

Office
 District I – (575) 393-6161
 1625 N. French Dr., Hobbs, NM 88240
 District II – (575) 748-1283
 811 S. First St., Artesia, NM 88210
 District III – (505) 334-6178
 1000 Rio Brazos Rd., Aztec, NM 87410
 District IV – (505) 476-3460
 1220 S. St. Francis Dr., Santa Fe, NM
 87505

State of New Mexico
 Energy, Minerals and Natural Resources

Form C-103
 Revised July 18, 2013

OIL CONSERVATION DIVISION
 1220 South St. Francis Dr.
 Santa Fe, NM 87505

WELL API NO. 30-015-23585
5. Indicate Type of Lease STATE ☐ FEE ☒
6. State Oil & Gas Lease No.
7. Lease Name or Unit Agreement Name Routh Deep SWD
8. Well Number 2
9. OGRID Number 7377
10. Pool name or Wildcat SWD; Devonian
4. Well Location Unit Letter <u>B</u> : <u>660</u> feet from the <u>North</u> line and <u>1980</u> feet from the <u>East</u> line Section <u>14</u> Township <u>19S</u> Range <u>24E</u> NMPM <u>Eddy</u> County
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3649'GR

SUNDRY NOTICES AND REPORTS ON WELLS

(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

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

2. Name of Operator

EOG Resources, Inc.

3. Address of Operator

104 South Fourth Street, Artesia, NM 88210

4. Well Location

Unit Letter B : 660 feet from the North line and 1980 feet from the East line
 Section 14 Township 19S Range 24E NMPM Eddy County

11. Elevation (Show whether DR, RKB, RT, GR, etc.)
3649'GR

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☒
 TEMPORARILY ABANDON ☐ CHANGE PLANS ☐
 PULL OR ALTER CASING ☐ MULTIPLE COMPL ☐
 DOWNHOLE COMMINGLE ☐
 CLOSED-LOOP SYSTEM ☐
 OTHER: ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐
 COMMENCE DRILLING OPNS. ☐ P AND A ☐
 CASING/CEMENT JOB ☐

Notify OCD 24 hrs. prior to any work done

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Run CBL to surface.

EOG Resources, Inc. plans to plug and abandon this well as follows:

- MIRU all safety equipment as needed. NU BOP. POOH with production equipment.
- Set a CIBP at 9347'. Pressure test. Spot 50 sx Class "H" cement on top of CIBP to 8900'. WOC and tag. This will cover Chester, Mississippian, Woodford and Devonian perms.
- Spot a 25 sx Class "H" cement plug from 8775'-8550'. This will cover Morrow top.
- Perforate at 7484'. Attempt injection rate. Squeeze with 63 sx Class "C" cement from 7484'-7184'. WOC and tag. This will cover Lower Canyon top and DV tool.
- Spot a 25 sx Class "C" cement plug from 6375'-6125'. This will cover Cisco top.
- Spot a 25 sx Class "C" cement plug from 5248'-4998'. This will cover Wolfcamp top.
- Perforate at 3897'. Attempt injection rate. Squeeze with 25 sx Class "C" cement from 3897'-3789'. WOC and tag. This will cover Abo top.
- Perforate at 1845'. Attempt injection rate. Squeeze with 25 sx Class "C" cement from 1845'-1737'. WOC and tag. This will cover Glorieta top.
- Perforate at 971'. Attempt injection/circulation. Spot 96 sx Class "C" cement from 971' and circulate up to surface. Verify cement at surface. Back fill as needed.
- Cut off wellhead and install dry hole marker. Clean location as per regulated.

