

F/R

Form 3160-3  
(March 2012)

HOBBS OCD

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FEB 14 2018

APPLICATION FOR PERMIT TO DRILL OR REENTER

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

5. Lease Serial No.  
NMNM128367

6. If Indian, Allottee or Tribe Name

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

8. Lease Name and Well No.  
DELLA 29 FEDERAL 606H

(320792)

9. API Well No.

30-025-44477

10. Field and Pool, or Exploratory  
LOCO HILLS / LEA, BONE SPRING, S

(37580)

11. Sec., T. R. M. or Blk. and Survey or Area  
SEC 29 / T20S / R34E / NMP

12. County or Parish  
LEA

13. State  
NM

1a. Type of work:  DRILL  REENTER

1b. Type of Well:  Oil Well  Gas Well  Other  Single Zone  Multiple Zone

2. Name of Operator  
EOG RESOURCES INCORPORATED

(7777)

3a. Address  
1111 Bagby Sky Lobby2 Houston TX 77002

3b. Phone No. (include area code)  
(713)651-7000

4. Location of Well (Report location clearly and in accordance with any State requirements.)\*  
At surface SWSW / 230 FSL / 1015 FWL / LAT 32.5375168 / LONG -103.5877266  
At proposed prod. zone NWNW / 230 FNL / 994 FWL / LAT 32.5507605 / LONG -103.5878102

14. Distance in miles and direction from nearest town or post office\*  
27 miles

15. Distance from proposed\*  
location to nearest 230 feet  
property or lease line, ft.  
(Also to nearest drig. unit line, if any)

16. No. of acres in lease  
480

17. Spacing Unit dedicated to this well  
160

18. Distance from proposed location\*  
to nearest well, drilling, completed, 664 feet  
applied for, on this lease, ft.

19. Proposed Depth  
11250 feet / 16044 feet

20. BLM/BIA Bond No. on file  
FED: NM2308

21. Elevations (Show whether DF, KDB, RT, GL, etc.)  
3670 feet

22. Approximate date work will start\*  
03/01/2018

23. Estimated duration  
25 days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, must be attached to this form:

- 1. Well plat certified by a registered surveyor.
- 2. A Drilling Plan.
- 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
- 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
- 5. Operator certification
- 6. Such other site specific information and/or plans as may be required by the BLM.

25. Signature (Electronic Submission) Name (Printed/Typed) Date  
Stan Wagner / Ph: (432)686-3689 07/26/2017

Title  
Regulatory Specialist

Approved by (Signature) Name (Printed/Typed) Date  
Cody Layton / Ph: (575)234-5959 02/08/2018

Title  
Supervisor Multiple Resources  
Office  
CARLSBAD

Application approval 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.  
Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make 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.

(Continued on page 2)

\*(Instructions on page 2)

APPROVED WITH CONDITIONS  
Approval Date: 02/08/2018

Ka  
02/08/18

Double sided

## INSTRUCTIONS

**GENERAL:** This form is designed for submitting proposals to perform certain well operations, as indicated on Federal and Indian lands and leases for action by appropriate Federal agencies, pursuant to applicable Federal laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from local Federal offices.

**ITEM 1:** If the proposal is to redrill to the same reservoir at a different subsurface location or to a new reservoir, use this form with appropriate notations. Consult applicable Federal regulations concerning subsequent work proposals or reports on the well.

**ITEM 4:** Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local Federal offices for specific instructions.

**ITEM 14:** Needed only when location of well cannot readily be found by road from the land or lease description. A plat, or plats, separate or on the reverse side, showing the roads to, and the surveyed location of, the well, and any other required information, should be furnished when required by Federal agency offices.

**ITEMS 15 AND 18:** If well is to be, or has been directionally drilled, give distances for subsurface location of hole in any present or objective productive zone.

**ITEM 22:** Consult applicable Federal regulations, or appropriate officials, concerning approval of the proposal before operations are started.

## NOTICES

The Privacy Act of 1974 and regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

**AUTHORITY:** 30 U.S.C. 181 et seq., 25 U.S.C. 396; 43 CFR 3160

**PRINCIPAL PURPOSES:** The information will be used to: (1) process and evaluate your application for a permit to drill a new oil, gas, or service well or to reenter a plugged and abandoned well; and (2) document, for administrative use, information for the management, disposal and use of National Resource Lands and resources including (a) analyzing your proposal to discover and extract the Federal or Indian resources encountered; (b) reviewing procedures and equipment and the projected impact on the land involved; and (c) evaluating the effects of the proposed operation on the surface and subsurface water and other environmental impacts.

**ROUTINE USE:** Information from the record and/or the record will be transferred to appropriate Federal, State, and local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecution, in connection with congressional inquiries and for regulatory responsibilities.

**EFFECT OF NOT PROVIDING INFORMATION:** Filing of this application and disclosure of the information is mandatory only if you elect to initiate a drilling or reentry operation on an oil and gas lease.

The Paperwork Reduction Act of 1995 requires us to inform you that:

The BLM collects this information to allow evaluation of the technical, safety, and environmental factors involved with drilling for oil and/or gas on Federal and Indian oil and gas leases. This information will be used to analyze and approve applications. Response to this request is mandatory only if the operator elects to initiate drilling or reentry operations on an oil and gas lease. The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

**BURDEN HOURS STATEMENT:** Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Collection Clearance Officer (WO-630), 1849 C Street, N.W., Mail Stop 401 LS, Washington, D.C. 20240.

## **Additional Operator Remarks**

### **Location of Well**

- I. SHL: SWSW / 230 FSL / 1015 FWL / TWSP: 20S / RANGE: 34E / SECTION: 29 / LAT: 32.5375168 / LONG: -103.5877266 ( TVD: 0 feet, MD: 0 feet )
- PPP: SWSW / 330 FSL / 995 FWL / TWSP: 20S / RANGE: 34E / SECTION: 29 / LAT: 32.5377918 / LONG: -103.5877929 ( TVD: 11206 feet, MD: 11320 feet )
- BHL: NWNW / 230 FNL / 994 FWL / TWSP: 20S / RANGE: 34E / SECTION: 29 / LAT: 32.5507605 / LONG: -103.5878102 ( TVD: 11250 feet, MD: 16044 feet )

## **BLM Point of Contact**

Name: Priscilla Perez

Title: Legal Instruments Examiner

Phone: 5752345934

Email: pperez@blm.gov

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### **Review and Appeal Rights**

A person contesting a decision shall request a State Director review. This request must be filed within 20 working days of receipt of the Notice with the appropriate State Director (see 43 CFR 3165.3). The State Director review decision may be appealed to the Interior Board of Land Appeals, 801 North Quincy Street, Suite 300, Arlington, VA 22203 (see 43 CFR 3165.4). Contact the above listed Bureau of Land Management office for further information.

Operator Name: EOG RESOURCES INCORPORATED

Well Name: DELLA 29 FEDERAL

Well Number: 606H

Describe other minerals:

Is the proposed well in a Helium production area? N Use Existing Well Pad? NO New surface disturbance?

Type of Well Pad: MULTIPLE WELL

Multiple Well Pad Name: DELLA Number: 605H/606H/607H  
29 FEDERAL

Well Class: HORIZONTAL

Number of Legs: 1

Well Work Type: Drill

Well Type: OIL WELL

Describe Well Type:

Well sub-Type: INFILL

Describe sub-type:

Distance to town: 27 Miles

Distance to nearest well: 664 FT

Distance to lease line: 230 FT

Reservoir well spacing assigned acres Measurement: 160 Acres

Well plat: Della\_29\_Federal\_606H\_signed\_C\_102\_07-26-2017.pdf

Well work start Date: 03/01/2018

Duration: 25 DAYS

### Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83

Vertical Datum: NAVD88

Survey number:

	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD
SHL Leg #1	230	FSL	101 5	FWL	20S	34E	29	Aliquot SWS W	32.53751 68	- 103.5877 266	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 128367	367 0	0	0
KOP Leg #1	50	FSL	997	FWL	20S	34E	29	Aliquot SWS W	32.53702 36	- 103.5877 875	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 128367	- 708 9	107 62	107 59
PPP Leg #1	330	FSL	995	FWL	20S	34E	29	Aliquot SWS W	32.53779 18	- 103.5877 929	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 128367	- 753 6	113 20	112 06



U.S. Department of the Interior  
BUREAU OF LAND MANAGEMENT

# Application Data Report

02/09/2018

APD ID: 10400016713

Submission Date: 07/26/2017

Highlighted data  
reflects the most  
recent changes

Operator Name: EOG RESOURCES INCORPORATED

Well Name: DELLA 29 FEDERAL

Well Number: 606H

[Show Final Text](#)

Well Type: OIL WELL

Well Work Type: Drill

## Section 1 - General

APD ID: 10400016713

Tie to previous NOS?

