

HOBBS OCD

NM OIL CONSERVATION
ARTESIA DISTRICT

MAY 08 2017

Form 3160-3
(March 2012)

MAY 10 2017

RECEIVED
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

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

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NMLC061873
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input checked="" type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator DEVON ENERGY PRODUCTION COMPANY LP (6137)		7. If Unit or CA Agreement, Name and No.
3a. Address 333 West Sheridan Avenue Oklahoma City OK		8. Lease Name and Well No. (300635) COTTON DRAW UNIT 355H
3b. Phone No. (include area code) (405)552-6571		9. API Well No. 30-025-43835
4. Location of Well (Report location clearly and in accordance with any State requirements.)* At surface SESE / 215 FSL / 570 FEL / LAT 32.1236675 / LONG -103.7077404 At proposed prod. zone NESE / 2350 FSL / 360 FEL / LAT 32.144036 / LONG -103.7069728		10. Field and Pool, or Exploratory (97899) WC-025 G-06 5253206M; BS
11. Sec., T. R. M. or Blk. and Survey or Area SEC 18 / T25S / R32E / NMP		12. County or Parish LEA
13. State NM		14. Distance in miles and direction from nearest town or post office* 21 miles
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 215 feet	16. No. of acres in lease 319.73	17. Spacing Unit dedicated to this well 240
18. Distance from proposed location* to nearest well, drilling, completed, 4200 feet applied for, on this lease, ft.	19. Proposed Depth 9135 feet / 16472 feet	20. BLM/BIA Bond No. on file FED: CO1104
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3408 feet	22. Approximate date work will start* 08/01/2017	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:

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

25. Signature (Electronic Submission)	Name (Printed/Typed) Linda Good / Ph: (405)552-6558	Date 07/26/2016
Title Regulatory Compliance Professional		
Approved by (Signature) (Electronic Submission)	Name (Printed/Typed) Cody Layton / Ph: (575)234-5959	Date 04/26/2017
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

Ka
05/25/17



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

Operator Certification Data Report

04/27/2017

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: 07/26/2016

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

City: Artesia

State: NM

Zip: 88210

Phone: (575)748-1810

Email address: brad.oates@dvn.com



APD ID: 10400003613	Submission Date: 07/26/2016
Operator Name: DEVON ENERGY PRODUCTION COMPANY LP	
Well Name: COTTON DRAW UNIT	Well Number: 355H
Well Type: OIL WELL	Well Work Type: Drill

Section 1 - General

APD ID: 10400003613	Tie to previous NOS?	Submission Date: 07/26/2016
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: NMLC061873	Lease Acres: 319.73	
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? NEW	Master Development Plan name: Cotton Draw MDP Unit 1	
Well in Master SUPO? NO	Master SUPO name:	
Well in Master Drilling Plan? NO	Master Drilling Plan name:	
Well Name: COTTON DRAW UNIT	Well Number: 355H	Well API Number:
Field/Pool or Exploratory? Field and Pool	Field Name: PADUCA	Pool Name: BONE SPRING

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: COTTON DRAW UNIT

Well Number: 355H

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: SINGLE WELL **Multiple Well Pad Name:** **Number:**

Well Class: HORIZONTAL **Number of Legs:**

Well Work Type: Drill

Well Type: OIL WELL

Describe Well Type:

Well sub-Type: INFILL

Describe sub-type:

Distance to town: 21 Miles **Distance to nearest well:** 4200 FT **Distance to lease line:** 215 FT

Reservoir well spacing assigned acres Measurement: 240 Acres

Well plat: CDU 355H_C-102_signed_07-26-2016.pdf

Well work start Date: 08/01/2017 **Duration:** 45 DAYS

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83 **Vertical Datum:** NAVD88

Survey number: 4794

	STATE: NEW MEXICO	Meridian: NEW MEXICO PRINCIPAL	County: LEA
	Latitude: 32.1236675	Longitude: -103.7077404	
SHL	Elevation: 3408	MD: 0	TVD: 0
Leg #: 1	Lease Type: FEDERAL	Lease #: NMLC061873B	
	NS-Foot: 215	NS Indicator: FSL	
	EW-Foot: 570	EW Indicator: FEL	
	Twsp: 25S	Range: 32E	Section: 18
	Aliquot: SESE	Lot:	Tract:

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: COTTON DRAW UNIT

Well Number: 355H

	STATE: NEW MEXICO	Meridian: NEW MEXICO PRINCIPAL	County: LEA
	Latitude: 32.1236675	Longitude: -103.7077404	
KOP	Elevation: -5154	MD: 8575	TVD: 8562
Leg #: 1	Lease Type: FEDERAL	Lease #: NMLC061873B	
	NS-Foot: 160	NS Indicator: FSL	
	EW-Foot: 208	EW Indicator: FEL	
	Twsp: 25S	Range: 32E	Section: 18
	Aliquot: SESE	Lot:	Tract:
	STATE: NEW MEXICO	Meridian: NEW MEXICO PRINCIPAL	County: LEA
	Latitude: 32.1236675	Longitude: -103.7077404	
PPP	Elevation: -5712	MD: 9343	TVD: 9120
Leg #: 1	Lease Type: FEDERAL	Lease #: NMLC061873B	
	NS-Foot: 289	NS Indicator: FSL	
	EW-Foot: 207	EW Indicator: FEL	
	Twsp: 25S	Range: 32E	Section: 18
	Aliquot: SESE	Lot:	Tract:
	STATE: NEW MEXICO	Meridian: NEW MEXICO PRINCIPAL	County: LEA
	Latitude: 32.144036	Longitude: -103.7069728	
EXIT	Elevation: -5727	MD: 16472	TVD: 9135
Leg #: 1	Lease Type: FEDERAL	Lease #: NMLC061873	
	NS-Foot: 2350	NS Indicator: FSL	
	EW-Foot: 360	EW Indicator: FEL	
	Twsp: 25S	Range: 32E	Section: 7
	Aliquot: NESE	Lot:	Tract:
	STATE: NEW MEXICO	Meridian: NEW MEXICO PRINCIPAL	County: LEA
	Latitude: 32.144036	Longitude: -103.7069728	
BHL	Elevation: -5727	MD: 16472	TVD: 9135
Leg #: 1	Lease Type: FEDERAL	Lease #: NMLC061873	
	NS-Foot: 2350	NS Indicator: FSL	
	EW-Foot: 360	EW Indicator: FEL	

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: COTTON DRAW UNIT

Well Number: 355H

Twsp: 25S

Range: 32E

Section: 7

Aliquot: NESE

Lot:

Tract:

APD ID: 10400003613

Submission Date: 07/26/2016

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: COTTON DRAW UNIT

Well Number: 355H

Well Type: OIL WELL

Well Work Type: Drill

Section 1 - Geologic Formations

ID: Surface formation

Name: ---

Lithology(ies):

ALLUVIUM

Elevation: 3409

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: 2794

True Vertical Depth: 615

Measured Depth: 615

Mineral Resource(s):

NONE

Is this a producing formation? N

ID: Formation 2

Name: SALADO

Lithology(ies):

SALT

Elevation: 2464

True Vertical Depth: 945

Measured Depth: 945

Mineral Resource(s):

NONE

Is this a producing formation? N

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: COTTON DRAW UNIT

Well Number: 355H

ID: Formation 3

Name: BASE OF SALT

Lithology(ies):

SALT

Elevation: -811

True Vertical Depth: 4220

Measured Depth: 4220

Mineral Resource(s):

NONE

Is this a producing formation? N

ID: Formation 4

Name: DELAWARE

Lithology(ies):

SANDSTONE

Elevation: -1056

True Vertical Depth: 4465

Measured Depth: 4465

Mineral Resource(s):

NONE

Is this a producing formation? N

ID: Formation 5

Name: LAMAR

Lithology(ies):

SANDSTONE

Elevation: -1056

True Vertical Depth: 4465

Measured Depth: 4465

Mineral Resource(s):

NONE

Is this a producing formation? N

ID: Formation 6

Name: BELL CANYON

Lithology(ies):

SANDSTONE

Elevation: -1061

True Vertical Depth: 4470

Measured Depth: 4470

Mineral Resource(s):

