

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88309
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

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State of New Mexico
Geology, Minerals & Natural Resources
Oil Conservation Division
1220 S. St. Francis Dr.
Santa Fe, NM 87505

Form C-101
May 27, 2004

Submit to appropriate District Office

☐ AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

¹ Operator Name and Address EOG Resources, Inc. P.O. Box 2267 Midland, TX 79702		² OGRID Number 7377
		³ API Number 30- 025-35111
⁴ Property Code 26411	⁵ Property Name Bullwinkle	⁶ Well No. 1
⁹ Proposed Pool 1 Eidson; Strawn, North		¹⁰ Proposed Pool 2

⁷ Surface Location

UL or lot no. V	Section 6	Township 16S	Range 35E	Lot. Idn	Feet from the 660	North/South Line South	Feet from the 1980	East/West line West	County Lea
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⁸ Proposed Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South Line	Feet from the	East/West line	County
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Additional Well Location

¹¹ Work Type Code Plugback	¹² Well Type Code G	¹³ Cable/Rotary R	¹⁴ Lease Type Code S	¹⁵ Ground Level Elevation 4004
¹⁶ Multiple N	¹⁷ Proposed Depth PB 12490	¹⁸ Formation Strawn	¹⁹ Contractor	²⁰ Spud Date 01/2009
Depth to ground water		Distance from nearest fresh water well		Distance from nearest surface water
Pit: Liner Synthetic <input type="checkbox"/> _____ mils thick Clay <input type="checkbox"/> Pit Volume _____ bbls Drilling Method:				
Closed-Loop System <input type="checkbox"/> Fresh Water <input type="checkbox"/> Brine <input type="checkbox"/> Diesel/Oil-based <input type="checkbox"/> Gas/Air <input type="checkbox"/>				

²¹ Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
14-3/4"	11-3/4"	42 # - H-40	469	350	Surface
11"	8-5/8"	32 # - J-55	4200	1050	Surface
11"	8-5/8"	32 # - HCK-55	4606		
7-7/8"	5-1/2"	17 # - N-80	8700	1180	4100 Calc
7-7/8"	5-1/2"	17 # - P-110	13076		

²² Describe the proposed program. If this application is to DEEPEN or PLUG BACK, give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary.

Plugback to Strawn as per the attached procedure.

**Permit Expires 2 Years From Approval
Date Unless Drilling Underway
Plugback**

²³ I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify that the drilling pit will be constructed according to NMOCD guidelines <input type="checkbox"/> a general permit <input type="checkbox"/> , or an (attached) alternative OCD-approved plan <input type="checkbox"/>		OIL CONSERVATION DIVISION	
Signature: <i>Stan Wagner</i>		Approved by: <i>[Signature]</i>	
Printed name: Stan Wagner		Title: PETROLEUM ENGINEER	
Title: Regulatory Analyst		Approval Date: JAN 26 2009 Expiration Date:	
E-mail Address:		Conditions of Approval.	
Date: 12/18/08	Phone: 432-686-3689	Attached <input type="checkbox"/>	

EOG RESOURCES INC.
Bullwinkle #1

Procedure to recompleting in the Strawn limestone.

Well Information:

Location:	660' FSL & 1,980' FWL	AFE No:	104
	Sec. 6, T16S, R35E	T.D.	13,075'
	Townsend Morrow	PBTD:	12,820'
	Lea County, New Mexico	KB:	4,027'
	API No: 30-025-35111	GL:	4,004'
	Spudded 10/03/2000		
Casing:	11 3/4" 42# H-40 STC @ 469' (Circulated cement)		
	8 5/8" 32# J-55/HCK-55 STC @ 4,606' (Circulated cement)		
	5 1/2" 17# P-110/N-80 STC @ 13,076' (TOC 4,100 Calc.)		
Tubing:	2 7/8" 6.50# N-80 EUE		
Packer:	HES 5 1/2" 13#-17# 10,000 psi PLS @ 12,458.12'		

<u>OD</u>	<u>WT</u>	<u>Grade</u>	<u>Burst</u>	<u>Collapse</u>	<u>ID</u>	<u>Drift</u>
8 5/8"	32.0#	J55	3930	2530	7.921	7.796
5 1/2"	17.0#	N80	5320	4910	4.892	4.767
2 7/8"	6.50#	N80	10570	11160	2.441	2.347

