

2RF - 147

**Potato Basin
Recycling Facility and
Containment
Permit Approval with
Conditions**

**Devon Energy
Corporation
May 28, 2020**

From: [LucasKamat, Susan, EMNRD](#)
To: [Inscore, Josh](#)
Subject: Approval with Conditions, Devon Potato Basin Produced Water Recycling Facility and Containment (2RF-147), Section 2. T24S, R29E (Eddy County, NM)
Date: Thursday, May 28, 2020 2:34:00 PM

Dear Mr. Inscore:

The New Mexico Oil Conservation Division (OCD) has reviewed the recycling facility and containment permit application and related documents, submitted by Devon Energy Company (Devon) (OGRID # 6137) on March 4 and May 26, 2020, for the proposed Potato Basin Produced Water Recycling Facility and Containment in Eddy County, New Mexico.

Devon requested variances from 19.15.34 NMAC for the proposed Potato Basin Produced Water Recycling Facility and Containment related to 19.15.34.12 A (4) NMAC liner requirements, 19.15.34.13 D fencing requirements, and 19.15.34.13 E wildlife netting requirements. The following variances have been approved.

- The variance to 19.15.34.12.A (4) NMAC for the installation of a 40-mil non-reinforced LLDPE secondary liner is approved. The approved liner system will have the following cross-section: prepared compacted subgrade, 12-oz geotextile, a 40-mil non-reinforced LLDPE secondary liner, 200-mil geonet leak detection system, and 60-mil HDPE primary liner (smooth on bottom and textured on slopes). The 40-mil non-reinforced LLDPE secondary liner will be seamed to allow non-destructive pressure testing of the seams to ensure proper sealing.
- The variance to 19.15.34.13 D NMAC for the installation of a chain link fence, six (6) feet in height with a minimum of three (3) strands of barbed wire over the top of the chain link, is approved.
- The variance to 19.15.34.13 E NMAC for the installation of an audible bird deterrence system, a Bird-X Mega-Blaster, is approved.

The Form C-147 form and supporting documents submitted for registering and permitting the Potato Basin Produced Water Recycling Facility and Containment is approved with the following conditions of approval:

- Devon will construct, operate, maintain, close, and reclaim the Potato Basin Produced Water Recycling Facility and Containment 2RF-147 in compliance with 19.15.34 NMAC, including, but not limited to, the performance of weekly inspections regardless of fluid levels in the containment; recording of detailed inspection reports; removal of debris, foreign objects and oil from the containment; and monthly reporting of recycling and reuse of produced water, drilling fluids, and liquid oil field waste via Form C-148. (C-148s are available for download at the OCD website at <http://www.emnrd.state.nm.us/OCD/forms.html>.)
- The Potato Basin Produced Water Recycling Facility and Containment is approved for five (5) years of operation from the date of permit application. OCD received the permit

application on March 5, 2020. The Potato Basin Produced Water Recycling Facility and Containment permit expires on March 5, 2025. If Devon wishes to extend operations past five (5) years, an annual permit extension request must be submitted using a form C-147 via email to OCD.Enviro@state.nm.us by February 5, 2025.

- Devon will notify OCD when construction of the Potato Basin Recycling Containment (West and East) commences.
- Devon will notify OCD when recycling operations commence and cease at the Potato Basin Produced Water Recycling Facility and Containment.
- Devon provided financial assurance pursuant to 19.15.8 NMAC and 19.15.34.15 (A)(2). Water reuse and recycling from the Potato Basin Produced Water Recycling Facility and Containment is limited to wells owned or operated by Devon (OGRID #6137).
- A minimum of 3-feet freeboard must be maintained in the recycling containment at all times during operations.
- Devon provided calculations for the operational total fluid capacity of the containments in the permit application (Potato Basin 2 Recycle Facility Drawing, Capacity Tables, sheet 3 of 9). The operational fluid capacity is the total volume of the containment, minus the volume not utilized due to the freeboard. The West Pit is permitted for a total fluid capacity of 351,579 bbls. The East Pit is permitted for a total fluid capacity of 332,291 bbls.
- If less than 20% of the total fluid capacity is utilized every six months, beginning from the first withdraw, operation of the facility is considered ceased and notification of cessation of operations should be sent electronically to OCD.Enviro@state.nm.us. An extension to extend the cessation of operation, not to exceed six months, may be submitted using a C-147 form to OCD.Enviro@state.nm.us.
- Devon will comply with 19.15.29 NMAC Releases in the event of any release of produced water or produced water or other oil field wastes at Potato Basin Produced Water Recycling Facility and Containment. Devon will comply with all other OCD rules.
- Devon must perform weekly inspections of the containment and leak detection system, regardless of fluid levels in the containment.

