| Energy Minerals<br>Strict II<br>1 S. First St., Artesia, NM 88210<br>Strict III<br>00 Rio Brazos Road, Aztec, NM 87410<br>Strict IV<br>20 S. St. Francis Dr., Santa Fe, NM 87505<br>Santa F<br>Release Notification<br>Name of Company Devon Energy Production Company<br>Address 6488 Seven Rivers Hwy Artesia, NM 88210<br>Facility Name Spud 16 State 10H<br>Surface Owner Private<br>Mineral Owner<br>LOCATION   | ervation Div<br>th St. Franc<br>Fe, NM 875<br>on and Co<br>OPERAT<br>Contact Aar<br>Telephone N<br>Facility Typ                       | l Resources<br>vision<br>is Dr.<br>05<br><b>Drrective A</b><br>FOR<br>on Kidd<br>No. 575-748-33 | RECEIVED   | Form C-   |  |
|--|---|---|--|---|--|
| 1 S. First St., Artesia, NM 88210       Oil Conservation         Strict III       Oil Conservation         00 Rio Brazos Road, Aztec, NM 87410       1220 South         Strict IV       1220 South         20 S. St. Francis Dr., Santa Fe, NM 87505       Santa H         Release Notification         Address 6488 Seven Rivers Hwy Artesia, NM 88210         Facility Name Spud 16 State 10H         LOCCATION         Jnit Letter       Section         Township       Range       Feet from the   | ervation Div<br>th St. Franc<br>Fe, NM 875<br>On and Co<br>OPERAT<br>Contact Aar<br>Telephone N<br>Facility Typ<br>State<br>ON OF REI | vision<br>is Dr.<br>05<br>Drrective A<br>FOR<br>on Kidd<br>No. 575-748-33                       | Submit 1 Co<br>RECEIVED  | ppy to appropriate District Offic<br>accordance with 19.15.29 NM                                    |  |
| 00 Rio Brazos Road, Aztec, NM 87410       1220 Sout         120 S. St. Francis Dr., Santa Fe, NM 87505       1220 Sout         Release Notification         Address 6488 Seven Rivers Hwy Artesia, NM 88210         Facility Name Spud 16 State 10H         LOCCATION         Juit Letter         Section         Township         Range         Feet from the   | th St. Franc<br>Fe, NM 875<br>On and Co<br>OPERAT<br>Contact Aar<br>Telephone N<br>Facility Typ<br>State<br>ON OF REI                 | is Dr.<br>05<br>Drrective A<br>FOR<br>on Kidd<br>No. 575-748-33                                 | RECEIVED   | Accordance with 19.15.29 NM   |  |
| Santa Fe, NM 87505         Santa Fe, NM 87505         Release Notification         Address Notification         Mame of Company Devon Energy Production Company         Mame of Company Devon Energy Production Company         Mame of Company Devon Energy Production Company         Address 6488 Seven Rivers Hwy Artesia, NM 88210         Facility Name Spud 16 State 10H         Surface Owner Private         Mineral Owner         LOCATIO         Jnit Letter       Section       Township       Range       Feet from the       North | Fe, NM 875<br>on and Co<br>OPERAT<br>Contact Aar<br>Telephone N<br>Facility Typ<br>State<br>ON OF REI                                 | 05<br>Directive A<br>FOR<br>on Kidd<br>No. 575-748-33   | ction  |   |  |
| Name of Company Devon Energy Production Company         Address       6488 Seven Rivers Hwy Artesia, NM 88210         Facility Name Spud 16       State 10H         Surface Owner Private       Mineral Owner         Init Letter       Section       Township       Range       Feet from the       North   | OPERAT<br>Contact Aar<br>Telephone N<br>Facility Typ<br>State   | TOR<br>on Kidd<br>No. 575-748-33'   | 🛛 Ini  | itial Report 🔲 Final R  |  |
| Name of Company Devon Energy Production Company         Address 6488 Seven Rivers Hwy Artesia, NM 88210         Facility Name Spud 16 State 10H         Surface Owner Private         Mineral Owner         LOCATIO         Jnit Letter       Section         Township       Range         Feet from the       North   | Contact Aar<br>Telephone N<br>Facility Typ<br>State   | on Kidd<br>No. 575-748-33'  |  | itial Report 🔲 Final R  |  |
| Address 6488 Seven Rivers Hwy Artesia, NM 88210 Facility Name Spud 16 State 10H Surface Owner Private  LOCATIC Jnit Letter Section Township Range Feet from the Nort   | Telephone M<br>Facility Typ<br>State  | No. 575-748-33  | 71   |   |  |
| Facility Name Spud 16 State 10H Surface Owner Private  LOCATIC Unit Letter Section Township Range Feet from the Nort   | Facility Typ<br>State   |   |  |   |  |
| LOCATIC<br>Jnit Letter Section Township Range Feet from the Nort   | ON OF REI   |   |  |   |  |
| Jnit Letter Section Township Range Feet from the Nort  |   |   | API N  | No. 30-015-41148  |  |
| 1 0  | h/Couth Line  | LEASE   |  |   |  |
|  | In/South Line   | Feet from the   | East/West Line   | e County<br>Eddy  |  |
|  |   |   |  |   |  |
| Latitude_32.304161 NI  | Longitude1  | 03.983046 W_  | NAD83  |   |  |
|  | E OF RELI   | EASE  |  |   |  |
| Type of Release Produced Water   | Volume of<br>47 bbls of   | Release<br>Produced Water   |  | e Recovered<br>of Produced Water  |  |
| Source of Release Flowline   | Date and H  | lour of Occurrence  | ce Date and Hour of Discovery                                  |   |  |
| Was Immediate Notice Given?  | If YES, To  |   |  | 19, 2018 3:38 PM MST  |  |
| 🛛 Yes 🗌 No 🗌 Not Required  | d OCD-Mike<br>SLO-Tamr  | e Bratcher & Crys   | stal Weaver  |   |  |
| By Whom? Mike Shoemaker- EHS Professional<br>Was a Watercourse Reached?  |   | Date and Hour March 20, 2018 6:41 PM<br>If YES, Volume Impacting the Watercourse.               |  |   |  |
| Yes No   |   | oduced Water  | ne watercourse.  |   |  |
| A flowline transferring produced water to the Charger SWD rupt<br>released and none was recovered. From measurements that were<br>obls impacted the adjacent brine lake. The lake was inspected ar<br>Describe Cause of Problem and Remedial Action Taken.*<br>A flowline transferring produced water to the Charger SWD rupt  | e taken approx<br>nd no sheen w   | imately 30 bbls<br>as observed.   | of the release s   | soaked into the ground and  |  |
| Describe Area Affected and Cleanup Action Taken.*<br>Approximately 47 bbls of produced water was released and none<br>obls of the release soaked into the ground and 17 bbls impacted to<br>observed. An environmental contractor will be contacted to assis<br>hereby certify that the information given above is true and complete to  | the adjacent bits the with delinea  | rine lake. The l tion and remedi  | ake was inspectiation efforts.                                 | eted and no sheen was   |  |
| egulations all operators are required to report and/or file certain release<br>public health or the environment. The acceptance of a C-141 report by<br>should their operations have failed to adequately investigate and remedi<br>or the environment. In addition, NMOCD acceptance of a C-141 report<br>ederal, state, or local laws and/or regulations.  | e notifications a<br>the NMOCD m<br>iate contamination  | nd perform correct<br>arked as "Final R<br>on that pose a thr                                   | ctive actions for r<br>Report" does not r<br>reat to ground wa | releases which may endanger<br>relieve the operator of liability<br>ater, surface water, human heal |  |
|  |   | OIL CON   | SERVATIO   | N DIVISION  |  |
| Signature: Tamala Robison  |   |   | Cr.  | A () A. /   |  |
| Signature: Tamala Robison  | Annroved by   | Environmental S   | necialist  |   |  |
| Signature: <i>Tamala Robison</i><br>Printed Name: Tamala Robison   | Approved by   | Environmental S   |  | JOUL AN   |  |
| -144 (   | Approved by<br>Approval Da  | 110110  |  | an Date: NIA  |  |
| Printed Name: Tamala Robison   |   | te: 4 10 19   |  | Attached  |  |

