



December 22, 2021

Mr. Stanley Radon, CPG  
New York State Dept. of Environmental Conservation  
Division of Solid and Hazardous Materials, Region 9  
270 Michigan Avenue  
Buffalo, New York 14203-2999

Re: Supplemental Work Plan for Operable Unit No. 4 (OU-4)  
Tecumseh Redevelopment Site #915009 – Lackawanna, NY

Dear Mr. Radon:

On behalf of Tecumseh Redevelopment, Inc., TurnKey Environmental Restoration, LLC (TurnKey) in association with Benchmark Environmental Engineering & Science, PLLC (Benchmark) has prepared this Supplemental Work Plan to investigate groundwater conditions north of OU4PZ-6 at the former Coke Plant By-Products Sub-Area of the Lackawanna, New York site. The additional requests included with the October 25, 2021 request for a supplemental work plan are addressed in the attached transmittal letter. Background and details related to the Work Plan scope are presented below.

## BACKGROUND

Tecumseh and the New York State Department of Environmental Conservation (NYSDEC) executed an Order on Consent (File No. 16-55) on September 19, 2017 to implement the final groundwater remedy for OU-4 consistent with the March 31, 2017 Statement of Basis issued by the NYSDEC as well as the August 2016 Benchmark/TurnKey Engineering Report entitled "Evaluation of Groundwater Corrective Measures- Operable Unit 4". The final groundwater OU-4 remedy consists of two independent groundwater collection, conveyance and treatment systems. The south system initially consisted of groundwater collection wells and treatment units including an oil/water separator, bag filtration, chemical feed, low-profile air stripper, flow meter with totalizer and PLC monitoring and control system. The north system consists of groundwater collection wells and treatment units including bag filtration, chemical feed, low-profile air stripper, granular activated carbon filtration, flow meter with totalizer and PLC monitoring and control system. The treatment units are housed in a single new building. The combined treated effluent flows to an infiltration gallery to recharge groundwater.

The construction of OU-4 groundwater remediation facilities was substantially completed and began operation on March 13, 2019. As required in the (April 2020) Operation, Maintenance and Monitoring (OM&M) Plan, the *2020 Annual Summary Report for OU-4 and Benzol Yard Area Source Control ICM* was initially submitted to NYSDEC on June 8, 2020 documenting remedial systems performance during the first year of operation. There were several rounds of comments and revisions culminating the Revised 2020 Annual Report (October 2020) that was approved by the NYSDEC on November 2, 2020. The NYSDEC final approval letter called for a *Supplemental Work Plan* which was submitted to the NYSDEC on November 4, 2020 and approved by the NYSDEC on November 5, 2020. A Summary Report for the Supplemental Work Plan was submitted to the

NYSDEC on February 5, 2021 and approved by the NYSDEC on March 17, 2021 that recommended the installation of five new recovery wells, installation of two wells that could become recovery wells, and modifying the south treatment system so it goes through the existing granular activated carbon (GAC) filters before discharge to the infiltration gallery. In July 2021 work began on the south treatment system modifications with well installation starting in August 2021. The groundwater results from the two wells installed adjacent to OU4PZ-6 were submitted to the NYSDEC in a September email that suggested these two wells also become recovery wells that pump to the treatment system. Based on the groundwater results from the newly installed wells the NYSDEC requested an additional supplemental work plan in an October 25, 2021 letter. Work continues, connecting the last two recovery wells to the treatment system.

#### WORK PLAN SCOPE

We propose to install two to three additional wells north of OU4PZ-6 to further investigate the northern extent of the elevated contaminants (including benzene, toluene, ethylbenzene, xylene, naphthalene, and phenolic compounds). Two wells are planned on being installed in the locations shown on Figure 1 with the third well (furthest from OU4PZ-6) only being installed if any of the two wells show signs of impacts (elevated PID readings, visible sheen, or observed product) during construction or following initial sampling and analyses. These new monitoring wells will be constructed like recovery wells but will not be fitted with pumps and controls nor connected to the existing groundwater collection at this time. The groundwater from these wells will be sampled for CP-51 list VOCs (including naphthalene), phenolic compounds, as well as the list of 21 PFAS compounds. The groundwater results will be summarized in a report with recommendations for addition actions including weather to connect any of these wells to the treatment system.

#### SCHEDULE

We intend on completing the above scope of work including submittal of the summary report within 120 days of the NYSDEC's approval of this Supplemental Work Plan. If significant delays are encountered, we will notify the NYSDEC and modify this schedule.

Please contact us if you have any questions or require additional information.

Sincerely,  
TurnKey Environmental Restoration, LLC



Brock Greene  
Project Environmental Scientist

EC	K. Nagel	C. Staniszewski	M. Cruden
	S. Moeller	A. Zwack	M. Brady, Esq.
	K. Draves, Esq.	P. Werthman	L. Riker
	B. Hann	T. Touri, Esq.	

LEGEND:

EXISTING STRUCTURE

OU-4 BOUNDARY

SWMU BOUNDARY ONLY P-11 AND P-11A SHOWN

RWS-2

GROUNDWATER RECOVERY WELL

MWN-73A

GROUNDWATER MONITORING WELL

RWN-20

FEB. 2019

9,660

10,000

WELL NUMBER

GROUNDWATER COLLECTION DATE

NAPHTHALENE CONCENTRATION

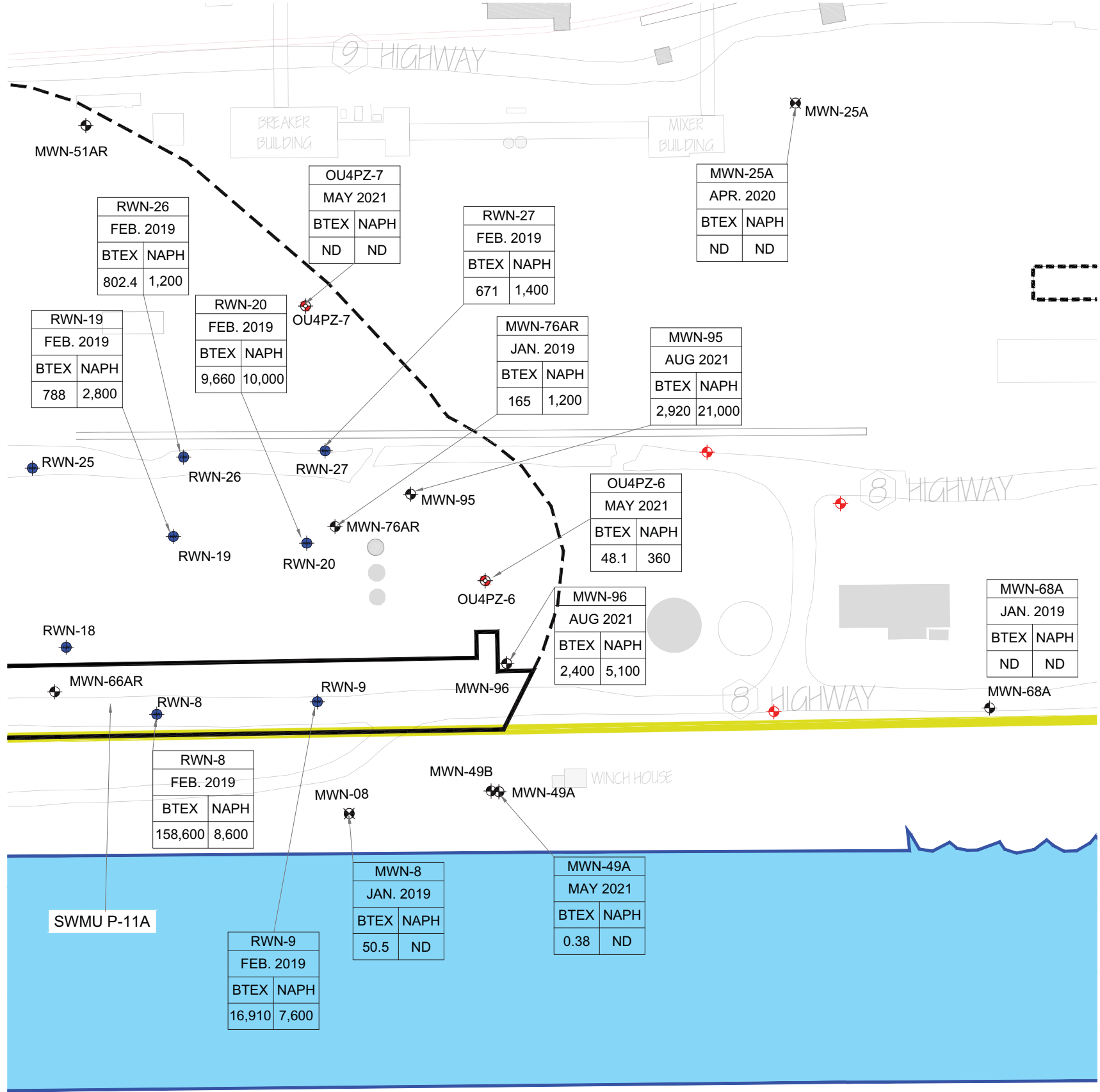
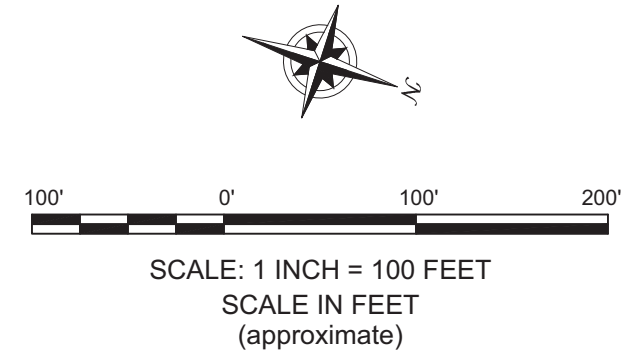
BTEX CONCENTRATION

OU4PZ-1

CMS - OU-4 PIEZOMETER

PROPOSED NEW WELLS

NOTES:  
1. CONCENTRATIONS IN PARTS PER BILLION (MICROGRAMS PER LITER).  
2. BTEX=SUM OF BENZENE, TOLUENE, ETHYLBENZENE AND TOTAL XYLENES.



PROPOSED WELL LOCATIONS

SUPPLEMENTAL WORK PLAN  
FORMER BETHLEHEM STEEL SITE  
LACKAWANNA, NEW YORK  
PREPARED FOR  
TECUMSEH REDEVELOPMENT INC.

FIGURE 1

TURNKEY

ENVIRONMENTAL

RESTORATION, LLC

IN ASSOCIATION WITH

BENCHMARK

ENVIRONMENTAL

RESTORATION, LLC

2558 HAMBURG TURNPIKE, SUITE 300, BUFFALO, NY 14218,  
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