Form 3160-5 (August 2007) DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT SUNDRY NOTICES AND REPORTS ON WELLS CEWED Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals. 20 2009					FORM APPROVED OMB NO. 1004-0137 Expires July 31, 2010 5. Lease Serial No. <u>NMSE076337</u> 6. If Indian, Allottee or Tribe Name		
St 1. Type of Well	JBMIT IN TRIPLICAT	<b>FE -</b> Other instructio	ons on page <sub>(</sub> 2) of Land Farmington F		7. If Unit or CA	/Agreement, Name and/or N	
Oil Well     X Gas Well     Other       2. Name of Operator						<ol> <li>Well Name and No.</li> <li>Duff #3</li> </ol>	
Energen Resources Corporation 3a. Address 2010 Afton Place, Farmington, NM 87401 4. Location of Well (Footage, Sec., T., R., M., or Survey Description)			3b. Phone No. ( <i>include ar</i> (505) 325-680	,	9. API Well No. <u>30-045-20139</u> 10. Field and Pool, or Exploratory Area Blanco Pictured Cliffs		
1,090' FSL & 850'		· · · · · · · · · · · · · · · · · · ·		IOTICE DEDO	11. County or 1 San Juan	NM	
TYPE OF SUE		TE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA TYPE OF ACTION					
<ul> <li>13. Describe Proposed or C If the proposal is to dee Attach the Bond under following completion o testing has been comple determined that the final</li> </ul>	eport onment Notice ompleted Operation (clearly pen directionally or recomp which the work will be per f the involved operations. I ted. Final Abandonment N I site is ready for final inspe	lete horizontally, give so formed or provide the E f the operation results in lotices shall be filed on ection.)	Deepen Fracture Treat New Construction Plug and Abandon Plug Back Is, including estimated starti ubsurface locations and mea Bond No. on file with BLM/ a multiple completion or re- ly after all requirements, income 9 according to the	Reclamation Recomplet Temporaril Water Disp ng date of any pro- sured and true ver BIA. Required si completion in a r cluding reclamation	e galaxies and the second seco	pertinent markers and zones shall be filed within 30 day rm 3160-4 shall be filed onc	
					OIL(	) May 22 '09 Cons. DIV. Dist. 3	

Vicki Donaghey	`itle	Regulatory Analyst						
Signature Vici tomatic	Date	05/19/09	ACTEPTED FOR SECOND					
THIS SPACE FOR FEDERAL OR STATE OFFICE USE								
Approved by	Title	;	Blats 7 2 2 2009					
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.	Offic	ce	PARIMINITON FIELD OPTICE					
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212 makes it a crime for any person loop	vingly on	d willfully to make to any department	or aganay of the United States any false					

Title 18 U.S.C. Section 1001, and Title 43 U S C. Section 1212, makes 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.



A-PLUS WELL SERVICE, INC. P.O. BOX 1979 Farmington, New Mexico 87499 505-325-2627 \* fax: 505-325-1211

Energen Resources Corporation **Duff #3** 

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1090' FSL & 850' FWL, Section 9, T-27-N, R-9-W San Juan County, NM Lease Number: NMSF-076337 API #30-045-20139

**Plug & Abandonment Report** 

## **Plugging Summary:**

Notified BLM and NMOCD on 4/29/09

- 4/30/09 MOL. Rig up rig and equipment. Check well pressures: casing, 55 PSI; bradenhead, 30 PSI; and tubing, 5 PSI. Blow well down. NU BOP and test. TOH and tally 94 joints of 1.25" tubing; total 3024'. Shut in well. SDFD.
- 5/04/09 Check well: casing, 55 PSI; bradenhead, 5 PSI. Blow well down. Round trip 2.25" gauge ring to 3000'. RIH with 2.875" PlugWell wireline CIBP and set at 2958'. TIH with tubing and tag CIBP at 2958'. Pump 12 bbls of water to establish circulation out casing valve. Pump additional 17 bbls of water to circulate well clean. Attempt to pressure test casing to 1000 PSI; bled down to 0 PSI in less than 15 seconds. Plug #1 with CIBP at 2958', spot 16 sxs Class B cement (18.88 cf) with 2% CaCl2 inside 2.875" casing above the CIBP up to 2400' to isolate the Pictured Cliffs interval and cover the Fruitland top.

