ATS-16-1429

OCD Hobbs

Form 3160-3
(March 2012)

HOBBS OCD
MAR 21 2017
RECEIVED

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No. ~~NMLC061863A~~ 061873A - SHL

6. If Indian, Allotee or Tribe Name

1a. Type of work: ☑ DRILL ☐ REENTER

7. If Unit or CA Agreement, Name and No. (300635)

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

8. Lease Name and Well No. COTTON DRAW UNIT 288H

2. Name of Operator DEVON ENERGY PRODUCTION COMPANY LP (6137)

9. API Well No. 30-025-43711 (97899)

3a. Address 333 West Sheridan Avenue Oklahoma City OK

3b. Phone No. *(include area code)* (405)552-6571

10. Field and Pool, or Exploratory WC-025 G-06 S253206M / BONE SPRIN

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*

At surface NWNE / 175 FNL / 1680 FEL / LAT 32.1370946 / LONG -103.7112586

At proposed prod. zone NWNE / 290 FNL / 1680 FEL / LAT 32.1512841 / LONG -103.71121

11. Sec., T. R. M. or Blk. and Survey or Area SEC 18 / T25S / R32E / NMP

14. Distance in miles and direction from nearest town or post office* 21.9 miles

12. County or Parish LEA

13. State NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 175 feet

16. No. of acres in lease 1882.6

17. Spacing Unit dedicated to this well 160

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 560 feet

19. Proposed Depth 10457 feet / 15365 feet

20. BLM/BIA Bond No. on file FED: CO1104

21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3423 feet

22. Approximate date work will start* 09/10/2017

23. Estimated duration 45 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	Name *(Printed/Typed)*	Date
(Electronic Submission)	Linda Good / Ph: (405)552-6558	08/24/2016

Title: Regulatory Compliance Professional

Approved by *(Signature)*	Name *(Printed/Typed)*	Date
(Electronic Submission)	Cody Layton / Ph: (575)234-5959	03/06/2017

Title	Office
Supervisor Multiple Resources	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

KZ 03/27/17

REQUIRES NSL

APD ID: 10400004293 **Submission Date:** 08/24/2016 Highlight All Changes

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP **Federal/Indian APD:** FED

Well Name: COTTON DRAW UNIT **Well Number:** 288H

Well Type: OIL WELL **Well Work Type:** Drill

Application

Section 1 - General

APD ID: 10400004293 **Tie to previous NOS?** **Submission Date:** 08/24/2016

BLM Office: CARLSBAD **User:** Linda Good **Title:** Regulatory Compliance Professional

Federal/Indian APD: FED **Is the first lease penetrated for production Federal or Indian?** FED

Lease number: NMLC061863A **Lease Acres:** 1882.6

Surface access agreement in place? **Allotted?** **Reservation:**

Agreement in place? NO **Federal or Indian agreement:**

Agreement number:

Agreement name:

Keep application confidential? YES

Permitting Agent? NO **APD Operator:** DEVON ENERGY PRODUCTION COMPANY LP

Operator letter of designation:

Keep application confidential? YES

Operator Info

Operator Organization Name: DEVON ENERGY PRODUCTION COMPANY LP

Operator Address: 333 West Sheridan Avenue **Zip:** 73102

Operator PO Box:

Operator City: Oklahoma City **State:** OK

Operator Phone: (405)552-6571

Operator Internet Address: aletha.dewbre@dvn.com

Section 2 - Well Information

Well in Master Development Plan? NO **Mater Development Plan name:**

Well in Master SUPO? NO **Master SUPO name:**

Well in Master Drilling Plan? NO **Master Drilling Plan name:**

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: COTTON DRAW UNIT **Well Number:** 288H

Well Name: COTTON DRAW UNIT **Well Number:** 288H **Well API Number:**

Field/Pool or Exploratory? Field and Pool **Field Name:** WC-025 G-06 S253206M **Pool Name:** BONE SPRING

Is the proposed well in an area containing other mineral resources? NATURAL GAS,OIL

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:** COTTON DRAW UNIT **Number:** 288H/449H/498H

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: 21.9 Miles **Distance to nearest well:** 560 FT **Distance to lease line:** 175 FT

