(August 2007) DF	UNITED STATES	NTERIOR			FORM A OMB NO	PPROVED 1004-0135	
В	UREAU OF LAND MANA	GEMENT	Carlsh	ad Fia	Expires: J	uly 31, 2010	
SUNDRY Do not use the	NOTICES AND REPO is form for proposals to	RTS ON WI drill or to re	-enter an	CD II	unutree	T. 1. M.	
abandoned we	II. Use form 3160-3 (APL	D) for such p	proposals	LD HO	DDS Allottee of	Iribe Name	
SUBMIT IN TRI	7. If Unit or CA/Agreement, Name and/or No.						
1. Type of Well					8. Well Name and No. DELLA 29 FED COM 701H		
2. Name of Operator	Contact:	STAN WAGNER			9. API Well No. 30.025.43053.00.X1		
3a. Address		3b Phone No. (include area code)			10. Field and Pool, or Exploratory		
		Ph: 432-686-3689			LEA		
4. Location of Well (Footage, Sec., 7	C., R., M., or Survey Description,	n)			11. County or Parish, and State		
Sec 29 T20S R34E SESE 250	DESL 1270FEL				LEA COUNTY NM		
					LEA COUNTT, NM		
12. CHECK APP	ROPRIATE BOX(ES) TO	D INDICATI	E NATURE OF	NOTICE, R	EPORT, OR OTHEI	R DATA	
TYPE OF SUBMISSION			TYPE (	OF ACTION			
Notice of Intent	Acidize Deepen		epen	Product	tion (Start/Resume)	□ Water Shut-Off	
	□ Alter Casing	🗖 Fra	cture Treat	Reclam	ation	U Well Integrity	
Subsequent Report	Casing Repair	Nev Nev	w Construction	Recom	plete	Other Change to Origin:	
Final Abandonment Notice	Change Plans	Plug and Abandon		Tempo	Temporarily Abandon PD Water Disposal		
	Convert to Injection	🗖 Plu	Plug Back				
EOG Resources requests a re change in the 1st intermediate program. Reference phone and email d	evision for this well to refle e casing design, addition of iscussion between Haque	ect a change of a DV tool, e and Munsel	in casing desig and change in o I, 6/26/16.	n. We reques cementing	ACHED FOR	•	
Design details attached			C	ONDITI	ONIC OF AD	DOTAT	
Design details attached.	JUL 0620	16	C	UNDIII	ONS OF AP	RUVAL	
	RECEIVE	ED					
14. I hereby certify that the foregoing is	true and correct.	2/22/7	d by the PI M M	(all information	Suctor		
	For EOG RESOU	IRCES INCOR	PORATED, sen	t to the Hobbs	(16MH00076E)		
0	Committed to AFMSS for proce Name(Printed/Typed) STAN WAGNER			JLATORY AN	VALYST		
Con Name (Printed/Typed) STAN WA	GNER		ILUU				
Con Name (Printed/Typed) STAN WA	GNER						
Con Name (Printed/Typed) STAN WA Signature (Electronic S	GNER Submission)		Date 06/27/	/2016			
Con Name (Printed/Typed) STAN WA Signature (Electronic S	GNER Submission) THIS SPACE FC	DR FEDERA	Date 06/27/	/2016 E OFFICE U	SE		
Con Name (Printed/Typed) STAN WA Signature (Electronic S Approved By (BLM Approver Not	GNER Submission) THIS SPACE FC Specified) MUSIC L	DR FEDERA	Date 06/27/	2016 E OFFICE U PETROLEIII	SE W ENGINFFR	Date 06/29/2	
Con Name (Printed/Typed) STAN WA Signature (Electronic S Approved By (BLM Approver Not Conditions of approval, if any, are attached certify that the applicant holds legal or equivalent to condu	GNER Submission) THIS SPACE FO Specified) Music for the second	DR FEDERA Acquise_ not warrant or subject lease	Date 06/27/	2016 E OFFICE U PETROLEUI	SE M Engineer	Date 06/29/2	
Con Name (Printed/Typed) STAN WA Signature (Electronic S Approved By (BLM Approver Not Conditions of approval, if any, are attached certify that the applicant holds legal or equivalent would entitle the applicant to condu Fitle 18 U.S.C. Section 1001 and Title 43 States any false, fictitious or fraudulent s	Submission) THIS SPACE FO Specified) Music Loss itable title to those rights in the ict operations thereon. U.S.C. Section 1212, make it a statements or representations as	DR FEDERA Acquise_ not warrant or subject lease crime for any puto to any matter w	Date 06/27/ AL OR STATE Title F Office Hobbs erson knowingly an ithin its jurisdiction	/2016 E OFFICE U PETROLEUI nd willfully to man.	SE MENGINEER ake to any department or	Date 06/29/2 agency of the United	

