May 17, 2021

Ms. Christal Weatherly
Assistant General Counsel
New Mexico Environment Department
121 Tijeras Ave NE, Suite 1000
Albuquerque, New Mexico 87102

Re: Stage 1 Abatement Plan Proposal and Work Plan, D&D Mountain Air Cleaners, 309 South Paseo de Onate, Espanola, New Mexico

Dear Mr. Hnasko:

On behalf of D&D Mountain Air Cleaners, Daniel B. Stephens & Associates, Inc. (DBS&A) is pleased to provide the following Stage 1 Abatement Plan (S1AP) Proposal and Work Plan for the Mountain Air Cleaners facility in Espanola, New Mexico. It is our understanding that NMED has identified the Mountain Air Cleaners facility as a potential source of the proposed Calle Chavez Groundwater Plume. In a letter dated February 25, 2021, NMED requested that D&D Mountain Air Cleaners submit a Stage One Abatement Plan, pursuant to Section 4104 of the New Mexico Ground and Surface Water Protection Regulations (20.6.2 NMAC).

This proposal and work plan is based on our current knowledge of the site conditions and history, and summarizes proposed site assessment activities in accordance with Subsection C 20.6.2.4106 NMAC. Additional elements of the S1AP will be provided as deliverables according the schedule provided in the attached work plan. Please do not hesitate to contact Thomas Hnasko at (505) 930-5720 if you have any questions or require additional information regarding the contents of the S1AP proposal and work plan.

Sincerely,

DANIEL B. STEPHENS & ASSOCIATES, INC.

Jason Raucci, PG .
Project Geologist

cc: Dina Quintana and Richard J. Beaudoin, D&D Mountain Air Cleaners
Thomas M. Hnasko, Esq., Hinkle Shanor, LLP

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Stage 1 Abatement Plan Proposal
Work Plan for Environmental Site Assessment
D&D Mountain Air Cleaners
309 South Paseo de Oñate, Española, New Mexico

1. Introduction

At the request of the New Mexico Environment Department (NMED), Daniel B. Stephens & Associates, Inc. (DBS&A) has prepared this Stage 1 Abatement Plan (S1AP) proposal and work plan for the D&D Mountain Air Cleaners dry cleaning facility (the site), located at 309 South Paseo de Oñate in Española, New Mexico (Figure 1). This work plan outlines the proposed investigation strategy, with the primary objectives of determining if a release of tetrachloroethene (PCE) has occurred at the site and whether such a release, having occurred, presents a risk to human health and the environment.

This proposal is based on our current knowledge of the site conditions and history, and summarizes proposed initial site assessment activities in accordance with Section 20.6.2.4106, paragraphs C(1) and C(2) of the New Mexico Administrative Code (NMAC). Additional elements of the Stage One Abatement Plan will be submitted as deliverables according to the proposal and work plan outlined below.

A brief discussion of the site background is included, followed by the proposed S1AP investigation activities and project schedule.

2. Background

The following summary of site background information is based on materials provided by D&D Mountain Air Cleaners and NMED detailing the site history and findings of previous characterization efforts. A formal American Society for Testing and Materials (ASTM) Standard Phase I environmental site assessment (ESA) has not been completed for the site.

2.1 Site Description

The site consists of a 0.89-acre parcel occupied by an approximately 6,000 square-foot (ft^2) structure. The parcel is bounded on the south by Paseo de Oñate. Surrounding property usage is currently mixed commercial and residential in nature. The facility is attached to a commercial building immediately to the east. The parcel to the west of the site is a parking area for the business to the west and is unpaved. The parcel to the north of the site is a private residence. To the south is a retail building currently occupied by South West Metal Products and Espanola Community Market Natural Food Co-op. The southern portion of the site is partially paved with asphalt and the northern portion of the site is unpaved. A site map is provided in Figure 2.

2.2 Site History

Information provided by D&D Mountain Air Cleaners indicates that the facility has been used as a dry cleaner since early 2003. Use of PCE in the cleaning process was discontinued in approximately 2012. The on-site structure remains in use as a dry-cleaning facility.