The facility has been assigned OCD Administrative Order number 2RF-147. Please reference this permit number in all future communications, modifications, and notices related to the Potato Basin Produced Water Recycling Facility and Containment and for monthly reporting of recycling and reuse of produced water, drilling fluids, and liquid oil field waste. A copy of the approved C-147 with conditions for 2RF-147 will be uploaded to the OCD Imaging system at <http://ocdimage.emnrd.state.nm.us/imaging//AEOrderFileView.aspx?appNo=pSL2011849240> within 24 hours.

Notifications of the construction of the West and East containment and the start and cessation of operations should be emailed to the OCD Environmental Bureau (OCD.Enviro@state.nm.us) with a cc to OCD District Manager Mike Bratcher (mike.bratcher@state.nm.us).

Please keep a copy of this electronic communication for your files, as no paper copy of the

approval will be delivered. A copy of this electronic communication will be saved in 2RF-147 electronic file on OCD Imaging referenced above.

Thank you for your assistance and cooperation on this matter.

Please do not hesitate to contact me if you have further questions or concerns.

Regards,

Susan A. Lucas Kamat

Environmental Scientist

Oil Conservation Division

Energy, Minerals, and Natural Resources Department

5200 Oakland Avenue, Suite 100

Albuquerque, New Mexico 87113

(505) 670-8745

Susan.LucasKamat@state.nm.us

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources
Department
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-147
Revised April 3, 2017

Recycling Facility and/or Recycling Containment

Type of Facility: ☒ Recycling Facility ☒ Recycling Containment*
Type of action: ☒ Permit ☒ Registration
☐ Modification ☐ Extension
☐ Closure ☐ Other (explain) _____

* At the time C-147 is submitted to the division for a Recycling Containment, a copy shall be provided to the surface owner.

Be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances.

1.

Operator: Devon Energy Corporation (For multiple operators attach page with information) OGRID #: 6137
Address: 333 West Sheridan, Oklahoma City, Oklahoma 737102-8260
Facility or well name (include API# if associated with a well): Potato Basin Water Treatment Facility East Containment
OCD Permit Number: _____ (For new facilities the permit number will be assigned by the district office)
U/L or Qtr/Qtr _____ Section 2 Township 24 South Range 29 East County: Eddy
Surface Owner: ☐ Federal ☒ State ☐ Private ☐ Tribal Trust or Indian Allotment

2.

☒ **Recycling Facility:**

Location of recycling facility (if applicable): Latitude 32.245851 Longitude -103.952913 NAD83

Proposed Use: ☒ Drilling* ☒ Completion* ☒ Production* ☒ Plugging *

**The re-use of produced water may NOT be used until fresh water zones are cased and cemented*

☐ Other, *requires permit for other uses. Describe use, process, testing, volume of produced water and ensure there will be no adverse impact on groundwater or surface water.*

☒ Fluid Storage

☐ Above ground tanks ☒ Recycling containment ☐ Activity permitted under 19.15.17 NMAC explain type _____

☐ Activity permitted under 19.15.36 NMAC explain type: _____ ☐ Other explain _____

☐ For multiple or additional recycling containments, attach design and location information of each containment

☐ **Closure Report (required within 60 days of closure completion):** ☐ Recycling Facility Closure Completion Date: _____

3.

☒ **Recycling Containment:**

☐ Annual Extension after initial 5 years (attach summary of monthly leak detection inspections for previous year)

Center of Recycling Containment (if applicable): Latitude _____ 32.247295° Longitude _____ -103.951895° NAD83

☐ For multiple or additional recycling containments, attach design and location information of each containment

☒ Lined ☒ Liner type: Thickness 40 mil (secondary) 60-mil (primary) ☒ LLDPE ☒ HDPE ☐ PVC ☐ Other _____

☐ String-Reinforced

Liner Seams: ☒ Welded ☒ Factory ☒ Other Field Welds Volume: 433,206 bbl Dimensions: L 600 x W 350 x D 14

☐ Recycling Containment Closure Completion Date: _____

4.

