State of New Mexico 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.

		,		58	inta Fe	, NM 875	05						
Release Notification and Corrective Action													
						OPERA	ΓOR	Subs X Initi	equent al Report	П	Final Report		
Name of Company Benson-Montin-Greer Drilling Corp.							ach Stredling						
							Telephone No. 505-325-8874						
Facility Name Homestead Ranch A #2						Facility Type Producing Well							
Surface Owner Private Mineral Owner							Private API No. 30-039-23586						
LOCATION OF RELEASE													
Unit Letter	Section	Township	Range	Feet from the	T	South Line	Feet from the	East/West Line	County				
N	34	25N	02W	990'		outh	1850'	West	Rio Arriba, NM				
Latitude <u>N36.349903</u> Longitude <u>W107.040127</u> NAD83													
NATURE OF RELEASE													
Type of Release Condensate							Volume of Release Unknown Volume Recovered None						
		er drilling reserv	e pit			Date and Hour of Occurrence Unknow Pate and Hour of Discovery Nov 8, 2017							
Was Immedia	ate Notice (Ves 🗆	No 🗴 Not R	equired	If YES, To	Whom?						
By Whom?					equired	Date and Hour							
Was a Water	course Read	hed?				If YES, Volume Impacting the Watercourse.							
			Yes 🗴] No				OIL CONS	niv DIS	T. 3			
If a Watercou	urse was Im	pacted, Descr	ibe Fully.	*		I		OIL COMP					
								DEC	26 2017				
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		em and Reme				nataly 4 fact ha		Other debris cless fa	ad included a	-	mah wooda aad		
vegetation, tim	On November 8th, 2017, BMG discovered evidence of historic contamination approximately 4 feet below ground surface. Other debris also found included surface trash, weeds and vegetation, timers, and a crushed/cut drum containing soils saturated with product and paraffin. BMG continued to excavate to a depth of approximately 17 feet before deciding to												
evaluate other	remediation of	options.											
Describe Are													
Describe Area Affected and Cleanup Action Taken.* Previously drilled soil borings indicate contaminated soil down to 42 feet. BMG plans to remediate the remainder of the contaminated soil by means of soil shredding. BMG is													
currently scheduling removal of a power pole and other production equipment on location and engineering the excavation as is required for a depth greater than 20 feet.													
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and													
regulations a	II operators	are required t	o report a	nd/or file certain i	release no	otifications a	nd perform correct	tive actions for rel	eases which	may e	ndanger		
public health or the environment. The acceptance of a C-141 report by the NMOCD 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, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other													
federal, state,	, or local la	as and or regu	ulations.		<u> </u>	·····			DIVICIO	<u></u>			
						OIL CONSERVATION DIVISION							
Signature:								$1 \setminus c$)			
Printed Name		dlina				Approved by	Environmental S	pecial st:	\sim	\sim	<u> </u>		
Trincervani		unig									J		
Title: Vice President A							Approval Date: 220207 Expiration Date:						
E-mail Addre	ess: zstradlir	ng@bmgdrilling.	com			Conditions of Approval:				_			
		<u></u>						Attache					
Date: 12/20/ * Attach Addi		ets If Necess		: 505-325-8874		- 1		•					
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Benson-Montin-Greer Drilling Corp. Remediation Plan

To:	Vanessa Fields, Cory Smith (NMOCD)				
From:	Zach Stradling (BMG)				
Date:	12/20/2017				
Re:	Homestead Ranch A #2 - Ex-situ Soil Remediation – Soil Shredding N-34, T25N, R02W; API #30-039-23586				

OIL CONS. DIV DIST. 3 DEC 26 2017

Dear Mrs. Fields and Mr. Smith,

The Homestead Ranch A #2 site is an active natural gas production well location within the San Juan Basin Gas Field in Rio Arriba County, New Mexico. The site is located on land managed by a private landowner.

Background

Historical impacts were identified at the location on November 8, 2017 during excavation. The impacts are likely the result of earthen pits formerly used on the location. No historical documentation is available regarding this pit. Initial site investigation determined additional delineation was required to define the extents of impacts. Delineation of the site has been attempted but not fully completed. The well site is operated by Benson-Montin-Greer Drilling Corp.

Site Ranking

Following the NMOCD site ranking criteria, the site closure standard is 1,000 ppm TPH, 50 ppm BTEX and 10 ppm benzene:

- Depth to groundwater >100' (0 points)
- Nearest surface water source <1,000' (10 points)
- Distance to nearest water wells >1,000' (0 points)

Proposed Remediation – Soil Shredding

Soil shredding involves the excavation of the impacted soil which is then placed in processing equipment, such as a hammer mill or pug mill, to mechanically process and break-up the soil. The soil becomes more uniform and is aerated during the mechanical processing. The soil is then ejected from the processing equipment and a chemical oxidizer is applied, in this case, a 35% solution of hydrogen peroxide and water. The applied concentration of hydrogen peroxide typically ranges from 3-8%. The hydrogen peroxide quickly oxidizes the hydrocarbon impacts (reagents), resulting in soil, water and carbon dioxide (products). Once the soil is processed, it is stockpiled and allowed to sit for approximately 2-5 days of residence time. A composite soil sample is collected from each segregated stockpile and submitted for laboratory analysis to determine the effectiveness of the ex-situ remediation process. If the laboratory results are of acceptable levels, the soil will be used as backfill to the excavation; if results are unsatisfactory, the soil is passed through the process once more and a subsequent laboratory sample will be collected for laboratory confirmation as described before.

Typically, 24 hours of notice is provided to the regulatory agencies for the opportunity to observe and witness the stockpile sampling.

BMG proposes to perform the remediation of hydrocarbon impacts by the means of soil shredding. A conservative estimate of approximately 750 cubic yards of soil will be treated through the soil shredding process. BMG proposes to treat the impacted soil and segregate windrow stockpiles broken into 100 cubic yard increments. A single, five point composite, soil sample will be collected to represent each 100 cubic yard stockpile. Once a baseline of approximately 1,000 cubic yards of soil is consistently and successfully treated, BMG will propose to decrease the sampling frequency to 500 cubic yard stockpile segments. The 500 cubic yard sampling modification will be discussed with the NMOCD for approval and input prior to implementation. BMG would expect to have a sampling modification approval from the agencies within 48 working hours from the time of request. The remediation will then continue until complete and sampling will be based on the regulatory agencies approved sampling plan.

Excavation sampling will be in accordance with a typical dig and haul. The sidewalls and base of the excavation will be sampled in a frequency based on the size and progress of the excavation. Agency notification of excavation sampling will also be issued in advanced, 24-48 hours if possible.

It is understood, that if soil remediation is not successful via the soil shredding, an alternative method such as a dig and haul or soil vapor extraction will be necessary. BMG will be in close communications with the agencies in the event an alternative remediation method is required.

Site Closure and Reporting

Once the soil shredding process is complete, the excavated area will be fully backfilled and compacted, and surface equipment will be re-set. Any necessary interim reclamation will be performed. Final reclamation of the well pad will occur at a later date, once the natural gas production well is plugged and abandoned.

A final remediation report will be delivered to NMOCD for approval of final site closure regarding the excavation and soil shredding activities within 60 days of the end of remediation.