PUH and WOC.

RIH and tag top of cement at 2373'. Attempt to pressure test casing to 1000 PSI; bled down to 0 PSI in 15 seconds. Perforate 3 – bi-wire squeeze holes at 1879'. Establish initial rate into squeeze holes at 1.5 bpm at 600 PSI. After pumping 7 bbls of water rate decreased to ¼ bpm at 1000 PSI with slight blow out bradenhead. Pump down bradenhead 1.5 bpm at 250 PSI; no blow out casing. RIH and set 2.875" PlugWell wireline cement retainer at 1850'. TIH with tubing and sting into CR at 1850'. Establish injection rate ¼ bpm at 500 PSI with light blow out bradenhead. **Plug #2** with CR at 1850', mix and pump 92 sxs Class B cement (108.56 cf), squeeze 84 sxs under the CR from 1879' to 1555' outside the 2.875" casing and leave 8 sxs above the CR inside casing up to 1555' to cover the Kirtland and Ojo Alamo tops. Note: water returns out bradenhead after pumping approximately 45 sxs below the CR. TOH and LD tubing. Shut in well. SDFD.

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## **Plugging Summary Continued:**

5/05/09 Check well: casing, 7 PSI; bradenhead on a vacuum. Attempt to pressure test casing to 1000 PSI; bled down to 0 PSI in 15 seconds. RIH with wireline and tag cement from plug #2 at 1491'. Perforate 3 bi-wire holes at 455'. Establish injection rate 2 bpm at less than 50 PSI with blow out bradenhead. Shut in bradenhead. Establish injection rate ¼ bpm at 600 PSI. Open bradenhead and bleed off pressure. RIH and set 2.875" PlugWell wireline set cement retainer at 406'. TIH with tubing and sting into CR. Establish returns out bradenhead.

**Plug #3a** with CR at 406', mix 40 sxs Class B cement (47.2 cf) with 2% CaCl<sub>2</sub>, squeeze 37 sxs outside 2.875" casing from 455' to 297' and leave 3 sxs above CR to cover the Nacimiento top.

Displace with ¾ bbl of water. LD 5 joints tubing and reverse circulate 2.875" casing clean at 266'.

TOH and LD tubing. Shut in well and WOC. Attempt to pressure casing; leak ¼ bpm at 600 PSI with blow out bradenhead. RIH and tag cement low at 363'. Pump 10 bbls of water down casing; circulate dirty returns out bradenhead. Shut in bradenhead. Injection rate ¼ bpm at 600 PSI. Wanda Weatherford, BLM representative, approved procedure change.

**Plug #3b** mix 37 sxs Class B cement (43.66 cf) and pump down the 2.875" casing out the casing leak at an unknown depth.

Displace cement in casing to 260' with 1.5 bbls water; squeeze 34 sxs outside 2.875" casing and leave 3 sxs inside casing. Shut the casing valve and then pressured up on the bradenhead up to 750 PSI. Shut the BH valve with 500 PSI. WOC. SDFD.

5/06/09 Check well pressures: casing, 0 PSI; bradenhead on a vacuum. Pressure test 2.875" casing to 1000 PSI, held OK. Pressure test bradenhead to 500 PSI, held OK. RIH with wireline and tag cement at 167'. Steve Mason with BLM approved the following procedure. Perforate 3 bi-wire squeeze holes at 160'. Establish circulation down the casing and out the bradenhead valve. ND BOP. Install cementing valve. Plug #4 mix 48 sxs Class B cement (56.64 cf) and pump down the 2.875" casing from

160' surface, circulate good cement out the bradenhead valve.

Dig out wellhead. Issue Hot Work Permit. Cut off wellhead. Found cement at surface. Mix 10 sxs Class B cement and install P&A marker.

RD rig. Road rig and equipment to A-Plus Yard.

Wanda Weatherford, BLM representative, on location.