

RCVD JAN 13 '12

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submitted in lieu of Form 3160-5

JAN 10 2012 ST. 3

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
Sundry Notices and Reports on Wells

Farmington Field Office  
Bureau of Land Management

<p>1. Type of Well</p> <p>2. Name of Operator ConocoPhillips c/o BHP Billiton San Juan Coal</p> <p>3. Address &amp; Phone No. of Operator PO Box 561, Waterflow, NM 87421 (505) 598-2000</p> <p>Location of Well, Footage, Sec., T, R, M. 990' FNL &amp; 940' FWL, Section 31, T-30-N, R-14-W,</p>	<p>5. Lease Number NMNM-27024</p> <p>6. If Indian, All. or Tribe Name</p> <p>7. Unit Agreement Name</p> <p>8. Well Name &amp; Number Twin Mounds 31 #1</p> <p>9. API Well No. 30-045-25880</p> <p>10. Field and Pool Basin Dakota</p> <p>11. County &amp; State San Juan County, NM</p>
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12. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OTHER DATA

Type of Submission	Type of Action	
<input checked="" type="checkbox"/> Notice of Intent	<input checked="" type="checkbox"/> Abandonment	<input type="checkbox"/> Change of Plans
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Recompletion	<input type="checkbox"/> New Construction
<input type="checkbox"/> Final Abandonment	<input type="checkbox"/> Plugging Back	<input type="checkbox"/> Non-Routine Fracturing
	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> Water Shut off
	<input type="checkbox"/> Altering Casing	<input type="checkbox"/> Conversion to Injection
	<input type="checkbox"/> Other -	

13. Describe Proposed or Completed Operations

ConocoPhillips as the operator, desires BHP Billiton San Juan Coal to plug and abandon this well per the attached procedure.

**SEE ATTACHED FOR  
CONDITIONS OF APPROVAL**

14. I hereby certify that the foregoing is true and correct.

Signed John Mercier Title Senior Mine Geologist Date December 29, 2011

(This space for Federal or State Office use)  
APPROVED BY [Signature] Title PC Date JAN 10 2012  
CONDITION OF APPROVAL, if any:

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

BHP BILLITON  
RECEIVED

JAN 12 2012

SAN JUAN MINE  
ENERGY COAL NEW MEXICO

NMOC  
OPERATOR  
[Signature]  
Derek Rawson

**A-PLUS WELL SERVICE, INC.**

P.O. BOX 1979

Farmington, New Mexico 87499

505-325-2627 \* fax: 505-325-1211

**PLUG AND ABANDONMENT PROCEDURE**

December 22, 2011

**Mesa-Twin Mounds 31 #1**

Basin Dakota / Wildcat Gallup  
990' FNL and 940' FWL, Section 31, T30N, R14W  
San Juan County, New Mexico / API 30-045-25880

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**Note:** All cement volumes use 100% excess outside pipe and 60' excess inside. The stabilizing wellbore fluid will be water or drilling mud with sufficient weight to balance all exposed formation pressures. Cement is Class B mixed at 15.6 ppg with 1.18 cf/sx yield or Class B with 18% salt by weight of water (for expansion, MSHA requirement through the Fruitland Coal zone).

**RE-ENTRY & PLUGGING PROCEDURE:**

1. This project requires a NMOC D C-144 CLEZ Closed-Loop System Permit for the use of an A-Plus steel tank to handle waste fluids circulated from the well and cement wash up.
2. Complete a hot work permit. Test the inside of the p&a marker for methane by hot tapping the 4.5" pipe approximately 12" above ground level. Then dig out and remove the p&a marker with a backhoe. Weld a casing extension onto the 5.5" casing and install a tubing head. Orange peel the 8.625" casing onto the 5.5" casing and install a 2" outlet onto this bradenhead annulus.
3. Comply with all applicable MSHA, NMOC D, BLM and San Juan Coal Mine safety regulations. Conduct safety meeting for all personnel on location. MOL and RU daylight pulling unit. Lay relief line to the waste pit; kill the well with water as necessary. ND wellhead and NU BOP on the tubing head. Function test operation and then pressure test the BOP to 1000 PSI. Set cat walk and pipe racks.
4. Rig up a drilling system with a mud pit, mud pump and power swivel. Pick up a 4.75" mill tooth bit and a 4-1/2" drill collar with the power swivel. Drill out cement inside the 5.5" casing from surface to approximately 632' with water; use 6 drill collars and 2.375" PH-6 tubing or equivalent work string. Then clean out the 5.5" casing to 950' (Note: PBTD should be at least 200' below the bottom of Coal Seam #8). TOH with this BHA and LD the bit. Round trip 5.5" casing scraper to PBTD.
5. Rig up Jet West wireline and run a Gamma - Neutron log, Cement Bond Log and a directional survey log. Adjust the milling intervals as appropriate from these logs. All reported depths should be from ground level.

