Form 3160-5
(March 2012)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD Hobbs

HOBBS OCD

OCT 23 2013

RECEIVED

FORM APPROVED
OMB NO. 1004-0137
Expires October 31, 2014

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 page 2*

5. Lease Serial No.
NMNM77058

6. If Indian, Allottee or Tribe Name

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

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

8. Well Name and No.
Red Tank Federal SWD 2

2. Name of Operator
EOG Resources, Inc.

9. API Well No.
30-025-08113

3a. Address
P.O. Box 2267, Midland, TX 79702

3b. Phone No. *(include area code)*
432-686-3689

10. Field and Pool, or Exploratory Area
SWD; Delaware

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
542 FSL & 1958 FWL, SESW
Sec 14, T22S, R32E

11. County or Parish, State
Lea NM

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

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☒ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ 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 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 final site is ready for final inspection.)

EOG Resources requests permission to MIRU and repair a casing leak as follows:

1. Suspected casing leak at 346' determined by pressure testing and casing inspection log.
2. ND WH, NU BOP, POOH w/ 2-7/8" injection string.
3. PU 4-7/8" mill and mill casing patch from 420 - 440'.
4. RIH w/ 5-1/2" CBP and set at +/- 5350'. Dump bail 35' Class C cement on CBP.
5. RIH w/ 4", 11#, L-80 casing to +/- 5315'.
6. MIRU cement unit and pump 225 sx Class C + 0.5% C-15 + 0.5% C-35 + 0.1% ASA-10 + 0.25% R-38 (14.8 ppg, 1.33 cuft/sk). Displace w/ FW and circulate cement to surface.
7. PU 3-7/8" bit and drill float equipment, cement and CBP to at least 5380'.
8. PU 2-3/8" injection string w/ 4-1/2" packer and RIH. Set packer at 5305'.
9. Perform MIT, with positive test, return to injection.

Work will begin ASAP upon approval.

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

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

Title Regulatory Analyst

Signature Stan Wagner

Date 9/9/2013

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

APPROVED

Approved by

Title

Date
SEP 20 2013
/s/ Chris Walls

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

BUREAU OF LAND MANAGEMENT
CARLSBAD FIELD OFFICE

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.

OCT 24 2013

OCT 24 2013

Quote No. jr130

RISING STAR SERVICES
CEMENTING, ACIDIZING & FRACTURING

Cement Recommendation

4" Liner Inside 5 1/2" Casing @ 5380' TD

Prepared by:
Jon Reynolds
jrreynolds@risingstarservices.com

Prepared for:
Shane Brannan
shane_brannan@eogresources.com
432-686-3688

EOG Resources
Red Tank Federal #2 SWD

Lea County, New Mexico
9/5/2013

Sales Representative:
Guinn Ferguson
(432) 556-1338

District Manager:
Mike Madrid
(575) 391-0091

Service Point

Hobbs, NM
Office: (575) 391-0091
Fax: (575) 391-0094

RISING STAR SERVICES — HOBBS, NM

jr130
September 5, 2013
EOG Resources
Red Tank Federal #2 SWD
Job Type: 4" Liner Inside 5 1/2" Casing @ 5380' TD

Jon Reynolds
Office: (575) 391-0091
Fax: (575) 391-0094
Cell:

	Sacks	*Cement and Additives*
Single	225 sks	CLASS C + 0.5% C-15 + 0.5% C-35 + 0.1% ASA-10 + 0.25% R-38

20% Excess (Top of Cement @ Surface)

	Single
Density:	14.80 #/gal
Yield:	1.33 cu.ft/sk
Mixing Water:	6.28 gal/sk
Total Water to Mix:	33.67 Bbls
Slurry Volume:	53.45 Bbls

Total Sacks: 225 Total Ft³ 300.13 Total H2O: 33.67

Directions

Equipment Needed	Additional Materials and Notes
4 1/2" Head and Manifold	4 to 4 1/2" Change-over will be required.