The NMED, in cooperation with the United States Environmental Protection Agency (EPA), has been conducting remedial actions at the North Railroad Avenue Plume (NRAP) Superfund Site in Española, New Mexico, since 2005. Based on soil gas and groundwater sampling data, NMED and EPA have recently proposed a second plume located to the east of the NRAP Superfund plume (NMED, 2019; EA, 2018). This proposed separate plume has been termed the "Calle Chavez Groundwater Plume" (NMED, pers. communication). NMED has identified the D&D Mountain Air Cleaners facility as a potential source of the proposed Calle Chavez Groundwater Plume. In a letter dated February 25, 2021, NMED required that D&D Mountain Air Cleaners submit a Stage One Abatement Plan, pursuant to Section 4104 of the New Mexico Ground and Surface Water Protection Regulations (20.6.2 NMAC).

2.3 Physical Setting and Hydrogeology

According to the U.S. Geological Survey (USGS) 7.5-Minute Topographic Map Series Espanola Quadrangle, New Mexico, the site is located in Section 3, Township 20 North, Range 8 East at approximately 5,600 feet above mean sea level (amsl) (USGS, 2020). Regional topography

slopes generally to the east in the site vicinity. The Rio Grande is the principal surface drainage in the vicinity, which is located approximately 900 feet to the east of the site. The site itself is predominantly flat.

Based on regional Geologic map of the Española 7.5-minute quadrangle, Rio Arriba and Santa Fe Counties, New Mexico (Koning, 2002), the site is underlain by unconsolidated quaternary alluvial deposits. The alluvial deposits consist of sediments of local origin, dominated by gravel, sand, silt, and clay. Soil samples collected during installation of PASMW-1 located immediately south of the site for the NRAP Superfund site, indicate that the subsurface lithology is characterized by silty sand, gravel with sand, silt to a depth of 25 feet below ground surface (bgs) with a clay layer at approximately 8 feet bgs (Intera, 2019).

Groundwater under the site is approximately 10 feet below ground surface (bgs) based on additional investigation conducted for the adjacent NRAP Superfund site in 2019. (Intera, 2019).

2.4 Contaminants of Concern

The contaminants of concern (COCs) are determined based on the site history and the results of investigations related to the NRAP Superfund site. Based on these findings, COCs associated with the site include:

- *Chlorinated solvents*: PCE, presumably associated with dry-cleaning operations at the site, have been historically detected in wells south of the site at concentrations exceeding New Mexico Water Quality Control Commission (NMWQCC) standards and continue to be present in groundwater samples collected as part of the the NRAP Superfund site monitoring. PCE degradation products trichloroethylene (TCE), cis-1,2-dichloroethylene, trans-1,2-dichlorethylene, and vinyl chloride are also considered potential COCs.

3. Proposed Investigation

The scope of work proposed for this field investigation includes:

- Preparing this proposal and work plan for environmental site assessment as part of a Stage 1 Abatement Plan
- Preparing site-specific documents including a sampling and analysis plan (SAP), to consist of a combined field sampling plan (FSP) and quality assurance project plan (QAPP), and a health and safety plan (HASP)
- Conducting a subsurface field investigation, including acquisition of data followed by data review and validation as described in the approved SAP
- Preparing a summary report that outlines the results of the field investigation, in accordance with 20.6.2.4106 NMAC

3.1 Work Plan Preparation

DBS&A has prepared and submitted this proposal and work plan on behalf of D&D Mountain Air Cleaners, at the request of NMED, using information pertaining to the site history and conditions provided by D&D Mountain Air Cleaners and NMED. The work plan is consistent with current NMED guidance and previous agency directives regarding site activities. This work plan includes a description of the project objectives pursuant to the applicable regulations (20.6.2.4106 NMAC), proposed project tasks, project reporting and documentation, and a project schedule.

3.2 Site-Specific Documents

Prior to initiation of the field program a SAP will be prepared that will address all field activities to be conducted by DBS&A, in compliance with NMED and EPA guidance. The SAP will be a combined FSP and QAPP following NMED guidelines and will include project-specific Data Quality Objectives (DQOs) to ensure that the collected data and the applied analytical methods are appropriate and adequate to address the project performance standards.