Submission Date: 07/26/2017

BLM Office: CARLSBAD

User: Stan Wagner

Title: Regulatory Specialsit

Federal/Indian APD: FED

Is the first lease penetrated for production Federal or Indian? FED

Lease number: NMNM128367

Lease Acres: 480

Surface access agreement in place?

Allotted?

Reservation:

Agreement in place? NO

Federal or Indian agreement:

Agreement number:

Agreement name:

Keep application confidential? NO

Permitting Agent? NO

APD Operator: EOG RESOURCES INCORPORATED

Operator letter of designation:

## Operator Info

Operator Organization Name: EOG RESOURCES INCORPORATED

Operator Address: 1111 Bagby Sky Lobby2

Zip: 77002

Operator PO Box:

Operator City: Houston

State: TX

Operator Phone: (713)651-7000

Operator Internet Address:

## Section 2 - Well Information

Well in Master Development Plan? NO

Master Development Plan name:

Well in Master SUPO? NO

Master SUPO name:

Well in Master Drilling Plan? NO

Master Drilling Plan name:

Well Name: DELLA 29 FEDERAL

Well Number: 606H

Well API Number:

Field/Pool or Exploratory? Field and Pool

Field Name: LOCO HILLS

Pool Name: LEA, BONE  
SPRING, S

Is the proposed well in an area containing other mineral resources? USEABLE WATER,POTASH

**Operator Name:** EOG RESOURCES INCORPORATED

**Well Name:** DELLA 29 FEDERAL

**Well Number:** 606H

**New road access plan or profile prepared?** NO

**New road access plan attachment:**

**Access road engineering design?** NO

**Access road engineering design attachment:**

**Access surfacing type:** OTHER

**Access topsoil source:** ONSITE

**Access surfacing type description:** 6" of Compacted Caliche

**Access onsite topsoil source depth:** 6

**Offsite topsoil source description:**

**Onsite topsoil removal process:** An adequate amount of topsoil/root zone will be stripped by dozer from the proposed well location and stockpiled along the side of the well location as depicted on the well site diagram / survey plat.

**Access other construction information:**

**Access miscellaneous information:**

**Number of access turnouts:**

**Access turnout map:**

### Drainage Control

**New road drainage crossing:** CULVERT

**Drainage Control comments:** No drainage crossings

**Road Drainage Control Structures (DCS) description:** N/A

**Road Drainage Control Structures (DCS) attachment:**

### Access Additional Attachments

**Additional Attachment(s):**

### Section 3 - Location of Existing Wells

**Existing Wells Map?** YES

**Attach Well map:**

DELLA29FEDERAL606Hradius\_07-26-2017.pdf

**Existing Wells description:**

### Section 4 - Location of Existing and/or Proposed Production Facilities

**Submit or defer a Proposed Production Facilities plan?** SUBMIT

**Production Facilities description:** Della 29 Fed Com central battery located in SE/4 of section 29

**Operator Name:** EOG RESOURCES INCORPORATED

**Well Name:** DELLA 29 FEDERAL

**Well Number:** 606H

**Production Facilities map:**

Della\_29\_Fed\_Com\_flowlines\_07-26-2017.pdf

Della\_29\_Fed\_Com\_infrastructure\_07-26-2017.pdf

Della\_29\_Fed\_Com\_road\_07-26-2017.pdf

**Section 5 - Location and Types of Water Supply**

**Water Source Table**

**Water source use type:** OTHER

**Water source type:** RECYCLED

**Describe type:**

**Source latitude:**

**Source longitude:**

**Source datum:**

**Water source permit type:** WATER RIGHT

**Source land ownership:** FEDERAL

**Water source transport method:** PIPELINE,TRUCKING

**Source transportation land ownership:** FEDERAL

**Water source volume (barrels):** 0

**Source volume (acre-feet):** 0

**Source volume (gal):** 0

**Water source and transportation map:**

Della\_29\_Fed\_Com\_Water\_source\_and\_caliche\_map\_07-26-2017.pdf

**Water source comments:**

**New water well?** NO

**New Water Well Info**

**Well latitude:**

**Well Longitude:**

**Well datum:**

**Well target aquifer:**

**Est. depth to top of aquifer(ft):**

**Est thickness of aquifer:**

**Aquifer comments:**

**Aquifer documentation:**

**Well depth (ft):**

**Well casing type:**

**Well casing outside diameter (in.):**

**Well casing inside diameter (in.):**

**New water well casing?**

**Used casing source:**

**Drilling method:**

**Drill material:**

**Grout material:**

**Grout depth:**

**Casing length (ft.):**

**Casing top depth (ft.):**

**Operator Name:** EOG RESOURCES INCORPORATED

**Well Name:** DELLA 29 FEDERAL

**Well Number:** 606H

**Well Production type:**

**Completion Method:**

**Water well additional information:**

**State appropriation permit:**

**Additional information attachment:**

### Section 6 - Construction Materials

**Construction Materials description:** Caliche will be supplied from pits shown on the attached caliche source map. Caliche utilized for the drilling pad will be obtained either from an existing approved mineral pit, or by benching into a hill, which will allow the pad to be level with existing caliche from the cut, or extracted by "Flipping" the well location. A mineral material permit will be obtained from BLM prior to excavating any caliche on Federal Lands. Amount will vary for each pad. The procedure for "Flipping" a well location is as follows: \* -An adequate amount of topsoil/root zone (usually top 6 inches of soil) will be stripped from the proposed well location and stockpiled along the side of the well location as depicted on the well site diagram/survey plat. -An area will be used within the proposed well site dimensions to excavate caliche. Subsoil will be removed and stockpiled within the surveyed well pad dimensions. -Once caliche/surfacing mineral is found, the mineral material will be excavated and stock piled within the approved drilling pad dimensions. -Then, subsoil will be pushed back in the excavated hole and caliche will be spread accordingly across the entire well pad and road (if available). -Neither caliche, nor subsoil will be stock piled outside of the well pad dimensions. Topsoil will be stockpiled along the edge of the pad as depicted in the Well Site Layout or survey plat. \* In the event that no caliche is found onsite, caliche will be hauled in from a BLM approved caliche pit or other established mineral pit. A BLM mineral material permit will be acquired prior to obtaining any mineral material from BLM pits or federal land.

**Construction Materials source location attachment:**

Della\_29\_Fed\_Com\_Water\_source\_and\_caliche\_map\_07-26-2017.pdf

### Section 7 - Methods for Handling Waste

**Waste type:** DRILLING

**Waste content description:** Drill fluids and produced oil and water from the well during drilling and completion operations will be stored safely and disposed of properly in an NMOCD approved disposal facility. Garbage and trash produced during drilling and completion operations will be collected in a trash container and disposed of properly. Human waste and grey water will be properly contained of and disposed of properly. After drilling and completion operations; trash, chemicals, salts, frac sand, and other waste material will be removed and disposed of properly at a state approved disposal facility.

**Amount of waste:** 0 barrels

**Waste disposal frequency :** Daily

**Safe containment description:** Steel Tanks

**Safe containmant attachment:**

**Waste disposal type:** HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** COMMERCIAL

**Disposal type description:**

**Disposal location description:** Trucked to NMOCD approved disposal facility

### Reserve Pit

**Reserve Pit being used?** NO

**Temporary disposal of produced water into reserve pit?**

**Operator Name:** EOG RESOURCES INCORPORATED

**Well Name:** DELLA 29 FEDERAL

**Well Number:** 606H

**Reserve pit length (ft.)**

**Reserve pit width (ft.)**

**Reserve pit depth (ft.)**

**Reserve pit volume (cu. yd.)**

**Is at least 50% of the reserve pit in cut?**

**Reserve pit liner**

**Reserve pit liner specifications and installation description**

### Cuttings Area

**Cuttings Area being used?** NO

**Are you storing cuttings on location?** YES

**Description of cuttings location** Closed Loop System. Drill cuttings will be disposed of into steel tanks and taken to an NMOCD approved disposal facility.

**Cuttings area length (ft.)**

**Cuttings area width (ft.)**

**Cuttings area depth (ft.)**

**Cuttings area volume (cu. yd.)**

**Is at least 50% of the cuttings area in cut?**

**WCuttings area liner**

**Cuttings area liner specifications and installation description**

### Section 8 - Ancillary Facilities

**Are you requesting any Ancillary Facilities?:** NO

**Ancillary Facilities attachment:**

**Comments:**

### Section 9 - Well Site Layout

**Well Site Layout Diagram:**

Della\_29\_Fed\_606H\_Pad\_Layout\_07-21-2017.pdf

DELLA29FEDERAL606H\_padsite\_07-26-2017.pdf

DELLA29FEDERAL606H\_wellsite\_07-26-2017.pdf

**Comments:** Exhibit 2A-Wellsite & Exhibit 2B-Padsite Rig Layout Exhibit 4

**Operator Name:** EOG RESOURCES INCORPORATED

**Well Name:** DELLA 29 FEDERAL

**Well Number:** 606H

### Section 10 - Plans for Surface Reclamation

**Type of disturbance:** New Surface Disturbance

**Multiple Well Pad Name:** DELLA 29 FEDERAL

**Multiple Well Pad Number:** 605H/606H/607H

**Recontouring attachment:**

DELLA29FEDERAL606H\_reclamation\_07-26-2017.pdf

**Drainage/Erosion control construction:** Proper erosion control methods will be used on the area to control erosion, runoff, and siltation of the surrounding area.