Morrow perforations 12,896 – 12,936' overall

Cast Iron Bridge Plug @ 12,840' w/ 20' of cement
Top of dropped TCP guns @ 12,728.69'

Present Atoka "Shoebar" perforations 12,588' – 12,614'

Current Production: 0 BOPD, 2 MCFD, 0 BWPD (12/15/08)

Directions: From the intersection of Highway 18 & Highway 83 in Lovington, New Mexico. Go 8 1/2 miles west on Highway 83. Turn right & go north 1/4 mile to location.

Procedure:

- 1) Pull test anchors. Move in & rig up pulling unit. Set pipe racks and catwalk.
- 2) Load 2 7/8" tubing with fresh water. No report that the 2 7/8" x 5 1/2" annulus was loaded w/ packer fluid. Nipple down 2 9/16" 10,000 psi tree. Nipple up 7 1/16" 5,000 psi BOP's.
- 3) Release HES 5 1/2" 13# - 17# 10,000 psi "PLS" packer set @ 12,458.12'. Trip out of the hole w/ 1 joint of 2 7/8" 6.50# N-80 EUE tubing, 2 - 2 7/8" 6.50# N-80 EUE pup joints, 389 joints of 2 7/8" 6.50# N-80 EUE tubing, 2 7/8" x 6.16' R/A marker sub, 1 joint of 2 7/8" 6.50# N-80 EUE tubing, 5 1/2" "PLS" packer w/ on - off tool, 1 joint of 2 7/8" 6.50# N-80 EUE tubing, 2 7/8" profile nipple, 1 joint of 2 7/8" 6.50# N-80 EUE tubing & 2 7/8" tubing release. Power Perf assembly released on 12/10/00. Tubing string dated 12/6/2000. Send HES "PLS" packer in to be redressed and converted to wireline set.
- 4) Make up a 4 3/4" skirted mill tooth bit & 5 1/2" 17# casing scraper. Trip in the hole w/ 2 7/8" 6.50# L-80 EUE tubing to +/-12,560'. Atoka perforations from 12,588' to 12,614'. Circulate the hole clean w/ 3% KCL salt. Trip out of the hole.
- 5) Rig up wireline with packoff. Run in hole & set a 5 1/2" 17# 10,000 psi Cast Iron Bridge Plug @ +/-12,540' (50' above Atoka perforations). Pull out of the hole. Load the 5 1/2" casing with 3% KCL salt. Pressure test the CIBP to 2,500 psi. Run in the hole & dump 50' of cement on top of the CIBP. Pull out of the hole.
- 6) Trip in the hole w/ the 4 3/4" skirted mill tooth bit to 11,653'.
- 7) Spot 300 gallons of triple inhibited 10% Acetic acid w/ 2 gpt Cla-Sta XP (clay control) & 2 gpt LoSurf 300M (surfactant) from 11,653' to 11,345' w/ 3% KCL salt. Trip out of the hole. Lay down the 4 3/4" bit.