DBS&A will prepare a HASP in accordance with 29 CFR 1910.120, which will include a discussion of the tasks to be performed, likely hazards to be encountered, mitigation measures, and appropriate personal protective equipment to be used. Information regarding key contacts will also be included.

3.3 Field Investigation, Data Acquisition, and Data Review and Validation

Subsequent to receipt of comments on the SAP and after receiving final approval, DBS&A will perform field investigation activities to collect environmental data in accordance with the FSP/QAPP. The anticipated activities to be conducted under this task consist of collecting and analyzing soil vapor, indoor air, and groundwater samples as described in the following subsections.

3.3.1 Passive Soil Gas

In order to characterize the extent and distribution of PCE in shallow soil vapor at the site, DBS&A proposes to collect passive soil gas (PSG) samples from 16 predetermined locations across the site. The results of the PSG investigation will also be used to guide and refine sampling locations for subsequent phases of the investigation.

The proposed PSG sample locations (PSG-1 through PSG-16) are shown on Figure 2 and will be installed on a minimum 60-foot spacing with closer sample spacing near the facility structure. DBS&A proposes to deploy Waterloo Membrane Samplers™, a constant-uptake sampler capable of delivering quantitative results for concentrations of volatile organic compounds (VOCs) in soil gas. For the purposes of planning, it is assumed that 19 PSG samples (16 sample locations, plus appropriate duplicates and blank samples as specified in the approved project SAP) will be submitted for VOC analysis using modified EPA method TO-17. PSG samplers will be prepared, deployed, and recovered in accordance with procedures presented in the project SAP and the manufacturer's guidance.

3.3.2 Indoor Air and Sub-Slab Vapor Sampling

DBS&A proposes to collect paired indoor air and sub-slab vapor samples from inside the site building (SS-IA-1 and SS-IA-2). An outdoor ambient air sample (OAA-1) will be collected in conjunction with this paired sample.

Indoor air samples will be collected using 6-liter Summa™ canisters placed at selected locations inside the structure, in a well-ventilated area away from cooking facilities, tool shops, cleaning supplies, and other potential sources of organic vapors. A regulator will provide a continuous flow to the canisters for 8 hours. The Summa™ vacuum canisters will be prepared and

deployed according to the procedures presented in the project SAP and laboratory guidance. The air samples will be analyzed for VOCs using EPA method TO-15.

Sub-slab vapor samples will be collected adjacent to the paired indoor air sample locations inside the building. Temporary vapor sampling points will be installed using a hand-held rotary hammer drill and a Vapor-Pin™, or similar, sampling port. Sub-slab vapor samples will be collected and contained in laboratory-provided stainless-steel sampling canisters (Summa ™ canister or similar). Additionally, a duplicate and equipment blank sample(s) will be collected, following guidance to be set forth in the project SAP. Sampling point installation, surface sealing, leak testing, purging, and sample collection will be conducted according the procedures outlined in the approved SAP.

Eurofins Air Toxics of Folsum, California will provide sampling equipment and perform all chemical analysis of the sub-slab and indoor air samples following their corporate quality assurance program. Leak testing will be conducted prior to sampling in accordance with procedures specified in the approved project SAP. The soil vapor samples collected from each of the canisters will be analyzed for VOCs by EPA method TO-15 in accordance with the approved SAP. For the purposes of budgeting, it is assumed that six sub-slab vapor and indoor air samples will be submitted for laboratory analysis (including a field duplicate and ambient air sample).

3.3.3 Monitor Well Installation

DBS&A proposes to install two on-site monitor wells during this initial phase of the environmental assessment. Well MAMW-1 is proposed to be located as close as possible to the cleaning facility and the alleged source of the PCE release. Well MAMW-2 is proposed to be located up-gradient of the cleaning facility and the alleged source of the PCE release. The proposed well locations are considered preliminary and may be modified based on the results of the PSG and sub-slab vapor sampling. The proposed locations of the two wells are shown on Figure 3. These locations are considered preliminary and may be modified based on the results of the PSG and sub-slab vapor sampling.

