<u>District I</u> 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**

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

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

Form C-141

Revised April 3, 2017

## **Release Notification and Corrective Action**

					<b>OPERA</b>	IUK		M Initia	al Report	Final Report	
Name of C	Company D	Devon Energy	y Product	ion Co LP (6137)		ephen Richards,		Completi	ons Foreman		
						Telephone No. (575) 252-3717					
Arabian 30		om 1H – Spi		Frac Pond to r the Shire 22 Fed	Facility Typ	pe Oil well					
Surface O	wner: Fede	eral		Mineral Own	er: Federal			API No	. 30-025-431	76	
				LOCATI	ON OF RE	LEASE					
Unit Letter	Section	Township	Range		orth/South Line	Feet from the	East/V	Vest Line	County		
Н	27	25S	31E						Eddy		
			La	ntitude 32.102724 N	•		.D83				
Type of Release: Treated Produced Water					Volume of Release: 397 bbls		Volume Recovered: 0 bbls				
Source of Release: Lay Flat Transfer Line					e and Hour of Occurrence: 0/18/2017, 11:46 PM			Date and Hour of Discovery 10/18/2017, 11:46 PM			
Was Immed	liate Notice		Yes [	] No ☐ Not Requi	If YES, To	OCD:	Crystal Shelly		: Mike Bratcher		
	naker, EHS				Date and I	OCD: BLM:	10/19/1	17, 5:46 PN 17, 5:46 PN			
Was a Wate	ercourse Rea	ched?	] Yes [>	☑ No	If YES, V	olume Impacting t NA					
If a Waterco	ourse was In	npacted, Descr	ribe Fully.	* NA				<b>ECEIVE</b> Olivia Yi		, Nov 17, 2017	
During rig contract co the frac jol bbls of pro	ging up of ompany reads. During stoduced water	ssembled the tage 2 the view	a victrolice end to the ctrolic convered. T	e end connector was the hose they failed to nnection blew out of the pump was shut dow	o tighten the cl f the hose. App	amp bolts. After roximately 397	fit hose	e under ca	attle guard. Wh	nen the SI they began	
The spill aft 103.757986	fected appro W and is ap	ximately 1,21 oproximately 2	4 square for 2.15 miles	eet running North, Eas West from the Albian nediation contractor w	30-19 Fed Com	1H well pad. An	estimate	ed 397 barr	els of treated pr	oduced water	
	tify that the										
public healt should their or the envir	all operators the or the environment. In a	are required ironment. The have failed to	to report a e acceptan adequatel OCD acce	e is true and complete nd/or file certain relea ce of a C-141 report b y investigate and reme ptance of a C-141 repo	se notifications a y the NMOCD n diate contaminat	nd perform correct narked as "Final Rion that pose a thr	ctive acti deport" d reat to gr	ions for relo loes not reli round water	eases which ma ieve the operato r, surface water,	D rules and y endanger r of liability human health	
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see attached directive

pOY1732141830

nOY1732141384

1RP-4872

D-4 10/24/2017	DI (575)746 5544	
Date: 10/24/2017	Phone: (575)746-5544	

\* Attach Additional Sheets If Necessary

## Operator/Responsible Party,

The OCD has received the form C-141 you provided on \_11/16/2017\_ regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number \_1RP-4872\_\_ 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 \_1\_ office in \_\_Hobbs\_\_\_\_ on or before \_12/17/2017\_. 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