Reservoir well spacing assigned acres Measurement: 160 Acres

Well plat: CDU 288H_C-102_P_revised_signed_08-23-2016.pdf

Well work start Date: 09/10/2017 **Duration:** 45 DAYS

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83 **Vertical Datum:** NAVD88

Survey number: 3942B

	STATE: NEW MEXICO	**Meridian:** NEW MEXICO PRINCIPAL	**County:** LEA
	Latitude: 32.1370946	**Longitude:** -103.7112586	
SHL	**Elevation:** 3423	**MD:** 0	**TVD:** 0
Leg #: 1	**Lease Type:** FEDERAL	**Lease #:** NMLC061873A	
	NS-Foot: 175	**NS Indicator:** FNL	
	EW-Foot: 1680	**EW Indicator:** FEL	
	Twsp: 25S	**Range:** 32E	**Section:** 18
	Aliquot: NWNE	**Lot:**	**Tract:**

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: COTTON DRAW UNIT **Well Number:** 288H

	STATE: NEW MEXICO	**Meridian:** NEW MEXICO PRINCIPAL	**County:** LEA
	Latitude: 32.1370946	**Longitude:** -103.7112586	
KOP	**Elevation:** -6453	**MD:** 9881	**TVD:** 9876
Leg #: 1	**Lease Type:** FEDERAL	**Lease #:** NMLC061873A	
	NS-Foot: 175	**NS Indicator:** FNL	
	EW-Foot: 1680	**EW Indicator:** FEL	
	Twsp: 25S	**Range:** 32E	**Section:** 18
	Aliquot: NWNE	**Lot:**	**Tract:**

	STATE: NEW MEXICO	**Meridian:** NEW MEXICO PRINCIPAL	**County:** LEA
	Latitude: 32.1370946	**Longitude:** -103.7112586	
PPP	**Elevation:** -6918	**MD:** 10418	**TVD:** 10341
Leg #: 1	**Lease Type:** FEDERAL	**Lease #:** NMLC061873	
	NS-Foot: 63	**NS Indicator:** FSL	
	EW-Foot: 1680	**EW Indicator:** FEL	
	Twsp: 25S	**Range:** 32E	**Section:** 7
	Aliquot: SWSE	**Lot:**	**Tract:**

	STATE: NEW MEXICO	**Meridian:** NEW MEXICO PRINCIPAL	**County:** LEA
	Latitude: 32.1512841	**Longitude:** -103.71121	
EXIT	**Elevation:** -7034	**MD:** 15365	**TVD:** 10457
Leg #: 1	**Lease Type:** FEDERAL	**Lease #:** NMLC061863A	
	NS-Foot: 290	**NS Indicator:** FNL	
	EW-Foot: 1680	**EW Indicator:** FEL	
	Twsp: 25S	**Range:** 32E	**Section:** 7
	Aliquot: NWNE	**Lot:**	**Tract:**

	STATE: NEW MEXICO	**Meridian:** NEW MEXICO PRINCIPAL	**County:** LEA
	Latitude: 32.1512841	**Longitude:** -103.71121	
BHL	**Elevation:** -7034	**MD:** 15365	**TVD:** 10457
Leg #: 1	**Lease Type:** FEDERAL	**Lease #:** NMLC061863A	
	NS-Foot: 290	**NS Indicator:** FNL	
	EW-Foot: 1680	**EW Indicator:** FEL	

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: COTTON DRAW UNIT **Well Number:** 288H

Twsp: 25S **Range:** 32E **Section:** 7

Aliquot: NWNE **Lot:** **Tract:**

Drilling Plan

Section 1 - Geologic Formations

ID: Surface formation **Name:** ---

Lithology(ies):

ALLUVIUM

Elevation: 3423 **True Vertical Depth:** 0 **Measured Depth:** 0

Mineral Resource(s):

NONE

Is this a producing formation? N

ID: Formation 1 **Name:** RUSTLER

Lithology(ies):

DOLOMITE

Elevation: 2818 **True Vertical Depth:** 605 **Measured Depth:** 605

Mineral Resource(s):

NONE

Is this a producing formation? N

ID: Formation 2 **Name:** SALADO

Lithology(ies):

