/2011	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
☐ SPUD REPORT Date of Spud:	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
☐ DRILLING REPORT Report Date:	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	✓ OTHER	OTHER: UIC permit amendment

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

BBC submitted a sundry on 10/21/11 to request a change to our approved Underground Injection Control Permit and would like to add the following three things to the permit as requested by Ammon McDonald with UDOGM on 11/7/11 to the sundry: 1. After perforating the new intervals, BBC will swab a water sample and run a compatibility analysis 2. A step-rate test will be done 3. A RAT survey will be conducted The requested CBL/wellbore diagram for Lavinia State 1-32 (43-007-30380) was submitted to Mr. McDonald on 11/14/11. Please contact Brady Riley with questions at 303-312-8115.

Accepted by the Utah Division of Oil, Gas and Mining

Date: 11/23/2011

By:

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Brady Riley	303 312-8115	Permit Analyst
SIGNATURE		**DATE**
N/A		11/15/2011

RECEIVED Nov. 15, 2011

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

5.LEASE DESIGNATION AND SERIAL NUMBER: ML43541

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.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME:

1. TYPE OF WELL
Water Disposal Well

8. WELL NAME and NUMBER: JACK CYN U ST 14-32

2. NAME OF OPERATOR:
BILL BARRETT CORP

9. API NUMBER: 43007309130000

3. ADDRESS OF OPERATOR:
1099 18th Street Ste 2300 , Denver, CO, 80202

PHONE NUMBER:
303 312-8164 Ext

9. FIELD and POOL or WILDCAT: UNDESIGNATED

4. LOCATION OF WELL
FOOTAGES AT SURFACE:
0531 FSL 1479 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:
Qtr/Qtr: SESW Section: 32 Township: 12.0S Range: 16.0E Meridian: S

COUNTY: CARBON

STATE: UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
✓ NOTICE OF INTENT Approximate date work will start: 11/15/2011	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
☐ SPUD REPORT Date of Spud:	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
☐ DRILLING REPORT Report Date:	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	✓ OTHER	OTHER: UIC Permit Amendment

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

This sundry is being submitted to request a change to our approved Underground Injection Control Permit (Cause No. UIC-317.1) due to rising injection pressures within the current injection zone. The existing UIC permit was approved April 5, 2010 with a maximum allowable surface pressure of 2769 psi within the injection interval between 6620 ft and 8510 ft. Attached to this sundry is a procedure to move uphole in this well and add perforations from 3560 ft to 4307 ft. The new requested maximum allowable surface pressure and injection rate would be determined after the step rate test is completed. Larger scale paper copies of the maps attached will be sent under separate cover via mail. Please contact Jim Kinser for any questions regarding the UIC modification request at 303-312-8163.

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Tracey Fallang	303 312-8134	Regulatory Manager
SIGNATURE		**DATE**
N/A		10/21/2011

RECEIVED: Oct. 25, 2011

Bill Barrett Corporation

Jack Canyon Unit #14-32-12-16

531' FSL, 1,479' FWL
Section 32, T12S-R16E
Carbon County, UT
API #: 43-007-30913

Recomplete SWD Well

1. Note: Water in the context of this procedure will be either clean produced water or 3% KCl water. Any water will require biocide as a precaution.

2. MIRU workover rig. Set tanks and fill with water. Using rig pump kill backside & tubing with water. ND WH & NU BOPE

3. TOOH w/tubing & PKR.

4. Rig up wireline, RIH GR to PBTD and record in wellview. Perforate the following zones (3 spf, 120 degree phasing, .35 EHD).

Top	Bottom	Interval	
3,560'	3,580'	20'	Wasatch
3,605'	3,620'	15'	
3,655'	3,675'	20'	
3,755'	3,775'	20'	
3,810'	3,830'	20'	
3,892'	3,902'	10'	
3,960'	3,980'	20'	
4,010'	4,040'	30'	M. Wasatch
4,095'	4,105'	10'	
4,192'	4,202'	10'	
4,210'	4,230'	20'	
4,297'	4,307'	10'	

5. PU RBP and PKR. TIH and set RBP at +/-4317' PU and set PKR at +/-4085'.

6. MIRU Halliburton. Pressure test surface lines to 6,000 psig. Pump into interval and establish rate. Pump 2500 gal 15% HCL. Displacing with 50 bbl overflush of water.

7. Release PKR and latch on to RBP. Set RBP at +/-4,050'. Set PKR at +/-3745'.

RECEIVED: Oct. 21, 2011

8. Pump into interval and establish rate. Pump 2500 gal 15% HCL. Displacing with 50 bbl overflush of water.

9. Release PKR and latch on to RBP. Set RBP at +/-3,685'. Set PKR at +/-3,550'.

10. Pump into interval and establish rate. Pump 2500 gal 15% HCL. Displacing with 50 bbl overflush of water.

11. RDMO Halliburton.

12. Release PKR and PU RBP. TOOH w/tubing, PKR & RBP.

13. TIH as follows:

    (1) WL re-entry guide
    (1) Tail Joint
    (1) Packer
    (1) 1.78" XN profile nipple
    (1) on-off tool
    (1) 1.81" X profile nipple
    ~(111) Jts of 2 7/8 tubing to surface

    Set packer at +/- 3,510'.

14. Sting out of on-off tool and circulate annulus w/inhibited water. Sting into on-off tool.

15. Land tubing and ND BOPE & NU WH.

16. Set plug in XN nipple and pressure test tubing to 3,000 psig. Hold pressure for 30 minutes.

17. Retrieve profile plug.

18. Pressure test backside annulus to 1000 psig. Record pressure test on Barton chart recorder for 30 minutes at stabilizing. Send chart to Denver: Attn Heidi Reger. Bleed off backside pressure.

19. RDMO workover rig

Total Acid: 27500 gal 15% HCL

Heidi Reger
10/5/2011

Attachments: Wellbore Schematic

RECEIVED: Oct. 21, 2011

Jack Canyon # 14-32
531' FSL & 1479' FWL
SWSE Sec 32-T12-R16E
Carbon Co., UT

API: 43-007-3091300000
WI: 1.0000000
NRI: 0.7800339

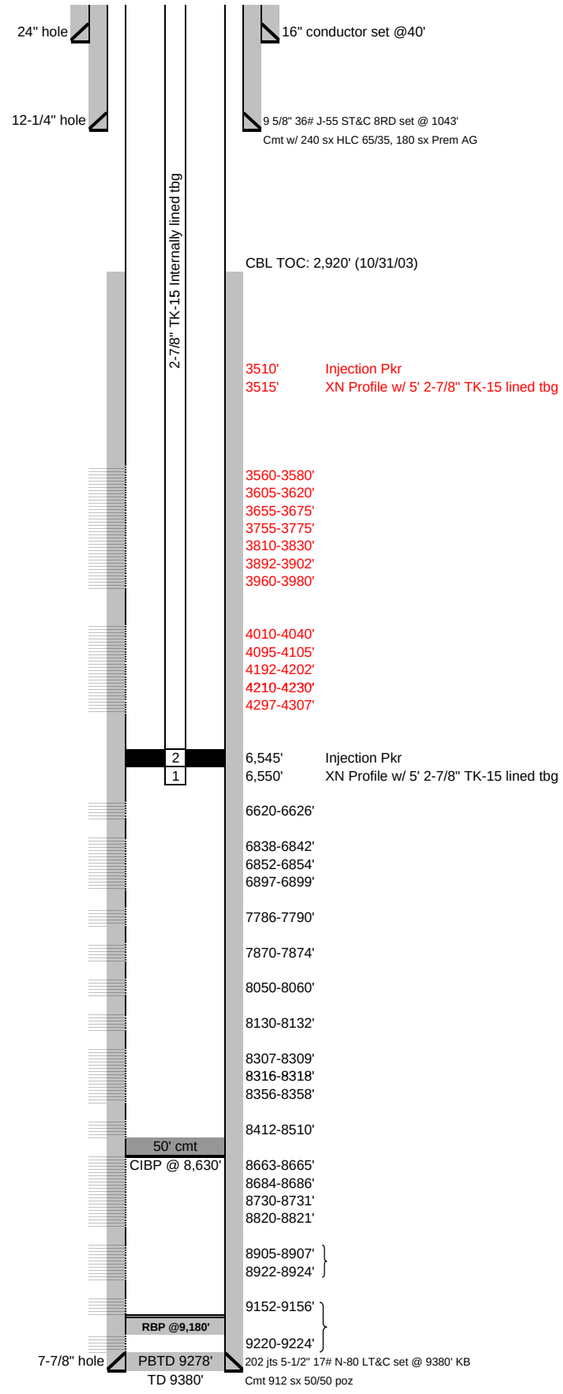
Proposed Changes in Red

Bill Barrett Corporation

Jack Canyon # 14-32
531' FSL & 1479' FWL
SWSE Sec 32-T12-R16E

CURRENT WELLBOERE SCHEMATIC

GL: 6,921'
RKB: 6,937'
Spud: 8/1/2003
Rig Release: 8/28/2003
Completed: 2/12/2004
1st Sales: 12/25/2003



5-1/2" 17# N-80 LT&C specs:
ID-4.892"
Drift-4.767'
Burst-7740 psi
Collapse-6280 psi

rparham

10/25/2011

RECEIVED: Oct. 21, 2011

Statement in support of Water Disposal application in opposition to Water Injection application

Disposal Evaluation Request

It is the request of Bill Barrett Corporation that the submitted application, for water disposal in the Jack Canyon field, be evaluated based on water disposal and not water injection. Our reasoning behind this request is based on the great distance from producing wells with perforated, correlative sands, structural position of the proposed disposal intervals in the proposed water disposal wells, the very discontinuous nature of those proposed disposal intervals, and the fact the injection sands are 95' below correlative producing sands in the Lavinia 1-32, the nearest producing offset well, with the majority of that 95' of rock, being 0% porosity shaley, calcareous siltstone and mudstone. The Lavinia 1-32 is 2350' and at a bearing on N54E (Az 54deg) from the JCU 14-32. The maximum horizontal stress as indicated by cross-dipole sonic logs and microseismic surveys indicate a maximum horizontal stress direction of N50W (Az 310 deg.), and would the injected fluid would preferentially trend that direction.