**Drainage/Erosion control reclamation:** The interim reclamation will be monitored periodically to ensure that vegetation has reestablished and that erosion is controlled.

**Wellpad long term disturbance (acres):** 4.499541

**Wellpad short term disturbance (acres):** 4.499541

**Access road long term disturbance (acres):** 1.755372

**Access road short term disturbance (acres):** 1.755372

**Pipeline long term disturbance (acres):** 3.3126721

**Pipeline short term disturbance (acres):** 5.52112

**Other long term disturbance (acres):** 0

**Other short term disturbance (acres):** 0

**Total long term disturbance:** 9.567585

**Total short term disturbance:** 11.776033

**Reconstruction method:** In areas planned for interim reclamation, all the surfacing material will be removed and returned to the original mineral pit or recycled to repair or build roads and well pads. Areas planned for interim reclamation will be recontoured to the original contour if feasible, or if not feasible, to an interim contour that blends with the surrounding topography as much as possible. Where applicable, the fill material of the well pad will be backfilled into the cut to bring the area back to the original contour. The interim cut and fill slopes prior to re-seeding will not be steeper than a 3:1 ratio, unless the adjacent native topography is steeper. Note: Constructed slopes may be much steeper during drilling, but will be recontoured to the above ratios during interim reclamation.

**Topsoil redistribution:** Topsoil will be evenly respread and aggressively revegetated over the entire disturbed area not needed for all-weather operations including cuts and fills. To seed the area, the proper BLM seed mixture, free of noxious weeds, will be used. Final seedbed preparation will consist of contour cultivating to a depth of 4 to 6 inches within 24 hours prior to seeding, dozer tracking, or other imprinting in order to break the soil crust and create seed germination micro-sites.

**Soil treatment:** Re-seed according to BLM standards. All reclaimed areas will be monitored periodically to ensure that revegetation occurs, that the area is not redisturbed, and that erosion is controlled.

**Existing Vegetation at the well pad:** Grass, forbs, and small woody vegetation, such as mesquite will be excavated as the topsoil is removed. Large woody vegetation will be stripped and stored separately and respreads evenly on the site following topsoil respreading. Topsoil depth is defined as the top layer of soil that contains 80% of the roots. In areas to be heavily disturbed, the top 6 inches of soil material, will be stripped and stockpiled on the perimeter of the well location and along the perimeter of the access road to control run-on and run-off, to keep topsoil viable, and to make redistribution of topsoil more efficient during interim reclamation. Stockpiled topsoil should include vegetative material. Topsoil will be clearly segregated and stored separately from subsoils.

**Existing Vegetation at the well pad attachment:**

**Existing Vegetation Community at the road:** All disturbed areas, including roads, pipelines, pads, will be recontoured to the contour existing prior to the initial construction or a contour that blends indistinguishably with the surrounding landscape. Topsoil that was spread over the interim reclamation areas will be stockpiled prior to recontouring. The topsoil will be redistributed evenly over the entire disturbed site to ensure successful revegetation.

**Existing Vegetation Community at the road attachment:**

**Operator Name:** EOG RESOURCES INCORPORATED

**Well Name:** DELLA 29 FEDERAL

**Well Number:** 606H

**Existing Vegetation Community at the pipeline:** All disturbed areas, including roads, pipelines, pads, will be recontoured to the contour existing prior to the initial construction or a contour that blends indistinguishably with the surrounding landscape. Topsoil that was spread over the interim reclamation areas will be stockpiled prior to recontouring. The topsoil will be redistributed evenly over the entire disturbed site to ensure successful revegetation.

**Existing Vegetation Community at the pipeline attachment:**

**Existing Vegetation Community at other disturbances:** All disturbed areas, including roads, pipelines, pads, will be recontoured to the contour existing prior to the initial construction or a contour that blends indistinguishably with the surrounding landscape. Topsoil that was spread over the interim reclamation areas will be stockpiled prior to recontouring. The topsoil will be redistributed evenly over the entire disturbed site to ensure successful revegetation.

**Existing Vegetation Community at other disturbances attachment:**

**Non native seed used?** NO

**Non native seed description:**

**Seedling transplant description:**

**Will seedlings be transplanted for this project?** NO

**Seedling transplant description attachment:**

**Will seed be harvested for use in site reclamation?** NO

**Seed harvest description:**

**Seed harvest description attachment:**

**Seed Management**

**Seed Table**

**Seed type:**

**Seed source:**

**Seed name:**

**Source name:**

**Source address:**

**Source phone:**

**Seed cultivar:**

**Seed use location:**

**PLS pounds per acre:**

**Proposed seeding season:**

**Seed Summary**

**Total pounds/Acre:**

**Seed Type**

**Pounds/Acre**

**Seed reclamation attachment:**

**Operator Name:** EOG RESOURCES INCORPORATED

**Well Name:** DELLA 29 FEDERAL

**Well Number:** 606H

**Operator Contact/Responsible Official Contact Info**

**First Name:** Stan

**Last Name:** Wagner

**Phone:** (432)686-3689

**Email:** stan\_wagner@eogresources.com

**Seedbed prep:**

**Seed BMP:**

**Seed method:**

**Existing invasive species?** NO

**Existing invasive species treatment description:**

**Existing invasive species treatment attachment:**

**Weed treatment plan description:** All reclaimed areas will be monitored periodically to ensure that revegetation occurs, that the area is not redisturbed, erosion is controlled, and free of noxious weeds. Weeds will be treated if found.

**Weed treatment plan attachment:**

**Monitoring plan description:** Reclamation will be completed within 6 months of well plugging. All reclaimed areas will be monitored periodically to ensure that revegetation occurs, that the area is not redisturbed, erosion is controlled, and free of noxious weeds.

**Monitoring plan attachment:**

**Success standards:** N/A

**Pit closure description:** NA

**Pit closure attachment:**

**Section 11 - Surface Ownership**

**Disturbance type:** WELL PAD

**Describe:**

**Surface Owner:** BUREAU OF LAND MANAGEMENT

**Other surface owner description:**

**BIA Local Office:**

**BOR Local Office:**

**COE Local Office:**

**DOD Local Office:**

**NPS Local Office:**

**State Local Office:**

**Military Local Office:**

**USFWS Local Office:**

**Other Local Office:**

**USFS Region:**

**Operator Name:** EOG RESOURCES INCORPORATED

**Well Name:** DELLA 29 FEDERAL

**Well Number:** 606H

**USFS Forest/Grassland:**

**USFS Ranger District:**

**Fee Owner:** Oliver Kiehne

**Fee Owner Address:** P.O. Box 135 Orla, TX 79770

**Phone:** (575)399-9281

**Email:**

**Surface use plan certification:** NO

**Surface use plan certification document:**

**Surface access agreement or bond:** Agreement

**Surface Access Agreement Need description:** surface use agreement

**Surface Access Bond BLM or Forest Service:**

**BLM Surface Access Bond number:**

**USFS Surface access bond number:**

## Section 12 - Other Information

**Right of Way needed?** NO

**Use APD as ROW?**

**ROW Type(s):**

## ROW Applications

**SUPO Additional Information:** An onsite meeting was conducted 7/24/17. Poly lines are planned to transport water for operations. Will truck if necessary. See attached SUPO Plan.

**Use a previously conducted onsite?** NO

**Previous Onsite information:**

## Other SUPO Attachment

DELLA29FEDERAL606H\_location\_07-26-2017.pdf

SUPO\_Della\_29\_Federal\_606H\_07-26-2017.pdf

Della\_29\_FC\_606H\_deficiency\_response\_20171031093818.pdf

Della29FC606H\_deficiency\_response\_11\_29\_20171129153335.pdf

ADDENDUM - Deficient

Surface Comments

- Plans for Surface Reclamation Deficiency:

Please provide an interim reclamation plat showing how much will be downsized and how much on each side.

I spoke w/ Vance Wolf on 10/31/17 and again on 11/29/17.

Della wells are on a drill island in the potash area.

EOG will coordinate w/ Jim Amos areas offsite to reclaim.

These areas are unknown at this time.



