APPROVED
By Nelson Velez at 4:12 pm, Dec 29, 2021

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

Review of Work Plan for Light Non-Aqueous Phase Liquid (LNAPL) Activities: Content satisfactory

1. Continue as stated within the submitted LNAPL work plan.
a. Complete a 10-hour MDPE event on MW-1, and a 10-hour MDPE event on MW-8
b. Perform vapor and/or air monitoring for total volatile organic compounds, oxygen, carbon dioxide, and hydrogen sulfide
c. Collect vapor sample during each MDPE event at the extraction wellhead to be analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX) using Method TO-3, and Total Petroleum Hydrocarbons (TPH) using Method TO-15
d. Collect a second vapor sample from the MDPE system stack to be analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX) using Method TO-3, and Total Petroleum Hydrocarbons (TPH) using Method TO-15
e. Data, results, and conclusions of the MDPE event to be summarized as an attachment and included with the annual groundwater monitoring report

VIA ELECTRONIC SUBMITTAL

August 23, 2021

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

RE: Work Plan for Light Non-Aqueous Phase Liquid Recovery Activities
James F. Bell #1E
New Mexico Oil Conservation Division Incident Number nAUTOfAB000291

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 wells MW-1 and MW-8, where measurable product (over 1 foot in each well) is present. Two days of MDPE activities are proposed to be completed in the third calendar quarter of 2021 to enhance LNAPL recovery from MW-1 and MW-8. Manual recovery will be completed from other monitoring wells where intermittent LNAPL has been present. 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 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.

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

Acuvac will mobilize one mobile system to complete a 10-hour MDPE event on MW-1, and a 10-hour MDPE event on MW-8. Stantec will provide field staff to oversee site activities, complete health and safety monitoring, and assist with data collection. During the MDPE events, groundwater, 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.

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, one vapor sample will be collected during each MDPE event at the extraction wellhead via Summa canister. A second vapor sample will be collected from the MDPE system stack during each event 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.

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

The field activities are to occur on August 28 and 29, 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 NMNM133842)

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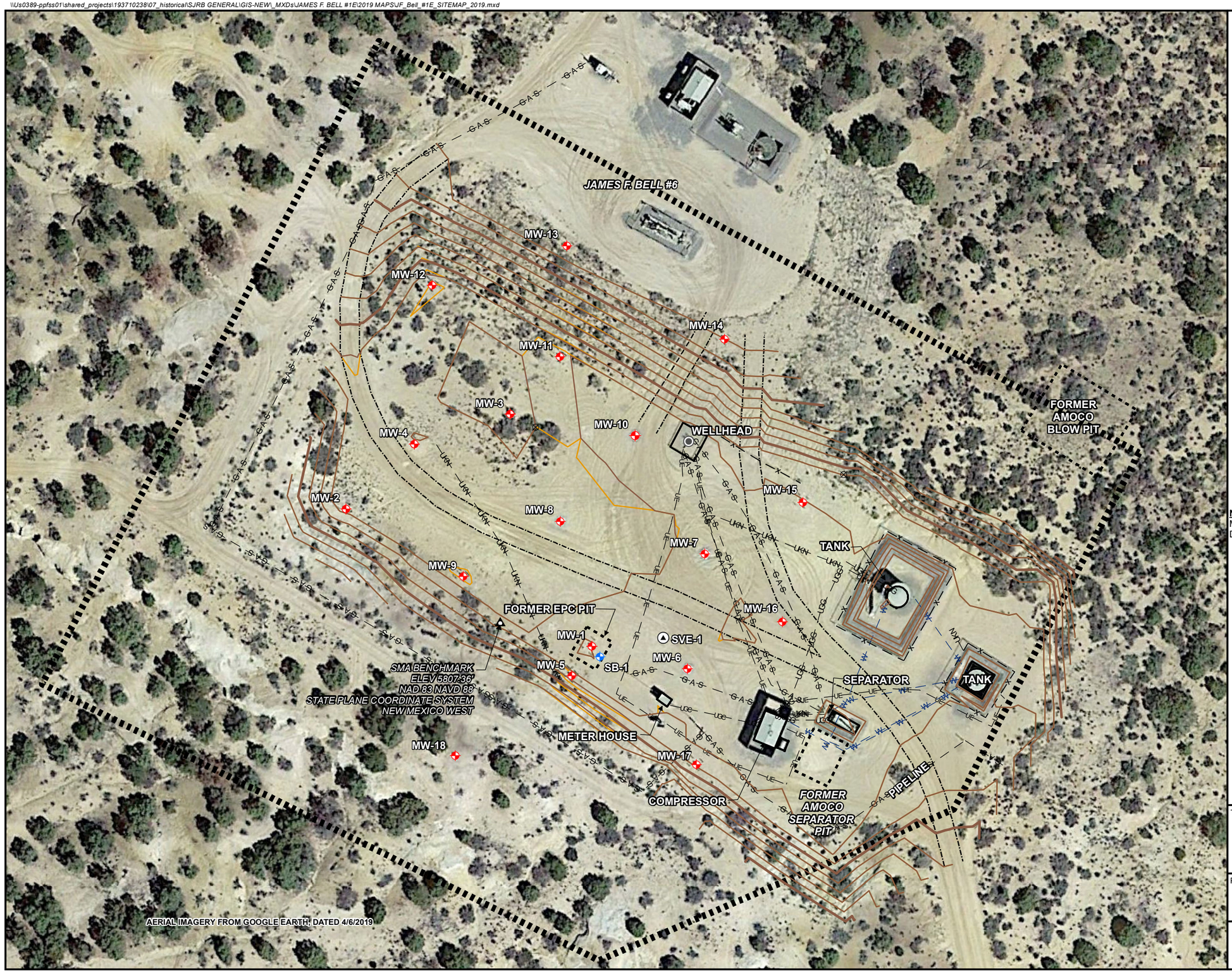