**PLUG AND ABANDONMENT PROCEDURE**

December 22, 2011

**Mesa-Twin Mounds 31 #1**

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**Re-entry & Plugging Procedure Continued:**

6. **Perforate the 5.5" casing below the Base Fruitland Coal Seam (#8):** [after making the correcting depth adjustments]: Perforate 8 squeeze holes in a 2 foot interval from 910' to 912'. Attempt to establish a rate into these squeeze holes, up to 1500 PSI. If the CBL log indicates less than adequate cement quality in the 5.5" x 7-7/8" openhole annulus from 910' to 710', then perforate at the appropriate depth(s) from the CBL and attempt to establish an injection rate into the annulus after each set of perforations. (May need to perforate every 50' if necessary at 860', 810' and 760'). Then set a 5.5" wireline cement retainer at the appropriate depth depending on if and at what depth an injection rate was established. If no injection rate(s) were obtained, then set a CR at 860' and pressure up to 2500 PSI. If the CR is set at a different depth, then modify the following plug as appropriate.
7. **Plug #1 (Pictured Cliffs Interval, 910' - 750'): TIH with workstring and sting into CR.** Establish rate below the CR and into the squeeze holes. Mix and pump 58 sxs Class B cement with 18% salt (by weight of water), squeeze 30 sxs outside 5.5" casing and leave 28 sxs inside the 5.5" casing. PUH out of the cement and then pressure up on the casing to 1000 PSI. Hesitation squeeze the exposed perforations as appropriate. After WOC for 2 hours, TIH and reverse circulate the casing clean at 740'. TOH with workstring. WOC.
8. **PU a flat bottom mill, the 3.875" section milling tool and the 6 - 4-1/2" drill collars (this is the under reaming bottom hole assembly, BHA). TIH with BHA and work string to 877'. Rig up drilling equipment and establish circulation with a high viscosity low solids fresh water mud.**
9. **Note: The intervals to be milled out below are from ground level - not KB.**
10. **Mill out the 5.5" casing from 877' to 710'. Start milling out the 5.5" casing from 877' to 710'.** Mill per the tool hands instructions for weight on mill, circulation rate and power swivel's RPM. Circulate well clean with mud. TOH with section mill and workstring; stand back the drill collars. TIH with bit and clean out to 750'. Circulate the well clean. TOH with the bit.
11. **Rig up a wireline truck and run a caliper log through the milled interval to insure all the 5.5" casing from the planned milling depths (877' to 710') has been removed. Re-mill as appropriate. Re-log as necessary.**
12. **Perforate the 5.5" casing with 3 SPF at 693' and 698'. This is the top and bottom of Coal Seam #9 and the depths should be modified as appropriate from the logs run in step #5.**

**PLUG AND ABANDONMENT PROCURE****Mesa-Twin Mounds 31 #1**

December 22, 2011

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**Re-entry & Plugging Procedure Continued:**

13. **Plug #2 (Pictured Cliffs top and Fruitland Coal interval, 750' – 356'):** TIH with workstring to approximately 750' and circulate the mud from the well. Then pump an additional 5 bbls fresh water spacer ahead of the cement. Mix 50 sxs cement with 18% salt (by weight of water) and spot a balanced plug from 750' up to 200' to fill the milled interval. Displace cement with water. TOH with workstring and shut the casing valve. Then hesitation squeeze the cement down to approximately 356' inside the 5.5" casing up to 1500 PSI.
14. WOC. Then TIH with tubing and tag cement. Pressure test the 5.5" casing to 800#.
15. **Plug #3 (7" Surface casing shoe, 356' to Surface):** Connect the pump line to the bradenhead valve. Pressure test the BH annulus to 300#, note the fluid volume to load. If the BH annulus tests, then mix approximately 50 sxs cement with or without 18% salt cement and spot a balanced plug inside the 5.5" casing from 356' (or TOC) to surface to cover the 8.625" surface casing shoe. TOH and LD the tubing. If the BH annulus does not test, then perforate at the appropriate depth and fill the bradenhead annulus and 5.5" casing with cement to surface. TOH and LD tubing. Shut in well and WOC.
16. ND BOP and cut off wellhead below surface. Install P&A marker with cement to comply with regulations. RD, MOL. Cut off anchors and clean up location.