U.S. Department of the Interior  
BUREAU OF LAND MANAGEMENT

PWD Data Report

02/09/2018

### Section 1 - General

Would you like to address long-term produced water disposal? NO

### Section 2 - Lined Pits

Would you like to utilize Lined Pit PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Lined pit PWD on or off channel:

Lined pit PWD discharge volume (bbl/day):

Lined pit specifications:

Pit liner description:

Pit liner manufacturers information:

Precipitated solids disposal:

Describe precipitated solids disposal:

Precipitated solids disposal permit:

Lined pit precipitated solids disposal schedule:

Lined pit precipitated solids disposal schedule attachment:

Lined pit reclamation description:

Lined pit reclamation attachment:

Leak detection system description:

Leak detection system attachment:

Lined pit Monitor description:

Lined pit Monitor attachment:

Lined pit: do you have a reclamation bond for the pit?

Is the reclamation bond a rider under the BLM bond?

Lined pit bond number:

Lined pit bond amount:

Additional bond information attachment:

### **Section 3 - Unlined Pits**

Would you like to utilize Unlined Pit PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Unlined pit PWD on or off channel:

Unlined pit PWD discharge volume (bbl/day):

Unlined pit specifications:

Precipitated solids disposal:

Describe precipitated solids disposal:

Precipitated solids disposal permit:

Unlined pit precipitated solids disposal schedule:

Unlined pit precipitated solids disposal schedule attachment:

Unlined pit reclamation description:

Unlined pit reclamation attachment:

Unlined pit Monitor description:

Unlined pit Monitor attachment:

Do you propose to put the produced water to beneficial use?

Beneficial use user confirmation:

Estimated depth of the shallowest aquifer (feet):

Does the produced water have an annual average Total Dissolved Solids (TDS) concentration equal to or less than that of the existing water to be protected?

TDS lab results:

Geologic and hydrologic evidence:

State authorization:

Unlined Produced Water Pit Estimated percolation:

Unlined pit: do you have a reclamation bond for the pit?

Is the reclamation bond a rider under the BLM bond?

Unlined pit bond number:

Unlined pit bond amount:

Additional bond information attachment:

### **Section 4 - Injection**

Would you like to utilize Injection PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Injection PWD discharge volume (bbl/day):

Injection well mineral owner:

**Injection well type:**

**Injection well number:**

**Assigned injection well API number?**

**Injection well new surface disturbance (acres):**

**Minerals protection information:**

**Mineral protection attachment:**

**Underground Injection Control (UIC) Permit?**

**UIC Permit attachment:**

**Injection well name:**

**Injection well API number:**

### **Section 5 - Surface Discharge**

**Would you like to utilize Surface Discharge PWD options? NO**

**Produced Water Disposal (PWD) Location:**

**PWD surface owner:**

**PWD disturbance (acres):**

**Surface discharge PWD discharge volume (bbl/day):**

**Surface Discharge NPDES Permit?**

**Surface Discharge NPDES Permit attachment:**

**Surface Discharge site facilities information:**

**Surface discharge site facilities map:**

### **Section 6 - Other**

**Would you like to utilize Other PWD options? NO**

**Produced Water Disposal (PWD) Location:**

**PWD surface owner:**

**PWD disturbance (acres):**

**Other PWD discharge volume (bbl/day):**

**Other PWD type description:**

**Other PWD type attachment:**

**Have other regulatory requirements been met?**

**Other regulatory requirements attachment:**



U.S. Department of the Interior  
BUREAU OF LAND MANAGEMENT

## Bond Info Data Report

02/09/2018

### Bond Information

Federal/Indian APD: FED

BLM Bond number: NM2308

BIA Bond number:

Do you have a reclamation bond? NO

Is the reclamation bond a rider under the BLM bond?

Is the reclamation bond BLM or Forest Service?

BLM reclamation bond number:

Forest Service reclamation bond number:

Forest Service reclamation bond attachment:

Reclamation bond number:

Reclamation bond amount:

Reclamation bond rider amount:

Additional reclamation bond information attachment:





U.S. Department of the Interior  
BUREAU OF LAND MANAGEMENT

## Drilling Plan Data Report

02/09/2018

APD ID: 10400016713

Submission Date: 07/26/2017

Highlighted data  
reflects the most  
recent changes

Operator Name: EOG RESOURCES INCORPORATED

Well Name: DELLA 29 FEDERAL

Well Number: 606H

[Show Final Text](#)

Well Type: OIL WELL

Well Work Type: Drill

### Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
1	PERMIAN	3670	0	0	ANHYDRITE	NONE	No
2	RUSTLER	2477	805	805	ANHYDRITE	NONE	No
3	TOP SALT	1832	1838	1838	SALT	NONE	No
4	BASE OF SALT	-66	3736	3736	SALT	NONE	No
5	YATES	-320	3990	3990	LIMESTONE	NONE	No
6	CAPITAN REEF	-390	4060	4060	SANDSTONE	NATURAL GAS,OIL	No
7	CHERRY CANYON	-2100	5770	5770	SANDSTONE	USEABLE WATER	No
8	BRUSHY CANYON	-3300	6970	6970	SANDSTONE	NATURAL GAS,OIL	No
9	BONE SPRING LIME	-4988	8658	8658	LIMESTONE	NONE	No
10	BONE SPRING 1ST	-6033	9703	9703	SANDSTONE	NATURAL GAS,OIL	No
11	BONE SPRING 2ND	-6569	10239	10239	SANDSTONE	NATURAL GAS,OIL	No
12	BONE SPRING 3RD	-7345	11015	11015	SANDSTONE	NATURAL GAS,OIL	Yes

### Section 2 - Blowout Prevention

Pressure Rating (PSI): 5M

Rating Depth: 11250

**Equipment:** The minimum blowout preventer equipment (BOPE) shown in Exhibit #1 will consist of a single ram, mud cross and double ram-type (10,000 psi WP) preventer and an annular preventer (5000-psi WP). Both units will be hydraulically operated and the ram-type will be equipped with blind rams on bottom and drill pipe rams on top. All BOPE will be tested in accordance with Onshore Oil and Gas order No. 2.

**Requesting Variance?** YES

**Variance request:** Variance is requested to use a co-flex line between the BOP and choke manifold (instead of using a 4" OD steel line). Variance is requested to waive 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

Operator Name: EOG RESOURCES INCORPORATED

Well Name: DELLA 29 FEDERAL

Well Number: 606H

bond and zonal isolation. Variance is also requested to waive 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.

**Testing Procedure:** Before drilling out of the surface casing, the ram-type BOP and accessory equipment will be tested to 5000/ 250 psig and the annular preventer to 3500/ 250 psig. The surface casing will be tested to 1500 psi for 30 minutes. Before drilling out of the intermediate casing, the ram-type BOP and accessory equipment will be tested to 5000/ 250 psig and the annular preventer to 3500/ 250 psig. The intermediate casing will be tested to 2000 psi for 30 minutes. Pipe rams will be operationally checked each 24-hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. A hydraulically operated choke will be installed prior to drilling out of the intermediate casing shoe.

**Choke Diagram Attachment:**

Della\_29\_Fed\_606H\_5\_M\_Choke\_Manifold\_07-21-2017.pdf

Della\_29\_Fed\_606H\_Co\_Flex\_Hose\_Certification\_07-21-2017.PDF

Della\_29\_Fed\_606H\_Co\_Flex\_Hose\_Test\_Chart\_07-21-2017.pdf

**BOP Diagram Attachment:**

Della\_29\_Fed\_606H\_5\_M\_BOP\_Diagram\_07-21-2017.pdf

**Section 3 - Casing**

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	17.5	13.375	NEW	API	N	0	1655	0	1655	-7580	-9235	1655	J-55	54.5	STC	1.125	1.25	BUOY	1.6	BUOY	1.6
2	INTERMEDIATE	12.25	9.625	NEW	API	Y	0	4000	0	4000	-7580	-11580	4000	J-55	29.7	LTC	1.125	1.25	BUOY	1.6	BUOY	1.6
3	INTERMEDIATE	8.75	7.625	NEW	API	N	0	10900	0	10900	-7580	-18480	10900	P-110	29.7	OTHER - Flushmax III	1.125	1.25	BUOY	1.6	BUOY	1.6
4	PRODUCTION	6.75	5.5	NEW	API	N	0	16044	0	11250	-7580	-18830	16044	P-110	20	OTHER - VAM SFC	1.125	1.25	BUOY	1.6	BUOY	1.6