LEGEND:

- 5805 — APPROXIMATE GROUND SURFACE CONTOUR AND ELEVATION, FEET SURVEY COMPLETED JULY 2013.
- 5805 — APPROXIMATE GROUND SURFACE CONTOUR AND ELEVATION, FEET SURVEY COMPLETED NOVEMBER 2017.
- ACCESS ROAD
- FENCE
- NATURAL GAS LINE
- PRODUCED WATER LINE
- UNDERGROUND CABLE
- UNKNOWN BURIED LINE
- MONITORING WELL
- SOIL BORING
- SOIL VAPOR EXTRACTION WELL
- WELLHEAD
- RIG ANCHOR
- SMA BENCHMARK
- RIGHT OF WAY BOUNDARY

NOTES:
MW-4 WAS A SOIL BORING ONLY (NO WELL CONSTRUCTED).
DUP = FIELD DUPLICATE SAMPLE

N

SCALE IN FEET
0 50 100

REVISION	DATE	DESIGN BY	DRAWN BY	REVIEWED BY
	2/23/2021	SLG	SLG	SRV

TITLE:

SITE PLAN

PROJECT:

JAMES F. BELL #1E
SAN JUAN RIVER BASIN
SAN JUAN COUNTY, NEW MEXICO

Stantec

Figure No.: 1

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 43919

CONDITIONS

Operator: El Paso Natural Gas Company, L.L.C 1001 Louisiana Street Houston, TX 77002	OGRID: 7046
	Action Number: 43919
	Action Type: [UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)

CONDITIONS

Created By	Condition	Condition Date
nvelez	Review of Work Plan for Light Non-Aqueous Phase Liquid (LNAPL) Activities: Content satisfactory 1. Continue as stated within the submitted LNAPL work plan. a. Complete a 10-hour MDPE event on MW-1, and a 10-hour MDPE event on MW-8 b. Perform vapor and/or air monitoring for total volatile organic compounds, oxygen, carbon dioxide, and hydrogen sulfide c. Collect vapor sample during each MDPE event at the extraction wellhead to be analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX) using Method TO-3, and Total Petroleum Hydrocarbons (TPH) using Method TO-15 d. Collect a second vapor sample from the MDPE system stack to be analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX) using Method TO-3, and Total Petroleum Hydrocarbons (TPH) using Method TO-15 e. Data, results, and conclusions of the MDPE event to be summarized as an attachment and included with the annual groundwater monitoring report	12/29/2021