Prior to drilling DBS&A will obtain the necessary utility clearances and well permits from the New Mexico Office of the State Engineer (NMOSE). DBS&A technical staff will maintain

detailed logs of materials encountered during drilling and supervise all field activities. Property owners and occupants will be notified at least one week in advance of the start of drilling activities. Well drilling and installation activities are summarized in the following sections.

3.3.4 Drilling and Field Screening

Boreholes will be advanced using the hollow-stem auger drilling method to a total depth of approximately 20 feet bgs, based on recent water levels in wells associated with the NRAP Superfund site. The depth to water at the site is estimated to be approximately 10 feet bgs, based on recent groundwater sampling in the vicinity. Target borehole depth will be approximately 10 feet below the current water table, as indicated by saturation of drill cuttings and measurement of water levels in the borehole during drilling. The final depth of the boring will be determined by the DBS&A field geologist based on the depth to groundwater observed in the borehole.

During drilling of new wells, samples will be collected from the soil borings at 2-foot intervals using a decontaminated continuous core barrel or split-spoon sampler. Three subsamples will be collected immediately from each interval; one will be used for field screening, one for potential submittal to an analytical laboratory, and one for geologic description. Field screening will be conducted using a photoionization detector (PID) and the heated headspace method. The sample yielding the highest PID reading from each borehole will be submitted to an analytical laboratory for analysis of VOCs by EPA method 8260B, in accordance with the approved SAP. Hall Environmental Analysis Laboratory, Inc. of Albuquerque, New Mexico (HEAL) will perform all chemical analysis of the soil samples following their corporate quality assurance program. Sample preparation, sample submittal and quality control procedures will be conducted in accordance with the project SAP.

3.3.5 Well Installation

All wells will be constructed of 2-inch-diameter, schedule 40 (SCH 40) polyvinyl chloride (PVC) materials. Well screens will typically consist of 15 feet of flush-threaded, machine-cut, 0.020-inch-slot well screen. Target well screen placement will be approximately 5 feet above and 10 feet below the static water table.

A filter pack consisting of 10/20 silica sand will be installed in the well annulus from the bottom of the soil boring to about 1 foot above the top of the well screen. A minimum 1-foot-thick activated bentonite chip seal will then be installed on top of the filter pack. The remaining annulus will be filled with a bentonite-cement grout. New well installations will be completed at the surface with a locking cap within an 8-inch-diameter, flush-mount, traffic-grade well vault. A 2-foot by 2-foot by 6-inch-thick high early strength concrete pad will be poured around the well vault.

After completion, each of the wells will be developed by pumping or bailing, until temperature, pH, and conductivity have stabilized and turbidity has been reduced to the extent practicable. Groundwater removed from the wells during development will be handled with other investigation-derived waste (IDW), as described below.

3.3.6 Survey

All newly installed wells will be surveyed to a common datum consistent with the existing wells in the vicinity by a New Mexico Licensed-Professional Land Surveyor. Ground surface elevations at each location will also be included in the well survey.

3.3.7 IDW Management

Soil cuttings and fluids generated during drilling of boreholes and well development will be containerized in New Mexico Department of Transportation (NMDOT)-approved, 55-gallon steel drums, properly labelled, and staged in a designated area on-site. After completion of the drilling, waste materials will be characterized and all drums will be removed and transported to a licensed facility by a subcontractor for proper disposal.

3.3.8 Groundwater Monitoring

Fluid levels will be gauged in the new monitor wells using a properly decontaminated water level indicator, pursuant to the approved SAP. Groundwater samples will be collected from the new monitor wells (MAMW-1 and MAMW-2), and existing well PASMW-1 (Figure 2). The groundwater sampling locations, along with the required quality control samples, will be detailed in the project SAP.

The monitor wells will be purged according to low-flow methodology using a decontaminated down-hole submersible pump with a variable-frequency drive. Field parameters, including specific conductivity, pH, and temperature, will be measured during purging. Wells will be purged and sampled in accordance with procedures and protocols for low-flow sampling presented in the approved project SAP and DBS&A standard operating procedures. Fluids generated during groundwater sampling will be containerized at the wellhead and removed to 55-gallon drums for characterization and disposal with the drill cuttings.

