Form 3160-5 (August 2007)

UNITED STATES DEPARTMENT OF THE INTEGER IS BUREAU OF LAND MANAGEMENT BUREAU OF LAND MANAGEMENT 5. Lease Serial No. NMNM118727

FORM APPROVED OMB NO. 1004-0135 Expires: July 31, 2010

SUNDRY	NOTICES AND REPO	RTS ON WELLS	ILUUUS NMNM11872	/
abandoned wel	s form for proposals to II. Use form 3160-3 (AP	D) for such proposals.	6. If Indian, Allotte	e or Tribe Name
SUBMIT IN TRII	PLICATE - Other instruc	tions on reverse side.	BBS OCD 7. If Unit or CA/Ag	greement, Name and/or No.
Type of Well	er /	11	8. Well Name and N ORRTANNA 20	
Name of Operator EOG RESOURCES INCORPO	Contact: DRATEDE-Mail: stan_wagr	STAN WAGNER er@eogresources.com	9. API Well No. 30-025-42938	3-00-X1
3a. Address		3b. Phone No. (include area Ph: 432-686-3689	10. Field and Pool, WILDCAT	or Exploratory
MIDLAND, TX 79702				
4. Location of Well (Footage, Sec., T.	, R., M., or Survey Description		11. County or Paris	h, and State
Sec 20 T26S R33E SWSW 22	20FSL 995FWL		LEA COUNT	Y, NM
12. CHECK APPE	ROPRIATE BOX(ES) TO	O INDICATE NATURE	OF NOTICE, REPORT, OR OTH	IER DATA
TYPE OF SUBMISSION		TY	PE OF ACTION	
Notice of Intent	☐ Acidize	□ Deepen	☐ Production (Start/Resume)	₩ Water Shut-Off
	☑ Alter Casing	☐ Fracture Treat	Reclamation	☐ Well Integrity
☐ Subsequent Report	□ Casing Repair	☐ New Construction	n Recomplete	☐ Other
☐ Final Abandonment Notice	□ Change Plans	□ Plug and Aband	on Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	■ Water Disposal	
testing has been completed. Final At determined that the site is ready for fine EOG Resources requests an aproduction casing.	nal inspection.)		including reclamation, have been complete effect a change in	d, and the operator has
Changing to a tapered string.	Casing details attached.			
This pipe is planned to be run	6/9/16.			
		SEE A	TTACHED FOR	
		COND	ITIONS OF APPROV	/AL
14. I hereby certify that the foregoing is	true and correct			
	Electronic Submission # For EOG RESOL	IRCES INCORPORATED,	M Well Information System sent to the Hobbs UE on 06/07/2016 (16MH0001SE)	
Name (Printed/Typed) STAN, WA	•		EGULATORY ANALYST	
Signature (Electronic S	ubmission)	Date 06	/07/2016	
	THIS SPACE FO	OR FEDERAL OR STA	ATE OFFICE USE	
Approved By (BLM Approver Not S	Specified) Mustafa	Hague Title	PETROLEUM ENGINEER	Date 06/07/2016
Conditions of approval, if any, are attached certify that the applicant holds legal or equivalent would entitle the applicant to condu-	Approval of this notice does itable title to those rights in the		bbs	
Title 18 U.S.C. Section 1001 and Title 43 U	J.S.C. Section 1212, make it a	crime for any person knowing	ly 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.



Orrtanna 20 Fed 702H 30-025-42938 EOG Resources, Inc Surface Location: Sec. 20, T. 26S, R. 33E Conditions of Approval

See below for the changes in the Conditions of Approval for the Drilling Section.

DRILLING

All previous COAs still apply except the following:

Variance is granted for centralizers in the production interval per the drilling program.

- 1. The minimum required fill of cement behind the $5\ 1/2\ X\ 5.0$ inch production casing is:
 - Cement should tie-back at least 500 feet into previous casing string. Operator shall provide method of verification.