Well Information

Hole Size		Total Depth		Hole @		DV Tool @	
Casing Size		Casing Depth		Perfs @		Type of Plug	
Liner Size		Tubing Depth		Packer @		Size of Plug	
Liner Top		Tubing Size		Retainer @		Pre-Flush	
Mud Weight:							

Special Job Instructions

RISING STAR SERVICES — HOBBS, NM

jr130

September 5, 2013

EOG Resources

Red Tank Federal #2 SWD

Job Type 4" Liner Inside 5 1/2" Casing @ 5380' TD

Jon Reynolds
Office: (575) 391-0091
Fax: (575) 391-0094
Mobile:

		Quantity	Unit	Unit Price	Amount	After Discount
Depth Charge						
5001 - 5500', 4 hr minimum		1	Ea	$3,020.00	$3,020.00	$2,114.00
Job Monitoring						
Data Acquisition		1	Job	$1,050.00	$1,050.00	$735.00
Mileage Charge						
Equipment Mileage		70	Mile	$7.10	$497.00	$347.90
Pick-up Mileage Charge		70	Mile	$5.60	$392.00	$274.40
Cement Delivery Charge						
Cement Delivery, Minimum		1	Ea	$1,680.00	$1,680.00	$1,176.00
Cement Blending						
Cement Blending		237	Cuft	$3.00	$709.77	$496.84
Cementing Head						
Cementing Head with Manifold	**4 1/2"**	1	Job	$525.00	$525.00	$367.50
Swedge Charge	**4 1/2"**	1	Job	$475.00	$475.00	$332.50
Miscellaneous Services						
Enviormental Charge		1	Job	$150.00	$150.00	$105.00
Top Plugs Rubber	**4 1/2"**	1	Ea	$157.50	$157.50	$110.25
Cementing Materials						
Class "C"		225	Sks	$26.00	$5,850.00	$4,095.00
ASA-10		21	Lbs	$15.75	$333.11	$233.18
C-15		106	Lbs	$15.75	$1,665.56	$1,165.89
C-35		106	Lbs	$15.75	$1,665.56	$1,165.89
R-38		53	Lbs	$10.30	$544.61	$381.23

	Price Book Total	**$18,715.12**
30%	***Discount***	**$5,614.54**
	After Disc	**$13,100.59**

RISING STAR SERVICES	HOBBS, NM
jr130	
9/5/2013	Jon Reynolds
EOG Resources	Office: (575) 391-0091
Red Tank Federal #2 SWD	Fax: (575) 391-0094
Job Type 4" Liner Inside 5 1/2" Casing @ 5380' TD	Mobile:

Product Description

Class C Is an API cement intended for surface to a depth of 6000 ft. Class C is sulfate resistant and yields early compressive strengths. Typically mixed from 14.8 ppg.

ASA-10 Is a polymeric additive designed to help control free water and to suspend solids in cement slurries, particularly at higher temperatures where metasilicate products are difficult to retard. ASA-10 also gives some fluid loss control in most applications.

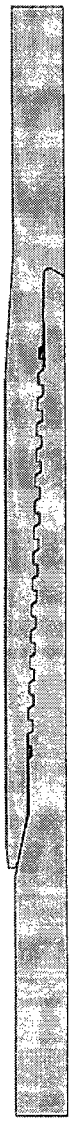
C-15 A mildly retarding fluid loss additive for use at all temperatures below about 200°F. It thins, rather than thickens, typical slurries. Typical loadings are 0.1% to 1% BWOC.

C-35 Is a versatile dispersant/friction reducer for all oilwell cements. It is effective at salt concentrations from zero to saturation and at temperatures from 100 F to 400 F.

R38 Is a powdered defoamer for all types of oil well cement. Typical loadings are 0.25% to 0.5% BWOC.