HEAL will perform all chemical analysis of the groundwater samples following their corporate quality assurance program. The groundwater samples collected from the monitor wells will be analyzed for VOCs by EPA method 8260B, consistent with the known COCs at the site. Samples will be accompanied by full chain of custody documentation at all times. Quality control requirements will be implemented to verify that the analytical data meet the quality assurance objectives specified in the project SAP.

3.4 Data Review and Reporting

3.4.1 Data Review and Validation

DBS&A will review, verify, and validate field and laboratory data, which will be sufficient to meet the DQOs and measurement quality objectives for the project. The specific data validation responsibilities and procedures will be included in the SAP, prepared under task 4.2.

3.4.2 Reporting

Upon receipt of the analytical data, DBS&A will prepare a report that presents results and summarizes the findings of the site characterization activities described in this work plan. Included in the summary report will be a narrative description of the site investigation, field logs, site maps, laboratory analytical reports, summary of field quality control procedures and data, and discussion of any discrepancies or data quality issues. Available site analytical data will summarized in tables and figures, as applicable.

As part of the summary report, information consistent with the requirements of ASTM International Standard 1527-13: Phase I ESA will be collected to verify historic usage of the site and adjacent properties, locate potential receptors, and identify possible contributors to the

release. This information, along with the characterization data gathered as part of this investigation, will support formulation of a conceptual site model (CSM) describing known and potential contaminant sources, migration pathways, and receptors, and will identify potential exposure pathways, consistent with the requirements of 20.6.2.4106 NMAC, subsection C(1)(a).

4. Schedule

DBS&A and D&D Mountain Air Cleaners recognize that the NMED is interested in completing this investigation in a timely fashion. Mountain Air and DBS&A will adhere to the following submittal schedule:

- Upon acceptance of this proposal and work plan by NMED, DBS&A will submit the SAP (combined FSP and QAPP) and other site-specific documents to NMED within 30 calendar days for review. After receipt of NMED's comments to the draft documents, a final SAP will be submitted within 14 calendar days.

- Following NMED approval of the final SAP, DBS&A anticipates that the field program can be initiated within 30 calendar days, pending sub-contractor availability.

- A draft report in accordance with the specifications outlined above will be completed within 30 calendar days of receipt of final and complete analytical results and submitted to NMED for review. After receipt of NMED's final comments to the draft report and planning documents, the final report and planning documents will be submitted within 15 working days.

Based on the results of the initial site assessment further characterization may be warranted, which may include additional passive and/or active soil vapor sampling, or additional groundwater monitor wells. Any additional scope of work will be determined in consultation with NMED-GWQB and D&D Mountain Air Cleaners, and will be amended to the approved SAP.

