District 1
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 NMore DIST TE
Energy Minerals and Natural Resources

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Form C-141 Revised April 3, 2017

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

Release Notification and Corrective Action

NABIE	31225	58307				OPERA'	IOR	×	Initial	Report	Final Repor	
Name of Co		Oxy Permia	n Ltd.	14696			Vade Dittrich					
Address 1017 S. Stanolind, Hobbs NM 88240						Telephone No. 575-397-8214						
Facility Name Sand Dunes South Corridor CTB						Facility Typ	e SWD					
Surface Owner BLM Mineral Owner						API No. 30-015-24627						
				LOCA	TION	OF RE	LEASE	3	0-015	-276	27	
Unit Letter	Section	Township	Range	Feet from the		South Line	Feet from the	East/We			County	
F	11	248	31E								EDDY	
		a. 713	A-77-A-A			ngitude1	03.75060 NAD	83	505	11 FED	d)	
Type of Rele	ase Prod	uced Water	budu		Volume of Release 20 bbls Volume Recovered 20 bbls lined fac							
Source of Re			nigh level failure		Date and Hour of Occurrence Date and Hour of Disco				overy			
Was Immediate Notice Given?						If YES, To Whom?						
	☐ Yes ☐ No ☐ Not Required						MIKE BRATCHER-NMOCD, Shelly Tucker BLM					
By Whom?	By Whom? Wade Dittrich						Date and Hour 3-24-2018 * 3 27 2018 (2) 10:03 am					
Was a Watercourse Reached? ☐ Yes ☑ No						If YES, Volume Impacting the Watercourse. (e-mail) AB						
If a Watercou												
Train Weath	ering oil tar ea Affected	and Cleanup	failure cau	sed 20 bbls of pro			on location. Repa					
regulations a public health should their or the enviro	all operators or the env operations onment. In	s are required ironment. The	to report a e acceptan adequatel OCD acce	nd/or file certain ice of a C-141 rep v investigate and	release non by the remediate	totifications : te NMOCD r te contamina	y knowledge and on the perform corresponding to the perform corresponding to the performance of the performa	etive actio Report" do reat to gro responsib	ns for rele es not reli- und water ility for co	eases which the eventhe operation of the	nay endanger ator of liability er, human health ith any other	
1,115						OIL CONSERVATION DIVISION					N	
Signature: Made Sull						Approved by Environmental Specialist Alla Brance						
Printed Name: WADE DITTRICH												
Title: ENVIRONMENTAL COORDINATOR						Approval Date: 51118 Expiration Date: NIA						
E-mail Address: Wade Dittrich@oxy.com						Conditions of Approval: See) DHACHEO			d	Attached	222477	
	1/18		Phone:	575-390-2828 (m)		yer wi	nulle	1	1	4 1 1 1 1 2	
Attach Add	itional She	cets If Neces	ssary									

Operator/Responsible Party,

The OCD has received the form C-141 you provided on $\frac{4/4/2018}{2RP-4727}$ regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number $\frac{2RP-4727}{2RP-4727}$ 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 2 office in ARTESIA on or before 5/4/2018. 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
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Santa Fe, New Mexico 87505
505-476-3465
jim.griswold@state.nm.us