U. S. Steel Tubular Products

4" 11# (0.262") API L80 USS-LIBERTY FJM™



	PIPE	CONNECTION	
MECHANICAL PROPERTIES			
Minimum Yield Strength	**80,000**		*psi*
Maximum Yield Strength	**95,000**		*psi*
Minimum Tensile Strength	**95,000**		*psi*
DIMENSIONS			
Outside Diameter	**4.000**	4.000	*in.*
Wall Thickness	0.262		*in.*
Inside Diameter	3.476	3.390	*in.*
Drift - API	3.351	3.351	*in.*
Nominal Linear Weight, T&C	**11.00**		*lbs/ft*
Plain End Weight	10.47		*lbs/ft*
SECTION AREA			
Cross Sectional Area | Critical Area	3.077	1.931	*sq. in.*
Joint Efficiency		62.8	%
PERFORMANCE			
Minimum Collapse Pressure	8,790	8,790	*psi*
Minimum Internal Yield Pressure	9,160	9,160	*psi*
Minimum Pipe Body Yield Strength	246,000		*lbs*
Joint Strength		155,000	*lbs*
Compression Rating		155,000	*lbs*
Maximum Uniaxial Bend Rating		57.8	*deg/100 ft*
MAKE-UP DATA			
Minimum Make-Up Torque		1,700	*ft-lbs*
Maximum Make-Up Torque		2,200	*ft-lbs*
Make-Up Loss		2.93	*in.*

Notes:

1) Performance properties have been calculated using standard equations defined by API 5C3 and do not incorporate any additional design or safety factors. Calculations assume nominal pipe OD, nominal wall thickness, and Specified Minimum Yield Strength (SMYS).
2) Compressive & Tensile Connection Efficiencies are calculated by dividing the connection critical area by the pipe body area.
3) Uniaxial bending rating shown is structural only, and equal to compression efficiency.
4) USS-LIBERTY FJM™ connections are optimized for each combination of OD and wall thickness, and cannot be interchanged.
5) Torques have been calculated assuming a thread compound friction factor of 1.0 and are recommended only. Field make-up torques may require adjustment based on actual field conditions (e.g. make-up speed, temperature, thread compound, etc.).

U. S. Steel Tubular Products
10343 Sam Houston Park Dr., #120
Houston, TX 77064

1-877-893-9461
connections@uss.com
www.usstubular.com

Conditions of Approval

EOG Resources, Inc.
Red Tank SWD - 02
API 3002508113, T22S-R32E, Sec 14

September 20, 2013

1. The minimum required fill of cement behind the 4 inch liner is:

   ☒ Cement to surface. If cement does not circulate, contact the appropriate BLM office.

2. Due to being within the Lesser Prairie Chicken habitat, this workover activity will be restricted to the hours of 9:00am through 3:00am for the period of March 1 through June 15. Exceptions to these restrictions may be granted by BLM's Johnny Chopp <jchopp@blm.gov> 575.234.2227 or Bob Ballard <bballard@blm.gov> 575.234.5973.
3. Surface disturbance beyond the existing pad shall have prior approval.
4. A closed loop system is required. The operator shall properly dispose of drilling/circulating contents at an authorized disposal site. Tanks are required for all operations, no excavated pits.
5. Functional H_2S monitoring equipment shall be on location.
6. Blow Out Prevention Equipment 2000 (2M) to be used. All BOPE and workover procedures shall establish fail safe well control. A ram system including a blind ram and pipe ram(s) designed to close on all of the work string(s) used is required equipment. Manual BOP closure (hand wheels) equipment shall be available on location. Function test the installed BOPE to 500psig when well conditions allow. Related equipment, (choke manifolds, kill trucks, gas vent or flare lines, etc.) shall be employed when needed for reasonable well control requirements.
7. All waste (i.e. trash, salts, chemicals, sewage, gray water, etc.) created as a result of work over operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area. Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.
8. Workover approval is good for 90 days (completion to be within 90 days of approval). A legitimate request is necessary for extension of that date.
9. File intermediate **subsequent sundry** Form 3160-**5** within 30 days of any interrupted workover procedures and a complete workover subsequent sundry.