Wellbore schematics attached

Spud Date:

Rig Release Date:

****SEE ATTACHED COA's****

Must be plugged by 4/7/2023

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Tina Huerta TITLE Regulatory Specialist DATE March 31, 2022

Type or print name Tina Huerta E-mail address: tina_huerta@eogresources.com PHONE: 575-748-4168

For State Use Only

APPROVED BY: [Signature] TITLE Staff Manager DATE 4/7/2022

Conditions of Approval (if any):

Sec-TWN-RNG:	Sec. 14-19S-24E	API:	30-015-23585
FOOTAGES:	660' FNL & 1980' FEL	GL:	3649
		KB:	

Morrow perfs 8810-8878

B

C

D

PBTD:	N/A	MD
TD:	9,900	MD

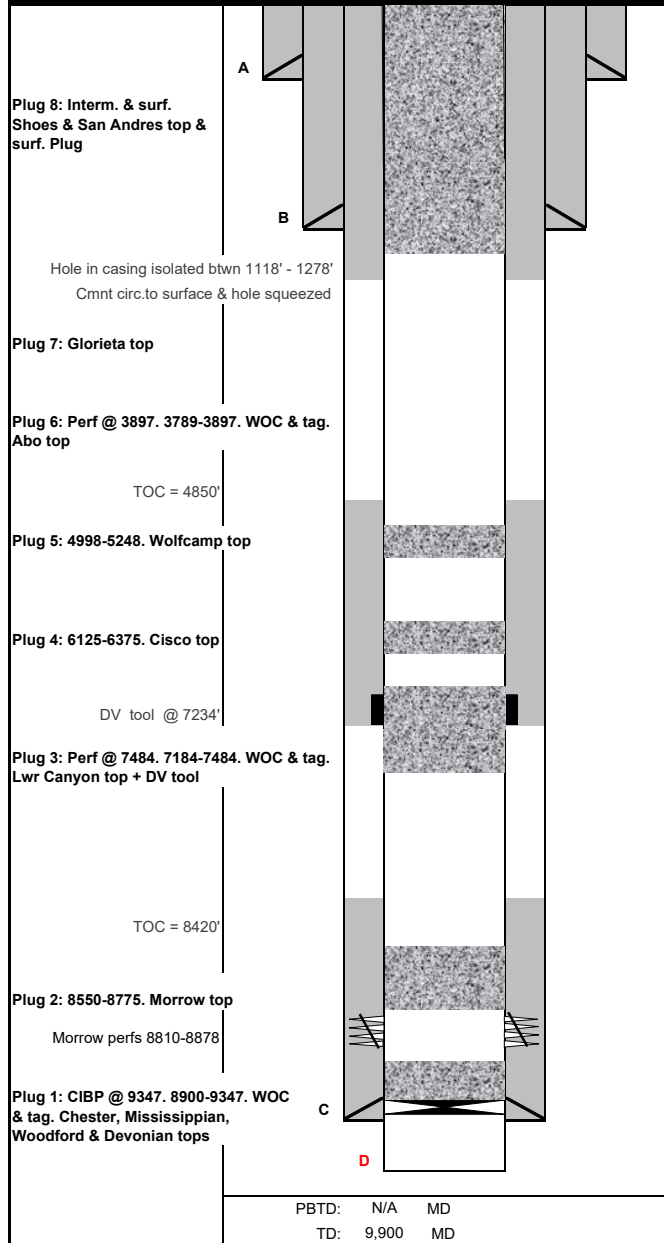
#	HOLE SIZE	SIZE	WGHT	GRADE	Top	Bottom	Sx Cmt	Circ/TOC	TOC Method
A	17 1/2	13 3/8	54.5	J-55	0	440	450	Circ	
B	12 1/4	8 5/8	24	J-55	0	921	750	Circ	
C	7 7/8	5 1/2	17	K55 & N80	0	9,397	1060	4680	CBL
D	4 3/4	Open Hole			9397	9900			

		Formation	Top			Formation	Top	
		San Andres	437					
		Glorieta	1795					
		Abo	3847					
		Wolfcamp	5198					
		Cisco	6325					
		Lwr Canyon	7434					
		Morrow	8725					
		Chester	8959					
		Mississippian	9100					
		Woodford	9561					
		Devonian	9570					

[illegible][illegible]

