

TITLE 19

CHAPTER 15

PART 34

NATURAL RESOURCES AND WILDLIFE

OIL AND GAS

**PRODUCED WATER, DRILLING FLUIDS AND
LIQUID OIL FIELD WASTE (EFF: 3-31-2015)**



Scott Dawson
10/2/2016

**“Produced water” means water that is an incidental byproduct from drilling for or the production of oil and gas.
19.15.2.7 P. (10) NMAC**

OBJECTIVE: To encourage the recycling, reuse or disposition of produced water by use in a manner that will afford reasonable protection against contamination of fresh water and establish procedures by which persons may transport and dispose of produced water, drilling fluids and other liquid oil field waste.

District I
1625 N. French Dr., Hobbs, NM 88240
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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 March 31, 2015

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: _____ (For multiple operators attach page with information) OGRID #: _____
Address: _____
Facility or well name (include API# if associated with a well): _____
OCD Permit Number: _____ (For new facilities the permit number will be assigned by the district office)
U/L or Qtr/Qtr _____ Section _____ Township _____ Range _____ County: _____
Surface Owner: Federal State Private Tribal Trust or Indian Allotment

2.
 Recycling Facility:
Location of recycling facility (if applicable): Latitude _____ Longitude _____ NAD: 1927 1983
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 containment, 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 _____ Longitude _____ NAD: 1927 1983
 For multiple or additional recycling containments, attach design and location information of each containment
 Lined Liner type: Thickness _____ mil LLDPE HDPE PVC Other _____
 String-Reinforced
Liner Seams: Welded Factory Other _____ Volume: _____ bbl Dimensions: L _____ x W _____ x D _____
 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 _____

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.
Variance:

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	
<p>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</p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA</p>
<p>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.</p> <ul style="list-style-type: none"> - Written confirmation or verification from the municipality; written approval obtained from the municipality 	<p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA</p>
<p>Within the area overlying a subsurface mine.</p> <ul style="list-style-type: none"> - Written confirmation or verification or map from the NM EMNRD-Mining and Minerals Division 	<p><input type="checkbox"/> Yes <input type="checkbox"/> No</p>
<p>Within an unstable area.</p> <ul style="list-style-type: none"> - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; topographic map 	<p><input type="checkbox"/> Yes <input type="checkbox"/> No</p>
<p>Within a 100-year floodplain. FEMA map</p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No</p>
<p>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).</p> <ul style="list-style-type: none"> - Topographic map; visual inspection (certification) of the proposed site 	<p><input type="checkbox"/> Yes <input type="checkbox"/> No</p>
<p>Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.</p> <ul style="list-style-type: none"> - Visual inspection (certification) of the proposed site; aerial photo; satellite image 	<p><input type="checkbox"/> Yes <input type="checkbox"/> No</p>
<p>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.</p> <ul style="list-style-type: none"> - NM Office of the State Engineer - iWATERS database search; visual inspection (certification) of the proposed site 	<p><input type="checkbox"/> Yes <input type="checkbox"/> No</p>
<p>Within 500 feet of a wetland.</p> <ul style="list-style-type: none"> - US Fish and Wildlife Wetland Identification map; topographic map; visual inspection (certification) of the proposed site 	<p><input type="checkbox"/> Yes <input type="checkbox"/> No</p>

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): _____ Title: _____
Signature: _____ Date: _____
e-mail address: _____ Telephone: _____

11.
OCD Representative Signature: _____ Approval Date: _____
Title: _____ OCD Permit Number: _____

- OCD Conditions _____
- Additional OCD Conditions on Attachment _____

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Form C-147
Revised March 31, 2015

Recycling Facility Only

Type of action: Permit Registration Modification Closure Other (explain) _____

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.

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Operator: _____ (For multiple operators attach page with information) OGRID #: _____
Address: _____
Facility or well name (include API# if associated with a well): _____
OCD Permit Number: _____ (For new facilities the permit number will be assigned by the district office)
U/L or Qtr/Qtr _____ Section _____ Township _____ Range _____ County: _____
Surface Owner: Federal State Private Tribal Trust or Indian Allotment

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 Above ground tanks Activity permitted under 19.15.17 NMAC explain type _____
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If a Variance is requested, it must be approved prior to implementation.

