Form 3160-5
(August 2007)

RECEIVED

DEC 05 2008

Bureau of Land Management
Farmington Field Office

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No 1004-0135
Expires July 31, 2010

**SUNDRY NOTICES AND REPORTS ON WELLS**

***Do not use this form for proposals to drill or to re-enter an Abandoned well. Use Form 3160-3 (APD) for such proposals.***

***SUBMIT IN TRIPLICATE – Other instructions on reverse side***

5. Lease Serial No. **NMSF 078949**

6. If Indian, Allottee or tribe Name **Eastern Navajo**

7. If Unit or CA/Agreement, Name and/or No. **NMNM 78391A**

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

8. Well Name and No. **GCU 109**

2. Name of Operator
**BP America Production Company Attn: Kristen Holder**

9. API Well No. **30-045-08234**

3a. Address **P.O. Box 3092 Houston, TX 77253**

3b. Phone No. *(include area code)* **281-504-0921**

10. Field and Pool, or Exploratory Area **Kutz Pictured Cliffs West**

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
**850' FSL & 1040' FWL Sec. 18 T29N, R12W SWSW**

11. County or Parish, State **San Juan County, New Mexico**

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

| TYPE OF SUBMISSION | TYPE OF ACTION | | | |
|---|---|---|---|---|
| ☒ Notice of Intent | ☐ Acidize | ☐ Deepen | ☐ Production (Start/Resume) | ☐ Water shut-Off |
| | ☐ Alter Casing | ☐ Fracture Treat | ☐ Reclamation | ☐ Well Integrity |
| | ☐ Casing Repair | ☐ New Construction | ☐ Recomplete | ☐ Other |
| Subsequent Report | ☐ Change Plans | ■ Plug and Abandon | ☐ Water Disposal | |
| Final Abandonment Notice | ☐ Convert to Injection | ☐ Plug Back | | |

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

**Compliance Well**

RCVD DEC 10 '08
OIL CONS. DIV.
DIST. 3
RCVD DEC 10 '08

BP America has reviewed the above mentioned well and finds no further reserves potential remaining.

BP respectfully requests permission to plug and abandon said well.

Please find attached the P&A procedure. Should you have any questions please call Nona Morgan @281-366-6207

14. I hereby certify that the foregoing is true and correct
*Name* (Printed/typed) Kristen Holder **Title** Regulatory Analyst

Signature Kristen Holder **Date** 12/04/08

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

| Approved by Original Signed: Stephen Mason | Title | Date DEC 09 2008 |
|---|---|---|
| Conditions of approval, if any, are attached Approval of this notice does not warrant or Certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon | Office | |

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

NMOCD 10/15

# SJ Basin Well Work Procedure

DRAFT FOR REVIEW BY REGULATORY AUTHORITIES

**API #: 30-045-08234**

**Well Name:** GCU 109
**Date:** December 4, 2008
**Location:** T29N-R12W-Sec18
**Horizon:** PC

**Engr: Nona Morgan**
**ph (281)-366-6207**
**fax (281)-366-7836**
**Cell (713)-890-2002**

**Objective: Plug and Abandonment**

1. TIH and pull out completion
2. Cleanout wellbore
3. RIH w/ workstring and pump 150' plug @ CIBP set @ 1650'
4. Set a second CIBP above PC perfs and Pressure test
4. Run CBL of 4-1/2" casing
5. Set cement plugs to isolate intervals.
6. Rig down move out.
7. Restore location.

**Well History:**

Spud Date: 1961 Drill to Dakota,
1968: Reperf and Add 2nd Dakota
Recomplete 1997 : Abandon Dakota, Recomplete to PC
Well Svc 9/2001- Cleanout & run new tubing
Well Svc 2/2002- Pump change
Workover 3/2003 - Refrac PC
Well Svc 4/2003 - Pump change & reland tbg @ 1457'
Well Svc 9/2003 - Pump change
Well Svc 2005- Cleanout and Meoh treatment
Well Svc 1/2007 - Meoh treatment

**Pertinent Information:** Gas BTU content for this well is 1024; Sp gr. is 0.583; (10/2007). Venting and Flaring document needs to be followed with the assumption that BTU content is above 950. No history of BH issues.