Prepared by: JGM

Routh Deep SWD 2 Proposed



Sec-TWN-RNG: Sec. 14-19S-24E
FOOTAGES: 660' FNL & 1980' FEL

API: 30-015-23585
GL: 3649
KB:

CASING DETAIL

#	HOLE SIZE	SIZE	WGHT	GRADE	Top	Bottom	Sx Cmt	Circ/TOC	TOC Method
A	17 1/2	13 3/8	54.5	J-55	0	440	450	Circ	
B	12 1/4	8 5/8	24	J-55	0	921	750	Circ	
C	7 7/8	5 1/2	17	K55 & N80	0	9,397	1060	4680	CBL
D	4 3/4	Open Hole			9397	9900			

FORMATION TOPS

	FORMATION	TOP		FORMATION	TOP
	San Andres	437		Mississippian LS	9100
	Glorieta	1795		Woodford	9561
	Abo	3847		Devonian	9570
	Wolfcamp	5198			
	Cisco	6325			
	Lwr Canyon	7434			
	Morrow	8725			
	Chester	8959			

PERFORATION DETAIL

	Formation	Top	Bottom	Treatment
A	Morrow	8,810	8,878	Acidized w/2000gal 7.5% MS acid & Nitrogen & ball sealers

#	SX	Class	Top	Bottom	Δ	Notes	Tag
1	50	H	8900	9347	447	CIBP @ 9347. Pressure test. Spot 50sx. WOC & tag. Chester, Mississippian, Woodford, Devonian	Y
2	25	H	8550	8775	225	Spot 25sx. Morrow top	N
3	63	C	7184	7484	300	Perf @ 7484. Attempt Inj. Sqz 63sx. Lwr Canyon top and DV tool	Y
4	25	C	6125	6375	250	Spot 25sx. Cisco top	N
5	25	C	4998	5248	250	Spot 25sx. Wolfcamp top	N
6	25	C	3789	3897	108	Perf @ 3897. Attempt Inj. Sqz 25sx. WOC & tag. Abo top	Y
7	25	C	1737	1845	108	Perf @ 1845. Attempt Inj. Sqz 25sx. WOC & tag. Glorieta top	Y
8	96	C	0	971	971	Perf @ 971. Attempt Inj/Circ. Spot 96sx. WOC & tag. Interm. & surf. Shoes, SA top & surf. Plug	Y

Prepared by: JGM

CONDITIONS FOR PLUGGING AND ABANDONMENT

OCD - Southern District

The following is a guide or checklist in preparation of a plugging program, this is not all inclusive and care must be exercised in establishing special plugging programs in unique and unusual cases, **Notify NMOCD District Office II at (575)-748-1283 at least 24 hours before beginning work. After MIRU rig will remain on well until it is plugged to surface. OCD is to be notified before rig down. Company representative will be on location during plugging procedures.**

1. A notice of intent to plug and abandon a wellbore is required to be approved before plugging operations are conducted. A cement evaluation tool is required in order to ensure isolation of producing formations, protection of water and correlative rights. A cement bond log or other accepted cement evaluation tool is to be provided to the division for evaluation if one has not been previously run or if the well did not have cement circulated to surface during the original casing cementing job or subsequent cementing jobs. Insure all bradenheads have been exposed, identified and valves are operational prior to rig up.
2. Closed loop system is to be used for entire plugging operation. Upon completion, contents of steel pits are to be hauled to a permitted disposal location.
3. Trucking companies being used to haul oilfield waste fluids to a disposal – commercial or private – shall have an approved NMOCD C-133 permit. A copy of this permit shall be available in each truck used to haul waste products. It is the responsibility of the operator as well as the contractor, to verify that this permit is in place prior to performing work. Drivers shall be able to produce a copy upon request of an NMOCD Field inspector.
4. Filing a subsequent C-103 will serve as notification that the well has been plugged.
5. A final C-103 shall be filed (and a site inspection by NMOCD Inspector to determine if the location is satisfactorily cleaned, all equipment, electric poles and trash has been removed to Meet NMOCD standards) before bonding can be released.
6. If work has not begun within 1 Year of the approval of this procedure, an extension request must be file stating the reason the well has not been plugged.
7. Squeeze pressures are not to exceed 500 psi, unless approval is given by NMOCD.
8. Produced water **will not** be used during any part of the plugging operation.
9. Mud laden fluids must be placed between all cement plugs mixed at 25 sacks per 100 bbls of water.
10. All cement plugs will be a minimum of 100' in length or a minimum of 25 sacks of cement, whichever is greater. 50' of calculated cement excess required for inside casing plugs and 100% calculated cement excess required on outside casing plugs.
11. Class 'C' cement will be used above 7500 feet.
12. Class 'H' cement will be used below 7500 feet.
13. A cement plug is required to be set 50' above and 50' below, casing stubs, DV tools, attempted casing cut offs, cement tops outside casing, salt sections and anywhere the casing is perforated, these plugs require a 4 hour WOC and then will be tagged
14. All Casing Shoes Will Be Perforated 50' below shoe depth and Attempted to be Squeezed, cement needs to be 50' above and 50' Below Casing Shoe inside the Production Casing.