SALT

Elevation: 2785 **True Vertical Depth:** 638 **Measured Depth:** 638

Mineral Resource(s):

NONE

Is this a producing formation? N

ID: Formation 3 **Name:** BASE OF SALT

Lithology(ies):

SALT

Elevation: -752 **True Vertical Depth:** 4175 **Measured Depth:** 4175

Mineral Resource(s):

NONE

Is this a producing formation? N

ID: Formation 4 **Name:** DELAWARE

Lithology(ies):

SANDSTONE

Elevation: -1003 **True Vertical Depth:** 4426 **Measured Depth:** 4426

Mineral Resource(s):

NATURAL GAS

OIL

Is this a producing formation? N

ID: Formation 5 **Name:** LAMAR

Lithology(ies):

SANDSTONE

Elevation: -1007 **True Vertical Depth:** 4430 **Measured Depth:** 4430

Mineral Resource(s):

NATURAL GAS

OIL

Is this a producing formation? N

ID: Formation 6 **Name:** BELL CANYON

Lithology(ies):

SANDSTONE

Elevation: -1025 **True Vertical Depth:** 4448 **Measured Depth:** 4448

Mineral Resource(s):

NATURAL GAS

OIL

Is this a producing formation? N

ID: Formation 7 **Name:** CHERRY CANYON

Lithology(ies):

SANDSTONE

Elevation: -1944 **True Vertical Depth:** 5367 **Measured Depth:** 5367

Mineral Resource(s):

NATURAL GAS

OIL

Is this a producing formation? N

ID: Formation 8 **Name:** BRUSHY CANYON

Lithology(ies):

SANDSTONE

Elevation: -3347 **True Vertical Depth:** 6770 **Measured Depth:** 6770

Mineral Resource(s):

NATURAL GAS

OIL

Is this a producing formation? N

ID: Formation 9 **Name:** BONE SPRING

Lithology(ies):

SANDSTONE

Elevation: -4657 **True Vertical Depth:** 8080 **Measured Depth:** 8080

Mineral Resource(s):

NATURAL GAS

OIL

Is this a producing formation? Y

ID: Formation 10 **Name:** BONE SPRING 1ST

Lithology(ies):

SANDSTONE

Elevation: -5947 **True Vertical Depth:** 9370 **Measured Depth:** 9370

Mineral Resource(s):

NATURAL GAS

OIL

Is this a producing formation? N

ID: Formation 11 **Name:** 2ND BONE SPRING LIME

Lithology(ies):

SANDSTONE

Elevation: -6152 **True Vertical Depth:** 9575 **Measured Depth:** 9575

Mineral Resource(s):

NATURAL GAS

OIL

Is this a producing formation? N

ID: Formation 12 **Name:** BONE SPRING 2ND

Lithology(ies):

SANDSTONE

Elevation: -6512 **True Vertical Depth:** 9935 **Measured Depth:** 9935

Mineral Resource(s):

NATURAL GAS

OIL

Is this a producing formation? Y

Section 2 - Blowout Prevention

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: COTTON DRAW UNIT **Well Number:** 288H

Pressure Rating (PSI): 3M **Rating Depth:** 10457

Equipment: 3M rotating head, mud-gas seperator, panic line, and flare will be rigged up prior to drilling out surface casing.

Requesting Variance? YES

Variance request: A variance is requested for the use of a flexible choke line from the BOP stack to the choke manifold. See attached for specs for hydrostatic test chart.
Testing Procedure: A multibowl wellhead may be used. The BOP will be tested per Onshore Order #2 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested.

Choke Diagram Attachment:

CDU 288H_3M BOPE Double Ram and CLS Schem_08-23-2016.pdf

BOP Diagram Attachment:

CDU 288H_3M BOPE Double Ram and CLS Schem_08-23-2016.pdf

Pressure Rating (PSI): 3M **Rating Depth:** 4225

Equipment: 3M rotating head, mud-gas seperator, panic line, and flare will be rigged up prior to drilling out surface casing.