Current Status – Well is shut in and unable to produce. Well has had several major workovers over the years. It initially started out as a Dakota producer in 1961. It was then reperfed and refrac'd in 1968. In 1997, the well was recompleted and the Dakota was abandoned and the Pictured cliffs was opened up. In 2003, the Pictured Cliffs was again perf'd and frac'd. Since then, two methanol treatments have been performed due to water block. Neither has been successful. At this time, Operations is unable to produce the well at any stable rate. Furthermore, Reservoir Engineer has determine the well to be pretty much depleted.**Work Guidelines NOTICE 1:** *Perform all work per these guidelines and considerations.*

- Health, safety, and the environment are a top priority with BP San Juan South Asset and all work shall be done in accordance with Company Policies. Deviations from established BP Policies and Standards are provided for only by the DWOP Dispensation or MOC process.
- All work requires a Pre-work Safety Meeting / JSEA with all BP and service company personnel. The Pre-work Safety Meeting / JSEA should cover the work, personnel assignments, BP General Safety Rules, BP 8 Golden Rules, BP IIF work practices, permitted work, specific hazards and

mitigations, emergency response plan, environmental issues and countermeasures, site security, PPE, etc.

- All personnel are empowered to Stop The Job at any time there is a potentially unsafe or perceived unsafe condition or process. For an Incident and Injury Free (IIF) workplace, all personnel are to take care of themselves and one another.

**Procedure:**

***Preparations***

**Wellsite Preparations and Agency Notifications:**

1. ***Contact BLM and NMOCD 24 hrs before beginning P&A process to ensure scheduling of personnel to witness casing pressure testing, CBL results and cement placement.***

2. Perform pre-rig site inspection. Per Applicable documents, check for: (1) size of location, (2) gas taps, (3) other wells, (4) other operators, (5) production equipment, (6) wetlands, (7) wash (dikes requirements), (8) H2S, (9) barriers needed to protect equipment, (10) landowner issues, ( 11) location of pits ( buried or lines in pits), (12) raptor nesting, (13) critical location, (14) check anchors, (15) ID wellhead, etc. Allow 48 hours for One Call if earth pit is required.

3. Have location stripped prior to rig move as this is a final wellbore PXA.

4. Perform and second site visit after lines are marked to ensure all lines locations are clearly marked and that Planning & Scheduling has stripped equipment and set surface barricades as needed.

5. Notify land owners with gas taps on well.

6. Lock out/tag out any remaining production equipment.

**Initial Well Checks & Preparations:**

7. Check gas H2S content and treat if the concentration is > or equal to 10 ppm/Treat for H2S, if necessary per H2S Wells NOTICE. *Note: Although there has not been H2S identified in the past at this location, the NMOCD has denoted this location as having the potential for H2S being present.*

8. MIRU workover rig. Hold safety meeting and perform JSA. Complete necessary paperwork and risk assessment. Ensure all necessary production equipment is isolated (LOTO) including, but not limited to the meter run, automation, and separator, etc.

9. Check and record tubing, casing and bradenhead pressures daily. Ensure production casing and bradenhead valves are double valved. Double valve all casing strings. Check hold down pins on hanger.

10. Pressure test tree and hanger to 200 psi above SITP. Make up 3" flowback line, if necessary and blow down well. Kill with 2% KCL water or fresh water, as necessary. Check all casing strings to ensure no pressure exist on any annulus.

***TOH Pump***

11. MIRU workover rig. Hold safety meeting and perform JSA. Complete necessary paperwork and risk assessment.

12. Check and record tubing, casing, and bradenhead pressures. Ensure production casing has double casing valves installed. Double valve all casing strings. Check hold down pins on hanger.

13. Blow down well to flow back tank. Kill with 2% KCl water ONLY if necessary. Check all casing strings to ensure no pressure exist on any annulus.

14. Hang off polish rod on stuffing box and remove horses head.

15. Pump tubing capacity with 2% KCl water to load tubing. Test stroke pump to 500 psi if tubing will load. **Note:** If tubing will not load or goes on vacuum after loading, then hole in tubing or pump shoe problem is indicated.

16. Unseat pump. TOH Rods/Pump, inspect rods and pump for scale or wear. ***Watch lower rods (near EOT) closely for signs of wear on guides and rods.