16. When setting the top out cement plug in production, intermediate and surface casing, wellbores should remain full at least 30 minutes after plugs are set
17. A CIBP is to be set within 100' of production perforations, capped with 100' of cement, WOC 4 hours and tag.
18. A CIBP with 35' of cement may be used in lieu of the 100' plug if set with a bailer. This plug will be placed within 100' of the top perforation, (WOC 4 hrs and tag).
19. No more than 3000' is allowed between cement plugs in cased hole and 2000' in open hole.
20. Some of the Formations to be isolated with cement plugs are: These plugs to be set to isolate formation tops
 - A) Fusselman
 - B) Devonian
 - C) Morrow
 - D) Wolfcamp
 - E) Bone Springs
 - F) Delaware
 - G) Any salt sections
 - H) Abo
 - I) Glorieta
 - J) Yates.
 - K) Potash---(In the R-111-P Area (Page 3 & 4), a solid cement plug must be set across the salt section. Fluid used to mix the cement shall be saturated with the salts that are common to the section penetrated and in suitable proportions, not more than 3% calcium chloride (by weight of cement) will be considered the desired mixture whenever possible, WOC 4 hours and tag, this plug will be 50' below the bottom and 50' above the top of the Formation.
21. If cement does not exist behind casing strings at recommended formation depths, the casing can be cut and pulled with plugs set at recommended depths. If casing is not pulled, perforations will be shot and cement squeezed behind casing, WOC and tagged. These plugs will be set 50' below formation bottom to 50' above formation top inside the casing

DRY HOLE MARKER REQUIREMENTS

The operator shall mark the exact location of the plugged and abandoned well with a steel marker not less than four inches in diameter, 3' below ground level with a plate of at least ¼" welded to the top of the casing and the dry hole marker welded on the plate with the following information welded on the dry hole marker:

1. Operator name 2. Lease and Well Number 3. API Number 4. Unit Letter 5. Quarter Section (feet from the North, South, East or West) 6. Section, Township and Range 7. Plugging Date 8. County (SPECIAL CASES)-----AGRICULTURE OR PRARIE CHICKEN BREEDING AREAS

In these areas, a below ground marker is required with all pertinent information mentioned above on a plate, set 3' below ground level, a picture of the plate will be supplied to NMOCD for record, the exact location of the marker (longitude and latitude by GPS) will be provided to NMOCD (We typically require a current survey to verify the GPS)

SITE REMEDIATION DUE WITHIN ONE YEAR OF WELL PLUGGING COMPLETION

R-111-P Area

T 18S – R 30E

Sec 10 Unit P. Sec 11 Unit M,N. Sec 13 Unit L,M,N. Sec 14 Unit C -P. Sec 15 Unit A G,H,I,J,K,N,O,P. Sec 22 Unit All except for M. Sec 23, Sec 24 Unit C,D,E,L, Sec 26 Unit A-G, Sec 27 Unit A,B,C

T 19S – R 29E

Sec 11 Unit P. Sec 12 Unit H-P. Sec 13. Sec 14 Unit A,B,F-P. Sec 15 Unit P. Sec 22 Unit A,B,C,F,G,H,I,J K,N,O,P. Sec 23. Sec 24. Sec 25 Unit D. Sec 26 Unit A- F. Sec 27 Unit A,B,C,F,G,H.