Well with a Packer - Operations

1) Conduct a Mechanical Integrity Test of the tubing/casing annulus after a tubing, packer or casing seal is established. Repair that seal any time more than five barrels of packer fluid is replaced within 30 days.
2) The minimum test pressure should be 500 psig for 30 minutes or 300 psig for 60 minutes, with minimum 200 psig differential between tubing and casing pressure (at test time) but no more than 70% of casing burst pressure as described by Onshore Order 2.III.B.1.h. (The tubing or reservoir pressure may need to be reduced). An alternate method for a BLM approved MIT is to have the fluid filled system open to atmospheric pressure and have a loss of less than five barrels in 30 days witnessed by a BLM authorized officer.
3) Document the pressure test on a one hour full rotation calibrated recorder chart registering within 25 to 85 per cent of its full range. Greater than 10% pressure leakoff will be viewed as a failed MIT. Less than 10% pressure leakoff will be evaluated site specifically and may restrict injection approval.
4) Make arrangements 24 hours before the test for BLM to witness. In Lea County phone 575-393-3612. If not answered, leave a voice mail or email with the API#, workover purpose, and a call back phone number. Note the contact, time, & date in your subsequent report.
5) Submit a subsequent Sundry Form 3160-5 relating the MIT activity. Include a copy of the recorded MIT pressure chart. List the name of the BLM witness, or the notified person and date of notification. NMOCD is to retain the original recorded MIT chart.
6) Use of tubing internal protection, tubing on/off equipment just above the packer, a profile nipple, and an in line tubing check valve below the packer or between the on/off tool and packer is a "Best Management Practice". The setting depths and descriptions of each are to be included in the subsequent sundry. List (by date) descriptions of daily activity of any previously unreported wellbore workover.
7) **Submit the original subsequent sundry with three copies to BLM Carlsbad.**
8) Compliance with a NMOCD Administrative Order is required, submit documentation of that authorization.
   a) Approved injection pressure compliance is required.
   b) If injection pressure exceeds the approved pressure you are required to reduce that pressure and notify the BLM within 24 hours.
   c) When injection pressure is within 50 psig of the maximum pressure, install automation equipment that will prevent exceeding that maximum. Submit a subsequent report (Sundry Form 3160-5) describing the installed automation equipment within 30 days.
9) Unexplained significant variations of rate or pressure to be reported within 5 days of notice.
10) The casing/tubing annulus is required to be monitored for communication with injection fluid or loss of casing integrity. A BLM inspector may request verification of a full annular fluid level at any time.
11) **The operator is required to maintain the annulus full of packer fluid at atmospheric pressure. Equipment that will display on site, continuous open to the air fluid level is necessary to achieve this goal.**

12) Loss of packer fluid above five barrels per month indicates a developing problem. Notify BLM Carlsbad Field Office, Petroleum Engineering within 5 days.
13) A suggested format for monthly records documenting that the casing annulus is fluid filled is available from the BLM Carlsbad Field Office.
14) Gain of annular fluid requires notification within 24 hours. Cease injection and maintain a production casing pressure of 0 psia. Notify the BLM's authorized officer ("Paul R. Swartz" <pswartz@blm.gov>, cell phone 575-200-7902). If there is no response phone 575-361-2822.
15) Submit a (Sundry Form 3160-5) subsequent report (daily reports) describing all wellbore activity and Mechanical Integrity Test as per item 1) above. Include the date(s) of the well work, and the setting depths of installed equipment: internally corrosive protected tubing, tubing on/off equipment just above the packer, and an in line tubing check valve below the packer or between the on/off tool and packer. The setting depths and descriptions of each are to be included in the subsequent sundry. List daily descriptions of any previously unreported wellbore workover(s) and reason(s) the well annular fluid was replaced.

CRW 092013

Access information for **use of Form 3160-5** "Sundry Notices and Reports on Wells"

NM Fed Regs & Forms - http://www.blm.gov/nm/st/en/prog/energy/oil_and_gas.html

§ 43 CFR 3162.3-2 Subsequent Well Operations.

§ 43 CFR 3160.0-9 (c)(1) Information collection.

§ 3162.4-1 (c) Well records and reports.