

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  
Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

received on  
3/8/18  
OCD - Artesia, NM  
District II  
Form C-141  
Revised August 8, 2011  
Submit 1 Copy to appropriate District Office in  
accordance with 19.15.29 NMAC.

### Release Notification and Corrective Action

**NAB18060827959** OPERATOR ☒ Initial Report ☐ Final Report

Name of Company: Legacy Reserves Operating, LP **240974** Contact: Brian Cunningham  
Address: 303 W. Wall Street, Suite 1300 Midland, TX 79701 Telephone No. 432-234-9450  
Facility: Coyote #1 Battery Facility Type: Battery Tank Battery

Surface Owner: State Mineral Owner: State API No. 30-015-32419

### LOCATION OF RELEASE

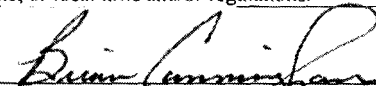
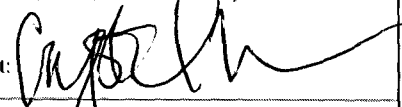
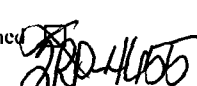
Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
F	36	17S	31E					Eddy County

**32.7920227**

Latitude ~~32.47.29.67~~ Longitude ~~103.49.35.67~~

**-103.8263016**

### NATURE OF RELEASE

Type of Release Produced Water	Volume of Release 6-7 bbl	Volume Recovered 0 bbl
Source of Release unknown	Date and Hour of Occurrence unknown	Date and Hour of Discovery unknown
Was Immediate Notice Given? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? N/A	
By Whom? N/A	Date and Hour N/A	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. N/A	
If a Watercourse was Impacted, Describe Fully.* Not applicable.		
Describe Cause of Problem and Remedial Action Taken.* Approximately 6 to 7 bbl of produced water were released and pooled in the pasture to the southwest of the battery. No bbl were recovered. An area in the pasture measuring approximately 12,500 square feet to the southwest of the Coyote #1 Battery showed distressed vegetation as well as standing salt on the surface.		
Describe Area Affected and Cleanup Action Taken.* Larson & Associates, Inc., will prepare a plan to delineate the spill for OCD approval. a detention report with remediation plan will be submitted to the OCD for approval prior to remediation of the spill. The State of New Mexico State Land Office, as land owner, will be included on the submission to the OCD.		
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCID rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCID marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCID acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.		
Signature: 	OIL CONSERVATION DIVISION	
Printed Name: Brian Cunningham	Approved by Environmental Specialist: 	
Title: Production Foreman	Approval Date:	Expiration Date:
E-mail Address: bcunningham@legacylp.com	Conditions of Approval: See attached	
Date: 12/20/17 Phone: 432-234-9450	Attached: 	

\* Attach Additional Sheets If Necessary

Please refer to the New Mexico Oil  
Conservation Division Website for  
updated form(s) at:  
[http://www.emnrd.state.nm.us/  
OCD/forms.html](http://www.emnrd.state.nm.us/OCD/forms.html)  
Thank you

Operator/Responsible Party,

The OCD has received the form C-141 you provided on **3/8/18** regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number 2RP-41255 has been assigned. **Please refer to this case number in all future correspondence.**

It is the Division's obligation under both the Oil & Gas Act and Water Quality Act to provide for the protection of public health and the environment. Our regulations (19.15.29.11 NMAC) state the following,

*The responsible person shall complete division-approved corrective action for releases that endanger public health or the environment. The responsible person shall address releases in accordance with a remediation plan submitted to and approved by the division or with an abatement plan submitted in accordance with 19.15.30 NMAC. [emphasis added]*

Release characterization is the first phase of corrective action unless the release is ongoing or is of limited volume and all impacts can be immediately addressed. Proper and cost-effective remediation typically cannot occur without adequate characterization of the impacts of any release. Furthermore, the Division has the ability to impose reasonable conditions upon the efforts it oversees. **As such, the Division is requiring a workplan for the characterization of impacts associated with this release be submitted to the OCD District II office in Artesia on or before 4/8/18. If and when the release characterization workplan is approved, there will be an associated deadline for submittal of the resultant investigation report. Modest extensions of time to these deadlines may be granted, but only with acceptable justification.**

The goals of a characterization effort are: 1) determination of the lateral and vertical extents along with the magnitude of soil contamination. 2) determine if groundwater or surface waters have been impacted. 3) If groundwater or surface waters have been impacted, what are the extents and magnitude of that impact. 4) The characterization of any other adverse impacts that may have occurred (examples: impacts on vegetation, impacts on wildlife, air quality, loss of use of property, etc.). To meet these goals as quickly as possible, the following items must, at a minimum, be addressed in the release characterization workplan and subsequent reporting:

- Horizontal delineation of soil impacts in each of the four cardinal compass directions. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C<sub>6</sub> thru C<sub>36</sub>), and for chloride by Method 300. This is not an exclusive list of potential contaminants. Analyzed parameters should be modified based on the nature of the released substance(s). Soil sampling must be both within the impacted area and beyond.
- Vertical delineation of soil impacts. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C<sub>6</sub> thru C<sub>36</sub>), and for chloride by Method 300. As above, this is not an exclusive list of potential contaminants and can be modified. Vertical characterization samples should be taken at depth intervals no greater than five feet apart. Lithologic description of encountered soils must also be provided. At least ten vertical feet of soils with contaminant concentrations at or below these values must be demonstrated as existing above the water table.
- Nominal detection limits for field and laboratory analyses must be provided.
- Composite sampling is not generally allowed.
- Field screening and assessment techniques are acceptable (headspace, titration, EC [include algorithm for validation purposes], EM, etc.), but the sampling and assay procedures must be clearly defined. Copies of field notes are highly desirable. A statistically significant set of split samples must be submitted for confirmatory laboratory analysis, including the laterally farthest and vertically deepest sets of soil samples. Make sure there are at least two soil samples submitted

for laboratory analysis from each borehole or test pit (highest observed contamination and deepest depth investigated). Copies of the actual laboratory results must be provided including chain of custody documentation.