***Completion Removal***

17. Nipple down Wellhead. Reference "No Dual Barrier in Annulus During All Well Servicing" dispensation. NU BOPs and diversion spool with 3" outlets and 3" pipe to the blow tank. Pressure test BOPs to 200 psi on the low end and on the high range at 1000 psi. Monitor flowing casing pressure with gauge (with casing flowing to blow tank), if available, throughout workover.

18. Install stripping rubber. Pull tubing hanger up to rubber and shut pipe rams. Bleed pressure above rams. Pull stripping rubber and hanger up to floor. Remove hanger and replace stripping rubber.

19. Open rams and TOOH w/ 2-3/8 production tubing currently set at 1481'. PBTD 1650' Use approved "Under Balance Well Control Tripping Procedure". Visually inspect tubing while POOH. *(It is acceptable to use the existing tubing as workstring, if it appears to have good integrity based on normal inspection procedures. – WSL's discretion.)*

20. TIH w/ bit & scraper for 4-1/2" casing to the top of the PC perfs at 1429' and clean out.

21. RIH with 4- ½" CIBP on workstring and set at 1379'.

22. Load hole and circulate out any produced fluids. Pressure test wellbore to 500 psi for 15 minutes. Monitor bradenhead for indications of communication while this is being done.

23. RU wireline and run Schlumberger CBL for 4-1/2" casing from 1379' to surface. Report casing load, cement quality, and pressure test results, bradenhead pressure and bleed details, and TOC to the BLM, NMOCD, and Production Engineer.

    **Note:** *According to original cement volumetric calculations, sufficient quantities of cement have been pumped during the well completions to adequately cover the entire depth of the well from 6180' to surface of behind casing volumes using the DV Tool. Completion reports showed that cement was circulated to surface.*

Drill out BP @ 1650' & plug Mesaverde from 3018'- 2918'

**Spot Plug Locations and Pump Cement to plug off Pictured Cliffs & Fruitland Coal intervals:**

24. RIH with 2-3/8" open-ended workstring to 1369'. Spot 550' or ~43 sacks - (**49 cu. Ft.**) of G-Class cement on top of CIBP from 1369'-819'. This will isolate the entire PC and FC Gas bearing productive intervals. WOC.

25. Based on 4-1/2" CBL forthcoming results, it will be determined if and where cement will be required behind casing to squeeze off the Pictured Cliffs Sandstone and Fruitland Coal productive intervals.

    The next steps listed below assume the TOC behind the 4-1/2" casing is available in sufficient quantities to surface to fully plug off the identified producing intervals from a depth of 1379' to

surface. However, the order and detail of the next steps could change based on the casing pressure tests and CBL results. If necessary, a modified procedure that has been agreed upon by the NMOCD/BLM will be issued at that time to fully isolate and squeeze off any portion of the producing intervals where cement is found to be inadequate according to test reports. The e*ngineer should be consulted throughout the plugging and abandonment procedures. All CBL and pressure test results will be reported to the onsite NMOCD and BLM representatives.*

**Set Cement Plugs to Isolate & Plug off Shallow Productive Zones: Kirkland & Ojo Alamo**

26. RIH w/ 2-3/8" workstring and 4-1/2" cement retainer and set @ 459'.

27. RIH with 2-3/8" open-ended workstring to 449'. Spot 459' or ~37 sacks - (**47 cu. Ft.**) of G-Class cement on top of cement retainer from 449' to surface. This will isolate the wellbore from the entire Kirland/Ojo Alamo horizon to surface.

28. Based on 4-1/2" CBL forthcoming results, it will be determined if and where additional cement will be required behind casing to meet regulatory requirements to squeeze off the Kirkland and Ojo Alamo intervals.

29. If required by NMOCD to ensure plug is pumped behind pipe from 449' to surface, the following steps are suggested.

    a. Stab into cement retainer and squeeze 30 cu ft or 22 sacks of G-Class cement from top of retainer to the surface.
    b. POOH with work string and top off 4 – ½". This will fill the 4 -1/2" casing from below the surface casing shoe to surface.

**Final Plugging and Abandonment steps:**

30. After completion of the above described or modified cementing procedures, If cement cannot be seen on all annulus and casing strings after removing wellhead, remedial cementing at the surface will be required.

31. Install 4' well marker and identification plate per NMOCD requirements.

32. RD and release all equipment. Remove all Wells Team LOTO equipment.

33. Ensure all well work details and well bore equipment report are entered in DIMS. Print DIMS summary of work and wellbore diagram and put in well file. Notify Sherri Bradshaw and Cherry Hlava of completed P&A for final regulatory agency reporting and database clearing.

34. Submit work request to Planning and Scheduling to prepare location for reclamation and reseeding.

## Current Wellbore

bp

**Gallegos Canyon Unit 109**
Pictured Cliffs
API # 30-045-08234
T-29N, R-12-W, Sec. 18
San Juan County, New Mexico

**History**
Spud Date: 1961 Drill to Dakota
1968: Reperf and Add 2nd Dakota
Recomplete 1997 : Abandon Dakota, Recomplete to PC
Well Svc 9/2001- Cleanout & run new tubing
Well Svc 2/2002- Pump change
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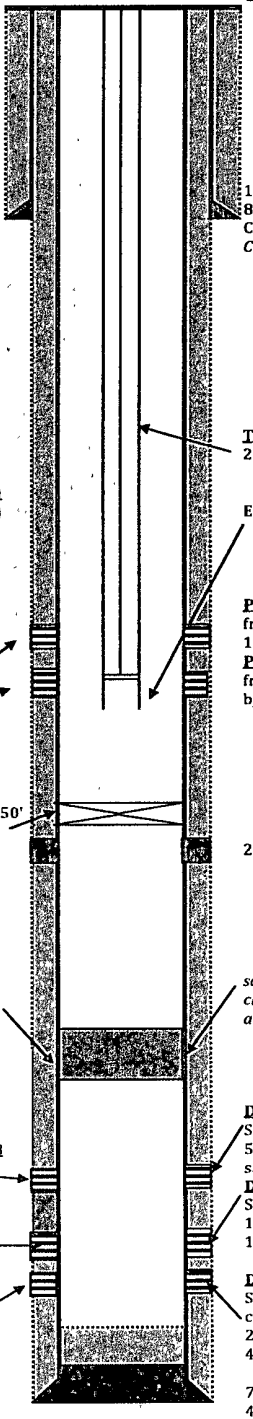
Well Svc 9/2003 - Pump change
Well Svc 2005- Cleanout and Meoh treatment
Well Svc 1/2007 - Meoh treatment

| Formation Tops | |
|---|---|
| Ojo Alamo | surface |
| Basal FC | 1394' |
| PC | 1429' |
| Lewis Shale | 1656' |
| Cliffhouse | 2966' |
| Menefee | 3112' |
| Pt Lookout | 3800' |
| Mancos Shale | 4195' |
| Gallup | 5105' |
| Greenhorn | 5859' |
| Graneros | 5920' |
| Dakota | 5968' |



G.L. 5523'

12 -1/4" Hole
8-5/8", 22.7#, J-55 @ 359'
Cmt w/ 50 sks
*Cement top surface*

Tubing (1/2007)
2 3/8", 4.7#, J-55, EUE (46 JTS)

Sucker Rods (1/2007)
3/4" @ 1466' (57 JTS)

EOT @ 1,481'

**Pictured Cliffs Perfs Frac'd 9/1997**
frac'd w/ 516 bbls fresh water and
108,127# 18/30 sand
**Pictured Cliffs rePerf'd & Frac'd 3/2003**
frac'd w/ 500 gals of 15% HCl acid followed
by 32,000# 16/30 Brady sand

**Pictured Cliffs Perforations**
1,429' - 1,450' @ 2 jspf

CIBP set @ 1650'
(9/1997)

2- stage DV Tool set @ 1736'

*squeeze w/ 50sx (1997)*
*class B cement*
*across MesaVerde*

Cement plug
4965'-5154'

**Dakota Perfs Added 11/1968**
Sand water frac'd w/ 16,234 gal water,
5,000 lbs 20-40 sand, 25,000 lbs 10-20
sand & 2,000 lbs 8-12 galss beads
**Dakota Perfs Added 9/1968**
Sand water frac'd w/ 30,450 gals water
10,000 lbs 20/40 sand & 45,000 lbs
10/20 sand and 2,000 lbs 8-12 flass beads

Dakota Perforations 11/1968
5971' - 5976' @ 4 spf
5986' - 5987' @ 4spf

Dakota Perforations 9/1968
6046' - 6050' @ 2 spf
6074' - 6080' @ 2 spf

Dakota Perforations 1961
6054' - 6062' @ 8 spf

**Dakota Perfs Frac'd 1961**
Sand water frac'd w/ 45,080 gals water
containing 1% Cacl2 and 7 lbs J-2 and
20 lbs F-4 additives per 1,000 gals &
40,000 lbs sand

PBTD: 6131'
TD: 6180'

**NFM (12/03/08)**

7-7/8" hole
4-1/2 " csg set @ 6180'
Cmt w/2 stage tool:
**1st stage**: 275 sxs w/ 6% gel cmt. Containing
1-1/2 lbs Turf plug 1 sack. Followed by 100
sxs neat cement.
**2nd stage**: Cmt w/ 550 sxs and 6% gel . Circ.
50 sxs cement

Proposed PXA

bp

**Gallegos Canyon Unit 109**
Pictured Cliffs
API # 30-045-08234
T-29N, R-12-W, Sec 18
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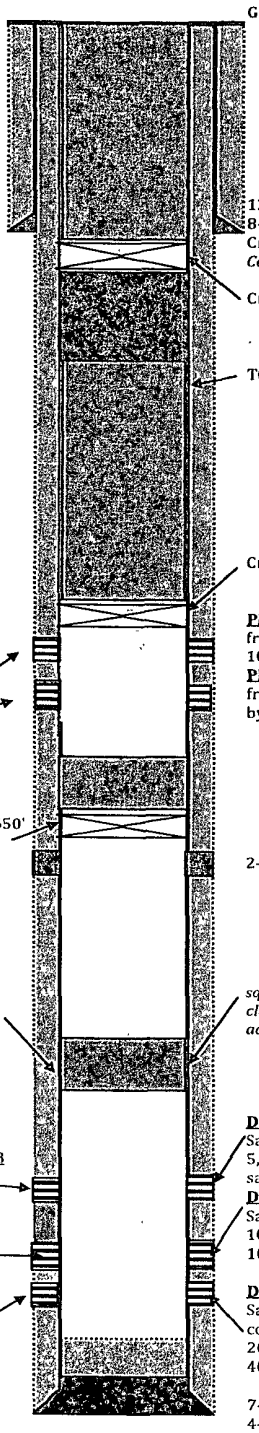

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*Cement top surface*

Cmt retainer set @ 459'

TOC @ 819'

Cmt retainer set @ 1379'

**Pictured Cliffs Perfs Frac'd 9/1997**
frac'd w/ 516 bbls fresh water and
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frac'd w/ 500 gals of 15% HCl acid followed
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**Pictured Cliffs Perforations**
1,429' - 1,450' @ 2 jspf

CIBP set @ 1650'
(9/1997)

2- stage DV Tool set @ 1736'

*squeeze w/ 50sx (1997)*
*class B cement*
*across MesaVerde*

Cement plug
4965'-5154'

**Dakota Perfs Added 11/1968**
Sand water frac'd w/ 16,234 gal water,
5,000 lbs 20-40 sand, 25,000 lbs 10-20
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6054' - 6062' @ 8 spf

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7-7/8" hole
4-1/2 " csg set @ 6180'
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sxs neat cement.
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50 sxs cement.

PBTD. 6131'
TD: 6180'

**NFM (12/03/08)**

**UNITED STATES DEPARTMENT OF THE INTERIOR**
**BUREAU OF LAND MANAGEMENT**
**FARMINGTON DISTRICT OFFICE**
1235 LA PLATA HIGHWAY
FARMINGTON, NEW MEXICO 87401

Attachment to notice of
Intention to Abandon:

Re: Permanent Abandonment
Well: 109 Gallegos Canyon Unit

CONDITIONS OF APPROVAL

1. Plugging operations authorized are subject to the attached "General Requirements for Permanent Abandonment of Wells on Federal and Indian Lease."

2. Farmington Office is to be notified at least 24 hours before the plugging operations commence (505) 599-8907.

3. The following modifications to your plugging program are to be made:

a) Drill out bridge plug @ 1650' and plug the Mesaverde from 3018' – 2918'.

You are also required to place cement excesses per 4.2 and 4.4 of the attached General Requirements.

Office Hours: 7:45 a.m. to 4:30 p.m.