**Casing Attachments**

**Operator Name:** EOG RESOURCES INCORPORATED

**Well Name:** DELLA 29 FEDERAL

**Well Number:** 606H

**Casing Attachments**

---

**Casing ID:** 1      **String Type:** SURFACE

**Inspection Document:**

**Spec Document:**

**Tapered String Spec:**

**Casing Design Assumptions and Worksheet(s):**

Della\_29\_Fed\_606H\_BLM\_Plan\_07-21-2017.pdf

---

**Casing ID:** 2      **String Type:** INTERMEDIATE

**Inspection Document:**

**Spec Document:**

**Tapered String Spec:**

See\_previously\_attached\_Drill\_Plan\_07-21-2017.pdf

**Casing Design Assumptions and Worksheet(s):**

See\_previously\_attached\_Drill\_Plan\_07-21-2017.pdf

---

**Casing ID:** 3      **String Type:** INTERMEDIATE

**Inspection Document:**

**Spec Document:**

**Tapered String Spec:**

**Casing Design Assumptions and Worksheet(s):**

See\_previously\_attached\_Drill\_Plan\_07-21-2017.pdf

---

Operator Name: EOG RESOURCES INCORPORATED

Well Name: DELLA 29 FEDERAL

Well Number: 606H

### Casing Attachments

Casing ID: 4 String Type: PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Della\_29\_Fed\_606H\_5.5in\_20\_P110EC\_VAM\_SFC\_07-21-2017.pdf

See\_previously\_attached\_Drill\_Plan\_07-21-2017.pdf

### Section 4 - Cement

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	1655	1075	1.74	13.5	1870	25	Class C	Class C + 4% Gel + 2% CaCl2 + 0.25 pps Celloflake (TOC @ Surface)
SURFACE	Tail		1655	1655	385	1.34	14.8	515	25	Class C	Class C + 2.0% CaCl2
INTERMEDIATE	Lead	3700	0	5400	435	1.9	12.7	712	25	Class C	Stage 1 as described in the attached drill plan
INTERMEDIATE	Tail		5400	5400	885	1.9	12.7	1624	25	Class C	Stage 2 as described in the attached drill plan
INTERMEDIATE	Lead		0	1090 0	425	2.64	11.5	1122	25	Class H	50:50 Poz:H + 5.0% Salt + 7.0% Gel + 0.4% CPT-503P + 0.5% CPT-19 (TOC @ Surface)
INTERMEDIATE	Tail		1090 0	1090 0	140	1.24	14.4	173	25	Class H	50:50 Poz:H + 5.0% Salt
PRODUCTION	Lead		1040 0	1604 4	220	3.21	14.4	706	25	Class H	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')

**Operator Name:** EOG RESOURCES INCORPORATED

**Well Name:** DELLA 29 FEDERAL

**Well Number:** 606H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
PRODUCTION	Tail		1604 4	1604 4	550	1.2	14.4	660	25	Class H	50:50 Poz:H + 0.25% CPT-503P + 0.8% CPT-16A + 0.2% CPT-35 + 0.4% CPT-39 + 0.25% CPT-20

### Section 5 - Circulating Medium

**Mud System Type:** Closed

**Will an air or gas system be Used?** NO

**Description of the equipment for the circulating system in accordance with Onshore Order #2:**

**Diagram of the equipment for the circulating system in accordance with Onshore Order #2:**

**Describe what will be on location to control well or mitigate other conditions:** (A) A Kelly cock will be kept in the drill string at all times. (B) A full opening drill pipe-stabbing valve (inside BOP) with proper drill pipe connections will be on the rig floor at all times. (C) H2S monitoring and detection equipment will be utilized from surface casing point to TD.

**Describe the mud monitoring system utilized:** An electronic pit volume totalizer (PVT) will be utilized on the circulating system to monitor pit volume, flow rate, pump pressure and stroke rate.

### Circulating Medium Table

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
1655	5400	WATER-BASED MUD	8.6	8.8							
5400	10900	OIL-BASED MUD	8.7	9.4							
0	1655	WATER-BASED MUD	8.6	8.8							
10900	11250	OIL-BASED MUD	10	10.5							

**Operator Name:** EOG RESOURCES INCORPORATED

**Well Name:** DELLA 29 FEDERAL

**Well Number:** 606H

### Section 6 - Test, Logging, Coring

**List of production tests including testing procedures, equipment and safety measures:**

Open-hole logs are not planned for this well:

**List of open and cased hole logs run in the well:**

DS

**Coring operation description for the well:**

None

### Section 7 - Pressure

**Anticipated Bottom Hole Pressure:** 6142

**Anticipated Surface Pressure:** 3667

**Anticipated Bottom Hole Temperature(F):** 170

**Anticipated abnormal pressures, temperatures, or potential geologic hazards?** NO

**Describe:**

**Contingency Plans geohazards description:**

**Contingency Plans geohazards attachment:**

**Hydrogen Sulfide drilling operations plan required?** YES

**Hydrogen sulfide drilling operations plan:**

Della\_29\_Fed\_606H\_H2S\_Plan\_Summary\_07-21-2017.pdf

### Section 8 - Other Information

**Proposed horizontal/directional/multi-lateral plan submission:**

Della\_29\_Federal\_606H\_Planning\_Report\_07-21-2017.pdf

Della\_29\_Federal\_606H\_Wall\_Plot\_07-21-2017.pdf

**Other proposed operations facets description:**

**Other proposed operations facets attachment:**

Della\_29\_Fed\_606H\_Pad\_Layout\_07-21-2017.pdf

Della\_29\_Fed\_606H\_Proposed\_Wellbore\_07-21-2017.pdf

Della\_29\_Fed\_606H\_Wellhead\_Cap\_07-21-2017.pdf

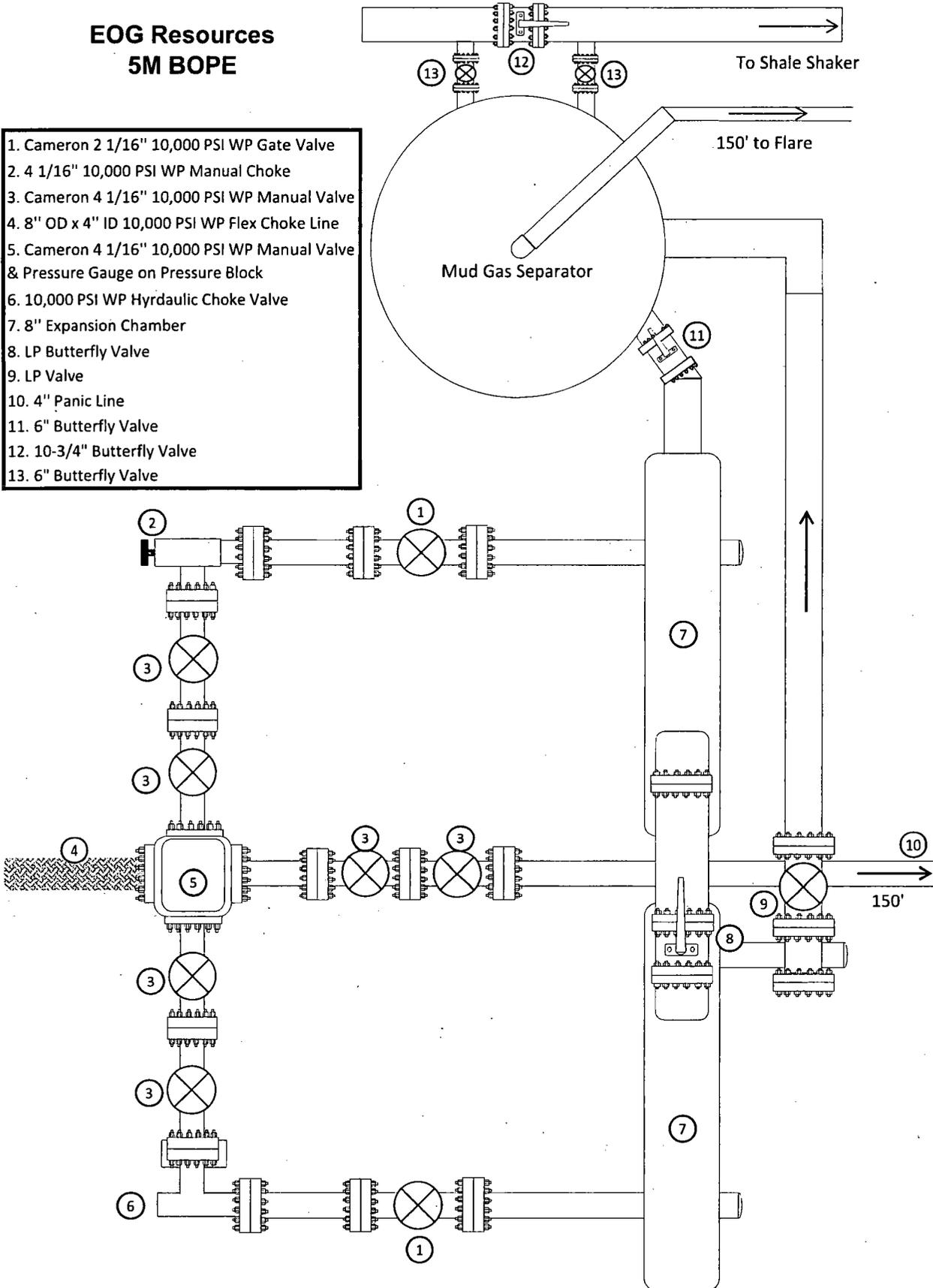
Della\_29\_Federal\_606H\_gas\_capture\_07-26-2017.pdf