Operator/Responsible Party,

The OCD has received the form C-141 you provided on **4/2/18** regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number <u>app-44000</u> 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 <u>division-approved corrective action</u> 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 5/2/18. 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

| From:        | Robison, Tamala <tamala.robison@dvn.com></tamala.robison@dvn.com>                          |
|--------------|--|
| Sent:        | Monday, April 2, 2018 3:49 PM  |
| То:          | Bratcher, Mike, EMNRD; Weaver, Crystal, EMNRD; Ryann Mann (rmann@slo.state.nm.us)          |
| Cc:          | Shoemaker, Mike; Fulks, Brett  |
| Subject:     | Emailing: Spud 16 State 10H_47 BBL PRODUCED WATER, Spud 16 State 10H_47 Bbls_<br>3.19.2018 |
| Attachments: | Spud 16 State 10H_47 BBL PRODUCED WATER.pdf; Spud 16 State 10H_47 Bbls_<br>3.19.2018.doc   |

Good afternoon,

Attached is the Initial C-141 and GIS image for the 47BBLS produced water release that occurred at the Spud 16 State 10H on March 19, 2018. The red dot on the GIS image represents the approximate origin of the release.

If you should have any questions please feel free to contact Mike Shoemaker.

Gratefully,



Your message is ready to be sent with the following file or link attachments:

Spud 16 State 10H\_47 BBL PRODUCED WATER Spud 16 State 10H\_47 Bbls\_3.19.2018

Note: To protect against computer viruses, e-mail programs may prevent sending or receiving certain types of file attachments. Check your e-mail security settings to determine how attachments are handled.

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## Bratcher, Mike, EMNRD

From:Shoemaker, Mike <Mike.Shoemaker@dvn.com>Sent:Tuesday, March 20, 2018 6:41 PMTo:Bratcher, Mike, EMNRD; Weaver, Crystal, EMNRD; Honea, TammyCc:Fulks, Brett; Kidd, AaronSubject:Spud 16 State 10H (API #30-015-41148)

Good Evening,

Devon had the following release occur at 3:38 PM MST on 03/19/18. The incident is described below.

- 1. Spud 16 State 10H (API #30-015-41148) a GPS coordinate for the origin of the spill follows (Lat: 32.304161 N, Long: 103.983046 W)
  - a. A flowline transferring produced water to the Charger SWD ruptured causing a release. Approximately 47 bbls of produced water was released and none was recovered. From measurements that were taken approximately 30 bbls of the release soaked into the ground and 17 bbls impacted the adjacent brine lake. The lake was inspected and no sheen was observed.

A C-141 will be prepared and submitted with GPS coordinates of the area affected.

Thanks,

Mike Shoemaker EHS Representative

## **Devon Energy Corporation**

6488 Seven Rivers Highway Artesia, New Mexico 88210 575-746-5566 Office 575-513-5035 Mobile



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