4.
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): _____ Title: _____
Signature: _____ Date: _____
e-mail address: _____ Telephone: _____

5.
OCD Representative Signature: _____ Approval/Registration Date: _____
Title: _____ OCD Permit Number: _____
 OCD Conditions
 Additional OCD Conditions on Attachment

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Operator Name _____

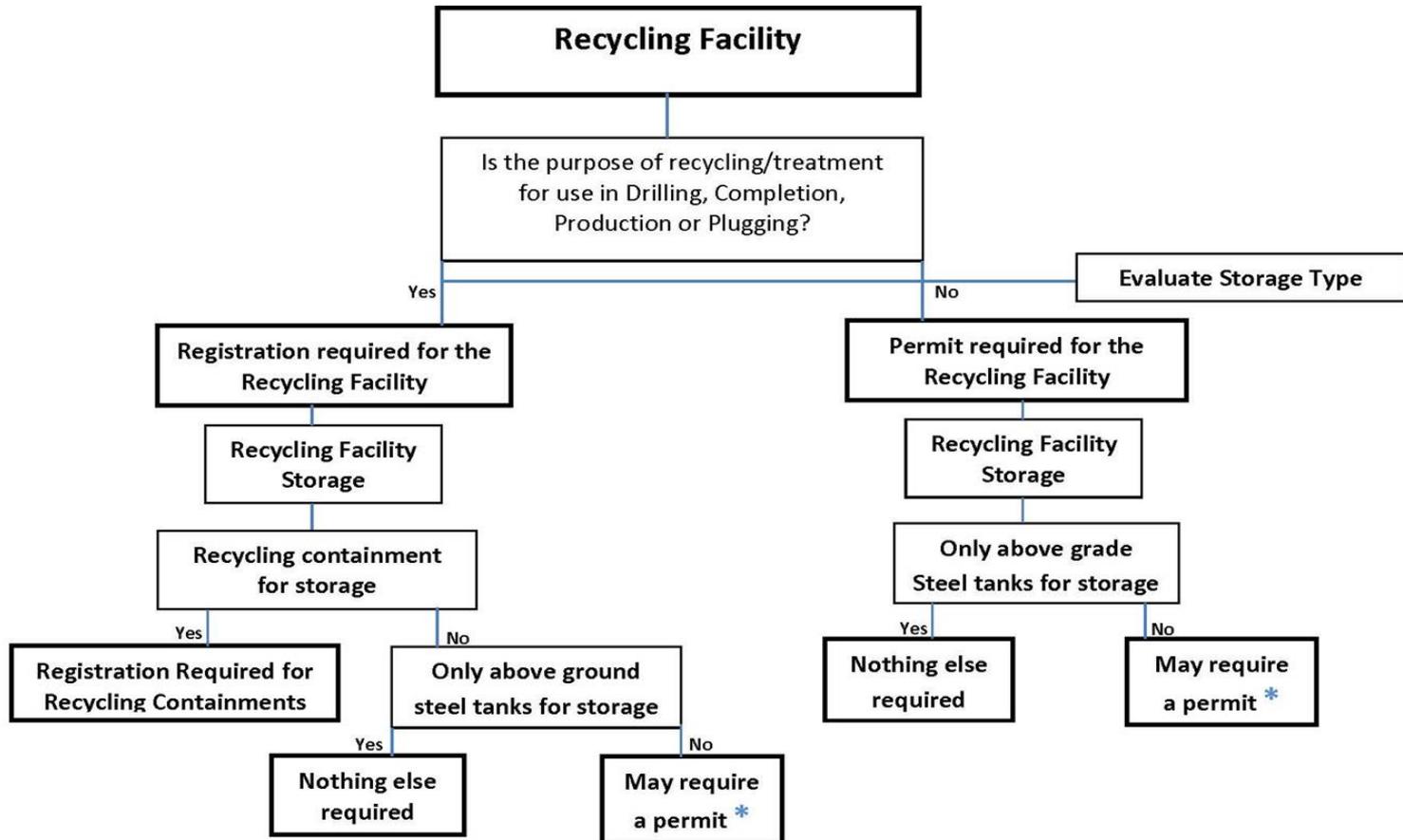
OGRID _____

I certify all recycling containments associated with our recycling facilities are using >20% of the containments' total fluid capacity every 6 months until closure in compliance with 19.15.34.13(C) NMAC.

Month/Year _____

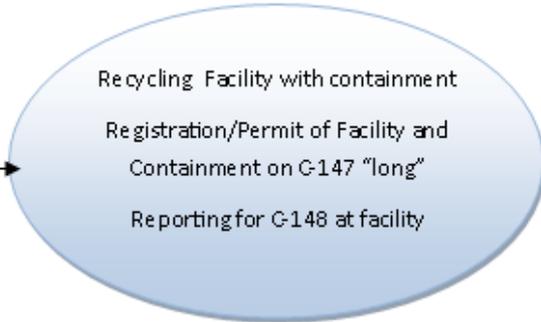
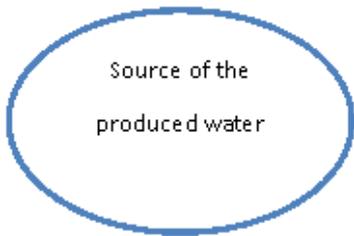
Admin. #	Produced water received*	Other fluid received*	Volume discharged for Recycling/Reuse*

*Report volumes in barrels



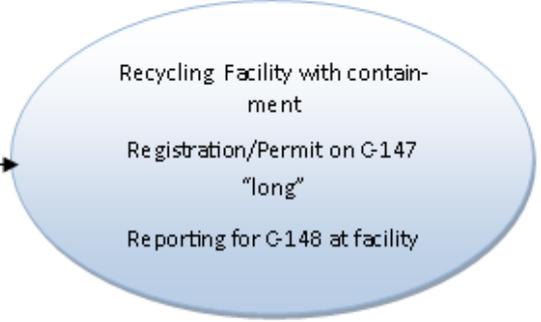
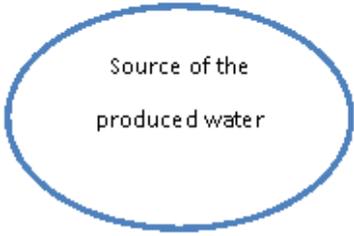
**Under other applicable rule for fluid storage (i.e. Rule 17 or Rule 36 permitting)*

#1



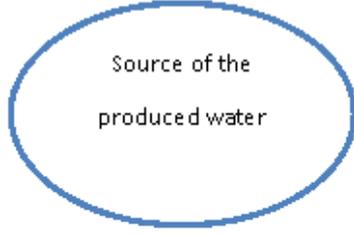
Location of recycled water use:
 Is there additional treatment?
 No? Nothing
 Yes? See #2

#2



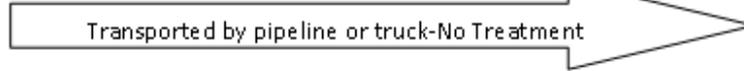
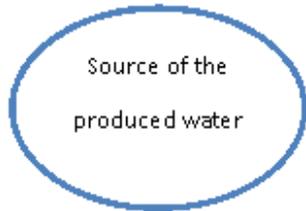
Location of recycled water REUSE
 OO Is there additional treatment?
 Yes? Then the water storage device (i.e. AST battery) is a facility and must be registered C-147 "short" and reporting on C-148

#3



Location of recycled water use
 Is there additional treatment?
 No? Nothing
 Yes? See #2

#4



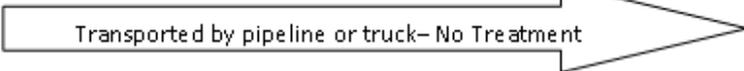
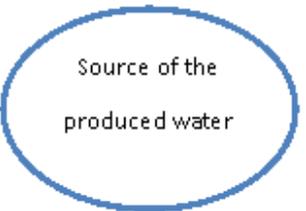
Location of recycled water use

Is there additional treatment?