References

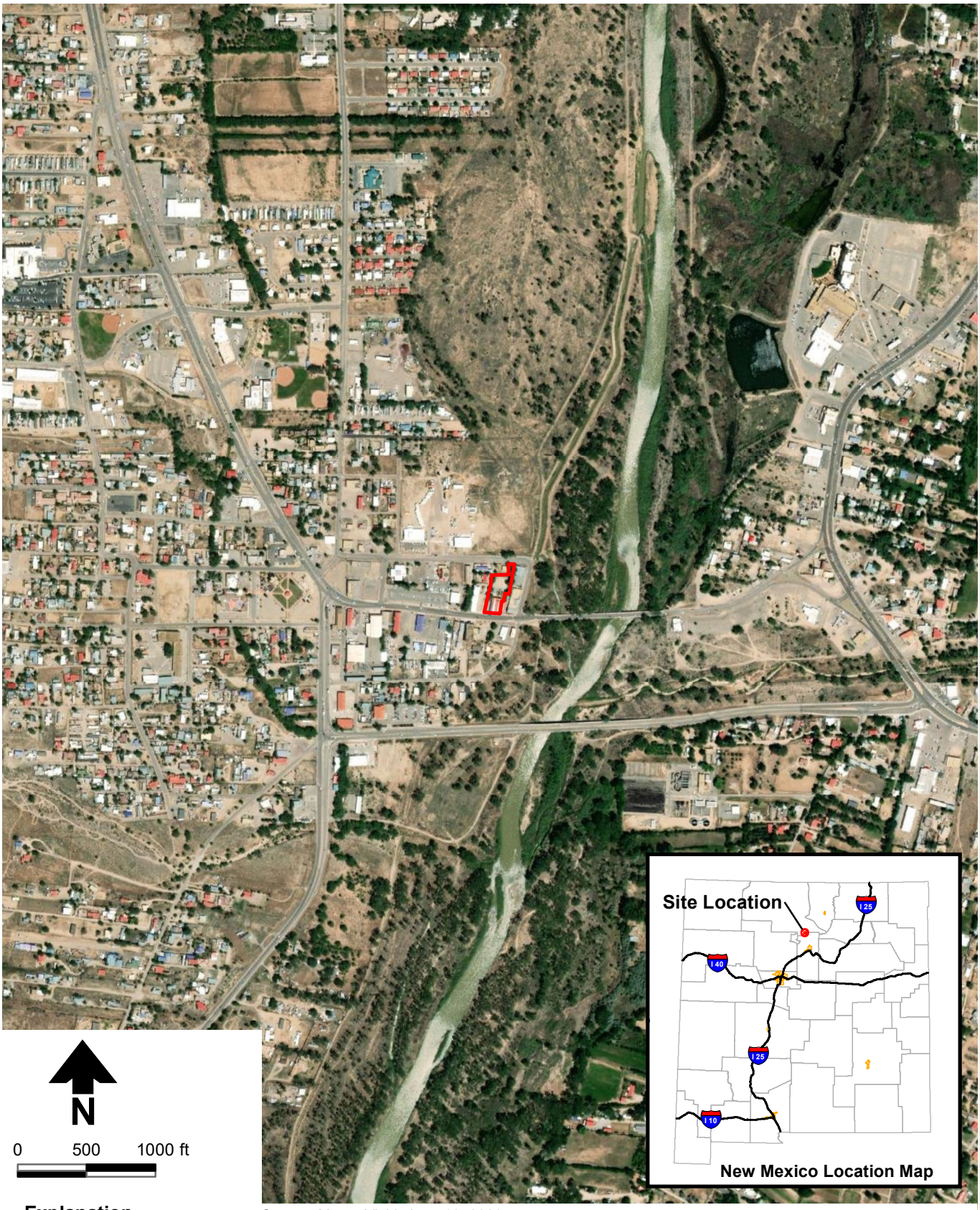
EA Engineering, Science, and Technology, Inc. (EA). 2018. *Data Evaluation Technical Memorandum North Railroad Avenue Plume Site Remedial Investigation Española, Rio Arriba County, New Mexico EPA Identification No. NMD986670156.* Prepared for U.S. Environmental Protection Agency Region 6. March 2018

Intera, 2019. *Additional Investigation of Deep Zone, North Railroad Avenue Plume Superfund Site, Española, Rio Arriba County, New Mexico*. Submitted to the New Mexico Environment Department Ground Water Quality Bureau Superfund Oversight Section. August 22, 2019.

Koning, Daniel J., 2002. *Geologic map of the Española quadrangle, Rio Arriba and Santa Fe Counties, New Mexico*. New Mexico Bureau of Geology and Mineral Resources. May 2002.

New Mexico Environment Department (NMED). 2019. North Railroad Wvenue Plume Superfun Site, Espanola, New Mexico, EPA ID # NMD986670156, 2017-2019 Long-Term Response Action Report. Submitted to EPA December 2019

U.S. Geological Survey (USGS). 2020. Española Quadrangle, New Mexico, 7.5-minute series, Española, NM: U.S. Department of the Interior. January 1, 2020.