NATURAL GAS

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: COTTON DRAW UNIT

Well Number: 355H

OIL

Is this a producing formation? N

ID: Formation 7

Name: CHERRY CANYON

Lithology(ies):

SANDSTONE

Elevation: -1996

True Vertical Depth: 5405

Measured Depth: 5405

Mineral Resource(s):

NATURAL GAS

OIL

Is this a producing formation? N

ID: Formation 8

Name: BRUSHY CANYON

Lithology(ies):

SANDSTONE

Elevation: -3281

True Vertical Depth: 6690

Measured Depth: 6690

Mineral Resource(s):

NATURAL GAS

OIL

Is this a producing formation? N

ID: Formation 9

Name: BONE SPRING

Lithology(ies):

SANDSTONE

Elevation: -4946

True Vertical Depth: 8355

Measured Depth: 8355

Mineral Resource(s):

NATURAL GAS

OIL

Is this a producing formation? Y

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: COTTON DRAW UNIT

Well Number: 355H

ID: Formation 10

Name: BONE SPRING C ZONE

Lithology(ies):

SANDSTONE

Elevation: -5711

True Vertical Depth: 9120

Measured Depth: 9120

Mineral Resource(s):

NATURAL GAS

OIL

Is this a producing formation? Y

Section 2 - Blowout Prevention

Pressure Rating (PSI): 3M

Rating Depth: 4250

Equipment: BOP/BOPE will be installed per Onshore Oil & Gas Order #2 requirements prior to drilling below 13-3/8" surface casing, a 13-5/8" BOP/BOPE system with a minimum rating of 3M will be installed on the wellhead system. BOP/BOPE will be tested by an independent service company per Onshore Oil & Gas Order #2 requirements and MASP (Maximum Anticipated Surface Pressure) calculations. If the system is upgraded, all the components installed will be functional and tested. The pipe rams will be operated and checked each 24 hour period and each time the drill pipe is out of the hole. These tests will be logged in the daily driller's log. A 2" kill line and 3" choke line will be incorporated into the drilling spool below the ram BOP. In addition to the rams and annular preventer, additional BOP accessories include a kelly cock, floor safety valve, choke lines, and choke manifold rated at 3,000 psi WP.

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 355_3M BOPE Double Ram and CLS Schem_07-26-2016.pdf

BOP Diagram Attachment:

CDU 355_3M BOPE Double Ram and CLS Schem_07-26-2016.pdf

Pressure Rating (PSI): 3M

Rating Depth: 9120

Equipment: BOP/BOPE will be installed per Onshore Oil & Gas Order #2 requirements prior to drilling below 13-3/8" surface casing, a 13-5/8" BOP/BOPE system with a minimum rating of 3M will be installed on the wellhead system. BOP/BOPE will be tested by an independent service company per Onshore Oil & Gas Order #2 requirements and MASP (Maximum Anticipated Surface Pressure) calculations. If the system is upgraded, all the components installed will be functional and tested. The pipe rams will be operated and checked each 24 hour period and each time the drill pipe is out of the hole. These tests will be logged in the daily driller's log. A 2" kill line and 3" choke line will be incorporated into the drilling spool below the ram BOP. In addition to the rams and annular preventer, additional BOP accessories include a kelly cock, floor safety valve, choke lines, and choke manifold rated at 3,000 psi WP.

Requesting Variance? YES

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: COTTON DRAW UNIT

Well Number: 355H

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 355_3M BOPE Double Ram and CLS Schem_07-26-2016.pdf

BOP Diagram Attachment:

CDU 355_3M BOPE Double Ram and CLS Schem_07-26-2016.pdf

Section 3 - Casing

String Type: SURFACE

Other String Type:

Hole Size: 17.5

Top setting depth MD: 0

Top setting depth TVD: 0

Top setting depth MSL: 3408

Bottom setting depth MD: 640

Bottom setting depth TVD: 640

Bottom setting depth MSL: 2768

Calculated casing length MD: 640

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 355H_Surface Casing Assumptions_07-26-2016.pdf