## EOG RESOURCES, INC. DELLA 29 FED COM NO. 701H

## 4. CASING PROGRAM - NEW

Hole		Csg				DFmin	DFmin	DFmin
Size	Interval	OD	Weight	Grade	Conn	Collapse	Burst	Tension
17.5"	0 - 1,728'	13.375"	54.5#	J55	STC	1.125	1.25	1.60
12.25"	0-4,000'	9.625"	40#	J-55	LTC	1.125	1.25	1.60
12.25"	4,000' - 5,400'	9.625"	40#	HCK-55	LTC	1.125	1.25	1.60
8.75"	0'-10,900'	7.625"	29.7#	HCP-110	FlushMax III	1.125	1.25	1.60
6.75"	0'-16,198'	5.5"	23#	HCP-110	ULT SFII	1.125	1.25	1.60

Variance is requested to wave the centralizer requirements for the 7-5/8" FJ casing in the 8-3/4" hole size. An expansion additive will be utilized, in the cement slurry, for the entire length of the 8-3/4" hole interval to maximize cement bond and zonal isolation.

Variance is also requested to wave any centralizer requirements for the 5-1/2" FJ casing in the 6-3/4" hole size. An expansion additive will be utilized, in the cement slurry, for the entire length of the 6-3/4" hole interval to maximize cement bond and zonal isolation.

Depth	No. Sacks	Wt. ppg	Yld Ft <sup>3</sup> /ft	Mix Water Gal/sk	Slurry Description
13-3/8" 1,728	1075	13.5	1.74	9.17	Class C + 4% Gel + 2% CaCl2 + 0.25 pps Celloflake (TOC @ Surface)
	385	14.8	1.34	6.35	Class C + 2.0% CaCl2
9-5/8" 5,400'	235	12.7	1.90	9.96	Stage 1 Lead: 35:65 Poz:Class C + 3.0% Salt + 6.0% Gel + 0.4% CPT-20 + 0.5% CPT-45 (TOC @ 3,750')
DV Tool w/	200	14.8	1.33	6.32	Stage 1 Tail: Class C + 0.2% CPT-19
3,735	785	12.7	1.90	9.96	Stage 2 Lead: 35:65 Poz:Class C + 3.0% Salt + 6.0% Gel + 0.5% CPT-45 + 0.2% CPT-20 (TOC @ Surface)
	100	14.8	1.33	6.32	Stage 2 Tail: Class C + 0.2% CPT-19
7-5/8" 10,900'	425	11.5	2.64	14.69	50:50 Poz:H + 5.0% Salt + 7.0% Gel + 0.4% CPT-503P + 0.5% CPT-19 (TOC @ Surface)
	140	14.4	1.24	5.08	50:50 Poz:H + 5.0% Salt
5-1/2" 16,198'	220	11.0	3.21	19.24	50:50 Poz:H + 5.0% Salt + 3.0% CPT-45 + 0.4% CPT-503P + 1.0% CPT-19 + 5.0% Gypsum + 0.15% CPT-20 + 0.15% Citric Acid (TOC @ 10,400')
	550	14.4	1.20	4.81	50:50 Poz:H + 0.25% CPT-503P + 0.8% CPT-16A + 0.2% CPT-35 + 0.4% CPT-39 + 0.25% CPT-20

## **Cementing Program:**

Note: Cement volumes based on bit size plus at least 25% excess in the open hole plus 10% excess in the cased-hole overlap section.

## Della 29 Fed #701H

250' FSL 1270' FEL Section 29 T-20-S, R-34-E Lea County, New Mexico Proposed Wellbore Revised 6/27/16 API: 30-025-43053

KB: 3,744' GL: 3,714'



T-20-S, R-34-E

## Della 29 Fed 701H 30-025-43053 EOG Resources, Inc Surface Location: Sec. 29, T. 20S, R. 34E Conditions of Approval

### See below for the updated Conditions of Approval.

All previous COAs still apply, except for the following:

Operator should submit a sundry on 06/27/2016, replicating the information provided about the casing and cementing change.

### A. CASING

Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.).

The initial wellhead installed on the well will remain on the well with spools used as needed.

Centralizers required on surface casing per Onshore Order 2.III.B.1.f.

### Wait on cement (WOC) for Potash Areas:

After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least <u>24 hours</u>. WOC time will be recorded in the driller's log. DURING THIS WOC TIME, NO DRILL PIPE, ETC. SHALL BE RUN IN THE HOLE.

Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.

No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

### **Risks:**

Possibility of Water Flows in the Capitan Reef, in the Salado and in the Artesia Group. Possibility of Lost Circulation in the Rustler, in the Capitan Reef, in the Red Beds, in the Delaware and in the Artesia Group.

Special Capitan Reef requirements:

If lost circulation (50% or greater) occurs below the Base of the Salt, the operator shall do the following:

- a. Switch to fresh water mud to protect the Capitan Reef and use fresh water mud until setting the intermediate casing. The appropriate BLM office is to be notified for a PET to witness the switch to fresh water.
- b. Daily drilling reports from the Base of the Salt to the setting of the intermediate casing are to be submitted to the BLM CFO engineering staff via e-mail by 0800 hours each morning. Any lost circulation encountered is to be recorded on these drilling reports. The daily drilling report should show mud volume per shift/tour. Failure to submit these reports will result in an Incidence of Non-Compliance being issued for failure to comply with the Conditions of Approval. If not already planned, the operator shall run a caliper survey for the intermediate well bore and submit to the appropriate BLM office.

The intermediate casing shall be kept fluid filled to avoid approaching the minimum collapse pressure rating of the casing.

1. The minimum required fill of cement behind the 9 5/8 inch first intermediate casing, which shall be set at approximately 5400 feet is:

Operator has proposed DV tool at depth of 3750', but will adjust cement proportionately if moved DV tool shall be set a minimum of 50' below previous shoe and a minimum of 200' above current shoe. Operator shall submit sundry if DV tool depth cannot be set in this range. If an ECP is used, it is to be set a minimum of 50' below the shoe to provide cement across the shoe. If it cannot be set below the shoe, a CBL shall be run to verify cement coverage.

- a. First stage to DV tool:
- Cement to circulate. If cement does not circulate, contact the appropriate BLM office before proceeding with second stage cement job. Operator should have plans as to how they will achieve circulation on the next stage.
- b. Second stage above DV tool:

Cement to surface. If cement does not circulate see B.1.a, c-d above.

Formation below the 9 5/8 inch shoe to be tested according to Onshore Order 2.III.B.1.i. Test to be done as a mud equivalency test using the mud weight necessary for the pore pressure of the formation below the shoe (not the mud weight required to prevent dissolving the salt formation) and the mud weight for the bottom of the hole. Report results to BLM office.

2. The minimum required fill of cement behind the 7 5/8 inch intermediate casing is:

Cement to surface. If cement does not circulate see A.1.a, c-d above. Excess calculates to 13%. Additional cement might be required.

Formation below the 7 5/8 inch shoe to be tested according to Onshore Order 2.III.B.1.i. Test to be done as a mud equivalency test using the mud weight necessary for the pore pressure of the formation below the shoe (not the mud weight required to prevent dissolving the salt formation) and the mud weight for the bottom of the hole. Report results to BLM office.

MHH 06262016



Haque, Mustafa <mhaque@blm.gov>

## Della 29 FC 701H - Casing Change - First Intermediate

3 messages

Steve Munsell <Steve\_Munsell@eogresources.com> To: "Hague, Mustafa" <mhague@blm.gov> Sun, Jun 26, 2016 at 2:22 PM

Cc: Heath Work <Heath\_Work@eogresources.com>, Larry Price <Larry\_Price@eogresources.com>, Bruce Coit <Bruce\_Coit@eogresources.com>, Stan Wagner <Stan\_Wagner@eogresources.com>, Christopher Walls <cwalls@blm.gov>, "Fernandez, Edward" <efernand@blm.gov>

Mustafa,

As per our conversation earlier today regarding the subject well.

Currently we have 13-3/8" 54.5# J55 STC casing set at 1728'. Cement circulated to surface.

We are currently drilling 12-1/4" hole size to 5400' where we plan to set our 1st intermediate casing.

While drilling in the Capitan Reef we started losing returns at 4452' then lost complete returns at 4664'. Here we swapped over from brine water and have been drilling ever since with fresh water.

#### Original plan:

- 1. Drill 12-1/4" hole size to 5400'
- Run 10-3/4" 45.5# L80/N80 Flushmax III casing to TD
- 3. Single stage cement job
- Drill 9-7/8" hole size to 8000' then 8-3/4" hole size to 10,900'
- 5. Run 7-5/8" 29.7# HCP110 LTC casing from 0' to 8000' and 7-5/8" 29.7# HCP110 Flushmax III from 8000' to 10,900'

#### Proposed "Revised" plan:

- 1. Drill 12-1/4" hole size to 5400'
- 2. Run 9-5/8" 40# J55 LTC from 0' to 4000' then 9-5/8" 40# HCK55 LTC from 4000' to 5400'
- 3. Two stage cement job. Stage tool will be placed at the top or above the Capitan Reef (to be determined after running open hole caliper log BLM COA)
- 4. Drill 8-3/4" hole size to 10,900'
- 5. Run 7-5/8" 29.7# HCP110 Flushmax III from 0' to 10,900' (8.75" 7.625" = 1.125" or 0.56" clearance).

#### Production hole:

6/29/2016

DEPARTMENT OF THE INTERIOR Mail - Della 29 FC 701H - Casing Change - First Intermediate

1. Will remain the same. 6.75" hole size with 5.5" 23# HCP110 ULT SF II (or equivalent conn) from surface to TD.

I apologize for you having to make the trip to the office on Sunday to look this over. Please call if you have question or concerns. Once we have verbal approval we will start the work and Stan Wagner will send you the proper sundry application tomorrow.

Thanks again.

#### Steve Munsell

EOG Resources - Midland Division

Drilling Engineering Advisor

Office: 432.686.3609

Cell: 432.894.1256

Email: steve\_munsell@eogresources.com

Haque, Mustafa <mhaque@blm.gov>

Sun, Jun 26, 2016 at 2:27 PM

To: Steve Munsell <Steve\_Munsell@eogresources.com> Cc: Heath Work <Heath\_Work@eogresources.com>, Larry Price <Larry\_Price@eogresources.com>, Bruce Coit <Bruce\_Coit@eogresources.com>, Stan Wagner <Stan\_Wagner@eogresources.com>, Christopher Walls <cwalls@blm.gov>, "Fernandez, Edward" <efernand@blm.gov>

Steve,

Thank you for the email. I will get started working on it. And will send you the new COA in an hour or so.