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Explanation

Site boundary

Source: Maxar Vivid, June 10, 2020

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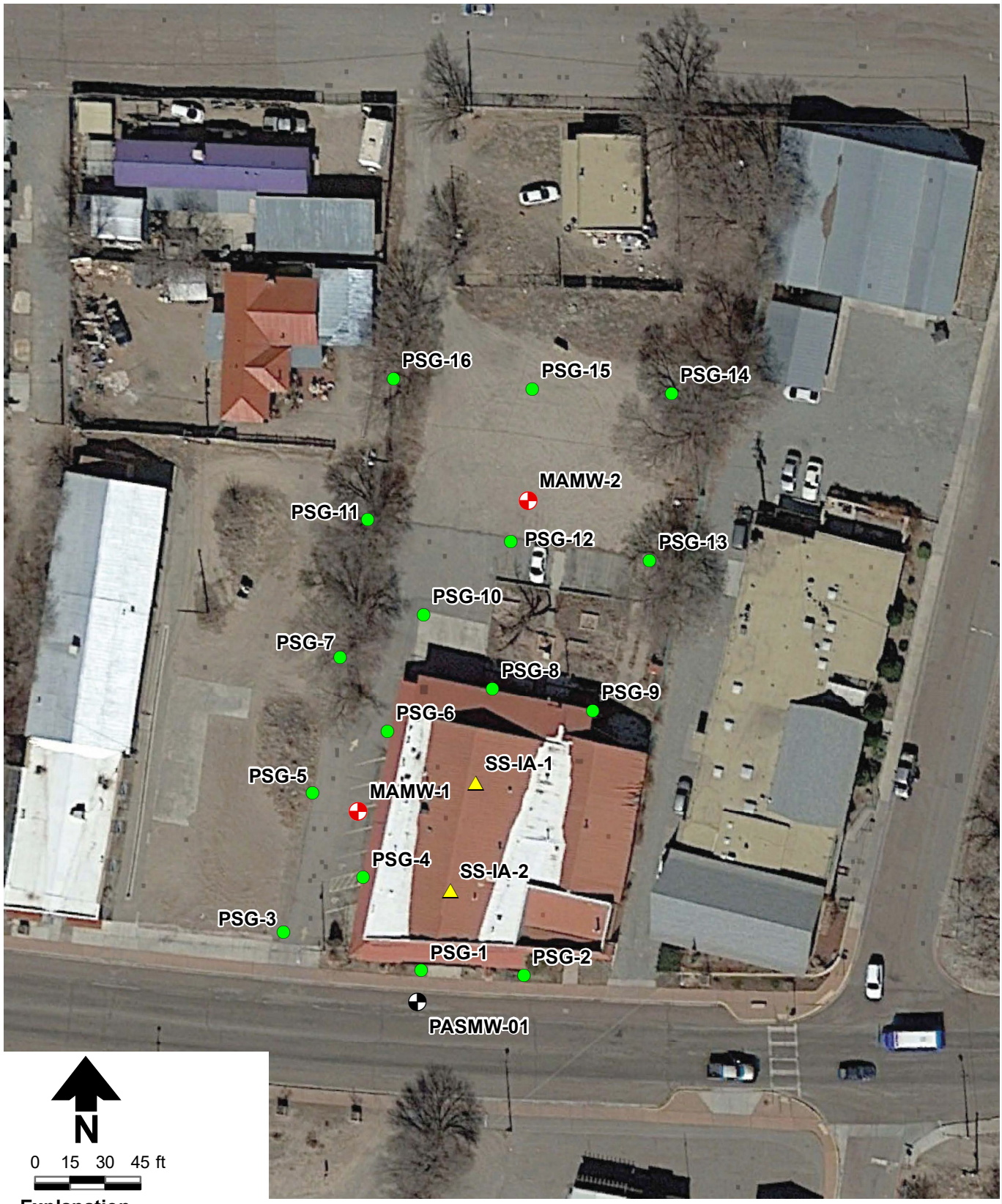
DBS&A
Daniel B. Stephens & Associates, Inc.
5/11/2021 DB21.1167

MOUNTAIN AIR CLEANERS
309 SOUTH PASEO DE OÑATE
ESPAÑOLA, NEW MEXICO
Area Map

Figure 1



Source: Google Earth Pro, March 2, 2021

Explanation

- Proposed passive soil gas sample
- Proposed paired sub-slab/indoor air sample
- Proposed monitor well
- Existing NRAP monitor well

MOUNTAIN AIR CLEANERS
309 SOUTH PASEO DE OÑATE
ESPAÑOLA, NEW MEXICO

Site Map

DBS&A
Daniel B. Stephens & Associates, Inc.
5/12/2021 DB21.1167

Figure 2

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