

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires: March 31, 2007

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.

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

2. Name of Operator
Dugan Production Company c/o Westmoreland, San Juan Coal Mine

3a. Address
P.O. Box 420, Farmington, NM 87499

3b. Phone No. (include area code)
505-325-1821

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
Sec 24, T30N, R15W SENW 1515 FNL 1395 FWL

5. Lease Serial No.

NMNM21465

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

8. Well Name and No.

Centennial Com 91S

9. API Well No.

30-045-30721-00-X1

10. Field and Pool, or Exploratory Area

Twin Mounds Fruitland Sand PC

11. County or Parish, State

San Juan County, NM

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

| TYPE OF SUBMISSION | TYPE OF ACTION | | | |
|--|---|--|--|---|
| <input checked="" type="checkbox"/> Notice of Intent | <input type="checkbox"/> Acidize | <input type="checkbox"/> Deepen | <input type="checkbox"/> Production (Start/Resume) | <input type="checkbox"/> Water Shut-Off |
| <input type="checkbox"/> Subsequent Report | <input type="checkbox"/> Alter Casing | <input type="checkbox"/> Fracture Treat | <input type="checkbox"/> Reclamation | <input type="checkbox"/> Well Integrity |
| <input type="checkbox"/> Final Abandonment Notice | <input type="checkbox"/> Casing Repair | <input type="checkbox"/> New Construction | <input type="checkbox"/> Recomplete | <input type="checkbox"/> Other |
| | <input type="checkbox"/> Change Plans | <input checked="" type="checkbox"/> Plug and Abandon | <input type="checkbox"/> Temporarily Abandon | |
| | <input type="checkbox"/> Convert to Injection | <input type="checkbox"/> Plug Back | <input type="checkbox"/> Water Disposal | |

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 recompleat 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 recompleat 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.)

Dugan as the operator, desires Westmoreland, San Juan Coal Mine to plug and abandon this well per the attached procedure.

Also request approval to set an underground plate instead of a 4' above ground marker to prevent stray electrical currents from entering the underground coal mine.

Surface reclamation will be in accordance with the BLM approved plan for the San Juan Coal Mine

A closed loop system will be utilized for waste fluid.

BLM'S APPROVAL OR ACCEPTANCE OF THIS ACTION DOES NOT RELIEVE THE LESSEE AND OPERATOR FROM OBTAINING ANY OTHER AUTHORIZATION REQUIRED FOR OPERATIONS FEDERAL AND INDIAN LANDS

SEE ATTACHED FOR CONDITIONS OF APPROVAL

Notify NMOCD 24 hrs prior to beginning operations

14. I hereby certify that the foregoing is true and correct
Name (Printed/Typed)

Eric Herth

Title **Mine Geologist**

Signature

Date

04/27/2017

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by **Abdelgadir Elmalani**

Title **PE**

Date **5/2/17**

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 **FFO**

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

(Instructions on page 2)

NMOCD

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A-PLUS WELL SERVICE, INC.

P.O. BOX 1979
Farmington, New Mexico 87499
505-325-2627 * fax: 505-325-1211

PLUG AND ABANDONMENT PROCEDURE

April 25, 2017

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Basin Fruitland Coal
1250' FNL and 1500' FEL, Section 24, T30N, R15W
San Juan County, New Mexico / API 30-045-30718

Note: All cement volumes use 100% excess outside pipe and 50' 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/sxs yield or Class B with 18% salt by weight of water (for expansion, MSHA requirement through the Fruitland Coal zone).

MILL OUT CASING AND PLUGGING PROCEDURE:

1. This project will use a closed system to handle waste fluids circulated from the well.
2. Comply with all applicable MSHA, NMOCD, BLM and San Juan Coal safety regulations. Conduct safety meeting for all personnel on location. MOL and RU daylight pulling unit. Lay relief line to the waste pit and blow well down, kill well with water as necessary. ND wellhead and NU BOP. Test BOP. Pull rod and tubing from well if present.
3. Rods: Yes____, No____, Unknown____.
Tubing: Yes X, No____, Unknown____, Size 2.375", Length 703'.
Packer: Yes____, No X, Unknown____, Type____.
If this well has rods or a packer, then modify the work sequence in step #2 as appropriate. TOH and LD tubing. Prepare a 2.375" tubing workstring.
4. PU a 3.875" bit, 6 – 3.125" drill collars and 2.375" tubing or equivalent workstring. TIH and tag PBTD at 736'. Rig up drilling equipment and clean out / drill out to 820' (drill on the rubber plugs to be sure as deep as possible). Circulate well clean with water. TOH with bit.
5. Rig up A-Plus wireline truck and run a CBL from clean out depth to surface; if the existing Fruitland Coal perforations are affecting the CBL quality, then continuously pump water into to the perms to stop the gas flow while logging.
6. **Rig up Jet West wireline and run a Gamma - Neutron log and a directional survey log.**
Adjust the milling intervals as appropriate from these logs.
7. **Perforate the 4.5" casing with 3 SPF at: 820' to 818', 770' to 772', and 722' to 720'.** This is to isolate below Coal Seam #8 and the depths should be modified as appropriate from the logs run in step #6.

PLUG AND ABANDONMENT PROCEDURE

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Procedure Continued:

8. **Plug #1 (Picture Cliffs top and Fruitland perforations, 820' – 687'):** TIH with open ended workstring to 820'. Load the well with water. Mix 40 sxs cement with 18% salt (by weight of water) and spot a balanced plug inside the 4.5" casing to cover the Pictured Cliffs zone and Fruitland perforations (up to 300'). TOH with the workstring, load the casing with water, shut in well and then hesitation squeeze approximately 10 sxs (2 bbls cement) into the perforations; squeeze the TOC down to approximately 435'. (Note: This is not the final abandonment of the Fruitland interval; the intent is to abandon the PC interval and fill the FtC perforations with cement to help the section milling operations.) WOC overnight.
9. Pressure test the 4.5" casing to 800#. TIH with a 3.875" mill tooth bit, 6 – 3.125" drill collars and tag cement. Drill out the cement inside the casing down to 766' (Note: TOC must be 10 to 15' below the bottom of the planned milled interval (650') to allow for the nose of the section mill tool). TOH with this BHA and LD the bit.
10. PU a flat bottom mill, the 3.875" section milling tool and the 6 – 3.125" drill collars (this is the under reaming bottom hole assembly, BHA). TIH with BHA and workstring to 650'. Rig up drilling equipment and establish circulation with a low solids, high viscosity mud.
11. **Note: The intervals to be milled out below are from ground level - not KB.**
12. **Mill out the 4.5" casing from 650' – 677'.** Start milling out the 4.5" casing from 650' – 677'. Mill per the tool hands instructions for weight on mill, circulation rate and RPM. Circulate well clean with mud. TOH with 2.375" tubing and the drill collars. TIH with open ended pipe and clean out to 687' or as deep as possible.
13. Rig up a wireline truck and run a caliper log through the milled interval to insure all the 4.5" casing from the planned milling depths (657' – 677') has been removed. Re-mill as appropriate. Re-log as necessary.
14. **Perforate the 4.5" casing with 3 SPF from 606' – 604' and 556' – 554'.** This is 50' and 100' above Coal Seam #8 (top at 656'), depths should be modified as appropriate from the logs run in step #6.
15. **Plug #2 (Fruitland Coal interval, 687' – 223'):** TIH with 2.375" workstring to 687' (or drill out depth in step #9.) and circulate the mud from the well. Then pump a 5 bbl. fresh water spacer ahead of the cement. Mix 49 sxs cement with 18% salt (by weight of water) and spot a balanced plug from 687' to 223' to fill the milled interval and to cover the Fruitland top. Displace cement with water. TOH with tubing and then hesitate squeeze approximately 10 sxs (2 bbl. cement) into the perforations; squeeze TOC to 223' inside the 4.5" casing.
16. WOC overnight. Then TIH with tubing and tag cement. Pressure test the 4.5" casing to 800#.

PLUG AND ABANDONMENT PROCEDURE

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Procedure Continued:

17. **Plug #3 (7" Surface casing shoe, 180' 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 20 sxs cement with or without 18% salt cement and spot a balanced plug inside the 4.5" casing from 180' (or at tag depth) to surface to cover the 7" 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 4.5" casing with cement to surface. TOH and LD tubing. Shut in well and WOC.
18. ND BOP and cut off wellhead 48" below surface. Install P&A marker with cement to comply with regulations. Record GPS coordinate for P&A marker on tower report. Photograph P&A marker in place. RD, MOL. Cut off anchors and clean up location.

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Current

Basin Fruitland Coal / Twin Mounds PC
1515' FNL & 1395' FWL, Section 24, T-30-N, R-15-W
San Juan County, NM / API #30-045-30721
Lat: 36.8026882242 Long: -108.372859071

Today's Date: 4/25/17

Spud: 5/13/03

Completed: 6/30/03

Elevation: 5326' GL

Kirtland @ surface

Fruitland Top @ 273'

Fruitland Coal Seam #8: 656' - 671'

Pictured Cliffs @ 675'

8.75" Hole

6.25" Hole

TD 820'
PBTD 736'

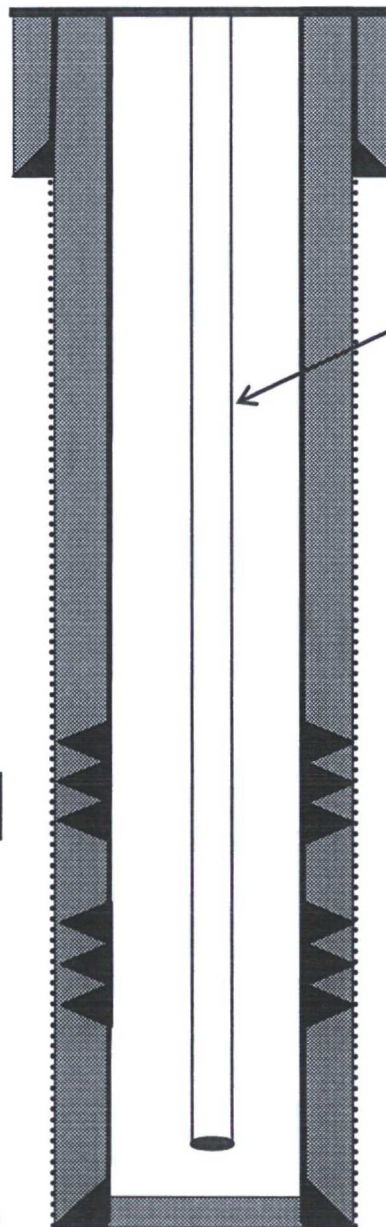
7" 23#, casing set @ 130'
Cemented with 60 sxs cement,
Circulated to surface per sundry

2.375" Tubing at 703'

Fruitland Perforations:
530' - 535'
657' - 674'

Pictured Cliffs Perforations:
674' - 678'

4.5" 10.5#, casing set @ 812'
Cemented with total of 141 cf
Circulated to surface per sundry



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Proposed P&A

Basin Fruitland Coal / Twin Mounds PC
1515' FNL & 1395' FWL, Section 24, T-30-N, R-15-W
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Today's Date: 4/25/17

Spud: 5/13/03

Completed: 6/30/03

Elevation: 5326' GL

Kirtland @ surface

Fruitland Top @ 273'

Fruitland Coal Seam #8: 656' - 671'

Pictured Cliffs @ 675'

8.75" Hole

6.25" Hole

TD 820'
PBSD 736'

Plug #3: 180' - 0'
Class B cement 20 sxs

7" 23#, casing set @ 130'
Cemented with 60 sxs cement,
Circulated to surface per sundry

Plug #2: 687' - 223'
Class B cement with
18% salt, 49 sxs

Perforate @ 556' to 554'

Perforate @ 606' to 604'

Fruitland Perforations:
530' - 535'
657' - 674'

Mill out Coal Zone:
650' - 677'

Pictured Cliffs Perforations:
674' - 678'

Plug #1: 820' - 687'
Class B cement with
18% salt, 40 sxs

Perforate @ 722' to 720'

Perforate @ 770' to 772'

Perforate @ 818' to 820'

4.5" 10.5#, casing set @ 812'
Cemented with total of 141 cf
Circulated to surface per sundry

**UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
FARMINGTON DISTRICT OFFICE
6251 COLLEGE BLVD.
FARMINGTON, NEW MEXICO 87402**

Attachment to notice of
Intention to Abandon:

Re: Permanent Abandonment
Well: Centennial Com #91S

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) 564-7750.

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.