Regards,

Mustafa Haque Petroleum Engineer Bureau of Land Management 620 E Greene St. Carlsbad, NM-88220 Office : (575)-234-5971 [Quoted text hidden]

Steve Munsell <Steve\_Munsell@eogresources.com> To: "Haque, Mustafa" <mhaque@blm.gov> Sun, Jun 26, 2016 at 2:34 PM

Let me know if you need anything

Sent from my iPhone

On Jun 26, 2016, at 3:27 PM, Haque, Mustafa <mhaque@blm.gov> wrote:

\*\* External email. Use caution.\*\*

[Quoted text hidden]

6/29/2016

DEPARTMENT OF THE INTERIOR Mail - Della 29 FC 701H - Approximate Stage Tool Depths and Cement Volumes



Haque, Mustafa <mhaque@blm.gov>

# Della 29 FC 701H - Approximate Stage Tool Depths and Cement Volumes

2 messages

Steve Munsell <Steve\_Munsell@eogresources.com> To: "Haque, Mustafa" <mhaque@blm.gov> Sun, Jun 26, 2016 at 3:06 PM

Cc: Heath Work <Heath\_Work@eogresources.com>, Bruce Coit <Bruce\_Coit@eogresources.com>, Larry Price <Larry\_Price@eogresources.com>, Stan Wagner <Stan\_Wagner@eogresources.com>

Mustafa,

Current plans are to set the stage tool at ~3750' or so (Top of Capitan Reef at ~3688'). Based on OH caliper results.

Will pump the following cement types and volumes. Volumes based on 12-1/4" OH size + 25% excess. Actual volumes will be based on OH caliper results.

First Stage:

Lead: 200 sx of class C + additives (12.7 ppg, 2.22 yield)

Tail: 200 sx of class C + additives (14.8, 1.33 yield)

Second Stage:

Lead: 675 sx of class C + additives (12.7 ppg, 2.22 yield)

Tail: 100 sx of class C + additives (14.8, 1.33 yield)

Thanks.

#### **Steve Munsell**

EOG Resources – Midland Division Drilling Engineering Advisor Office: 432.686.3609 Cell: 432.894.1256 Email: steve munsell@eogresources.com Cement 1st Stage w/ 250 sx Class C + 2.0% SMS + 10.0% Salt + 1.0% R-3 + 0.25 pps Celloflake (12.7 ppg, 2.219 yld). followed by 200 sx Class C + 0.60% FL-62 + 0.45% CD-32 + 0.15% SMS + 0.05% R-3 (14.8 ppg, 1.332 yld). Bump plug w/ 2300 psi. Open DV Tool and circ 253 sx to surface (9.25 hrs). Cement 2nd Stage w/ 750 sx Class C + 2.0% SMS + 10.0% Salt + 0.55% R-3 + 0.25 pps Celloflake (12.7 ppg, 2.215 yld), follwed by 100 sx Class C + 0.60% FL-62 + 0.45% CD-32 + 0.15% SMS (14.8 ppg, 1.331 yld). Bump plug w/ 2493 psi and circ 147 sx to surface

 Haque, Mustafa <mhaque@blm.gov>
 Sun, Jun 26, 2016 at 3:19 PM

 To: Steve Munsell <Steve\_Munsell@eogresources.com>
 Cc: Heath Work <Heath\_Work@eogresources.com>, Bruce Coit <Bruce\_Coit@eogresources.com>, Larry Price

 <Larry Price@eogresources.com>, Stan Wagner <Stan Wagner@eogresources.com>

Steve,

Here's the new COA. Please submit a sundry tomorrow (06/27/2016) for the new casing, DVT, and cement changes.

### Regards,

Mustafa Haque

Petroleum Engineer Bureau of Land Management 620 E Greene St. Carlsbad, NM-88220 Office : (575)-234-5971 [Quoted text hidden]