Requesting Variance? YES

Variance request: A variance is requested for the use of a flexible choke line from the BOP stack to the choke manifold. See attached for specs for hydrostatic test chart.
Testing Procedure: A multibowl wellhead may be used. The BOP will be tested per Onshore Order #2 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested.

Choke Diagram Attachment:

CDU 288H_3M BOPE Double Ram and CLS Schem_08-23-2016.pdf

BOP Diagram Attachment:

CDU 288H_3M BOPE Double Ram and CLS Schem_08-23-2016.pdf

Section 3 - Casing

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: COTTON DRAW UNIT **Well Number:** 288H

K See COA

String Type: SURFACE **Other String Type:**

Hole Size: 17.5

Top setting depth MD: 0 **Top setting depth TVD:** 0

Top setting depth MSL: -7034

Bottom setting depth MD: ~~700~~ 770 **Bottom setting depth TVD:** ~~700~~ 770

Bottom setting depth MSL: -7734

Calculated casing length MD: ~~700~~ 770

Casing Size: 13.375 **Other Size**

Grade: J-55 **Other Grade:**

Weight: 48

Joint Type: STC **Other Joint Type:**

Condition: NEW

Inspection Document:

Standard: API

Spec Document:

Tapered String?: N

Tapered String Spec:

Safety Factors

Collapse Design Safety Factor: 1.74 **Burst Design Safety Factor:** 2.45

Joint Tensile Design Safety Factor type: BUOYANT **Joint Tensile Design Safety Factor:** 4.13

Body Tensile Design Safety Factor type: BUOYANT **Body Tensile Design Safety Factor:** 4.13

Casing Design Assumptions and Worksheet(s):

CDU 288H_Surface Casing Assumptions_08-23-2016.pdf

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: COTTON DRAW UNIT **Well Number:** 288H

String Type: PRODUCTION **Other String Type:**

Hole Size: 8.75

Top setting depth MD: 0 **Top setting depth TVD:** 0

Top setting depth MSL: -7034

Bottom setting depth MD: 15365 **Bottom setting depth TVD:** 10457

Bottom setting depth MSL: -17491

Calculated casing length MD: 15365

Casing Size: 5.5 **Other Size**

Grade: P-110 **Other Grade:**

Weight: 17

Joint Type: BUTT **Other Joint Type:**

Condition: NEW

Inspection Document:

Standard: API

Spec Document:

Tapered String?: N

Tapered String Spec:

Safety Factors

Collapse Design Safety Factor: 2.18 **Burst Design Safety Factor:** 2.7

Joint Tensile Design Safety Factor type: BUOYANT **Joint Tensile Design Safety Factor:** 3.21

Body Tensile Design Safety Factor type: BUOYANT **Body Tensile Design Safety Factor:** 3.21

Casing Design Assumptions and Worksheet(s):

CDU 288H_Production Casing Assumptions_08-23-2016.pdf

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: COTTON DRAW UNIT **Well Number:** 288H

String Type: INTERMEDIATE **Other String Type:**

Hole Size: 12.25

Top setting depth MD: 0 **Top setting depth TVD:** 0

Top setting depth MSL: -7034

Bottom setting depth MD: 4225 **Bottom setting depth TVD:** 4225

Bottom setting depth MSL: -11259

Calculated casing length MD: 4225

Casing Size: 9.625 **Other Size**

Grade: J-55 **Other Grade:**

Weight: 40

Joint Type: LTC **Other Joint Type:**

Condition: NEW

Inspection Document:

Standard: API

Spec Document:

Tapered String?: N

Tapered String Spec:

Safety Factors

Collapse Design Safety Factor: 1.19 **Burst Design Safety Factor:** 1.42

Joint Tensile Design Safety Factor type: BUOYANT **Joint Tensile Design Safety Factor:** 3.98

Body Tensile Design Safety Factor type: BUOYANT **Body Tensile Design Safety Factor:** 3.98

Casing Design Assumptions and Worksheet(s):

CDU 288H_Intermediate Casing Assumptions_08-23-2016.pdf

Section 4 - Cement

Casing String Type: SURFACE

Stage Tool Depth:

Lead

Top MD of Segment: 0 **Bottom MD Segment:** 700 **Cement Type:** C

Additives: 1% Calcium Chloride **Quantity (sks):** 550 **Yield (cu.ff./sk):** 1.34