Bonding:

- ☒ Covered under bonding pursuant to 19.15.8 NMAC per 19.15.34.15(A)(2) NMAC (These containments are limited to only the wells owned or operated by the owners of the containment.)
- ☐ Bonding in accordance with 19.15.34.15(A)(1). Amount of bond \$ _____ (work on these facilities cannot commence until bonding amounts are approved)
- ☐ Attach closure cost estimate and documentation on how the closure cost was calculated.

5.

Fencing:

- ☐ Four foot height, four strands of barbed wire evenly spaced between one and four feet
- ☒ Alternate. Please specify Chain Link Game Fence

6.

Signs:

- ☒ 12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers
- ☐ Signed in compliance with 19.15.16.8 NMAC

7.

Variances:

Justifications and/or demonstrations that the proposed variance will afford reasonable protection against contamination of fresh water, human health, and the environment.

Check the below box only if a variance is requested:

- ☒ Variance(s): Requests must be submitted to the appropriate division district for consideration of approval. If a Variance is requested, include the variance information on a separate page and attach it to the C-147 as part of the application.
- If a Variance is requested, it must be approved prior to implementation.**

8.

Siting Criteria for Recycling Containment

Instructions: The applicant must provide attachments that demonstrate compliance for each siting criteria below as part of the application. Potential examples of the siting attachment source material are provided below under each criteria.

General siting

Ground water is less than 50 feet below the bottom of the Recycling Containment.

NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells

☐ Yes ☒ No
☐ NA

Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended.

☐ Yes ☒ No
☐ NA

- Written confirmation or verification from the municipality; written approval obtained from the municipality

Within the area overlying a subsurface mine.

☐ Yes ☒ No

- Written confirmation or verification or map from the NM EMNRD-Mining and Minerals Division

Within an unstable area.

☐ Yes ☒ No

- Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; topographic map

Within a 100-year floodplain. FEMA map

☐ Yes ☒ No

Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark).

☐ Yes ☒ No

- Topographic map; visual inspection (certification) of the proposed site

Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.

☐ Yes ☒ No

- Visual inspection (certification) of the proposed site; aerial photo; satellite image

Within 500 horizontal feet of a spring or a fresh water well used for domestic or stock watering purposes, in existence at the time of initial application.

☐ Yes ☒ No

- NM Office of the State Engineer - iWATERS database search; visual inspection (certification) of the proposed site

Within 500 feet of a wetland.

☐ Yes ☒ No

- US Fish and Wildlife Wetland Identification map; topographic map; visual inspection (certification) of the proposed site

9.

Recycling Facility and/or Containment Checklist:

Instructions: Each of the following items must be attached to the application. Indicate, by a check mark in the box, that the documents are attached.

- ☒ Design Plan - based upon the appropriate requirements.
- ☒ Operating and Maintenance Plan - based upon the appropriate requirements.
- ☒ Closure Plan - based upon the appropriate requirements.
- ☒ Site Specific Groundwater Data -
- ☒ Siting Criteria Compliance Demonstrations -
- ☒ Certify that notice of the C-147 (only) has been sent to the surface owner(s)

10.

Operator Application Certification:

I hereby certify that the information and attachments submitted with this application are true, accurate and complete to the best of my knowledge and belief.

Name (Print): JOSH INSCORE Title: COMPLETIONS ENGINEER
 Signature: *Josh Inscore* Date: 3/3/2020
 e-mail address: JOSH.INSCORE@dm.com Telephone: 405-228-8385

11.

OCD Representative Signature: *Susan G. Linn Hand* Approval Date: May 28, 2020

Title: Environmental Scientist OCD Permit Number: 2RF-147

- ☐ OCD Conditions _____
☒ Additional OCD Conditions on Attachment OCD conditions per permit approval email (attached).

District I
1625 N. French Dr., Hobbs, NM 88240
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Liner Seams: ☒ Welded ☒ Factory ☒ Other Field Welds Volume: 474,456 bbl Dimensions: L 650 x W 350 x D 14
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I hereby certify that the information and attachments submitted with this application are true, accurate and complete to the best of my knowledge and belief.

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 Signature: [Signature] Date: 3/3/2020
 e-mail address: JOSH.INSCORE@dm.com Telephone: 405-228-8385

11.

OCD Representative Signature: [Signature] Approval Date: May 28, 2020

Title: Environmental Scientist OCD Permit Number: 2RF-147

- ☐ OCD Conditions _____
- ☒ Additional OCD Conditions on Attachment OCD approval with conditions. See email approval (attached.)