- Probable depth to shallowest protectable groundwater and lateral distance to nearest surface water. If there is an estimate of groundwater depth, the information used to arrive at that estimate must be provided. If there is a reasonable assumption that the depth to protectable water is 50 feet or less, the responsible party should anticipate the need for at least one groundwater monitoring well to be installed in the area of likely maximum contamination.

- If groundwater contamination is encountered, an additional investigation workplan may be required to determine the extents of that contamination. Groundwater and/or surface water samples, if any, must be analyzed by a competent laboratory for volatile organic hydrocarbons (typically Method 8260 full list), total dissolved solids, pH, major anions and cations including chloride and sulfate, dissolved iron, and dissolved manganese. The investigation workplan must provide the groundwater sampling method(s) and sample handling protocols. To the fullest extent possible, aqueous analyses must be undertaken using nominal method detection limits. As with the soil analyses, copies of the actual laboratory results must be provided including chain of custody documentation.

- Accurately scaled and well-drafted site maps must be provided providing the location of borings, test pits, monitoring wells, potentially impacted areas, and significant surface features including roads and site infrastructure that might limit either the release characterization or remedial efforts. Field sketches may be included in subsequent reporting, but should not be considered stand-alone documentation of the site's layout. Digital photographic documentation of the location and fieldwork is recommended, especially if unusual circumstances are encountered.

**Nothing herein should be interpreted to preclude emergency response actions or to imply immediate remediation by removal cannot proceed as warranted. Nonetheless, characterization of impacts and confirmation of the effectiveness of remedial efforts must still be provided to the OCD before any release incident will be closed.**

**Jim Griswold**

OCD Environmental Bureau Chief

1220 South St. Francis Drive

Santa Fe, New Mexico 87505

505-476-3465

jim.griswold@state.nm.us

## Weaver, Crystal, EMNRD

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**From:** Weaver, Crystal, EMNRD  
**Sent:** Thursday, March 8, 2018 1:56 PM  
**To:** Yu, Olivia, EMNRD; Bratcher, Mike, EMNRD  
**Cc:** 'Sarah Johnson'; Mark Larson; bcunningham@legacylp.com  
**Subject:** RE: Legacy Reserves, L.P., 2RP-4490 Antelope Battery & Coyote #1 C-141

Hello all,

Thank you Olivia.

Sarah, I responded to your delineation plan for the Antelope battery (case number 2RP-4490) already prior to receiving this forwarded email from Olivia. However, I checked my records/emails for a C-141 submission for Legacy's Coyote #1 Battery and I don't have anything. I also checked further to see if maybe my email is just messing up by looking in our database to see if one was received, meaning I checked the admin entry records as well, and I don't show anything regarding a release occurring at the Coyote location was processed around Jan 2018 by our administrative folks here in our office either. I literally don't have it.

Olivia is not needing to be involved on this one if the release occurred in Eddy county and she forwarded me the attachments you sent her from your email you sent her yesterday. So now I have the Initial C-141 for Coyote #1 Battery. I will get it processed.

Thank you and sorry for the confusion,

### Crystal Weaver

Environmental Specialist  
OCD – Artesia District II  
811 S. 1<sup>st</sup> Street  
Artesia, NM 88210  
Office: 575-748-1283 ext. 101  
Cell: 575-840-5963  
Fax: 575-748-9720

**From:** Yu, Olivia, EMNRD  
**Sent:** Thursday, March 8, 2018 11:15 AM  
**To:** Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Weaver, Crystal, EMNRD <Crystal.Weaver@state.nm.us>  
**Subject:** FW: Legacy Reserves, L.P., 2RP-4490 Antelope Battery & Coyote #1 C-141

Good morning Mike & Crystal:

FYI, if you did not receive an equivalent email. I told them that I do not need to be in communication for this one.

Olivia

**From:** Sarah Johnson [<mailto:SJohnson@laenvironmental.com>]  
**Sent:** Wednesday, March 7, 2018 2:26 PM  
**To:** Yu, Olivia, EMNRD <[Olivia.Yu@state.nm.us](mailto:Olivia.Yu@state.nm.us)>  
**Cc:** Mark Larson <[Mark@laenvironmental.com](mailto:Mark@laenvironmental.com)>; [bcunningham@legacylp.com](mailto:bcunningham@legacylp.com)  
**Subject:** Legacy Reserves, L.P., 2RP-4490 Antelope Battery & Coyote #1 C-141

Dear Ms. Yu,

Larson & Associates, Inc. on behalf of the Legacy Reserves, LP. (Legacy) would like to request an update on the Coyote #1 Battery and the Antelope Battery (2RP-4490), in Eddy County, New Mexico. The initial C-141 for the Coyote #1 Battery was submitted to Crystal Weaver in District 2 on January 3, 2018 and submitted to District 1 on January 10, 2018. The delineation plan for the Antelope Battery was submitted to District 2 on December 15, 2018. Please see attached both documents for your review. Please feel free to contact me at (432) 687-0901 or (432) 664-5357 (cell) if you have any questions.

Respectfully,

Sarah Johnson  
Staff Geologist  
507 N. Marienfeld St., Suite 205  
Midland, Texas 79701  
Office – 432-687-0901  
Cell – 432-664-5357  
Fax – 432-687-0456  
[sjohnson@laenvironmental.com](mailto:sjohnson@laenvironmental.com)