EOG RESOURCES, INC. ORRTANNA 20 FED NO. 702H

4. CASING PROGRAM - NEW - SEE COA

Hole Size	Interval	Csg OD	Weight	Grade	Conn	DF _{min} Collapse	DF _{min} Burst	
6.75"	0'-11,500'	5.5"	23#	P-110EC	VAM SG	1.125	1.25	1.60
6.75"	11,500' - 17,033'	5"	23.2#	T-95	NSCC	1.125	1.25	1.60

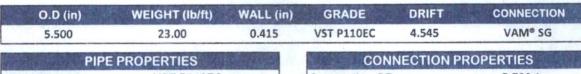
Variance is also requested to wave any centralizer requirements for the 5" casing in the 6-3/4" hole size. An expansion additive will be utilized, in the cement slurry, for the entire length of the 6-3/4" hole interval to maximize cement bond and zonal isolation.

Cementing Program: -O SEE COA

Depth	No. Sacks		Yld Ft ³ /ft	Mix Water Gal/sk	Slurry Description
5-1/2" x 5" 17,033"	765	14.8	1.24	5.08	Cement w/ 765 sx 50:50 Class H:Poz + 5% NaCl + 2% Gel + 0.15% CPT-35 + 0.3% CPT-19 + 0.4% CPT-49 + 0.3% CPT-20A (TOC @ 10,500')

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.





PIPE PRO	PERTIES	N. W
Material Grade	VST P110EC	
Min. Yield Strength	125	ksi
Min. Tensile Strength	135	ksi
Nominal OD	5.500	in
Nominal ID	4.670	in
Nominal Area	6.630	sq. in
Yield Strength	829	kips
Ultimate Strength	895	kips
Min Internal Yield	16,510	psi
*High Collapse	16,220	psi

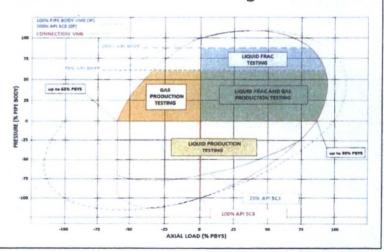
CONNECTION PRO	PERTIES	
Connection OD	5.720	in
Connection ID	4.603	in
Make up Loss	6.503	in
Connection Critical Area	5.967	sq. in
%PB Section Area	90.0%	
Yield Strength	746	kips
Parting Load	805	kips
Min Internal Yield	16,510	psi
*High Collapse	11,350	psi
Working Compression	522	kips
Max. Bending w/ Sealability	40	°/100 ft

DC	DCUMENTATION
Ref. Drawing	SI-PD 100835 Rev.A
Date	11-Aug-14
Time	1:21 PM
Email	tech.support@vam-usa.com

TORQUE VA	LUES
Min Make Up Torque	9,100 ft-lb
Opt Make Up Torque	11,200 ft-lb
Max Make Up Torque	13,300 ft-lb
Max Torque w/ Sealability	14,500 ft-lb

The single solution for Shale Play needs

VAM® SG brings VAM® premium sealing performance to a semi-flush connection with extremely high Tension performance and increased Torque capacity, validated to the specific Shale drilling requirements, while remaining highly competitive in North American Shale play economics.





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	Pil	Pipe Description	nc	
Size	Weight	Wall	Grade	Connection
5.000"	23.20#	0.478"	T-95	NS-CC

Performance Properties	ies
Yield (x 1000 lbs.)	645
Internal Pressure (psi)	15890
Collapse (psi)	16430
Tension (x 1000 lbs.)	629
Compression (x 1000 lbs.)	629

Pipe ID 4.044" Pin ID 4.160" Coupling ID 4.145" Special Clearance 5.720" Special Clearance 5.407" Coupling Length 9.976" Pin Lc Length 2.008" Drift Diameter 3.919"	Connection Dimensions	us
ice th	Pipe ID	4.044"
ice th	Pin ID	4.160"
ice th	Coupling ID	4.145"
th	Coupling OD	5.720"
th	Special Clearance	5.407"
	Coupling Length	9.976"
	Pin Lc Length	2.008"
	Drift Diameter	3.919"

		Make-Up	- 11	
te Min.	Torque Opt.	orque Min. Torque Opt. Torque Max	MakeUp	MakeUp
ff. Ibs.)	(ft. lbs.)	(ft. lbs.)	Loss	Speed
1800	5400	6100	4.690"	10 rpm Max

Recommended Thread Compound: API Modified Running Compound. such as Best-of-Life 72733