Density: 14.8 **Volume (cu.ft.):** 730 **Percent Excess:** 50

Casing String Type: INTERMEDIATE

Stage Tool Depth:

Lead

Top MD of Segment: 0 **Bottom MD Segment:** 3225 **Cement Type:** C

Additives: Poz (Fly Ash): 6% BWOC Bentonite + 5% BWOW Sodium Chloride + 0.125 lbs/sks Poly-E-Flake **Quantity (sks):** 710 **Yield (cu.ff./sk):** 1.85

Volume (cu.ft.): 1300 **Percent Excess:** 30

Density: 12.9

Tail

Bottom MD Segment: 4225 **Cement Type:** H

Top MD of Segment: 3225 **Quantity (sks):** 320 **Yield (cu.ff./sk):** 1.33

Additives: 0.125 lbs/sks Poly-R-Flake **Volume (cu.ft.):** 426 **Percent Excess:** 30

Density: 14.8

Casing String Type: PRODUCTION

Stage Tool Depth: 4275

Lead

Top MD of Segment: 4075 **Bottom MD Segment:** 4175 **Cement Type:** C

Additives: Enhancer 923 + 10% BWOC Bentonite + 0.05% BWOC SA-1015 + 0.3% BWOC HR-800 + 0.2% BWOC FE-2 + 0.125 lb/sk Pol-E-Flake + 0.5 lb/sk D-Air 5000 **Quantity (sks):** 20 **Yield (cu.ff./sk):** 3.31

Volume (cu.ft.): 66 **Percent Excess:** 15

Density: 10.9

Tail

Bottom MD Segment: 4275 **Cement Type:** H

Quantity (sks): 30 **Yield (cu.ff./sk):** 1.33

Top MD of Segment: 4175 **Volume (cu.ft.):** 39 **Percent Excess:** 15

Additives: 0.125 lbs/sack Poly-E-Flake

Density: 14.8

Stage Tool Depth: 4275

Lead

Top MD of Segment: 4275 **Bottom MD Segment:** 10350 **Cement Type:** C

Additives: Enhancer 923 + 10% BWOC Bentonite + 0.05% BWOC SA-1015 + 0.3% BWOC HR-800 + 0.2% BWOC FE-2 + 0.125 lb/sk Pol-E-Flake + 0.5 lb/sk D-Air 5000 **Quantity (sks):** 533 **Yield (cu.ff./sk):** 3.31

Volume (cu.ft.): 1765 **Percent Excess:** 15

Tail

Density: 10.9 **Bottom MD Segment:** 15365 **Cement Type:** H

Quantity (sks): 1215 **Yield (cu.ff./sk):** 1.2

Top MD of Segment: 10350 **Volume (cu.ft.):** 1457 **Percent Excess:** 15

Additives: Poz (Fly Ash) + 0.5% bwoc HALAD-344 + 0.4% bwoc CFR-3 + 0.2% BWOC HR-601 + 2% bwoc Bentonite

Density: 14.5

Stage Tool Depth: 4275

Lead

Top MD of Segment: 4000 **Bottom MD Segment:** 10350 **Cement Type:** TUNED

Additives: NA **Quantity (sks):** 564 **Yield (cu.ff./sk):** 3.27

Density: 9 **Volume (cu.ft.):** 1845 **Percent Excess:** 15

Tail

Top MD of Segment: 10350 **Bottom MD Segment:** 15365 **Cement Type:** H

Additives: Poz (Fly Ash) + 0.5% bwoc HALAD-344 + 0.4% bwoc CFR-3 + 0.2% BWOC HR-601 + 2% bwoc Bentonite **Quantity (sks):** 1215 **Yield (cu.ff./sk):** 1.2

Volume (cu.ft.): 1457 **Percent Excess:** 15

Density: 14.5

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: COTTON DRAW UNIT **Well Number:** 288H

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

Describe the mud monitoring system utilized: PVT/Pason/Visual Monitoring

Circulating Medium Table

Top Depth: 0

Bottom Depth: ~~700~~ 770

Mud Type: WATER-BASED MUD

Min Weight (lbs./gal.): 8.5

Max Weight (lbs./gal.): 9

Density (lbs/cu.ft.):

Gel Strength (lbs/100 sq.ft.):

PH:

Viscosity (CP):

Filtration (cc):

Salinity (ppm):

Additional Characteristics:

Top Depth: 0

Bottom Depth: 4225

Mud Type: SALT SATURATED

Min Weight (lbs./gal.): 10

Max Weight (lbs./gal.): 11

Density (lbs/cu.ft.):

Gel Strength (lbs/100 sq.ft.):

PH:

Viscosity (CP):

Filtration (cc):

Salinity (ppm):

Additional Characteristics:

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: COTTON DRAW UNIT **Well Number:** 288H

Top Depth: 4225 **Bottom Depth:** 15365

Mud Type: WATER-BASED MUD

Min Weight (lbs./gal.): 8.5 **Max Weight (lbs./gal.):** 9.3

Density (lbs/cu.ft.): **Gel Strength (lbs/100 sq.ft.):**

PH: **Viscosity (CP):**

Filtration (cc): **Salinity (ppm):**

Additional Characteristics:

Section 6 - Test, Logging, Coring

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

Will run GR/CNL fromTD to surface (horizontal well – vertical portion of hole). Stated logs run will be in the Completion Report and submitted to the BLM.

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

CALIPER,DS,GR,MWD,MUDLOG

Coring operation description for the well:

NA

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 4725 **Anticipated Surface Pressure:** 2424.46

Anticipated Bottom Hole Temperature(F): 165

Anticipated abnormal proessures, temperatures, or potential geologic hazards? NO

Describe:

Contingency Plans geoharzards description:

Contingency Plans geohazards attachment:

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations plan:

CDU 288H_H2S Plan_08-10-2016.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

CDU 288H_Directional Proposal_P1v2_08-24-2016.pdf

Other proposed operations facets description:

Multi-bowl Verbiage
Multi-bowl Wellhead
Closed Loop Design Plan

Other proposed operations facets attachment:

CDU 288H_Multi-Bowl Verbiage_3M_08-10-2016.pdf
CDU 288H_Multi-Bowl Wellhead_08-10-2016.pdf
CDU 288H_Closed Loop Design Plan_08-23-2016.pdf

Other Variance attachment:

CDU 288H_H_P Co-flex hose_08-10-2016.pdf

SUPO

Section 1 - Existing Roads

Will existing roads be used? YES

Existing Road Map:

CDU 288H_Existing Access Road_08-23-2016.pdf

Existing Road Purpose: ACCESS,FLUID TRANSPORT **Row(s) Exist?** NO

ROW ID(s)

ID:

Do the existing roads need to be improved? YES

Existing Road Improvement Description: Improve road to accommodate Drilling and Completion operations.

Existing Road Improvement Attachment:

Section 2 - New or Reconstructed Access Roads

Will new roads be needed? YES

New Road Map:

CDU 288H_Access Rd for_CDU_449H_498H_288H_P_AA000000000_08-23-2016.pdf

New road type: COLLECTOR,RESOURCE

Length: 2101.08 Feet **Width (ft.):** 16

Max slope (%): 6 **Max grade (%):** 4

Army Corp of Engineers (ACOE) permit required? NO

ACOE Permit Number(s):

New road travel width: 14

New road access erosion control: Water drainage ditch.

New road access plan or profile prepared? YES

New road access plan attachment:

CDU 288H_Access Rd for_CDU_449H_498H_288H_P_AA000000000_08-23-2016.pdf

Access road engineering design? NO

Access road engineering design attachment:

Access surfacing type: GRAVEL

Access topsoil source: ONSITE

Access surfacing type description:

Access onsite topsoil source depth: 6

Offsite topsoil source description:

Onsite topsoil removal process: See attached Interim reclamation diagram.

Access other construction information:

Access miscellaneous information:

Number of access turnouts: **Access turnout map:**

Drainage Control

New road drainage crossing: OTHER

Drainage Control comments: NA

Road Drainage Control Structures (DCS) description: NA

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:

CDU 288H_1 Mile Map_08-10-2016.pdf

Existing Wells description:

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

Submit or defer a Proposed Production Facilities plan? DEFER

Estimated Production Facilities description: All flowlines will be buried going to the CDU 7 CTB .