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: COTTON DRAW UNIT

Well Number: 355H

String Type: INTERMEDIATE

Other String Type:

Hole Size: 12.25

Top setting depth MD: 0

Top setting depth TVD: 0

Top setting depth MSL: 3408

Bottom setting depth MD: 4250

Bottom setting depth TVD: 4250

Bottom setting depth MSL: -842

Calculated casing length MD: 4250

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 355H_Intermediate Casing Assumptions_07-26-2016.pdf

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: COTTON DRAW UNIT

Well Number: 355H

String Type: PRODUCTION

Other String Type:

Hole Size: 8.75

Top setting depth MD: 0

Top setting depth TVD: 0

Top setting depth MSL: 3408

Bottom setting depth MD: 16472

Bottom setting depth TVD: 9135

Bottom setting depth MSL: -5727

Calculated casing length MD: 16472

Casing Size: 5.5

Other Size

Grade: P-105

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 355H_Production Casing Assumptions_07-26-2016.pdf

Section 4 - Cement

Casing String Type: SURFACE

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: COTTON DRAW UNIT

Well Number: 355H

Stage Tool Depth:

Lead

Top MD of Segment: 0

Bottom MD Segment: 640

Cement Type: C

Additives: 1% Calcium Chloride

Quantity (sks): 550

Yield (cu.ff./sk): 1.34

Density: 14.8

Volume (cu.ft.): 737

Percent Excess: 50

Casing String Type: INTERMEDIATE

Stage Tool Depth:

Lead

Top MD of Segment: 0

Bottom MD Segment: 3250

Cement Type: C

Additives: Poz (Fly Ash): 6% BWOC
Bentonite + 5% BWOW Sodium
Chloride + 0.125 lbs/sks Poly-E-Flake

Quantity (sks): 685

Yield (cu.ff./sk): 1.85

Volume (cu.ft.): 1268

Percent Excess: 30

~~Density: 12.9~~

Tail

Top MD of Segment: 3250

Bottom MD Segment: 4250

Cement Type: H

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:

Lead

Top MD of Segment: 4050

Bottom MD Segment: 8600

Cement Type: TUNED

Additives: N/A

Quantity (sks): 400

Yield (cu.ff./sk): 3.27

Density: 9

Volume (cu.ft.): 1325

Percent Excess: 25

Tail

Top MD of Segment: 8600

Bottom MD Segment: 16466

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): 1910

Yield (cu.ff./sk): 1.2

Volume (cu.ft.): 2286

Percent Excess: 25

Density: 14.5

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: COTTON DRAW UNIT

Well Number: 355H

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: 640	Bottom Depth: 4250
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): 2
Filtration (cc):	Salinity (ppm):
Additional Characteristics:	

Top Depth: 4250	Bottom Depth: 16466
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): 12
Filtration (cc):	Salinity (ppm):
Additional Characteristics:	

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: COTTON DRAW UNIT

Well Number: 355H

Top Depth: 0

Bottom Depth: 640

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): 2

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 from TD 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: 4111

Anticipated Surface Pressure: 2101.3

Anticipated Bottom Hole Temperature(F): 150

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:

CDU 355H_H2S Plan_07-26-2016.pdf

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: COTTON DRAW UNIT

Well Number: 355H

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

CDU 355H_Directional Plan_p1_07-26-2016.pdf

Other proposed operations facets description:

Multi-Bowl wellhead may be used.
Closed Loop Design Plan
Production Cement Contingency

Other proposed operations facets attachment:

CDU 355H_Multi-Bowl Verbiage_3M_07-26-2016.pdf
CDU 355H_Multi-Bowl Wellhead_07-26-2016.pdf
CDU 355H_Closed Loop Design Plan_07-26-2016.pdf
CDU 355H_ProdCmtContg_11-14-2016.pdf

Other Variance attachment:

CDU 355H_H_P Co-flex hose_07-26-2016.pdf

APD ID: 10400003613

Submission Date: 07/26/2016

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: COTTON DRAW UNIT

Well Number: 355H

Well Type: OIL WELL

Well Work Type: Drill

Section 1 - Existing Roads

Will existing roads be used? YES

Existing Road Map:

CDU 355H_Existing Access Rd_7-26-16_07-26-2016.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 355H_Access Rd_CDU_18_18_P5_TO_CTB5_P_07-26-2016.PDF

New road type: COLLECTOR,RESOURCE

Length: 390

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 355H_Access Rd_CDU_18_18_P5_TO_CTB5_P_07-26-2016.PDF

Access road engineering design? NO

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: COTTON DRAW UNIT

Well Number: 355H

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 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):

CDU 355H_Access Rd_SRD_CDU_18_18_P1_CDU_18_18_CTB1_P_07-26-2016.PDF

Section 3 - Location of Existing Wells

Existing Wells Map? YES

Attach Well map:

CDU 355H_1 Mile Map_07-26-2016.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: Cotton Draw Unit 18-18 CTB 4. All flowlines will be buried. CTB submitted with CD 1 MDP.

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: COTTON DRAW UNIT

Well Number: 355H

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 355H_Wtr Xfr Map_rev_12-19-2016.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:

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:

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: COTTON DRAW UNIT

Well Number: 355H

Additional information attachment:

Section 6 - Construction Materials

Construction Materials description: Dirt Fill and Caliche will be used to construct well pad. All flowlines will be buried.

Construction Materials source location attachment:

CDU 355H_Caliche Pit_12-19-2016.pdf

CDU 355H_CALICHE_12-19-2016.pdf

Section 7 - Methods for Handling Waste

Waste type: DRILLING

Waste content description: Water based cuttings

Amount of waste: 1650 barrels

Waste disposal frequency : Daily

Safe containment description: No asterisk, not a requirement.

Safe containmant attachment:

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

Disposal type description:

Disposal location description: All cuttings will disposed of 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: No asterisk, not a requirement.

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.

Waste type: FLOWBACK

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

Amount of waste: 1500 barrels

Waste disposal frequency : Daily

Safe containment description: No asterisk, not a requirement.

Safe containmant attachment:

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: COTTON DRAW UNIT

Well Number: 355H

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 production operations. This amount is a daily average during the first year of production (BWPD).

Amount of waste: 1000 barrels

Waste disposal frequency : Daily

Safe containment description: No asterisk, not a requirement.

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

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

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: COTTON DRAW UNIT

Well Number: 355H

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 355H_Single Well Rig Location Layout_07-26-2016.pdf

Comments:

Section 10 - Plans for Surface Reclamation

Type of disturbance: NEW

Recontouring attachment:

CDU 355H_Reclamation_12-19-2016.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): 1.376

Wellpad short term disturbance (acres): 3.375

Access road long term disturbance (acres): 0.55

Access road short term disturbance (acres): 0.55

Pipeline long term disturbance (acres): 0

Pipeline short term disturbance (acres): 0

Other long term disturbance (acres): 0

Other short term disturbance (acres): 0

Total long term disturbance: 1.926

Total short term disturbance: 3.925

Reconstruction method: perator 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: Grasses and mesquite.

Existing Vegetation at the well pad attachment:

Existing Vegetation Community at the road: Grasses and mesquite.

Existing Vegetation Community at the road attachment:

Existing Vegetation Community at the pipeline: Grasses and mesquite.

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: COTTON DRAW UNIT

Well Number: 355H

Existing Vegetation Community at the pipeline attachment:

Existing Vegetation Community at other disturbances: 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
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Seed reclamation attachment:

Operator Contact/Responsible Official Contact Info

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

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: COTTON DRAW UNIT

Well Number: 355H

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: No asterisk, not required.

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:

Disturbance type: EXISTING ACCESS ROAD

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT

Other surface owner description:

BIA Local Office:

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: COTTON DRAW UNIT

Well Number: 355H

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: 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:

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: COTTON DRAW UNIT

Well Number: 355H

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: See Cotton Draw Unit 1 MDP for pipeline information.

Use a previously conducted onsite? NO

Previous Onsite information:

Other SUPO Attachment

CDU 355H_Flowline_12-19-2016.PDF

CDU 355H_CDU_18_18_CTB1_P_12-19-2016.PDF

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:

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?

Other regulatory requirements attachment:

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: