<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**

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

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

Form C-141

Final Report

Revised April 3, 2017

Release Notification and Corrective Action

OPERATOR

Name of Company: COG Operating LLC (OGRID# 229137)					Contact: Robert McNeill					
Address:	600 West	Illinois Aver	and TX 79701	Telephone No. 432-683-7443						
Facility Nan	ne: Mom		Facility Typ	Facility Type: Salt Water Disposal						
Surface Owner: State Mineral Owner:						State API No. 30-025-37517				
LOCATION OF RELEASE										
Unit Letter K	Section 36	Township 25S	Range 35E	Feet from the No.	rth/South Line South			West Line West	County Lea	
Latitude 32.0841141 Longitude -103.3223724 NAD83										
NATURE OF RELEASE										
Type of Release: Produced Water						Volume of Release: 8 bbl.			Volume Recovered: 0 bbl.	
Source of Release: Hole in flowline						Date and Hour of Occurrence: D April 8, 2018 1:40am			Date and Hour of Discovery: April 8, 2018 1:40am	
Was Immediate Notice Given? ☐ Yes ☐ No ☐ Not Required						If YES, To Whom?				
By Whom?			Date and Hour:							
Was a Watercourse Reached?						If YES, Volume Impacting the Watercourse.				
		No		1 9						
If a Watercourse was Impacted, Describe Fully.* RECEIVED By Olivia Yu at 9:45 am, Apr 17, 2018										
Describe Cause of Problem and Remedial Action Taken.*										
The release was due to a hole in the flowline that ran from the pump to the wellhead. The old piping of the discharge line will be replaced.										
Describe Are						T I S			· · · · · · · ·	
possible impa	act from the	release and w	e will pre	sent a remediation wor	k plan to the N	MOCD for approv	al prior	to any signi	ea sampled to delineate any ficant remediation activities.	
regulations al public health should their o	I operators or the envir operations h nment. In a	are required to conment. The ave failed to a ddition, NMO	o report an acceptance adequately OCD accep	d/or file certain release e of a C-141 report by investigate and remed	e notifications a the NMOCD m iate contaminati	nd perform correct arked as "Final R on that pose a thr	ctive act eport" o eat to gr	ions for releated to the second to the secon	nant to NMOCD rules and ases which may endanger eve the operator of liability surface water, human health impliance with any other	
					OIL CONSERVATION DIVISION					
Signature: Deann Organt										
Printed Name: DeAnn Grant					Approved by	Approved by Environmental Specialist:				
Title:		HSE Admir	istrative A	assistant	Approval Da	te: 4/17/201	8	Expiration I	Date:	
E-mail Addre	ess:	agrant@cor	ncho.com		Conditions o	Conditions of Approval: Attached				
Date: April 1	1, 2018		P	one: 432-253-4513 see attached directive						

* Attach Additional Sheets If Necessary

1RP-5020

nOY1810735319

pOY1810735542

Operator/Responsible Party,

The OCD has received the form C-141 you provided on _4/11/2018_ regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number _1RP-5020__ 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 _5/11/2018_. 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; C₆ thru C₃₆), 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; C₆ thru C₃₆), 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