- 8) Rig up wireline with 5,000 psi lubricator & grease. Run in hole w/ 3 1/8" Slick Gamma Gun loaded 2 spf w/ 19 gram 322T charges @ 120 degrees phasing & CCL. Entry hole 0.41". Penetration 40". Correlate to Baker Hughes Compensated Z-Densilog Compensated Neutron log dated 11/9/2000. Run correlation log from 11,900' to 11,000'. Possibility of being 1,100 psi underbalanced w/ no surface pressure.
Note: Strawn was drilled w/ 8.6 ppg water based mud to 11,630'. Had drilling break from 11,630' to 11,637'. Well started flowing. Shut in casing pressure 1,120 psi, shut in drill pipe pressure 920 psi (30 minutes). Kill mud weight 10.12 ppg @ 11,630'. Raised mud weight to 10.3 ppg. Drilled from 11,637' to 11,657'. Ran DST #1 from 11,604' to 11,657'. Recovered 102 BO, 0 BW. Shut in BHP 6,184 psi after second shut in period.
Perforate the Strawn limestone as follows:
11,634' – 11,644' (22 holes)
11,648' – 11,653' (12 holes)
Total of 34 holes
Pull out of the hole. Record shut in casing pressures.
- 9) Make up HES 5 1/2" 13# – 17# 10,000 psi "PLS" wireline set retrievable packer. Lubricate in the hole with the HES 5 1/2" "PLS" packer, 10' pup joint, 2 7/8" "XN" profile nipple & 2 7/8" wireline re-entry guide w/ steel pump out plug. Refer to correlation log for 5 1/2" casing connections. Set the packer @ +/-11,540'. Record & bleed off any shut in casing pressure to insure that the packer is holding.
- 10) Test in the hole to 8,000 psi above slips w/ on-off tool overshoot & 2 7/8" 6.50# N-80 EUE production tubing.
- 11) Latch onto the on-off tool @ +/-11,538'. Slack off 15,000#. Pull test to 20,000#. Release the on-off overshoot. Pick up & space out to leave ~12,000# compression on packer. Reverse 7 barrels into the tubing to clear the annulus of excess Acetic acid. Install extended neck tubing hanger. Slack off, latch onto the on-off tool & land the extended neck tubing hanger leaving 10,000# to 15,000# compression on the packer. Nipple down the 7 1/16" 5,000 psi BOP's. Nipple up the 2 9/16" 10,000 psi tree. Pressure test seals & flange to 10,000 psi.
- 12) Rig up pump truck. Pressure test lines to 6,000 psi. Pump off the steel pump out plug, breakdown the Strawn perforations from 11,634' to 11,653' & pump away the 300 gallons of spotted 10% Acetic acid. Overflush w/ 10 barrels.
Flow / Swab the 2 7/8" 6.50# L-80 EUE tubing to tank to recover spent acid & evaluate oil cut.

- 13) Acidize the Strawn limestone w/ 4,000 gallons of double inhibited 15% HCL acid & 2 gpt ClaSta XP & 2 gpt LoSurf 300 dropping 20-1.3 S.G. ball sealers after each 1,000 gallons of acid. Total of 60 ball sealers.
- 14) Flow/swab to tank for evaluation.
- 15) Nipple down 2 9/16" 10,000 psi tree. Nipple up 7 1/16" 5,000 psi BOP's. Annulus will be loaded w/ 3% KCL salt (8.48 ppg). Load the tubing as required to equalize as necessary. Release the on – off tool to equalize the tubing & annulus. Latch back onto the on – off tool & release the HES 5 1/2" "PLS" Retrievable Packer set @ +/-11,540'. Trip out of hole with the 2 7/8" tubing & 5 1/2" packer.
- 16) Trip in the hole w/ 2 7/8" pumping string as designed. Pick up & run in the hole w/ the pump & rod string as designed.
Place well on pump.

RP
12/17/08

Contacts:

Engineer	Tom Zeltman	Office:	432-686-3630
Consultant	Bob Perry	Cell:	325-650-1302
Consultant	James Brown	Cell:	326-650-5973
Completion Mgr.	Glenn Carter	Office:	432-686-3641
		Cell:	432-894-1214

District I
PO Box 1980, Hobbs, NM 88241-1980
District II
PO Drawer DD, Artesia, NM 88211-0719
District III
1000 Rio Brazos Rd., Artec, NM 87410
District IV
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

Form C-102
Revised February 21, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-025-35111		*Pool Code 21400	*Pool Name Edison; Strawn, North
*Property Code 26411	*Property Name BULLWINKLE		*Well Number 1
*OGRND No. 7377	*Operator Name EOG RESOURCES INC.		*Elevation 4051

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
V	6	16-S	35-E		660	SOUTH	1980	WEST	LEA

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

*Dedicated Acres	*Joint or Infill	*Consolidation Code	*Order No.
40			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

¹⁶	¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.
	Signature
	Printed Name Stan Wagner
	Title Regulatory Analyst
	Date 1/26/09
	¹⁸ SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to best of my belief.
	Date of Survey JULY 25, 2000
	Signature and Seal of Professional Surveyor:
	Certificate Number 14729