



Stantec Consulting Services Inc. 11311 Aurora Avenue Des Moines, Iowa 50322 Phone: (515) 253-0830 Fax: (515) 253-9592

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VIA ELECTRONIC SUBMITTAL

August 19, 2021

Cory Smith, District III New Mexico Oil Conservation Division Energy, Minerals and Natural Resources Department 1000 Rio Brazos Road Aztec, NM 87410

RE: Work Plan for Light Non-Aqueous Phase Liquid Recovery Activities Fogelson #4-1 New Mexico Oil Conservation Division Incident Number nAUTOfAB000192

Mr. Smith:

On behalf of El Paso CGP Company, LLC (EPCGP), Stantec Consulting Services Inc. (Stantec) is submitting this Work Plan for enhanced light non-aqueous phase liquid (LNAPL) recovery activities utilizing mobile dual phase extraction (MDPE) methods at the above-referenced site (Site). MDPE activities are to be conducted from monitoring well MW-5, where measurable product (up to 0.2 feet) is present. Since monitoring well MW-5 was installed in 2019, approximately 1 gallon of LNAPL have been manually recovered from this well. A one-day MDPE event is proposed to be completed in the third calendar quarter of 2021 to enhance LNAPL recovery from MW-5. A site plan is attached for reference.

Stantec will retain the services of AcuVac Remediation (Acuvac) to mobilize and provide equipment and personnel to perform the MDPE activities. MDPE is a process combining soil vapor extraction (SVE) with groundwater depression to maximize mass removal of LNAPL as both liquid and vapor phase hydrocarbons. Acuvac uses a submersible pump to simultaneously remove dissolved-phase contaminated groundwater, induce a hydraulic gradient toward the extraction well, and to create the groundwater depression, exposing the capillary fringe or smear zone to SVE. Recovered liquids will be transferred to a portable storage tank to be provided by Sierra Oilfield Services (Sierra), under contract with Stantec. Recovered vapors will be used as fuel and burned in the MDPE internal combustion engine (ICE), resulting in near complete combustion of the recovered vapors. The power generated by the ICE is used to create the induced vacuum for SVE.

MDPE activities will be completed from monitoring well MW-5 in one day. Stantec will also mobilize field staff to oversee daily Site activities, complete health and safety monitoring, and assist with data collection. During the MDPE event, groundwater, and liquid and vapor hydrocarbon recovery rates will be measured, and groundwater depression and radius of influence will be estimated. Acuvac will provide staff to oversee MDPE efforts, including adjusting equipment to optimize hydrocarbon recovery rates and monitor liquid recovery.

Design with community in mind



Reference: Work Plan for Light Non-Aqueous Phase Liquid Recovery Activities

Vapor and/or air monitoring for total volatile organic compounds, oxygen, carbon dioxide, and hydrogen sulfide will be performed to evaluate the effectiveness of the MDPE event and for the health and safety of field staff. To evaluate mass removal rates, a vapor sample will be collected during the MDPE event at the extraction wellhead via Summa canister. A second vapor sample will be collected from the MDPE system stack to evaluate the combustion efficiency of the ICE. The vapor samples will be submitted to Eurofins-TestAmerica Laboratories, Inc., for analysis of benzene, toluene, ethylbenzene, and xylenes (BTEX) using Method TO-3, and Total Petroleum Hydrocarbons (TPH) using Method TO-15.

Recovered liquids will be containerized in a portable tank, which will be removed from the Site following completion of the event. The water will be transported to Basin Disposal for treatment and disposal.

The data, results, and conclusions of the MDPE event will be summarized as an attachment to be included with the annual groundwater monitoring report for the Site. The attachment will include a narrative of the activities completed, a tabulated summary of the data collected, estimated hydrocarbon recovery rates and totals, laboratory analytical reports, waste disposal documentation, and other pertinent information.

The field activities are scheduled to occur on August 27, 2021. Please feel free to contact Joseph Wiley, Project Manager for EPCGP, at (713) 420-3475, or me if you have any questions or require additional information.

Sincerely,

Stantec Consulting Services Inc.

Stephen Varsa, P.G. Senior Hydrogeologist Phone: (515) 251-1020 steve.varsa@stantec.com

cc: Joseph Wiley, EPCGP Laverne Jaquez, BLM (Grant NMNM133839)

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LEGEND: <u>5795</u> APPROX. GROUND SURFACE

	Stantec	Figure No.: 1	
PROJECT:	FOGELSON SAN JUAN RIVE N JUAN COUNTY, I	R BASIN NEW MEXICO	
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	UNDERGROUND	CABLE	
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	FORMER PIT OR E	EXCAVATION	
<u> </u>	CONTOUR AND E	LEVATION, FEET	

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State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division 1220 S. St Francis Dr. Santa Fe, NM 87505

CONDITIONS

Action 43466

CONDITIONS			
Operator:	OGRID:		
El Paso Natural Gas Company, L.L.C	7046		
1001 Louisiana Street	Action Number:		
Houston, TX 77002	43466		
	Action Type:		
	[UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)		

CONDITIONS

Created By	Condition	Condition Date
nvelez	Accepted for the record. See app ID 146946 for most updated status.	11/22/2022