Section 5 - Location and Types of Water Supply

Water Source Table

Water source use type: STIMULATION

Water source type: RECYCLED

Describe type:

Source latitude:

Source longitude:

Source datum:

Water source permit type: OTHER

Source land ownership: FEDERAL

Water source transport method: PIPELINE,TRUCKING

Source transportation land ownership: FEDERAL

Water source volume (barrels): 150000

Source volume (acre-feet): 19.333965

Source volume (gal): 6300000

Water source and transportation map:

CDU 288H_Wtr Xfr Map_rev_11-11-2016.pdf

Water source comments: The attached Water Transfer Map is a proposal only and the final route and documentation will be provided by a Devon contractor prior to installation. When available Devon will always follow existing disturbance.
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:

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: COTTON DRAW UNIT **Well Number:** 288H

Drilling method: **Drill material:**

Grout material: **Grout depth:**

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

Well Production type: **Completion Method:**

Water well additional information:

State appropriation permit:

Additional information attachment:

Section 6 - Construction Materials

Construction Materials description: Dirt fill and Caliche will be used to construct well pad.

Construction Materials source location attachment:

CDU 288H_Caliche Pit_12-19-2016.pdf
CDU 288H_CALICHE_12-19-2016.pdf

Section 7 - Methods for Handling Waste

Waste type: DRILLING

Waste content description: Water based drill cuttings.

Amount of waste: 1100 barrels

Waste disposal frequency : Daily

Safe containment description: Not a requirement, no asterisk.

Safe containmant attachment:

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

Disposal type description:

Disposal location description: All cuttings will be disposed at R360, Sundance or equivalent.

Waste type: COMPLETIONS/STIMULATION

Waste content description: Flow back water during completion operations.

Amount of waste: 3000 barrels

Waste disposal frequency : One Time Only

Safe containment description: Not a requirement, no asterisk.

Safe containmant attachment:

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

Disposal type description:

Disposal location description: Various disposal locations in Lea and Eddy counties.

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: COTTON DRAW UNIT **Well Number:** 288H

Waste type: FLOWBACK

Waste content description: Produced water during flowback operations. This amount is a daily average during flowback (BWPD).

Amount of waste: 1500 barrels

Waste disposal frequency : Daily

Safe containment description: Not a requirement, no asterisk.

Safe containmant attachment:

Waste disposal type: ON-LEASE INJECTION **Disposal location ownership:** PRIVATE

Disposal type description:

Disposal location description: One of three company owned SWD facilities in the area: CDU 181, CDU 89, CDU 84.

Waste type: PRODUCED WATER

Waste content description: Produced water during flowback operations. This amount is a daily average during flowback (BWPD).

Amount of waste: 1000 barrels

Waste disposal frequency : Daily

Safe containment description: Not a requirement, no asterisk.

Safe containmant attachment:

Waste disposal type: ON-LEASE INJECTION **Disposal location ownership:** PRIVATE

Disposal type description:

Disposal location description: One of three company owned SWD facilities in the area: CDU 181, CDU 89, CDU 84.

Reserve Pit

Reserve Pit being used? NO

Temporary disposal of produced water into reserve pit?

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? NO

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: COTTON DRAW UNIT **Well Number:** 288H

Description of cuttings location

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:

CDU 288H_3 Well Pad Rig Location Layout_08-10-2016.pdf

Comments: Padded with CDU 449H & CDU 498H.

Section 10 - Plans for Surface Reclamation

Type of disturbance: NEW

Recontouring attachment:

CDU 288H_Interim Reclamation Site_08-23-2016.pdf

Drainage/Erosion control construction: All areas disturbed shall be reclaimed as early and as nearly as practicable to their original condition or their final land use and shall be maintained to control dust and minimize erosion to the extent practicable.
Drainage/Erosion control reclamation: Topsoils and subsoils shall be replaced to their original relative positions and contoured so as to achieve erosion control, long-term stability and preservation of surface water flow patterns. The disturbed area then shall be reseeded in the first favorable growing season.