Structural Position

Based on the supplied structure map and well log analysis it is evident that the proposed disposal well, is down-dip from economic production to the west of the injection well and the same or updip from the wells to the east. The nearest economic gas production, with correlative perforated sands, from the proposed disposal intervals lies more that 2.75 miles from the proposed disposal well, to the west in Prickly Pear Unit; Prickly Pear 4-35-12-15. From the disposal interval in the Wasatch, structural positions indicate a 163' change from the nearest producing well, with correlative producing sands, in the 4-35-12-15 Prickly Pear Federal Unit, at a distance of 2.96 miles from the JCU 14-32.

To the east, the producing wells are at the same structural elevation or lower, but none of the producing wells in Peter's Point, have perforations in sands correlative to the proposed injection zone.

Sand Discontinuity

The proposed disposal intervals, in the Wasatch formations, are generally comprised of discontinuous sand bodies. A field study of well logs in the Peters Point area, which is just to the east of the Prickly Pear and Jack Canyon area, has indicated that producing sand bodies can be shown to be discontinuous even within spacing distances of less than 1,000 ft.

Based on this study it has been found that in the Peter's Point area, at most, about 50% of the Middle Wasatch sands can be correlated between wells as close as 1,000 ft. The percentage of correlative sands drops in the North Horn formation to less than 30% at a spacing of +/- 1,500 ft. Sands in the Dark Canyon (Upper Price River) are more correlative within the horizontal spacing of 1,500 ft to 2,000 ft with analysis that indicate these intervals are between 66.7% and 100% continuous. The analysis also observes an 80% correlation between completed Price River sands, but less than a 35% correlation of all Price River Sand, when within a horizontal spacing of 1,500 ft to 2,250 ft.

In total, for the Peters Point area, the wellbore sand correlation between wells ranging from 880 ft of horizontal spacing to a maximum studied distance of 2,360 ft indicates a range of between 41.2% and 47.1% for completed intervals and between 26.8% and 36.6% of all sand bodies found within and between the Middle Wasatch and the Price River.

A second study commissioned by Bill Barrett Corporation, and conducted by Rex Cole, consulting sedimentologist from Grand Junction, CO, looked at sand body dimensions in the North Horn. The field study was conducted in Soldier Canyon, which is about 15 miles away from the WTP area. In this study, Dr. Cole measured the thickness and apparent width of the sand bodies in the outcrops. Due to the nature of outcrops, only 2 dimensions can be measured, so it is only logical that only an apparent width can be reported. Dr. Cole recorded a distribution of thicknesses and apparent widths to come up with a regression equation that can be applied to the thicknesses seen on logs to come up with a statistical sand body size. Because we don't have a third dimension, we are forced to assume the same length as the apparent width, due to the fact that we have no information to do otherwise. In the calculation below, I applied the following regression equation to calculate probable sand body size:

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H=Sand Thickness
AW=Apparent Width

H=0.03(AW)+6.74

To solve for apparent width the equation is as follows:
AW=H/0.03-6.74

I took this equation and incorporated it into my calculations by taking the sand thickness on the logs and calculating a sand body size. (See table below)

Proposed Interval Fill-up

A common tool to evaluate the potential for waterflooding success is to calculate the required amount of water before reservoir pressurization could begin to occur. It is usual for this calculation to assume radial displacement and to consider, interval by interval, the porosity corrected vertical thickness (phi*h) for the assumed allocation of injected water.

The following tables summarize for each of the proposed disposal wells, sand interval reservoir properties and resulting fill-up for a ½ mile radius:

JCU 14-32
Disposal Intervals

Top (md)	Base (md)	Thickness (ft)	Porosity (%)	Apparent Width (ft)	Apparent Radius (ft)	Sand Body Area (Ac)	Porosity-Feet (Phi*ft)	1/2 mile radius volume (bbl)
3555	3580	25	15	827	413	12.3	3.75	71,676
3606	3619	13	15	427	213	3.3	1.95	9,927
3650	3680	30	17	993	497	17.8	5.1	140,752
3750	3788	38	15	1260	630	28.6	5.7	253,119
3797	3835	38	14	1260	630	28.6	5.32	236,244
3896	3902	6	14	193	97	0.7	0.84	878
3960	3980	20	15	660	330	7.9	3	36,549
4000	4047	47	16	1560	780	43.9	7.52	511,900
4092	4107	15	12	493	247	4.4	1.8	12,251
4191	4233	42	17	1393	697	35.0	7.14	387,723
4296	4304	8	17	260	130	1.2	1.36	2,570
Total:		282				17	43.48	1,663,591

Calculations assume 80% water saturation

Based on the above calculations over 1.6 million barrels of water would have to be disposed into the JCU 14-32-12-16 before any reservoir effect would be seen at ½ mile from the wellbore.

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Summary

As a result of the above arguments and calculations, Bill Barrett Corporation feels justified to request that the submitted application for water disposal into the Jack Canyon 14-32-12-16 be evaluated as such and not on water injection criteria.

RECEIVED: Oct. 21, 2011

A

PRICKLY PEAR 1-28
5/11/2007
T12S R15E S28

<0.94MI>

PRICKLY PEAR 10-27
9/21/2006
T12S R15E S27

<0.94MI>

PRICKLY PEAR 14-26D
9/2/2007
T12S R15E S35

<0.97MI>

PRICKLY PEAR UNIT STATE 36-06
9/7/2005
T12S R15E S36

<1.96MI>

JACK CANYON STATE 14-32
8/1/2003
T12S R16E S32

<0.44MI>

LAVINIA STATE 1-32
1/12/1998
T12S R16E S32

<0.36MI>

JACK CANYON STATE 8-32
7/4/2003
T12S R16E S32

<1.45MI>

PETER'S POINT 6-34D
8/6/2007
T12S R16E S34

<1.47MI>

PETER'S POINT STATE 2-2
11/18/2004
T13S R16E S2

<0.43MI>

PETER'S POINT 16-35
8/22/2005
T12S R16E S35

<0.99MI>

PETER'S POINT FED. 36-4
4/27/2003
T12S R16E S36

<0.35MI>

PETER'S POINT 14-31D
12/19/2010
T12S R17E S31

A'

CONFINING_1_TOP [JK]=

CONFINING_1_BASE [JK]=

M__WASATCH [BBC]=

CONFINING_2_TOP [JK]=

ONFINING_2_BASE [JK]=

NORTH_HORN [BBC]=

U__BLACK_BUTTE [BBC]=

WASATCH [BBC]=

DISPOSAL_CONFINING_1_TOP [JK]=

DISPOSAL_CONFINING_1_BASE [JK]=

M__WASATCH [BBC]=

DISPOSAL_CONFINING_2_TOP [JK]=

DISPOSAL_CONFINING_2_BASE [JK]=

NORTH_HORN [BBC]=

Confining Interval

Disposal Interval

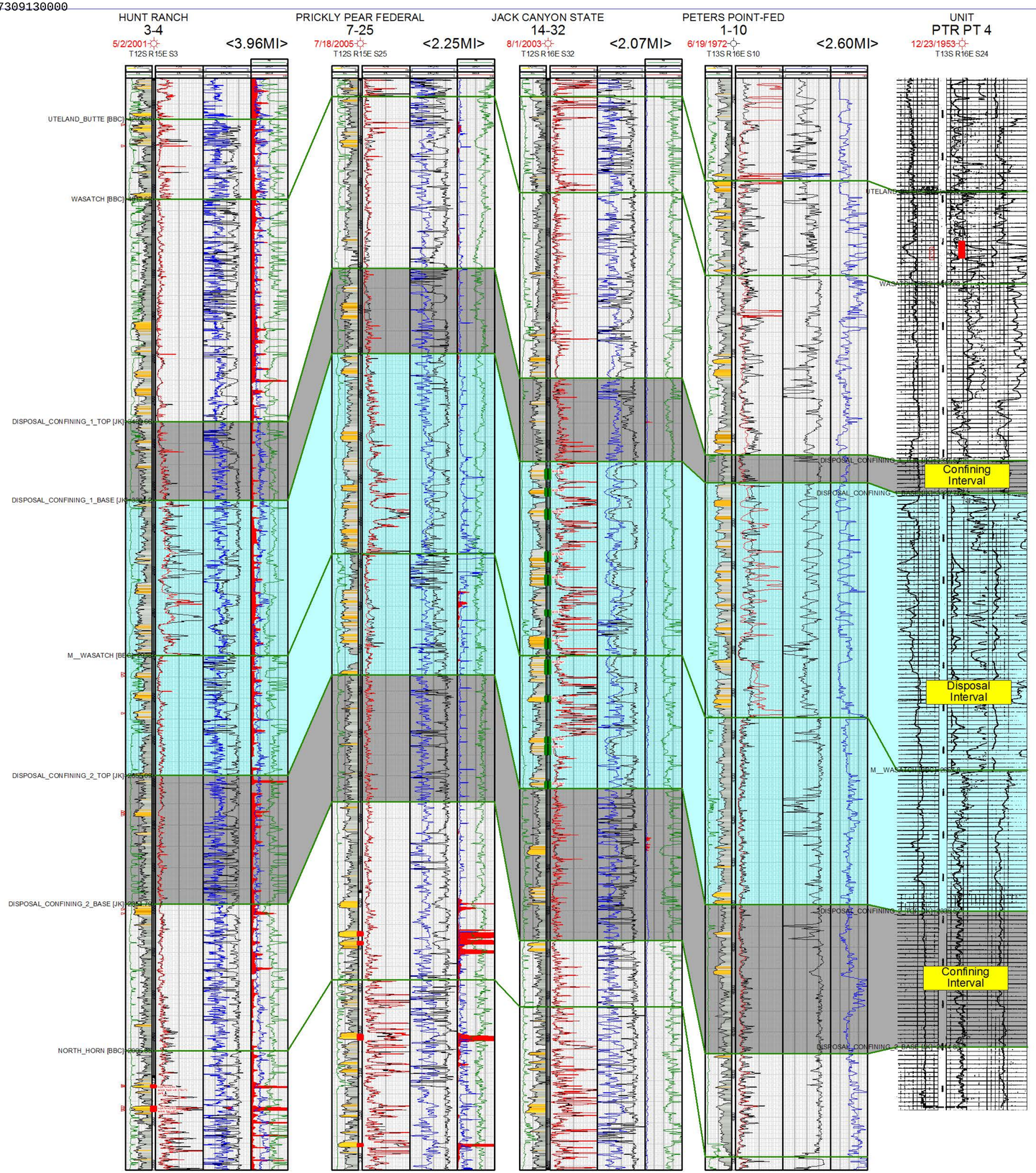
Confining Interval

HS=10000

PETRA 12/13/2011 11:06:38 AM (SWD 14-32 E_W cs ss SS1_2011.CSP)

B

B'


HUNT RANCH
3-4
5/2/2001
T12S R15E S3
<3.96MI>
PRICKLY PEAR FEDERAL
7-25
7/18/2005
T12S R15E S25
<2.25MI>
JACK CANYON STATE
14-32
8/1/2003
T12S R16E S32
<2.07MI>
PETERS POINT-FED
1-10
6/19/1972
T13S R16E S10
<2.60MI>
UNIT
PTR PT 4
12/23/1953
T13S R16E S24
UTELAND_BUTTE [BBC]
WASATCH [BBC]
DISPOSAL_CONFINING_1_TOP [JK]
DISPOSAL_CONFINING_1_BASE [JK]
M__WASATCH [BBC]
DISPOSAL_CONFINING_2_TOP [JK]
DISPOSAL_CONFINING_2_BASE [JK]
NORTH_HORN [BBC]
Confining Interval
Disposal Interval
Confining Interval

HS=10000

Prickly Pear Unit

Peter's Point Unit

T12S-R14E

T12S-R15E

T12S-R16E

T12S-R17

T13S-R15E

T13S-R16E

T13S-R17

Existing SWD Well
Prickly Pear #12-24-12-14

Existing SWD Well
JCU #14-32-12-16

1/2 Mile Radius

1/2 Mile Radius

5 Mile Radius

5 Mile Radius

A

A'

B

B'

Bill Barrett Corporation

Uinta Basin

West Tavaputs Project

SWD Well Proposal

JCU 14-32-12-16

0 3,009 6,018 9,027

FEET

POSTED WELL DATA
Well Number

WELL SYMBOLS
- Abandoned GAS Well
- Abandoned Oil Well
- Active Drilling Well
- Dry hole
- Gas Well
- Junked
- Location
- Oil Well
- Plugged and Abandoned
- Shut In Gas Well
- Salt Water Disposal
- Waiting on Completion
- Water Well

REMARKS

1/2 and 5 mile radius map
Dark Canyon Structure

By: J. Kinser

October 11, 2011

PETRA 10/11/2011 1:40:08 PM

Division of Oil, Gas and Mining

OPERATOR CHANGE WORKSHEET (for state use only)

ROUTING
CDW

X - Change of Operator (Well Sold) Operator Name Change/Merger

The operator of the well(s) listed below has changed, effective: **1/1/2014**

FROM: (Old Operator):	**TO:** (New Operator):
N2165-Bill Barrett Corporation	N4040-EnerVest Operating, LLC
1099 18th Street, Suite 230	1001 Fannin Street, Suite 800
Denver, CO 80202	Houston, TX 77002
Phone: 1 (303) 312-8134	Phone: 1 (713) 659-3500

CA No. **Unit:** N/A

WELL NAME	SEC	TWN	RNG	API NO	ENTITY NO	LEASE TYPE	WELL TYPE	WELL STATUS
See Attached List								

OPERATOR CHANGES DOCUMENTATION

Enter date after each listed item is completed

1. (R649-8-10) Sundry or legal documentation was received from the **FORMER** operator on: 1/7/2014
2. (R649-8-10) Sundry or legal documentation was received from the **NEW** operator on: 1/7/2014
3. The new company was checked on the **Department of Commerce, Division of Corporations Database on:** 1/28/2014
4a. Is the new operator registered in the State of Utah: ____ Business Number: 8850806-0161
5a. (R649-9-2)Waste Management Plan has been received on: Not Yet
5b. Inspections of LA PA state/fee well sites complete on: Yes
5c. Reports current for Production/Disposition & Sundries on: 1/24/2014
6. **Federal and Indian Lease Wells:** The BLM and or the BIA has approved the merger, name change, or operator change for all wells listed on Federal or Indian leases on: BLM Not Yet BIA N/A
7. **Federal and Indian Units:**
   The BLM or BIA has approved the successor of unit operator for wells listed on: N/A
8. **Federal and Indian Communization Agreements ("CA"):**
   The BLM or BIA has approved the operator for all wells listed within a CA on: N/A
9. **Underground Injection Control ("UIC")** Division has approved UIC Form 5 Transfer of Authority to **Inject,** for the enhanced/secondary recovery unit/project for the water disposal well(s) listed on: Yes

DATA ENTRY:

1. Changes entered in the **Oil and Gas Database on:** 1/28/2014
2. Changes have been entered on the **Monthly Operator Change Spread Sheet on:** 1/28/2014
3. Bond information entered in RBDMS on: 1/28/2014
4. Fee/State wells attached to bond in RBDMS on: 1/28/2014
5. Injection Projects to new operator in RBDMS on: 1/28/2014
6. Receipt of Acceptance of Drilling Procedures for APD/New on: 1/7/2014
7. Surface Agreement Sundry from **NEW** operator on Fee Surface wells received on: 1/7/2014

BOND VERIFICATION:

1. Federal well(s) covered by Bond Number: RLB7886
2. Indian well(s) covered by Bond Number: RLB7886
3a. (R649-3-1) The **NEW** operator of any state/fee well(s) listed covered by Bond Number B008371
3b. The **FORMER** operator has requested a release of liability from their bond on: N/A

LEASE INTEREST OWNER NOTIFICATION:

4. (R649-2-10) The **NEW** operator of the fee wells has been contacted and informed by a letter from the Division of their responsibility to notify all interest owners of this change on: 1/28/2014

COMMENTS:

Bill Barrett Corporation (N2165) to EnerVest Operating, LLC (N4040)
Effective 1/1/2014

Well Name	Sec	TWN	RNG	API Number	Entity	Mineral Lease	Surface Lease	Well Type	Well Status
JACK CANYON UNIT 8-32	32	120S	160E	4300730460	15167	State	State	WI	A
PRICKLY PEAR U FED 10-4	10	120S	140E	4300730823	14462	Federal	Federal	WI	A
JACK CYN U ST 14-32	32	120S	160E	4300730913	15166	State	State	WD	A
PRICKLY PEAR U FED 12-24	24	120S	140E	4300730953	14467	Federal	Federal	WD	A
HORSE BENCH FED 4-27D-12-16	27	120S	160E	4300750092		Federal	Federal	GW	APD
HORSE BENCH FED 5-27D-12-16	27	120S	160E	4300750093		Federal	Federal	GW	APD
HORSE BENCH FED 4-20D-12-17	19	120S	170E	4300750350		Federal	Federal	GW	APD
Horse Bench Federal 16-18D-12-17	19	120S	170E	4300750351		Federal	Federal	GW	APD
SHARPLES 1 GOVT PICKRELL	11	120S	150E	4300716045	7030	Federal	Federal	GW	P
STONE CABIN UNIT 1	13	120S	140E	4300716542	12052	Federal	Federal	GW	P
STONE CABIN FED 1-11	11	120S	140E	4300730014	6046	Federal	Federal	GW	P
JACK CANYON 101-A	33	120S	160E	4300730049	2455	Federal	Federal	GW	P
PETERS POINT ST 2-2-13-16	2	130S	160E	4300730521	14387	State	State	GW	P
HUNT RANCH 3-4	3	120S	150E	4300730775	13158	State	Fee	GW	P
PRICKLY PEAR UNIT 13-4	13	120S	140E	4300730825	14353	Federal	Federal	GW	P
PETERS POINT ST 4-2-13-16	2	130S	160E	4300730866	14386	State	State	GW	P
PRICKLY PEAR U FED 5-13-12-14	13	120S	140E	4300731008	14897	Federal	Federal	GW	P
PETERS POINT ST 5-2D-13-16 DEEP	2	130S	160E	4300731056	15909	State	State	GW	P
PRICKLY PEAR U ST 2-36-12-15	36	120S	150E	4300731226	15719	State	State	GW	P
PP ST 8-2D-13-16 (DEEP)	2	130S	160E	4300731280	16069	State	State	GW	P
PETERS POINT U FED 14-27D-12-16	27	120S	160E	4300750068	18204	Federal	Federal	GW	P
PRICKLY PEAR U FASSELIN 5-19-12-15	19	120S	150E	4300730860	14853	Fee	Fee	GW	PA
PETERS POINT ST 6-2D-13-16	2	130S	160E	4300731017	14472	State	State	D	PA
PRICKLY PEAR U FED 7-33D-12-15	33	120S	150E	4300730985	14771	Federal	Federal	GW	S
PETERS POINT ST 8-2D-13-16	2	130S	160E	4300731016	14471	State	State	GW	S

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

UIC FORM 5

TRANSFER OF AUTHORITY TO INJECT

Well Name and Number	API Number
JACK CYN U ST	14-32 43-007-30913
Location of Well	Field or Unit Name
Footage : 0531 FSL 1479 FWL County : CARBON	UNDESIGNATED
QQ, Section, Township, Range: SESW 32 12S 16E State : UTAH	Lease Designation and Number ML-43541

EFFECTIVE DATE OF TRANSFER: 1/1/2014

CURRENT OPERATOR

Company: BILL BARRETT CORP
Address: 1099 18th Street Ste 2300
city DENVER state CO zip 80202
Phone: (303) 293-9100
Comments:

Name: DUANE ZAVADIL
Signature: [signature]
Title: Senior Vice President - EH&S, Government and Regulatory Affairs
Date: 12/10/2013

NEW OPERATOR

Company: EnerVest Operating, L.L.C.
Address: 1001 Fannin, Suite 800
city Houston state TX zip 77002
Phone: (713) 659-3500
Comments:

Name: RONNIE YOUNG
Signature: [signature]
Title: DIRECTOR - REGULATORY
Date: 12/10/2013

(This space for State use only)

Transfer approved by: [signature]
Title: UIC MANAGER

Approval Date: 1/22/14

Comments:

RECEIVED
JAN 07 2014
DIV. OF OIL, GAS & MINING

(5/2000)

COPY

FORM 9

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

5. LEASE DESIGNATION AND SERIAL NUMBER: (see attached well list)

SUNDRY NOTICES AND REPORTS ON WELLS

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: N/A

7. UNIT or CA AGREEMENT NAME:

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 ☐ GAS WELL ☐ OTHER _____

8. WELL NAME and NUMBER: (see attached well list)

2. NAME OF OPERATOR: ENERVEST OPERATING, LLC

9. API NUMBER:

3. ADDRESS OF OPERATOR: 1001 FANNIN, ST. STE 800 CITY HOUSTON STATE TX ZIP 77002

PHONE NUMBER: (713) 659-3500

10. FIELD AND POOL, OR WILDCAT:

4. LOCATION OF WELL

FOOTAGES AT SURFACE: (see attached well list)

COUNTY:

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:

STATE: UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
☑ NOTICE OF INTENT (Submit in Duplicate)	☐ ACIDIZE	☐ DEEPEN	☐ REPERFORATE CURRENT FORMATION
Approximate date work will start: 1/1/2014	☐ ALTER CASING	☐ FRACTURE TREAT	☐ SIDETRACK TO REPAIR WELL
	☐ CASING REPAIR	☐ NEW CONSTRUCTION	☐ TEMPORARILY ABANDON
	☐ CHANGE TO PREVIOUS PLANS	☑ OPERATOR CHANGE	☐ TUBING REPAIR
	☐ CHANGE TUBING	☐ PLUG AND ABANDON	☐ VENT OR FLARE
☐ SUBSEQUENT REPORT (Submit Original Form Only)	☐ CHANGE WELL NAME	☐ PLUG BACK	☐ WATER DISPOSAL
Date of work completion:	☐ CHANGE WELL STATUS	☐ PRODUCTION (START/RESUME)	☐ WATER SHUT-OFF
	☐ COMMINGLE PRODUCING FORMATIONS	☐ RECLAMATION OF WELL SITE	☐ OTHER: _____
	☐ CONVERT WELL TYPE	☐ RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

ENERVEST OPERATING, LLC IS SUBMITTING THIS SUNDRY AS NOTIFICATION THAT THE WELLS LISTED ON THE ATTACHED LIST HAVE BEEN SOLD TO ENERVEST OPERATING, LLC BY BILL BILL BARRETT CORPORATION EFFECTIVE 1/1/2014. PLEASE REFER ALL FUTURE CORRESPONDENCE TO THE ADDRESS BELOW.

EnerVest Operating, L.L.C.
1001 Fannin, Suite 800
Houston, Texas 77002
713-659-3500
(BLM BOND # RLB 7886, STATE/FEE BOND # B008371)

BILL BARRETT CORPORATION

Duane Zavadil NAME (PLEASE PRINT)

SIGNATURE

Senior Vice President -
EH&S, Government and Regulatory Affairs N2165

ENERVEST OPERATING, LLC

Ronnie L Young NAME (PLEASE PRINT)

Ronnie L Young SIGNATURE

DIRECTOR - REGULATORY
N4040

NAME (PLEASE PRINT) RONNIE YOUNG TITLE DIRECTOR - REGULATORY

SIGNATURE Ronnie L Young DATE 12/10/2013

(This space for State use only)

APPROVED

JAN 28 2014

DIV. OIL, GAS & MINING

BY: Rachel Medina

RECEIVED

JAN 07 2014

DIV. OF OIL, GAS & MINING

(5/2000) (See Instructions on Reverse Side)

UDOGM CHANGE OF OPERATOR WELL LIST

Well Name	Sec	TWN	RNG	API Number	Entity	Lease	Well Type	Well Status	Unit
JACK CANYON UNIT 8-32	32	120S	160E	4300730460	15167	State	WI	A	
JACK CYN U ST 14-32	32	120S	160E	4300730913	15166	State	WD	A	
PRICKLY PEAR U FED 12-24	24	120S	140E	4300730953	14467	Federal	WD	A	
PPU FED 11-23D-12-15	23	120S	150E	4300731440		Federal	GW	APD	PRICKLY PEAR
PPU FED 4-26D-12-15	23	120S	150E	4300731441		Federal	GW	APD	PRICKLY PEAR
PPU FED 14-23D-12-15	23	120S	150E	4300731442		Federal	GW	APD	PRICKLY PEAR
PPU FED 12-23D-12-15	23	120S	150E	4300731443		Federal	GW	APD	PRICKLY PEAR
PPU FED 11-34D-12-16	34	120S	160E	4300731465		Federal	GW	APD	PETERS POINT
PPU FED 10-34D-12-16	34	120S	160E	4300731469		Federal	GW	APD	PETERS POINT
HORSE BENCH FED 4-27D-12-16	27	120S	160E	4300750092		Federal	GW	APD	
HORSE BENCH FED 5-27D-12-16	27	120S	160E	4300750093		Federal	GW	APD	
PRICKLY PEAR U FED 12-7D-12-15	07	120S	150E	4300750094		Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR U FED 11-7D-12-15	07	120S	150E	4300750095		Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR U FED 13-7D-12-15	07	120S	150E	4300750096		Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR U FED 14-7D-12-15	07	120S	150E	4300750097		Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 11-8D-12-15	08	120S	150E	4300750124		Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 12-8D-12-15	08	120S	150E	4300750125		Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 13-8D-12-15	08	120S	150E	4300750126		Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 14-8D-12-15	08	120S	150E	4300750127		Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 9-21D-12-15	21	120S	150E	4300750128		Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 9A-21D-12-15	21	120S	150E	4300750129		Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 10-21D-12-15	21	120S	150E	4300750130		Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 10A-21D-12-15	21	120S	150E	4300750131		Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 15A-21D-12-15	21	120S	150E	4300750132		Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 15X-21D-12-15	21	120S	150E	4300750133		Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 16-21D-12-15	21	120S	150E	4300750134		Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 16A-21D-12-15	21	120S	150E	4300750135		Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 13A-22D-12-15	21	120S	150E	4300750148		Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 1A-27D-12-15	22	120S	150E	4300750161		Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 2A-27D-12-15	22	120S	150E	4300750162		Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 3A-27D-12-15	22	120S	150E	4300750163		Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 9A-22D-12-15	22	120S	150E	4300750164		Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 10A-22D-12-15	22	120S	150E	4300750165		Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 11A-22D-12-15	22	120S	150E	4300750166		Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 12A-22D-12-15	22	120S	150E	4300750167		Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 14A-22D-12-15	22	120S	150E	4300750168		Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 15A-22D-12-15	22	120S	150E	4300750169		Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 16A-22D-12-15	22	120S	150E	4300750170		Federal	GW	APD	PRICKLY PEAR
PETERS POINT UF 15X-36D-12-16	36	120S	160E	4300750178		Federal	GW	APD	PETERS POINT
PRICKLY PEAR UF 15A-15D-12-15	15	120S	150E	4300750180		Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 11B-15D-12-15	15	120S	150E	4300750181		Federal	GW	APD	PRICKLY PEAR
PETERS POINT UF 10-1D-13-16	36	120S	160E	4300750182		Federal	GW	APD	PETERS POINT
PETERS POINT UF 9-1D-13-16	36	120S	160E	4300750183		Federal	GW	APD	PETERS POINT
PRICKLY PEAR UF 16A-15D-12-15	15	120S	150E	4300750184		Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 3A-18D-12-15	07	120S	150E	4300750185		Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 4A-18D-12-15	07	120S	150E	4300750186		Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 11A-7D-12-15	07	120S	150E	4300750187		Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 2-18D-12-15	07	120S	150E	4300750188		Federal	GW	APD	PRICKLY PEAR

PRICKLY PEAR UF 12A-7D-12-15	07	120S	150E	4300750189	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 13A-7D-12-15	07	120S	150E	4300750190	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 14A-7D-12-15	07	120S	150E	4300750191	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR FEDERAL 1-12D-12-14	12	120S	140E	4300750205	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 2-12D-12-14	12	120S	140E	4300750206	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 7-12D-12-14	12	120S	140E	4300750207	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 7A-12D-12-14	12	120S	140E	4300750208	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 8-12D-12-14	12	120S	140E	4300750209	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 4-7D-12-15	12	120S	140E	4300750210	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 5-7D-12-15	12	120S	140E	4300750211	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 8A-12D-12-14	12	120S	140E	4300750212	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 5A-7D-12-15	12	120S	140E	4300750213	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 7-14D-12-15	14	120S	150E	4300750214	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 7A-14D-12-15	14	120S	150E	4300750215	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 9-14D-12-15	14	120S	150E	4300750217	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 9A-14D-12-15	14	120S	150E	4300750218	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 10-14D-12-15	14	120S	150E	4300750219	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 10A-14D-12-15	14	120S	150E	4300750220	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 15A-14D-12-15	14	120S	150E	4300750222	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 16-14D-12-15	14	120S	150E	4300750223	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 16A-14D-12-15	14	120S	150E	4300750224	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 1A-18D-12-15	07	120S	150E	4300750225	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 2A-18D-12-15	07	120S	150E	4300750226	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 9A-7D-12-15	07	120S	150E	4300750227	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 10A-7D-12-15	07	120S	150E	4300750228	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 15A-7D-12-15	07	120S	150E	4300750229	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 16A-7D-12-15	07	120S	150E	4300750230	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 9A-12D-12-14	12	120S	140E	4300750233	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 10A-12D-12-14	12	120S	140E	4300750234	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 15A-12D-12-14	12	120S	140E	4300750235	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 12A-8D-12-15	08	120S	150E	4300750236	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 16A-12D-12-14	12	120S	140E	4300750237	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 11A-8D-12-15	08	120S	150E	4300750238	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 13A-8D-12-15	08	120S	150E	4300750239	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 14A-8D-12-15	08	120S	150E	4300750240	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 5A-8D-12-15	08	120S	150E	4300750260	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 6A-8D-12-15	08	120S	150E	4300750261	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 4-8D-12-15	08	120S	150E	4300750262	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 3-8D-12-15	08	120S	150E	4300750263	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 2-8D-12-15	08	120S	150E	4300750264	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 7A-8D-12-15	08	120S	150E	4300750265	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 7-8D-12-15	08	120S	150E	4300750266	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 5-8D-12-15	08	120S	150E	4300750267	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 6-8D-12-15	08	120S	150E	4300750268	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 10A-8D-12-15	08	120S	150E	4300750269	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 9A-8D-12-15	08	120S	150E	4300750270	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 8-8D-12-15	08	120S	150E	4300750271	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 1-8D-12-15	08	120S	150E	4300750272	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 8A-8D-12-15	08	120S	150E	4300750273	Federal	GW	APD	PRICKLY PEAR

PRICKLY PEAR UF 5-9D-12-15	09	120S	150E	4300750274	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 5A-9D-12-15	09	120S	150E	4300750275	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 4-9D-12-15	09	120S	150E	4300750276	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 3-9D-12-15	09	120S	150E	4300750277	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 6A-9D-12-15	09	120S	150E	4300750278	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 11-9D-12-15	09	120S	150E	4300750279	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 12A-9D-12-15	09	120S	150E	4300750280	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 6-9D-12-15	09	120S	150E	4300750281	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 11A-9D-12-15	09	120S	150E	4300750282	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR US 1X-16D-12-15	10	120S	150E	4300750283	State	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 5A-15D-12-15	10	120S	150E	4300750284	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 6A-15D-12-15	10	120S	150E	4300750285	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 3-15D-13-15	10	120S	150E	4300750286	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 15A-10D-12-15	15	120S	150E	4300750287	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 13-10D-12-15	10	120S	150E	4300750288	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 15-10D-12-15	15	120S	150E	4300750289	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 16A-10D-12-15	15	120S	150E	4300750290	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 9-10D-12-15	15	120S	150E	4300750291	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 14A-10D-12-15	10	120S	150E	4300750292	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 10-10D-12-15	15	120S	150E	4300750293	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 16-10D-12-15	15	120S	150E	4300750294	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 13-11D-12-15	15	120S	150E	4300750295	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 13A-11D-12-15	15	120S	150E	4300750296	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 12-11D-12-15	15	120S	150E	4300750297	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 13A-10D-12-15	10	120S	150E	4300750298	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 12-10D-12-15	10	120S	150E	4300750299	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 11-10D-12-15	10	120S	150E	4300750300	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 3A-15D-12-15	10	120S	150E	4300750301	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 12-14D-12-15	14	120S	150E	4300750302	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 4-15D-12-15	10	120S	150E	4300750303	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 4A-15D-12-15	10	120S	150E	4300750304	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 14-10D-12-15	10	120S	150E	4300750305	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 9A-17D-12-15	17	120S	150E	4300750306	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 8A-17D-12-15	17	120S	150E	4300750307	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 10A-17D-12-15	17	120S	150E	4300750308	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 3-7D-12-15	07	120S	150E	4300750309	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 16A-17D-12-15	17	120S	150E	4300750310	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 6-7D-12-15	07	120S	150E	4300750311	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 15A-17D-12-15	17	120S	150E	4300750312	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 6A-7D-12-15	07	120S	150E	4300750313	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 7A-7D-12-15	07	120S	150E	4300750314	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 8A-7D-12-15	07	120S	150E	4300750315	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 6X-17D-12-15	17	120S	150E	4300750316	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 11A-17D-12-15	17	120S	150E	4300750317	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 15B-17D-12-15	17	120S	150E	4300750318	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 8A-20D-12-15	20	120S	150E	4300750319	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 1-7D-12-15	07	120S	150E	4300750320	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 7A-20D-12-15	20	120S	150E	4300750321	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 9A-20D-12-15	20	120S	150E	4300750322	Federal	GW	APD	PRICKLY PEAR

PRICKLY PEAR UF 10A-20D-12-15	20	120S	150E	4300750323		Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 10-20D-12-15	20	120S	150E	4300750324		Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 2-7D-12-15	07	120S	150E	4300750325		Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 14A-20D-12-15	20	120S	150E	4300750326		Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 16A-20D-12-15	20	120S	150E	4300750327		Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 15A-20D-12-15	20	120S	150E	4300750328		Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 8-7D-12-15	07	120S	150E	4300750329		Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 15-20D-12-15	20	120S	150E	4300750330		Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 7-7D-12-15	07	120S	150E	4300750331		Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 6-10D-12-15	09	120S	150E	4300750332		Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 5A-10D-12-15	09	120S	150E	4300750333		Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 11A-10D-12-15	09	120S	150E	4300750334		Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 6A-10D-12-15	09	120S	150E	4300750335		Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 5-10D-12-15	09	120S	150E	4300750336		Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 12A-10D-12-15	09	120S	150E	4300750338		Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 3-10D-12-15	09	120S	150E	4300750339		Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 4-10D-12-15	09	120S	150E	4300750340		Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 8-9D-12-15	09	120S	150E	4300750341		Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 8A-9D-12-15	09	120S	150E	4300750342		Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 7A-9D-12-15	09	120S	150E	4300750343		Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 7-9D-12-15	09	120S	150E	4300750344		Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 1-9D-12-15	09	120S	150E	4300750345		Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 2-9D-12-15	09	120S	150E	4300750346		Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 1-24D-12-1	24	120S	150E	4300750348		Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 9-13D-12-15	13	120S	150E	4300750349		Federal	GW	APD	PRICKLY PEAR
HORSE BENCH FED 4-20D-12-17	19	120S	170E	4300750350		Federal	GW	APD	
Horse Bench Federal 16-18D-12-17	19	120S	170E	4300750351		Federal	GW	APD	
PPU FED 9-34D-12-16	34	120S	160E	4300731430	17225	Federal	GW	OPS	PETERS POINT
PPU FED 15-35D-12-16	35	120S	160E	4300731475	2470	Federal	GW	OPS	PETERS POINT
PETERS POINT U FED 12A-6D-13-17	31	120S	170E	4300750034	2470	Federal	GW	OPS	PETERS POINT
PETERS POINT U FED 11A-31D-12-17	31	120S	170E	4300750036	2470	Federal	GW	OPS	PETERS POINT
PRICKLY PEAR U FED 7-21D-12-15	21	120S	150E	4300750055	14794	Federal	GW	OPS	PRICKLY PEAR
PETERS POINT U FED 9-6D-13-17	06	130S	170E	4300750120	2470	Federal	GW	OPS	PETERS POINT
PETERS POINT U FED 14-6D-13-17	06	130S	170E	4300750121	2470	Federal	GW	OPS	PETERS POINT
PETERS POINT U FED 15-6D-13-17	06	130S	170E	4300750122	2470	Federal	GW	OPS	PETERS POINT
PETERS POINT UF 2-7D-13-17	06	130S	170E	4300750149	2470	Federal	GW	OPS	PETERS POINT
PETERS POINT UF 1-7D-13-17	06	130S	170E	4300750150	2470	Federal	GW	OPS	PETERS POINT
PRICKLY PEAR US 1A-16D-12-15	09	120S	150E	4300750192	14794	State	GW	OPS	PRICKLY PEAR
PRICKLY PEAR US 2A-16D-12-15	09	120S	150E	4300750193	14794	State	GW	OPS	PRICKLY PEAR
PRICKLY PEAR US 2-16D-12-15	09	120S	150E	4300750194	14794	State	GW	OPS	PRICKLY PEAR
PRICKLY PEAR UF 9A-9D-12-15	09	120S	150E	4300750196	14794	Federal	GW	OPS	PRICKLY PEAR
PRICKLY PEAR UF 10-9D-12-15	09	120S	150E	4300750197	14794	Federal	GW	OPS	PRICKLY PEAR
PRICKLY PEAR UF 10A-9D-12-15	09	120S	150E	4300750198	14794	Federal	GW	OPS	PRICKLY PEAR
PRICKLY PEAR UF 14-9D-12-15	09	120S	150E	4300750199	14794	Federal	GW	OPS	PRICKLY PEAR
PRICKLY PEAR UF 14A-9D-12-15	09	120S	150E	4300750200	14794	Federal	GW	OPS	PRICKLY PEAR
PRICKLY PEAR UF 15-9D-12-15	09	120S	150E	4300750201	14794	Federal	GW	OPS	PRICKLY PEAR
PRICKLY PEAR UF 15A-9D-12-15	09	120S	150E	4300750203	14794	Federal	GW	OPS	PRICKLY PEAR
PRICKLY PEAR UF 16A-9D-12-15	09	120S	150E	4300750204	14794	Federal	GW	OPS	PRICKLY PEAR
SHARPLES 1 GOVT PICKRELL	11	120S	150E	4300716045	7030	Federal	GW	P	

STONE CABIN UNIT 1	13	120S	140E	4300716542	12052	Federal	GW	P	
STONE CABIN FED 1-11	11	120S	140E	4300730014	6046	Federal	GW	P	
STONE CABIN FED 2-B-27	27	120S	150E	4300730018	14794	Federal	GW	P	PRICKLY PEAR
JACK CANYON 101-A	33	120S	160E	4300730049	2455	Federal	GW	P	
PETERS POINT ST 2-2-13-16	02	130S	160E	4300730521	14387	State	GW	P	
PRICKLY PEAR ST 16-15	16	120S	150E	4300730522	14794	State	GW	P	PRICKLY PEAR
PETERS POINT U FED 36-2	36	120S	160E	4300730761	2470	Federal	GW	P	PETERS POINT
PETERS POINT U FED 36-3	36	120S	160E	4300730762	2470	Federal	GW	P	PETERS POINT
PETERS POINT U FED 36-4	36	120S	160E	4300730763	2470	Federal	GW	P	PETERS POINT
PETERS POINT U FED 14-25D-12-16	36	120S	160E	4300730764	2470	Federal	GW	P	PETERS POINT
HUNT RANCH 3-4	03	120S	150E	4300730775	13158	State	GW	P	
PETERS POINT U FED 4-31D-12-17	36	120S	160E	4300730810	2470	Federal	GW	P	PETERS POINT
PETERS POINT U FED 16-26D-12-16	36	120S	160E	4300730812	2470	Federal	GW	P	PETERS POINT
PRICKLY PEAR UNIT 13-4	13	120S	140E	4300730825	14353	Federal	GW	P	
PRICKLY PEAR UNIT 21-2	21	120S	150E	4300730828	14794	Federal	GW	P	PRICKLY PEAR
PETERS POINT U FED 6-7D-13-17	06	130S	170E	4300730859	14692	Federal	GW	P	PETERS POINT
PETERS POINT ST 4-2-13-16	02	130S	160E	4300730866	14386	State	GW	P	
PRICKLY PEAR U ST 13-16	16	120S	150E	4300730933	14794	State	GW	P	PRICKLY PEAR
PRICKLY PEAR U ST 11-16	16	120S	150E	4300730944	14794	State	GW	P	PRICKLY PEAR
PRICKLY PEAR U ST 7-16	16	120S	150E	4300730945	14794	State	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 7-25	25	120S	150E	4300730954	14794	Federal	GW	P	PRICKLY PEAR
PETERS POINT U FED 16-35	35	120S	160E	4300730965	2470	Federal	GW	P	PETERS POINT
PETERS POINT U FED 11-6-13-17	06	130S	170E	4300730982	2470	Federal	GW	P	PETERS POINT
PETERS POINT U FED 16-6D-13-17	06	130S	170E	4300731004	2470	Federal	GW	P	PETERS POINT
PETERS POINT U FED 16-31D-12-17	06	130S	170E	4300731005	2470	Federal	GW	P	PETERS POINT
PRICKLY PEAR U FED 5-13-12-14	13	120S	140E	4300731008	14897	Federal	GW	P	
PETERS POINT U FED 12-31D-12-17	36	120S	160E	4300731009	2470	Federal	GW	P	PETERS POINT
PETERS POINT U FED 2-36D-12-16	36	120S	160E	4300731010	2470	Federal	GW	P	PETERS POINT
PETERS POINT U FED 9-36-12-16	36	120S	160E	4300731011	2470	Federal	GW	P	PETERS POINT
PRICKLY PEAR U ST 36-06	36	120S	150E	4300731018	14794	State	GW	P	PRICKLY PEAR
PETERS POINT U FED 8-35D-12-16	36	120S	160E	4300731024	2470	Federal	GW	P	PETERS POINT
PETERS POINT U FED 4-12D-13-16	02	130S	160E	4300731049	14692	Federal	GW	P	PETERS POINT
PETERS POINT ST 5-2D-13-16 DEEP	02	130S	160E	4300731056	15909	State	GW	P	
PRICKLY PEAR U FED 13-23-12-15	23	120S	150E	4300731073	14794	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 1-27D-12-15	23	120S	150E	4300731074	14794	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 3-26D-12-15	23	120S	150E	4300731075	14794	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 15-22D-12-15	23	120S	150E	4300731076	14794	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 3-28D-12-15	21	120S	150E	4300731121	14794	Federal	GW	P	PRICKLY PEAR
PETERS POINT U FED 2-12D-13-16	06	130S	170E	4300731158	14692	Federal	GW	P	PETERS POINT
PRICKLY PEAR U FED 15-21-12-15	21	120S	150E	4300731164	14794	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 7-28D-12-15	21	120S	150E	4300731165	14794	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 13-21D-12-15	21	120S	150E	4300731166	14794	Federal	GW	P	PRICKLY PEAR
PETERS POINT U FED 10-36D-12-16	36	120S	160E	4300731174	2470	Federal	GW	P	PETERS POINT
PETERS POINT U FED 12-36D-12-16	36	120S	160E	4300731175	2470	Federal	GW	P	PETERS POINT
PRICKLY PEAR U FED 15-17-12-15	17	120S	150E	4300731183	14794	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 11-17D-12-15	17	120S	150E	4300731184	14794	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 7-22D-12-15	22	120S	150E	4300731186	14794	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 3-22-12-15	22	120S	150E	4300731187	14794	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 5-22D-12-15	22	120S	150E	4300731188	14794	Federal	GW	P	PRICKLY PEAR

PRICKLY PEAR 11-15D-12-15	22	120S	150E	4300731189	14794	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 9-18D-12-15	18	120S	150E	4300731192	14794	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 15-18-12-15	18	120S	150E	4300731193	14794	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 16-27D-12-15	27	120S	150E	4300731194	15569	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 12-27D-12-15	27	120S	150E	4300731195	15568	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 10-27-12-15	27	120S	150E	4300731196	15570	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 9-20D-12-15	20	120S	150E	4300731197	14794	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 7-20-12-15	20	120S	150E	4300731198	14794	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 1-20-12-15	20	120S	150E	4300731206	14794	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U ST 2-36-12-15	36	120S	150E	4300731226	15719	State	GW	P	
PRICKLY PEAR U ST 4-36-12-15	36	120S	150E	4300731227	14794	State	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 4-27D-12-15	22	120S	150E	4300731237	14794	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 13-22-12-15	22	120S	150E	4300731238	14794	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 3-27D-12-15	22	120S	150E	4300731239	14794	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U ST 9-16-12-15	16	120S	150E	4300731240	14794	State	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 9-28D-12-15	28	120S	150E	4300731241	16028	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 5-27D-12-15	28	120S	150E	4300731242	14794	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 1-28-12-15	28	120S	150E	4300731243	14794	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 8-28D-12-15	28	120S	150E	4300731244	14794	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U ST 1-16-12-15	16	120S	150E	4300731245	14794	State	GW	P	PRICKLY PEAR
PPU FED 11-18D-12-15	18	120S	150E	4300731257	14794	Federal	GW	P	PRICKLY PEAR
PPU FED 11-20D-12-15	20	120S	150E	4300731258	14794	Federal	GW	P	PRICKLY PEAR
PPU FED 4-25D-12-15	25	120S	150E	4300731259	14794	Federal	GW	P	PRICKLY PEAR
PPU FED 12-25D-12-15	25	120S	150E	4300731260	16068	Federal	GW	P	PRICKLY PEAR
PPU FED 15-6D-13-17	06	130S	170E	4300731261	16103	Federal	GW	P	PETERS POINT
PP UF 3-36-12-16	36	120S	160E	4300731271	2470	Federal	GW	P	PETERS POINT
PP UF 6-36-12-16	36	120S	160E	4300731272	2470	Federal	GW	P	PETERS POINT
PPU FED 6-35D-12-16	35	120S	160E	4300731275	2470	Federal	GW	P	PETERS POINT
PPU FED 14-26D-12-16	26	120S	160E	4300731277	2470	Federal	GW	P	PETERS POINT
PPU FED 8-34-12-16	34	120S	160E	4300731279	2470	Federal	GW	P	PETERS POINT
PP ST 8-2D-13-16 (DEEP)	02	130S	160E	4300731280	16069	State	GW	P	
PPU FED 6-34D-12-16	34	120S	160E	4300731281	2470	Federal	GW	P	PETERS POINT
PPU FED 14-26D-12-15	35	120S	150E	4300731282	16224	Federal	GW	P	PRICKLY PEAR
PPU FED 2-35-12-15	35	120S	150E	4300731283	14794	Federal	GW	P	PRICKLY PEAR
PPU FED 10-26D-12-15	35	120S	150E	4300731284	14794	Federal	GW	P	PRICKLY PEAR
PPU FED 9-17-12-15	17	120S	150E	4300731287	14794	Federal	GW	P	PRICKLY PEAR
PPU FED 1-17D-12-15	17	120S	150E	4300731288	14794	Federal	GW	P	PRICKLY PEAR
PPU FED 7-17D-12-15	17	120S	150E	4300731289	14794	Federal	GW	P	PRICKLY PEAR
PPU FED 7-1D-13-16 ULTRA DEEP	06	130S	170E	4300731293	14692	Federal	GW	P	PETERS POINT
PPU FED 1-18D-12-15	18	120S	150E	4300731294	14794	Federal	GW	P	PRICKLY PEAR
PPU FED 7-18D-12-15	18	120S	150E	4300731295	14794	Federal	GW	P	PRICKLY PEAR
PPU FED 5-17D-12-15	18	120S	150E	4300731296	14794	Federal	GW	P	PRICKLY PEAR
PPU FED 10-17D-12-15	17	120S	150E	4300731307	14794	Federal	GW	P	PRICKLY PEAR
PPU FED 8-17D-12-15	17	120S	150E	4300731308	14794	Federal	GW	P	PRICKLY PEAR
PPU FED 12-17D-12-15	17	120S	150E	4300731309	14794	Federal	GW	P	PRICKLY PEAR
PPU FED 13-17D-12-15	17	120S	150E	4300731310	14794	Federal	GW	P	PRICKLY PEAR
PPU FED 14-17D-12-15	17	120S	150E	4300731311	14794	Federal	GW	P	PRICKLY PEAR
PPU FED 16-18D-12-15	17	120S	150E	4300731312	14794	Federal	GW	P	PRICKLY PEAR
PPU FED 8-18D-12-15	18	120S	150E	4300731313	14794	Federal	GW	P	PRICKLY PEAR

PPU FED 3-18D-12-15	18	120S	150E	4300731314	14794 Federal	GW	P	PRICKLY PEAR
PPU FED 4-18-12-15	18	120S	150E	4300731315	14794 Federal	GW	P	PRICKLY PEAR
PPU FED 5-18D-12-15	18	120S	150E	4300731316	14794 Federal	GW	P	PRICKLY PEAR
PPU FED 6-18D-12-15	18	120S	150E	4300731317	14794 Federal	GW	P	PRICKLY PEAR
PPU FED 16-27-12-16	27	120S	160E	4300731318	2470 Federal	GW	P	PETERS POINT
PPU FED 10-27D-12-16	27	120S	160E	4300731319	2470 Federal	GW	P	PETERS POINT
PPU FED 2-34D-12-16	34	120S	160E	4300731320	2470 Federal	GW	P	PETERS POINT
PPU FED 16-17D-12-15	17	120S	150E	4300731321	14794 Federal	GW	P	PRICKLY PEAR
PPU ST 15-16D-12-15	16	120S	150E	4300731322	14794 State	GW	P	PRICKLY PEAR
PPU ST 16-16D-12-15	16	120S	150E	4300731323	14794 State	GW	P	PRICKLY PEAR
PPU ST 14-16D-12-15	16	120S	150E	4300731324	14794 State	GW	P	PRICKLY PEAR
PPU FED 2-7D-13-17 DEEP	06	130S	170E	4300731326	14692 Federal	GW	P	PETERS POINT
PPU FED 3-21D-12-15	21	120S	150E	4300731328	14794 Federal	GW	P	PRICKLY PEAR
PPU FED 4-21D-12-15	21	120S	150E	4300731329	14794 Federal	GW	P	PRICKLY PEAR
PPU FED 2-35D-12-16	35	120S	160E	4300731345	2470 Federal	GW	P	PETERS POINT
PPU FED 7-35D-12-16	35	120S	160E	4300731346	2470 Federal	GW	P	PETERS POINT
PPU FED 4-35D-12-16	35	120S	160E	4300731347	2470 Federal	GW	P	PETERS POINT
PPU FED 7-36D-12-16	36	120S	160E	4300731348	2470 Federal	GW	P	PETERS POINT
PPU FED 11-36D-12-16	36	120S	160E	4300731349	2470 Federal	GW	P	PETERS POINT
PPU FED 15-25D-12-16	36	120S	160E	4300731351	2470 Federal	GW	P	PETERS POINT
PPU FED 13-25D-12-16	36	120S	160E	4300731352	2470 Federal	GW	P	PETERS POINT
PPU FED 4-36D-12-16	36	120S	160E	4300731353	2470 Federal	GW	P	PETERS POINT
PPU FED 13-15D-12-15	22	120S	150E	4300731358	14794 Federal	GW	P	PRICKLY PEAR
PPU FED 14-15D-12-15	22	120S	150E	4300731359	14794 Federal	GW	P	PRICKLY PEAR
PPU FED 4-22D-12-15	22	120S	150E	4300731360	14794 Federal	GW	P	PRICKLY PEAR
PPU FED 6-22D-12-15	22	120S	150E	4300731361	14794 Federal	GW	P	PRICKLY PEAR
PPU FED 2-28D-12-15	28	120S	150E	4300731362	14794 Federal	GW	P	PRICKLY PEAR
PPU FED 16X-21D-12-15	28	120S	150E	4300731363	14794 Federal	GW	P	PRICKLY PEAR
PPU FED 5A-27D-12-15	28	120S	150E	4300731364	14794 Federal	GW	P	PRICKLY PEAR
PPU FED 1-35D-12-16	35	120S	160E	4300731365	2470 Federal	GW	P	PETERS POINT
PPU FED 1A-28D-12-15	28	120S	150E	4300731368	14794 Federal	GW	P	PRICKLY PEAR
PPU FED 14A-18D-12-15	18	120S	150E	4300731393	14794 Federal	GW	P	PRICKLY PEAR
PPU FED 10-18D-12-15	18	120S	150E	4300731394	14794 Federal	GW	P	PRICKLY PEAR
PPU FED 15A-18D-12-15	18	120S	150E	4300731395	14794 Federal	GW	P	PRICKLY PEAR
PPU FED 16A-18D-12-15	18	120S	150E	4300731396	14794 Federal	GW	P	PRICKLY PEAR
PPU FED 12-22D-12-15	22	120S	150E	4300731398	14794 Federal	GW	P	PRICKLY PEAR
PPU FED 11-22D-12-15	22	120S	150E	4300731399	14794 Federal	GW	P	PRICKLY PEAR
PPU FED 14-22D-12-15	22	120S	150E	4300731400	14794 Federal	GW	P	PRICKLY PEAR
PPU FED 4A-27D-12-15	22	120S	150E	4300731401	14794 Federal	GW	P	PRICKLY PEAR
PPU FED 13-26D-12-16	26	120S	160E	4300731403	2470 Federal	GW	P	PETERS POINT
PPU FED 15-26D-12-16	26	120S	160E	4300731404	2470 Federal	GW	P	PETERS POINT
PPU FED 3-35D-12-16	26	120S	160E	4300731405	2470 Federal	GW	P	PETERS POINT
PPU FED 10-26D-12-16	26	120S	160E	4300731406	2470 Federal	GW	P	PETERS POINT
PPU FED 11-26D-12-16	26	120S	160E	4300731407	2470 Federal	GW	P	PETERS POINT
PPU FED 12-26D-12-16	26	120S	160E	4300731408	2470 Federal	GW	P	PETERS POINT
PPU FED 11-27D-12-16	27	120S	160E	4300731409	2470 Federal	GW	P	PETERS POINT
PPU FED 15-27D-12-16	27	120S	160E	4300731410	2470 Federal	GW	P	PETERS POINT
PPU FED 9-27D-12-16	27	120S	160E	4300731411	2470 Federal	GW	P	PETERS POINT
PPU FED 11-21D-12-15	21	120S	150E	4300731412	14794 Federal	GW	P	PRICKLY PEAR

PPU FED 6-21D-12-15	21	120S	150E	4300731413	14794	Federal	GW	P	PRICKLY PEAR
PPU FED 12-21D-12-15	21	120S	150E	4300731414	14794	Federal	GW	P	PRICKLY PEAR
PPU FED 8-20D-12-15	20	120S	150E	4300731419	14794	Federal	GW	P	PRICKLY PEAR
PPU FED 1A-20D-12-15	20	120S	150E	4300731420	14794	Federal	GW	P	PRICKLY PEAR
PPU FED 2-20D-12-15	20	120S	150E	4300731421	14794	Federal	GW	P	PRICKLY PEAR
PPU ST 7A-16D-12-15	16	120S	150E	4300731422	14794	State	GW	P	PRICKLY PEAR
PPU ST 6-16D-12-15	16	120S	150E	4300731423	14794	State	GW	P	PRICKLY PEAR
PPU ST 10A-16D-12-15	16	120S	150E	4300731424	14794	State	GW	P	PRICKLY PEAR
PPU ST 3-16D-12-15	16	120S	150E	4300731425	14794	State	GW	P	PRICKLY PEAR
PPU FED 1-34D-12-16	34	120S	160E	4300731427	2470	Federal	GW	P	PETERS POINT
PPU FED 7-34D-12-16	34	120S	160E	4300731428	2470	Federal	GW	P	PETERS POINT
PPU FED 5-35D-12-16	34	120S	160E	4300731429	2470	Federal	GW	P	PETERS POINT
PPU FED 5-21D-12-15	21	120S	150E	4300731451	14794	Federal	GW	P	PRICKLY PEAR
PPU ST 8-16D-12-15	16	120S	150E	4300731455	14794	State	GW	P	PRICKLY PEAR
PPU ST 12-16D-12-15	16	120S	150E	4300731456	14794	State	GW	P	PRICKLY PEAR
PPU ST 12A-16D-12-15	16	120S	150E	4300731457	14794	State	GW	P	PRICKLY PEAR
PPU ST 15A-16D-12-15	16	120S	150E	4300731458	14794	State	GW	P	PRICKLY PEAR
PPU ST 10-16D-12-15	16	120S	150E	4300731459	14794	State	GW	P	PRICKLY PEAR
PPU ST 11A-16D-12-15	16	120S	150E	4300731460	14794	State	GW	P	PRICKLY PEAR
PPU ST 13A-16D-12-15	16	120S	150E	4300731461	14794	State	GW	P	PRICKLY PEAR
PPU FED 3-34D-12-16	34	120S	160E	4300731466	2470	Federal	GW	P	PETERS POINT
PPU FED 5-34D-12-16	34	120S	160E	4300731467	2470	Federal	GW	P	PETERS POINT
PPU FED 4-34D-12-16	34	120S	160E	4300731468	2470	Federal	GW	P	PETERS POINT
PPU FED 10-7D-12-15	07	120S	150E	4300731470	14794	Federal	GW	P	PRICKLY PEAR
PPU FED 15-7D-12-15	07	120S	150E	4300731471	14794	Federal	GW	P	PRICKLY PEAR
PPU FED 9-7D-12-15	07	120S	150E	4300731472	14794	Federal	GW	P	PRICKLY PEAR
PPU FED 16-7D-12-15	07	120S	150E	4300731473	14794	Federal	GW	P	PRICKLY PEAR
PPU FED 10-35D-12-16	35	120S	160E	4300731474	2470	Federal	GW	P	PETERS POINT
PPU FED 9-35D-12-16	35	120S	160E	4300731476	2470	Federal	GW	P	PETERS POINT
PPU ST 6A-16D-12-15	16	120S	150E	4300731477	14794	State	GW	P	PRICKLY PEAR
PPU ST 4-16D-12-15	16	120S	150E	4300731478	14794	State	GW	P	PRICKLY PEAR
PPU ST 4A-16D-12-15	16	120S	150E	4300731479	14794	State	GW	P	PRICKLY PEAR
PPU ST 5A-16D-12-15	16	120S	150E	4300731480	14794	State	GW	P	PRICKLY PEAR
PPU ST 3A-16D-12-15	16	120S	150E	4300731481	14794	State	GW	P	PRICKLY PEAR
PPU ST 16A-16D-12-15	16	120S	150E	4300731484	14794	State	GW	P	PRICKLY PEAR
PPU ST 9A-16D-12-15	16	120S	150E	4300731485	14794	State	GW	P	PRICKLY PEAR
PPU ST 16B-16D-12-15	16	120S	150E	4300731514	14794	State	GW	P	PRICKLY PEAR
PPU ST 14B-16D-12-15	16	120S	150E	4300731515	14794	State	GW	P	PRICKLY PEAR
PPU ST 13B-16D-12-15	16	120S	150E	4300731516	14794	State	GW	P	PRICKLY PEAR
PETERS POINT U FED 9-26D-12-16	25	120S	160E	4300750021	2470	Federal	GW	P	PETERS POINT
PETERS POINT U FED 11-25D-12-16	25	120S	160E	4300750022	2470	Federal	GW	P	PETERS POINT
PETERS POINT U FED 10-31D-12-17	31	120S	170E	4300750023	2470	Federal	GW	P	PETERS POINT
PETERS POINT U FED 11-31D-12-17	31	120S	170E	4300750024	2470	Federal	GW	P	PETERS POINT
PETERS POINT U FED 13A-31D-12-17	31	120S	170E	4300750025	2470	Federal	GW	P	PETERS POINT
PETERS POINT U FED 13-31D-12-17	31	120S	170E	4300750026	2470	Federal	GW	P	PETERS POINT
PETERS POINT U FED 14-31D-12-17	31	120S	170E	4300750027	2470	Federal	GW	P	PETERS POINT
PETERS POINT U FED 14A-31D-12-17	31	120S	170E	4300750028	2470	Federal	GW	P	PETERS POINT
PETERS POINT U FED 12-25D-12-16	25	120S	160E	4300750029	2470	Federal	GW	P	PETERS POINT
PETERS POINT U FED 12-6D-13-17	31	120S	170E	4300750033	2470	Federal	GW	P	PETERS POINT

PETERS POINT U FED 10-25D-12-16	25	120S	160E	4300750035	2470	Federal	GW	P	PETERS POINT
PETERS POINT U FED 13-36D-12-16	36	120S	160E	4300750037	2470	Federal	GW	P	PETERS POINT
PETERS POINT U FED 15-36D-12-16	36	120S	160E	4300750038	2470	Federal	GW	P	PETERS POINT
PETERS POINT U FED 11-1D-13-16	36	120S	160E	4300750039	2470	Federal	GW	P	PETERS POINT
PETERS POINT U FED 12-1D-13-16	36	120S	160E	4300750040	2470	Federal	GW	P	PETERS POINT
PRICKLY PEAR U FED 9-22D-12-15	22	120S	150E	4300750041	14794	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 10-22D-12-15	22	120S	150E	4300750042	14794	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 16-22D-12-15	22	120S	150E	4300750043	14794	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 2-27D-12-15	22	120S	150E	4300750044	14794	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 16-15D-12-15	15	120S	150E	4300750045	14794	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 15-15D-12-15	15	120S	150E	4300750046	14794	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 10-15D-12-15	15	120S	150E	4300750047	14794	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 9-15D-12-15	15	120S	150E	4300750048	14794	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 11A-15D-12-15	15	120S	150E	4300750049	14794	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 1-21D-12-15	21	120S	150E	4300750050	14794	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 2-21D-12-15	21	120S	150E	4300750051	14794	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 2A-21D-12-15	21	120S	150E	4300750052	14794	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 4A-22D-12-15	21	120S	150E	4300750053	14794	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 5A-22D-12-15	21	120S	150E	4300750054	14794	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 7A-21D-12-15	21	120S	150E	4300750056	14794	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 8-21D-12-15	21	120S	150E	4300750057	14794	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 8A-21D-12-15	21	120S	150E	4300750058	14794	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 16-8D-12-15	08	120S	150E	4300750059	14794	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 15-8D-12-15	08	120S	150E	4300750060	14794	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 2-17D-12-15	08	120S	150E	4300750061	14794	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 1A-17D-12-15	08	120S	150E	4300750062	14794	Federal	GW	P	PRICKLY PEAR
PETERS POINT U FED 3A-34D-12-16	27	120S	160E	4300750063	2470	Federal	GW	P	PETERS POINT
PETERS POINT U FED 4A-34D-12-16	27	120S	160E	4300750064	2470	Federal	GW	P	PETERS POINT
PETERS POINT U FED 12-27D-12-16	27	120S	160E	4300750065	2470	Federal	GW	P	PETERS POINT
PETERS POINT U FED 13-27D-12-16	27	120S	160E	4300750066	2470	Federal	GW	P	PETERS POINT
PETERS POINT U FED 13A-27D-12-16	27	120S	160E	4300750067	2470	Federal	GW	P	PETERS POINT
PETERS POINT U FED 14-27D-12-16	27	120S	160E	4300750068	18204	Federal	GW	P	
PETERS POINT U FED 14A-27D-12-16	27	120S	160E	4300750069	2470	Federal	GW	P	PETERS POINT
PRICKLY PEAR U FED 1-22D-12-15	22	120S	150E	4300750076	14794	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 2-22D-12-15	22	120S	150E	4300750077	14794	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 8-22D-12-15	22	120S	150E	4300750078	14794	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 3-17D-12-15	17	120S	150E	4300750079	14794	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 3A-17D-12-15	17	120S	150E	4300750080	14794	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 4-17D-12-15	17	120S	150E	4300750081	14794	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 4A-17D-12-15	17	120S	150E	4300750082	14794	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 5A-17D-12-15	17	120S	150E	4300750083	14794	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 6-17D-12-15	17	120S	150E	4300750084	14794	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 6A-17D-12-15	17	120S	150E	4300750085	14794	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 7A-17D-12-15	17	120S	150E	4300750086	14794	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 12A-17D-12-15	17	120S	150E	4300750087	14794	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 9-12D-12-14	12	120S	140E	4300750088	14794	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 10-12D-12-14	12	120S	140E	4300750089	14794	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 15-12D-12-14	12	120S	140E	4300750090	14794	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 16-12D-12-14	12	120S	140E	4300750091	14794	Federal	GW	P	PRICKLY PEAR

PRICKLY PEAR U FED 3-20D-12-15	20	120S	150E	4300750098	14794	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 3A-20D-12-15	20	120S	150E	4300750099	14794	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 4-20D-12-15	20	120S	150E	4300750100	14794	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 4A-20D-12-15	20	120S	150E	4300750101	14794	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 5-20D-12-15	20	120S	150E	4300750102	14794	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 6-20D-12-15	20	120S	150E	4300750104	14794	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 6A-20D-12-15	20	120S	150E	4300750105	14794	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 11A-20D-12-15	20	120S	150E	4300750106	14794	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 12A-20D-12-15	20	120S	150E	4300750107	14794	Federal	GW	P	PRICKLY PEAR
PETERS POINT U FED 5-31D-12-17	36	120S	160E	4300750109	2470	Federal	GW	P	PETERS POINT
PETERS POINT U FED 6-31D-12-17	36	120S	160E	4300750116	2470	Federal	GW	P	PETERS POINT
PETERS POINT U FED 9X-36D-12-16	36	120S	160E	4300750117	2470	Federal	GW	P	PETERS POINT
PETERS POINT U FED 1-36D-12-16	36	120S	160E	4300750118	2470	Federal	GW	P	PETERS POINT
PETERS POINT U FED 10-6D-13-17	06	130S	170E	4300750119	2470	Federal	GW	P	PETERS POINT
PETERS POINT U FED 15-31D-12-17	06	130S	170E	4300750123	2470	Federal	GW	P	PETERS POINT
PRICKLY PEAR UF 7A-18D-12-15	17	120S	150E	4300750136	14794	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR UF 8A-18D-12-15	17	120S	150E	4300750137	14794	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR UF 9A-18D-12-15	17	120S	150E	4300750138	14794	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR UF 12-20D-12-15	20	120S	150E	4300750139	14794	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR UF 16A-8D-12-15	08	120S	150E	4300750140	14794	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR UF 15A-8D-12-15	08	120S	150E	4300750141	14794	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR UF 13A-9D-12-15	08	120S	150E	4300750142	14794	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR UF 13-9D-12-15	08	120S	150E	4300750143	14794	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR UF 12-9D-12-15	08	120S	150E	4300750144	14794	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR UF 10-8D-12-15	08	120S	150E	4300750145	14794	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR UF 9-8D-12-15	08	120S	150E	4300750146	14794	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR UF 2A-17D-12-15	08	120S	150E	4300750147	14794	Federal	GW	P	PRICKLY PEAR
PETERS POINT UF 12-5D-13-17	06	130S	170E	4300750151	2470	Federal	GW	P	PETERS POINT
PETERS POINT UF 13-5D-13-17	06	130S	170E	4300750152	2470	Federal	GW	P	PETERS POINT
PETERS POINT UF 13-30D-12-17	30	120S	170E	4300750153	18347	Federal	GW	P	PETERS POINT
PETERS POINT UF 14-30D-12-17	30	120S	170E	4300750154	18350	Federal	GW	P	PETERS POINT
PETERS POINT UF 12-30D-12-17	30	120S	170E	4300750155	18346	Federal	GW	P	PETERS POINT
PETERS POINT UF 11-30D-12-17	30	120S	170E	4300750156	18348	Federal	GW	P	PETERS POINT
PETERS POINT UF 3-31D-12-17	30	120S	170E	4300750157	2470	Federal	GW	P	PETERS POINT
PETERS POINT UF 2-31D-12-17	30	120S	170E	4300750158	18349	Federal	GW	P	PETERS POINT
PETERS POINT UF 16-25D-12-16	30	120S	170E	4300750159	2470	Federal	GW	P	PETERS POINT
PETERS POINT UF 9-25D-12-16	30	120S	170E	4300750160	2470	Federal	GW	P	PETERS POINT
PRICKLY PEAR UF 1A-22D-12-15	22	120S	150E	4300750171	14794	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR UF 6A-22D-12-15	22	120S	150E	4300750173	14794	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR UF 7A-22D-12-15	22	120S	150E	4300750174	14794	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR UF 8A-22D-12-15	22	120S	150E	4300750175	14794	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR UF 14B-15D-12-15	22	120S	150E	4300750176	14794	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR UF 9-9D-12-15	09	120S	150E	4300750195	14794	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR UF 16-9D-12-15	09	120S	150E	4300750202	14794	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR UF 8-14D-12-15	14	120S	150E	4300750216	18289	Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR UF 15-14D-12-15	14	120S	150E	4300750221	18290	Federal	GW	P	PRICKLY PEAR
PETERS POINT UF 7X-36D-12-16	36	120S	160E	4300750231	2470	Federal	GW	P	PETERS POINT
PETERS POINT UF 8-36D-12-16	36	120S	160E	4300750232	2470	Federal	GW	P	PETERS POINT
PETERS POINT ST 6-2D-13-16	02	130S	160E	4300731017	14472	State	D	PA	

PTS 33-36 STATE	36	110S	140E	4301330486	6190	State	GW	PA	ARGYLE
PRICKLY PEAR U FED 10-4	10	120S	140E	4300730823	14462	Federal	GW	S	
PRICKLY PEAR U FASSELIN 5-19-12-15	19	120S	150E	4300730860	14853	Fee	GW	S	
PRICKLY PEAR U ST 5-16	16	120S	150E	4300730943	14794	State	GW	S	PRICKLY PEAR
PRICKLY PEAR U FED 7-33D-12-15	33	120S	150E	4300730985	14771	Federal	GW	S	
PETERS POINT ST 8-2D-13-16	02	130S	160E	4300731016	14471	State	GW	S	
PPU FED 4-35D-12-15	35	120S	150E	4300731285	16223	Federal	GW	S	PRICKLY PEAR
PPU FED 5-36D-12-16	36	120S	160E	4300731350	2470	Federal	GW	S	PETERS POINT
PRICKLY PEAR U FED 5A-20D-12-15	20	120S	150E	4300750103	14794	Federal	GW	S	PRICKLY PEAR
PRICKLY PEAR U FED 13A-17D-12-15	20	120S	150E	4300750108	14794	Federal	GW	S	PRICKLY PEAR
PRICKLY PEAR UF 2A-22D-12-15	22	120S	150E	4300750172	14794	Federal	GW	S	PRICKLY PEAR