Yes? Then the water storage device (i.e. AST battery) is a facility and must be registered C-147 "short" and reporting on C-148

#5



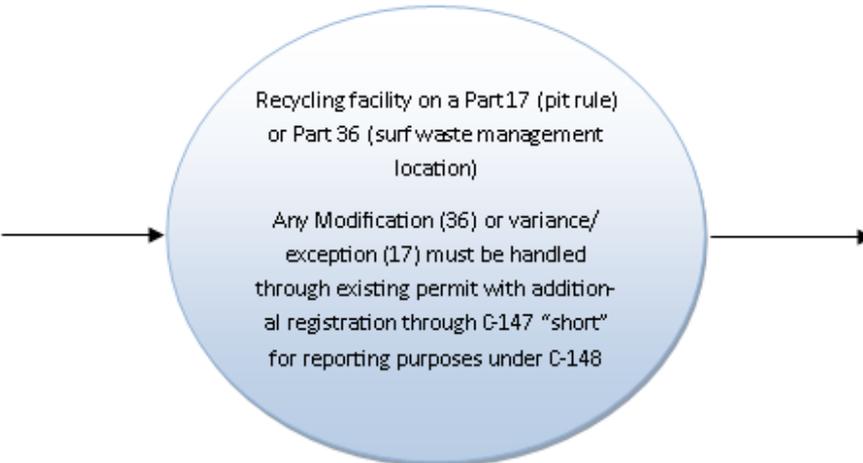
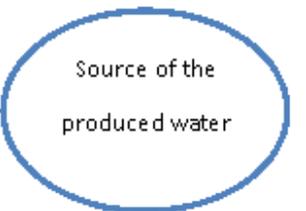
Location of recycled water use

Is there additional treatment?

No? Must still register C-147 "short" and report C-148 using either water storage device or well site as location on form

Yes? See #2

#6



Location of recycled water use:

Is there additional treatment?

No? Nothing

Yes? See #2

**If a recycling containment is used – then it must be closed
and tested as follows:**

Table I**Closure Criteria for Recycling Containments**

Depth below bottom of containment to groundwater less than 10,000 mg/l TDS	Constituent	Method*	Limit**
51 feet - 100 feet	Chloride	EPA 300.0	10,000 mg/kg
	TPH (GRO+DRO+MRO)	EPA SW-846 Method 8015M	2,500 mg/kg
	GRO+DRO	EPA SW-846 Method 8015M	1,000 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8260B	10 mg/kg
> 100 feet	Chloride	EPA 300.0	20,000 mg/kg
	TPH (GRO+DRO+MRO)	EPA SW-846 Method 8015M	2,500 mg/kg
	GRO+DRO	EPA SW-846 Method 8015M	1,000 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8260B	10 mg/kg

* Or other test methods approved by the division.

** Numerical limits or natural background level, whichever is greater.

[19.15.34.14 NMAC - N, 3/31/15]



Recycling Containment - SE New Mexico



This is a what they look like



Large Recycling Containment – SE Utah



- HOME ▾
- RESEARCH ▾
- CONFERENCES ▾
- PUBLICATIONS ▾
- INFORMATION ▾
- STATEWIDE WATER ASSESSMENT
- BORDER ISSUES

The Feasibility of Utilizing Produced Water to Improve Drinking Water Supply in Southeastern New Mexico



The New Mexico Water Resources Research Institute teamed up with communities, researchers, agencies, and industry to complete a project focused on the potential reuse of produced water. The purpose of this Project was for the NM WRI to provide public water systems and communities in Lea and Eddy counties information that could potentially improve the sustainability of water supplies by understanding the available volumes of water produced during oil and gas extraction, commonly referred to as produced water, as a source of water to offset use of freshwater. In locations such as southeastern New Mexico, water users are heavily dependent on aquifers with low to insignificant recharge rates. In these locations, expanding the use of produced water offers the possibility of reducing demand for freshwater and reducing aquifer depletion rates, thereby improving water supply sustainability and protection of potable water sources.

Quick Info



Reports



Maps



Presentations





<file:///C:/Documents/Pictures/New%20Mexico%20Water%20Resources%20Research%20Institute.html>

You can go to the OCD website at:

<http://www.emnrd.state.nm.us/ocd>

To review the entire rule.



Scott Dawson

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OCD Website:

<http://www.emnrd.state.nm.us/oed>



OCD Well Information and Operator Data:

<https://wwwapps.emnrd.state.nm.us/oed/oedpermitting/Data/Wells.aspx>