**Mesa-Twin Mounds 31 #1****As Plugged 9/11/1995**

Basin Dakota / Wildcat Gallup

990' FNL, 940' FWL, Section 31, T-30-N, R-14-W, San Juan County, NM

Lat: 36°34'16.99"N / Long: 107°47'17.56"W API #30-045-25880

Today's Date: 12/22/11

Spud: 4/13/84

Completion: 5/10/84

Elevation: 5344' GL

G/Dk Plugged: 9/07/95

12.25" hole

Fruitland @ 408'

Fruitland Coal Seam #3: 593' - 599'

Fruitland Coal Seam #8: 687' to 700'

Pictured Cliffs @ 720'

Mesaverde @ 1710'

Point Lookout @ 3202'

Gallup @ 4500'

Dakota @ 5383'

7.875" Hole

TD 6818'  
PBTD 5535'Cement Circulated to surface:  
100% excess of open hole volume8.825", 24#, H-40 Casing set @ 214'  
Cement with 186 cf, circulate to surfacePlug #6: 264' - 0'  
Class B cement, 31 sxsPlug #5: 471' - 321'  
Class B cement, 17 sxsPlug #4: 782' - 632'  
Class B cement, 17 sxsPlug #3: 1753' - 1603'  
Class B cement, 17 sxsDV Tool @ 3698'  
Cement with 1286 cfPlug #2: 3256' - 3152'  
Class B cement, 17 sxsPlug #1b: 4880' - 4203'  
Class B cement, 90 sxsGallup Perforations:  
4608' - 4680',  
4698' - 4949'Dakota Perforations:  
6514' - 6610',  
6440' - 6486'Plug #1a: 6449' - 4880'  
Class B cement, 61 sxs5.6" 15.5# J-58 casing set @ 5818'  
Cement with 544 cf

**Mesa-Twin Mounds 31 #1****Proposed Mine P&A**

Basin Dakota / Wildcat Gallup

990' FNL, 940' FWL, Section 31, T-30-N, R-14-W, San Juan County, NM

Lat: 36°34'16.99"N / Long: 107°47'17.56"W API #30-045-25880

Today's Date: 12/22/11

Spud: 4/13/84

Completion: 5/10/84

Elevation: 5344' GL

GVDK Plugged: 9/07/95

12.25" hole

Fruitland @ 406'

Note: These coal seam depths are approximate and need to be revised after logging and be reported from ground level.

Fruitland Coal Seam #9: 583' - 598'

Fruitland Coal Seam #8: 687' to 700'

Pictured Cliffs @ 720'

Mesaverde @ 1710'

Point Lookout @ 3202'

Gallup @ 4500'

Dakota @ 5393'

7.875" Hole

TD 5618'  
PBTD 5538'

Cement Circulated to surface:  
100% excess of open hole volume

8.625" 24# H-40 Casing set @ 214'  
Cement with 188 cf, circulate to surface

Plug #3: 355' - 0'  
Class B cement, 50 sxs

Plug #2: 750' - 355'  
Class B cement, 50 sxs

Perforate @ 693'

Perforate @ 699

Mill out casing  
from 677' to 710'

Plug #1: 910' - 720'  
Class B cement, 58 sxs:  
25 sxs in and 30 sxs outside.

Set CR @ 880'

Perforate @ 910' and other depths per CBL

Original Plug #3: 1753' - 1603'  
Class B cement, 17 sxs

Original Plug #2: 3256' - 3152'  
Class B cement, 17 sxs

DV Tool @ 3698'  
Cement with 1288 cf

Gallup Perforations:  
4508' - 4680',  
4688' - 4949'

Original Plug #1b: 4880' - 4203'  
Class B cement, 90 sxs

Dakota Perforations:  
5514' - 5810',  
5440' - 5496'

Original Plug #1a: 5449' - 4880'  
Class B cement, 61 sxs

5.5" 16.5# J-55 casing set @ 5818'  
Cement with 544 cf

## BLM CONDITIONS OF APPROVAL

The following surface rehabilitation Conditions of Approval must be complied with as applicable, before this well can be approved for final abandonment (see 43 CFR 3162.3-4). Surface rehabilitation work shall be completed within one year of the actual plugging date. Notification for completion of this work can be submitted with a Sundry Notice.

1. All fences, production equipment, purchaser's equipment, concrete slabs, deadman (anchors), flowlines, risers, debris and trash must be removed from the location.
2. Production pits will be closed according to the Unlined Surface Impoundment Closure Guidelines, as approved in the Environmental Assessment of December 1993. Any oil stained soils may be remediated on-site according to these guidelines or disposed of in an approved disposal facility.
3. The well pad will be shaped to the natural terrain and left as rough as possible. All compacted areas and areas devoid of vegetation shall be ripped to a minimum of 12" before seeding.
4. Access roads will be shaped to conform to the natural terrain and left as rough as possible to detour vehicular travel. Access will be ripped to a minimum of 12" in depth and waterbarred prior to seeding. All erosion problems created by the development must be corrected prior to acceptance of release. Waterbars should be spaced as shown below:

% Slopes	Spacing Interval
Less than 20%	200'
2 to 5%	150'
6 to 9%	100'
10 to 15%	50'
Greater than 15%	30'

All water bars should divert to the downhill side of the road.

5. All disturbed areas will be seeded with the prescribed certified seed mix (reseeding may be required).
6. Notify Surfacing Managing Agency seven (7) days prior to seeding so that they may be present for that option.
7. The period of liability under the bond of record will not be terminated until the lease is inspected and the surface rehabilitation approved.

Other SMA's may vary slightly in their restoration requirements. It is your responsibility, as the operator, to obtain surface restoration requirements from other SMA's. We need to be provided with a copy of these requirements. Any problems concerning stipulations received from other SMA's should be brought to us.

On private land, we should be provided with a letter from the fee owner stating that the surface restoration is satisfactory.

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

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Attachment to notice of  
Intention to Abandon:

Re: Permanent Abandonment  
Well: 1 Twin Mounds 31

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:

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.



**GENERAL REQUIREMENTS FOR  
PERMANENT ABANDONMENT OF WELLS ON FEDERAL AND INDIAN LEASES  
FARMINGTON FIELD OFFICE**

1.0 The approved plugging plans may contain variances from the following minimum general requirements.

- 1.1 Modification of the approved plugging procedure is allowed only with the prior approval of the Authorized Officer, Farmington Field Office.
- 1.2 Requirements may be added to address specific well conditions.
- 2.0 Materials used must be accurately measured. (densimeter/scales)
- 3.0 A tank or lined pit must be used for containment of any fluids from the wellbore during plugging operations and all pits are to be fenced with woven wire. These pits will be fenced on three sides and once the rig leaves location, the fourth side will be fenced.
  - 3.1 Pits are not to be used for disposal of any hydrocarbons. If hydrocarbons are present in the pit, the fluids must be removed prior to filling in.
- 4.0 All cement plugs are to be placed through a work string. Cement may be bull-headed down the casing with prior approval. Cement caps on top of bridge plugs or cement retainers may be placed by dump bailer.
  - 4.1 The cement shall be as specified in the approved plugging plan.
  - 4.2 All cement plugs placed inside casing shall have sufficient volume to fill a minimum of 100' of the casing, or annular void(s) between casings, plus an excess volume sufficient to provide for 50 linear feet of fill above the plug.
  - 4.3 Surface plugs may be no less than 50' in length.
  - 4.4 All cement plugs placed to fill annular void(s) between casing and the formation shall be of sufficient volume to fill a minimum of 100' of the annular space plus 100% excess, calculated using the bit size, or 100' of annular capacity, determined from a caliper log, plus an excess volume sufficient to provide for 50 linear feet of fill above the plug.
  - 4.5 All cement plugs placed to fill an open hole shall be of sufficient volume to fill a minimum of 100' of hole, as calculated from a caliper log, plus an excess volume sufficient to provide for 50 linear feet of fill above the plug. In the absence of a caliper log, an excess of 100% shall be required.
  - 4.6 A cement bond log or other accepted cement evaluation tool is required to be run if one had not been previously run or cement circulated to surface during the original casing cementing job or subsequent cementing jobs.