T 19S – R 30E

Sec 2 Unit K,L,M,N. Sec 3 Unit I,L,M,N,O,P. Sec 4 Unit C,D,E,F,G,I-P. Sec 5 Unit A,B,C,E-P. Sec 6 Unit I,O,P. Sec 7 – Sec 10. Sec 11 Unit D, G—P. Sec 12 Unit A,B,E-P. Sec 13 Unit A-O. Sec 14-Sec 18. Sec 19 Unit A-L, P. Sec 20 – Sec 23. Sec 24 Unit C,D,E,F,L,M,N. Sec 25 Unit D. Sec 26 Unit A-G, I-P. Sec 27, Sec 28, Sec 29 Unit A,B,C,D,F,G,H,I,J,O,P. Sec 32 Unit A,B,G,H,I,J,N,O,P. Sec 33. Sec 34. Sec 35. Sec 36 Unit D,E,F,I-P.

T 19S – R 31E

Sec 7 Unit C,D,E,F,L. Sec 18 Unit C,D,E,F,G,K,L. Sec 31 Unit M. Sec 34 Unit P. Sec 35 Unit M,N,O. Sec 36 Unit O,P.

T 20S – R 29E

Sec 1 Unit H,I,P. Sec 13 Unit E,L,M,N. Sec 14 Unit B-P. Sec 15 Unit A,H,I,J,N,O,P. Sec 22 Unit A,B,C,F,G,H,I,J,O,P. Sec 23. Sec 24 Unit C,D,E,F,G,J-P. Sec 25 Unit A-O. Sec 26. Sec 27 Unit A,B,G,H,I,J,O,P. Sec 34 Unit A,B,G,H. Sec 35 Unit A-H. Sec 36 Unit B-G.

T 20S – R 30E

Sec 1 – Sec 4. Sec 5 Unit A,B,C,E-P. Sec 6 Unit E,G-P. Sec 7 Unit A-H,I,J,O,P. Sec 8 – 17. Sec 18 Unit A,B,G,H,I,J,O,P. Sec 19 Unit A,B,G,H,I,J,O,P. Sec 20 – 29. Sec 30 Unit A-L,N,O,P. Sec 31 Unit A,B,G,H,I,P. Sec 32 – Sec 36.

T 20S – R 31E

Sec 1 Unit A,B,C,E-P. Sec 2. Sec 3 Unit A,B,G,H,I,J,O,P. Sec 6 Unit D,E,F,J-P. Sec 7. Sec 8 Unit E-P. Sec 9 Unit E,F,J-P. Sec 10 Unit A,B,G-P. Sec 11 – Sec 36.

T 21S – R 29E

Sec 1 – Sec 3. Sec 4 Unit L1 – L16,I,J,K,O,P. Sec 5 Unit L1. Sec 10 Unit A,B,H,P. Sec 11 – Sec 14. Sec 15 Unit A,H,I. Sec 23 Unit A,B. Sec 24 Unit A,B,C,D,F,G,H,I,J,O,P. Sec 25 Unit A,O,P. Sec 35 Unit G,H,I,J,K,N,O,P. Sec 36 A,B,C,F – P.

T 21S – R 30E

Sec 1 – Sec 36

T 21S – R 31E

Sec 1 – Sec 36

T 22S – R 28E

Sec 36 Unit A,H,I,P.