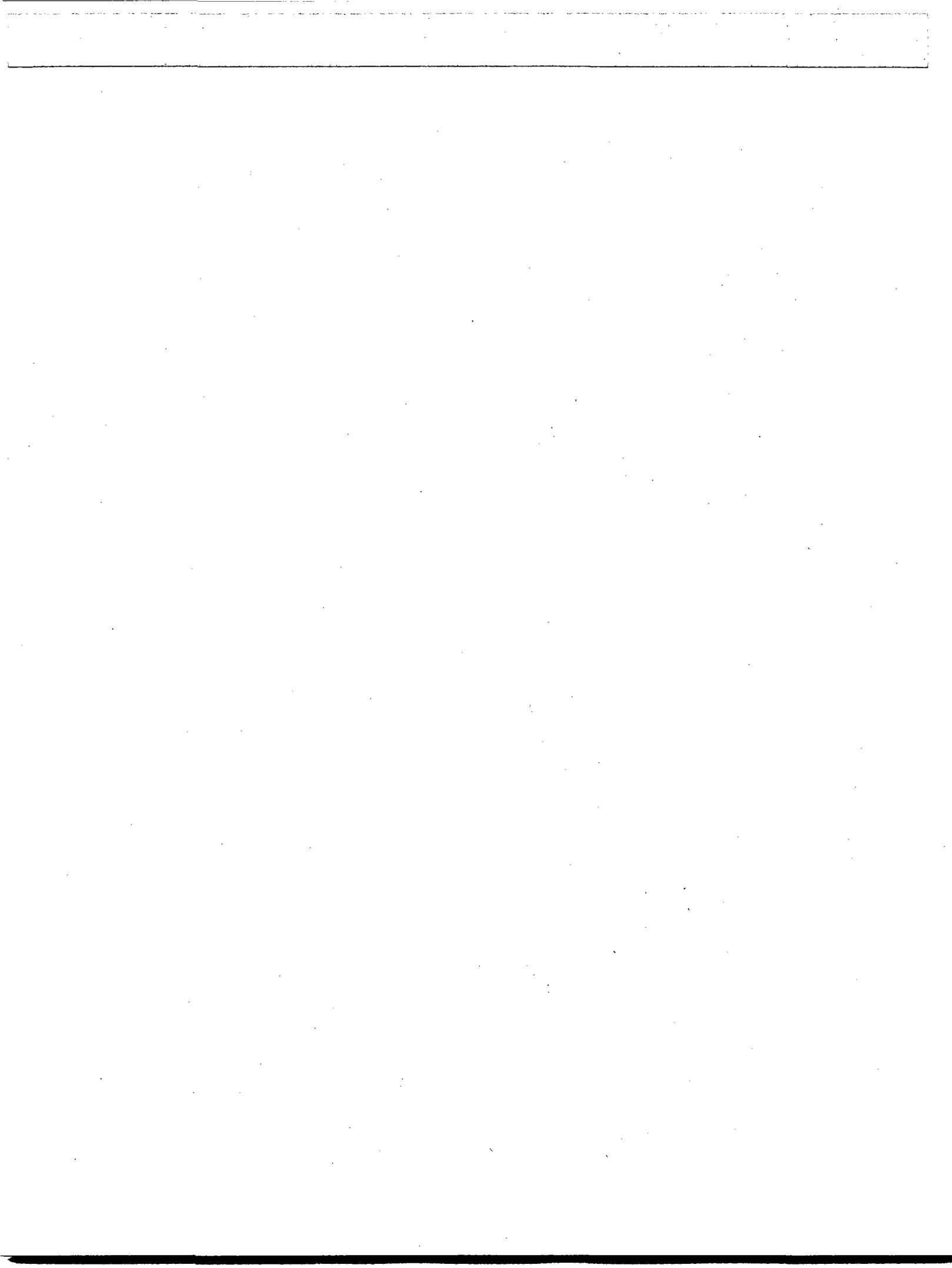
**Other Variance attachment:**

# Exhibit 1a

**EOG Resources  
5M BOPE**

1. Cameron 2 1/16" 10,000 PSI WP Gate Valve
2. 4 1/16" 10,000 PSI WP Manual Choke
3. Cameron 4 1/16" 10,000 PSI WP Manual Valve
4. 8" OD x 4" ID 10,000 PSI WP Flex Choke Line
5. Cameron 4 1/16" 10,000 PSI WP Manual Valve & Pressure Gauge on Pressure Block
6. 10,000 PSI WP Hyrdraulic Choke Valve
7. 8" Expansion Chamber
8. LP Butterfly Valve
9. LP Valve
10. 4" Panic Line
11. 6" Butterfly Valve
12. 10-3/4" Butterfly Valve
13. 6" Butterfly Valve





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**Manufacturer: Midwest Hose & Specialty**

**Serial Number: SN#90067**

**Length: 35'**

**Size: OD = 8" ID = 4"**

**Ends: Flanges Size: 4-1/16"**

**WP Rating: 10,000 psi Anchors required by manufacturer: No**

**M I D W E S T**  
**HOSE AND SPECIALTY INC.**

<b>INTERNAL HYDROSTATIC TEST REPORT</b>		
<b>Customer:</b> CACTUS		<b>P.O. Number:</b> RIG #123 Asset # M10761
<b>HOSE SPECIFICATIONS</b>		
<b>Type:</b> CHOKE LINE		<b>Length:</b> 35'
<b>I.D.</b> 4" INCHES		<b>O.D.</b> 8" INCHES
<b>WORKING PRESSURE</b> 10,000 PSI	<b>TEST PRESSURE</b> 15,000 PSI	<b>BURST PRESSURE</b> PSI
<b>COUPLINGS</b>		
<b>Type of End Fitting</b> 4 1/16 10K FLANGE		
<b>Type of Coupling:</b> SWEDGED		<b>MANUFACTURED BY</b> MIDWEST HOSE & SPECIALTY
<b>PROCEDURE</b>		
<i>Hose assembly pressure tested with water at ambient temperature.</i>		
<b>TIME HELD AT TEST PRESSURE</b> 1 MIN.		<b>ACTUAL BURST PRESSURE:</b> 0 PSI
<b>COMMENTS:</b> SN#90087 M10761 Hose is covered with stainless steel armour cover and wrapped with fire resistant vermiculite coated fiberglass insulation rated for 1500 degrees complete with lifting eyes		
<b>Date:</b> 6/6/2011	<b>Tested By:</b> BOBBY FINK	<b>Approved:</b> MENDI JACKSON



Midwest Hose  
& Specialty, Inc.

## Internal Hydrostatic Test Graph

Log number: 90067

Customer: CACTUS

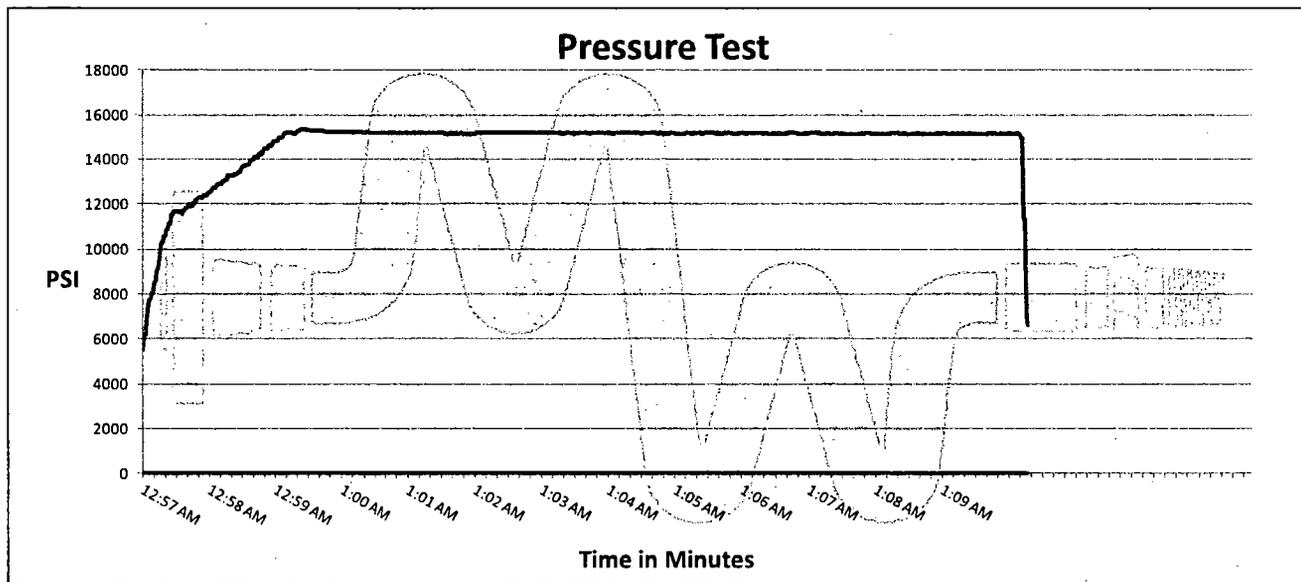
SALES ORDER# 90067

### Hose Specifications

<u>Hose Type</u> C & K	<u>Length</u> 35'
<u>I.D.</u> 4"	<u>O.D.</u> 8"
<u>Working Pressure</u> 10000 PSI	<u>Burst Pressure</u> Standard Safety Multiplier Applies

### Verification

<u>Type of Fitting</u> 4 1/16 10K	<u>Coupling Method</u> Swage
<u>Die Size</u> 6.62"	<u>Final O.D.</u> 6.68"
<u>Hose Serial #</u>	<u>Hose Assembly Serial #</u> 90067



Test Pressure  
15000 PSI

Time Held at Test Pressure  
11 1/4 Minutes

Actual Burst Pressure

Peak Pressure  
15439 PSI

**Comments:** Hose assembly pressure tested with water at ambient temperature.

**Tested By:** Bobby Fink

**Approved By:** Mendi Jackson

*Bobby Fink*

*Mendi Jackson*

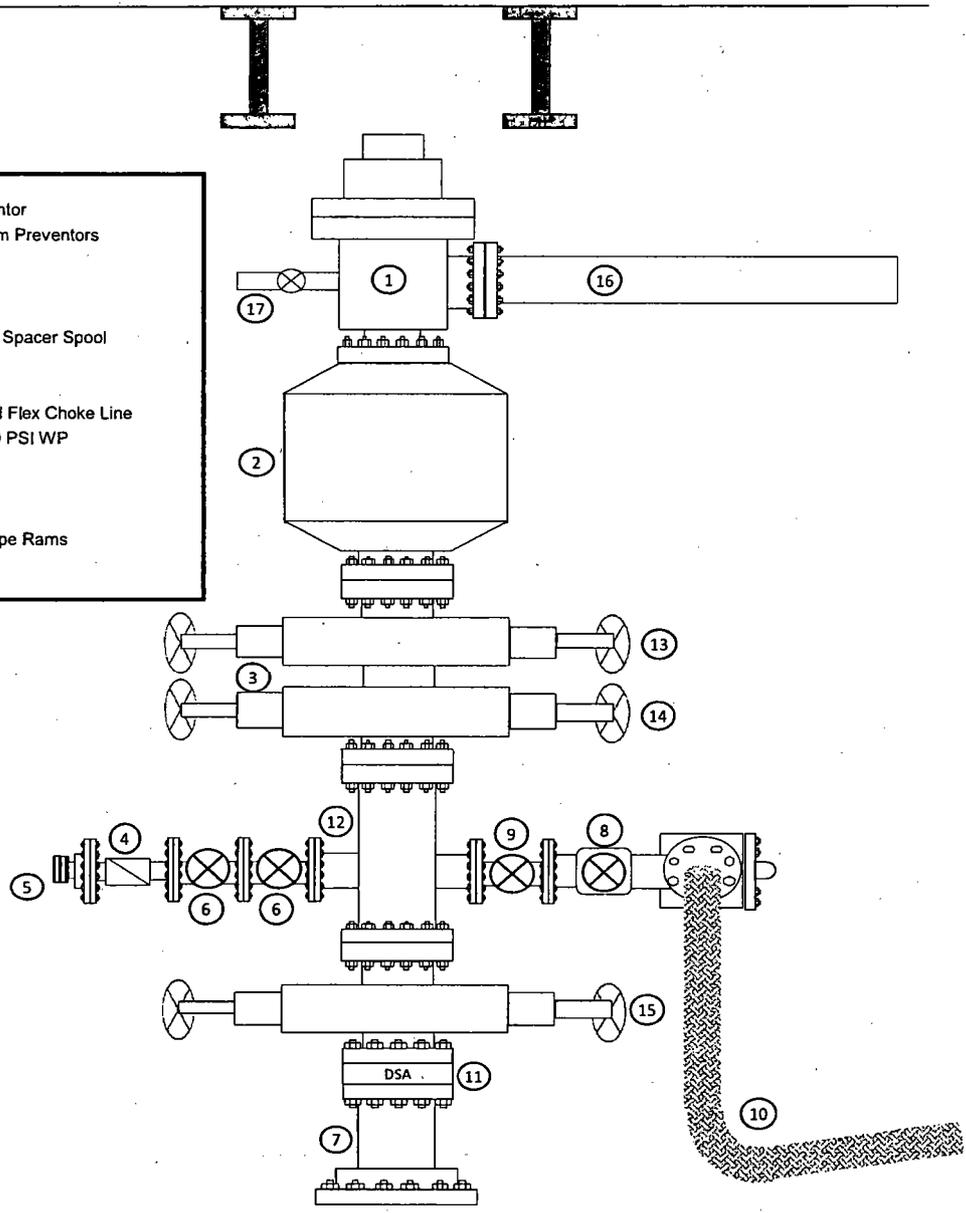
# Exhibit 1

## EOG Resources

### 5M BOPE

Rig Floor

- |  |
|--|
| 1. 13 5/8" Rotating Head                                       |
| 2. NOV 13 5/8" 5,000 PSI WP GK Annular Preventor               |
| 3. 13 5/8" Cameron Type "U" 10,000 PSI WP Ram Preventors       |
| 4. 2 1/16" - 10,000 PSI WP Check Valve                         |
| 5. 10,000 PSI WP - 1502 Union to kill line                     |
| 6. 2 1/16" - 10,000 PSI WP Manual Valves                       |
| 7. 13 5/8" 3,000 PSI WP x 13 5/8" 5,000 PSI WP Spacer Spool    |
| 8. 4 1/16" 10,000 PSI WP HCR Valve                             |
| 9. 4 1/16" 10,000 PSI WP Manual Valve                          |
| 10. 6" OD x 3" ID 10,000 PSI WP Steel Armoured Flex Choke Line |
| 11. DSA - 13 5/8" 10,000 PSI WP x 13 5/8" 5,000 PSI WP         |
| 12. Mud Cross - 13 5/8" 10,000 PSI WP                          |
| 13. Blind Rams   |
| 14. Pipe Rams  |
| 15. 13 5/8" Cameron Type "U" 10,000 PSI WP Pipe Rams           |
| 16. Flow Line  |
| 17. 2" Fill Line   |



See previously attached Drill Plan

**EOG RESOURCES, INC.  
DELLA 29 FED NO. 606H**

**1. GEOLOGIC NAME OF SURFACE FORMATION:**

Permian

**2. ESTIMATED TOPS OF IMPORTANT GEOLOGICAL MARKERS:**

Rustler	1,630'
Top of Salt	1,838'
Base of Salt / Top Anhydrite	3,736'
Base Anhydrite	3,990'
Yates	3,990'
Capitan	4,060'
Cherry Canyon	5,770'
Brushy Canyon	6,970'
Bone Spring Lime	8,658'
1 <sup>st</sup> Bone Spring Sand	9,703'
2 <sup>nd</sup> Bone Spring Lime	10,033'
2 <sup>nd</sup> Bone Spring Sand	10,239'
3 <sup>rd</sup> Bone Spring Carb	10,733'
3 <sup>rd</sup> Bone Spring Sand	11,015'
TD	11,250'

**3. ESTIMATED DEPTHS OF ANTICIPATED FRESH WATER, OIL OR GAS:**

Upper Permian Sands	0- 400'	Fresh Water
Cherry Canyon	5,770'	Oil
Brushy Canyon	6,970'	Oil
Bone Spring Lime	8,658'	Oil
1 <sup>st</sup> Bone Spring Sand	9,703'	Oil
2 <sup>nd</sup> Bone Spring Lime	10,033'	Oil
2 <sup>nd</sup> Bone Spring Sand	10,239'	Oil
3 <sup>rd</sup> Bone Spring Carb	10,733'	Oil
3 <sup>rd</sup> Bone Spring Sand	11,015'	Oil

No other Formations are expected to give up oil, gas or fresh water in measurable quantities. Surface fresh water sands will be protected by setting 13.375" casing at 1,655' and circulating cement back to surface.