Wellpad long term disturbance (acres): 1.707 **Wellpad short term disturbance (acres):** 3.776

Access road long term disturbance (acres): 0.96 **Access road short term disturbance (acres):** 0.96

Pipeline long term disturbance (acres): 0.85008955 **Pipeline short term disturbance (acres):** 1.4168159

Other long term disturbance (acres): 0.437 **Other short term disturbance (acres):** 0.437

Total long term disturbance: 3.9540896 **Total short term disturbance:** 6.589816

Reconstruction method: Operator will use Best Management Practices"BMP" to mechanically recontour to obtain the desired outcome.
Topsoil redistribution: Topsoils shall be replaced to their original relative positions and contoured so as to achieve erosion control, long-term stability and preservation of surface water flow patterns.
Soil treatment: Topsoils shall be replaced to their original relative positions and contoured so as to achieve erosion control,

long-term stability and preservation of surface water flow patterns.

Existing Vegetation at the well pad: Shinnery, yucca, grasses and mesquite

Existing Vegetation at the well pad attachment:

Existing Vegetation Community at the road: Shinnery, yucca, grasses and mesquite

Existing Vegetation Community at the road attachment:

Existing Vegetation Community at the pipeline: Shinnery, yucca, grasses and mesquite

Existing Vegetation Community at the pipeline attachment:

Existing Vegetation Community at other disturbances: Shinnery, yucca, grasses and mesquite

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 Contact/Responsible Official Contact Info

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: COTTON DRAW UNIT **Well Number:** 288H

First Name: Mark **Last Name:** Smith

Phone: (575)746-5559 **Email:** mark.smith@dvn.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: Maintain weeds on an as need basis.

Weed treatment plan attachment:

Monitoring plan description: Monitor as needed.

Monitoring plan attachment:

Success standards: NA

Pit closure description: NA

Pit closure attachment:

Section 11 - Surface Ownership

Disturbance type: NEW ACCESS ROAD

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:

USFS Forest/Grassland: **USFS Ranger District:**

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: COTTON DRAW UNIT **Well Number:** 288H

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:

USFS Forest/Grassland: **USFS Ranger District:**

Disturbance type: EXISTING ACCESS ROAD

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:

USFS Forest/Grassland: **USFS Ranger District:**

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: COTTON DRAW UNIT **Well Number:** 288H

Disturbance type: PIPELINE

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:

USFS Forest/Grassland: **USFS Ranger District:**

Section 12 - Other Information

Right of Way needed? NO **Use APD as ROW?**

ROW Type(s):

ROW Applications

SUPO Additional Information: Flow Line Survey Electric Survey

Use a previously conducted onsite? NO

Previous Onsite information:

Other SUPO Attachment

CDU 288H_Electric_12-19-2016.PDF
CDU 288H_Flowline_12-19-2016.pdf

PWD

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:

Decribe 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:

Decribe 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:

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: COTTON DRAW UNIT **Well Number:** 288H

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: **Injection well name:**

Assigned injection well API number? **Injection well API number:**

Injection well new surface disturbance (acres):

Minerals protection information:

Mineral protection attachment:

Underground Injection Control (UIC) Permit?

UIC Permit attachment:

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?

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: COTTON DRAW UNIT **Well Number:** 288H

Other regulatory requirements attachment:

Bond Info

Bond Information

Federal/Indian APD: FED

BLM Bond number: CO1104

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:

Operator Certification

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: Linda Good **Signed on:** 08/24/2016

Title: Regulatory Compliance Professional

Street Address: 333 West Sheridan Avenue

City: Oklahoma City **State:** OK **Zip:** 73102

Phone: (405)552-6558

Email address: Linda.Good@dvn.com

Field Representative

Representative Name: Brad Oates

Street Address: 6488 Seven Rivers Hwy

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: COTTON DRAW UNIT **Well Number:** 288H

City: Artesia **State:** NM **Zip:** 88210

Phone: (575)748-1810

Email address: brad.oates@dvn.com

Payment Info

Payment

APD Fee Payment Method: PAY.GOV

pay.gov Tracking ID: 25TGBAME