T 22S – R 29E

Sec 1. Sec2. Sec 3 Unit I,J,N,O,P. Sec 9 Unit G – P. Sec 10 – Sec 16. Sec 19 Unit H,I,J. Sec 20 – Sec 28. Sec 29 Unit A,B,C,D,G,H,I,J,O,P. Sec 30 Unit A. Section 31 Unit C – P. Sec 32 – Sec 36

T 22S – R 30E

Sec 1 – Sec 36

T 22S – R 31E

Sec 1 – Sec 11. Sec 12 Unit B,C,D,E,F,L. Sec 13 Unit E,F,K,L,M,N. Sec 14 – Sec 23. Sec 24 Unit C,D,E,F,K,L,M,N. Sec 25 Unit A,B,C,D. Sec 26 Unit A,BC,D,G,H. Sec 27 – Sec 34.

T 23S – R 28E

Sec 1 Unit A

T 23S – R 29E

Sec 1 – Sec 5. Sec 6 Unit A – I, N,O,P. Sec 7 Unit A,B,C,G,H,I,P. Sec 8 Unit A – L, N,O,P. Sec 9 – Sec 16. Sec 17 Unit A,B,G,H,I,P. Sec 21 – Sec 23. Sec 24 Unit A – N. Sec 25 Unit D,E,L. Sec 26. Sec 27. Sec 28 Unit A – J, N,O,P. Sec 33 Unit A,B,C. Sec 34 Unit A,B,C,D,F,G,H. Sec 35. Sec 36 Unit B,C,D,E,F,G,K,L.

T 23S – R 30E

Sec 1 – Sec 18. Sec 19 Unit A – I,N,O,P. Sec 20, Sec 21. Sec 22 Unit A – N, P. Sec 23, Sec 24, Sec 25. Sec 26 Unit A,B,F-P. Sec 27 Unit C,D,E,I,N,O,P. Sec 28 Unit A – H, K,L,M,N. Sec 29 Unit A – J, O,P. Sec 30 Unit A,B. Sec 32 A,B. Sec 33 Unit C,D,H,I,O,P. Sec 34, Sec 35, Sec 36.

T 23S – R 31E

Sec 2 Unit D,E,J,O. Sec 3 – Sec 7. Sec 8 Unit A – G, K – N. Sec 9 Unit A,B,C,D. Sec 10 Unit D,P. Sec 11 Unit G,H,I,J,M,N,O,P. Sec 12 Unit E,L,K,M,N. Sec 13 Unit C,D,E,F,G,J,K,L,M,N,O. Sec 14. Sec 15 Unit A,B,E – P. Sec 16 Unit I, K – P. Sec 17 Unit B,C,D,E, I – P. Sec 18 – Sec 23. Sec 24 Unit B – G, K,L,M,N. Sec 25 Unit B – G, J,K,L. Sec 26 – Sec 34. Sec 35 Unit C,D,E.

T 24S – R 29E

Sec 2 Unit A, B, C, D. Sec 3 Unit A

T 24S – R 30E

Sec 1 Unit A – H, J – N. Sec 2, Sec 3. Sec 4 Unit A,B,F – K, M,N,O,P. Sec 9 Unit A – L. Sec 10 Unit A – L, O,P. Sec 11. Sec 12 Unit D,E,L. Sec 14 Unit B – G. Sec 15 Unit A,B,G,H.

T 24S – R 31E

Sec 3 Unit B – G, J – O. Sec 4. Sec 5 Unit A – L, P. Sec 6 Unit A – L. Sec 9 Unit A – J, O,P. Sec 10 Unit B – G, K – N. Sec 35 Unit E – P. Sec 36 Unit E,K,L,M,N.

T 25S – R 31E

Sec 1 Unit C,D,E,F. Sec 2 Unit A – H.

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State of New Mexico
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Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 94684

CONDITIONS

Operator: EOG RESOURCES INC P.O. Box 2267 Midland, TX 79702	OGRID: 7377
	Action Number: 94684
	Action Type: [C-103] NOI Plug & Abandon (C-103F)

CONDITIONS

Created By	Condition	Condition Date
gcordero	None	4/7/2022