**EOG RESOURCES, INC.  
DELLA 29 FED NO. 606H**

**4. CASING PROGRAM - NEW**

Hole Size	Interval	Csg OD	Weight	Grade	Conn	DF <sub>min</sub> Collapse	DF <sub>min</sub> Burst	DF <sub>min</sub> Tension
17.5"	0 – 1,655'	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'-16,044'	5.5"	20#	P-110EC	VAM SFC	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.

**Cementing Program:**

Depth	No. Sacks	Wt. ppg	Yld Ft <sup>3</sup> /ft	Mix Water Gal/sk	Slurry Description
13-3/8" 1,655'	1075	13.5	1.74	9.17	Class C + 4% Gel + 2% CaCl <sub>2</sub> + 0.25 pps Celloflake (TOC @ Surface)
	385	14.8	1.34	6.35	Class C + 2.0% CaCl <sub>2</sub>
9-5/8" 5,400' DV Tool w/ ECP @ 3,700'	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 @ 3,700')
	200	14.8	1.33	6.32	Stage 1 Tail: Class C + 0.2% CPT-19
	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" 16,044'	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

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.

**EOG RESOURCES, INC.  
DELLA 29 FED NO. 606H**

**5. MINIMUM SPECIFICATIONS FOR PRESSURE CONTROL:**

Variance is requested to use a co-flex line between the BOP and choke manifold (instead of using a 4" OD steel line).

The minimum blowout preventer equipment (BOPE) shown in Exhibit #1 will consist of a single ram, mud cross and double ram-type (10,000 psi WP) preventer and an annular preventer (5000-psi WP). Both units will be hydraulically operated and the ram-type will be equipped with blind rams on bottom and drill pipe rams on top. All BOPE will be tested in accordance with Onshore Oil & Gas order No. 2.

Before drilling out of the surface casing, the ram-type BOP and accessory equipment will be tested to 5000/ 250 psig and the annular preventer to 3500/ 250 psig. The surface casing will be tested to 1500 psi for 30 minutes.

Before drilling out of the intermediate casing, the ram-type BOP and accessory equipment will be tested to 5000/ 250 psig and the annular preventer to 3500/ 250 psig. The intermediate casing will be tested to 2000 psi for 30 minutes.

Pipe rams will be operationally checked each 24-hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets.

A hydraulically operated choke will be installed prior to drilling out of the intermediate casing shoe.

**6. TYPES AND CHARACTERISTICS OF THE PROPOSED MUD SYSTEM:**

During this procedure we plan to use a Closed-Loop System and haul contents to the required disposal.

The applicable depths and properties of the drilling fluid systems are as follows.

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0 – 1,655'	Fresh - Gel	8.6-8.8	28-34	N/c
1,655' – 5,400'	Fresh-Gel	8.6-8.8	28-34	N/c
5,400' – 10,900'	Oil Base	8.7-9.4	58-68	N/c - 6
10,900' – 16,044' Lateral	Oil Base	10.0-10.5	58-68	N/c - 6

An electronic pit volume totalizer (PVT) will be utilized on the circulating system, to monitor pit volume, flow rate, pump pressure and stroke rate.

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept at the wellsite at all times.

**EOG RESOURCES, INC.  
DELLA 29 FED NO. 606H**

**7. AUXILIARY WELL CONTROL AND MONITORING EQUIPMENT:**

- (A) A kelly cock will be kept in the drill string at all times.
- (B) A full opening drill pipe-stabbing valve (inside BOP) with proper drill pipe connections will be on the rig floor at all times.
- (C) H<sub>2</sub>S monitoring and detection equipment will be utilized from surface casing point to TD.

**8. LOGGING, TESTING AND CORING PROGRAM:**

Open-hole logs are not planned for this well.

GR-CCL Will be run in cased hole during completions phase of operations.

**9. ABNORMAL CONDITIONS, PRESSURES, TEMPERATURES AND POTENTIAL HAZARDS:**

The estimated bottom-hole temperature (BHT) at TD is 170 degrees F with an estimated maximum bottom-hole pressure (BHP) at TD of 6142 psig. No hydrogen sulfide or other hazardous gases or fluids have been encountered, reported or are known to exist at this depth in this area. No major loss circulation zones have been reported in offsetting wells.

**10. ANTICIPATED STARTING DATE AND DURATION OF OPERATIONS:**

The drilling operation should be finished in approximately one month. If the well is productive, an additional 60-90 days will be required for completion and testing before a decision is made to install permanent facilities.

- (A) EOG Resources requests the option to contract a Surface Rig to drill, set surface casing, and cement on the subject well. If the timing between rigs is such that EOG Resources would not be able to preset the surface, the Primary Rig will MIRU and drill the well in its entirety per the APD.

**11. WELLHEAD:**

**EOG RESOURCES, INC.  
DELLA 29 FED NO. 606H**

A multi-bowl wellhead system will be utilized.

After running the 10-3/4" surface casing, a 13-5/8" BOP/BOPE system with a minimum working pressure of 5000 psi will be installed on the wellhead system and will be pressure tested to 250 psi low followed by a 5000 psi pressure test. This pressure test will be repeated at least every 30 days, as per Onshore Order No. 2

The minimum working pressure of the BOP and related BOPE required for drilling below the surface casing shoe shall be 5000 psi.

The multi-bowl wellhead will be installed by vendor's representative(s). A copy of the installation instructions for the Stream Flo FBD100 Multi-Bowl WH system has been sent to the NM BLM office in Carlsbad, NM.

The wellhead will be installed by a third party welder while being monitored by WH vendor's representative.

All BOP equipment will be tested utilizing a conventional test plug. Not a cup or J-packer type.

A solid steel body pack-off will be utilized after running and cementing the intermediate casing. After installation the pack-off and lower flange will be pressure tested to 5000 psi.

Both the surface and intermediate casing strings will be tested as per Onshore Order No. 2 to at least 0.22 psi/ft or 1500 psi, whichever is greater.



U.S. Department of the Interior  
BUREAU OF LAND MANAGEMENT

## SUPO Data Report

02/09/2018

APD ID: 10400016713

Submission Date: 07/26/2017

Highlighted data  
reflects the most  
recent changes

Operator Name: EOG RESOURCES INCORPORATED

Well Name: DELLA 29 FEDERAL

Well Number: 606H

[Show Final Text](#)

Well Type: OIL WELL

Well Work Type: Drill

### Section 1 - Existing Roads

Will existing roads be used? YES

Existing Road Map:

DELLA29FEDERAL606H\_vicinity\_07-26-2017.pdf

Existing Road Purpose: ACCESS,FLUID TRANSPORT

Row(s) Exist? NO

**ROW ID(s)**

ID:

Do the existing roads need to be improved? NO

Existing Road Improvement Description:

Existing Road Improvement Attachment:

### Section 2 - New or Reconstructed Access Roads

Will new roads be needed? YES

New Road Map:

Della\_29\_Fed\_Com\_infrastructure\_07-26-2017.pdf

DELLA29FEDERAL606H\_padsite\_07-26-2017.pdf

Della\_29\_Fed\_Com\_road\_07-26-2017.pdf

DELLA29FEDERAL606H\_wellsite\_07-26-2017.pdf

New road type: RESOURCE

Length: 3186

Feet

Width (ft.): 24

Max slope (%): 2

Max grade (%): 20

Army Corp of Engineers (ACOE) permit required? NO

ACOE Permit Number(s):

New road travel width: 24

**New road access erosion control:** Newly constructed or reconstructed roads will be constructed as outlined in the BLM "Gold Book" and to meet the standards of the anticipated traffic flow and all anticipated weather requirements as needed. Construction will include ditching, draining, crowning and capping or sloping and dipping the roadbed as necessary to provide a well-constructed and safe road. We plan to grade and water twice a year.

Operator Name: EOG RESOURCES INCORPORATED

Well Name: DELLA 29 FEDERAL

Well Number: 606H

	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD
EXIT Leg #1	330	FNL	994	FWL	20S	34E	29	Aliquot NWN W	32.55048 56	- 103.5878 098	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 128367	- 758 0	159 44	112 50
BHL Leg #1	230	FNL	994	FWL	20S	34E	29	Aliquot NWN W	32.55076 05	- 103.5878 102	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 128367	- 758 0	160 44	112 50



U.S. Department of the Interior  
BUREAU OF LAND MANAGEMENT

## Operator Certification Data Report

02/09/2018

### Operator Certification

*I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.*

**NAME:** Stan Wagner

**Signed on:** 07/26/2017

**Title:** Regulatory Specialist

**Street Address:** 5509 Champions Drive

**City:** Midland

**State:** TX

**Zip:** 79702

**Phone:** (432)686-3689

**Email address:** Stan\_Wagner@eogresources.com

### Field Representative

**Representative Name:** Michael Yemm

**Street Address:** 5509 Champions Drive

**City:** Midland

**State:** TX

**Zip:** 79706

**Phone:** (432)556-7258

**Email address:** michael\_yemm@eogresources.com